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Surkh Dum-i-Luri. Erich F. Schmidt Extracting Objects from a Wall of the Sanctuary.

THE UNIVERSITY OF CHICAGO ORIENTAL INSTITUTE PUBLICATIONS VOLUME 108

# THE HOLMES EXPEDITIONS TO LURISTAN <br> Text 

ERICH F. SCHMIDT † • MAURITS N. van LOON<br>HANS H. CURVERS

with contribution by
J. A. BRINKMAN

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GENERAL ABBREVIATIONS

| ag | agate | gls | glass | prov | provenience |
| :---: | :---: | :---: | :---: | :---: | :---: |
| alab | alabaster | gra | granite | ptd | painted |
| anim | animal | grd(s) | ground(s) | pur | purple |
| assoc | associated | grn | green | qu | quartz |
| bdy | body | grp | group | quad | quadruped |
| bel | below | grst | green stone | r | red |
| bet | between | gy | gray | recip | recipient |
| bit | bitumen | handm | handmade | rect | rectangle (-gular) |
| bk | baked | hd | handmade | recum | recumbent |
| bl | blue | hded | headed | res | reserve |
| blk | black | hem | hematite | rm | room |
| bone | bo | hn | horned | sand | sa |
| bor | border | hor | horizontal | sec | section |
| br | bronze | ht | height | serp | serpentine |
| brn | brown | impr | impression | sh | shell |
| bur | burial | inc | incised | shl | shoulder(s) |
| bur grd | burial ground(s) | inscr | inscribed | shped | shaped |
| ca | carnelian | inver | inverted | si | silver |
| cal | calcite | ir | iron | sig | signet |
| ce | celadon | irr | irregular | simp | simplified |
| ch | chapter | lap la | lapis lazuli | skel | skeleton |
| cha | chalcedony | lay | layer | sl | slate |
| chl | chlorite | le | lead | snst | sandstone |
| chpd | chipped | lev | level | sp | slip |
| cht | chert | 1 g | length | spe | speckled |
| ck | chalk | 1 i | lime | spst | soapstone |
| cl | clay | lmst | limestone | st | stone |
| cm | centimeter | lo sl | lower slope | ste | steatite |
| cmty | cemetery | lt | light | stp | stippled |
| co | copper | m | meter(s) | surf | surface |
| comp | composite | mar | marble | tab (tb) | table |
| con | concentric | mat | material | th | trench |
| cont | continued | mdl | model | tn | $\tan$ |
| congl | conglomerate | mdsl | midslope | tr | translucent |
| cr | cream | min | miniature | tri | triangle(s) |
| cyl | cylinder | misc | miscellaneous | undeterm | undetermined |
| dbl | double | mtns | mountains | unperf | unperforated |
| dec | decoration | nr | near | upsl rm | upslope room |
| diam | diameter | ob | obsidian | var | various |
| dim | dimensions | obl | oblong | vert | vertical |
| dk | dark | or | orange | vill | village |
| elev | elevation | pave | pavement | wa | wash |
| excav | excavation | ped | pedestal | wdth | width |
| fa | faience | pen | pendant | wh | wheelmade |
| fig | figur(in)e | perf | perforated (-tion) | whm | wheelmade |
| fl | flint | pi | pink | whst | white stone |
| flk | flanking | pl | plaster | wt | white |
| foss | fossil | por | porphyry | y | yellow |
| frgm | fragment | pos | position |  |  |
| gl | glaze | preserv | preserved |  |  |

## Plate Volume Errata

| Page | Plate | For | Read |
| :---: | :--- | :--- | :--- |
| v | pl. 6c | Darre-yi-Shahar | Darre-yi-Shahr |
| vi | pl. 19a | Burial J7, x7 | Burial J7, x6 |
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| ix | pl. 94 | Middle Bronze Age Bowls, ... | Middle Bronze Age Goblets, . . |
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## FOREWORD

Erich F. Schmidt (September 13, 1897-October 3, 1964) was one of the last excavators of the heroic age in archaeology. Some of his qualities were those of a general, as when he directed the expedition's twin-engine plane, five horses, and sixty-five donkeys to converge upon a point in the unexplored and unpoliced heart of Luristan at a prearranged date. But at all times he was a scholar as well. In the flush of victory he was as meticulous as during the many days spent on fruitless soundings. On the last two days of excavation at Surkh Dum-i-Luri he personally numbered, sketched in situ, and extricated 338 objects from the walls of the sanctuary.

It is a tribute to Schmidt's conscientiousness that, despite the arduous conditions under which these traveling expeditions worked and the abundance of material forthcoming from some of the sites, every find was duly recorded and that now, twenty-five years after his regrettable death, we have been able to piece together his record without too much trouble. Except for chapters 1 and 8, written by Schmidt, and chapter 33, by J. A. Brinkman, we are responsible for the contents of this volume.

The staff members of the two Holmes expeditions to Luristan are listed in Schmidt's summary accounts, presented as chapters 1 and 8 in this publication. The sponsors are also mentioned there. For both expeditions Mrs. Christian R. Holmes had enabled the American Institute for Persian (later Iranian) Art and Archaeology to carry one half of the financial burden. The other half was borne by the Rayy Expedition in 1935 and the Persepolis Expedition in 1938. Mrs. William Boyce Thompson had enabled the University of Pennsylvania Museum to participate in both Luristan expeditions, first with the Boston Museum of Fine Arts alone and, after the Persepolis Expedition had become a participant, with the University of Chicago Oriental Institute as third partner. During the 1938 season the Boston Fine Arts relinquished its financial burden and its share of the finds to the Oriental Institute. The Index of Catalog Field Numbers, pp. 537 ff , lists the division of finds.

For place names Schmidt first adopted a roughly phonetic spelling (e.g., Sorkh Dom; the site abbreviations Sor, Do, et cetera, were based on this spelling). Upon consulting cuneiform usage and Iranian scholar Wilhelm Eilers, however, he changed most spellings, replacing $e$ with $i$ or at times with $a$, and $o$ with $u$ or at times with $a$ (but $a h$ at the end of the word became $e$, and $a w$ was replaced with $o$ ). Although this revised spelling also is open to criticism, we have avoided any further changes, which would have made it necessary to redraw maps and plans. We have, however replaced tappe with the more familiar tepe.

Our work on the voluminous material yielded by the Holmes expeditions to Luristan has been an arduous but challenging task, carried out by van Loon between teaching and research commitments at the University of Chicago and, more recently, by both van Loon and Curvers at the University of Amsterdam. Our sincere thanks are due to the successive directors of the Oriental Institute, Robert McC. Adams, George R. Hughes, John A. Brinkman, and Janet H. Johnson for entrusting us with this task and encouraging us to fulfill it; to the late Richard C. Haines for his most helpful elucidation of the excavation record; to the late A. Leo Oppenheim and to Edith Porada, Robert H. Dyson, Jr., T. Cuyler Young, Jr., Pierre Amiet, Henrik Thrane, Peder Mortensen, Helene Kantor, and Louis Vanden Berghe for their generous scholarly advice; and to archivists Christina Madej and John A. Larson, editors Olga Titelbaum and Thomas Holland, photographers Jean M. Grant and the late Ursula Schneider, and draftsmen James E. Knudstad and Jan P. de Wit for their untiring technical assistance. We are truly grateful to Mrs. Peggy Grant, who volunteered her services to mount the many drawings and photographs into plates to illustrate this work, and to John Palmer, Rainer Mack, and Thomas Urban for their production work. Ursula Seidl very kindly supplied us with photographs of Sor 16, 891, 1516, and other seals, and with the museum numbers of objects in the Muze-ye Iran Bastan at Tehran. Mary M. Voigt was kind enough to check the descriptions of Chalcolithic chipped stone in the University Museum of Philadelphia.

## CHAPTER 1

# THE FIRST HOLMES EXPEDITION TO LURISTAN: A SUMMARY 

by Erich F. Schmidt<br>Erich $F$. Schmidt wrote a short account of the first expedition's work, providing most of the relevant background information. Except for sections on ground and aerial explorations and for a now outdated archaeological summary, this account is presented in full below.

## PREPARATIONS

The second Rayy season had been completed. The shelves were filled with the beautiful glazed vessels of Seljuq and 'Abbasid Rayy ${ }^{1}$ and with the bowls, black painted on a red ground, of the fourth and fifth millennia B.C. In the garden the restorers kept busy cleaning and mending the hundreds of vessels uncovered during the last weeks of the dig. It had been a fruitful season.

Now our eyes turned to the southwest of Iran. Through the generosity of Mrs. Christian R. Holmes and of Carl Holmes, funds had been allotted to the American Institute for Persian Art and Archaeology for archaeological investigation in unknown Luristan. Arthur Upham Pope, director of the institute, requested the Rayy Expedition and its sponsors to carry out this enterprise, and, needless to say, the tempting offer was gladly accepted and the entire organization was pledged to the success of the venture.

In 1934, together with my chief assistant, George C. Miles, I explored the area in southern Luristan that was to be the center of the full-fledged investigation. After riding on horseback for two days we found the valley of Rumishgan, hidden away in the rugged mountain chains that form the barrier between the Mesopotamian plain and the Iranian plateau. About forty years earlier, the famous French explorer Jacques de Morgan had crossed this area, discovering many mounds and ruins (de Morgan 1896:3-6). His map was of inestimable help to us. Descending from the mountain of Paran Pariz, we saw the broad flat alluvial valley, with its clusters of brush villages and a few cultivated patches interrupting the monotony of the tan-colored plain. But, most important for us, rising above the valley bottom there were low and high elevations that did not fit into the landscape and therefore signaled artificial mounds. Guided by Zeifulla Khan, the son of the chief of the valley, we examined dozens of sites, collecting sherds, determining the period of occupation, and at several spots discovering the existence of ancient cemeteries. For seven days we combed this valley and the parallel valley of the Saimarre River and it was decided that Rumishgan was to be the first area in which the expedition would conduct soundings for archaeological remains.

In 1934 it was too late to begin operations. In spring the Kashgan River is an impassable torrent, while in summer the low-lying Lur valleys are parched by a pitiless sun. The months of fall are the best for work in this part of Iran.

In addition to the climatic considerations, my own obligations toward the excavations at Rayy and Persepolis dictated the postponement of the Luristan enterprise until the fall of 1935. Furthermore, once His Excellency A. A. Hekmat, the Minister of Education, had sanctioned the Luristan soundings, the permission of the military authorities had to be obtained. By waiting until fall we were also able to combine the ground work of the expedition with aerial exploration by means of the airplane "Friend of Iran," put at the disposition of the various expeditions by Mary Helen Schmidt. The General Staff courteously permitted the use of the

[^0]plane all over Luristan, and important results were expected from its reconnaissances, that carried us to valleys and mountaintops never before seen by an explorer.

Early on October 6, with excavation permits, flight permits, travel permits, and letters of introduction from the authorities safely in our files, the advance guard, consisting of George C. Miles, Van W. Knox, James H. Gaul, and the plane mechanic Frederick Lillich, started on its way to Khurramabad. The two good Buicks, so generously given to the cooperating expeditions by Mrs. James B. Murphy, carried the first party, and in fourteen hours, with the drivers taking turns at the wheel, the cars arrived in Khurramabad, the base for the trip into the interior of the country.

The next morning the members of the Aeronautical Department, the founder Mary Helen Schmidt, the pilot Lewin Barringer, the archaeologist and photographer Erich F. Schmidt, and the courteous military companion on all our flights, Lieutenant Tahiri of the Imperial Air Forces, took off at daybreak. At 3600 meters we crossed the eastern ranges of the forbidding mountains and after two and a half hours we were circling over Khurramabad. The ground crew, including our efficient plane mechanic, Fred, had been busy examining landing facilities and they expressed their doubt as to the quality of the occasionally used landing field by writing in huge letters of sprinkled gypsum that we should go and look for some other spot. We did so, and our splendid pilot found a place some seven kilometers west of the town. Circling back, we dropped a small paper parachute to guide the ground party to the new landing place, a large field that showed the ripples of former cultivation. We landed, bouncing a little; within a few hours' work, runways had been cleared of stones and our air base was ready. It was guarded by four soldiers, supplied by Colonel Razmara, the charming and competent chief of the military forces in Luristan.

Supplementary food supplies for a month and a half, tents, recording equipment, photographic and survey instruments, kitchen and camp equipment, tools for 150 laborers, saddles, and all other things needed for a long camping trip had been sent by truck, together with a bus carrying our government commissioner, Mr. Baste, a nucleus crew of ten experienced workers [from Damghan near Tepe Hissar--M. v. L.], the crew foreman, the cook, and our industrious servant Hassan.

One day after our arrival we made the first flight to the target of the expedition, the valley of Rumishgan. In half an hour, after crossing the jagged mountain ranges between Khurramabad and Tang-i-Malavi, we were above the valley, having completed a trip that requires two days overland. The broad valley and its border mountains were spread out below us like a plastic map. Every single ruin and ruin elevation was marked. There was Chigha Bal, the highest, dominant mound of this area, too large to be sounded in a short season. Faint elevations-burial grounds or one-period mounds-stood out clearly in the early morning light. Clusters of brush shelters and nearby winter villages marked the dwellings of the Rumishganis. Hundreds of little depressions, wells, and storage pits were to be seen close to each settlement. There were some hillocks and faint garden enclosures extending down from the mountain slopes, which we had not noticed during our previous ground exploration. After taking photographs with our invaluable aerial camera, a gift of Mary Helen's parents, we returned to Khurramabad. This time we chose a route that lay more to the west, because the valleys there seemed to be somewhat flatter and offered better terrain in case of a forced landing.

In the meantime the truck and bus had arrived, and on the morning of October 9 the expedition was ready to start. From that time on, by order of the colonel, the expedition was accompanied by a guide, Ibrahim Rashid, and two armed soldiers. In three hours our cars were at Tang-i-Malavi, southwest of Khurramabad. For us the car track had come to an end, and donkeys and horses now had to replace the automobiles.

The colonel had given orders to supply as many animals as could be gathered together, but the few horses and fifteen donkeys available were not enough to carry both the men and all the baggage, which constituted sixty-five animal loads. We therefore left a soldier and the foreman, James Gaul, on the high banks of the Kashgan River, together with the baggage that could not be accommodated, while the others went ahead, fording the river on horseback and on foot, accompanied by the usual yelling and cursing of the animal drivers, the slipping of donkeys on the round washed stones, and the occasional immersion of the packs in the fastflowing river. Again, no serious damage was done.

In three hours the advance guard of the expedition arrived at the first site to be sounded, an ancient cemetery marked by three opened tombs, lined and roofed with stone slabs. Its name, Gar Zore ("Hard Hill"), is that of the hill that rises from the platform occupied by the graves. Tents were pitched and a makeshift camp established, to be considerably improved as the rest of the baggage trickled in during the next day.

Gar Zore is impressively situated. Thirty meters below the rock-carved cemetery site, a small creek murmurs in a dense jungle of tall reeds. Precipitous cliffs rise from the opposite side of the valley, now burned black by the grass fires that had swept across its entire length.

On October 10 work started, with half of the Damghan crew and a few new Lur laborers who came from a camp hidden somewhere in the ravines to the west. We did not know whether any more burials were present. Low rock-covered hillocks suggested remains of some kind. Some lines of rocks indicated the foundations of buildings. Otherwise nothing was known except for the three tombs opened some time earlier, apparently discovered by the Lurs when they saw roof slabs sticking out of the ground.

At any rate there was a chance that there were more burials. Our approach consisted in laying out trenches of varying dimensions to sound out the most promising spots of the platform.

The work at Gar Zore lasted until the evening of October 13. Long trenches sounded the principal parts of the site but no burials appeared in addition to those we had found opened. Although no fragments of bronze or iron were found, we were sure the site belonged to the Bronze Age and perhaps even to the beginning of the Iron Age. The museological results were almost nil, but we were able to determine scientifically the approximate period of this burial site by means of the pot fragments; these also gave sufficient evidence so that we were able to reconstruct some of the ceramics. The vessels were painted with simple geometric patterns in brown red on a yellowish brown background.

On the evening of October 13 the first lot of pack animals arrived, sent by our efficient guide, Ibrahim. Next morning more than sixty donkeys, horses, and even cows surrounded the camp. George Miles and our pilot, Lewin Barringer, had gone ahead to Rumishgan, the former to inspect burials near Chashme Kalegru, the latter to check on the landing fields for the airplane. The rest of the caravan left between 9:15 and 10:30, the animals spread out for miles along the trail to Rumishgan, our next goal.

On top of the wooded Mele Ghal Karra pass we met Barringer returning to Tang-iMalavi, the point where we had left the highway some days ago. His lazy horse was being dragged behind him by a picturesque Lur, the armed guard given to him by the people of Rumishgan. Barringer brought a letter from Miles describing the rifled tombs of Chashme Kalegru and reporting the conflicting responses of the people when asked what the tombs had contained: no bronzes, many bronzes, much decorated pottery, very little painted ware. At any rate we decided to march on to the ruin hill at the far end of the Rumishgan valley, known to us as promising from our previous exploration.

Soon we descended from the high pass into the bottom of the treeless Rumishganflat, tan-colored, and monotonous except for some mosaics of fields plowed to receive the winter rains, the only source of water apart from the wells ten to twenty meters deep. We stopped again, as we had done the year before, in the village of Katkhuda ("Chief") Aziz Muhammad Khan, and drank tea, while Mary Helen Schmidt took movies of the friendly, staring, laughing crowd of turbaned women and children, naked or almost so, and the men wearing the traditional conoid felt hats, now slowly being displaced by western headgear.

With our host's brother, Adil Khan, we walked to a cemetery site about a kilometer south of their brush and mud village. Some of the roofed slab tombs had been rifled; others, marked by rocks sticking out of the otherwise stoneless ground, appeared to be intact.

Now the animal drivers wanted to go on strike. Their donkeys were too tired to go on, they said. An additional kran per animal, however, filled them with new strength and we continued our trek. At about four in the afternoon we arrived at Chigha ("Mound") Kamtarlan, our destination. Hours later, staff members, our imported Damghan laborers, and the pack animals were still trickling in. But by the time night had fallen, some tents were up, the kitchen fire was ablaze, and in the midst of flour sacks, digging tools, camp beds, and so forth we were listening to the radio announcing the latest news from Abyssinia.

## THE MOUNDS OF KAMTARLAN

We chose this site on its own merits and on account of its proximity to several sites in the northwest part of the valley of Rumishgan. About 7 m high, 150 m long from north to south, and about 100 m wide from east to west, Mound Kamtarlan I had certain peculiarities that promised a successful test excavation. Large stone slabs on its terraced northern slope suggested burial sites, and, as a matter of fact, two or three roofed stone slab tombs had already been opened by native diggers. Painted pottery with red brown designs on a creamcolored background was found along with plain yellowish brown sherds, and the shape of the mound suggested successive occupations. Its size, furthermore, was not too large to be sounded in a short season.

Mound Kamtarlan II, about 100 m to the west of the larger Mound I, had the appearance of a burial site, as suggested by some open tombs and by the occurrence of many stone slabs all over the surface of the low elevation. Some rows of rocks, however, suggested the configuration of house walls.

The mounds rise from the flat valley bottom, here covered with low, dry, thorny bushes and grass; but in the distance to the west, south, and east, patches of fields can be distinguished near the brush shelters and nearby winter mud villages of the Rumishganis. To the north of Kamtarlan rise the low ragged foothills of higher ranges that extend northward. A gap to the southwest between the folds of Ma'le Kuh and Vizenhar Kuh (mountains) is the Mele Dar, a pass that descends to the valley of the Saimarre, about 300 meters below the level of Rumishgan. Mountain ranges near and far limit the horizon on all sides. And since the valley is about 1000 meters high, the temperature is agreeable, so that working conditions were ideal in the fall. But every morning, when we got up before sunrise, we were glad to have our big sheepskin coats. The first frosts were not far off.

## BEGINNING OF WORK AT KAMTARLAN

On the morning after our arrival, long before sunrise, huge bonfires illuminated the valley as we prepared "Airport Kamtarlan," burning off the clusters of thistles and brush and leveling and cleaning the runways for the "Friend of Iran." A hundred Lurs were sent by their katkhudas ("village chiefs") to be employed as laborers. Soon their number rose to 150 . At 12:10 P.m. the airplane arrived, piloted by Barringer, who was accompanied by our constant flight companion, Lieutenant Tahiri, of the Imperial Air Forces.

Now the camp circle was complete. After lunch the workers marched with picks, shovels, scrapers, bags, and buckets to the northern slope of Kamtarlan I, where the main trench was already neatly laid out with stakes and ropes. The work at the second test site had started.

Kamtarlan soon proved its value. At first sherds and then vessels of Giyan type appeared, decorated with strangely conventionalized ibexes and birds. A child's skull hung out of a large yellowish brown jar, painted on its shoulder with a row of red brown partridges. A good natured Lur tribesman, totally unconcerned about the value of the burial information to us, triumphantly delivered a bronze bracelet salvaged out of the debris of a skeleton that he had chopped to pieces. Our old Damghan workers whom we had brought along were just as horrified as ourselves. After a day or two, however, the Lurs had learned to call a Damghani when a bone or wall or pot appeared. We had reason to bless our Damghanis. Without them we would have lost most of the information of that first week.

## FURTHER DISCOVERIES AT KAMTARLAN

When the members of the Aeronautical Department returned from a long flight that carried us across the mountains and valleys of northern Luristan, from Rumishgan to Kirmanshah, from Harsin to Khurramabad and back again to Kamtarlan, we found that the ground crew had discovered the first relatively well-furnished burial. It was the grave of an aged male. A bronze hatchet lay beside the right upper arm, and a large bronze earring was in the dirt beside the right aural region. A small bronze bowl and a red pottery jar lay near the
right side of the skull, and another large jar stood at the foot end. A conoid spindle whorl of baked clay, found some distance from the crown of the skull, may or may not have been intended as a mortuary gift. In addition to vessels painted with simple designs, one jar appeared with an attractive band of conventionalized birds and trees encircling its shoulder. The total absence of iron objects or even of corroded chips in the fill of the rooms and in the graves indicated that Tepe Kamtarlan covered a settlement of the Bronze Age, assuming that the copper objects contained an admixture of tin, as we expect to find when a metallurgical analysis has been carried out. The houses of the ancient settlers were built of sun-dried brick and of stone carried here from the slopes of the mountains that lie to the north of Kamtarlan. The valley bottom is stoneless alluvium.

We soon found, however, that the top layer of the mound was composed of later remains. When the crew was shifted to the apex and to the southern part of Kamtarlan I on October 22, well-built though mortarless walls appeared below the surface. Iron fragments and a primitive furnace with iron slag were found, as well as some glazed bits of pottery, some red and gray fine ware, and a pitcher of late form. ${ }^{2}$ Now it was a question of recording and removing level 1 as quickly as possible, so as to penetrate to the earlier and decidedly more important stratum of the mound.

On October 24 the larger part of the crew was shifted to Kamtarlan II, so the surveyor could complete his plans of level 1 on Kamtarlan I. Quite a number of plain ware vessels and an extremely interesting jar decorated with quadrupeds in relief appeared during the first few hours at Kamtarlan II. In the lowermost southern plot (plot P) of Kamtarlan I two important cylinder seals with patterns of ovals and lozenges were found in the refuse below the talus of the historical stratum.

The following week brought a wealth of information and material. Burials appeared in all the excavation plots of Kamtarlan II. Some bodies had been interred simply in plain earth, others were lying under large stone slabs flush with the roughly paved floors of the rooms. The above-mentioned vessel with quadrupeds in relief had been smashed (symbolically killed) on top of the roof-shaped slabs covering the well-furnished grave. One family burial of several persons was virtually overflowing with vessels. There was not enough room for these in the large stone cist that contained the intermingled skeletons of at least four persons. Thus additional pots had been piled against the outside of the grave. About forty vessels were found at this spot alone. Pins, cups, bracelets, and daggers of bronze defined the period of the Kamtarlan mounds as Bronze Age. Not a single object or fragment of iron occurred in the graves of this site, though in the historical top layer of Kamtarlan I iron objects and slag were frequent.

While the painted patterns on the vessels found in the top layer of Kamtarlan II were simple lines or waves, the graves below the lower level of this site showed somewhat more elaborate designs and forms.

The members of the Aeronautical Department found it difficult to leave the exciting dig, but on October 31 we had to fly to Tehran to report to the authorities, to submit a new program of flights to the General Staff, and to check on the work of the photographer and of the artists and restorers at Rayy. On November 3 the "Friend of Iran" carried us in about four hours to Persepolis in order to start the last spurt of the season with the Iranian expedition of the Oriental Institute. By automobile, the trip ordinarily requires two days. The excavation at Istakhr was resumed, and the program for the resumption of work on the platform of Persepolis was established. Then we left again, on November 6, flying over the Sasanian ruins of Bishapur and photographing that part of the site pointed out by the French expedition directed by R. Ghirshman.

Passing Haft Kel (marked by huge mushrooms of smoke from gas fires of the AngloIranian oil wells), Shushtar with its famous Sasanian barrage, and Dizful with its ruined bridge of Sasanian workmanship, we flew into snowclouds above the valley of the Saimarre and finally dived down to the valley of Rumishgan, where the camp had been moved, according to program, from Kamtarlan to Chigha Sabz ("Green Mound").

[^1]
## WORK AT CHIGHA SABZ

As at Kamtarlan, 150 laborers-Damghanis and Lurs-were busy attacking this most interesting hillock of the valley of Rumishgan. It was the only mound where we had found sherds as fine as those of Susa I. Our aim was to determine the relation of this intrusive culture to the periods represented by Kamtarlan I and II. Instead of striking at once the stratum of Chigha Sabz fine ware, however, the first days produced burials with vessels well known to us from Kamtarlan. It became clear that a Kamtarlan stratum was superimposed on the elusive fine ware. A detachment of the crew was assigned to the western base of the mound, where surface sherds of the fine ware were somewhat more frequent. Almost at once hundreds of examples of well-painted ware, which we now called simply "Chigha Sabz," appeared. Judging by the sherds, animal patterns seemed to be rare. The scale of the designs will become clear only after the burials of this period are uncovered and after the thick lime encrustation has been removed from the sherds. The designs of the Chigha Sabz ware are executed with great virtuosity and with an imagination that is generally lacking in the Kamtarlan ware. The Chigha Sabz vessels are well baked, with usually an orange paste and a grayish white or cream-colored ground, and with patterns in brown or red brown.

The southern slope of Chigha Sabz, with its superimposed Kamtarlan deposit, become more and more productive as the excavations proceeded downward. Burials of women, men, and children appeared everywhere. Interred in plain earth, in rock-lined cists, or covered with roof-shaped stone slabs, surrounded by pitchers, cups, large jars with elegant offsets at the shoulders, and beautiful small bowls with tripod legs, the remains of the dead were found waiting for the other life in which they could use again the utensils of their earthly life. There were silver rings on the fingers of one woman, who was also supplied with cups of bronze and a great many bronze pins.

A bronze dagger, identical in form with daggers from Kamtarlan-and from the stratum of painted pottery at Tepe Hissar-lay in the grave of one man. Beads of carnelian were found at the neck of another person.

Artistically, the most striking finds were beautifully cut cylinder seals which appeared in the upper plots of the mound. All seemed to belong to the Achaemenid period or to a time somewhat preceding this greatest era of Iran. Most seals showed well-executed hunting scenes.

In the very top plot two extremely interesting but grotesquely executed effigy vessels of horned animals were found. One is shown in a position of rest, the short legs drawn under the body and the strangely twisted neck and head turned back over the shoulder.

From November 13 to 15 the crew of the Aerial Department was in Persepolis, having flown there across Isfahan but returned by the southern route, via Behbehan, Ahwaz, and Susa. It took all the skill of our pilot to negotiate the storm-ridden mountains between Persepolis and the plain of Elam. The snow-capped peaks rising above the ragged ranges of Luristan announced that winter had begun.

At Chigha Sabz more burials appeared, but their contents were already known to us. Here again, two bronze axes showed unusual decorations at the back of the socket-perhaps conventionalized animals.

New material appeared in the form of strange potsherds with highly conventionalized ibexes and even human dancers in rows, painted in red or red brown on the yellowish brown ground of the crude ware. This ware was unexpected, and for the time being we believed it to be intermediate in time between the Kamtarlan ware and the Chigha Sabz fine ware. The latter was found in huge piles of sherds in the two plots that traversed the western slope and base of the mound. During the later occupation a refuse pit had penetrated the Chigha Sabz stratum here; interesting pitchers with necks in the form of birds' heads were taken from this pit. A somewhat bizarre human face and part of the body appeared in the top plot of the mound in a stratum corresponding approximately to the find layer of an Achaemenid cylinder seal. ${ }^{3}$

When the pile of pot fragments in which this human pottery effigy occurred was examined further, parts of a second effigy vessel appeared: a jar neck with a human head
${ }^{3}$ Actually this seal is Late Neo-Elamite, as we will see below (M. v. L.).
extending upward in an open cylinder. There were, in addition, parts of animal bodies, legs, and horned heads of bizarre shape. We should mention at this point that two strange pottery sculptures in the form of gazelles(?) had been found, slightly above and only a small distance away from these interesting effigy fragments. The most significant find in this pile of pot and effigy fragments-a splendidly carved cylinder seal-was made by George Miles when he removed these fragments. The fact that this seal was in the pot pile itself led us to attribute the effigies tentatively to the time of the Achaemenians or to the period immediately preceding them. The seal pattern showed a vivid hunting scene-mounted hunter, armed with a long lance, chasing an ibex which is racing on its hindlegs in the same manner as the beautifully drawn horse.

On Sunday, November 17 the foreman, Baba, and thirty men started soundings on the site of Mir Vali, about three kilometers to the north of Chigha Sabz. On the second day the first graves were uncovered, and, in view of the mortuary gifts found in them, the site was attributed to some subperiod of Kamtarlan. Two fine, delicately incised bronze pins were found in one of two cist graves; in the second, a number of vessels lay beside the skeleton. Subsequently a huge cist was examined that had previously been dug by the Lurs. A group of vessels overlooked by the diggers was found on the bottom of the grave. The shapes of these vessels were rather different in type from those found at Kamtarlan II. Thanks to the help of a wise old Lur, who apparently had had quite some experience in gravedigging, we found two additional, undisturbed stone cists.

While this paragraph was being written (on Thursday, November 21) we were deeply concerned over the whereabouts of our pilot and airplane. It had left on Monday, November 18 to get gasoline for the last flight out of Luristan to Persepolis, and had not returned. On November 20 the plane mechanic, Fred Lillich, and two guides left the camp for Tang-iMalavi, accompanied by Van Knox, who had fallen ill and needed medical help. Lillich was to get in touch with the military authorities in Khurramabad and in Kirmanshah; with the AngloIranian Oil Company, where the pilot was to get the gasoline; and, if necessary, with the British Consul. Luckily Lillich and his party met the pilot returning on horseback. The propeller had broken when a lump of dirt struck it during the takeoff on the soft airfield of Kirmanshah.

After we had found that the top stratum of the mound of Chigha Sabz contained interesting material, the excavation moved uphill. More fragments of pottery animal effigies and interesting cylinder seals were uncovered during the first day. In the central plots on the southern slope, below the stratum of Kamtarlan, we continued to find sherds decorated with attractive conventionalizations of humans and animals.

At the Mir Vali ruin, in the meantime, the tomb of an outstanding person, or perhaps of a family, had been found. Huge stone slabs formed a gabled roof above the rock-lined cist, that measured several meters in length. The tomb was filled with very hard dirt, due apparently to infiltration of water, which had also destroyed most of the skeletal remains. Only chips of bones were found. On the floor of the cist there were piles of pottery, most of it crushed. Here, as at other points in the valley of Rumishgan, all vessels and sherds were covered with a thick layer of lime. In many cases, therefore, the pattern, if any, will not be recognizable at all until the restorers at Rayy camp will have cleaned the ceramics with muriatic acid. At any rate, the forms of many Mir Vali vessels differ from those of Kamtarlan and Chigha Sabz, suggesting that this site or parts of it were inhabited during a period of the Bronze Age not represented at the other mounds.

## SEASON'S END

On November 24 the caravan of the expedition left the valley of Rumishgan to return to Rayy. While only sixty-five animals had been used to carry the staff and equipment into the interior, almost a hundred donkeys, mules, and horses were needed for the return trip. About thirty animals were now packed with the materials collected during the season in Luristan; two additional airplane loads had been carried earlier to Khurramabad, the military center of Luristan. Several hundred vessels, complete or restorable, had been obtained from the prehistoric graves of Kamtarlan, Chigha Sabz, and Mir Vali.

## CHAPTER 2

THE 1934 AND 1935 SURVEYS<br>by Erich F. Schmidt and Maurits N. van Loon

A great deal of Schmidt's prepublication effort went into the preparation of maps recording the routes followed by his expedition. The accompanying text was to show time, mileage, temperature, altitude, and orientation readings, and to include observations on landscape and population, as well as on sites visited and surface finds collected. Since the sketch maps are hard to reconcile with the published maps now available and since the area is now much more accessible, we have decided to cut this part of the report down to its archaeologically most relevant essentials.

## THE 1934 SURVEY

In 1934 Schmidt drove with George C. Miles from Khurramabad to Tang-i-Kaleherd, rode around the Rumishgan valley, and returned via Pul-i-Dukhtar. We present his notes below. Most of the sites visited are marked on plate 5. Many of these sites are obviously identical with the ones from which Clare L. Goff (Meade) collected sherds (Meade 1968; Goff 1971). Some of the sites were visited earlier by Sir Aurel Stein (1938 and 1940), and others were visited even earlier by Jacques de Morgan (1896:3-6). ${ }^{1}$ In the absence of precise topographic information, we have not attempted to correlate the various surveys undertaken in Luristan. For the geography and ethnography of this region we refer the reader to the sources mentioned by Clare L. Goff. ${ }^{2}$

Schmidt's Notes

${ }^{1}$ Other surveys, such as those by Jørgan Meldgaard et al. (1964), Peder Mortensen (1976), Henrik Thrane (1965), and T. Cuyler Young, Jr. (1966a), were limited to more westerly parts of Luristan.
${ }^{2}$ Meade (1968):108, n. 4, to which one should now add Hole (1978, 1979).
${ }^{3}$ If only two dimensions are given, these indicate diameter and height.

Schmidt's Notes (cont.)


[^2]Schmidt's Notes (cont.)


THE 1935 SURVEY
Before and between the 1935 excavations, Schmidt visited only a few sites. His notes are presented below.

The route followed by the 1935 expedition is indicated on plate 1 by a broken line.

Schmidt's Notes

| Date | Time or mileage | Site | Description |
| :---: | :---: | :---: | :---: |
| Oct. 9 | 1 km from Khurramabad |  | Stele with Kufic inscription and Shah Pahlevi's road inscription (pl. 7d). |
|  | 69 km from Khurramabad | Pul-i-Shapuri | Sasanian bridge. |
| (October 10-13, Schmidt dug at Gar Zore; see ch. 3.) |  |  |  |
| Oct. 14 | 12:25 A.M. | Kalkhuda Aziz Muhammad Khan | Graveyard ca. 1 km southsoutheast of village. Several tombs, rifled, but probably more present. Sherds: somewhat finer ware than at Gar Zore, but same type of plain and painted ware. |
|  | 2:55 P.M. | Chigha Barr | Mound with flat top, ca. $100 \times 6 \mathrm{~m}$. Sherds: fine red burnished and wellformed ware, some painted and Sasanian(?) glazed ware. |
| Oct. 15 |  | Katkhuda Mihrab Chigha Bardine | Cemetery with rectangular slab cists. Promising site with roof-type burials, ca. 500 m northwest of Katkhuda Murad Ali village. |

(October 15-November 23, Schmidt dug at Kamtarlan I and II, Chigha Sabz, and Mir Vali; see chs. 4-7.)

## CHAPTER 3

GAR ZORE

by Maurits N. van Loon

The trail from Tang-i-Malavi (pl. 1) to the Rumishgan valley (pl. 5) runs through the Paran Pariz valley along a knoll at the foot of a rock-covered hill known as Gar Zore (pl. 8a). To the south a steep slope descends to a reed-covered creek. Three recently opened tombs drew Schmidt's attention to the knoll, on which some rows of stones suggested house remains (pl. 9b, top). The opened tombs were lined with vertical slabs and covered with leaning slabs which formed a gabled roof (pls. 8c, 9a, and 10, tombs I-III). The sherds lying beside the opened tombs included red-on-cream painted ones, at first thought by Schmidt to be Sialk B ware.

Schmidt dug at Gar Zore from October 10 to 13,1935 , starting with four $5 \times 5 \mathrm{~m}$ plots running up the slope of the promontory east of the cemetery (plots 1A-D, pl. 9a, b). Here he found stone foundations, varying in width from 0.30 to 2.80 m , of houses built close together and perhaps belonging to different levels. One wall in plot 1A contained a doorway. A description of the pottery found (none of it drawn) shows it to be of Giyan IV-III ${ }^{1}$ type (see ch. 20A.2). The red-on-cream ware found near the graves was undoubtedly of the same type. Across the cemetery Schmidt laid out trenches in plots of $10 \times 2 \mathrm{~m}$, two oriented east-west marked 2A-B and 3A-C, and one positioned south-north marked 4B-C. The stone walls here, from 6 to 8 m apart, may mark field or graveyard boundaries. A storage jar from plot 2A (GZ 24) was the only find from the cemetery.

[^3]
## CHAPTER 4

## KAMTARLAN I

by Maurits $N$. van Loon

## THE EXCAVATION

Kamtarlan I is a mound that measures ca. $150 \times 125 \mathrm{~m}$ and rises about 7 m above the plain (pl. 14). Toward the north it forms a platform (actually two low swells), on which Schmidt in 1934 had found red-on-cream and dark-brown-on-grayish-white painted ware. The higher, southern knoll appeared to Schmidt to date to the historical periods, probably because of the fine red ware and fine gray ware that occurred here (see below, level 1 plot K). He also saw rocks on the surface, indicating the presence of tombs.

Attracted by the prehistoric finds, Schmidt dug at Kamtarlan I from October 15 to November 4, 1935. Except for the workers brought from Tepe Hissar, the ninety men who dug here were hired locally. On the northeastern slope a number of test trenches were opened wherever stone slabs or groups of slabs suggested tombs ( $\mathrm{Ta}-\mathrm{Tj}$ ). As none of these trenches yielded any burials, they were soon abandoned.

The main trench, 5 m wide, was sunk across the mound along its north-south axis (pl. 14). ${ }^{1}$ The trench was divided into sixteen plots, each 10 m long and lettered $A$ to $P$ from north to south. At the north end of plot A , the surface from which excavation started was 7 m below the summit of the mound which was located at the $\mathrm{K} / \mathrm{L}$ divide. At the south end of plot P , it was nearly 4.50 m below the summit. The plots were dug to a depth varying from 0.75 to 3.50 m below the adjoining surface, and within that total depth, in most places, two building levels were encountered.

## ARCHITECTURE

The excavators have combined the lower building remains into level 2 and the upper ones into level 1, and they are thus presented below. It should, however, be kept in mind that-to name an example-the architecture described as level 2 in plot N probably postdates that described as level 1 in plot O . The sections that accompany the plans on plates $15 \mathrm{a}, 15 \mathrm{~b}$, and 16a may help to determine which remains are likely to belong together. Schmidt's sections are not drawings of what was visible in the balk, but show instead the elevations at which certain features were encountered. As a rule the section line must be thought to run down the center of the plot, but there are many exceptions.

Level 2
Plot E: The narrow rough stone wall visible on the plan (pl. 15a, center right) probably had a doorway near its western end, where a door socket was found. In room 1 there was a rough stone pavement. Since this arrangement was repeated with minor variations in level 1, the two building levels in plot E presumably belong to the same cultural phase (Susa D). The bin, marked as such on the plan by Schmidt, is described in Van W. Knox's notes as an empty grave.
Plot F: Rooms 1 and 2 (pl. 16a, center left) had tamped, earthen floors and walls of strawtempered mudbrick with red clay plaster up to 11.5 cm thick, indicating habitation

[^4]over a long time. Room 3, at a slightly higher elevation, is built in the same technique as plot E room 1, so the two may well be contemporary.
Plot G: The same applies to rooms 4 and 5 as to room 3 . There is, again, a certain continuity in plan from level 2 to level 1.
Plot J: A doorjamb with its door socket in the northeastern corner and a wide rough stone wall higher up in the southwestern corner were the only surviving features.
Plot M: In addition to some narrow stone walls enclosing an area with a clay oven, some very wide stone walls (like those found in level 1) appeared both here and in the next plot (pl. 15b, center).
Plot N: Below the floor of room 1, enclosed by very wide stone walls, an Iron Age burial of a young woman was found. She is described as lying with her feet partly under the north wall. One is therefore led to suspect that the very wide-walled structures found in plots K to N in level 2 as well as in level 1 may all date to the Iron Age.
Plot O: Of the three unconnected features encountered here, the woman's burial, the narrow stone wall, and the wide pisé wall may all date to about 3000 b.C.

Plots O and P yielded red slipped ware, beveled-rim bowls, and cylinder seals of Uruk/Jamdat Nasr style. The association of iron fragments with this material may not be due to disturbances as Schmidt assumed. ${ }^{2}$

## Level 1

The burials found in plots B-I are definitely of the Susa D period. The children were buried in jars.

Plot E: A large, unusually shaped ovenlike feature had a mud lining 4.5 cm thick. West of it a dipper was found next to a storage jar. South of the stone wall there was a stone feature that probably served as a pavement.
Plot F: Five stone steps led up through a doorway into the stone-paved and stone-walled room 1. This room is obviously the successor of level 2 room 2.
Plot G: Contiguous but separate walls indicate that rooms 2,3 , and 8 formed one house, while room 5 belonged to another complex.
Plot H: The walls around rooms 6 and 7 were built of exceptionally large stones. The doorway between the two rooms had its door socket sunk well below the floor.
Plot I: The same was true of a doorway in a narrow wall near the $\mathrm{H} / \mathrm{I}$ divide.
Plot J: Fragments of stone walls with adjoining pavements were all that survived.
Plot K: Because of associated iron, glazed pottery, and fine red or gray ware fragments, the excavators at first thought the solid plot $\mathrm{K}-\mathrm{N}$ constructions to be Sasanian. Cylinder seals found here, however, point to an Iron Age date.
Plot L: The buttressed walls are somewhat reminiscent of Iron Age fortified buildings at Baba Jan (Goff 1969:117-22, fig. 4) and at Godin Tepe (Young 1969:24-30, fig. 36). The southern buttressed wall either predated the northern buttressed wall, which is higher up, or served as a retaining wall for the latter. To the excavators, room 2 suggested a manger serving room 1 .
Plot M: Area 3 had a pavement of iron slag and may have been an iron smelter. Room 1 was also floored with iron slag. In its southern corner a stone step led up to a doorway. A door socket that probably belonged here was found resting somewhat to the north. There was a bin in the floor and a cubicle (room 2) adjacent to room 1.
Plot N: Room 1 contained a red-burned-clay oven. Its eastern wall and the northern wall of room 2 were built of straw-tempered mudbricks laid on edge and faced with mud plaster. The eastern wall of room 2 was made of pisé, the remaining walls of stone.
Plot O: There were actually two building levels, both at a lower elevation than the level 2 floor in plot N . The top one consisted of a stone wall and pavement fragment with a

[^5]door socket against the eastern side of the plot, and some large paving slabs in the south center. The one underneath yielded a more coherent plan consisting of three thin-walled rooms.
Plot P: A large area enclosed by irregular thin stone walls was partly paved with rough stone.

## BURIALS

Table 1 contains particulars on the burials, in order of plot letters and burial numbers, marked on the plans and sections as $\mathrm{x} 1, \mathrm{x} 2$, and so forth.

Unless otherwise mentioned, copper or pottery vessels were placed near the feet. Occasionally jarlets (KI 40, 80, pls. 119 q and 79 j ) or a bowl (KI 417) were placed near the head.

The female skeleton $\mathrm{O} x 1$ was lying on its back. Since the cylindrical vessel (KI 137, pl. 73c) found near the head was incomplete, it seems possible that these are the remains of an accidental death and not of a burial. If this was nevertheless an Iron Age burial, one must doubt whether the incomplete vessel was associated with it.

## STRATIGRAPHY

As indicated above, the stratigraphy at Kamtarlan I seems to have been something like this:
ca. 3000-2750 b.c. Pisé wall, et cetera, in plots O-P level 2 from 4.10 to 6.45 m below summit.
ca. 2600-2300 b.c. Narrow mudbrick and stone walls, then wider stone walls, oriented NNE-SSW and ESE-WNW, and pavements in plots E-I (and J?). Adult inhumation and child jar burials in plots A-I.
ca. 1000/750-550 b.C. Very wide stone walls, indicating a fortified building and/or iron smelter, in plots K-N levels 2 and 1 (and O-P level 1?). The walls were often but not always oriented as earlier. Inhumation burials in plots $J(?), N$.

Table 1. Kamtarlan I Burials

|  | Period(?) | Early Bronze (Susa D) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plot | A | B | B | B | B | D |
| Bur. no. | x1 | x1 | x2 | x3 | x4 | x1 |
| Depth bel. summit (m) | 7.15 | 5.80 | 6.30 | 6.30 | 5.85 | 5.55 |
| Grave type | earth | in jar, KI 30, skull protruding | earth | earth | in jar, KI 24 | earth |
| Position of skeleton | on left side | on right side, legs tightly flexed | on left side, flexed | on left side disturbed ${ }^{1}$ | vertical, head up, flexed | on left side, flexed, hands at mouth |
| Orient. of skull | to S | to SW | to SW | to SW | up | to NNE |
| Sex | female | (?) | male | female | (?) | male |
| Age | adult | infant | adult | juvenile | child | juvenile |
| Grave goods | none | none | KI 29,40: $\mathrm{co}^{2}$ and pottery vessels | KI 39: pottery vessel | KI 25: pottery vessel | pottery vessel(?) (incomplete, discarded) |
| Illustration | none | plate 11c | none | none | plate 11a | plate 11b |
|  | Early Bronze (Susa D) |  |  | Iron Age(?) | Iron Age | Late Chalcolithic (Susa B-C?) |
| Plot | E | I |  | J | N | 0 |
| Bur. no. | x 1 | $\mathrm{x} 1$ |  | x1 | x1 | x 1 |
| Depth bel. summit (m) | 4.45 | 4.90 |  | 1.75 | 3.75 | 4.60 |
| Grave type | in inver. jar KI 54 | earth |  | earth, stones on pelvis and right arm | in comer st-walled rm, feet under wall | bet. st and mudbrick walls |
| Position of skeleton | vert., head down | on back, legs flexed to left |  | on back, disturbed | on left side, flexed, head | on back, disturbed |
| Orient. of skull | down | to NNE |  | to W | to SW | to WNW |
| Sex | (?) | male |  | male(?) | female(?) | female(?) |
| Age | infant | senile |  | elderly | juvenile | adult |
| Grave goods | twisted co wire bead (discarded) | KI 78-82, 417: co ring at at left ear and axe at right arm, co and pottery vessels, baked clay whorl(?) |  | KI 83: co bracelet on left arm | KI 124: ir sickle at elbows | KI 137: pottery vessel (assoc.?), anim. skull and vertebrae |
| Illustration | none | none |  | none | none | none |

${ }^{1}$ Throughout this table the word "disturbed" refers to decay or earth pressure, not robbers.
${ }^{2}$ Objects designated as copper (co) may include bronze.

## CHAPTER 5

KAMTARLAN II<br>by Maurits N. van Loon

## THE EXCAVATION

Kamtarlan II is an almost flat habitation and later burial site that measures ca. $65 \times 45 \mathrm{~m}$ and rises only 1 m above the plain, about 170 m southwest of Kamtarlan I (pl. 14). In 1934 Schmidt found many rocks from rifled tombs, as well as painted and plain grayish brown sherds lying on the surface.

Simultaneously with the excavation of Kamtarlan I, Schmidt dug at Kamtarlan II from October 24 to November 4, 1935. First, four $10 \times 5 \mathrm{~m}$ plots were laid out along the east-west axis, lettered A-D from east to west (pl. 16b). ${ }^{1}$ At right angles to these, three more plots were opened and lettered E-G from south to north. Finally, plots E and F were doubled in width by adding plots H and I .

Plot A was soon abandoned, as modern burials appeared. In the other plots, digging proceeded to a depth varying from 1.40 to 2 m . Here, according to Schmidt's notes, sterile soil was reached. Within this total depth, two building levels were distinguished by the excavators. In the plan on pl. 16b the upper level (level 1) is shaded. Both the relative elevations (see section on pl. 16b) and the record of finds indicate that this division reflects the actual stratigraphy. In most cases the burials were unassociated with the surrounding architecture.

## ARCHITECTURE

Level 2 (unshaded on pl. 16b)
Plot C: Room 11 was surrounded by pisé walls. The rough stone wall to its west seemed to encompass a storage pit.
Plot D: It remains uncertain whether the easternmost stone wall, together with the westernmost wall in C, delimited a room. In D the more westerly stone walls defined room 12 .
Plots E, H: Room 8 was bounded on three sides by rough stone walls and on the fourth by a mudbrick wall (underneath a level 1 stone wall). Its doorway faced northeast.
Plots F, I: Heavy mudbrick walls enclosed an area with a kiln(?). An additional mudbrick wall narrowed this area to a corridor on the east.

Level 1 (shaded on pl. 16b)
Plot A: $\quad$ Only a few stone wall fragments were encountered.
Plot B: $\quad$ Burials x 1 and x 2 were in stone cists, the roof slabs of which seemed to form part of a rough stone pavement adjoining stone-walled rooms 1 and 2. This is the only instance at Kamtarlan II in which association between burials and architecture is suggested. Door sockets indicate the emplacement of doorways leading from room 1 into neighboring rooms.

[^6]Plot C: $\quad$ There are two stretches of stone paving; one adjoins a narrow stone wall that is interrupted by a doorway with door socket.
Plot $\mathrm{D}: \quad$ Only some paving fragments survive.
Plots E, H, F, and I: Heavy stone walls define rooms 6-9 and court(?) 10.
Plot G:
Rough stone walls enclose cubicles 3 and 4 and parts of larger rooms.

## BURIALS

Most burials were in stone cists roofed either with slabs laid flat as lintels or laid on end at an angle from either side of the cist and meeting in a rough gable above the chamber. In many cases no covering had been placed to protect the head end (D x1, D x2, I x1). Perhaps the surrounding earth was undercut to form a kind of niche for the head. The arrangement of the copper and pottery vessels indicates that the body was inserted head first, flexed on its side, together with its weapons and ornaments. The daggers lay pointed toward the head (B x1, B x 2 , $\mathrm{D} \times 6$ ), the pins either downward ( $\mathrm{D} \times 2$ ) or upward and outward from the shoulders ( D x4). Occasionally a copper/bronze or pottery vessel, KII 156, KII 253 (pl. 124d), KII 281 (pls. 123g, 126d), KII 295 (pl.124j) and KII 362, was placed near the head. The rest of the vessels were placed near the foot end. The opening at the foot end was then closed by one or two slabs that served as the door of the tomb ( $\mathrm{D} \times 4, \mathrm{I} \times 1$ ), making it possible to reopen the tomb and insert the bodies of other members of the family as they died (I x1, D x2). In some cases additional vessels were deposited outside the door ( $\mathrm{D} \times 4, \mathrm{I} \times 1$ ), undoubtedly containing more food and drink offerings to the dead.

Table 2 contains further particulars about the Kamtarlan II burials. In this table, as elsewhere in this report, "copper" may refer to either copper or bronze. The weapons and ornaments were probably cast in bronze, but no metallurgical analyses have been made to confirm this.

## STRATIGRAPHY

The sherds from level 2 , up to 4.85 m below the summit, were similar to those from Kamtarlan I plots A-E, and from Susa Dc-Dd and Giyan IVA. A cylinder seal of Piedmont Early Dynastic style (KII 328, pl. 132:10) confirms a date between 2600 and 2300 b.c. for level 2.

The pottery shows most burials to be of the Giyan IVC-III periods (ca. 2000-1600 B.C.). Some finds from burials at Kamtarlan II (KII 175, 108c) can be compared to Mesopotamian material from the Larsa and Old Babylonian periods (ca. 2000-1600 b.C.), confirming a date of about 2000-1600 B.C. for the Kamtarlan II burials. In plot B two of these burials seem to be associated with level 1 architecture. This association establishes the date of level 1 as also about 2000-1600 B.c. Schmidt's notes seem to confirm that no Giyan IVA sherds came from level 1. Except for the two graves just mentioned, the burials at Kamtarlan II are clearly intrusive and must date to a time when the level 1 houses were no longer inhabited. One grave (I x1) is of Giyan II date (ca. 1600-1200 B.C.).

KAMTARLAN II
Table 2. Kamtarlan II Burials

Middte Bronze (Giyan IVC-III)

| Plot | B | B | B | C |
| :---: | :---: | :---: | :---: | :---: |
| Bur. no. | x 1 | x 2 | x3 | x1 |
| Depth bel. | -4.40 | -4.60 | -4.60 | -4.20 |
| summit (m) |  |  |  |  |
| Grave type | flat slab roof flush with adjoining pavement | flat slab roof flush with adjoining pavement | earth | earth |
| Position of | disturbed ${ }^{1}$, legs <br> flexed to left | on back, legs tightly | disturbed | on left side |
| skeleton(s) <br> Orient. of skull(s) | flexed to left to WNW | flexed to right to WNW | to W | to NE |
| Sex(es) | male | male | (?) | (?) |
| Age(s) | adult | adult | infant | infant |
| Grave goods | KII 156-66: co $^{2}$ dagger and axe at chest, diorite pestle, pottery vessels | KII 167-72: co dagger at right hand, pottery vessels, $\operatorname{dog}(?)$ skeleton at feet | KII 173-74: pottery vessels | KII 192-93: pottery vessels |
| Illustration | plate 17b, left | plates 12 b and 12c | none | none |
| Remarks | - | - | - | - |


| Plot | C | D | D | D |
| :---: | :---: | :---: | :---: | :---: |
| Bur. no. | x2 | XI | $\times 2$ | x3 |
| Depth bel. summit (m) | -4.45 | -4.65 | -4.95 | -4.75 |
| Grave type | gabled slab roof | side st and flat roof slab protect lower bdy | flat slab roof | earth |
| Position of skeleton(s) | on left side, tightly flexed | on right side, legs flexed | disturbed by roof collapse | disturbed |
| Orient. of skeleton(s) | to W | to E | a) to SE <br> b) to NW(?) | (?) |
| Sex(es) | female | (?) | (?) | (?) |
| Age(s) | adult | child | a) juvenile <br> b) child | adult |
| Grave goods | KII 175-76: two co pins at neck and hands, pottery vessels on bdy | KII 217-18: pottery vessels | KII 220-27: si and ca beads, co bracelet, and two pins, all near head of a juvenile; co and pottery vessels | KII 228-39: <br> two co pins, co pins, co and pottery vessels |
| Illustration | plate 13c | none | none | none |
| Remarks | - | - | - | - |

${ }^{1}$ Throughout this table the word "disturbed" refers to decay or earth pressure, not robbers.
${ }^{2}$ Objects designated as copper (co) may include bronze.

Table 2. Kamtarlan II Burials (cont.)

Middle Bronze (Giyan IVC-III)

| Plot | D | D | D | E |
| :---: | :---: | :---: | :---: | :---: |
| Bur. no. | x4 | $\times 5$ | x6 | x 1 |
| Depth bel. summit (m) | -5.45 | -5.45 | -5.90 | -4.25 |
| Grave type | $1.50 \times 1.10$ <br> st-bordered, flat slab roof | $2.00 \times 1.90 \times 0.85$ <br> st-sided, flat slab roof | $1.45 \times 1.05 \times 0.65$ <br> flat slab roof | $1.00 \times 0.70$ <br> st-bordered |
| Position of skeleton(s) | on left side, flexed | disturbed | on back, legs tightly flexed to right | on back, legs to left |
| Orient. of skull(s) | to NW | to WNW | to W | to ENE |
| Sex(cs) | female(?) | male | male | male(?) |
| Age(s) | adult | adult | adult | adult |
| Grave goods | KII 270-88: <br> si coils above head, si and cha necklace, two co pins at neck and hands, co and pottery vessesl | KII 245-69, 302: si ear/hair rings, cha beads, two co pins, co and pottery vessels | KII 289-300: <br> si bracelet on right arm; si, co, and ca necklace; co dagger at shoulder, st pounder; co and pottery vessels | KII 307-12: <br> co plaque and slate whetstone at chest, cha, et cetera beads at knees, pottery vessels |
| Illustration | plate 17a | none | plate 12a | none |
| Remarks | ruminant bones on roof of $x 4$ and bet. $x 4$ and $\times 5$ | south wall of wall of $x 5$; $x 5$ those of $x 6$ | used as north of slabs rest on | - |

Middle Bronze (Giyan IVC-III)
Late Bronze
(Giyan II)

| Plot | G | G | H | I |
| :---: | :---: | :---: | :---: | :---: |
| Bur. no. | x 1 | x2 | x 1 | x1 |
| Depth bel. summit (m) | -4.25 | -4.00 | -3.95 | -4.30 |
| Grave type | earth | in jar KII 346 on level 2 wall | on level 1 wall | side stones, flat roof slab and footend slab protect lower bodies disturbed |
| Position of skcleton(s) | disturbed, on left side | on left side, legs flexed | on back, legs extended | disturbed |
| Orient. of skull(s) | (?) | to SE | to NNE | a), b), and c) to W; d) to NW |
| Sex(es) | (?) | (?) | male(?) | a) male, b) female <br> c) and d) undeterm. |
| Age(s) | infant | infant | juvenile(?) | a) juvenile, b) adult; <br> c) and d) undeterm. |
| Grave goods | KII 341-45: two co bracelets on and near right arm, pottery vessels | none | KII 355: | KII 362-415: co pins and ring, pottery vessels |
| Illustration | none | none | none | plates 13a, b; 17b, right |
| Remarks | - | - | - | - |

## CHAPTER 6

## CHIGHA SABZ

by Maurits N. van Loon

## THE EXCAVATION

Chigha Sabz is a mound that measures ca. $120 \times 100 \mathrm{~m}$ and rises about 9 m above the plain (pl. 21). ${ }^{1}$ In 1934 Schmidt picked up Giyan V fine painted ware at this site, and what appear to be Iron Age sherds as well, which he attributed to the Sasanian period, as he had done for Kamtarlan I. In 1935 he returned to the site, hoping to uncover remains of the fine ware occupation.

Excavation at Chigha Sabz lasted from November 6 to 23, 1935. On the northern slope Schmidt opened only one plot (F7); up the western slope a continuous series of five plots (H37); at the eastern foot two adjoining plots (H10-11); and down the southern slope a series of six plots continuing the H 7 exposure from the top down (I-N7). In the various plots, excavation proceeded to a depth varying from 1 to 4.50 m .

## ARCHITECTURE

Nowhere were architectural features of stone found superimposed one upon another. All features are therefore presented on one series of plans, plates 22-23a. Inasmuch as the excavation was done in stepped trenches, however, none of the architectural features can be followed from one plot to the next.

Plot F7: Only a few stone wall fragments were encountered here. Giyan III vessels and a Giyan III child burial were found nearby. In orientation and in width the walls resemble those in plot I7. From 2.85 m below the summit, Giyan V/Susiana vessels appeared in large numbers. ${ }^{2}$
Plot H3: The pit in this plot, probably an ancient well, extended down to 15.20 m below the summit and contained a fine series of painted pitchers and goblets (CS 55277, pls. 109-112 and 115) linking Giyan II to level 3B at Surkh Dum-i-Luri.

The elevations at which Giyan $V$ vessels began to occur ran up as follows:

### 8.65 m below the summit in H 3

6.60 m below the summit in H 4
4.75 m below the summit in H 5

Plots H4-5: Although at different elevations and not to be connected, the rough stone walls in both of these plots run NNW-SSE and ENE-WSW. In room 1, below some stones in line with the H5 wall, stood a Giyan III storage jar (CS 629, pl. 106c) at 6.30 m below the summit. The floor of room 1 must have been at this elevation. Immediately below, in the center of H 4 , lay a large quantity of broken pottery, including wasters. One waster (discarded) is described as light green

[^7]ware painted with black stripes. A complete Giyan V vessel (CS 513, pl. 68e) lay nearby at 6.85 m below the summit.
Plot H6: An enigmatic rectangular stretch of paving here is comparable to the stretches of paving in $\mathrm{H} 7 .{ }^{3}$ The associated finds (the animal-headed 'nail' CS 472, pl. 145d, the dagger CS 479, pl. 120e, and many iron fragments) indicate an Iron Age date. From 2.50 m below the summit, however, Giyan III pottery occurred (CS 480 82 , cf. pls. 92 p and 94 f).
Plot H 7 : Here, as in H6, rectangular stretches of paving of unknown function were associated with an Iron Age bull-shaped vessel (CS 434, pl. 141b). At 1.40 m below the summit, however, a Giyan II jarlet was found (CS 440, pl. 109k).
Plot I7: Iron Age bull-shaped and human effigy vessels (CS 386, 387, pl. 141c, CS 39699 , pls. $137 \mathrm{i}, 138 \mathrm{a}, 140 \mathrm{c}, 14 \mathrm{la}, 145 \mathrm{~g}$, and 147a; CS 401, pls. 145 h and 147 b ) and Neo-Elamite seals (CS 421-22, pls. 237:87 and 243:153) had been buried ${ }^{4}$ in the center of the plot at $2.90-2.95 \mathrm{~m}$ and in the southern center at $3.50-3.70 \mathrm{~m}$ below the summit (pl. 20a, b). The latter group may have been associated with the adjoining rectangular stretch of paving. The other rough stone wall fragments and associated pavements, however, oriented NNE-SSW and ESE-WNW, were honey-combed with Giyan III burials and must predate the latter. On the eastern pavement stood some Giyan III vessels (CS 407 and 414, cf. pls. 92i and 94n) and two plaster vessels (pl. 18a).
Plot J7: In this plot the stratigraphy was even more complicated. Iron Age bull-shaped vessels (CS 270-71, pl. 140d and CS 368, pl. 140e) were buried in the northern center of the plot at $3.85-4.40 \mathrm{~m}$ below the summit and a Neo-Elamite seal (CS 272 , pls. $235: 69$ and 259 c ) in the southern center at 4.40 m below the summit. The architectural fragments visible on the plan must be of the Giyan III period, since they were honeycombed with Giyan III burials. The deepest burial, x8, at 6.80 m below the summit, is the only one at Chigha Sabz that contained Susa D pottery. From 5.25 m below the summit Giyan V pottery started to appear.
Plot K7: The burial, and perhaps the architectural fragments as well, were of Giyan III date. At 6.85 m below the summit, Giyan V ware appeared. ${ }^{5}$
Plot L7: The only Giyan I burials found at Chigha Sabz were L7 x1 and x2. The easternmost of the two pits encountered in this plot yielded Giyan II vessels (CS $210-13$, pl. 112c and cf. pl. 109j). Giyan V pottery appeared at 7.65 m below the summit in the remainder of the plot, including the west pit.
Plot M7: Close to grave groups $x 1$ and $x 2$ there was a burned clay basin. In $\times 2$ no skeleton was found, although the inventory was as rich as that of x 3 . Undisturbed Giyan V levels were reached at 8.90 m below the summit.
Plot N7: Area 4 may have been a court, around which rooms 1 (with door socket) and 2 were situated. Room 3, with walls founded 0.75 m higher up, may represent a subsequent building level from which the graves may have been dug. Giyan III vessels were associated with the two wall groups (CS 5, pl. 92n and CS 39, pl. 103 b ) and with all of the burials. A Giyan V vessel appeared at 9.70 m below the summit.

[^8]
## BURIALS

One child's grave ( 57 x 7 ), found in the Giyan V level, had only stone grave goods and an animal tooth. It may be of Giyan V date.

Of the other graves, one ( $\mathrm{J} 7 \times 8$ ) clearly belonged to the Susa D period, five (M7 x2, x3, and $x 4$; N7 x1 and $x 2$ ) undoubtedly to the Giyan IVC-III period, one (F7 x1) probably to the Giyan II period, and two (L7 x1-2) probably to the Giyan I period. Most of the remaining twenty-four graves contained pottery of ill-defined shapes and designs within the Giyan IV-III tradition. In table 3 these graves are treated with the Giyan IVC-III graves. This large group is ordered by letter and number.

The copper objects mentioned above may well contain tin. Schmidt called all of them bronze, but no analyses were made. The copper and pottery vessels were usually placed near the knees or the feet. Occasionally jars and jarlets (CS 19, pl. 94c; CS 111, pl. 96c; CS 112$14,260,261,308,309$, pl. 94 k , and CS 499, pl. 94o) or a bowl (CS 18, pl. 92f; CS 54 and 59 , pl. 92 o ; CS 60 , pls. $123 \mathrm{~h}, 126 \mathrm{e}$, and CS 287 , pls. 123 j and 127 b ) were placed near the head. In the late grave L7 x1 a spouted pot (CS 173) was placed with its spout touching the skull. At Chigha Sabz, as at Kamtarlan II (see above), daggers lay pointed toward the head (e.g., H5 x3), there were closing slabs at the foot end of some graves ( $\mathrm{J} 7 \times 2, \mathrm{H} 5 \times 2$ ), and some had additional vessels outside the tomb ( $\mathrm{J} 7 \times 2, \mathrm{M} 7 \times 3$ ). The pins in $\mathrm{I} 7 \times 3$ and $\mathrm{J} 7 \times 6$ lay pointed down, those in $\mathrm{J} 7 \times 2$ pointed toward the skull, those in $\mathrm{J} 7 \times 4$ toward the chest, and that in N7 x1 toward the pelvis. None of the graves appear to have been robbed. The disturbed position of certain skeletons, noted by the excavators, made it impossible to determine the original position of the body; the dislocation appears to be due to earth pressure and decay. In one instance ( $\mathrm{M} 7 \times 2$ ), the possibility of cremation is suggested by the absence of a skeleton and the presence of traces of burning near the group of grave goods.

## STRATIGRAPHY

The buildup of the mound may be summarized as follows. Elevations are measured in meters from the top of the mound.

Giyan V or Chalcolithic (5000-3250 B.c.)

Susa Dc-d or Early Bronze (2600-2300 в.c.)
Giyan IVC-III or Middle Bronze (2000-1600 в.C.)

Giyan II or Late Bronze (1600-1200 B.C.)

Giyan I4-3 or Iron Age I (1200-1000 B.C.)

Remains of habitation formed a mound rising about -10 m around the periphery to about -5 m halfway up the present slope, probably leveling off from there. Excavation did not reach recognizable house remains.

Burial x 8 in plot J7.
In N7 at least, two levels of stonefounded houses, the lower one resting immediately on the eroded Giyan V mound surface. The center of the mound now grew to a height of -2 m . There were many burials, often in stone-built tombs, sunk into and below both building levels.

A burial in F7, a well in plot H 3 , the eastern pit in plot L7, and scattered remains elsewhere.

Burials x1 and x2 in plot L7.

Camp site(?) in plots H6-11 and I-J7. Burial(?) of treasured objects, before approaching danger(?).

Some finds that are hard to date precisely (e.g., CS 66 [flat oblong iron blade with attached loop handle], CS 67 [fragment of celadon ware], CS 70 [sculpture fragment of a hand in relief]) give the impression of some late disturbance centering in plot M7.

Six fragments of glass bracelets, including two blue and white pieces striped lengthwise and one gray-brown twisted example, were found at depths 1.05 and 1.30 m below the summit in H7 (CS 432 and 442). We suspect them of being Medieval and have not included them in our Iron Age catalog.

Table 3. Chigha Sabz Burials

|  | Chalcolithic (Giyan V?) | Early Bronze (Susa D) | Middle Bronze (Giyan IVC-III or Undetermined) |
| :---: | :---: | :---: | :---: |
| Plot | J7 | J7 | H3 |
| Bur. no. | x7 | x8 | x 1 |
| Depth bel. summit (m) | 5.50 | 6.80 | 8.60 |
| Grave type | earth | pit, $1.35 \times 1.00 \times 0.50$ | stone-built sides and foot end |
| Position of skeleton | on right side, tightly flexed | on right side, flexed | on left side, flexed |
| Orient. of skull | to SW | to ESE | to N |
| Sex | (?) | male(?) | male(?) |
| Age | child | adult | elderly |
| Grave goods | CS 352-54: snst disc near mouth, anim. incisor nr chest, 44 lmst beads nr legs | CS 355-60, 375 : <br> si ring near foot, $\mathrm{co}^{1}$ bowl, pottery vessels | CS 544-47: <br> co finger ring, pottery vessels |
| Illustration | none | plate 18b | none |
| Remarks | - | - | - |

Middle Bronze (Giyan IVC-III or Undetermined)

| Plot | H3 | H4 | H5 | H5 |
| :---: | :---: | :---: | :---: | :---: |
| Bur. no. | x 2 | x1 | x1 | x2 |
| Depth bel. summit (m) | 8.80 | (?) | 3.60 | 3.50 |
| Grave type | earth | earth | next to st wall | large st cist |
| Position Position of skeleton | on right side, tightly flexed | on left side, flexed | disturbed ${ }^{2}$ | on right side, flexed |
| Sex | female | male | male(?) | male |
| Age | adult | adult | adult | adult |
| Grave goods | CS 540-42: co mirror and bowl near head pottery vessel | broken Giyan IV-III vessel (discarded) | CS 499-504: pin above head, pottery vessels | CS 496-98, 507(?): <br> co bracelet, pottery vessels |
| Illustration | none | none | none | none |
| Remarks | - | - | - | - |

[^9]${ }^{2}$ Objects designated as copper (co) may include bronze.

Table 3. Chigha Sabz Burials (cont.)

Middle Bronze (Giyan IVC-III or Undetermined)

| Plot | H5 | H11 | I7 | 17 |
| :---: | :---: | :---: | :---: | :---: |
| Bur. no. | x3 | x 1 | x 1 | x2 |
| Depth bel. summit (m) | 3.60 | 11.0 | 2.40 | 3.00 |
| Grave type | $1.20 \times 1.20 \times 0.60$ <br> gabled slab roof | earth | in and on stones and burned brick | earth |
| Position of skeleton | on back, legs flexed to right | on back, extended | disturbed, legs flexed to left | on left side, flexed |
| Orient. of skull | to NW | to NNE | to NNE | to SW |
| Sex | male | male(?) | male(?) | male |
| Age | adult | adult | adult | elderly |
| Grave goods | $\begin{aligned} & \text { CS 486-95, 505(?), } \\ & 506(?), 626(?): \end{aligned}$ <br> co dagger nr arm, whetstone nr head, co bowl nr pottery vessels | CS 448(?): <br> ca beads nr head | CS 389-91: <br> co dagger at thigh, pottery vessels | none |
| Illustration | none | none | none | none |
| Remarks | - | position suggests historical period, but cf. M7, x1 | - | close to, and slightly lower than x 3 |
| Plot | 17 | I7 | J7 | J7 |
| Bur. no. | x3 | x4 | x 1 | x2 |
| Depth bel. summit (m) | 2.85 | 3.75 | 4.25 | 4.65 |
| Grave type | earth | earth | earth | gabled and foot-end slabs protect jars |
| Position of skeleton | on back | on right side, legs flexed | on right side | on back, legs flexed to right |
| Orient. of skull | to WNW | to NW | to E | to W |
| Sex | male | (?) | male | female(?) |
| Age | adult | infant | adult | adult |
| Grave goods | CS 402-5, 406(?): co pins nr head, co dagger nr feet(?), pottery vessels | CS 408-9: co co bracelcts at wrists | dog at feet | CS 287-307, 369 : three si rings on one right-hand finger, co pins nr left shoulder and elsewhere, co and pottery vessels |
| Illustration | none | none | none | plates 18 c and 23 b , left |
| Remarks | close to, and slightly higher than x 2 | - | - | - |

THE HOLMES EXPEDITIONS TO LURISTAN
Table 3. Chigha Sabz Burials (cont.)

Middle Bronze (Giyan IVC-III or Undetermined)

| Plot | J7 | J7 | J7 | J7 |
| :---: | :---: | :---: | :---: | :---: |
| Bur. no. | x3 | x4 | x5 | x6 |
| Depth bel. summit (m) | 4.45 | 4.55 | 4.60 | 4.40 |
| Grave type | earth | earth | earth | stone-built sides, flat slab roof |
| Position of skeleton | on left side, flexed, left hand to mouth | on right side, tightly flexed | on right side, flexed | on left side, flexed |
| Orient. of skull | to ESE | to NW | to WSW | to SE |
| Sex | male(?) | male(?) | (?) | male(?) |
| Age | child | elderly | infant | adult |
| Grave goods | CS 308-9: pottery vessels | CS 275-86, 374: six co pins nr chest, co and pottery vessels | none | CS 320-27: si earring, co pin nr shoulder and ring nr arm, pottery vessels plate 19a |
| Remarks | $\text { plate } 18 \mathrm{~d}$ | plate 18d | close to, and slightly lower than x6 | close to, and slightly higher than x 5 |
| Plot | K7 | M7 | M7 | M7 |
| Bur. no. | x1 | x1 | x2 | x3 |
| Depth bel. summit (m) | 7.70 | 8.65 | 8.35 | 9.00 |
| Grave type | earth | earth | earth | $\text { (?) } \times 0.80 \times 0.75$ gabled slab roof |
| Position of skeleton | disturbed, legs flexed to right | on left side, legs extended | missing; bumed clay basin nearby | disturbed |
| Orient. of skull | to NE | to NNE | could not be observed as skeleton missing (cremated?) | to NW |
| Sex | (?) | (?) | - | male(?) |
| Age | child | adult | - | adult |
| Grave goods | CS 260-64: cha bead at neck, co bracelet and ring nr arms, pottery vessels | CS 135-38, 140 : pottery vessels 0.35 1.25 m behind pelvis | CS 129-34, 139: co dagger, axe, and pin; pottery vessels | CS 104-10: co dagger and axe, co and pottery vessels |
| Illustration | none | none | none | plate 19b |
| Remarks | - | femur of second skeleton(?) among vessels | - | - |

Table 3. Chigha Sabz Burials (cont.)

| Middle Bronze (Giyan IVC-III or Undetermined) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Plot | M7 | N7 | N7 | N7 |
| Bur. no. | x4 | $\times 1$ | x2 | x3 |
| Depth bel. summit (m) | 8.25 | 9.35 | 9.10 | 9.00 |
| Grave type | slab sides, gabled slab roof | earth | next to stone wall | earth |
| Position of skelcton | disturbed | on right side, flexed | legs flexed | disturbed |
| Orient. of skull | to WNW | to W | to NNW | to NW |
| Sex | (?) | male(?) | (?) | (?) |
| Age | adult | juvenile | (?) | infant |
| Grave goods | CS 111-28: three co pins, co and pottery vessels | CS 10-17: co pin, pottery vessels | CS 28-37: co pin and dagger, co and pottery vessels | CS 18: pottery vessel |
| Illustration | none | none | plate 19c | none |
| Remarks | - | - | - | - |
| Plot | N7 | N7 | N7 | N7 |
| Bur. no. | x4 | x5 | x6 | x 7 |
| Depth bel. summit (m) | 9.05 | 9.15 | 9.20 | 9.25 |
| Grave type | earth | earth | -stone side, sloping slab roof | earth |
| Position of skeleton | on left side, flexed | on left side, flexed | on right side, legs flexed | on left side, flexed |
| Orient. of skull | to WNW | to SSW | to WNW | to NNE |
| Sex | male | (?) | (?) | male(?) |
| Age | adult | infant | adult(?) | juvenile |
| Grave goods | CS 19-20: pottery vessels | CS 21-22: pottery vessels | CS 56-63: <br> co pin, co and pottery vessels, dog skelcton at feet | CS 54: pottery vessel |
| Illustration | none | none | plate 19c | none |
| Remarks | - | - | - | - |

Table 3. Chigha Sabz Burials (cont.)

|  | Late Bronze (Giyan II) | Iron Age I (Giyan I4-3) |  |
| :---: | :---: | :---: | :---: |
| Plot | F7 | L7 | L7 |
| Bur. no. | x 1 | x1 | x2 |
| Depth bel. summit (m) | 2.35 | 8.10 | 8.05 |
| Grave type | earth | earth | $2.55 \times 1.60 \times 0.85$ <br> stone-walled |
| Position of skeleton | on right(?) side | on back, legs flexed to right | disturbed |
| Orient. of skull | to ENE | to WNW | to WNW |
| Scx | (?) | male | (?) |
| Age | infant | adult | (?) |
| Grave goods | CS 599-601: agate bead, pottery vessels | CS 166-75: frit and ca necklace, st pounder, pottery vessels | CS 191: pottery vessel |
| Illustration | none | plates 19 d and 23 b , right | none |
| Remarks | - | - | - |

## CHAPTER 7

MIR VALI<br>by Maurits N. van Loon

## THE EXCAVATION

While working at Chigha Sabz, Schmidt investigated the site of Mir Vali, located about three kilometers north of Chigha Sabz at the foot of the Sehdand Kuh ("Three-Tooth Mountain"). Mir Vali is described as an extensive stone-built town. Several large gabled-roofed cist tombs there had been rifled by the Lurs. Susa D sherds were lying near the open tombs.

From November 17 to 23, 1935, concurrently with his excavation at Chigha Sabz, Schmidt dug at Mir Vali with thirty men, including three from Tepe Hissar. The work consisted partly of clearing tombs that had been opened but not completely emptied by the Lurs (tombs I, III), partly of excavating tombs that showed no signs of recent robbing, although they may have been visited in the past (pl. 25).

The very large stone-walled and flat- or gabled-roofed cist tombs must each have served a family for several generations, and Mir Vali shows that this tradition dates back at least as far as the Early Bronze Age. ${ }^{1}$ Tomb I apparently was reused in the Late Bronze Age. Particulars on the burials are given in table 4.

Table 4. Mir Vali Burials

| Early Bronze (Susa Da-d=IIIB-IVA) |  |  |  |
| :---: | :---: | :---: | :---: |
| Tomb | II | II | III |
| Bur. no. | x1 | x 2 | not numbered |
| Depth bel. surf. (m) | 0.45 | 0.45 | 1.00 |
| Grave type | north half of st cist, $1.30 \times 1.00 \times 0.45$; no roof | south half of st cist, $1.10 \times 1.00 \times 0.45$; no roof | stone cist, $8.00 \times 2.00 \times 1.00$ <br> flat slab roof |
| Pos. of skel. | disturbed* | disturbed | disturbed by recent robbing |
| Orient. of skull | to NNE | (?) | ESE/WNW, if bodics laid widthwise |
| Sex | (?) | (?) | - ${ }^{( }+$ |
| Age | child | juvenile | - ${ }^{( }$) |
| Grave goods | MV 5-19: <br> pottery vessels around bdy | none | MV 20-27, 50-51: pottery vessels in center |
| Illustration | plate 24b | none | none |
| Remarks | Tomb II measures $2.40 \times$ low slabs | $.00 \times 0.45 \mathrm{~m}$, partitioned by two | - |

[^10]Table 4. Mir Vali Burials (cont.)

|  | Early Bronze (Susa Da-d=IIIB-IVA) |  | Late Bronze (Giyan II) |
| :---: | :---: | :---: | :---: |
| Tomb | IV | V | I |
| Bur. no. | x1 | x1 | x1 |
| Depth bel. sur. (m) | 1.15 | 1.35 | 0.50 |
| Grave type | stone cist, $3.50 \times 1.60 \times 1.15$ <br> flat slab roof | stone cist, $5.10 \times 1.70 \times 1.35$; gabled slab roof | stone cist, $3.60 \times 2.30 \times 0.95$; flat roof; robbed |
| Pos. of. skel. | disturbed | disturbed | on back, legs flexed to right |
| Orient. of skull | to NNE | to NNE | to W |
| Sex | (?) | (?) | male |
| Age | (?) | (?) | adult |
| Grave goods | MV 28-45, 47-49: <br> two si rings, two co* pins, co faience, et cetera, beads, and pottery vessels | MV 46: pottery vessel | MV 1-4: co pins pointing sideways and down at neck and shoulder, pottery vessels, and whorl |
| Illustration | none | plate 24a | none |
| Remarks |  | - | - |

${ }^{\circ}$ Objects designated as copper (co) may include bronze.

## CHAPTER 8

# THE SECOND HOLMES EXPEDITION TO LURISTAN: A SUMMARY 

by Erich F. Schmidt<br>Erich Schmidt's short account of the second expedition's work, presented in full below, appeared in BAIIAA 5 (1937-38):205-16. No illustrations are included in this chapter. Those illustrations that seemed essential are referred to in chapters 10-13.

In the autumn of 1937 the "Friend of Iran," airplane of the Mary Helen Warden Schmidt Foundation, scouted above the rough western mountains of Iran to find guidelines for a projected overland expedition. Hundreds of sites were plotted, and archaeologically promising areas were identified.

In May and June of the following year the staff of the Persepolis Expedition ${ }^{1}$ was put at the disposition of the American Institute for Persian Art and Archaeology, to follow by caravan the sky tracks of the "Friend of Iran." The final report will describe more fully the epic trek across the ragged crests of the Zagros ranges and weeks of failure while sounding dozens of sites until, finally, we struck our archaeological bonanza. A short extract will have to suffice now.

Where the highway from Harsin to Khurramabad fords the Tudarud, southeast of Harsin, automobiles were exchanged for horses and other beasts of burden. These were our only means of transport for two months and about 645 km of travel before we rejoined the highway near the starting point. Guided by Sarhatdar, the governor of the area of Dilfan, and his armed guards, we reached the region of Sarkishti after two days. There, in the Chaman ("Grass") valley, we pitched our first camp.

For seven days we radiated from this point daily, sounding patches that appeared promising, but the results were slender indeed. During the previous ten years the Lur mountaineers had thoroughly plundered the cemeteries of their ancient predecessors. Almost every spot in Luristan that showed any surface indications of burials had been dug. We were able, however, to make collections of potsherds showing the type of ceramics used by the people of the Bronze Culture. Fragments of bronzes gave valuable clues as to the kinds of utensils used anciently in Sarkishti. Jars with remains of children's skeletons were found in the neighboring valley of Shaffe. The most significant objects found were horses' teeth stained green by bronze, ${ }^{2}$ suggesting that the horses had been buried with bronze bits in their mouths.

Not satisfied with the results of the soundings at Chaman, the caravan broke camp and moved westward across the Sarkishti range to the valley of Baba Buzurg ("Big Father"). For two weeks the routine consisted of marching, camping, reconnoitering for promising sites, and sounding. In one such test, near Chujale ("Grove"), on the bank of Baba Buzurg Creek, at the side of a huge boulder, the grave of a woman was found. The only equipment present was a pair of bronze earrings-wire loops with small globes on the lower side, a type already known.

From Baba Buzurg the caravan toiled across the forbidding ranges of the Safid Kuh ("White Mountain"). In the area of Cham Asiyan the torrential Saimarre River blocked the route westward. Through Tang-i-Tir ("Arrow Canyon") we wound our way southward in stages, finally arriving in the plain of Kuhdasht.

[^11]Earlier aerial reconnaissances had marked the Kuhdasht valley as one of the archaeological centers of Luristan. Several mounds, flat boulder-built town ruins, and burial grounds had been plotted on the archaeological map. The particular small patch (part of one of the boulder ruins) that provided the climax of the Luristan trek was, however, pointed out by Ibrahim Khan, the aide of the governor of Kuhdasht. One month earlier, after rains, some children had found objects that appeared to be of an early period on the slope of the Surkh Dum-i-Luri ("Red Slope of the Lurs"), and as a result commercial diggers had begun to search for treasure. They had been stopped by the authorities from exploiting this spot.

On the slope of Surkh Dum-i-Luri Mountain, covered with traces of boulder walls, and above the plain of Kuhdasht, dotted with patches of cultivated fields, an excavation was made. Nearby, beyond a gully, was the expedition's camp, with tents and a brush shelter for the saddle horses.

The plan of the building uncovered at this spot and the fine condition and type of the objects found here indicate that the Surkh Dum-i-Luri ruin was a sanctuary, a temple of the first half of the first millennium B.C., hence contemporary with the Assyrian Empire.

Judging by the amount of soil in the debris of boulders, mudbrick walls had stood on the stone foundations found here. At many points in the building, including the main room, there were offsets, especially at the most important doors. This seems to indicate that here a style of mudbrick architecture had been evolved into one of stone; prototypes of this architecture can be found in brick structures in Mesopotamia where no stone is available. A terraced square with mud walls, in the center of the main room, seems almost certainly to have been an altar. ${ }^{3}$

The Surkh Dum-i-Luri sanctuary was exceptionally abundant in artifacts. Unfortunately the individual objects have not yet been photographically recorded, but a rich hoard found close to the floor of one of the rooms adjoining the main room of the sanctuary includes some typical examples. The most interesting is a ram-headed pestle of stone, encircled by a bracelet of bronze; among the other things are bronze mirrors and pins, a whetstone, and cylinder seals. More than two hundred cylinder seals and quite a number of stamp seals were found in the temple. Some cylinders bear Kassite cuneiform inscriptions older by several centuries than the rest of the finds. Some are engraved with scenes such as appear also on Assyrian cylinders, others show patterns of animals presumably native to the homeland of the ancient people of Surkh Dum-i-Luri.

Hundreds of objects were found inside the rooms, both in clusters and scattered about, but almost as many finds were made in the walls themselves of the main temple room. In cleaning the faces of the walls, pins and other objects were found stuck in the interstices between the boulders; it was therefore decided to remove the walls in slices, after recording the architecture. In one wall more than eighty-seven objects were found; in another, there was embedded a hoard of many precious objects, principally bronze pins, the most elaborate specimens being at the bottom of the pile. All pins found in this Surkh Dum-i-Luri temple and most of the other Luristan pins so far published should, in our opinion, be considered "wands." ${ }^{4}$

We found hundreds of wands, most of them bronze, some bronze with iron stems, some entirely of iron, and others of bone. The heads range from simple forms to finely modeled winged animals and intricate "Gilgamesh" patterns, showing a person in combat with two animals. These wands alone will yield a wealth of information concerning the symbolism of the ancient people. Another important category of finds comprises small bronze plaques, including many fragments with scenes in repoussé of obviously religious character, such as deities with their paraphernalia, or winged monsters. There are, further, quite a number of male and female figurines in bronze or frit, such as the bull-man found also in Assyria, and one scene that Professor Olmstead thinks may symbolize mother-son marriage. ${ }^{5}$

[^12]None of the Surkh Dum-i-Luri objects represent the horse, nor do any have bearing on the still puzzling horse culture of ancient Luristan. In this temple, sedentary people worshiped their god or gods. Their fields lay below, on the plain; their trade was with distant Assur. But there is nothing to explain the absence here of objects referring to the horse culture of other parts of Luristan, which was certainly contemporaneous.

No burials of those who worshiped in the Surkh Dum-i-Luri temple were found, but when the downhill slopes were sounded, stone-walled graves with gabled roofs, dating to the third ${ }^{6}$ millennium B.C., were uncovered, earlier than the temple by at least a thousand years. Crushed vessels and some simple bronze pins were found with skeletal remains.

After three weeks we left the plain of Kuhdasht, carrying boxes full of scientific treasures from Surkh Dum-i-Luri, and marched eastward and then northeastward with a caravan of eighty horses and strong mountain burros. The tortuous ascent up the Siyah Palle ("Black Stairs") on the precipitous northern bank of the Kashgan River was exceptionally difficult (pl. 56a). At Dum 'avize, headquarters of the governor of Dilfan, about thirty-two km south of the point where we had started the trek, our route joined the highway again. In 1935 we had landed at this point and examined a mound. Subsequently Sir Aurel Stein had sounded it, ${ }^{7}$ but we, also, now made a small sounding in the deposit near its base. A well-equipped burial was uncovered, with jars of early Tepe Giyan type, a mirror, and a copper-or-bronze jar lying near the skull.

Guided again by our good friend Sarhatdar, the governor of Dilfan, the Holmes Expedition made one last attempt to strike an untouched cemetery of the Luristan Bronze period. In the valley of the Badavar River, at Khatun Ban, we found, at last, eight cist burials of nomadic or seminomadic people. In summer these people lived and grazed their flocks here in the Sard Sir ("Cold Region"), but in winter they moved to the lower valleys of Luristan, known as the Garm Sir ("Warm Region"). The burials at Khatun Ban never lay very close to a spring or a stream.

When recorded, these burials proved to be of great scientific value. In several instances the skeletal remains had almost disappeared, but wherever the body position could be determined, the skeleton was flexed; the cist was always too small for an extended position. Slabs lined the grave on three sides, while the foot end was in each instance a plain dirt wall. In most cases two horizontal slabs formed the lid. There was no consistent orientation of the bodies. The equipment consisted of bronze vessels, a few simple jars of baked clay, heavy bracelets of bronze, beads, and receptacles for wands. The wands themselves had unfortunately been made of perishable material and consequently had disintegrated. There were also several daggers with bronze blade, iron grip, and bronze grip knob. The iron had in each case almost disappeared, but the drawings of the daggers in situ record accurately the position of the blade in relation to the grip knob and hence the shape of the entire weapon. In one burial were three discs with raised hemispherical center and four pairs of perforations at the rim. These discs may have been used as ornaments on the front and sides of a horse's harness; to our regret no horse bits or other definite horse equipment were found.

The final publication on this work in Luristan will combine the results of the two Holmes expeditions. The first, preceded by a short reconnaissance, explored, in 1935, deposits in the Rumishgan valley that were mainly prehistoric (Pope 1935-36). The second, in 1938, was in several respects very difficult but unusually interesting. The staff included, in addition to the writer, the following members, who have an equal share in the success of the enterprise: Donald E. McCown, Richard C. Haines, Frederick Lillich, and Boris Dubensky. The assyriologist Wilhelm Eilers was a helpful and welcome guest. Baba Khan, the foreman of the crews of Fara, Tepe Hissar, Rayy, Persepolis, and Rumishgan, managed the Surkh Dum-i-Luri crew as well. Everyone admired the twelve peasant boys from Damghan and Persepolis who constituted this crew. They were seasoned diggers of many years, who served as animal drivers during the march, excavators during the stops, and camp guards at night. Last but not least, William G. Benn deserves praise. During the stormy November days of 1937, when in

[^13]${ }^{7}$ Stein (1940):291-98.
six days we combed about 20,000 square kilometers of the rough mountain country, he piloted the "Friend of Iran," plotting the trails for the overland caravan to Luristan.

## CHAPTER 9

## THE 1938 SURVEY

by Erich F. Schmidt and Maurits N. van Loon

The Second Holmes Expedition had the character of a survey, making soundings along parts of the Saimarre and Kashgan rivers and their tributaries. Its route is indicated on plate 1 by a dotted line. Chapter 10 treats a number of minor soundings at which there were recorded either plans or small finds or both. Only at Surkh Dum-i-Luri, on the Kuhdasht plain between the two rivers, did the sounding grow into a full-fledged excavation, but even this operation lasted only nineteen days (see ch. 11). On the way back Schmidt carried out two more relatively important soundings. They are treated in chapters 12 and 13.

In addition, Schmidt made notes en route concerning other sites that he passed, from some of which he collected sherds. Because of their possible value to archaeologists, these notes are presented below, in the same condensed form as those in chapter 2 (see the introduction to that chapter for other surveys of the same area).

Schmidt's Notes


[^14]Schmidt's Notes (cont.)

| Date | Time | Site | Description |
| :--- | :--- | :--- | :--- |
| $11: 40$ | A.M. |  | Leave house of reis-i-vand, descend steep bank, <br> follow river. |
| $11: 45$ | A.M. | Cross Sarkishti River (Ab-i-Sarkishti) on east bank; <br> steep ascent. |  |
| $11: 55$ | A.M. | None given | Burial ground(?) 100 m to left of track on top of hill. <br> Arrive Chaman valley. |

(May 16-18 Schmidt dug at Chaman; see ch. 10.)

May 18 A.M.
Ishkani
(May 19-20 Schmidt dug at Shaffe; see ch. 10.)

| May 21 | 6:50 | A.M. |  |
| :--- | :--- | :--- | :--- |
|  | 7:00 | A.M. |  |
|  | 7:10 | A.M. |  |
|  | $7: 15$ | A.M. |  |
|  | $7: 18$ | A.M. |  |
|  | $7: 30$ | A.M. | None given |
|  | $7: 35$ | A.M. |  |
|  |  |  |  |
|  | $7: 40$ | A.M. |  |
|  | $7: 43$ | A.M. | None given |
|  | $8: 06$ | A.M. |  |
|  | $4: 25$ | P.M. |  |
|  | $4: 33$ | P.M. |  |
|  | $4: 39$ | P.M. |  |
|  |  |  |  |
|  | $5: 55$ | P.M. | None given |
|  |  | P.M. |  |
|  | $5: 03$ | P.M. | Tunab-Asiyab |
|  |  |  |  |
|  | $5: 12$ | P.M. |  |
|  | $5: 25$ | P.M. | None given |

Leave Chaman camp.
Cross crest.
Cross Sarkishti River.
Arrive at house of reis-i-vand.
Leave house of reis-i-vand.
Burial ground on west slope of Kangavari valley ca.
2 km northwest of a summer village.
Cross Kangavari River just before streamlet joins right bank.
We head east.
Burial ground with fresh holes to left. We turn south along west side of valley.
Arrive Qumish (for this group of sites see ch. 10).
Leave Qumish, ride 0.50 km southwest to Sarova summer village.
Leave Sarova.
Cross two streams. Ride uphill in the Tunab valley on south bank of stream.
Small fortress site 50 m to left of road.
Turn west and cross creek near mill. Ride uphill to mud blockhouse.
Burial ground with pits dug into it behind blockhouse. Horse graves are supposed to have been found here (on this site, see ch. 10). Leave Tunab-Asiyab.
Fortress site uphill from Tunab-Asiyab along track to Mumanavand. Sherds: plain yellow brown wellbaked ware.
(May 21-23 Schmidt dug at Qumish and Tunab-Asiyab.)

| May 24 | $11: 10$ | A.M. |  |
| :--- | :--- | :--- | :--- |
|  | $11: 30$ | A.M. |  |
|  | $11: 34$ | A.M. |  |
|  | $11: 40$ | A.M. | Ishkani |
|  |  |  |  |
|  | $11: 42$ | A.M. | None given |
|  |  |  |  |
|  | $12: 00$ | M. |  |

Leave Chaman village.
Pass Shaffe A burial ground.
Arrive Ishkani road junction.
March up Ishkani valley.
Fortress site; some terraces with boulder piles and creek on either side. We leave one worker to make a sounding and cross east creek.
Dug-up burial ground to left on northeast slope of valley. Summer village to right. Hard climbing on boulder-covered track to heights of Mt. Sarkishti. End of worst boulders, still climbing.

| Date | Time |  | Site | Description |
| :---: | :---: | :---: | :---: | :---: |
| May 25 | 12:05 | P.M. | None given | Two boulder piles, possibly fortress sites, near head of valley, on opposite bank of speedy little stream beside road. |
|  | $\begin{aligned} & 12: 12 \\ & 12: 20 \end{aligned}$ | P.M. |  | We make slight southward turn and cross head of Shaffe streamlet, just below snow patches. |
|  |  | P.M. | None given | Cairn at top of pass, to right of road, 30 m below and northwest of snow patches. Frame of slabs on which ibexes have been pecked. Small stones piled on top of slab frame and below it. Islamic burial ground behind cairn, with several more ibexes pecked on tombstones. |
|  | 12:30 | P.M. | Vesergal-i-Ishkani | Descend into Vesergal-i-Ishkani (continuation of Ishkani valley on south slope of Mt. Sarkishti). Camp at fortress site. |
|  | 10:05 | A.M. |  | Leave Vesergal camp. |
|  | 10:12 | A.M. |  | Up steep slope toward southeast. |
|  | 10:45 | A.M. |  | Track from Chaman joins our track from northeast. We turn southwest. |
|  | 10:50 | A.M. |  | Arrive near summer village also called Chaman, in valley that continues northern Chaman valley where we worked. |
|  | 11:00 | A.M. |  | Burial ground(?) to left of road on slope that has been subject to landslides. |
|  | 11:12 | A.M. |  | Cross light gray sandy slope, smooth, like a dune. |
|  | 11:30 | A.M. |  | Arrive at Zarde Savar. |

(May 25-27 Schmidt dug at Zarde Savar; see ch. 10.)

May 27 2:23 P.M.
2:54 P.M.
2:55 P.M.
3:10 P.M.

Leave Zarde Savar. Up south slope and across many other swells.
Down a blue gray sand slope.
Turn off to left. Large summer village ca. 0.50 km to half right.
Arrive Qal'e Alan.
(May 27 Schmidt dug briefly at Qal'e Alan; see ch. 10.)


Schmidt's Notes (cont.)

(May 29 Schmidt dug at Chujale; see ch. 10.)

| May 29 | P.M. | From Chujale to Nayale ("Reed Place"). |
| :--- | :--- | :--- |
| May 30 |  | From Nayale over the Safid Kuh and Madei |
|  | mountains to Cham Asiyan. |  |

(May 31-June 1 Schmidt dug at Cham Asiyan; see ch. 10.)

| June 2 | 7:34 | A.M. |  |
| ---: | ---: | ---: | :--- |
|  |  |  | Leave Cham Asiyan camp toward southwest <br> along Saimarre River. |
|  | 10:50 | A.M. |  |
|  | Through Tang-i-Tir ("Arrow Canyon"). |  |  |

(June 3 Schmidt dug at Siyah Gur; see ch. 10.)

| June 4 | $7: 24$ | A.M. |  |
| :--- | :--- | :--- | :--- |
|  | $8: 49$ | A.M. |  |
|  | $9: 14$ | A.M. | None given |
|  | $9: 25$ | A.M. | Takiye Diyali |
|  |  |  | None given |

Leave Zughale camp, climb west and up through rocky side valley.
In small scattered scrub, which grows denser up Mt. Dum-i-San ("Rock Tail").
Boulder village ruins with solid wall foundations, ca. 1.50 m wide, of large stones.
Boulder ruin, then mud village of same name, where we camp.
Burial ground ca. 2 km from Takiye Diyali, 400 m northwest of Khaire Nesari mound. Flat ground with shallow slab burials and circular boulder enclosure. Reconnaissance yields no sherds.

| Date | Time |  | Site | Description |
| :---: | :---: | :---: | :---: | :---: |
|  | 2:25 | P.M. |  | Return from reconnaissance. |
|  | 2:43 | P.M. |  | Cross creek. |
|  | 2:45 | P.M. |  | Arrive village opposite Khaire Nesari mound. |
| (June 4 Schmidt dug at Khaire Nesari; see ch. 10.) |  |  |  |  |
| June 5 |  |  |  | From Takiye Diyali to Kuhdasht valley (for sites mentioned on this and the following day, see pl. 47). |
| June 6 | 9:36 | A.M. | Chigha Gandum ("Wheat Mound") | Fortress site on boulder-covered natural hill. Islamic burials. No sherds. |
|  | 11:01 | A.M. | Siyah Chigha | Mound with boulder area, perhaps burial ground, to west. Some Islamic burials. Sherds: brown-on-ycllow or gray ware, as at Chigha Sabz; purple red on yellow ware, as at Musiyan; banded ware, as at Kamtarlan; Seleucid(?) fine red ware; one Islamic glazed sherd. |
|  | 3:00 | P.M. | Chigha Surkh | Dome-shaped mound, ca. $80 \times 6 \mathrm{~m}$, with boulder and mortar pillar foundations in deep central pit, and boulder and mortar wall partly exposed at south-west slope. Probably Sasanian. Sherds: plain yellow brown ware. |
|  | $3: 35$ | P.M. | Chigha Pahan | Mound, ca. 200 to $300 \times 8 \mathrm{~m}$, too large for short sounding. Natural swell may form base. Sir Aurel Stein's stcpped trench on west slope yields Chigha Sabz ware in two lowest plots; no Musiyan ware noticed; banded ware, as at Kamtarlan, higher up. |
|  | 4:01 | P.M. |  | Leave Chigha Pahan. |
|  | 4:49 | P.M. | None given | Rectangular boulder fortress site ca. 0.50 km west of Surkh Dum-i-Luri summer village. |
|  | 4:55 | P.M. | None given | Fortress remains (and burials?) on knoll west of Surkh Dum-i-Luri site, north of Surkh Dum-i-Luri village. |
|  | 4:57 | P.M. |  | Arrive Surkh Dum-i-Luri site. |

(June 7-25 Schmidt dug at Surkh Dum-i-Luri; see ch. 11.)


(July 1-3 Schmidt dug at Dum 'avizc; see ch. 12.)
July 1 6:46 A.M.
Leave Dum 'avize on track to Kirmanshah.

Schmidt's Notes (cont.)

| Date | Time |  | Site | Description |
| :---: | :---: | :---: | :---: | :---: |
|  | 6:55 | A.M. |  | Mt. Girde Kan to left. |
|  | 7:02 | A.M. | Chigha Mavi | Mound, ca. $100 \times 10 \mathrm{~m}$, with village 100 m to left of track. Kuh-i-Khilge to left and Kuh-iGulandam beyond it. |
|  | 7:30 | A.M. | None given | Flat-topped circular mound ca. $50 \times 3 \mathrm{~m}, 50 \mathrm{~m}$ to left of track. |
|  | 7:35 | A.M. |  | Pain Ab , village 50 m to left of track. |
| July 3 |  | P.M. |  | From Dum'avize to Khatun Ban along the Badavar River. |
| (July 4-6 Schmidt dug at Khatun Ban; see ch. 13.) River. |  |  |  |  |
| July 6 | 3:55 | P.M. |  | Leave Khatun Ban for Dum' avize. |
|  | 3:59 | P.M. | None given | Boulder site in terraces on slope. Also Islamic burials. |
|  | 4:05 | P.M. | Mani Alayar | Large boulder town terraced on slope. |

## CHAPTER 10

# THE SMALLER 1938 SOUNDINGS 

by Maurits N. van Loon

## CHAMAN

In the Chaman valley, near a stream and a number of tiny springs, the Lurs had robbed several graves, including one roofed with a large slab, at sites B and C (pls. 27a, 28). Site A was a hillock with some boulders that appeared to be the foundations of a house.

Schmidt dug at Chaman from May 16 to 18, 1938. Site A was soon given up for lack of laborers. At sites B and C Schmidt laid out trenches 0.75 m wide and 3 m apart and examined slabs sticking out of the ground. ${ }^{1}$ The sherds that appeared at C are described as mostly plain, poorly baked ware. One fragment of well-baked yellow ware was painted in black with a band along the rim and dots all over. In the few tombs excavated by Schmidt no grave goods were found. Particulars are given in table 5. A copper or bronze goblet (Cha 5, pl. 124 f ), presumably found in unauthorized excavations, was presented to the expedition by one of the workers. It is of a shape popular in Giyan III times.

## SHAFFE

In the Shaffe valley, the next valley to the west of Chaman, Schmidt spotted another burial ground recently dug by the Lurs (pl. 32b, site A). The Lurs told him that individual horse burials, each with a small cache of mortuary gifts buried beside it, had been found at site B. Schmidt carried out soundings in Shaffe valley from May 19 to 20, 1938.

At site A he found a number of copper or bronze and iron weapons and ornaments in the dirt dumped by the unauthorized excavators (Sha 1-19, pls. $163 \mathrm{p}, 231 \mathrm{w}, \mathrm{z}$ ), but a cist burial that he uncovered proved to be empty (p. 26b). Site B, a knoll 500 m to the northwest of site A, yielded two jar burials that also contained the mixture of copper or bronze and iron ornaments that is supposed to be characteristic of Iron Age II (Vanden Berghe 1971a:268), as well as a recently disturbed cistburial. Both on the burial description sheet and in his diary Schmidt noted that the skull of this cist burial had green stains on the forehead, showing that a bronze object had been removed. In neither place does he mention the bronze-stained horses' teeth that appear in his BAIIAA article (Schmidt 1937-38:206).

## QUMISH AND MERAYUN

South of Chaman another burial ground had recently been dug by the Lurs at Qumish site $A$ (pls. 26a and 30). In the dirt dumped by the unauthorized excavators Schmidt found both copper or bronze and iron ornaments (Qum 1-12, pls. 1630, 165d, 168b, 170a, and 230 an ). He also seems to have been shown a stone pommel, a bronze tube, and a bottleshaped stand said to have been found at Qumish (pl. 260a-c). At sites A, B, and C, Schmidt carried out soundings from May 21 to 23,1938. While working at Qumish he visited another ran-sacked cemetery at nearby Merayun and brought back more iron ornaments and a serpentine scaraboid (Mer 1-6, pl. 163q-s).

Qumish site A yielded only an Islamic burial. Site B, 600 m to the southeast, was a small truncated cone-shaped mound down the western slope of which Schmidt sank three test trenches ( pl .31 ). These yielded painted sherds of Giyan IV-III type and of a simpler type (not
${ }^{1}$ For a view of these soundings see Schmidt (1937-38:206).
drawn). At site $C$, a larger rectangular mound 300 m southwest of site A , with rectangular stone house foundations visible on the surface, Schmidt sank a $2 \times 2 \mathrm{~m}$ pit into the central depression (pl. 31). The pit yielded no sherds.

## TUNAB-ASIYAB

Near the confluence of two streams, the Tunab and the Asiyab, 2 km south of Qumish, another burial site had recently been ransacked. Slabs were lying around the opened graves (pl. 32 a , sites A and B ). Here Schmidt carried out soundings on May 23, 1938. He also sounded a boulder-covered knoll locally known as the Qal 'e ("Fortress"), 500 m to the southeast. The sherds (not drawn) are described as fine orange ware with a gray core, probably of the Seleucid period, but it is not clear whether these are from site $B$ or from the Qal ' e .

## ZARDE SAVAR AND QALEE ALAN

At Zarde Savar, a knoll between two streams, Schmidt dug a number of shallow test trenches from May 25 to 27,1938 , covering an area of $120 \times 60 \mathrm{~m}$ at the southern foot of the boulder ruin called the Qal e (pl. 33a, b). Three tombs, two of them containing silver and copper or bronze ornaments, tombs x1 and $x 3$, were found ( pl .26 c and tab. 5 for tomb x 3 ). A lump of iron ore may or may not have been deposited intentionally with one of the burials. The pottery vessels somewhat resemble Giyan II ware.

Later, on May 27, 1938, Schmidt investigated several large slab-lined and slab-roofed graves at Qal e Alan that had recently been rifled. One of his workers found a copper or bronze torque lying on the dumps left by the Lurs (Qal 1, pl. 161a).

## CHUJALE

The Chujale site is illustrated and described in BAIIAA (Schmidt 1937-38:206-7, Chub Jaleh). Here, on a rock-strewn slope above a stream, Schmidt found Giyan III sherds lying near pits that unauthorized excavators had dug beside some of the rocks. Following their example, Schmidt examined all rock bases on May 29, 1938, and found one undisturbed burial (tomb x1, pl. 27b, tab. 5). The coexistence of copper or bronze and iron ornaments, and also the pottery, indicate an Iron Age II date for this burial.

## CHAM ASIYAN

At Cham Asiyan, on top of a table-shaped mound at the confluence of the Surkhe Mihr and the Qara Su or Saimarre, some unauthorized digging had taken place (pl. 34). Exploration of the Saimarre River bank below the mound on May 31 yielded only negative results. On June 1,1938 , Schmidt sank a trench down the southern slope. On the downslope side a stone wall foundation 0.65 m wide was uncovered. Upslope and presumably belonging to a later level there were stone walls with a different orientation, enclosing a room in which four pottery vessels were found (ChAs $1-4$, pls. 135 p and $136 a$ ). The presence of copper or bronze and iron fragments, and of pottery spouts again suggests an Iron Age II date.

## SIYAH GUR

At Siyah Gur, as at Chujale, unauthorized digging had taken place near the base of large rocks on a boulder-strewn alluvial fan. On June 3, Schmidt had fifteen pickmen and fifteen shovelmen dig around the foot of all large rocks and groups of rocks (pl. 27c). No new burial was discovered, but the workers did find sherds (not drawn) and a copper or bronze bracelet (cf. pl. 161b), probably overlooked by the grave robbers (S Gor 1-3).

## KHAIRE NESARI

Khaire Nesari, a steep table-shaped mound that measures ca. $120 \times 60 \mathrm{~m}$, rises about 12 m above the valley of a little stream (pls. 26d and 35). On June 4, 1938, Schmidt sank one $2 \times 1 \mathrm{~m}$ trench into the center of the mound, two each down the eastern and western slopes, and three each down the northern and southern slopes. The sherds that came out of these soundings (not drawn) are described as being of Parthian type.

Table 5. Chaman, Zarde Savar, Shaffe, and Chujale Burials

| Middle Bronze (Giyan III?) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Chaman B | Chaman B | Chaman B | Chaman C |
| Bur. no. | x 1 | $\times 2$ | x3 | x1 |
| Depth bel. surface (m) | 0.60 | 1.00 | 0.90 | 1.30 |
| Grave type | $1.35 \times 1.00 \times 0.60$ <br> slab cist, broken <br> slab roof | $1.409 \times 1.25 \times 0.60$ slab-sided, flat slab roof | $1.50 \times 1.30 \times 0.70$ <br> flat slab roof | $2.30 \times 1.50 \times 0.65$, st-walled, stone pile on top |
| Position of skeleton | only a few long bones preserved | no bones preserved | no bones preserved | on back, legs flexed to right |
| Orient. of skull | to S(?) | to $S(?)$ | to SW(?) | to S |
| Sex | (?) | (?) | (?) | male |
| Age | (?) | (?) | (?) | juvenile |
| Grave goods | none | none | none | none |
| Illustration | none | none | none | none |
| Remarks | - - | - | - | no st wall at foot end |
| Late Bronze (Giyan II) |  |  |  |  |
| Bur. no. | x 1 | x 2 |  | x3 |
| Depth bel. surface (m) | 0.80 | 0.45 |  | roof at surface |
| Grave type | $2.10 \times 1.50 \times 0.80$ <br> slab-sided, no roof | $1.60 \times 1.20$ <br> slab-sided, |  | $0.95 \times 0.70$ <br> flat slab roof |
| Position of skelcton |  |  |  |  |
| Orient. of skull | to WSW | to ESE |  | to NE |
| Sex | (?) | (?) |  | female(?) |
| Age | adult | (?) |  | juvenile |
| Grave goods | Zar 2-4: two si earrings, ir ore lump, pottery vess | el none |  | Zar 5-6: $\mathrm{co}^{2}$ bracelet, pottery vessels |
| Illustration | none | none |  | plate 26c |
| Remarks | - | - |  | - |

${ }^{1}$ Throughout this table the word "disturbed" refers to decay or earth pressure, not robbers.
${ }^{2}$ Objects designated as copper (co) may include bronze.

Table 5. Chaman, Zarde Savar, Shaffe, and Chujale Burials (cont.)

|  |  |  |  | Iron Age II | Shaffe B |
| :--- | :--- | :--- | :--- | :--- | :--- |

## CHAPTER 11

## SURKH DUM-I-LURI

by Maurits $N$. van Loon

## THE EXCAVATION

Surkh Dum-i-Luri, "Red Slope of the Lurs," is not to be confused with Surkh Dum-iLakki, "Red Slope of the Lakks," at the opposite end of the Kuhdasht plain (pl. 47, Meldgaard et al. 1963:98, n. 5; in a geographic context, dum, "tail," is to be translated as "slope"). Surkh Dum-i-Luri is an extensive site, covered with traces of boulder walls, on the slope of a conspicuous mountain (pls. 36 and 48). One month before Schmidt arrived on the scene, commercial diggers had started exploiting one particular area, in which a number of bronze pins, fragments of bronze vessels, and other artifacts had turned up. The unauthorized excavations were stopped by the authorities, who called Schmidt's attention to the spot. As a result, he decided to excavate this site. The excavation, which lasted from June 7 to June 25 , 1938, was carried out with thirty workers, including a few brought from Tepe Hissar and Persepolis. After the first wall hoards had begun to appear, the two final days were spent razing the walls in order to recover other, similar deposits (see pls. 41a, b, 42b, 44b, 45a, 52 and frontispiece).

Nine $10 \times 10 \mathrm{~m}$ plots ( $\mathrm{IH}, \mathrm{II}, \mathrm{IJ}, \mathrm{JH}, \mathrm{JI}, \mathrm{JJ}, \mathrm{KG}, \mathrm{KH}$, and KI) were dug or partly dug in order to expose the principal rooms of the main complex, as well as the entrance of another building facing it across a wide street or square. A sounding in plot GK, northeast and upslope from the main complex, revealed portions of additional heavy-walled buildings with parallel, narrow rooms and jogs in their exterior walls, separated by a street (pl. 54). This sounding yielded only sherds and was soon abandoned. Finally, on June 22 and 23, 1938, Schmidt investigated a Giyan III cemetery centered about 200 m west and downslope from the main complex. The limited results of this search are reported in table 6.

## ARCHITECTURE

The architectural plan and notes upon which the following description is based were drawn up by Richard C. Haines on June 13, 1938.

The excavations revealed the following sequence, starting from the bottom. ${ }^{1}$

## Level 3B: The Predecessor Building

In three small areas stone walls about 1.50 m wide were encountered (see pl. 49). In places, part of their mudbrick superstructure was preserved (pl. 39a). One level 3 wall was found below the original level 2 floor of the main room of the sanctuary in plot JI (see section B-B on pl. 54), and adjoining it to the southeast there was an uneven floor of small stones at 5.72 m . Another stone wall about 1.50 m wide occurred in plot JJ between 6.40 and 6.80 m , and a third one in plot KI running southwest-northeast between 4.70 and 5.20 m . The thickness of the level 3 walls suggests that the level 3 predecessor of the level 2 sanctuary was at least as important as the latter.

[^15]A number of more or less complete large jars (Sor 1814-15, pl. 109r and Sor 1819-21, pls. $111 \mathrm{j}, 112 \mathrm{~d}$, and 113a), some of them painted in a style not known from other sites, were found at elevations $7.15-7.20 \mathrm{~m}$ below room 12 of level 2 , in what was presumably a storeroom of the level 3 structure (the floor encountered in room 12 at a depth of 7.55 m is assumed to be the original level 2 floor). Additional jars of the same type were recovered at elevation 6.12 m below the base of the outer wall of the sanctuary in area 22 (Sor 1816-17, pl. 110 e ) and at elevations $5.55-6.10 \mathrm{~m}$ below the level 2 floor in the main room (room 1) of the sanctuary (Sor 1818, pl. 115d and Sor 1838-39, pl. 39a). A stone pestle (Sor 784, pl. 216d, encountered at elevation 5.82 m ) is the only other find from the level 3 floor of small stones.

In accordance with prevailing archaeological practice, I have usually taken all deposition between two floors to be one level, and all finds from that level to postdate the lower floor (named the floor of that level) and to antedate the upper floor (named the floor of the next higher level). If votive deposits or groups of items discarded from the sacred inventory were incorporated during construction or renovation of a sanctuary, such finds may closely antedate the upper floor. This is what happened at Surkh Dum-i-Luri in level 3 and, on a much larger scale, again in levels 2C and 2B (tbs. 8-9 and pl. 52). We would normally hesitate to split material excavated as one level retroactively into two sublevels, and in the case of levels 2C and 2B we have refrained from doing so. Happily, in the case of level 3, there is not much room for doubt. The level 3B material associated with the floors of level 3 was separated from the level 3A material incorporated into the level 2 floor makeup by a sterile band between elevations 6.10 and 6.32 m in room 1 and between elevations 7.20 and 7.55 m in room 12. As the 3B material appears to date from the Late Bronze Age and the 3A material includes much that dates from Iron Age II, it seems important to keep the two apart. The 3B items, therefore, are treated in chapters 20 and 22 with Bronze Age pottery and stone, and the 3A objects, on the other hand, in chapters 25-32 with the Iron Age material.

Whereas the hoards deposited below the level 2C and later floors were clearly stratified, uncertainty attaches to the stratification of the wall hoards (tab. 9). In some cases these were clearly associated with floor hoards. Wall hoard Sor 324 ff ., for example, must have been covered up by the level 2A floor in room 1, which also covered floor hoards Sor 863 ff.; such level 2C and later wall hoards were presumably placed on and above the level 2C wall stubs as the new walls were built over them. In most cases, however, the assignment of wall hoards to a particular level remains a guess. As a rule their location seems to have ranged from 30 cm below to 60 cm above the elevation of the floor that was built at the same time. Exceptionally, as in the case of hoards Sor 1492 ff . and 1368 ff ., they might start 60 cm below or end 120 cm above the floor.

## Level 2: The Main Building Level

The main building level uncovered at Surkh Dum-i-Luri has been designated as level 2 (pl. 51). Over most of the area excavated, a many-roomed building was exposed, and labeled "sanctuary" by the excavator (pl. 38). As his conclusion would seem to be confirmed by the various inscribed objects found here, dedicated to the goddess Ninlil, we will continue to use this name. Up to considerable height above the floors (see pl. 54) the walls were built of stone. The stones were of irregular shapes and sizes except at the recessed entrances to rooms 2 and 9 , where regularly shaped stones were laid with alternating joints in the fashion of a brick wall (pls. 39 b and 44a). The width of the outer walls averaged 1.20 m , that of the inner walls 0.90 m , with a number of deviations either way. Few traces of either unbaked or baked bricks were noted among the ruins. Two burned bricks ${ }^{2}$ were discovered in room 6 and two unburned bricks ${ }^{3}$ in room 2. The step leading from room 1 up to room 3 was made of unbaked brick, and the stone steps at the northern end of room 9 were flanked by "dirt or brick blocks." The fact that in places the ruins stood up to a height of almost two meters, coupled with the

[^16]local abundance of stone, makes it credible that the ground floor was built in stone to its entire height. The discovery of extensive screes of fallen stones high up in the excavation, which were at first mistaken for floors, would seem to support this view. If the superstructure, indicated by the presence of a staircase, was built of mudbrick, this would account for the large volume of fill noted by the excavators (see ch. 8).

In most of the peripheral rooms the walls seem to have been built without foundations on a surface that also served as a floor. In the entrance passage (room 9; see below) a sloping floor had even been created by digging away the preexisting surface, while leaving strips of the surface standing on either side in order not to endanger the walls built without foundations on this surface. The elevation of the floors in the sanctuary is shown in table 7. Those parts of the building with floors at the same elevation as the lowest level 2 floor (floor 2C) in room 1 or lower are assumed to be contemporary with it and are described in the section that follows.

## Level 2C: The Original Structure

The southern angle of the building featured three buttresses along its southwestern face and four buttresses along its southeastern face. These were echoed in the retaining wall built lower down the slope in front of the southeastern face (pl. 38). ${ }^{4}$ Farther north along the eastern face of the building only one wide buttress was present, strengthening the side wall of room 2 (the "cella"). The cupstone illustrated in plate 45 d was found in the fill of areas 22-24. As no other parts of the outside wall of the building were identified with certainty, it is not possible to say whether the building was buttressed all around, as one might have expected in a sanctuary of the Mesopotamian type.

To the right of the main entrance, an irregularly paved room (no. 10) was accessible directly from the outside over a doorsill lying at a depth of 6.20 m . To judge from the highest point in the wall foundations around this room, its floor cannot have been lower than 5.98 m . This room did not communicate with the rest of the building. No finds were made in it, although a few objects were encountered below the presumed floor level (Sor 842, pl. 199f; Sor 1116-18, pls. 177d, 191f, and 214c).

The main entrance of the building was marked by a single recess and led over three large stone slabs into an ascending passage (room 9), at the end of which four smaller stone slabs were laid as steps (pls. 39b and 40a). Making a right angle, this passage finally led over another stone doorsill into the main room. From the bottom step outside the building to the doorsill of the main room, the floor level sloped up from 5.38 to 6.82 m . According to the excavation notes, virgin soil had been left standing on both sides of this passage after the passageway itself had been cut out, and the walls were built on this raised virgin soil along both sides of the passage. As a result, the bases of the walls were above the floor level, and a narrow ledge ran along the base of the wall on either side.

Room 1 was the largest as well as the central room of the sanctuary. It had a partly stone-paved floor at a level varying from 6.55 m to 6.68 m , and a stone door socket was still in place in the recess that framed the exit to passage 9 (pl. 40b). Along the southwestern wall were appointments which suggest that cooking was carried on here. Most of this wall was recessed and the bottom of the recess was filled with a bench 30 cm high that may have served as a kitchen range. At the extreme right of this bench there was a long narrow depression plastered with two coats of mud, each 1 cm thick. This may have been the oven that belonged to the kitchen range. An oval limestone bowl 83 cm long and 16 cm deep was lying on the floor. In the southern corner of room 1, a staircase led up toward the southwest where, at least above rooms 10 and 11, there must have been a second floor. The steps were monolithic, up to 78 cm wide, and flared toward the top (pl. 42a). The tread varied between 20 and 30 cm , as

[^17]elsewhere in the building. A narrowing doorway led into room 11, the floor of which, at its southeastern end, was stepped down by means of two stone steps to a depth of 5.67 m .

In the center of room 1 there was a feature built of mudbrick and mudmortar, which the excavator labeled "altar" (pls. 43a and 50). In its center was a roughly cylindrical hole, about 50 cm in diameter and filled with black ash and animal bones. The mudbrick feature rested on the stone pavement of the room, in which a large flat stone had been set partly, though not completely, corresponding to the hole in the feature. The exterior faces of the feature had a first coating of grayish mud 4 to 5 cm thick, over which a finishing coat of mud about 1 cm thick had been applied. In the double recesses at the corners of the feature this finishing coat, which had burned and turned dark gray, accounted for one half of the accumulation of mud plaster. An altar of such unusual shape and construction would be without precedent. In view of remains similar to these found at Hasanlu, ${ }^{\text {it }}$ it seems more likely that the bricks had been placed there to steady the base of a wooden column and subsequently coated with mud to keep them in place. The column presumably carried a crossbeam which in turn supported a roof above all or part of room 1. The part of the floor in room 1 not paved with stones is described as hard, tamped, and covered with black ash. This does not necessarily point to destruction by fire; the ash may derive from oven sweepings and the like. A violent fire would probably have left other traces not easily overlooked (e.g., charred roof beams and calcined stone).

Near the eastern corner of room 1, a triply recessed doorway about 80 cm wide in the northeastern wall (pl. 44a) led into a small, almost square room that we will tentatively call the "cella" (room 2, about $2.50 \times 2.40 \mathrm{~m}$ ). ${ }^{6}$ The original floor of this room, at elevation 6.86 m , was partly stone-paved.

Behind room 2 and situated at a higher level there was a narrow deep room that did not communicate with room 2 and remained only partially excavated (room 12).

The northern corner of room 1 and the adjoining rooms 4, 7, and others were not excavated down to this elevation, so the original layout here is unknown. There was at first a doorway from room 2 to room 3, with a doorsill at elevation $7.03-7.07 \mathrm{~m}$, made of mediumsized stones. It seems quite possible, therefore, that the floor found at elevation 7.15 in room 3 and in the eastern corner of room 4 was in fact the original floor. The walls around room 3 were not founded any deeper than 7.20 m . The excavators dug down to 6.89 m in room 3 without finding an earlier floor. The soil at this elevation is described as virgin. The fact that no later reflooring, corresponding to levels 2B-A, was observed in room 3 , is explainable by the fact that rooms 3-6 had been disturbed by unauthorized digging before Schmidt arrived. This illicit digging may also account for the disappearance of the wall between rooms 3 and 4 .

If the 7.15 floor in room 3 was the original floor, the mud and mudbrick step outside the southwestern doorway of room 3 may be of the same date. This step could be traced for a distance of about 30 cm northwest of the buttress framing the doorway from room 1 to room 2 . It was built on stones encountered at elevation 6.80 and presumably served to step down into room 1 (north), where the original floor was at elevation 6.60 . In room 1 , other stones at elevation 6.80 seem to have formed a first step leading up toward room 4. Additional stones, forming a second step, were found at elevation 7.14. All of these room 3-4 features may very well date to the first alterations, which form level 2B (to be described below). Their only tenuous link to the original structure (level 2C) is the doorsill between rooms 2 and 3.

It is unlikely, though not to be excluded, that the 7.30 m floor in room 7 (south) was in use at the same time as the 6.50 m floor in the adjoining room 1 (north). Therefore room 7 and rooms 4 (center and north), 5 , and 6 , all of which had their floors even higher up, are treated below, together with level 2A.

The main entrance of the sanctuary faced onto an open space in the nature of a public square 6 m across and extending along the front of the sanctuary as far as excavated (pl. 51, area 25).

Facing the sanctuary across the square there was another building constructed in similar technique (pl. 51, plot KG) with a doubly recessed entrance in which a large stone slab ( 1.90 x 0.80 m ) formed the doorsill. This sill was lying at a height of 4.79 m . The difference in
${ }^{5}$ Columns set on stones and coated with mud; see Young (1966b), especially p. 51.
${ }^{6}$ This room, too, has a counterpart in Hasanlu Burned Building II; see previous note.
height between the entrances of the two buildings is presumably due to the natural slope of the terrain and would not seem to preclude simultaneous use of the two structures.

The entrance to the southwestern building led into a passage with an extremely rough pavement, which nevertheless showed signs of having been smoothed by wear. Off this passage there was a small guardroom (KG 2) partitioned off by a poorly built wall. In room KG 3 a partition at right angles to the southwestern wall created a recess that had apparently been used for cooking. It contained a troughlike arrangement lined with mud plaster 2 cm thick and, like the similar arrangement against the southwestern wall of the main room (room 1) of the sanctuary, burned from the inside. In contrast to the sanctuary, the building in plot KG was almost devoid of objects. Apart from a grinding slab and a whetstone (both broken and discarded), only sherds were found.

Among the construction materials of the steps between sanctuary rooms 1 and 2 and of the raised floor in room 2 (see below), many pins, cylinder seals, necklaces, ${ }^{7}$ and other disused items from the temple inventory had been incorporated by way of foundation deposits. Inasmuch as they were sealed below level 2B floors, these objects definitely belong to level 2C (see tbs. 8-9 and pl. 52). Some hoards high up in the walls of room 2 are also assigned to this level.

## Level 2B: The First Alteration

At some time during the use of the sanctuary the floors of rooms 2 and 12 had been raised and the walls rebuilt on a slightly different plan (pl.53). As a result of this alteration, room 2 now had its floor at the approximate elevation of 7.52 m , and room 12 at 8.32 m . The doorway from room 2 to room 3 was blocked and the back wall of the "cella" was built out into room 12. The cella back wall now contained a niche, placed off center and with its floor raised 19 cm above that of the room. The southeastern wall was thickened and the width of the cella reduced by about 40 cm . To bridge the difference in level between room 2 and room 1, three steps of mud over a stone foundation were built out into room 1 (pl. 44a). The mud had turned gray, apparently as a result of burning. No other definite traces of burning are mentioned by the excavators except for the presence of cylinder seals of "black burned stone" in level 2B (Sor 673, pl. 243:155; Sor 822, pl. 240:126; Sor 1051, pl. 245:181; and Sor 1184, pl. 242:150) and also in level 2C inside the steps just mentioned (Sor 611, pl. 244:168). Since these seals are probably all made of bitumen, which resembles burned stone, they cannot be taken as evidence for burning in level 2B. The steps leading down from room 2 to room 1 were at elevations 7.32 and 7.01 m . The adjoining part of room 1 had its floor at 6.68 . If one accepts the argument (set forth below) that the floor found at a higher elevation in the north quadrant of room 1 must have subsequently eroded, then the alteration that involved room 2 must have preceded the other alterations.

The walls around the north quadrant of room 1 (pl. 53) did not extend deeper than 7.36 (west) to 7.27 m (east) and must belong to a later, level 2A floor, to be discussed below. As might be expected, a band of dirt between elevations 6.96 and 7.22 -presumably the floor makeup of the level 2A floor-and also the adjoining walls (especially the doorjambs), again contained great quantities of pins, cylinder seals, and so forth-either disused items of the sacred inventory or votive gifts deposited on the occasion of a renovation of the sanctuary (see tbs. 8-9, pls. 41a, b, 44b, 45a, 46a, b, and 52). One set of objects (Sor 324-26, pl. 178e, f) is described as sticking out of the northeastern wall of room 1, between the steps leading to rooms 2 and 3. Such accumulations must have been concealed by a floor. Since all these objects necessarily predate the level 2A renovation-even if only by a short lapse of time-they are counted as part of the level 2B inventory.

In the residential building in plot KG, a wall was built over the ovenlike arrangement in room 3 , described above. Its foundations were at 5.27 m . The former cooking recess appears to have been blocked by this wall.

[^18]
## Level 2A: Later Alterations

As stated above, a floor existed between elevations 7.36 and 7.27 m in the northern quadrant of room 1 . A remainder of it is visible in pl. $45 \mathrm{~b} ; \mathrm{p}^{8} \mathrm{it}$ was left standing until the end of the excavation, because Schmidt considered it to be a platform used concurrently with the lower floor in the other quadrants of room 1 . What is also clearly visible in pl. 45b, however, is that its irregular sides have been arbitrarily cut to a vertical face in excavating. In section, one can see a horizontal layering such as would occur if a floor were built up by use over a long time or by being raised intentionally. In view of the presence of the wall and floor hoards mentioned above, I would venture the hypothesis that the floor indeed had been intentionally raised all over room 1, covering the steps that led into rooms 4 and 3 , but only the bottom and perhaps also the middle of the three steps that led into room 2. It is hard to see how an earthen platform about 75 cm high filling only the northern quadrant of room 1 could have stood up for any length of time while the lower floor was in use in the other three quadrants.

In support of my hypothesis, the architect's plan of June 13, 1938, shows the platform to have covered almost all of the northern quadrant at first, including the part where paving stones were later found at elevations 6.50 (west) to 6.60 m (east). In addition, above locus JI $13(-14,16-17),{ }^{9}$ there was a fallen-stone layer at elevation 7.67 m that contained finds Sor 101-3. Underneath these fallen stones, there was soft dirt at 7.35 m , with finds Sor 113-14, 117-19 occurring between 7.30 and 7.46 m . Furthermore, the field records for June 9, 1938, mention the find of Sor 118 at elevation 7.30 in the east of room 1 and, after only three more entries, the find of Sor 122 (pl. 193d) at "floor level" in the eastern center of plot JI. Finally, a group of pins was found sticking out of the northeastern wall of room 1 at elevation 7.22, between the doorways to rooms 2 and 3 . Suspended above a void, these objects would not have remained intact for any length of time. They must have been incorporated into a floor. In fact the next object to be registered after these pins, a cylinder seal, Sor 327, pl. 243:159, is mentioned as coming from a "floor layer," i.e., floor construction layer. All these facts tend to confirm the presence of a final floor at about 7.30 m throughout room 1 . Since the surface before excavation was at elevations varying from 7.66 (west) to 7.21 (east) along the southern limit of plot JI, it is easy to see how the excavators might have overlooked the existence of a floor-no doubt badly eroded-at elevation 7.30. At this level, in contrast to previous levels, circulation must have been easy between room 1 and rooms 4 and 7 (south), which had floors at elevations of about 8.00 and 7.30 m . The stone doorsill from room 1 to room 7 (south) had a top surface at 7.46 m . There was probably also only a small rise from room 1 into room 3 , which-according to another hypothesis of mine-may, in the course of this alteration, have received a new floor at about 7.40 m .

In room 3, object groups Sor 1040-53, 1165-75, 1182-84, 1195-96, and 1280-82 are stated to have been found at elevations 7.35-7.15 and resting on a floor at elevation 7.15 m . Such a concentration of finds is not likely to have accumulated during occupation of the floor, ${ }^{10}$ but is often found in the makeup of a subsequent floor due to the general ancient oriental custom of incorporating disused sacred objects into the structure of a sanctuary when the latter is rebuilt. No floor was encountered at an elevation higher than 7.15, but scattered finds (Sor 801, 803, 805-7, 809-11, 895, and 1036-38) occurred between elevations 7.41 and 7.59 in "disturbed dirt, dug by illicit excavators." It remains likely, although impossible to prove, that the final floor of room 3 was at about 7.40 m . From this elevation the final floor of room 4, at 8.00 m , would also have been easier to reach. A floor patch at elevation 7.40 was actually marked by the architect where the doorway from room 3 to room 4 should have been. Except for a few stones, the wall between rooms 3 and 4 was not recovered. It had apparently been destroyed by unauthorized digging before excavation began.

[^19]The location of objects Sor $267,270,276,412-44,508-14,519$, and 528 -all found between elevations 7.70 and 8.00 m (II 24, pl. 52)--suggests that room 4 was divided in two by a wall that continued the line of the wall separating rooms 14 and 15 . This area, also, had been disturbed by unauthorized digging before excavation began.

The walls of room 5 are described as resting on virgin soil at elevation 8.14 m . There was a doorway, which was later blocked, from room 5 to area 15 . Room 6 was bounded to the southeast by a stone wall flush with the floor. The architect interpreted it as belonging to an earlier level, since the southwestern wall was built over it. The stones along the southwestern walls of rooms 6 and 4 were thought by the architect to belong to a bench. As they were not worn smooth, they may have been covered with mud. Sitting on this bench and leaning against the southwestern wall of room 6 there were two baked bricks (see above).

The sill in the opening between rooms 4 and 7 was at least 30 cm above the floor of room 7 (north). It may have served as a window rather than a door. In the northern part of room 7 the floor must have been at about 7.75 m (finds made at 7.69 are mentioned as found below the floor; the northeastern wall did not extend below 7.81). The unconnected wall with its top at 7.71 must therefore belong to an earlier level. Whether the floor in room 7 (south) at 7.30 was contemporary with the floor in room 7 (north) at 7.75 and, if so, how the difference in elevation was overcome, is hard to tell. In room 7 (south) there were two stone platforms against the northeastern wall. One had a grinding stone lying beside it.

Room 8 was not completely excavated. The part that was excavated was devoid of finds.

The wall that ran between rooms 13 and 14 had its foundations at $8.18-8.22 \mathrm{~m}$, corresponding to the level 2 A floor in room 5. In the southwestern wall of room 13 there was a niche with a clay basin in which fire had burned, baking the clay. A grinding stone was lying nearby. The few objects found in these rooms were lying at elevations between 8.25 and 8.50 m . Although dug to virgin soil, they yielded no earlier floors.

The designation "level 2A" has been given to the objects found on and up to 25 cm above the latest floors of level 2 . This elevation has been chosen quite arbitrarily as the minimum height to which the walls as they collapsed are likely to have accumulated over the floors, sealing the room contents underneath. Only in room 5 were level 2A objects actually sealed below a level 1 floor.

## Level 1B: The Latest Alteration

The architectural remains assigned to this level are limited to some later additions to the buildings of level 2A. They consist of walls built on a slightly different plan around room 5 and between rooms 15 and 16 of the sanctuary and standing up to 9.92 m . The foundations of these walls are at elevations that vary between 8.53 and 8.61 , and seem to have gone together with a floor in room 5 at an elevation of 8.50 . A "boulder floor" mentioned here seems to have been a scree of stones that had fallen from the walls onto an earthen floor (pl. 45c). The only objects assigned to level 1B are the following ones found among these stones:

| Sor 7 | Copper or bronze flower pin | pl. 170 m |
| :--- | :--- | :--- |
| Sor 14 | Green faience beaker with handle in | pls. $45 \mathrm{c}:$ no. 2, |
|  | the shape of a knceling human-headed bull | 150d, and 154 c |
| Sor 17 | Copper or bronze winged ibex pin | pls. $45 \mathrm{c}:$ no. 3 and 179 g |
| Sor 18 and 20 | Shell beads | pl. $45 \mathrm{c}:$ nos. $4-5$ |
| Sor 21 | Green faience beaker | pls. 151 b and 154 d |

A rectangular stone against the center of the southeastern wall of room 5, at ca. 8.65 m elevation, may have served as a step down into this room.

In the absence of other walls at this elevation one might speculate whether level 1 B room 5 could represent a tiny chapel, installed in a corner of the ruins after the destruction of the sanctuary. Besides this unprovable hypothesis other explanations could, of course, be offered. This might, for example, have been the upper part of a two-story wood and stone
construction. At other sites, walls have been known to shift sideways upon disintegration of the underlying timbers. ${ }^{11}$

Level 1: Unstratified Material
The designation "level 1 " is used for unstratified surface and subsurface material. I have considered as such all objects found from the surface down to within 25 cm of the latest level 2 floors in the various rooms. As explained above, the dividing line between level 2A and level 1 find spots is an artificial one, and would correspond to reality only if the walls of the disused building here had collapsed all at once and evenly, forming an undisturbed layer 25 cm thick over every floor.

Table 6. Surkh Dum-i-Luri Burials

|  | Burial x 9 | Burial $\times 21$ | Burial $\times 22$ |
| :---: | :---: | :---: | :---: |
| Location | 260 m west of excavation | 175 m west of excavation | 180 m west of excavation |
| Depth below surface | not recorded | not recorded | not recorded |
| Grave type | not recorded | 3.20 m long, stone-walled, flat slab roof | 2.00 m long, stone-walled, gabled slab roof |
| Position of skeleton | not recorded | not recorded | not recorded |
| Orientation of skull | not recorded | not recorded | not recorded |
| Sex | not recorded | not recorded | not recorded |
| Age | not recorded | not recorded | not recorded |
| Grave goods | Sor 1812: pottery vessel | Sor 1805-9, 1822-23: two co ${ }^{*}$ pins, pottery vessels | Sor 1810-11, 1824(?): co bracelet(?), pottery vessels |
| Illustration | none | plate 37b | plate 37a |

*Objects designated as copper (co) may include bronze.
${ }^{11}$ E.g., at Korucutepe (van Loon 1978:32).

Table 7. Surkh Dum-I-Luri, Evidence for Floor Levels ${ }^{1,2}$

| Room | Floor of <br> level $1 B^{3}$ | Floor of <br> level $2 A^{4}$ | Floor of <br> level $2 B^{5}$ | Floor of level $2 C^{6}$ | Top of earlier wall | Doorsill leading to | Door socket leading to | Scattered finds ${ }^{7}$ | Concentrated finds ${ }^{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 north | - | west to east $7.36^{\mathrm{b}}-7.27^{\mathrm{b}}$ | - | west to east $6.50^{a}-6.60^{a}$ | - | room 7: 7.46 | - | $\begin{aligned} & 7.30-7.42 \\ & 6.55-6.85 \end{aligned}$ | $\begin{aligned} & 6.96-7.15 \\ & 6.32-6.53 \end{aligned}$ |
| 1-2 step (in room I) | - | - | $7.01{ }^{\text {a }}$ | - | - | - | - | - | $6.45{ }^{\text {e }}$-6.98 |
| $1-2$ step 2 (in recess) | - | - | $7.32{ }^{\text {a }}$ | - | - | - | - | - | 6.72-7.20 |
| $1-2$ step 3 (flush with floor of room 2) | - | - | $7.52{ }^{\text {b }}$ | - . | - | - | - | - | 7.37-7.42 |
| 1 remaining parts | - | $7.27{ }^{\text {c }}$ | - | west to east $6.55^{\mathrm{a}}-6.68^{\mathrm{a}}$ | - | room 9: 6.82 | room 9:6.68 | 6.55-6.85 | $\begin{aligned} & 7.22^{\mathrm{c}} \\ & 6.32-6.53 \end{aligned}$ |
| 1-3 doorway | - | $7.27{ }^{\text {b }}$ | - | $6.80{ }^{\text {a }}$ | - | - | - | 7.30-7.50 | 6.85-7.20 |
| 2 | - | - | $7.52^{\text {b }}$ | 6.86 | - | room 3: 7.03 | - | $\begin{aligned} & 7.62-7.65 ; \\ & 6.85 \end{aligned}$ | 7.20-7.42 |
| 3 | - | $7.40(7)^{\text {d }}$ | - | $7.15{ }^{\text {a }}$ | - | room 2: 7.07 | - | 7.41-7.59 | $\begin{aligned} & \text { 7.15-7.35; } \\ & 6.90-7.10 \end{aligned}$ |
| 3-4 doonway | - |  | - | - | - | - | - | - | - |
| 4 north | - | $8.01{ }^{\text {b }}$ | - | - | 7.98 | - | - | 8.05-8.13 | 7.84-7.89 |
| 4 center | - | - | - | - | 8.00 | - | - | 8.03 | 7.64-8.00 |
| 5 | $8.50{ }^{\text {a }}$ | $8.19^{\text {a }}$ | - | - | - | - | - | $\begin{aligned} & 8.50-8.65: \\ & 8.25 \end{aligned}$ | - |
| 6 | - | $8.16 b$ | - | - | 8.26 | - | - | - | 8.01-8.25 |
| 7 north | - | west to east above <br> $7.69^{\mathrm{a}}-7.81^{\mathrm{b}}$ | - | - | 7.71 | room 4: 8.19 <br> (window?) | - | 7.79-8.05 | 7.49-7.69 |
| 7 south | - | $7.30{ }^{\text {a }}$ | - | - | 7.36 | room 1: 7.46 | - | 7.40-7.64 | 6.95-7.25 |
| 8 | - | - | - | west to east $6.28^{b}-6.70^{b}$ | 6.68 | - | - | - | - |
| 9 | - | - | - | west to east $5.98^{a}-6.73^{a}$ | - | room 1: 6.82 <br> area 25 : <br> 5.85-5.95 | - | - | - |

Table 7. Surkh Dum-i-Luri, Evidence for Floor Levels (cont.)

| Room | Floor of level $1 B^{3}$ | Floor of level $2 A^{4}$ | Floor of level $2 B^{5}$ | Floor of level $2 C^{6}$ | Top of earlier wall | Doorsill leading to | Door socket leading to | Scattered finds ${ }^{7}$ | Concentrated finds ${ }^{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | - | - | - | north to south <br> $5.98^{b-4.75}{ }^{b}$ | - | area 25: 6.20 | - | 5.35-5.65 | - |
| 11 norh | - | - | - | $6.33{ }^{\text {a }}$ | - | - | - | 6.32-6.80 | - |
| 11 south | - | - | - | $5.67{ }^{\text {b }}$ | - | - | - | 6.07 | - |
| 12 | - | - | $8.32{ }^{\text {b }}$ | 7.55 ${ }^{\text {b }}$ | - | - | - | 7.70 | 8.10-8.25 |
| 13 | - | $7.644^{\text {b }} 8.22^{\text {b }}$ | - | - | - | - | - | 8.15-8.64 | - |
| 14 | - | $8.18{ }^{\text {b }}$-9.01 ${ }^{\text {b }}$ | - | - | - | - | - | 8.50 | - |
| 15 | - | $8.61{ }^{\text {b }}$ | - | - | - | - | - | 8.25-8.50 | - |
| 16 | - | $8.48{ }^{\text {b }} 8.96{ }^{\text {b }}$ | - | - | - | - | - | 5.56-5.80 | - |
| 18 | - | - | - | $4.73{ }^{\text {b }}$ | - | - | - |  | - |
| 19 | - | - | - | $4.52{ }^{\text {b }}$ | - | - | - | - | - |
| 20 | - | - | - | $5.42{ }^{\text {b }}$ | - | - | - | - | - |
| 21 | - | - | - | $5.25{ }^{\text {b }}$ | - | - | - | - | - |
| 22 | - | - | - | $6.30{ }^{\text {b }}$ | - | - | - | - | - |
| 23 | - | - | - | $7.07{ }^{\text {b }}$ | - | - | - | - | - |
| 25 | - | - | - | west to east <br> $4.79^{\mathrm{a}}$-5.38 ${ }^{\mathrm{a}}$ | - | - | $\begin{aligned} & \text { plot JG: } \\ & \text { 4.95-5.01 } \end{aligned}$ | 4.72 | - |
| plot KG 1 | - | - | - | west to east <br> $4.67^{\mathrm{a}}-4.79^{\mathrm{a}}$ | - | area 25: 4.79 | - | - | - |
| plot KG 2 | - | - | - | $4.65{ }^{\text {a }}$ | - | plot KG 1: 4.67 | - | - | - |
| plot KG 3 | - | - | - | north to south $4.71^{\mathrm{b}}-5.05^{\mathrm{b}}$ | - | plot KG 4:4.92 | (not taken) | - | - |
| plot KG 4 | - | - | - | $4.47{ }^{\text {b }}$ | - |  | - | - | - |
| plot KG 5 | - | - | - | $4.40{ }^{\text {b }}$ | - | - | - | - | - |

${ }^{1}$ Datum equals 1540 m above sea level. ${ }^{2}$ Figures in bold are levels at which floors are assumed to have been situated. ${ }^{3}$ Latest alteration. ${ }^{4}$ Later alteration. ${ }^{5}$ First alteration. ${ }^{6}$ Original structure. ${ }^{7}$ Presumably on and above floor. ${ }^{8}$ Presumably below floor. ${ }^{\text {a }}$ Deduced from actual mention of a floor at this elevation in the excavation notes. ${ }^{\text {b }}$ Deduced from the fact that the walls that go with this floor are absent below this elevation. ${ }^{\text {c }}$ One of these groups (Sor 324-26) is described as sticking out of the northeastern wall of room 1 . Such groups
 specifically described as found in the floor layer.

Table 8. Surkh Dum-i-Luri Floor Hoards

| Sor no. | Room | Locus ${ }^{1}$ | Elevation (m) | Assigned to level |
| :---: | :---: | :---: | :---: | :---: |
| 649-51, 656-69, 673 | 1 east, south | JI 55-63 | 6.32-6.53 | 3A |
| 652-54, 741 | 1 column base | JI 69 | 6.70 | 3A |
| 1142-46 | 1 north | JI 164-65 | 6.45-6.50 | 3A. |
| 1003-4, 1006 ${ }^{\text {a }}$ | 1-3 doorway | JI 112/16-17, 112/20 | 6.75 | 3A(?) |
| $\begin{aligned} & 1185-87,1189-94, \\ & 1197-1207,1340, \\ & 1521 \end{aligned}$ | 3 | $\begin{aligned} & \text { JI 146, 150, } \\ & 155-57,159-63 \end{aligned}$ | 6.90-7.00 | 3A |
| $\begin{aligned} & 323,335,337-39 \\ & 364-65,602-48 \\ & 714-35 \end{aligned}$ | 1-2 steps | Jİ 30, 41-43, 52 | $\begin{aligned} & \text { step 1: } 6.45-6.98 \\ & \text { step 2: } 6.72-7.20 \\ & \text { step 3: } 7.37-7.42 \end{aligned}$ | $\begin{aligned} & 3 A(?)-2 C^{b} \\ & 2 C \\ & 2 C \end{aligned}$ |
| 1131-35, 1137-41 ${ }^{\text {c }}$ | 1 north | $\begin{aligned} & \text { JI 142-45, 148-49, } \\ & 151-52 \end{aligned}$ | 6.60-7.14 | 2B |
| $\begin{aligned} & 863-69,875,967 \\ & 988-1002,1007-18 \end{aligned}$ | 1.3 doorway | $\begin{aligned} & \text { JI } 96,97,99,105 \text {, } \\ & 112 \end{aligned}$ | 6.85-7.20 | 2B |
| $1280-82^{\text {d }}$ | 3 | JI 173 | 7.25 | 2B |
| $\begin{aligned} & 412-44,458,508-14 \\ & 528^{\mathrm{e}} \end{aligned}$ | 4 | II 24, JI 44 | 7.70-8.00 | 2B |
| $\begin{aligned} & 1246-51,1254, \\ & 1293-94,1346 \end{aligned}$ | 7 south | JH 6A, 10, 14 | 6.95-7.25 | 2B |

${ }^{1}$ On plate 52 each set of loci is indicated by only the lowest number in that set.
${ }^{\text {a }}$ Sor 1003-4 and 1006 were lying with a sheep bone around a stone encountered at 6.80 inside room 1 in front of the doorway that led into room 3. In discussing level 2 C room 1 , we have assumed such stones to have been incorporated into a step. If this is so, then Sor 1002-3 and 1006 must have been inside the step and thus antedate the level 2 C construction.
${ }^{\text {b }}$ Only Sor 641 is mentioned as found at 6.45 "below the lowest step," and therefore may belong to level 3A. All other objects from step 1 (Sor 602-640) are mentioned as found between 6.50 and 6.98 ; they clearly form one group belonging to level 2 C .
${ }^{\text {cT}}$ These loci are not drawn on plate 52 as they parly overlap loci JI 164-65.
${ }^{\text {d Elsewhere in this room at elevations 7.15-7.35: Sor 1040-53, 1165-73, 1182-84, and 1195-96. }}$
${ }^{\text {e}}$ The location of these objects and of Sor 267,270 , and 276 suggests that a (mudbrick?) wall may have run across room 4.

THE HOLMES EXPEDITIONS TO LURISTAN
Table 9. Surkh Dum-i-Luri Wall Hoards

| Sor no. Do | Doorjamb between rooms | Wall between rooms | Locus ${ }^{1}$ | Elevation in $m$ | Assigned to level |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1650-57 | 1, 2 | - | JI 179-80 | 6.70 | 3A |
| $\begin{aligned} & 1176-81,1208, \\ & 1338-39,1353-67 \end{aligned}$ | - | 1, 3 | JI 138, 167, 174 | 7.10 | 3A |
| 1611-18 | 1, 3 | - | JI 175/87 | 7.00-7.10 | 3A |
| 1661-63 | 1,9 | - | JH 4 | 6.75 | 3A |
| 332, 472, 1667 | 1,11 | - | JH 6, JI 40 | 6.50-7.13 | 3A |
| $\begin{aligned} & 1303,1307-16, \\ & 1664-66,1691 \end{aligned}$ | - | 9, 11 | JH 5, 12 | 6.50-7.00 | 3A |
| 1457-62 | 2, 3 | - | - | _-(a) | 3A |
| $1649^{\text {b }}$ | 1,2 | - | JI 177 | 7.50 | 2 C |
| 1492-99 | - | 2, 12 | $\begin{aligned} & \text { JJ 13-14, } \\ & \text { IJ 6-8 } \end{aligned}$ | 7.70-8.25 | 2 C |
| $\begin{aligned} & 1341-43,1465-89, \\ & 1491 \end{aligned}$ | - | 2,23 | JJ 8-12 | 6.85-7.75 | 2 C |
| 324-36 | 1,2,3 | - | JI 32 | 7.22 | 2B |
| $\begin{aligned} & \text { 1368-1435 } \\ & 1585-1610,1619-48 \end{aligned}$ | 8 1,3 | - | $\begin{aligned} & \text { JI 175/1-86, } \\ & 88-97 \end{aligned}$ | 7.20-8.60 | 2 B |
| 693-95 | 1, 4 | - | JI 54 | 7.83 | 2B |
| 1529-84 | 1, 7, 9 | - | JI 178 | 7.54-7.64 | 2B |
| 1327-28, 1436-56 | - | 3,13 | II 29 | 8.10 | 2B |
| 286-94 | 4, 5 | - | II 21-23 | 8.06 | 2 B |

${ }^{1}$ On plate 52 each set of loci is indicated by only the lowest number in that set.
${ }^{\text {a Not recorded. Since doorjamb was superseded by wall in 2B alteration, objects must antedate 2C }}$ construction.
${ }^{\mathrm{b}}$ Also Sor 228 in northwestern doorjamb at ca. 7.90.

## CHAPTER 12

## DUM'AVIZE

## by Maurits $N$. van Loon

## THE EXCAVATION

Returning to the Harsin-Khurramabad road, Schmidt passed the tall mound of Mauyilbak near Dum'avize, on which in 1936 Sir Aurel Stein had excavated two trenches at an obtuse angle to each other (Stein 1940:291-98). In Stein's trenches Schmidt found both plain well-baked red ware of the Iron Age and painted ware of Giyan IV-III type. The mound measures ca. $115 \times 100 \mathrm{~m}$ and rises about 12 m above the bank of a small stream (pl. 58a). Schmidt dug at Dum'avize from July 1 to 3, 1938.

In order to investigate the lower reaches of the mound not touched by Stein, Schmidt laid out two $5 \times 5 \mathrm{~m}$ plots, marked A and B, at the southern foot of the mound (pls. 57a and 58 b ). To judge from the pottery found (Do 10, pl. 82a and Do 11, cf. pl. 79a), the scant architectural remains as well as the burials (see tab. 10) belong to the Susa Dc-e period.

Table 10. Dum'avize Burials

|  | Burial l | Burial 2 |
| :---: | :---: | :---: |
| Plot | B | B |
| Depth below surface | 2.05 m | 2.35 m |
| Grave type | earth | stone-sided; irregular slab roof |
| Position of skeleton | on right side, flexed | on right side, flexed |
| Orientation of skull | to west | to northeast |
| Sex | female | (?) |
| Age | elderly(?) | child |
| Grave goods | Do 1-7A: two silver ear pendants, copper, ${ }^{1}$ and pottery vessels | Do 8: pottery wheel, animal bones beside vessel and beside roof slabs |
| Illustration | pl. 56b, foreground | pl. 56b, background |
| Remarks | patches of white film suggest remains of clothing | - |

1"Copper" may include bronze.

## CHAPTER 13

## KHATUN BAN

by Maurits N. van Loon

## THE EXCAVATION

In the afternoon of July 3, 1938, the expedition moved from Dum'avize along the Badavar River to Khatun Ban, a cemetery about 2 km north of the river (pl. 61). Quite a number of graves had recently been opened here by the Lurs. The sherds in the dumps left by these unauthorized excavators were of plain well-baked red ware, as at Dum'avize.

Schmidt dug at Khatun Ban from July 4 to 6, 1938, and was at last rewarded by finding a tomb of the Luristan Bronze culture that had remained so elusive until the end. These tombs were not only roofed, but also lined with large, relatively thin slabs. A gap was usually left at the foot end, through which it was perhaps intended to inter relatives of the dead at a later date. The roof often consisted of two oval slabs roughly fitted into a circle with the help of smaller stones. By stripping off the topsoil over an area of about $20 \times 20 \mathrm{~m}$ Schmidt easily found the covers of seven more tombs (pls. 59a and 62). The skeletons were for the most part very badly preserved, owing no doubt to the long rainy winters of this mountainous region and the slow drainage through the stone lining of the tomb. Particulars on the burials are to be found in table 11 and the loci of tomb objects are given in table 12. The occurrence, side by side, of iron and copper or bronze weapons and ornaments would seem to indicate an Iron Age II date for this cemetery.

Table 11. Khatun Ban Burials

|  | Burial $\times 1$ | Burial $\times 2$ | Burial $\times 3$ | Burial $x 4$ |
| :---: | :---: | :---: | :---: | :---: |
| Depth bel. surface (m) | 0.95 | 1.05 | 1.15 | 0.85 |
| Grave type | slab cist, $1.75 \times 1.25 \times 0.95$, irregular slab roof | slab cist, $1.25 \times 1.00 \times 1.05$ <br> flat slab roof | slab cist, $1.10 \times 1.20 \times 1.15$ <br> flat slab roof | slab cist, $1.45 \times 1.00 \times 0.85$ <br> flat slab roof |
| Position of skeleton | disarticulated | on back, legs flexed to right | no bones preserv. | upper part not preserv., legs flexed to right |
| Orient. of skull | to SE | to SE | to ENE | to ESE |
| Sex | female | (?) | (?) | (?) |
| Age | adult | elderly(?) | (?) | adult |
| Grave goods | Kha 1-26, 72: two co ${ }^{1}$ bracelets; ir rings, pins, and disc; ca, cha, et cetera, beads; co and pottery vessels; fl blades | Kha 27-36: ir dagger (at left arm, pointing down) and two bracelets, st cylinder seal, pottery vessel, fl blade | Kha 237-49, 73: two co bracelets, ir rings and pins, beads, pottery vessels | Kha 50-54: co tube and mount, ir bracelet, pottery vessels |
| Illustration | plates 60a and 63a | plate 63b | plate 64a | plate 64b |
| Remarks | - | no upright slab at foot end | no upright slab at foot end | no upright slab at foot end |

${ }^{1}$ Objects designated as copper (co) may include bronze.

Table 11. Khatun Ban Burials (cont.)

|  | Burial $\times 5$ | Burial $x 6$ | Burial $\times 7$ | Burial $x 8$ |
| :---: | :---: | :---: | :---: | :---: |
| Depth bel. surface (m) | 0.75 | 0.60 | 0.65 | 0.70 |
| Grave type | slab cist, $1.05 \times 1.05 \times 0.75$, irregular slab roof | slab cist, $1.20 \times 0.80 \times 0.60$, inclined slab roof | slab cist, $1.15 \times 1.00 \times 0.65$, flat slab roof | slab cist, $1.25 \times 1.00 \times 0.70$, irregular slab roof |
| Position of skeleton | on back, legs flexed to right | no bones preserved | no bones preserved | on right side, flexed |
| Orient. of skull | to ESE | to ENE | to SE | to SE |
| Sex | male(?) | (?) | (?) | male(?) |
| Age | juvenile(?) | (?) | (?) | adult |
| Grave goods | Kha 55-56: co dagger under right arm, pointing down; pottery vessel | Kha 57-59: co pin, two ir anklets(?), pottery vessel | Kha 60-66: three co bosses, ir dagger and bracelet, co and pottery vessels | Kha 67-71: ir dagger (under left arm, pointing back) and two bracelets (on right arm), pottery vessels, fl blades |
| Illustration | plate 59c and 65a | plate 65b | plates 60b and 66a | plates 59b and 66b |
| Remarks | no upright slab at foot end | no upright slab at head or foot end | - | no upright slab at foot end |

Table 12. Concordance of Khatun Ban Loci and Field Numbers of Objects ${ }^{1}$

| Burial | Locus | Field no. | Burial | Locus | Field no. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| x 1 | 1 | Kha 1 | x3 | 1 | Kha 37 |
|  | 2 | Kha 2 |  | 2 | Kha 38 |
|  | 3 | Kha 3 |  | 3 | Kha 39 |
|  | 4 | Kha 4 |  | 4 | Kha 73 |
|  | 5 | Kha 5 |  | 5 | Kha 40 |
|  | 6 | Kha 6 |  | 5 a | Kha 41 |
|  | 7 | Kha 7 |  | 6 | Kha 42 |
|  | 8 | Kha 8 |  | 7 a | Kha 43 |
|  | 9 | Kha 9 |  | 7 b | Kha 44 |
|  | 10 | Kha 10 |  | 7 c | Kha 45 |
|  | 11 | Kha 11 |  | 8 a | Kha 46 |
|  | 12 | Kha 12 |  | 8 b | Kha 47 |
|  | 13 | Kha 13 |  | 9 | Kha 48 |
|  | 14 | Kha 14 |  | 10 | Kha 49 |
|  | 15 | Kha 15 | x4 | 1 | Kha 51 |
|  | 16 | Kha 16 |  | 2 | Kha 50 |
|  | 17 | Kha 17 |  | 3 | Kha 52 |
|  | 18 | Kha 18 |  | 4 a | Kha 53 |
|  | 19 | Kha 19 |  | 4b | Kha 54 |
|  | 20 | Kha 20 | x5 | 1 | Kha 55 |
|  | 21 | Kha 21 |  | 2 | Kha 56 |
|  | 22 | Kha 22 | x6 | 1 | Kha 57 |
|  | 23 | Kha 23 |  | 2 | Kha 58 |
|  | 24 | Kha 24 |  | 3 | Kha 59 |
|  | 25 | - (a) | x 7 | 1 | Kha 60 |
|  | 26 | Kha 25 |  | 2 | Kha 61 |
|  | -(b) | Kha 72 |  | 3 | Kha 62 |
| x 2 | 1 | Kha 27 |  | 4 | Kha 63 |
|  | 2 | Kha 28 |  | 5 | Kha 64 |
|  | 3 | Kha 29 |  | 6 | Kha 65 |
|  | 4 | Kha 30, 31 |  | 7 | Kha 66 |
|  | 5 | Kha 32 | x8 | 1 | Kha 67 |
|  | 6 | Kha 33 |  | 2 | Kha 68 |
|  | 7 | Kha 34 |  | 3 | Kha 69 |
|  | 8 | Kha 35 |  | 4 | Kha 70 |
|  | 9 | Kha 36 |  | 5 (below 1) | Kha 71 |

${ }^{1}$ See plans, plates 59-66, and Index of Catalog Field Numbers for references in the text catalogs.
${ }^{\text {a }}$ Not reconstructible
${ }^{\text {b Below skull }}$

## CHAPTER 14

## THE FINDS

by Maurits N. van Loon

The finds from all the sites sounded or excavated during the two seasons in Luristan are presented below in roughly chronological order, grouped within each period by the material from which they were made.

## RECORDING OF LOCI AND FIND CIRCUMSTANCES IN OCCUPATION LAYERS

The following remarks apply to all the sites treated in this book, but more particularly they pertain to Surkh Dum-i-Luri, which yielded 1804 of the 2685 objects found in occupation layers (as opposed to graves) during the two campaigns.

The plot supervisors were provided with looseleaf binders containing, on one side, a grid of $18 \times 18 \mathrm{~cm}$ on which the supervisor was to draw a sketch plan of the $10 \times 10 \mathrm{~m}$ plot with numbered loci1 and, on the other, lines on which he was to write locus number, a one-line description of the object, and its elevation. Finally, in the right-hand column, the registrar was to stamp the registration number of the object. A large part of the recording, especially during the last two days of excavation at Surkh Dum-i-Luri, was done by Schmidt himself.

Within each plot the rooms or areas were numbered, beginning with 1 . We have given the rooms consecutive numbers within each site, as indicated on pls. 16 b and 51 . If we give the find spot as " $1 / 11$," this means the object was found in the wall between rooms 1 and 11. If we give it as " $1-11$," this means the object was found in the doorway or stairway between rooms 1 and 11 . If it is given as " 1,11 ," this means it was found in either one of these rooms.

Although Schmidt would occasionally mention "level 2 ," "level 3," et cetera, he did not assign the material to archaeological levels in any consistent way. Sometimes the supervisor's record helps us by mentioning, between the object's description and its elevation, something about its find circumstances like "below base outer wall," "on floor," "in bench," and so forth. In many cases, especially outside of Surkh Dum-i-Luri, the elevation is the only datum we have to go by in deciding the context of the find.

In addition, large numbers of objects appeared during excavation without their exact find spot or circumstances being recorded. These were brought in at the end of the day and registered by plot, usually with the mention "fill." 2 Occasionally more precise information is given by Schmidt, such as "in wall," "below wall," or "wall removal." These last three are combined by us into one category, named "wall hoards" in table 9. For the reader's convenience, we have assigned the finds from Surkh Dum-i-Luri to the archaeological levels mentioned in chapter 11, but this endeavor was frought with difficulties, as explained below.

[^20]
## Assignment of Finds from Loci to Archaeological Levels

The six objects associated with the only level 1 floor at Surkh Dum-i-Luri are labeled "level 1B." All objects associated with the level 2A floors are labeled level 2A, and so forth. Such association is assumed if the objects were found no higher than 25 cm above these floors. We have attached significance only to association with underlying floors. No distinction has been made between floor hoards and other objects found below a floor and thus antedating that floor, with the exception of level 3, which we have divided into 3A and 3B for reasons stated in chapter 11. The field notes are not always unequivocal as to whether an object was found on or below a floor. To judge by the elevations mentioned, the word "floor" in the records seems to mean that an object was found on the floor, while "floor fill" or "floor layer" seems to mean that it was found in the layer of fill of which the floor was made up, and thus antedated the laying of the floor referred to.

In many instances no floor is mentioned at all even though its presence can be surmised from circumstantial evidence, as indicated in table 7. In those instances our assignment of objects to particular levels remains an ex post facto reconstruction and, as such, subject to much uncertainty.

The finds listed in table 13 are assumed to have lain just beneath a floor, on account of the elevation at which they are stated to have been found. As no other sub-floor finds were made on the day they were excavated, it seems conceivable that the objects were found in the depressions of an uneven floor or that the excavators measured the depth incorrectly. There may have been more inaccuracies or confusing factors that now escape us.

Table 13. Surkh Dum-i-Luri Objects Possibly Belonging to Level 2A

| Sor <br> no. | Room <br> no. | Elevation <br> in $m$ | Level <br> assigned | Floor <br> elevation | Level if <br> on floor |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 155,157, <br> $159-60,162$ | 6 | 8.25 | 2 B | 8.26 | 2 A |
| 198,200 | 1 | 7.25 | 2 B | 7.27 | 2 A |
| 849 | 11 N | 6.32 | 3 A | 6.33 | 2 A |
| 923 | 1 W | 7.25 | 2 B | 7.27 | 2 A |
| 1241 | 25 W | 4.72 | 3 A | 4.79 | 2 A |

All the objects of which the exact find spot and elevation are known appear in the catalog with a single level number without a question mark. We have assigned this level number on the basis of the stratigraphy as we understand it (see ch. 11 and tbs. 7-9).

All other objects are, in fact, unstratified, but on the basis of the sequence of discovery we have indicated their probable provenience by a level number with a question mark or we have mentioned a range of two or more levels to which they may belong, as set out below.

## Assignment of Finds from Fill, Et Cetera to Archaeological Levels

A particular problem is posed by the numerous finds of which the exact find spot was not recorded, but for which the provenience is given in terms like "room 1 fill." From the find spots recorded on the successive days of excavation we have first reconstructed the archaeological areas and levels worked on each of these days. We have then applied the following principles.

1. If only one level was worked before or on a given day, or part of the day, we have assigned fill finds to that level, followed by a question mark.
2. If several levels were worked before or on a given day or part of the day, we have assigned fill finds to those levels together, without a question mark.
3. In many instances, the records first mention objects from the "surface layer," "surface fill," or "top fill." We have assigned these to level 1. The records then go on to list objects merely marked "fill." We have assigned the latter according to principles $1-2$, with the omission of level 1 . The list for the day then usually ends with beads and other bulk finds marked "general fill," that is top fill and other fill together. These in turn have been assigned to level 1 and other levels together according to principle 2. Finds marked "sieve" or "dump" have been treated in the same way as "general fill."
4. Finally, we have treated objects marked, for instance, "locus 24 fill," as if they came from that locus. Objects marked "fill near locus 24," on the other hand, have been treated like ordinary fill finds.

Because of the cautious policy outlined above, many objects which we have assigned to levels 1 and 2A will in reality have been lying in deeper levels. In view of the many uncertainties we have preferred to err on the side of caution.

## Unstratified Material

After the finds from the excavation (Sor 3-1691) had been registered, a few surface finds received the numbers Sor 1692-98 and two objects were marked as coming from the "dug area" and found in "ref. Lur digs," that is, presumably, in the fill of the unauthorized excavations. Numbers Sor 1699-1804 have no provenience within the site and are simply marked "Lur ref.," probably with the same meaning as "ref. Lur digs." In the text catalogs and Index of Catalog Field Numbers, we have given the area as "(?)" and the level as "3A-1."

## RECORDING OF FINDS FROM BURIALS

Burials were recorded by the supervisors on separate burial sheets, with the usual information about position, orientation, sex and age of the skeleton, and a list of the mortuary gifts, the location of which was noted on a sketch of the burial. Happily, very few problems were encountered in interpreting the field notes on the burials and their contents ( 607 objects from both seasons).

Burial numbers are preceded by an x . In each plot the burials were numbered in the order in which they were found, beginning with xl .

## DIVISION OF FINDS INTO PERIODS

Initially, the finds were roughly dated by comparison to previously dug sites such as Giyan and Susa. Although better sequences are now available from Chogha Mish, Ja farabad, and Susa Acropole, we still use Le Breton's 1957 designations like Susa A rather than Chogha Mish Late Susiana, Ja'farabad 3d-1 or Acropole 27-23. If we write Susa B-C, this does not mean that we still believe in the validity of Ba or in the existence of a break before, rather than after Ca (for a critique of Le Breton 1957 in the light of new excavation, see Le Brun 1971 and Amiet 1971). For Susa Cb-c, Da-b, Dc-d, and De one should now read Acropole IIIA and Ville Royale I IIIB, IVA, and IVB, respectively (Le Brun 1971:211; Carter 1980:35).

Although no consensus exists on the dividing line between Iron Age II and Iron Age III, for instance, Iranian archaeology has progressed to a point where material can, with reasonable certainty, be assigned to the appropriate millennium or even half millennium. We thought that the public would not be served by a mere division of the finds into object classes,
with each class covering a time range from about 5000 to 500 B.C. Instead, we judged it more helpful to divide the finds into a few major chronological blocks, which (following Vanden Berghe 1973a:49, 58; 1973b:16-29; 1973c:25-36, E. Henrickson 1985:97) we designate as:

```
Chalcolithic (5000-2900 B.C.)
    Early and Middle Chalcolithic (5000-3250 B.C.)
    Late Chalcolithic (3250-2900 в.с.)
Bronze Age (2900-1200 B.C.)
    Early Bronze Age (2900-2000 в.c.)
    Middle Bronze Age (2000-1600 B.C.)
    Late Bronze Age ( \(1600-1200\) B.C.)
Iron Age (1200-550 в.c.)
    Iron Age I ( \(1200-1000\) в.c.)
    Iron Age II (1000-750 в.c.)
    Iron Age III ( \(750-550\) в.C.)
```

It will be noted that we have included the Susa B-C or Uruk and Jemdet Nasr periods in our Late Chalcolithic, although others might begin the Early Bronze Age at 3000 b.C.

## IDENTIFICATION OF THE MATERIALS OF THE FINDS

The materials of which the finds were made were identified visually in the field by Schmidt, who was not accompanied by a geologist or by a zoologist. He often added a question mark, but since all material designations rest only on prima facie evidence, we have omitted the question marks.

The terms "copper," "bronze," and "copper or bronze" are used interchangeably in the absence of analyses for the objects.
"Faience" is the name we give to the material that is often referred to as frit in the literature (Stone and Thomas 1956:38).

The word "steatite," rightly meaning "soapstone" but often misued for soft, chloriterich green stones, is replaced everywhere by "chlorite" (cf. Kohl 1975-76:30).

## CLASSIFICATION OF THE OBJECTS

Having divided the objects by material, we grouped them within each division into classes based on shape, but often named for a supposed function. In many cases, however, we can only guess at the objects' function. For instance, most open vessels probably served as bowls to eat or drink from, most closed vessels as jars to keep foodstuffs in, and most intermediate shapes as pots to cook in. But there is certainly no one hundred percent correlation between vessel shape and function.

Taking shape as our criterion, we have divided all pottery, metal, stone, and faience vessels into three major classes designated as bowls, pots, and jars. Vessels of which the height is between three-quarters and one and one-half times the diameter have been assigned to the class "pots" after "bowls" and before "jars." "Pots" thus include shapes that others might call "deep bowls." If they are 12 cm or less in diameter we have called them "goblets" or, if in addition there is a handle, "cups." Jars with one handle are called "jugs" or, if in addition there is a pouring lip, "pitchers."

Vessels with rim diameters of 6 cm or less are called "miniature vessels" and divided into "miniature bowls," "miniature goblets," and "miniature jars" according to the criteria just mentioned.

## ARRANGEMENT OF THE CATALOG SECTIONS

In discussing an object category we refer to a section of the catalog which occurs at the end of each chapter. In the catalog we give the illustration number and the site and object number, by which it was registered in the field.

## Illustration and Identification

## Drawing and Photography

We have used the excellent drawings and photographs that Schmidt had made in the field. ${ }^{3}$ After checking them against the object he often had them corrected. If several almost identical pieces have been found, only one is illustrated. For the others, the reader will find, after the abbreviation "cf." in the illustration column, the number of the plate reference to an illustrated object with which it can be compared.

## Cylinder Seals

Of the many cylinder seals, a photograph of the impression only is usually presented. In most plates, the items shown are lettered $a, b, c$, et cetera, and a key at the bottom of the legend identifies these items by citing their site and object number. In most of the chapters discussing the finds, these are cited by site and object number, accompanied by the illustration number, wherever relevant. To shorten the many cross-references in chapters 19, 24, and 32, however, all stamp seals are numbered i -xliv and all cylinder seals $1-224$ consecutively throughout the book.

## Abbreviations of Site Names

The site and object number includes an abbreviation of the site name as follows:

| Cha | Chaman | (ch. 10) | Mer | Merayun | (ch.10) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ChAs | Cham Asiyan | (ch.10) | MV | Mir Vali | (ch.7) |
| ChJal | Chujale | (ch. 10) | Qal | Qale Alan | (ch.10) |
| CS | Chigha Sabz | (ch. 6) | Qum Qumish | (ch.10) |  |
| Do | Dum' avize | (ch. 12) | Sha Shaffe | (ch. 10) |  |
| GZ | Gar Zore | (ch. 3) | S Gor Siyah Gur | (ch.10) |  |
| KI | Kamtarlan I | (ch. 4) | Sor | Surkh Dum-i-Luri | (ch. 11) |
| KII | Kamtarlan II | (ch.5) | Zar Zarde Savar | (ch. 10) |  |
| Kha Khatun Ban | (ch. 13) |  |  |  |  |

Area and Plot Identifications
In the area/plot columns we mention, for objects from Surkh Dum-i-Luri, the room number corresponding to pl. 51. For objects from elsewhere only the plot in which it was excavated is usually known.

## Level Correlations

In the level column the archaeological level is given for objects from Surkh Dum-i-Luri, according to the principles explained above. For objects from elsewhere only the elevation below the summit of the mound is generally given in the field notes.

[^21]For objects from Surkh Dum-i-Luri the original provenience code, mentioning plot, locus, and elevation, is given in an index at the end of this volume.

## Dimensions

Dimensions are given in centimeters and rounded to the nearest millimeter, so that only one figure appears behind the decimal mark. Half millimeters are disregarded. A plus sign behind a measurement means that this measurement was larger before the object was broken.

If the second and third measurements differ, we are giving length, width, and thickness. If they are the same, the figures represent height and diameter; the latter is then given twice. For all pottery, diameters are measured at the rim unless stated otherwise.

## Descriptions

The description usually gives first the shape of the object itself and then the design visible on it, unless the common shape of a whole class (e.g., cylinder seals) is mentioned at the head of the catalog section. Asymmetric designs are described from left to right.

In describing seal designs I have generally followed the terminology used by Edith Porada (1948:xxiv-xxv), with the adjustments introduced by Briggs Buchanan (1966:xxi). To their system I have added the following additions:

| Centered circle <br> Cross <br> Dentate border | Circle with dot at center <br> Equilateral cross <br> Horizontal line with vertical notches, above or below the <br> design |
| :--- | :--- |
| Double-line border <br> Genie <br> Globe | Horizontal lines, above or below the design <br> Creature with human body and bird's wings <br> Globular shape, whether placed in the sky or elsewhere in <br> the ficld |
| Goat (short for wild goat) | Animal with hom(s) curving backward <br> Ladder border |
| Two horizontal lines connected by vertical notches, above or |  |
| below the design |  |

## Comparisons

Comparisons to similar objects excavated at other sites are given by reference to the pertinent excavation report, with mention of the period to which this comparable object is ascribed. The many unexcavated parallels said to come from Luristan have generally been disregarded, as they do not furnish any reliable information. An exception is made for some of our pieces the meaning or function of which can be better understood by such a comparison.

[^22]
## ALLOCATION OF THE OBJECTS

In the Index of Catalog Field Numbers, the reader will find a list of the field registration (i.e., site and object) numbers in alphabetical and numerical order with a reference to the object's discussion in this book and with an indication of its present whereabouts.

The finds from the first season were equally divided between the Muze-ye Iran Bastan at Tehran and the University of Pennsylvania's University Museum at Philadelphia. The latter was to select some objects to be given to Mr. Carl H. Holmes, whose mother, Mrs. Christian R. Holmes, was a major sponsor of the Luristan expeditions. These appear to be the seventeen pieces from Kamtarlan and Chigha Sabz now at the Metropolitan Museum of Art in New York.

From Schmidt's notes it appears that the American share of objects from the second expedition to Luristan was divided into two lots, one for the American Institute for Iranian Art and Archaeology in New York. The latter was to choose some objects for Mr. Carl H. Holmes (at a later date the AIIAA was dissolved and the objects remained in the care of Mr. Arthur U. Pope, who sold part, but not all, of them to the Metropolitan Museum of Art; see Muscarella 1981a:327-59). Out of the other lot, Schmidt was to select some objects to be presented to Mrs. William B. Thompson, who had also given funds for the expedition. This lot was then divided into two unequal parts: one-third for the University Museum at Philadelphia and twothirds for the University of Chicago's Oriental Institute, which, beside its initial financial participation, had later taken over the Boston Museum of Fine Arts' participation.

In addition, twenty-one objects said to be from Luristan and bought by the expedition in Tehran were also divided, as follows:

| Object | Location | Accession No. | Object | Location | Accession No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Teh 1 | UM ${ }^{1}$ | - | Teh 12 | UM | - |
| Teh 2 | Mrs. Holmes | - | Teh 13 | Mrs. Thompson | - |
| Teh 3 | $\mathrm{OI}^{2}$ | A 24176 | Teh 14 | OI | A 24181 |
| Teh 4 | Boston MFA ${ }^{3}$ | - | Teh 15 | OI | A 24182 |
| Teh 5 | UM | - | Tch 16 | UM | - |
| Teh 6 | UM | - | Teh 17a-b | OI | A 24183-84 |
| Teh 7 | OI | A 24177 | Teh 18a-b | UM | - |
| Teh 8 | OI | A 24178 | Teh 19 | Boston MFA | - |
| Teh 9 | OI | A 24179 | Teh 20 | UM | - |
| Teh 10 | UM | - | Teh 21 | UM | - |
| Teh 11 | OI | A 24180 |  |  |  |

These objects are described in chapter 35 and illustrated on plates 260-65.

[^23]
## CHAPTER 15

# CHALCOLITHIC POTTERY AND BAKED CLAY OBJECTS 

by Maurits N. van Loon

## 15A. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) POTTERY FROM CHIGHA SABZ

The Early and Middle Chalcolithic pottery is illustrated on pls. 67-69, and is divided into the following major classes in the catalog:

| 15A. | BOWLS |
| :--- | :--- |
| 15.2 | GOBLETS |
| 15A. | POTS |
| 15A.4 | JARS |
| 15A. | MISCELLANEOUS |

In Chigha Sabz plots F7-N7, early painted ware appeared at depths going down from 2.85 m below the summit in F 7 to 9.70 m below the summit in N 7 at the southern foot of the mound and to 8.65 below the summit in H 3 at the western foot of the mound. In addition, some sherds and even complete vessels attributable to the same ware were secondarily deposited in later levels as a result of pitdigging, gravedigging, or brickmaking (CS 141, 220, $222,225,226,328-330,344,365,508,533$, and 694-696).

Most of this ware is handmade. Two pieces are described as definitely wheelmade (CS 365 and $514, \mathrm{pl} .68 \mathrm{n}, \mathrm{k}$ ). The first of these is somewhat comparable in shape to four-lugged jars from Susa A and Ja' farabad 3d-1 (Dollfus 1978:165, fig. 19:23). Like CS 365, the Ja' farabad examples are described as usually wheelmade, with striations left by a scraping tool and red brown paint on yellow brown clay. CS 514 is probably a chalice foot and may be compared to a Susa A1 chalice foot that also carries wheel marks (Stève and Gasche 1971, pl. 34:14). Six goblets or incurving pots are described as possibly made on the slow wheel (CS 215, pl. 69g; CS 226, pl. 67d; CS 315, cf. pl. 67b; CS 316, pl. 68h; CS 343, pl. 69e; and CS 548, pl. 68i).

In addition to complete or restorable vessels, many fragments of painted ware have been drawn and photographed for the interest of their design. They are hard to classify by vessel shape. I have assumed that they were held in the correct position when their sections were drawn. Below I have therefore listed the steep, sloping-sided sherds as possible fragments of truncated conical pots, and the incurving sherds as possible fragments of incurving or footed pots. Among the latter the thicker-walled sherds (CS 243:1, cf. 69f; CS 694 , pl. 69 i ; and CS 538 , pl. 69 j , all 0.8 cm or thicker) should perhaps be classified as jar sherds, although their decoration does not differ from the thinner-walled sherds. In contrast to chalice feet complete chalices have been found neither at Chigha Sabz nor at Giyan VC. Still, a comparison of the many incurving or S-profiled rim sherds carrying goat designs with similarly decorated vessels from Sialk $\mathrm{II}_{6-7}$ (Ghirshman 1938, pl. 20) and Hissar IC (Schmidt 1937, pls. 7 and 10), contemporary with Giyan VD, suggests that the earlier sherds also come from chalices or footed pots (cf. CS 215, 518, 694, pl. 69g-i).

Most of the goblets have almost straight rims. The majority appear to tend slightly toward an incurving shape. Straight-sided to incurved goblets therefore have been grouped together, but if the goblet wall has a reversal of the curve toward a slightly outcurved rim I have called it sinuous.

As one can see in the catalog most of the pottery comparisons are with sites and levels of the Susiana c to Susa A time range (ca. 4750-3400 b.c.). The complete vessels seem to belong to the later, Susa A part of this time range. In his field report (ch. 1), Schmidt described the Susa A-type ware ("Chigha Sabz fine ware") as extraordinarily thin and well baked with a metallic tinkle, orange paste and a grayish white or cream surface; the geometric designs are well drawn in brown or red-brown paint. The Susiana c-type ware ("Chigha Sabz crude ware') is described as yellowish brown, with rows of conventionalized ibexes or human dancers in brown paint. The ware painted with rows of tiny stylized goats on either side of large, zigzagging steps (CS 232:1, 247, 617, 695, 234:3, pl. 69a-d, f) is not represented by any complete vessel. Clare Goff found similar sherds on the surface of Chigha Zargaran about 30 km northeast of Chigha Sabz and dated them to the Giyan VA phase (ca. 5000-4500 b.c.), comparing the design to Samarra step designs (Goff 1971:137, fig. 2:6-8). The rows of tiny goats, however, recall designs on "goat bowls" from Sabz in the Deh Luran plain, dating to the Mehmeh phase (ca. 4800-4400 B.C.; Hole et al. 1969:150, fig. 59). The rows of women with joined hands (pls. 67a-69j), called "dancing men" by Hole, also occur at Sabz in black-on-buff painted ware of the Mehmeh phase (Hole et al. 1969, fig. 63n). A comparison with a sherd from the Transitional period (ca. 5000 b.C.) at Choga Mami (Oates 1969:137, pl. 31b), painted with a man between two women, shows that the wide-hipped figures are probably meant to represent women. The levels producing "rows of wild goats" and "dancing men" designs at Musiyan were briefly reinvestigated by Hole and proved to date to the Mehmeh phase as well (Hole et al. 1969:69-72).

Occupation of Chigha Sabz at least as early as Susiana phase c (ca. $4750-4375$ b.c.) is indicated by the very characteristic cogwheel-shaped whorls, treated in section 15C.3.1 of this chapter. This early occupation was reached by Schmidt in the southern plots L7, K7, and J7 up to the -5.75 m contour. It is there that all but two of the early sherds and whorls appeared. Most of the Susa A vessels were found above the -5.75 m contour in J 7 , and in the western and northern plots H3-4 and F7, together with a different, notched type of whorl.

Certain features occur that were popular in the subsequent Giyan VD period (ca. 32503100 B.C.), such as chalice feet (CS 197, 514, and $515, \mathrm{pl} .68 \mathrm{j}-1$, ), painting with fine zigzags (CS 222, pl. 67 g ) or bold zigzags (CS 316 and 581 , pls. $68 \mathrm{~h}, 67 \mathrm{e}$ ), and fine crosshatching (CS 330, pl. 68c). All of these, however, existed in Giyan VC or Susa A as well. The only fragment that seems out of place is a jar sherd painted with dotted lozenges (CS 696, see catalog 15A.4.2) as at Giyan VD. It was not stratified.

The early sherds with their rows of peculiarly stylized tiny goats suggest that in the fifth millennium B.C. local culture had a character of its own. The truncated conical bowls and sinuous goblets painted with bold designs from the upper part of the deposit (CS 581, 585, 586 , and 589 , pls. 68 a and $67 \mathrm{e}, \mathrm{f}$ ) indicate strong orientation toward Susa in the fourth millennium b.c.

A summary of the shapes and decorative patterns occurring in the Early and Middle Chalcolithic pottery from Chigha Sabz is given in tables 14 and 15. At least one illustration for each type can be found on plates 67-69 and a description of each registered item, with parallels if found in the literature, is given in the catalog.

## 15B. LATE CHALCOLITHIC (SUSA B-C) POTTERY FROM KAMTARLAN I

The Late Chalcolithic pottery is illustrated on pl. 73 and is divided into the following major classes in the catalog:

```
15B.1 OVAL PLATTER
15B.2 BEVELED-RIM 'BOWLS'
15B. }3\mathrm{ JARS
15B.4 GOBLET
15B.5 POTS
```

In Kamtarlan I plots O-P, between 4.10 and 6.45 m below the summit, Schmidt excavated a pisé wall, a stone wall, and a burial. These three features must belong to three closely successive periods. The data recorded, however, do not enable us to decide to which of these three divisions the objects retrieved are to be assigned. The ten pottery items from these
loci are therefore treated together. They all seem to fall within the Susa B-C or Uruk to Jemdet Nasr time range. KI 133 and KI 153 (pl. 73d) have links with Susa A, which ended about 3400 b.c., but they are wheelmade. KI $135 \mathrm{a}-\mathrm{b}$ and KI 150 (pl. 73e) might be compared to ridged jars of Susa D (which started around 2900 b.c.) and Giyan IV, but the depth at which they were found suggests that they are earlier. KI 135a-b and KI 150 are also wheelmade.

As at other Uruk to Jemdet Nasr sites, wheelmade vessels are outnumbered by handmade ones, and the bulk of the latter consists of "beveled-rim bowls." The Kamtarlan I examples of this well-known type (KI 136a-c and KI 144, pl. 73b) are so tall as to resemble flower pots rather than bowls, but this is not a late feature. On the contrary, in the 1969-71 Acropole sounding, such a tall "beveled-rim bowl" appeared in level 17B, that is, in the earlier part of the Uruk level. The coarse, plant-tempered oval tray (KI 143, pl. 73a) is also paralleled in Uruk levels at Susa and Uruk. The parallel cited for the tall jar fragment (KI 137, pl. 73c) is more doubtful. In the first place, this piece may be associated with burial $\mathrm{O} \times 1$, which may belong to a later period. Secondly, the Acropole piece is also fragmentary and belongs to the Jemdet Nasr period.

A summary of the shapes and decoration occurring in the Late Chalcolithic pottery from Kamtarlan I is given in table 16. At least one illustration for each type can be found on plate 73 and a description of each registered item, with parallels if found in the literature, is given in the catalog. In addition to these pieces, groups of sherds found in P between 4.55 and 6.00 m below the summit were also registered. They include much red-slipped ware as found at Susa III (Le Brun 1971:199-200, fig. 61:17-20), suggesting that occupation of Kamtarlan I lasted through Proto-Elamite into Early Bronze times.

## 15C. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) BAKED CLAY OBJECTS FROM CHIGHA SABZ

All of the Middle Chalcolithic baked clay objects other than pottery vessels are from the Susiana c to Susa A levels at Chigha Sabz.

The catalog for 15 C , pp. $92-99$, is divided into the following major classes which are discussed below:

| 15 C .1 | DISC |
| :--- | :--- |
| 15 C .2 | OVALS |
| 15 C .3 | WHORLS |
| 15C. 4 | SLING MISSILES |
| 15 C .5 | RINGS OR BEADS |
| 15 C .6 | PENDANT |
| 15 C .7 | TOKENS |
| 15 C .8 | FIGURINES |

## 15C.1. DISC

The disc (CS 187, pl. 70p), made from a painted sherd, shows the beginnings of a perforation.

## 15C.2. OVALS

The ovals (CS 322 and 333) do not yield any clue as to their use.
15C.3. WHORLS (pls. 70-71)
15C.3.1. Cogwheel-Shaped
The numerous cogwheel-shaped whorls pose problems concerning their function and chronological position. Twelve out of sixty-five such objects displayed only the beginnings of a perforation. That these should be unfinished whorls is unlikely, as shaping an object of clay around a spindle requires much less effort than drilling a hole through it after it has been baked. Could they, even though not pierced, nevertheless have been used in spinning? The presence
of unperforated examples among the notched and round groups of whorls as well seems to indicate that they were.

Cogwheel-shaped whorls are generally associated with the early part of the Susiana sequence. At Ja'farabad they appear in levels 6-4, which correspond to Susiana b (Dollfus 1971a:81; 1971b:73; 1975:31, fig. 31:5; 1978:156, fig. 20). At Jowi they occur in phases Susiana b-c (Le Breton 1947:149, fig. 18:2nd row, no. 4), at Musiyan with material mostly from Susiana c (Gautier and Lampre 1905:88, fig. 117:4), and at Sabz in the Sabz to Mehmeh phases, which correspond to Susiana a-c (Hole et al. 1969:206, fig. 88e-g; 5200-4400 b.C., cf. Hole 1977:27; Dyson 1968:308, 310). One was even found in the basal levels of Susa (de Mecquenem 1928:104, fig. 5:8). Most of the whorls from these other sites have the quatrefoil or cinquefoil shape exemplified by our whorls (CS 178, pl. 71d; CS 179, pl. 70a, and CS 265, pl. 70e). It is perhaps no accident that our quatrefoil whorls (see also CS 73 and 193) were all found in K-M 7 at elevations between -7.90 and -8.30 m , below the level at which the goat-and-step or woman-and-step pottery designs occurred ( -5.85 to -7.80 m ).

At Chigha Sabz, however, in contrast to the Susiana and Deh Luran sites, there seems to be a development from the four- to five-cog wheel via the six- $\operatorname{cog}$ wheel, which occurs at all elevations, to the wheels with seven to eleven cogs that seem to predominate between the -5.75 and the -7.00 m contours. In view of their numbers we can confidently say that the latter were contemporary with the goat-and-step or woman-and-step painted pottery. The growing number of cogs left less and less space in between, so that the intervening notches became smaller and smaller.

A curious feature of the cogwheel-shaped whorls is their pillowlike profile, caused by the fact that the cogs had been pulled out and flattened, often after the points had been folded over. In addition the cogs or points were often pulled down, giving the whorl a plano-convex or even a concave-convex section (e.g., CS 244, pl. 71i).

## 15C.3.2. Notched

The final stage of the development is seen in the notched whorls (pl. 71n, o), in which the basically round shape is hardly interrupted by the shallow notches. These all come from above the -5.75 m contour in J 7 , or from F 7 , and were associated in both plots with vessels carrying bold designs of Susa A type (note, however, that notched whorls occur at Jowi, which is probably not later than Susiana c; see Le Breton 1947, fig. 18, top row).

## 15C.3.3. Round

The round-shaped whorls seem related to the conical whorl with concave base, of which four examples turned up in H 4 at -7.20 to -7.30 m elevation and two in $\mathrm{F7}$, together with the more usual conical, biconical or spherical shapes (pls. 70r-s, 72e-f, 73g). They are also related to the cogwheel-shaped examples with a concave-convex section (CS 244, pl. 71i).

## 15C.4. SLING MISSILES

Clay sling missiles are a common type of find at Susiana c-e sites (see comparisons in catalog). The ones from Chigha Sabz have one rounded and one pointed end (CS 348, pl. 72 g ).

## 15C.5. RINGS OR BEADS

Several ring-shaped objects, some of which may have served as beads, are included in this class (CS 372, 594-95, pl. 72h-j).

## 15C.6. PENDANT

A pear-shaped unbaked clay object is interpreted as a pendant (CS 209, pl. 72k).

## 15C.7. TOKENS

Although some clay "studs" (tokens) like pl. 72 1-n from the Deh Luran have been ascribed by some scholars to the same purpose as the similar stone labrets (Hole et al. 1969:237), others have considered them as cosmetic crushers (Ghirshman 1938:21). CS 512 (pl. 72n), however, may be comparable to a triangle with splayed feet from Sarab (ca. 6000 B.C.), which Denise Schmandt considers as a "token" (Schmandt-Besserat 1979:24, 28). It has a stone counterpart in CS 517 (pl. 741).

## 15C. 8 FIGURINES

Among the animal figurines (pls. 720-r and 117a), the quadruped with a hole in its belly (CS 252) may be a relic of the hunting magic that certainly existed in Iran around 6000 B.C. (Porada 1965a:21, pl. 1B, from Sarab). The hollow painted bird fragment (pl. 72o) undoubtedly belongs to a figurine on a pedestal, of a type well known from Susiana e/Susa A sites (see comparisons in catalog). Found nearby were two hollow animal heads that may well have been part of animal-shaped vessels (pls. 72p and 117a). A third fragment was found in mixed context at the southern foot of the mound. The resemblance to Uruk period and later hedgehog vessels is probably fortuitous. They may well have formed the rear end of quadruped or bird vessels. CS 524 is cataloged as such in the Philadelphia University Museum.

## 15D. LATE CHALCOLITHIC (SUSA B-C) BAKED CLAY OBJECTS FROM KAMTARLAN I

The Late Chalcolithic baked clay objects are illustrated on pl. 73f-i and they are divided into the following major classes in the catalog:

```
15D.1 MULLER
15D. }2\mathrm{ WHORL
15D. }3\mathrm{ SLING MISSLE
15D.4 FIGURINE
```


## 15D.1. MULLER

Mullers or bent nails of clay are fairly ubiquitous at sites of the Ubaid period in Mesopotamia (Tobler 1950:169; Stronach 1961:107) and of the Susiana c-e phases in Iran (see catalog). If the Kamtarlan fragment (KI 130, pl. 73f) is part of a muller and if it is in situ, then its use-probably as a kind of pestle, with the hook serving as a handle-would seem to have continued into Susa B-C times.

## 15D.2. WHORL

The one whorl from the Susa B-C locus at Kamtarlan I is conical, like one of the latest whorls from Chigha Sabz (KI 128, pl. 73g).

## 15D.3. SLING MISSILE

To judge by the find from Kamtarlan I, plot O, sling missiles also went on being used in Susa B-C times (KI 134, pl. 73h).

## 15D.4. FIGURINE

This unbaked figurine with stump arms and spread legs wears a necklace and apparently represents a human being (KI 138, pl. 73i).

Table 14. Shapes of Early and Middle Chalcolithic (Susiana c-Susa A) Pottery ${ }^{1}$

| Class | Shape | Site and object no. |
| :---: | :---: | :---: |
| 15A. 1 | BOWLS |  |
| 15A.1.1 | Truncated conical |  |
| 15A.1.1.1 | Complete | CS 240, 585, 589 |
| 15A.1.1.2 | Possible Fragments | CS 242, 248 |
| 15A.1.2 | Miniature Incurved | CS 220 |
| 15A.1.3 | Incurved | CS 330 |
| 15A.1.4 | Sinuous-Shaped | CS 53 |
| 15A. 2 | GOBLETS |  |
| 15A.2.1 | Miniature Incurved | CS 513, 214 |
| 15A.2.2 | Straight-Sided to Incurved |  |
| 15A.2.2.1 | , Complete | CS 533, 539, 508, 316*, 315*, 344 |
| 15A.2.2.2 | Possible Fragment | $\text { CS } 226^{*}$ |
| 15A.2.3 | Sinuous-Shaped | CS 581, 586 |
| 15A. 3 | POTS |  |
| 15A.3.1 | Truncated Conical |  |
| 15A.3.1.1 | Complete | CS 222 |
| 15A.3.1.2 | Possible Fragments | $\begin{aligned} & \text { CS } 157,161,232: 1,234: 1,243: 2, \\ & 247,615,616: 1,616: 2,616: 3,616: 4, \\ & 617,618: 1,618: 3,618: 4,619: 1, \\ & 619: 2,619: 3,619: 4,695,225,342 \end{aligned}$ |
| 15A.3.2 | Incurved |  |
| 15A.3.2.1 | Complete | CS 343*, 548* |
| 15A.3.2.2 | Possible Fragments | $\begin{aligned} & \text { CS 155, 156, 232:2, 232:3, 232:4, } \\ & 234: 2,234: 3,234: 4,243: 1,618: 2 \text {, } \\ & 215^{*}, 518,694,538 \end{aligned}$ |
| 15A.3.3 | Pedestal | CS 515, 514*, 197 |
| 15A. 4 | JARS |  |
| 15A.4.1 | Miniature | CS 549 |
| 15A.4.2 | Sinuous-Shaped | CS 696 |
| 15A.4.3 | Four-Lugged | CS 365* |
| 15A. 5 | MISCELLANEOUS |  |
| 15A.5.1 | Lugged Vessels (Lug only) | CS 141 |
| 15A.5.2 | Flat Lids | CS 328, 329 |
| 15A.5.3 | Sherds Not Described | CS 216, 582, 587 |

${ }^{1}$ Unless stated otherwise, this pottery is handmade. An asterisk indicates that traces of the slow wheel can be seen. For the criteria used to distinguish between "bowls," "pots," and "jars" see chapter 14.

Complete examples of one shape are listed in order of rim diameter size, with the smallest first and the largest last.

Fragments are grouped according to design; within each design group they are listed in order of registration number.

Table 15. Decorative Patterns of Early and Middle Chalcolithic (Susiana c-Susa A) Pottery

Aal

$\mathrm{A} a 2$

Aa3

Aa5

Aa6

Aa21

Aa23

A. Geometric
a. Main designs

1. single thin horizontal
2. single thick horizontal
3. multiple thin horizontals
4. one thin and two thick horizontals
5. horizontal with pendent zigzag
6. zigzag framed by horizontals
7. zigzag between thin and thick horizontals
8. double pendent zigzag
9. double framed zigzag
10. multiple framed zigzag
11. multiple zigzag
12. hatched lozenges between thin and thick horizontals
13. metopes between thin and thick horizontals (for fillers see b)
14. metopes between thick horizontals (for fillers see b)
15. waves between thick horizontals
16. fringed arcs between thick horizontals
17. pendent semicircles
18. notched and crosshatched friezes
19. lozenge and crosshatched friezes
20. multiple thin verticals
21. ladder
22. column of grid-filled checkers
23. grid-filled checkers between thin horizontals
A. Geometric (cont.)
b. Fillers
24. dots
25. groups of horizontal strokes
26. groups of horizontal waves
27. vertical blobs
28. hourglass
29. Maltese cross
B. Landscape(?)
a. Steps
C. Animal
a. Simplified goats lacking horns
b. Simplified goats with V-Shaped horns
c. Naturalistic goats with curved horns
D. Human a. Wide-hipped "dancers" joining hands

Table 16. Shapes and Decoration of Late Chalcolithic (Susa B-C) Pottery from Kamtarlan I

| Class | Shape | Site and object no. | Decoration |
| :---: | :---: | :---: | :---: |
| 15B. 1 | OVAL PLATTER | KI 143 | - |
| 15B. 2 | BEVELED-RIM "BOWLS" | KI 136a-c, 144 | - |
| 15B. 3 | JARS |  |  |
| 15B.3.1 | Tall | KI 137 | - |
| 15B.3.2 | Miscellaneous | KI 135 | A (relief) |
| 15B. 4 | GOBLET(?) | KI 133 | B (painted) |
| 15B. 5 | POTS |  |  |
| 15B.5.1 | Small | KI 153 | - |
| 15B.5.2 | Large | KI 150 | A (relief) |

CATALOG 15. CHALCOLITHIC POTTERY AND BAKED CLAY OBJECTS

| Plate | Site and obj. no. | Plot and elevation ${ }^{1}$ | Dimensions in $\mathrm{cm}^{2}$ | Ware ${ }^{3}$ | Paint color | Decorative pattern ${ }^{4}$ | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) POTTERY FROM CHIGHA SABZ |  |  |  |  |  |  |  |  |
| 15A.1. BOWLS |  |  |  |  |  |  |  |  |
| 15A.1.1. Truncated Conical |  |  |  |  |  |  |  |  |
| 15A.1.1.1. Complete |  |  |  |  |  |  |  |  |
| 67a | CS 240 | K7, -7.60 | $8.2 \times 11.6 \times 11.6$ | It gybrn | dk r-brn | $\mathrm{Ba}, \mathrm{Da} ;$ <br> inside: <br> Aa8, Aa8 | for women $c f$. Gautier and Lampre 1905:131, fig. 254 (Khazineh) |  |
|  |  |  |  |  |  |  | Le Breton 1947, pl. 10:3 (Bendebal), fig. 30:17 (Jowi) | Susiana c |
|  |  |  |  |  |  |  | Hole et al. 1969, fig. 63n (Sabz) | Mehmeh |
|  |  |  |  |  |  |  | Dollfus 1971b, fig. 9:1 <br> (Ja'farabad, 3, women and steps) | Susa A |
|  |  |  |  |  |  |  | Goff 1971:136, fig. 2:42 <br> (Chigha Sabz, women and steps) |  |
|  |  |  |  |  |  |  | Ghirshman 1938, pl. 80D:10 for step design cf. | Sialk III 6 |
|  |  |  |  |  |  |  | Pottier 1912, pls. 5:9, 8:6 | Susa A |
|  | CS 585 | F7, -2.85 | $12.6 \times 26.8 \times 26.8$ | It brn | dk brn | inside: | Stève \& Gasche 1971, pl. 92:8, 16 for design cf. | Susa A1 |
| 68a | CS 58 | F7, 2.85 | $12.6 \times 26.8 \times 26.8$ |  | akm | Aal7 | Hole et al. 1969, fig. 60a-b | Mehmeh |
|  |  |  |  |  |  |  | Contenau and Ghirshman | Giyan VB-C |
|  |  |  |  |  |  |  | 1935, pls. 43b:4, 48a:3 |  |
|  |  |  |  |  |  |  | Dollfus 1975, fig. 49:14-16 |  |
|  |  |  |  |  |  |  | ( $\mathrm{Ja}^{\text {e farabad, } 3 \mathrm{~m}-\mathrm{n} \text { ) }}$ |  |
|  |  |  |  |  |  |  | E. Henrickson 1985, fig. 18:3 | Terminal |
|  |  |  |  |  |  |  | (Chogha Maran) | Ubaid |
|  |  |  |  |  |  |  | Vanden Berghe 1975a, fig. 5 |  |
|  |  |  |  |  |  |  | (Parčineh) |  |
| cf. 68a | CS 589 | F7, -3.45 | $12.0 \times 29.6 \times 29.6$ | It brn | dk brn | inside:Aal 7 | - | - |

Catalog 15. Chalcolithic Pottery and Baked Clay Objects (cont.)


15A.2.2. Straight-Sided to Incurved
15A.2.2.1. Complete

| 67b | CS 539 | H3, -8.80 | $6.4 \times 7.3 \times 7.3$ | pi-brn | dk brn | Aa4 | $\begin{aligned} & \text { for filler cf. } \\ & \text { Pottier 1912, pl. 10:6 (Susa) } \end{aligned}$ | Susa A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 67b | CS 315 | J7, -5.25 | $9.5 \times 11.3 \times 11.3$ | y-brn, li handm./slow wheel | dk bm-blk | A. 4 | - | - |
| 67c | CS 344 | J7, -5.10 (t) | $10.7 \times 11.8 \times 11.8$ | lt gy-bm | y | $\begin{aligned} & \mathrm{Aa} 23+ \\ & \mathrm{Ab3}, \\ & \mathrm{Aa} 3 \end{aligned}$ | Ghirshman 1938, pl. 51D: 16 Contenau and Ghirshman 1935, pls. 44d:3, 46c:3 pl. 53c:1 <br> Langsdorff and McCown 1942, pl. 30:3 | Sialk II <br> Giyan VB <br> Giyan VC <br> Bakun A |
| 68 f | CS 533 | H3, -8.35 (t) | $4.4 \times 6.4 \times 6.4$ | y-brn | brn | Aal3 |  | - |
| 68 g | CS 508 | H4, -5.95 (t) | $6.2 \times 7.8 \times 7.8$ | y-brm | dk gy | Aal2 | for design cf. <br> Le Breton 1947, fig. 36:16, 19 (Bendebal) Contenau and Ghirshman 1935, pls. IX:3 and 46b:4 pl. 53a:1 | Susiana c-d <br> Giyan VB <br> Giyan VC |
| 68h | CS 316 | J7, -5.40 | $6.8 \times 7.9 \times 7.9$ | y-brn <br> handm./ <br> slow wheel | dk brn-blk | Aa7 | Gautier and Lampre 1905, fig. 137b-c (Musyan) Contenau and Ghirshman 1935, pl. 45b:6, c:6 Pottier 1912, pls. 1:1-3, 4:3-4, 5:5, 8:3, 10:4, 20:10 <br> Le Breton 1947, fig. 47:10 (Susa) Stein 1940, pl. 12:1 (Chigha Pahan) E. Henrickson 1985, fig. 11:4 (Chogha Maran) <br> Vanden Berghe 1974, fig. 4:5 (Hakalan) | Susiana c <br> Giyan VB <br> Susa A <br> Terminal Ubaid <br> Susiana c-d |
| 15A.2.2 | 2. Possi | Fragments |  |  |  |  |  |  |
| 67d | CS 226 | K7, $-6.80(\mathrm{t})$ | $4.3+\times 2.5+$ | y-brn/ <br> whm(?) | dk bm | $\begin{aligned} & \mathrm{Aa} 21+ \\ & \mathrm{Ab} 2+ \\ & \mathrm{Ab} 6 \end{aligned}$ | for Maltese square cf. Gautier and Lampre 1905, fig. 175c-d (Musyan) de Mecquenem 1943, pl. 5:1, 6 Le Breton 1947, fig. 39: 11-12 (Bendebal) | Susiana c(?) <br> Susiana c-d |

Catalog 15. Chalcolithic Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plot and elevation | Dimensions in cm | Ware | Paint color | Decorative pattern | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) POTTERY FROM CHIGHA SABZ (cont.) |  |  |  |  |  |  |  |  |
| 15A.2. GOBLETS (cont.) |  |  |  |  |  |  |  |  |
| 15A.2.2. Straight-Sided to Incurved (cont.) |  |  |  |  |  |  |  |  |
| 15A.2.2.2. Possible Fragments (cont.) |  |  |  |  |  |  |  |  |
|  | CS 226 (cont.) |  |  |  |  |  | Contenau and Ghirshman 1935 |  |
|  |  |  |  |  |  |  | pls. 42c:2, 43c:3-4 | Giyan VA |
|  |  |  |  |  |  |  | pl. $44 \mathrm{~d}: 4$ | Giyan VB |
|  |  |  |  |  |  |  | pl. 54B:1 | Giyan VC |
|  |  |  |  |  |  |  | Weiss 1976, design no. 171 (Qabr Sheykheyn) | Susiana d-e |
|  |  |  |  |  |  |  | Egami and Sono 1962, pl. 28: 2 b (Gap) | Susa A |
|  |  |  |  |  |  |  | Langsdorff and McCown 1942, pls. 44:10, 45:5, 56:4 | Bakun A |
|  |  |  |  |  |  |  | E. Henrickson 1985, fig. 13:8 | Early |
|  |  |  |  |  |  |  |  | Siahbid $(4000-3600$ |
| 15A.2.3. Sinuous-Shaped |  |  |  |  |  |  |  | B.C.) |
|  | $\text { CS } 581$ | $F 7,-3.15$ | $7.3 \times 8.4 \times 8.4$ | r-buff | dk bm | Aa7 | See 15A.2.2 (CS 316) |  |
| 67f | CS 586 | $\text { F7, }-3.15$ | $9.8 \times 11.6 \times 11.6$ | lt bm/buff | dk brn | Aal6 | for fringed arcs of. |  |
|  |  |  |  |  |  |  | Egami and Sono 1962, pl. 31:4 (Gap) |  |
|  |  |  |  |  |  |  |  | Seh Gabi <br> (3600-3200 |
| 15A.3. POTS |  |  |  |  |  |  |  | B.C.) |
| 15A.3.1. Truncated Conical |  |  |  |  |  |  |  |  |
| 15A.3.1.1. Complete |  |  |  |  |  |  |  |  |
| 67g | CS 222 | K7, -6.15 (t) | $12.6 \times 16.5 \times 16.5$ | $y \mathrm{brn}$ | pur-r | Aal1+ Abl, <br> Aa10; inside <br> Aa6, Aa5 | - | - |

15A.3.1.2. Possible Fragments


Catalog 15. Chalcolithic Pottery and Baked Clay Objects (cont.)


15A.3.2.2. Possible Fragments

| cf. 69 f | CS 155 | L7, -7.80 | 3.8+ $\times$ 3.4+ | grn-gy | dk gy | Cb | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 698 | CS 156 | L7, -7.80 | $2.2+\times 3.7+$ | lt gy-brn | r -brn | Cb | - | - |
| cf. 69 f | CS 232:2 | K7, -6.85 | $4.7+$ x 4.4+ | y-brn | pur-r | $\mathrm{Ba}+\mathrm{Cb}$ | - | - |
| cf. 69f | CS 232:3 | K7, -6.85 | $4.5+\times 5.0+$ | y-brn | pur-r | Cb | - | - |
| cf. 69f | CS 232:4 | K7, -6.85 | $4.5+\times 4.0+$ | y-brn | pur-r | $\mathrm{Ba}+\mathrm{Cb}$ | - | - |
| cf. 69f | CS 234:2 | K7, -7.00 | $6.3+\times 5.3+$ | y/gy-brn | pur-r | Cb | - | - |
| cf. 69f | CS 234:3 | K7, -7.00 | $6.8 \times 5.0+$ | y/gy-brn | pur-r | $\mathrm{Ba}+\mathrm{Cb}$ | for goat and step design cf. <br> See 15A.3.1.2 (CS 232:1) |  |
| cf. 69f | CS 234:4 | K7, -7.00 | 6.3+ x 5.7+ | y/gy-bm | pur-r | $\mathrm{Ba}+\mathrm{Cb}$ | - | - |
| cf. 69 f | CS 243:1 | K7, 7.55 | $6.3+\times 6.0+$ | gy-brn | dk brn | $\mathrm{Cb}, \mathrm{Aa} 3$ | - | - |
| cf. 69 f | CS 618:2 | K7, 7.20 | $3.6+\times 5.7+$ | gy-brn buff | dk brn | Aa3, Cb | - | - |
| 69 g | CS 215 | L7, -8.75 (pit 2) | $3.5+\times 7.3+$ | buff washed, handm. slow wheel | dk brn | Aal, Cc | for design cf. <br> Contenau and Ghirshman 1935, pls. 45d: $1-2 ; 47 \mathrm{a}: 2-5, \mathrm{~b}: 1-2$ <br> Young and Levine 1974, fig. 11:25 <br> (Seh Gabi) | Giyan VB-VC <br> Seh Gabi |
| 69h | CS 518 | N7, -9.30 (t) | $8.0+\times 6.8+$ | gy-brn | blk | Aa2, Cc | Vanden Berghe 1973d:53a (Hakalan) Cf. CS 215 | Susiana c-d |
| 69i | CS 694 | H4, -7.00 | $5.5+\times 8.2+$ | gy-brn | dk brn | Cc, Aa2 | Cf. CS 215 |  |
| 69j | CS 538 | H3, -8.70 | $5.3+\times 6.7+$ | y-brn, slipped | dk brn | Da | See 15A.1.1.1 (CS 240) |  |
| 15A.3.3. Pedestal Bases |  |  |  |  |  |  |  |  |
| 68j | CS 515 | H4, -7.00 | $\begin{aligned} & 4.9+x 6.2 \\ & \times 6.2 \text { at base } \end{aligned}$ | gy-brn | dk gy | Aa2 | for chalice feet cf. <br> Stève and Gasche 1971: pls. 36:28; 39 : $18-20$ | Susa A2-1 |
|  |  |  |  |  |  |  | Contenau and Ghirshman 1935, pl. 58c:6 | Giyan VD |
| 68k | CS 514 | H4, -7.05 | $\begin{aligned} & 4.0+\times 9.0 \\ & \times 9.0 \text { at base } \end{aligned}$ | $\mathrm{y}-\mathrm{bm} /$ <br> whm | - | - | - | - |
| 681 | CS 197 | L7, -8.10 | $6.0+\times 10.2 \times 10.2$ at base, fracture grd | It pur-buff | - | - | - | - |

15A.4. JARS
15A.4.1. Miniature

Catalog 15. Chalcolithic Pottery and Baked Clay Objects (cont.)

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline Plate \& Site and obj. no. \& Plot and elevation \& Dimensions in cm \& Ware \& Paint color \& Decorative pattern \& Reference \& Period \\
\hline \multicolumn{9}{|l|}{15A. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) POTTERY FROM CHIGHA SABZ (cont.)} \\
\hline \multicolumn{9}{|l|}{15A.4. JARS (cont.)} \\
\hline \multicolumn{9}{|l|}{15A.4.2. Sinuous-Shaped} \\
\hline - \& CS 696 \& J-L7, (?) \& \(8.2+\times 6.0+\) \& lt brn \& dk r-brn \& \[
\begin{aligned}
\& \mathrm{Aa} 19+ \\
\& \text { Abl }
\end{aligned}
\] \& \begin{tabular}{l}
for design cf. \\
Gautier and Lampre 1905, fig. 165c \\
(Muradabad) \\
Egami and Sono 1962, pl. 34:11 (Gap) \\
Contenau and Ghirshman 1935, pl. 58d:4
\end{tabular} \& \begin{tabular}{l}
Susa A \\
Giyan VD
\end{tabular} \\
\hline \multicolumn{9}{|l|}{15A.4.3. Four-Lugged} \\
\hline 68 n

15 A .5 \& CS 365 \& J7, -4.55 (t)

LANEOUS \& $20.8+$ x $11.4 \times 11.4$ \& y-brn/whm striate surf. \& dkr brn \& \[
$$
\begin{aligned}
& \text { Aa14+ } \\
& \text { Ab5 }
\end{aligned}
$$

\] \& | for shape cf. |
| :--- |
| Stève and Gasche 1971, pl. 35:5 |
| Dollfus 1978, fig. 19:23 |
| (Ja'farabad, 3d-1); |
| for design cf. |
| fig. 17:2 (Bendebal 16-11) |
| for shape and design |
| Vanden Berghe 1975b: 54:1, 2 (Parčineh) | \& | Susa A1 |
| :--- |
| Susa A |
| Susiana c-d | <br>

\hline \multicolumn{9}{|l|}{15A.5.1. Jar Lug} <br>

\hline 69k \& CS 141 \& L7, -7.25 (t) \& 7.4+x $5.3+$ \& y-brn \& r-bm \& | Aall+ |
| :--- |
| Abl | \& | for design cf. |
| :--- |
| See 15A.3.1.1 (CS 222) | \& - <br>

\hline \multicolumn{9}{|l|}{15A.5.2. Flat Lids} <br>
\hline 680 \& CS 328 \& J7, -4.60 (t) \& $1.4 \times 16.3 \times 16.3$ \& gy brn \& - \& - \& - \& - <br>
\hline cf. 680 \& CS 329 \& $\mathrm{J} 7,-4.60$ (t) \& $1.6 \times 18.0 \times 18.0$ \& lt brn \& - \& - \& - \& - <br>
\hline \multicolumn{9}{|l|}{15A.5.3. Sherds Not Described} <br>
\hline - \& CS 216 \& L7, (pit 2), -8.75 \& (23 sherds, no informa \& \& - \& - \& - \& - <br>
\hline - \& CS 582 \& F7, -3.15 \& (16 sherds, no informa \& \& - \& - \& - \& - <br>
\hline - \& CS 587 \& F7, -3.05 \& (19 sherds, no informa \& \& - \& - \& - \& - <br>
\hline
\end{tabular}

15B. LATE CHALCOLITHIC (SUSA B-C) POTTERY FROM KAMTARLAN I


Catalog 15. Chalcolithic Pottery and Baked Clay Objects (cont.)


| - | CS 26 | N7, | -9.45 (t) | $2.0 \times 4.3 \times 4.3$ | y brn |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - | CS 46 | N7, | -9.50 (t) | $1.9 \times 4.2 \times 4.2$ | buff brn |
| - | CS 47 | N7, | -9.50 (t) | $1.8 \times 4.5 \times 4.5$ | $y \mathrm{brn}$ |
| cf. 70 m | CS 65 | M7, | -8.60 (t) | $1.8 \times 4.5 \times 4.5$ | y brn |
| cf. 70a | CS 73 | M7, | -8.30 (t) | $1.6 \times 5.0 \times 5.0$ | y brn, lightly |
| 70 c | CS 75 | M7, | -8.45 (t) | $1.5 \times 4.0 \times 4.0$ | orange, soft |
| 70 j | CS 79 | M7, | -8.45 (t) | $1.5 \times 4.2 \times 4.2$ | lt brn, soft |
| cf. 70 m | CS 80 | M7, | -8.30 (t) | $1.4 \times 4.1 \times 4.1$ | lt brn, soft |
| cf. 70 i | CS 85 | M7, | -8.60 (t) | $1.4 \times 5.1 \times 5.1$ | lt brn, soft |
| cf. 70n | CS 87 | M7, | -8.45 (t) | $1.4 \times 4.9 \times 4.9$ | lt y |
| cf. 70 m | CS 89 | M7, | -8.45 (t) | $1.6 \times 4.0 \times 4.0$ | y brn |
| cf. 70 n | CS 90 | M7, | -8.30 (t) | $2.4 \times 4.9 \times 4.9$ | y brn |
| cf. 70 c | CS 96 | M7, | -8.80 (t) | $1.4 \times 4.2 \times 4.2$ | y bm |
| cf. 70 c | CS 142 | L7, | -8.00 | $1.5 \times 4.7 \times 4.7$ | buff |
| 71a | CS 143 | L7, | -8.00 | $1.1 \times 4.2 \times 4.2$ | lt buff |
| cf. 70n | CS 146 | L7, | -7.80 | $1.6 \times 4.4 \times 4.4$ | y brn |
| cf. 701 | CS 147 | L7, | $-7.80$ | $2.3 \times 3.9 \times 3.9$ | lt bm |
| 71b | CS 148 | L7, | -7.80 | $1.8 \times 4.0 \times 4.0$ | y brn |
| cf. 70 c | CS 150 | L7, | $-7.80$ | $1.4 \times 4.3 \times 4.3$ | It buff |
| cf. 70 j | CS 153 | L7, | $-7.75$ | $2.1 \times 4.6 \times 4.6$ | y brn |
| 71c | CS 154 | L7, | $-7.80$ | $1.4 \times 4.2 \times 4.2$ | lt r brn |
| 70b | CS 159 | L7, | -7.65 | $1.5 \times 4.2 \times 4.2$ | y brn |
| cf. 71 f | CS 160 | L7, | -7.75 | $1.5 \times 4.8 \times 4.8$ | it buff |
| cf. 70 | CS 162 | L7, | -7.80 | $1.8 \times 4.7 \times 4.7$ | lt brn |
| 700 | CS 163 | L7, | -7.70 | $1.5 \times 4.4 \times 4.4$ | gy brn |
| 70i | CS 164 | L7, | -7.95 | $1.8 \times 4.4 \times 4.4$ | r buff |
| 70 h | CS 165 | L7, | -7.80 | $1.8 \times 3.3 \times 3.3$ | lt brn |
| 70 g | CS 177 | L7, | -7.90 | $2.4 \times 4.0 \times 4.0$ | y brn |
| 71d | CS 178 | L7, | $-7.90$ | $1.4 \times 3.4 \times 3.4$ | $y \mathrm{bm}$ |
| 70a | CS 179 | L7, | -7.90 | $1.4 \times 5.0 \times 5.0$ | y brn |


| Ten-cog wheel, unperf., chipped | - | - |
| :---: | :---: | :---: |
| Nine-cog wheel, perf., chipped | - | - |
| Eight-cog wheel, perf., broken | - | - |
| Six-cog wheel, perforated | - |  |
| Quatrefoil, unperf., chipped | - |  |
| Maltese cross, perforated | - |  |
| Five-cog wheel, unperforated | - |  |
| Six-cog wheel, perf. chipped | - | - |
| Five-cog wheel, perf., chipped | - |  |
| Six-cog wheel, unperf., chipped | - | - |
| Six-cog wheel, perf. | - | - |
| Six-cog wheel, perf., broken | - | - |
| Maltese cross, perf., chipped | - |  |
| Maltese cross, perf., chipped | - |  |
| Maltese cross, perf., clay | - | - |
| pellet on each arm, chipped | - |  |
| Six-cog wheel, perf., chipped | - | - |
| Seven-cog wheel, perf., chipped | - | - |
| Ten-cog wheel, perforated | - | - |
| Maltese cross, perf., broken | - |  |
| Five-cog wheel, perf., chipped | - | - |
| Eight-cog wheel, perf., chipped | - | - |
| Maltese cross, unperforated | - | - |
| Cross, perf., chipped | - | - |
| Five-cog wheel, unperf., chipped | - | - |
| Six-cog wheel, perforated, points folded over | - | - |
| Five-cog wheel, unperforated | - | - |
| Six-cog wheel, unperforated, points folded over | - | - |
| Seven-cog wheel, perforated | - | - |
| Quatrefoil, perforated | - |  |
| Quatrefoil, perforated, chipped | Hole et al 1969:206, fig. $88 \mathrm{e}-\mathrm{q}$ (Sabz) Dollfus 1971a:81; | Sabz to Mehme phases |

Catalog 15. Chalcolithic Pottery and Baked Clay Objects (cont.)

| Plate | Site and <br> obj. no. | Plot and <br> elevation | Dimensions <br> in cm | Decorative <br> patiern | Ware |
| :--- | :--- | :--- | :--- | :--- | :--- |

## 15C. LATE AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) BAKED CLAY OBJECTS FROM CHIGHA SABZ (cont.)

## 15C.3. WHORLS (cont.)

15C.3.1. Cogwheel-Shaped (cont.)

```
CS }179\mathrm{ (cont.)
```

|  |  |  |  |  |  |  | 104, fig. 5:8 (Susa) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf.70b | CS 182 | L7, -7.80 |  | $1.3 \times 4.6 \times 4.6$ | y brn | Maltese cross, perf., chpd | - | - |
| 71e | CS 183 | L7, -8.25 |  | $1.3 \times 4.1 \times 4.1$ | ybm | Five-cog wheel, unperforated | - | - |
| cf. 70 g | CS 184 | L7, -8.25 |  | $2.4 \times 3.6 \times 3.6$ | $y \mathrm{brn}$ | Seven-cog wheel, perf., chpd | - | - |
| cf. 70 b | CS 192 | L7, 8.25 |  | $1.2 \times 5.0 \times 5.0$ | y brn | Maltese cross, perf., chpd | - | - |
| cf. 70a | CS 193 | L7, -8.25 |  | $1.2 \times 5.2 \times 5.2$ | gy, burned | Quatrefoil, perforated, chipped | - |  |
| 71 f | CS 194 | L7, -8.50 |  | $1.7 \times 4.4 \times 4.4$ | buff brn | Cross, perforated | - | - |
| cf. 70 b | CS 195 | L7, -8.50 |  | $1.2 \times 4.8 \times 4.8$ | y brn | Maltese cross, perf., chpd, | - | - |
| cf. 70 i | CS 206 | L7, -9.20 |  | $1.8 \times 4.7 \times 4.7$ | buff brn | Five-cog wheel, perf., chpd | - | - |
| cf. 70 h | CS 227 | K7, -6.80 | (t) | $1.5 \times 4.6 \times 4.6$ | y brn | Six-cog wheel, perforated, points folded over | - | - |
| 71 g | CS 230 | K7, -6.80 | (t) | $1.6 \times 4.2 \times 4.2$ | y bm | Nine-cog wheel, perf., chpd | - | - |
| 71h | CS 231 | K7, -6.80 | (t) | $2.0 \times 3.6 \times 3.6$ | y brn | Six-cog wheel, perf., chpd | - | - |
| 701 | CS 235 | K7, -7.00 |  | $1.9 \times 4.6 \times 4.6$ | y brn | Seven-cog wheel, perforated, points folded over | Stein 1940, pl. 11:19 (Chigha Pahan) | Chalcolithic |
| - | CS 236 | K7, -7.00 |  | $2.2 \times 3.8 \times 3.8$ | gy brn | Nine-cog wheel, perf., chipped | - | - |
| 71 i | CS 244 | K7, -7.60 |  | $2.5 \times 3.3 \times 3.3$ | gy bm | Four-point star, perforated | - | - |
| 70 m | CS 245 | K7, -7.60 |  | $2.2 \times 4.4 \times 4.4$ | r brn, soft | Six-cog wheel, perforated, points folded over | - | - |


| 70 f | CS 250 | K7, | -7.45 | $1.5 \times 3.6 \times 3.6$ | y brn |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 70 n | CS 254 | K7, | -7.85 | $1.9 \times 4.3 \times 4.3$ | y brn |
| 70 e | CS 265 | K7, | -8.00 | $1.5 \times 5.7 \times 5.7$ | y bm |
| 70 d | CS 266 | K7, | -8.00 | $1.2 \times 4.1 \times 4.1$ | y brn |
| 71j | CS 317 | J7, | -5.50 | $1.7 \times 3.5 \times 3.5$ | buff, brn |
| 70 u | CS 345 | J7, | -6.05 | $2.3 \times 3.7 \times 3.7$ | gm brn |
| 70k | CS 346 | J7, | -6.15 | $2.0 \times 4.9 \times 4.9$ | y brn |
| 71k | CS 347 | J7, | -6.00 | $1.3 \times 4.1 \times 4.1$ | y brn |
| cf. 70u | CS 349 | J7, | -6.15 | $2.0 \times 4.4 \times 4.4$ | y brm |
| cf. 701 | CS 361 | J7, | -6.10 | $2.0 \times 4.4 \times 4.4$ | y brn, soft |
| cf. 71 f | CS 378 | 17. | -2.05 (t) | $1.8 \times 4.8 \times 4.8$ | y brm |
| 711 | CS 510 | H4, | -6.00 (t) | $2.4 \times 3.6 \times 3.6$ | y bm |
| 71 m | CS 516 | H4, | -7.00 | $1.6 \times 3.5 \times 3.5$ | y bm |
| cf. 70 m | CS 534 | H3, | -8.35 | $2.2 \times 4.8 \times 4.8$ | gy brn |
| cf. 71 f | CS 580 | F7, | -2.70 (t) | $1.6 \times 4.1 \times 4.1$ | buff gy |
| - | CS 620 | K7, | -7.20 | $1.4 \times 4.2 \times 4.2$ | buff brn |
| cf. 70c | CS 621 | K7, | -7.20 | $1.4 \times 4.3 \times 4.3$ | buff |
| cf. 71 lf | CS 623 | K7, | -7.15 | $2.1 \times 4.5 \times 4.5$ | y brn |
| cf. 70 m | CS 625 | K7, | -6.55 | $1.8 \times 4.3 \times 4.3$ | ybm |


| Seven-cog wheel, perforated, points folded over | - | - |
| :---: | :---: | :---: |
| Six-cog wheel, perforated | - |  |
| Quatrefoil, perf., chipped | - |  |
| Maltese cross, perforated | - |  |
| Seven-cog wheel, perforated | - |  |
| Eleven-cog wheel, perforated | - |  |
| Seven-cog wheel, perforated | - | - |
| Eight-cog wheel, perforated | - |  |
| Seven-cog wheel, perforated | - |  |
| Seven-cog wheel, perforated | - | - |
| Cross, unperf., chipped | - |  |
| Eight-cog wheel, unperforated | - | - |
| Nine-cog wheel, perforated | - |  |
| Six-cog wheel, perforated | - |  |
| Cross, perforated | - | - |
| Nine-cog wheel, perforated, points folded over | - | - |
| Maltese cross, perforated | - | - |
| Cross, perforated, chipped | - | - |
| Six-cog wheel, perf., chpd | - | - |

15C.3.2. Notched

| 71n | CS 334 | J7, | -5.70 | $1.9 \times 3.8 \times 3.8$ | y brn |
| :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 70t | CS 588 | F7, | -2.80 (t) | $2.3 \times 3.3 \times 3.3$ | buff |
| 70 t | CS 603 | F7, | -3.50 | $2.3 \times 3.6 \times 3.6$ | lt brn |
| cf. 70t | CS 604 | F7, | -3.55 | $1.3 \times 2.8 \times 2.8$ | r brn |
| 710 | CS 624 | K7, | -6.55 (t) | $1.7 \times 3.2 \times 3.2$ | lt brn |

15C.3.3. Round

- CS 412
$\begin{array}{rlll}\text { I7, } & -3.65 \text { (t) } & 2.3 \times 4.7 \times 4.7 \\ \text { H4, } & -7.20 & 2.6 \times 3.2 \times 3.2\end{array}$
gy bm
dk gy
Whorl with ten
notches, perf., chipped
Whorl with twenty
notches, perforated
Whorl with twenty-two
notches, perforated
Whorl with sixteen
notches, perforated
Whorl with fifteen
notches, unperforated


## Hole et al. 1969:209, Mehmeh

fig. 90c Bayat
Dollfus 1978, fig. 20 (Ben- Susiana d-e debal 16-11, Ja'farabad 3-1)

Ghirshman 1938, Sialk II pl. 52:9 (Sialk)
t brn

72a
CS 521
Pillow-shaped, rounded, perf. Concave-base cone, perf.

Catalog 15. Chalcolithic Pottery and Baked Clay Objects (cont.)

| Plate | Site and <br> obj. no. | Plot and <br> elevation | Dimensions <br> in cm | Ware | Decorative <br> pattern |
| :--- | :--- | :--- | :--- | :--- | :--- |

## 15C. LATE AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) BAKED CLAY OBJECTS FROM CHIGHA SABZ (cont.)

15C.3. WHORLS (cont.)
15C.3.3. Round (cont.)

| 70 s | CS 525 | $\mathrm{H} 4,-7.30$ | $2.5 \times 3.1 \times 3.1$ | gy brn |
| :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 72a | CS 526 | $\mathrm{H} 4,-7.30$ | $2.4 \times 3.0 \times 3.0$ | y brn |


| Concave-base cone, perf. | G |
| :--- | :--- |
|  | 52 |
| Concave-base cone, perf. | E |
|  | fig |
|  | B) |
| Biconical whorl, perf. | - |
| Concave-base cone, perf. | - |
| Biconical whorl, unperf. | - |
| Flattened bicone, perf., incised | - |
| Conical whorl |  |
| Concave-base cone, unperf. | - |
| Concave-base flattened cone, perf. |  |
| Flattened sphere, perforated | - |

Ghirshman 1938, pl.
Sialk II
52:1, 4 (Sialk)
Egami and Masuda 1962, fig. 21:20, pl. 4:3 (Bakun B) Egami and Sono 1962, fig. 32:1-6 (Gap)


| - | - |
| :--- | :--- |
| - | - |
| - | - |
| - | - |
| - | - |
| - | - |

Ovoid

## Ovoid

Ovoid

| Le Breton 1947, 175 <br> (Bendebal) <br> de Mecquenem 1943, | Susiana c-d |
| :--- | :--- |
| 148 (Buhallan) <br> Le Breton 1947, 127; | Susiana d |
| Dollfus 1971a, 75; <br> Langsdorff and McCown <br> 1942:75, pl. 85:6-7 <br> (Bakun) | after Bakun |


| 72 g | CS 348 | J7, | -6.05 | $4.3 \times 2.6 \times 2.6$ | blk | Ovoid |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 72 g | $\operatorname{CS} 435$ | H 7, | -1.15 (t) $5.0 \times 3.3 \times 3.3$ | gy brn | Ovoid |  |


| cf. 72 g | CS 537 | H3, | -8.55 | (t) | $4.6 \times 2.7 \times 2.7$ | gy brn | Two ovoids |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 72 g | CS 622 | K7, | -7.20 | $4.7 \times 3.1 \times 3.1$ | gy brn | Ovoid | - |

15C.5. RINGS OR BEADS

| - | CS 208 | L7, | -9.10 | $0.4 \times 2.8 \times 2.8$ | y brn | Irregular ring | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | CS 351 | J7, | -6.10 | $0.5 \times 2.5 \times 2.5$ | gmbrn | Irregular ring | - | - |
| 72h | CS 372 | J7, | -5.45 | $0.8 \times 2.3 \times 2.3$ | y brn | Regular ring | - | - |
|  | CS 527 | H4, | -7.30 | $0.3 \times 1.6 \times 1.6$ | gy brn | Regular ring | - | - |
| 72 i | CS 594 | F7, | -3.25 | $0.8 \times 1.5 \times 1.5$ | buff | Hollow cone, perf. | - | - |
| 72j | CS 595 | F7, | -3.25 | $0.5 \times 1.6 \times 1.6$ | gy brn | Regular ring | - | - |
| J | CS 596 | F7, | -3.25 | $0.8 \times 2.3 \times 2.3$ | gy brn | Irr. ring, made on sherd | - | - |
| - | CS 598 | F7, | -3.25 | $2.1 \times 1.6 \times 1.6$ | buff | Concave cylinder, perf. | - | - |
| 15C.6. PENDANT |  |  |  |  |  |  |  |  |
| 72k | CS 209 | L7, | -9.10 | $2.8 \times 1.8 \times 1.8$ | dk brn, unbaked | Pear-shaped | - | - |
| 15C.7. TOKENS |  |  |  |  |  |  |  |  |
| 721 | CS 81 | M7, | -8.45 | $1.7 \times 1.3 \times 0.7$ | gy brn | Round-topped cylinder with wide base | de Mecquenem 1943: 9, fig. 3 (Susa) | Susa A |
| - | CS 190 | L7, | -8.25 | $1.6 \times 3.4 \times 3.4$ | y brn | Cylinder (broken) with wide base | Hole et al. 1969: 237, fig. 102f-h | Ali KoshBayat |
| 72 m | CS 251 | K7, | $-7.70$ | $3.5 \times 0.9 \times 0.9$ | y brn | Pointed cylinder with wider base | Ghirshman 1938, pl. $52: 26-31$ | Sialk I |
|  |  |  |  |  |  |  | Egami and Sono 1962, fig. 32:13 (Gap) | Gap |
| 72 n | CS 512 | H4, | -6.75 | $2.6 \times 2.0 \times 0.3$ | blk | Flat triangle with splayed feet | Le Brun 1971:176, fig. 42:8 (Acropole 27) Oates 1969:130, pl. 30b (Choga Mami) | Susa A <br> Samarra and Trans- |
| 15C.8. FIGURINES itional |  |  |  |  |  |  |  |  |
| 117a | CS 27 | N7, | -9.45 (t) | $3.2+\times 4.2 \times 3.4+$ | gy brn | Hedgehog(?) head, broken quadruped, legs combined | - | - |
| - | CS 252 | K7, | -7.70 | $4.9 \times 3.7+\times 2.1$ | brn, lightly baked | Quadruped, hole in belly | - | - |

Catalog 15. Chalcolithic Pottery and Baked Clay Objects (cont.)


| 73 f | KI 130 | O, | -4.70 | $6.6+\times 4.3 \times 2.31$ | It brn r | Base broken | Le Breton 1947:175, fig. 32:6 (Bendebal) | Susiana c-d |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Dollfus 1978:156, | Susiana |
|  |  |  |  |  |  |  | fig. 20 ( Ja 'farabad, $3 \mathrm{~m}-\mathrm{n}$ and later?) | $\mathrm{c}-\mathrm{e}$ (?) |


| 15D.2. WHORL |  |  |  |  |  |  | Hole et al. 1969: 210, fig. 91a | Mehmeh phase |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| 73 g | KI 128 | O, | -4.45 | $2.6 \times 4.3 \times 4.3$ | lt brn | Conical, perforation | - | - |
| 15D.3. SLING MISSILE |  |  |  |  |  |  |  |  |
| 73h | KI 134 | O, | -5.30 | $5.0 \times 3.6 \times 3.0$ | y brn | Ovoid | - | - |
| 15D.4. FIGURINE |  |  |  |  |  |  |  |  |
| 73 i | KI 138 | O, | $-6.45$ | $6.3+\times 2.8 \times 1.9$ | It brn, unbaked | Human with necklace (head broken), stump arms, spread legs | - | - |

## CHAPTER 16

# EARLY OR MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) METAL OBJECT 

by Maurits N. van Loon

If the strata in Chigha Sabz, plot H4, ran horizontally, one copper ring (CS 511, pl. 74a) should be attributed to the Early or Middle Chalcolithic. As stated in chapter 6, a large quantity of broken pottery, including wasters, was encountered there immediately below a Middle Bronze Age floor at a depth of -6.30 m . One of the wasters is described as light green ware painted with black stripes, showing that it was of Susa A type. The miniature goblet CS 513 (see catalog 15A.2.1 and pl. 68e) was found at -6.85 m . All this makes it likely that our copper ring is Chalcolithic, but the possibility that some Bronze Age intrusion went unnoticed or unrecorded should not be ruled out altogether.

Several copper implements were found at fifth millennium B.C. Sialk I and II (Ghirshman 1938:16-17,30) and quite a few more come from fourth millennium Sialk III and Hissar I (Schmidt 1937:57). Among these was one copper ring that, Schmidt thought, might be intrusive from level II (Schmidt 1937, pl. 16:H 2934). Gawra XVII (toward 4000 b.c.) yielded one copper ring as well (Tobler 1950:211, pl. 98a:5). In view of the extraordinary development of copper metallurgy during the fifth and fourth millennia in Iran (Muhly 1983:352, Majidzadeh 1979:85-88) it would not be surprising to find one copper ring in Early or Middle Chalcolithic context.

## CATALOG 16. EARLY OR MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) METAL OBJECT

| Plate | Site and <br> obj. no. | Plot and <br> elevation | Dimensions <br> in cm | Material | Description | Reference | Period |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 74 CS 511 | H4, -6.75 | $0.4 \times 2.3 \times 2.3$ | copper | Ring with over- <br> lapping ends | - | - |  |

[^24]
## CHAPTER 17

# CHALCOLITHIC STONE AND FAIENCE OBJECTS 

by Maurits $N$. van Loon

## 17A. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) STONE OBJECTS FROM CHIGHA SABZ

In the catalog the early and middle Chalcolithic stone finds are divided into the following major classes and described below:

```
17A.1 UNUSED CHIPPED STONE
17A.2 USED/RETOUCHED CHIPPED STONE
17A. }3\mathrm{ CHIPPED STONE TOOLS
17A.4 CHIPPED STONE CORE
17A.5 GROUND STONE TOOLS
17A.6 GROUND STONE ORNAMENTS
```


## 17A.1. UNUSED CHIPPED STONE

17A.1.1. Blades (see catalog)
17A.1.2. Flake (see catalog)
Most chipped stone pieces were mentioned by Schmidt as being retouched, i.e., displaying intentional or use retouch. The pieces not so mentioned are listed as unused chipped stone.

## 17A.2. USED/RETOUCHED CHIPPED STONE

17A.2.1. Blades (see catalog)
17A.2.2. Flakes (see catalog)
Most numerous by far among the Middle Chalcolithic stone finds registered were blades of flint ( 24 exx.), chert ( 13 exx.), chalcedony ( 5 exx.), or obsidian ( 1 ex.) that were described by Schmidt as retouched along one or both edges. In many cases the slightly ragged appearance of the sharp edges (pl. 74b, d) was probably caused simply by use of the blade (sometimes called 'use retouch').

## 17A.3. CHIPPED STONE TOOLS

17A.3.1. Serrated Blades (see catalog)
17A.3.2. Serrated Sickle Blades (see catalog)
17A.3.3. Backed Sickle Blades (see catalog)
17A.3.4. Other Sickle Blades (see catalog)
True retouch is sketchily rendered in a few tools that Schmidt described as 'serrated' (e.g., CS 99 and 420, pl. 74f, g). He did not record any sickle sheen; if he had, many of the used or retouched blades and especially the serrated blades would probably be classified as sickle blades. Dr. Mary M. Voigt was kind enough to check the pieces that are kept in the Philadelphia University Museum. It appeared that most of them had sickle sheen (see catalog
17.A.3.2: serrated sickle blades, 3.3: backed sickle blades, and 3.4: other sickle blades). Two of the latter have a well-defined narrow zone of sheen parallel to the long axis, indicating that they were probably set in a straight haft rather than a curved one.

The flint is described as gray ( 7 exx.), purple or purple brown ( 6 exx.), gray brown ( 5 exx.), or red brown ( 5 exx.). Chert is, somewhat surprisingly, described as black in six examples and as gray in four. 'Chalcedony' can apparently vary from white through purplewhite and dark red to gray-brown and gray-black. As in other parts of this work, the materials were identified visually by Schmidt, often with question marks which we have omitted. We have replaced 'steatite' everywhere by 'chlorite'.

## 17A.3.5. Borers

To judge by the drawings, two of the three examples were made into borers, one of which is illustrated (CS 8, pl. 74i).

## 17A.3.6. Point

One piece (CS 597, pl. 74j) was made into a point.

## 17A.4. CHIPPED STONE CORE

Only one flint core was collected (CS 86, pl. 74k).

## 17A.5. GROUND STONE TOOLS

17A.5.1. Mortars
Stones with a hollow ground into the center have been listed as mortars. As an alternative for CS 144 (cf. pl. 75a), Schmidt mentioned its possible use as a door socket.

## 17A.5.2. Abrader

The planoconvex sandstone disc (CS 352, pl. 75b) that was found near the mouth of the child's skeleton in plot J 7, burial x7, has been interpreted as an abrading tool such as used to remove body hair or calluses (cf., however, Hole et al. 1969:184; he proposes they were used for sanding wood).

## 17A.5.3. Whetstone

Although found 45 cm below the level where Chalcolithic pottery had started to appear, the attribution of the whetstone (CS 371, pl. 75c) to this period remains somewhat doubtful on typological grounds. Whetstones with suspension holes are a common find in Bronze Age and especially in Iron Age levels (Vanden Berghe 1973b:24, no. 60; 1973d:51, no. 33). On the other hand, stones were regularly perforated in Middle Chalcolithic Luristan to make maceheads and axeheads (Vanden Berghe 1973c:31, no. 7; 53, below; 55, nos. 12-14, and 57, above).

## 17A.5.4. Celt

Since the sharpened bit of CS 152 is missing and only the rounded triangular butt is preserved, we cannot be sure this was indeed a celt.

## 17A.5.5. Marbles

The three alabaster spheres (CS 199, 340, and 429), of which two were found in assured Chalcolithic contexts, were labeled 'marbles' by Schmidt.

17A.5.6. Token
The flat triangle with splayed feet (CS 517, pl. 741) suggests that accounting tokens were made of stone as well as of clay, if its clay counterpart (CS 512, pl 72n) has correctly been identified as such (see ch. 15C.7). Perhaps the alabaster spheres served accounting purposes as well (cf. the clay balls so used, Schmandt-Besserat 1979:24, 25, 28 ).

## 17A.6. GROUND STONE ORNAMENTS

## 17A.6.1. Beads

Of the beads one (CS 205) was found in the fill. The other forty-three beads (CS 354, pl. 130r) were found near the legs of burial J 7 x 7 and had no doubt decorated a skirt (see ch. 6, tab. 3).

## 17A.6.2. Pendants

Schmidt thought CS 592 (pl. 74n) represented a bird with the scratchings rendering spread wings and tail. In outline, CS 592 is comparable to a drop-shaped planoconvex stone seal pendant from Arpachiyah (Mallowan 1935, fig. 50:6), which has an x surrounded by radial notches carved on the flat side. Such 'seal pendants'-whether actually used for sealing or not-form a definite type at Arpachiyah. Perhaps CS 592 was imported from northern Iraq in the fifth millennium B.C.

## 17B. LATE CHALCOLITHIC (SUSA B-C) STONE OBJECTS FROM KAMTARLAN I

## 17B.1. CHIPPED STONE BLADES

Of the two obsidian blades (KI 132, 148, pl. 75d, g) one is mentioned as having retouch, i.e., probably use retouch.

## 17B.2. CHIPPED STONE TOOLS

Two serrated (sickle?) blades (KI 129, 141, pl. 75e-f) are of the large type with trapezoid section that is common in Syria and Anatolia from the later fourth well into the third millennium b.c. (see, e.g., Payne in Braidwood and Braidwood 1960:534, 537; Bronze Age examples from Kamtarlan I and II are treated in ch. 22).

## 17B.3. CELT

If the celt (KI 147) is made of obsidian, as its description suggests, that mineral is well represented among this small collection of finds from the limited Susa B-C exposure at Kamtarlan I.

## 17B.4. GROUND STONE ORNAMENTS

Three beads (KI 126, 131, pl. 75h and KI 152, pl. 75j) and a pendant (KI 142, pl. 75i) are included in this group. One bead is of a type occurring at Susa in a Susa C context.

## 17C. LATE CHALCOLITHIC (SUSA B-C) FAIENCE OBJECTS FROM CHIGHA SABZ AND KAMTARLAN I

Beside a faience seal (Sor 1700) attributed on stylistic grounds to the Middle Chalcolithic (Susa A) period in chapter 19, only one barrel-shaped white-and-green bead (KI 125 , see pl. 75 k and catalog) is ascribed to the Chalcolithic. It was found 15 cm below the -4.10 m contour that marks the upper limit of the Late Chalcolithic (Susa B-C) level at Kamtarlan I, plots O-P.

If correctly attributed and not intrusive, it is one of the few faience objects of such an early date in western Asia, but not the only one. Amiet (1972:16) dates the Louvre faience seal (S.228) to the Susa A period, as well as Falkner (1957-71:117); Stone and Thomas (1956:4041) quote occurrences of this material, mostly in the shape of beads, at fifth millennium b.c. Arpachiyah (Mallowan 1935:91, 98) and fourth millennium Gawra (Tobler 1950:178) and, possibly, Hissar I (Schmidt 1937:61). In the Jemdet Nasr period faience starts to be found in southern Mesopotamia.

A possible faience bracelet fragment is recorded from Chigha Sabz (CS 7).

CATALOG 17. CHALCOLITHIC STONE AND FAIENCE OBJECTS

| Plate | Site and <br> obj. no. | Plot and <br> elevation | Dimensions <br> in cm | Material Pescription | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- |

## 17A. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A)

STONE OBJECTS FROM CHIGHA SABZ
17A.1. UNUSED CHIPPED STONE
17A.1.1. Blades

|  | CS 78 | M7, | -8.30 | (t) | $2.9 \times 1.1 \times 0.8$ | stone | Blade(?) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| - | CS 185 | L7, | -8.20 |  | $5.5 \times 1.0 \times 0.4$ | flint | - |
| - | CS 189 | L7, | -8.25 |  | $7.1 \times 1.0 \times 0.2$ | flint | - |
| - | CS 373 | J7, | -5.45 |  | $2.3 \times 0.7 \times 0.2$ | obsidian | Bladelet |

## 17A.2. USED/RETOUCHED CHIPPED STONE

## 17A.2.1. Blades

|  | CS 6 | N7, | -8.85 | (t) | $5.6 \times 1.5 \times 0.5$ | flint |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| - | CS 24 | N7, | -9.25 | (t) | $2.9 \times 1.3 \times 0.5$ | flint |
| - | CS 52 | N7, -9.50 | (t) | $3.7 \times 1.1 \times 0.3$ | flint |  |
| - |  |  |  |  |  |  |
| - | CS 71 | M7, -8.25 | (t) | $3.6 \times 1.1 \times 0.5$ | flint |  |
| - | CS 76 | M7, -8.30 | (t) | $2.9+\times 1.7 \times 0.5$ | flint |  |
| - | CS 77 | M7, -8.30 | (t) | $3.1 \times 1.3 \times 0.3$ | flint |  |
| - | CS 82 | M7, -8.60 | (t) | $4.9 \times 1.2 \times 0.3$ | flint |  |
| - |  |  |  |  |  |  |
| - | CS 83 | M7, -8.60 | (t) | $1.5+\times 0.9 \times 0.3$ | chalcedony |  |
| - | CS 88 | M7, -8.30 | (t) | $2.9+\times 1.6 \times 0.5$ | flint |  |
| - | CS 92 | M7, -8.30 | (t) | $4.4 \times 1.4 \times 0.3$ | chalcedony |  |
| - | (t) | $3.5 \times 1.4 \times 0.2$ | flint |  |  |  |

Blade with use(?) retouch
Blade with use(?) retouch
Blade segment, both ends snapped; retouch/use along part of one edge, other edge used(?)
Blade with use(?) retouch
Blade with use(?) retouch, broken
Blade segment, distal end, snapped; use/retouch on both edges, no sheen
Blade segment, proximal end, snapped; heavy use/ retouch on both edges
Bladelet with use(?) retouch, broken
Blade with use(?) retouch, broken
Blade with use(?) retouch
Blade segment, distal end, snapped; use on both edges, no sheen
${ }^{1}$ Below summit in meters; (t) means context is mixed, object assigned to this period on typological grounds.

Catalog 17. Chalcolithic Stone and Faience Objects (cont.)

| Plate | Site and <br> obj. no. | Plot and <br> elevation | Dimensions <br> in cm | Material | Description |
| :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Reference $\quad$ Period

## 17A. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) STONE OBJECTS FROM CHIGHA SABZ (cont.)

17A.2. USED/RETOUCHED CHIPPED STONE (cont.)
17A.2.1. Blades (cont.)

| - | CS 92 | M7, | -8.45 | (t) | $3.5 \times 1.4 \times 0.2$ | flint |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | CS 95 | M7, | -8.80 | (t) | $4.3 \times 1.6 \times 0.4$ | chalcedony |
| - | CS 95 | M7, | -8.80 | (t) | $4.3 \times 1.6 \times 0.4$ | chalcedony |
|  | CS 102 | M7, | -8.90 | (t) | $3.8 \times 0.9 \times 0.3$ | flint |
|  | CS 181 | L7, | -7.90 |  | $3.7 \times 1.5 \times 0.4$ | flint |
|  | CS 186 | L7, | -8.20 |  | $4.8 \times 1.3 \times 0.4$ | chert |
| 74b | CS 200 | L7, | -8.85 |  | $4.5 \times 1.7 \times 0.4$ | flint |
| - | CS 223 | K7, | -6.05 |  | $4.3 \times 1.5 \times 0.4$ | chert |
|  | CS 224 | K7, | -6.05 |  | $4.1 \times 2.8 \times 0.5$ | chert |
| 74d | CS 413 | 17, | -3.65 | (t) | $4.7 \times 1.8 \times 0.5$ | chert |
| - | CS 424 | 17, | -3.80 | (t) | $4.8 \times 1.5 \times 0.4$ | flint |
| - | CS 428 | I7, | -4.15 | (t) | $4.7 \times 1.9 \times 0.4$ | flint |
| - | CS 433 | H7, | -1.10 | (t) | $4.6 \times 1.4 \times 0.5$ | flint |
| - | CS 485 | H5, | -4.40 | (t) | $4.1 \times 1.2 \times 0.2$ | flint |
| - | CS 509 | H4, | -5.95 | (t) | $6.5 \times 1.3 \times 0.5$ | chert |
|  | CS 520 | H4, | -6.80 |  | $6.8 \times 1.9 \times 0.5$ | flint |
| - | CS 609 | F7, | -3.55 |  | $4.4 \times 1.4 \times 0.3$ | flint |
| - | CS 613 | 17, | -3.35 | (t) | $3.9 \times 1.2 \times 0.4$ | obsidian |
| - | CS 614 | I7, | -3.35 | (t) | $4.6 \times 2.0 \times 0.4$ | chert |
| - | CS 51 | N7, | -9.50 | (t) | $4.3 \times 2.2 \times 0.5$ | chalcedony |
| 74 e | CS 259 | K7, | -7.90 |  | $5.5 \times 3.0 \times 0.8$ | chert |


| Blade segment, distal end, snapped; use on both | - |  |
| :--- | :--- | :--- |
| edges, no sheen |  |  |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade segment, snapped both ends; one edge | - | - |
| retouched/used, notched; other edge used; no | - | - |
| sheen | - | - |
| Blade segment, snapped at both ends; use on one | - | - |
| edge only | - | - |
| Blade with use(?) retouch | - | - |
| Blade with use(?) retouch |  |  |
| Blade segment, proximal end; heavy use or retouch |  |  |
| on one edge; nicked on other; no sheen | - | - |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade with use(?) retouch |  |  |
| Blade segment, distal end; proximal end snapped; |  |  |
| one edge retouched, other edge and end used(?) | - | - |
| Flake with use(?) retouch | - | - |
| Flake with use(?) retouch | - | - |

17A.3. CHIPPED STONE TOOLS

## 17A.3.1. Serrated Blades

| 74f | CS 99 | M7, | -8.90 | (t) | $5.2 \times 1.3 \times 0.4$ | flint |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

17A.3.2. Serrated Sickle Blades

| - | CS 336 | J7, | -5.70 | $4.4 \times 1.5 \times 0.4$ | chert |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |
| 74 g | $\operatorname{CS} 420$ | I7, | -3.80 | (t) | $2.3 \times 1.5 \times 0.4$ | chert |

## 17A.3.3. Backed Sickle Blades

| - | $\operatorname{CS} 50$ | N 7, | -9.50 | (t) | $5.5 \times 1.5 \times 0.4$ | flint |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |
| 74 h | $\operatorname{CS} 201$ | L7, -8.85 | $3.7 \times 1.3 \times 0.3$ | chert |  |  |

## 17A.3.4. Other Sickle Blades

| - | CS 91 | M7, -8.45 | (t) | $4.3 \times 1.7 \times 0.4$ | flint |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | CS 100 | M7, -8.90 | (t) | $5.9 \times 1.5 \times 0.5$ | flint |
|  |  |  |  |  |  |
| - | CS 151 | L7, -7.80 | $4.1 \times 1.5 \times 0.5$ | chert |  |
|  |  |  |  |  |  |
| - | CS 158 | L7, -7.75 | $3.1 \times 1.0 \times 0.4$ | chert |  |
| - | CS 202 | L7, -8.85 | $3.3 \times 1.1 \times 0.3$ | chert |  |

Catalog 17. Chalcolithic Stone and Faience Objects (cont.)


|  | CS 45 | N7, $-9.50(t)$ | $4.4 \times 1.0 \times 0.4$ | obsidian |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | CS 310 | J7, $-4.65(t)$ | $6.5 \times 1.6 \times 0.5$ | flint |

17A.3.6. Point

| 74j | CS 597 | F7, -3.25 | $5.4 \times 1.6 \times 0.5$ | chert | Point | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17A.4. CHIPPED STONE CORE |  |  |  |  |  |  |  |
| 74k | CS 86 | M7, -8.45 (t) | $3.5 \times 2.9 \times 2.1$ | flint | - | - | - |
| 17A.5. GROUND STONE TOOLS |  |  |  |  |  |  |  |
| 17A.5.1. Mortars |  |  |  |  |  |  |  |
| $75 a$ | CS 145 | $\mathrm{L} 7,-8.00$ | $10.7 \times 10.1 \times 7.4$ | stone | $\overline{\text { Chipped }}$ | - | - |
|  | $\text { CS } 144$ | $\text { L7, }-8.00$ | $15.5 \times 12.3 \times 8.4$ | stone | Chipped | - | - |
| 17A.5.2. Abrader |  |  |  |  |  |  |  |
| 75 b | CS 352 | J7, x7, -5.50 | $7.8 \times 7.8 \times 3.1$ | sandstone | Plano-convex disc | - | - |
| 17A.5.3. Whetstone |  |  |  |  |  |  |  |
| 75 c | CS 371 | J7, -5.70 | $10.7 \times 2.9 \times 1.3$ | stone | Oblong, perforated at top | - | - |
| 17A.5.4. Celt |  |  |  |  |  |  |  |
| - | CS 152 | L7, -7.80 | $2.6 \times 2.3+\times 1.1$ | diorite | Butt of broken celt | - | - |
| 17A.5.5. Marbles |  |  |  |  |  |  |  |
| - | CS 199 | L7, -8.65 | $1.5 \times 1.5 \times 1.5$ | alabaster | Sphere | - | - |
| - | CS 340 | J7, -5.85 | $1.0 \times 1.0 \times 1.0$ | alabaster | Sphere | - | - |
| - | CS 429 | I7, -4.05 (t) | $1.5 \times 1.5 \times 1.5$ | alabaster | Sphere | - | - |
| 17A.5.6. Token |  |  |  |  |  |  |  |
| 741 | CS 517 | H4, -6.60 | $1.7 \times 1.1 \times 0.3$ | stone | Flat triangle with splayed feet | cf. CS 512 (ch. 15C.7) Meldgaard et al. 1963, fig. 20c (Guran) | $\begin{aligned} & 6500- \\ & 5500 \\ & \text { B.C. } \end{aligned}$ |

Catalog 17. Chalcolithic Stone and Faience Objects (cont.)

| PlateSite and <br> obj. no. | Plor and <br> elevation | Dimensions <br> in cm | Material | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- |

## 17A. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) STONE OBJECTS FROM CHIGHA SABZ (cont.)

17A.6. GROUND STONE ORNAMENTS
17A.6.1. Beads

| - | CS 205 | L7, -8.85 | $1.0 \times 0.8 \times 0.8$ | chlorite | Cylinder | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 130r: 1 | CS 354:1 | J7, x7, -5.50 | $0.4 \times 0.2$ | wh/lmst | Disc | - |  |
| 130r:2 | CS 354:2 | J7, x7, -5.50 | $0.3 \times 0.3$ | wh/lmst | Short cylinder ( 42 other cylinders and discs, bone/limestone) | - | - |
| 17A.6.2. Pendants |  |  |  |  |  |  |  |
| 74 m | CS 249 | K7, -7.75 | $1.4 \times 0.9 \times 0.4$ | stone | Oblong, perf. at top off center | - | - |
| - | CS 267 | K7, -8.00 | $1.9+\times 0.6 \times 0.6$ | chalcedony | Slender cone | - | - |
| $74 n$ | CS 592 | F7, -3.25 | $2.3 \times 1.7 \times 0.7$ | chalcedony | Spade-shaped, plano-convex, perf. widthwise; horizontal and radial incisions on flat side | Mallowan 1935, fig. 50:6 (Arpachiyah) | Halaf |
| 740 | CS 602 | F7, -3.45 | $2.5 \times 2.5 \times 0.8$ | alabaster | Convex disc, perf. diametrically | - | - |

17B. LATE CHALCOLITHIC (SUSA B-C) STONE OBJECTS
FROM KAMTARLAN I
17B.1. CHIPPED STONE BLADES

| 75 d | KI 132 | O, | -4.70 | $4.1 \times 1.3 \times 0.3$ | obsidian <br> obsidian | Blade with use(?) retouch <br> Bladelet |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 75 g | KI 148 | P, | -5.40 | $2.3 \times 0.8 \times 0.2$ |  | - |
| 17B.2. CHIPPED STONE TOOLS |  |  | - |  |  |  |
| 75 e | KI 129 | O, | $-4.30(\mathrm{t})$ | $5.3 \times 1.9 \times 0.3$ | flint | Denticulated Blade |

17B.3. GROUND STONE TOOLKI $147 \quad$ P, $\quad-5.40$
$1.6 \times 1.4 \times(?)$
obsidian
Celt

17B.4. GROUND STONE ORNAMENTS

|  | KI 126 | O, -4.10 | $1.5 \times 1.5 \times$ (?) | carnelian | Convex biconical bead | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 75h | KI 131 | O, 4.70 | $3.0 \times 1.5 \times 1.5$ | chalcedony | Olive-shaped bead |  | - |
| 75 i | KI 142 | $\mathrm{P}, \quad-5.30$ | $1.2 \times 1.0 \times 1.0$ | chlorite | Pear-shaped pendant |  |  |
| 75j | KI 152 | P, -6.00 | $1.1 \times 1.0 \times 0.4$ | serpentine | Lozenge-shaped bead; two incised centered circles |  | Susa C <br> Early Northern Ubaid |
|  | 17C. LATE CHALCOLITHIC (SUSA B-C) FAIENCE OBJECTS FROM CHIGHA SABZ AND KAMTARLAN I |  |  |  |  |  |  |
| - | CS 7 | N7, -8.85 | $1.7 \times 0.8$ | faience(?) | Bracelet(?) fragment | - | - |
| 75k | KI 125 | O, -4.25 | $2.2 \times 1.3 \times 1.3$ | faience | Barrel-shaped bead | - | - |

## CHAPTER 18

# CHALCOLITHIC BONE AND SHELL OBJECTS 

by Maurits N. van Loon

## 18A. EARLY AND MIDDLE CHALCOLITHIC <br> (SUSIANA c-SUSA A) BONE AND SHELL OBJECTS FROM CHIGHA SABZ

18A.1. PINS
The pins (see catalog and pl. 76a) are too short to have served as garment fasteners or as spindles; they may also have been used as piercing tools.

18A.2. AWLS
18A.2.1. Sheep/Goat Metapod
18A.2.2. Fragments of Larger Bones
As in most early Near Eastern settlements, from Neolithic to Early Bronze Age, awls outnumbered other bone finds. Most of them were made of sheep or goat metapodials (see catalog and pl. 76b). Presumably they were used most of all for leatherwork.

## 18A.3. DAGGER OR PICK

The outsize awl-like object CS 362 (pl. 76d) probably would not have served as an awl, but rather as a pick or even possibly as a dagger.

18A.4. HORNS

## 18A.4.1. Unused

18A.4.2. Used
Several horns were registered on the chance that they had served as tools or containers. Only one horn (CS 238, pl. 76e) appears to have been tied or fastened to some object by two holes drilled in its base.

## 18A.5. TOOTH PENDANT

To judge by its find spot near the chest of a child's skeleton, the animal tooth (CS 353, pl. 76f) was used as a pendant. A string could have been tied around the slight groove that exists between the enamel-coated part and the root.

## 18A.6. SHELLS

Two shells and a fossil were recorded, but showed no traces of use.

18B. LATE CHALCOLITHIC (SUSA B-C) BONE AND SHELL OBJECTS FROM KAMTARLAN I

18B.1. SPOON
The spoon (pl. 76 g ), a remarkably fine piece of workmanship, may well have served to apply cosmetics, and not condiments as modern parallels would suggest.

## 18B.2. SHUTTLE OR NET SPACER

With respect to Iron Age Egypt and Palestine, Petrie has referred to objects like KI 149 (pl. 76h) as mesh gauges for making fish nets (Petrie 1928:17, pl. 34:5-34). Their use as shuttles in weaving is perhaps more likely in our instance.

## 18B.3. BEAD

One shell was found (KI 154, pl. 76i) which was used as a bead.

CATALOG 18. CHALCOLITHIC BONE AND SHELL OBJECTS

| Plate | Site and obj. no. | Plot and elevation | Dimensions in cm | Material | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18A. EARLY AND MIDDLE CHALCOLITHIC (SUSIANA c-SUSA A) BONE AND SHELL OBJECTS FROM CHIGHA SABZ |  |  |  |  |  |  |  |
| 18A.1. PINS |  |  |  |  |  |  |  |
| 76a | CS 257 | K7, -7.90 | $8.8 \times 0.8 \times 0.4$ | bone | Pin with one pointed, one end blunt | - | - |
| cf. 76a | CS 258 | K7, -7.90 | $7.5 \times 0.8 \times 0.4$ | bone | Pin with one pointed, one end blunt | - | - |
| 18A.2. AWLS |  |  |  |  |  |  |  |
| 18A.2.1. Sheep/Goat Metapods |  |  |  |  |  |  |  |
| 76 b | CS 180 | L7, -7.90 | $8.0 \times 1.5 \times 0.7$ | bone | - | Dollfus 1975, fig. 45:8 (Ja'farabad 6-4) | Susiana b |
| cf. 76b | CS 204 | L7, -8.85 | $7.4 \times 1.5 \times 0.6$ | bone | - | Hole et al. 1969: <br> 214, fig. 92a <br> (Ali Kosh) | Moh. Jaffar |
| cf. 76 b | CS 255 | K7, -7.90 | $10.8 \times 1.3 \times 1.1$ | bone | - | Ghirshman 1938, pl. 54:7, 12, 13 (Sialk) | Sialk I-II |
| cf. 76 b | CS 256 | K7, -7.90 | $7.7 \times 1.8 \times 1.0$ | bone | - | , | - |
| 18A.2.2. Fragments of Larger Bones |  |  |  |  |  |  |  |
| - | CS 196 | L7, -8.50 | $3.5 \times 1.2 \times 0.4$ | - | - | Dollfus 1975, fig. 45:9 (Ja'farabad 6-4) | Susiana b |
| 76 c | CS 198 | L7, -8.85 | $9.2 \times 1.7 \times 0.7$ | - | - | Hole et al. 1969:214, fig. 92e (Sabz) | Bayat |
| cf. 76 c | CS 241 | K7, -7.55 | $9.5 \times 1.7 \times 1.6$ | - | - | Egami and Sono 1962, fig. 34:7-10 (Gap) | Gap |
| 18A.3. DAGGER OR PICK |  |  |  |  |  |  |  |
| 76d | CS 362 | J7, -6.15 | $16.7 \times 3.4 \times 2.6$ | bone | Pointed blade on catte metapod | Egami and Sono 1962, fig. 33:2, 4 (Gap) | Gap |

Catalog 18. Chalcolithic Bone and Shell Objects (cont.)


18B. LATE CHALCOLITHIC (SUSA B-C) BONE AND SHELL
OBJECTS FROM KAMTARLAN I
18B.1. SPOON
76 g
KI 139
P, $\quad-4.90$
$5.0+\times 1.6 \times 0.3$ bone
Circular bowl

18B.2. SHUTTLE OR NET SPACER
76h KI $149 \quad$ P, $-5.55 \quad 14.1 \times 1.9 \times 0.2$ bone $\quad$ Blunt end broken

Hole et al. 1969: Bayat
214 , fig. 92 g
(Sabz)
Egami and Sono Gap
1962, fig. 33:1
(Gap)
18B.3. BEAD

## CHAPTER 19

# CHALCOLITHIC STAMP AND CYLINDER SEALS ${ }^{1}$ 

by Maurits $N$. van Loon

19A. MIDDLE AND LATE CHALCOLITHIC<br>(SUSA A-C) STAMP SEALS

We have attributed ten stamp seals to the Chalcolithic on typological grounds; one was found at the Bronze Age site of Kamtarlan II, the nine others at the Iron Age site of Surkh Dum-i-Luri. Following the criteria used above, i -iv and vi-ix should be Middle Chalcolithic, v and $x$ Late Chalcolithic. Amiet has remarked upon the fact that stamp seals appear relatively late in Iran (1972:25). Whereas stamp seals and seal impressions are found at Çatal Hüyük, Ugarit VC, and Bouqras around 6000 b.c. (Mellaart 1967:220, pl. 121; de Contenson 1962:509, fig. 31A; Akkermans and Roodenberg 1979, fig. 13, nos. $10-12$ ) and at a number of Mesopotamian sites during the sixth and fifth millennia b.c. (Homès-Fredericq 1970; Porada 1965b:140-43), they do not seem to occur at Iranian sites before the late fifth millennium B.C. (Le Breton 1957, fig. 8, nos. 1-2, from Bendebal, attributed to Susiana d; Contenau and Ghirshman 1935:42, pl. 38, no. 45, from Giyan VB: cf. McCown 1942:13 and Dyson 1968:310 for the date).

We consider the Chalcolithic stone pendant CS 592 (pl. 74n), probably imported from northern Iraq in the fifth millennium B.C., as a pendant in the first place, although its parallels at Arpachiyah indicate it may have been used for sealing as well (see ch. 17A.6.2.). By the early fourth millennium stamp seals are found at Susa A, Giyan VC, Sialk III ${ }_{1}$, and Hissar IA (Amiet 1961:17-22; 1972:5-32; Contenau and Ghirshman 1935: 42, 47, pl. 35, nos. 5-8, pl. 38, nos. 23-44, and 46-47; Ghirshman 1938:56, pl. 86, no. S. 417; Schmidt 1937, pl. 15, nos. H 2051, 3800), becoming even more popular in the late fourth millennium b.C.

## 19A.1. EARLY BUTTON SEALS (Nos. i-v)

No. i (Sor 1292, pl. 77:i)
Round button seals with quadrants hatched clockwise or counterclockwise are among the earliest Iranian seals, occurring at Bendebal, ca. 4375-4000 b.c.(Le Breton 1957, fig. 8:12), Giyan VC, ca. 4000-3250 b.c. (Giyan 25), and Sialk III4, ca. 3500-3400 (Ghirshman 1938, pl. 86, no. S. 259). Square or rectangular stamp seals with similar designs seem to appear a bit later, at Sialk $\mathrm{III}_{6}$, ca. 3250 b.c. (Ghirshman 1938, pl. 86, no. S. 1701) and at Susa (Susa 51). As in many of the Susa examples (Amiet 1972:6), the central perforation on stamp seal no. i is secondary, having been made after the loop had broken.

No. ii (KII 418, pl. 77:ii)
This oval to lozenge-shaped button seal displays a cross with radial lines. Somewhat comparable designs occur on some of the earliest Iranian circular button seals (Susa 40; Giyan 45, Giyan VB; Hissar H 3800, Hissar IA).
${ }^{1}$ Abbreviated designations for seals used in chapters 19,24 , and 32 follow the text for this chapter.

No. iii (Sor 387, pl. 77:iii)
Seals with drillings added to a rectilinear design are placed at the end of Susa A by Amiet (Susa 57, 155). Large convex button seals made of schist or bitumen are characteristic of Susa B (Susa 201 ff .). A design resembling our seal, but without drillings, is visible on the fragmentary chlorite hemispheroid Susa 200, that Pierre Amiet attributes to Luristan on account of its diagonal hatching. Drillings are also combined with rectilinear patterns on a large square button seal from Sialk $\mathrm{III}_{6}$, ca. 3250 (Ghirshman 1938, pl. 86, no. S. 129), and on a round button seal from Giyan VD (3250-3100 B.C.) (Contenau and Ghirshman 1935, pl. 35, no. 2).

No. iv (Sor 1700, pl. 77:iv)
Since faience hemispheroid stamp seals occur as early as Susa A (Amiet 1972:16 discussing Louvre S. 228), it is perhaps not too bold to attribute our button seal iv to that period on account of its similarity in design to other early seals such as Louvre S. 88b (Delaporte 1920, pl. 37, no. 2) and Susa 196. A border similar to that on the present seal occurs on our seal viii.

No. v (Sor 353, pl. 77:v)
Small chlorite button seals with crudely scratched, vaguely cruciform designs are relatively common among fourth millennium Iranian seals. A seal from Hissar IC (Hissar H $3427,3250-2900$ B.c.) has parallel scratchings suggesting a cross, similar to stamp seal v.

## 19A.2. SEALS WITH LENTOID SECTION (Nos. vi-x)

No. vi (Sor 307, pl. 77:vi)
The Susa A button seals occasionally present a rectangular or rounded rectangular outline (Susa 4, 47, and 49), but no rectangular seals with lentoid section and engraving on both faces are known from that site (Amiet 1972:27). At Giyan and elsewhere in Luristan, however, such seals made of "steatite" (probably chlorite), seem to have been common in Susa A times (Herzfeld 1933:102, figs. 24-25, pls. 2-3; Porada 1965a, pl. 5, top). Normally they show a horned genie dominating game or dominating a pair of snakes. Our seal, with its geometric designs, including a cross over a lozenge and radial lines, seems closer to the designs on the earliest Iranian button seals (Susa 11; Giyan 45, 47, Giyan VB, VC; Hissar H 2051, Hissar IA).

No. vii (Sor 284, pl. 77:vii)
The square with diagonals that decorates this large seal also appears on the oval chlorite hemispheroid Susa 91, attributed to Susa A (4000-3500 b.C.).

No. viii (Sor 1195, pl. 77:viii)
A circle with diagonals and hatching along the edge decorates this small serpentine seal. One might compare the sun designs with dentate borders on chlorite hemispheroids from early fourth millennium graves at Dum Gar, Parcineh in Luristan (Vanden Berghe 1975b, fig. 9a-b). Similar seals from Susa A had already been attributed to a Luristan origin by Amiet (Susa 195 and 196).

No. ix (Sor 1214, pl. 77:ix)
Another small serpentine seal is engraved with the extremely common design of a cross with angles in the quadrants. This design was among the earliest to be carved on button seals (Louvre S. 31b; Susa 33; Giyan 41, Giyan early VC, and Sialk 1, pl. 86, no. S. 417, Sialk
$\mathrm{III}_{1}$, ca. 4000 b.c.). Soon it also appeared on hemispheroids or disc seals (Susa 97; Giyan 23, Giyan late VC, Sialk 1, pl. 86, no. S. 85, Sialk III ${ }_{6}$, and Hissar H 4447, Hissar IC, ca. 3250 в.с.).

No. x (Sor 961, pl. 77:x)
Hemispherical limestone stamps, with animals composed of large drillings and a few curving or straight lines, are characteristic of Susa Cb, 3100-3000 b.C. (Amiet 1972:48). The animal on our seal is probably meant to be a goat (cf. Susa 385). In many seals of this type, however, the large curve denotes the tail, and two short antennalike lines depict the head of the beast (e.g., Susa 352 and 383).

## 19B. LATE CHALCOLITHIC (SUSA B-C) CYLINDER SEALS

## 19B.1. PROTOLITERATE (Nos. 1-6)

The first three Protoliterate cylinder seals were found in Late Chalcolithic (Susa B-C) context at Kamtarlan I, and the last three, found at the Iron Age site of Surkh Dum-i-Luri, are attributed to the Late Chalcolithic period on typological grounds. These six seals are of the type with simplified animal designs that appear at Uruk and Girsu (modern Tello) since Late Uruk and at Susa since Jemdet Nasr times (ca. 3300-3100 and 3100-2900 b.C., respectively, Amiet 1961:34). Ashmolean 28 and 59 are examples from Jemdet Nasr itself.

No. 1 (KI 146, pl. 78:1)
On Ashmolean 59, on an example from Girsu (Parrot 1948, pl. 2), and on Louvre S. 179 from Susa we see one row of outlined lentoid shapes like those on our cylinder seal 1 , accompanied by simple lentoids with tails. In discussing Ashmolean 1, Briggs Buchanan has suggested that these shapes may indicate canals or pools accompanied by fish. A double row of outlined lentoids, as on cylinder seal 1, occurs on a seal from Uruk (Nöldeke and Lenzen 1940, pl. 37c) and on Susa 809, found in a Jemdet Nasr grave.

Nos. 2 and 4 (KI 145, Sor 498, pl. 78:2, 4)
The lozenge outlines of the lentoids on cylinder seals 2 and 4 do not seem to have any chronological significance. They occur together with multiple curves on Diyala 171 (Protoliterate d) and together with vertical lines on Susa 824, again of the Jemdet Nasr period. Diyala cylinder seals 59 and 177, from Protoliterate c and d respectively, show pairs of outlined lentoids separated by pairs of vertical lines, as on cylinder seal 2.

No. 3 (KI 151, pl. 78:3)
Related composite scenes like that on cylinder seal 3 lend strength to the belief, expressed by Henri Frankfort in discussing the Diyala examples, that many of these geometric designs are disintegration products of the temple-and-flock motif. Thus, the chevron panel of cylinder seal 3 can be found on Diyala 16 (Protoliterate c) and 179 (Protoliterate d) next to recognizable temple facades.

No. 5 (Sor 1302, pl. 78:5)
Seals showing two or three goats, with drillings to indicate articulations and vegetation, occur in the Diyala region since Protoliterate d (e.g., Diyala 204 and 205) and at Susa during Proto-Elamite times, which lasted until about 2750 b.c. (e.g., Susa 1033-1038; for the Xshaped star or quatrefoil cf. Susa 1042, Morgan 22). Frankfort has suggested that such animal
friezes, too, originated as simplified versions of the temple-and-flock motif (Frankfort 1955:16). The inclusion of two or more different types of horned animals, however, may be due to an Iranian preference also seen in the Diyala region (cf. Susa 901, 904, 914, and 1031; Diyala $15,39,54,55,76,82$, and 219). A seal from Godin V (ca. 3300-3000 B.C.) includes three large goats, one of which is looking back, as well as clustered drillings, five-rayed stars, and mechanically produced centered circles (called 'drill centered circles' by Weiss and Young 1975, pl. 4a, fig. 5, no.8). Such centered circles and radial stars are elements of a regional style that first appeared at Susa Ca-b (ca. 3300-3000 B.c.) and flourished at Susa Cc (ca. 30002900 b.c.), on the Diyala, and at Nineveh (Weiss and Young 1975:12-13). On cylinder seal 5, it looks as though the seal cutter, starting from what in the impression is the right-hand ibex, worked from right to left and, finding himself short of space at the end, decided to turn the leading animal's head backward. The same composition occurs on a contemporary seal from the Hahn Collection (van Buren 1939, fig. 43).

No. 6 (Sor 486, pl. 78:6)
On this black stone (bitumen?) seal, groups of diagonal incisions form multiple Xs with lentoidlike designs in the interstices and centered circles both on and between the Xs. At Jemdet Nasr (Protoliterate c-d) sites in Mesopotamia and at Proto-Elamite Susa, cylinder seals often dispiay quatrefoils alternating with lentoids. The lentoids and the dots at the heart of the quatrefoils may or may not be outlined (cf. Diyala 9, 10, and 51 from Protoliterate c levels, ca. 3100-3000 b.c.; Diyala 96 and 153 from Protoliterate d, ca. 3000-2900 b.C.; Susa 826, 11181120). In Protoliterate d, disintegration of the quatrefoils leads to a purely geometric design not unlike the disintegration product of the earlier animal-row motif (Diyala 96, 97, 153, and 216-cf. Diyala 44-47; Susa 832, 850, and 1228-cf. Susa 753; within the Proto-Elamite period, Amiet would attribute Susa 705-922 to phase Cc, ca. 3100-2900 B.C., and Susa 10181369 to phase Da, ca. 2900-2750 в.C.). The closest parallels in design to cylinder seal 6 are Diyala 97 and 228 (the latter found in an Early Dynastic I level, ca. 2900-2750 B.c.). In size, cylinder seal 6 falls between Diyala $153(3.0 \times 1.4 \mathrm{~cm})$ and $96(3.8 \times 1.6 \mathrm{~cm})$.

## SEAL ABBREVIATIONS

Seals from sites outside of Luristan, discussed as parallels for our seals, are referred to by the number under which they were published in the following works. Example: Diyala 161 $=$ the seal published as no. 161 in Henri Frankfort, Stratified Cylinder Seals from the Diyala Region (OIP 72).

Ashmolean
Buchanan, Briggs
1966 Catalogue of Ancient Near Eastern Seals in the Ashmolean Museum I: Cylinder Seals. Oxford: Clarendon Press.
Berlin Rollsiegel
Moortgat, Anton
1940 Vorderasiatische Rollsiegel: Ein Beitrag zur Geschichte der Steinschneidekunst. Berlin: Gebr. Mann.

Berlin Stempelsiegel
Jakob-Rost, Liane
1975 Die Stempelsiegel im Vorderasiatischen Museum. East Berlin: Akademie Verlag.

Bibliothèque Nationale
Delaporte, Louis
1910 Catalogue des cylindres orientaux et des cachets assyro-babyloniens, perses et syro-cappadociens de la Bibliothèque Nationale. Paris: Emest Leroux.
British Museum
Wiseman, Donald J.
1959 Cylinder Seals of Western Asia. London: British Museum.
Brussels
Speleers, Louis
1917 Catalogue des intailles et empreintes orientales des musées royaux du cinquantenaire. Volume 1. Brussels: Vromant and Company.

1943 Catalogue des intailles et empreintes orientales des musées royaux du cinquantenaire. Supplement. Brussels: Vromant and Company.

Diyala
Frankfort, Henri
1955 Stratified Cylinder Seals from the Diyala Region. OIP 72. Chicago: The University of Chicago Press.

Fauna
Van Buren, Elizabeth Douglas
1939 The Fauna of Ancient Mesopotamia. Analecta Orientalia 18. Rome: Pontificium Institutum Biblicum.

Giyan
Contenau, George and Ghirshman, Roman
1935 Fouilles du Tépé-Giyan près de Néhavand 1931 et 1932. Musée du Louvre, Département des antiquités orientales, Série archéologique 3. Paris: Paul Geuthner.
Hague
Zadoks, Annie Nicolette (Josephus Jitta)
1952 Catalogue sommaire des cylindres orientaux au Cabinet royal des médailles à la Haye. The Hague: Imprimerie d'état.

Halaf
Hrouda, Barthel
1962 Die Kleinfunde aus historischer Zeit. Tell Halaf 4. Berlin: Walter de Gruyter.

Hama
Riis, Poul J.
1948 Hama. Fouilles et Recherches de la Fondation Carlsberg 1931-1938 II 3: Les Cimetières à Crémation. Nationalmuseets Skrifter Stoerre Beretninger 1. Copenhagen: Nordisk Forlag.

Hissar
Schmidt, Erich F.
1937 Excavations at Tepe Hissar, Damghan. Publications of the Iranian Section of the University Museum. Philadelphia: University of Pennsylvania Press.
Louvre
Delaporte, Louis
1920 Musée du Louvre: Catalogue des cylindres, cachets et pierres gravées de style oriental I: Fouilles et Missions. Paris: Hachette.

1923 Musée du Louvre: Catalogue des cylindres, cachets et pierres gravées de style oriental II: Acquisitions. Paris: Hachette.
Marlik
Negahban, Ezat O.
1964 A Preliminary Report on Marlik Excavation. Tehran: Iranian Archaeological Service.

Morgan
Porada, Edith
1948 The Collection of the Pierpont Morgan Library, edited by E. Porada. The Bollingen Series XIV. Corpus of Ancient Near Eastern Seals in North American Collections I. Washington, D.C.: Pantheon Books, Inc.

Newell
Osten, Hans Henning von der
1934 Ancient Oriental Seals in the Collection of Mr. Edward T. Newell. OIP 22. Chicago: The University of Chicago Press.

Nuzi
Porada, Edith
1947 Seal Impressions of Nuzi. Annual of the American Schools of Oriental Research 24. New Haven: American Schools of Oriental Research.

Philadelphia
Legrain, Léon
1925 The Culture of the Babylonians from Their Seals in the Collections of the Museum. University of Pennsylvania, The University Museum, Publications of the Babylonian Section 14. Philadelphia: University Museum.
Sissa
Van Buren, Elizabeth Douglas
1959 Catalogue of the Ugo Sissa Collection of Stamp and Cylinder Seals of Mesopotamia. Rome: Pontificium Institutum Biblicum.

Susa
Amiet, Pierre
1972 Glyptique susienne des origines à l'époque des perses achéménides. MDAI 43. Paris: Paul Geuthner.

## Sialk 1

Ghirshman, Roman
1938 Fouilles de Sialk I. Musée du Louvre, Département des antiquités orientales, Série archéologique 4. Paris: Paul Geuthner.

## Sialk 2

Ghirshman, Roman
1939 Fouilles de Sialk 2. Musée du Louvre, Département des antiquités orientales, Série archéologique 5. Paris: Paul Geuthner.

Choga Zanbil
Porada, Edith
1970 Tchoga Zanbil (Dur-Untash) 4: La Glyptique. MDAI 42. Paris: Paul Geuthner.

Tello
Parrot, André
1954 Glyptique mésopotamienne: Fouilles de Lagash (Tello) et de Larsa (Senkereh) (1931-1933). Paris: Paul Geuthner.

Ur
Legrain, Léon
1951 Seal Cylinders. Ur Excavations 10. London and Philadelphia: British Museum and University Museum.

Walters
Gordon, Cyrus H.
1939 "Western Asiatic Seals in the Walters Art Gallery," Iraq 6:3-34.

CATALOG 19. CHALCOLITHIC STAMP AND CYLINDER SEALS

| Plate and <br> ser. no. | Site and <br> obj. no. | Area and <br> level | Dimensions <br> in cm | Material | Condition |
| :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Shape $\quad$ Design $\quad$|  |
| :--- |

19A. MIDDLE AND LATE CHALCOLITHIC (SUSA A-C) STAMP SEALS
19A.1. EARLY BUTTON SEALS

| 77:i | Sor 1292 | 7, 2B-2A | $2.2 \times 1.8 \times 0.3$ | serpentine | Pierced in center after loop had broken | Rounded rectangle | X, quadrants hatched counter clockwise |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 77:ii | KII 418 | C, -4.35 | $2.2 \times 1.6 \times 0.9$ | chlorite | - | Lozenge, pierced through ridge on reverse | Cross, quadrants hatched radially |
| 77:iii | Sor 387 | 2, 2C-2A | $3.4 \times 3.4 \times 1.3$ | chlorite | broken | Disc, pierced through ridge on reverse | Drillings in multiple cross; oblique hatching and angles in quadrants |
| 77:iv | Sor 1700 | (?), 3A-1 | $2.1 \times 2.1 \times 1.3$ | faience | broken | Disc, pierced through knob on reverse | Drillings in circle; dentate border |
| 77:v | Sor 353 | 1,2B-2A | $1.8 \times 1.8 \times 0.8$ | chlorite | - | Disc, pierced through knob on reverse | Wedges around irregular cross |
| 19A.2. SEALS WITH LENTOID SECTION |  |  |  |  |  |  |  |
| 77:vi | Sor 307 | 1-2 step, 2A | $3.4 \times 2.9 \times 1.0$ | chlorite | - | Rectangle, pierced lengthwise | Obverse: cross over concentric lozenges, hatched radially; reverse: divided lengthwise into four crosshatched panels |
| 77:vii | Sor 284 | 4(?), 2B(?) | $3.4 \times 3.1 \times 1.5$ | chlorite | - | Flattened hemisphere, pierced lengthwise | X in square |
| 77:viii | Sor 1195 | 3, 2B | $2.0 \times 2.0 \times 0.9$ | serpentine | - | Flattened hemisphere, pierced lengthwise | X in circle; hatched border |


| 77:ix | Sor 1214 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | $1.8 \times 1.8 \times 0.6$ | serpentine | - | Flattened hemisphere, <br> pierced lengthwise |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 77: x | Sor 961 | $3 / 13,1$ | $2.6 \times 2.6 \times 1.0$ | limestone | - | Flattened hemisphere, <br> pierced lengthwise |

19B. LATE CHALCOLITHIC (SUSA B-C) CYLINDER SEALS
19B.1. PROTOLITERATE

| $78: 1$ | KI 146 | P, -5.10 | $1.6 \times 1.2 \times 1.2$ | marble | $-2.5 \times 2.3 \times 2.3$ | gypsum |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## CHAPTER 20

# BRONZE AGE POTTERY AND BAKED CLAY OBJECTS 

by Hans H. Curvers

20A. BRONZE AGE POTTERY

## INTRODUCTION

As can be seen from the pottery of Surkh Dum-i-Luri, Dum'avize, and the Rumishgan sites (Mir Vali, Kamtarlan I and II, and Chigha Sabz), pottery production was influenced by the greater Mesopotamian tradition. The assemblages show relations with Khuzistan and the Diyala region, but there are important local differences as well. Among the decorative features, the wavy line between two solid bands (tab. 19:A4; tab. 21:A5) was very popular in the Rumishgan and other Iranian Highland sites. The subdivision of the surface in horizontal zones rather than vertically, as in the Diyala pottery, is a typical Iranian tradition. Upright-handled jars and fruit stands, so common in the Diyala region during Early Dynastic III, do not occur in the assemblage excavated by Erich Schmidt. At the end of the third millennium there was a trend toward production of unpainted pottery in Khuzistan. In Luristan the decorative patterns became more geometric, often restricted to solid bands or wavy lines around the carinated or ridged shoulder. Also, the double angled jars found at Susa (Ville royale I) in levels dated to the Ur III and Larsa periods are unknown in Luristan (Carter 1980:35, figs. 45-47). The jars found here appear to be further developments of the third millennium types. We have divided the Bronze Age pottery chronologically into a Susa D-related Early Bronze Age (=EBA) group (2900-2000 B.C.), a Giyan IVC- to II-related Middle Bronze Age (=MBA) group (2000-1600 B.C.), and a Giyan II-related Late Bronze Age (=LBA) group (1600-1200 B.C.).

## SHAPES

In the Susa D-related EBA group, flaring bowls (cf. pl. 79e-i) as well as globular pots (cf. pl. $79 \mathrm{~m}, \mathrm{n}$ ) and jars (cf. pl. 82) are characteristic (cf. tab. 18). The shape with shoulder carination so popular in the next period makes its appearance, but shapes with ridges at shoulder and neck still form a majority.

The Giyan IVC- to III-related MBA group, on the other hand (cf. tab. 20), contains a large number of pots with shoulder carination or single ridge below the neck; the flaring bowls seen in the EBA group are absent. In this group carinated bowls are the predominant bowl shape (cf. pl. 92), besides another popular type, the handmade bowl with a flaring profile and a red wash (20A.2.1.1.4, pl. 92i, m). The tripod bowls (pl. 93) and pots (pls. 99d, e and 100a-e) make their appearance. Most of the tripod bowls are hemispherical (tab. 20, 20A.2.1.6.1); only two illustrated examples are carinated (shape 20A.2.1.6.2, pls. 93 t and 94a). The introduction of cups is significant (20A.2.3.1.1 and 20A.2.3.1.2). The large jars are carinated and/or ridged on the shoulder.

The LBA group, related to the Giyan II assemblage (cf. tab. 23), shows a remarkable increase of handled vessels. The tripod vessels, in this group limited to pots, are equipped with small handles, from the rim to a point just below the rim (cf. 20A.2.4.5.1, pls. 110 and 111). All these tripod vessels were found in one burial at Kamtarlan II ( $\mathrm{x} 1 \mathrm{in} \mathrm{I)}$. pitchers are very common (20A.3.7, pls. 112 and 113); in the pottery published from Giyan, Godin, and Baba Jan no clear parallels can be found.

## DECORATION

The decorative patterns on the EBA vessels consist of horizontal solid bands and wavy lines, and friezes filled with ibexes, birds, plants, and/or geometric designs (cf. tab. 19). The patterns on the flaring bowls (hanging arches filled with lines or teeth) have parallels at Susa and Tepe Yahya. In this group the rule is elaborate decoration, consisting of two or more design elements arranged in friezes.

The decorative patterns on the MBA vessels are less elaborate and more geometric (cf. tab. 21). The friezes, which occur rarely, contain an occasional bird or one example of the geometric design elements. Decoration often is limited to one or three solid bands and/or wavy lines. The large jars, tripod bowls, and pots, however, show more elaborate decoration, in which such horizontal patterns are complemented by friezes filled with multiple geometric elements.

The decorative patterns on the LBA vessels (cf. tab. 21) are even less elaborate, except for the pitchers (tab. 23, 20A.3.7). The painted 'eyes' on pitcher necks (pls. 112e and 115a) show a distant parallel to similar patterns on jars from northern Syrian sites such as Alalakh, a feature common in the sequence from XII to VI (Woolley 1955:pls. 91 and 98m). To my knowledge, no examples have been found that bridge the distance in space and time between the two sites.

The ratio of painted to unpainted vessels decreases slightly at the beginning of the second millennium (tab. 17). The fact that only complete vessels and few painted fragments were registered by Schmidt should be kept in mind; the observation of a decrease in painted decoration should therefore be interpreted with caution. Toward the second half of the second millennium the LBA pottery, however, reverts to an even higher percentage of painted pottery than seen in the EBA group.

Table 17. Percentages of Painted Wares in the Three Chronological Groups of Bronze Age Pottery


## COLOR

According to Schmidt's object catalog the color of the surface ranges from gray to brown. In order to adapt the description of the Holmes expedition Bronze Age wares in some way to the descriptions given for the pottery of the same period from Godin and Baba Jan, we have grouped the colors found in Schmidt's object catalog into three classes, namely, yellow
brown, buff, light brown, and light gray brown into "buff wares"; red brown and dark brown into "red wares"; and gray brown and gray into "gray brown wares."

## MANUFACTURE

In Schmidt's object catalog no data on manufacture were included. During a visit to the University Museum (Philadelphia) and the Oriental Institute (Chicago), I had the opportunity to examine a fairly representative group of vessels more closely. The data on manufacture have been recorded and are presented in the catalog at the end of this chapter.

## INCLUSIONS

As already mentioned above only a limited number of the descriptions in the catalog have data on the nature of inclusions. The most prevailing type of inclusions, observed with the naked eye, is a combination of sand and lime. The inclusions described as sand usually had a black color. The lime inclusions were recognized as white particles. Plant inclusions were only incidentally observed in some of the vessels of the EBA and MBA groups.

## 20A.1. SUSA D-RELATED EARLY BRONZE AGE POTTERY

## 20A.1.1. BOWLS-20A.1.7. SHERDS (see tab. 18 and catalog)

The pottery retrieved from four sites has been assigned to the Early Bronze Age. At Kamtarlan I EBA pottery was retrieved from architectural levels and burials. At Kamtarlan II some sherds from level 2 were registered; at Mir Vali and Dum'avize a number of complete vessels were found in burials. ${ }^{1}$ Data on the manufacture of the EBA vessels are available for thirty-eight vessels out of a total of ninety-one. With some caution we may assume that the sample examined in Philadelphia and Chicago is representative for the total assemblage excavated in the Rumishgan valley. The following percentages for manufacture can be given: 44 percent of the vessels was handmade, 12 percent was made by hand and finished on a fast turning wheel, and 44 percent was thrown on a fast turning wheel. Schmidt's object catalog contains detailed data on surface, paste, and paint color. On the basis of surface color, the pottery can be divided into buff wares ( 58 percent), red wares ( 18 percent) and gray brown wares ( 24 percent). The paint itself ranges in color from gray through dark red brown or brown to black. None of these distinctions, however, seem so certain as to warrant division of the EBA pottery by any criteria other than shape and decorative pattern. The clearly distinct shapes and decorative patterns recorded in Schmidt's drawings and photographs have served as a basis for the typology given in tables 18 and 19. The bases of bowls, jars, and pots are of a round, flat, or ring type. The sides range from globular through carinated and sinuous to flaring. In the catalog, the pottery is arranged in this order. Painted decoration appears predominantly in solid bands, wavy lines, and friezes filled with geometric designs and animal motifs (e.g., goats, boars, stags, and birds). Besides painted decoration, the jars and storage jars also have ridges below the neck, on the shoulder, and rarely, on the body. The illustrations of the decorative patterns listed in the catalog are given in table 19.

As can be seen from the comparanda in the catalog, we relate this group of pottery to the Susa D sequence of Le Breton (1957), the Acropole 4-1 sequence (Stève and Gasche 1971), the Ville royale I sequence (Carter 1980) in Khuzistan and the Godin III sequence (Young 1969; Young and Levine 1974; R. Henrickson 1984) and Giyan IVA to B assemblages
${ }^{1}$ For the remarks on this pottery that Schmidt made in his short account of the first expedition's work, see chapter 1.
(Contenau and Ghirshman 1935). Rather traditionally we have called this group Susa Drelated; Early Bronze Age pottery, however, would be more neutral.

As the reader will see in the catalog, many Mir Vali parallels are with sequences from the earlier part of the third millennium b.c.: Diyala ED II-III, Ur, Jemdet Nasr, Susa D a-c, Acropole 4, and Yahya IV C-B. The Kamtarlan I pottery shares features in shape and decoration with Mir Vali. The parallels cited for Kamtarlan I in the catalog also suggest an earlier date for the settlement at Kamtarlan I than that of Kamtarlan II. The Kamtarlan II pottery fits more readily into the Giyan IVA to B assemblage. The scarce data on inclusions observed with the naked eye seem to corroborate an earlier date for the Kamtarlan I and Mir Vali pottery. Plant inclusions are observed in four vessels from Kamtarlan I and Mir Vali (KI 59, 60; MV 12, 23). The Common Ware of the Ville royale I levels 18-13 (Susa III) shows a similar phenomenon in that it too contained plant inclusions. The wares retrieved from the later levels 12-7 (Susa IVA) did not contain any plant inclusions (Carter 1980:16, 22). The presence of a polychrome vessel at Mir Vali also suggests an early third millennium b.C. date.

## 20A.2. GIYAN IVC- TO III-RELATED MIDDLE BRONZE AGE POTTERY

## 20A.2.1. BOWLS—20A.2.7. SHERDS (see tab. 20 and catalog)

The pottery of three sites has been assigned to the Middle Bronze Age. At Kamtarlan II it appeared in level 1 and in all the burials except burial x1 in I (LBA). At Chigha Sabz it appeared in all burials except x 8 in J 7 (EBA), x 1 in F7 (LBA), and x 1 in L 7 (Iron Age). At Surkh Dum-i-Luri MBA pottery appeared in stone-walled graves on the downhill slopes. ${ }^{2}$

At times, we have been in doubt whether to attribute a Chigha Sabz burial to Middle or Late Bronze. Ring or disc bases, low carination, and painted 'butterflies' or 'hourglasses' are all features that recur on Late Bronze vessels (e.g., Vanden Berghe 1982, fig. 20:1-2), but appear in assuredly Middle Bronze context as well (e.g., CS 305, pl. 99c; A.2.4.4.3 in J7 burial $x 2$ together with CS 299 , pl. 94 j , and 303 , pl. 94 k ; A.2.2.1.3). The publication of the analysis of Godin III ceramics, however, has corroborated our assignment of the Chigha Sabz vessels to the Middle Bronze Age (R. Henrickson 1984a).

Data on the manufacture of the MBA vessels are available for eighty-five vessels out of a total of one hundred ninety-nine. With some caution we may assume that the samples examined in Philadelphia and Chicago are representative for the total assemblage excavated in the Rumishgan valley. The following percentages for manufacture can be given: 38.8 percent of the vessels was manufactured by hand; 14.1 percent was initially molded by hand and finished by turning the vessel by hand, causing swift parallel strokes of the hand on the inner surface of the vessel or on a fast turning wheel; and 47.1 percent was thrown on a fast turning wheel. KII 188 (a hemispherical bowl, pl. 92j) and Sor 1805 (a miniature tripod pot, pl. 107d) are shapes that would normally be handmade. The occurrence of a potter's wheel such as CS 628a, b (pl. 214d; ch. 29B.1) seems to corroborate our conclusion that a majority of the carinated vessels are molded by hand and finished on a wheel which resulted in faint parallel striations on the inner and outer surface of neck and rim. Schmidt's object catalog contains detailed data on surface, paste, and paint color. On the basis of surface color thepottery can be divided into buff, red, and gray brown wares. The buff wares make up the bulk of the pottery ( 50 percent). Red and gray brown wares are less common ( 32 percent and 18 percent respectively). The painted pottery is decorated with a paint that ranges in color from gray to brown of all shades. None of these distinctions, however, seems so clear-cut as to warrant division of the MBA pottery by any criteria other than shape and decorative pattern. Here, again the clearly distinct shapes and decorative patterns recorded in Schmidt's drawings and photographs have served as a basis for the typology and patterns given in tables 20 and 21. Painted decoration on jars, pots, and cups predominantly appears in solid bands and wavy lines applied on either side of the carination or ridge, probably while the wheel was turning at low speed. Sometimes a frieze pattern appears near the carination or ridge, between solid bands

[^25]or wavy lines. The large jars and tripod vessels show a more elaborate decoration. In the most common shape, the round-based carinated goblet (20A.2.2.1.3), there is a wide range from profiles in the Giyan IVC tradition, with a true carination between sloping shoulder and straight sides (well represented at Chigha Sabz) to profiles in the Giyan III style with no more than a ridge interrupting the baglike profile (seen mostly at Kamtarlan II). The decorative patterns in class 20A.2.2.1.3 also show a more varied repertoire at Chigha Sabz than on the goblets found at Kamtarlan II, suggesting an earlier date or another tradition. The description of the decorative patterns in the catalog follows a code explained in table 21 . One vessel with applique decoration, the round-base globular spouted jar KII 175 (20A.2.5.1.2, pl. 108c), deserves special mention. It is surrounded with thumb-impressed ridges of which one, at shoulder height, is more pronounced and ends in a tab handle which is incised with a checker-board design at the back. In front the ridge is interrupted by a short angled spout flanked by two lions in relief with heads once modeled in the round but now broken. The neck of the vessel, also broken, narrows to 15 cm and is decorated with vertical pilasterlike ridges.

Lions, snakes, and other animal representations applied onto vessels were common in many periods and regions of western Asia and were probably intended to frighten off intruders that might unlawfully partake of the contents. Such vessels are, not surprisingly, often found in sanctuaries (Delougaz 1952:92-93, 122; Starr 1939, pl. 58), but in the Luristan examples it appears that the vessels were manufactured in this way in an effort to protect the belongings of the dead. Parallels for thumb-impressed ridges covering a vessel can be found in the Diyala region in the late Larsa period (Delougaz 1952, pl. 191:D, 495, 520) and Nuzi about 1475 b.c. (Starr 1939, pl. 67A). At Susa close parallels to our jar, with thumb-indented ridges, tab handle, spout, and pilasters were excavated in level B VII-VI (21st to 20th centuries B.C., Gasche 1973:pls. 49-50). A parallel from level A XIII is not quite as close. The base of bowls, jars, pots, and cups show round, concave, or ring shapes. The sides range from globular through sinuous to carinated (see pls. 92-105). On the basis of the comparisons cited in the catalog, we relate this group of pottery to the Giyan IVC to III assemblage and the Godin III:2 tradition (Contenau and Ghirshman 1935; R. Henrickson 1984a). Within this group we have not been able to isolate clearly early and late groups that would correspond to Dyson's Giyan IIIa and b (Dyson 1973:696). In a number of graves, vessels of 'early' (=deep tripod) and 'late' (=shallow tripod) type occurred together (cf. tab. 22). Our conclusion, drawn from the Chigha Sabz N7 and Kamtarlan II D graves, is that there may be a social reason for the placement of shallow or deep tripods in the graves; a chronological reason is out of the question. ${ }^{3}$ The Chigha Sabz graves in plot N7 include a grave with both deep and shallow tripods at an elevation only $10-25 \mathrm{~cm}$ higher than the graves with only deep tripods (tab. 22). In Kamtarlan II a grave (x6) with only one shallow tripod was found 45 cm below two graves having both deep and shallow tripods.

## 20A.3. GIYAN II-RELATED LATE BRONZE AGE POTTERY

## 20A.3.1. BOWLS-20A.3.11. SHERDS (see tab. 23 and catalog)

The pottery of four sites has been assigned to the Late Bronze Age. At Kamtarlan II it appeared in burial $x 1$ in I. At Chigha Sabz it was found in burial $x 1$ in F7, in pit 1 in H3, and in pit 1 in L7. A painted footed goblet of LBA type was the only vessel retrieved from the graves at Zarde Savar. At Surkh Dum-i-Luri, level 3B, below a sterile band under the floor of the level 2 shrine, contained LBA pottery in areas 12,22 , and 1. Data on the manufacture of the LBA vessels are available for twenty-four vessels out of a total of seventy-two. We suggest, with even more caution than that indicated above for the EBA and MBA groups of pottery, that the samples examined in Philadelphia and Chicago are representative for the total assemblage excavated in the Rumishgan valley. The following percentages for manufacture can be given: 12.5 percent of the vessels was manufactured by hand, 8.4 percent was initially

[^26]molded by hand and finished by turning the vessel by hand causing swift parallel strokes of the hand on the inner surface of the vessel or on a fast turning wheel, and finally 79.1 percent was thrown on a fast turning wheel. Schmidt's object catalog contains detailed information on surface, paste, and paint color. The buff wares make up the bulk of the total of seventy-two vessels ( 71 percent). Red wares and gray brown wares are less common ( 9.5 percent and 19.5 percent respectively). As compared with Giyan IVC to III, the repertoire of decorative patterns in this group is rather limited. The decorative patterns painted on the pitcher necks (tab. 23, 20A.3.7) are new, and as far as the idea of painting eyes on their necks is concerned they show some distant relationship to the pitchers found in Syria from early second millennium sites such as Alalakh (Woolley 1955:pls. 91 and 98m). The description of the decorative patterns in the catalog follows the code given in table 21 for the MBA group of pottery. The bases of the bowls, pots, jars, and cups have flat, concave or ring shapes. The sides range from rectangular through sinuous to carinated; in the catalog the pottery is arranged in this order (see pls. 109113, tab. 23). As can be seen from the comparisons in the catalog, we relate this group of pottery to the Giyan II assemblage or Godin post III: 2 tradition. Within this group we have not been able to isolate distinct early, middle, or late subgroups (Dyson 1973:708-10). Painted kraters, well known in the Giyan IIB period, and caliciform goblets, common in the Giyan IIC period and in Assyria from about 1400 to 1200 b.C., are not present in this group. Some shapes are clearly developments from the earlier Giyan IVC to III tradition. The tripods are now equipped with two tiny handles; their decoration is mostly limited to horizontal bands and wavy lines. An early date is thus suggested for this group of pottery, contemporary with Dyson's Giyan IIA period. We think it more likely, however, that there was a divergent cultural development in Rumishgan and Kuhdasht, as opposed to Giyan. The Rumishgan and Kuhdasht group of pottery seems to have developed independently during the period from 1600 to 1350 в.C., and shows only few parallels with the Giyan II assemblage. We do not assume that there was a similar abandonment of the settlements in the Rumishgan, as there had been at Godin.

## 20B. BRONZE AGE BAKED CLAY OBJECTS

## INTRODUCTION

As with the pottery, we have divided the Bronze Age baked clay objects chronologically into a Susa D-related Early Bronze Age ( $=$ EBA) group (2900-2000 B.C.), a Giyan IVC- to III-related Middle Bronze Age ( $=\mathrm{MBA}$ ) group (2000-1600 в.c.), and a Giyan II-related Late Bronze Age (=LBA) group (1600-1350 B.C.). Schmidt's object catalog contains data on ware, dimensions, and a short description.

## 20B.1. SUSA D-RELATED EARLY BRONZE AGE BAKED CLAY OBJECTS

The baked clay objects assigned to the EBA group were found in the EBA levels of Kamtarlan I and II. The following major EBA baked clay object classes are illustrated in the catalog:

```
20B.1.1 CLAY MISSILES
20B.1.2 DISC SHERDS
20B.1.3 WHORLS
20B.1.4 MODEL CHARIOT WHEEL
20B.1.5 ANIMAL FIGURINES
```


## 20B.1.1. CLAY MISSILES

Three clay missiles were found in the EBA levels at Kamtarlan I. They all have an oval shape and are only slightly baked (cf. pl. 116a). The fabric impressions on KI 44 might indicate they were carried in a cloth bag.

## 20B.1.2. DISC SHERDS

The perforated disc sherds were found in the EBA levels at Kamtarlan I. The conical perforations, made by mechanical means, meet in the center (cf. pl. 116b). We suggest that they were used as spindle whorls.

## 20B.1.3. WHORLS

If we assume that the disc sherds (20B.1.2) were used as spindle whorls, three types of whorls were used by the people living at Kamtarlan in the third millennium b.c.

## 20B.1.3.1. Cartwheel

The cartwheel whorl (KI 3, pl. 116c) is characterized by a perforation with flanges on both sides. All three whorls of this type were found in the EBA levels at Kamtarlan I.

## 20B.1.3.2. Plano-Convex

The plano-convex type is the most common type of whorl throughout the Near East. KI 82 (pl. 116e) was retrieved from a burial (I, x1). Two other plano-convex whorls were found in the EBA levels at Kamtarlan I.

## 20B.1.4. MODEL CHARIOT WHEEL

The model chariot wheel (KI 77, pl. 116f) was found at Kamtarlan I without evidence for manufacture of other parts of model chariots.

## 20B.1.5. ANIMAL FIGURINES

The animal figurines from the EBA levels at Kamtarlan I and II are almost unidentifiable; they are representations of quadrupeds. Horns are often indicated or broken off. There is one fragment that could be the representation of a bird (KI 92, pl. 116i).

## 20B.2. GIYAN IVC- TO III-RELATED MIDDLE BRONZE AGE BAKED CLAY OBJECTS

The baked clay objects assigned to the MBA group were found at Chigha Sabz, Kamtarlan II, and Gar Zaureh. The following major EBA baked clay object classes are illustrated in the catalog:

$$
\begin{array}{ll}
\text { 20B.2.1 } & \text { CLAY MISSILES } \\
\text { 20B.2.2 } & \text { WHORLS } \\
\text { 20B.2.3 } & \text { ANIMAL FIGURINES } \\
\text { 20B.2.4 } & \text { HUMAN FIGURINES } \\
\text { 20B.2.5 } & \text { MISCELLANEOUS }
\end{array}
$$

## 20B.2.1. CLAY MISSILES

The clay missiles found in the MBA levels at Chigha Sabz (CS 98, pl. 116j) have a pointed top and are smaller than the EBA clay missiles from Kamtarlan I (cf. pl. 116a). We have to keep in mind that the Chalcolithic levels also yielded some clay missiles; the clay missiles in this group may therefore be intrusive.

## 20B.2.2. WHORLS

All the three types of whorls were found in the MBA levels at Chigha Sabz and Kamtarlan II.

## 20B.2.2.1. Plano-Convex

The most common type of whorl has a plano-convex shape (pls. 70q and 116k, 1). 20B.2.2.2. Biconoid

This type (CS 49, pl. 116m) of whorl was found in the MBA levels at Chigha Sabz. It is a type which is new at the Rumishgan sites in the Middle Bronze Age.

20B.2.2.3. Cartwheel
The cartwheel was found in the MBA levels at Chigha Sabz (CS 536, pl. 116n). This MBA cartwheel whorl is smaller than the whorls of the same type assigned to the EBA group (cf. 20B.1.3.1, pl. 116c).

## 20B.2.3. ANIMAL FIGURINES

The animal figurines include quadrupeds and a fragment of a curved horn. They were found in the MBA levels at Chigha Sabz and Kamtarlan II. The quadrupeds are difficult to identify. Horns are often indicated or broken off. CS 535 (pl. 118d) is a humped bull. Similar hump-backed bulls were excavated at Marlik and Tepe Hissar and Choga Zanbil (Ghirshman 1966:pl. 76:G 72 416; Neghaban 1964, pl. 14; fig. 20, 95; Schmidt 1935, pl. 45; H 4985). KII 335 (pl. 117b) is a bovid head with applied disc eyes. The quadruped from Gar Zaureh (GZ 2) has been assigned to the MBA group on the basis of other MBA finds on the surface.

## 20B.2.4. HUMAN FIGURINES

Two human figurines were found in the MBA levels at Chigha Sabz. Both figurines represent women. CS 229 (pl. 188f) represents a standing nude female, from waist to feet in relief. CS 239 (pl. 118e) is a standing nude female with her hands joined over the stomach. These nude female figurines are dated to the first half of the second millennium (Amiet 1966: 301, fig. 225; Barrelet 1968:138; Opificius 1961:33).

## 20B.2.5. MISCELLANEOUS

Three objects found at Chigha Sabz are classified in this group of miscellaneous objects. They are a toggle (CS 101), two disc sherds (CS 64), and an irregularly flattened spheroid with incised cross-scratchings (CS 23, pl. 117d).

## 20B.3. GIYAN II-RELATED LATE BRONZE AGE BAKED CLAY OBJECTS

The baked clay objects assigned to the LBA group were found at Mir Vali and Chigha Sabz. At Mir Vali they were retrieved from Tomb I and at Chigha Sabz they were found in H3 pit 1. The following classes of baked clay objects are illustrated in the catalog:

## 20B.3.1. WHORL

The whorl (MV 4, pl. 117e) was retrieved from Tomb I at Mir Vali. The whorl is of the plano-convex type. The decoration on top consists of three incised radiating triangles which includes a second radiating triangle within one of the examples.

## 20B.3.2. ANIMAL FIGURINE

The animal figurine (CS 561, pl. 118g) was found in pit 1 (H3) at Chigha Sabz. It has been assigned to the LBA group on the basis of the pottery found in pit 1.

## CONCLUSIONS

The presence of a hump-backed animal figurine in MBA context seems to confirm the redating of these animal figurines to the second millennium b.c. (Carter and Stolper 1984:167). Together with the example found at Tepe Hissar the hump-backed bull of Chigha Sabz represents the earliest Iranian occurrence in the second millennium b.c.

The human figurines retrieved from the MBA levels at Chigha Sabz fit into the sequence for 'nude goddesses' defined by Ghirshman (cf. Schacht 1975:323). On the basis of the hips, the Chigha Sabz figurines with 'slim hips' can be dated to the first half of the second millennium B.c. The presence of 'nude goddesses' indicates a connection with greater Mesopotamia during the early second millennium. This period also saw an increase in the population of Khuzistan (Schacht 1975:329). The political power in the lowlands may have rested on a confederacy of the Elamite highlands and the Susiana. The 'nude goddesses' may reflect some religious influence on the population in Luristan. The pottery tradition, on the other hand, followed a more indigenous development.

Table 18. Shapes of Susa D-Related Early Bronze Age Pottery

|  | Class | Base | Profile | Special features |
| :---: | :---: | :---: | :---: | :---: |
| 20A.1.1 | BOWLS |  |  |  |
|  | 1.1.1.1 | round | hemispherical | - |
|  | 1.1.1.2 | round | carinated | - |
|  | 1.1.2.1 | flat | slightly carinated | - |
|  | 1.1.2.2 | flat | truncated conical | miniature |
|  | 1.1.3.1 | ring | slightly carinated | - |
|  | 1.1.3.2 | ring | flared | - |
|  | 1.1.4.1 | convex | flared | - |
| 20A.1.2 | GOBLETS |  |  |  |
|  | 1.2.1.1 | round | globular | - |
|  | 1.2.1.2 | round | carinated | - |
|  | 1.2.2.1 | flat | globular | - |
|  | 1.2.2.2 | flat | carinated | - |
|  | 1.2.2.3 | flat | carinated | spout |
|  | 1.2.3.1 | ring | sinuous | - |
| 20A.1.3 | POTS |  |  |  |
|  | 1.3.1.1 | round | hemispherical | - |
|  | 1.3.1.2 | round | baglike | tab handle |
|  | 1.3.1.3 | round | carinated | - |
|  | 1.3.2.1 | flat | globular | two handles |
|  | 1.3.2.2 | flat | carinated | - |
|  | 1.3.2.3 | flat | carinated | spout |
|  | 1.3.3.1 | ring | ridged |  |
|  | 1.3.3.2 | ring | globular | - |
|  | 1.3.3.3 | ring | slightly carinated | - |
|  | 1.3.3.4 | ring | open carinated | - |
|  | 1.3.3.5 | ring | restricted carinated | - |
| 20A.1.4 | SMALL JARS |  |  |  |
|  | 1.4.1.1 | round | carinated | - |
|  | 1.4.2.1 | flat | carinated | - |
| 20A.1.5 | JARS |  |  |  |
|  | 1.5.1.1 | round | globular | - |
|  | 1.5.1.2 | round | slightly carinated | - |
|  | 1.5.1.3 | round | carinated | - |
|  | 1.5.2.1 | flat | globular | - |
|  | 1.5.2.2 | flat | slightly carinated | - |
|  | 1.5.3.1 | ring | ridged | with neck |
|  | 1.5.3.2 | ring | ridged | four pierced lugs |
|  | 1.5.3.3 | ring | carinated | - |
|  | 1.5.3.4 | ring | carinated | spout |
| 20A.1.6 | STORAGE JARS |  |  |  |
|  | 1.6.1.1 | round | ridged | spout, two handles |
|  | 1.6.2.1 | ring | ridged | - |
| 20A.1.7 | SHERDS | - | - | - |

Table 19. Decorative Patterns of Susa D-Related Early Bronze Age Pottery


Key: $A=$ Horizontal patterns, $B=$ Friezes

Table 20. Shapes of Giyan IVC- to III-Related Middle Bronze Age Pottery

| Class |  | Base | Profile | Special features |
| :---: | :---: | :---: | :---: | :---: |
| 20A.2.1 | BOWLS |  |  |  |
|  | 2.1.1.1 | round | hemispherical | - |
|  | 2.1.1.2 | round | hemispherical | one handle |
|  | 2.1.1.3 | round | carinated | - |
|  | 2.1.1.4 | round | flared | - |
|  | 2.1.2.1 | flat | sinuous | - |
|  | 2.1.2.2 | flat | slightly carinated | - |
|  | 2.1.2.3 | flat | flared | - |
|  | 2.1.3.1 | concave | slightly carinated | - |
|  | 2.1.3.2 | concave | carinated | - |
|  | 2.1.4.1 | disc | slightly carinated | - |
|  | 2.1.4.2 | disc | carinated | - |
|  | 2.1.5.1 | ring | carinated | - |
|  | 2.1.6.1 | tripod | hemispherical | - |
|  |  | tripod | carinated | - |
| 20A.2.2 | GOBLETS |  |  |  |
|  | 2.2.1.1 | round | globular | - |
|  | 2.2.1.2 | round | ridged | - |
|  | 2.2.1.3 | round | carinated | - |
|  | 2.2.1.4 | round | globular | spout |
| 20A.2.3 | CUPS |  |  |  |
|  | 2.3.1.1 | round | globular | - |
|  | 2.3.1.2 | round | carinated | - |
| 20A.2.4 | POTS |  |  |  |
|  | 2.4.1.1 | round | globular | - |
|  | 2.4.1.2 | round | baglike | - |
|  | 2.4.1.3 | round | slighty carinated | - |
|  | 2.4.1.4 | round | carinated | - |
|  | 2.4.1.5 | round | carinated | handles |
|  | 2.4.2.1 | flat | carinated | - |
|  | 2.4.3.1 | disc | globular | - |
|  | 2.4.3.2 | disc | carinated | - . |
|  | 2.4.4.1 | ring | carinated | - |
|  | 2.4.4.2 | ring | low carinated | - |
|  | 2.4.4.3 | ring | low carinated | inside lip below rim |
|  | 2.4.5.1 | tripod | carinated | - |
|  | 2.4.5.2 | tripod | carinated | pierced legs |
|  | 2.4.5.3 | tripod | carinated | pierced lugs |
|  | 2.4.6.1 | tetrapod | carinated | double pot |
| 20A.2.5 | JARS |  |  |  |
|  | 2.5.1.1 | round | globular | hole in base |
|  | 2.5.1.2 | round | globular | spout |
|  | 2.5.1.3 | round | carinated | - |
|  | 2.5.2.1 | round | carinated | - |
|  | 2.5.2.2 | flat | carinated | spout |
|  | 2.5.3.1 | disc | globular | convex disc, two handles |
|  | 2.5.3.2 | disc | carinated | - |
|  | 2.5.4.1 | ring | ridged | - |
| 20A.2.6 | PIPES |  |  |  |
|  | 2.6 .1 | - | - | without holes |
|  | 2.6 .2 | - | - | with holes |
| 20A.2.7 | SHERDS | - | - | - |

Table 21. Decorative Patterns of Giyan IVC- to III-Related Middle Bronze Age Pottery and Giyan II-Related Late Bronze Age Pottery


Key: $\mathrm{A}=$ Horizontal patterns, $\mathrm{B}=$ Friezes, $\mathrm{C}=$ Legs of tripods or handles, $\mathrm{D}=$ Between handles, $E=$ Bands on top of rims

Table 22. Distribution of Deep and Shallow Tripod Vessels from
Surkh Dum-i-Luri, Chigha Sabz, and Kamtarlan II

| Site | Plot | Burial | Number of shallow tripods | Number of deep tripods | Elevation below summit in meters |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Surkh Dum-i-Luri |  | $\times 22$ | 2 | - | - |
|  |  | $\times 21$ | 1 | 2 | - |
| Chigha Sabz | M7 | x 1 | 1 | - | 8.60 |
|  | H5 | x3 | - | 1 | 3.60 |
|  | 17 | x3 | 1 | - | 2.85 |
|  | J7 | x 4 | 2 | - | 4.55 |
|  | M7 | x 1 | 1 | 1 | 8.45 |
|  | M7 | $\times 2$ | 1 | - | 8.40 |
|  | M7 | x 4 | 1 | - | 8.25 |
|  | N7 | x 1 | - | 2 | 9.35 |
|  | N7 | x 2 | 3 | 1 | 9.10 |
|  | N7 | x 4 | 1 | - | 9.05 |
|  | N7 | $\times 6$ | - | 1 | 9.20 |
| Kamtarlan II | B | $\times 1$ | 3 | - | 4.40 |
|  | B | $\times 2$ | 3 | - | 4.60 |
|  | B | x 3 | 1 | - | 4.60 |
|  | C | $\times 2$ | 2 | 1 | 4.45 |
|  | D | $\times 2$ | 1 | - | 4.95 |
|  | D | $\times 3$ | 1 | - | 4.75 |
|  | D | x4 | 3 | 2 | 5.45 |
|  | D | $\times 5$ | 3 | 3 | 5.45 |
|  | D | x 6 | 1 | - | 5.90 |

Table 23. Shapes of Giyan II-Related Late Bronze Age Pottery

| Class |  | Base | Profile | Special features |
| :---: | :---: | :---: | :---: | :---: |
| 20A.3.1 | BOWLS |  |  |  |
|  | 3.1.1.1 | round | carinated | - |
|  | 3.1.2.1 | flat | carinated | - |
|  | 3.1.3.1 | disc | carinated | - |
| 20A.3.2 | GOBLETS |  |  |  |
|  | 3.2.1.1 | round | globular | - |
|  | 3.2.1.2 | round | carinated | - |
|  | 3.2.2.1 | disc | carinated | - |
|  | 3.2.3.1 | concave | carinated | - |
|  | 3.2.4.1 | footed | sinuous | - |
| 20A.3.3 | CUPS |  |  |  |
|  | 3.3.1.1 | round | carinated | - |
|  | 3.3.2.1 | flat | carinated | - |
|  | 3.3.3.1 | disc | carinated | - |
| 20A.3.4 | POTS |  |  |  |
|  | 3.4.1.1 | flat | carinated | - |
|  | 3.4.1.2 | flat | carinated | handles |
|  | 3.4.2.1 | disc | ridged | - |
|  | 3.4.2.2 | disc | carinated | handles |
|  | 3.4.2.3 | disc | carinated | - |
|  | 3.4.3.1 | concave | carinated | - |
|  | 3.4.4.1 | ring | ridged | - |
|  | 3.4.4.2 | ring | carinated | - |
|  | 3.4.5.1 | tripod | carinated |  |
|  | 3.4.5.2 | tripod | sinuous | side goblet |
|  | 3.4.6.1 | tetrapod | carinated | twin pots, handles |
|  | 3.4.6.2 | tetrapod | rectangular | pierced lugs |
| 20A.3.5 | SMALL JARS |  |  |  |
|  | 3.5.1.1 | round |  | - |
|  | 3.5.1.2 | round | carinated | - |
|  | 3.5.2.1 | flat | sinuous | spout |
| 20A.3.6 | JARS |  |  |  |
|  | 3.6.1.1 | flat | globular | - |
|  | 3.6.2.1 | disc | globular | - |
|  | 3.6.2.2 | disc | slightly carinated | - |
|  | 3.6.3.1 | ring | pierced lugs | - |
| 20A.3.7 |  |  |  |  |
|  | 3.7.1.1 | flat | sharply angled | - |
|  | 3.7.2.1 | disc | hemispherical | - |
|  | 3.7.3.1 | ring |  | - |
| 20A.3.8 | STORAGE JARS |  |  |  |
|  | 3.8.1.1 | pointed |  | - |
|  | 3.8.2.1 |  | ridged | - |
| 20A.3.9 | PIPES |  |  |  |
|  | 3.9.1 | - | - | plain wall |
|  | 3.9 .2 | - | - | pierced wall |
| 20A.3.10 | LID | - | - | - |
| 20A.3.11 | SHERDS | - | - | - |

CATALOG 20. BRONZE AGE POTTERY AND BAKED CLAY OBJECTS

| PlateSite and <br> obj. no. | Plot <br> Tomb | Elevation <br> or level | Dimensions <br> in cm | Mfg | Temper | Surface | Paste | Paint <br> color | Decorative <br> pattern | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A. BRONZE AGE POTTERY
20A.1. SUSA D-RELATED EARLY BRONZE AGE POTTERY
20A.1.1. BOWLS
20A.1.1.1. Round Base
20A.1.1.1.1. Hemispherical Profile


| $79 c$ | KI 41 | C | -5.35 | $2.5 \times 4.2 \times 4.2$ | hd | - | ybrn | - | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A.1.1.3. Ring Base
20A.1.1.3.1. Slightly Carinated Profile

| 79d | MV 25 | Tomb III | - | $10.6 \times 14.4 \times 14.4$ | wh | - | gy bm | or | rbm | Ba7 | Stève and Gasche 1971, pl. 16:5 | Acrop. 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 79 d | MV 27 | Tomb III | - | $10.0 \times 14.4 \times 14.4$ | - | - | gy brn | - | rbm | Ba7 | - | - |
| cf. 79d | MV 44 | Tomb IV | - | $11.5 \times 14.5 \times 14.5$ | - | - | $y \mathrm{brn}$ | - | bm | Ba7 | - | - |
| 20A.1.1.3.2. Flared Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 79e | MV45 | Tomb IV | - | $9.4 \times 14.0 \times 14.0$ | - | - | lt gy brn | - | bm | Bb16-A2 | Lamberg-Karlovsky 1971, fig. 3:A, B | Yahya IVB/C |
| 79 f | KI 60 | F | -5.10 | $8.9 \times 12.2 \times 12.2$ | wh | - | It brn | - | brn | Bb17-A2 | - | - |
| 79 g | MV 5 | Tomb II | - | $11.9 \times 16.7 \times 16.7$ | - | - | lt brn | - | dkr brn | Bb18-A2 | - | - |
| 79h | MV 11 | Tomb II | - | $11.8 \times 15.8 \times 15.8$ | - | - | lt brn | - | dkr brn | Bb19-A2 | - | - |
| 20A.1.1.4. Convex Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.1.1.4.1. Flared Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 79 i | MV 36 | Tomb IV | - | $5.2 \times 8.0 \times 8.0$ | hd | li, sa | y brn | or | - | - | - | - |
| 20A.1.2. GOBLEIS |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.1.2.1. Round Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.1.2.1.1. Globular Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 791 | KI 39 | B, x3 | -6.30 | $9.3 \times 9.2 \times 9.2$ | - | - | It brn | - | - | - | - . | - |
| 79 m | KI 74 | I | -4.30 | $13.8 \times 11.0 \times 11.0$ | - | - | y bm/buff | - | - | - | - | - |
| 20A.1.2.1.2. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 79 j | KI 80 | I, x1 | -4.90 | $7.4 \times 7.3 \times 7.3$ | - | - | buff | - | - | - ${ }^{\text {ble }}$ | - ${ }_{\text {Gf }} 1976$ fig |  |
| 79k | KI 86 | J | -3.90 | $7.6+\times 9.1 \times 9.1$ | - | - | It gy bm | - | brn | A1-Bb10 | Goff 1976, fig. 5-7; fig. 11:10 | Baba Jan 5 |
|  |  |  |  |  |  |  |  |  |  |  | Young and Levine 1974, fig. 29:1 | Godin 1 II |
|  |  |  |  |  |  |  |  |  |  |  | Stève and Gasche 1971, pl. 16:12, 13 | Acrop. 3 |
|  |  |  |  |  |  |  |  |  |  |  | Carter 1980, fig. $29: 9$ | VR IVA |
| 87 a | Do 9 | A, fill | - | $8.8 \times 9.3 \times 9.3$ | hd/wh | li, sa | lt brn | - | gy bm | A2-Bbl. |  | Acrop. 3 |
|  |  |  |  |  |  |  |  |  |  | Bb10 | 1971, pl. 16:12, 13; <br> pl. 75:8-9 |  |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plotl <br> Tomb | Elevation or level | Dimensions in cm | Mfg | Temper | Surface | Paste | Paint color | Decorative pattern | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

20A. BRONZE AGE POTTERY (cont.)

20A.1.2. GOBLETS (cont.)
20A.1.2.2. Flat Base
20A.1.2.2.1. Globular Profile

| 79 n | KI 25 | B, $\times 4$ | -5.85 | $11.4 \times 10.6 \times 10.6$ | - | - | lt grn y | lt bm | gy r bm | A1-A1-A10-A1 | Young and Levine 1974, fig. $30: 11$ | Godin III |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 790 | KII 353 | H | -4.75 | $8.4 \times 7.0 \times 7.0$ | - | - | lt r bm | - | gy | A4 |  | - |
| 20A.1.2.2.2. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 79p | MV 28 | Tomb IV | - | $\begin{aligned} & 11.0+\times 10.8 \times \\ & 10.8 \end{aligned}$ | wh | li, sa | y gy bm | or | - | - | - | - |
| 20A.1.2.2.3. Carinated Profile, Spouted |  |  |  |  |  |  |  |  |  |  |  |  |
| 87b | MV 47 | Tomb IV | - | $10.0 \times 9.6 \times 9.6$ | - | - | It brn | - | - | - | - | - |
| 20A.1.2.3. Ring Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.1.2.3.1. Sinuous Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 80a | KI 59 | F | -4.15 | $7.8 \times 7.9 \times 7.9$ | wh | li, pl | r bri/buff | - | dkr brn | faded | - | - |

20A.1.3. POTS
20A.1.3.1. Round Base
20A.1.3.1.1. Hemispherical Profile

| $\begin{aligned} & 80 \mathrm{~b} \\ & 20 \mathrm{~A} .1 \end{aligned}$ | $\begin{aligned} & \mathrm{KII} 331 \\ & \text { 1.2. } B a_{8} \end{aligned}$ | F | -5.45 $a b$ Ha | $16.3 \times 24.8 \times 24.8$ dle | hd | - | gy blk | - | - | - | Contenau and Ghirshman 1935, pl. 31, tb. 109:5 | Giyan IVA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 79j | KI 103 | L | -1.35 | $18.4 \times 15.4 \times 15.4$ | - | - | ybm | - | - | - | - | - |

20A.1.3.1.3. Carinated Profile
80 c KI 72 H $\quad-3.45 \quad 33.0 \times 25.9 \times 25.9 \quad \mathrm{hd} \quad-\quad \mathrm{g} / \mathrm{rbrn} \quad$ lt brn

Kühne 1976, fig 383-95

## 20A.1.3.2. Flat Base

20A.1.3.2.1. Globular Profile, Two-Handled

| 80d | Do 5 | B, x 1 | - | $25.7 \times 20.7 \times 20.7$ | - | - | gy brn | - | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A.1.3.2.2. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 80 e | KI 34 | B | -6.45 | $18.6 \times 16.5 \times 16.5$ | - | - | lt bm | - | rbm | A1-Ba12-A2 | Young and Levine 1974, fig. 30:11 Stève and Gasche 1971, pl. 18:12 | Godin III Acrop. 3 |
| cf. 80 e | MV 21 | TombIII | - | $15.4 \times 12.1 \times 12.1$ | hd | li, sa | gy brn | - | gy | Ba7 | Stève and Gasche 1971, pl. 18:12 | Acrop. 3 |
| 80f | CS 356 | J7, x8 | -6.80 | $17.3 \times 13.7 \times 13.7$ | hd/wh | li, sa | lt brn | - | rbrn | A4 | Young 1969, fig. 19:7 Young and Levine | Godin III <br> Godin III |
| 20A.1.3.2.3. Carinated Profile, Spouted 1974, fig. 30:11 |  |  |  |  |  |  |  |  |  |  |  |  |
| 81a cf. 81a | MV 24 <br> MV 22 | Tomb III Tomb III | - | $\begin{aligned} & 16.7 \times 12.8 \times 12.8 \\ & 14.3 \times 12.4 \times 12.4 \end{aligned}$ | hd/wh <br> hd | $\overline{\mathrm{l}}$ | gy bm <br> $y$ bm | $\overline{\text { or }}$ | bm | Bal | - | - |

20A.1.3.3. Ring Base
20A.1.3.3.1. Ridged Profile

| 816 | MV 12 | Tomb II | - | $12.6 \times 16.0 \times 16.0$ | wh | $\begin{aligned} & \text { li, sa, } \\ & \mathrm{pl} \end{aligned}$ | gy bm | - | dk bm | Ba3.Bb6 | Le Breton 1957, fig. 40 , lid | Susa Dd |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A.1.3.3.2. Globular Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 87c | KI 30 | B, x 1 | -5.80 | $31.7 \times 23.2 \times 23.2$ | - | - | lt gy | $\begin{aligned} & \text { gy lt } \\ & \text { brn } \end{aligned}$ | pur r brn | A1-Bb10.Bb5-A1 | - | - |


| 81c | MV 10 | Tomb II | - | $14.0 \times 15.7 \times 15.7$ | - | - | It brn | - | dk I brn | A2-Bb5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 81c | KI 81 | I, xl | -4.90 | $14.1 \times 14.6 \times 14.6$ | wh | li, sa | I brm | - | - | - |
| cf. 81c | MV 16 | Tomb II | - | $14.0 \times 16.4 \times 16.4$ | - | - | $y \mathrm{brn}$ | - | dk rbrn | Al-A1 |
| cf. 81c | MV 26 | Tomb III | - | $15.0 \times 17.6 \times 17.6$ | wh | li, sa | y bin | Or | - | - 1 |
| 81d | MV 6 | Tomb II | - | $15.3 \times 16.6 \times 16.6$ | wh | li, sa | gy brn | or | bm | A1-Ba8.Bb5-A1 |


| Stève and Gasche | Acrop. |
| :--- | :--- |
| 1971, pl. 16:4 | - |
| - | - |
| - | - |
| Le Breton 1957, fig. 35 | Susa D |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and <br> obj. no. | Plot <br> Tomb | Elevation <br> or level | Dimensions <br> in cm | Mfg | Temper | Surface | Paste | Paint <br> color | Decorative <br> pattern | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A. BRONZE AGE POTTERY (cont.)
20A.1.3. POTS (cont.)
20A.1.3.3. Ring Base (cont.)
20A.1.3.3.3. Slightly Carinated Profile (cont.)
81g MV 19 TombII - $11.5 \times 15.5 \times 15.5$ wh li, sa buff or rbm B

20A.1.3.3.4. Open Carinated Profile

| 81e | MV 46 | Tomb V | - | $11.3 \times 13.6 \times 13.6$ | wh | li, sa | lt gy brn | buff | bm | Ba6 | Stève and Gasche 1971, pl. 16:2, 4 | Acrop. 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 81f | MV 20 | Tomb III | - | $14.0 \times 18.6 \times 18.6$ | wh | li, sa | gy brn | - | r brn | Ba9. Ba10 | Stève and Gasche 1971, pl. 16:5 | Acrop. 3 |
| cf. 81 f | KI 75 | I | -4.25 | $9.7 \times 12.1 \times 12.1$ | - | - | lt brn | - | - | - | - | - |
| cf. 81f | MV 50 | Tomb III | - | $17.3 \times 20.0 \times 20.0$ | - | - | gy brn | - | I bm | A2 | - | - |
| 20A.1.3.3.5. Restricted Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 81h | KI 33 | B | -6.40 | $16.8 \times 15.2 \times 15.2$ | - | - | lt gy brn | - | dk bm | A1-Bb9.Bb21-A2 | - 1957 |  |
| 88a | Do 1 | B, xl | - | $27.4 \times 23.8 \times 23.8$ | - | - | lt bm sl | - | bm | $\begin{aligned} & \mathrm{A} 2-\mathrm{Ba} 1 . \mathrm{Bb} 11 . \\ & \mathrm{Bb} 8 . \mathrm{Bb} 2 \end{aligned}$ | Le Breton 1957, fig. $35: 8,10,12$ | Susa De-d |
| 20A.1.4. SMALL JARS |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.1.4.1. Round Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.1.4.1.1. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 81 i | MV 37 | Tomb IV | - | $4.8+\times 5.8 \times 5.8$ | hd | li, sa | rbr | or | - | - | - | - |
| 81j | MV 43 | Tomb IV | - | $\begin{aligned} & 5.5+\times 8.3 \times 8.3 \\ & \text { bdy } \end{aligned}$ | - | - | gy br | - | I br | Ba7 | - | - |
| 81k | MV 48 | Tomb IV | - | $8.3+\times 8.9 \times 8.9$ | - | - | gy br | blk spe | dk gm gy | A2 | - | - |
| 811 | MV 29 | Tomb IV | - | $11.2 \times 5.8 \times 5.8$ | hd | $\mathrm{li}, \mathrm{sa}$ | buff | or |  | - | Delougaz 1952, pl. 102d, f | ED II-III |

## 20A.1.4.2. Flat Base

20A.1.4.2.1. Carinated Profile

| 88 b | MV 34 | Tomb IV | - |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 20A.1.5. JARS

20A.1.5.1. Round Base
20A.1.5.1.1. Globular Profile

| 82a | Do 10 | B | -9.13 | $29.0 \times 12.8 \times 12.8$ | - | - | lt br | - | gy | A1-Bb3-A2 | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 82b | KI 20 | B | -5.65 | $32.8 \times 21.2 \times 21.2$ | - | - | y brn | - | lt $\times \mathrm{bm}$ | $\begin{aligned} & \text { A1-A2-Ba7.Bb7. } \\ & \text { Bb4-A1 } \end{aligned}$ | - | - |
| 82c | CS 358 | J7, x 8 | -6.80 | $32.0 \times 13.0 \times 13.0$ | - | - | gy bm | - | brn | $\mathrm{A} 1-\mathrm{A} 4-\mathrm{Ba} 7 . \mathrm{Bb} 7 .$ <br> Bb9.Bb10 | Carter 1980, fig. 28:14 Le Breton 1957, fig. 35:9 | VR IVA <br> Susa Dd |
| 82d | KII 332 | F | -5.45 | $25.5 \times 20.5 \times 20.5$ | - | - | lt bm | - | brn | A2-Ba6.Bb7-A13 | Young and Levine 1974, fig. 28:2 Young and Levine 1974, fig. 30:11 | Godin III Godin III |
| cf. 82d | KI 54 | E, x 1 | -4.45 | $26.7 \times 17.1 \times 17.1$ | - | - | It r brn | - | (\%) | Ba7-Al(?) | - | - |

20A.1.5.1.2. Slightly Carinated Profile

| 83 |  |
| :---: | :---: |
|  |  |

20A.1.5.1.3. Carinated Profile

| 83b | Do 8 | B, x2 | - | $21.9 \times 13.1 \times 13.1$ | - | - | grn sp | r bm | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 83 c | CS 359 | J7, x8 | -6.80 | $31.8 \times 12.5 \times 12.5$ | hd | li, sa | It brn | - | dk bm | A1-Ba7.Bb7-A4 | - |

20A.1.5.2. Flat Base
20A.1.5.2.1. Globular Profile

| 83d | MV 9 | Tomb II | - | $25.7 \times 12.5 \times 12.5$ | - | - | $y \mathrm{brn}$ | - | r brn | A2 | Young 1969, fig. 17:3 | Godin III |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 82d | KI 26 | B | -5.35 | (?) $\times 33.8 \times 33.8$ | - | - | lt y sp | It bm | r brn | A1-A2-A8-A2 | - | - |
| 83 e | KI 43 | C | -5.85 | bdy $37.0 \times 13.4 \times 13.4$ | - | - | y brn sp | It r b | dk r brn | A1 | Carter 1980, fig. 28:14 | VR IVA |
| 83 e | K13 | c | -5.85 |  | - | - | y brnsp | lirb |  | A1 | Young and Levine <br> 1974 , fig 29:6 | Godin III |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and <br> obj. no. | Ploll <br> Tomb | Elevation <br> or level | Dimensions <br> in cm | Mfg | Temper | Surface | Paste | Paint <br> color | Decorative <br> pattern | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A. BRONZE AGE POTTERY (cont.)
20A.1.5. JARS (cont.)
20A.1.5.2. Flat Base (cont.)
20A.1.5.2.1. Globular Profile (cont.)


20A.1.5.2.2. Slightly Carinated Profile

| 84b | KI 29 | B, x 2 | -6.30 | $30.0 \times 13.0 \times 13.0$ | hd/wh | li, sa | It grn brn | It brn | pur r brn | A1-Bb10.Bb5-A1 | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 84b | MV 14 | Tomb II | - | $34.0 \times 13.0 \times 13.0$ | wh | li, sa | gy brn | or | r bm | faded | - | - |
| cf. 84 b | MV 15 | Tomb II | - | $38.7 \times 14.3 \times 14.3$ | - | - | ybm | - | - | - | - | - |
| 88c | KII 352b | H | -5.20 | (7) $\times 11.7 \times 11.7$ | hd | li, sa | bm | - | blk | $\begin{aligned} & \text { A2-Ba5.Bbl0. } \\ & \text { Ba7.Bb10-A4-Bb5- } \\ & \text { Bb5-A1 } \end{aligned}$ | Pottier 1912, pl. 29:7 Le Breton 1957, fig. 35:8, 9, 11, 12 | Susa II=D <br> Susa Dc-d |

## 20A.1.5.3. Ring Base

20A.1.5.3.1. Ridged Profile, Necked

| 89 | MV 13 | Tomb II | - | $29.4 \times 11.9 \times 11.9$ | wh | - | gy bm | - | $\mathrm{rbm} / \mathrm{r}$ | A12-Ba4.Ba13.B69. Bb10-Bb5-Bb5 | Le Breton 1957, pl. 36 | Susa Da-c |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 84 c | MV 23 | Tomb III | - | $17.9 \times 6.2 \times 6.2$ | - | $\begin{aligned} & \text { li, sa, } \\ & \text { pl } \end{aligned}$ | gy brn, | buff | or | - | - | - |
| 84d | KI 42 | C | -5.80 | $34.4 \times 15.3 \times 15.3$ | hd | li, sa | ltgmg | Itr b | lt buff | stains | Le Breton 1957, fig. 35:8 | Susa Dc |
| 84e | KI 419 | I (fill) | - | $\begin{aligned} & 21.0+\times 11.9 \times \\ & 11.9 \end{aligned}$ | wh | li, sa | lt bm | - | $r \mathrm{brn}$ | A1-A4-Ba16.Bb2 | - | - |
| 85a | KII 352 | H | -5.20 | (2) $54.0 \times 54.0$ bdy | - | - | r brn | - | dk r brn | A5-Ba2.Ba7 | Young 1969, fig. 18:5 Stève and Gasche 1971, pl. 17:1 | Godin III Acrop. 3 |
| 85b | MV 18 | Tomb II | - | $26.6 \times 15.5 \times 15.5$ | wh | li, sa | y brn | or | pur r bm | A3-Ba3.Bb5.Bb8 | Contenau and Ghirshman 1935:tb. 102:1-2 <br> Stève and Gasche 1971, pl. 17:6 | Giyan IVB <br> Acrop. 3 |


| 85 e | KI 123a | N | -3.35 | sherd | - | - | lt brn | rbm | r brn | A(7)-A3-Bb12 | Le Breton 1957, fig. 35:10 Delougaz 1952, pl. 62; pl. 138 | Susa Dd <br> EDII(?) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $85 f$ | KI 123b | M | -3.35 | sherd | - | - | lt br | r brm | rbm | $\mathrm{A}(7)-\mathrm{A} 3-\mathrm{Bb} 12$ | Delougaz 1952, pl. 62; pl. 138 | EDII(?) |
| 85g | KI 515 | 0 | -6.55 | sherd | - | - | gy brn sl | - | r brn | A(?)-Bb15 |  | - |
| 90a | MV 35 | Tomb IV | - | $38.7 \times 13.1 \times 13.1$ | - | - | gy brn | - | rbm | A1-A10-A4-Bal.Ba2-Ba16.Ba2.Bb9.Bb10A3 | Woolley 1956, pl. 26b | JN , late period c |
| 91a | KI 28 | B | -6.50 | $\begin{aligned} & 31.0+\times 16.9 \times \\ & 16.9 \end{aligned}$ | - | - | $y \mathrm{brnsp}$ | lt bm | dk gy r b | A1-Bal.Ba12-A1- <br> Ba18.Bb11.Bb9-A5- <br> A17 | Young 1969, fig. 18:6, 4 Le Breton 1957, fig. 35:8 | Godin III <br> Susa Dc |
| 916 | KI 28a | B | $-6.50$ | - | wh | li, sa | y brn sp | lt brn | dk gy r b | A1(?)-Bal.Bb20.Ba17. Bb8.Bb11-A4-Bb5(?) | Le Breton 1957, fig. 35.8 | Susa Dc |
| 91c | KI 28b | B | -6.50 | - | - | - | $y \mathrm{brnsp}$ | It brn | dk gy rb | $\begin{aligned} & \text { A1(7)-Bal.Bb20.Ba17. } \\ & \text { Bb8.Bb11-A4... } \end{aligned}$ |  | - |

## 20A.1.5.3.2. Ridged Profile, Pierced Shoulder Lugs

| 85 c | KII 354 | $\begin{aligned} & \mathrm{H} \\ & \text { (level 2) } \end{aligned}$ | - | - | hd/wh | li, sa | gy brn sl | - | dk bm |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 88d | MV 51 | Tomb III | - | $30.0 \times 19.0 \times 19.0$ | - | - | lt brn | - | r brm |

A4-Ba10.Bb14

Ba6

Contenau and Ghirshman
1935, pl. 59:2nd row c
Contenau and Ghirshman Giyan IVA
1935, pl. 60
Carter 1980, fig. 13:10,
21:19
Stève and Gasche 1971
pl. 21:19

20A.1.5.3.3. Carinated Profile

| 85d | KII 326 | F | -4.70 | $104+\times 9.9 \times 9.9$ | - | - | cr sp | I brn | gy | faded | Stève and Gasche 1971, pl. 21:24 | Acrop. 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $86 a$ | MV 33 | Tomb IV | - | $\begin{aligned} & 12.6+\times 17.1 \times x \\ & 17.1 \text { bdy } \end{aligned}$ | - | - | ybm | - | $r \mathrm{brm}$ | ...B6.Bb5... | - | - |
| cf. 88 a | Do 6 | B, x 1 | - | $35.6 \times 23.5 \times 23.5$ | - | - | buff sp | 1 bm | gy | $\begin{aligned} & \text { A2-Ba19.Bb11.Bb8. } \\ & \text { Bb2.Bb8.Bb9-A4- } \\ & \text { Bb4-A1 } \end{aligned}$ | - | - |

20A.1.5.3.4. Carinated Profile, Spouted

| 86b | MV 7 | Tomb II | - | $19.0 \times 11.5 \times 11.5$ | - | - | $y$ brn | - | rbrn |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 86b | MV 8 | Tomb II | - | $19.8 \times 10.9 \times 10.9$ | - | - | $y$ brn | blk spe | - |

Catalog 20．Bronze Age Pottery and Baked Clay Objects（cont．）

| Plate | Site and <br> obj．no． | Plot <br> Tomb | Elevation <br> or level | Dimensions <br> in cm | Mfg | Temper | Surface | Paste | Paint <br> color | Decorative <br> patitern | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A．BRONZE AGE POTTERY（cont．）
20A．1．6．STORAGE JARS
20A．1．6．1．Round Base
20A．1．6．1．1．Ridged Profile，Spouted，Two－Handled

| 90 b | KI 24 | B， x 4 | －5．85 | $56.5 \times 29.2 \times 29.2$ | hd | li，sa | r brn | r brn | － | cable arc，cable ridge | Goff 1971，fig． 9 <br> Stève and Gasche 1971， <br> pl．20：6 | Susa D Acrop． 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A．1．6．2．Ring Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A．1．6．2．1．Ridged Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 86 c | KII 195－96 | C | －4．90 | $51.8 \times 23.1 \times 23.1$ | － | － | y brn | － | － | － | Stève and Gasche 1971， pl．11：9 | Acrop． 2 |
| 20A．1．7．SHERDS |  |  |  |  |  |  |  |  |  |  |  |  |
| － | KI 13 | A | 6.90 | （27exx．） | － | － | － | － | － | － | － | － |
|  | KI 14 | A | 7.20 | （24 exx．） | － | － | － | － | － | － | － | － |
|  | KI 15 | A | 7.40 | （31 exx．） | － | － | － | － | － | － | － | － |
|  | KI 16 | A | 7.75 | （16 exx．） |  | － | － | － | － | － | － |  |
|  | KI 17 | A | 7.95 | （15 exx．） |  | － | － | － | － | － |  |  |
|  | KI 18 | A | 8.30 | （ 6 exx．） | － | 二 | － | － | 二 | 二 |  |  |
|  | KI 19 KI 35 | A | 8.40 6.75 | （15 exx．） | － | － | －${ }^{\text {ry }} \mathrm{rbm}$ | 二 | － | － | － |  |
|  | KI 38 | B | 5.80 | － | $\overline{\mathrm{hd}}$ | $\overline{\mathrm{i}, \mathrm{sa}}$ | lt gy brn | or | $\overline{\mathrm{dk}} \mathrm{rbrn}$ | rope pattern ridge | － | － |
|  | KI 64 | F | 4.15 | （ 4 exx．） | － | li，sa，pl | cr | or | － | － | － | － |
|  | KI 65 | G | 3.80 | － | hd | 1 i | y brn | － | － | rope pattern ridge | － | － |
| － | KI 90 | J | 5.00 | － | － | － | y brn | － | － | handle | － | － |

## 20A．2．GIYAN IVC－TO II－RELATED MIDDLE BRONZE AGE POTTERY

 20A．2．1．BOWLS20A．2．1．1．Round Base
20A．2．1．1．1．Hemispherical Profile


| 92b | CS 393 | I 7 | -3.25 | $8.5 \times 12.4 \times 12.4$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 20A.2.1.1.2. |  |  |  |  |
| Hemispherical Profile, One-Handled |  |  |  |  |

92c KII $355 \quad$ H, x1 $\quad-3.95 \quad 5.0 \times 10.3 \times 10.3$

20A.2.1.1.3. Carinated Profile


## 20A.2.1.1.4. Flared Profile

| 92h | KII 321 | F | -3.90 | $5.2 \times 15.4 \times 15.4$ | - | - | dk gy brn | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 92 i | CS 297 | J7, x2 | -4.65 | $8.2 \times 17.6 \times 17.6$ | hd | li, sa | r brn wa | - | - |  |
| cf. 92i | CS 298 | J7, x2 | -4.65 | $7.9 \times 17.6 \times 17.6$ | hd | li, sa | rwa | - | - |  |
| cf. 92i | CS 374 | J7, x4 | -4.55 | $8.9 \times 18.9 \times 18.9$ | hd | - | lt bm | - | - |  |
| cf. 92i | CS 407 | 17 | -2.80 | $9.0 \times 15.2 \times 15.2$ | hd | - | $\underline{r m}$ | gy brn | - | - |
| cf. 92i | CS 488 | H5, x 3 | -3.60 | $9.7 \times 18.9 \times 18.9$ | hd | - | $r \mathrm{bm}$ | - | - | - |
| cf. 92 i | CS 489 | H5, x 3 | -3.60 | $8.2 \times 16.6 \times 16.6$ | hd | li, sa | r brn wa | or | - |  |
| cf. 92i | CS 490 | H5, x 3 | -3.60 | $8.4 \times 16.7 \times 16.7$ | hd | - | Ibm | - | - | - |

20A.2.1.2. Flat Base
20A.2.1.2.1. Sinuous Profile


## 20A.2.1.2.2. Slightly Carinated Profile

| 92k | Sor 1807 | x21 | - | $6.9 \times 16.9 \times 16.9$ | - | - | I brn | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 921 | KII 218 | D, x 1 | -4.65 | $6.3 \times 16.1 \times 16.1$ | - | - | buff | - | bm | A1-A12-A12 |
| 20A.2.1.2.3. Flared Profile |  |  |  |  |  |  |  |  |  |  |
| 92j | KHI 188 | C | -4.15 | $5.0 \times 6.8 \times 6.8$ | - | - | gy | - | - | - |


| Young 1969, fig. | Godin III |
| :--- | :--- |
| $18: 11$ <br> cf. KII 252, pl. 97d | Susa D/EBA |
|  |  |
| - | - |


| Contenau and Ghirshman | Giyan III |
| :--- | :--- |
| 1935, pl. 27, tb. 91:8 |  |
| Contenau and Ghirshman | Giyan $\amalg \mathrm{Ha}$ |
| 1935, pl. 27, tb. 90:4 |  |
| Contenau and Ghirshman | Djamshidi III |
| 1935, pl. 75, tb. 5:3 |  |


| Contenau and Ghirshman | Giyan IIIa |
| :--- | :--- |
| 1935, pl. 26, tb. 84:1 |  |
| Young 1969, fig. 31:11 | Godin III |
| - | - |
| - | - |
| - | - |
| - | - |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plot/ <br> Tomb | Elevation or level | Dimensions in cm | Mfg | Temper | Surface | Paste | Paint color | Decorative pattern | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

20A. BRONZE AGE POTTERY (cont.)

## 20A.2.1. BOWLS (cont.)

## 20A.2.1.2. Flat Base (cont.)

20A.2.1.2.3. Flared Profile (cont.)

| 92m | KII 292 | D, x6 | -5.90 | $11.0 \times 20.9 \times 20.9$ | hd | li, sa | r wa | - | - | - | Contenau and Ghirshman 1935, pl. 77, tb. 9:21 Young 1969, fig. 31:11 | Terminal Giyan IVC Godin III |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 92 m | CS 115 | M7, x 3 | -3.60 | $8.9 \times 16.7 \times 16.7$ | hd | li, sa | ${ }^{\text {r wa }}$ | cr | - | - | - | - |
| cf. 92 m | CS 117 | M7, 4 | -8.25 | $8.5 \times 19.1 \times 19.1$ | hd | li, sa | r brn wa | - | - | - |  |  |
| cf. 92 m | CS 118 | M7, $\times 4$ | -8.25 | $8.1 \times 16.8 \times 16.8$ | hd | - | r bmwa | - | - |  |  | - |
| cf. 92 m | CS 119 | M7, x 4 | -8.25 | $6.8 \times 13.6 \times 13.6$ | hd | li, sa | r brn wa | orct | - |  | - | - |
| cf. 92 m | CS 120 | M7, x 4 | -8.25 | $9.1 \times 18.6 \times 18.6$ | hd | li, sa | r bm wa | or | - | - |  | - |
| cf. 92 m | CS 121 | M7, $\times 4$ | -8.25 | $8.1 \times 17.6 \times 17.6$ | - | - | rbm | - | - | - |  |  |
| cf. 92 m | CS 492 | H5, x 3 | -3.60 | $9.3 \times 19.6 \times 19.6$ | hd | - | rbm | - | - | - | - | - |
| cf. 92 m | KII 209b | D | -4.20 | $9.8 \times 18.0 \times 18.0$ | wh | sa | lt brm | - | - | - |  |  |
| cf. 92 m | KII 273 | D, x 4 | -5.45 -5.90 | $6.3 \times 14.5 \times 14.5$ $10.8 \times 19.9 \times 19.9$ | hd | - | r brn | y bm | - | - | - |  |
| cf. 92m | KII 290 | D, x6 | -5.90 | $10.8 \times 19.9 \times 19.9$ | hd | - | r brn | ybm | - | - | - |  |

20A.2.1.3. Concave Base
20A.2.1.3.1. Slightly Carinated Profile

cf. $92 \mathrm{p} \quad \mathrm{CS} 482 \quad \mathrm{H} 6 \quad-2.50 \quad 6.1 \times 12.6 \times 12.6 \quad$ wh $\quad$ li, sa $\quad$ y brn $\quad$ - $\quad$ -

## 20A.2.1.4.2. Carinated Profile

$92 \mathrm{q} \quad \mathrm{KII} 178 \quad \mathrm{C}, \mathrm{x} 2 \quad-4.45 \quad 6.7 \times 15.3 \times 15.3 \quad$ wh $\quad$ sa $\quad$ ybrn $\quad$ - $\quad$ ltrbm $\quad$ A3

20A.2.1.5. Ring Base
20A.2.1.5.1. Carinated Profile

| 92 r | KII 231 | D, $\times 3$ | -4.75 | $7.7 \times 18.5 \times 18.5$ | wh | li, sa, pl | lt brn | - | bm | A2 | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 92r | KII 236b | D, $\times 3$ | -4.95 | $9.9 \times 20.3 \times 20.3$ | - | - | gy bm | - | I brn | A2 | - | - |
| 92s | CS 132 | M7, x2 | -8.35 | $7.6 \times 18.6 \times 18.6$ | - | - | I brn | - | dk bm | A1-A7 |  |  |
| 93a | CS 107 | M7, x3 | -9.00 | $8.0 \times 17.8 \times 17.8$ | wh | - | y brn | - | - | - | Young 1969, fig. 23:1 | Godin III |

## 20A.2.1.6. Tripod Base

20A.2.1.6.1. Hemispherical Profile

| 93b | KII 302 | D, $\times 5$ | -5.45 | $11.6 \times 31.0 \times 31.0$ | - | - | buff | - | dk brn | Al-Al-A5 | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 93b | CS 14 | N7, x1 | -9.35 | $5.2 \times 16.2 \times 16.2$ | wh | li, sa | lt bm | - | - | - | - | - |
| cf. 93b | KII 179 | C, x2 | -4.45 | $6,2 \times 15.6 \times 15.6$ | - | - | $y \mathrm{brn}$ | - | It r brn | A3 |  | - |
| 93c | Sor 1810 | $\times 22$ | - | (?) $\times 16.6 \times 16.6$ | - | - | r brn | - | - | - | Contenau and Ghirshman 1935, p. 27, tb. 92:4 | Giyan IIIa/b |
| 93d | CS 36 | N7, x2 | -9.10 | $9.8 \times 18.4 \times 18.4$ | - | - | 1 tbm | - | dk brn | A1 | 1935, p. 27, ${ }^{\text {a }}$, 92.4 | - |
| 93e | CS 281 | J7, x4 | -4.55 | $10.1 \times 20.2 \times 20.2$ | wh | li, sa | r wa | - | dkrbm | A1-A2-C1 | - | - |
| 93f | CS 402 | I7, x 3 | -2.85 | $7.1 \times 15.4 \times 15.4$ | - | - | r/wa | brn | dk bm | A5-Cl | - | - |
| 93g | CS 138 | M7, x1 | -8.45 | $7.8 \times 15.6 \times 15.6$ | - | - | rbm | - | dk bm | A5-A1-C1 | - | - |
| 93 h | KII 169 | B, $\times 2$ | -4.60 | $9.7 \times 19.9 \times 19.9$ | - | - | r/buff | - | dkrbrn | A1-A6-C1 | - | - |
| c. 93h | KII 167 | B, $\times 2$ | -4.60 | $9.4 \times 18.4 \times 18.4$ | - | - | r/buff | - | brn | A1-A5-A5-C1 | - | - |
| cf. 93 h | KII 259 | D, $\times 5$ | -5.45 | $8.0 \times 17.5 \times 17.5$ | - | - | dk brn | - | I bm | A1-A6-C1 | - | - |
| cf. 93h | KII 267 | D, $\times 5$ | -5.45 | $8.3 \times 19.8 \times 19.8$ | wh | li, sa | 1 brn | - | dk gy brn | A1-A6-C1 | - | - |
| 93 i | KII 170 | B, $\times 2$ | -4.60 | $8.3 \times 17.7 \times 17.7$ | - | - | buff | - | dk r brn | A1-C1 | - | - |
| cf. 93 i | KII 232 | D, $\times 3$ | -4.75 | $7.6 \times 16.8 \times 16.8$ | - | - | r/buff | - | bm | A3 | - | - |
| 93j | CS 590 | F7 | -3.00 | $9.6 \times 20.2 \times 20.2$ | - | - | rbm | - | dkrbm | A1-A8-C1 | - | - |
| 93k | CS 134 | M7, x2 | -8.40 | $9.7 \times 18.0 \times 18.0$ | - | - | rbm | - | dk brn | A1-A5-A1-A5-C1 | - | - |
| 931 | KII 176 | C. $\times 2$ | -4.45 | $6.2 \times 16.2 \times 16.2$ | hd | sa, pl | r wa | buff | rbm | A5-C1 | - | - |
| 93m | KП177 | C. $\times 2$ | -4.45 | $7.6 \times 14.8 \times 14.8$ | - | - | buff | - | I brn | B6 | - | - |
| 93n | CS 37 | N7, x 1 | -9.10 | $10.0 \times 18.8 \times 18.8$ | - | - | It brn | - | dk bm | A1-B7 | - | - |
| 930 | KII 159 | B, xl | -4.40 | $8.4 \times 17.7 \times 17.7$ | hd | li, sa | r bm wa | buff | bm | B7-C1 | - | - |
| cf. 930 | KII 156 | B, x 1 | -4.40 | (7) $\times 18.3 \times 18.3$ | wh(?) | li, sa | r wa | buff | rbm | B6-Cl | - | - |
| 93p | KII 260 | D, $\times 5$ | -5.45 | $7.6 \times 16.9 \times 16.9$ | - | li | r bm wa | buff | gy | A1-B12-A1-Cl | - | - |
| cf. 93p | KII 291 | D, $\times 6$ | -5.90 | $8.5 \times 19.2 \times 19.2$ | wh | li, sa | rwa | buff | dk I brn | A8-C1 | Contenau and Ghirshman 1935, pl. 27, tb. 92:4 | Giyan IIIa/b |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| PlateSite and <br> obj. no. | Plot/ <br> Tomb $b$ | Elevation <br> or level | Dimensions <br> in cm | Mfg | Temper | Surface | Paste | Paint <br> color | Decorative <br> pattern | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A. BRONZE AGE POTTERY (cont.)

| 20A.2.1. BOWLS (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A.2.1.6. Tripod Base (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.2.1.6.1. Hemispherical Profile (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| 939 | KII 277 | D, x4 | -5.45 | $10.2 \times 19.1 \times 19.1$ | - | - | I brn | - | dkr bm | A8-A1-Cl | - | - |
| 93r | CS 20 | N7, 44 | -9.05 | $8.5 \times 18.7 \times 18.7$ | - | - | 1 lbm | - | dk rbm | A1-B9-C1 | - | - |
| cf. 93 r | CS 32 | N7, 22 | -9.10 | $10.0 \times 18.7 \times 18.7$ | - | - | r brn | - | dk bm | B9-C1 | - | - |
| cf. 93 r | KII 160 | B, x1 | -4.40 | $8.0 \times 16.9 \times 16.9$ | wh | li, sa | r wa | buff | bm | B9-C1 | - | - |
| cf. 93 r | KII 279 | D, x4 | -5.45 | $10.1 \times 18.8 \times 18.8$ | - | - | r bm | - | dk r brm | A1-B9-C1 | - | - |
| 93 s | KII 225 | D, x2 | -4.95 | $8.9 \times 19.3 \times 19.3$ | wh | li | r brnwa | - | dk bm | B9-A1-Cl | - | - |
| 107c | CS 282 | J7, 44 | -4.55 | $12.2 \times 23.5 \times 23.5$ | - | - | rbm | - | r brn | B9 "duck" feet | - | - |
| 20A.2.1.6.2. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 93t | KII 173 | B, $\mathrm{x}^{3}$ | -4.60 | $9.2 \times 16.6 \times 16.6$ | - | - | y brn | - | gy brn | A1-A1-A5-Cl | - | - |
| cf. 93t | KII 280 | D, x 4 | -5.45 | $11.2 \times 19.9 \times 19.9$ | hde(t) | sa | lt bm | - | dk brn | A1-A5-A1-Cl | - | - |
| cf. 93 t | CS 112 | M7, x 4 | -8.25 | $9.8+\mathrm{x} 30.0 \times 30.0$ | - |  | rbm | - | dk bm | A8 | - | - |
| cf. 93 t | CS 547 | H3, x1 | -8.60 | $8.8+\times 25.5 \times 25.5$ | - | - | r bm | - | dk bm | A7-A1-A5-A3 | - | - |
| cf. 93t | Sor 1811 | $\times 22$ |  | (7) $\times 21.0 \times 21.0$ | - | - | T brn | - | - | - | - | - |
| 93u | Sor 1806 | x22 | - | (7) $\times 14.7 \times 14.7$ | - | - | r brn | - | (?) | B9 | - | - |
| 20A.2.2. GOBLETS |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.2.2.1. Round Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.2.2.1.1. Globular Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 94a | KII 303 | E | -4.00 | $6.5 \times 4.0 \times 4.0$ | wh | li, pl | buff | - | - | - | Gasche 1973, pl. 13:6, 7 | VR AXIII |
| cf. 94a | CS 436 | H7 | -1.10 | $6.1 \times 5.0 \times 5.0$ | - | - | y brn | - | - | - | - | - |
| 20A.2.2.1.2. Ridged Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 94b cf. 94b | $\begin{aligned} & \text { KII } 304 \\ & \text { CS } 268 \end{aligned}$ | $\stackrel{\text { E }}{\text { J7 }}$ | $\begin{array}{r} -3.95 \\ -3.15 \end{array}$ | $\begin{aligned} & 9.5 \times 7.0 \times 7.0 \\ & 8.4 \times 8.8 \times 8.8 \end{aligned}$ | $\overline{w h}$ | $\overline{\mathrm{Hi}}$, sa | $\underset{\text { y }}{\substack{\text { gy brn } \\ \text { brn }}}$ | - | 二 | - | Gasche 1973, pl. 14:1 | $\underline{\text { VR AXIII }}$ |
|  |  |  |  |  |  |  | y gy brn | - |  |  |  |  |

## 20A.2.2.1. Round Base

20A.2.2.1.1. Globular Profile
-
cf. 94b $\operatorname{CS} 367 \quad \mathrm{~J}$ (pit 3) (?) $5.9+\times 7.5 \times 7.5 \quad-\quad-\quad y \mathrm{brn}$

## 20A.2.2.1.3. Carinated Profile

| 94c | CS 19 | N7, 4 | -9.05 | $9.3 \times 8.6 \times 8.6$ | - | - | lt gy brn | - | - | - | Young and Levine 1974, fig. 26:4 | Godin III |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 94c | CS 22 | N7, 55 | -9.15 | $10.6 \times 8.7 \times 8.7$ | - | - | lt bm | - | - | - | , | - |  |
| cf. 94c | CS 308 | J7, x3 | -4.45 | $10.9 \times 9.3 \times 9.3$ | hd/wh | li, sa | y brn | - | - | - | - | - |  |
| cf. 94c | CS 403 | 17, x3 | -2.85 | $9.4 \times 8.4 \times 8.4$ | hd/wh | - | gy brn | - | rbm | (3) | - | - |  |
| cf. 94c | CS 497 | H5, x2 | -3.50 | $7.8 \times 6.4 \times 6.4$ | - | - | y brn | - | - | - | - | - |  |
| cf. 94c | CS 498 | H5, x2 | -3.50 | $6.9 \times 5.8 \times 5.8$ | - | - | It r brn | - | - | - | - | - |  |
| cf. 94c | CS 627 | J7 | -4.55 | $5.8+\times 7.1 \times 7.1$ | wh | - | gy brn | - | - | - | - | - | $\pm$ |
| cf. 94c | KII 211 | D | -4.25 | $7.3 \times 7.9 \times 7.9$ | - | - | $y \mathrm{brn}$ | - | - | - | - | - | 见 |
| cf. 94 c | KII 330 | F | -4.00 | $8.0 \times$ (7) $\times$ (7) | wh | li, sa | gy brn | - | - | - | - | - | 2 |
| cf. 94c | KII 340 | G | -4.35 | $8.9 \times 8.3 \times 8.3$ | - | - | gy brn sp | - | - | - | - | - | N |
| 94d | CS 415 | 17 | -4.05 | $9.0 \times 8.5 \times 8.5$ | - | - | y brn | - | - | - | - | - | ${ }^{7}$ |
| 94 e | KII 168 | B, $\times 2$ | -4.60 | $8.5 \times 8.1 \times 8.1$ | wh | li, sa | y brn | - | bm | A1-A3-A2 | - | - | Q |
| cf. 94e | CS 54 | N7, x 7 | -9.25 | $7.1 \times 5.9 \times 5.9$ | hd/wh | 1i, sa | r wa | Cr | dkr brn | A2-A2 | - | - | T |
| cf. 94e | CS 503 | H5, x 1 | -3.60 | $7.7 \times 6.7 \times 6.7$ | - | - | rbm | - | dkrbm | A3-A1 | - | - | T |
| cf. 94e | CS 504:1 | H5, x 1 | -3.60 | $7.7 \times 6.7 \times 6.7$ | hd/wh | li, sa | rbm | - | dkrbm | A3-A1 | - | - | - |
| cf. 94e | KII 155 | B | -3.70 | $8.4 \times 8.1+\times 8.1$ | - | - | rbm | - | gy brn | A3-A1 | - | - | - |
| cf. 94e | KII 161 | B, xl | -4.40 | $8.9 \times 9.1 \times 9.1$ | wh | li, sa | r wa | buff | dkrbm | A2-A2 | - | - | 0 |
| cf. 94e | KII 174 | B, x 3 | -4.60 | $8.7 \times 8.8 \times 8.8$ | - | - | lt brn | - | gy brn | A3-A1 | - | - | $\checkmark$ |
| cf. 94e | KII 182 | C, $\times 2$ | -4.45 | $11.5 \times 7.4 \times 7.4$ | hd/wh | li, sa | $y \mathrm{brn}$ | - | bm | A2, base hand molded | - | - | $\frac{3}{6}$ |
| cf. 94e | KII 194 | C | -3.90 | $7.8 \times 8.8 \times 8.8$ | wh | li, sa | y brn | - | brn r | A4-A2 | - | - | $\square$ |
| cf. 94e | KII 209a | D | -4.20 | $10.9 \times 10.8 \times 10.8$ | - | - | lt gm gy | - | dkr brn | A1-B5-A1 | - | - | 2 |
| cf. 94e | KII 210 | D | -4.20 | $9.9 \times 9.9 \times 9.9$ | - | - | rbm | - | gy | A3-A1 | - | - | 因 |
| cf. 94e | KII 217 | D, x 1 | -4.65 | $10.9 \times 10.0 \times 10.0$ | wh | - | r brn wa | - | gy | A3-A2, wash inside neck | - | - | $\theta$ |
| cf. 94e | KII 247 | D, $\times 5$ | -5.45 | $7.8 \times 8.0 \times 8.0$ | - | - | It r brn | - | dkr brn | A3-A2 | - | - | 5 |
| cf. 94e | KII 269 | D, $\times 5$ | -5.45 | $7.5 \times 6.0 \times 6.0$ | - | - | It bm | - | dk brn | A2-A1 | - | - | - |
| cf. 94e | KII 282 | D, $\times 4$ | -5.45 | $7.2 \times 7.0 \times 7.0$ | - | - | r brn | - | dkrbm | A3-A1 | - | - | $\bigcirc$ |
| cf. 94e | KII 289 | D, $\times 6$ | -5.90 | $8.3 \times 6.4 \times 6.4$ | wh | li, sa | $y \mathrm{brn}$ | - | dk brn | A3 | - | - | 0 |
| cf. 94e | KII 341 | G, x 1 | -4.25 | $11.4 \times 9.6 \times 9.6$ | - | - | bm | - | gy brn | A2-A2 | - | - IVC | $\xrightarrow{7}$ |
| 94 f | KII 199 | D | -3.75 | $9.3 \times 7.6 \times 7.6$ | wh | li, sa | lt pi bm sl | or | r brn | A2-A1-A1 | Contenau and Ghirshman 1935, pl. 29, tb. 101 Gasche 1973, pl. 16: 1, 2, 3 | Giyan IVC <br> VR AXV- <br> XIV | $\stackrel{3}{6}$ |
| cf. 94 f | CS 4 | N7 | -9.25 | $8.1 \times 8.0 \times 8.0$ | - | - | r bm | - | dk gy | A1-A3-A1 | - | - |  |
| cf. 94 f | CS 15 | N7, x 1 | -9.35 | $8.0 \times 7.6 \times 8.0$ | - | - | rbm | - | dk gy | A3-A1 | - | - |  |
| cf. 94f | CS 133 | M7, x2 | -8.40 | $9.3 \times 9.4 \times 9.4$ | - | - | buff | bm | dk bm | A2-A1 | - | - |  |
| cf. 94f | CS 135 | M7, x1 | -8.35 | $7.7 \times 8.0 \times 8.0$ | hd/wh | li, sa | buff | - | dk bm | A3-A2 | - | - |  |
| cf. 94 f | CS 139 | M7, x2 | -8.35 | $8.7 \times 9.7 \times 9.7$ | hd/wh | li, sa | gy brn | - | dk bm | A3-A1 | - | - |  |
| cf. 94 f | CS 140 | M7, x1 | -8.40 | $8.3 \times 7.8 \times 7.8$ | hd/wh | - | r bm | - | dk bm | A3-A2 | - | - | $\stackrel{\sim}{6}$ |
| cf. 94f | CS 388 | 17 | -2.25 | $7.3 \times 8.3 \times 8.3$ bdy | - | - | lt r bm | - | rbm | A3-A1 | - | - | 0 |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| PlateSite and <br> obj. no. | Plot/ <br> Tomb | Elevation <br> or level | Dimensions <br> in cm | Mfg |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A. BRONZE AGE POTTERY (cont.)
20A.2.2. GOBLETS (cont.)
20A.2.2.1. Round Base (cont.)
20A.2.2.1.3. Carinated Profile (cont.)

| cf. 948 | CS 481 | H6 | -2.75 | $9.6 \times 8.0 \times 8.0$ | hd/wh | li, sa | r brn wa | - | dk bm | A3-A1 | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 94f | KII 201 | D | -3.75 | $8.8 \times 7.0 \times 7.0$ | - | - | It gy brn | - | bm | A1-A1-A1 | 一 | - |
| cf. 94f | KII 230 | D, $\times 3$ | -4.75 | $7.9 \times 8.3 \times 8.3$ | - | - | gy bm | - | rbm | A3-A1 | - | - |
| cf. 94f | KII 238 | D, x 3 | -4.75 | $7.6 \times 7.5 \times 7.5$ | - | - | lt gy bm | - | dk bm | A2-A2 | - | - |
| cf. 94 f | KII 261 | D, $\times 5$ | -5.45 | $8.7 \times 8.0 \times 8.0$ | - | - | buff | - | dk bm | A3-A2 | - | - |
| cf. 948 | KII 268 | D, $\times 5$ | -5.45 | $7.0 \times 8.3 \times 8.3$ | - | - | 1 bm | - | dk bm | A1-A3-A1 | - | - |
| 94 g | KII 278 | D, x 4 | -5.45 | $8.5 \times 6.7 \times 6.7$ | - | - | lt gy brn | - | dk bm | A1-A3-B4-A1 | Contenau and Ghirshman 1935, pl. 31, tb. 109:4 | Giyan IVA |
| cf. 94 g | CS 35 | N7, x 2 | -9.10 | $7.5 \times 7.5 \times 7.5$ | - | - | It bm | - | dk bm | A1-B4-A1 | - | - |
| cf. 94 g | CS 286 | J7, x 4 | -4.55 | $5.8 \times 5.1 \times 5.1$ | hd | coarse | gy brn | gy | dk brn | A1-B4-A1 | - | - |
| cf. 94 g | CS 487 | H5, x 3 | -3.60 | $7.5 \times 6.2 \times 6.2$ | hd/wh | li, sa | y brn | I | bm | A2-B4 | - | - |
| cf. 94 g | CS 504:2 | H5, x 1 | -3.60 | $7.4 \times 7.5 \times 7.5$ | - | - | y brn | - | r brn | A2-B4-A2 | - | - |
| cf. 94g | KII 293 | D, x6 | -5.90 | $8.6 \times 7.1 \times 7.1$ | - | - | lt gy brn | - | dk brn | A2-B4 | - | - |
| 94 h | CS 55 | N7 | -9.55 | $7.7 \times 6.6 \times 6.6$ | hd/wh | - | r brn | I | dk gy | A1-B11-A1 | - | - |
| cf. 94h | CS 113 | M7, x 4 | -8.25 | $7.6 \times 5.7 \times 5.7$ | - | - | gy brn | - | bm | A2-B9 | - | - |
| 94 i | CS 299 | J7, x2 | -4.65 | $6.6 \times 5.6 \times 5.6$ | - | - | y brn | - | dk brn | A1-A1-B17-A1 | - | - |
| 94j | CS 303 | J7, x2 | -4.65 | $8.2 \times 6.2 \times 6.2$ | - | - | buff | - | rbm | A1-A2-B26-A1 | - | - |
| cf. 94 j | CS 261 | K7, x1 | -7.70 | $8.6 \times 9.0 \times 9.0$ | hd/wh | li, sa | grn gy | - | dk gy | A1-A5-A1 | - | - |
| cf. 94j | CS 486 | H5, x 3 | -3.60 | $7.4 \times 5.8 \times 5.8$ | - | - | y brn | - | dkrbm | A2-B26 | - | - |
| 94 k | CS 309 | J7, x3 | -4.45 | $8.1 \times 6.7 \times 6.7$ | - | - | r brn | - | gy | A1-B2-A2 | - | - |
| 941 | CS 126 | M7, x 4 | -8.25 | $7.5 \times 6.9 \times 6.9$ | hd/wh | li, sa | y brn | - | I brn | A1-B6 | - | - |
| c.f. 941 | CS 114 | M7, x4 | -8.25 | $6.7 \times 6.0 \times 6.0$ | - | - | gy brn | - | rbm | A1-A1 | - | - |
| cf. 941 | CS 260 | K7, x1 | -7.70 | $5.2 \times 5.1 \times 5.1$ | - | - | lt brn | - | dk bm | B2-A1 | - | - |
| cf. 941 | CS 506 | H5, x3(7) | $-4.20$ | $6.5 \times 6.1 \times 6.1$ | hd | li, sa | $y \mathrm{brn}$ | - | bm | A1-B6 | - | - |
| 94 m | KII 200 | D | -3.75 | $9.6 \times 8.7 \times 8.7$ | wh | li, sa | y brn | - | r brn | B1-B1-A1 | Young 1969, fig. 30:11 | Godin III |
| cf. 94 m | CS 414 | 17 | -3.20 | $8.0 \times 6.7 \times 6.7$ | - | - | It r brn | - | - | - | - | - |
| cf. 94m | CS 496 | H5, x2 | -3.50 | $6.0 \times 6.7 \times 6.7$ | hd/wh | - | $y \mathrm{brn}$ | or | - | - | - | - |
| 94 n | CS 532 | H3 | -8.30 | $7.6+\times 8.6 \times 8.6$ | wh | li, sa | gy brm | or | dkr rm | A2-A2 | - 1074 | Godin |
| 940 | CS 499 | H5, x1 | -3.60 | $8.0 \times 5.7 \times 5.7$ | - | - | y brn | - | - | - | Young and Levine 1974, fig. 26:4 | Godin III |
| 20A.2.2.1.4. Globular Profile, Spouted |  |  |  |  |  |  |  |  |  |  |  |  |
| 94p | KII 343 | G, Xl | -4.25 | $6.6 \times 4.8 \times 4.8$ | - | - | lt brn | - | - | - | - | - |


| $94 q$ | KII 336 | G | -3.85 | $6.3 \times 4.7 \times 4.7$ | - | - | gy brn | - | rbrn |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 94 r | KII 307 | E, xl | -4.25 | $7.3 \times 10.0 \times 10.01-$ | - | A3 |  |  |  |
|  |  |  |  |  | brn | - | rbrn | A6 |  |

20A.2.3. CUPS

## 20A.2.3.1. Round Base

20A.2.3.1.1. Globular Profile

| 94 r | KII 308 | E, $\times 1$ | -4.25 | $5.8 \times 7.1 \times 7.1$ | hd | - | gy brn | - | gy | A6 | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 94 r | KII 348 | H | -4.00 | $4.5 \times 6.1 \times 6.1$ | hd | - | buff | - | rbm | A6 | - |
| cf. $94 r$ | KII 349 | H | -4.00 | $6.8 \times 9.2 \times 9.2$ | hd | - | gy brn | - | (?) | A6 | - |
| 94 s | KII 320 | E | -4.15 | $6.8 \times 8.6 \times 8.6$ | hd | - | ybrn | - | bm | A6 | - |

20A.2.3.1.2. Carinated Profile

| 94t | KII 163 | B, x 1 | -4.40 | $8.3 \times 8.6 \times 8.6$ | - | li, sa | res wa | r | - | A2-A1 | Goff 1976, fig. 11:2 | Baba Jan IV |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 94t | CS 58 | N7, x 6 | -9.20 | $12.2 \times 12.1 \times 12.1$ | hd/wh | li, sa, pl | lt r brn | - | dk r brn | A3-A1-C1 | - | - |
| cf. 94t | KII 181 | C, $\times 2$ | -4.45 | $8.1 \times 7.8 \times 7.8$ | - | li, sa, pl | y brn | - | rbm | A2-A2 | - | - |
| cf. 94t | KII 183 | C, $\times 2$ | -4.45 | $11.5 \times 10.7 \times 10.7$ | - | - | y brn | - | $r \mathrm{brn}$ | A1-A3-A2 | - | - |
| cf. 94 t | KII 192 | C, x 1 | -4.20 | $9.5 \times 9.9 \times 9.9$ | - | li, sa | r wa | buff | bm | A3-A2 | - | - |
| 94u | CS 16 | N7, x1 | -9.35 | $10.4 \times 11.6 \times 11.6$ | - | - | lt brn | - | - | - | - | - |
| 94v | KII 305 | E | -3.90 | $10.2+\times 9.5 \times 9.5$ | - | - | buff | - | r brn | A1-A1-A5-A5-Cl | - | - |
| cf. 94 v | KII 329 | F | -4.00 | $7.1 \times 8.1 \times 8.1$ | hd/wh | li, sa | bm | c | dk pur I | A4-A1 | Young 1969, fig. 33:1, 2; fig. 30:26 | Godin III |
| 107b | Sor 1812 | $\times 9$ | - | $9.8 \times 9.8 \times 9.8$ | wh | - | It brn | - | gy | A1-A2 | - | . |
| cf. 107b | Sor 1808 | $\times 21$ | - | $8.0 \times 7.4 \times 7.4$ | - | - | rbm | - | - | - | Contenau and Ghirshman 1935, pl. 82, tb. 1:4, Young 1969, fig. 23:7 | Giyan IIIII Godin III |
| cf. 107b | Sor 1813 | x (7) | - | $8.3 \times 8.0 \times 8.0$ | - | - | r brn | - | - | - | - | - |

20A.2.4. POTS
20A.2.4.1. Round Base
20A.2.4.1.1. Globular Profile
94w CS $56 \quad$ N7, $\times 6 \quad-9.20 \quad 24.4 \times 23.0 \times 23.0 \quad$ hd cal gy

20A.2.4.1.2. Baglike Profile


Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and <br> obj. no. | PlotI <br> Tomb | Elevation <br> or level | Dimensions <br> in cm | Mfg | Temper | Surface | Paste | Paint <br> color | Decorative <br> pattern | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A. BRONZE AGE POTTERY (cont.)

## 20A.2.4. POTS (cont.)

## 20A.2.4.1. Round Base (cont.) <br> 20A.2.4.1.3. Slightly Carinated Profile

| 95 b | KII 319 | E | -4.80 | $24.5 \times 17.0 \times 17.0$ | $\mathrm{hd} / \mathrm{wh}$ | li, sa | ybrn | - | bm | A7 | Young and Levine <br> 1974, fig. $30: 11$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 20A.2.4.1.4. Carinated Profile

| 95c | KII 266 | D, $\times 5$ | -5.45 | - | - | - | lt gy brn | - | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 95d | KII 187 | C | -4.00 | $17.6 \times 15.4 \times 15.4$ | - | - | y brn | gy brn | - | - | - | - |
| 95 e | CS 108 | M7, x3 | -9.00 | $15.1 \times 14.1 \times 14.1$ | hd/wh | $\mathrm{li}, \mathrm{sa}, \mathrm{pl}$ | lt t brn | or | gy | A3-A1 | - | - |
| 95 f | CS 304 | J7, x2 | -4.85 | $15.8 \times 17.3 \times 17.3$ | - | - | It brn | - | bm | A1-A6 | - | - |
| 95g | CS 394 | 17 | -3.10 | $12.1 \times 12.6 \times 12.6$ | - | - | r brn | - | dk brn | A2-A1 | - | - |
| 95h | KII 324 | D, x 2 | -4.95 | $19.0 \times 17.6 \times 17.6$ | - | - | r brn | - | rbm | A1-A3-A1-B6 | - | - |
| 95i | CS 122 | M7, x 4 | -8.25 | $30.7 \times 24.2 \times 24.2$ | - | - | rbm | - | - | - | - | - |
| 96 a | KII 272 | D, $\times 4$ | -5.45 | $36.7 \times 25.7 \times 25.7$ | - | - | rbrn | - | dk bm | A2-B11-A8-A5-A1 | Goff 1976, fig. 11:3 | Baba Jan IV |
| 96 b | CS 626 | H5, x 3 | -4.20 | $34.7 \times 27.6 \times 27.6$ | - | - | buff | - | rbm | A1-A7-B1-A1-A5 | - | - |
| cf. 96b | CS 302 | J7, x2 | -4.65 | $28.2 \times 20.5 \times 20.5$ | - | - | gy bm | - | - | - | - | - |
| 968 | CS 111 | M7, x 4 | -8.25 | $27+\times 22.0 \times 22.0$ | - | - | I brm | - | dk bm | (7) | - | - |
| 96 d | CS 280 | J7, x 4 | -4.55 | $24.5 \times 17.0 \times 17.0$ | - | - | rbm | - | dk r brn | A1-A10-A2 | - | - |
| 96 e | CS 375 | J7, 88 | -6.80 | $19.0 \times 18.3 \times 18.3$ | - | - | It brn | - | bm | A7-B5-A5 | - | - |
| 97a | CS 505 | H5, x3(?) | -4.20 | $19.5 \times 17.1 \times 17.1$ | - | - | r brn | - | dkr brn | A1-A2-A8-A12-A1 | - | - |
| 97b | CS 542 | H3, x2 | -8.80 | $18.0 \times 15.0 \times 15.0$ | wh | li, sa | y brn | or | bm | A1-B3-Al | - | - |
| 107c | KII 162 | B, x 1 | -4.40 | $18.3 \times 15.5 \times 15.5$ | - | - | $y \mathrm{brn}$ | - | $\begin{aligned} & \mathrm{dk} \mathrm{gy} \\ & \mathrm{bm} \end{aligned}$ | A1-A5-A1-A3 | - | - |
| cf. 107c | KII 165 | B, $\times 1$ | -4.40 | $15.1 \times 14.8 \times 14.8$ | wh | li, sa | I brn wa | - | dk bm | A7--A1 | - | - |

## 20A.2.4.1.5. Carinated Profile, Handled

| 97c | KII 235 | D, x3 | -4.75 | $32.2 \times 32.2 \times 32.2$ | - | - | y brn | - | $\underline{\mathrm{brm}}$ | A2-A2-C1-D1 | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 97c | CS 501 | H5, x 1 | -3.60 | $29.0 \times 22.7 \times 22.7$ | (7) | li, sa | $y \mathrm{brn}$ | - |  |  |  |  |
| cf. 97 c | KII 250 | D, x 5 | -5.45 | $54.5 \times 51.5 \times 51.5$ |  | - | r brn | - | dk r brn | C1-D1 |  |  |

20A.2.4.2. Flat Base
20A.2.4.2.1. Carinated Profile

| 97d | KII 252 | D. x 5 | -5.45 | $31.5 \times 24.1 \times 24.1$ | - | - | lt gy brn | - | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 97e | CS 369 | J7, x 2 | -4.65 | $30.8 \times 22.7 \times 22.7$ | hd | - | y brn | - | - | - | - | - |
| 97 f | CS 123 | M7, 44 | -8.25 | $21.0 \times 18.6 \times 18.6$ | - | - | It brn | - | r bm | faded | - | - |
| 98a | KII 276 | D, x 4 | -5.45 | $27.0 \times 22.8 \times 22.8$ | - | - | gy brn wa | r brn | $\mathrm{dkgy}$ bm | A4-A5-A5-A1 | - | - |
| 20A.2.4.3. Disc Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.2.4.3.1. Globular Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 98b | CS 57 | N7, 66 | -9.20 | $27.7 \times 31.0 \times 31.0$ | - | - | It brn | - | - | five grooves | - | - |
| 20A.2.4.3.2. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 98c | CS 109 | M7, $\times 3$ | -9.00 | $32.8 \times 23.1 \times 23.1$ | wh(7) | li | gy brn | or | - | - | - | - |
| 98d | KII 171 | B, x 2 | -4.60 | $31.7 \times 24.1 \times 24.1$ | - | - | y brn | - | I brn | A5-A5 | - | - |

20A.2.4.4. Ring Base
20A.2.4.4.1. Carinated Profile

| cf. 97e | CS 283 | J7, x4 | -4.55 | $15.6 \times 17.6 \times 17.6$ | hd/wh | - | gy brn | - | - | pinched/scraped ring base | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 98 e | CS 327 | J7, x6 | -4.40 | $17.2 \times 17.2 \times 17.2$ | hd/wh | li, sa | gy brn | - | - | - |  |  |
| 98 f | KII 164 | B, x1 | -4.40 | (7) $\times 21.5 \times 21.5$ | hd | li, sa | y brn | or | dk r brn | A2-A1-A5-A2 | - | - |
| cf. 98f | KII 239 | D, x3 | -4.75 | $16.7 \times 14.3 \times 14.3$ | - | - | gy brn wa | - | rbm | A1-A1-A5-A1 | - | - |
| 99 a | CS 390 | I7, xI | -2.40 | $30.7 \times 28.4 \times 28.4$ | - | - | r bm | - | dk brn | $\begin{aligned} & \text { A1-A7-A1- } \\ & \text { B4-A1 } \end{aligned}$ | Goff 1976, fig. 7: $21,4$ | Baba Jan IV |
| cf. 99a | KII 180 | C. $\times 2$ | -4.45 | $21.0 \times 15.6 \times 15.6$ | wh | li, sa | - | r | - | - | - | - |

20A.2.4.4.2. Low Carinated Profile

| 99 b | CS 500 | x 1 | -3.60 | $22.9 \times 24.5 \times 24.5$ | wh | li, pl | lt gy brn |  | dk bm | -A5- |  | I |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | lt gy |  |  | -A5-A1 | $32: 2,3$ | In |

20A.2.4.4.3. Low Carinated Profile, Inside Lip Below Rim

| 99c | CS 305 | J7, x 2 | -4.65 | $26.5 \times 27.6 \times 27.6$ wh | li, sa | $r \mathrm{bm}$ | - | dk gy | A1-Al-A5.. | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | dk | B5-A6-A1 | - | - |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| PlateSite and <br> obj. no. | Plot/ <br> Tomb | Elevation <br> or level | Dimensions <br> in cm | Mfg | Temper | Surface | Paste | Paint <br> color | Decorative <br> pattern | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A. BRONZE AGE POTTERY (cont.)

| 20A.2.4. POTS (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A.2.4.5. Tripod Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.2.4.5.1. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 99 d | KII 208 | D | -4.20 | $23.2 \times 29.8 \times 29.8$ | - | - | It gy bm | - | gy brn | A4-B5-A3-C1 | - | - |
| 99. | KII 246 | D, x5 | -5.45 | $21.5 \times 27.3 \times 27.3$ | - | - | dkr brn | - | r brn | A6-B5-A13 | - | - |
| cf. 99e | CS 137 | M7, x1 | -8.35 | $19.5 \times 22.8 \times 22.8$ | wh | li, sa | It bm | - | dk bm | A4-A4-Cl | - | - |
| cf. 99 e | KII 318 | E | -4.35 | $20.2 \times 20.4 \times 20.4$ | - | - | $y \mathrm{brn}$ | - | - | grooves |  |  |
| 100a | CS 34 | N7, 22 | -9.10 | $23.6 \times 27.0 \times 27.0$ | - | - | buff | - | dk r bm | $\begin{aligned} & \text { A1-B10-B5- } \\ & \text { A1-C5 } \end{aligned}$ | - | - |
| 107d | Sor 1805 | $\times 21$ | - | $5.9 \times 6.4 \times 6.4$ | hd | - | rbm | - | - | - | - | - |
| 107f | Sor 1809 | $\times 21$ | - | (?) $\times 22.7 \times 22.7$ | - | - | rbm | $\bar{\square}$ | gy | (7) |  |  |
| cf. 107f | CS 491 | H5, x 3 | -3.60 | $21.6 \times 23.0 \times 23.0$ | wh(?) | li, sa | r brn wa | It brn | - | - | - | - |
| cf. 107f | CS 579 | F7 | -2.00 | $12.2 \times 10.5 \times 10.5$ | - | - | - | - | dk | A2-89-812-89 |  |  |
| 107 g | KII 251 | D, x5 | -5.45 | $26.0 \times 26.4 \times 26.4$ | - | - | rbr | - | dk r bm | $\begin{aligned} & \text { A2-B9-B12-B9- } \\ & \mathrm{A} 2-\mathrm{C} 4 \end{aligned}$ | - | - |
| 108a | KII 270 | D, x 4 | -5.45 | $28.2 \times 35.0 \times 35.0$ | - | - | $\underline{r m}$ | dk brn | $\bar{\square}$ | B13-B29-B13 | - | - |
| 108b | KII 249 | D, x5 | -5.45 | $31.5 \times 38.0 \times 38.0$ | - | - | 1 trbm | - | dkr brm | A4-B27-A3-Cl | - | - |
| 20A.2.4.5.2. Carinated Profile, Pierced Legs |  |  |  |  |  |  |  |  |  |  |  |  |
| 100 b | KII 184 | C, x2 | -4.45 | $9.1 \times 9.6 \times 9.6$ | - | sa | r brn | - | - | - | - | - |
| 20A.2.4.5.3. Carinated Profile, Pierced Lugs |  |  |  |  |  |  |  |  |  |  |  |  |
| 100 c | CS 11 | N7, x1 | -9.35 | $10.4 \times 9.2 \times 9.2$ | wh | li, sa, pl | It bm | or | dkr brn | A1-B7-Cl | - | - |
| 100 d | CS 12 | N7, x1 | -9.35 | $11.0 \times 10.9 \times 10.9$ | - | - | It gy bm | - | dkr brn | A1-A5-B16-A9-C1 | - | - |
| 107e | CS 62 | N7, 66 | -9.20 | $12.3 \times 9.4 \times 9.4$ | wh | li, sa | 1 lbm | - | dk r brn | A1-A2.B8-A2-C2 | - | - |

20A.2.4.6. Tetrapod Base
20A.2.4.6.1. Carinated Profile, Double Pot


## 20A.2.5. JARS

## 20A.2.5.1. Round Base

20A.2.5.1.1. Globular Profile, Drainage Hole in Base
100 f KII $236 \quad$ D, $33 \quad-4.75 \quad 42.0 \times 15.6 \times 15.6-\quad$ gy brn sp $\quad-\quad$ ibrn (?)

20A.2.5.1.2. Globular Profile, Spouted

| 108c | KII 175 | C. x 2 | -4.45 | $52+\times 58 \times 58$ bdy | - | - | $y \mathrm{brn}$ | - | - | ridged, lions in relief |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A.2.5.1.3. Carinated Profile |  |  |  |  |  |  |  |  |  |  |
| 100 g | CS 33 | N7, x2 | -9.10 | $31.6 \times 19.5 \times 19.5$ | hd/wh | - | lt bm | - | - | - |
| 101a | CS 17 | N7, x 1 | -9.35 | $45+\times 23.7 \times 23.7$ | - | - | It brn | - | r brm | A1-A9-A5 |
| 101b | CS 326 | J7, x2 | -4.40 | $26.0 \times 17.8 \times 17.8$ | hd/wh | li, sa | gy bm | - | dk bm | A2-A12-A3 |
| 101c | CS 546 | H3, x1 | -8.60 | $28.0 \times 18.0 \times 18.0$ | - | li, sa | r brn wa | - | dk brn | $\begin{aligned} & \mathrm{A} 1-\mathrm{A} 2-\mathrm{A} 5- \\ & \mathrm{A} 12-\mathrm{A} 5-\mathrm{A} 3 \end{aligned}$ |
| 101d | CS 325 | J7, x6 | -4.40 | $28.0 \times 18.3 \times 18.3$ | wh(?) | li, sa | rwa | or | dk r brn | $\begin{aligned} & \text { A3-A10-A10- } \\ & \text { A10-A3 } \end{aligned}$ |
| cf. 101d | CS 301 | J7, x 2 | -4.65 | $30.6 \times 16.4 \times 16.4$ | wh | li, sa | у r brn | - | - | - |

20A.2.5.2. Flat Base

## 20A.2.5.2.1. Carinated Profile

$\begin{array}{lllllllllll}102 \mathrm{a} & \mathrm{KII} 198 & \mathrm{D} & -3.75 & 18.2 \times 10.4 \times 10.4 & \text { wh } & \text { li, sa } & \text { y brn } & - & - & -\end{array}$

20A.2.5.2.2. Carinated Profile, Spouted
102b $\begin{array}{llllllllll} & C S & 311 & \text { J7 } & -4.85 & 6.7 \times 4.3 \times 4.3 & - & - & \text { y brn } & -\end{array}$

20A.2.5.3. Disc Base
20A.2.5.3.1. Globular Profile, Two-Handled
102c KII 236a D, x3 -4.95 $34.5 \times 17.7 \times 17.7-\quad$ lt brn $\quad$ - $\quad$ dkrbrn A2-A5-A5

| Contenau and <br> Ghirshman 1935, | Giyan IIIa |
| :--- | :--- |
| pl. 26, tb. 85:1 |  |
| Gasche 1973,  <br> pl. 16:4,5 VR AXIV-$\quad$ XIII |  |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plol/ <br> Tomb | Elevation or level | Dimensions in cm | Mfg | Temper | Surface | Paste | Paint color | Decorative pattern | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

20A. BRONZE AGE POTTERY (cont.)
20A.2.5. JARS (cont.)
20A.2.5.3. Disc Base (cont.)
20A.2.5.3.2. Carinated Profile


20A.2.5.4. Ring Base
20A.2.5.4.1. Ridged Profile

| 102e | KII 248 | D, $\times 5$ | -5.45 | $38.5 \times 22.2 \times 22.2$ | - | - | lt gy bm | - | dk gy | A2-A1-A2 | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 103a | CS 29 | N7, x 2 | -9.10 | $41.7 \times 27.8 \times 27.8$ | hd | li, sa | r wa | r | - | $\begin{aligned} & \text { A1-A3-B11- } \\ & \text { A1-A8 } \end{aligned}$ | Goff 1976, fig. 7:1 | Baba Jan IV |
| 103b | CS 39 | N7 | -9.35 | $48.8 \times 32.0 \times 32.0$ | - | - | dkr brn | - | rbm | $\begin{aligned} & \mathrm{A} 10-\mathrm{A} 10-\mathrm{B} 21- \\ & \mathrm{A} 2-\mathrm{B} 22-\mathrm{A} 2 \end{aligned}$ | - | - |
| 104a | CS 545 | H3, x1 | -8.60 | $43.0 \times 20.6 \times 20.6$ | - | - | r brn | - | dk brn | $\begin{aligned} & \text { A1-A1-A2-B5- } \\ & \text { A5-B22-A5-A } \end{aligned}$ | Young 1969, fig. 20:1 | Godin III |
| 105a | KII 347 | H | -4.00 | $\begin{aligned} & 40+x 28.6+x \\ & 28.6+ \end{aligned}$ | - | - | gy bm | - | - | - | - | - |
| 20A.2.6. PIPES |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.2.6.1. Plain |  |  |  |  |  |  |  |  |  |  |  |  |
| 105b | KII 271 | D, x 4 | -5.45 | $30.5 \times 13.2 \times 13.2$ | wh | li, sa | gy brn | - | - | - | Gasche 1973, pl. 52:3-6 | VR BVII |

20A.2.6.2. Wall Pierced

| 105c cf. 105c | $\begin{aligned} & \text { KII } 237 \\ & \text { KII } 262 \end{aligned}$ | D, $\times 3$ D, $\times 5$ | -4.75 -5.45 | $36.0 \times 13.2 \times 13.2$ | wh | $\underline{\text { li, sa }}$ | $\begin{aligned} & \text { buff } \\ & \text { buff } \end{aligned}$ |  | - | - | Gasche 1973, pl. 52:2 | VR BVI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 105d | KII 322 | F | -4.00 | $27.4 \times 18.7 \times 18.7$ | - | - | gy bm | - | - | - | - | - |
| 20A.2.7. SHERDS |  |  |  |  |  |  |  |  |  |  |  |  |
| - | CS 21 | N7, x5 | -9.15 | - 19.46 .6 | - | - | gy brn | - | - |  | - | - |
| - | CS 124 | M7, x 4 | -8.25 | $19.4 \times 16.6 \times 16.6$ | - | - | 1 brn | - | I brn | (7) | - | - |


| - | KII 193 | C, x 1 | -4.20 | - | - | - | - | - | - | - | - | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | KII 202 | D | -3.75 | (3) $\times$ (?) $\times 34.5$ | hd | - | pur r brn wa | ybm | - | handle stub | - | - |  |
| - | KII 300:1-3 | D, x6 | -5.90 | - | hd | - | It brn | - | - | - | - | - |  |
| - | KII 346 | G, x2 | -4.00 | $55+\mathrm{x} 44.0 \times 44.0$ | - | - | gy bm | - | - | - |  | - |  |
| - | KII 351 | H | -4.30 | 17.9 | (7) | li, sa | lt r brn wa | cr | dkr brn | A2-A2 | - | - |  |
| - | KII 357 | H | -4.90 | - | - | - | y brn | - | - | - | - | - |  |
| - | Sor 1439 | 3-13 | 2B | - | - | - | buff | - | - | tripod leg | - | - |  |
| 106a | KII 550 | D | -4.30 | 6.7 | - | - | gy bm | - | dk rbm | birds | - | - |  |
| 106b | CS 313 | J7 | -3.85 | - | - | - | ybrn | - | dk brn | Al-A11-B. <br> B22.B26.B11 | - | - |  |
| 106c | CS 629 | H4 | -6.30 | - | - | - | $\underline{r m}$ | - | - | - | - | - |  |
| 106d | KII 339 | G | -3.95 | 18.2 | - | - | y gy brn sp | - | - | grooves | - | - |  |
| cf. 102d | KII 350 | H | -4.30 | $11.4 \times 7.8 \times 7.8$ | - | - | gy bm | - | - | - | - | - |  |
| 106e | KII 175al | C, x2 | -4.45 | - | - | - | lt gy bm | - | dk bm | $\ldots \text { A1-A5-A1- }$ | - | - | $\stackrel{8}{8}$ |
| $106 f$ | KII 175a2 | C, x 2 | -4.45 | - | - | - | lt gy brn | - | dk brn | ...A2-82-B2-A5-A1 | - | - | N |
| 106 g | KII 175a3 | C, x2 | -4.45 | - | hd | li, sa | lt gy bm | - | dk brn | ...B(7)-A5-A1... | - | - | $\bigcirc$ |
| 106h | KII 313 | E | -4.25 | 6.3 | - | - | 1 ltm | - | dk bm | A20 | - | - | 8 |
| 20A.3. GIYAN II-RELATED LATE BRONZE AGE POTTERY |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.1. BOWLS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.1.1. Round Base |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.1.1.1. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 109a | MV 1 | Tomb I | 0.20 | $7.6 \times 19.6 \times 19.6$ | - | - | y brn | - | dk bm | A1-B1-B32 | Meade 1968, fig. 11:4 | Dust Ali, <br> Sinjab <br> Giyan III-II | 䂞 |
| 20A.3.1.2. Flat Base $\quad$ ? |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.1.2.1. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 109b | CS 574 | H3 (pit 1) | $-9.00$ | $2.2 \times 5.0 \times 5.0$ | - | - | y brn | - | - | - | - |  | 0 |
| 109c | KII 412 | I, x1 | $-4.30$ | $5.4 \times 11.2 \times 11.2$ |  | li, sa | lt gy brn | - | $\mathrm{dk}_{\mathrm{dm}}$ | A2 | - | Givan | $\stackrel{3}{3}$ |
| 109 e | KII 380 | I, x1 | -4.30 | $4.7 \times 11.8 \times 11.8$ | - | - | buff | - | pur | El | Contenau and Ghirshman 1935, pl. 23, <br> tb. 76:2 | Giyan IIa | 3 |
| 20A.3.1.3. Disc Base |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.1.3.1. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 109d | CS 563 | H3 (pit 1) | -9.00 | $8.3 \times 22.8 \times 22.8$ | - | - | gy bm | - |  | A1-A1 | 一 | - |  |
| 109e | KII 402:1 | $\mathrm{I}, \mathrm{xl}$ | -4.30 | $5.6 \times 12.4 \times 12.4$ | - | - | rbm | - | (?) | E1, base cut with string | Hamlin 1974, fig. II:1a-c | Dinkha IV |  |
| cf. 109e | KIII 402:2 | I, x 1 | -4.30 | - | - | - | - | - | - | - | - | - | 9 |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | $\begin{aligned} & \text { Plotl } \\ & \text { Tomb } \end{aligned}$ | Elevation or level | Dimensions in cm | Mfg | Temper | Surface | Paste | Paint color | Decorative pattern | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A. BRONZE AGE POTTERY (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.2. GOBLETS |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.2.1. Round Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.2.1.1. Globular Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 109 f | KII 369 | I, x1 | $-4.30$ | $7.6 \times 6.5 \times 6.5$ | - | - | lt brn | - | r brn | A1-A4 | Young 1969, fig. 22:13 | Godin III |
| 20A.3.2.1.2. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 109 g | CS 552 | H 3 (pit 1) | $-9.00$ | $12.1 \times 11.7 \times 11.7$ | 7 - | - | 1 lt bm | - | dk bm | A3 | Gasche 1973, pl. 16:2 | VR AXV |
| 109h | KII 404 | I, x1 | -4.30 | $8.8 \times 10.3 \times 10.3$ | hd/wh | - | It brn | - | dkr brn | A1-A2 | Gasche 1973, pl. 16:2 | VR AXV |
| 20A.3.2.2. Disc Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.2.2.1. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 109 i | CS 575 | H3 (pit 1) | $-9.00$ | $9.1 \times 8.3 \times 8.3$ | - | - | y brn | - | bm | A3 | - | - |
| 109 j | KII 403 | I, x1 | -4.30 | $9.7 \times 7.6 \times 7.6$ | wh | - | gy bm | - | dk bm | Al-A2 | Contenau and Ghirshman 1935, pl. 21, tb. 65 | Giyan IIb |
| cf. 109j | CS 211 | L7 (pit 1) | -8.25 | $8.6 \times 4.8 \times 4.8$ | - | - | lt gy bra | - | dk bm | A3 | 1935, pl. 21, ${ }^{\text {d }}$. | - |
| cf. 109 j | CS 212 | 17 (pit 1) | -8.25 | $7.9 \times 6.9 \times 6.9$ | wh | li, sa | lt gy bm | - | - | - | - | - |
| cf. 109 j | CS 562 | H3 (pit 1) | $-9.00$ | $11.0 \times 8.3 \times 8.3$ | - | - | lt brn | - | bm | A1-A5-A1 | - | $\bar{\square}$ |
| cf. 109 j | CS 564 | H3 (pit 1) | $-9.00$ | $11.0 \times 7.5 \times 7.5$ | - | - | y brn | - | bm | A3 | Contenau and Ghirshman 1935, pl. 23, tb. 73:4 | Giyan Ila |
| cf. 109j | KП1 383 | I, x 1 | -4.30 | $10.5 \times 8.5 \times 8.5$ | - | $\bar{\square}$ | lt gy bm | - | dk bm | A1 |  | - |
| cf. 109j | KII 399 | I, x4 | -4.30 | $8.5 \times 8.8 \times 8.8$ | - | li, sa | lt brn | - | dk r brn | A5-A1 | - | - |
| 20A.3.2.3. Concave Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.2.3.1. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 109k | CS 440 | H7 | -1.40 | $6.6 \times 5.5 \times 5.5$ | wh | - | lt gy bm | - | dk bm | A1-A2 | Young 1969, fig. 22:7 | Godin III |
| 20A.3.2.4. Footed Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.2.4.1. Sinuous Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 1091 | Zar 6 | x2 | - | $8.4 \times 6.2 \times 6.2$ | - | - | gy bm | - | pur brn | A1 | - | - |

20A.3.3. CUPS
20A.3.3.1. Round Base
20A.3.3.1.1. Carinated Profile
$109 \mathrm{~m} \quad \mathrm{KII} 410 \quad \mathrm{I}, \mathrm{x} 1 \quad-4.30 \quad 8.8 \times 10.3 \times 10.3-\quad-\quad \mathrm{ltbm} \quad-\quad \mathrm{dkrbm} \quad$ A1-A2
20A.3.3.2. Flat Base
20A.3.3.2.1. Carinated Profile

20A.3.3.3. Disc Base
20A.3.3.3.1. Carinated Profile

| 1090 | KII 373 | I, x1 | -4.30 | $8.9 \times 7.6 \times 7.6$ | - | - | gy bm | - | dk bm | A3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 1090 | CS 556 | H3 (pit 1) | $-9.00$ | $10.0 \times 9.2 \times 9.2$ | wh | li, sa | bm | - | dk brn | A3 |
| cf. 1090 | KII 362 | I, x1 | -4.30 | $9.3 \times 7.2 \times 7.2$ | - | li, sa | lt gy brn | - | dk gy | A1-A3 |
| 109p | CS 557 | H3 (pit 1) | -9.00 | $12.0 \times 9.2 \times 9.2$ | - | - | y brn | - | rbm | B3 |


| Contenau and Ghirshman | Giyan Ib |
| :--- | :--- |
| 1935, pl. 24, tb. $75: 7$ | - |
| - | - |
| Contenau and Ghirshman | Giyan Ia |
| 1935, pl. 25, tb. 81:2 |  |

20A.3.4. POTS
20A.3.4.1. Flat Base
20A.3.4.1.1. Carinated Profile
$109 \mathrm{q} \quad$ CS $577 \quad \mathrm{H} 3$ (pit 1) $-9.00 \quad 26.0 \times 27.1 \times 27.1 \quad-\quad-\quad$ grngybrn $\quad-\quad$ -
20A.3.4.1.2. Carinated Profile, Handled

| 109\% | Sor 1814 | 12 | 3B | (7) $\times 35+\times 35+$ | hd | li, sa | pi buff | - | rbm | A7-B18.B30-A2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

20A.3.4.2. Disc Base
20A.3.4.2.1. Ridged Profile

| 110a | KII 370 | I, x1 | -4.30 | $19.9 \times 22.3 \times 22.3$ | - | - | bm | - | lt gy bm |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 110a | KII 390 | I, x1 | -4.30 | $27.6 \times 32.0 \times 32.0$ | - | - | rbm | - | - |

20A.3.4.2.2. Carinated Profile, Handled


Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and <br> obj. no. | Plot <br> Tomb | Elevation <br> or level | Dimensions <br> in cm | Mfg | Temper | Surface | Paste | Paint <br> color | Decorative <br> pattern | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 20A. BRONZE AGE POTTERY (cont.)

| 20A.3.4. POTS (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A.3.4.2. Disc Base (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.4.2.2. Carinated Profile, Handled (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| 110 c cf. 110 g cf. 110 g | $\begin{aligned} & \text { CS } 601 \\ & \text { KII } 368 \\ & \text { KII } 392 \end{aligned}$ | $\begin{aligned} & \mathrm{F} 7, \mathrm{x} 1 \\ & \mathrm{I}, \times 1 \\ & \mathrm{I}, \mathrm{x} 1 \end{aligned}$ | $\begin{aligned} & -4.30 \\ & -4.30 \end{aligned}$ | $\begin{aligned} & 13.5 \times 17.8 \times 17.8 \\ & 17.4 \times 22.2 \times 22.2 \\ & 9.5 \times 12.7 \times 12.7 \end{aligned}$ | $\frac{\text { wh }}{\text { wh }}$ | $\frac{\text { li, sa }}{\text { sa, } \mathrm{pl}}$ | gy brn lt brn gy brn | or | dk bm <br> $\overline{d k}$ bm | $\frac{\mathrm{A} 1-\mathrm{A} 3}{\mathrm{~A} 3-\mathrm{A} 3}$ | - | - |
| 20A.3.4.2.3. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 110d | CS 572 | H3 (pit 1) | -9.00 | $22.7 \times 32.8 \times 32.8$ | - | - | gy brn | - | dk brn | $\begin{aligned} & \text { A1-A5-A2- } \\ & \text { B1-A5 } \end{aligned}$ | Contenau and Ghirshman <br> 1935, pl. 21, tb. 65:8 <br> Young 1969, fig. 31:4 | Giyan IIb <br> Godin III |
| 20A.3.4.3. Concave Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.4.3.1. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| cf. 98e | CS 600 | F7, x1 | $-2.35$ | $12.2 \times 10.1 \times 10.1$ | - | - | ybrn | - | - | - | - | - |
| 20A.3.4.4. Ring Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.4.4.1. Ridged Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 110 e | Sor 1817 | 12 | 3B | $68.0 \times 68.0 \times 68.0$ | - | - | blk spe | - | - | - | - | - |
| 110f | $\text { CS } 576$ | H3 (pit 1) | $-9.00$ | $20.2 \times 22.7 \times 22.7$ | hd/wh | li, sa |  | - | brn | A5 | - | - |
| cf. 110 f | KII 386 | $\mathrm{I}, \mathrm{x} 1$ | $-4.30$ | $22.2 \times 27.2 \times 27.2$ | - | - | gy brn | - | dk brn | A2-A2 | - | - |
| 20A.3.4.4.2. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 110 g | KII 374 | I, x1 | -4.30 | $19.7 \times 25.8 \times 25.8$ | - | - | gy brn | - | dk gy | E1-A4-A5-A5-A1 | - | - |

20A.3.4.5. Tripod Base
20A.3.4.5.1. Carinated Profile, Handled

| 111a | KII 400 | I, x1 | -4.30 | $11.4 \times 11.2 \times 11.2$ | - | - | lt brn | - | dkr rm | A2-B9-A2 | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 111a | KII 407 | I, x1 | -4.30 | $13.1 \times 11.3 \times 11.3$ | - | - | lt brn | - | dkrbm | Al-A5-A5-Cl | - | - |
| 111b | KII 385 | I, x1 | -4.30 | $10.0 \times 10.8 \times 10.8$ | wh | li, sa | It gy brn | - | dk bm | A1-A3-C1 | - | - |
| cf. 111b | KII 372 | I, xl | -4.30 | $13.5 \times 12.7 \times 12.7$ | wh | li, sa | lt brn | - | dk br | A1-A3-C1 | - | - |
| cf. 111b | KII 378 | I, xl | -4.30 | $10.3 \times 10.0 \times 10.0$ | - | - | It gy brn | - | gy brn | A2-A5-A2 | - | - |
| cf. 111b | KII 379 | I, x1 | -4.30 | $10.3 \times 11.7 \times 11.7$ | wh | - | lt gy bm | - | gy brn | A1-A4-C1 | - | - |
| cf. 111b | KII 384 | I, x1 | -4.30 | $13.2 \times 13.2 \times 13.2$ | - | - | lt gy brn | - | dk bm | A3-C1 | - | - |
| cf. 111b | KII 391 | I, x1 | -4.30 | $11.6 \times 10.8 \times 10.8$ | - | - | lt brn | - | dkrbm | (A1)-A5-B15-A2 | - | - |
| cf. 111b | KII 393 | I, x1 | -4.30 | $10.6+\times 9.7 \times 9.7$ | - | - | lt brn | - | dk bm | ...B15 |  |  |
| cf. 111b | KII 394 | I, x1 | -4.30 | $10.0 \times 11.4 \times 11.4$ | - | - | 1 lbm | - | dkr brn | A2-B9-A2-C3 | - | - |
| cf. 111b | KII 408 | I, x1 | -4.30 | $12.8 \times 12.2 \times 12.2$ | wh | li, sa | lt gy brn | - | gy | A5-A1-(C1) | - | - |
| 111c | KII 388 | I, x1 | -4.30 | $10.0 \times 11.6 \times 11.6$ | - | - | 1t bm | - | dr r brn | ...A5-A5-C6 | - | - |
| 111d | KII 396 | I, x1 | -4.30 | $10.9 \times 11.1 \times 11.1$ | - | - | 1t gy bm | - | dk bm | A1-A6-A1-A6-C1 | - | - |
| 111e | KII 411 | I, x1 | -4.30 | $10.4 \times 10.4 \times 10.4$ | - | - | lt gy brn | - | dk bm | A1-A1-A5-A6 | - | - |
| 114b | KII 363 | I, x1 | -4.30 | $14.2 \times 13.6 \times 13.6$ | - | - | lt gy brn | - | gy | A3-A2-C1 | - | - |
| 20A.3.4.5.2. Sinuous Profile, Side Goblet |  |  |  |  |  |  |  |  |  |  |  |  |
| $114 a$ | KII 409 | I, xl | $-4.30$ | $12.0 \times 13.5 \times 13.5$ | hd | - | lt brn | - | rbm | B9-B9-A4 | Contenau and Ghirshman 1935, pl. 29:tb. 98:1 | Giyan IIIa |
| 20A.3.4.6. Tetrapod Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.4.6.1. Carinated Profile, Twin Pots, Handled |  |  |  |  |  |  |  |  |  |  |  |  |
| 114 c | KII 375 | I, x1 | -4.30 | $10.1 \times 9.9 \times 9.9$ | wh | - | It gy brn | - | blk | A2-B29-A2-C1 | - | - |
| 20A.3.4.6.2. Rectangular Profile, Pierced Lugs |  |  |  |  |  |  |  |  |  |  |  |  |
| 114d | КІІ 367 | I, x1 | -4.30 | $11.7 \times 7.5 \times 11.5$ | hd | - | lt gy bm | - | brn | A1-A1-B29 | - | - |
| 20A.3.5. SMALL JARS |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.5.1. Round Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.5.1.1. Globular Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 111f | CS 571 | H3 (pit 1) | -9.00 | $5.1+\mathrm{x}$ (?) x (?) | hd( ${ }^{\text {( }}$ | - | y brn | - | bm | A3 | - | - |
| 111 g | KII 376 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | $9.7 \times 6.7 \times 6.7$ | wh | - | lt gy gm | - | dk bm | A1-A1-A2 base scraped | - | - |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plot/ <br> Tomb | Elevation or level | Dimensions in cm | $M f g$ | Temper | Surface | Paste | Paint <br> color | Decorative pattern | Reference Per | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A. BRONZE AGE POTTERY (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.5. SMALL JARS (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.5.1. Round Base (cont.) |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.5.1.2. Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 111h | KII 395 | I, $\times 1$ | -4.30 | $9.0+\times 7.3 \times 7.3$ | - | - | lt gy bm | - | rbrn | A1-A2-A1 | Gasche 1973, pl. 13:8 | VR AXII |
| 111i | KII 415 | I, $\times 1$ | -4.30 9 | $9.6 \times 9.2 \times 9.2$ | - | - | lt gy brn | - | dkr brn | A1-A2-A1 | - | - |
| 20A.3.5.2. Flat Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.5.2.1. Sinuous Profile, Spouted |  |  |  |  |  |  |  |  |  |  |  |  |
| 112c | CS 210 | L7 (pit 1) | -8.25 | $6.3 \times 4.4 \times 4.4$ | wh | li, sa | r wa | cr | dk I brn | A4 | - | - |
| 20A.3.6. JARS |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.6.1. Flat Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.6.1.1. Globular Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 111j | Sor 1820 | 12 | 3B 2 | $23.6 \times 12.6 \times 12.6$ | - | - | r spe | - | dk brn | $\begin{aligned} & \text { A1-A5-(A12-A12 } \\ & \text { ridged?) } \end{aligned}$ | - | - |
| 20A.3.6.2. Disc Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A.3.6.2.1. Globular Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| $111 \mathrm{k}$ | KII 364 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 |  | wh |  |  | - |  |  | - | - |
| cf. 111 k | k KII 366 | I, x1 | -4.30 | $14.4 \times 12.9 \times 12.9$ | $\stackrel{-}{-}$ | li, sa | gy bm | - | dk r brn | A2-A1-A2 | - | - |
| cf. 111 k | K KII 387 | I, x1 | -4.30 | $17.9+\times 10.8 \times 10.8$ | - | - | gy bm | - | dk bm | A5-A1-A6 | - | - |
| cf. 111k | $\text { k KII } 406$ | I, x 1 | -4.30 | $11+\mathrm{x}(7) \times(?)$ | - | - | r bm | - | dkrbm | A2-A1-A2 |  |  |
| 115b | KII 365 | I, x1 | -4.30 | $22.0 \times 9.8 \times 9.8$ | - | li, pl | lt gy brn | - | dkr brn | A5-A6 | Contenau and Ghirshman 1935, pl. 22, tb. 69:2 | Giyan IIc |
| 20A.3.6.2.2. Slightly Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 1111 | KII 398 | I, xI | -4.30 | $16.0 \times 10.0 \times 10.0$ | - | - | It gy brn | - | gy | A2-A2 | - | - |
| 112a | CS 553 | H3 (pit 1) | -9.00 | $12.1 \times$ (?) $\times$ (? | - | - | lt bm | - | dk bm | A3-A1 | - | - |

20A．3．6．3．Ring Base
20A．3．6．3．1．Globular Profile，Pierced Lugs

| 112b | CS 570 | H3（pit 1） | －9．00 | $15.9 \times 9.5 \times 9.5$ | wh | li，sa | $y \mathrm{brn}$ | or | r brn | $\begin{aligned} & \text { A1-A1-B15- } \\ & \text { A5-A1-D3- } \end{aligned}$ | Contenau and Ghirshman 1935，pl．26，tb．85：1 Gasche 1973，pl．16：4， 5 | Giyan IIIa <br> VR AXIV－XIII |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20A．3．7．PITCHERS |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A．3．7．1．Flat Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A．3．7．1．1．Sharply Angled Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 112 \mathrm{~d} \\ & 112 \mathrm{e} \end{aligned}$ | $\begin{aligned} & \text { Sor } 1819 \\ & \text { CS } 555 \end{aligned}$ | $\begin{aligned} & 12 \\ & \text { H3 (pit 1) } \end{aligned}$ | $\begin{aligned} & \text { 3B } \\ & -9.00 \end{aligned}$ | $\overline{27.0} \times 19.2 \times 19.2$ | 二 | － | It bm grn gy | － | pur bm brn | $\begin{aligned} & \text { B24-A2-A1 } \\ & \text { A1-A5-A2- } \end{aligned}$ | 二 | － |
| 20A．3．7．2．Disc Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A．3．7．2．1．Hemispherical Profile |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { CS } 565 \\ & \text { KII } 377 \end{aligned}$ | $\mathrm{H} 3 \text { (pit 1) }$ | -9.00 -4.30 | $24.6 \times 18.8 \times 18.8$ $21.6 \times 14.7 \times 14.7$ | wh | li，sa | y brn <br> gy brn | 二 | $\begin{aligned} & \mathrm{bm} \\ & \mathrm{r} \mathrm{bm} \end{aligned}$ | $\begin{aligned} & \mathrm{B} 31-\mathrm{B} 31-\mathrm{A} 1 \\ & \mathrm{~B} 23-\mathrm{A} 1-\mathrm{B} 9-\mathrm{A} 2 \end{aligned}$ | － | － |
| 115a | CS 558 | H3（pit 1） | $-9.00$ | $29.3 \times 21.3 \times 21.3$ | wh | li，sa | gy brn | or | bm | A1－A1－B30－A2－ | － | － |
| 20A．3．7．3．Ring Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A．3．7．3．1．Carinated Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 113a | Sor 1821 | 12 | 3B |  | － | － | ybrn | － | rbm | B25－A1－A5－A1 | －－ | － |
| 20A．3．8．STORAGE JARS |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A．3．8．1．Pointed Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A．3．8．1．1．Grooved Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 113c | KII 382 | I，x1 | $-4.30$ | $29.0 \times 9.6 \times 9.6$ | － | － | buff | － | － | － | Gasche 1973，grp 29／30 | VR AXIII－XII |
| 20A．3．8．2．Ring Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 20A．3．8．2．1．Ridged Profile |  |  |  |  |  |  |  |  |  |  |  |  |
| 115d | Sor 1818 | 1 | 3B | $45.8 \times 21.4 \times 21.4$ | － | － | buff | － | － | A1 | Goff 1976，fig．7：3， 5 | Baba Jan IV |
| cf． 115 d | Sor 1815 | 12 | 3 B | fragments | － | － | y brn | － | pur bm | A1－A9－A1 |  |  |
| cf．115d | Sor 1816 | 22 | 3B | （7）$\times 19.5 \times 19.5$ | － | － |  | － |  |  |  |  |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plot/ Tomb | Elevation or level | Dimensions in cm | Mfg | Temper | Surface | Paste | Paint color | Decorative pattern | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

20A. BRONZE AGE POTTERY (cont.)
20A.3.9. PIPES

| 20A.3.9.1. Plain |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 105b KП 389 | I, x1 | -4.30 | 13.2 | - | - | it brn | - | - | - | Gasche 1973, pl. 52:3-5 | VR BVII |
| cf. 105b KII 397 | I, x1 | -4.30 | max 14.4 | - | - | 1 ltgym | - | - | - | Gasche 1973, pl. 52:3-5 | VR BVII |

20A.3.9.2. Wall Pierced

| 115 c | KII 371 | I, x1 | -4.30 | $22.5 \times 13.4 \times 13.4$ | - | - | gy brn | - | - | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 115 c | KII 381 | I, x1 | -4.30 | $33.8+\times 14.4 \times 14.4$ | wh | - | gy bm | - | - | - |
| cf. 115 c | KII 405 | I, x1 | -4.30 | $25.2 \times 11.3 \times 11.3$ | wh | li, sa | gy bm | - | - | - |

20A.3.10. LID

113d Sor 1362 1-3 |  | 3B | $12.1+$ | - | - | buff | - | - | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

20A.3.11. SHERDS

| - | CS 578 | H3 (pit 1) | -9.00 | (12 exx.) | - | - | - | - | - | - | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | CS 213 | L7 (pit 1) | $-9.00$ | (17 exx.) | - | - | - | - | - | - | - | - |
| - | Sor 1268 | 9 | 1 | 2.7 | hd | - | buff | - | gy | C6 | - | - |
| - | Sor 1663 | 1/9 | 3A | - | - | - | bm | - | dk gy | (?) | - | - |
| - | Sor 1674 | 1/9/11 | 3A | (2 exx.) | - | - | buff | - | bm | - | - | - |
| - | Zar 4 | x 1 | - | (18 exx.) | - | - | - | - | - | - | - | - |
|  | Zar 8 | surface | - | (9 exx.) | - | - | - | - | - | - | - | - |
| - | Zar 9 | surf. pit | - | (15 exx.) | - | - | - | - | - | - | - | - |


| Plate | Site and obj. no. | Plotl <br> Tomb | Elevation or level | Dimensions in cm | Paint color | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## 20B. BRONZE AGE BAKED CLAY OBJECTS

20B.1. SUSA D-RELATED EARLY BRONZE AGE BAKED CLAY OBJECTS

| 116a | KI 62 | F | -4.20 | $5.3 \times 2.9$ | lt brn | Oval | Carter 1980, fig. 19:7 | VR III |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 116a | KI 44 | C | -5.85 | $5.7 \times 3.6$ | lt gy bm | Slightly baked oval with fabric impression | Carter 1980, 19.7 | - |
| cf. 116a | KI 48 | C | -6.35 | $5.4 \times 3.6$ | gy brn | Slightly baked oval | - | - |
| 20B.1.2. DISC SHERDS |  |  |  |  |  |  |  |  |
| 116 b | KI 17 | A | -7.40 | $6.0 \times 1.0$ | It bm | Irr. edge, pierced in center | - | - |
| cf. 116b | KI 11 | A | -7.60 | $7.9 \times 1.9$ | $y \mathrm{brn}$ | Irr. edge, pierced in center | - | - |
| cf. 116b | KI 15:15 | A | $-7.40$ | $5.0 \times 0.8$ | gy brn | Irr. edge, pierced in center | - | - |
| 20B.1.3. WHORLS |  |  |  |  |  |  |  |  |
| 20B.1.3.1. Cartwheel |  |  |  |  |  |  |  |  |
| 116 c | KI 3 | A | -7.20 | $5.5 \times 2.5$ | gy | Whecl-like | - | - |
| cf. 116 c | KI 18 | A | -7.50 | $4.0 \times 2.5$ | It gy bm | Wheel-like | - | - |
| cf. 116c | KI 32 | B | -6.45 | $4.0 \times 2.3$ | gy bm | Wheel-like | - | - |
| 20B.1.3.2. Plano-Convex |  |  |  |  |  |  |  |  |
| 116d | KI 73 | H | -3.50 | $4.4 \times 2.4$ | gy brm | Plano-convex | - | - |
| cf. 116d | KI 45 | C | -6.10 | $4.7 \times 1.8$ | y brn | Plano-convex | - | - |
| cf. 116e | KI 82 | I, x1 | -4.90 | $4.5 \times 2.1$ | buff | Plano-convex | - | - |
| 20B.1.4. MODEL CHARIOT WHEEL |  |  |  |  |  |  |  |  |
| 116 f | KI 77 | I | $-4.50$ | $6.7 \times 3.7$ | $y \mathrm{brn}$ | - | - | - |
| 20B.1.5. ANIMAL FIGURINES |  |  |  |  |  |  |  |  |
| 116 g | KI 5 | A | -7.40 | $5.5 \times 3.5$ | y sp | Faintly incised crossing lines on each upper foreleg | - | - |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plotl <br> Tomb | Elevation or level | Dimensions in cm | Paint color | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20B. BRONZE AGE BAKED CLAY OBJECTS (cont.) |  |  |  |  |  |  |  |  |
| 20B.1.5. ANIMAL FIGURINES (cont.) |  |  |  |  |  |  |  |  |
| 116h | KII 323 | F | -4.30 | $6.2 \times 3.8$ | gy | Long body, pronounced nose | - | - |
| - | KII 358 | H | -5.50 | $4.5 \times 4.1 \times 2.7$ | gy brn | Fragment | - |  |
| $116 i$ | KI 92 | J | -5.15 | 3.6 | $y \mathrm{brn}$ | Bird's beak, eye indicated | - | - |
| 118a | KI 69 | G | -5.05 | $4.2 \times 3.4 \times 1.5$ | gy brn | Fragment | - | - |
| 118 b | KI 21 | B | -5.75 | $4.0 \times 3.0 \times 1.5$ | gy brn | Slightly baked, fragment | - | - |
| 118 c | KI 23 | B | -5.85 | $5.5 \times 2.5 \times 2.0$ | gy brn | Slightly baked | - | - |
| - | KI 31 | B | -6.25 | $3.9 \times 3.3 \times 1.7$ | It brn | Head missing, tail indicated | - | - |
| 20B.2. GIYAN IVC- TO III-RELATED MIDDLE BRONZE AGE BAKED CLAY OBJECTS |  |  |  |  |  |  |  |  |
| 20B.2.1. CLAY MISSILES |  |  |  |  |  |  |  |  |
| 116j | CS 98 | M7 | -8.90 | $4.0 \times 2.6$ | - | One end pointed | - | - |
| cf. 116j | CS 42 | N7 | -9.45 | $4.5 \times 2.8$ | gy bm | Ends chipped | - | - |
| cf. 116j | CS 419 | 17 | -3.60 | $5.1 \times 3.0$ | rbm | - | - | - |
| cf. 116j | CS 425 | 17 | -4.05 | $5.2 \times 2.9$ | gy bm | - | - | - |
| cf. 116j | GZ 4 | A | fill | $4.1 \times 2.2$ | y brn | - | - | - |
| 20B.2.2. WHORLS |  |  |  |  |  |  |  |  |
| 20B.2.2.1. Plano-Convex |  |  |  |  |  |  |  |  |
| 70 q | CS 1 | N7 | -8.50 | $4.7 \times 2.5$ | gy brn | Crude | - | - |
| 116k | KII 317 | E | -4.80 | $4.4 \times 2.8$ | ybm | - | - | - |
| cf. 116k | KII 334 | G | -3.80 | $4.4 \times 2.1$ | gy brn | - | - | - |
| cf. 116k | CS 74 | M7 | -8.30 | $3.0 \times 2.4$ | $y$ or | - | - | - |
| 1161 | CS 2 | B7 | -8.50 | $4.0 \times 1.9$ | gy brn | - | - | - |
| 20B.2.2.2. Biconoid |  |  |  |  |  |  |  |  |
| 116m | CS 49 | N7 | -9.45 | $3.0 \times 2.0$ | y brn | - | - | - |
| 20B.2.2.3. Cartwheel |  |  |  |  |  |  |  |  |
| 116 n | CS 536 | H3 | -8.55 | $2.8 \times 1.7$ | gy brn | - | - | - |

20B.2.3. ANIMAL FIGURINES

| - | CS 94 | M7 | -8.80 | $4.5 \times 2.9 \times 1.9$ | gy |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | CS 228 | K7 | -6.80 | $4.0+\times 2.6+\times 2.0$ | buff |
| - | CS 366 | J7 (pit 1) | -4.65 | $2.2 \times 1.7$ | gy brn |
| 1160 | CS 385 | I7 | -3.10 | $3.1 \times 2.2 \times 1.5$ | lt brn |
| - | CS 417 | I7 | -3.80 | $11.2 \times 8.8$ | r brn |
| 117 b | KII 335 | G | -3.80 | $3.4 \times 2.9$ | r brn |
| 117 c | CS 483 | H5 | -4.30 | $4.3 \times 1.6$ | y brn |
| - | GZ 2 | surf. | - | $9.5 \times 7.7 \times 4.0$ | y brn |
|  |  |  |  |  |  |
| 118 d | CS 535 | H3 | -8.55 | $8.00 \times 5.0 \times 2.6$ | gy brn |
| - | CS 693 | I7 | -3.90 | $9.7+\times 8.1+\times$ | dk bm |
| - | KII 338 | G | -4.10 | $4.3 \times 2.3 \times 2.4$ | gy brn |


| Quadruped, combined   <br> legs, head missing   <br> Body preserved, raised tail - - <br> Fragment - - <br> Quadruped, forelegs and one <br> hindleg missing <br> Rear part of animal, hole <br> through center, incised circles - - <br> Fragmentary head of <br> bovid, applied disc - - <br> Curved hom <br> Quadruped, front legs com- <br> bined, rear part missing, <br> stippled ridge indicates 'mane' - - <br> Humped bull, snout and <br> legs missing <br> Mutilated head of large horned <br> quadruped, traces of dark paint - - <br> Crude quadruped, legs and <br> hind part missing - - | - |
| :--- | :--- | :--- |

20B.2.4. HUMAN FIGURINES

| 118 e | CS 239 | K7 | -7.45 | $5.6 \times 3.6 \times 2.6$ | gy brn |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 118 f | CS 229 | K 7 | -6.80 | $6.9 \times 4.2 \times 2.1$ | gy brn |

20B.2.5. MISCELLANEOUS

| 117d | CS 23 | N7 | -9.25 | $3.9 \times 2.3$ | gy brn |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| - | CS 64 | M7 | -8.85 | $4.8 \times 1.2$ | gy brn |
| - | CS 101 | M7 | -8.90 | $3.7 \times 1.8$ | lt brn |

20B.3. GIYAN II-RELATED LATE BRONZE AGE BAKED CLAY OBJECTS
20B.3.1. WHORL
117 e MV 4 Tomb 1 $0.20 \quad 5.0 \times 2.5 \quad$ y brn

| Torso fragment, hands crossed over stomach, breasts pronounced, vulva indicated | - |  |
| :---: | :---: | :---: |
| Nude standing female, from waist to feet in relief, vulva indicated | - | - |
| Irregularly flattened spheroid with crosshatching on one surface | - | - |
| Dise sherds, rough | - | - |
| Toggle: slightly curved biconoid | - | - |

Catalog 20. Bronze Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plotl <br> Tomb | Elevation or level | Dimensions in cm | Paint color | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

20B. BRONZE AGE BAKED CLAY OBJECTS (cont.)
20B.3. GIYAN II-RELATED LATE BRONZE AGE BAKED CLAY OBJECTS (cont.)
20B.3.2. ANIMAL FIGURINE
$118 \mathrm{~g} \quad$ CS $561 \quad$ H3 (pit 1 ) $\quad-9.00 \quad 10.1 \times 6.5 \times 3.6 \quad$ y brn $\quad$ Quadruped, head missing $\quad-\quad$ -

## CHAPTER 21

# BRONZE AGE METAL OBJECTS 

by Hans H. Curvers

## INTRODUCTION

Metalwork from Iran is mostly known from public and private collections in Europe and America, as well as in Iran itself. From an archaeological point of view there is a great lack of reliable evidence for the provenience and context of these objects since they have become commercial objects for sale. Western Iran produced bronze work in exceptional quality and quantity during a period of almost 2000 years from about 2500 B.c. Metal objects were apparently so numerous that large numbers were deposited in graves, though few metal objects are reported from excavations on settlement sites; therefore information on metalworking is singularly meager. Throughout the 1930s clandestine excavations were undertaken in Luristan and a great many articles were written about 'Luristan' bronzes. Meanwhile archaeological fieldwork in Luristan has produced valuable evidence for the cultural sequence in that region. The finds of the Holmes Expeditions to Luristan, together with the finds of the University of Philadelphia's Expedition to Iran, the Danish Expedition to Hulailan, Goff's survey work in 1963-6 and excavations at Baba Jan, and especially the excavations by Vanden Berghe since 1965 in the region of Ilam (Pusht-i-Kuh) can be seen as an important contribution toward determining more exactly the products of various workshops, their possible location, and the main period of production.

As there is no standard classification for Iranian metalwork, the metal objects from the Holmes Expeditions to Luristan are presented according to the system used by Moorey (1971a), who adapted Deshayes' system of classification for tools and weapons (1960). Analyses of the metal called bronze or silver in Schmidt's object catalog are not available.

Like the pottery, the metal objects of the Bronze Age are divided chronologically into three periods: a Susa D-related Early Bronze Age (=EBA) group (2900-2000 B.C.); a Giyan IVC- to III-related Middle Bronze Age ( $=$ MBA) group (2000-1600 B.C.); and a Giyan II-related Late Bronze Age ( $=\mathrm{LBA}$ ) group ( $1600-1350$ B.C.).

## 21A. SUSA D-RELATED EARLY BRONZE AGE METAL OBJECTS

Metal objects assigned to the EBA group were found at Dum'avize and the Rumishgan sites of Mir Vali, Kamtarlan I, and Kamtarlan II. The following major metal object classes are illustrated in the catalog:

```
21A.1 WEAPON
21A.2 TOOLS
21A.3 PINS
21A.4 ORNAMENTS
21A.5 VESSELS
```


## 21A.1. WEAPON

## 21A.1.1. Axe

The only weapon found was a shaft-hole axe (KI 78, pl. 119a) of a shape common in western Iran during the latter part of the third millennium b.c. (Moorey 1971a:41; Vanden Berghe 1968b:58). The axe was found at Kamtarlan I in a burial (I, x1). In the same context there were two unpainted vessels that fit rather well into the EBA pottery tradition.

## 21A.2. TOOLS

## 21A.2.1. Gauge

The semicircular shape of this bronze tool (KII 241, pl. 119b) suggests that it was used as a gauge.

## 21A.2.2. Mirror

Mirrors occur throughout all periods in the Near East. They consist of a hammered disc with rectangular projection. Woolley was tempted to regard his "thin-handled discs" from Ur as mirrors (Woolley 1934:310). In recent publications, similar objects also are described as mirrors. Our EBA mirror (Do 2, pl. 125a) was retrieved from a tomb at Dum'avize (B, x1) together with typical EBA painted pottery (cf. pls. 80d, 84a, and 88a).

## 21A.2.3. Needles

All EBA needles are made of bronze. The threading 'eye' was formed by an overlapping end (KI 58) or a real 'eye' was made by perforation of one end of the shank (KII 361, pl. 119c).

## 21A.3. PINS

The classification of the pins is based on the shapes of their heads which are slightly flanged, spatulate, and triangular.

## 21A.3.1. Slightly Flanged Head

At Kamtarlan I, one bronze pin was found in the EBA levels (KI 85).

## 21A.3.2. Spatulate Head

One bronze pin found at Kamtarlan I had a spatulate head (KI 51, pl. 119d).

## 21A.3.3. 'Triangular' Heads

Two pins with 'triangular' heads were retrieved from tomb IV at Mir Vali. On the basis of the context we propose an EBA date for these pins. Similar pins have not been excavated yet in a contemporary context in Iran. MV 30 (pl. 119e) has been described as a 'cobra' head. The flat triangular head is surmounted by a rectangular tab. From the tab a ribbon-like feature curls down and forms two loops (for suspension?). MV 31 (pl. 119f) is only a fragment without stepped top. It may be conjectured from the other pin in the tomb that this pin had a similarly curled bronze loop.

## 21A.4. ORNAMENTS

We have divided the ring-shaped metal objects into three classes. Using diameter as a criterion, we have assigned rings with a diameter larger than 3 cm to the class of bracelets, rings with a diameter between 2 and 3 cm to the class of finger rings, and rings with a diameter smaller than 2 cm to the class of earrings. "Bracelets" may also have been used as anklets, "finger rings" as earrings or nose rings, et cetera.

Four bronze bracelets were retrieved from the EBA levels at Kamtarlan I and II. They are all of the open hoop type, except for KI 49, which is an open band (pl. 119h). The other three bronze bracelets are circular in section (see pl. 119g, i).

## 21A.4.2. Finger Rings

Three bronze finger rings were found at Kamtarlan I (KI 10, 79, and 89, pl. 119j, k). At Mir Vali a silver finger ring was retrieved from tomb IV. The finger ring is an overlapping silver band with concave surface (MV 39, pl. 1191).

## 21A.4.3. Earrings

All EBA earrings were retrieved from burials. At Mir Vali tomb IV contained one bronze and several silver earrings. A small silver ring with overlapping ends was found in burial J7, x8 at Chigha Sabz (CS 360). The earrings from tomb IV (MV 38, 41, and 42, pl. $119 \mathrm{~m}, \mathrm{n}$ ) were found together with EBA pottery (cf. pls. $79 \mathrm{e}, 811$, and 86 a ). The assignment of MV 42 to this class of earrings is rather doubtful. If we assume that the object represents an earring we probably have an early example of a lunate earring. Schmidt's description in the object catalog raises doubts about the function of this object. To put the matter beyond doubt we have rejected his option for a pendant. Two cylindrical beads stick to the interior; we have no information about the material of which they were made.

## 21A.4.4. Clover-Shaped Ornaments

These bronze ornaments are clover-shaped (KII 242:1-4, pl. 1190:1-4) and perforated at the top. Based on the latter feature we propose that the function of this object was for decoration on leather or other clothes. Similar ornaments have been excavated at Godin and Giyan (Contenau and Ghirshman 1935: Djamshidi, tab. 16:6; Young 1969, fig. 31:2).

## 21A.4.5. Pendant

A silver pendant (Do 7, pl. 119p) was retrieved from one of the EBA burials at Dum'avize ( $\mathrm{B}, \mathrm{x} 1$ ). This silver double spiral pendant represents a motif which, especially as the head of a pin, is common all over southwestern Asia from the third millennium b.c. (Huot 1969). At Tepe Hissar similar pendants were found in third millennium graves, and at Tureng Tepe an example was found in a contemporary context (Schmidt 1937, pls. 30:H 2982, and H 2659; 54: H 4333, H 4326; Deshayes 1966, pl. 3, fig. 8).

## 21A.5. VESSELS

All bronze vessels were retrieved from EBA burials. At Kamtarlan I two fragmentary bowls were found. They include a tall bowl with concave base and a thickened outward-bent rim (KI 40, pl. 119q), a goblet with ring base, concave sides, and a beveled rim (KI 417). From an EBA burial at Dum'avize a goblet with concave base, double shoulder carination, and expanding rim was retrieved (Do 3, pl. 119r). A hemispherical bowl also was found in a burial at Chigha Sabz (CS 355; pl. 125b).

## 21B. GIYAN IVC- TO III-RELATED MIDDLE BRONZE AGE METAL OBJECTS

Metal objects assigned to this MBA group were found at Kamtarlan II, Chigha Sabz, and Surkh Dum-i-Luri. The following major metal object classes are listed in the catalog:

| 21B. 1 | WEAPONS |
| :--- | :--- |
| 21B. 2 | TOOLS |
| 21B. 3 | PINS |
| 21B. | ORNAMENTS |
| 21B. 5 | VESSELS |

21B.1. WEAPONS
21B.1.1. Axes
Three bronze axes were retrieved from MBA burials at Chigha Sabz and Kamtarlan II (CS 104, pl. 120a; CS 130, pl. 125d and KП 158, pl. 125c). They can be divided into several types: shaft-hole axe with plain cylindrical shaft hole; shaft-hole axe with short shaft hole, moldings along upper and near lower edge, and a slight protuberance on the butt. The axe with the moldings along the edges and the two protuberances can be dated to the first half of the second millennium b.c. Similar axes with inscriptions that mention the name of Attahushu support a date in the 19th century b.c. On the basis of finds of similar axes in temples at Susa and Choga Zanbil these axes are dated between 1900-1200 b.c. (Calmeyer 1969:46-48). Based on the described contexts, I consider these axes as heirlooms (Ghirshman 1966:101, pl. 53:5). More specifically I consider them as heirlooms offered to the gods worshipped in these temples. Objects once dedicated to the gods were gathered in hoards and sometimes 'stored' below floors and in old walls of the buildings (cf. Ellis 1968:1-2, 139).

## 21B.1.2. Celt

In the occupational levels of Chigha Sabz a fragment of a bronze celt or axe was found (CS 318, pl. 120b).

## 21B.1.3. Daggers

The more complete bronze daggers were retrieved from the burials at Chigha Sabz and Kamtarlan II. Fragments and some complete daggers were found in the occupational levels at the same sites.

The daggers are divided into tanged daggers, a hilted dagger, and a miscellaneous group of fragmentary daggers. The tanged daggers have lanceolate blades and one rivet hole at the end of the tang. Most of these daggers have a midrib; there is only one without midrib (KII 296, pl. 121d). One has a broad midrib (KII 172, pl. 125f) and another has converging ridges (CS 391, pl. 120d). The hilted dagger is made of bronze sheet with a heart-shaped pommel, narrow grip, and triangular blade (KII 356, pl. 120f).

The dagger fragments belong to broad-midrib daggers; there are two fragments of hammered bronze sheet (KII 356, pl. 120f and CS 319, 121e). Hammered sheet metal daggers are said to have replaced weapons in tombs of the Akkad and Ur III period at Ur and Susa (Moorey 1971a:69). The examples from Kamtarlan II and Chigha Sabz, however, were not found in graves.

The pottery found together with the daggers in the burials and the parallels from other sites confirm a MBA date.

## 21B.2. TOOLS

21B.2.1. Mirror
We have classified a bronze disc on a short stem as a mirror (CS 540, pls. 121h and 126f).

## 21B.2.2. Drinking Sieves

Two bronze drinking sieves were found in the occupational levels at Chigha Sabz. These bronze objects were placed at the end of a reed through which a person was able to sip
the beer from a container. This device held the hulls of grain that were floating in the beer (cf. Porada 1966: 258). One of the objects classified as a drinking sieve shows small perforations (CS 9, pl. 121g); the other fragment (CS 382) is without perforations and may have been the upper part of a drinking sieve or simply a bead.

## 21B.3. PINS

The classification of the pins is based on the shape of their heads: slightly thickened heads (i.e., slightly thickened rounded or flattened heads), slightly flanged heads, curled heads, and domed or conical heads. All pins in this MBA group are made of bronze.

## 21B.3.1. Slightly Thickened Heads

The majority of the MBA bronze pins ( 21 out of a total of 48 pins) had a plain slightly thickened head (cf. CS 284, pl. 121i). Several of these pins were found clustered in a burial. Their position suggests that they were used to hold the garments in which the dead were buried.

## 21B.3.2. Slightly Flanged Heads

The pins in this class are not only characterized by their slightly thickened head, but also by an elaborate engraved decoration. The only exception is CS 502 (pl. 121k).

Another remarkable observation is the provenience of these pins. All five pins were retrieved from a burial at Chigha $\mathrm{Sabz}(\mathrm{J7}, \mathrm{x} 4$ ); they were found in one group with two other pins which are classified in 21B.3.1 (cf. 1211).

## 21B.3.3. Curled Heads

As already mentioned above most of these pins may have been used to fasten garments. The thickening of the head was made to fasten the pin in its position. Personal observation in Jordan and Syria among the Beduins points to another use for these pins: metal pins with a curled head were used to hold tent clothes together. The curled pin heads may have been more effective in fastening clothes when it was very windy than the slightly thickened heads. Similar pins with curled heads have been excavated in the Bani Surmah tombs which have been dated to the second half of the third millennium b.c. We propose to date our pins with curled heads to the Middle Bronze Age, based on their occurrence with MBA pottery in the burials at Kamtarlan II (cf. KII 325, pl. 122f). From the parallels at Bani Surmah we may assume that the manufacture of pins with curled heads had a long tradition in Luristan. A large part of the population living in tents may be responsible for the manufacture and use of these pins.

## 21B.3.4. Domed or Conical Heads

All bronze pins in this class were retrieved from MBA burials at Chigha Sabz and Kamtarlan II. The pin with plain domed head and without perforation is the only pin found in level 1 at Kamtarlan II (KII 207, pl. 122g). The other pins with domed or conical heads (see catalog and pl. 122h-j) show elaborate engraved decorations: herringbones, zigzag bands, and grooves. They can be considered as later developments of similar pins from EBA tombs at Bani Surmah (Vanden Berghe 1968b:57). Some have perforations on the shaft at a point onethird of the total length of the pin from the head. These pins are related to the 'toggle pins' that occur throughout the Near East since the third millennium b.c. They are very numerous at sites in the Levant (cf. Henschel-Simon 1937).

## 21B.4. ORNAMENTS

## 21B.4.1. Bracelets

The ornaments include plain rings of various diameters, worked earrings, clothing ornaments (?), and other ornaments whose function is unclear. We have divided the rings into three classes; based on their diameter we have assigned rings with a diameter larger than 3 cm to the class of bracelets, rings with a diameter between 2 and 3 cm to the class of finger rings, and rings with a diameter smaller than 2 cm to the class of earrings. "Bracelets" also may have been used as anklets and "finger rings" may have been used as earrings or nose rings, et cetera.

## 21B.4.1.1. Open Hoops

Bracelets in this class are all made of bronze and are circular in section (see catalog and pl. 1221).

## 21B.4.1.2. Overlapping Hoops

All overlapping hoops are made of bronze and are circular in section. The ends are either pointed, squared, or tapered; the way they were cut from the original rods is responsible for these features (see catalog and pl. 122k).

## 21B.4.1.3. Open Band

Among the MBA bracelets there is one bronze open band with silver wire on both edges (KII 294, pl. 122m).

## 21B.4.1.4. Unclassified

In Schmidt's catalog of objects several objects are described as bracelets. More information such as drawings or photographs, however, is lacking. From the description and information concerning the occupational levels at Kamtarlan II we may assume that they were mere fragments. All bracelets in this class are made of bronze.

## 21B.4.2. Finger Rings

The finger rings assigned to the MBA group of metal objects include two major classes: bronze and silver finger rings. Both groups can be subdivided into open and closed rings and bands.

Three bronze finger rings were found in the occupational levels at Kamtarlan II and Chigha Sabz. The other two bronze finger rings were retrieved from burials at Chigha Sabz. The bronze finger rings include one open ring, which is circular in section (KII 337), one closed ring, which has two overlapping ends and is beveled in section (CS 38, pl. 122n).

One silver finger ring was found in level 1 at Kamtarlan II. The other finger rings were all retrieved from burials at Chigha Sabz and Kamtarlan II. The silver finger rings include unevenly closed bands. They were found on the fingers of the dead in burial J7, x 2 at Chigha Sabz (cf. CS 288, pl. 122o). In the same burial silver fragments, circular in section, were also found on the hand of the dead. The finger ring fragments from burial D, x5 at Kamtarlan II were also found on the hand of the dead.

## 21B.4.3. Earrings

The earrings assigned to the MBA group of metal objects include three classes: bronze, silver, and lead earrings. The majority of the earrings is made of silver.

One bronze earring was found in level 1 at Kamtarlan II; the other was retrieved from a burial at Chigha Sabz. A bronze ring with overlapping ends, which may also have been used as a ring to hold tresses of hair, and an almost closed crescent, belong to this group.

Silver earrings were found in level 1 at Kamtarlan II and the majority was retrieved from burials at Chigha Sabz and Kamtarlan II. The silver earrings show a great variety in shape. They include two rings with overlapping ends (cf. CS 339, pl. 122q), several spirally coiled wires (KII 288, pl. 122r), a hollow crescent (CS 321, pl. 122s), and a fluted basketshaped earring (CS 338, pl. 112t). The spirally coiled wires were all found near the skull of the dead which suggests their use as earrings or, more likely, as rings to hold tresses of hair (Maxwell-Hyslop 1971:5; Woolley 1934:241).

The lead earring was found in the occupational levels assigned to the MBA at Chigha Sabz; this ring has overlapping ends (cf. CS 339, pl. 122q).

## 21B.4.4. Various

We have assigned objects which had a more or less unclear function to this group. The function of the flat oblong bronze fragment with rounded corners (KII 309, pl. 123a) is indeterminable. Together with a stone fragment classified as a handle (see 22B.3. and pl. 128i) this ornament (?) was found beside the right humerus of the dead.

The clover-shaped ornament with perforated top is similar to earlier examples found in EBA contexts (KII 255, pl. 123b; cf. also 21A.3.4.). Similar ornaments have been excavated at Godin, Giyan, and Guran (Contenau and Ghirshman 1935: Djamshidi, tab.16:6; Young 1969:fig. 31:2; Meldgaard et al. 1963:130, fig. 32:5-7). A group of ornaments without any clear function is registered as KII 298:1-3: a tubular fragment, a sheet fragment, and a Tshaped fragment with a spiral on the cross bar (pl. 123c:1-3). A fragment of a bronze sheet with incised chevrons was a surface find from Zarde Savar (Zar 1, pl. 123d).

## 21B.5. VESSELS

The classification of the bronze sheet vessels is based on their shape. Some of the bowls and goblets were found in the occupational levels at Chigha Sabz and Kamtarlan II, the majority of the vessels, however, was retrieved from the burials at Chigha Sabz and Kamtarlan II.

## 21B.5.1. Bowls

Bowls have rounded to carinated profiles. The two hemispherical bowls (CS 541, 127 , pls. 123e, f and 126a, b) are similar to the same type of bowls among the pottery assigned to the EBA and MBA group (cf. pls. 79a and 92a-c). For the carinated bowls (CS 60,285 , pls. $123 \mathrm{~h}, \mathrm{i}, 126 \mathrm{e}$, and 127 a ) we may assume a relationship with the carinated bowls assigned to the MBA pottery group (cf. pls. 920 and 93 a). For bowls with ring bases, see catalog and pls. $123 \mathrm{~g}, \mathrm{j}, \mathrm{k} ; 126 \mathrm{~d}, \mathrm{~g}$, and 127 b .

## 21B.5.2. Goblets

The goblets are all carinated and have concave profiles. Similar goblets were found at Kalleh Nissar (Vanden Berghe 1969, fig. 95B). A similar goblet with an inscription of Attahushu has been dated to the 19th century B.C. (Sollberger 1968-69:30-33).

## 21B.5.3. Cups and Jugs

The cup (KII 233) is of the same shape as the goblets, with the addition of a handle. The jugs were only found in fragments (KII 295, CS 93, pl. 124j, k).

## 21C. GIYAN II-RELATED LATE BRONZE AGE METAL OBJECTS

Metal objects assigned to the Late Bronze Age were found in burial I, x1 at Kamtarlan II, in a pit at Chigha Sabz (H3, pit 1), and in tomb 1 at Mir Vali. The following major MBA metal object classes are listed in the catalog:

21C. 1 PINS
21C. 2 ORNAMENTS

## 21C.1. PINS

The classification of the pins is based on the shape of their heads: slightly thickened heads and slightly flanged heads.

## 21C.1.1. Slightly Thickened Heads

Two bronze pins with slightly thickened heads were retrieved from burial I, x1 at Kamtarlan II. On the basis of the pottery found together with these pins we propose to assign them to the LBA group of metal objects. They are similar to the numerous pins of the same type that were retrieved from the MBA burials at Kamatarlan II and Chigha Sabz (cf. pl. 121i).

## 21C.1.2. Slightly Flanged Heads

The two bronze pins with slightly flanged heads were retrieved from tomb I at Mir Vali (MV 2 and 3, pl. 127e, f). Based on the pottery found together with these pins (cf. pl. 109a) we have assigned the pins to the LBA group of metal objects. As with the pins in group 21 C .1 .1 , the pins with slightly flanged heads and elaborately engraved decorations also were retrieved from a MBA burial at Chigha Sabz (cf. pls. 1211 and 122a-d).

## 21C.2. ORNAMENTS

The ornaments include plain rings of various diameters; we have divided the rings into two classes; based on their diameter we have assigned rings with a diameter larger than 3 cm to the class of bracelets, and rings with a diameter between 2 and 3 cm to the class of finger rings. "Bracelets" also may have been used as anklets, and "finger rings" may have been used as earrings or nose rings, et cetera.

## 21C.2.1. Bracelets

The bronze bracelet (CS 573) was found in pit 1 at Chigha Sabz. This bracelet is of the open-hoop type and circular in section. The bronze bracelet with an overlapping band (Zar 5) was found at Zarde Savar in burial x3.

## 21C.2.2. Finger Ring

The bronze finger ring (KII 413) was retrieved from burial I, x1 at Kamtarlan II. This ring has overlapping ends and is circular in section.

## CONCLUSIONS

The metal work excavated by the Holmes Expeditions to Luristan provides good evidence for the exceptional bronze work tradition in Luristan, which finally culminated in the well-known bronze work of the Iron Age. The metal objects of the EBA group are similar to
objects retrieved from third millennium graves at Bani Surmah and Kalleh Nissar (Vanden Berghe 1968b, 1970a, 1984). The subsequent Middle Bronze Age, however, has been described as an hiatus in Vanden Berghe's explorations: ". . . ces périodes ne semblent pas avoir été florissantes pour la civilisation du Bronze au Luristān." (Vanden Berghe and Haerinck 1984:201; cf. Moorey 1982:89; Carter and Stolper 1984:156). The results of the Holmes Expeditions now provide evidence for a more continuous development of metal work in Luristan. The excavated occupational levels of MBA settlements at Kamtarlan II and Chigha Sabz as well as the burials at these sites yielded large quantities of metal objects which fill in the gap between the third millennium B.C. and the Iron Age. As for the EBA metal objects we see close parallels with the metal objects found in Mesopotamia and Susiana. For the ceramic tradition we have already pointed out a different development, a continuation of the painted pottery tradition in the Zagros (cf. Godin, Giyan, Kamtarlan II, and Chigha Sabz), and the disappearance of painted pottery in the Susiana (cf. Susa, Farukhabad, Choga Mish, and Sharafabad).

The LBA group of metal objects is small. The objects retrieved from LBA contexts seem to be very close to the metal work tradition of the preceding MBA period.

From the results of the Belgian Luristan Explorations in western Luristan and the results of the Holmes Expeditions to Luristan, we now may assume an extension of a common tradition embracing Mesopotamia and the Zagros mountains (Pish-i-Kuh and Pusht-i-Kuh) in the third millennium b.c. This tradition was continued by the population living in the eastern Zagros. In settlements such as Godin, Kamtarlan II, and Chigha Sabz a local production of metal objects may have existed. The tradition clearly shows links with greater Mesopotamia and more eastern sites such as Tepe Hissar. The reused graves and absence of settlements in the western Zagros may indeed indicate that Luristan was a buffer region (Carter and Stolper 1984:155).

CATALOG 21. BRONZE AGE METAL OBJECTS

| PlateSite and <br> obj. no. | Plotl <br> Tomb | Elev. | Dimensions <br> in cm | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

21A. SUSA D-RELATED EARLY BRONZE AGE METAL OBJECTS
21A.1. WEAPON

| 119a | KI 78 | I, x 1 | $-4.90$ | $8.5 \times 5.4 \times 1.7$ | br | Plain cylindrical shaft hole, blade flaring out to slightly convex cutting edge | Contenau and Ghirshman 1935, pl. 30, tb. 104:2 Moorey 1971a, nos. 4-6 | Giyan IVB late IIId mill. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21A.2. TOOLS |  |  |  |  |  |  |  |  |
| 21A.2.1. Gauge |  |  |  |  |  |  |  |  |
| 119b | KII 241 | D | -5.00 | $8.2 \times 1.3$ | br | Tapered toward point, hemispherical spherical in section complete(?) | Schmidt 1937, pl. 52: H 3131 <br> Schmidt 1937, pl. 30: <br> H 2982, 2659 <br> Young 1969, fig. 21:20 | Hissar III Hissar II Godin III |
| 21A.2.2. Mirror |  |  |  |  |  |  |  |  |
| 125a | Do 2 | B, x 1 | - | $\begin{aligned} & 13.7 \times 10.6 \times \\ & 0.2 \end{aligned}$ | br | Circular sheet on trapezoidal tab with traces of wooden(?) handle | - | - |
| 21A.2.3. Needles |  |  |  |  |  |  |  |  |
| - | KI 58 | D | -4.15 | $11.9+\times 0.4$ | br | Fragment, one end overlapping 'eye'(?), point broken | - | - |
| 119c | KII 361 | I | $-5.15$ | $11.6 \times 0.2$ | br | Threading eye bent in U-shape, pointed | - | - |
| 21A.3. PINS |  |  |  |  |  |  |  |  |
| 21A.3.1. Slightly Flanged Head |  |  |  |  |  |  |  |  |
| - | KI 85 | J | -3.75 | $10.3+\mathrm{x} 0.5$ | br | - | - | - |

## 21A.3.2. Spatulate Head

119d KI 51
$7.1 \times 2.1$
br
Head slightly spatulate, other end pointed

21A.3.3. Triangular Heads

| 119 e | MV 30 | Tomb IV — | br $10.0 \times 1.5$ | 'Cobra' head, flat inverted triangle, sur- <br> rmounted by headpiece, bent over double |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 119f | MV 31 | Tomb IV — | $5.6 \times 1.5$ | br | Flat triangular head, head longer than shank |

## 21A.4. ORNAMENTS

2IA.4.1. Bracelets

| 119 g | KI 4 | A | -4.70 | $6.5 \times 0.5 \times 0.1$ | br |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| 119 h | KI 49 | D | -5.15 | $3.7 \times 0.5 \times 0.2$ | br |
| 119 i | KI 88 | J | -3.90 | $3.6 \times 0.3$ |  |
| cf. 119 k | KII 243 | D | -5.30 | (?) $\times 0.4$ | br |


| Open hoop, center part thickened, | Young 1969, fig. 21: | Godin III |
| :--- | :--- | :--- |
| circular in section, tapered ends | 11,12 | - |
| Open band with round ends | - | - |
| Open hoop, circular in section | - | - |

21A.4.2. Finger Rings

| 119 j | KI 10 | A | -7.75 | $1.5 \times 1.0 \times 0.1$ | br |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 119 k | KI 89 | J | -4.00 | $2.6 \times 0.3$ | br |
|  |  |  |  |  |  |
| - | KI 79 | I, x1 | -4.90 | $2.8 \times 0.6$ | br |
| I191 | MV 39 | Tomb IV | - | $2.3 \times 0.5 \times 0.5$ | si |

Rolled band - -

Open hoop, one end round, one end square
Open hoop, tapered ends
Concave surface, overlapping
$\qquad$ - -
band, hole in each end

## 21A.4.3. Earrings

| - | CS 360 | J7, x8 -6.80 | $1.2 \times 0.3$ | si |
| :--- | :--- | :--- | :--- | :--- |
| $\overline{119 m}$ | MV 41 | Tomb IV - | $1.5 \times 0.2$ | br |
|  | MV 42 | Tomb IV - | $2.5+\times 1.9$ | br |
| 119 n | MV 38 | Tomb IV - | $1.5 \times 0.2$ | si |


| Overlapping ends, circular in | - | - |
| :--- | :--- | :--- |
| section | - | - |
| Circular in section, fragment | - | - |
| Fragmentary oval, two cylindrical | - | - |
| beads stuck to interior | - | - |

Catalog 21. Bronze Age Metal Objects (cont.)

| PlateSite and <br> obj. no. | Plotl <br> Tomb | Elev.Dimensions <br> in cm | Mescription | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

21A. SUSA D-RELATED EARLY BRONZE AGE METAL OBJECTS (cont.)

## 21A.4. ORNAMENTS (cont.)

21A.4.4. Clover-Shaped Omaments

| 1190 | KII 242 | D | -5.05 | - | br | Four units, each perforated at top (4 exx.) | Con <br> 193 <br> You <br> R. <br> 16:6 | Djamshidi IVB <br> Godin III <br> Godin III:2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21A.4.5. Pendant |  |  |  |  |  |  |  |  |
| 119p | Do 7 | B, x 1 | - | 5.2 | si | Double spiral |  | Hissar III |
| 21A.5. VESSELS |  |  |  |  |  |  |  |  |
| 119q | KI 40 | B, x 2 | -6.30 | $6.3 \times 9.2 \times 9.2$ | br | Disc base, rim bent out, fragment | - | - |
| - | KI 417 | I, x1 | -4.90 | - | br | Ring base, shallow convex cylinder, beveled rim, fragment |  |  |
| 119r | Do 3 | B, x 1 | - | $8.1 \times 6.1 \times 6.1$ | br | Convex base, carinated shoulder, plain expanding rim | - | - |
| 125b | CS 355 | J7, x 8 | -6.80 | $11.0 \times 5.8$ | br | Hemispherical, plain rim | - | - |

21B.1. WEAPONS
21B. GIYAN IVC- TO III-RELATED MIDDLE BRONZE AGE METAL OBJECTS

21B.1.1. Axes
Short shaft, molded along upper and lower edge, protuberances similar to CS 130, upper edge of blade level with shaft

| 125 c | KII 158 | B, x1 | -4.40 | $10.8 \times 7.4 \times 2.0$ | br |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| 125 d | CS 130 | M7, $\times 2$ | -8.35 | $9.1 \times 7.4 \times 3.2$ | br |

Three engraved lines, encircling top edge of shaft, engraved branch on top face, upper edge of blade slightly slopes down to the rounded cutting edge, lower edge splays toward cutting edge Short shaft, molded along upper and lower edge, protuberance on the upper edge of the shaft, protuberance at the back, blade splays out toward the cutting edge forming an irregular crescent

Flat, slightly tapered, straight sides square in section, single sharp edge, fragment

21B.1.3. Daggers

| 120c | CS 129 | M7, x 2 | -8.35 | $22.2 \times 3.7 \times 0.8 \mathrm{br}$ |
| :---: | :---: | :---: | :---: | :---: |
| 120 d | CS 391 | I7, x1 | -2.40 | $28.0 \times 3.7 \times 0.8 \mathrm{br}$ |
| 120 f | KII 356 | H | -4.90 | $26.7 \times 6.3 \times 0.2 \mathrm{br}$ |
| 121a | CS 406 | I7, x3(?) | -2.85 | $18.7+\times 3.4 \times 0.6 \mathrm{br}$ |
| 121 b | CS 31 | N7, x2 | -9.10 | $15.1 \times 2.1 \times 0.3$ |

Calmeyer 1969, fig. 6 -

| Dossin 1962, ca. 1830 в.c. <br> pl. 23:12  |  |
| :--- | :--- |
| Scheil 1930:187-88 <br> Calmeyer 1969, fig. 47 | - |
| Deshayes 1960, <br> Type 83a, b | - |
| Ghirshman 1966, <br> pl. 53:5 | - |


| Contenau and <br> Ghirshman 1935, pl. | Djamshidi |
| :--- | :--- |
| IVC |  |

Catalog 21. Bronze Age Metal Objects (cont.)

| PlateSite and <br> obj. no. | Plotl <br> Tomb | Elev.Dimensions <br> in cm | Metal Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 21B. GIYAN IVC- TO III-RELATED MIDDLE BRONZE AGE METAL OBJECTS (cont.)

21B. 1. WEAPONS (cont.)
21B.1.3. Daggers (cont.)

| 121c | CS 494 | H5, x3 | -3.60 | $19.0 \times 3.7 \times 0.7$ | br | Straight sided blade tapered toward blunt point, longitudinal lines on midrib, one rivet hole in tang | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | CS 105 | M7, x 3 | -9.00 | $22.5+\times 3.4 \times 0.7$ | br | Lanceolate, flat midrib, fragment | - | - |
| 121d | KII 296 | D, x6 | -5.90 | $18.8 \times 3.0 \times 0.6$ | br | Flat, straight-sided blade, tapered toward blunt point, no midrib, one rivet hole in short rectangular tang | - | - |
| 121e | CS 319 | J7 | -4.35 | $13.5+\mathrm{x} 4.7 \times 0.3$ | br | Flat, sharply tapered toward point, no midrib, but four parallel engraved lines, lines, fragment | Contenau and Ghirshman 1935, pl. 28 , tb. $97: 9$ | Giyan <br> IIIa |
| 121f | KII 206 | D | -3.90 | $6.5+\times 2.7+\times 0.5$ | br | Point, one side of blade shows concave midrib | - | - |
| 125 e | KII 157 | B, x 1 | -4.40 | $21.0+\times 3.1 \times 0.6$ | br | Lanceolate, midrib, rounded shoulders, one rivet hole in short tang | - | - |
| 125 f | KII 172 | B, x 2 | -4.60 | $23.0 \times 3.6 \times 0.5$ | br | Lanceolate, broad midrib, one rivet hole in short rectangular tang | - | - |
| - | KII 240 | D | -5.05 | $14.1+\times 2.7 \times 0.5$ | br | Straight-sided blade, tapered toward blunt point, fragment | - | - |

21B.2. TOOLS
21B.2.1. Mirror

| 121 h |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| and 126 f | $\mathrm{CS} 540 \quad \mathrm{H} 3, \mathrm{x} 2 \quad-8.80 \quad 9.8 \times 6.1 \times 0.3 \quad$ br $\quad$| Elliptical shape, short concave- |
| :--- |
| sided stem |

21B.2.2. Drinking Sieves
121g CS 9 N7 9 br $4.0 \times 1.2$ Frgm, pinched, closed at one end, perf

21B.3.1. Slightly Thickened Heads

| 121i | CS 284 | J7, x 4 | -4.55 | $16.1 \times 1.0$ |
| :---: | :---: | :---: | :---: | :---: |
| cf. 121i | CS 128 | M7, x 4 | -8.25 | $18.8 \times 0.7$ |
| cf. 121i | CS 131 | M7, $\times 2$ | -8.55 | $16.2 \times 0.8$ |
|  | CS 291 | J7, x2 | -4.65 | $10.5+\times 1.0$ |
| cf. 121 i | CS 292 | J7, x4 | -4.55 | $11.9 \times 0.9$ |
| cf. 121i | CS 293 | J7, x2 | -4.65 | $14.3 \times 1.0$ |
| cf. 121 i | CS 294 | J7, x2 | -4.65 | $15.2 \times 1.0$ |
| cf. 121i | CS 295 | J7, x2 | -4.65 | $17.7 \times 0.8$ |
| cf. 121 i | CS 296 | J7, x2 | -4.65 | $17.3 \times 0.8$ |
| cf. 121 i | CS 320 | J7, x6 | -4.40 | $11.2 \times 0.8$ |
| cf. 121i | CS 404 | 17, x3 | -2.85 | $16.7 \times 0.7$ |
| cf. 121 i | CS 405 | I7, x3 | -2.85 | $10.8+\times 0.6$ |
| cf. 121i | KII 205 | D | -4.10 | $6.1+\times 0.7$ |
|  | KII 215 | D | -4.30 | $7.6+\times 0.7$ |
| cf. 121 i | KII 216 | D | -4.10 | $5.7+\times 0.5$ |
| cf. 121 i | KII 222 | D, $\times 2$ | -4.95 | $11.5+\times 0.5$ |
| cf. 121i | KII 223 | D, $\times 2$ | -4.95 | $13.4+\times 0.8$ |
| cf. 121 i | KII 254 | D, $\times 5$ | -5.45 | $15.1 \times 0.8$ |
| cf. 121 i | KII 283 | D, x4 | -5.45 | $16.7+\times 0.8$ |
| cf. 121 i | KII 284 | D, x 4 | -5.45 | $16.7 \times 0.9$ |
| cf. 121i | KII 316 | E | -4.80 | $6.6+\times 0.4$ |
|  | KII 416 | I | -5.15 | $8.8+\times 0.6$ |
| 121j | CS 28 | N7, x2 | -9.10 | $22.0 \times 1.0$ |
| cf. 121j | CS 63 | N7, x6 | -9.20 | $21.7 \times 0.8$ |
| cf. 121 j | CS 116 | M7, x4 | -8.25 | $5.9+\times 0.5$ |
| cf. 121j | CS 125 | M7, x 4 | -8.25 | $7.1+\times 1.0$ |
| cf. 121 j | CS 269 | J7 | -3.20 | $28.8 \times 0.6$ |
| cf. 121 j | CS 392 | I7 | -3.25 | $6.2+\times 0.5$ |
| cf. 121 j | KII 203 | D | -4.10 | $10.4+\times 0.9$ |
| cf. 121 j | KII 212 | D | -4.35 | $6.9+\times 0.6$ |

21B.3.2. Slightly Flanged Heads

| 121 k | CS 502 | H5, x1 | -3.60 | $12.0+\times 0.8$ | br | Fragment | br |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1211 | CS 275 | J7, x4 | -4.55 | $15.9 \times 1.0$ |  | Engraved herringbone and hatched | chevrons |

Catalog 21. Bronze Age Metal Objects (cont.)

| PlateSite and <br> obj. no. | Plot/ <br> Tomb | Dimensions <br> in cm | MetalDescription | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 21B. GIYAN IVC- TO III-RELATED MIDDLE BRONZE AGE METAL OBJECTS (cont.)

21B.3. PINS (cont.)
21B.3.2. Slightly Flanged Heads (cont.)

| 122a | CS 276 | J7, x 4 | -4.55 | $14.5 \times 1.0$ | br | Engraved herringbone and hatched chevrons | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 122b | CS 277 | J7, x 4 | -4.55 | $14.5 \times 1.0$ | br | Engraved herringbone and hatched chevrons | - | - |
| 122c | CS 278 | J7, x 4 | -4.55 | $15.0 \times 1.1$ | br | Engraved herringbone and hatched chevrons | - | - |
| 122d | CS 279 | J7, x 4 | -4.55 | $15.8+\times 1.0$ | br | Point missing, engraved herringbone and hatched chevrons | - | - |
| - | CS 543 | H3 | -8.75 | $8.9+\times 0.7$ | br | Shank bent, fragment | - | - |
| 122e | CS 591 | F7 | -3.00 | $14.0 \times 0.8$ | br | Bent, engraved herringbone | - | - |
| 21B.3.3. Curled Heads |  |  |  |  |  |  |  |  |
| 122 f | KII 325 | F | -4.40 | $12.6+\times 0.5$ | br | Point missing | - | - |
| cf. 122f | KII 219 | D | -4.75 | $4.8+\times 0.4$ | br | Fragment | - | - |
| cf. 122 f | KII 228 | D, x3 | -4.75 | $7.8+\times 0.5$ | br | Almost complete | - | - |
| cf. 122f | KII 229 | D, x3 | -4.75 | $8.1+\times 0.5$ | br | Almost complete | - | - |
| cf. 122 f | KII 311 | E, x 1 | -4.25 | $5.4+\times 0.3$ | br | Fragment | - | - |

21B.3.4. Domed or Conical Heads

| 122 g | KII 207 | D | -3.90 | $9.2+\times 1.0$ | br | Domed head, point missing | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 122h | KII 257 | D, x5 | -5.45 | $16.2 \times 0.9$ | br | Grooves encircle head end, engraved parallel zigzag band | - | - |
| 122i | KII 185 | C, x 2 | -4.45 | $19.0 \times 1.4$ | br | Grooves encircle head end, three grooves below perforation | Young 1969, fig. 30:9 <br> R. Henrickson 1984a, fig. 155:2 | Godin III Godin III:2 |


|  |  |  |  |  |  |  | R. Henrickson 1986, fig. 16:5 | Godin III:2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 122j | Sor 1822 | $\times 21$ | - | $14.4 \times 0.6$ | br | Grooved, engraved zigzag below perf. | , | - |
| cf. 122j | CS 10 | N7, x1 | -9.35 | $15.4 \times 1.1$ | br | Grooved perforation at one-third positon of shank | - | - |
| cf. 122 j | Sor 1823 | x21 | - | $14.6 \times$ (?) | br | Ringed shaft above perf. | - | - |

21B.4. ORNAMENTS
21B.4.1. Bracelets
21B.4.1.1. Open Hoops

| 1221 | CS 507 | H5, | -3.50 | $5.6 \times 0.5$ |
| :--- | :--- | :--- | :--- | :--- |
|  |  | x2(?) |  |  |
| cf. 1221 | CS 273 | J7 | -4.40 | $4.8 \times 0.6$ |
| cf. 1221 | CS 370 | J7 | -4.40 | $4.9 \times 0.8$ |

One end spatulate and perforated
one end pointed, circular in section one end pointed, circular in section
cf 1221 KII 327 F

21B.4.1.2. Overlapping Hoops

| cf. 122k | CS 262 | K7, x1 | -7.70 | $3.6 \times 2.5$ |
| :--- | :--- | :--- | :--- | :--- |
| cf. 122k | CS 408 | I7, x4 | -3.75 | $4.7 \times 0.8$ |
| - | CS 409 | I7, x4 | -3.75 | $4.0 \times 0.4$ |
| cf. 122k | CS 410 | I7 | -3.75 | $5.1 \times 0.5$ |
| cf. 122k | CS 411 | I7 | -3.15 | $4.9 \times 0.5$ |
| cf. 122k | KII 344 | G, x1 | -4.25 | $4.3 \times 0.3$ |
| $-122 k$ | KII 345 | G, x1 | -4.25 | $4.3 \times 0.4$ |
| Sor 1824 | x21 | - | $5.6 \times 0.5$ |  |


| br | One end pointed, one end squared | - |
| :--- | :--- | :--- |
| br | One end tapered, circular in section | - |
| br | Squared ends, circular in section | - |
| br | Circular in section | - |
| br | Circular in section | - |
| br | Circular in section | - |
| br | Bent, circular in section <br> br | Tapered, circular in section |
|  |  | - |
| $\mathrm{br} / \mathrm{si}$ | Flat band bordered by wire, fragment | - |

122m KII 294 D, x6 $-5.90 \quad 5.0 \times 1.5$

Flat band bordered by wire, fragment
21B.4.1.4. Unclassified
$\begin{array}{lllll}- & \text { KII } 204 & \text { D } & -2.10 & 4.6 \times 0.4 \\ - & \text { KII } 214 & \text { D } & -4.30 & 3.9 \times 0.3\end{array}$
KII 221 D, x2 $-4.95 \quad 4.2 \times 0.5$
br Ends missing, circular in section
br
Fragment, circular in section
Fragments of one or two rings, circular in section

Catalog 21. Bronze Age Metal Objects (cont.)

| PlateSite and <br> obj. no. | Plot <br> Tomb | Elev. Metal Description | Dimensions <br> in cm | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

21B. GIYAN IVC- TO III-RELATED MDDLE BRONZE AGE METAL OBJECTS (cont.)
21B.4. ORNAMENTS (cont.)
21B.4.2. Finger Rings

| 122n | CS 38 | N7 | -9.30 | $2.6 \times 0.7$ | br | Joined crescent ring, beveled in section | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1220 | CS 288 | J7, x2 | -4.65 | $2.5 \times 0.9 \times 0.2$ | si | Unevenly closed band | - | - |
| cf. 122o | CS 289 | J7, x2 | -4.65 | $2.4 \times 1.0 \times 0.3$ | si | Unevenly closed band, joint fractured | - |  |
| - | CS 290 | J7, x2 | -4.65 | $2.1 \times 0.2$ | si | Fragments, circular in section | - | - |
| - | CS 314 | J7 | -4.60 | $2.1 \times 0.3$ | br | Overlapping ends, circular in section | - |  |
| - | CS 323 | J7, x6 | -4.40 | $2.4 \times 0.3$ | br | Overlapping ends, circular in section | - | - |
| - | CS 544 | H3, x1 | -8.60 | $2.8 \times 0.2$ | br | Open, oval band | - |  |
| - | KII 213 | D | -4.30 | $2.3 \times 0.3$ | si | Fragment, circular in section | - | - |
| - | KII 263 | D, x5 | -5.45 | $2.2 \times 0.3$ | si | Three fragments with similar dimensions; (a) almost closed (b) semicircular, and (c) bent semicircular | - | - |
| - | KII 337 | G | -4.45 | $2.7 \times 0.2$ | br | Open, circular in section | - | - |

21B.4.3. Earrings

| 122p | KII 324 | F | -4.50 | $1.8 \times 0.8$ | br | Closed crescent | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 122q | CS 339 | J7, x6(?) | -5.70 | $1.5 \times 0.2$ | si | Overlapping ends | - | - |
| cf. 122 q | CS 40 | N7 | -9.45 | $1.8 \times 0.3$ | $\mathrm{le}($ ? $)$ | Plain overlapping ends | - | - |
| cf. 122q | CS 263 | K7, x1 | -7.70 | $1.5 \times 0.2$ | br | Overlapping ends | - | - |
| cf. 122q | KII 189 | C | -4.75 | $1.4 \times 0.4$ | si | Overlapping, tapered ends, circular in section | - | - |
| - | KII 360 | I | -5.20 | $1.4 \times 0.3$ | si | Joined ends, circular in section | - | - |
| 122 r | KII 288 | D, x 4 | -5.45 | $1.6 \times 1.1$ | si | Spiral | - | - |
| cf. 122r | KII 265 | D, $\times 5$ | -5.45 | $1.6 \times 1.0$ | si | Spiral | - | - |
| cf. 122 r | KII 287 | D, x 4 | -5.45 | - | si | Earrings(?); nine fragments of spirals | - | - |
| 122s | CS 321 | J7, x6 | -4.40 | $2.0 \times 0.5$ | si | Hollow crescent, semicircular in section | - | - |
| 122t | CS 338 | J7, x 6 (?) | -5.70 | $1.6 \times 0.3$ | si | Fluted, basket-shaped earring | - | - |


| 123a | KII 309 | E, $\times 1$ | -4.25 | $8.4 \times 3.6 \times 0.3$ | br | Flat oblong fragment with rounded <br> ends, chipped <br> Clover-shaped, perforated top | - | R. Henrickson 1984a, <br> O tomb, 155:10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 123b | KII 255 | D, $\times 5$ | -5.45 | $3.9 \times 2.3$ | br |  |  | Godin III:2 |

## 21B.5. VESSELS

21B.5.1. Bowls

| $\begin{aligned} & 123 \mathrm{e} \\ & \text { and } 126 \mathrm{~b} \end{aligned}$ | CS 541 | H3, x2 | -8.80 | $5.3 \times 9.0 \times 9.0$ | br | Hemispherical, plain rim | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 123 \mathrm{f} \\ & \text { and } 126 \mathrm{a} \end{aligned}$ | CS 127 | M7, x4 | -8.25 | $4.2 \times 10.6 \times 10.6$ | br | Round base, straight sides, plain rim | - | - |
| $\begin{aligned} & 123 \mathrm{~g} \\ & \text { and } 126 \mathrm{~d} \end{aligned}$ | KII 281 | D, x 4 | -5.45 | $8.3 \times 12.6 \times 12.6$ | br | Concave ring base, rounded sides, rim thickened out | - | - |
| $\begin{aligned} & 123 \mathrm{~h} \\ & \text { and } 126 \mathrm{e} \end{aligned}$ | CS 60 | N7, x 6 | -9.20 | $2.8 \times 7.5 \times 7.5$ | br | Convex base, constricted upper body (carinated), rim expanded out | - | - |
| $\begin{aligned} & 123 \mathrm{i} \\ & \text { and } 127 \mathrm{a} \end{aligned}$ | CS 285 | J7, x 4 | -4.55 | $4.5 \times 10.3 \times 10.3$ | br | Convex base, constricted upper body (carinated), rim slightly thickened out and beveled | - | - |
| $\begin{aligned} & 123 \mathrm{j} \\ & \text { and } 127 \mathrm{~b} \end{aligned}$ | CS 287 | J7, x2 | -4.65 | $4.8 \times 13.6 \times 13.6$ | br | Ring base, rounded sides, fairly gadrooned, thickened rim | - | - |
| $\begin{aligned} & 123 \mathrm{k} \\ & \text { and } 126 \mathrm{~g} \end{aligned}$ | CS 493 | H5, x 3 | -3.60 | $4.0 \times 11.0 \times 11.0$ | br | Ring base, rounded sides, round thickened rim | - | - |
| 1231 | KII 234 | D, x3 | -4.75 | - | br | Fragment | - | - |
| 21B.5.2. Goblets |  |  |  |  |  |  |  |  |
| - | CS 30 | N7, x 2 | -9.10 | $9.2 \times 6.8 \times 6.8$ | br | Disc base, concave sides, plain rim, almost complete | - | - |
| 124a | CS 106 | M7, x3 | -9.00 | $10.0 \times 9.0 \times 9.0$ | br | Convex base, concave sides, slightly thickened expanding rim | - | - |

Catalog 21. Bronze Age Metal Objects (cont.)

| PlateSite and <br> obj. no. | Plot/ <br> Tomb | Elev. | Dimensions <br> in cm | Metal | Description | Period |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline cf. 124 i \& CS 44 \& N7 \& -9.40 \& \(7.3 \times 9.4\) \& br \& Ring base, flaring lower body, double ridge at carination, concave sides with double ridge at middle height, rim thickened out, almost complete \& - \& - \\
\hline \multicolumn{9}{|l|}{21B.5.3. Cups and Jugs} \\
\hline - \& KII 233 \& D, x3 \& -4.75 \& - \& br \& Cup: concave sides, long handle, fragment \& \begin{tabular}{l}
Vanden Berghe
1970a:70 \\
Contenau and Ghirshman 1935, tb. 99:3
\end{tabular} \& \[
\begin{aligned}
\& 2400- \\
\& 2100 \text { в.с. } \\
\& \text { Giyan IIIa }
\end{aligned}
\] \\
\hline 124j \& KII 295 \& D, x6 \& -5.90 \& \(9.0 \times 10.7+\) \& br \& Jug: thickened rim bent in, handle circular in section, handle ends attached with rivets, fragment \& \begin{tabular}{l}
Sollberger 1968-69:
30-33 \\
Meldgaard et al. 1963, fig. 29
\end{tabular} \& \[
\begin{aligned}
\& 1900- \\
\& 1800 \text { в.с. } \\
\& 1220 \pm \\
\& 120 \text { в.с. }
\end{aligned}
\] \\
\hline 124k \& CS 93 \& M7 \& -8.95 \& \(7.8 \times(?)\)
1C. GIYAN \& br

TE \& Jug: handle, one end with rivet,
circular in section
TE BRONZE AGE METAL OBJEC \& - \& - <br>
\hline \multicolumn{9}{|l|}{21C.1. PINS} <br>
\hline \multicolumn{9}{|l|}{21C.1.1. Slightly Thickened Heads} <br>

\hline cf. 121 i \& CS 566 \& $$
\begin{aligned}
& \text { H3 } \\
& \text { (pit 1) }
\end{aligned}
$$ \& -9.00 \& $14.3 \times 1.0$ \& br \& Plain head, circular in section \& - \& - <br>

\hline cf. 121 i \& KII 401 \& I, x1 \& -4.30 \& $13.5 \times 0.8$ \& br \& Plain head, circular in section \& - \& - <br>
\hline cf. 121i \& KII 414 \& I, x1 \& -4.30 \& $13.4 \times 0.7$ \& br \& Plain head, circular in section \& - \& - <br>
\hline \multicolumn{9}{|l|}{21C.1.2. Slightly Flanged Heads} <br>
\hline 127e \& MV 2 \& Tomb I \& 0.20 \& $23.5 \times 1.3$ \& br \& Flat slightly flanged head, engraved zigzags and bands on upper shank \& - \& - <br>
\hline 127f \& MV 3 \& Tomb I \& 0.20 \& $23.4 \times 1.4$ \& br \& Flat slightly flanged head, engraved zigzags and bands on upper shank \& - \& - <br>
\hline
\end{tabular}

Catalog 21. Bronze Age Metal Objects (cont.)

| PlateSite and <br> obj. no. | Plot/ <br> Tomb | Dimensions <br> in cm | Metal Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

21C. GIYAN II-RELATED LATE BRONZE AGE METAL OBJECTS (cont.)
21C.2. ORNAMENTS
21C.2.1. Bracelets
$\left.\begin{array}{llllllll}- & \text { CS } 573 & \text { H3 } \\ \text { (pit 1) }\end{array}\right)$

## CHAPTER 22

## BRONZE AGE STONE OBJECTS ${ }^{1}$

by Hans H. Curvers
INTRODUCTION
As with the pottery, this category of objects is divided chronologically into three periods: Susa D (2900-2000 b.c.); Giyan IVC to III (2000-1600 b.c.); and Giyan II (16001350 в.C.).

## 22A. SUSA D-RELATED EARLY BRONZE AGE STONE OBJECTS

The Early Bronze Age stone objects were found in the Susa D levels at Kamtarlan I and II. They include flint and obsidian blade fragments, a pierced disc, whetstones, grinding and pounding tools, and a vessel fragment. The following stone object classes are listed in the catalog:

```
22A.1 FLINT AND OBSIDIAN IMPLEMENTS
22A.2 DISC
22A.3 WHETSTONE
22A.4 GRINDING OR POUNDING TOOLS
22A.5 MINIATURE VESSEL
```


## 22A.1. FLINT AND OBSIDIAN IMPLEMENTS

The blades are made of light gray flint. The two obsidian fragments are colored grayblack and translucent (KI 2 and 37, pl. $128 \mathrm{a}, \mathrm{b}$ ).

## 22A.2. DISC

The pierced disc (KI 63, pl. 128c) is made of black stone and polished.

## 22A.3. WHETSTONE

The whetstone fragment (KI 12) is a dark gray rod with an irregular square cross section.

## 22A.4. GRINDING OR POUNDING TOOLS

One of the two grinding or pounding tools is a truncated cone (KI 46, pl. 128d); the other is a flattened pear shape (KII 314, pl. 128e).

## 22A.5. MINIATURE VESSEL

The vessel fragment (KII 315, pl. 128f) is described as 'gray green stone' (serpentine?). With reference to the publications on production and trade in chlorite in the mid third millennium b.c. in Iran, our example from Kamtarlan II may now be added to the list and

[^27]distribution map of chlorite vessels of the Intercultural Style (Kohl 1975). The representational design is the whirl motif.

## 22B. GIYAN IVC- TO III-RELATED MIDDLE BRONZE AGE STONE OBJECTS

The Middle Bronze Age stone objects were found in occupational levels and graves at Kamatarlan I and II, and Chigha Sabz. They include flint and obsidian blade fragments, pierced discs, whetstones, grinding and pounding tools, and a vessel fragment. The following stone object classes are listed in the catalog:

```
22B.1 FLINT IMPLEMENT
22B.2 DISCS
22B.3 WHETSTONES
22B.4 GRINDING OR POUNDING TOOLS
22B.5 VESSEL
```


## 22B.1. FLINT IMPLEMENT

The one MBA blade from Kamatarlan II (KII 191) is made of gray and brown flint.

## 22B.2. DISCS

One of the three pierced discs is made of alabaster (CS 274). The other two examples are more ringlike ( pl .128 g ) and are made of gray brown stone.

## 22B.3. WHETSTONES

Most of the whetstones are made of gray stone; one is mentioned as having been made of slate. The more complete examples were retrieved from graves. The end of CS 495 (pl. 128 h ) has a perforation for attachment; KII 312 (pl. 128i) is beveled just below an elliptical head which would have allowed the object to be carried in a looped string.

## 22B.4. GRINDING OR POUNDING TOOLS

The seven small grinding or pounding tools are loaf-shaped. A tool designated as a grinding tool is assigned to the Iron Age although the stratigraphic context is rather ambiguous (cf. CS 628, 29B.1).

## 22B.5. VESSEL

A base fragment of an alabaster vessel (KI 84, pl. 128j) was found in Plot J at Kamtarlan I.

22C. GIYAN II-RELATED LATE BRONZE AGE STONE OBJECT

## 22C.1. WHETSTONE

One smooth oblate spheroid (CS 560) was found in a pit (H3, pit 1) at Chigha Sabz.

CATALOG 22. BRONZE AGE STONE OBJECTS

| PlateSite and <br> obj. no. | Plot, <br> burial | Elev.Dimensions <br> in cm | Material | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

22A. SUSA D-RELATED EARLY BRONZE AGE STONE OBJECTS
22A.1. FLINT AND OBSIDIAN IMPLEMENTS


22A.4. GRINDING OR POUNDING TOOLS

Catalog 22. Bronze Age Stone Objects (cont.)

| Plate | Site and <br> obj. no. | Plot, <br> burial | Elev.Dimensions <br> in cm | Material | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

22B. GIYAN IVC- TO II-RELATED MIDDLE BRONZE AGE STONE OBJECTS
22B.1. FLINT IMPLEMENT

| - | KII 191 | C | -4.45 | $4.5 \times 1.3 \times 0.4$ | lt gy fl | Blade: both edges retouched, trapezoidal in section | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22B.2. DISCS |  |  |  |  |  |  |  |  |
| - | CS 41 | N7 | -9.55 | $7.2 \times 4.3 \times 0.9$ | gy brn st | Flat oval | - |  |
| 128g | CS 48 | N7 | -9.50 | $2.1 \times 0.1 \times 0.3$ | gy brn st | Irr. carved and chipped, pierced | - | - |
| - | CS 274 | J7 | -4.80 | $2.4 \times 0.7 \times 0.6$ | cr alab | Fragment | - | - |
| 22B.3. WHETSTONES |  |  |  |  |  |  |  |  |
| - | CS 68 | M7 | -8.75 | $4.4 \times 3.2 \times 1.5$ | gy st | Frgm, rectangular, smooth surface | - | - |
| 128 h | CS 495 | H5, x3 | -3.60 | $9.0 \times 2.1 \times 0.1$ | gy st | Oblong, smooth surface, perforation at one end | Vanden Berghe 1973c:31 | $\begin{aligned} & \text { Giyan } \\ & \text { IVB } \end{aligned}$ |
| - | CS 610 | I7 | -3.05 | $4.4+\times 3.4 \times 1.0$ | gy st | Flat oblong, groove at both sides lengthwise | - | - |
| - | CS 61I | 17 | -3.05 | $3.8+\times 1.5 \times 0.8$ | gy st | Oblong, slightly tapered, perforated at narrow end | - | - |
| 128 i | KII 312 | E, x 1 | -4.25 | $6.9 \times 2.2 \times 0.9$ | gy sl | Oblong, slightly rounded edges, one end with groove to offset elliptical head | - | - |

22B.4. GRINDING OR POUNDING TOOLS

| - | CS 217 | K7 | -5.35 | $6.8 \times 4.6$ | lt gy st |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | S 221 | K7 |
| - | -6.05 | $9.8+\times 8.6 \times 6.0$ | gy st | CS |  |  |
| - | CS 31 | $J 7$ | -4.60 | $1.03 \times 0.89$ | gy brn st | Con |
| - | CS 18 | I7 | -3.80 | $5.3 \times 3.0 \times 0.2$ | dk brn/gy wh st | PS 427 |
| I7 | -4.50 | $7.1 \times 5.6 \times 2.7$ | gy brn st |  |  |  |

Spheroid, conical depression in -
top, base ground off
Leg-of-mutton shape, top missing
Cone truncated, smooth underside
Plano-convex, loaf-shaped
$\begin{array}{ll}- & - \\ - & - \\ - & -\end{array}$
$\begin{array}{lllr}- & \text { KII 166 } & \text { B, x1 } & -4.40 \\ - & \text { KII } 299 & \text { D, x6 } & -5.90\end{array}$
$10.3 \times 6.3$
$17.9 \times 5.7 \times 0.9$
gy grn diorite
gy st
Both ends ground, fragment
Flat oval, fist worn
$\qquad$
$\qquad$

22B.5. VESSEL
128 j KI 84

J
$-2.85$
$4.8 \times 0.4$

22C. GTYAN II-RELATED LATE BRONZE AGE STONE OBJECT
22C.1. WHETSTONE

- CS 560


## CHAPTER 23

# BRONZE AGE BONE AND SHELL OBJECTS 

by Hans H. Curvers

## INTRODUCTION

Bone has always been one of the most natural materials for early man to use, since generally it was plentiful, easily splintered, and not difficult to work. It could be made into small implements such as awls and needles and also was suitable for carving upon.

Molluscs, too, have always been an important resource for manufacturing utilitarian and ornamental objects. Demand for shells of certain species in areas far away from the source, such as Luristan, inevitably led to an exchange along already existing trade networks or to the extension of a trade network into Luristan.

As for the pottery, this category of objects is divided chronologically into three periods: Early Bronze Age (2900-2000 в.c.); Middle Bronze Age (2000-1600 в.c.); and Late Bronze Age (1600-1350 B.c.).

Due to the aims of the excavations the few registered objects may have been only a small part of the actually excavated worked bone and shell objects.

23A. EARLY BRONZE AGE BONE AND SHELL OBJECTS (pl. 129a, b)

The bone and shell objects were all found in the Early Bronze Age levels at Kamtarlan I. The registered group of objects includes awls and a spatula. In the catalog the EBA bone objects are listed in class 23A. The awls ( KI 6 and 67) made of metapodials with remaining articular surface are pointed at the distal end; the ends show traces of polishing. The spatula (KI 52, pl. 129b) is also made of a metapodial with remaining articular surface, but it is provided with a polished spatulate end. KI 36 is described as 'pigment receptacle of shell'; unfortunately, the drawing is not present in Schmidt's object catalog.

## 23B. MIDDLE BRONZE AGE BONE OBJECTS

The bone objects were all found at Chigha Sabz. In the catalog the MBA bone objects are listed in class 23B. The registered objects consist of three pin fragments. Two fragments were found in a burial and they were probably used as clothing pins; CS 312 (pl. 129c) shows a polygonal head and is roughly carved.

## 23C. LATE BRONZE AGE BONE OBJECTS

The bone objects were all found at Chigha Sabz (H3, pit 1). In the catalog the LBA bone objects are listed in class 23C. Among the registered objects are two horns of unidentified animals (CS 568 and 569) and a pin (CS 567, pl. 129d).

## CONCLUSIONS

It is clear from the objects retrieved from the Early, Middle, and Late Bronze Age contexts that elaborate carving of bone was uncommon in Luristan. Only two shell objects
were retrieved from an Early Bronze Age context at Kamtarlan I. Detailed information is missing. We have to consider, however, that many shell artifacts lack diagnostic features necessary for identification. Therefore, the presence of the drawings would probably not contribute to our insights of the existence of a trade network through which these shells could have been imported to Luristan. From the existing trade networks for lapis lazuli and chlorite (cf. ch. 22), we might suppose that, sporadically, a Persian Gulf shell might trickle into the Rumishgan valley.

CATALOG 23. BRONZE AGE BONE AND SHELL OBJECTS

| Plate | Site and obj. no. | Plot, Burial | Elevation | Dimensions in cm | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 23A. EARLY BRONZE AGE BONE AND SHELL OBJECTS |  |  |  |  |  |
| - | KI 6 | A | 7.40 | $7.0+\times 1.5 \times 0.5$ | Awl, polished tapered point, head missing |
| 129a | KI 27 | B | 6.25 | $10.2 \times 2.5$ | Long bone with epiphysis, pointed end |
| - | KI 36 | B | 6.70 | $6.2 \times 0.4+$ | Pigment receptacle: large shell cut in half, containing yellow pigment |
| - | KI 50 | D | 5.15 | $10.9 \times 2.1$ | Slender flake, long pointed and polished end |
| $129 b$ | KI 52 | D | 5.60 | $9.3 \times 2.1$ | Long bone with epiphysis, polished spatulate end |
| - | KI 61 | F | 5.15 | $5.0 \times 4.2$ | Pendant: top with double perforation (shell) |
| - | KI 67 | G | 4.90 | $6.0+\times 1.3$ | Awl, head missing, polished point |
| 23B. MIDDLE BRONZE AGE BONE OBJECTS |  |  |  |  |  |
| - | CS 307 | J7, x2 | 4.65 | $4.4+\times 6.1+\times 8.5$ | Two pin fragments with tapered round points |
| - | CS 219 | K7 | 6.05 | $15.7 \times 3.4 \times 2.1$ | Curved horn |
| 129c | CS 312 | J7 | 4.80 | $4.5+\times 0.6$ | Roughly carved, polygonal head, cylindrical shank fragment |
| 23C. LATE BRONZE AGE BONE OBJECTS |  |  |  |  |  |
| 129d | CS 567 | H3 (pit 1) | 9.00 | $9.0 \times 0.4$ | Pointed head, sharp point, polished |
| - | CS 568 | H3 (pit 1) | 9.00 | $36.4 \times 7.7$ | Curved hom |
| - | CS 569 | H3 (pit 1) | 9.00 | $14.8 \times 3.1$ | Curved hom |

## CHAPTER 24

# BRONZE AGE BEADS, STAMP SEALS, AND CYLINDER SEALS ${ }^{1}$ 

by Hans H. Curvers and Maurits N. van Loon

24A. EARLY AND MIDDLE BRONZE AGE BEADS<br>by Hans H. Curvers<br>\section*{INTRODUCTION}

Throughout antiquity in many regions throughout the world minerals have been selected and used for manufacture of beads. The shapes of the beads were influenced by many considerations which were not functional and there seem to have been very few technological preferences. Stones were selected for their beauty and value, and generally bright colors were favored, or stones with a good luster and transparency were chosen. Quite often the magical and medical properties of the stones were a major consideration in their use, but for prehistory and protohistory the knowledge of such properties is largely lost (Thureau-Dangin 1921). The many varieties of minerals also have been very widely employed for various forms of personal ornamentation in all regions. Both females and males also used beads to indicate status. Information on ethnicity might be derived from the presence or absence of certain materials and shapes. Very frequently precious and semi-precious stones with localized occurrence, such as lapis lazuli, were mined at great cost and transported over wide areas.

Detailed information on the process of manufacturing the beads is lacking in the sample retrieved from the Holmes Expedition to Luristan excavations assigned to the Bronze Age. One bead in the sample was threaded with a bronze pin (KII 297, pl. 130t). Whether we should conclude from this find that the beads were locally made, using a bronze drill in combination with bits of a hard, gritty rock, such as sandstone or quartzite, is doubtful. Moreover, the conspicuous lack of raw materials and blanks at Chigha Sabz, Kamtarlan I, Kamtarlan II, and Mir Vali makes it even more likely to suppose they were not manufactured locally.

We use Schmidt's identifications of the minerals registered in the catalog of objects. We have added the descriptions of the color in order to provide all of the details upon which the identification is based (cf. ch. 14, Identification of Materials of the Finds).

## 24A.1. EARLY BRONZE AGE BEADS (pl. 130a-j)

A small sample of twenty-one beads was found scattered throughout the Early Bronze Age levels at Kamtarlan I and in tomb IV at Mir Vali. On the basis of the pottery found in tomb IV at Mir Vali, we are able to propose a closer date in the ED II period for these beads. The materials used for beads at Mir Vali are gypsum (2), shell (2), and a purplish gray and gray white stone (1). Other materials used in the Early Bronze Age (Kamtarlan I) are chalcedony (2), faience (1), shell (1), bone (1), glass (1), limestone (1), carnelian (1), gray stone (1), porphyry (1), diorite (1), and lapis lazuli (1). The shapes in which the beads were manufactured are various. We have used the terminology accepted at a meeting in Iraq, held in Baghdad 1929 (Woolley 1934:366). It will be understood that these are standard types and that incidentally it may be difficult to assign a bead to one class rather than another.
${ }^{1}$ For seal abbreviations, see pp. 124-27.

In tomb IV at Mir Vali an irregularly shaped bead, a ring, and three cylindrical beads were retrieved. One cylindrical bead shows an incised decorative pattern of two bands with crosshatching (MV 40:4, pl. 130a:4), another cylinder is polygonal (MV 40:5, pl. 130a:5). The Kamtarlan I group includes: cylindrical beads (4), rounded rectangular beads (2), one dateshaped bead, a disc, a globe, a bicone, a pear-shaped bead, and a spacer bead. The presence of a glass bead in Early Bronze Age context at Kamtarlan I is remarkable (KI 71, pl. 130h). A glass bead in a well-stratified context was found at Tell Judaidah; further analysis of this bead pointed to the existence of early glass manufacture in or near the Amuq plain (Braidwood and Braidwood 1960:341-42, fig. 258:i). Kühne has listed other early glass finds throughout Mesopotamia, including a list of early glass beads in third millennium b.c. contexts (Kühne 1957-71:415). The find of a lapis lazuli bead at Kamtarlan I (KI 87, pl. 130i) indicates external trade relations for the Rumishgan valley. This precious material might either be imported along the northern route via the High Road (or Great Khorasan Road) or, more likely, along the southern route also followed by the chlorite vessel fragment (Kamtarlan II, cf. ch. 22; Herrmann 1968; Kohl 1975; Lamberg-Karlovsky and Tosi 1973, and Majidzadeh 1982).

## 24A.2. MIDDLE BRONZE AGE BEADS (pl. 130k-u)

The Middle Bronze Age produced a larger sample consisting of eighty-one beads from burials (69) or scattered throughout the occupational levels at Chigha Sabz and Kamtarlan II (8). Individual beads, as well as groups of beads, were retrieved from the burials. The materials used for the manufacture of the Middle Bronze Age beads are carnelian (37+), silver (23), chalcedony (3+), alabaster (2), pink or gray white stone (2), faience (2), bronze (1), shell (2), baked clay (1), and lapis lazuli (1). Carnelian and silver are the predominant materials used for the manufacture of beads. All silver beads were retrieved from the burials, as was the bead made of bronze. The majority of the carnelian beads also was found in the burials. The lapis lazuli bead was found in a Middle Bronze Age occupational level at Chigha Sabz (M7, -8.30).

The shape of the beads is predominantly cylindrical (29+) and globular (28). Less frequent shapes are: tubular (3), ring-shaped (4), biconoid (2), discoid (2), ovoid (2), rounded rectangular (1), and biconvex oval (1). All silver beads are small globes. Burial D, x4 at Kamtarlan II contained a group of twenty small silver globes.

The find of a lapis lazuli bead in the Middle Bronze Age levels at Chigha Sabz suggests that the Rumishgan valley was part of an interregional trade network. In the catalog the beads are presented as complete groups from burials, except H11, x1 (Kamtarlan II). Similar shapes from the architectural levels are only illustrated if they do not occur in the closed contexts of the burials.

## CONCLUSIONS

Only general conclusions can be drawn from the two small bead samples, dated to the Early Bronze Age and Middle Bronze Age. Lapis lazuli, present in both samples, indicates exchange with other regions. The use of metal is restricted to the Middle Bronze Age. The silver and bronze beads were all retrieved from the burials. The bead sample of the Middle Bronze Age shows more variety in material, while there is hardly any difference in the shape of the beads.

24B. MIDDLE BRONZE AGE STAMP SEALS OR IMPRESSIONS

## by Maurits N. van Loon

## INTRODUCTION

One stamp seal found in a Bronze Age level has been attributed above to the Chalcolithic (see ch. 19). Two enigmatic baked clay stamps or stamp impressions are treated here first. They were found at Chigha Sabz in what according to our analysis are Middle Bronze contexts (note, however, that xi turned up just beneath the surface and that xii was found only 10 cm below the deepest Iron Age disturbance).

No. xi (CS 218, pl. 131:xi)
The three holes in the base of this baked clay cone and the damage at its apex suggested, at first, that this might be a bulla that once had sealed the string tied around some consignment. The design on the base, however, has depressed grooves and must have been incised in order to be used as a stamp seal itself. The design is similar to that on a perforated hemispheroid unbaked clay stamp (Berlin Stempelsiegel 3, measuring $4 \times 3.5 \times 1.6 \mathrm{~cm}$ ) found in what is probably an Early Dynastic I context near the White Temple at Uruk (Jakob-Rost 1975:10). The latter seal has three lines crossing three others at right angles, all within a line border as on our seal. Another seal in Berlin, an unperforated "steatite" cone (Berlin Stempelsiegel 142 , measuring $4.8 \times 2.8 \times 2.1 \mathrm{~cm}$ ) has four lines crossing three lines, without a border. It was bought in the 'Amuq. Unperforated conical stamp seals have also been found at Halaf (H. Schmidt 1943, pl. 38:16) and associated by Denyse Homès (Homès-Fredericq 1970:69) with Early Dynastic I stamp impressions from Ur (Legrain 1936:8; see also, for comparison with our xi, his nos. 239, 291). All this gives us reason to think xi may be an Early Bronze heirloom, but it is equally possible that this seal derives from the Iron Age occupation at Chigha Sabz (cf. the conical faience seal xvii with grid pattern on its base, ch. 32).

No. xii (CS 426, pl. 131:xii)
The stamp impression is even more difficult to place, and was at first thought by Schmidt to be part (the ears) of an animal-shaped vessel. The inside, however, is stamped with a pattern of large squares bisected by diagonals and bordered by small squares. Various possible uses, for instance as a mold for pastry, suggest themselves without any specific parallel coming to mind.

24C. BRONZE AGE CYLINDER SEALS (Nos. 7-40) (pls. 132-34)

by Maurits N. van Loon

## INTRODUCTION

Two cylinder seals were found at Kamtarlan II in level 2, which yielded pottery of the later third millennium b.c. The two seals appear to be contemporary with the pottery. One cylinder seal from an Iron Age cache at Chigha Sabz and thirty-one cylinder seals from the Iron Age site of Surkh Dum-i-Luri are attributed to the Bronze Age on typological grounds, since they can be recognized as belonging to well-known, mostly Mesopotamian, Bronze Age groups.

## 24C.1. PROTO-ELAMITE (Seals 7-8)

No. 7 (CS 379, pl. 132:7)
Although found among Giyan III remains with Iron Age III intrusions, seal 7, of dark brown "steatite," is probably an unglazed example of the large class of usually glazed "steatite" Proto-Elamite seals with vegetal and geometric designs represented by Susa 1149-1214 and by Diyala 99-142. The latter are closely dated to Protoliterate d (ca. 3000-2900 b.c.). In size and design, 7 is comparable to Susa 1188. The "hourglasses" are unusual, but they also appear on Diyala 104 and 108. Giyan 10 seems to show similar shapes enclosed by horizontally hatched chevrons. Although found in mid third millennium B.C. layers, it must also date to the
beginning of that millennium. Susa 1176, 1180, and 1201 are other unglazed examples of this class of "steatite" seals. ${ }^{2}$

## No. 8 (Sor 1177, pl. 132:8)

This seal must have been at least 4 cm high before the bottom part was broken. Tall cylinders were carved out of soft green heulandite or white limestone by the Proto-Elamite seal cutters in the periods corresponding to Protoliterate d and Early Dynastic I in Mesopotamia, 3000-2750 b.c. (Amiet 1961:41-43; 1972:131). In style and subject matter they often paralleled the glazed chlorite ("steatite") seals of Mesopotamia, especially the Diyala region, during Protoliterate d (3000-2900 B.c.). The stepped mountains are found on Diyala 81 (Frankfort 1955), but in more elaborate form they occur also on Louvre S. 307 and A. 5 (Delaporte 1920, pl. 41, no 10, and pl. 61, no. 7). The geometric forms of the creatures are nowhere really paralleled. This seal must have been made outside Susa. The bird might be a misinterpretation of the triangular "earth" sign of Louvre S. 320 and S. 335 (Delaporte 1920, pl. 42, no 5, and pl. 43, no. 8; Amiet 1961, nos. 577, 585, p. 109). A humped bull with lowered, frontally seen head occurs on Susa 972. On the other hand, the claws, mane, and curly tail all seem to point to a lion with very simplified head, as seen on painted pottery from Hissar IIA (2900-2750 B.C.). ${ }^{3}$ Characteristic of the slightly earlier Diyala seals are the alternation between curved and recurved horns and the large ears with filling elements (cf. Diyala 82), as well as the centered circle eyes (cf. Diyala 78).

## 24C.2. EARLY DYNASTIC (Seals 9-11)

No. 9 (Sor 1294, pl. 132:9)
One seal is carved out of bitumen (probably indicating an Elamite origin) in the "brocade" style. ${ }^{4}$ This style is characteristic of the Early Dynastic I period (ca. 2900-2750 B.c.) in the Diyala region. ${ }^{5}$ There are few such seals from southern Mesopotamia. Ashmolean 94 is an example from the Early Houses stratum at Kish.

No. 10 (KII 328, pl. 132:10)
Together with Giyan IVA-B sherds, Kamtarlan II, level 2, yielded a faience seal of the type that has been found in Early Dynastic IIIB to Akkad period context from Susa to northeastern Syria. Frankfort associated this seal type with the Guti, from the Zagros Mountains, who invaded Elam and Mesopotamia and put an end to the Akkadian Empire. ${ }^{6}$ Buchanan coined the term 'Piedmont Early Dynastic seals', which agrees more closely with the actual find circumstances. ${ }^{7}$ These seals show a shaggy-haired hero ${ }^{8}$ intervening in an animal

[^28]combat that regularly includes a "push-me-pull-you." This fusion of animal foreparts undoubtedly stems from a misunderstanding of the crossed animals that occurred in the fullblown "Meskalamdug" stage of Early Dynastic seal carving. 9 Piedmont Early Dynastic seals have been found in levels ranging from the "Protoimperial" (ca. 2425-2335 b.C.: Diyala 514, 558, and 567) to the Akkad period (2334-2154 b.C.: Diyala 596, 597, 629, and 748; Ashmolean 821). ${ }^{10}$ Of these, Diyala 567 and 629 are the closest parallels to 10.

No. 11 (KII 333, pl. 132:11)
The clay fragment is treated here because it was found in the same context as the previous seal. It does not clearly belong to the Piedmont Early Dynastic group, although clay seals with line borders do occur in that style (e.g., Diyala 514). In the Diyala region clay seals were relatively common in the Early Dynastic period (Diyala 262, 276, 295, 317, 369, 453, $514,545,547,571$, and 826 ) and then again in the Larsa period (Diyala 539, 715, 760, 762, $767,904,943,945$, and 949). Most of the latter seem inspired by the iconography of contemporary stone seals. Diyala 767, with line borders and ring-shaped human heads, as on 11, is an exception, and seems related to the Early Dynastic group. At Susa, too, production of clay seals seems to have started in Early Dynastic I (Susa 1342-1359). Of these seals, Susa 1354 has line borders and linear simplifications of man and goat somewhat comparable to our fragment.

## 24C.3. AKKAD PERIOD (Seals 12-19)

The first six of the Akkad period seals all seem to come from stages Ib (ca. 2320-2295 B.C.) or Ic (2295-2279 B.c.) of the Akkad period, according to the subdivision proposed by Boehmer (1965:15-17, 52-54, 194).

No. 12 (Sor 36, pl. 132:12)
Seal 12 (illustrated by Boehmer as fig. 45) is closely paralleled by Bibliothèque Nationale 13 and Sissa 45 (Boehmer's fig. 39).

No. 13 (Sor 165, pl. 132:13)
This seal, now very worn, has traces of a design very close to that on Brussels 621 (Boehmer's fig. 41).

No. 14 (Sor 696, pl. 132:14)
The left half of 14 (Boehmer's fig. 42) is almost a mirror image of the right half of Philadelphia 74 (Boehmer's fig. 43).

No. 15 (Sor 1124, pl. 132:15)
In composition alone, this seal can be compared to parts of the Early Dynastic IIIB seal Hague 11 (Boehmer's fig. 282); in style, however, it is closer to the Akkadian Ib/c seals

[^29]Bibliothèque Nationale 65 and 66 (Boehmer's figs. 295 and 319). The horned miters of the gods are resolved into triple square brackets, as on Susa 1550, which also includes two gods fighting over a mace. On the seal of Eshpum, governor of Elam under Manishtusu (2269-2255 B.C.), maces are placed vertically between pairs of fighting gods (Louvre S. 471, pl. 47, no. 3 $=$ Boehmer's fig. 330). ${ }^{11}$

No. 16 (Sor 1699, pl. 132:16)
Seals with a spread-winged eagle clutching two horned animals occur before, during, and after the Akkad period. Such long-tailed eagles as on 16 and 17 (Sor 1699, 69, pl. 132:16, 17), however, are typical of the Akkad period. ${ }^{12}$ The simplified cutting of 16 , with its trestlelike animal legs, abruptly turned heads, and diagonal hatching, is comparable to that on Berlin Rollsiegel 165 (Boehmer's fig. 82), dating to Akkadian Ib/c.

No. 17 (Sor 69, pl. 132:17)
The eagle of 17 and the collapsing animal to its right must have been very similar to those on Tello 11 (Boehmer's fig. 87), assigned by Boehmer to Akkadian Ib. Of the seals from Eshnunna (modern Tell Asmar) with this subject, Diyala 745, from an Akkad period top layer, has the goats standing, as on 16. Diyala 641, from houses of the late Akkad period, shows the goats kneeling, as on 17.

No. 18 (Sor 108, pl. 132:18)
Seal 18 is illustrated by Boehmer as figure 254 among animal contest scenes of his stage Akkadian III (2254-2154 b.c.). Like Philadelphia 144 (Boehmer's fig. 255), from Nippur, it shows two lions, each grasping an upended bull and looking back. Unlike the Nippur seal, however, the engraving is peculiarly crude and the space between the bulls is not filled by an inscription but only by a vertical line. This points to provincial, perhaps local workmanship.

No. 19 (Sor 589, pl. 132:19)
Although enthroned deities appear in conjunction with contest scenes on early Old Babylonian seals (e.g., Morgan 346, Louvre A. 516, the latter dated to ca. 1825 B.C.), and although such conjunction is exceptional on Akkad seals, we have tentatively assigned 19 (Sor 589, pl. 132:19) to the late Akkad period (Boehmer's Akkadian III, 2254-2154 b.C.). Susa 1607 is a rare instance of an Akkad contest scene (hero and bovine) appearing next to a seated figure. Susa 1571, also assigned to the Akkad period by Amiet, may be Old Babylonian (cf. Susa 1706, 1707). A seal in the Iraq Museum (Boehmer's fig. 223) presents the conjunction of contest scenes and enthroned god in a completely different composition. Seated figures facing right are unusual in Old Babylonian seals, but common in the late Akkad period. Especially characteristic of the latter period are the proportions of the draped body, with short squat torso, long thin upper legs, and short squat lower legs, as, for example, on Boehmer's figures 524, 627, 628, and 652; on Morgan 188, 205, 210, and 245; and on Susa 1608. Late Akkad seals often include a bull-man fighting a lion and/or a hero fighting a bovine (e.g.,

[^30]Boehmer's figs. 163-189, 230). A seal from Mari (Boehmer's fig. 219) shows the rare contest between bull-man and bovine that we also seem to have on 19. The sharp groove-all that is left of the animal's right foreleg-is more likely the remains of a bovine's leg than of a lion's paw, which should be wider. The low thigh with a sharp diagonal indicating the penis characterizes the bull-man rather than the naked hero. The eyebrows and nose of the frontally pictured bull-man are also deeply engraved in typical late Akkad fashion.

## 24C.4. OLD BABYLONIAN (Seals 20-28)

The Old Babylonian period (1894-1595 b.c.), one of the most productive in Mesopotamian seal cutting, has left several seals at Surkh Dum-i-Luri, among which are some inscribed examples.

No. 20 (Sor 786, pls. 133:20 and 257c)
The earliest seal in this group is 20 , with a presentation scene as attested in the reign of Sumulael (ca. 1850 b.c.) on Louvre A. 477B. In simplicity of composition it might be compared with Berlin Rollsiegel 286, and in style of execution, with Berlin Rollsiegel 295.

No. 21 (Sor 1272, pls. 133:21 and 257d)
Seals 21 and 22 show the extremely popular theme of the god with the mace (probably Ninshubur, the herald of the gods ${ }^{13}$ ) approaching the suppliant goddess. This theme is attested on tablets (Louvre A. 485,532) from the reign of Warad-Sin of Larsa (ca. 1825 B.C.) to that of Samsuiluna of Babylon (ca. 1725 B.c.). Seal 21, being more carefully executed, may belong to the earlier part of that period, like Berlin Rollsiegel 322, which belonged to the wife of RimSin (1822-1763 B.C.); it has figures and inscription evenly spaced.

No. 22 (Sor 1691, pl. 133:22)
Seal 22 has two figures close together, with two lines of inscription beginning right behind the god with the mace, like Berlin Rollsiegel 325 and 326 and Morgan 436 and 437. Unlike these seals, however, it seems to have had less detailed engraving even when it was fresh, with the goddess' dress shown as a horizontally grooved cylinder. It is therefore probably a late instance of this theme, dating toward 1725 b.c. More extreme examples of such cursory engraving are Ashmolean 542, Berlin Rollsiegel 441-443, and Morgan 458 and 459, which belong to Briggs Buchanan's "Transitional to Late Old Babylonian style" (ca. 17601700 в.с.). ${ }^{14}$ The fish on our no. 22 were probably added some time after the original engraving. ${ }^{15}$

[^31]No. 23 (Sor 1216, pl. 133:23)
Seal 23 shows the suppliant goddess and the god with the mace, both facing a deity who seems to be lowering his hand. The suppliant goddess is raising only her right hand, as on Morgan 470. Our seal is both extremely worn and damaged by secondary horizontal scratches.

No. 24 (Sor 1311, pl. 133:24)
Worshipers with kids, as on 24, are fairly common on Old Babylonian and provincial Old Babylonian seals of Briggs Buchanan's early stage (ca. 1925-1800 b.c.), such as Ashmolean 479 and 489, Louvre A. 355-372 (pl. 80), and Philadelphia 532. In that group one also encounters gods with tall many-horned miter, prominent hollow nose, and triangular torso (cf. Ashmolean 498 and Louvre A. 361). The gesture of the god touching the muzzle of a kid that is being offered to him, however, is not paralleled in other Babylonian representations. Morgan 525 shows a god touching the forelegs of a kid that is being offered to him by a worshiper. The figures on Morgan 525 are more elongated than on mature Old Babylonian seals. These two unusual features suggested to Edith Porada that Morgan 525 was of late origin. The same two criteria, if applied to our seal, would result in a late date (ca. 1750-1595 B.C.) for seal 24.

No. 25 (Sor 1019, pl. 133:25)
The god with the crook seen on 25 and 26 is to be identified as Amurrum or Il Amurrim, the god of the west or Syrian El, who appears on seals of the later part of the Old Babylonian period. ${ }^{16}$ The placement of the deity to the left of the worshiper is an unBabylonian feature. It is seen, for example, on Berlin Rollsiegel 415, of unknown provenience; on Morgan 872, of provincial Babylonian, possibly Cappadocian style; on Newell 226, also clearly a provincial seal; on Louvre A. 317 (pl. 79, no. 2); on Hague 41 (Kupper 1961, fig. 6); on Philadelphia 453; and on British Museum 89521 (Kupper 1961, fig. 27). It is perhaps no coincidence that all of these examples also involve the god with a crook, Amurrum, and/or the priest with a bucket. Conceivably the placement of Amurrum on the left in such worship scenes derived from the frequent scenes where he stood confronting a suppliant goddess or other deity, for example, Berlin Rollsiegel 391, 411; Diyala 933; Morgan 520; Philadelphia 450; British Museum 89279, 89328, 89007, and 89002 (Kupper 1961, figs. 4, $32,33,34$ ). On many of these seals Amurrum wears the same cylindrical hat of Syrian type as on $25 .{ }^{17}$ The appearance on Old Babylonian seals of prominent drill marks, elongated figures, and simplified dress, as on 25, characterizes Briggs Buchanan's "Transitional to Late Old Babylonian " style, dated to ca. 1760-1700 в.c. ${ }^{18}$ Seal 25 was probably recut at a later date. This would explain the unprofessional scratchings on the worshiper's arms and on the other figures' dress.

No. 26 (Sor 170, pls. 133:26 and 256c)
In the "Proto-Mitannian" variant of Briggs Buchanan's "Late Old Babylonian" style, dated to ca. 1700-1595 B.C., ${ }^{19}$ the subjects borrowed from the older iconography are virtually

[^32]reduced to geometric elements by the use of cutting disc and drill, as on 26 and 27. In the square shoulders and the emphasized brims of hats and hems of garments, 26 might be compared to Ashmolean 549. On seals showing the god with crook(s) the recumbent gazelle normally faces away from the god and toward the worshiper. For this reason the figure on the left is here interpreted as Amurrum, who is also mentioned in the inscription. It is to be noted, however, that this figure holds both forearms horizontally forward in the same way as Elamite worshipers of the same period (e.g., on Susa 2330).

No. 27 (Sor 1668, pl. 133:27)
On 27, possibly as a result of later cutting, the sunburst has an irregular shape and gods and worshipers wear the same rounded headgear. The latter feature is reminiscent of Mitannian seals. Nuzi 103, 109, 141, and 191 (all belonging to the second generation at Nuzi, ca. 14501420 B.C.) have figures in the ascending posture of the sun god, but wearing royal, not divine headgear. The 16th to early 15 th century B.C. seal Susa 2019 , to be mentioned again below (in discussing 30), shows the Elamite version of a four-figure composition somewhat comparable to 27 .

No. 28 (Sor 151, pls. 133:28 and 256a)
The "Proto-Kassite" variant of Briggs Buchanan's "Late Old Babylonian" style, also dated to ca. 1700-1595 B.c., ${ }^{20}$ is seen in 28. Here cutting disc and drill are used to render a praying goddess in a broad, rather featureless manner beside a lengthy prayer inscription. In most seals of this type the praying figure does not seem to wear the traditional horned miter. More carefully made seals of the same type are impressed on a mid 17th century b.c. tablet in the Morgan Library. ${ }^{21}$

## 24C.5. LATE OLD ASSYRIAN (Seal 29)

Within the larger body of seals of which examples or impressions have been found at the Old Assyrian colonies in Cappadocia, Edith Porada distinguished a Provincial Babylonian group (Porada 1948:109-10, nos. 862-93). Although they show common Old Babylonian themes such as a worshiper followed by the interceding goddess standing before the sun god, some details are rendered in a non-Babylonian fashion. Sufficient examples are now known from the colony at Kanesh (modern Kültepe) Ib to warrant calling this style Late Old Assyrian (Özgüç 1968:48).

No. 29 (Sor 1102, pl. 133:29)
Characteristic are the shoulder straps converging at the god's waist on 29 , which are likewise seen, for example, on Morgan 863. The latter seal also shows the sun god holding his saw in a vertical position. The vertical lines on the brim of the worshiper's cap are another

116-118), Moortgat had already pointed to the "Transitional" and "Late Old Babylonian" styles and their date, without distinguishing the two.

[^33]Cappadocian feature, seen for example, on Morgan 864, 865, 876, and 878, and on seals from Kanesh, Karum level Ib (ca. 1800-1700 b.c.; Ozgüç 1968:48, pls. 9A, 15B, 17A). On the latter we often see vertical hatching employed to render the bodies and feet of animals, as in the bird of 29 , which is presumably being brought by the worshiper as a sacrifice. Finally, human faces reduced to one or two vertical and two or three horizontal strokes, like the goddess' face on 29 , occur on the Kanesh examples and on Morgan 864, 876, and 878 as well.

## 24C.6. EARLY MIDDLE ELAMITE (Seals 30-33)

These finds belong to a group of seals made in Susa and distinguished by funnelshaped heads, worshipers with hair en brosse, deities wearing crowns that have $S$-shaped horns projecting forward and backward, and animal-shaped thrones.

No. 30 (Sor 1495, pl. 134:30)
Within this group, 30 may be the earliest example at Surkh Dum-i-Luri. Pierre Amiet posits three stages of development in the horned miters worn by the deities on these seals: On Susa 2015 and 2330, dated to the 17th century B.C., the miter is flattened, with small horns projecting forward and backward. On Susa 1823 , which he dates toward 1600 b.C., and on Louvre D. 111 (Delaporte 1920, pl. 53; Amiet 1970, fig. 11), which he dates to the (early) 16th century B.C., we find round miters with large horns. Finally, on Susa 2019, 2020, and 2022-2032, which he dates to the (late 16th and early) 15th century B.C., ${ }^{22}$ flat or chevronlike elements are piled up to form a miter of conical outline. Our 30, with one Old Babylonian-type tall miter and one seemingly rounded miter, can be compared to Louvre D. 111 and dated to ca. 1600 b.c. Note the small horns on 30 and 31, another early feature.

No. 31 (Sor 1528, pl. 134:31)
Although not a cylinder but a prism, triangular in section, 31 is included on account of its theme and style of carving. The god and the nude woman have triangular faces within which only the eye is indicated. The god's neck is hidden by the three strands of his beard, as on 32, and the woman's hair is swept both forward above the brow and backward over the shoulder. Somewhat similar women can be seen on Susa 2029 and on Louvre D. 109 (Delaporte 1920, pl. 53:5).

No. 32 (Sor 1317, pl. 134:32)
As Edith Porada has shown, ${ }^{23}$ seal 32 should be contemporary with the first generation at Nuzi (modern Yorgan Tepa), ca. 1480-1450 B.c. ${ }^{24}$ Its closest relatives at Susa are Susa 2022 and 2027.

No. 33 (Sor 644, pl. 134:33)
The greater use of the drill on 33 indicates contemporaneity with Nuzi 615 and 616, which belong to the second and third generations, ca. 1450-1390 B.c. Seal 33 is closely related to the Mitannian group of cylinder seals, to be treated below.
${ }^{22}$ In Amiet (1972:258) he attributes them to the 16th and early 15th centuries b.c. In Amiet (1970:26) he dated them to the 15 th century в.c.
${ }^{23}$ Porada 1946:257-59, 1947:44-45, 1965a:47; see also Amiet 1966:330-31 and 1972:258-59.

[^34]
## 24C.7. KASSITE (Seal 34)

No. 34 (Sor 1428, pls. 134:34 and 257e)
This seal shows worship of an enthroned deity, as does Morgan 575, which also has the inscription running on into the space between the figures. The minor goddess with the flowing vase might be compared to the well-known brick figures from the temple of Karaindash (ca. 1415 b.C.) at Uruk. ${ }^{25}$ The inscription on 34 either refers to Kurigalzu I (ca. 1390 B.C.) or to Kurigalzu II (1332-1308 в.C.). ${ }^{26}$

24C.8. MITANNIAN (Seals 35-37)
No. 35 (Sor 1085, pl. 134:35)
In spite of their simplified appearance, seals like 35 and 36 come rather early in the sequence of crudely drilled faience seals that were common in Syria and northern Mesopotamia under the Mitannian Empire, from about 1500 to 1350 b.c. In its subject matter-an enthroned deity holding an emblem, being approached by a gazelle-one might compare 35 to Nuzi 23. In style it is extremely close to Nuzi 42 , on which the human head and torso, star-topped staff, and gazelle are rendered almost identically. Nuzi 42 differs only in that the divine figure is kneeling instead of sitting.

No. 36 (Sor 622, pl. 134:36)
This seal can be compared to Nuzi 55, on which, below a guilloche, one sees a sunburst with three pairs of horizontal rays flanked by at least one-and probably twogazelles looking backward. Nuzi 23, 42, and 55 all belong to the second generation, ca. 14501420 в.c.

No. 37 (Sor 195, pl. 134:37)
The figure(s) holding the emblem on 37 might be compared with Nuzi 131, 132, 154, and 284-287. These all have the other arm bent. On 37, the right-hand figure seems to have his left arm hanging down, but this may be due to damage of the surface. The rendering of the human head and of the three birds is similar to that on Nuzi 111. These all belong to the second and third generations, ca. $1450-1390$ в.с.

## 24C.9. MIDDLE ASSYRIAN (Seals 38-40)

No. 38 (Sor 528, pl. 134:38)
The hero triumphant over two animals, as illustrated on seal 38, was popular among the heraldic motifs on 13th century B.C. seal impressions from Assur such as VAT 8940, Fdnr. 11018 v , and VAT 8846 (Moortgat 1941-42, figs. 59-61). The helmeted and kilted hero also appears on VAT 8829 (Moortgat 1941-42, fig. 5). Before the 13th century the hero's kilt did not display the characteristic Middle Assyrian tassels (actually the ends of the belt, token of
${ }^{25}$ Jordan 1930:34-38, pl. 15; also illustrated in Orthmann 1975, pl. 169.
${ }^{26}$ See chapter 33 for the inscription. On the dates of Kara-indash and Kurigalzu I and II, see Brinkman 1976:31.
heroic strength, visible below the kilt). ${ }^{27}$ The four seal impressions from Assur date to the reigns of Shalmaneser I and Tukulti-Ninurta I (1274-1208 B.C.).

No. 39 (Sor 1025, pl. 134:39)
This seal seems to be a product of the same Syrian workshop of the late Middle Assyrian period as Ashmolean 566 and Hama figures 190C and 195D, both from period I of the cremation cemetery ( $1200-1075$ B.c.).

No. 40 (Sor 1427, pl. 134:40)
Another seal related to no. 39 is seal 40. It has crudely carved triangle borders within line borders as on Ashmolean 566 and Hama figure 195D. Triangle borders were a regular feature on Babylonian faience seals of the "third Kassite" group (ca. 1250-950 b.c.; Beran 1957-58). The three-tufted tree on 40 can be compared to a similar tree on Hama figure 190C and on 13th century B.C. Assyrian seals (Moortgat 1941-42:71, fig. 40; Frankfort 1939, pl. 311; cf. Morgan 590). Tall headgear and a cross-shaped missile also occur on a seal from BethShan level VII (ca. 1300-1200 B.c.; Parker 1949, pl. 21, no. 142). The carving is pecularly awkward in the rendering of the archer's arms and the stag's horn. Other features are paralleled among the Iranian seals from Surkh Dum-i-Luri: the low-slung animal body with stretched forelegs on 139 (cf. also Hama fig. 195E) and the position of the bird or fly or star near the animal's neck on 149 (cf. also Hama fig. 190C). Another group related to 39 and 40 is formed by early Neo-Babylonian offshoots of the Kassite tradition like Ur 585, 586, 592, 593, 604, and 615 , and especially 606 and 616.
${ }^{27}$ Beran 1957, especially p. 158. For the tasseled belt and its significance, see Hrouda 1965:26, last paragraph; Calmeyer 1957-71, especially p. 689, last paragraph; and Boehmer 1972-75, esp. p. 299, §10.

CATALOG 24. BRONZE AGE BEADS, STAMP SEALS, AND CYLINDER SEALS

| Plate | Site and <br> obj. no. | Tomb or <br> plot, burial | Elevation | Dimensions <br> in cm | Material | Color |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

24A. EARLY AND MIDDLE BRONZE AGE BEADS

## 24A.1. EARLY BRONZE AGE BEADS

| 130a:1 | MV 40:1 | Tomb IV | - | $3.0+\times 2.6+$ | shell | - | Irregular shape, bead or pendant(?) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 130a:2 | MV 40:2 | Tomb IV | - | $2.0 \times 0.4$ | shell | - | Ring |
| 130a:3 | MV 40:3 | Tomb IV | - | $2.0 \times 0.7$ | gypsum | wt | Cylinder |
| cf. 130a:3 | KI 76:1 | 1 | -4.30 | $1.1 \times 0.3$ | chalcedony | wt | Cylinder |
| cf. 130a:3 | KI 76:2 | I | -4.30 | $1.4 \times 0.5$ | chalcedony | wt | Cylinder |
| 130a:4 | MV 40:4 | Tomb IV | - | $1.6 \times 0.6$ | gypsum | wt | Cylinder with two crosshatched bands |
| 130a:5 | MV 40:5 | Tomb IV | - | $1.0 \times 0.6$ | stone | pur gy | Polygonal cyl., mineral contains glitter |
| 130b | KI 9 | A | -7.75 | $0.7 \times 0.5$ | faience | gy wt | Globe, brittle |
| 130c | KI 47 | C | -6.35 | $2.9 \times 2.3 \times 0.8$ | porphyry | lt gy wt | Flat rounded rectangle, oblong perf. |
| - | KI 53 | D | -5.60 | $2.6 \times 2.1$ | diorite | gy grn | Irregular cylinder |
| 130d | KI 56 | E | -4.35 | $1.4 \times 1.2$ | stone | gy bands | Rounded rectangle |
| 130e | KI 57 | F | -4.10 | $3.2 \times 1.2 \times 0.6$ | limestone | wt | Spacer type, two connected tubes, one with herringbone pattern, other with wavy lines |
| 130f | KI 66 | G | -3.60 | $2.2 \times 1.3$ | carnelian | rbrn | Date-shaped, transverse perforation |
| 130 g | KI 70 | G | -5.05 | $2.1 \times 0.3$ | shell | - | Disc |
| 130h | KI 71 | G | -5.05 | $1.0 \times 0.7$ | glass | dk bl | Pear-shaped |
| 130i | KI 87 | J | -3.90 | $1.1 \times 0.7$ | lapis lazuli | bl | Bicone, polished |
| 130j | KI 91 | J | -5.05 | $1.4 \times 1.2$ | bone | - | Cylinder |
| 24A.2. MIDDLE BRONZE AGE BEADS |  |  |  |  |  |  |  |
| cf. 130d | CS 484 | H5 | -4.05 | $1.5 \times 1.1$ | clay | gy bm | Rounded rectangle |
| cf. 130i | CS 322 | J7, x6 | -4.40 | $0.7 \times 0.6$ | camelian | brn r | Bicone |
| 130k:1 | KII 220:1 | D, x 2 | -4.95 | $0.8 \times 0.4$ | carnelian | $b$ m r | Ring |
| 130k:2 | KII 220:2 | D, x 2 | -4.95 | $0.8 \times 0.3$ | carnelian | brn r | Ring |
| 130k:3 | KII 220:3 | D, x 2 | -4.95 | $0.4 \times 0.4$ | silver | - | Small globe |
| 130k:4 | KII 220:4 | D, x 2 | -4.95 | $0.4 \times 0.4$ | silver | - | Small globe |
| 130k:5 | KII 220:5 | D, x 2 | -4.95 | $0.4 \times 0.4$ | silver | - | Small globe |
| 1301:1 | KII 264:1 | D, x 2 | -4.95 | $0.6 \times 0.6$ | carnelian | - | Globe |
| 1301:2 | KII 264:2 | D, x2 | -4.95 | $0.6 \times 0.5$ | carnelian | - | Globe |

Catalog 24. Bronze Age Beads, Stamp Seals, and Cylinder Seals (cont.)

| Plate | Site and <br> obj. no. | Tomb or <br> plot, burial | Elevation | Dimensions <br> in cm | Material | Color |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

24A. EARLY AND MIDDLE BRONZE AGE BEADS (cont.)
24A.2. MIDDLE BRONZE AGE BEADS (cont.)

| 130m:1 | KII 285:1 | D, $\times 4$ | -5.45 | $0.4 \times 0.4$ | silver | - | Small globe |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 130m:2 | KII 285:2 | D, x 4 | -5.45 | $0.4 \times 0.4$ | silver | - | Small globe (18 other exx.) |
| 130n:1 | KII 286:1 | D, x 4 | -5.45 | $1.2 \times 0.2$ | camelian | - | Cylinder |
| cf. 130n:1 | CS 72 | M7 | -8.30 | $0.7 \times 0.6$ | lapis lazuli | bl | Cylinder |
| cf. 130n:1 | CS 383 | 17 | -2.95 | $1.0 \times 0.6$ | stone | pi wt | Cylinder |
| cf. 130n:1 | CS 416:2 | 17 | -4.05 | $0.6 \times 0.2$ | camelian | brn r | Cylinder |
| cf. 130n:1 | CS 423 | 17 | -4.05 | $1.1 \times 0.9$ | carnelian | brn r | Cylinder |
| cf. 130n:1 | CS 431 | 17 | -4.15 | $1.9 \times 0.8$ | faience | gy wt | Cylinder, slightly tapered |
| cf. 130n:1 | CS 448 | H11, x1(?) | -11.05 | - | camelian | brn r | Thirteen cyls. and one globe |
| cf. 130n:1 | KII 306 | E | -4.65 | $1.0 \times 0.5$ | carnelian | brn r | Cylinder |
| 130n:2 | KII 286:2 | D, x 4 | -5.45 | $0.6 \times 0.6$ | camelian | - | Cylinder |
| 130n:3 | KII 286:3 | D, x 4 | -5.45 | $0.8 \times 0.4$ | carnelian | - | Cylinder |
| 130n:4 | KII 286:4 | D, x 4 | -5.45 | $0.4 \times 0.4$ | chalcedony | - | Cylinder |
| 1300:1 | KII 310:1 | E, x 1 | -4.25 | $1.4 \times 0.8$ | chalcedony | - | Long polygonal cylinder |
| 1300:2 | KII 310:2 | E, x 1 | -4.25 | $1.2 \times 0.8$ | carnelian | - | Ovoid |
| cf. 1300:2 | KII 227 | D, x2 | -4.95 | $1.2 \times 0.8$ | camelian | brn r | Ovoid, chipped |
| 1300:3 | KII 310:3 | E, x 1 | -4.25 | $1.2 \times 0.3$ | bronze | - | Ring |
| 1300:4 | KII 310:4 | E, x 1 | -4.25 | $0.8 \times 0.7$ | carnelian | - | Ovoid cylinder |
| 1300:5 | KII 310:5 | E, x 1 | -4.25 | $0.9 \times 0.5$ | carnelian | - | Short polygonal cylinder |
| 1300:6 | KII 310:6 | E, x 1 | -4.25 | $0.7 \times 0.4$ | carnelian | - | Ring |
| 1300:7 | KII 310:7 | E, x 1 | -4.25 | $0.8 \times 0.8$ | carnelian | - | Ring |
| 1300:8 | KII 310:8 | E, x 1 | -4.25 | $1.1 \times 1.0$ | carnelian | - | Ring |
| 1300:9 | KII 310:9 | E, x 1 | -4.25 | $0.8 \times 0.8$ | carnelian | - | Polygonal-shaped ring |
| 1300:10 | KII 310:10 | E, x 1 | -4.25 | $0.7 \times 0.5$ | faience | - | Globe |
| cf. 1300:10 | CS 25 | N7, x1 | -9.45 | $1.2 \times 1.0$ | carnelian | brn r | Globe |
| cf. 1300:10 | KII 359 | 1 | -4.25 | $0.7 \times 0.7$ | camelian | brn r | Globe |
| 1300:11 | KII 310:11 | E, x 1 | -4.25 | $0.5 \times 0.3$ | shell | - | Short cylinder, double perf. |
| - | KII 310:12-14 | E, xl | -4.25 | - | carnelian | - | Various shapes ( 3 exx.) |
| 130p | KII 190 | C | -4.15 | $2.0 \times 0.3$ | shell | cr | Ring |
| 130q | CS 69 | M7 | -8.25 | $3.0 \times 0.8$ | alabaster | tan | Long tube |
| cf. 130q | CS 264 | K7, x1 | -7.70 | $1.8 \times 0.8$ | alabaster | $y \tan$ | Tube |


| 130r:1 | CS 354:1 | J7, $\times 7$ | -6.80 | $0.4 \times 0.2$ | limestone | wt | Disc |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $130 \mathrm{r}: 2$ | CS 354:2 | J7, x7 | -6.80 | $0.3 \times 0.3$ | limestone | wt | Short cylinder |
| 130 s | CS 599 | F7, x 1 | -2.35 | $1.2 \times 0.7$ | stone | pur r/gy | Cylinder |
| 130t | KII 297 | D, x6 | -5.90 | $8.7 \times 1.1$ | carnelian | brnr | Long tube, slightly concave, threaded(?) with bronze |
| 130u | CS 395 | 17 | -3.75 | $2.8 \times 2.5 \times 0.6$ | chalcedony | It brn | Flat oval, oblong perf., transparent |
| - | CS 416:1 | 17 | -4.05 | $1.8 \times 0.7$ | carnelian | brnr | Tube |
| Plate | Site and obj. no. | Plot | Elevation | Dimensions in cm | Material | Condition | Design |

24B. MIDDLE BRONZE AGE STAMP SEALS OR IMPRESSIONS

| 131:xi | CS 218 | K7 | -5.25 | $3.2 \times 3.4 \times 3.4$ | baked clay | three holes <br> in base | Four lines crossing four others; line <br> border |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 131:xii | CS 426 | I7 | -3.80 | $5.0 \times 3.7 \times 3.6$ | baked clay | broken | Three squares with diagonals; ladder <br> border |
| Plate | Site and <br> obj. no. | Area | Elevation <br> or level | Dimensions <br> in cm | Material | Condition | Design |

24C. BRONZE AGE CYLINDER SEALS
24C.1. PROTO-ELAMITE

| 132:7 | CS 379 | - | -2.95 | $2.3+\times 0.9 \times 0.9$ | chlorite | worn | Horizontally hatched oblique bands with <br> hourglass shapes in the interstices; <br> double-line borders |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 132:8 | Sor 1177 | $1 / 3$ | 3A | $3.3+\times 1.9 \times 1.9$ | chalk | bottom <br> broken | Bird of prey and bull above goat with <br> doubly curved horns and goat with singly <br> curved horns; terminal: two-stepped |

Catalog 24. Bronze Age Beads, Stamp Seals, and Cylinder Seals (cont.)

| Plate | Site and <br> obj. no. | Area | Elevation <br> or level | Dimensions <br> in cm | Material | Condition Design |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

24C. BRONZE AGE CYLINDER SEALS (cont.)
24C.2. EARLY DYNASTIC

| $132: 9$ | Sor 1294 | $7 S$ | 2B |
| :--- | :--- | :--- | :--- |
| $132: 10$ | KII 328 | F | -5.45 |

132:11 KII 333 F -5.00

24C.3. AKKAD PERIOD

| $132: 12$ | Sor 36 | 1 | 1 | $6.2 \times 1.6 \times 1.6$ | serpentine | - | Two lions attacking two goats held by <br> kilted hero; terminal: moon above mace |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $132: 13$ | Sor 165 | 7 N | 2B | $2.6 \times 1.6 \times 1.6$ | serpentine | worn | Two lions attacking two quadrupeds <br> held by hero |
| $132: 14$ | Sor 696 | 4 | 2B-A | $2.9 \times 1.2 \times 1.2$ | black stone | - | Two kilted heroes grasping heads and tails <br> of two lions that are attacking two crossed <br> bulls; mace in field; terminal: star above <br> line |
| $132: 15$ | Sor 1124 | $13(?)$ | 1 | $2.8 \times 1.5 \times 1.5$ | ivory | - | Two gods grasping crown of disarmed god <br> and threatening him with mace; two more <br> gods fighting over second mace |
| $132: 16$ | Sor 1699 | (?) | 3A-1 | $2.0 \times 1.1 \times 1.1$ | limestone | - | Eagle clutching hindquarters of two <br> standing goats; moon in sky |
| $132: 17$ | Sor 69 | 7 N | 1 | $2.8 \times 1.3 \times 1.3$ | limestone | - | Eagle clutching hind-quarters of two |
| kneeling quadrupeds; moon in sky |  |  |  |  |  |  |  |


| $2.4 \times 1.0 \times 1.0$ | bitumen | - | Two goats, one reversed; lentoid fillers |
| :--- | :--- | :--- | :--- |
| $2.5 \times 1.3 \times 1.3$ | faience | - | Shaggy-haired man with raised arms <br> between two shaggy, long-legged <br> quadrupeds, one of them two-headed |
| $1.6+\times 2.2 \times 2.2$ | clay | - | Ring-headed man(?) flanked by horned <br> animals(?); hollow lentoid, globe in sky; <br> line border |
| $6.2 \times 1.6 \times 1.6$ | serpentine | - | Two lions attacking two goats held by <br> kilted hero; terminal: moon above mace |
| $2.6 \times 1.6 \times 1.6$ | serpentine | worn | Two lions attacking two quadrupeds <br> held by hero |
| $2.9 \times 1.2 \times 1.2$ | black stone | - | Two kilted heroes grasping heads and tails <br> of two lions that are attacking two crossed <br> bulls; mace in field; terminal: star above <br> line |
| $2.0 \times 1.1 \times 1.1$ | ivory | - | Two gods grasping crown of disarmed god <br> and threatening him with mace; two more <br> gods fighting over second mace |
| $2.8 \times 1.3 \times 1.3$ | limestone | - | Eagle ciutching hindquarters of two <br> standing goats; moon in sky |


| 132:18 | Sor 108 | 1 | 2A(?) | $2.6 \times 1.6 \times 1.6$ | green stone | - | Upended bull being attacked by lion; lion attacking upended bull; terminal line |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 132:19 | Sor 589 | 19, 21 | 1 | $2.6 \times 1.4 \times 1.4$ | serpentine | worn | Enthroned deity, quadruped in combat with bull-man |
| 24C.4. OLD BABYLONIAN |  |  |  |  |  |  |  |
| $\begin{aligned} & 133: 20 \\ & \text { and } 257 \mathrm{c} \end{aligned}$ | Sor 786 | 1 N | 1 | $2.2 \times 1.3 \times 1.3$ | hematite | - | Suppliant goddess and worshiper before king or god, enthroned on stool, holding goblet; sun within moon in sky; inscription ${ }^{1}$ |
| $\begin{aligned} & 133: 21 \\ & \text { and } 257 \mathrm{~d} \end{aligned}$ | Sor 1272 | 3-4 | 2B-A | $1.6+\times 1.1 \times 1.1$ | hematite | broken, break grd smooth | God with mace approaching suppliant goddess; inscription ${ }^{1}$ |
| $\begin{aligned} & 133: 22 \\ & \text { and 259a } \end{aligned}$ | Sor 1691 | 9/11 | 3A | $2.0 \times 1.0 \times 1.0$ | hematite | - | God with mace approaching suppliant goddess; two fish; inscription ${ }^{1}$ |
| 133:23 | Sor 1216 | 3 | 3A-2A | $2.5 \times 1.3 \times 1.3$ | serpentine | worn, horizontal scratches | Suppliant goddess and god with mace approaching god who is lowering hand, possibly holding saw |
| 133:24 | Sor 1311 | $9 / 11$ | 3A | $1.6+\times 1.2 \times 1.2$ | hematite | broken, break grd | Worshiper holding kid being touched by god, scratches over effaced inscription |
| 133:25 | Sor 1019 | 1 | 2B | $3.0 \times 1.4 \times 1.4$ | hematite | - | God with crook on dais being approached by worshiper and priest with pail and sprinkler on dais; moon and lightning in field; three uninscribed columns |
| $\begin{aligned} & 133: 26 \\ & \text { and } 256 a \end{aligned}$ | Sor 170 | 4 | 2B | $3.2 \times 1.7 \times 1.7$ | rock crystal | - | God reaching toward two crooks on back of gazelle being approached by worshiper; inscription ${ }^{1}$ |
| 133:27 | Sor 1668 | 1/9/11 | 3(?) | $2.4 \times 1.0 \times 1.0$ | hematite | - | Bull-man extending hand toward enthroned god below seven-rayed(?) star; worshiper extending hand toward sun god who is standing in ascending posture and holding saw; stars in field |

Catalog 24. Bronze Age Beads, Stamp Seals, and Cylinder Seals (cont.)

| Plate | Site and obj. no. | Area | Elevation or level | Dimensions in cm | Material | Condition | Design |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24C. BRONZE AGE CYLINDER SEALS (cont.) |  |  |  |  |  |  |  |
| 24C.4. OLD BABYLONIAN (cont.) |  |  |  |  |  |  |  |
| $\begin{aligned} & 133: 28 \\ & \text { and } 256 a \end{aligned}$ | Sor 151 | 4 | 2B | $1.5 \times 0.8 \times 0.8$ | carnelian | - | Suppliant goddess, inscription ${ }^{1}$ |
| 24C.5. LATE OLD ASSYRIAN |  |  |  |  |  |  |  |
| 133:29 | Sor 1102 | 1-11 | 1 | $2.4 \times 1.2 \times 1.2$ | hematite | - | Suppliant goddess and worshiper approaching sun god who is standing in ascending posture and holding saw; ball staff and bird in field |
| 24C.6. EARLY MIDDLE ELAMITE |  |  |  |  |  |  |  |
| 134:30 | Sor 1495 | 2/12 | 2C | $2.2 \times 0.9 \times 0.9$ | hematite | chipped | Naked priest offering kid to god who is standing in ascending posture; worshiper offering kid to sun god with saw on throne; globes in field |
| 134:31 | Sor 1528 | 1 | 3A-2A | $1.7 \times 0.7 \times 0.7$ | lap la (prism, triangular) | split | Bearded god facing naked woman; rampant quadruped in section between them |
| 134:32 | Sor 1317 | 9W | 1 | $2.5 \times 1.1 \times 1.1$ | gin comp. | - | Worshiper offering kid to god with rod and ring on animal-headed throne; lion pursuing goat above line; below it sun god with saw facing worshiper over fly, bird, fish, and mongoose around them; line borders |
| 134:33 | Sor 644 <br> inscriptions | $\begin{array}{r} 1-2 \\ \text { hapter } \end{array}$ | 2 C | $2.0 \times 0.9 \times 0.9$ | hematite | - | Enthroned deity with male being approached by worshiper with kid; naked female being approached by worshiper; globes in field |


| 134:34 and 257 e | Sor 1428 | 1/3 | 2B | $3.8 \times 1.7 \times 1.7$ | chalcedony | chipped | Female worshiper and goddess with jar from which water is flowing into lower jar, approaching water god enthroned on goatfish, who is extending ring; sun within moon in sky; inscription ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24C.8. MITANNIAN |  |  |  |  |  |  |  |
| 134:35 | Sor 1085 | 3 | 3A-2A | $2.3 \times 0.8 \times 0.8$ | faience | - | Enthroned deity holding star-topped emblem; gazelle above line; line borders |
| 134:36 | Sor 622 | 1-2 | 2C | $1.9 \times 0.9 \times 0.9$ | faience | - | Sun, with double diagonal and horizontal rays, flanked by gazelles looking back; double ground line with crosshatching below; line borders |
| 134:37 | Sor 195 | 1 | 2A(?) | $2.8 \times 1.2 \times 1.2$ | faience | - | Bouquet tree held by one, or probably two, capped and kilted heros; quadruped lying above guilloche, three birds sitting below |
| 24C.9. MIDDLE ASSYRIAN |  |  |  |  |  |  |  |
| 134:38 | Sor 528 | 4 | 2B | $2.7 \times 1.1 \times 1.1$ | chalcedony | - | Helmeted and kilted hero holding two goats by hindleg; sun and moon in sky |
| 134:39 | Sor 1025 | 1 | 3A-1 | $2.6 \times 1.5 \times 1.5$ | faience | bottom broken | Ibex browsing on tree; flying bird; line border |
| 134:40 | Sor 1427 | 1/3 | 2 B | $3.7 \times 1.2 \times 1.2$ | faience | - | Tree; stag being aimed at by archer; X-shaped bird(?) between them; triangular borders within line borders |

${ }^{1}$ For inscriptions, see chapter 33.

## CHAPTER 25

# IRON AGE POTTERY AND BAKED CLAY OBJECTS 

by Hans H. Curvers

## INTRODUCTION

Considerable attention has been devoted in the last decades to the study of the Iron Age in Iranian archaeology. Archaeologists today share the view that the abrupt changes in material culture on the Iranian Plateau around 1350 B.c. were brought about by invading Iranian tribes; the painted pottery tradition was suddenly interrupted by a gray-black burnished ware. The end result of T. C. Young's investigations (1965) was proof that the Iranians had migrated from northeastern Iran to the west, to the Zagros region. Some Soviet archaeologists, however, are sceptical about the hypothesis that the gray-black burnished ware, occurring at the end of the second millennium B.c., belonged to Iranian tribes.

Kramer (1977) pointed out, by using the example of the Khabur ware attributed to the Hurrians, that the spread of artifacts is caused by a complex social, economic, and political interaction. Attribution to a certain ethnic group would be a simplification of the archaeological data. ${ }^{1}$

Medvedskaya (1982) tried to show that there is a continuity from the Bronze Age into Iron Age I in the development of the cultures with particular reference to the old tradition of producing spouted vessels in Iran. The claim of an abrupt change in burial rites also is not substantiated by the available evidence. Medvedskaya's study of weapons shows a different development in the two Zagros regions north and south of the line Baghdad-Hamadan.

With regard to the northern Zagros, however, one cannot deny a similarity in the assemblages of Iron I and the Gurgan Gray Ware Culture, and an abrupt change from painted light ware to gray-black ware (Hasanlu VI-V, Dinkha IV-III). There is at both sites a definite break, a hiatus, after the termination of the last Bronze Age settlement. This northern Zagros region was influenced by a culture linked to the earlier Gurgan Gray Ware Culture (Tepe Hissar, Shah Tepe, and Tureng Tepe). Recent excavations in Luristan have caused some doubt about a general shift in Western Iran in the Iron I period. Dyson (1968) and Meade (1968:127) stated that the remoter river valleys in Luristan may well have escaped these 'new influences'. They suggested a more complex development and a further continuation of preceding cultural traditions. Publication of the material excavated by Erich Schmidt in Luristan, and full publication of the Danish excavations of Tepe Guran, and of Canadian excavations at Godin Tepe, together with publications of the cemeteries found in southwestern Luristan by Louis Vanden Berghe, will afford more details about the developments in Iron Age Luristan.

According to the generally accepted criteria we have tried to date the Iron Age pottery found at Chigha Sabz in two burials (L7, x1 and x2), in two hoards in plots J7 and I7, and in the upper levels of H6, H7, and H11. At Surkh Dum-i-Luri Iron Age pottery was found in the sanctuary.

[^35]
## 25A.1. IRON AGE I POTTERY VESSELS

## 25A.1.1-25A.1.4 (see catalog)

The pottery assigned to Iron I was retrieved from two burials at Chigha Sabz (L7, x1 and x 2 ). Schmidt's object catalog contains detailed data on surface, paste, and paint color. Data on manufacture and temper were added during a further examination of the pottery present in the University Museum (Philadelphia) and the Oriental Institute (Chicago).

On the basis of surface color the pottery can be divided into light brown or light gray brown wares, which we call buff wares (6) and gray or gray brown wares, which we call gray brown wares (3). The paint color of the decorative patterns is dark brown, with two exceptions: CS 166 (25A.1.4) is decorated with gray bands and CS 167 (25A.1.4, pl. 135d) is painted with light brown bands above and dark brown bands below. Burial x1 contained only painted vessels. Burial $\times 2$, belonging to the same level contained one unpainted vessel (CS 191, 25A.1.1, pl. 135e), which was made by hand. In the catalog the codes in table 21 are used for the description of the painted decorative patterns.

The characteristics defined by Young (1965) for Hasanlu V ceramics were based on the distinctions in the quality of the paste. Coarse, common, and fine wares were distinguished. In all three wares there was a plain buff, blackened, and red-slipped variety. Almost all fine ware was gray in color. According to Young one can use the following criteria for dating Iron I pottery: a mixture of plain gray and buff ware and a limited quantity of painted ware. Three rather distinctive vessel shapes are the markers of the Iron I assemblage: simple cups with handles, jars with free standing pouring spouts, and pedestal-based goblets. According to Muscarella (1974a) there was a basic group of vessels identifying the culture at Hasanlu and Dinkha Tepe. The characteristic ceramic objects of Dinkha III are the bridgeless spouted pouring vessel, never with handle, the pedestal-based goblet with a vertical loop handle, and a flaring-sided bowl with or without a crescent-shaped plastic decoration on the interior surface, sometimes with holes for suspension (the 'worm' bowl). Another characteristic is the absence of iron objects in the burials of the Iron I period.

Using the criteria noted above for the Chigha Sabz pottery, one directly notices the general occurrence of painted wares. The use of bridgeless spouted vessels, although different in shape, can in some way be seen as a link to the northern Zagros regions. The shape of the vessel and the type of spout cannot be called an ethnic feature. Rather it is evidence that the production of such a vessel was subordinate to the local ceramic tradition, which in this part of Luristan still had many links to the Late Bronze Age. In this tradition, painted decoration was still a common feature in the production of ceramics. Pedestal-based goblets and 'worm' bowls do not occur in the Chigha Sabz burials. Thus, only on the basis of the occurrence of pouring vessels with bridgeless spout and the absence of iron objects in the two burials, we have assigned this group of pottery to Iron I. If one applies the criteria for Iron I and II in southwestern Luristan (Vanden Berghe 1973a: 54-55), there are no real parallels, except for the occurrence of a 'théière', that may be another local adaptation similar to the spouted vessel. A parallel for the type of spout used on the Chigha Sabz spouted vessels might be seen in a bronze spouted bowl, found in burial 8 at Godin Tepe, dated to Iron I (Young 1969, fig. 25:10). The most useful criterion appears to be the absence of iron objects in the Iron I burials.

The pottery found in level 3B in the sanctuary at Surkh Dum-i-Luri has been assigned to the Late Bronze Age and is discussed in chapter 20. If we assume the absence of a clear break in the tradition of manufacturing painted pottery, this pottery can be dated to either the Late Bronze Age or Iron I.

## 25A.2. IRON AGE II POTTERY VESSELS

## 25A.2.1-25A.2.9 (see catalog)

The pottery assigned to Iron II was found in the smaller soundings made during the Second Holmes Expedition. Chapter 10 describes a number of these minor soundings. The
soundings that yielded Iron II pottery were made at Khatun Ban, Shaffe, Chujale, Qumish, Cham-Asiyan, and Siyah-Gur.

At Khatun Ban the pottery was retrieved from eight burials. The burials contained bronze and iron objects. At Shaffe B the pottery was retrieved from two jar burials and a cist burial. Sherds are recorded from soundings at sites A, B, and C. At Chujale one burial yielded Iron II pottery. At Cham-Asiyan, in a room enclosed by stone walls, Iron II pottery was found; sherds also are recorded from the trench further down slope.

Schmidt's object catalog contains detailed data on surface, paste, and paint color. Data on manufacture and temper were added during a further examination of the pottery present in the University Museum (Philadelphia) and the Oriental Institute (Chicago). There seems to be an increase in the manufacture of handmade vessels. On the basis of surface color the pottery can be divided into light or yellow brown wares, which we call buff wares (12); light gray and gray brown wares, which we call gray brown wares (4); and red brown wares, which we call red wares (2). The paint color of the few decorative patterns is red brown. The occurrence of burnished pottery is limited; only one burnished vessel is recorded in the catalog (Sha 34, pls. 135 r and 139f). Also one glazed sherd is recorded from Shaffe C (Sha 41).

The criteria on which we based our Iron II date for this group of pottery are a few parallels with the ceramics retrieved from the cemeteries in southwestern Luristan and ceramics found at Tepe Giyan. The occurrence of bronze objects together with iron objects also points toward an Iron II date. In the catalog the codes in table 21 are used for the description of the painted decorative patterns.

## 25A.2.10-25A.2.11 (see catalog)

One reconstructible vessel fragment and a considerable number of sherds were retrieved from contexts which can be dated to Iron II (-III). At Cham-Asiyan a fragmentary funnel (ChAs 4, pl. 136a) was found in the 'upslope room'. A globular cooking pot (ChAs 2, pl. 135p), a jar with oval body, flaring rim, and six thumb-impressed ridges, and several sherds were also retrieved from this room. We suggest an Iron II date for these vessels and the funnel.

## 25A.3. IRON AGE III POTTERY VESSELS

## 25A.3.1-25A.3.13 (see catalog)

The pottery assigned to Iron III was found at Kamtarlan I, Chigha Sabz, and Surkh Dum-i-Luri. At Kamtarlan I Iron III pottery was found in level 1 of plots L-P, running from the top downslope in a southern direction. The presence of doorsockets, ovens, and walls also suggests an Iron III settlement. At Chigha Sabz Iron III pottery was found in two hoards in plots J , I7; in plots H6, H7, and H11 pottery was in context with a dagger (CS 479, 21B.1.3, pl. 120e) and iron fragments in a campsite. At Surkh Dum-i-Luri the pottery was found in levels 2B-A and 1 of the sanctuary. It looks as if sherds were only occasionally collected during the excavations at Surkh Dum-i-Luri. The sanctuary itself probably did not contain very much pottery. ${ }^{2}$ In the sanctuary most of the sherds found and kept are worn and were deposited into level 2 from earlier levels through erosion of the mudbrick walls. Only in level 3B were complete vessels found (cf. ch. 20A.3, Giyan II-Related Late Bronze Age Pottery). It is difficult to divide the available material into Iron III wares and extrusive wares. Most of the sherds are entirely undiagnostic and/or too small to draw. The slightly more diagnostic sherds can be divided into the following groups: carinated bowls, bowls with horizontally pierced lugs, cups with similar lugs or handle, and jars with ridged neck and beveled rim. Some shapes are reconstructable and are illustrated in the catalog (25A.3.13). Other sherds illustrated are a spout and some sherds with painted dotted circles, and similar circles between triangles left by a zigzag between parallel lines. Schmidt's object catalog

[^36]contains detailed data on surface, paste, and paint color. The sherds of the sanctuary have been drawn and registered by Harold Wolff. The Kamtarlan I vessels can be divided into the same groups as the Iron II pottery: buff wares, gray brown wares, and red wares. The ware of the Surkh Dum-i-Luri sherds varies from yellow buff through pink buff and green to gray. Except for Sor 1832:22 (fine yellow ware) the paste is medium to coarse. The illustrated sherds must not be considered as representative for the pottery as a whole at Surkh Dum-i-Luri.

## 25A.3.14. Bull-Shaped Vessels

Fragments of bull-shaped vessels with wheelmade cylindrical bodies indicate the presence of Iron III sherds in levels 2B-A and 1 of the sanctuary. These bull-shaped vessels are similar to vessels retrieved from burials at Djub-i-Gauhar and War Kabud (Vanden Berghe 1967 and 1968a, pl. 26a, b). At Choga Zanbil similar vessels were excavated in the east complex (Ghirshman 1968:22). At both sites they were found in contexts dated to the early Iron III period. ${ }^{3}$ By now, these bull-shaped vessels are found in three different contexts: burials, sanctuaries, and hoards. These vessels may have had a certain ritual function in the burial practices and the cult in the sanctuaries. The War Kabud and Djub-i-Gauhar vessels do have a handle on the back, a funnel-like filling hole, and a pouring hole at the snout. At Choga Zanbil all the bull figurines have open legs and a hole in the rear part, the bodies were filled with cylindrical pipes. According to Ghirshman, they belong to the furniture of the IM and Shala temples. In Luristan they probably represent an animal that played a part in the burial sacrifices. In Marlik bull-shaped vessels also were retrieved from burials (Negahban 1964, fig. 20, pl. 14). They are made in a less naturalistic style than the Luristan vessels. The Luristan vessels are very naturalistic: eyes, horns, dewlap, and sometimes genitals are present. The place of the pouring hole is the most remarkable difference between the vessels found at Chigha Sabz and the vessels retrieved from the burials at War Kabud and Djub-i-Gauhar.

The lying bulls found at Chigha Sabz are comparable to the four 'frit' lying bulls found in the eastern complex at Choga Zanbil (Ghirshman 1968:22, pl. 72). The idea of lying and the legs folded under the body is similar; the neck and the head are different, and more realistic on the Chigha Sabz vessels. The lying bull vessels found at Chigha Sabz have a filling hole at the rear part of the back which probably also served as the pouring hole. The lying bulls of Choga Zanbil had a different function.

The wheeled (?) bull-shaped vessel can be compared to the wheeled bull retrieved from a burial at Marlik (Negahban 1964, figs 94 and 95).

The way of sampling the sherds at Surkh Dum-i-Luri and the archaeological contexts at Kamtarlan I and at Chigha Sabz make it difficult to make comparisons with other Iron III excavations in western Iran. The different character of our sites and, possibly, the incomplete ceramic sample that we have may account for the absence of fine wares. At Chigha Sabz a potter's wheel was found that has been assigned to the Iron Age, although from an ambiguous context (cf. CS 628, ch. 29B.1, pl. 214d).

Finally, we have to mention some discarded pottery sherds recorded in the day notes of the excavator. They are described as "jar with offset shoulder, found in room 14 (level 2A); large brown jar with rope bands, found in room 1 west (level 2C); and jar found in room 4 (level 2c)."

25B. IRON AGE BAKED CLAY OBJECTS
(pls. 142-147)
INTRODUCTION
The baked clay objects should be divided into three chronological periods. These objects, however, do not warrant a clear chronological division on the basis of their context. Therefore, the baked clay objects are listed in the catalog in the following classes:

[^37]25B. 1 CLAY MISSILE
25B. 2 WHORLS
25B. 3 LOOMWEIGHTS
25B. 4 MODEL WHEELS
25B. 5 ANIMAL FIGURINES
25B. 6 WALL NAIL
25B. 7 ADZE
25B. 8 HUMAN FIGURINES
25B. 9 MISCELLANEOUS

## 25B.1. CLAY MISSILE

An unbaked ovoid (ChJal 7) was found near an Iron II burial at Chujale. This might be a clay missile, which can be assigned to any chronological period.

## 25B.2. WHORLS

Whorls were found at Chigha Sabz, Kamtarlan I, and Surkh Dum-i-Luri. The whorls are all of the plano-convex type. There is only one whorl (KI 94, pl. 142a) that is decorated; it shows the same decoration as some stone buttons at other Iron III sites in that small rings are stamped on the sides.

## 25B.3. LOOMWEIGHTS

The loomweights were all found at Kamtarlan I. They are large, crude, and slightly baked rings (pl. 142b, d).

## 25B.4. MODEL WHEELS

The model wheels were found without other parts of chariot models. They may have been used for the wheeled bulls (CS 434, pl. 141b), although there were no model wheels found at Chigha Sabz. One of the wheels is painted with concentric circles around the hubs (Sor 190, pl. 142f); the other is plain (KI 122, pl. 142e).

## 25B.5. ANIMAL FIGURINES

The animal figurines are difficult to identify; there are some sheep, bulls, and a bird. They all may belong to effigy vessels, or have been attached to vessels as lugs or spouts. They are decorated either with painted designs or with incisions (pls. 142g, h, 143a-e, and145a-c).

## 25B.6. WALL NAIL

The effigy wall nail (CS 472, pl. 145d) was found in one of the hoards at Chigha Sabz. This type of object is normally found in the remains of monumental architecture. At Hasanlu a human-headed bull wall nail was found and dated to the 9th century b.c. (Porada 1965a:116, pl. 30). The Chigha Sabz bull wall nail is similar to a nail found at Susa and dated to the late 7th century b.c. (Amiet 1967:32-3, fig. 3, pl. 5:1, 2; Amiet 1973b:25).

## 25B.7. ADZE

The clay adze (CS 477, pl. 145e) was found at Chigha Sabz. We only can conjecture about its function.

## 25B.8. HUMAN FIGURINES

Human figurines were found at Chigha Sabz, Kamtarlan I, and Surkh Dum-i-Luri. The human figurines in this group show a great variety of styles. There is a fragment of a mold-pressed standing nude female (KI 513, pl. 145f) from Kamtarlan I. In a Chigha Sabz hoard two human effigy vessels (CS 399 and 401, pls. 145g, h and 147a, b) were found, which are similar to a figurine found at Susa in level 1 of the 'Village Perse-Achemenide' (Ghirshman 1954, pl. 15:1, 2 and pl. 42:GS 862). The head fragments of some human figurines found at Surkh Dum-i-Luri show a typical hairdress or hat: a turban around the head or discoid feature that is protruding above the forehead, as can be seen also on some bronze figurines (see 27D.17, pl. 182b-e). In Elam the latter are common features on human figurines (Amiet 1966:326, 364-65). A cylinder seal from Susa represents three persons with protruding hairdress or hat, and a similar knob at the back of the head (cf. Sor 458, pl. 146a; Amiet 1966, fig. 414). For a baked clay statuette of a man with belt and raised arms there are some parallels at Marlik (Negahban 1964, fig. 94 and cover plate). There is also a bronze statuette from Luristan with an inscription which mentions that the statuette represents a god (Ghirshman 1963, fig. 68).

## 25B.9. MISCELLANEOUS

Six objects found at Kamtarlan I, Surkh Dum-i-Luri, and Chigha Sabz have been included in this group of baked clay objects. A mortar-shaped object with knob at one side (KI $111, \mathrm{pl} .144 \mathrm{c}$ ), a baked clay fragment which may represent the remains of an animal figurine with combined hind legs (KI 514, pl. 144b), and a disc with grooved edge which we designate a gaming piece (Sor 109, pl. 144d), a model phallus (Sor 451, pl. 144e), a mouth portion of a statuette (CS 457, pl. 144f), and a zoomorphic bird(?) fragment (CS 447, pl. 144 g ).

## CONCLUSIONS

The baked clay objects found at Chigha Sabz, Kamtarlan I, and Surkh Dum-i-Luri show great similarity with the baked clay objects found at Susa and Choga Zanbil. More particularly, the hoards found at Chigha Sabz point to close links with Elamite culture. These objects suggest a continuity of religious practices throughout much of the second millennium B.C. into the Iron Age. From the evidence of the Bronze Age baked clay objects we have assumed that there was Elamite influence on the religious practices in Luristan. The Iron Age baked clay objects reveal even greater links with Elamite culture (Carter and Stolper 1984:167).

CATALOG 25. IRON AGE POTTERY AND BAKED CLAY OBJECTS

| Plate | Site and <br> obj. no. | PlotI <br> burial | Elev. <br> orlevel | Dimensions <br> in cm | Mfg | Surface <br> color | Paste <br> color | Paint <br> color | Decorative <br> patterns | Reference or <br> comments |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

25A. IRON AGE POTTERY

## 25A.1. IRON AGE I POTTERY VESSELS

25A.1.1. Hemispherical Spouted Jars

| 135a | CS 168 | L7, x1 | -8.10 | $10.8 \times 9.0 \times 9.0$ | - | It brn | - | dk brn | A1; ptd spout | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 135b } \\ & \text { and 139a } \end{aligned}$ | CS 170 | L7, x1 | -8.10 | $11.4 \times 9.3 \times 9.3$ | - | - | - | dk bm | A1; ptd spout | $\begin{aligned} & \text { Schmidt 1937, pl. 38: } \\ & \text { H } 5089 \end{aligned}$ | Hissar IIIB |
| cf. 135b | CS 171 | L7; $\times 1$ | -8.10 | $12.2 \times 9.3 \times 9.3$ |  | gy brn | - | dk brn | A1; dot on spout | - | - |
| cf. 135b | CS 173 | L7, x1 | -8.10 | $11.3 \times 10.0 \times 10.0$ | - | gy bm | - | dk bm | Burnish | - | - |
| 25A.1.2. Round Cyma-Profiled Cup |  |  |  |  |  |  |  |  |  |  |  |
| 135e | CS 191 | L7, x 1 | -8.05 | $8.9 \times 9.6 \times 9.6$ | hd | gy | - | - | - | - | - |
| 25A.1.3. Round-Based Globular Jars |  |  |  |  |  |  |  |  |  |  |  |
| 135c | CS 169 | L7, x 1 | -8.10 | $19.9 \times 10.6 \times 10.6$ | - | It bm | - | dk brm | A2-A1-A1 | - | - |
| cf. 135c | CS 172 | L7, x 1 | -8.10 | $26.0 \times 10.0 \times 10.0$ | - | It gy brn | - | dk brn | A1-A2-A1 | - | - |
| 25A.1.4. Ring-Based Globular Jars |  |  |  |  |  |  |  |  |  |  |  |
| 135d | CS 167 | L7, x1 | $-8.10$ | $19.6 \times 5.5 \times 5.5$ | - | gy brn | - | $\mathrm{dk} / \mathrm{lt} \mathrm{bm}$ | A1-A1-A1-A1-A1-A1 | - | - |
| cf. 135d | CS 166 | L7, x 1 | -8.10 | $17.7 \times 6.0 \times 6.0$ | - | It gy brn | - | gy | A1-A1-A1-A1-A1 | - | - |

## 25A.2. IRON AGE II POTTERY VESSELS

25A.2.1. Flat-Based Bowl with Inverted Rim

| $135 f$ <br> and 139b | ChJal 3c | $\begin{aligned} & 0.5 \mathrm{~m} \\ & \mathrm{~W} \text { of } \mathrm{xl} \end{aligned}$ |
| :---: | :---: | :---: |

25A.2.2. Flat-Based Convex Bowl with Lug Handles
135g Kha $38 \quad \mathrm{x} 3 \quad-1.15 \quad 8.2 \times 12.6 \times 12.6 \quad$ hd gy brn -

Catalog 25. Iron Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plot/ burial | Elev. or level | Dimensions in cm | $M f g$ | Surface color | Paste color | Paint color | Decorative patterns | Reference or comments | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 25A. IR | N AGE | TTE | cont.) |  |  |
| 25A.2. IRON AGE II POTTERY VESSELS (cont.) |  |  |  |  |  |  |  |  |  |  |  |
| 25A.2.3. One-Handled Convex Bowl with Spout |  |  |  |  |  |  |  |  |  |  |  |
| 135 h | Kha 58 | x 6 | -0.60 | $9.2 \times 12.6 \times 12.6$ | hd | gy brn | - | - | 'Rivets' | Vanden Berghe 1973a, fig. 26:1 | Iron II |
| 25A.2.4. Flat-Based Globular Jars |  |  |  |  |  |  |  |  |  |  |  |
| 135 i | Kha 71 | x8 | -0.95 | $9.1 \times 6.8 \times 6.8$ | - | y bm | - | - | - | - | - |
| $\begin{aligned} & 135 j \\ & \text { and } 139 \mathrm{c} \end{aligned}$ | ChJal 3a | $\begin{aligned} & 0.5 \mathrm{~m} \\ & \mathrm{~W} \text { of } \mathrm{x} 1 \end{aligned}$ | - |  | hd | It brn | - | - | Hatched pendent triangle | - | - |
| 135k | Kha 66 | x 7 | -0.65 | $8.1 \times 5.5 \times 5.5$ | - | It brn | - | r brn | B9-row of dots | - | - |
| 1350 | Kha 56 | x 5 | -0.75 | $9.5 \times 10.6 \times 10.6$ | - | lt brn | - |  | - | - | - |
| 25A.2.5. Flat-Based Cyma-Profiled Cups |  |  |  |  |  |  |  |  |  |  |  |
| 1351 | Kha 6 | x 1 | -0.95 | $10.4 \times 10.3 \times 10.3$ | - | r brn | - | - | - | Vanden Berghe 1973a, fig. 21:16 Contenau and Ghirshman 1935, pl. 10, tb. 12:2 | Iron II <br> Giyan I, 2 |
| $\text { cf. } 1351$ | $\text { Kha } 50$ | $x 4$ | $-0.85$ | $9.7 \times(?) \times(?)$ | - | $\mathrm{brnsp}$ | buff |  |  | - | - |
| $135 \mathrm{~d}$ | Kha 67 | $x 8$ | -0.70 | $9.8 \times(?) \times(?)$ | - | buff | - | r br n | B10 | - | - |
| 25A.2.6. Flat-Based Cyma-Profiled Cups with Open Spouts |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 135 \mathrm{~m} \\ & \text { and } 139 \mathrm{e} \end{aligned}$ | $\text { Kha } 32$ | x 2 | -1.05 | $10.3 \times 11.1 \times 11.1$ | - | r brn | - | - | - | Vanden Berghe 1973a fig. 21:36 <br> Meade 1968, fig. 10:17 | Iron II <br> Baba Jan VA |
| $\begin{aligned} & 135 n \\ & \text { and 139e } \end{aligned}$ | ChJal 3b | $\begin{aligned} & 0.5 \mathrm{~m} \\ & \text { W of } x 1 \end{aligned}$ | — | $12.4 \times$ (? ) $\times$ (? | hd | lt brn | - | - | - |  | - |
| 25A.2.7. Globular Cooking Pot |  |  |  |  |  |  |  |  |  |  |  |
| 135p | ChAs 2 | A | $\begin{aligned} & \text { upsl } \\ & \mathrm{rm} \end{aligned}$ | $28.2 \times 22.0 \times 22.0$ | hd | gy brn | - | - | - | - | - |

25A.2.8. Flat/Concave-Based Globular Jars with High Necks

| - | ChAs 3 | A | upsl | - | hd(?) | li gy | - | - | Six ridges |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 25A.2.9. Two-Handled Flask

135s Kha $51 \quad \mathrm{x} 4 \quad-0.85 \quad 13.1 \times 12.9 \times 8.3 \quad-\quad \mathrm{ybm} \quad-$

Oblique grooves
Vanden Berghe 1968a, Iron III
pl. 25

25A.2.10. Funnel with Handle
136a ChAs 4 A upsl $12.8+\times 14.9 \times 14.9-\quad$ ybrn -

25A.2.11. Sherds

| - | Chas 1 | A | upsl <br> rm | - | - | It brn | - | - | Handle | - |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Chas 5 | A(NW) | - | - | - | - | - | - | - |  | exx. + ir and st) | - |
| - | ChAs 6 | W | - | - | - | - | - | - | - |  | exx.) |  |
| - | Chas 7 | A (SW) | - | - | - | - | - | - | - |  | exx.) | - |
| - | ChJal 4 | cmiy | - | - | - | - | - | - | - |  | exx.) | - |
| - | Kha 33 | $\times 2$ | - | - | - | - | - | - | - | (? | exx.) | - |
| - | Kha 34 | x 2 | - | - | - | - | - | - | - |  | exx.) | - |
| - | Kha 74 | - | - | - | - | - | - | - | - | (? | exx.) | - |
| - | Mer 6 | cmiy | - | - | - | - | - | - | - |  | exx.) | - |
| - | Qum 12 | A, cmity | - | - | - | - | - | - | - |  | exx.) | - |
| - | Sha 37 | A | - | - | - | - | - | - | - |  | exx.) | - |
| - | Sha 38 | B, x 1 | -0.80 | - | - | - | - | - | - |  | exx.) | - |
| - | Sha 39 | B, x2 | -0.85 | - | - | - | - | - | - |  | exx.) | - |
|  | Sha 40b | B, x3 | - | - | - | - | - | - | - |  | exx.) | - |
| - | Sha 41 | C | - | - | - | - | - | - | - |  | exx., one glazed) | - |
| - | S Gor 2 | cmty | - | - | - | - | - | - | - | (32 | exx.) | - |

## 25A.3. IRON AGE III POTTERY VESSELS

25A.3.1. Round-Based Hemispherical Bowl
$136 \mathrm{KI} 110 \mathrm{M} \quad-1.75 \quad 6.7 \times 12.6 \times 12.6 \quad-\quad$ lt brn -

Catalog 25. Iron Age Pottery and Baked Clay Objects (cont.)


| 136k | KI 140 | p | －3．90 | 7．3＋ | hd | gy | － | － | － | Contenau and <br> Ghirshman 1935， <br> pl．8，tb．2：2 <br> Vanden Berghe 1975b， <br> fig．12：4 | Giyan I， 1 Iron III |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A．3．9．Spouted Crucible |  |  |  |  |  |  |  |  |  |  |  |
| 1361 | KI 121 | N | －2．85 | $6.1 \times 5.3 \times 5.3$ | － | gy | － | － | － | － | － |
| 25A．3．10．Kernos Ring Fragments |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { 136m } \\ & \text { and 140a } \end{aligned}$ | KI 127a－c | 0 | －3．80 | $5+\times 25+$ | hd | y bm | － | rbm | Dots and bands | － | － |
| 25A．3．11．Brazierlike Tubular Vessel |  |  |  |  |  |  |  |  |  |  |  |
| 140b | KI 102 | L | $-2.05$ | $47.7 \times 14.4 \times 14.4$ | hd | ybm | － | － | Perforated wall | － | － |
| 25A．3．12．Cooking Pot |  |  |  |  |  |  |  |  |  |  |  |
| 138h | CS 384 | 17 | －1．90 | $21+\times 19.7 \times 19.7$ | hd | dk gy | － | － | － | － | － |
| 25A．3．13．Sherds |  |  |  |  |  |  |  |  |  |  |  |
| － | CS 471 | H6 | －1．80 | $3.4 \times 1.0$ | － | gy brn | － | － | Disc | － | － |
| － | KI 104 | L | －1．30 | （？）$\times 21.5 \times 21.5$ | wh | 1 lgy bm | － | － | Ridges | － | － |
| － | KI 120 | $N$（pit） | －3．75 | － | wh | － | r bm | － | － | － | － |
| － | Sor 191a | 13 | 1 | $3.0 \times 1.0$ | － | gy brn | － | － | Disc | 二 | － |
| － | Sor 191b | 13 | 1 | $2.5 \times 0.7$ | － | r brim | － | － | Disc | － | 二 |
| － | Sor 1696a | surf． | － | － | 一 | lt brn | － | － | House mdl／rect．streaks | － | 一 |
| － | Sor 1696b | surf． | － | － | － | － | － | － | － | － | － |
| － | Sor 385a | 2 | 2C－A | － | － | r brn sp | buff | － | － | － | － |
| － | Sor 385b | 2 | $2 \mathrm{C}-\mathrm{A}$ | － | － | － | y brn | － | － | － | － |
| － | Sor 1152 | 1 | 3A－2A | － | － | rbrn | － | dk gy | － | － | － |
| － | Sor 1801 | － | － | － | － | － | － | － | － | － | － |
| － | $\begin{aligned} & \text { Sor 1825: } \\ & 1-35 \end{aligned}$ | 5 | 2A＋1 | － | － | － | － | － | － | － | － |
| 136n | Sor 1826：24 | 18， 20 | 1 | （？）$\times 26.0 \times 26.0$ | wh | r sp | pi buff | － | － | Muscarella 1974a， fig．47：875 | Dinkha II |
| 1360 | Sor 1826：16 | $\begin{aligned} & 4,5,13 \\ & 14,15 \end{aligned}$ | 2B－1 | （？）$\times 13.0 \times 13.0$ | wh | I sp | pi buff | － | － | － | － |

Catalog 25．Iron Age Pottery and Baked Clay Objects（cont．）

| Plate | Site and obj．no． | Plotl burial | $\begin{gathered} \text { I s. } \\ \text { or level } \end{gathered}$ | Dimensions in cm | Mfg | Surface color | Paste color | $\begin{aligned} & \text { Paint } \\ & \text { color } \end{aligned}$ | Decorative patterns | Reference or comments | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A．IRON AGE POTTERY（cont．） |  |  |  |  |  |  |  |  |  |  |  |
| 25A．3．IRON AGE III POTTERY VESSELS（cont．） |  |  |  |  |  |  |  |  |  |  |  |
| 25A．3．13 Sherds（cont．） |  |  |  |  |  |  |  |  |  |  |  |
| － | Sor 1827：1－25 | 14 | 1 | － | － | － | － | － | － | － | － |
|  | Sor 1828：148 | 15 | R |  |  | － | － | － | － |  |  |
| － | Sor 1831：1－35 | GK | Rm． 2 | － | － | － | － | － | － | － |  |
|  | Sor 1832：1－39 | GK | Rm． 4 | － | － | － | － | － | － | － |  |
| － | Sor 1833：1－42 | GK | Rm． 4 | － |  | － | － | － |  |  |  |
|  | Sor 1834：1－22 | GK | Rm． 6 | － | － | － | － | － | － | － |  |
| 39a | Sor 1838：1－2 | 1 | 3 | － | － | － | － | － | － |  |  |
| 39a | Sor 1839：1－6 | 1 | 3 | － |  | － |  |  |  |  |  |
|  | Sor 1840：1－10 | 1 | 3 | － | － | － | － | － | － | － |  |
| － | Sor 1841：1－37 | 1 | 3 | － |  | － | － |  |  |  |  |
|  | Sor 1842：1－6 | 22 | 3 | － | － | － | － | － | － | － |  |
| 二 | Sor 1844：1－48 | 3 | 2 P （？） | － | － | － | － | － | － |  | － |
| 二 | Sor 1845：1－24 | － | unstrat． | － |  | － |  |  | － |  |  |
| 二 | Sor 1847：1－5 Sor 1849：1－8 | $\begin{aligned} & \mathrm{JH} \\ & 12 \end{aligned}$ | ${ }_{3}^{\text {dump }}$ | 二 | 二 | 二 | － | 二 | 二 | － | － |
| － | Sor 1850：1－6 | $\begin{aligned} & 12 \\ & \mathrm{I}, \mathrm{nr} . \\ & \mathrm{cmty} \end{aligned}$ |  | － | － | － | － | － | － | － | － |
| － | Sor 1851：1－25 | － | surf． | － | － | － | － | － | － | － | － |
| 136 p | Sor 1846：7 | 10 | 1 | （？）$\times 35.0 \times 35.0$ | wh | － | pi buff | － | － | － | － |
| 136 q | Sor 1829x |  | 2 B | （？）$\times 22.0 \times 22.0$ | wh | － | or | － | － |  |  |
| ${ }^{136}$ | Sor 1843：4， 27 | 1 | ${ }_{2}^{2 \mathrm{C}}$（？） | （？）$\times 16.0 \times 16.0$ | ${ }^{\text {wh }}$ | － | y buff | － | － | － | － |
| 1365 136 t | Sor 1835：21 Sor 1835：29 | ${ }_{\text {KG }}^{\text {KG }}$ | ${ }_{2}^{2 C}$ | $\xrightarrow{\text {（2）} \times 12.0 \times 12.0}$ | $\underset{\text { wh }}{\text { wh }}$ | － | y buff |  | － |  |  |
| 1361 | Sor 1835：29 | KG | 2 C | － | wh | － | y buff | － | － | Muscarella 1974a， fig．47：863 | Dinkha II |
| 136u | Sor 1826：27 | $\begin{aligned} & 4,5, \\ & 13,14, \\ & 15 \end{aligned}$ | ，${ }^{2 B-1}$ | （？）$\times 11.0 \times 11.0$ | wh | y sp | pi buff | － | － | － | － |
| 137a | Sor 1836：22 | 18， 20 | 1 | （？）$\times 13.0 \times 13.0$ | wh | － | y | － | － | － | － |
| 1376 | Sor 1830：4 | 6 | ${ }^{2 \mathrm{~B}}$（？） | （？）$\times 4.0 \times 4.0$ | wh | － | gy | － | － | － | － |
| 1370 | Sor 1826：1 | $\begin{aligned} & 4,5, \\ & 13,14, \\ & 15 \end{aligned}$ | 2B－1 | （？）$\times 5.2 \times 5.2$ | wh | － | gy | － | － | － | － |
| 137d | Sor 1843：2 | 1 | 2 B | （？）$\times 10.0 \times 10.0$ | wh | － | y buff | － | － | － | － |
| 137e | Sor 1843：20 | 1 | 2 B | （？）$\times 13.5 \times 13.5$ | wh | － | gm | － | － | － | － |


| 137f | Sor 1801a | (?) | 3A-1 | - | - | - | gy | - | Incised chevrons | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 1801b | (?) | 3A-1 | - | - | - | grn gy | - | Strainer frgm | - | - |
| 137 g | Sor 1837: <br> 11-12 | 2 | 2C | - | - | - | grn | bl | Dotted circles | - | - |
| 137h | Sor 1848:20 | 7 | 2B-1 | - | - | - | y buff | - | - | - | - |
| 137 i | CS 397 | 17 | -3.50 | $\begin{aligned} & 20.4+x \quad 10.4+x \\ & 10 \end{aligned}$ | - | lt brn | - | - | - | - | - |
| 137j | CS 439 | H7 | -1.20 | - | hd(?) | lt brn | - | pur brn | Incised circles, painted dots | - | - |

## 25A.3.14. Bull-Shaped Vessels

| - | CS 270 | J7 | -3.85 | $14.4 \times 10.2 \times 8.4$ | hd | rbm | - | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CS 396 | 17 | -3.50 | $32.5 \times 32.0 \times 11.3$ | hd | lt bm | rbm | - | Applied eyes | Vanden Berghe 1967:55 | Iron III |
| and 141a |  |  |  |  |  |  |  |  |  | Ghirshman 1968, pl. 78 | Complexe Est |
| 138b | CS 456 | H6 | -0.90 | $9.8 \times 7.5$ | hd | rbm | - | - | - | - | - |
| 138 c | KI 112 | M | -1.90 | $10.6 \times 9.7$ | - | y bm | - | - | - | - |  |
| cf. 138c | KI 113a-b | M | -1.90 | $9.7 \times 6.6$ | hd | y brn | gy brn | - | - | Ghirshman 1966, pl. 67:GTZ 357 | Ziggurat <br> Porte SW |
| 138d | Sor 1109 | 7 | 1 | 3.6 | hd | It brn | 一 | - | - | - | - |
| 138 e | Sor 1843:10 | 1 | 2B | $6.6 \times 5.6$ | - | - | y buff | - | - | - | - |
| 138 f | Sor 1830:2-3 | 6 | 2 B (?) | - | - | - | $y$ buff | - | - | - | - |
| 138 g | Sor 1837:17 | 2 | 2 C | $5.0 \times 2.5$ | - | - | y buff | - | - | - | - |
| cf. 141c | CS 386 | 17 | -2.90 | $30.0 \times 16.1 \times 10.6$ | bdy wl | r bm | - | - | - | - | - |
| 141b | CS 434 | H7 | -1.10 | $23.0 \times 9.1$ bdy | wl | lt brn | - | - | - | Negahban 1964, figs. 94 and $95(?)$ | - |
| 141c | CS 387 | 17 | $-2.90$ | $29.9 \times 15.7 \times 10.9$ | bdy wl | rbm | - | - | - | - | - |
| 140c | CS 398 | 17 | -3.50 | $16.4 \times 8.7$ | hd | lt bm | - | - | Applied eyes and tongue | - | - |
| 140d | CS 271 | J7 | -3.90 | $10.5 \times 8.1 \times 7.2$ | hd | ybrn | - | - | - | - | - |
| 140e | CS 368 | J7 | -4.40 | $17.4 \times 6.8$ | hd | gy bm | - | - | - | - | - |
| Plate | Site and obj. no. | Plot/ burial | Elev. or level | Dimensions in cm | Surface color |  | cription |  |  | Reference or comments | Period |

## 25B. IRON AGE BAKED CLAY OBJECTS

## 25B.1. CLAY MISSILE

| - | ChJal 7 | 0.5 m | W of x 1 |
| :--- | :--- | :--- | :--- | :--- | :--- |$\quad 4.8 \times 4.1 \times 2.9 \quad-\quad$ Unbaked ovoid $\quad-$

Catalog 25. Iron Age Pottery and Baked Clay Objects (cont.)
\(\left.$$
\begin{array}{lllllll}\hline \text { Plate } & \begin{array}{l}\text { Site and } \\
\text { obj. no. }\end{array} & \begin{array}{l}\text { Plotl } \\
\text { burial }\end{array} & \begin{array}{l}\text { Elev.or } \\
\text { level }\end{array} & \begin{array}{l}\text { Bimensions } \\
\text { in } \mathrm{cm}\end{array} & \begin{array}{l}\text { Surface } \\
\text { color }\end{array} & \text { Description }\end{array}
$$ \begin{array}{l}Referenceor <br>

comments\end{array}\right]\)| Period |
| :--- |

25B.2. WHORLS

| 142a | KI 94 | K | -0.95 | $3.1 \times 1.8$ |
| :--- | :--- | :--- | :--- | :--- |
| cf. 142a | KI 98 | L | -1.20 | $4.9 \times 2.2$ |
| cf. 142a | CS 443 | H7 | -1.10 | $9.8 \times 2.3$ |
| cf. 142a | Sor 254 | 4 | 1 | $3.7 \times 1.7$ |
| cf. 142a | Sor 322 | 1 | 2 A-B | $4.3 \times 0.6$ |
| cf. 142a | Sor 596 | KG 1 | 1 | 4.6 |
| cf. 142a | Sor 1251 | 7 | $2 B$ | 3.7 |


| r brn | Plano-convex with small stamped rings |
| :--- | :--- |
| - | Plano-convex |
| gy brn | Plano-convex |
| buff | Plano-convex |
| tan | Plano-convex |
| y brn sp | Plano-convex |
| gy brn | Plano-convex |

Slightly baked, bicone

| 142b | KI 107 | M | -1.50 | $6.5 \times 3.6$ | gy brn | Slightly baked, bicone | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 142c | KI 117 | M | -3.15 | $9.8 \times 6.2$ | y brn | Large crude ring, converging perforation | Young 1969, fig. 44:19 | Godin II |
| 142d | KI 119 | N | -3.75 | $5.3 \times 2.6$ | gy brn | Slightly baked, biconoid ring | - | - |
| cf. 142d | KI 93 | K | -0.95 | $5.6 \times 2.5$ | gy y brn | Biconoid ring, coarse | - | - |
| 25B.4. MODEL WHEELS |  |  |  |  |  |  |  |  |
| 142e | KI 122 | N | -2.85 | $7.1 \times 5.1$ | r brn | Fragment with long naves | - | - |
| 142f | Sor 190 | 13 | 1 | $5.0 \times 3.0$ | buff | Fragment, obliquely pierced, concentric circle painted around naves | - | - |
| 25B.5. ANIMAL FIGURINES |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 142 \mathrm{~g} \\ & \text { and } 145 \mathrm{a} \end{aligned}$ | Sor 84 | 14 | 1 | $8.6 \times 6.9 \times 6.5$ | lt gy | Brown paint, conic nose, horns broken, ears below homs, effigy spot(?), straight line design on nose, fence pattern on back of neck, at either side wavy 'manes' | - | - |
| 142h | Sor 188 | 14 | 1 | $6.0 \times 5.5 \times 3.3$ | lt gy y | Homed head, wedge-shaped nose, broken pellet eyes, one curved hom is missing, effigy handle(?) | - | - |


| 143a | Sor 189 | 15 | 1 | $7.2 \times 5.6 \times 4.2$ | rbm |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 143 b | Sor 193 | 15 | 1 | $6.1 \times 5.4 \times 2.5$ | lt brn |
| 143 c | Sor 283 | 4 | 2A | 5.3 | $\tan$ |
| 143d | Sor 594 | KG 1 | 1 | 7.5 | $y \mathrm{brn}$ |
| 143 e | Sor 1514 | 1(?) | $3 \mathrm{~A}-2 \mathrm{~B}$ | 4.7 | buff |
| - | Sor 1438 | 3-13 | 2 B | 6.5 | buff |
| 145 b | KI 95 | K | -1.85 | $5.5 \times 5.1$ | r brn |
| - | CS 430 | 17 | -4.15 | $3.1+\times 2.0 \times 1.5$ | gy |
| 145c | CS 458 | H6 | -1.45 | $3.5 \times 2.1$ | gy brn |

25B.6. WALL NAIL
$145 \mathrm{~d} \quad \mathrm{CS} 472 \mathrm{H} 6 \quad-1.80 \quad 8.3 \times 7.5 \times 4.0 \quad \mathrm{grng}$

25B.7. ADZE
145 e CS $477 \mathrm{H} 6 \quad-1.90 \quad 9.3 \times 6.7 \times 1.3 \quad$ I brn

25B.8. HUMAN FIGURINES

144a Sor | 1499 | $2-12$ | 2C | 11.4 | $y b m$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

| Conic nose with incised holes for mouth, <br> nostrils and eyes, incised line on forehead, ladder <br> design in black paint encircles neck, bands continue <br> neck and on chest, effigy handle(?) | - | - |
| :--- | :--- | :--- |
| Conic beak with hole, low cones with central <br> hole form eyes and top of the head, ladder design on <br> nose, curved lines on shoulder | - | - |
| Conoid muzzle, ears or homs broken, ladder <br> design in black brown paint encircles neck, painted <br> stain on nose, effigy handle (?) | - | - |
| Animal figurine: homed head, effigy handle(?) | Contenau and <br> Ghirshman 1935, | Giyan I, 4 |
| Horned head, horns broken, applied disc eyes, <br> conoid muzzle, effigy handle(?) | - | - |
| Bands of gray paint encircle neck, fur indicated <br> at throat | - | - |
| Homed head, incisions indicate mouth, <br> nose; no eyes, homs(?) brokens | Vanden Berghe <br> Four legs and body preserved, neck and <br> tail broken <br> Quadruped with large ears or homs, one | - |

Effigy type, knceled bull with latera perforation, used to secure wall tile

Flat blade expanded at tip, sharp downward slant from socket

Statuette, head and arms missing, two ridges indicate belt, groove separates legs, oval base

Catalog 25. Iron Age Pottery and Baked Clay Objects (cont.)

| Plate | Site and obj. no. | Plotl burial | Elev. or level | Dimensions in cm | Surface color | Description | Reference or comments | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25B.8. HUMAN FIGURINES (cont.) 25B. IRON AGE BAKED CLAY OBJECTS (cont.) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 145f | KI 513 | J | 2.70 | $8.3 \times 4.8$ | ybm | Molded, thighs of standing nude female | - | - |
| $\begin{aligned} & 145 \mathrm{~g} \\ & \text { and 147a } \end{aligned}$ | CS 399 | 17 | 3.50 | $60.5 \times 19.0$ | ybm | Cylindrical body, hands folded over stomach, turret hairdress, necklace with pendant, two incisions mark bracelets and armlets, knobbed breasts, incised eyes, ears, and fingers, in rear pendant-shaped knot | Ghirshman 1954, pl. 15:1-2; pl. 42: GS 862 | - |
| $\begin{aligned} & \text { 145h } \\ & \text { and 147b } \end{aligned}$ | CS 401 | 17 | 3.50 | $60.5 \times 19.5$ | rbrn | Similar to CS 399; ears in relief, fingers not indicated | - | - |
| 146a | Sor 458 | 4 | 2 B | $5.7 \times 2.8$ | grn gl | Head only, pronounced eyebrows, straight nose, incision indicates mouth, full cheeks, discoid hat or headdress raised in front, hair in back gathered into two knobs behind ears | Amiet 1966, figs. 364-5 | $\begin{aligned} & 800-600 \\ & \text { B.C. } \end{aligned}$ |
| 146b | Sor 467 | surf. | - | $3.4 \times 2.2$ | - | Head only, turban around hair, centered pellet eyes, mouth ajar, small holes indicate ears, turban overlaps on back of head | - | - |
| 146c | Sor 525 | 1 | 3A | $3.6 \times 3.1 \times 3.0$ | grn wt gl | Female head, long nose, disc eyes, hair roll frames face, bunch at each ear | Amiet 1966, fig. 353 | $\begin{aligned} & 1500-1000 \\ & \text { B.C. } \end{aligned}$ |
| 146d | Sor 1003 | 1-3 | 3A | $3.4 \times 2.5$ | gy gl | Head only, flat protruding hairdress, cheeks blown up | Amiet 1966, fig. 336A-B | $\begin{aligned} & 1500-1000 \\ & \text { B.C. } \end{aligned}$ |
| 25B.9. MISCELLANEOUS |  |  |  |  |  |  |  |  |
| 144b | KI 514 | L | -1.60 | $11.0 \times 3.3$ | brn | Fragment, body(?) with combined hindlegs | - | - |
| 144c | KI 111 | M | -1.65 | $2.3 \times 2.1$ | lt gy | Figurine(?) fragment with knob on one side | - | - |
| 144d | Sor 109 | 1 | 2A(?) | $3.0 \times 1.2$ | tan | Disc with grooved edge | - | - |
| 144e | Sor 451 | 1 | 3A | $15.9 \times 3.5 \times 3.3$ | lt brn | Phallus or whetstone(?) model, obliquely pierced at round end | - | - |
| 144f | CS 457 | H6 | -1.20 | - | gy brn | Statuette fragment, lower jaw with four teeth | - | - |
| 144 g | CS 447 | H11 | -10.70 | $8.1 \times 3.2 \times 5.0$ | gy brn | Zoomorphic fragment, bird(?) | - | - |

## CHAPTER 26

IRON AGE FAIENCE, GLASS, AND CRYSTAL OBJECTS<br>by Hans H. Curvers<br>26A. FAIENCE OBJECTS<br>INTRODUCTION

The Iron Age faience objects were found scattered throughout the building at Surkh Dum-i-Luri. The objects have not been divided chronologically; they are presented as a whole. Some objects, however, from level 1 may be of a slightly later date (early Iron III) than the objects in the lower levels (Iron I-II). The faience objects from Surkh Dum-i-Luri include discs, a ring, pin(?) heads, pendants, buttons, an architectural ornament, and vessels. The faience beads are presented in chapter 31.

The following major classes of faience objects are listed in the catalog:
26A. 1 DISCS
26A. 2 RING
26A. 3 PIN HEADS
26A. 4 PENDANTS
26A. 5 BUTTONS
26A. 6 ANIMAL FIGUINES
26A. 7 HUMAN FIGURINES
26A. 8 ARCHITECTURAL ORNAMENT
26A. 9 VESSELS

## 26A.1. DISCS

## 26A.1.1. Concave-Convex Discs

26A.1.2. Concave-Convex Discs with Ledge

## 26A.1.3. Concave-Plano-Convex Discs with Rosette

Discs were found in two different shapes: 1) Concave-convex discs with pierced center. Sor 374 has a ledge on one side of the concave bottom (pl. 148b); Sor 179 is decorated with a fluted rosette and scalloped edge (pl. 148c). 2) Plano-convex discs with central perforation. Sor 1312 has a rosette decoration (pl. 148d); Sor 1349 and 1596 have bronze shanks inserted through their central perforation (pl. 148e, f). These shanks may well be the remains of longer spindles, to which the whorls added momentum. At Choga Zanbil a faience whorl was found, which its description suggests had a metal shank through the perforation (de Mecquenem and Michalon 1953:51, fig. 19:18). A plain concave-convex disc was found at Susa in a context dated to the first quarter of the first millennium B.C. (de Miroschedji 1981b, fig. 48:5).

## 26A.2. RING

A closed band (Sor 1641, pl. 148g), probably used as a finger ring, is without any excavated parallels in Iran.

## 26A.3. PIN HEADS

## 26A.3.1. Miniature Mace

Tentatively classified as a pin head, Sor 1087, a swirl-fluted spherical head on a tapering, ringed neck resembles a miniature macehead (pl. 148h).

## 26A.3.2. Bird

Birds provided with a hole in the base for a metal shank (Sor 1585, pl. 153a) are classified as animal pin heads. Excavated parallels are known from Susa (Amiet 1966, fig. 406) and Choga Zanbil (Ghirshman 1966, pl. 65, GTZ 358; pl. 77, GTZ 441).

## 26A.4. PENDANTS

## 26A.4.1. Bird

Bird pendants with pierced chests all have checkerboard incisions on the base, and in some cases wings and tail are indicated by incisions; the heads are without any decoration (pls. 148i-k and 149a-c). Excavated parallels are known from Sialk (Sialk II, pl. 71:S 894b) and Choga Zanbil (Ghirshman 1966, pl. 72, GTZ 862; pl. 79 and GTZ 529). They probably fit into the same tradition as the more naturalistic bronze bird pendants with suspension loop (Sor 1013 and 1033, pls. 175d, e and 188h, i).

## 26A.4.2. Other

Other pendants include one with three horizontally hatched petals at the front and the back, and another barrel-shaped pendant with grid pattern incision (Sor 703 and 1515, pl. 149d, e).

## 26A.5. BUTTONS

One conical button (Sor 26, pl. 149f) has a loop-pierced base, and the other (Sor 1281) has a perforated top.

## 26A.6. ANIMAL FIGURINES

## 26A.6.1. Bird

The one bird figurine (Sor 777, pl. 149h) may be compared to the bird pendants except for the pierced chest. Excavated parallels are known from Choga Zanbil (Ghirshman 1966, pl. 72, GTZ 913, 848, 861, and 902; pl. 79, GTZ 529) and Susa (de Miroschedji 1981a, fig. 27:2). They can be dated from the 13 th century B.C. onwards.

## 26A.6.2. Horned

Sor 579 is a horned animal head with horns pointing forward and with erect ears, probably a bull's head (pl. 153b). The other example (Sor 267) is a fragment of a horned animal (pl. 149g).

## 26A.7. HUMAN FIGURINES

Fragments of human figurines include a steatopygous lady clasping a small boy to her breast; her head is missing (Sor 79, pls. 149i and 153c). At Susa a human figurine with cylindrical body made of faience was found in a funerary deposit dated to the end of the second millennium b.c. From the same area at Susa is a bronze human figurine holding a child or little
animal against her breast (Amiet 1966, figs. 315 and 321). At Choga Zanbil, two female figurines holding children to their breast were found in the temple of Pinikir (Ghirshman 1968, pl. 69:GTZ 946 and 881) as well as some faience figurines (Ghirshman 1968, pl. 71:GTZ 849 and 940). The other objects are fragments of similar figurines.

## 26A.8. ARCHITECTURAL ORNAMENT

In the building at Surkh Dum-i-Luri an architectural ornament with the forepart of a human-headed bull was found (Sor 1252, pl. 149j). Excavated parallels are known from Hasanlu (Dyson 1959:13) and Susa (Amiet 1966, fig. 368; Amiet 1967:38). The ornament from Hasanlu is dated to the 9th century b.c. Amiet's arguments for a later dating of the ornaments at Susa are very convincing, but we have to keep in mind that no important bronze or other artwork of the early first millennium B.c. has yet been discovered in Susa due to chance or to thorough pillaging by the Assyrians under Ashurbanipal in about 639 B.C. The contexts in which Sor 1252 was found suggests an Iron II date (ca. 800 B.C.).

## 26A.9. VESSELS

Several types of faience vessels were found scattered throughout the building at Surkh Dum-i-Luri.

## 26A.9.1. Cylindrical Cups

Cylindrical pyxides with vertically pierced lugs for attachment of lids (Sor 255 and 1291, pl. 150a, b) were found in all levels. At Surkh Dum-i-Luri no lids were found; they are known from excavated contexts at Choga Zanbil (Ghirshman 1966, pl. 78:GTZ 449 and 450; Ghirshman 1968, pl. 84:GTZ 785, 786, 821, and 822; de Mecquenem and Michalon 1953, figs. 7-8), Tepe Malyan (Carter and Stolper 1976:40, fig. 7), and Susa (Amiet 1966, figs. 371-72, 374; de Miroschedji 1981a, figs. 16:6 and 27:5). The cylindrical pyxides found at Surkh Dum-i-Luri are very small and probably contained precious ointments or perfumed oils.

## 26A.9.2. Triple Cup

Sor 1004 (pls. 150c and 154a) is an example of the highly developed craftmanship of the faience workers in Luristan. This cup consists of three cups in one. It is a triple pyxis with vertically pierced lugs for the attachment of lids. A double cylindrical pyxis in a double femalehead shape was found at Choga Zanbil in the temple of Pinikir (Ghirshman 1968, pl. 70:GTZ 972).

## 26A.9.3. Beakers

Several fragments of concave-sided beakers, one with a human-headed bull handle (Sor 14), were found in the upper early Iron III level of the building at Surkh Dum-i-Luri (pls. $150 \mathrm{~d}, 151 \mathrm{~b}, \mathrm{c}, 152 \mathrm{~d}$, and $154 \mathrm{c}, \mathrm{d}$ ). There is a striking similarity in the arrangement and style of decorative patterns between a cubical pyxis from Susa and the concave-sided beaker at Surkh Dum-i-Luri (Sor 21, pls. 151b and 154d; Amiet 1966, fig. 375).

From the excavated parallels one may conclude the existence of a long tradition of making pyxides, either cubical, cylindrical or with concave sides. At Tepe Malyan a lid was found in a Middle Elamite building; ${ }^{14} \mathrm{C}$ dates support a date in the $13-12$ th century B.C. (Carter and Stolper 1976:41). At Susa fragments from faience vessels were found in "niveau 10" and "niveau 9-8." De Miroschedji proposed an 11th century b.c. date for "niveau 10" and a 9-8th century в.c. date for "niveau 9-8" (de Miroschedji 1981a:17, 23-4, and 37-8).

26A.9.4. Spouted Bowl
A spouted bowl with horizontally pierced lug below the spout shows a decorated frieze with incised metopes (Sor 651, pl. 151a).

## 26A.9.5. Amphoriskos

The amphoriskos found at Surkh Dum-i-Luri has two bird-shaped, pierced lug handles on the shoulder (Sor 1165, pls. 152a and 154b). At Choga Zanbil similar vessels have been found (de Mecquenem and Michalon 1953, pls. 15:12 and 19:35).

## 26A.9.6. Fragments

Several vessel fragments were found throughout the sanctuary at Surkh Dum-i-Luri. Two fragments (Sor 403 and 545, pl. 152b, c) are lug fragments that evidently belonged to the pyxides of which no complete example was found. Sor 933 is the flat base of a beaker (see 26A.9.3). Sor 1698 (pl. 152e) is a rim fragment which we conjecture was originally a beaker.

We may assume an Iron II to Early Iron III date for the vessels found at Surkh Dum-iLuri. A similar date can be assigned to the other faience objects found at Surkh Dum-i-Luri. From the parallels in the catalog it can be deduced that most objects are part of a long existing tradition from the end of the second millennium B.C. through the Iron Age.

## 26B. GLASS AND CRYSTAL OBJECTS

## INTRODUCTION

At Surkh Dum-i-Luri few objects made of glass or crystal were found. They have not been divided chronologically; they are presented as a whole. The glass and crystal objects include only buttons. The buttons are illustrated in the catalog in class 26B.1.

## 26B.1. BUTTONS

Buttons made of crystal and glass were found in various shapes. Sor 47 is a glass disc with a convex pierced back (pl. 152 g ), Sor 85 is a crystal squat globe with a pierced discoid back (pl. 152f), and Sor 240 is a crystal biconvex button with pierced discoid back (pl. 152h).

In chapter 31, glass beads are treated along with beads of other materials. Among them are glass beads of unusual shape, such as the trilobate brown glass bead with rings (Sor 1065, pl. 232am).

CATALOG 26. IRON AGE FAIENCE, GLASS, AND CRYSTAL OBJECTS

| PlateSite and <br> obj. no. | Area and <br> level | Dimensions <br> in cm | Material | Description | Period |
| :--- | :--- | :--- | :--- | :--- | :--- |

## 26A. FAIENCE OBJECTS

26A.1. DISCS

| 26A.1.1. Concave-Convex |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 148a | Sor 76 | $7 \mathrm{~N}, 1$ | $3.0 \times 1.3 \times 0.3$ | faience | Pierced in center | de Miroschedji 1981b, fig. 48:5 | niveau 9 |
| cf. 148a | Sor 1369 | 3, 2B | 4.2 | faience | Pierced in center | - | - |
| cf. 148a | Sor 1381 | 1/3, 2B | 2.1 | faience | Pierced in center | - | - |
| cf. 148a | Sor 1227:2 | -, 2A | 3.6 | faience | Pierced in center | - | - |
| cf. 148a | Sor 1227:3 | -, 2A | 3.8 | faience | Pierced in center | - | - |
| cf. 148a | Sor 1419 | 1/3,2B | 2.2 | faience | Pierced in center | - | - |
| 26A.1.2. Concave-Convex with Ledge |  |  |  |  |  |  |  |
| 148b | Sor 374 | 2, 2A | $6.9 \times 2.2$ | faience | Pierced in center, ledge on one side of concave bottom | - | - |
| cf. 148b | Sor 1148 | 1, 2A-3 | 7.0 | faience | Pierced in center, ledge on one side of concave bottom | - | - |
| 26A.1.3. Concave-Plano-Convex with Rosette |  |  |  |  |  |  |  |
| 148c | Sor 179 | $\begin{aligned} & 4,6,7 \\ & 2 B-1 \end{aligned}$ | $5.9 \times 1.5$ | faience | Concave-convex disc, pierced in center, rosette decoration on fluted surface and scalloped edges, fragment | - | - |
| 148d | Sor 1312 | 9/11, 3A | $2.1 \times 1.1$ | faience | Plano-convex shape, rosette in relief | - | - |
| 148 e | Sor 1349 | $\begin{aligned} & 7,9 \\ & 2 \mathrm{~B}-\mathrm{A} \end{aligned}$ | $4.4 \times 1.6+$ | $\mathrm{fa} / \mathrm{br}$ | Slightly concave-convex disc with rosette decoraation, bronze shank inserted through pierced center | de Mecquenem and Michalon 1953, fig. 19:18 | - |
| 148f | Sor 1596 | 1/3,2B | $3.4 \times 7.5+$ | $\mathrm{fa} / \mathrm{br}$ | Plano-convex disc with rosette decoration, bronze shank inserted through pierced center | - | - |

Catalog 26. Iron Age Faience, Glass, and Crystal Objects (cont.)

| Plate | Site and <br> obj. no. | Area and <br> level | Dimensions <br> in cm | Material | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | Reference $\quad$ Period $\quad$

## 26A. FAIENCE OBJECTS (cont.)

| 26A.2. RING |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 148 g | Sor 1641 | 1/3,2B | $2.1 \times 0.7 \times 0.2$ | faience | Closed band | - | - |
| 26A.3. PIN HEADS |  |  |  |  |  |  |  |
| 26A.3.1. Miniature Mace |  |  |  |  |  |  |  |
| 148h | Sor 1087 | 3, 3A-2A | $4.0 \times 2.3 \times 0.5$ | faience | Swirl-fluted hemisphere on ring, tapered neck | - | - |
| 26A.3.2. Bird |  |  |  |  |  |  |  |
| cf. 153a | Sor 1267 | 9, 1 | 2.2 | faience | Head broken at neck | Amiet 1966, fig. 409 <br> Ghirshman 1966, pl. 77:GTZ 441 <br> Ghirshman 1966, pl. 65:GTZ 358 | $1000-800$ в.с. <br> Chapel 3 <br> Ziggurat |
| 153a | Sor 1585 | 1/3, 2B | $5.6 \times 4.3$ | faience | Eyes, beak, and wings, shaft hole in base | - | - |
| 26A.4. PENDANTS |  |  |  |  |  |  |  |
| 26A.4.1. Bird |  |  |  |  |  |  |  |
| 148i | Sor 521c | 4, 2A | $1.5 \times 1.1 \times 1.0$ | faience | Pierced chest, checkerboard pattern on base | Ghirshman 1939, pl. 71:S894b | Sialk B |
| 148j | Sor 602 | 1-2, 2C | $1.9 \times 1.6 \times 1.1$ | faience | Pierced chest, wings indicated, checkerboard pattern on base | - | - |
| - | Sor 913 | 3,2B-1 | 1.3 | faience | Head missing, globular body | - | - |
| cf. 148j | Sor 683 | 1,2B | $2.1 \times 1.5$ | faience | Pierced chest, wings indicated, checkerboard pattern on base | - | - |
| 148k | Sor 624 | 1-2, 2C | 1.4 | faience | Fragment, double pierced neck, checkerboard pattern on base | Ghirshman 1966, pl. 79:GTZ 530 | Chapel 4 |
| 149a | Sor 632 | 1-2, 2C | $2.1 \times 1.7 \times 1.0$ | faience | Pierced chest, V-shaped incision indicates wings, checkerboard pattern on base | - | - |


| 149 b | Sor 742 | $1,3 \mathrm{~A}-1$ | $1.5 \times 1.2 \times 1.0$ | faience |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| 149 c | Sor 801 | $3,2 \mathrm{~A}(?)$ | $2.7 \times 1.4 \times 1.0$ | faience |
|  | Sor 1030 | $1,3 \mathrm{~A}-1$ | $1.5 \times 0.9$ | faience |
| cf. 149a | Sor 1074 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | 1.9 | faience |


| Pierced chest, V-shaped incision | - |
| :--- | :--- |
| indicates wings, checkerboard |  |
| pattern on base |  |
| Broken suspension ring on back, | - |
| checkerboard pattern on base |  |
| Globular body, tail pointed  <br> Pierced chest, wings indicated, - <br> checkerboard pattern on base  |  |

26A.4.2. Other

| 149 d | Sor 703 | $4,3 \mathrm{~A}-2 \mathrm{~A}$ | 1.7 | faience |
| :--- | :--- | :--- | :--- | :--- |
| 149 e | Sor 1515 | $1,3 \mathrm{~A}-2 \mathrm{~B}$ | 1.6 | faience |

26A.5. BUTTONS

| 149 f | Sor 26 | $5,2 \mathrm{~A}$ | $1.3 \times 1.1$ | faience |
| :--- | :--- | :--- | :--- | :--- |
| - | Sor 1281 | $3,2 \mathrm{~B}$ | 4.5 | faience |

## 26A.6. ANIMAL FIGURINES

26A.6.1. Bird
149 h Sor $777 \quad 18 \mathrm{ff}, 1 \quad 3.1 \times 2.7 \quad$ faience

Wings in relief, head and tail broken, flat base

Ghirshman 1966, pl. 79:GTZ 529 Ghirshman 1966, pl. 77:GTZ 700 de Miroschedji 1981a, fig. 27:2 NW pave. niveau 9

## 26A.6.2. Horned

| 149 g | Sor 267 | $4,2 \mathrm{~B}$ | $4.4+\times 3.8$ | faience |
| :--- | :--- | :--- | :--- | :--- |
| 153 b | Sor 579 | 19,1 | $3.8+\times 2.6$ | faience |

Squared muzzle, raised oval with concentric groove indicates eyes, fragment
Short curved horns curving forward, erect ears

Catalog 26. Iron Age Faience, Glass, and Crystal Objects (cont.)

| Plate | Site and obj. no. | Area and level | Dimensions in cm | Material | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 26A.7. HUMAN FIGURINES 26A. FAIENCE OBJECTS (cont.) |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 149i and 153c | Sor 79 | 4,2A | $10.3 \times 5.6 \times 5.0$ | faience | Statuette: woman in long garment clasps small boy to her breast; head missing, three grooves indicate bracelets on arms, cylindrical lower body, disc base | - | - |
| cf. 153c | Sor 351 | 1,2B-A | $3.6+\times 3.5$ | faience | Disc base with part of cylindrical lower body | - | - |
| - | Sor 473 | 1,3 | $3.2 \times 2.7$ | faience | Fragment: arm flexed and raised shoulder | - | - |
| 26A.8. ARCHITECTURAL ORNAMENT |  |  |  |  |  |  |  |
| 149j | Sor 1252 | 7S, 2A | $13.8 \times 8.7 \times 5.2$ | faience | Forepart of human-headed bull, conic hairdress with two pairs of horns, beaded diadem, hollow body | Amiet 1966, fig. 368 Amict 1967, fig. 9 | ca. 700 B.C. <br> ca. 700 B.C. |
| 26A.9. VESSELS |  |  |  |  |  |  |  |
| 26A.9.1. Cylindrical Cups |  |  |  |  |  |  |  |
| 150a | Sor 255 | 4,1 | $3.6 \times 5.6 . \times 4.0$ | faience | Two opposite lugs with a hole in in each, not pierced | Ghirshman 1968, pl. 84 | palacehypogeum |
| 150b | Sor 1291 | 7S, 2B | $\begin{aligned} & 3.2 \times 4.1+ \\ & \times 4.0 \end{aligned}$ | faience | Two opposite vertically pierced lugs | de Miroschedji 1981a, fig. 16:6 <br> de Miroschedji 1981a, fig. 27:5-7 <br> Ghirshman 1968, pl. 78:GTZ 449, 450 <br> Amiet 1966, figs 371-76 | niveau 10 <br> niveau 8 <br> chapel 3 <br> 900-700 B.C. |
| 26A.9.2. Triple Cups |  |  |  |  |  |  |  |
| 150c and 154a | Sor 1004 | $\begin{aligned} & 1-3, \\ & 3 \mathrm{~A} \end{aligned}$ | $7.0 \times 10.4$ | faience | Fragmentary, vertically pierced lugs | - | - |

26A.9.3. Beakers

| $\begin{aligned} & 150 \mathrm{~d} \\ & \text { and } 154 \mathrm{c} \end{aligned}$ | Sor 14 | 5,1 | $\begin{aligned} & 10.6 \times 14.0 \times \\ & 14.0 \end{aligned}$ | faience | Base missing, bull-man handle, incised decoration on vessel: human head, ears way up at corners, hair indicated by band with oblique dashes, double line borders face, at either side of face a bird, frieze filled with hatched wavy band, band with guilloche decoration below rim | Muscarella 1981a, no. 31 | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 151 \mathrm{~b} \\ & \text { and } 154 \mathrm{~d} \end{aligned}$ | Sor 21 | 5,1 | $19.0 \times 13.3$ | faience | Flat base with glaze drops, concave cylinder, guilloche bordered by bands, oblique line divides frieze, griffin head with knob, ear and pendent curl, decorative band on neck | de Mequenem and Michalon 1953, fig. $7: 1,4,5 c$ Amiet 1976b:59-60 Amiet 1966, fig. 376 | $\begin{aligned} & 1250 \text { в.С. } \\ & \text { са. } 700 \text { B.C. } \\ & 800-600 \text { в.C. } \end{aligned}$ |
| 151c | Sor 6 | 5,1 | $4.3+\times 13.0$ | faience | Fragment (belonging to Sor 14?), slightly concave base, band with alternating chevrons preserved | - | - |
| 152d | Sor 933 | $\begin{aligned} & 11 \mathrm{~W}, \\ & 2 \mathrm{~A}(?) \end{aligned}$ | $4.4+\times 9.9$ | faience |  | - | - |
| 26A.9.4. Spouted Bowl |  |  |  |  |  |  |  |
| 151a | Sor 651 | 1,3 | 8.2 | faience | Green glazed fragment, horizontally pierced lug below spout, incised frieze with metopes | - | - |
| 26A.9.5. Amphoriskos |  |  |  |  |  |  |  |
| $\begin{aligned} & 152 \mathrm{a} \\ & \text { and } 154 \mathrm{~b} \end{aligned}$ | Sor 1165 | 3, 2B | $6.0 \times 16.0$ | faience | Flat base, two bird-head like handles on flat shoulder | de Mecquenem and Michalon 1953, pl. 15:12 | - |
| 26A.9.6. Fragments |  |  |  |  |  |  |  |
| 152b | Sor 403 | 4, 2A | $4.6+\times 5.7+$ | faience | Lug vertically pierced, band with guilloche decoration | Ghirshman 1968, pl. 84:GTZ 726 Ghirshman 1968, pl. 92:GTZ 1048 | palacehypogeum palace 2 |
| 152c | Sor 545 | 4, 1 | $4.2 \times 2.8$ | faience | Lug, horizontal chevrons bordered by notched ridges | - |  |

Catalog 26. Iron Age Faience, Glass, and Crystal Objects (cont.)

| Plate | Site and <br> obj. no. | Area and <br> level | Dimensions <br> in cm | Material | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | Reference $\quad$ Period

26A. FAIENCE OBJECTS (cont.)
26A.9. VESSELS (cont.)
26A.9.6. Fragments (cont.)

| - | Sor 914 | 3,2B-1 | - |
| :--- | :--- | :--- | :--- |
| - | Sor 1319 a | $2,2 \mathrm{~B}$ | - |
| 152 e | Sor 1698 | (?), surf. | - |

faience faience

Jar(?), biconical fragment Jar(?), biconical fragment — $\qquad$

26B. GLASS AND CRYSTAL OBJECTS
26B.1. BUTTONS

| 152 f | Sor 85 | 5, 2B | $2.1 \times 1.6$ | crystal | Squat globe, one side discoid <br> and pierced | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 152 g | Sor 47 | 1(?), 1 | $1.8 \times 0.7$ | glass | Disc with convex pierced back | - |
| 152 h | Sor 240 | 1,2B-A | $1.8 \times 1.1$ | crystal | Biconvex with pierced discoid <br> back | - |

## CHAPTER 27

## IRON AGE CAST METAL OBJECTS

by Hans H. Curvers

## INTRODUCTION

The metal objects found at Surkh Dum-i-Luri, Kamtarlan I, and Chigha Sabz partly add to the corpus of reliable evidence for the provenience and context of Iranian metalwork. The Iron Age in western Iran is a period in which bronzework of exceptional quality and quantity was produced. The introduction of iron, slowly replacing bronze as a material for weapons and tools, is another phenomenon of this period. The metal objects from the Holmes Expeditions to Luristan are presented according to the system used by Moorey (1971b), who adapted Deshayes' system of classification for tools and weapons (Deshayes 1960).

The metal objects are not divided chronologically, they are presented as a whole. Kamtarlan I and Chigha Sabz objects may be dated to Iron III based on ceramic evidence (cf. ch. 25A). The Surkh Dum-i-Luri objects may be dated in general to Iron I-II. Some objects from level 1 may be dated to the beginning of Iron III.

The following major classes of cast metal weapons and tools are listed in the catalog:

| 27A | WEAPONS |
| :--- | :--- |
| 27A. 1 | ADZES |
| 27A.2 | AXES |
| 27A.3 | DAGGERS |
| 27A.4 | SPEARHEADS |
| 27A.5 | ARROWHEADS |
| 27A. 6 | MACEHEAD |
| 27A. 7 | BOW RING |

27A. WEAPONS
27A.1. ADZES
The most complete adze (Sor 198) has its blade intact and part of the ribbed socket is preserved (pl. 155a). We tentatively reconstruct it as an axe-adze on account of the ribbing (cf. Moorey 1971a, no. 37).

## 27A.2. AXES

## 27A.2.1. Large Axes

A spiked axe with a lion-head juncture is the only complete axe found (Sor 1633, pl. 176a). Four blade fragments and two fragments of decorated shaft-holes (Sor 976 and 1606, pl. 155b, c) were found scattered throughout the Surkh Dum-i-Luri building. Spike-butted weapons have a long tradition; a spiked pick was found in a Late Akkad grave at Ur (Woolley 1934, pl. 224:a16; Nissen 1966, pl. 15). Examples from the first half of the second millennium B.C. are not known from excavations. A revivial of the tradition to provide weapons with a spiked butt takes place in the second part of the second millennium b.c. An excavated example is known from Choga Zanbil; it was found in the Kirisha Temple together with objects inscribed with the name of Untash-Napirisha (ca. 1250 b.c.), and in the same context was an
axe with the blade emerging from a lion's maw (Ghirshman 1966, pl. 53:4). Additional support for fixing their chronological position is provided by two inscribed examples. They bear the names of the Elamite king Shilhak-Inshushinak (1165-1151 B.C.) and of the Babylonian King Nebuchadnezzar I (1126-1104 b.c.; Dossin 1962, nos. 13, 14). Similar, but uninscribed examples were found at Bard-i Bal and Kutal-i Gulgul. They occurred in grave contexts of terminal Iron I to Iron II date and of Iron II date respectively (Vanden Berghe 1973a:16, fig. $5: 6 ; 24$, fig. 11:48; 35, fig. 20:11; 1973b:25; 1970b:10, fig. 7 and fig. 4). The fragment of a spike-butted weapon also is reported from soundings at Tang-i Hammamlan (Thrane 1965:158, fig. 5).

With comparison to other excavated examples, the following developments can be noted: The axe found at Choga Zanbil, dated to the 13th century B.C., shows a reasonably practical cutting edge. The upper and lower edge are reinforced by flanges. The spikes are short and blunt and grow out of a ribbed socket. This axe seems related to a slightly earlier example with a ribbed socket excavated at Tepe Giyan (Contenau and Ghirshman 1935, pl. 22, tomb 70). In the later examples one notices an increase in the length of the spikes, an increasing downward sweep of the blade, and a very narrow stem connecting the blade to the socket with shaft-hole. These features result in an almost useless axe. The function of these weapons seems to be symbolic rather than utilitarian. The axe found at Surkh Dum-i-Luri, with long splaying spikes and an almost triangular blade having flanges along all edges, represents a further development towards stylized symbolic spike-butted axes. This axe is the first example in which the spikes emerge from a lion's maw. Other examples, e.g., GTZ 163 (Ghirshman 1966, pl. 83) and G. 71/412 from a tomb at Kutal-i Gulgul (Vanden Berghe 1973b:22, 24) have the blades emerging from lions' maws. There may be some evidence in the position of the lion's head, with the spikes growing out of its maw for the use of this weapon found at Surkh Dum-i-Luri as a spiked hammer rather than an axe (cf. Calmeyer 1969:67). The spiked axe (Sor 1633) may be dated to the 9 th century b.C. A similar fragment with three splaying spikes was found in the mountain shrine at Tang-i Hammamlan which, to judge from the other published bronze objects, is contemporary with Surkh Dum-i-Luri.

## 27A.2.2. Miniature Axes

Four miniature axes represent a clear symbolic group of weapons dedicated at the sanctuary. The spiked miniature axe (Sor 564, pl. 176b) has an outline similar to that of Sor 1633 (pl. 176a) and is probably contemporary ( 9 th century B.c.). The crested-butt miniature axe (Sor $1500, \mathrm{pl} .176 \mathrm{c}$ ) represents a type dating from the late third millennium B.c. (Vanden Berghe 1970a:72; Thureau-Dangin and Dunand 1936, pl.29:5; Scheil 1930:112). To consider this crest-butted axe as an heirloom would be reasonable if we were dealing with a real scale weapon. The representation of an old axe in miniature shape, however, may be evidence of a long tradition of producing this type of axe, lasting throughout the second millennium B.c.

## 27A.3. DAGGERS

## 27A.3.1. Bronze Daggers

No complete daggers were found. Hilts flanged to take inlays are known from excavated contexts in western Iran at Choga Zanbil (Ghirshman 1966, pls. 92 and 93: upper two rows), Hasanlu V and IV (Dyson 1964b:35, fig. 2:1-3), Bard-i Bal: tombs 2, 17, 64, and 68 (Vanden Berghe 1973a:16, fig. 5:4, 5; 24, fig. 11:43; 20, fig. 15:5; 31, fig. 17:5, 6), Pa-yi Kal: tomb 1969/3 (Vanden Berghe 1973a:57, fig. 23:10), Kutal-i Gulgul: tombs A4, A9, and B4 (Vanden Berghe 1973a), Godin (Young 1969, fig. 25:11), and Tepe Giyan: tomb 10 (Contenau and Ghirshman 1935, tab.10:7), i.e., from contexts dated throughout Iron I and Iron II. Daggers with similar hilts have been excavated in other regions of Iran at Khurvin (Vanden Berghe 1968a, nos. 226 and 227), in the Talysh (de Morgan 1905, fig. 636), and in the southern Caspian region (Medvedskaya 1982, figs. 9:20 and 21). Outside of Iran many daggers found in the Caucasus region have flanged hilts (Medvedskaya 1982, fig. 11). Bronze hilts with saddle-shaped pommels (Sor 940 and 1631) are known from Bard-i Bal: tomb 68 (Vanden Berghe 1973a:35, fig. 20:10). All three hilts found at Surkh Dum-i-Luri were broken
at the narrow point of the grip, so that is impossible to decide to which of Medvedskaya's types they originally belonged (Medvedskaya 1982, fig. 9). One bronze dagger (Sor 1346) has a slender blade, a blunt point and a hilt, rectangular in section, with spatulate end, which was probably covered with wood, bone or some other binding originally (pl. 177a). It is without any excavated parallels. A tanged dagger with blunt point and slight midrib is a rather common type (Sor 339, pl. 155h). Similar daggers were excavated in the Kirisha Temple at Choga Zanbil (Ghirshman 1966, pl. 92:GTZ 230) and in tombs at Tepe Giyan (Contenau and Ghirshman 1933, pl. 15, tab. 37:5 and tab. 39:9, 10). Another tanged dagger has stepped shoulders and a rounded midrib (Sor 133, pl. 177b). Seven blade fragments were found throughout the building at Surkh Dum-i-Luri. One fragment is provided with a complex midrib (Sor 445 , pl. 155i). Two iron dagger fragments found at Baba Jan show a similar complex midrib; they are dated to late Iron II (Goff 1978:39). The other fragments either have slight midribs or are without any midrib although they all have blunt points (Sor 329, pl. 155j). The fact that only separated hilts and blades were found supports Maxwell-Hyslop's hypothesis that most of these daggers were made with the technique of 'casting on' a bronze hilt onto the tang of a previously made blade (Maxwell-Hyslop and Hodges 1964 and Birmingham 1964). At Khatun Ban four tombs yielded daggers, one of which is made of bronze. Kha 55 has a biflange lanceolate blade, stepped shoulders, a rectangular tang, and a spike for attachment to the pommel (pl. 155k). The hilt had a length of 6 cm . On the basis of the associated pottery we propose an Iron II date for this dagger. At Chigha Sabz a hilted dagger (CS 479, pl. 120e) was found associated with Iron III pottery and iron fragments. The dagger has a lanceolate blade, midrib, and a transverse thickening near the end of the handle (guard?).

## 27A.3.2. Bronze/Iron Dagger

At Khatun Ban four tombs yielded daggers; one is made of bronze and iron. Kha 68 has an iron blade, and a bronze spike for attachment to the pommel (pl. 1551). The hilt had a length of 5 cm . The occurrence of bronze, bronze/iron, and iron daggers in the graves and the pottery suggest an Iron II date.

## 27A.3.3. Iron Daggers

At Surkh Dum-i-Luri one iron fragment of a dagger was found (Sor 28). The dagger fragments from Shaffe were found among the dirt dumped by unauthorized excavators. They probably are from robbed graves. Both fragments are made of iron; Sha 2 has a lanceolate blade with midrib and Sha 4 has a biflange blade with part of a conical hilt (pl. 155m). No similar excavated parallels are known. At Khatun Ban four tombs yielded daggers; three are made of iron. Kha 64 has a blade without midrib, angular shoulders, and rectangular tang with one rivet (pl. 156b). No similar excavated parallels are known for the daggers with spikes. On the basis of the associated pottery we propose an Iron II date for the Khatun Ban and Shaffe daggers.

## 27A.4. SPEARHEADS

## 27A.4.1. Tanged Hilt

One bronze metal object retrieved from the sanctuary at Surkh Dum-i-Luri has a tanged hilt and overall dimensions which are rather large for an arrowhead. Based on its dimensions we have classified this object as a spearhead (Sor 262, pl. 156c).

## 27A.4.2. Socketed Hilt

For the socketed iron spear head (Sor 1117, pl. 177d) there are parallels made of bronze at Khurvin (Vanden Berghe 1968a, pl. 25, nos. 244 and 246), Marlik (Negahban 1964, fig. 46, left), and Sialk (Ghirshman 1939, pl. 68:S 722; pl. 92:24, 25). An iron example at War Kabud (Vanden Berghe 1968a, pl. 27a) and the provenience from level 1 at Surkh

Dum-i-Luri would suggest an early Iron III date, but iron socketed javelin heads are numerous at Hasanlu IV and two occur in a Dinkha II grave (Muscarella 1974a:74, fig. 48:650, 702), which indicate an Iron II-III date for such javelin heads. In the earliest phase of the Iron Age, bronze socketed javelin heads occur in Caucasia and the Talysh (Moorey 1971a:88). The parallels from northern Iran and Tepe Sialk suggest a slow movement of this tradition into Luristan, where iron examples are found in Iron II-III contexts at War Kabud and Surkh Dum-i-Luri.

## 27A.5. ARROWHEADS

The majority of the arrowheads found at Surkh Dum-i-Luri and Chigha Sabz is made of bronze (pls. 156d-1 and 177c). At Surkh Dum-i-Luri, out of a total of nineteen arrowheads, sixteen are made of bronze and three are made of iron. At Chigha Sabz five arrowheads from an Iron III context were found; four examples are made of bronze and one example is made of iron. The blade shapes vary from slender and rhomboid through ovate and barbed ovate to triangular or deltoid. The arrowheads of Surkh Dum-i-Luri fit into the typology made by Medvedskaya (1982:83-84) and are indeed part of a wide distribution of arrowheads of various shapes in Iron I and II. At Bard-i Bal deltoid, slender, and lanceolate types of arrowheads are found together in tomb 67, which was not reused (Vanden Berghe 1973a:31, fig. 17:7, 8, 9). The fact that only a few iron arrowheads are found at Surkh Dum-i-Luri and Chigha Sabz sharply contrasts with the development at Hasanlu IV where "the majority of arrowheads found are simple narrow leaf shapes made of iron. ...The elaborate bronze weapons appear to have been replaced by simpler ones of iron." (Dyson 1964b:40). This contrast may, of course, be due to the difference in function between the Hasanlu citadel and the Surkh Dum-i-Luri sanctuary.

## 27A.6. MACEHEAD

The spheroid, socketed bronze macehead (Sor 1404, pl. 157a) is of a type very close to, and probably directly derived from, stone prototypes. One stone macehead of this type was found at Choga Zanbil together with many simpler maceheads carrying inscriptions of UntashNapirisha, (ca. 1250 b.C.; Ghirshman 1966, pl. 84:GTZ 122). On Assyrian reliefs kings bear maceheads of this type (Paley 1976, fig. 17a, b). A stone macehead from Sialk (Ghirshman 1939, pl. 57:S 830) also is very similar to this Surkh Dum-i-Luri example.

## 27A.7. BOW RING

An iron archer's ring (Sor 957) is similar to excavated examples in bronze and iron from Hasanlu IV and Dinkha II (Stein 1940, pl. 25:2; Muscarella 1974a:65, fig. 36:195 and 80). On Assyrian reliefs no bowman is depicted with a similar ring, so we must assume this device as typically Iranian.

## 27B. TOOLS

The following major classes of cast metal tools are listed in the catalog.

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27B.1 HANDLES
27B.2 KNIVES
27B. }3\mathrm{ SOCKETS
27B.4 SPATULAE, LADLES, AND SPOONS
27B.5 CHISELS
27B.6 NEEDLES AND AWL
27B.7 BELL CLAPPERS
27B.8 HAMMER
27B.9 WEIGHT
27B.10 TWEEZERS
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27B. 11 CYLINDERS
27B. 12 RODS AND LUMPS

## 27B.1. HANDLES

The bronze, bronze/iron, and iron handles found scattered throughout the building at Surkh Dum-i-Luri are fragments originally attached to objects of which the shape as well as the material they were made of is unknown. The loop handle (Sor 535, pl. 157b) may have stuck into the wooden side or lid of boxes. The bronze sheet handles with iron rivets (cf. Sor 439, pl. 157f) were probably all attached to vessels made of bronze sheet. A whetstone handle (Sor 1263, pl. 177f) is made in the shape of an ibex protomen with a suspension loop at one side and a perforation through the chest. More elaborate whetstone handles are known from collections of Luristan bronzes in museums all over the world; two examples are known from grave contexts at Bard-i Bal (Vanden Berghe 1973a:31, fig. 17:10; 35, fig. 20:12; pl. 19) dated to terminal Iron I and Iron II. Two fragmentary handles (Sor 1011, 33; pl. 157d, g) illustrate how elaborate some handles were made. The first is a bronze handle flanged to take inlays and the second is a composite handle of iron and bronze. A lion handle in bronze attached to an iron object (Sor 1035, pl. 177e) resembles the lions carved in bone and used as pinheads and handles (cf. ch. 30A.3.7.1, Sor 727). There is some similarity between Sor 1035 and the lion head of a bronze pin found at Baba Jan (Meade 1968:129, fig. 12).

## 27B.2. KNIVES

The bronze and iron knives have either curved or straight blades with only one cutting edge. Four of the five curved blades are made of iron. The large fragment from Kamtarlan I (KI 114, pl. 157l) is from an Iron III context; the fragments found at Surkh Dum-i-Luri are of smaller size. The most complete curved iron knife (Sor 1319b, pl. 157k) is from level 3. Parallels in bronze were excavated at Sialk (Ghirshman 1939, pl. 40:S 467, pl. 47:S 675a, pl. 50:S 56c, pl. 51:S 560a, pl. 57:S 836, and pl. 62:S 763). Iron examples also were found at Sialk and Dinkha II (Ghirshman 1939, pl. 57:S 832a, b; pl. 68:S 714; Muscarella 1974a:71, fig. 45:623) and at Baba Jan (Goff 1978:39, fig. 15:17, 18). All parallels suggest an Iron IIIII date. All examples of straight knives are made of iron. CS 103 and KI 124 are from clear Iron III contexts; Sor 1795 is from unknown context. The bronze knife fragment with a short rounded blade (Sor 1354, pl. 157j) may have been the tool of a butcher. ${ }^{1}$

## 27B.3. SOCKETS

The bronze sockets were part of objects of unknown material (wood, bone?), and they were probably used as reinforcement and/or decoration at the end of the unidentified objects (Sor 450 and 1334, pl. 157m, n).

## 27B.4. SPATULAE, LADLES, AND SPOONS

Spatulae and ladles are made of iron and bronze (pl. 158a-m). Level 3A at Surkh Dum-i-Luri yielded an iron spatula (Sor 1652) and in level 1 iron and bronze spatulae were still found. One spatula has a bronze sheet wrapped around its shank (Sor 1402, pl. 158f). The custom of wrapping a bronze sheet around a shank has parallels in a lion-headed pin at Sialk B (VI) (Ghirshman 1939, pl. 93:S 1478), a blade at Baba Jan IIB (Goff 1978:39, fig. 15:11), and some objects from Bard-i Bal (Vanden Berghe 1973a:50).

At Shaffe an iron spoon with a perforated hand at the other end was found in the dirt dumped by unauthorized excavators (Sha 9, pl. 158j). An excavated parallel is known from Khurvin (Vanden Berghe 1968a, no. 325). The spoon was found in the dirt together with the

[^38]daggers discussed above, so we may assume an Iron II date. Similar spoons made of bone also have been retrieved from the sanctuary at Surkh Dum-i-Luri (cf. 30A.8, pl. 224v, w).

## 27B.5. CHISELS

The chisels are made of iron or bronze (pl. $158 \mathrm{k}-\mathrm{m}$ ). At Shaffe an iron chisel was found in an Iron II tomb (Sha 35).

## 27B.6. NEEDLES AND AWL

All of the needles are made of bronze and they have a curled top that forms the eye (pl. $158 \mathrm{n}, \mathrm{o}$ ). Sor $1221: 1$ is provided with an incision to take a thread, somewhat like a crochet needle (pl. 158n). An awl (Sor 1403) pointed at either end with a rectangular shaft in section is made of iron.

## 27B.7. BELL CLAPPERS

The bell clappers (Sor 150 and 870, pl. 159a, b), made of bronze, closely resemble the larger bells that formed part of horse collars. These are known from Assyrian reliefs, a seal, and the contents of tomb 15 at Sialk. Some examples were excavated at Hasanlu IV. Based on the ${ }^{14} \mathrm{C}$ determinations of Hasanlu IV, the date for these pieces of equestrian equipment has now been extended back into the 9th century b.c. (late Iron II; de Schauensee and Dyson 1983:76).

## 27B.8. HAMMER

The identification of Sor 228 as a bronze hammer is based on the deformation of its surface as a result of hammering ( pl .159 c ).

## 27B.9. WEIGHT

The truncated bronze cone (Sor 37) may be identified as a weight (pl. 159d). It is an imitation of stone examples.

## 27B.10. TWEEZERS

Three bronze tweezers were found at Surkh Dum-i-Luri (cf. Sor 941, pl. 159e) as well as one iron example (Sor 779, pl. 159f), which may have had another function.

## 27B.11. CYLINDERS

Two iron cylinders (Sor 1075 and 1322) with corroded oblong perforations seem to represent unfinished cylinder seals (pl. 159g). Due to heavy corrosion Schmidt was not able to observe any signs of an original design.

## 27B.12. RODS AND LUMPS

In the group of rods and lumps (bronze, bronze/iron, and iron, pl. $159 \mathrm{~h}-\mathrm{k}$ ), there are some unusually shaped fragments such as CS 467 (pl. 159i). Identification is difficult but their snakelike shape is too suggestive to think of them only as lumps (cf. Amiet 1966:384, fig. 292).

## 27C. ORNAMENTS

The following major classes of metal cast ornaments are listed in the catalog:

27C. 1 EARRINGS
27C. 2 FINGER RINGS

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27C. }3\mathrm{ TORQUES
27C.4 BRACELETS
27C.5 TACKS
27C.6 BUTTONS
27C.7 CAPS
27C.8 CHAINS
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## 27C.1. EARRINGS

Objects classified as earrings ( $\mathrm{d}<2.0 \mathrm{~cm}$ ) in this group also may have been used for hair rings, nose rings, suspension rings, et cetera. Parallels, and the occurrence of bronze and iron rings in this size category suggest an Iron II date.

## 27C.1.1. Circular in Section

Closed hoops and overlapping hoops in this class are all made of bronze (pl. 1591-q). A bronze fragment of grooved wire was found in the dirt at Shaffe (Sha 19). We have classified this fragment which has a small diameter tentatively as an earring with diameter smaller than 2.0 cm .

## 27C.1.2. Spirally Coiled

The spirally coiled earrings are all made of bronze (pl. 159r-t). They may have been used as hair rings to keep tresses of hair together when their owners appeared in temples (Woolley 1934:241).

## 27C.1.3. Tapered Hoops

The tapered hoops, used as earrings or nose rings, are made of bronze (Sor 985, pl. 159u), lead (Sor 300, pl. 160m), or silver (Sor 175 and 616, pl. 160j, k). Tomb 1 at Zarde Savar yielded two silver earrings (Zar 2, pl. 1601 and Zar 3).

## 27C.1.4. Boat-Shaped or Hooked

The boat-shaped hooks used as earrings are made of iron (Sor 321, 369, pl. 160d, e) or made of bronze (Sor 1598, 984, and 1014, pls. 159v, w, and 160a). Sor 1598 shows traces of iron at one end, so it may have been an earring made of bronze and iron. A bronze parallel for this group of earrings is known from a grave at Sialk A (V) (Ghirshman 1939, pl. 38:S 452a).

## 27C.1.5. Open Hoops with Globules

Two bronze open hoops with globules at one end were retrieved from tomb 1 at Chujale (ChJal 1, pl. 160c and ChJal 2 ). At Surkh Dum-i-Luri a fragment was found which originally might have been of the same shape (Sor 1518, pl. 160b). An excavated parallel is known from Khurvin (Vanden Berghe 1968a: no. 284).

## 27C.1.6. Knobbed

Knobbed earrings are all made of iron (pl. $160 \mathrm{f}-\mathrm{i}$ ); they differ only in the number of knobs at the outer and/or inner edge. Bronze earrings with an open hoop and metal globules on the outer edge are known from 'Luristan' and Khurvin (cf. 27B.1.5, Godard 1931, pl. 29:98; Vanden Berghe 1968a, pl. 40:284; Moorey 1971a:229). Although our knobbed earrings and boat-shaped hooks are obviously related to such globule-decorated earrings, it is hard to see how these earrings were worn. Instead of being pointed to pass through the ear lobe, these earrings end in a curl. Could the curl have been prolonged by thin iron pins that passed through the ear lobe and now have disappeared? Sor 1598, for example, has traces of iron oxide on the end opposite the curl. Or could the curled end at first have been straight, then passed through the ear and finally bent into a curl to prevent it from slipping out of the ear? Sor 1677,
described as an iron "scalloped loop," was found in level 3A. No drawing is available to warrant a classification with the 'knobbed earrings'.

Comparisons for earring types 27C.1.4-6 and the fact that they are made of bronze as well as iron suggest an Iron II date. ${ }^{2}$

## 27C.2. FINGER RINGS

Rings ( $2.1 \mathrm{~cm}<\mathrm{d}<3.0 \mathrm{~cm}$ ) in this group again may have had several functions, as in the case with finger rings, nose rings, suspension rings, part of chains, et cetera.

## 27C.2.1. Closed Hoops

The closed hoop type of finger rings, circular in section (pl. 160n-r, w), are all made of bronze, except for Sor 381, which is made of iron (pl. 160w). We have classified in this class closed hoops with variously shaped cross sections such as Sor 966 , a pierced disc that suggests use other than as a finger ring (pl. 160q). Sor 1094a, with a rather elaborate cross section, may have been a finger ring (pl. 160r).

## 27C.2.2. Overlapped Hoops

Finger rings with overlapped hoops are all made of bronze ( $2.1 \mathrm{~cm}<\mathrm{d}<3.0 \mathrm{~cm}$ ). They vary in section and the shape of their ends, probably because of the way they were cut from the bronze rods used for the production of these rings.

## 27C.2.3. Zoomorphic Terminals

A bronze ring with zoomorphic ends fits into the well-known Luristan tradition (Sor 1509, pl. 160 v ). One end of the ring is shaped as a snake head which is biting its tail that forms the other end. Serpent terminals are known from examples in the Caucasus during the beginning of the Iron Age (Schaeffer 1948, fig. 237:11).

## 27C.2.4. Unclassified

The rings not classified, on account of their fragmentary state or missing drawing, include examples made of bronze and iron.

## 27C.3. TORQUES

A plain bronze torque with hooked ends (Sor 1391, pl. 160x) is known from burials excavated at Dinkha Tepe (period II and III; Muscarella 1974a:47, fig. 16:1039; 63, fig. 32:1040). Muscarella shows that Iron I was the period in which torques were most popular; their popularity diminished in Iron II (Muscarella 1974a:78).

The most elaborate torque comes from a Dinkha II grave (Muscarella 1974a:68, fig. 39:115). The hooked ends suggest that torques were worn as a closed hoop. Two closed examples were excavated at Dinkha (Muscarella 1974a:47, fig. 16:1037; 61, fig. 27:1039). Although one of the Dinkha examples (1039) is too small for a torque, they seem to confirm the relation between hooked ends and the way these torques were worn. At Qaleh a torque was found in the dirt dumped by unauthorized excavators (Qal 1, pl. 161a).

[^39]
## 27C.4. BRACELETS

The majority of the bronze and iron rings with diameters exceeding 3.1 cm , found at Surkh Dum-i-Luri are made with open hoops which are circular in section. They vary in the shape of their ends. In most instances ( 22 out of 61) the ends are plain. Next most numerous are cut ends, i.e., flat, cylindrical ends that look as if they were cut from a bar ( 19 out of 61 ). A small minority of open hoops not round but plano-convex or square in section, also made of bronze and iron, is found at Surkh Dum-i-Luri. The majority of overlapped hoops, circular in section, is made of bronze; Sor 61 is made of iron (pl. 162i). At Shaffe, tomb 2 yielded an iron hoop with oval section (Sha 32). At Zarde Savar, a bronze open hoop with oval section was found in one of the test trenches (Zar 7, pl. 162c).

At Siyah-Gur a bronze open hoop with circular section was found (S Gor 1); this bracelet is grouped tentatively with the Iron II metal objects.

Two overlapped hoops with circular section were found in the dump dirt at Shaffe. Sha 3 (pl. 162j) is made of bronze and Sha 6 is made of iron. At Khatun Ban two iron overlapped hoops were found in tomb 8 (Kha 69a, b).

Parallels can be found in any period of the Bronze or Iron Age in Iran.

## 27C.4.1. Open Hoops

## 27C.4.1.1 to 27C.4.1.6 (see catalog)

A large group of bronze and iron (pls. 161b-n and 162a-f) open hoops was retrieved from the sanctuary at Surkh Dum-i-Luri. Siyah-Gur and Kamtarlan I yielded three open hoops. The largest diameter encountered in this group is 7.6 cm . These objects may have been used mainly as bracelets or anklets (cf. Goff 1978, fig. 13:2; cf. CS 399 and 401, pl. 147a-d). Moorey, however, assigned open hoops with a diameter between 9 and 13 cm to the class of anklets (Moorey 1971a:227). On the basis of their ends and section the open hoops are subdivided into several classes. The different ends and sections indicate that these open hoops were made from cast rods which sometimes had been cut before they were bent. The group of open hoops with circular section is the largest (64). The open hoops with plano-convex section (6) and open hoops with square section (4) are rather small.

## 27C.4.2. Open Band

A bronze open band was cast in bronze and decorated with a pattern of parallel grooves interrupted by rectangles in relief (Sor 437, pl. 162g).

## 27C.4.3. Overlapped Hoops

## 27C.4.3.1. Plain Ends

## 27C.4.3.2. Cut Ends

The overlapped bronze and iron hoops were found at Chigha Sabz, Shaffe, and Surkh Dum-i-Luri (pl. 162h-l). A subdivision of this group is based on the different ends (plain or cut). Sor 1057 (pl. 1621) has small knobs at the ends which may have been caused by corrosion. Another possibility is that these knobs were made for a better attachment of a threedimensional cast end (cf. 27C.4.5 or 27C.4.6).

## 27C.4.4. Twisted Hoops

The bronze twisted bracelets are known from graves at Bard-i Bal and Dinkha III (Vanden Berghe 1973a, pl. 20:3; Muscarella 1974a:45, fig. 11:466) and dated to Iron I. The provenience from Chigha Sabz as well as from Surkh Dum-i-Luri suggests a tradition of manufacturing these bracelets throughout the Iron Age in Iran (CS 444, Sor 566 and 1396, pl. $162 \mathrm{~m}, \mathrm{n}$ ).

## 27C.4.5. Zoomorphic Terminals

The bracelets with zoomorphic terminals, characteristic of Luristan bronzework, are all made of bronze. Sor 881 (pl. 163a) has one stylized snakehead as a terminal, similar to a bracelet found at Bard-i Bal (Vanden Berghe 1973a:29, fig. 15:8). Among this zoomorphic group of bracelets, those with ibex heads at either end are most common at Surkh Dum-i-Luri (e.g., Sor 1274, pl. 177g). They have also been retrieved from the tombs at Bard-i Bal (Vanden Berghe 1973a:24, fig. 11:52, pl. 21:1). Sor 1395 has an ibex head biting into its hoof, which forms the other end of the bracelet (pl. 178b). Sor 1632 (pl. 178c) illustrates terminals of highly stylized animals with open maws, an artistic device also used on pinheads (see Sor 1326 , pl. 179 h ). With their wide open, straight jaws and curling snouts they seem to portray three-dimensionally the same monsters that we see two-dimensionally on seals such as no. 96 (ch. 32A.2.5, Sor 923, pl. 238:96).

## 27C.4.6. Anthropomorphic Terminals

A bronze fragment with an anthropomorphic terminal is without any parallel in Iran (Sor 1623, pl. 163b).

## 27C.4.7. Heavy Open Hoops

At Khatun Ban, tomb 3 yielded two bronze open hoops with tapered squared ends and herringbone decoration (Kha 37, pl. 163c). Parallels are known from tomb A4 at Kutal-i Gulgul, dated to Iron I-II.

## 27C.4.8. Unclassified

Twenty more bracelets and groups of bracelets (bronze, bronze/iron, and iron) are included in the catalog, but not classified as in most cases no drawing is available.

## 27C.5. TACKS

The tacks are all made of bronze (pl. 163d-f); parallels are known from an Iron II grave at Dinkha Tepe (Muscarella 1974a:71, fig. 45:T1011) and from an unstratified context at Baba Jan (Goff 1978:38 and 40). There is no evidence as to how they were used; possibly they decorated leatherwork.

## 27C.6. BUTTONS

Nearly all the buttons are made of bronze except for a few examples made of iron and silver. Most buttons have a concave-convex disc shape and vary in the shape of their loops at the concave back. Loops vary from small loop snaps (27C.6.2.1), rectangular and rounded in section to larger loops (27C.6.2.2). Presumably the buttons were sewn onto clothing, but no evidence was found to confirm this. We have grouped buttons in the unclassified class (27C.6.5) on account of their fragmentary state or missing drawings.

## 27C.6.1. Cross-Shaped

A small group of three bronze buttons is cross-shaped with a loop back (cf. Sor 918, pl. 163g).

## 27C.6.2. Hemispherical

## 27C.6.2.1. Small Loops

A large group of the bronze buttons found throughout the sanctuary at Surkh Dum-iLuri and the cemeteries at Qumish and Shaffe have a hemispherical top with a small loop at the concave back ( $\mathrm{pl} .163 \mathrm{~h}-\mathrm{j}, \mathrm{o}$ ). These buttons may have been attached to clothing and leatherwork. The small loop for a thin thread may indicate the buttons were attached to clothing.

## 27C.6.2.2. Large Loops

The majority of the bronze buttons found at Surkh Dum-i-Luri are provided with a large loop at the concave back ( $\mathrm{pl} .163 \mathrm{k}-\mathrm{m}$ ). This loop may have held a thick thread used for attachment to leatherwork.

At Baba Jan buttons with both small and large loops were excavated in the "Trenches by Graveyard" (Goff 1978, fig. 14:34-44). At Sialk a number of buttons were retrieved from tomb 15 (Ghirshman 1939, tomb 15).

## 27C.6.3. Flat Disc With Beveled Edge

Besides the cross-shaped buttons Sor 1233:1 (pl. 163n) is the only bronze button of a different shape.

## 27C.6.4. Knobbed

At Qumish and Shaffe (class C.6.2.1) bronze and iron buttons with rectangular loops were found in the dirt dumped by unauthorized excavators; a jar burial at Shaffe B (x2) yielded similar buttons (Sha 29), together with beads, iron pins, and a boss (cf. ch. 28) and an iron bracelet (Sha 32). A knobbed or bossed button (Sha 17, pl. 163p) was also found in the dump dirt; parallels are known from Sialk (Ghirshman 1939, pl. 56:S 819a), Zendan (Kleiss and Boehmer 1965:773, fig. 77a), Karmir Blur (Piotrovsky 1969, fig. 79), and Agrab (Muscarella 1973:66, fig. 27:17). The iron buttons found at Merayun are different from the bronze shapes; they may be dated to Iron III. No clear parallels are known from excavations in Iran. Mer 1 and 2 are provided with a rail; the flat base may have been on the inside to fix the button onto leather ( $\mathrm{pl} .163 \mathrm{q}, \mathrm{r}$ ). Mer 3 is more complex and consists of three parts: the button probably fixed by the rail, but on the inside the rail ends in a ring through which another ring is attached (pl. 163s).

## 27C.6.5. Unclassified

A further fourteen miscellaneous bronze buttons were excavated at Surkh Dum-i-Luri. As there are no illustrations for these examples, they are assigned to the unclassified category 27C.6.5. The object and loci numbers are recorded in the catalog.

## 27C.7. CAPS

The caps are all made of bronze and are circular and concave-convex in shape (pl. 163t and $u$ ). They probably were attached at the end of wooden sticks or other perishable material.

## 27C.8. CHAINS

Two small chains of bronze (Sor 1061 and 1064, pl. 164a, b) consist of three rings of different sizes. Two chain fragments (Sor 640 and $725, \mathrm{pl} .164 \mathrm{c}, \mathrm{d}$ ) consist of bronze and iron rings of different sizes. Similar chain fragments were retrieved from a grave at Dinkha Tepe
(Muscarella 1974a:71, fig. 45:1034, 1035, 1041a, b) and Sialk B (VI; Ghirshman 1939, pl. 75) from contexts dated to Iron II (and III).

## 27D. PINS

The classification of pins is based on the shape of their heads. In the catalog their order progresses from simple to more elaborate pins. The pins made of bronze, bronze with iron, and iron alone are not presented in separate classes, but grouped together according to the shape of their heads. The following major classes of cast metal pins are listed in the catalog:

```
27D.1 SHANKS
27D. }2\mathrm{ SLIGHTLY THICKENED HEADS
27D. }3\mathrm{ RECTANGULAR HEADS
27D.4 PRONGED HEADS
27D.5 KNOTTED HEAD
27D.6 CURLED HEADS
27D. }7\mathrm{ DOUBLE SPIRAL HEADS
27D.8 SLIGHTLY FLANGED HEADS
27D.9 PLAIN DOMED OR CONICAL HEADS
27D.10 MULTIPLE-RINGED HEADS
27D.11 SPHERICAL HEADS
27D.12 VASELIKE OR POPPY HEADS
27D.13 FRUIT HEADS
27D.14 BLOSSOM HEADS
27D.15 OPEN CAGE HEADS
27D.16 ZOOMORPHIC HEADS
27D.17 ANTHROPOMORPHIC HEADS
27D.18 CRESCENTIC HEADS
27D.19 SYMBOL HEADS
27D. }20 'HIDE' HEADS
27D. }21\mathrm{ OPENWORK HEAD
27D. }22\mathrm{ UNCLASSIFIED
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## 27D.1. SHANKS

The classification of pins is based on the different heads on top of bronze or iron shanks. A large number of pins, however, was found without the original head (e.g., Sor 1561:2, pl. 173a). The iron shanks may have had bronze heads. Several shanks have rings preserved in the pin's neck. One shank (Sor 593) originally may have been a clothing pin with plain domed or conical head (cf. 27D.9).

## 27D.2. SLIGHTLY THICKENED HEADS

Pins with slightly thickened heads (pl. 164e, f) are all made of bronze except for one example of iron (Kha 46); parallels are known from graves at Khurvin (Vanden Berghe 1968a, no. 300), Dinkha Tepe (Muscarella 1974a:42, fig. 7:607), and the mountain shrine at Tang-i Hammamlan (Thrane 1965:158, fig. 5). These pins may have been manufactured throughout Iron I and II.

## 27D.3. RECTANGULAR HEADS

Pins with rectangular heads (pl. $164 \mathrm{~g}-\mathrm{k}$ ) include a pin with twisted shank and globular top (Sor 130, pl. 164g); iron examples like Sor 52 are very corroded, but their heads are rectangular (pl. 164i).

## 27D.4. PRONGED HEADS

Pins with pronged heads (pl. 1641-o) are made of iron or a combination of bronze head and iron shank; no parallels from excavated contexts are known.

## 27D.5. KNOTTED HEAD

A pin with a knotted head is made of bronze, and also without any excavated parallels (Sor 1121, pl. 165a).

## 27D.6. CURLED HEADS

Pins with curled heads are all made of bronze ( $\mathrm{pl} .165 \mathrm{~b}-\mathrm{d}$ ). They were very popular in earlier periods and may possibly represent heirlooms. Sor 1023 has a twisted shank (pl. 165c). At Qumish, in the dirt dumped by unauthorized excavators, a bronze pin with curled head was found among other bronze and iron objects (Qum 6, pl. 165d).

## 27D.7. DOUBLE SPIRAL HEADS

Pins with a double spiral head made of bronze (pl. 165e, f) also have a long tradition (Huot 1969). Similar pins are known from excavated contexts in Iran at Tepe Hissar (Schmidt 1937, pl. 29:H 4856 and pl. 48: H3496) and Khurvin (Vanden Berghe 1968a, no. 313). These examples are from third and second millennium B.C. contexts respectively. The pins excavated at Surkh Dum-i-Luri confirm that there was a long tradition of making such pins, from early third millennium to early first millennium B.c. (cf. Moorey 1971:187a).

## 27D.8. SLIGHTLY FLANGED HEADS

Pins with slightly flanged heads are all made of bronze (pls. $165 \mathrm{~g}-\mathrm{k}$ and 178 d ). Herringbone patterns, rings, and zigzags are common decorative patterns. Parallels are known from early contexts, such as the tombs at Mir Vali and the graves at Chigha Sabz (cf. ch. 21). An Iron Age parallel is known from Khurvin (Vanden Berghe 1968a, no. 299). In his discussion of no. 234, Moorey tentatively attributes this type of pin to northern Persia at the end of the second millennium B.c. (Moorey 1971a:176-77). The examples found by the Holmes Expeditions to Luristan suggest a long tradition of these pins in Luristan.

## 27D.9. PLAIN DOMED OR CONICAL HEADS

Pins with plain domed or conical heads are made of bronze and iron (pls. 1651-r and $166 \mathrm{a}-\mathrm{c}$ ). The bronze pins include types with and without perforated shanks. As can be seen from the parallels in the catalog, they were manufactured throughout the Iron Age. This tradition can be dated back to the third and early second millennium B.C. Examples are known from Bani Surmah (Vanden Berge 1968b:57), Kamtarlan II, and Surkh Dum-i-Luri (cf. ch. 21B.3.4; Sor 1822, pl. 122j). Moorey makes a distinction between conical heads fitted directly on the top of the shank and heads joined to the shank by a short concave neck. At Surkh Dum-i-Luri both types are found. The Bronze Age examples all belong to the former type (cf. ch. 21).

A tomb (x3) at Khatun Ban yielded two iron pins (Kha 40 and 42) with plain domed or conical heads ( pl .166 c ). Another tomb ( x 6 ) yielded a bronze fragmentary pin with conical head and ringed neck (Kha 59, pl. 166a).

## 27D.10. MULTIPLE-RINGED HEADS

Pins with multiple ringed heads (pl. 166d-n) are all made of bronze, except for Sor 708 c and 25 , which are made of iron and lead. The simpler examples, Sor 834, 922c, and

1337 (pl. 166f, g, h), are decorated with rings; to the ringed top of Sor 825 an engraved zigzag pattern is added ( $\mathrm{pl}, 166 \mathrm{e}$ ). A more elaborate decoration consists of rings alternating with beads, sometimes striated (pl. 166i). Excavated parallels are known from Dinkha Tepe, Tepe Giyan, and Tang-i Hammamlan (cf. catalog).

## 27D.11. SPHERICAL HEADS

Pins with spherical heads made of bronze, bronze/iron, and iron are one of the larger categories of pins found in the sanctuary at Surkh Dum-i-Luri (pls. 1660, p; 167a-q; 168a, b). The best parallels are known from the excavations at Bard-i Bal (Vanden Berghe 1973a:24, fig. 11:63, 66-69), and from graves dated to terminal Iron I and Iron II. The pins found in two graves at Bard-i Bal are of a simple type. The Surkh Dum-i-Luri examples show more variety in the number of rings at the neck. The pins(?) published by Ghirshman from the Solduz Valley also show the multiple rings in the neck (Ghirshman 1939, pl. 100:20). At Dinkha Tepe, however, these pins did not occur in the excavated graves. A large group of pins with spherical heads consists of bronze heads with iron shanks. The iron spherical heads are of a rather simple shape without ringed necks (Sor 368 and 399, pl. 167p, q), except for Sor 86, which shows two faint rings at the neck (pl. 168a). Based on the parallels and the large group of bronze heads with iron shanks we may assume an Iron II date for this group of pins.

At Qumish a pin with spherical head was found in the dump dirt (Qum 8, pl. 168b). At Chujale near a tomb (x1), two pins with bronze spherical head and iron shank were found (ChJal 5 and 8, pl. 167o). For the latter pins we propose an Iron II date based on the finds in the tombs.

## 27D.12. VASELIKE OR POPPY HEADS

Pins with vaselike or poppy heads are made of bronze, bronze with iron, and iron alone (pls. 168c-s and 169a-h). These are the most numerous pins found at Surkh Dum-i-Luri. They show a great variety of shapes, with and without ringed necks. In contrast with the sphericalheaded pins, most pins with vaselike or poppy heads are made of bronze. There are quite a few of this type made of iron, but the group of bronze heads with iron shanks is considerably smaller than the spherical-headed group. For a discussion of the poppy or pomegranate seedcase, which provided the inspiration for this group of pins, we refer to Moorey 1971a:188 and 303.

## 27D.13. FRUIT HEADS

Pins with fruit heads (pls. 169i-v and 170a) are all made of bronze, except for Sor 840c which has a bronze head and an iron shank (pl. 169v). The pins are characterized by a spherical or squared body provided with studs, an engraved grid, or holes to take inlays. Some are topped by a knob such as the pins with vaselike or poppy heads. Parallels for some of these pins are known from a grave at Shurabah (Vanden Berghe 1972:45, fig. 11:40, 41) dated to terminal Iron I-II. Not surprisingly, in view of the context, the sanctuary of Surkh Dum-i-Luri yielded a greater variety and more decorative examples. Based on these parallels this group of pins also may be dated to Iron II. A bronze pin with fruit head also was found in the dump dirt at Qumish (Qum 7, pl. 170a); the head consists of a cube with obliquely cut corners, all faces with pointed incisions, and a ringed neck. We propose an Iron II date for this pin based on the finds at Qumish.

## 27D.14. BLOSSOM HEADS

Pins with blossom heads are made of bronze or iron (pls. $170 \mathrm{~b}-\mathrm{t}$ and $178 \mathrm{e}, \mathrm{f}$ ). The main characteristic of this group is a flowerlike top with pistil (with or without anther) and petals that are indicated by studs or incisions. The bodies below these floral tops vary from tubular (Sor 309:2, pl. 170b), ovoid (Sor 672 and 1093:7, pl. 170c, f), through plain globular
(Sor 186 and 326 , pls. 170 g and 178e) and striated (Sor 7, pl. 170m) or fluted globular (Sor 379 and 724, pl. $170 \mathrm{i}, \mathrm{j}$ ) to studded (Sor 443,574 , and 325 , pls. $170 \mathrm{k}, \mathrm{l}$ and 178 f ) shapes, rendering incipient poppy or pomegranate fruits. At times the fruit is represented as swelling and the withered blossom correspondingly reduced (Sor 821b and 1093:15, pl. 170q, r). The iron examples often resemble this last-named, less decorated type. A pin with blossom head also occurred in the dump dirt at Qumish; the head is in the shape of an elongated barrel with a top of four petals (Qum 9).

## 27D.15. OPEN CAGE HEADS

Pins with open cage heads are all made of bronze, except for Sor 492, which consists of a bronze head and iron shank (pl. 171c). The open cages are topped by discs (pls. 171a, c and 179a) or a floral top (pl. 171b). Two pins are provided with a loop at the neck (pl. 171a, b), presumably to secure a string such as was attached to a hole through the shank in the second millennium B.C. toggle pins (cf. ch. 21).

## 27D.16. ZOOMORPHIC HEADS

Pins with zoomorphic heads are a typical product of Iranian bronzeworkers. As early as the third millennium B.C. pins with zoomorphic heads are found in southern Mesopotamia (cf. Moorey 1971a:191-92). Excavated examples from the second millennium b.c. are scarce. Towards the end of the second and the beginning of the first millennium B.c. a great variety of zoomorphic heads occurs in excavations throughout Iran. In comparing the examples known from Iranian context, many differences in style can be seen. At Sialk lion-headed pins and wild goat-headed pins were found in the graves of cemetery B (Ghirshman 1939, pl. 29:1). At Marlik lion-headed pins and a wild goat-headed pin were found (Negahban 1964, fig. 85:131). At Hasanlu bronze couchant lions, cast over spikes of iron, were found in association with the skeletons in the columned hall of building II (Porada 1965a:116, pl. 29, fig. 67).

## 27D.16.1. Horned Animal Heads

Pins with horned animal (wild goat) heads, all made of bronze, are the most numerous type of zoomorphic pins found at Surkh Dum-i-Luri (pls. 171d-s, 172a-f, and 179b-d). The head is cast as a prolongation of the shank, a ridge, double reels, or two groups of double reels (Sor 1458, pl. 172d) divide the heads from the shank. The horns often form a loop and curve up after joining the neck. One example (Sor 10, pl. 171d) is provided with an additional loop at the neck. The ibex heads, though superficially alike, are never identical, being subject to small variations in detail. One might think that this popular type was mass-produced. They were not, however, cast in a two piece mold of stone, but by the technique of the "lost wax process."

## 27D.16.2. Winged Monster Heads

Pins with winged monster heads, all made of bronze, form a group of pins in which the complex artistic motifs and skills of the Luristan bronzeworkers become very evident. The protomes are cast as a prolongation of the shank. Horned winged animals with horns curved back (Sor 17 and 1037, pls. 179g, 172g, and 179e) are probably winged ibexes. Horned winged monsters with horns curving forward (Sor 1537, pl. 180a) can be interpreted as bulls. Sor 1326 and Sor 426 without horns, but with maw ajar, could be winged lions (pls. 179 h and 180b). Sor 1163, with wide open straight jaws (pl. 179f), is reminiscent of the monsters also seen on a bracelet (Sor 1632, pl. 178c). Moorey proposes for these fantastic winged animals a date not earlier than the late 8th or 7th century b.c. (Moorey 1971a:198). Winged animals, however, appear in the early first millennium on seals from Babylonia and Elam (Porada 1948, nos. 747, 749, and 750; Porada 1965a, figs. 30 and 49). The pins found at Surkh Dum-i-Luri are from the latest phase of the building which indicates an early Iron III date.

## 27D.16.3. Recumbent Horned Animals

Pins with recumbent horned animals as pin heads (pls. 180c, 187e, and 188a-c), all made of bronze, mostly comprise horned animals with a shaft-hole below their body, so they were in a position perpendicular to the shank. Sor 1129 shows a different composition; the animal is cast in prolongation to the shank (pl. 180c). Also the head of Sor 1129 is turned aside, as in Sor 982. On all examples, except Sor 1129, the shank is missing. In these instances an iron shank may have disappeared. No similar pins are known from excavated contexts. From their provenience at Surkh Dum-i-Luri we may assume they also can be dated to Iron II.

## 27D.16.4. Standing Horned Animals

Pins with standing horned animals (pl. 180d-f), all made of bronze, are more elaborate than the horned animal figurines in bronze found at Surkh Dum-i-Luri. The feet are drawn together on a plinth, the base of which is provided with a hole for the shank (Sor 1078, pl. 180e). Another example (Sor 152, pl. 180d) may be reconstructed in a similar way. Sor 977 is a pin surmounted by two animals standing on a plinth (pl. 180f). One is horned, the other is smaller and hornless, but wears a bronze ring around its neck.

## 27D.16.5. Fruit Head Surmounted by Horned Animal Head

A fruit head surmounted by a horned animal head, made of bronze, is a combination of two motifs and shows the artistic freedom of the Luristan bronzeworker (Sor 1432, pl. 181a).

## 27D.16.6. Froglike Heads

Pins with froglike creatures as heads, have bronze heads on iron shanks (Sor 400 and 978, pl. 181b, c).

## 27D.16.7. Enigmatic Animal Heads

Three bronze pins have heads composed of enigmatic quadrupeds. Again these pins are an example of the artistic freedom and fantasy of the Luristan bronzeworkers. Based on the spatulate point of Sor 50 we may assume this object was part of a make-up set, e.g., for applying kohl to the eyes (pl. 181d). Sor 209 is a combination of a demon's head, consisting of spiral lines and a couchant animal, the head of which is missing (pl. 181f). Sor 305 is a cocklike bird with suspension loop at the back and shank hole below the body (pl. 181e).

## 27D.16.8. Sleeping Duck Heads

Pins with sleeping duck heads (pl. 180d-f) are all made of bronze, except for Sor 302 (pl. 172t) which is composed of both bronze and iron. Specimens of this large group of pins were found in all levels of the building at Surkh Dum-i-Luri. As in the case of the ibex heads, they all seem similar but are never identical. This may be further evidence that this popular type also was produced by using the technique of the "lost wax process." In many cases the bronzeworker has gone so far in his stylization that the prototype of a duck sleeping with its head tucked between its wings is hard to recognize. Some shapes seem to be highly simplified examples of this motif (Sor 1507, 1595, and 1125:2, pl. 172p, q, s).

## 27D.16.9. Swimming Duck Head

One pin with the head of a swimming duck is made of bronze (Sor 423, pl. 182a). An excavated parallel is known from tomb A4 at Kutal-i Gulgul, dated to terminal Iron I-II.

## 27D.17. ANTHROPOMORPHIC HEADS

Pins with human figures as heads are all made of bronze except for Sor 1561:1 (pl. $173 \mathrm{a}: 1$ ) which is iron; shanks are missing so they may have been made of bronze or iron. ${ }^{3}$ The turban-beret headdresses are similar to those on the human figurines of baked clay (Sor $458,467,525$, and 1003 in the Iron III catalog of chapter 25B.8, pl. 146a-d). These are all comparable to Elamite hairdresses known from Susa and dated from the Sukkalmahhu period in the first half of the second millennium B.C. to the Neo-Elamite period in the first half of the first millennium B.c. Sor 665 represents a praying male (pl.182d), Sor 772 is a naked female supporting her breasts (pls. 172 u and 182e), and Sor 1132 is a clothed praying female (pl. 182b). Sor 1207 has a prominent head with a large beret and below the long neck an enigmatic complex of arms or legs, with a depression in the middle (pl. 182c).

## 27D.18. CRESCENTIC HEADS

## 27D.18.1. Single Crescentic Heads

Pins with crescentic heads (pls. 173b-k, 183a, b) are all made of bronze, except for Sor 708 d and 1566 which are made of iron. Their shape suggests a bull's horn, but only on Sor 1208 (27D.18.3) is the crescent associated with a bull's head (pl. 174c). Some crescents are provided with a central protuberance. The only known excavated parallels are from Khurvin (Vanden Berghe 1968a, nos. 314, and 316). The protuberance can be a central tab (Sor 1554, pl. 173j) or central crest (Sor 1541 and 1607, pls. 173 k and 183b). The latter shape resembles a stylized sleeping duck. These pin heads can be seen as simplifications of zoomorphic crescentic heads.

## 27D.18.2. Double Crescentic Head

Sor 1278 is a bronze double crescentic head with a central protuberance (pl. 1731).

## 27D.18.3. Zoomorphic Terminals

The heads of the zoomorphic crescent heads are all made of bronze (pls. 174a-c and $183 \mathrm{c}-\mathrm{f}$ ). Most shanks are missing; they may have been of bronze or iron. Sor 1536 is complete and made entirely of bronze (pl. 183f); Sor 1539 and 1571 have iron shanks (pl. 183c, d). On these pins the tips of the crescents all end in homed animal heads. Where it is preserved the central motif consists of a bull's head (Sor 1208, pls. 174c and 183e) or of a sleeping duck (Sor $1571, \mathrm{pl} .183 \mathrm{c}$ ). Sor 1536 is even more complex; the crescent with central sleeping duck and horned animal heads at the tips is cast onto a horned animal head which forms the top of the shank (pl. 183f).

## 27D.18.4. Anthropomorphic Terminals

The heads of the pins with anthropomorphic terminals are all made of bronze; Sor 1341 has an iron shank (pl. 184a). The central proturberances of Sor 44 and Sor 201 consist of human heads; the tips of these crescents are plain (pls. 174d and 185b). Sor 1573 has a crescentic frame with horned animals ('wild goats') and birds ('cocks') at the tips; the central element is a female figure (pl: 185a). The female figure is in a squatting position. A central tab emerges from between her legs, possibly indicating childbirth. The female figure grasps the horned animal heads. The birds growing out of the horned animal heads are attached to the feather crown of the female figure. Sor 1341 has a crescentic frame with central rod ending in a human head (pl. 184a). Arms or tresses of hair touch the beards of the horned animals at the

[^40]crescent's tips. The horns of the animals curve back to the central rod and are supported by a double scroll.

## 27D.19. SYMBOL HEADS

The heads of the symbolic type pins are all made of bronze (pls. 174e, f and 175 m ). Sor 292 and Sor 1093:11 end in solid triangles surmounted by a disc-topped cylinder or by a small disc (pl. 174e, f). The triangles have studded edges and studded central division.

## 27D.20. 'HIDE' HEADS

All bronze and bronze/iron 'hide'-shaped heads are square-shaped with pawlike corners, which suggest that an animal hide may have served as the prototype for this motif. In the centers are many petaled rosettes in relief (pl. 184b-d).

## 27D.21. 'OPENWORK' HEAD

Only one pin with a square 'openwork' head has been retrieved from the sanctuary at Surkh Dum-i-Luri (Sor 1465, pl. 185d). Its bronze head is cast over an iron shank. The openworked design consists of a double-headed, horned genie grasping two lions at their throats. If the shank is placed downwards, the design is upside down, which confirms that in Iron Age Luristan pins were worn with their points upwards (cf. Jacobsthal 1956, figs. 33 and 335).

## 27D.22. UNCLASSIFIED

Sor 1525 consists of five miscellaneous bronze and iron pins too fragmentary to classify.

## 27E. IBEX HORN-SHAPED OBJECTS

The ibex horn-shaped objects ( $\mathrm{pl} .174 \mathrm{~g}-\mathrm{k}$ ) are all made of bronze, except for Sor 1257:2 and 1676 which are manufactured from iron and lead (pl. 174k). These objects were found scattered throughout the building at Surkh Dum-i-Luri. A similar object was found at Tang-i Hammamlan (Thrane 1965:158, fig. 5). Sor 1676, made of lead, is tentatively classified within this group; although it is incomplete, it seems to carry the transverse ribs characteristic of ibex horns. In most bronze examples, the horns are simplified to a degree that makes them hard to recognize as ibex horns; they simply consist of a thin, flat bronze crescent folded in the center so as to suggest the sweep of a wild goat's horns (e.g., Sor 158, pl. 174h). On Sor 878 the horns have been given the notched outlines characteristic of the ibex (pl. 174i). These objects may well have been cut out of a bronze sheet, rather than cast. The custom of depositing token ibex horns in the temple of a (nature?) goddess has a long tradition in Iran. As early as the A1 phase of the acropolis at Susa (carbon-dated to $3143 \pm 105$ B.C.), red-and-black painted, notched horns of baked clay were deposited as votive gifts to Ninhursag, 'Lady of the Mountain', presumably out of gratitude for success in the chase or in the hopes that the goddess would grant such success (Stève and Gasche 1971:167, pl. 37:5-7). Among Iranian peoples of northwestern India one can still find remnants of the cult of a goddess that owned all ibexes and wild goats and was venerated on a steep mountain slope by hunters who brought her horns (Porada 1965a:44).

## 27F. ANIMAL FIGURINES

## 27F.1. QUADRUPEDS

Quadruped figurines, all made of bronze, occurred in great variety throughout all levels in the building at Surkh Dum-i-Luri (pls. 1741, m, 186b, and 187j).

## 27F.2. HORNED ANIMALS

## 27F.3. RECUMBENT HORNED ANIMALS

Horned animals, all made of bronze, account for the majority of the quadrupeds. Most of them are in a standing position (pls. 174n-r, 186a, e-f, h-l, 187b-d, f-h, m-q and 188d, e); only three are in a recumbent position (pls. 175a, b, 186m, and 188f). In considering this group of quadruped figurines one is struck by the great number of different styles. Very simplified or crude figurines occur together with more elaborate and detailed figurines in all levels. An example of a similar bronze quadruped was acquired by Sir Aurel Stein at Bataki, near Tepe Girairan (Stein 1940, pl. 15:4). The sherds collected and published from this site suggest a third millennium b.C. date, but the exact provenience of the figurine is unknown. On the grounds of their similarity to Iron Age animal pendants (see below), we suggest an Iron I-II date for this group of objects.

## 27F.4. BIRD

Sor 1040, a bird figurine, is made of bronze; this highly stylized figurine is tentatively classified as such (pl. 175c). Alternatively, we suggest that the object could have been used as a tool.

## 27G. PENDANTS

## 27G.1. MISCELLANEOUS

The miscellaneous bronze and lead pendants include a lead foot (Sor 893, pl. 175g) of a type known from the tombs at Khurvin (Vanden Berge 1968a, nos. 329-331), a bronze wire pendant (Sor 1618, pl. 188k) without any excavated parallels, and Sor 1785 which is described as a double band with both ends rolled; unfortunately this pendant was not drawn.

## 27G.2. ANIMALS

27G.2.1. Quadrupeds

## 27G.2.2. Horned

27G.2.3. Birds
27G.2.4. Head
The pendants are all made of bronze. Horned animals form the majority of animals portrayed. A doglike creature (Sor 617, pl. 187a), a hare (Sor 955, pl. 188f), two birds (Sor 1013 and 1033; pls. 175d-e and 188h, i), an enigmatic animal (snake?) (Sor 1081, pl. 188gh), and a bull's head (Sor 1318, pl. 175f) also are represented. All pendants are provided with a suspension loop, except for Sor 120 and Sor 955 (pls. 187k and 188f). Sor 120, with a perforation vertically through the body, resembles a laterally perforated horned animal pendant from Khurvin (Vanden Berghe 1968a, no. 348). Parallels excavated from Parthian graves in Dailaman indicate that such pendants were worn as decoration on men's belts, possibly to record (or to elicit) success in the chase (Sono and Fukai 1968: Hassami-mahale tomb 4; Hori 1981, fig. 3:14). Sor 497 is an animal pendant of unusual size; a ring is attached to the hindlegs, which means that the ibex was hanging down when worn as a pendant (pl. 188j). No excavated parallels are known. In view of the frequent use of the ibex protomes as whetstone handles, one wonders if the ring was attached to a whetstone. The bird pendants are provided with incisions indicating tails and wings. Sor 1013 (pls. 175e and 188h) also has a grid pattern below the body. The doglike pendant (Sor $980, \mathrm{pl} .174 \mathrm{~m}$ ) has a collar around its neck. The hare pendant (Sor 955, pl. 188f) has an oblong perforation and may have been part of a string of beads. The enigmatic animal pendant (Sor 1081, pl. 188 g ) has a curled end for suspension; at the other end there is a snakelike head. The bull-headed pendant (Sor 1318, pl. 175f) is provided with incisions depicting eyes, nose, and ears at one side; the back side only shows
some casting folds. Excavated parallels for bird pendants are known from Khurvin and Bard-i Bal. At Khurvin (Vanden Berghe 1968a: nos. 346 and 349) a figurine and a pendant were found; the pendant is laterally pierced through the neck. At Bard-i Bal, outside the tombs, a bird figurine was found (Vanden Berghe 1973a:48, pl. 23:3). The parallels give little information about the exact date for these pendants, but we may assume an Iron II date for all examples from Surkh Dum-i-Luri.

## 27H. HUMAN FIGURINES

The two human figurines made of bronze represent nude males. Sor 430 has a grotesquely large head (figured on full title page). Sor 1342 is more naturalistic; the nude male is here holding a harp and standing on a base, from which two rods project downwards to attach the figurine to a base probably of wood or of some other material that has since decayed (pl. 185c). Clear parallels for these human figurines are not known from excavations in Iran.

## 27I. MISCELLANEOUS OBJECTS

Among the miscellaneous metal objects from Surkh Dum-i-Luri are an iron clasp (Sor 337, pl. 175h), a hollow hemisphere with a tapered cylindrical shank above and below (Sor 404, pl. 175i), and a hooked pin driven through a bronze disc (Sor 1171, pl. 175j).

## 27J. TUBULAR STANDS

At Khatun Ban tomb 4 yielded two bronze tubular stands (Kha 53 and 54, pl. 175k, 1). At the moment excavated standards are known from Bard-i Bal (Vanden Berghe 1973a:35, fig. 20:19; 24, fig. 11:51) and Tattulban (Vanden Berghe 1982:63, 66 and 67; figs. 28 and 29). The examples known from Bard-i Bal were found in reused Iron I-II tombs (tombs 17 and 68); the example found at Tattulban is dated by Vanden Berghe to terminal Iron II or probably Iron III. The pottery from tomb 4 at Khatun Ban is similar to the Bard-i-Bal pottery dated to Iron II (cf. ch. 25A.2.5, Kha 6 and 50). The tubular stands, thus, can be dated to Iron II.

CATALOG 27. IRON AGE CAST METAL OBJECTS

| Plate | Site and obj. no. | Arealburial lev. or elev. | Dimensions in cm | Mat. | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## 27A. WEAPONS

27A.1. ADZES

| 155a | Sor 198 | $1,2 \mathrm{~B}$ | $6.5 \times 3.6 \times 3.2$ |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| - | Sor 470 | 1,4, | $3.8+\times 5.3$ |
| - | Sor 973 | $1 \mathrm{NA}, 1$ | $6.5 \times 3.7+$ |
| - | Sor 1199 | $3,3 \mathrm{~A}$ | $3.5+\times 2.9$ |
| - | Sor 1328 | $3 / 13,2 \mathrm{~B}$ | $2.6 \times 5.4+$ |


| bronze | Shaft-hole decorated with ribs, <br> narrow blade widens out toward <br> convex edge, fragment <br> Blade fragment widening toward <br> convex cutting edge <br> Blade fragment widening toward <br> convex cutting edge <br> Blade fragment widening toward <br> convex cutting edge <br> Blade fragment widening toward <br> convex cutting edge, but blade <br> more narrow compared to Sor 470, | - |
| :--- | :--- | :--- |
| bronze | - | - |
| bronze | - | - |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

27A. WEAPONS (cont.)
27A.3. DAGGERS
27A.3.1. Bronze

| 155e | Sor 1628 | 1/3,2B | $8.0+\times 3.8 \times 1.6$ | bronze | Hilt fragment, flanged to take inlays, wedge-shaped pommel with rivet hole | Moorey 1971a, nos. 47-50 <br> Dyson 1964b, fig. 2 <br> Vanden Berghe 1973a, <br> fig. 23:10 | $1200-800$ в.с. <br> Hasanlu IV <br> Iron I-II |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 1786 | (?), 3A-1 | 5.4 | bronze | Hilt(?), double T part of hilh, both ends missing | - | - |
| 155 f | Sor 940 | 10, 1 | $5.0+\times 1.2$ | bronze | Hilt fragment, upper part tapers into saddle-shaped pommel | Moorey 1971a, nos. 51-52 Vanden Berghe 1973a, fig. 20:10 | $\begin{aligned} & 1200-800 \text { в.c. } \\ & \text { Iron I-II } \end{aligned}$ |
| 155 g | Sor 1631 | 1/3, 2B | $5.6+\mathrm{x} 3.6$ | bronze | Hilt fragment, solid grip, pommel divided into semicircular 'ears' | $\rightarrow$ fer | - |
| 155h | Sor 339 | 1-2, 2A | $44.3+\times 1.4 \times 0.2$ | bronze | Blade with tang, broken tang square in section, slight midrib, blunt point | Ghirshman 1966, pl. 92: GTZ 230 | 1300-(?) в.c. |
| 155i | Sor 445 | 1,1 | $14.9+\times 2.9 \times 0.7$ | bronze | Blade fragment, double ribs converge into high, rounded midrib | - | - |
| cf. 155i | Sor 343 | 1, 2B-A | $5.6 \times 1.3$ | bronze | Blade fragment, slight midrib, blunt point | - | - |
| cf. $155 i$ | Sor 965 | 1-11, 2B | $11.3+\mathrm{x} 1.7 \times 0.2$ | bronze | Blade fragment, slight midrib, blunt point | - | - |
| 155j | Sor 329 | 1-2, 2B-A | $9.6 \times 1.5 \times 0.2$ | bronze | Blade fragment, slight midrib, blunt point | - | - |
| 155k | Kha 55 | x5, -0.75 | $22.3 \times 2.6 \times 0.4$ | bronze | Lanceolate blade and pommel, stepped shoulders, pommel with spike for attachment, found 6 cm from tang, rectangular in section | - | - |
| 177a | Sor 1346 | 7N, 2B | $29.4 \times 2.0 \times 0.2$ | bronze | Slender blade, blunt point, hilt with spatulate end and rectangular in section | - | - |
| 177b | Sor 133 | 1, 2B | $28.8+\mathrm{x} 4.0 \times 0.9$ | bronze | Blade with broken tang, pronounced midrib, stepped shoulders | - | - |
| - | Sor 370 | 2, 1 | $4.0 \times 2.6$ | bronze | Blade fragment, no midrib, point missing | - | - |
| 120e | CS 479 | H6, -2.25 | $26.4 \times 3.5 \times 0.8$ | bronze | Long, flat, tapered blade, transverse thickening on each side near handle end (guard?) | - | - |

27A.3.2. Bronze/Iron

| 1551 | Kha 68 | x8, -0.70 | $4.2 \times 4.5$ | br/ir | Blade with pommel, spike for attachment found 5 cm apart | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27A.3.3. Iron |  |  |  |  |  |  |  |
| - | Sor 28 | 5, 2A | $5.6 \times 0.8$ | iron | Slender blade, bent tang rectangular tin section | - | - |
|  | Sha 2 | A, mdsl | $8.0+\times 1.9 \times 0.6$ | iron | Lanceolate blade, midrib | - |  |
| 155m | Sha 4 | A, lo sl | $9.2+\times 2.5 \times 1.1+$ | iron | Biflange blade, conical hilt | - |  |
| 156a | Kha 30 | x2, -1.05 | $23.8 \times 2.8 \times 0.5$ | iron | Tapered shoulders, lanceolate blade, short tang rectangular in section | - | - |
| 156b | Kha 64 | x7, -0.65 | $27.2 \times 3.0 \times 0.9$ | iron | No midrib, angular shoulders, long rectangular tang with one rivet | - | - |
| - | Kha 31 | x2, -1.05 | 10+ | iron | Blade fragment | - | - |
| 27A.4. SPEARHEADS |  |  |  |  |  |  |  |
| 27A.4.1. Tanged Hilt |  |  |  |  |  |  |  |
| 156c | Sor 262 | 17, 2B | $11.1 \times 3.1$ | bronze | Blunt pointed blade, broad flat midrib, broken tang with rivet hole | - | - |
| 27A.4.2. Socketed Hilt |  |  |  |  |  |  |  |
| 177d | Sor 1117 | 10, 1 | $16.5+\times 2.5 \times 1.3$ | iron | Ovate blade, low flat midrib, long socket expanding toward end | Vanden Berghe 1968a, pl. 27a | Iron III |
| 27A.5. ARROWHEADS |  |  |  |  |  |  |  |
| 156d | Sor 212 | $\begin{aligned} & 1,2,3, \\ & 1 \end{aligned}$ | $6.5+\mathrm{x} 2.2 \times 0.2$ | bronze | Ovate blade, tip missing, tang rolled sheet, flat near blade | - | - |
| - | Sor 382 | 2, 2C-A | $6.8 \times 1.2$ | bronze | Ovate blade, tip missing, tang square in section with wedgeshaped point | - | - |
| - | CS 451 | H6, -2.00 | $6.9 \times 2.6 \times 0.3$ | bronze | Ovate blade with low rounded midrib, bent tang square in section with wedge-shaped point | - | - |
| - | CS 464 | H6, -1.45 | $7.1 \times 2.8$ | bronze | Ovate blade, faint midrib, short tang | - | - |
|  | CS 465 | $\begin{aligned} & \mathrm{H} 6,-1.45 \\ & \mathrm{H} 6 \end{aligned}$ | $7.2 \times 2.4$ $7.4+2.8$ | bronze bronze | Ovate blade, slight midrib Ovate blade, slight midrib | - |  |
| 156 e | CS 674 | 1,3A-2A | $7.7 \times 2.2$ | bronze | Ovate blade, low flat midrib, tang rectangular in section | - | - |
| - | Sor 211 | 1, 2, 3, 1 | $6.4 \times 1.7 \times 0.5$ | bronze | Ovate blade, high round midrib, tang square in section | - | - |
| - | Sor 217 | 1,1 | $6.8+\times 1.7 \times 0.5$ | bronze | Ovate blade, high round midrib tang square in section and pointed | - | - |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and obj. no. | Area/burial lev. or elev. | Dimensions <br> in cm | Mat. | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27A. WEAPONS (cont.) |  |  |  |  |  |  |  |
| 27A.5. ARROWHEADS (cont.) |  |  |  |  |  |  |  |
| 156f | Sor 354 | 1, 2B-A | $6.6 \times 1.7 \times 0.2$ | bronze | Barbed ovate blade, slight midrib | - | - |
| - | Sor 487 | 2,1 | $7.0 \times 1.5 \times 0.4$ | bronze | Ovate blade, high round midrib, a sharp decrease of thickness just below junction of tang and blade, tang square in section with tapered blade | - | - |
| - | Sor 517 g | 4, 2A-1 | $6.7+\times 0.4$ | bronze | Fragmentary blade, high rounded midrib, broken tang square in section | - | - |
| - | Sor 681 | 22, 1 | $4.9 \times 1.1$ | bronze | Ovate blade, low flat midrib, tang circular in section | - | - |
| 156 g | Sor 840 e | 4, 2B | $3.8+\times 1.0 \times 0.6$ | bronze | Triangular blade, lozenge-shaped in section, round stem, broken tang square in section | - | - |
| 156h | Sor 575 | 19, 21, 1 | $7.0 \times 1.4 \times 0.5$ | bronze | Deltoid blade, high round midrib, sharp decrease in thickness 9 mm below junction of tang and blade, tang square in section with tapered point | - | - |
| 156i | Sor 1141 | 1N, 2B | $9.3 \times 2.0 \times 0.5$ | bronze | Ovate blade, high round midrib, sharp decrease in thickness below junction of tang and blade, tang square in section with tapered point | - | - |
| 156j | Sor 392 | 19, 1 | $10.1 \times 1.5 \times 0.5$ | bronze | Lanceolate blade, low flat midrib, tapered tang circular in sections | - | - |
| - | Sor 906 | 3, 1 | $5.9 \times 1.7$ | bronze | Ovate blade, low flat midrib, tang rectangular in section with spatulate end | - | - |
| 156k | CS 454 | H6, -1.20 | $8.9 \times 0.9$ | iron | Slender diamond-shaped blade, relatively long tang | - | - |
| 1561 | Sor 1095:7 | 3, 3A-2A | $4.6 \times 1.2 \times 0.6$ | iron | Diamond-shaped blade, short tang | - | 二 |
| 177c | Sor 1079 | 3, 3A-2A | $6.2 \times 0.2$ | bronze | Ovate blade, low flat midrib, tang square in section | - | - |
| - | Sor 1230 | 3, 2A | $6.0+\times 2.6 \times 0.8$ | iron | Ovate blade, slight midrib, broken tang | - | - |
| - | Sor 1684 | 9, 10, 3A | $4.8 \times 2.0 \times 0.5$ | bronze | Ovate blade, slight midrib, broken tang rectangular in section | - | - |
| - | Sor 1790 | (?), 3A-1 | $4.5 \times 1.3 \times 0.4$ | iron | Diamond-shaped blade, short tang circular in section | - | - |
| 27A.6. MACEHEAD |  |  |  |  |  |  |  |
| 157a | Sor 1404 | 1/3, 2B | $3.0 \times 4.2 \times 1.6$ | bronze | Squat globe with short cylindrical sockets on top and bottom | - | - |

27A.7. BOW RING

Stein 1940, pl. 25:2
Muscarella 1974a:80, Muscarella

## 27B. TOOLS

## 27B.1. HANDLES

| 157 b | Sor 535 | $1,2,3$, <br> $3 \mathrm{~A}-1$ | $7.2 \times 5.0 \times 0.5$ |
| :--- | :--- | :--- | :--- |
| 157 c | Sor 520 | $4,2 \mathrm{~A}$ <br> $1-3,2 \mathrm{~B}$ | $4.5+\times 2.1$ <br> - <br> Sor 863 |
| 157d | Sor 1011 | $1-3,2 \mathrm{~B}$ | 4.7 |
| 157 e | Sor 1211 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | 3.7 |
|  |  |  |  |
| 157 f | Sor 439 | $4,2 \mathrm{~B}$ <br> 157 g | Sor 33 |

27B.2. KNIVES

| - | CS 103 | M7, -8.80 | $12.7 \times 2.5 \times 0.1$ | iron |
| :--- | :--- | :--- | :--- | :--- |
| - | KI 124 | N, 1, | $15.2 \times 4.6 \times 1.1$ | iron |
| 157 i | Sor 237 | $1,2 \mathrm{~B}-\mathrm{A}$ | $5.1 \times 1.0 \times 0.3$ | bronze |
| -157 j | Sor 1333 | 13,1, | 8.7 | iron |
| 157 k | Sor 1354 | $1 / 3,3 \mathrm{~A}$ | $7.9 \times 3.9$ | bronze |
|  |  | $9,3 \mathrm{~A}$ | $8.5 \times 1.5 \times 0.4$ | iron |

[^41]
## Hasanlu(?) Dinkha II

| Ghirshman 1939, pl. 40: | Sialk A, B |
| :--- | :--- |
| S 467; pl. 57:S 832 |  |
| Muscarella 1974a, | Dinkha ח |
| fig. 45:623 |  |
| Deshayes 1960:2750 | $1400-1200$ B.c. |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and obj. no. | Arealburial lev. or elev. | Dimensions in cm | Mat. | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 27B. TOOLS (cont.) |  |  |
| 27B.2. KNIVES (cont.) |  |  |  |  |  |  |  |
| - | Sor 1406 | 13,2B | - | iron |  | - | - |
| - | Sor 1795 | (?), 3A-1 | 7.9 | iron | Blade fragment | - | - |
| $1571$ | KI 114 | $\mathrm{M},-2.35$ | $13.5 \times 2.3 \times 0.4$ | iron | Blade fragment with rivet, one cutting edge | - | - |
| cf. 1571 | KI 118 | $\begin{aligned} & \text { N, pit, } \\ & -3.75 \end{aligned}$ | $6.7+\times 2.1 \times 0.8$ | iron | Top only, two rivets | - | - |
| 27B.3. SOCKETS |  |  |  |  |  |  |  |
| 157 m | Sor 450 | 1, 2B-1 | $3.2 \times 2.0$ | bronze | Plain sides | - | - |
| 157n | Sor 1334 | 13, 1 | $2.2 \times 2.8$ | bronze | Central groove, one edge serrated | - | - |
| 27B.4. SPATULAE, LADLES, AND SPOONS |  |  |  |  |  |  |  |
| 158a | Sor 599 | KG2, 1 | $6.6 \times 0.2$ | bronze | Spatula: shank with spatulate end | - | - |
| cf. 158a | Sor 585 | 21, 1 | $8.3 \times 0.2$ | bronze | Spatula: shank with spatulate end | - | - |
| cf. 158 a | Sor 706f | 3, 4, 2B-1 | $4.7 \times 0.3$ | bronze | Spatula: shank with spatulate end | - | - |
| cf. 158a | Sor 1550 | $1 / 7 / 9,2 \mathrm{~B}$ | 14.5 | iron | Spatula: broken shank with spatulate end | - | - |
| 158b | Sor 639 | 1-2, 2C | $7.2 \times 0.3$ | bronze | Spatula: shank square in section, spatulate end | - | - |
| 158 c | Sor 817 | 3, 2A-1 | $6.1 \times 0.3$ | bronze | Spatula: bent shank with spatulate end | - | - |
| 158d | Sor 1138 | 1N, 2B | $7.5 \times 3.0 \times 0.4$ | bronze | Spatula: shank square in section, broad spatulate end | - | - |
| 158 e | Sor 1315:4 | 9, 11, 3A | $3.5 \times 0.5$ | bronze | Spatula: shank square in section | - | - |
| 158 f | Sor 1402 | $1 / 3,2 \mathrm{~B}$ | 7.7 | bronze | Spatula: shank with spatulate end, sheet wrapped around as handle(?) | - | - |
| - | Sor 1512:2 | $\begin{aligned} & 1(?) \\ & 3 \mathrm{~A}-2 \mathrm{~B} \end{aligned}$ | $2.3+$ | bronze | Spoon with flat handle | - | - |
| 158 g | Sor 874 | 1,1 | $11.7 \times 0.9$ | iron | Spatula: shank square in section, spatulate end | - | - |
| - | Sor 1183 | 3, 2B | 11.2 | iron | Spatula: shank with fragmentary spatulate end | - | - |
| - | Sor 1323:5 | 9,3A | 5.5 | iron | Spatula on oval | - | - |
| - | Sor 1544 | 1/7/9, 2B | 1) 6.6 <br> 2) 5.1 | iron | Spatulae: two shanks with spatulate ends | - | - |
| - | Sor 1652 | 1/2, 3A | 6.0 | iron | Spatula: shank with knobbed end and spatulate end | - | - |


| 158 h | Sor 225 | 1.1 | $6.5 \times 4.1$ | iron |
| :--- | :--- | :--- | :--- | :--- |
| 158 i | Sor 1470 | $2 / 23,2 \mathrm{C}$ | $16.3 \times 3.1$ | iron |
| 158 j | Sha 9 | A, mdsl | $8.1 \times 0.8$ | iron |

Laddle: rectangular spoon with handle, handle circular in section Spatula: shank with broad rectangular spatulate end Spoon: one end spoon, other end hand-shaped and pierced

## 27B.5. CHISELS

| - | Sha 35 | B, x3, <br> -0.50 | $6.9+\times 1.0 \times 0.6$ | iron |
| :--- | :--- | :--- | :--- | :--- |
| 158 k | Sor 1225 a | $3,3 \mathrm{~A}-1$ | $5.6 \times 1.1$ | bron |
| 1581 | Sor $1512: 7$ | $1(?), 3 \mathrm{~A}-2 \mathrm{~B}$ | $10.7 \times 0.7$ | bron |
| cf. 1581 | Sor 236 | $1,2 \mathrm{~B}-\mathrm{A}$ | $8.8 \times 0.7$ | bron |
| 158 m | Sor 1089 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | 6.1 | iron |
| - | Sor $1108: 7$ | $1,7,1$ | - | iron |

## 27B.6. NEEDLES AND AWL

| 158 n | Sor $1221: 1$ | $3,2 \mathrm{~B}-\mathrm{A}$ | 12.0 |
| :--- | :--- | :--- | :--- |
| 1580 | Sor 1220 | $1-3,2 \mathrm{~B}-\mathrm{A}$ | $6.7 \times 0.3$ |
| cf. 1580 | Sor 380 | $3,2 \mathrm{C}-\mathrm{A}$ | $11.77 \times 0.3$ |
| cf. 1580 | Sor 541 | $4,2 B$ | 6.1 |
| - | Sor 1403 | $1 \beta, 2 \mathrm{~B}$ | 1.8 |

bronz
bronze
bronze
iron
bronze
bronze

One end broken, other end flattened, rectangular in section Faring end with convex cutting edge, shank square in section
hank square in section
Two chisel ends, one end split along both sides Rectangular in section

Needle, circular in section, one end pointed, other end with incision for a thread
Needle, circular in section, one end pointed, other end eyed
eedle, circular in section, end pointed, other end eyed Needle, circular in section, one end pointed, other end bifurcated (eye probably broken) Awl, shank square in section, pointed at either end

## 27B.7. BELL CLAPPERS

| 159 a | Sor 150 | $4,2 \mathrm{~B}-1$ | $3.0 \times 2.6$ |
| :--- | :--- | :--- | :--- |
| 159 b | Sor 870 | $1 \mathrm{~N}, 2 \mathrm{~B}$ | $3.0 \times 1.8$ |

27B.8. HAMMER
159 c Sor $228 \quad 1 / 2,2 \mathrm{C} \quad 5.8 \times 4.6 \quad$ bronze
bronze

Vanden Berghe 1964 no. 325

| - | - |
| :--- | :--- |
| - | - |
| - | - |
| - | - |


| Vanden Berghe 1972, | Iron I-II |
| :--- | :--- |
| fig. 11:42-43 |  |
| Vanden Berghe 1973a, <br> fig. 23:12-14 | Iron I-II |

fig. 23:12-14

-

## Moorey 1971a, no. 153

de Schauensee and
Dyson 1983, fig. 19b,
Hasanlu IV

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and obj. no. | Arealburial lev. or elev. | Dimensions in cm | Mat. | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 27B. TOOLS (cont.) |  |  |
| 27B.9. WEIGHT |  |  |  |  |  |  |  |
| 159d | Sor 37 | 1,1 | $3.9 \times 1.5 \times 1.1$ | bronze | Truncated cone, 32.3 gm | - | - |
| 27B.10. TWEEZERS |  |  |  |  |  |  |  |
| 159e | Sor 941 | 10, 1 | 5.9 | bronze | - | Ghirshman 1966, fig. 55: GTZ 30 | 1300-(?) B.C. |
| cf. 159e | Sor 1678 | 1/9/11,3A | 7.2 | bronze | - | GTZ30 | - |
|  | Sor 1512:8 | 1(?), 3A-2B | $\overline{7.0} \times 1.9$ | bronze |  | - | - |
| $159 \mathrm{f}$ | Sor 779 | 18ff, 1 | $7.0 \times 1.9$ |  | Forked instrument or ibex horns(?), shank rectangular in section diverging into two prongs | - | - |
| 27B.11. CYLINDERS |  |  |  |  |  |  |  |
| $\begin{aligned} & 159 \mathrm{~g} \\ & \text { cf. } 159 \mathrm{~g} \end{aligned}$ | Sor 1075 <br> Sor 1322 | $\begin{aligned} & 3,3 \mathrm{~A}-2 \mathrm{~A} \\ & 9,3 \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 2.9 \times 1.5 \\ & 3.0 \times 1.2 \end{aligned}$ | iron iron | Corroded perforation Corroded perforation | - | - |
| 27B.12. RODS AND LUMPS |  |  |  |  |  |  |  |
| - | ChAs 5 | A, - | - | iron | Fragments | - | - |
| - | $\text { CS } 43$ | M7, -8.00 | $7.3 \times 2.0 \times 0.8$ | iron | Lump |  |  |
| 159h | CS 400 | I7, -3.50 | $5.8 \times 1.8$ | bronze | Curved piece with attached ring and transverse hook | - | - |
| - | CS 438 | H7, -1.20 | $7.4 \times 0.4$ | iron | Rod circular in section | - | - |
| - | CS 452 | H6, -1.20 | $4.3 \times 0.3$ | bronze | Thin flat rod with bent end | - | - |
| - | CS 462 | H6, -1.45 | - | br/ir | Numerous rods | - | - |
| $\overline{-159}$ | CS 463 | H6, -1.45 | - 0.1 | br/ir | Numerous rods | - | - |
| 159 i | CS 467 | H6, -1.45 | $9.2 \times 0.1$ | bronze | Sinuous rod with flat raised head: serpent(?) | - | - |
| 159j | CS 468 | H6, -1.45 | $12.9 \times 1.3$ | iron | Sinuous rod, with flat raised head: serpent(?) | - | - |
| - | Sha 33 | B, $\times 2,-0.85$ | - | iron | Rods: fragments, oval in section, cloth impressions(?) | - | - |
| - | Sha 40a | B, x3, -0.50 | - $\times 0.5$ | iron | Fragments | - | - |
| - | Sor 505 | 19,1 | $9.1 \times 0.5$ | bronze | Rod rectangular in section | - | - |
| - | Sor 531 | 4, 2A | $7.1 \times 1.3$ $49 \times 0.5$ | bronze | Rod rounded in section, thickened end | - | - |
| - | Sor 660 | 1,3A | $4.9 \times 0.5$ | bronze | Rod rectangular in section | - | - |


| 159 k | Sor 1060 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | 7.7 |
| :--- | :--- | :--- | :--- |
|  | Sor 1371 | $1 \beta, 2 \mathrm{~B}$ | 16.6 |
| - | Sor 1425 | $1 / 3,2 \mathrm{~B}$ | 6.1 |
| - | Sor 1479 | $2 / 23,2 \mathrm{C}$ | 3.3 |
| - | Sor $1512: 3$ | $1(?), 3 \mathrm{~A}-2 \mathrm{~B}$ | $6.8 \times 0.6$ |
| - | Sor $1512: 5$ | $1(?), 3 \mathrm{~A}-2 \mathrm{~B}$ | $8.0 \times 0.6$ |


| bronze | Rod circular in section, curving and <br> swelling into a squared end: hom(?) |
| :--- | :--- |
| iron | Rod square in section |
| bronze | Rod, one end square in section, other <br>  <br> end circular in section |
| bronze | Lump |
| iron | Rod |
| iron | Rod |

27C. ORNAMENTS

## 27C.1. EARRINGS

27C.1.1. Circular in Section

| - | Sha 19 | A, mdsl | $1.3 \times 0.2$ | bronze |
| :--- | :--- | :--- | :--- | :--- |
| 1591 | Sor 233 | $1-2,2 A$ | $1.8 \times 0.6$ | bronze |
| 159 m | Sor 685 | $1,2 \mathrm{C}-\mathrm{B}$ | 1.8 | bronze |
| 159 n | Sor 606 | $1-2,2 \mathrm{C}$ | 1.5 | bronze |
| 159 o | Sor 997 | $1-3,2 \mathrm{~B}$ | 1.5 | bronze |
| 159 p | Sor 1015 | $1-3,2 \mathrm{~B}$ | 1.6 | bronze |
| 159 q | Sor 220 | 1,1 | 1.8 | bronze |
| - | Sor 1471 | $2 / 23,2 \mathrm{C}$ | 1.3 | bronze |
| - | Sor 1637 | $1 / 3,2 \mathrm{~B}$ | $1.6 \times 0.7$ | bronze |
| - | Sor $1656: 1$ | $1 / 2,3 \mathrm{~A}$ | $1.5 \times 0.7$ | bronze |

## 27C.1.2. Spirally Coiled

| 159 T | Sor 281 | $4,2 \mathrm{~A}$ | 1.7 |
| :--- | :--- | :--- | :--- |
| 159 s | Sor 671 | $1,3 \mathrm{~A}$ | 1.5 |
| 159 t | Sor 722 | $1-2,2 \mathrm{C}$ | 1.3 |

## 27C.1.3. Tapered Hoops

| 159 u | Sor 985 | $1,2 \mathrm{~B}-\mathrm{A}$ | $2.0 \times 0.3$ | bronze |
| :--- | :--- | :--- | :--- | :--- |
| 160 j | Sor 175 | $4,6,2 \mathrm{~B}-1$ | $2.0 \times 0.5$ | silver |
| cf. 160 j | Sor 215 | 1,1 | $1.8 \times 0.2$ | silver |
| 160 k | Sor 616 | $1-2,2 \mathrm{C}$ | $1.1 \times 0.2$ | silver |
|  |  |  |  |  |
| 1601 | Zar 2 | $\times 1,-0.80$ | $1.7 \times 1.5 \times 1.0$ | silver |
| - | Zar 3 | $\times 1,-0.80$ | $1.0 \times 0.9 \times 0.7$ | silver |
| 160 m | Sor 300 | $4,2 B-A$ | $1.7 \times 0.4$ | lead |


| Circular in section | - | - |
| :--- | :--- | :--- |
| Oval in section | - | - |
| Oval in section | - |  |
| Oval in section, ends slightly | - | - |
| overlap |  |  |
| Coil and ring, pointed ends | Flat band curled back on self to loop | - |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and obj. no. | Arealburial lev. or elev. | Dimensions in cm | Mat. | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## 27C.1. EARRINGS (cont.)

27C.1.4. Boat-Shaped or Hooked

| 159 v | Sor 1598 | $1 / 3,2 \mathrm{~B}$ | 2.0 |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| 159 w | Sor 984 | $1,2 \mathrm{~B}-\mathrm{A}$ | 1.8 |
| 160 a | Sor 1014 | $1-3,2 \mathrm{~B}$ | 1.8 |
| 160 d | Sor 321 | $1,2 \mathrm{~B}-\mathrm{A}$ | $3.4 \times 2.8$ |
| cf. 160d | Sor 790 | $1 \mathrm{~N}, 2 \mathrm{~B}-\mathrm{A}$ | $3.4 \times 1.5$ |
| 160 e | Sor 369 | 2,1 | $3.6 \times 1.5$ |
| - | Sor 1639 | $1 / 3,2 \mathrm{~B}$ | 2.3 |


| bronze | Crescent, grooved in- and outside, <br> one end looped, other end covered <br> with rust from iron object(?) | - |
| :--- | :--- | :--- |
| bronze | Thickened loop with three knobs | - |
| bronze | One end thickened, other end pointed <br> iron <br> iron | Curved band, grooved back, looped end <br> iron | | Curved band, looped end broken |
| :--- |,-

27C.1.6. Knobbed

| 160 f | Sor 700 | $4,2 \mathrm{~B}-\mathrm{A}$ | - | iron |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| 160 g | Sor 788 | $1,3 \mathrm{~A}-2 \mathrm{~A}$ | 3.8 | iron |
| - | Sor 1022 | $1,3 \mathrm{~A}-1$ | 3.1 | iron |
| 160 h | Sor 1049 | $3,2 \mathrm{~B}$ | 2.3 | iron |
| 16 i | Sor 1506 | $1,3 \mathrm{~A}-1$ | 3.0 | iron |
| c. 160 i | Sor 70 | $7 \mathrm{~N}, 1$ | $3.5 \times 2.4 \times 0.7$ | iron |
| cf. 160 i | Sor 438 | $4,2 \mathrm{~B}$ | $2.3 \times 2.2 \times 0.8$ | iron |
| cf. 160 i | Sor 1231 | 3, 3A-2A | 2.8 | iron |


| Loop with knobs inner and outer edge (five and twelve respectively), looped end | - | - |
| :---: | :---: | :---: |
| Loop with nine knobs, looped end | - |  |
| Loop with twelve knobs, looped end missing | - | - |
| Loop with seven knobs, looped end | - |  |
| Loop with eight knobs, looped end |  |  |
| Loop with ten knobs, looped end missing | - | - |
| Loop with seven knobs, looped end | - | - |

$\begin{array}{llll}- & \text { Sor } 1098 & 3,3 \mathrm{~A}-2 \mathrm{~A} & 3.8 \\ - & \text { Sor } 1285 & 3,3 \mathrm{~A}-2 \mathrm{~A} & 2.7 \\ - & \text { Sor } 1677 & 1 \text { 1/9/11,3A } & 2.3\end{array}$
iron
Corroded, loop with knobs, looped end
Loop with knobs
Scalloped loop (crescent)


27C.2. FINGER RINGS

## 27C.2.1. Closed Hoops

| 160 m | Sor 603 | $1-2,2 \mathrm{C}$ | $2.4 \times 0.3$ |
| :--- | :--- | :--- | :--- |
| cf. 160 n | Sor 263 | 6,1 | $2.1 \times 0.4$ |
| cf. 160 m | Sor 654 | $1,3 \mathrm{~A}$ | $2.5 \times 0.4$ |
| cf. 160 n | Sha 18 | A, mdsl | $2.4 \times 0.2$ |
| 160 o | Sor 814 | $3,2 \mathrm{~A}-1$ | $2.3 \times 0.3$ |
| 160 p | Sor 864 | $1-3,2 \mathrm{~B}$ | $3.0 \times 0.8$ |
| -Sor 1498 | $2 / 12,2 \mathrm{C}$ | 2.4 |  |
| 160 q | Sor 966 | $1-11,2 \mathrm{~B}$ | $2.4 \times 0.2$ |
|  |  |  |  |
| 160 m | Sor 1094 a | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | 2.2 |
| 160 w | Sor 381 | $2,2 \mathrm{C}-\mathrm{A}$ | $2.6 \times 0.5$ |
| - | Sor 1335 | 13,1 | 2.5 |

27C.2.2. Overlapped Hoops

|  | Sha 24 | B, x1, -0.50 | $2.0 \times 0.5$ |
| :--- | :--- | :--- | :--- |
| -160 s | Sor 141 | 4, 2B-1 | $2.3 \times 0.2$ |
| cf. 160 s | Sor 388 | $2,2 \mathrm{C}-\mathrm{A}$ | $2.2 \times 0.2$ |
| 160 t | Sor 174 | 4,6, | $2.1 \times 0.9$ |
|  |  | $2 \mathrm{~B}-1$ |  |
| cf. 160 t | Sor 587 | 21,1 | 2.4 |
|  |  |  |  |
| 160 u | Sor 795 | $1 \mathrm{~N}, 2 \mathrm{~B}-\mathrm{A}$ | $2.7 \times 0.4$ |
| cf. 160 u | Sor 773 | 24,1 | $2.0 \times 0.4$ |
| - | Sor $1151: 1$ | $1,3 \mathrm{~A}-2 \mathrm{~A}$ | 2.0 |
| - | Sor 1314 | $9 / 11,3 \mathrm{~A}$ | 2.5 |
| - | Sor 1321 | $9,3 \mathrm{~A}$ | 2.3 |
| - | Sor 1366 | $1 / 3,3 \mathrm{~A}$ | 2.1 |
| - | Sor 1467 | $2,2 \mathrm{C}$ | 2.1 |
| - | Sor 1472 | $2,2 \mathrm{C}$ | 2.1 |
|  |  |  |  |
| - | Sor 1615 | $1 / 3,3 \mathrm{~A}$ | 2.5 |
| - | Sor 1679 | $1 / 9 / 11,3 \mathrm{~A}$ | 2.7 |

27C.2.3. Zoomorphic Terminals
160 v Sor $1509 \quad 1 / 22,3 \mathrm{~A}-2 \mathrm{C}$

| bronze <br> bronze <br> bronze <br> bronze <br> bronze <br> bronze <br> bronze <br> bronze | Tapered ends <br> Ends join, one end cut, other end plain <br> Cut ends touch in section touch <br> Closed | Cut ends nearly touch <br> Ends conventionalized heads(?), <br> rectangular in section <br> Molded <br> Closed | - |
| :--- | :--- | :--- | :--- |
| bronze <br> iron <br> bronze | - | - |  |
|  | Solid, oval in section |  |  |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | Reference $\quad$ Period $\quad$.

## 27C.2. FINGER RINGS (cont.)

## 27C.2.4. Unclassified

| - | Sor 5 | 5,1 | $2.5 \times 0.6$ |
| :--- | :--- | :--- | :--- |
| - | Sor 483 b | 2,1 | $3.1 \times 0.7$ |
| - | Sor 621 | $1-2,2 \mathrm{C}$ | 2.2 |
| - | Sor 1206 | $3,3 \mathrm{~A}$ | 2.0 |
|  | Sor 1526 | $8(7), 1$ | 2.7 |

## 27C. ORNAMENTS (cont.)

27C.3. TORQUES

| 160 x | Sor 1391 | $1 \beta, 2 \mathrm{~B}$ | 20.5 |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| 161 a | Qal 1 | -, surf. | $15.2 \times 0.5$ |

bronze

| bronze | One end twisted, both ends slightly <br> broadened |
| :--- | :--- |
| iron | Heavily corroded <br> bronze |
| Cronze | One end in section, tapered ends <br> bronze |
| Oval in section, one end pointed, <br> other end spatulate |  | other end spatulate


| Muscarella 1974a, fig. | Dinkha II |
| :--- | :--- |
| 27:1039 |  |
| Muscarella 1974a, fig. | Dinkha III |
| 16:1037 | - |

## 27C.4. BRACELETS

27C.4.1. Open Hooks
27C.4.1.1. Plain Ends

| - | Sor 56 | IH, 1 | $3.7 \times 0.4$ | bronze | Blunt ends | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sor 13 | 4,1 | $3.9 \times 0.4$ | bronze | One end broken |  |  |
| 161 b | Sor 223 | 1,1 | $4.5 \times 0.2$ | bronze | Oval shape |  |  |
| cf. 161b | S Gor 1 | cmty | $4.3 \times 0.3$ | bronze | Circular in section |  |  |
| - | Sor 226 | 1,1 |  | bronze | Irregular shape |  |  |
| 161c | Sor 243:2 | 1, 11, 1 | $5.1 \times 0.2$ | bronze | Oval shaped | - |  |
| 161d | Sor 243:3 | 1,11, 1 | $3.1 \times 0.3$ | bronze | Middle part with thin section, both ends thickened | - | - |
| - | Sor 298:3 | 4, 2B-A | $5.0 \times 0.3$ | bronze | - . | - | - |
|  | Sor 360:4 | 1, 2B-A | $3.3 \times 0.2$ | bronze | - | - |  |
|  | Sor 441 | 4. 2B | $4.1 \times 0.4$ | bronze | $\overline{\text { E }}$ - | - |  |
| - | Sor 509 | 4, 2B | $3.5 \times 0.2$ | bronze | End slightly spatulate | - | - |


| － | Sor 557 | 4，2B－A | 8.0 | bronze | － |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 161e | Sor 597 | KG1， 1 | $3.8 \times 0.4$ | bronze | Middle part thickened |
| － | Sor 613 | 1－2，2C | $5.4 \times 0.2$ | bronze | Oval shape |
| － | Sor 658：3 | 1，3A | $3.7 \times 0.3$ | bronze | － |
| － | Sor 669 | 1，3A | $4.4 \times 0.4$ | bronze | － |
| 161f | Sor 1006 | 3，3A | 3.8 | bronze | Broken，one end split |
| － | Sor 1634 | $1 \beta, 2 \mathrm{~B}$ | － | bronze | － |
| － | Sor 1635 | $1 / 3,2 \mathrm{~B}$ | 4.6 | bronze | Open hoop，circular in section |
| － | Kha 10 | $\mathrm{x} 1,-$ | 4.3 | bronze | （ $=$ Kha 14） |
| － | Kha 14 | x1，一 | 4.3 | bronze | （ $=$ Kha 10） |
| － | Sha 32 | B，x2，－ | $10.7 \times 0.8$ | iron | Oval shape |
| 161 g | Sor 144 | 6,1 | $6.7 \times 0.7$ | iron | － |
| － | Sor 176 | 4，6，2B－1 | $4.2 \times 0.7$ | iron | － |
| － | Sor 218 | 1，1 | $4.7 \times 0.4$ | iron | － |
| 161h | Sor 227 | 1，1 | $6.6 \times 0.5$ | iron | Oval shape |
| － | Sor 361 | 1，2B－A | $4.7 \times 0.6$ | iron | Ends almost touch |
| － | Sor 373 | 2，1 | $5.8 \times 0.5$ | iron | Oval shape |
| 161 i | Sor 1096：1 | 3，3A－2A | $6.2 \times 0.5$ | iron | － |
| － | Sor 1096：2 | 3，3A－2A | － | iron | － |

27C．4．1．2．One End Cut or Thickened，Other End Pointed

| 161 j | Sor $243: 1$ | $1,11,1$ | $5.2 \times 0.4$ | bronze | － |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 161 k | Sor 496 | 19,1 | $(?) \times 0.5$ | iron | Irregular shape |
| － | Sor 504 | 10,1 | $5.6 \times 0.3$ | bronze | Oval shape |
| － | Sor 718 | $1-2,2 \mathrm{C}$ | $4.9 \times 0.6$ | iron | － |
| － | Sor 936 | $11 \mathrm{~N}, 1$ | $(?) \times 0.3$ | bronze | Irregular shape |
| － | Sor $1010: 1$ | $1-3,2 B$ | $5.0 \times 0.3$ | bronze | Ends almost touch |
| － | Sor $1010: 2$ | $1-3,2 B$ | $3.1 \times 0.3$ | bronze | － |
|  | Sor 1411 | $1 B, 2 B$ | 4.5 | iron | - |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | Reference $\quad$ Period |  |
| :--- |

27C. ORNAMENTS (cont.)
27C.4. BRACELETS (cont.)
27C.4.1.4. Cut Ends

|  | Kha 57 | x6, -0.60 | 11.0 and 10.4 |
| :--- | :--- | :--- | :--- |
| - | Sor $298: 1$ | $4,2 \mathrm{~B}-\mathrm{A}$ | $4.9 \times 0.3$ |
| - | Sor 411 | $4,2 \mathrm{~B}$ | $8.6 \times 0.6$ |
| - |  |  |  |
| - | Sor 456 a | $1,3 \mathrm{~A}-2 \mathrm{~A}$ | $4.4 \times 0.4$ |
| - | Sor 456 b | $1,3 \mathrm{~A}-2 \mathrm{~A}$ | $5.3 \times 0.4$ |
| - | Sor 512 | $4,2 \mathrm{~B}$ | $5.4 \times 0.5$ |
| - | Sor 546 | $4,2 \mathrm{~A}$ | $5.3 \times 0.3$ |
| - | Sor 549 | $4,2 \mathrm{~B}-\mathrm{A}$ | 4.4 |
| - | Sor 559 | $1,2,3$, | 4.8 |
| - |  | $3 \mathrm{~A}-1$ |  |
| - | Sor 576 | $19,21,1$ | $4.2 \times 0.3$ |
| - | Sor 586 | $19,21,1$ | $(?) \times 0.3$ |
| - | Sor 697 | $4,2 \mathrm{~B}-\mathrm{A}$ | $4.4 \times 0.4$ |
| - | Sor 715 | $1-2,2 \mathrm{C}$ | $(?) \times 0.4$ |
| 162 a | Sor 838 | $4,2 \mathrm{~B}$ | $5.7 \times 0.7$ |
| - | Sor 843 | 10,1 | $5.5 \times 0.4$ |
| - | Sor 907 | $3,2 \mathrm{~B}-1$ | $6.0 \times 0.4$ |
| - | Sor 1151.2 | $1,3 \mathrm{~A}-2 \mathrm{~A}$ | 3.6 |
| - | Sor 1187 | $3,3 \mathrm{~A}$ | 4.2 |
| - | Sor 1320 | $9,3 \mathrm{~A}$ | 5.2 |
| - | Sor 1385 | $1 / 3,2 \mathrm{~B}$ | 5.9 |

27C.4.1.5. Plano-Convex in Section

| 162b | Sor 448 | 1,1 | $4.7 \times 0.5$ | bronze | Slighty deformed | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 1194 | 3, 3A | 4.7 | bronze | - | - |  |
|  | Sor 1687 | 9, 10 | 4.2 | bronze | - |  |  |
| - | Sor 1693 | (?), 1 | 11.2 | bronze | - |  |  |
|  | Sor 1484 | 2/23, 2C | 4.4 | iron |  |  |  |
| 162 c | Zar 7 | NW th, W end | $6.7 \times 0.6$ | bronze | - | - | - |
| 162d | Sor 160 | 6, 2B | $7.6 \times 1.8 \times 1.1$ | iron | - | - | - |

27C.4.1.6. Square in Section

| 162 e | Sor 534 | $1,2,3$, | $5.1 \times 0.4$ |
| :--- | :--- | :--- | :--- |
|  |  | $3 \mathrm{~A}-1$ |  |
| $\overline{162 f}$ | Sor 1568 | $1 / 7 / 9,2 \mathrm{~B}$ | 3.9 |
|  | Sor 908 | $3,2 \mathrm{~B}-1$ | 5.1 |


| bronze | One end cut, other end spatulate | - | - |
| :--- | :--- | :--- | :--- |
| bronze | Spatulate ends | - | - |
| iron | Cut ends | - | - |

27C.4.2. Open Band
162 g Sor $437 \quad 4,2 \mathrm{~B} \quad 1.1 \times 0.3$
bronze
Fragment, three grooves separated by solid raised segment

Vanden Berghe
1973a, pl. 20:3

Terminal Iron I

27C.4.3. Overlapped Hoops
27C.4.3.1. Plain Ends

|  | CS 460 | H6, -1.45 | $4.1 \times 0.5$ |
| :---: | :---: | :---: | :---: |
|  | Kha 35 | x2, -1.05 | 7.8 |
| 162h | Sor 360:3 | 1,2B-A | $4.1 \times 0.5$ |
| 162i | Sor 61 | 7N, 1 | $5.3 \times 0.5$ |
| cf. 162 j | Kha 69a, b | x8, -0.70 |  |
| cf. 162j | Sha 6 | A, $1 / 3$ (slope) | $5.6 \times 0.7$ |
| - | Sor 645 | 1-2, 2 C | $3.1 \times 0.4$ |
| - | Sor 723 | 1-2, 2 C | $4.6 \times 0.2$ |
|  | Sor 1437 | 3/13, 2B | 3.1 |
|  | Sor 1452 | $3 / 13,2 \mathrm{~B}$ | 4.2 |
| 27C.4.3.2. Cut Ends |  |  |  |
| 162j | Sha 3 | A, lower | $5.2 \times 0.7$ |
|  |  | slope |  |
| 162k | Sor 921 | 23, 24, 1 | $5.6 \times 0.5$ |
| 1621 | Sor 1057 | 3, 1 | $3.5 \times 0.4$ |
|  | Sor 1279:1 | 3, 2B | - |
|  | Sor 1279:2 | 3, 2B | - |

27C.4.4. Twisted Hoops

| 162 m | CS 444 | H11, -10.40 | 3.2 |
| :--- | :--- | :--- | :--- |
| 162 n | CS 1396 | $1 / 3,2 \mathrm{~B}$ | 6.3 |
| cf. 162 n | Sor 566 | $2,2 \mathrm{~A}(?)$ | 4.5 |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | Reference $\quad$ Period $\quad$|  |
| :--- |

27C.4. BRACELETS (cont.)
27C.4.5. Zoomorphic Terminals

| 163a | Sor 881 | $1 \mathrm{~N}, 1$ | $5.0 \times 0.6$ |
| :---: | :---: | :---: | :---: |
| - | Sor 829 | 4, 2B-1 | (?) $\times 0.9$ |
| 177g | Sor 1274 | 3-4, 2B | $6.6 \times 0.6$ |
| 178a | Sor 1273 | 3-4, 2B | $6.7 \times 0.7$ |
| cf. 178a | Sor 1669 | $\begin{aligned} & 1 / 9 / 11, \\ & 3 \mathrm{~A} \end{aligned}$ | $3.2 \times 0.3$ |
| - | Sor 1363 | 1/3, 3A | $6.9 \times 0.5$ |
| 178b | Sor 1395 | $1 / 3,2 \mathrm{~B}$ | $6.5 \times 0.5$ |
| 178c | Sor 1632 | 1/3, 2B | $8.2 \times 0.5$ |
| - | Sor 1737a | -, 3A-1 | - |
| - | Sor 1737b | -, 3A-1 |  |
| - | Sor 1802 | (?), 3A-1 | $3.3 \times 0.8$ |

27C.4.6. Anthropomorphic Terminals
163b Sor $1623 \quad 1 / 3,2 B \quad 6.7 \times 0.5$
bronze Fragment, plano-convex in section, preserved end terminates into human head
27C.4.7. Heavy Open Hoops

| 163 c | Kha 37 | $\mathrm{x} 3,-1.15$ | a) 10.7 |
| :--- | :--- | :--- | :--- |
| b) 10.6 |  |  |  |

27C.4.8. Unclassified

| - | Kha 52 | $\times 4,-0.85$ | 6.5 |
| :--- | :--- | :--- | :--- |
| - | Kha 65 | x7, -0.65 | - |

Fragments of three exx.
Vanden Berghe
1973b:27-28 $\quad$ Iron II

| - | Sor $360: 1,2$ | $1,2 B-A$ | - |
| :--- | :--- | :--- | :--- |
| - | Sor 1094 b | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | - |
|  |  |  |  |
|  |  |  |  |
| - | Sor 1170 | $3,2 \mathrm{~B}$ | 4.3 |
| - | Sor 1180 | $1 / 3,3 \mathrm{~A}$ | 6.4 |
| - | Sor 1234 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | - |
| - | Sor 1235 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | - |
| - | Sor 1243 | 13,1 | 3.9 |
| - | Sor 1256 | $7,2 \mathrm{~B}-\mathrm{A}$ | - |
| - | Sor 1283 | $3,2 \mathrm{~B}-\mathrm{A}$ | - |
| - | Sor 1386 | $1 / 3,2 \mathrm{~B}$ | 3.6 |
| - | Sor 1388 | $1 / 3,2 \mathrm{~B}$ | 4.4 |
| - | Sor 1397 | $1 / 3,2 \mathrm{~B}$ | - |
| - | Sor 1448 | $3 / 13,2 \mathrm{~B}$ | 4.0 |
|  |  | Sor 1455 | $3 / 13,2 \mathrm{~B}$ |
| - | Sor 1462 | $2 / 3,3$ | 4.3 |
| - | Sor 1513 | $1(?), 3 \mathrm{~A}-2 \mathrm{~B}$ | - |

27C.5. TACKS

| 163 d | Sor 214 | 1,1 | $1.8 \times 1.4$ |
| :--- | :--- | :--- | :--- |
| 163 e | Sor 291 | $4 / 5,2 \mathrm{~B}$ | $3.0 \times 1.3$ |
|  |  |  |  |
| cf. 163 e | Sor 194 | $7 \mathrm{~N}, 2 \mathrm{~B}-1$ | $3.2 \times 1.6$ |
| cf. 163 e | Sor $299: 4$ | $4,2 \mathrm{~B}-\mathrm{A}$ | $1.9+\times 2.5+$ |
| cf. 163 e | Sor 920 e | $3,2 \mathrm{~B}-1$ | $2.5+\times 1.3$ |
| cf. 163 e | Sor 986 | $1,2 \mathrm{~B}-\mathrm{A}$ | $1.9 \times 1.4$ |
| cf. 163 e | Sor 1029 a | $1,3 \mathrm{~A}-1$ | $0.9+\times 1.4$ |
| c. 163 e | Sor 1047 | $3,2 \mathrm{~B}$ | $4.1+\times 2.4$ |
| 163 f | Sor 920 f | $3,2 \mathrm{~B}-1$ | $1.1+\times 1.9$ |
| - | Sor 1287 | $7,2 \mathrm{~B}-\mathrm{A}$ | 3.2 |


| bronze | Two fragments, circular in section | - | - |
| :---: | :---: | :---: | :---: |
| bronze | Eleven bracelets and rings, only one drawn (cf. Sor 1094a), one with snake head, one with ringed squared ends, one rectangular in section | - | - |
| bronze | One end square, other end spatulate | - | - |
| bronze | Oval in section, flattened end | - |  |
| bronze | Twelve rings, band and wire | - |  |
| iron | Six rings, circular in section |  |  |
| bronze | Rounded ends | - |  |
| bronze | Two rings | - |  |
| bronze | One end cut | - |  |
| bronze | One end broad | - |  |
| bronze | One end flat, other end cut | - |  |
| bronze | Eleven exx., cut or pointed ends, two interlocked | - | - |
| bronze | One end pointed, other end rounded, circular in section | - | - |
| bronze | Rounded ends | - |  |
| bronze | Three exx., circular in section | - | - |
| $\mathrm{br} / \mathrm{ir}$ | Rings | - | - |
| bronze | Flat disc head |  |  |
| bronze | Hemispherical head, bent shank |  | Di |
| bronze | Hemispherical head, bent shank | - |  |
| bronze | Hemispherical head, shank broken | - | - |
| bronze | Hemispherical head, bent shank | - |  |
| bronze | Hemispherical head, shank broken(?) | - | - |
| bronze | Hemispherical head, shank broken | - |  |
| bronze | Hemispherical head, heavily deformed | - |  |
| bronze | Flat head, sharply bent shank | - | - |
| bronze | Hemispherical head, shank square in sect. | - | - |
| bronze | Loop on back | - | - |
| bronze | Loop on back | - |  |
| bronze | Perforated disc on back | - |  |

27C.6.1. Cross-Shaped

| 163 g | Sor 918 | $3,2 \mathrm{~B}-1$ | $2.4 \times 0.5$ |
| :--- | :--- | :--- | :--- |
| cf. 163 g | Sor 138 | $4,2 \mathrm{~A}$ | $1.9 \times 0.6$ |
| cf. 163 g | Sor 619 | $1-2,2 \mathrm{C}$ | $1.9 \times 0.5$ |

27C.6.2. Hemispherical
27C.6.2.1. Small Loops
163h Sor 357 1, 2B-A $1.2 \times 0.5$ bronze -

Catalog 27. Iron Age Cast Metal Objects (cont.)

| PlateSite and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description | Reference | Period |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 27C. ORNAMENTS (cont.)

27C.6. BUTTONS (cont.)
27C.6.2. Hemispherical (cont.)
27C.6.2.1. Small Loops (cont.)

| cf. 163h | Sor 143a | 6,1 | $3.1 \times 0.9$ | bronze | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 163h | Sor 481 | 2, 2C-1 | $1.1 \times 0.6$ | bronze | - | - |  |
| cf. 163h | Sor 664 f | 1,3A | $2.5 \times 0.4$ | bronze | - | - |  |
| cf. 163h | Sor 729 | 1-2, 2 C | $1.3 \times 0.5$ | bronze | - | - |  |
| cf. 163h | Sor 740 | 1(?), 3A | $2.2 \times 0.6$ | bronze | - | - |  |
| cf. 163h | Sor 1007 | 1-3, 2 B | $1.5 \times 0.7$ | bronze | - |  |  |
| cf. 163h | Sor 1029b | 1,3A-1 | $1.2 \times 0.5$ | bronze | - |  |  |
| cf. 163h | Sor 1097:3 | 3, 3A-2A | $1.8 \times 0.6$ | bronze | - | - |  |
| 163 i | Sor 868 | $1-3,2 \mathrm{~B}$ | $1.4 \times 0.6$ | bronze | Two exx. | - | - |
| 163 j | Sor 888 | 1,2 | $2.2 \times 0.6$ | bronze | - | Ghirshman 1939, pl. 56:S 819a Muscarella 1974a, fig. 32:1005 | Sialk B Dinkha II |
| 1630 | Qum 10 | A, - | $2.4 \times 0.6$ | bronze | Pierced rectangular loop in concave side | - | - |
| cf. 1630 | Sha 5 | A, lower | $2.6 \times 0.9$ | bronze | Pierced rectangular loop in concave side | - | - |
| cf. 1630 | Sha 29 | B, x2, -0.85 | $\begin{aligned} & 2.3 \times 0.8 \\ & 2.4 \times 0.6 \end{aligned}$ | bronze | Two exx., pierced rectangular loop in concave side | - | - |
| - | Sha 30 | B, $\times 2,-0.85$ | $3.2 \times 0.8$ | bronze | Pierced knob in concave side | - | - |

27C.6.2.2. Large Loops

| 163k | Sor 147 | 4, 2B-1 | $3.2 \times 1.0$ | bronze | - | Ghirshman 1939, pl. 71:S 894c Ghirshman 1966, pl. 81:GTZ 575 | Sialk B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 163 k | Sor 143b | 6,1 | $3.1 \times 1.0$ | bronze | - | - | - |
| cf. 163 k | Sor 447 | 1,1 | $3.3 \times 0.9$ | bronze | - |  |  |
| cf. 163k | Sor 449 | 1,1 | $1.8 \times 0.6$ | bronze | - | - |  |
| cf. 163 k | Sor 538 | 4, 2A | $3.2 \times 0.9$ | bronze | Loop on back broken | - |  |
| cf. 163 k | Sor 612 | 1-2, 2C | $3.2 \times 1.0$ | bronze | - |  | - |
| cf. 163k | Sor 677 | 22, 1 | $3.0 \times 1.0$ | bronze | - | - | - |
| cf. 163k | Sor 909 | 3, 2B-1 | $3.2 \times 1.0$ | bronze |  | - | - |


| cf. 163 k | Sor 930 | $11 \mathrm{~N}, 2 \mathrm{~A}$ | $3.3 \times 0.9$ | bronze | Loop on back broken |
| :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 163 k | Sor 950 | $4,13,1$ | $3.0 \times 0.6+$ | bronze | Loop on back broken |
| cf. 163 k | Sor 953 | 13,1 | $3.2 \times 0.9$ | bronze | - |
| cf. 163 k | Sor 991 | $1-3,2 \mathrm{~B}$ | $3.4 \times 1.0$ | bronze | - |
| cf. 163 k | Sor 994 | $1-3,2 \mathrm{~B}$ | $3.3 \times 1.1$ | bronze | - |
| cf. 163 k | Sor 1298 | $7,2 \mathrm{~B}-\mathrm{A}$ | 2.9 | bronze | - |
| cf. 163 k | Sor 1072 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | $3.4 \times 0.9$ | bronze | Damaged |
| 1631 | Sor 172 | 16,1 | $2.9 \times 1.0$ | bronze | - |
| cf. 1631 | Sor 745 | $1 \mathrm{~N}, 1$ | $3.3 \times 1.0$ | bronze | - |
| 163 m | Sor 335 | $1-2,2 \mathrm{C}$ | $2.9 \times 1.0$ | bronze | - |
| cf. 163 m | Sor 312 | $1,2 \mathrm{~B}$ | $2.9 \times 0.9$ | bronze | - |
| cf. 163 m | Sor 728 | $1-2,2 \mathrm{C}$ | $1.7 \times 1.0$ | bronze | - |
| cf. 163 m | Sor 847 | $10,11,1$ | $2.9 \times 0.8$ | bronze | - |
| cf. 163 m | Sor 1012 | $1-3,2 \mathrm{~B}$ | $3.2 \times 1.3$ | bronze | - |


| - | - |
| :--- | :--- |
| 二 | - |
| - | - |
| - | - |
| Muscarella 1974a, fig. $32: 1005$ | Dinkha II |
| - | - |
| - | - |
| - | - |

27C.6.3. Flat Disc with Beveled Edge
163n Sor $1233: 1 \quad 3,3 \mathrm{~A}-2 \mathrm{~A} \quad 2.3 \times 0.5 \quad$ bronze

27C.6.4. Knobbed

| 163 p | Sha 17 | NS th, mdsl | $3.0 \times 1.2$ |
| :--- | :--- | :--- | :--- |
| 163 q | Mer 1 | cemetery | $4.9 \times 1.2$ |
| 163 r | Mer 2 | cemetery | $3.1 \times 1.4$ |
| 163 s | Mer 3 | cemetery | $5.2 \times 3.1$ |

bronz
iron
iron

27C.6.5. Unclassified

|  | Sor 731 h | $1-2,2 \mathrm{C}$ | - |
| :--- | :--- | :--- | :--- |
| - | Sor $1537: 1$ | 8,1 | 1.7 |
| - | Sor $1537: 2$ | 8,1 | 2.0 |
| - | Sor 1673 | $1 / 9 / 11,3 \mathrm{~A}$ | 2.4 |
| - | Sor 657 | $1,3 \mathrm{~A}$ | 3.2 |
| - | Sor 1110 | $1,7,1$ | 1.8 |
| - | Sor 1160 | $1,3 \mathrm{~A}-2 \mathrm{~A}$ | 2.5 |
| - | Sor 1181 | $1 / 3,3 \mathrm{~A}$ | 1.8 |
| - | Sor 1225 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | 2.5 |
| - | Sor 886 | 1,2 | 1.9 |

27C.7. CAPS

| 163 t | Sor 232 | $1,2 \mathrm{~B}-\mathrm{A}$ | $1.9 \times 1.1$ |
| :--- | :--- | :--- | :--- |
| cf. 163 t | Sor 633 | $1-2,2 \mathrm{C}$ | $2.8 \times 1.2$ |
| 163 u | Sor 730 | $1-2,2 \mathrm{C}$ | $2.2 \times 1.1$ |

bronze
bronze
bronze

Hemispherical and hollow
Hemispherical and hollow
Cylindrical cap, flattened top

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and obj. no. | Arealburial lev. or elev. | Dimensions in cm | Mat. | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## 27C. ORNAMENTS (cont.)

27C.8. CHAINS

| 164a | Sor 1061 | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | $2.2 \times 0.6$ | bronze <br> 164 b | Sor 1064 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 3,3A-2A | - | Three oval rings <br> bronze | Three deformed rings <br> br/ir | Fragments, one iron ring, <br> three or four bronze rings |  |
| 164d | Sor 640 | $1-2,2 \mathrm{C}$ | - |  | br/ir | | a) Closed iron ring; |
| :--- |

27D. PINS
27D.1. SHANKS

| - | ChJal 6 | 0.5 m west <br> of $x 1$ | $4.8+\mathrm{x} 0.4$ |
| :---: | :---: | :---: | :---: |
| - | Kha 5 | x1, 0.95 | 11.9+ |
|  | Kha 19 | x1, -0.95 |  |
| - | Kha 49 | x3, -1.15 | $4.6+$ |
| - | Sha 8 | A. midslope | $12.0+\mathrm{x} 0.4$ |
| - | Sor 90 | 5, 2A | 11.2+ |
| - | Sor 146 | 4,1 | $12.4+\mathrm{x} 0.7$ |
| - | Sor 454 | 1, 2B | $19.0+\times 0.5$ |
| - | Sor 466 | 1,1 | $11.7+\mathrm{x} 0.6$ |
| - | Sor 548 | 4, 2A | 11.7+ |
| - | Sor 593 | GK SE, 1 | $6.9+\mathrm{x} 0.6$ |
| - | Sor 688 | 1, 3A | 12.1 |
| - | Sor 798g | $1,3 \mathrm{~A}-2 \mathrm{~A}$ | $7.0+\times 0.6$ |
|  | Sor 928 | $11 \mathrm{~N}, 2 \mathrm{~A}$ | $6.7+\mathrm{x} 0.5$ |
|  | Sor 990 | 1-3, 2B | $9.4+$ |
|  | Sor 1191 | 3,3A | 9.3+ |
|  | Sor 1204 | 3, 3A | $12.4+$ |
|  | Sor 1512:12 | 1,3A-2B | $8.0+\mathrm{x} 0.5$ |
|  | Sor 1512:13 | 1,3A-2B | $7.0+\mathrm{x} 0.3$ |
| - | Sor 1542:1 | 1/7/9, 2B | $9.8+\mathrm{x} 0.7$ |


| bronze | Head missing, broken at perforation, bent |
| :---: | :---: |
| iron | - |
| iron | 3 exx. |
| iron | - |
| iron | Bent, head missing |
| bronze | Head missing |
| bronze | Head missing |
| bronze | Head missing |
| bronze | Head missing |
| bronze | Head missing |
| bronze | Broken at perforation, below perforation three rings |
| bronze | Bent, head missing |
| bronze | Ringed neck, head and point missing |
| bronze | Three rings on neck, head missing |
| bronze | Ringed neck, head missing |
| bronze | Ringed neck, head missing |
| bronze | Head and point missing |
| bronze | Head missing |
| bronze | Head missing |
| iron | Head missing |


| 二 | - |
| :--- | :--- |
| - | - |
| - | - |

b) Bronze ring with overlapping
tapered ends

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| - | Sor $1542: 2$ | $1 / 7 / 9,2 \mathrm{~B}$ | $12.2+\times 0.4$ |
| - | Sor $1542: 3$ | $1 / 7 / 9,2 \mathrm{~B}$ | $11.6+\times 0.7$ |
| - | Sor $1542: 4$ | $1 / 1 / 9,2 \mathrm{~B}$ | - |
| - | Sor $1542: 5$ | $1 / 7 / 9,2 \mathrm{~B}$ | - |
| 173 a | Sor $1561: 2$ | $1 / 7 / 9,2 \mathrm{~B}$ | - |
| - | Sor 1590 | $1 / 3,2 \mathrm{~B}$ | - |
| - | Sor $1612: 3$ | $1 / 3,3 \mathrm{~A}$ | $14.2+\times 0.3$ |
| - | Sor 1732 b | （？）， 1 | $7.6+$ |


| iron | Head missing |
| :--- | :--- |
| iron | Head missing |
| iron | Head missing |
| iron | Head missing |
| iron | Corroded to human－shaped head |
| bronze | Bent，head missing |
| bronze | Head missing，bent or bracelet（？） |
| bronze | Head missing |


| 二 | 二 |
| :--- | :--- |
| 二 | 二 |
| $=$ | 二 |
| 二 | $=$ |

27D．2．SLIGHTLY THICKENED HEADS

| 164e | Kha 46 <br> Sor 114 | $x 3,-1.15$ | $\begin{aligned} & 6.8+ \\ & 11.6 \times 0.6 \end{aligned}$ | iron bronze | Point slightly bent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| cf．164e | Sor 229：1 | 4，2B－A | $6.8 \times 0.6$ | bronze | Bent shank |
| cf． 164 e | Sor 468 | 1，1 | $5.7+\times 0.8$ | bronze | － |
| cf．164e | Sor 799 | 3，1 | $9.0+\times 0.7$ | bronze | Fragment |
| cf．164e | Sor 846 | 10， 1 | $7.8 \times 0.4$ | bronze | Point slightly bent |
| 164f | Sor 803 | 3，2A | $6.6 \times 0.3$ | bronze | － |
| cf．164f | Sor 366b，e | 2，1 | $9.5+$ | bronze | －${ }^{\text {a }}$ |
| cf． 164 f | Sor 765 | 23，2A－1 | $7.4 \times 0.3$ | bronze | Shank slightly bent |
| cf． 164 f | Sor 1255：1 | 7（7），2B－A | 8.3 | bronze | － |
| cf．164f | Sor 1323：4 | 9，3A | 6.7 | bronze | － |
|  | Sor 1093：10 | 3，3A－2A | $13.7+$ | bronze | － |
|  | Sor 1559 | 1－7－9，2B | 11.2 | bronze | － |
| － | Sor 1672：3 | 1／9／11，3A | 8.4 | bronze | － |

27D．3．RECTANGULAR HEADS

| 164 g | Sor 130 | $1(?), 2 \mathrm{~A}-1$ | $6.6+\times 0.4$ |
| :--- | :--- | :--- | :--- |
| 164 h | Sor 1344 | $2,2 \mathrm{C}-\mathrm{A}$ | 7.9 |
| 164 i | Sor 52 | 4,1 | $10.1+\times 0.1$ |
|  |  |  |  |
| 164 j | Sor 134 | $1,2 \mathrm{~B}-\mathrm{A}$ | $11.3+\times 0.7$ |
| 164 k | Sor 860 | $1 \mathrm{~N}, 2 \mathrm{~A}$ | $12.7 \times 1.4$ |
| - | Sor 1793 | （？），3A－1 | 8.2 |


| bronze | Fragment，twisted shank，upper <br> shank lozenge－shaped in section | - |  |
| :--- | :--- | :--- | :--- |
| bronze | Bent shank <br> Bent shank，homlike feature pro－ <br> jron | - | - |
| iron | - | - | - |
| iron from top |  |  |  |
| iron | - | - | - |
| br／ir | Globes at end of three rods，rods <br> join at one point where shank <br> broadens into four horizontal <br> rings，iron shank sticks into lowest <br> double loop |  |  |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and obj. no. | Arealburial lev. or elev. | Dimensions in cm | Mat. | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 27D. PINS (cont.) |  |  |
| 27D.4. PRONGED HEADS (cont.) |  |  |  |  |  |  |  |
| 164m | Sor 340 | 1, 2B | $5.5+\mathrm{x} 2.1$ | br/ir | Globes at end of three rods, rods end into horizontal rod at top of shank | - | - |
| 164n | Sor 276 | $4,2 \mathrm{~B}$ | $7.4+\times 3.3$ | iron | Fragment, four prongs | - | - |
| cf. 164n | Sor 386 | 2, 2B-A | $4.2+\times 2.6$ | iron | Head only, four prongs, two broken, no clear traces at shaft hole | - | - |
| cf. 164n | Sor 734 | 1-2, 2 C | $9.1+\times 2.0$ | iron | Fragment, one of two prongs broken | - | - |
| cf. 164n | Sor 1095:1 | 3, 3A-2A | $5.5+$ | iron | Head only, four prongs | - | - |
| 164o | Sor 1447 | 3/13, 2B | $6.4+\mathrm{x} 1.5$ | iron | Fragment with two dents | - | - |
| 27D.5. KNOTTED HEAD |  |  |  |  |  |  |  |
| 165a | Sor 1121 | 10,1 | 15.3+ | bronze | Fragment | - | - |
| 27D.6. CURLED HEADS |  |  |  |  |  |  |  |
| 165b | Sor 975 | 1, 2B | 15.6 | bronze | - | Vanden Berghe 1964, no. 307 | - |
|  | Sor 1125:1 | 13, ${ }^{1}$ | - | bronze |  | - | - |
|  | Sor 1159:1 | 1, 3A-2A | 107 | bronze | Bent shank |  |  |
| ${ }_{\text {cf. }}^{\text {ch }}$ 165 ${ }^{\text {b }}$ | Sor 1512:1 | 1(?), 3A-2B $1,3 \mathrm{~A}-1$ | 10.7 5.6 | bronze bronze | $\overline{\text { Fragment(?), twisted shank }}$ | 二 |  |
| 165 d | Qum 6 | A, - | $12.1+x 0.5$ | bronze | Flattened band curled into 'eye' | - | - |
| 27D.7. DOUBLE SPIRAL HEADS |  |  |  |  |  |  |  |
| 165 e | Sor 776 | 18ff, 1 | 9.5 | bronze | One spiral missing, three turns, bent shank | Vanden Berghe 1964, no. 313 | - |
| 165 f | Sor 1215 | 3, 3A-2A | 9.8 | bronze | Bent shank | - | - |
| 27D.8. SLIGHTLY FLANGED HEADS |  |  |  |  |  |  |  |
| 165 g | Sor 149 | 6.1 | $9.7 \times 0.6 \ldots$ | bronze | Decorative pattern: rings-herringbone-rings-herring-bone-rings-zigzag | Thrane 1965, fig. 5 | - |


| cf. 165 g | Sor 136 | 1,1 | $10.7+\times 0.5$ |
| :--- | :--- | :--- | :--- |
| cf. 165 g | Sor 524 | 6,1 | $9.2+\times 0.5$ |
| 165 h | Sor 395 | 19,1 | $13.0 \times 0.9$ |
|  |  |  |  |
| 165 i | Sor 706 d | $3,4,2 \mathrm{~B}-1$ | $7.0 \times 0.6$ |
| 165 j | Sor 931 | $11 \mathrm{~N}, 2 \mathrm{~A}(?)$ | $6.7+\times 0.5$ |
| 165 k | Sor 1242 | $13,1 \times 2 \mathrm{~A}(?)$ | $12.5 \times 1.2$ |
| 178 d | Sor 932 | $11 \mathrm{~N}, 2 \mathrm{l}$ | 12.9 |


| bronze | Point missing, decorative pattern: <br> ring-herringbone-ring zigzag <br> of parallel lines | - | - |
| :--- | :--- | :--- | :--- |
| bronze | Point missing, four faintly incised <br> rings and wavy/zigzag line below <br> Decorative pattern: herring- | - | Muscarella 1974a, |
| bronze | bone-horizontal line-zigzag | fig. 6:479 |  |
| bronze | Bent shank, no decoration <br> bronze <br> bronze <br> bronze | Multiple rings <br> Groove below top and incised line <br> Decorative pattern; herringbone <br> -ring (seven times), below two | - |

27D.9. PLAIN DOMED OR CONICAL HEADS

| 1651 | Sor 876 | 1,1 | $8.6+\times 1.0$ | bronze | - | Ghirshman 1939. pl. 44:S 606b, S 611c | Sialk A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 1651 | Sor 1549 | 1/7/9, 2B | $21.4 \times 0.5$ | bronze | - | pl. | - |
| 165 m | Sor 1560 | 1/7/9, 2B | $10.3 \times 0.5$ | bronze | - | - | - |
| cf. 165 m | Sor 692 | 1, 3A-2A | $3.3+\times 0.9$ | bronze | Fragment | - | - |
| cf. 165 m | Sor 974 | 1N, 1 | $8.6 \times 0.5$ | bronze | - | - | - |
| 165 n | Sor 517e | 4, 2A-1 | $7.1 \times 0.5$ | bronze | Two rings, incised decorative pattern: two horizontal lines-(?)-two lines-chevrons-two lines, bent shank | - | - |
| 1650 | Sor 856 | 1N, 1 | $9.6 \times 0.6$ | bronze | Incised decorative pattern: two horizontal lines-a band with vertical lines-two horizontal lines, bent shank | - | - |
| 165p | Sor 476 | 2, 2C-1 | $8.7 \times 1.0$ | bronze | Rings from head to perforation | Ghirshman 1939, pl. 38:S 452c Muscarella 1974a, fig. 3:473 | Sialk A Dinkha III |
| 165 q | Sor 946 | 4,13,1 | $11.2 \times 1.0$ | bronze | Rings from head to perforation and just below band with vertical lines, bent shank | - | - |
| - | Sor 1149a | 1N, 3A | 6.6 | bronze | Bent shank | - | - |
| - | Sor 1158 | 1,3A-2A | 8.3 | bronze | - | - | - |
| - | Sor 1205 | 3, 3A | 9.0 | bronze | 'Squared club head' | - | - |
| - | Sor 1393 | $1 / 3,2 \mathrm{~B}$ | 7.1 | bronze | Cone on ringed head | - | - |
| - | Sor 1481 | 2/23, 2C | 7.8 | bronze | Cone on ringed neck | - | - |
|  | Sor 1304:2 | 9, 3A-2A | 8.5 | bronze | 'Club head' | - | - |
| 165r | Sor 1390 | $1 / 3,2 \mathrm{~B}$ | $20.6 \times 1.5$ | bronze | Fluted dome head on ringed neck, just below perforation three rings | - | - |
| 166 a | Kha 59 | x6, -0.60 | $4.1+\times 0.4$ | bronze | Fragment, ringed neck | - | - |
| 166b | Sor 478 | 2,1 | $15.3 \times 1.3$ | iron |  | - | - |
| cf. 166b | Sor 145 | 4,1 | $15.2 \times 0.9$ | iron | - | - | - |
| cf. 166b | Sor 412 | 4, 2B | $9.4 \times 0.7$ | iron | Fr | - | - |
| cf. 166b | Sor 569 | 1,3A-2A | $3.5+$ | iron | Fragment | - | - |
| cf. 166b | Sor 873 | $1 \mathrm{~N}, 1$ | $7.4 \times 1.1$ | iron | - | - | - |
| cf. 166 b | Sor 883 | 1N, 1 | $14.4 \times 1.0$ | iron | - | - | - |
| cf. 166b | Sor 1095:6 | 3, 3A-2A | - | iron | - | - | - |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Areaburial <br> Iev. or elev. | Dimensions <br> in cm | Mat. | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | Reference $\quad$ Period $\quad$ R

## 27D.9. PLAIN DOMED OR CONICAL HEADS (cont.)

|  | Sor 1794 | (?), 3A-1 | $2.3+$ | iron | Fragmen |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 166 c | Kha 42 | $\times 3,-1.15$ | $8.5 \times 1.3$ | iron | - |
| cf. 166 c | Kha 40 | $\times 3,-1.15$ | $9.0 \times 1.0$ | iron | - |


| - | - |
| :---: | :---: |
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|  | - |
| - | - |
|  |  |
|  |  |
|  |  |
| - | - |
| Contenau and Ghirshman | Giyan II-I |
| 1935, pl. 20, tb. 61:5 |  |
| Muscarella 1974a, fig. 6:477 | Dinkha III |
| - | - |
| - |  |
|  |  |
|  | - |
|  | - |
| - | - |
| Contenau and Ghirshman | Giyan I, 3 |
| 1935, pl. 12, tb. 21:4 | Gyan, 3 |
| Contenau and Ghirshman 1935, pl. 10, tb. 14 | Giyan I, 2 |
|  |  |
| Contenau and Ghirshman 1935, pl. 10, tb. 12:3 | Giyan I, 2 |
| Muscarella 1974a, fig. | Dinkha II |
| Tha:433 1965, fig. 5 | - |


| 166 k | Sor 393 | 19,1 | $18.3 \times 0.7$ |
| :--- | :--- | :--- | :--- |
| 1661 | Sor 614 | $1-2,2 \mathrm{C}$ | $7.1 \times 0.7$ |
| - | Sor 920b | $3,2 \mathrm{~B}-1$ | $6.3+$ |
| 166 m | Sor 995 | $1-3,2 \mathrm{~B}$ | 6.6 |
| cf． 166 m | Sor 163 | $4,2 \mathrm{~A}$ | $8.6 \times 0.5$ |
| 166 n | Sor 1297 | 7,1 | 15.9 |
| - | Sor $1223: 1$ | $3,3 \mathrm{~A}-2 \mathrm{~A}$ | $5.9+$ |


| bronze |  |
| :--- | :--- |
| bronze |  |
| bronze | Bent shank |
| bronze | Bent fragment |
| bronze | - |
| bronze | Ringed neck，bent shank |
| bronze | - |$\$=\$ l$


| 二 | 二 |
| :--- | :--- |
| 二 | 二 |
| 二 | 二 |
| $=$ | $=$ |

27D．11．SPHERICAL HEADS

| 1660 | Sor 173：1 | 4，6，2B－1 | $4.8 \times 1.1$ | bronze | － |
| :---: | :---: | :---: | :---: | :---: | :---: |
| cf． 1660 | Sor 345 | 1，2B－A | $4.8+\times 1.1$ | bronze | Fragment |
| cf． 1660 | Sor 462 | 1，1 | $4.8+\times 1.1$ | bronze | Fragment，bent shank |
| 166p | Sor 247 | 11， 1 | $9.5 \times 1.1$ | bronze | － |
| cf．166p | Sor 248 | 22， 1 | $8.4 \times 0.9$ | bronze |  |
| cf． 166 p | Sor 293 | 4／5，2B | $11.1 \times 1.0$ | bronze | Shank slightly bent，two rings on neck |
| cf．166p | Sor 798c | 1，3A－2A | $5.6+\times 2.0$ | bronze | Fragment |
| cf．166p | Sor 798d | 1，3A－2A | $2.7+\times 1.3$ | bronze | Fragment |
| cf．166p | Sor 912 | 3，2B－1 | $11.3 \times 1.1$ | bronze | Shank slightly bent |
| cf．166p | Sor 920c | 3，2B－1 | $3.8+$ | bronze | － |
|  | Sor 926b | 4， 1 | $8.0 \times 1.1$ | bronze | － |
| cf．166p | Sor 1223：6 | 3，3A－2A | $2.6+$ | $\mathrm{br} / \mathrm{ir}$ | Fragment |
| 167a | Sor 689 | 1，3A | $9.3 \times 0.7$ | bronze | Shank slightly bent |
| － | Sor 937 | $11 \mathrm{~N}, 1$ | 11.0 | bronze | － |
| 167b | Sor 960b | 4，13，2B－A | $5.6 \times 1.1$ | bronze | － |
| 167 c | Sor 1400 | 1／3，2B | $18.8 \times 1.6$ | bronze | Point slightly bent |
| 167d | Sor 1093：9 | 3，3A－2A | $11.4 \times 0.6$ | bronze | Bent shank |
| 167e | Sor 1545 | 1／7／9，2B | $13.6 \times 1.2$ | bronze | Shank slightly bent |
| cf．167e | Sor 1223：5 | 3，3A－2A | $3.3+$ | $\mathrm{br} / \mathrm{ir}$ | Fragment |
| 167f | Sor 988 | 1－3，2B | $11.5 \times 1.2$ | bronze | Upper part of sphere fluted， ringed neck |
| 167 g | Sor 297 | 4，2B－A | $4.0 \times 1.4$ | $\mathrm{br} / \mathrm{ir}$ | － |
| 167h | Sor 116 | 22， 1 | $3.2+\times 1.9$ | brfir | Fragment |
| cf． 167 h | Sor 706a | 3，4，2B－1 | $2.9+\times 2.0$ | $\mathrm{br} / \mathrm{ir}$ | Head only |
| cf． 167 h | Sor 706b | 3，4，2B－1 | $2.4+\times 1.4$ | $\mathrm{br} / \mathrm{ir}$ | Head only |
| cf． 167 h | Sor 1612：1 | 1／3，3A | $3.2+\times 2.0$ | $\mathrm{br} / \mathrm{ir}$ | Fragment，three rings on neck |
| 167 i | Sor 259 | 16，1 | $7.9+\times 1.9$ | $\mathrm{br} / \mathrm{Ir}$ | Fragment |
| cf． 167 i | Sor 383 | 2，2C－A | $5.3+\times 1.5$ | $\mathrm{br} / \mathrm{ir}$ | Fragment |
| 167j | Sor 289 | 4／5，2B | $3.3+\times 2.3$ | br／ir | Head only |
| cf．167j | Sor 142 | 6，1 | $3.8+\times 2.1$ | brfir | Fragment |
| 167k | Sor 408 | 4，2A | $2.4+\times 1.0$ | $\mathrm{br} / \mathrm{ir}$ | Fragment，head only |
| 1671 | Sor 867c | 1－3，2B | $2.1+\times 1.6$ | $\mathrm{br} / \mathrm{ir}$ | Head only |


| Contenau and Ghirshman 1935，pl．18，tb．53：6 | Giyan I， 4 |
| :---: | :---: |
| Contenau and Ghirshman | Giyan I， 4 |
| 1935，pl．19，tb．55：5 |  |
| － | － |
| － | － |
| － | － |
| － | － |
| － | － |
| － | － |
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| － | － |
| － | － |
| － | － |
| － | － |
|  | － |
| Vanden Berghe 1973a， fig．11：63 | Iron I－II |
| － | － |
| － | － |
| － | － |
| － | － |
| － | － |
| － | － |
| Ghirshman 1939，pl．100：20 | － |
| － | － |
| － | － |
|  | Iron I－II |
| $11: 66,67$ |  |
| － | － |
| － | － |
| － | － |
| － | － |

Catalog 27．Iron Age Cast Metal Objects（cont．）

| Plate | Site and obj．no． | Area／burial lev．or elev． | Dimensions in cm | Mat． | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 27D．PINS（cont．） |  |  |
| 27D．11．SPHERICAL HEADS（cont．） |  |  |  |  |  |  |  |
| 167 m | Sor 1093：14 | 3，3A－2A | $3.7+x 1.6$ | $\mathrm{br} / \mathrm{ir}$ | Fragment with loop on neck | － | － |
| 167n | Sor 821a | 3，2A－1 | $4.3+\mathrm{x} 2.4$ | br／ir | Head only，lower part of sphere incised， ringed neck | － | － |
| 167o | ChJal 8 | $\begin{aligned} & 0.5 \mathrm{~mW} \\ & \text { of } \times 1, \ldots \end{aligned}$ | $7.5+\times 2.6$ | $\mathrm{br} / \mathrm{ir}$ | Fragment，iron shank | － | － |
| cf． 1670 | ChJal 5 | $\begin{aligned} & 0.5 \mathrm{~m}, \bar{W} \\ & \text { of } \mathrm{x} 1,- \end{aligned}$ | $2.5+\times 2.3$ | $\mathrm{br} / \mathrm{ir}$ | Fragment，iron shank，ringed neck | － | － |
| 167p | Sor 368 | 2，1 | $6.5 \times 2.5$ | iron | Fragment | － | － |
| cf． 167 p | Sor 173：2， 3 | 4，6，2B－1 | $5.7+\times 1.5$ | iron | Two exx． | － |  |
| cf．167p | Sor 420 | 4，2B | $12.8 \times 1.1$ | iron |  |  |  |
| cf． 167 p | Sor 884a | 18， 18 | $9.8 \times 0.5$ $7.9 \times 2.3$ | iron | Fragment | 二 | － |
| cf．167p | Sor 1048 | 3，2B | $8.2 \times 2.5$ | iron | Fragment |  |  |
| cf．167p | Sor 1093：13 | 3，3A－2A | $3.3+\mathrm{x} 1.6$ | br／ir | Fragment |  |  |
| cf．167p | $\begin{aligned} & \text { Sor 1095: } \\ & 2,3,5 \\ & \hline \end{aligned}$ | 3，3A－2A | $5.3+\mathrm{x} 2.5$ | iron | Three fragments | － | － |
| cf．167p | $\begin{aligned} & \text { Sor } 1108 \text { : } \\ & 1-3,5 \end{aligned}$ | 1，7， 1 | － | iron | Four exx． | － | － |
| cf．167p | Sor 1224：1 | 3，2B－A | 10.2 | iron | － | Vanden Berghe 1973a，fig． 11：68， 69 | Iron I－II |
| cf．167p | Sor 1224：2 | 3，2B－A | 4.7 | iron | Fragment | 促 | － |
| cf． 167 p | Sor 1224：3 | 3，2B－A | 6.0 | iron | Fragment | － |  |
| cf．167p | Sor 1224：4 | 3，2B－A | 5．3 | iron | Fragment |  |  |
| ${ }_{\text {cf．}}^{167 q} 167$ | Sor 399 | 4，2A | $5.2+\times 1.1$ $6.5+\mathrm{x} 1.2$ | iron iron | $\overline{\text { Fragment }}$ |  |  |
| cf．167q | Sor 708a | 3，4，2B－1 | $5.0 \times 0.9$ | iron | Fragment | 二 |  |
| cf．167q | Sor 884 b | $1 \mathrm{~N}, 1$ | $3.9 \times 1.0$ | iron | Fragment | － |  |
| cf． 167 q | Sor 960c | 4，13，2B－A | $7.0 \times 1.4$ | iron | Fragment |  |  |
| 168 a | Sor 86 | 5，2A | $7.8 \times 1.6$ | iron | Fragment |  |  |
| 168b | Qum 8 | $\mathrm{A}_{1}$－ | $5.0+$ x 1.8 | iron | Fragment，ringed neck | － |  |
| － | Sor 867a ${ }_{\text {Sor 1125：3，}}$ | ${ }_{13,1}^{1-3,2 \mathrm{~B}}$ | 二 | br／ir | Fragment Two exx | － |  |
|  | Sor 1223：4 | 3，3A－2A | $\overline{2.1+}$ | br／ir | Fragment |  |  |
|  | Sor 1239 | 10， 1 | $6.5+$ | bronze | Fluted globe | － |  |
|  | Sor 1240 | 10,1 | 8.3 | bronze | Fluted sphere on ringed neck | － | － |
|  | Sor 1255：2 | 7（？），2B－A | 6.9 | iron | － |  |  |
|  | Sor 1305 | 9，3A－2A | 5 | iron | － |  |  |
|  | Sor 1330 | 13， 1 | 5.2 | bronze | Fragment | － |  |
| － | Sor 1331 | 13， 1 | 4.3 | br／ir | Fragment | － | － |


|  | Sor 1372 | 1/3, 2B | $12+$ |
| :---: | :---: | :---: | :---: |
|  | Sor 1394 | $13,2 \mathrm{~B}$ | - |
|  | Sor 1415 | 1/3, 2B | $3.3+$ |
|  | Sor 1454 | 3/13, 2B | $5.9+$ |
| - | Sor 1474 | 2/23, 2C | 12.2 |
| - | Sor 1534 | 1/7/9, 2B | $3.0+$ |
|  | Sor 1535b | $1 / 7 / 9,2 \mathrm{~B}$ | 5.7+ |
| - | Sor 1543 | $1-7-9,2 \mathrm{~B}$ | - |
|  | Sor 1546:1 | 1-7-9, 2B |  |
|  | Sor 1555 | 1-7-9, 2B | $5.7+$ |
|  | Sor 1594 | 1/3, 2B | $2.0+$ |
|  | Sor 1612:2 | 1/3, 3 |  |
| - | Sor 1672:2 | 1/9/11, 3A | 5.0 |


| iron | Point missing |
| :--- | :--- |
| bronze | - |
| br/ir | Fragment |
| br/ir | Point missing |
| bronze | - |
| br/ir | Fragment |
| br/ir | Fragment |
| br/ir | Fragment |
| iron | - |
| br/ir | $\overline{\text { Fragment }}$ |
| br/ir | Fragment |
| bronze | Rronze |
| Ringed neck |  |

27D.12. VASELIKE OR POPPY HEADS

| 168 c | Sor 840d | 4, 1-2B | $4.5+\times 0.9$ | bronze | Fragment, bent shank |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 168d | Sor 877 | 1, 2 | $9.7 \times 1.2$ | bronze | - | Vanden Berghe 1973a, fig. 11:61 | Iron I-II |
| 168e | Sor 331 | 1,2B | $12.8 \times 1.0$ | bronze | - | Vanden Berghe 1982, fig. 23:16 | Terminal Iron I |
| cf. 168e | Sor 341 | 1, 2A-B | $9.8 \times 1.0$ | bronze | Bent shank | - | - |
| cf. 168e | Sor 350 | 1, 2A-B | $10.8 \times 0.9$ | bronze | Slightly bent | - | - |
| cf. 168e | Sor 720 | 1-2, 2C | $6.0+\times 1.1$ | bronze | Bent fragment | - | - |
| cf. 168e | Sor 872 | 1,1 | 13.0 | $\mathrm{br} / \mathrm{ir}$ | - | - | - |
| cf. 168e | Sor 1217 | 3, 2A-3A | $13.8 \times 1.0$ | bronze | Bent shank | - | - |
| cf. 168e | Sor 1223:8 | 1, 2A-3A | $1.6+$ | bronze | Fragment | - | - |
| 168 f | Sor 768 | 23, 1-2A | $3.2+\times 1.0$ | bronze | Fragment | - | - |
| 168 g | Sor 372 | 2,1 | $12.2 \times 1.1$ | bronze | - | - | - |
| cf. 168 g | Sor 309:1 | 1,2A-B | $5.0+\times 0.6$ | bronze | Fragment, two rings on neck | - | - |
| cf. 168 g | Sor 693 | $1 / 4,2 \mathrm{~B}$ | $7.2+\times 0.7$ | bronze | Point missing | - | - |
| cf. 168 g | Sor 798e | 1, 2A-3A | $4.1 \times 1.0$ | bronze | Fragment | - | - |
| cf. 168 g | Sor 1104 | 7S, 1 | $9.5 \times 0.9$ | bronze | Two rings on neck | - | - |
| 168h | Sor 12 | 4, 1 | $7.2 \times 0.7$ | bronze | - | - | - |
| cf. 168h | Sor 3 | 5,1 | $5.4 \times 0.9$ | bronze | Shank slightly bent | - 1973 | - |
| 168 i | Sor 63 | 4,1 | $12.4 \times 1.4$ | bronze | Ringed neck | Vanden Berghe 1973a, | Iron I-II |
| cf. 168 i | Sor 68 | 4,1 | $14.3 \times 1.1$ | bronze | Shank bent, point missing | fig. 23:11-58, 59, 62 |  |
| cf. 168 i | Sor 98 | 1, 2, 1 | $6.7+\times 0.8$ | bronze | Shank bent, point missing | - | - |
| cf. 168 i | Sor 113 | 1, 2A | $7.2 \times 1.1$ | bronze | - | - | - |
| cf. 168 i | Sor 208 | 1,2A | $5.9+\times 1.1$ | bronze | Shank bent, point and part of shank missing | - | - |
| cf. 168 i | Sor 246 | 11, 1 | $8.9 \times 0.8$ | bronze | Shank slightly deformed | - | - |
| cf. 168 i | Sor 334 | 1,1 | $6.6+\times 1.1$ | bronze | Fragment | - | - |
| cf. 168 i | Sor 391 | 11S, 1 | $11.6 \times 1.0$ | bronze | Shank bent | - | - |
| cf. 168 i | Sor 429 | 4, 2B | $11.4 \times 0.9$ | bronze | - | - | - |
| cf. 168 i | Sor 676 | 22, 1 | $10.8 \times 0.9$ | bronze | - | - | - |
| cf. 168 i | Sor 690 | 1,3A | $4.5 \times 1.1$ | bronze | - | - | - |
| cf. 168 i | Sor 757 | 23,1 | 9.3 | bronze | - | - | - |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| PlateSite and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

27D.12. VASELIKE OR POPPY HEADS (cont.)

| cf. 168 i | Sor 761 | 23, 1-2A | $10.8 \times 0.9$ | bronze | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 168 i | Sor 781 | 25, 1 | $10.1 \times 1.0$ | bronze | - | - | - |
| cf. 168 i | Sor 922a | 23, 24, 1 | $6.9+$ | bronze | - | - | - |
| cf. 168 i | Sor 922b | 23, 24, 1 | 9.5 | bronze | - | - | - |
| cf. 168 i | Sor 960a | 4, 13, 2A-B | $6.3 \times 1.1$ | bronze | - | - | - |
| cf. 168 i | Sor 1056 | 3,1 | 11.6 | bronze | - | - | - |
| cf. 168 i | Sor 1558 | 1/7/9, 2B | $12.8 \times 1.2$ | bronze | - | - | - |
| 168 j | Sor 253 | 4,1 | $11.1 \times 1.0$ | bronze | Ringed neck | - | - |
| cf. 168j | Sor 517b | 4, 2A-B | $6.4 \times 0.9$ | bronze | - | - | - |
| cf. 168 j | Sor 588 | 19, 21, 1 | $4.4+\times 0.9$ | bronze | $\overline{\text { Elo }}$ | - | - |
| 168k | Sor 304 | 1,2A | $8.7+\times 1.1$ | bronze | Elongated body of vase or poppy head | - | - |
| 1681 | Sor 507 | 19, 1 | $8.1 \times 0.3$ | bronze | Very small vase or poppy head | - | - |
| 168 m | Sor 802 | 3, 1-2A | $10.2 \times 0.7$ | bronze | Elongated body of vase or poppy head | - | - |
| cf. 168 m | Sor 1182:2 | 3, 2B | $7.1+\times 1.0$ | bronze | - ll |  |  |
| 168 n | Sor 815 | 3, 1-2A | $2.4+\times 1.0$ | bronze | Small top, only head preserved | Vanden Berghe 1982, fig. 23:18 | Terminal Iron 1 |
| 1680 | Sor 1093:2 | 3, 2A-3A | $8.1+\times 1.2$ | bronze | Faint top |  | T |
| 168p | Sor 1430 | $1 / 3,2 \mathrm{~B}$ | $14.0 \times 1.0$ | bronze | Cone top | Vanden Berghe 1982. fig. 23:17 | Terminal Iron I |
| 168 q | Sor 1617 | 1/3,3A | $9.1 \times 0.9$ | bronze | Loop from ringed neck to upper shank |  | - |
| 168 r | Sor 889 | 1,1 | $12.4 \times 1.0$ | bronze | - | - | - |
| cf. 168 r | Sor 495 | 19,1 | $13.0 \times 1.4$ | bronze | Shank slightly bent |  |  |
| 168 s | Sor 238 | 1, 2A-B | $4.8 \times 0.1$ | bronze | - | Goff 1978, fig. 14:11 | Baba Jan III |
| cf. 168s | Sor 1093:4 | 3, 2A-3A | $8.7 \times 0.5$ | bronze | Two rings at base of globe, three rings on neck | Goff 1978, fig 14.11 | - |
| 169a | Sor 845 | 25, 1 | $11.6 \times 1.0$ | bronze | Shank slightly bent | - | - |
| cf. 169a | Sor 9 | 5,1 | $6.9+\times 1.3$ | bronze | Fragment | - | - |
| cf. 169a | Sor 782 | 25,1 | $5.2+\times 0.9$ | bronze | Fragment | - | - |
| cf. 169a | Sor 1005 | 1-3, 3A | $6.3+\times 0.8$ | bronze | Fragment | - | - |
| 169b | Sor 1067 | 3, 2A-3A | $11.5 \times 0.7$ | bronze | Two rings above globe, ringed neck | $\vec{V}$ | I- III |
| 169c | Sor 1182:1 | 3, 2B | $4.1+\times 2.1$ | bronze | Head only | Vanden Berghe 1973a, fig. 11, 64, 65 | Iron I-II |
| cf. 169 c | Sor 187 | 15, 1 | $5.3+\times 1.4$ | $\mathrm{br} / \mathrm{ir}$ | Fragment | - | - |
| cf. 169c | Sor 600 | KG, 1 | $3.9+\times 2.2$ | $\mathrm{br} / \mathrm{ir}$ | Fragment | - | - |
| cf. 169c | Sor 867b | 1-3, 2B | $3.1+\times 1.5$ | br/ir | Fragment | - ${ }^{\text {V }}$ |  |
| 169d | Sor 125 | 1,1 | $6.0 \times 0.8$ | iron | - | Vanden Berghe 1973a, fig. 11:70 | Iron I-II |
| cf. 169d | Sor 378 | 2, 2C | $8.7+\times 1.5$ | iron | Fragment | - | - |


| cf. 169 d | Sor 465 | 1,1 | $6.7+\times 1.1$ |
| :---: | :---: | :---: | :---: |
| cf. 169d | Sor 491 | 2, 2A-C | $5.6+\times 0.9$ |
| cf. 169 d | Sor 558 | 4, 2A | $5.6+\times 0.5$ |
| cf. 169 d | Sor 581 | 21,1 | $8.5+$ |
| cf. 169 d | Sor 652 | 1,3A | $8.5+\times 0.6$ |
| cf. 169d | Sor 682 | 22, 1 | $6.1+\times 1.0$ |
| cf. 169d | Sor 840 g | 4, 1-2B | $8.6+\times 1.1$ |
| cf. 169 d | Sor 854:1 | 11, 18ff, 1 | $6.4+\times 1.6$ |
| cf. 169d | Sor 1512:4 | 1(?), 2B-3A | $6.9+\times 1.1$ |
| cf. 169d | Sor 1512:6 | 1(?), 2B-3A | $5.2 \times 1.4$ |
| cf. 169 d | Sor 1638 | $13,2 \mathrm{~B}$ | 6.4 |
| 169 e | Sor 155 | 6,2B | $13.5+\times 2.0$ |
| cf. 169e | Sor 1224:5 | 3, 2A-3A | 4.2 |
| 169 f | Sor 272 | 4, 2A | $6.0 \times 2.3$ |
| cf. 169 f | Sor 355 | 1, 2A-B | $4.8+\times 0.9$ |
| 169 g | Sor 344 | 1, 2A-B | $9.0+\times 1.2$ |
| cf. 169 g | Sor 477 | 2, 1-2C | $4.8+\times 1.8$ |
| cf. 169 g | Sor 694 | 1/4, 2B | $18.2 \times 0.8$ |
| cf. 169 g | Sor 854:2-4 | 11,18ff, 1 | - |
| cf. 169 g | Sor 917 | 3, 1-2B | $11.2+\times 1.3$ |
| cf. 169 g | Sor 926e | 4,1(?) | $10.3 \times 1.2$ |
| 169h | Sor 500 | 18,20, 1 | $16.7+\times 1.0$ |
|  | Sor 366c | 2, 1 | 6.8 |
| - | Sor 706c | 3, 4, 1-2B | $2.7+\times 0.7$ |
|  | Sor 756 | 4,1 | $2.5 \times 1.5$ |
|  | Sor 840f | 4, 1-2B | $3.3+\times 0.5$ |
| - | Sor 904 | 3, 4, 1-2B | 11.7 |
|  | Sor 920d | 3, 1-2B | $2.2+$ |
| - | Sor 922e | 23, 24, 2, 1 | 5.9+ |
|  | Sor 922f | 23, 24, 2, 1 | 6.3 |
|  | Sor 925a | 9,1 | $1.0+$ |
|  | Sor 925b | 9,1 | $6.0+$ |
|  | Sor 926d | 4,1 | 3.4+ |
|  | Sor 1046 | 3, 2B | 14.7 |
|  | Sor 1093:8 | 3, 2A-B | 2.4+ |
|  | Sor 1095:4 | 3, 2A-3A | - |
|  | Sor 1108:4 | 1, 7, 1 | - |
|  | Sor 1149b | 1, 2A-3A | 6.6 |
|  | Sor 1154:2 | 1, 2A-3A | - |
|  | Sor 1157 | 1, 2A-3A | 12.2 |
|  | Sor 1159:2 | 1, 2A-3A | - |
|  | Sor 1178 | 1/3, 3A | 10.8 |
|  | Sor 1213 | 3, 2A-B | 11.7 |
|  | Sor 1221:3 | 3, 2A-3A | 7.8 |
|  | Sor 1223:7 | 3, 2A-3A | $2.5+$ |
|  | Sor 1224:6 | 3, 2A-3A | 11.2 |
|  | Sor 1224:7 | 3, 2A-3A | 10.9 |
|  | Sor 1262 | 9,1 | 5.4+ |
|  | Sor 1315:2 | 9/11,3A | 4.7+ |
| - | Sor 1323:3 | 9,3A | 5.5 |


| iron | Fragment |
| :---: | :---: |
| iron | Fragment |
| iron | Fragment |
| iron |  |
| iron | Point missing |
| iron | Fragment |
| iron | Fragment |
| iron | Fragment |
| iron | - |
| iron | - |
| iron | - |
| iron | - |
| iron | - |
| iron | - |
| iron | Fragment |
| iron | Fragment |
| iron | Fragment |
| iron | - |
| iron | - |
| iron | Fragment |
| iron | - |
| iron | Point missing |
| bronze |  |
| br/ir | Head only |
| br/ir | Fragment |
| iron | Fragment |
| bronze | - |
| bronze | Fragment |
| iron | Fragment |
| iron | - |
| bronze | Fragment |
| bronze | Fragment |
| bronze | Fragment |
| bronze | - |
| bronze | Fragment |
| iron | - |
| iron | - |
| bronze | - |
| bronze | - |
| bronze | - |
| bronze | - |
| bronze | - |
| bronze | - |
| bronze | - |
| bronze | Fragment |
| iron | - |
| iron | - |
| bronze | Fragment |
| bronze | Fragment |
| bronze | - |

Catalog 27．Iron Age Cast Metal Objects（cont．）

| Plate | Site and <br> obj．no． | Arealburial <br> lev．or elev． | Dimensions <br> in cm | Mat． | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

27D．12．VASELIKE OR POPPY HEADS（cont．）

| － | Sor 1343 | 2／23，2C | 14.8 |
| :---: | :---: | :---: | :---: |
|  | Sor 1358 | 1／3，3A | 9.7 |
|  | Sor 1389 | 1／3，2B | 12.5 |
|  | Sor 1408 | 1／3，2B | 9.8 |
|  | Sor 1409 | 1／3，2B |  |
| － | Sor 1410 | 1／3， 2 B | 11.4 |
|  | Sor 1441 | 3／13，2B |  |
|  | Sor 1446 | 3／13，2B | 8.2 |
|  | Sor 1453 | 3／13，2B | 16.6 |
|  | Sor 1512：11 | 1，2B－3A | $8.0 \times 0.7$ |
|  | Sor 1512：14 | 1，2B－3A | $7.3 \times 0.3$ |
|  | Sor 1621 | $1 / 3,2 \mathrm{~B}$ | 5．3＋ |
|  | Sor 1664 | 9／11，3A | 7.4 |
| － | Sor 1672：1 | 1／9／11，3A | 4．6＋ |


| iron | - |
| :--- | :--- |
| bronze | - |
| bronze | - |
| bronze | - |
| bronze | - |
| bronze | - |
| bronze | - |
| bronze | - |
| iron | － |
| bronze | － |
| bronze | Point missing |
| bronze | bronze |
| bronze | Fragment |


| － | － |
| :---: | :---: |
| － | － |
| 二 | － |
| － | 二 |
| － | － |
| － | － |
| － | － |
| 二 | 二 |
| － | － |
| － | － |
| 二 | 二 |
| 二 | 二 |
| ， |  |
| Vanden Berghe 1972， fig．11：40， 41 | Iron I－III |
| 二 | － |
| － | － |
| － | － |
| Vanden Berghe 1968a，pl．36a（？） | Iron III |
| － | － |
| － | － |
| 二 | － |
| － | － |
| 二 | － |
| － |  |
| － | － |


| 169t | Sor 1315:3 | 9/11,3A | $2.5+\times 0.8$ | bronze | Fragment, conoid top | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 169u | Sor 1374 | 1/3, 2B | $11.7+\times 1.7$ | bronze |  | - | - |
| 169v | Sor 840c | 4, 1-2B | $3.0+\times 1.3$ | $\mathrm{br} / \mathrm{ir}$ | - | - | - |
| 170 a | Qum 7 | A, - | $2.6+\times 0.9$ | bronze | Cube with obliquely cut comers, faces with pointed incisions, ringed neck, fragment | - | - |
| - | Sor 1106 | 7,1 | 5.1 | bronze | Erabl | - | - |
| - | Sor 1179 | 1/3,3A | 7.6+ | bronze | Fragment, point missing | - | - |
| - | Sor 1303:1 | 9/11, 3A | 8.8 | bronze | - | - | - |
| - | Sor 1323:2 | 9,3A | 6.8 | bronze | - | - | - |
| 27D.14. BLOSSOM HEADS |  |  |  |  |  |  |  |
| cf. 169 h | Sor 222 | 1,1 | $8.3+\times 1.2$ | iron | Elongated globe | - | - |
| cf. 169h | Sor 332 | 1/11,3A | $9.3+\times 1.3$ | iron | Fragment | - | - |
| cf. 169 h | Sor 367 | 2,1 | $14.1+\times 1.3$ | iron | Fragment | - | - |
| cf. 169 h | Sor 577 | 19, 1 | $15.2+\times 1.7$ | iron | Ringed neck | - | - |
| cf. 169 h | Sor 592 | 18, 19, 1 | $6.4+\times 1.3$ | iron | Fragment | - | - |
| cf. 169 h | Sor 925c | 9,1 | $9.9+$ | iron | Fragment | - | - |
| cf. 169 h | Sor 925d | 9, 1 | $6.0+$ | iron | Fragment | - | - |
| cf. 169 h | Qum 9 | A, - | $2.6+\times 0.9$ | iron | Fragment | Gofer |  |
| 170b | Sor 309:2 | 1,2A-B | $7.9 \times 0.6$ | bronze | Rectangle at each side divided by central dash, surmounted by similarly divided cube | Goff 1978, fig. 14:9 | Baba Jan II |
| 170 c | Sor 672 | 1,3A | $10.1 \times 0.5$ | bronze |  | - | - |
| cf. 170 c | Sor 366d | 2, 1 | - | bronze | - | - | - |
| cf. 170 c | Sor 670 | 1, 2B | 6.9 | bronze | - | - | - |
| cf. 170 c | Sor 798b | 1, 2A-3A | $5.6 \times 0.6$ | bronze | - | - | - |
| cf. 170 c | Sor 1027a | 1, 1-3A | $7.0 \times 0.6$ | bronze | - | - | - |
| cf. 170 c | Sor 1093:5 | 3, 2A-3A | 7.1 | bronze | - | - | - |
| cf. 170 c | Sor 1093:6 | 3, 2A-3A | 7.5 | bronze | - | - | - |
| cf. 170 c | Sor 1223:3 | 3, 2A-3A | $3.5+\times 0.7$ | bronze | Fragment | - | - |
| cf. 170c | Sor 1350a | $7,9,2 \mathrm{~B}$ | $11.9 \times 1.4$ | bronze | - | - | - |
| 170d | Sor 732b | 1-2, 2C | $3.4 \times 0.4$ | bronze | - | - | - |
| 170 e | Sor 766 | 1-2, 1-2A | $14.6 \times 0.7$ | bronze | - | - | - |
| cf. 170e | Sor 366a | 2, 1 | $7.0 \times 0.4$ | bronze | $\overline{\text { - }}$ | - | - |
| 170 f | Sor 1093:7 | 3, 2A-3A | $14.7+\times 0.5$ | bronze | Shank bent | - | - |
| 170 g | Sor 186 | 15, 1 | $8.9 \times 0.9$ | bronze | - | - | - |
| cf. 170 g | Sor 646 | 1-2, 2C | $7.8 \times 0.9$ | bronze | - | - | - |
| cf. 170 g | Sor 1027b | 1, 1-3A | $4.0+\times 0.8$ | bronze | Fragment | - | - |
| 170h | Sor 1105 | 7, I | 6.7 | bronze | - | - | - |
| 170 i | Sor 379 | 2(?), 1-2C | $10.8 \times 1.0$ | bronze | - | - | - |
| 170 j | Sor 724 | 1-2, 2C | $13.9 \times 1.1$ | bronze | $\overline{\text { Fren }}$ | - | - |
| 170 k | Sor 443 | 4, 2B | $4.5+\times 0.7$ | bronze | Fragment, spiral neck | - | - |
| 1701 | Sor 574 | 19, 1 | $17.3 \times 1.4$ | bronze | Ringed neck | - | - |
| cf. 1701 | Sor 81 | 7N, 1 | $7.1 \times 0.7$ | bronze | Ringed neck | - | - |
| cf. 1701 | Sor 324 | $1 / 2 / 3,2 \mathrm{~B}$ | $14.5 \times 1.4$ | bronze | Ringed neck | Muscarella 1981a, no. | - |
| cf. 1701 | Sor 578 | 19, 1 | $12.5 \times 1.3$ | bronze | Ringed neck | Muscarella 1981a, no. 18 | - |
| cf. 1701 | Sor 582 | 21, 1 | $13.4 \times 1.3$ | bronze | Ringed neck | - | - |

Catalog 27．Iron Age Cast Metal Objects（cont．）

| Plate | Site and obj．no． | Arealburial lev．or elev． | Dimensions in cm | Mat． | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 27D．PINS（cont．） |  |  |
| 27D．14．BLOSSOM HEADS（cont．） |  |  |  |  |  |  |  |
| cf． 1701 | Sor 1512：9 | 1，2B－3A | 10.7 | bronze | － | － | － |
| 170 m | Sor 7 | 5，1 | $17.0 \times 1.5$ | bronze | Zigzag design surmounted by head－and－ ring（three times），two flute globes and floral top with four prongs，spatulate point | － | － |
| 170 n | Sor 457 | 2，2A－3A | $6.6+\times 1.1$ | bronze | Fragment，bent shank | － | － |
| 170o | Sor 502 | 18， 1 | $9.0 \times 0.9$ | bronze | － | － |  |
| 170 p | Sor 769 | 23，1－2A | $7.3+\times 1.6$ | bronze | Fragment | － | － |
| ${ }^{170} 9$ | Sor 821b | 3，1－2A | $4.5+\times 1.6$ | bronze | Fragment |  |  |
| 170 r 170 s | Sor 1093：15 | 3，2A－3A | $3.0+\mathrm{x} 1.7$ | bronze | Fragment |  |  |
| 170s cf． 170 s | Sor 274 | （？）， 1 1－3A | $\frac{6.0+\times 2.3}{9.3}$ | iron iron chen | ${ }_{\text {Fragment }}$ | 二 |  |
| ${ }_{170 \mathrm{t}}^{\text {che }}$ | Sor 1792 | 18， 1 | $9.3 .2 \times 1.2$ | iron iron | Fragment | 二 |  |
| cf．170t | Sor 595 | KG 1， 1 | $7.6+\mathrm{x} 1.2$ | iron | Fragment |  |  |
| cf．170t | Sor 11 | 5,1 | $8.9+$ x 1.0 | iron | Fragment |  | － |
| cf． 170 t | Sor 91 | 13， 1 | $6.6+\times 1.1$ | iron | Fragment | － | － |
| cf． 170 t | Sor 280 | 4（？），2A－B | $5.9+\times 1.2$ | iron | Fragment | － | － |
| cf． 170 t | Sor 364 | 1－2，2C | $12.5 \times 1.2$ | iron | Shank bent |  |  |
| cf． cf． 170 t l | Sor 719a | $1-2,2 \mathrm{C}$ $1-2,2 \mathrm{C}$ | 9.6 7.8 | iron iron | － |  |  |
| 178 e | Sor 326 | 1／2／3，2B | $17.8 \times 1.6$ | bronze |  |  |  |
| 178 f | Sor 325 | 1／2／3，2B | $18.0 \times 1.8$ | bronze | Ringed neck，radiating incision on top | － | － |
| － | Sor 708b | 3，4，1－2B | 5．9＋ | iron | Fragment | － | － |
| － | Sor 920a | 3，1－2B | $8.3+$ | bronze | Fragment | － | － |
|  | Sor 1154：1 | 1，2A－3A | $\overline{7}$ | bronze | － | － |  |
|  | Sor 1221：2 | 3， $2 \mathrm{~A}-3 \mathrm{~A}$ | 8.7 | bronze |  |  |  |
|  | Sor 1223：4 | 3，2A－3A | $6.2 \times 0.6$ | bronze | － |  |  |
|  | Sor 1304：1 | 9，2A－3A | 8.7 | bronze | － | － |  |
| － | Sor 1323：1 | 9， （？）， d | 9.1 | bronze | 二 | 二 | 二 |
|  |  |  |  |  |  |  |  |
| 27D．15．OPEN CAGE HEADS |  |  |  |  |  |  |  |
| 171a | Sor 396 | 19， 1 | $9.2 \times 1.4$ | bronze | Loop from lower part of cage to shank | － | － |
| 171b | Sor 1629 | 1／3，2B | $7.1 \times 1.7$ | bronze | Head，nine vertical bars surmounted by blossom top，loop from lower cage to upper shank | － | － |


| 171 c | Sor 492 | 2,1 | $3.2+\times 1.7$ | br/ii | Fragment, open cage with nine <br> bars, surmounted by ring and disc | - | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 179 a | Sor 1376 | $1 / 3,2 B$ | $11.9 \times 1.4$ | bronze | - | - |  |

27D.16. ZOOMORPHIC HEADS
27D.16.1. Homed Animal Heads

| 171d | Sor 10 | 5,1 | $8.4+\times 1.0$ | bronze | Fragment, loop behind ears | Ghirshman 1939, pl. 29:1 | Sialk B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 171e | Sor 54 | 4,1 | $5.4+\times 1.2$ | bronze | Fragment, horns form loop | - |  |
| 171f | Sor 93 | 13, 1 | $7.5 \times 1.1 \times 0.7$ | bronze |  |  |  |
| 171g | Sor 111 | 1, 2A(?) | $5.0+\mathrm{x} 0.9$ | bronze | Fragment, ringed neck |  |  |
| 171h | Sor 197 | 1-2, 2A | $14.5 \times 1.1$ | bronze | $\overline{\text { - }}$ | Muscarella 1981a, no. 14 |  |
| 171i | Sor 242 | 18,1 | $11.9 \times 1.3$ | bronze | Knobbed homs, square scalloped muzzle, gash between lower jaw | - | - |
| 171j | Sor 279 | 4, 2A-B | $14.0 \times 1.4$ | bronze | Horns from loop | Muscarella 1981a, no. 15 | - |
| 171k | Sor 306 | 1N, 2A | $11.7 \times 1.2$ | bronze | Horns form loop, bent shaft | - |  |
| 1711 | Sor 320 | 1, 2A-B | $6.8+$ x 1.0 | bronze | Fragment | - |  |
| 171m | Sor 446 | 1,1 | $6.8+\mathrm{x} 1.2$ | bronze | Ends of horns curve up after joining | - | - |
| 171n | Sor 741 | 1, 3A | $14.8 \times 1.1$ | bronze | No indications for eyes and muzzle | - | - |
| 1710 | Sor 759 | 23, 2A | $7.2 \times 1.5$ | bronze | Eyes not indicated, ears, muzzle, and horns poorly modeled | - | - |
| 171p | Sor 794 | $1 \mathrm{~N}, 2 \mathrm{~A}-\mathrm{B}$ | $2.6+\times 1.2$ | bronze | Head only, horns form loop | - | - |
| 171q | Sor 826 | 23, 24, 1 | $11.9+\times 1.3$ | bronze | Fragment | - | - |
| 171r | Sor 837 | 4, 1-2B | $12.4 \times 1.1$ | bronze | Shank bent | - |  |
| 171s | Sor 852 | 11, 1-3A | $12.7 \times 0.9$ | bronze | Shank bent, highly stylized |  |  |
| 172a | Sor 866 | 1-3, 2B | $3.0+\mathrm{x} 0.8$ | bronze | Head only | - |  |
| 172 b | Sor 901 | 3,1 | $4.7+\mathrm{x} 0.9$ | bronze | Fragment, ringed neck | - | - |
| 172 c | Sor 1083 | 3, 2A-3A | $9.5+\mathrm{x} 1.1$ | bronze | Fragment | - |  |
| 172d | Sor 1458 | 2/3, 3A | $12.2 \times 0.8$ | bronze | Bud ends of horns curve up after joining neck, two double rings on neck, horns form loop | - | - |
| 172e | Sor 1584 | 1/7/9, 2B | $4.3+\mathrm{x} 0.8$ | bronze | Fragment | - | - |
| 172f | Sor 1614 | 1/3, 3A | 5.2+ | bronze | Fragment, horns curl up after joining neck |  |  |
| 179b | Sor 1203 | 3, 3A | $8.1+$ | bronze | Fragment | Muscarella 1981a, no. 16 | - |
| 179c | Sor 490 | 2, 2A | $14.7 \times 1.3$ | bronze | Homs form loop, shank bent | - | - |
| 179d | Sor 62 | 4, 1 | $15.3 \times 1.3$ | bronze | Prongs on back of neck | - | - |
| - | Sor 1086 | 3, 2A-B | 3.4+ | bronze | Head only, eyes faintly indicated, homs form loop, one horn and ear broken | - | - |
|  | Sor 1091 | 3, 2A-3A | 2.6+ | bronze | Head only(?) | - | - |
| - | Sor 1122 | 10, 1 | $4.2+\mathrm{x} 0.9$ | bronze | Head only, bud ends of horns curve up after joining neck, homs form loop | - | - |
| - | Sor 1127 | 13, 1 | 12.7 | bronze | Fragment, heavily corroded | - | - |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| PlateSite and <br> obj. no. | Areatburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- |

## 27D.16. ZOOMORPHIC HEADS (cont.)

27D.16.1. Homed Animal heads (cont.)

| - | Sor 1218 | $3,2 A-3 A$ | $7.2+$ |
| :--- | :--- | :--- | :--- |
| - | Sor 1357 | $1 / 3,3 A$ | - |
| - | Sor 1469 | $2 / 23,2 C$ | $7.8+$ |
| - | Sor 1496 | $2 / 12,2 C$ | 11.6 |
| - | Sor 1685 | $9 / 10,3 A$ | 9.2 |


| bronze |  |
| :--- | :--- |
| bronze |  |
| bronze |  |
| bronze |  |
| bronze | Fragment |
|  | - |,$\quad$ Fragment, ringed neck


| - | - |
| :--- | :--- |
| - | - |
| - | - |
|  | - |

27D.16.2. Winged Monster Heads

| 172 g <br> and 179 e | Sor 1037 | $3,2 \mathrm{~A}$ | $4.3+\times 3.5$ |
| :--- | :--- | :--- | :--- |
| 179 f | Sor 1163 | $1,2 \mathrm{~A}-3 \mathrm{~A}$ | $4.0+\times 2.5$ |
| 179 g | Sor 17 | 5,1 | $15.4 \times 2.6$ |
| 179 h | Sor 1326 | $14,2 \mathrm{~A}$ | $8.8+\times 2.7$ |
| 180 a | Sor 1537 | $3,2 \mathrm{~A}$ | $4.3+\times 3.6$ |
| 180 b | Sor 426 | $4,2 \mathrm{~B}$ | $17.0 \times 2.4$ |

27D.16.3. Recumbent Homed Animals

| 180 c | Sor 1129 | 13,1 | $11.6 \times 2.4$ |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| 187 e | Sor 827 | $4,1-2 \mathrm{~B}$ | $3.4+\times 2.2$ |
| 188 a | Sor 964 | $1,2 \mathrm{~A}$ | $3.1+\times 2.9$ |
| 188 b | Sor 971 | $1-3,2 \mathrm{~A}$ | $3.4+$ |


| bronze | Head turned aside, legs bent <br> below body | - |
| :--- | :--- | :--- |
| bronze | Head only, shaft hole below body <br> bronze <br> bronze | Head only, shaft hole below body <br> Head only, shaft hole below, legs <br> bent below body |


| 188 c | Sor 896 | $3,2 \mathrm{~B}$ | $3.3+\times 2.9$ |
| :--- | :--- | :--- | :--- |
| - | Sor 982 | $1,2 \mathrm{~A}-\mathrm{B}$ | $2.7+\times 2.7$ |


| bronze | Head only, legs bent below body |
| :--- | :--- |
| shaft hole below |  |
| bronze | Head only, shaft hole right behind <br> forelegs, head turned aside |
|  |  |

27D.16.4. Standing Horned Animals

| 180 d | Sor 152 | $4,2 \mathrm{~A}$ | $5.5+\times 4.1$ |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| 180 e | Sor 1078 | $3,2 \mathrm{~A}-3 \mathrm{~A}$ | $5.8+\times 2.7$ |
| 180 f | Sor 977 | $1,2 \mathrm{~B}$ | $10.2 \times 3.9$ |
|  |  |  |  |
|  |  |  |  |
| 27D.16.5. Fruit Head Surmounted by Hormed Animal Head |  |  |  |

181a Sor $14321 / 3,2 B \quad 6.7+\times 1.2 \quad$ bronze

| onze | Head only, knobbed homs, beard, <br> front and hindlegs attached to |
| :--- | :--- |
|  | broken part, eyes and hom knobs |
|  | seem secondarily applied, stubby tail |
| Head only, front hoofs touch rear |  |
| Henze | Two animals, one without homs <br> and collar around neck |

Muscarella 1981a, no. 10 $\qquad$ and collar around neck

| 181d | Sor 50 | 4,1 | $5.4+\times 2.9$ | bronze | Spatulate point, couchant lion(?) with head of exaggerated size, mouth wide open, ears erect, tail forms loop on back | Meade 1968, fig. 12 | Baba Jan III |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 181e | Sor 305 | 1, 2B | $3.5+\times 3.4$ | bronze | Head only, shaft hole below body, long necked cock(?), crest on back of head, loop connects neck and back | de Waele 1982 vignet(7) | - |
| 181f | Sor 209 | 1-2, 1 | $3.2+\times 4.7$ | bronze | Head only, couchant animal above monstrous head, animal's head missing, ringed neck | de Waele 1982, vignet(?) | - |
| 27D.16.8. Sleeping Duck Heads |  |  |  |  |  |  |  |
| 172h | Sor 156 | 4, 2A | $5.1+\times 1.2$ | bronze | Fragment, ringed neck | - | - |
| 172 i | Sor 463 | 1,1 | $5.7+\times 1.2$ | bronze | Fragment, ringed neck | - | - |
| 172j | Sor 489 | 2, 2A-C | $4.3+\times 1.1$ | bronze | Fragment, ringed neck | - | - |
| 172 k | Sor 517c | 4, 1-2A | $2.4+\times 1.1$ | bronze | Head only, curved neck makes hole | - | - |


| Plate | Site and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 27D. PINS (cont.)

## 27D.16.8. Sleeping Duck Heads (cont.)

| 1721 | Sor 571 | 20, 1 | $8.7+\times 1.0$ | bronze |
| :---: | :---: | :---: | :---: | :---: |
| 172 m | Sor 919 | 3, 1-2B | $4.5+\times 1.1$ | bronze |
| 172n | Sor 1196 | 3,2B | $10.5 \times 1.1$ | bronze |
| 1720 | Sor 1401 | 1/3, 2B | $11.3 \times 1.3$ | bronze |
| 172p | Sor 1507 | 1/22, 2C-3A | $9.2 \times 0.8$ | bronze |
| 172q | Sor 1595 | $1 / 3,2 \mathrm{~B}$ | $7.6+\times 0.8$ | bronze |
| 172r | Sor 1642 | 1/3,2B | $3.7+\times 1.1$ | bronze |
| 172s | Sor 1125:2 | 13, 1 | $9.4+\times 0.8$ | bronze |
| 172t | Sor 302 | 4, 2A-B | $3.3+\times 1.0$ | $\mathrm{br} / \mathrm{Ir}$ |
| 181 g | Sor 836 | 4, 1-2B | $3.5+\times 1.2$ | bronze |
| 181h | Sor 859 | 1N, 2A | $9.8+\times 1.1$ | bronze |
| 181i | Sor 1567 | 1/7/9, 2B | $13.2+\times 1.5$ | bronze |
| 181j | Sor 1494 | 2/12, 2C | $8.0+$ | bronze |
|  | Sor 1315:1 | 9/11,3A | $4.3+$ | bronze |
|  | Sor 1414 | 1/3, 2B | - | bronze |
| - | Sor 1524 | 8,1 | $6.7+$ | bronze |
|  | Sor 1645 | 13, 2B | $8.7+$ | bronze |

## 27D.16.9. Swimming Duck Head

182a $\quad$ Sor $423 \quad 4,2 B \quad 20.6 \times 1.6$

## bronze

Duck, globe with rings at either side
(three times), three zigzags below

## Muscarella 1981a, no. 13 Vanden Berghe 1973 b tb. A 4:19, 21

Iron I-II

## 27D.17. ANTHROPOMORPHIC HEADS

| 173a | Sor 1561:1 | 1/7/9, 2B | $6.8+$ | iron | Pin, flaring head, bronze sheet with a human face on one side | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 182b | Sor 1132 | $1 \mathrm{~N}, 2 \mathrm{~B}$ | $4.6+\mathrm{x} 1.9$ | bronze | Head only, shaft hole in base, female figurine, turban hairdress, grooved | - | - |
| 172u and 182e | Sor 772 | 2, 1-2C | $4.7+\times 1.9$ | bronze | face, hands join below breasts Head only, shaft hole in base, nude steatophygous woman holding breasts, beret grooved lengthwise | - | - |
| $\overline{-}$ | Sor 1133 | $1 \mathrm{~N}, 2 \mathrm{~B}$ | - | bronze | Head only (object missing) | - | - |
| 182c | Sor 1207 | 3, 3A | $6.3+\times 2.0$ | bronze | Head only, male figurine, large beret, long neck, fringe on shoulder | Muscarella 1981a, no. 7 | - |

Head only, bearded figure, turban
armlets, bracelets, and hands joined,
elt and double scalloped borde
on skirt, shaft hole below

## 27D.18. CRESCENTIC HEADS

27D.18.1. Single

| 173b | Sor 231 | 1, 2A-B | $4.9+\times 2.8+$ |
| :---: | :---: | :---: | :---: |
| cf. 173b | Sor 840b | 4, 2-2B | $2.3+\mathrm{x} 4.6$ |
| cf. 173b | Sor 1113 | 1/7, 1 | $3.3+$ |
| 173c | Sor 1379 | 1/3, 2B | $11.8 \times 5.2$ |
| 173d | Sor 1522 | 8,1 | $12.1 \times 4.4$ |
| 173 e | Sor 1540 | 1/7/9, 2B | $11.3 \times 7.0$ |
| 173f | Sor 34 | 1,1 | $9.6 \times 3.6$ |
| 173 g | Sor 51 | 4,1 | $4.7+\times 4.0$ |
| 173h | Sor 934 | 11,2A(?) | $2.1+\times 4.5+$ |
| 173 i | Sor 1380 | 1/3,2B | $8.2 \times 2.7$ |
| cf. 173 i | Sor 800 | 3, 1 | $3.6+\times 4.8$ |
| cf. 173 i | Sor 1222 | 3, 2A-3A | $2.4+\times 3.9+$ |
| 173j | Sor 1554 | 1/7/9, 2B | $12.7 \times 4.5$ |
| 173 k | Sor 1541 | 1/7/9, 2B | $12.1 \times 4.5$ |
| cf. 173k | Sor 41 | 22, 2 | $2.3+\times 2.6+$ |
| cf. 173k | Sor 207 | 1-3, 1 | $9.4 \times 3.9$ |
| 183a | Sor 1375 | 1/3, 2B | $11.5 \times 4.9$ |
| 183b | Sor 1607 | 1/3, 2B | $5.8 \times 4.6$ |
| - | Sor 708d | 3, 4, 1-2B | 4.4+ |
|  | Sor 1383 | 1/3, 2B | (?) $\times 5.2$ |
|  | Sor 1426 | $1 / 3,2 \mathrm{~B}$ | (?) |
|  | Sor 1436 | 3/13, 2B | 8.9 |
|  | Sor 1457 | 2/3,3A | 8.7 |
|  | Sor 1487 | 2/23, 2C | (?) $\times 3.5$ |
|  | Sor 1565 | $1 / 7 / 9,2 \mathrm{~B}$ | (?) |
| - | Sor 1566 | 1/7/9, 2B | - |

27D.18.2. Double
1731 Sor $1278 \quad 3-4,2 B \quad 4.2+\times 3.5 \quad$ bronze

27D.18.3. Zoomorphic Terminals
$174 \mathrm{a} \quad$ Sor $40 \quad 1,1 \quad 4.9+\times 3.8+$

## bronze bronze bronze bronze bronze bronze bronze bronze bronze <br> bronze <br> bronze <br> bronze <br> bronze bronze <br> bronze <br> bronze <br> bronze <br> bronz <br> bronze <br> bronze <br> bronze <br> bronze <br> bronze <br> iron

Fragment, one arm preserved
Head only
Head missing
Slight protuberance in center
Slight protuberance in center
Arms meet at angle in center
Triangular protuberance in center
Frgm, slight protuberance in cente
Head only, central knob, double
ringed neck
Central knob
Fragment with central knob, double
ringed neck
Head only, central knob
Central tab
Central tab crest, shank slightly bent
Head only, one arm preserved, central
crest
Central crest
Central crest
Central crest, shank slightly bent Head only
Head only, central crest
Small central tab
Central tab
Fragment with central knob
Fragment of head
bronze
Pin, fragment, slight central knob

Catalog 27. Iron Age Cast Metal Objects (cont.)

| PlateSite and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- |

27D. PINS (cont.)

## 27D.18. CRESCENTIC HEADS (cont.)

27D.18.3. Zoomorphic Terminals (cont.)

| 174b | Sor 865 | 1-3, 2B | $2.3+\times 4.8$ | bronze | Pin, head only, central figure missing, both arms end into homed animal heads | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 174 c and 183e | Sor 1208 | 1/3, 3A | $3.7+\times 6.5$ | bronze | Pin, head only, central figure is a horned animal (bull), both arms end into homed animal heads with horns curving forward (bulls?) | - | - |
| 183c | Sor 1571 | 1/7/9, 2B | $4.4+\times 5.4$ | $\mathrm{br} / \mathrm{II}$ | Pin, fragment, central figure is a sleeping duck, crescent ends into horned animal heads | - | - |
| 183d | Sor 1539 | 1/7/9, 2B | $3.6+\times 6.7$ | $\mathrm{br} / \mathrm{ir}$ | As Sor 1536, triple ringed neck | Muscarella 1981a, no. 6 | - |
| 183f | Sor 1536 | $1 / 7 / 9,2 \mathrm{~B}$ | $14.9 \times 6.8$ | bronze | Central figure is a sleeping duck, both arms end into homed animal heads, the crescent surmounts another homed animal head | - | - |

27D.18.4. Anthropomorphic Terminals

| 174d | Sor 44 | 3,1 | 3.4+x $1.7+$ | bronze | Fragment, one arm damaged, human face in center | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 184a | Sor 1341 Sor 1573 | 2/23,2C | $6.1+x 5.1$ $14.3 \times 6.5$ | $\mathrm{br} / \mathrm{ir}$ | Fragment, central rod ends into human head, two thin arms (or tresses) attached to the beards of two homed animals at the end of the crescent, homs curve back to central rod and are supported by a double scroll, ringed neck | Muscarella 1981a no. 5 | - |
| 185a | Sor 1573 | 1/79, 2B | $14.3 \times 6.5$ | bronze | Both arms end into homed animal heads, birds with crest and looped beaks (eagles?) grow out of horned animal foreheads, animal's heads touch naked woman with feather crown and large earrings; giving birth(?) or tab between legs may be a functional support | Muscarella 1981a, no. 5 | - |
| 185b | Sor 201 | 1N, 1 | $7.7 \times 4.0$ | bronze | Human head in center | - | - |

## 27D．19．SYMBOL HEADS

| 174 e | Sor 292 | 4／5，2B | $4.5+\times 1.9$ | bronze | Fragment，soid triangle，vertical | － | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | division line，notched edges，sur－ mounted by a cylinder topped by a dise |  |  |
| 174f | Sor 1093：11 | 3，2A－3A | $13.3 \times 1.1$ | bronze | Solid triangle surmounted by a disc， knobbed heart with studded triangles | － | － |
| 175m | Sor 1533 | 1／7／9，2B | 12．5＋ | bronze | Pin，trapeze with nicks in comer， merges into tapered shank | － | － |
| 27D．20．＇HIDE＇HEADS |  |  |  |  |  |  |  |
| 184b | Sor 428 | 4，2B | $20.5 \times 7.4$ | bronze | Square head with incurved sides，cor－ ners expand into＇paw＇with five toes， a scalloped head（？）opposite ringed neck，raised central hemisphere en－ closed by concentric circles，at end of radiating lines dots and lines，edges of hide（？）stippled | － | － |
| 184c | Sor 1564 | 1／7／9，2B | $12.7 \times 5.3$ | bronze | Square head with pawlike corners． rosette in center | － | － |
| 184d | Sor 1197 | 3，3A | $4.0+\mathrm{x} 3.7$ | bronze | Head only，square head with paw－ like comers，rosette in center | － | － |
| 27D．21．＇OPENWORK＇HEAD |  |  |  |  |  |  |  |
| 185d | Sor 1465 | 2／23，2C | $7.9+\times 5.3$ | br／ir | Square frame with a two－headed， horned genie grasping two lions by throats，design scen with pin pointing up | － | － |
| 27D．22．UNCLASSIFIED |  |  |  |  |  |  |  |
| － | Sor 1525 | 8（？）， 1 | － | br／ir | Five miscellaneous fragments | － | － |

27E．IBEX HORN－SHAPED OBJECTS

|  | Sor 15 | 5,1 | $4.6 \times 0.3 \times 0.2$ |
| :--- | :--- | :--- | :--- |
| - | Sor 23 | $5,2 \mathrm{~A}$ | $5.3 \times 0.4 \times 0.1$ |
| $\overline{174} \mathrm{~g}$ | Sor 107 | $1,2 \mathrm{~A}(?)$ | $4.5 \times 0.8 \times 0.1$ |
|  | Sor 132 | 1,1 | $5.1 \times 0.2 \times 0.1$ |
| - | Sor 148 | $4,1-2 \mathrm{~B}$ | $5.5 \times 0.2 \times 0.1$ |
| $\overline{174 h}$ | Sor 158 | $4,2 \mathrm{~B}$ | $7.4 \times 0.5 \times 0.1$ |
| - | Sor 192 | $13,14,1$ | $5.7 \times 0.4 \times 0.1$ |
| - | Sor 199 | $1(?), 1-2 \mathrm{~B}$ | $3.2 \times 0.4$ |


| bronze <br> bronze <br> bronze | Two curved pointed sheets， |
| :--- | :--- |
| bronze | riveted top |
| bronze | － |
| bronze | － |
| bronze | － |
| bronze | - |


| Thrane 1965，fig． 5 | － |
| :--- | :--- |
| 二 | － |
| － | － |
| Thrane 1965，fig． 5 | 二 |
| 二 | － |

Catalog 27. Iron Age Cast Metal Objects (cont.)

| PlateSite and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Description | Reference | Period |
| :--- | :--- | :--- | :--- | :--- | :--- |

27E. IBEX HORN-SHAPED OBJECTS (cont.)

|  | Sor 235 | 1,2B-2A | $5.0 \times 2.2$ | bronze | - | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sor 245 | 11, 1 | $4.3 \times 0.1$ | bronze | Circular in section |  |  |
|  | Sor 249 | 22, 1 | $8.3 \times 0.7 \times 0.2$ | bronze | One hom missing |  |  |
|  | Sor 295 | 4, 2A-B | $3.7 \times 0.3 \times 0.1$ | bronze | - | - |  |
|  | Sor 310 | $1 \mathrm{~N}, 2 \mathrm{~A}$ | $3.8 \times 0.3 \times 0.1$ | bronze |  |  |  |
|  | Sor 347 | 1, 2A-B | $4.5 \times 0.2 \times 0.1$ | bronze | Oval wire, one end missing | - |  |
|  | Sor 401 | 4, 2A | $3.5 \times 0.3 \times 0.1$ | bronze | - |  |  |
|  | Sor 475 | 4, 2A-B | $6.8 \times 0.6 \times 0.1$ | bronze | - d d |  |  |
| - | Sor 479 | 2, 1 | $4.9 \times 0.4 \times 0.2$ | bronze | One end pointed, other end rounded | - |  |
|  | Sor 488 | 2,1 | $8.8 \times 0.4 \times 0.1$ | bronze | One end missing | - |  |
|  | Sor 516 | 4, 1-2A | $4.0 \times 0.4$ | bronze | - | - |  |
|  | Sor 533 | 1, 4, 1-3A | $5.2 \times 0.3 \times 0.1$ | bronze | - |  |  |
|  | Sor 551 | 4, 2A-B | $5.5 \times 0.3 \times 0.1$ | bronze | - | - |  |
|  | Sor 675 | 22, 1 | $6.4 \times 0.5 \times 0.2$ | bronze | - | - |  |
|  | Sor 680 | 22, 1 |  | bronze | - | - | - |
|  | Sor 686 | 1, 2B | $6.4 \times 0.3 \times 0.1$ | bronze | - |  |  |
| - | Sor 707 | 3,4 | $5.2 \times 5.3$ | bronze | Two exx. |  |  |
| - | Sor 789 | 1, 2A-3A | 2.4 | bronze | - | - |  |
| - | Sor 813 | 3, 1-2A | $3.2 \times 0.3 \times 0.2$ | bronze | - | - | - |
|  | Sor 851 | 11, 1-3A | $6.7 \times 0.6 \times 0.1$ | bronze | - |  |  |
| 174i | Sor 878 | 1,2 | $3.9 \times 0.8 \times 0.1$ | bronze |  |  |  |
| - | Sor 1021 | 1, 1-3A | 5.0 | bronze | Pointed ends | - |  |
| - | Sor 1071 | 3, $2 \mathrm{~A}-3 \mathrm{~A}$ | $4.5 \times 0.5$ | bronze | Two exx. (only one in Oriental Institute) | - | - |
| - | Sor 1099 | 3, 2A-3A | $3.9 \times 0.8 \times 0.1$ | bronze | - | - |  |
| - | Sor 1119 | 10, 1 | $8.2 \times 0.6 \times 0.1$ | bronze | - | - |  |
| - | Sor 1143 | 1N, 3A | - | bronze | - | - |  |
|  | Sor 1186 | 3, 3A | 3.5 | bronze | - | - | - |
|  | Sor 1257:1 | 7, 2A-B |  | bronze |  |  |  |
| $174{ }^{\text {j }}$ | Sor 1257:2 | 7, 2A-B | - | iron | Tips missing, straighter than bronze examples | - | - |
| - | Sor 1277 | 3, 2A-B | 7.2 | bronze | - | - | - |
| - | Sor 1332 | 13.1 | $9.7 \times 0.5$ | bronze | - | - |  |
|  | Sor 1356 | 1/3, 3A | 7.9 | bronze |  |  |  |
|  | Sor 1364 | 1/3, 3A | $2.8 \times 0.4 \times 0.1$ | bronze | - |  |  |
|  | Sor 1365 | 1/3, 3A | 5.2 | bronze | - | - |  |
|  | Sor 1431 | $1 / 3,2 \mathrm{~B}$ | 4.9 | bronze | - | - |  |
|  | Sor 1473 | 2-23, 2C | 8.4 | bronze | - |  |  |
|  | Sor 1477 | 2/23,2C | $7.1 \times 0.3$ | bronze | Rectangular in section |  |  |
|  | Sor 1582 | $1 / 7 / 9,2 \mathrm{~B}$ | 4.0 | bronze | - | - |  |
| - | Sor 1597 | $1 / 3,2 \mathrm{~B}$ | 4.9 | bronze | - | - |  |


| 174 k | Sor 1676 | $1 / 9 / 11,3 \mathrm{~A}$ | 4.2 |
| :--- | :--- | :--- | :--- |
| - | Sor 1784 | (?), 1-3A | 4.7 |

27F.1. QUADRUPEDS

| 1741 | Sor 662 | $1,3 A$ | $2.1 \times 3.8$ |
| :--- | :--- | :--- | :--- |
| 174 m | Sor 980 | $1 \mathrm{~N}, 2 \mathrm{~B}$ | $3.1 \times 3.7$ |
|  |  |  |  |
| 186 b | Sor 1036 | $3,2 \mathrm{~A}(?)$ | $2.9 \times 2.4$ |
| 187 j | Sor 1325 | $14,2 \mathrm{~A}$ | $3.9 \times 2.6$ |

27F.2. HORNED

| $174 n$ | Sor 698 | 4, 2A-B | $3.3 \times 3.3$ |
| :---: | :---: | :---: | :---: |
| 1740 | Sor 969 | 1-3, 2A | $4.4 \times 1.8$ |
| and 186e |  |  |  |
| 174p | Sor 1107 | 7S, 1 | $4.4 \times 4.8$ |
| 174 q | Sor 1247 | 7S, 2B | $3.3 \times 2.6$ |
| 174r | Sor 1505 | 1(?), 1-3A | $3.0 \times 2.9$ |
| 186a | Sor 910 | 3, 1-2B | $3.2 \times 2.1$ |
| 186f | Sor 993 | 1-3, 2B | $4.7 \times 4.3$ |
| 186h | Sor 1327 | 3/13, 2B | 5.2 |
| 186 i | Sor 1444 | 3/13, 2B | 3.5 |
| $186 \mathrm{j}$ | Sor 1128 | 13, 1 | $4.4 \times 4.8$ |
| 186k | Sor 1490 | 2, 2C | $4.5 \times 3.5$ |
| 1861 | Sor 1131 | 1N, 2B | $4.2 \times 4.6$ |
| 187b | Sor 530 | 4, 2A-B | $4.0 \times 3.2$ |
| 187c | Sor 656 | 1,3A | $3.3 \times 3.8$ |

$\begin{array}{ll}\text { lead } & \text { Fragment, curved and fluted band } \\ \text { bronze } & \text { Corroded }\end{array}$

## 27F. ANIMAL FIGURINES

| bronze | Head missing, tail broken |  |
| :--- | :--- | :--- |
| bronze | Neck with collar and incised lines <br> on chest and head, muzzle broken: <br> dog(?) | - |
| bronze | Ears, short tail: lamb(?) <br> bronze | Pointed muzzle, forelegs <br> secondarily attached |

bronze Horns combine and form oval, -
bronze
ail points back
Curved horns point back, short tubby tail points back joints bent Homs point back, short tail lightly curved, combined Slightly curved, combined homs point back, hindlegs stretching,


Slightly curved homs point back, _ hort tail points back, pointed
Short horns may be ears, tail points back, short hindlegs; sitting dog(?)
Horns broken, cylindrical body, muzzle, and legs; bronze shank(?) or casting fault at rear
Short horns
Combined homs
Curved horns separated by groove, bearded, short stubby tail points back Slightly curved horns point back. long tail points back
Curved horns point back, horns curved horns point back, horns are flat bands,
bronze
bronze
Homs straight back, short tail
ing
ying on back, square muzzle Horns curve back, ears below horns, short stubby tail pointing forward

Catalog 27. Iron Age Cast Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Arealburial <br> lev. or elev. | Dimensions <br> in cm | Mat. | Description | Reference |
| :--- | :--- | :---: | :--- | :--- | :--- | :--- |

## 27F. ANIMAL FIGURINES (cont.)

27F.2. HORNED (cont.)

| 187d | Sor 899 | 3,1 | $3.0 \times 2.2$ |
| :---: | :---: | :---: | :---: |
| 187f | Sor 875 | $1-3,2 \mathrm{~B}$ | $3.7 \times 3.4$ |
| 187g | Sor 749 | 3,1 | $5.0 \times 3.5$ |
| 187h | Sor 1144 | IN, 3A | $3.3 \times 5.0$ |
| 187m | Sor 398 | 4, 1-2B | $3.8 \times 3.1$ |
| 187n | Sor 257 | 16, 1 | $2.6 \times 1.9$ |
| 187p | Sor 323 | 1-2, 2 C | $3.6 \times 4.7$ |
| 187q | Sor 266 | 4,1 | $4.5 \times 3.8$ |
| 188d | Sor 1054 | 3,3A | $2.9 \times 2.4$ |
| 188c | Sor 1032 | 3/13, 1 | $4.2 \times 5.0$ |
| - | Sor 972 | 1-3, 2A | - |



## 27F.3. RECUMBENT HORNED

| 175a | Sor 887 | 1,1 | $3.2 \times 2.3+$ | bronze | Head missing, resembles recumbent <br> animal pins | - | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 175b | Sor 911 | $3,1-2 \mathrm{~B}$ | $3.0 \times 1.8$ | bronze | Slightly curved horns point back <br> Short homs | Sor 1610 | $1-3,2 \mathrm{~B}$ | | $4.8 \times 3.4$ |
| :--- |

## 27G. PENDANTS

27G.1. MISCELLANEOUS

| 175 g | Sor 893 | $1,2-1$ | 1.5 |
| :--- | :--- | :--- | :--- |
| 188 k | Sor 1618 | $1-3,3 \mathrm{~A}$ | $3.8 \times 1.4$ |
| - | Sor 1785 | (?), 1-3A | 2.3 |


| lead | Foot(?), angular piece with <br> suspension loop |
| :--- | :--- |
| bronze | Wire pendant, looped at T, at base <br> wire is coiled to form a cylinder |
| bronze | Pendant, double band with both <br> ends rolled |


| Vanden Berghe | Khurvin |
| :--- | :--- |
| 1964, nos. 329-331 | - |
| - | - |

27G.2. ANIMALS
27G.2.1. Quadrupeds

| 187 a | Sor 617 | $1-2,2 \mathrm{C}$ | $2.9 \times 2.2$ |
| :--- | :--- | :--- | :--- |
| 188 f | Sor 955 | 13,1 | $3.6 \times 2.8$ |


| bronze | Ears, disc eyes, collared neck, <br> short curved tail | Muscarella |
| :--- | :--- | :--- | :--- |
| bronze | Long pointed ears or horns(?), long <br>  hind legs: hare(?), perforated length- | 1981a, no. 22 |

27G.2.2. Horned

\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline 175 f \& Sor 1318 \& 9, 2A-3A \& $3.8 \times 2.7$

$24 \times 2.8$ \& bronze \& Head flat with incised features, base shows casting folds rather than seal device, suspension loop between horns \& - \& -

- <br>
\hline 186c \& Sor 970 \& 1-3, 2A \& $2.4 \times 2.8$ \& bronze \& Curved homs point back, joints bent, short upright tail, suspension loop connects neck and back \& - \& - <br>
\hline 186d \& Sor 983 \& 1, 2A-B \& $3.0 \times 3.7$ \& bronze \& Curved horns point back, upright ears, disc eyes with holes, collared neck, upright tail, suspension loop connects neck and back \& - \& - <br>
\hline 186g \& Sor 981 \& 1N, 2B \& $4.5 \times 4.3$ \& bronze \& Curved horns point back, collared neck, joints bent, upright tail, suspension loop connects neck and back \& - \& - <br>
\hline 187 i \& Sor 1368 \& 1/3,2B \& $3.5 \times 3.7$ \& bronze \& Curved ringed horns point back, dise eyes, collared neck and body, joints bent, suspension loop connects neck and back \& - \& - <br>
\hline 187k \& Sor 120 \& 1,1 \& $3.5 \times 3.9$ \& bronze \& Horns point up, small ears, vertically pierced through body, short knobbed tail \& - \& - <br>
\hline 1871 \& Sor 269 \& 4,1 \& $3.6 \times 3.3$ \& bronze \& Disc eyes, short homs point back, stubby upright tail, suspension loop connects neck and back \& - \& - <br>
\hline
\end{tabular}

Catalog 27. Iron Age Cast Metal Objects (cont.)


| $175 i$ | Sor 404 | 4, 2A | $3.2+\times 2.3$ | iron | $\operatorname{Pin}(?)$, hollow hemisphere with circular shank(?) above and below | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 27J. TUBULAR STANDS |  |  |  |  |  |  |
| 175k | Kha 53 | x4, -0.85 | $7.5 \times 1.3 \times 0.7$ | bronze | 'Standard' element: both ends thickened, one end grooved | - | - |
| 1751 | Kha 54 | x4, -0.85 | $7.0 \times 2.1$ | bronze | 'Standard' element: bottle-shape, neck has two groups of four rings | Vanden Berghe <br> 1973a, fig. 23:1; <br> 1982, fig. 39:11 | Iron II <br> Iron III |

## CHAPTER 28

# IRON AGE HAMMERED METAL OBJECTS 

by Maurits N. van Loon
INTRODUCTION
Following Moorey (1971a:172, 216-217) and Vanden Berghe (1982:125-126) we treat hammered metal objects separately from cast metal finds. Wherever an object has been made out of metal sheet (about 0.5 to 1 mm thick), we have assumed it was manufactured by the hammering process. Decoration on such objects can be applied by repoussé or chasing and tracing (Moorey 1971a:xxi-xxii). Often both techniques were combined.

Although we may at times have wrongly treated hammered objects in chapter 27 or cast objects in chapter 28 , the following major metal object classes seem generally to belong to the hammered category:

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28A VESSELS
28B DRINKING TUBES AND STRAINERS
28C BELL
28D MIRRORS
28E HAIR SPIRALS
28F FINGER RINGS
28G BRACELETS
28H DISC-HEADED PINS
281 PLAQUE-HEADED PINS
28J PLAQUES, BANDS, AND BUCKLE
28K BOSSES, WHORLS, AND BRACTEATES
28L PENDANTS
28M 'MOUFLON' HORN-SHAPED ORNAMENTS
28N FIGURINE
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Most of the hammered metal objects by far are made of copper or bronze. No analyses have been made to determine presence or absence of tin.

## 28A. VESSELS

Copper or bronze vessels were not particularly numerous among the finds from Surkh Dum-i-Luri. In the catalog, we have divided the copper or bronze vessels into the following classes, some of which are discussed below.

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28A.1 BOWLS (pls. 189a-g and 190a-d)
28A.2 LADLE (pl. 204a)
28A.3 MINIATURE BUCKET (pl. 190e)
28A.4 GOBLETS (pls. 190f,g and 204 b-d)
28A.5 POTS (pls. 190h-j and 204e)
28A.6 JAR
28A.7 RHYTON (pl. 190k)
28A.8 SPOUTS (pl. 191a)
28A.9 HANDLES (pl. 191b-d)
28A.10 INDETERMINATE SHAPES
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Some of the bowls (class 28A.1) may have served as lamps. The shape of Sor 432 (pl. 189 c ) suggests this use and the location of Sor 1347 on a shelf in the corridor, giving access to
the sanctuary, implies its function was for light. Fish shown in relief swimming around the bottom of a bowl (Sor 1736a, pl. 190a), perpetuate an Old Iranian motif found as early as the late third millennium b.c. at Shahdad (Amiet 1973b:27). The shallow bowl (Sor 1783b, pl. 190c) with constricted neck and bulging shoulder belongs to a class well known from NeoAssyrian sites. An elaborately decorated example from Ashur has been shown now to date after ca. 750 в.c. (Haller 1954, pl. 22d; cf. Muscarella 1984:418-19). In Luristan this shape is characteristic of (early?) Iron III (Vanden Berghe 1982, fig. 59:11).

Four goblet fragments (group 28A.4) carry ruler-and-attendant designs that include curly-haired persons with broad noses and fleshy lips characteristic of the so-called "nipple beakers." Sor 915 (pl. 204b) is tentatively included in this group, although it was flattened when found. Calmeyer and Muscarella have proved that this class of objects was almost certainly made in Iran in the 10th and 9th centuries b.C. (Calmeyer 1973:224-28; Muscarella 1974b:243-49, 1977:77, 1981a:332).

Some pot fragments (group 28A.5) like Sor 1783c (pl. 190j) continue Middle to Late Bronze Age shapes (cf. ch. 20A). The similar pot Kha 25 (pl. 204e) comes from an Iron Age II tomb.

Clear links with Iron Age II-early III sites in Iran exist for the spouted pitcher fragments (class 28A.8). Sor 963 (pl. 191a) is a surface find, but Sor 1076 was excavated in the sanctuary.

## 28B. DRINKING TUBES AND STRAINERS

(pls. 191e-g and 204f)
Drinking tubes are all made of copper or bronze (pl. 204f). They consist of sheets coiled into a slender cone, with perforations to allow passage of the liquid and to hold back unwanted matter like seeds. Sor 43 (pl. 191e) is a fragment without perforations. The Luristan parallel quoted in the catalog is from an Iron II context, but earlier examples are known elsewhere in the Near East (Frankfort 1934:38-39; Van Loon in press, ch. 15, nos. 8 and 9).

## 28C. BELL

Sor 1280 ( pl .191 h ) may have been used as a bell; for instance, it could have been incorporated into a leather horse harness. Other functions, e.g., as a strainer, are also conceivable, but less likely.

## 28D. MIRRORS

Several plain discs with suspension devices are interpreted by us as mirrors (pl. 191j and k ). One spade-shaped tool (Sor 71, pl. 191i), possibly a mirror as well, has an iron sheet handle rolled around its tang. This combination of bronze and iron has been shown to be typical of Iron Age II (Vanden Berghe 1973a:55, 1982:63). The mirrors from Sialk Necropolis B (ca. 825-700 в.с.) were all tanged (Ghirshman 1939:59).

## 28E. HAIR SPIRALS

The hair spirals are all made of copper or bronze wire (pl. 192a-c), of which two or three parts are hammered into a convex oval boat or "leech" shape (cf. Maxwell-Hyslop 1971:5,240). The end of the wire is bent into a hook for suspension. Most of the hair spirals found, however, are fragmentary; on these the suspension hook and/or one or more of the "leeches" are missing.

## 28F. FINGER RINGS

Among sheet finger rings there is an equal number of bronze and iron examples (pl. 192d-h). Two copper or bronze signet rings of the same shape as Sor 1232 (pl. 192f),
widening in front and touching or overlapping behind, are treated in chapter 32 on seals below (signet rings xxxv, xxxvi). Porada (1964b:19) has suggested an Iron I date for sheet rings of this specific shape.

## 28G. BRACELETS

Besides many cast bracelets (see ch. 27), Surkh Dum-i-Luri yielded hammered bracelets (pl. 192i-p). All except one are flat bands bent into a circle or oval that is open on one side. Sor $658: 2$ (pl. 192n) is a hollow open hoop made of coiled bronze sheet. Bronze open bands show a variety in decorative patterns: incised chevrons (Sor 258 and 384, pl. 1921 and 192i), parallel grooves (Sor 124, pl. 192k) or crosshatching (Sor 92, pl. 192j). Plain open bands are found in bronze and iron. Parallels for these open bands are found at Bard-i Bal (Vanden Berghe 1973a, pl. 20:1, 2), Khurvin (Vanden Berghe 1964, nos. 295 and 296), Sialk (Ghirshman 1939, pl. 94:S 1755) and Marlik (Negahban 1964, fig. 56), i.e., from contexts dated throughout Iron I, II, and early III.

## 28H. DISC-HEADED PINS

In the catalog, we have divided the disc-headed pins into the following classes:

| 28H.1 | WITHOUT DECORATION (pl. 193a) |
| :--- | :--- |
| 28H.2. | GEOMETRIC DECORATION |
| 28H.2.1 | Central Boss (pls. 193b-j, 194a-c, and 200b-c) |
| 28 H .2 .2 | Miscellaneous Geometric Decoration |
|  | (pls. 194d-h, 195a-f, and 200d) |
| 28H.3 | VEGETAL DECORATION |
| 28H.3.1 | Central Rosette (pls. 195g-i, 196a-g, and 205a, b) |
| 28H.3.2 | Miscellaneous Vegetal Decoration |
|  | (pls. 196h-i, 197a-n, 198a-o, 199a, and 206a) |
| 28H.4 | ZOOMORPHIC DECORATION |
| 28H.4.1 | Central Lion's Mask (pls. 199b, c and 205c) |
| 28H.4.2 | Miscellaneous Zoomorphic Decoration |
|  | (pls. 199d-j, 206b-d, and 207a-e) |
| 28H.5 | ANTHROPOMORPHIC DECORATION |
| 28 H .5 .1 | Central Human Face |
|  | (pls. 199k-l, 207f-g, 208a-g, and 209a, b) |
| 28 H .5 .2 | Miscellaneous Anthropomorphic Decoration |
|  | (pls. 200a, 209c-e, 210a-h, and 211a-d) |

Of all the object classes found in the "sanctuary" at Surkh Dum-i-Luri, pins-used to fasten garments-were the most numerous by far ( 769 out of a total of 1851 registered finds). This in itself is of course one of the reasons for considering the building as the sanctuary of a female deity.

Of the pins, 527 were cast of bronze or iron or a combination of both; these are treated in chapter 27D. Highly conspicuous among the pins, however, were those that had discshaped heads hammered out of copper or bronze sheet ( 230 pins or fragments) or, rarely, out of iron sheet ( 12 pins or fragments). Combinations of copper or bronze heads with iron shanks were not found in this class. Very rarely was the head made of a separate piece of sheet and fixed with an iron rivet between the forked end of the shank (Sor 568). Usually the head seems to have been hammered out of a thicker lump of copper or bronze attached to the shank.

Of the iron disc-headed pins ( 28 H .2 .1 ), those that were complete had central bosses. On one pin (Sor 1788, pl. 200c) this boss had a conical shape reminiscent of the iron shield bosses from Shaffe (see 28K. 5 below). This pin is likely to have been cast. The same may be true of the other iron disc-headed pins except for Sor 1551 (pl. 200b), which was clearly hammered.

The vogue for iron ornaments was limited to Iron Age II (ca. 1000-750 B.C.; Vanden Berghe 1982:63). One iron disc-headed pin (Kha 47) was actually found in an Iron Age II
tomb. At Surkh Dum-i-Luri, iron disc-headed pins were deposited in levels 2B and 2A, after the end of Iron Age II, i.e., after they had gone out of fashion (Sor 1551 and 275 in class 28H.2.1). In level 1 they were not considered worth keeping: Sor 1125:6-7, 256, and 591, found in areas 13, 17, and $18 / 19$ respectively, seem to have been thrown out. The small size (up to 8.3 cm in length, up to 4.8 cm in width) and the lack of other than geometric decoration also fits an Iron II date for the iron and silver ( 28 H .1 ) disc-headed pins.

Some of the copper or bronze disc-headed pins are plain; most of them, however, carry embossed and/or engraved decoration. In many cases the center was made to stand out in relief either as a plain boss or as a rosette, a lion's mask or a human face.

Class 28H. 1 includes pieces too broken to see if there was a design, and also pieces mentioned as having traces of a design but not further described or drawn. Similarly, class 28 H .2 .2 includes broken pieces that may have had a central boss. Pieces with vegetal decoration around a central boss, however, are treated in class 28H.3.2.

Classes 28H.3.2, 4.2, and 5.2 include many sheet fragments with embossed and/or engraved decoration such as that found on disc-headed pins but also, at times, on pendants or plaques. If a single eccentric suspension hole is preserved, these are treated under 28 L . Pendants. If the decoration consists of a six- to eight-pointed star, we also have presumed they were worn as pendants, on the basis of examples found at Marlik and elsewhere (Negahban 1964, fig. 71; Maxwell-Hyslop 1971:140-144, 162, 202; pls. 108, 109, 125, 157). If a straight edge is preserved, they are treated under 28J. Plaques, Bands, and Buckle. In all other instances we have followed Schmidt and assumed they are disc-headed pin fragments.

In classes 28 H .3 .1 and 3.2 we find many chains in which buds, cones, pine cones or leaves alternate with pomegranates, globes, lobes, beans or other fruit. This decorative scheme is well known from the Neo-Assyrian palaces, where it occurs-usually combined with palmettes-on wall tiles and relief details showing garments, especially in the reign of Assurnasirpal II (883-859 b.c.; Andrae 1977, fig. 189; Layard 1849, pls. 44:2, 47:4, and $52: 5,6$ ). Rosette networks, as on Sor 552 (pl. 197c), occur on stone thresholds in the time of Sargon II (721-705 B.C.; Frankfort 1954, fig. 40). This, then, may be an early Iron III feature.

On the other hand, animals flanking a stylized tree as on Sor 286 (28H.4.2, pl. 206b) were a favorite theme in Iron Ages I and II (Porada 1964b:16-17, 22-23; 1965a:84-86; Vanden Berghe 1982:63, fig. 26). We deal with this theme at length in our discussion of the Iron Age seals (see ch. 32). The same is true of compositions in which two beasts flank a common prey, as on Sor 811 and 1725 ( 28 H .4 .2 , pls. 206d and 207c). These can be traced back to a decorative scheme common on Middle Assyrian seals (Porada 1948:70). Straight or outcurling jaws, as on Sor 1725, belong to a peculiarly Elamite monster represented on a bracelet (Sor 1632, pl. 178c) and on several seals from Surkh Dum-i-Luri (ch. 32, seals 94-96). The geometrically outlined body parts are another Iron I-II feature on Sor 1725 (pl. 207c). The stylization of the mane as a row of teethlike tufts recurs on Sor 1721, which we have classified as a rectangular plaque-headed pin (class 28I, pl. 211e).

The human faces placed as central bosses on the pins of class 28 H .5 .1 can be divided into female faces (the majority) and faces that may be male (Sor 1704, 1705, and 1707; pls. 1991, 208e, and 208g). The female faces are characterized by a pointed chin, sharply delineated high cheekbones, heavy eyebrows, and gabled forehead. Their hair, parted in the center, may be plaited, indicated by little curls or rendered as heavy masses falling over the ears. The same female type is seen in side view on Sor 820 and 1717 (class 28H.5.2, pl. 210a, h). On Sor 820 (also shown by Amiet 1979 as fig. 23), she clearly represents a goddess with power over snakes and, perhaps, over wild animals generally (cf. Sor 100 and 1714, pls. 209c, and 210f; Vanden Berghe 1982, fig. 273). Male genies can also appear in this quality (Vanden Berge 1982, fig. 272). Sor 553 and 1713 (pls. 200a and 210e) may be examples with male genies grasping snakes. The genie's headgear on Sor 553 is closely paralleled by that on a cubic faience pyxis from 9th-8th b.c. century Susa (de Mecquenem 1943, fig. 28; de Miroschedji 1981a:38). Sor 123 and 1722 (pls. 209d and 211a) show elaborate symmetrical compositions in which the genie's power over lions is emphasized-possibly a two-dimensional version of the three-dimensional "lion-tamer" so popular at the beginning of Iron Age III (Vanden Berghe 1982:63, fig. 29). A genie with eagles' heads sprouting from his shoulders also appears on seal 59 (ch. 32A, pl. 234).

A full treatment of Luristan iconography, which is only partly illustrated by our material, would lead into discussion of the many clandestine finds that we want to avoid. Useful treatments can be found in Amiet 1976a and 1979, Moorey 1971a and 1975, de ClercqFobe 1978, and de Waele 1982, to name but a few.

As in the other object classes from Surkh Dum-i-Luri, it is hard to see any clear development from what must be the earliest copper or bronze disc-headed pins to the latest ones at this site. All one can say is that the examples from levels 3 A and 2 C do not seem to exceed 12.5 cm in length, whereas those from level 2B and later attain lengths of up to 16.1 cm and, in one instance, 27.6 cm . Also, decoration on the disc-headed pins from levels 3A and 2C is limited to geometric designs. Vegetal, zoomorphic, and anthropomorphic designs do not seem to occur before level 2B, except for one example possibly showing a woman in childbirth (Sor 1359, pl. 210b). This fits in with the evidence from elsewhere concerning an early Iron Age III (i.e., mid 8th century B.C.) date for the most elaborate phase of Luristan metallurgy (Vanden Berghe 1982:63; Vanden Berghe and Haerinck 1984:203). Thereafter, pins were replaced by fibulae (Vanden Berghe 1982:78).

The heavy weight of the disc-headed pins' large heads had the advantage of twisting the fastened layers of clothing around so that friction would prevent the pin from slipping out. The resulting position of the pin, with the point up as in Bronze Age Elam (Amiet 1966, fig. 245B) and in Iron Age Greece (Jacobsthal 1956:113-14), can be seen on Sor 820 (28H.5.1, pl. 210a). The placement of the design, for instance, on Sor 278 (28H.4.1, pl. 199b) also makes sense only if the pin was worn with the head down. The same applies, for example, to Sor 916 (28H.5.1, pl. 208a), where a trace of the shank should be preserved had it been below and not above the design. The perforation on the rim close to the shank on Sor 127a (28H.5.2, pl. 209e) may have contained a wire or string also serving to hold the pin in its place (cf. the stone plaque-headed pins, ch. 29D). A cast openwork-headed pin from the David-Weill collection has an eye to which a chain with another pin is attached (Amiet 1976a, no. 179).

Several disc-headed and other pins were found inserted with their shanks into certain walls (see ch. 11). Undoubtedly this happened on the occasion of a rebuilding which involved the raising of floors. Subsequently many more pins of all kinds were found incorporated into the masonry. Again, they had presumably been put there while a wall was being rebuilt. Of the disc-headed pins, those with Sor numbers between 1353 and 1504, 1507 and 1520, 1529 and 1691 were all found in such circumstances. The fact that so many formed part of "votive" deposits has been taken as an indication that the more cumbersome and elaborately decorated disc-headed pins, at least, were made as votive objects to begin with (de Waele 1982:151). Against this hypothesis one can argue:

1. That many smaller and plainer pins also were found in wall and floor deposits at Surkh Dum-i-Luri and
2. That quite a few large and elaborate examples have reached the art market, presumably robbed from easily excavated graves, not from rare and relatively inaccessible sanctuary sites.

One must admit that the iconography of some pins contains elements that would perfectly suit an ultimate destination as apparel for a goddess with power over wild animals (Sor 127a, 820, 100, and 1714 in class 28 H .5 .2 , pls. 209c, e and 210a, f). Nevertheless, we would propose first of all an amuletic purpose for such objects, as for seals with similar scenes (see ch. 32). They would have served to protect the wearer against snakes or to ensure his success in the chase. Subsequently, they might have been dedicated to the deity in recognition of such favors.

## 28I. PLAQUE-HEADED PINS

The four copper/bronze fragments listed in the catalog may belong to two pins of which the shanks widened stepwise into a rectangular plaque. Schmidt seems to have guessed that Sor 1721 and 1732a (pl. 211e, f) belonged together, as he had the restored outline of Sor 1721 drawn to look like that of Sor 1732. The drawing for Sor 1773 shows two fragments, which
we have labeled "a" and "b" (pl. 200e, f); the catalog card only describes fragment "b." Fragment "a" is described by Muscarella (1981a:333).

As Muscarella noted, the style of the lions is atypical for Iron Age II-III Luristan. He also suggested that the lions were fighting over their prey. This assumption is confirmed by Sor 1725 ( 28 H .4 .2 above, pl. 207c), which seems stylistically related to the plaque-headed pins. Since the theme of two beasts fighting over their prey was a favorite motif on Middle Assyrian seals (Porada 1948:70), one might make a case for dating the plaque-headed pins to Iron Age I.

## 28J. PLAQUES, BANDS, AND BUCKLE

We have divided the copper/bronze plaques, bands, and buckle into the following classes:

```
28J.1 PLAIN PLAQUES AND BANDS (pl. 200g)
28J.2 PLAQUES WITH GEOMETRIC DECORATION (pls. 200h-k, 201a, and 212a)
28J.3 PLAQUES WITH VEGETAL DECORATION (pl. 201b-d)
28J.4 PLAQUES WITH ZOOMORPHIC DECORATION (pl. 212b-f)
28J.5 PLAQUES WITH ANTHROPOMORPHIC DECORATION (pls. 201e, f, 212g-i, and 213a-c)
28J.6 BUCKLE (pl. 201g)
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Metal sheet pieces with a straight edge have been put into this class, which may contain belt, scabbard or quiver mountings along with square or rectangular plaques that have no visible means of suspension or attachment to other material. It is perhaps significant that all the pieces with zoomorphic or anthropomorphic decoration belong to the latter category. Since power over wild animals was apparently attributed to the goddess worshiped at Surkh Dum-iLuri, it is perhaps not too bold to call such objects votive plaques, as Muscarella has done (1981a:334). In this hypothesis, the plaques would have been deposited in the sanctuary by hunters who had enjoyed the deity's favor.

In some instances, a break along a straight line may have been mistaken for an original edge. In other cases, a fragment has been attributed to this class, rather than to that of the discheaded pins, on account of its rectilinear design (Sor 1749, 1757, 1774, and 1775, pls. 200h, and 201a, c). One buckle plaque with part of its round edge preserved is included in this class (Sor 556 , pl. 201g). It belongs to a group of omega-shaped girdle clasps, the parallel sides of which have been hammered out to form two flat plates with rounded ends (Moorey 1971a:240).

## 28K. BOSSES, WHORLS, AND BRACTEATES

We have divided the bosses, whorls, and bracteates into the following classes:

```
28K.1 WITHOUT DECORATION (pl. 201h-n)
28K. }2\mathrm{ GEOMETRIC DECORATION (pls. 201o-p, 202a, b, and 213d)
28K.3 VEGETAL DECORATION (pl. 202c-g)
28K.4 ZOOMORPHIC DECORATION (pl. 213e)
28K. }5\mathrm{ SHEET BOSSES (pl. 202h-j)
```

This class of copper/bronze, and iron objects comprises a few plain unperforated convex discs (Sor 787 and Sor 1097:2, pl. 201n) and many symmetrically perforated convex or flat discs. Most of the latter have one central hole. The larger of these, such as Sor 1166 (with a rosette in relief, pl. 202e), could have been used as spindle whorls (cf. Sor 1349 and 1596; pl. 148e, f; ch. 26A.1.3). This is not likely for the smaller examples. Some of the discs, including three shield(?) bosses from an Iron II tomb at Khatun Ban, have two to four holes through the rim (Sor 623, pl. 201i, Sor 1073, pl. 202d, Sor 1233, Sor 1778, pl. 202b, and Kha $60-62$, pl. 213d). Two pairs of holes through opposed sides of the rim are also visible on the bronze shields with tall cones from the Iron I-II cemetery at Marlik (Negahban 1964, fig. 52, diameter 37 cm ) and from the early Iron III cemetery at Tattulban (Vanden

Berghe 1982, fig. 28, diameter ca. 25 cm ), as well as on the smaller gold bracteates from Marlik (Negahban 1964, fig. 82, diameter 16.5 cm ). Such holes obviously served to fasten the boss onto a leather or fabric backing. The same can be assumed for four objects that have slits between the central disc and an outer ring or pair of crescents (Sor 752, pl. 202c, Sor 1210 , pl. 201o, Sor 1226 , pl. 201p, and Sor 1756, pl. 202 g ). The latter all have geometric or vegetal decoration.

The site of Shaffe A has yielded a tall conical iron boss of the same shape as the center of bronze shields found in early Iron III graves (Vanden Berghe 1982, figs. 28:5, 36:4, and 39:18). A burial at Shaffe B yielded a similar fragment (both objects were thought by Schmidt to be vessels). As ceremonial arms and armor that occur in bronze in Iron Age III were often made of iron in Iron Age II, we consider the conical objects from Shaffe as Iron II shield bosses. The iron cone from Surkh Dum-i-Luri seems to be a miniature version of such a shield boss. An iron boss from the Iron II cemetery at Khatun Ban is shaped as a low cone rather than a tall spike. It had impressions of fabric on the back and on the front.

## 28L. PENDANTS

We have divided the copper/bronze and lead sheet pendants into the following classes:

| 28L. 1 | WITHOUT DECORATION (pls. 202k and 203a-e) |
| :--- | :--- |
| 28L. 2 | GEOMETRIC DECORATION (pl. 203f-j) |
| 28L. 3 | VEGETAL DECORATION (pl. 203k-n) |
| 28L. 4 | ANTHROPOMORPHIC DECORATION (pl. 214a, b) |

This class comprises two rather distinct types of pendants: most have a loop for suspension; some have off-center perforations which may have served the same purpose (Sor $527,767,1069,1449,1460,1576,1754$, and 1777; pls. 203 and 214). Two medallions that have no visible means of suspension (Sor 1767 and 1776, pl. 203h, i) have nevertheless been included in this class because their decoration-a six-pointed star-strongly suggests they were worn as pendants like similar objects from Marlik and other West Asian sites (Negahban 1964, fig. 71; Orthmann 1975:330, pl. 253a; Maxwell-Hyslop 1971:140-144, pl. 109). That similar designs also occurred on disc-headed pins is illustrated by an example in the Ashmolean Museum (Moorey 1971a, no. 354).

The function of the items discussed in this paragraph may have been quite diverse. Thus Sor 527 (pl. 203a) looks like a miniature armor scale (cf. Starr 1937, pl. 126A-K), except that it does not have pairs of holes. Sor 967 (pl. 203k) might well be a horse's collar pendant. Although more elaborate than the banjo-shaped pendants with this function found at Hasanlu IV (de Schauensee and Dyson 1983, fig. 18:3) and at Sialk B (Ghirshman 1939, pl. $25: 2$ ), it has the same basic shape made up of a stemmed disc with two crossbars. Its decoration, with paired brackets and volutes, seems to point to Syria or Phoenicia as a source of inspiration (cf. the ivory horse face-pieces from Nimrud [Orchard 1967, nos. 175-181] and the bronze face-pieces from Salamis [Karageorghis 1969, figs. 14 and 24]). Syrian influence on Iran generally does not predate 750 B.C., at the earliest (van Loon 1972:68), although exceptions are found, for instance at Hasanlu IV (Muscarella 1980:211-13).

Sor 1754 (pl. 203n) might be the end of a diadem, growing wider in the center. Sor 767 (pl. 214b), obviously related to the disc-headed pins with central human faces ( 28 H .5 .1 ), could have been nailed to the center of some piece of equipment (cf. Vanden Berghe 1982:179, fig. 22). Finally, some true pendants may have been worn around the neck not just for decoration, but more specifically as charms or protective amulets. This was obviously true of necklaces with the symbols of the gods worn from Kassite through Neo-Assyrian times in Mesopotamia (Orthmann 1975:330, pl. 253a; Hrouda 1965:56-57, pl. 9:6). It may also be true of our objects showing the crescent, symbol of the moon (Sor 1449) or the six-pointed star, symbol of Venus (Sor 1767 and 1776). Sor 1657 (pl. 203e), which is shaped like a crescent with the points up, may represent a miniature halberd (cf. Moorey 1971a, pl. 3:22). The genie of fertility appearing on Sor 419 (pl. 214a) makes the pendant's function as a charm even more explicit (Muscarella 1981a:335-36, no. 4). The fact that the same motif appears on disc-headed
pins (Vanden Berghe 1982:205, fig. 274) suggests that pendants and pins could both have such amuletic value (Moorey 1971a:208).

As in the case of the disc-headed pins, vegetal and anthropomorphic designs do not seem to occur before level 2B. It may not be a coincidence that an excavated parallel for the level 2B crescent pendant (Sor 1449, pl. 203c) is from an early Iron III context (Vanden Berghe 1982, fig. 52).

## 28M. 'MOUFLON' HORN-SHAPED ORNAMENTS

Crescents with one pointed and one blunt end were labeled 'mouflon horns' by Schmidt on account of their single point, slightly twisted outward (Sor 251 and 1556, pl. 203o, p). They are made of thinner copper/bronze metal than the much more common "ibex horns" that are treated in chapter 27E (see that section for the possible significance of such token animal horns).

## 28N. FIGURINE

One copper/bronze sheet cut out female figurine is unique at Surkh Dum-i-Luri (Sor $1116, \mathrm{pl} .214 \mathrm{c}$ ). Here, too, one wonders if an influence from Syria and Palestine can have been at work, although the parallels are far away in time and space (cf. Negbi 1976, no. 1658, from LBI Ajjul). The bronze female figurine pendants from women's burials at Sialk B (ca. $825-700$ в.с.) are cast with pairs of holes that permitted their inclusion in limestone and shell necklaces (Ghirshman 1939:57-58, pl. 27:2). Although Sor 1116 is perforated through the nipples, it does not seem likely that the figurine was strung on a necklace by these means.

CATALOG 28. IRON AGE HAMMERED METAL OBJECTS

| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level | Height <br> in cm | Rim diam./ <br> width in cm | Materialdescription |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | Reference $\quad$ Period

## 28A. VESSELS

| 189a | Sor 270 | 4 | 2B | 2.4 | 12.8 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 189b | Sor 288 | 4/5 | 2B | 5.8 | 13.5 |
| 189c | Sor 432 | 4 | 2B | 3.1 | 6.7 |
| 189d | Sor 598 | KG | 1 | $4.1+$ | 16.0 |
| 189e | Sor 713 | (?) | 1 | 5.8 | 12.0 |
| - | Sor 1276a | 3-4 | 2B-2A | 1.9+ | 9.0 |
| - | Sor 1276b | 3-4 | 2B-2A | 1.6+ | 10.0 |
| - | Sor 1276c | 3-4 | 2B-2A | $2.0+$ | 8.0 |
| 189f | Sor 127d | 3-4 | 2B-2A | 2.7+ | $3.0+$ |
| - | Sor 1347 | 9W | 2A | ca. 5.3 | ca. 9.5 |
| 189 g | Sor 1492 | $2 / 12$ | 2C | 4.9 | 10.2 |
| - | Sor 1535a | 1/7/9 | 2B | 4.0 | 16.5 |
| - | Sor 1578 | 1/7/9 | 2B | (?) | 18.5+ |
| 190a | Sor 1736a | (?) | 3A-1 | 1.3 | 11.0 |
| 190b | Sor 1783a | (?) | 3A-1 | 2.5 | 12.0 |
| 190c | Sor 1783b | (?) | 3A-1 | 4.5 | 14.0 |


| $\mathrm{Co} / \mathrm{br}$ : almost vertical rim, slanting sides; convex disc base | - | - |
| :---: | :---: | :---: |
| Co/br: short, stippled rim, bulging shls, disc base; riveted strainer spout? ) | - | - |
| $\mathrm{Co} / \mathrm{br}$ : plain rim, convex sides, flat base; pouring lip | - | - |
| Co/br: bowl(?) frgm, ridged neck, slanting sides; guilloche engraved on rim, rosette on side | cf. Sor 1783a, <br> pl. 190b | - |
| $\mathrm{Co} / \mathrm{br}$ : sinuous rim, sagging bdy, convex disc base | - |  |
| Co/br: bowl(?) frgm, constricted neck, carinated shoulder | - | - |
| Co/br: bowl(?) frgm, flaring rim | - | - |
| $\mathrm{Co} / \mathrm{br}$ bowl(?), flaring rim |  |  |
| Co/br: bowl(?), frgm, trough spout |  |  |
| Co/br: cyl. neck, flattened hemispherical bdy |  |  |
| $\mathrm{Co} / \mathrm{br}$ : hemispherical bdy, round base | - |  |
| Co/br: plain rim, rounded sides, wide flat base | - |  |
| Co/br: frgms, rim beveled out, hemispherical bdy | - | - |
| Co/br: almost vert. rim, no bdy, wide disc base fish swimming around circular twist engraved on interior | - | - |
| Co/br.frgm, ridged neck, convex, sides, disc base; twist engraved on rim | - | - |
| Co/br: frgm, constricted neck, bulging shls, round base | de Mecquenem and Michalon 1953, pl. 19:10 | Elam III |
|  | Haller 1954, pl. 22d | 750-600 в.с. |

Michalon 1953, pl.
Haller 1954, pl. 22d 750-600 в.с.

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and obj. no. | Area or burial | Elev. or level | Height <br> in cm | Rim diam./ width in cm | Material/description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 28A. VESSELS (cont.) |  |  |  |  |  |  |  |  |
| 28A.1. BOWLS (cont.) |  |  |  |  |  |  |  |  |
|  | Sor 1783b (cont.) |  |  |  |  |  | Vanden Berghe 1982, fig. 59:11 | $\begin{aligned} & \text { Iron III } \\ & 740-600 \text { в.с. } \end{aligned}$ |
| 190 d | Sor 1783d | (?) | 3A-1 | $3.2+$ | 10.0 | Co/br: frgm, ridged neck, rounded sides; twist engraved on ridge, pendent loops bel. ridge | - | - |
| 28A.2. LADLE |  |  |  |  |  |  |  |  |
| 204a | Kha 16 | x 1 | -0.95 | 3.1 | 11.0 | $\mathrm{Co} / \mathrm{br}$ : bowl with pan handle and pouring lip, slanting sides, disc base | - | - |
| 28A.3. MINIATURE BUCKET |  |  |  |  |  |  |  |  |
| 190e | Sor 1055 | 3 | 3A | 3.8 | 2.8 | Co/br: bucket or finial: three rivets through rim, grooved neck, spherical bdy; handle or transverse wire inside | - | - |
| 28A.4. GOBLETS |  |  |  |  |  |  |  |  |
| 190f | Sor 185 | 15 | 1 | $3.0+$ | 3.8+ | Co/br: 'nipple beaker' frgm, two ridges on neck; guilloche engraved on rim, pendent loops bet. ridges | - | - |
| 190 g | Sor 1647 | 1/3 | 2B | 4.8+ | 4.5+ | $\mathrm{Co} / \mathrm{br}$ : 'nipple beaker' frgm: as Sor 185 , curlyhaired person facing left bel. ridge | Cale 1973 | - |
| 2046 | Sor 915 | 3 | 2B-1 | $8.5+$ | $6.5+$ | $\mathrm{Co} / \mathrm{br}$ : 'nipple beaker'(?) frgm: long-haired person on curved throne attended by courtier wearing gown pleated behind | Calmeyer 1973: $18-33 \text {, esp. A2, A14 }$ | - |
| 204c | Sor 1712 | (?) | 3A-1 | $3.5+$ | $2.5+$ | $\mathrm{Co} / \mathrm{br}$ : 'nipple beaker' frgm: pendent loops, ridge, curly-haired person facing right bel. ridge | $\begin{aligned} & \text { Calmeyer } 1973 \\ & \text { 32-33, A24 } \\ & \text { Muscarella 1974b } \\ & \text { 243-244; 1977:77; } \\ & \text { 1981a:329-30 } \end{aligned}$ | - |
| 204d | Kha 63 | x 7 | -0.65 | 8.4 | $8.8 \times 8.4$ | $\mathrm{Co} / \mathrm{br}$ : truncated conical goblet; herringbone engraved bet. erect loops above, pendent loops below | - . | - |

## 28A.5. POTS

| 190 h | Sor 1276 e | $3-4$ | 2B-2A | 3.0 | 11.0 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 190 i | Sor 1276 f | $3-4$ | 2B-2A | $2.8+$ | ca. 10.0 |
|  |  |  |  |  |  |
| - | Sor 1276 g | $3-4$ | 2B-2A | $3.5+$ | 12.0 |
| -190 j | Sor 1276 h | $3-4$ | 2B-2A | $2.3+$ | 12.0 |
| 204 e | Kha 25 | $(?)$ | $3 \mathrm{~A}-1$ | $7.5+$ | 9.0 |
|  |  | x1 | -0.95 | 9.8 | 9.0 |
| 28 A .6.$$ |  | JAR |  |  |  |
| - | Sor 1697 | $(?)$ | 1 | $(?)$ | $(?)$ |


| Co/br: pot(?) frgm, constricted neck, carinated | - | - |
| :--- | :--- | :--- |
| shoulder | - |  |
| Co/br: pot(?) frgm, ridged neck, pendent loops | - |  |
| engraved bel. ridge |  |  |
| Co/br: pot(?) frgm, faintly constricted neck | - | - |
| Cf. Sor 1276 g |  |  |
| Co/br: pot frgm, ridge on sagging shoulder | - | - |
| Co/br: bag-shaped pot; four grooves engraved | - | - |
| on protruding shoulder |  | - |

$\mathrm{Co} / \mathrm{br}$ : jar frgm, two grooves on shl, round bdy - -
$\mathrm{Co} / \mathrm{br}$ : hollow calf's head(?): knobs surrounded - -
by concentric grooves and joined by scaly tri-
angle with ladder border

| Co/br: trough spout once riveted to rim of <br> pitcher, neck of spout rises out of swelling <br> at junction to body of pitcher | Ghirshman 1939, <br> pl. $23: 2,5$ | $825-700$ в.C. |
| :--- | :--- | :--- |
|  | Negahban 1964, | $1000-750$ в.c. |
| fig. 32 | - | - |

28A.9. HANDLES

| 191b | Sor 38 | 1 | 1 | 6.2 | - |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 191 c | Sor 1063 | 3 | 3A-2A | $4.1+$ | - |
| - | Sor 1168 | 3 | 2B | 5.3 | - |
|  |  |  |  |  |  |
| 191d | Sor 1276 i | $3-4$ | 2B | 6.0 | - |
| - | Sor 1787 | $(?)$ | 3A-1 | 3.8 | - |

28A.10. INDETERMINATE SHAPES

| - | Sor 1780 | (?) | 3A-1 | (?) | (?) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | Sor 1781 | (?) | $3 A-1$ | (?) | (?) |

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and obj. no. | Area or burial | Elev. or level | Height in cm | Rim width |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 28 |
| 28A.10. INDETERMINATE SHAPES (cont.) |  |  |  |  |  |
| 190d | Sor 1783d | (?) | 3A-1 | $3.2+$ | 10.0 |
| - | Sor 1782 | (?) | 3A-1 | (?) | (?) |
|  | Qum 5 | A | Bur grds | $2.6+$ | $2.8+$ |
| - | Sha 13 | A | 1/2 upsl | 0.5+ | $3.2+$ |

28A. VESSELS (cont.)
28A.10. INDETERMINATE SHAPES (cont.)

| $\mathrm{Co} / \mathrm{br}:$ frgm, ridged neck, rounded sides; twist | - |  |
| :--- | :--- | :--- |
| engraved on ridge, pendent loops bel. ridge |  |  |
| Cofbr frgms, fluted designs |  |  |
| $\mathrm{Co} / \mathrm{br}$ frgms, bead rim, slanting sides, flat base | - | - |
| $\mathrm{Co} / \mathrm{br}:$ frgm, folded ledge rim | - | - |

28B. DRINKING TUBES AND STRAINERS

| 191e | Sor 43 | 1 | 1 | 5.0 | 0.6 | Co/br: drinking tube: slender coiled conoid sheath | Vanden Berghe 1973b:24, Kutal-i Gulgul, tb. A10:52 | Iron II |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 191f | Sor 1118 | 10 S | 1 | $6.5+$ | 3.5 | $\mathrm{Co} / \mathrm{br}$ : cone with hole at end | $\begin{aligned} & \text { Goff 1978, fig. } \\ & 14: 30 \end{aligned}$ | Baba Jan III |
| 191g | Sor 1523 | 8 | 1 | 0.4 | 4.4 | Co/br: strainer: convex disc with thirteen holes disposed as eight-pointed star | - | - |
| 204f | Sor 992 | 1-3 | 2B | 6.1 | 1.2 | Co/br: drinking tube: coiled cone, small holes all over lower half | - | - |
| cf. 204f | Sor 77 | 7 N | 1 | 9.8 | 1.0 | $\mathrm{C} 0 / \mathrm{br}$ : drinking tube: sheet coiled into cone, small holes at sides and end | Contenau and <br> Ghirshman 1935: <br> 47, pl. 35 center | Giyan III |
| cf. 204f | Sor 303 | 4 | 2A |  | $0.8+$ | Co/br: drinking tube frgm: slender coiled cone, three vert. rows of small holes, end open | - | - |
| cf. 204f | Sor 1456 | 3/13 | 2B | (?) | (?) | Co/br: tapered tube | - | - |
|  | 28C. BELL |  |  |  |  |  |  |  |
| 191h | Sor 1280 | 3 | 2B | 2.3 | 6.1 | Co/br: bell frgm, hemisphere with two holes connected by slit | - | - |

## 28D. MIRRORS

| 191 i | Sor 71 | 7 N | 2 A | 17.1 | 8.8 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 191 j | Sor 418 | 4 | 2B | 0.1 | 8.9 |
| - | Sor 1392 | $1 / 3$ | 2B | (?) | 9.6 |
| 191 k | plus 1489 | Sor 1466 | 2 | 2 C | 0.1 |


| Co/br: mirror(?), spade-shaped, rectangular | - | - |
| :--- | :--- | :--- |
| tang, iron hande rolled around tang |  |  |
| Cofbr: plain disc with hole near edge | - | - |
| Co/br: plain disc with loop at edge | - | - |
| Co/br: plain disc with two holes near edge | - | - |

## 28E. HAIR SPIRALS

|  | Sor 106 | 1 | 2A | 3.2 | 2.8 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 192a | Sor 164 | 6 | 2 B | 2.3 | 2.3 |
| - | Sor 529 | 4 | 2B-2A | 2.6 | 2.6 |
| 192b | Sor 699 | 4 | 2B-1 | 2.6 | 2.2 |
| - | Sor 812 | 3 | 2A-1 | 2.5 |  |
|  | Sor 902 | 3 | 2B-1 | 1.8 |  |
|  | Sor 1084 | 3 | 3A-2A | 3.8 |  |
|  | Sor 1229 | 3 | $3 \mathrm{~A}-2 \mathrm{~A}$ | 2.4 | - |
| 192c | Sor 1373 | $1 / 3$ | 2 B | 2.4 | - |

## 28F. FINGER RINGS

$\qquad$ Co/br: sheet; open band
$\mathrm{Co} / \mathrm{br}$ : sheet; band with ends

| Co/br: double leech | - | - |
| :--- | :--- | :--- |
| Co/br: triple leech, three relief discs on each | - | - |
| leech |  |  |
| Co/br: single leech | Vanden Berghe | Iron III |
| Co/br: triple leech | Karkhai, tb.1 |  |
|  | - | - |
| Co/br: double leech | - | - |
| Cf. Sor 812 | - | - |
| Co/br: hair spiral; two leeches | Ghirshman 1939, | Iron II |
| Cf. Sor 1084 |  |  |
| Co/br: hair spiral; triple leech |  |  |


| Vanden Berghe | Iron II |
| :--- | :--- |
| 1973a:20, fig. |  |
| 8:103-29 |  |
| (Bard-i Bal) |  |
| Vanden Berghe | Iron I-II |
| 1973a:20, fig. |  |
| 11:76 |  |
| Muscarella | Iron II |
| 1974a, fig. 43: |  |
| 133 (Dinkha) |  |
|  |  |

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level | Height <br> in cm | Rim diam./ <br> width in cm | Material/description |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Reference $\quad$ Period $\quad$.

28F. FINGER RINGS (cont.)

| 192f | Sor 1232 | 3 | 3A-2A | 2.6 | 2.0 | $\mathrm{Co} / \mathrm{br}$ : sheet; widened on top | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 192g | Sor 583 | 19, 21 | 1 | 3.7 | 3.4 | Iron: sheet widened on top | - | - |
| 192h | Kha 8 | x1 | -0.95 | 2.4 | 3.1 | Iron: sheet widened on top | - | - |
| cf. 192h | Sor 129 | 1 | 2A-1 | 2.3 | 3.0 | Iron: sheet widened on top | - | - |
| cf. 192h | Kha 4 | x1 | -0.95 | 2.0 | 3.3 | Iron: sheet widened on top | - | - |
| cf. 192h | Kha 18 | x1 | -0.95 | 2.1 | 2.6 | Iron: sheet widened on top | - | - |
| cf. 192h | Kha 20 | x1 | -0.95 | 2.4 | 3.3 | Iron: sheet widened on top, overlapping ends | - | - |
| cf. 192h | Kha 21 | x1 | -0.95 | 1.8 | 2.4 | Iron: sheet widened on top, touching ends | - | - |
| cf. 192h | Kha 24 | x1 | -0.95 | 2.3 | 2.7 | Iron: sheet widened on top, touching ends | - | - |
| cf. 192h | Kha 41 | x3 | -1.15 | 2.6 | 3.4 | Iron: sheet widened on top, touching ends | - | - |
| cf. 192h | Kha 43 | x3 | -1.15 | 2.4 | 2.0 | Iron: sheet widened on top | - | - |
| cf. 192h | Kha 44 | x3 | -1.15 | 2.6 | 3.3 | Iron: sheet widened on top, open ends | - | - |
| cf. 192h | Kha 48 | x3 | -1.15 | 1.9 | 2.2 | Iron: sheet widened on top | - | - |
| cf. 192h | Sor 1511 | 1(?) | 3A-2B | 1.9 | 2.9 | Iron: sheet widened on top | - | - |
| - | Sor 1482 | 2-23 | 2C | 2.7 | 2.7 | Iron: bezel | - | - |
| 28G. BRACELETS |  |  |  |  |  |  |  |  |
| - | Sor 35 | 1 | 1 | 0.5 | 3.4 | Co/br. open band, curved ends | - | - |
| 192i | Sor 384 | 2 | 2C-2A | 8.4+ | 2.0 | Co/br: band frgm; two zigzags; herringbone borders(?) | - | - |
| 192 ${ }^{\text {j }}$ | Sor 92 | 14 | 1 | 0.6 | 3.4 | $\mathrm{Co} / \mathrm{br}$ : open band, engraved crosshatching | - | - |
| 192k | Sor 124 | 1(?) | 1 | 0.6 | 5.7 | $\mathrm{Co} / \mathrm{br}$ : open band, frgm, groove borders | - | - |
| 1921 | Sor 258 | 6 | 1 | 0.6 | 6.5 | $\mathrm{Co} / \mathrm{br}$ : open band, alternatingly hatched tris. | - | - |
| - | Sor 298:2 | 4 | 2B-2A | 0.7 | 3.6 | Co/br: open band fragment | - | - |
| - | Sor 360:5 | 1 | 2B-2A | 0.5 | 3.5 | Co/br: open band fragment | - | - |
| - | Sor 461 | 1 | 1 | 0.6 | (?) | $\mathrm{Co} / \mathrm{br}$ : open band fragment | - | - |
| 192m | Sor 472 | 1 | 3A | 0.6 | 5.4 | $\mathrm{Co} / \mathrm{br}$ : open band; one end bent double | - | - |
| 192n | Sor 658:2 | 1 | 3A | 0.4 | 4.2 | $\mathrm{Co} / \mathrm{br}$ : open band of coiled sheet | - | - |
| 1920 | Sor 959 | 13 | 1 | 0.7 | 4.3 | Co/br: open band; squared ends | - | - |
| cf. 1920 | Sor 1384 | 1/3 | 2B | 0.9 | 3.0+ | Co/or: open band; squared ends | - | - |
| - | Sor 1387 | $1 / 3$ | 2B | 5.6 | 5.6 | $\mathrm{Co} / \mathrm{br}$ : open band; flat ends | - | - |
| 192p | Sor 319 | 1 | 2B-2A | 1.0 | 3.7 | Iron: open band | - | - |


| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level | Length <br> in cm | Width <br> in cm | Materialdescription |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Reference $\quad$ Period

## 28H. DISC-HEADED PINS

28H.1. WITHOUT DECORATION

| - | Sor 8 | 5 | 1 | $5.0+$ | 1.8+ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 230 | 1 | 1 | $7.9+$ | 2.5+ |
| - | Sor 517f | 4 | 2A-1 | $4.5+$ | $1.8+$ |
| - | Sor 568 | 1 | 3A-2A | $8.1+$ | 1.3+ |
| - | Sor 573 | 20 | 2A | 4.9+ | 2.2+ |
| - | Sor 630 | 1-2 | 2C | $6.5+$ | 5.5+ |
| - | Sor 706e | 3, 4 | 2B-1 | $4.7+$ | 2.7+ |
| - | Sor 711 | 22 | 1 | 9.7+ | 1.7+ |
| 193a | Sor 755 | 4 | 1 | 8.5 | 3.3 |
| - | Sor 783 | 10 | 1 | $6.6+$ | $2.0+$ |
| - | Sor 840a | 4 | 2B-1 | 10.6+ | 2.7+ |
| - | Sor 848 | 11 N | 1 | $6.4+$ | $4.8+$ |
| - | Sor 898 | 3 | 1 | 10.7+ | 0.9+ |
| - | Sor 900 | 3 | 1 | (2) | (?) |
| - | Sor 1093:12 | 3 | 3A-2A | $9.9+$ | (?) |
| - | Sor 1108:6 | 1-11 | 1 | (?) | (?) |
| 一 | Sor 1125:5 | 13 | 1 | (?) | (?) |
| - | Sor 1261 | 9 | 1 | $7.0+$ | (?) |
| - | Sor 1378 | 1/3 | 2B | (?) | (\%) |
| - | Sor 1421 | 1/3 | 2B | $6.8+$ | (?) |
|  | Sor 1443 | 3/13 | 2B | $10.8+$ | (\%) |
| - | Sor 1512:10 | 1(?) | 3A-2B | $7.1+$ | 1.2+ |
| - | Sor 1620 | 1/3 | 2B | $8.3+$ | (?) |
| - | Sor 1424 | 1/3 | 2B | ca. 10.0 | ca. 5.0 |

28H.2. GEOMETRIC DECORATION
28H.2.1. Central Boss

| $193 b$ | Sor 1 | $(?)$ | 1 | $15.9+$ | $7.6+$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 193 c | Sor 55 | $4-6$ | 1 | 7.3 | 2.6 |
| - | Sor 80 | 6 | 1 | $8.9+$ | $4.1+$ |


| Co/br: five knobs disposed as cross | - | - |
| :--- | :--- | :--- |
| $\mathrm{Co} / \mathrm{br}:$ stipples around boss, stippled border | - |  |
| $\mathrm{Co} / \mathrm{br}$ | - |  |

Co/br: pin(?) fragments

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level | Length <br> in cm | Width <br> in cm | Materialdescription | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 28H. DISC-HEADED PINS (cont.)

28H.2. GEOMETRIC DECORATION (cont.)


| Co/br: stippled border | - | - |
| :---: | :---: | :---: |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) fragment | - | - |
| Co/br | - | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) fragment | - | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm, four beaded concentric rings | - | - |
| Co/br: cross on boss | - |  |
| $\mathrm{Co} / \mathrm{br}$ r radiating grooves around boss | - | - |
| $\mathrm{Co} / \mathrm{br}$ : knobs around boss, knob border | - | - |
| $\mathrm{Co} / \mathrm{br}$ : stippled four-spoked wheel around boss | - | - |
| $\mathrm{Co} / \mathrm{br}$ : knob wheel around boss, knob border | - | - |
| $\mathrm{Co} / \mathrm{br}$ : seven knobs around boss | - | - |
| $\mathrm{Co} / \mathrm{br}$ | - |  |
| $\mathrm{Co} / \mathrm{br}$ : stippled border | - | - |
| $\mathrm{Co} / \mathrm{br}$ | - | - |
| $\mathrm{Co} / \mathrm{br}$ | - | - |
| Co/br | - | - |
| Co/br: pin(?) frgm, hole (left by corroded boss?), stippled border | - | - |
| Co/br: seven knobs around boss | - | - |
| $\mathrm{Co} / \mathrm{br}$ | - | - |
| $\mathrm{Co} / \mathrm{br}$ | - | - |
| Co/br: pin(?) fragment | - | - |
| Co/br: pin(?) frgm: six-spoked wheel of knobs around boss | - | - |
| Iron | - | - |
| Iron: fragment | - | - |
| Iron: fragment, broken | - | - |
| Iron: pin(?) fragment, broken | - | - |
| Iron: pin(?) fragment | - | - |
| Iron | - | - |


| cf. 200b | Sor 256 | 17 | 1 | $3.5+$ | 3.5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 200b | Sor 275 | 4 | 2 A | $5.9+$ | $4.1+$ |
| cf. 200b | Sor 349 | 1 | $2 \mathrm{~B}-2 \mathrm{~A}$ | $3.8+$ | $2.9+$ |
| cf. 200b | Sor 591 | 18,19 | 1 | 6.50 | 2.4 |
| cf. 200b | Sor 708e | 3,4 | 2B-1 | $4.2+$ | $1,7+$ |
| cf. 200b | Sor 1062 | 3 | 3A-2B | $4.9+$ | 4.0 |
| 200c | Sor 1788 | (?) | 3A-1 | $4.5+$ | 3.9 |

28H.2.2. Miscellaneous Geometric Decoration

| 194d | Sor 88 | 13 | 1 | $2.6+$ | $2.1+$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 216 | 1 | 1 | $6.6+$ | 2.4+ |
| 194e | Sor 250 | 11 | 1 | 6.5+ | 2.9+ |
| - | Sor 743 | 1 | 3A-1 | $5.8+$ | $1.7+$ |
| 194f | Sor 567 | 1 | 3A-2A | 4.7+ | 2.6+ |
| - | Sor 947 | 4 | 13, 1 | $7.4+$ | (?) |
| - | Sor 1142 | 1 N | 3A | 9.2 | 3.5 |
| 104 g | Sor 1244 | 7 | 1 | 14.5+ | 4.6+ |
| 194h | Sor 1532 | 1/7/9 | 2B | 8.0 | 3.2 |
| 195a | Sor 1552 | 1/7/9 | 2B | 12.6 | 5.3 |
| - | Sor 1658 | 1 N | 2B-2A | (?) | (?) |
| - | Sor 1670 | 1/9/11 | 3A | $6.0+$ | (?) |
| 195b | Sor 1671 | 1/9/11 | 3A | 6.8 | 2.9 |
| 195c | Sor 1763 | (?) | 3A-1 | 5.9+ | $2.8+$ |
| 195d | Sor 1766 | (?) | 3A-1 | 4.7+ | $4.0+$ |
| - | Sor 1768b | (?) | 3A-1 | (?) | (?) |
| 195e | Sor 1771 | (?) | 3A-1 | 6.0+ | $5.0+$ |
| 195 f | Sor 1772 | (?) | 3A-1 | $6.0+$ | 5.2+ |
|  | Sor 1779a | (?) | 3A-1 | (?) | (?) |
| 200d | Sor 57 | 7 N | 1 | $2.6+$ | 2.5 |

28H.3. VEGETAL DECORATION
28H.3.1. Central Rosette

| 195 g | Sor 31 | 1 | 1 | $7.5+$ | 7.5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 195 h | Sor 32 | 1 | 1 | $7.6+$ | 7.6 |

Co/br: pin(?) frgm; leaf and pomegranate chain around rosette
$\mathrm{Co} / \mathrm{br}$ : concentric rows of centered circles around rosette
Co/br: pin(?) frgm; stp centered circle, stp bor.
$\mathrm{Co} / \mathrm{br}$ : fragments
Silver: pin(?) frgm; ten-spoked wheel around
boss; knobs bet. spokes; herringbone border

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level | Length <br> in cm | Width <br> in cm | Materialldescription |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Reference $\quad$ Period $\quad$.

28H. DISC-HEADED PINS (cont.)
28H.3. VEGETAL DECORATION (cont.)

| 28H.3.1. Central Rosette (cont.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 195i | Sor 105a | 1(?) | 1 | $5.7+$ | $3.2+$ |
| 196a | Sor 105b | 1(?) | 1 | 5.6+ | 5.6 |
| 196b | Sor 105c | 1(?) | 1 | 10.8+ | 10.8 |
| 196c | Sor 311 | 2 | 1 | 8.8+ | $2.5+$ |
| 196d | Sor 926a | 4 | 1 | 5.9+ | $1.7+$ |
| 196e | Sor 1547 | 1/7/9 | 2B | 13.8 | 6.5 |
| 196 f | Sor 1748 | (?) | 3A-1 | 3.7+ | $2.9+$ |
| 196g | Sor 1762 | (?) | 3A-1 | 4.5+ | $3.3+$ |
| 205a | Sor 1529 | 1/7/9 | 2B | 16.1 | 6.7 |
| 205b | Sor 1530 | 1/7/9 | 2B | 27.6 | 10.7 |
| - | Sor 1619 | $1 / 3$ | 2B | (?) | (?) |


| Co/br: pin(?) frgm; leaf chain around rosette | - | - |
| :--- | :--- | :--- |
| Co/br: pin(?) frgm; cone ring around rosette | - | - |
| in circle |  |  |
| Co/br: pin(?) frgm; scallops around large rosette | - | - |
| Co/br: rosette | - |  |
| Co/br: bud chain around rosette, knobs bet. | - | - |
| buds |  |  |
| Co/br: alternating cone border around rosette | - | - |
| Co/br: pin(?) frgm: guilloche bor. around | - | - |
| rosette |  |  |
| Co/br: pin(?) frgm; rosette formed by three cone | - | - |
| chains pointing in, cone border |  |  |
| Co/br: rosette, stp inner border, ten rosettes | - | - |
| in outer border |  |  |
| Co/br: rosette, stp inner border, nine quatre- | - | - |
| foils and lion mask in outer bor. around rosette |  |  |
| Pin(?) frgm; rosette, ovals, circles | - | - |

28H.3.2. Miscellaneous Vegetal Decoration

| 196 h | Sor 49 | $7 \mathrm{~N}(?)$ | 1 | $6.3+$ | $4.8+$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| 196 i | Sor 287 | $4 / 5$ | 2B | $9.3+$ | $7.5+$ |
| 197 a | Sor 442 | 4 |  | 2B | $3.8+$ |
| 197 b | Sor 517 d | 4 | 2A-1 | $11.4+$ | $1.9+$ |
| 197 c | Sor 552 | 4 | 2B-2A | $9.7+$ | $2.7+$ |
|  |  |  |  |  |  |


| Co/br: pin(?) frgm; rosettes connected by bud | - |  |
| :--- | :--- | :--- |
| and pomegranate chain around sunburst of stp |  |  |
| triangles |  |  |
| Co/br: pin(?) frgm; bean chain around ringed | - |  |
| boss | - |  |
| Co/br: vegetal(?) | - | - |
| Co/br: leaf and fruit(?) chain | - | - |
| Co/br: rosette network | - | - |


| 197d | Sor 760 | 23 | 1 | 8.4+ | 1.8+ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 197e | Sor 1009 | 1-3 | 2B | 5.4+ | $2.7+$ |
| 197f | Sor 1082 | 3 | 3A-2A | $3.2+$ | $2.1+$ |
| 197 g | Sor 1648a | 1/3 | 2 B | $4.1+$ | $2.5+$ |
| 197h | Sor 1648b | 1/3 | 2B | $3.6+$ | 3.0 |
| 197i | Sor 1740 | (?) | 3A-1 | $4.9+$ | $4.2+$ |
| 197j | Sor 1741 | (?) | 3A-1 | $6.5+$ | $3.6+$ |
| 197k | Sor 1742 | (?) | 3A-1 | $8.5+$ | 3.7+ |
| 1971 | Sor 1743 | (?) | 3A-1 | 5.4+ | 3.7+ |
| 197m, n | Sor 1745a, b | (?) | 3A-1 | up to 6.6+ | up to $4.5+$ |
| 198a-g | Sor 1745 c -i | (?) | 3A-1 | up to $6.6+$ | up to $4.5+$ |
| 198h | Sor 1747 | (?) | 3A-1 | $5.9+$ | $3.7+$ |
| 198i-1 | Sor 1752a-d | (?) | 3A-1 | up to 6.2+ | up to $3.0+$ |
| 198m | Sor 1753a | (?) | 3A-1 | $3.3+$ | $2.4+$ |
| 198n | Sor 1753b | (?) | 3A-1 | $3.5+$ | 2.5+ |
| 1980 | Sor 1758 | (?) | 3A-1 | $6.4+$ | 3.3+ |
| 199a | Sor 1759 | (?) | 3A-1 | 5.8+ | 2.2+ |
|  | Sor 1760 | (?) | 3A-1 | (?) | (?) |
| 206a | Sor 1538 | 1/7/9 | 2 B | 14.6 | 6.0 |
| - | Sor 1586 | 1/3 | 2B | 11.4+ | (?) |
| - | Sor 1751 | (?) | 3A-1 | (?) | (?) |


| Co/br: leaf chain(?) | - |  |
| :---: | :---: | :---: |
| Co/br: pin(?) frgm; leaf and globe chain | - |  |
| Co/br: pin(?) frgm; pine cone chain | - |  |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; palmette flanked by bracket | - |  |
| Co/br. pin(?) frgm; leaf and bean chain | - |  |
| $\mathrm{Co} / \mathrm{br}$ pin(?) frgm; pomegranate chain around | - |  |
| boss, scalloped inner border, stp outer bor. |  |  |
| Co/br. pin(?) frgm; pomegranate chain around leaf chain | - | - |
| Co/br: pin(?) frgm; leaf and pomegranate chain | - |  |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; leaf and pomegranate chain around herringbone-framed boss | - | - |
| $\mathrm{Co} / \mathrm{br}$ : two pin(?) frgms; leaf and/or pomegranate chains | - | - |
| Co/br: seven pin(?) frgms; leaf and/or pomegranate chains | - | - |
| Co/br: pin(?) frgm; leaf chain around six-spoked boss | - | - |
| Co/br: pin(?) frgm; rosettes (seven segments) | - | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; palmette flanked by volutes | - | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; palm flanked by palmette chains | - | - |
| Co/br. pin(?) frgm; bracketed columns alternating with four-scale rocks around central ring; pendent triangle border | - | - |
| $\mathrm{Co} / \mathrm{br}$ : leaf chain network | - |  |
| Co/br: frgms; floral | - | - |
| $\mathrm{Co} / \mathrm{br}$ : three rosette-filled circles, dbl rope bor. | - | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; floral | - | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; rosettes (nine segments) | - | - |

28H.4. ZOOMORPHIC DECORATION
28H.4.1. Central Lion's Mask

| 199 b | Sor 278 | 4 | 2 A | $7.3+$ | 5.0 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 199 c | Sor 1746 | $(?)$ | $3 \mathrm{~A}-1$ | $5.1+$ | - |

Co/br: bean chain around lion's mask, inner border of ovals, outer border of stipples
Co/br: pin(?) frgm; lion's(?) mask surrounded by petals, leaf and pomegranate chain, pendent leaves; stippled border

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level | Length <br> in cm | Width <br> in cm | Material/description |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Reference $\quad$ Period $\quad$.

28H. DISC-HEADED PINS (cont.)

28H.4. ZOOMORPHIC DECORATION (cont.)
28H.4.1. Central Lion's Mask (cont.)
205c Sor $45 \quad 3$

28H.4.2. Miscellaneous

| 199 d | Sor 94 | 15 | 1 | $3.8+$ | $3.4+$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| 199 e | Sor 127 b | $1(?)$ | $2 \mathrm{~A}-1$ | $4.4+$ | $3.5+$ |
| 199 f | Sor 842 | 10 S | 1 | $7.3+$ | 4.9 |
| 199 g | Sor 948 | 4,13 | 1 | $4.8+$ | $2.1+$ |
| 199 h | Sor 1735 a | $(?)$ | $3 \mathrm{~A}-1$ | $3.2+$ | $3.2+$ |
| 199 i | Sor 1735 b | $(?)$ | $3 \mathrm{~A}-1$ | $4.1+$ | $3.6+$ |
| 199 j | Sor 1735 c | $(?)$ | $3 \mathrm{~A}-1$ | $5.2+$ | $1.8+$ |
| 206 b | Sor 286 | $4 / 5$ | 2 B | $9.8+$ | $9.5+$ |
| 206 c | Sor 746 a | 1 N | 1 | $8.0+$ | $4.5+$ |
| 206 d | Sor 811 | 3 | 2 A | $9.6+$ | $9.0+$ |
| 207 a | Sor 1719 | $(?)$ | $3 \mathrm{~A}-1$ | $6.2+$ | $4.1+$ |
| 207 b | Sor 1724 | $(?)$ | $3 \mathrm{~A}-1$ | $5.1+$ | $2.4+$ |
| 207 c | Sor 1725 | $(?)$ | $3 \mathrm{~A}-1$ | $7.6+$ | $6.6+$ |
| 207 d | Sor 1728 | $(?)$ | $3 \mathrm{~A}-1$ | $4.3+$ | $3.5+$ |


| $\mathrm{Co} / \mathrm{br}:$ pin(?) frgm; lion's mask with tufted ears above eyes, wrinked muzzle on either side of nostrils; dotted border | - |
| :---: | :---: |
| Co/br: pin(?) frgm; walking ducks(?) bet. trees that grow from herringbone ring around eight-spoked boss | - |
| Co/br: pin(?) frgm; lion attacking bull(?) | - |
| $\mathrm{Co} / \mathrm{br}$ : ibex with joints pointing outward, stippled border | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; ducks walking, one behind the other, rope border | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; lion head | - |
| Co/br: pin(?) frgm; ibex, quatrefoil over its back | - |
| Co/br: pin(?) frgm; ram | - |
| Co/br: pin(?) frgm; ibexes(?) climbing onto descending branches of tree; rosette fillers | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; winged bull fleeing lion; half rosette pendent from stippled border | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; upended bull flanked by lions; eight-spoked knob filler | - |
| Co/br: pin(?) frgm; paws and rump of lion(?) | - |
| Co/br: pin(?) frgm; falling ibex pierced by arrow; ridge border | - |
| $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; two lions with curling jaw fighting over ibex; dot border | - |
| $\mathrm{Co} / \mathrm{br}$. pin(?) frgm; ibex feeding on plant; knob fillers | - |


| 207e | Sor 1731 | (?) | 3A-1 | 5.2+ | $3.3+$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 1733 | (?) | 3A-1 | (?) | (?) |
| - | Sor 1736b-d | (?) | 3A-1 | (?) | (?) |
| - | Sor 1738 | (?) | 3A-1 | (?) | (?) |
| - | Sor 1739 | (?) | 3A-1 | (?) | (?) |

29H.5. ANTHROPOMORPHIC DECORATION
28H.5.1. Central Human Face

| 199 k | Sor 1572 | $1 / 7 / 9$ | 2 B | 14.1 | 4.4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| 1991 | Sor 1704 | $(?)$ | $3 \mathrm{~A}-1$ | $2.7+$ | $2.7+$ |
| 207 f | Sor 748 | 1 | 1 | $5.2+$ | $5.1+$ |
| 207 g | Sor 858 | 1 N | 2 A | $5.1+$ | $4.5+$ |
| 208 a | Sor 916 | 3 | $2 \mathrm{~B}-1$ | $9.7+$ | $8.7+$ |
| 208 b | Sor 1577 | $1 / 7 / 9$ | 2 B | 10.5 | 5.1 |
| 208 c | Sor 1702 | $(?)$ | $3 \mathrm{~A}-1$ | $6.3+$ | $6.3+$ |
| 208 d | Sor 1703 | $(?)$ | $3 \mathrm{~A}-1$ | $8.2+$ | $6.3+$ |
| 208 e | Sor 1705 | $(?)$ | $3 \mathrm{~A}-1$ | $4.6+$ | $3.1+$ |
|  |  |  |  |  |  |
| 208 f | Sor 1706 | $(?)$ | $3 \mathrm{~A}-1$ | $6.2+$ | $4.3+$ |
|  |  |  |  |  |  |
| 208 g | Sor 1707 | $(?)$ | $3 \mathrm{~A}-1$ | $2.8+$ | $2.4+$ |
| 209 a | Sor 1708 | ?? | $3 \mathrm{~A}-1$ | $4.6+$ | $4.0+$ |
| 209 b | Sor 1709 | $(?)$ | $3 \mathrm{~A}-1$ | $2.1+$ | $2.1+$ |
| - | Sor 1140 | 1 N | 2 B | ca. $8.5+$ | $(?)$ |

Co/br: pin(?) frgm; ibex feeding on tree; oval
fillers
Co/br: six fragments
Co/br: frgms; fish
Co/br: eighteen frgms; animals, some hoofed,
others with lions' tails
Co/br: sixteen fragments
Co/br: female face with pointed chin (en-
graved, not embossed); inner border crescent,
outer border stippled
Cobr: pin(?) frgm; male(?) face with large
nostrils and feather crown
Co/br: pin(?) frgm; female face with pointed
chin surrounded by petals
Cobr: pin(?) frgm; female face with round
chin surrounded by knobs
Cobr: pin(?) frgm; female face with faintly - -

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level | Length <br> in cm | Width <br> in cm | Materialldescription |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Reference $\quad$ Period $\quad . \quad$.

## 28H. DISC-HEADED PINS (cont.)

28H.5. ANTHROPOMORPHIC DECORATION (cont.)
28H.5.1. Central Human Face (cont.)

| - | Sor 1503 | 3/13(?) | 2B(?) | (?) | 3.9 | $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; human face | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 1710 | (?) | 3A-1 | 4.1+ | (?) | Co/br: pin(?) frgm; human face | - | - |
| 28H.5.2 MISCELLANEOUS |  |  |  |  |  |  |  |  |
| 200a | Sor 553 | 4 | 2B-A | 3.4+ | $2.2+$ | Co/br. pin(?) frgm; homed headgear of genie(?), snake head(?); stippled border | Vanden Berghe 1982:203, fig. 272 | $\begin{aligned} & \text { ‘1000- } \\ & 800 \text { ' в.с. } \end{aligned}$ |
| 209c | Sor 100 | 1,2 | 1 | 12.1+ | 4.4+ | $\mathrm{Co} / \mathrm{br}$. deity(?), torso turned to front, in short skirt with wide belt; seated on stool; arms grasping lions | - | - |
| 209d | Sor 123 | 1 | 1 | $8.6+$ | 3.9+ | $\mathrm{Co} / \mathrm{br}$. pin(?) frgm; bearded genie with scaly headgear and bull's(?) ears flanked by couchant lions and pairs of rampant lions in two registers separated by dots; rosette fillers | - | - |
| 209e | Sor 127a | $1(?)$ | 2A-1 | 3.9+ | 4.1+ | Co/br: pin(?) frgm; seated deity(?) grasping snake(?) while other snake(?) serves as seat; perforation at rim | Vanden Berghe 1982:204, fig. 273 | $\begin{aligned} & \text { '1000- } \\ & 800 \text { ' в.с. } \end{aligned}$ |
| 210a | Sor 820 | 3 | 2A-1 | 7.6+ | $6.6+$ | $\mathrm{Co} / \mathrm{br}$. pin(?) frgm; goddess, with disc-headed pins pointing up from shls, grasping two snakes on one of which she is seated, ridge border | Vanden Berghe 1982:204, fig. 273 | $\begin{aligned} & \text { ' } 1000 \text { - } \\ & 800 \text { ' в.с. } \end{aligned}$ |
| - | Sor 1355 | 1/3 | 3A | (?) | (?) | $\mathrm{Co} / \mathrm{br}$ : rounded pin(?) frgm; human(?), scale pattern | - | - |
| 210b | Sor 1359 | 1/3 | 3A | 10.1+ | $2.0+$ | Co/br: naked woman(?) with faintly pointed chin, hands at belly (giving birth?) | - | - |
| 210c | Sor 1422 | 1/3 | 2B | 14.6+ | 3.3+ | Co/br: two seated persons, with nipples indicated, wearing skirts and grasping central standard(?) with club-shaped base; centered circle fillers | - | - |


| 210d | Sor 1711 | (?) | 3A-1 | 3.4+ | $2.5+$ | Co/br: pin(?) frgm; palm tree flanked by bearded genie(?) fertilizing tree or picking fruit |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 210e | Sor 1713 | (?) | 3A-1 | $3.9+$ | 3.8 | $\mathrm{Co} / \mathrm{br}$ pin(?) frgm; bearded(?) deity grasping snake | - | - |
| $210 f$ | Sor 1714 | (?) | 3A-1 | $3.7+$ | $2.7+$ | $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; seated goddess grasping bird by legs, rosette fillers |  | - |
| 210 g | Sor 1716 | (?) | 3A-1 | 4.4+ | $3.5+$ | Co/br: pin(?) frgm; bearded man with hauberk(?) over his head | - | - |
| 210h | Sor 1717 | (?) | 3A-1 | $3.1+$ | $2.9+$ | Co/br: pin(?) frgm; goddess(?) facing left | - |  |
| - | Sor 1718 | (?) | 3A-1 | (?) | (?) | $\mathrm{Co} / \mathrm{br}$ : three frgms; human beings |  | - |
| - | Sor 1720 | (?) | 3A-1 | (?) | (?) | Co/br: four frgms; human beings | - |  |
| 211a | Sor 1722 | (?) | 3A-1 | $7.1+$ | $5.6+$ | $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; bull-eared and homed genie, with rosette boss on body and eagles' heads growing from shoulders, grasping lion's tail; hoofed animal over lion; stippled border |  |  |
| 211b | Sor 1723 | (?) | 3A-1 | 5.6+ | $3.1+$ | $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; human hand grasping tree(?); bull-eared and homed bearded sphinx; pendent fronds; dbl stippled border | - | - |
| 211c | Sor 1726 | (?) | 3A-1 | 3.3+ | 3.0 | Co/br: pin(?) frgm; similar to Sor 1723 | - | - |
| 21 ld | Sor 1730 | (?) | 3A-1 | $2.7+$ | $2.0+$ | $\mathrm{Co} / \mathrm{br}$. pin(?) frgm; four-winged bearded genie lifts victim | - | - |
|  | 28I. PLAQUE-HEADED PINS |  |  |  |  |  |  |  |
| 200e | Sor 1773a | (?) | 3A-1 | $3.2+$ | $2.3+$ | $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; head of lion, framed dot border | - | - |
| 200f | Sor 1773b | (?) | 3A-1 | $4.6+$ | $2.3+$ | Co/br: pin(?) frgm; claws of two confronted lions; stippled inner, fringe outer border | - | - |
| 211e | Sor 1721 | (?) | 3A-1 | $6.4+$ | 9.4 | $\mathrm{Co} / \mathrm{br}$ : pin(?) frgm; two confronted lions; framed dot border | Muscarella 1981a: 333-34, no. 1 | - |
| 211 f | Sor 1732a | (?) | 3A-1 | $7.8+$ | $7.6+$ | Co/br: feet of two confronted lions; framed dot inner, fringe outer border | - | - |

28J. PLAQUES, BANDS, AND BUCKLE

## 28J.1. PLAIN PLAQUES AND BANDS

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level | Length <br> in cm | Width <br> in cm | Materialldescription |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Reference $\quad$ Period

## 28J. PLAQUES, BANDS, AND BUCKLE (cont.)

28J.1. PLAIN PLAQUES AND BANDS (cont.)

| - | Sor 1416 | $1 / 3$ | 2B | $3.6+$ | (?) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | Sor 1483 | $2 / 23$ | 2C | 5.3 | (?) |
| - | Sor 1593 | $1 / 3$ | 2B | $3.6+$ | (?) |

28J.2. PLAQUES WITH GEOMETRIC DECORATION

| 200 h | Sor 1757 | $(?)$ | $3 \mathrm{~A}-1$ | $5.0+$ | $2.7+$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 200 i | Sor 1761 | $(?)$ | $3 \mathrm{~A}-1$ | $3.9+$ | $3.6+$ |
| 200 j | Sor 1765 | $(?)$ | $3 \mathrm{~A}-1$ | $5.2+$ | $3.7+$ |
|  |  |  |  |  |  |
| - | Sor 1768 a | $(?)$ | $3 \mathrm{~A}-1$ | $(?)$ | $(?)$ |
| 200 k | Sor 1770 | $(?)$ | $3 \mathrm{~A}-1$ | 7.9 | 7.6 |
| 201 a | Sor 1774 | $(?)$ | $3 \mathrm{~A}-1$ | $4.3+$ | $3.9+$ |
|  |  |  |  |  |  |
| - | Sor 1775 | $(?)$ | $3 \mathrm{~A}-1$ | $(?)$ | $(?)$ |
| -212 a | Sor 1779 b | Sor 1667 | $1 / 11$ | $3 \mathrm{~A}-1$ | $(?)$ |
|  |  |  | 9.5 | 3.8 |  |


| Co/br: plaque(?) frgm; two antithetical | - | - |
| :--- | :--- | :--- |
| guilloches | - |  |
| Co/br: frgm; St. Andrew's cross of dots; three | cf. Sor 1069 | - |
| dot fillers; dot borders | (class 28L.2) |  |
| Co/br: frgm with central hole; circle of dots; |  |  |
| dbl stippled border | - | - |
| Co/br: frgms; geometric designs | - | - |
| Co/br: stippled eight-rayed star; stippled | - | - |
| border |  |  |
| Co/br: plaque(?) frgm; stippled concentric | - | - |
| circles in dbl frames |  |  |
| Co/br: frgm; diagonals, stippled border | - | - |
| Co/br: frgms; geometric designs | - | - |
| Co/br: holes at corners; network of brackets; | - |  |
| guilloche borders |  |  |

28J.3. PLAQUES WITH VEGETAL DECORATION

| 201b | Sor 359 | 1 | 2B-2A | 4.6 | 3.9 | $\mathrm{Co} / \mathrm{br}$ : with central hole; two rosettes |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 201c | Sor 1749 | (?) | 3A-1 | $5.2+$ | 4.3+ | Co/br: plaque(?) frgm; rosette crosshatched border | - | - |
| 201d | Sor 1764 | (?) | 3A-1 | 2.7 | 2.5 | $\mathrm{Co} / \mathrm{br}$ cross-shaped flower with four sepals | cf. Sor 1754 <br> (class 28L.3) | - |

28J.4. PLAQUES WITH ZOOMORPHIC DECORATION

| 212 b | Sor 2 | E of village 1 |  | $4.2+$ | $4.0+$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 212 c | Sor 649 | 1 | 3 A | 4.7 | 3.3 |
|  |  |  |  |  |  |
| -212 d | Sor 751 c | 3 | 1 | $2.4+$ | $1.5+$ |
| 212 Sor | Sor 1269 | 9 | 1 | 5.2 | 2.5 |
| 212 f | Sor 1729 | $(?)$ | $3 \mathrm{~A}-1$ | 4.2 | 2.9 |

28J.5. PLAQUES WITH ANTHROPOMORPHIC DECORATION

| 201 e | Sor 839 | 4 | $2 \mathrm{~B}-1$ | $9.7+$ | 8.0 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 201 f | Sor 1715 | $(?)$ | $3 \mathrm{~A}-1$ | 4.9 | $4.5+$ |
| 212 g | Sor 1715 plus <br> 1733 g | $(?)$ | 2 A | 7.1 | 2.6 |
| 212 h | Sor 751a | 3 | 1 | 5.4 | $4.0+$ |
| 212 i | Sor 751b | 3 | 1 | $4.7+$ | $3.0+$ |
| 213 a | Sor 1088 a | 3 | $3 \mathrm{~A}-2 \mathrm{~A}$ | $9.7+$ | 7.0 |
| 213 b | Sor 1727 | (?) | $3 \mathrm{~A}-1$ | $2.4+$ | $4.1+$ |
| 213 c | Sor 1734 | $(?)$ | $3 \mathrm{~A}-1$ | $2.2+$ | $2.6+$ |

28J.6. BUCKLE

| 201g | Sor 556 | $1,2,3$ | 1 | $6.0+$ | $2.7+$ |
| :--- | :--- | :--- | :--- | :--- | :--- |


| Co/br: plaque(?) frgm; ibex climbing against tree; ridge border | - |  |
| :---: | :---: | :---: |
| $\mathrm{Co} / \mathrm{br}$ : recumbent ibex, half rosette above its back; ridge border | - |  |
| $\mathrm{Co} / \mathrm{br}$ : frgm; ibex flanking tree(?); stp bor. | - |  |
| $\mathrm{Co} / \mathrm{br}$ : frgm; ibex, cross-shaped flower with | - |  |
| four sepals above its back; groove border |  |  |
| Co/br: recumbent ibex; stippled border | Muscarella 1981a: 102.12 334, no. 2 |  |
| $\mathrm{Co} / \mathrm{br}$ : frgm; lion pursuing another lion(?); ridge border | - |  |
| $\mathrm{Co} / \mathrm{br}$ : frgm; rampant lions flanking skirt of genie(?); snake crawling up between them | - | - |
| $\mathrm{Co} / \mathrm{br}$ : frgm; genie in gown touching bellies of upended hoofed animals | - | - |
| $\mathrm{Co} / \mathrm{br}$ : bull-eared and horned genie raising mace in right hand, snake(?) in left hand; four halfrosettes against skirt and groove border | - | - |
| $\mathrm{Co} / \mathrm{br}$ : frgm; seated deity(?) with ducklike face raising hand toward lion's head(?) | cf. Seal 58 for face <br> (ch. 32A.2.1., pl. <br> 234) | - |
| Co/br: plaque(?) frgm; seated deity(?) raising hand, surrounded by birds, bull, and rosettes | cf. Sor 1714 <br> (class 28H.5.2) | - |
| $\mathrm{Co} / \mathrm{br}$ : frgm; sphinxes climbing onto descending branches of tree; ridge borders | cf. Sor 286 for tree (class 28H.4.2.) | - |
| $\mathrm{Co} / \mathrm{br}$ : frgm; bull facing left toward hair of person(?); dots above bull's back, ridge border | - | - |
| $\mathrm{Co} / \mathrm{br}$ : frgm; head of homed genie holding pomegranate; ridge border | cf. Sor 1723 for hom (class 28 H .5 .2 ) |  |

$\mathrm{Co} / \mathrm{br}$ : frgm; skirts and legs of two persons (or birds?); seven-spoked wheel; stippled border; bent shank in shape of snake head
de Waele 1982:
202-03, fig. 176;
Moorey 1971a,
no. 458

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level | Length <br> in cm | Width <br> in cm | Materialldescription | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 28J. PLAQUES, BANDS, AND BUCKLE (cont.)

28J.6. BUCKLE (cont.)
201 g Sor 556 (cont.)
anden Berghe
1968c, fig. 10:2
(for shape of complete
buckle)
28K. BOSSES, WHORLS, AND BRACTEATES
28K.1. WITHOUT DECORATION

| 201h | Sor 64 | 7 N | 1 | 0.8 | 2.9 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| cf. 201h | Sor 75 | 4 | 1 | 0.8 | 3.4 |
| cf. 201h | Sor 513 | 4 | 2B | 0.8 | 5.5 |
| 201 i | Sor 623 | 1,2 | 2 C | 0.5 | 3.1 |
| 201 j | Sor 667 | 1 | 3A | 0.8 | 5.6 |
| 201k | Sor 1038 | 3 | $2 \mathrm{~A}($ ? $)$ | 0.1 | 2.8 |
| cf. 201 k | Sor 1651 | 1/2 | 3A | 0.2 | 2.6 |
| 2011 | Sor 1050 | 3 | 2B | 0.1 | 4.5 |
| 201 m | Sor 1097:1 | 3 | 3A-2A | 0.8 | 3.7 |
| cf. 201 m | Sor 830 | 4 | 2B-1 | 0.7 | 6.3 |
| 201n | Sor 1097:2 | 3 | 3A-2A | 0.7 | 3.2 |
| cf. 201n | Sor 787 | 1 N | 2 B | 1.2 | 6.2 |
| - | Sor 1190 | 3 | 3A | (?) | 3.1 |
| - | Sor 1233b | 3 | 3A-2A | (?) | 3.4 |


| Co/br: whorl; convex disc with central hole | - |  |
| :---: | :---: | :---: |
| $\mathrm{Co} / \mathrm{br}$ cf. Sor 64 | - |  |
| Co/br: cf. Sor 64 |  |  |
| $\mathrm{Co} / \mathrm{br}$ : bracteate; boss with two pairs of holes through flat brim | - |  |
| $\mathrm{Co} / \mathrm{br}$ : whorl; boss with central hole, flat brim | - |  |
| Co/br: flat disc with central hole | - |  |
| $\mathrm{Co} / \mathrm{br}$ whorl; flat disc with central hole | - |  |
| Co/br: whorl(?); flat oval with central hole |  |  |
| Co/br: whorl; convex disc with central hole |  |  |
| $\mathrm{Co} / \mathrm{br}$ whorl; convex disc with central hole | - |  |
| Co/br boss; convex disc | - |  |
| Co/br. boss; convex disc |  |  |
| $\mathrm{Co} / \mathrm{br}$ whorl(?); convex disc | - |  |
| Co/br: bracteate; boss with three holes through | - |  |

28K.2. GEOMETRIC DECORATION
$2010 \quad$ Sor $1210 \quad 3 \quad 3 A \quad 0.1 \quad 4.4$

| Co/br: bracteate; central disc with two slits | cf. Sor 752, | - |
| :--- | :--- | :--- |
| leaving ring; stippled border | 1226, and 1756 |  |


| 201p | Sor 1226 | 3 | 3A-2A | 0.1 | 4.6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 202a | Sor 1520:2 | $(?)$ | 3A-2B | 0.2 | 2.4 |
| 202b | Sor 1778 | $(?)$ | $3 A-1$ | 0.4 | 1.7 |
| 213d | Kha 62 | x 7 | -0.65 | 2.4 | 14.6 |
|  |  |  |  |  |  |
| cf. 213d <br> cf. 213d | Kha 60 | Kha 61 | x 7 | -0.65 | 2.5 |

28K.3. VEGETAL DECORATION

| 202 c | Sor 752 | 1 N | 1 | 0.1 | 3.8 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 202 d | Sor 1073 | 3 | 3A-2A | 0.2 | 7.6 |
| 202 e | Sor 1166 | 3 | 2 B | 0.7 | 6.7 |
| 202 f | Sor 1755 | $(?)$ | $3 \mathrm{~A}-1$ | 0.7 | 2.6 |
| 202 g | Sor 1756 | $(?)$ | $3 \mathrm{~A}-1$ | 0.1 | 2.7 |

28K.4. ZOOMORPHIC DECORATION
213e Sor $1602 \quad 1 / 3 \quad 2 B \quad 0.1 \quad 5.7$

## 28K.5. SHEET BOSSES

| 202h | Sor 550 | 4 | 2B-2A | 2,0 | 3.0 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 202i | Sha 7 | A | mdsl | 6.5 | 3.7 |
| cf. 202i | Sha 31 | B, x 2 | -0.85 | $4,1+$ | $5.8+$ |
| 202j | Kha 22 | x 1 | -0.95 | 0.8 | 9.0 |

$\left.\begin{array}{lll}\begin{array}{l}\text { Co/br: bracteate; central disc with two per- } \\ \text { forated tabs and four slits leaving two half- }\end{array} & \begin{array}{l}\text { cf. Sor 752, } \\ \text { and } 1756\end{array} \\ \text {-rings; stippled circle with eight-rayed star in }\end{array}\right]-$

| Co/br: bracteate; central disc with four slits leaving ring; stippled circle with quatrefoil in center | cf. Sor 1210, 1226, and 1756 |
| :---: | :---: |
| $\mathrm{Co} / \mathrm{br}$ : bracteate frgm; many-petaled rosette, two holes in flat brim | - |
| Co/br: whorl; convex disc with central hole, many-petaled rosette | - |
| $\mathrm{Co} / \mathrm{br}$ : whorl frgm; boss with central hole, six-petaled rosette, flat brim | - |
| $\mathrm{Co} / \mathrm{br}$ : bracteate frgm; central disc with four slits leaving ring; quatrefoil with cross in center | $\text { cf. Sor } 752,1210$ $\text { and } 1226$ |

Co/br: whorl; disc with central hole; two con- _ fronted bulls with forelocks, pointed horns and pigtails

Iron: miniature cone, two-stepped base
Iron: shield boss(?) cone, three-stepped base
—
Iron: shield boss(?) frgm; corrugated cone(?), stepped base
Iron: shield boss(?); low central cone

Catalog 28. Iron Age Hammered Metal Objects (cont.)

| Plate | Site and <br> obj. no. | Area or <br> burial | Elev. or <br> level ingth cm |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | | Width |
| :--- |
| in cm |$\quad$ Materialldescription $\quad$ Reference $\quad$ Period

## 28L. PENDANTS

28L.1. WITHOUT DECORATION

| 202k | Sor 421 | 4 | 2B | $6.3+$ | $6.3+$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 203 a | Sor 527 | 1 | 3A-2A | 2.1 | 1.4 |
| 203 b | Sor 1044 | 3 | 2B | 1.8 | 1.8 |
|  |  |  |  |  |  |
| 203 c | Sor 1449 | $3 / 13$ | 2B | 1.6 | 1.1 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| 203 d | Sor 1616 | $1 / 3$ | $3 A$ | 3.2 | $(?)$ |
| 203 e | Sor 1657 | $1 / 2$ | $3 A$ | 2.8 | 0.98 |
| - | Sor 1576 | $1 / 7 / 9$ | 2B | 1.0 | $(?)$ |
| - | Sor 469 | 1 | 1 | $4.6+$ | 3.0 |

28L.2. GEOMETRIC DECORATION

| 203 f | Sor 989 | 1-3 | 2B | 4.8 | 4.8 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 203g | Sor 1069 | 3 | 3A-2A | 5.0 | 4.7 |
| 一 | Sor 1460 | 2/3 | 3A | 2.3 | (?) |
| 203h | Sor 1767 | (?) | 3A-1 | 8.9+ | $4.8+$ |
| 203i | Sor 1776 | (?) | 3A-1 | 8.9+ | $4.8+$ |
| 203j | Sor 1777 | (?) | 3A-1 | 4.4+ | $4.6+$ |
| 28L.3. VEGETAL DECORATION |  |  |  |  |  |
| 203k | Sor 967 | 1-3 | 2B | 9.3 | 5.1 |
| 2031 | Sor 1744 | (?) | 3A-1 | 5.3 | 4.3+ |
| 203m | Sor 1750 | (?) | 3A-1 | 5.0 | 3.1+ |


| Co/br: disc with loop | - | - |
| :---: | :---: | :---: |
| Co/br: oval with three holes | - |  |
| Co/br: square with loop on back; engina shell set into it | - | - |
| $\mathrm{Co} / \mathrm{br}$ : crescent with hole | Vanden Berghe 1982, fig. 52 Schmidt 1937, pl. 69:H 2809 | Iron III Hissar III |
| Co/br: disc with loop | - | - |
| Co/br: crescent with hole | - |  |
| Co/br: frgm with hole in round end | - | - |
| Lead: rect. frgm(?) with off-center hole | - | - |
| $\mathrm{Co} / \mathrm{br}$. round with hole; central boss | - | - |
| Co/br: square with hole; stippled St. Andrew's | cf. Sor 1761 | - |
| cross; dot fillers; stippled border | (class 28J.2) |  |
| $\mathrm{Co} / \mathrm{br}$ : oval with two holes; beaded border | - | - |
| $\mathrm{Co} / \mathrm{br}$ : disc(?); six-rayed star with dots at points; single stippled border | - | - |
| Co/br: disc(?); six-rayed star with dots at points; single stippled border | cf. Sor 1761 <br> (class 28J.2) | - |
| $\mathrm{Co} / \mathrm{br}$ : disc with off-center hole; dot circle; dot border | - | - |
| Co/br: disc-on-column with loop; stylized | - | - |
| lotus flowers on column, volutes on disc |  |  |
| Co/br: disc with loop; leaf chain bet. ridges around boss; stippled border | - | - |
| $\mathrm{Co} / \mathrm{br}$ : disc with loop; many-petaled rosette; ridge border | - | - |


| 203n | Sor 1754 | (?) | 3A-1 | $2.3+$ | 2.3 | Co/br: trapezoid frgm(?); cross-shaped flowers <br> with four sepals | cf. Sor 1764 <br> (class 28J.3) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 28L.4. ANTHROPOMORPHIC DECORATION |  |  |  |  |  |  |  |

## CHAPTER 29

## IRON AGE STONE OBJECTS

by Hans H. Curvers

## INTRODUCTION

Stone objects were found at Kamtarlan I, Chigha Sabz, and Surkh Dum-i-Luri. The objects are not divided chronologically; they are presented as a whole. It should be borne in mind, however, that the objects from Kamtarlan I come from Iron III contexts. At Chigha Sabz one stone object (CS 175) was found in a burial ( $\mathrm{L} 7, \mathrm{x1}$ ) dated to Iron I; the other objects come from Iron III contexts. Some of the Surkh Dum-i-Luri objects from level 1 are probably of a slightly later date (early Iron III) than the objects from the lower levels (Iron I-II). The stones could easily be picked up from the beds of nearby rivers in the Rumishgan and Kuh-i Dasht valleys.

The following major classes of stone objects are listed in the catalog:

| 29A | WEAPONS |
| :--- | :--- |
| 29B | TOOLS |
| 29C | ORNAMENTS |
| 29D | PLAQUE TYPE PIN HEADS |
| 29E | ANIMAL FIGURINES |

29A. WEAPONS

## 29A.1. MACEHEADS

The only weapons of stone found at Surkh Dum-i-Luri are maceheads. Sor 1258 is a fragment. Sor 1493 is complete, made of yellow gray stone and is barrel-shaped. Both ends have grooves surrounding the perforation which probably held a shaft of wood (pl. 176d).

## 29B. TOOLS

A great variety of stone tools was found scattered throughout the building at Surkh Dum-i-Luri. At Chigha Sabz and Kamtarlan I most stone tools were found in the levels dated to the Iron III period.

## 29B.1. GRINDING OR POUNDING TOOLS

At Chigha Sabz an Iron I burial (L7, x1) contained a spherical pounder (CS 175:4, pl. 215a). On the basis of the pottery found in this burial we assigned this object to Iron I. The classification of CS 628 (pl. 214d) has not been without trouble and hesitation about designation and chronology. At first sight, we thought of a potter's device (cf. Yon 1981:237). The part with the tenon would have been the tumtable that was turned around by hand on the part with the socket. The upper surface of the turntable, however, is uneven. The latter feature indicates that the function of this device as a slow wheel is unlikely. The absence of an attachment for the axis which connects the fly wheels with the actual turntable makes the use of the two parts as foot-operated fly-wheels very unlikely. We, therefore, consider this device as
a grinding tool, although we do not exclude the use of CS 628 as a slow wheel in the manufacturing process of pottery.

Chronologically, we have classified this object in the Iron Age. As described in chapter 6 the stratigraphical situation is complicated in J7 and I7. We have decided to assign CS 628 to the Iron Age on the basis of the presence of many clear Iron Age objects in the square, although we do not exclude a Middle Bronze Age date.

The use of a slow wheel could fit into the sketch of the technological development of Bronze Age ceramics in chapter 20. The introduction of a potter's wheel has profound consequences for the evolution of full-time ceramic specialization. This development and change of forming techniques which speeds vessel fabrication and thus increased production may have caused the decrease of complex decorative patterns on smaller vessels in the Middle Bronze Age. The existence of a slow wheel in the Iron Age is difficult to explain on the basis of the scarce ceramic vessels from Chigha Sabz. On the basis of Iron III ceramics retrieved from burials we may conclude that this device, if considered as a slow wheel, fits into this period as well (cf. Vanden Berghe and Haerinck 1984:205).

## 29B.2. WEIGHTS

Weights were found in various shapes. At Surkh Dum-i-Luri a hoard of hematite and other stone weights was found (Sor 140:2-20 and Sor 140x). We have divided them into two classes of unshaped weights (stones without a special flat side) and polished stone weights (stones with a polished flat side). The flat side was made to keep the weights from rolling.

## 29B.2.1. Unshaped

Five stones without a special flat side were excavated at Surkh Dum-i-Luri (pl. 215b-d) as well as a stone disc which also may be a weight (Sor 338 , pl. 215 m ).

## 29B.2.2. Polished

Polished stone weights ( $\mathrm{pl} .215 \mathrm{~g}-\mathrm{k}$ ) also show a great diversity in shape; they have one polished side, while the other sides are irregular and rough.

## 29B.3. WHETSTONES

Whetstones were found at Kamtarlan I and Surkh Dum-i-Luri (pls. 215e-g, 216f, and $217 \mathrm{a}, \mathrm{b}$ ). At Kamtarlan I, in an Iron III context, a slender triangle with smooth faces without perforation was used as a whetstone (pl. 216 g ). At Surkh Dum-i-Luri nine stone objects were identified as whetstones. Four whetstones are made of slate. Sor 417 is almost square in section with beveled angles (pl. 217a); one end is conoid and offset to hold a handle of different material (bronze?). Sor 427 is an oblong cylindrical stone with tapered ends (pl. 217b). Sor 410 is rectangular in section; the handle is slightly offset and ends in a ram's head (pl. 216f). The latter is a common type of whetstone; similar types have been found at Choga Zanbil (Ghirshman 1968, pl. 82:GTZ 781) and Sialk (Ghirshman 1939:61, fig. 7:S 896). We may assume an Iron II date from these comparisons. The bronze whetstone handles, too, are dated to Iron I-II (cf. 27B.1, Sor 439, pl. 157f).

## 29B.4. PESTLES

Only one pestle with rounded ends and cylindrical body was found (Sor 169, pl. 2151). Several pestles found at Surkh Dum-i-Luri and Chigha Sabz are provided with various types of handles (e.g., CS 441 and Sor 784, pls. 215 n and 216d). At Surkh Dum-i-Luri a pear-shaped pestle was found (Sor 166, pl. 216a). CS 474 is a pear-shaped pestle provided with a groove around the top (pl. 215o).

## 29B.5. HANDLES

## 29B.5.1. Fragments

At Surkh Dum-i-Luri one fragment of a handle with the beginning of a perforation (Sor 523, pl. 216c) was found. At Chigha Sabz one handle fragment was found in an Iron III context: CS 459 probably served as a handle to another part of the object made of different material; the fragment was broken at the perforation ( pl .216 b ).

## 29B.5.2. Inlays

Two handle inlays were found at Chigha Sabz in an Iron III context (cf. CS 453, pl. 220h).

## 29B.6. STOPPER

A stopper with a knob and an irregular base was found at Surkh Dum-i-Luri (Sor 1020, pl. 216e).

## 29B.7. DISCS PIERCED IN CENTER

Four discs, one concave-convex (Sor 99, pl. 217c) and three plano-convex (Sor 260, pl. 217e, Sor 637, and Sor 952, pl. 217d) were found at Surkh Dum-i-Luri. Sor 260 is a plano-convex disc with a fluted decorative pattern on the convex surface, a triangle fills each petal and a groove runs along the outer edge.

## 29B.8. WHORLS

Whorls are of the plano-convex type or conically shaped. Five examples occurred at Surkh Dum-i-Luri (pl. 217f-h).

## 29B.9. LOOMWEIGHT

Only one loomweight (Sor 315) was found at Surkh Dum-i-Luri (pl. 217i).

## 29B.10. FLINT IMPLEMENTS

A flint scraper (Sor 221, pl. 217j) was found in the topsoil. Several Iron II tombs at Khatun Ban contained pairs of crescent-shaped flints that had chips removed from the straight side. Undoubtedly they had served as strike-a-lights (Kha 23, 28, and 29, pl. 217k-m).

## 29B.11. STAMP

An object tentatively classified as a stamp shows natural markings or the faint remains of a decorative pattern (Sor 317, pl. 217n).

## 29C.1. BUTTON

Stone buttons were rare at Surkh Dum-i-Luri. Sor 82, a plano-convex button with looped perforation through the convex side, shows a decorative pattern of centered circles alternating with wedge-shaped incisions on its flat surface (pls. 217o and 221e).

## 29C.2. PENDANTS

Pendants show a great diversity in shape, and they are made of various stones. Sor 261 (pl. 219b) is drop-shaped; Sor 402 (pl. 219d) is rectangular in section with a groove for suspension around the top; Sor 620 (pl. 219e) is bottle-shaped; Sor 999 (pl. 219f) is cylindershaped with a groove around the top for suspension; Sor 1153 (pl. 219g) is a conical stud; Sor 1249 (pl. 219h) is crescent-shaped; and Sor 1361 (pl. 220a) is a truncated cone. Sor 390 (pl. 220 b ) is a pendant with a decorative pattern and shape very similar to the plaque pin heads (see below). Excavated parallels in Iran are known only for Sor 1153; at Sialk they occur in several graves (Ghirshman 1939, pl. 63:S 854b, pl. 69:S 955d, pl. 70:S 901d, and pl. 71:S 894).

## 29C.3. UNFINISHED CYLINDER SEALS

Some cylindrical fragments are classified as unfinished cylinder seals (pl. 220c-e).

## 29D. PLAQUE TYPE PIN HEADS

Stone pin-heads were found in two slightly different varieties, with and without a perforation near the edge of the decorated plaque (pls. 218a-f, 219a, c, and 221a-d). Both types are decorated with a larger double circle surmounted by at least one row of centered circles along the outer edge. Sor 744 (pls. 218a and 221d) has extra centered circles in each corner and inside the concentric circles; this pattern is not consistently followed in the decoration of Sor 1434 (pl. 218b). Six large plaque heads are provided with a perforation near the edge. In the perforation of Sor 1271 (pls. 219c and 221b) remains of an iron wire are visible; this may be an indication that a ring through the perforation held a string for using the plaque-headed pin as a garment fastening device.

The decorative patterns of the plaque-headed pins are built up out of larger concentric circles which may be strewn over the field but are always found along the outer edge. Parallels in stone are unknown from excavated contexts in Iran; at Choga Zanbil, however, a faience plaque decorated with centered circles with a hole for a shank(?) was found in the Pinikir temple. Some pendants made of faience and stone, found at Choga Zanbil, show similar centered circles used for decoration (Ghirshman 1966, pl. 78:GTZ 454 and pl. 79:GTZ 551). At Dinkha Tepe a pyramidal button (material unknown) was decorated with three centered circles at the base of each triangular face (Muscarella 1974a, fig. 52:815j). Based on these comparisons we may assume an Iron II date for the stone plaque-headed pins found at Surkh Dum-iLuri.

## 29E. ANIMAL FIGURINES

At Surkh Dum-i-Luri two animal figurines were found. Sor 1692:2 is a white stone fragment of the hindlegs of an animal. Sor 835 (pls. 220 g and 221f) is an animal made of green-gray serpentine. The legs are combined, the tail is rather small, and the animal has a humped back. This animal is vaguely reminiscent of the Hissar III stone figurines (Schmidt 1937, pl. 33).

## CONCLUSIONS

As can be seen from the comparisons in the catalog few stone objects at Surkh Dum-iLuri, Kamtarlan I or Chigha Sabz have clear parallels in published excavated contexts in Iran. The whetstone with a handle and shaped as a ram's head (Sor 410), the decorative pattern of concentric and centered circles on the plaque-headed pins, button and pendant, and the conical stud pendant (Sor 1153), however, do indicate a stone-work tradition shared with other Iranian sites in the Iron Age, especially Iron II.

CATALOG 29. IRON AGE STONE OBJECTS

| Plate | Site and <br> obj no. | Area andl <br> or burial | Level or <br> elevation | Dimensions <br> in cm | Material | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Reference $\quad$ Period $\quad$.

29A. WEAPONS
29A.1. MACEHEADS

|  |  | Sor 1258 | $7(?)$ | 2B-A |
| :--- | :--- | :--- | :--- | :--- |
| $\overline{176 d}$ | Sor 1493 | $2 / 12$ | 2 C | $7.2+\times 3.5$ |
|  |  | $2 \times 6.5$ |  |  |


| hem | Fragment |
| :--- | :--- |
| y gy st | Barrel shape, |

— - -

29B. TOOLS
29B.1. GRINDING OR POUNDING TOOLS

| 214d | CS 628a, b | J7 | -2.05 | $13.4 \times 7.8$ | gy blk st |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| 215a | CS 175:4 | L7, x1 | -8.10 | 7.0 | gy brn st |
| - | Sor 140:1 | 4 | 2B | $7.4 \times 4.3 \times 4.2$ | granite(?) |

29B.2. WEIGHTS
29B.2.1. Unshaped

| 215 b | Sor $140: 15$ | 4 | 2B | $3.2 \times 1.6 \times 0.9$ | r brn st | - | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 215 c | Sor $140: 18$ | 4 | 2B | $2.1 \times 2.1 \times 1.6$ | pur rhem | - |  |
| - | Sor $140: 19$ | 4 | 2B | $2.5 \times 2.2$ | blk hem | Irregular surface | - |
| 215 d | Sor 296 | 4 | 2B-A | $4.0 \times 1.4$ | blk hem | Rounded oblong | - |
| 215 m | Sor 338 | $1-2$ | 2 C | $7.5 \times 2.1$ | gy grn | Disc | - |
| - | Sor 1041 | 3 | $2 B$ | $3.7 \times 1.6$ | blk hem | Rounded oblong, rough surface | - |

## 29B.2.2. Polished

$215 \mathrm{~g} \quad$ Sor $72 \quad 4 \quad 2 \mathrm{~A} \quad 6$

Catalog 29. Iron Age Stone Objects (cont.)

| Plate | Site and <br> obj no. | Area andl <br> or burial | Level or <br> elevation | Dimensions <br> in cm | Material | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Reference $\quad$ Period $\quad$.

29B. TOOLS (cont.)
29B.2. WEIGHTS (cont.)
29B.2.2. Polished (cont.)

| cf. 215 g | KI 99 | L | -1.25 | 5.5 | gy copper | One side polished, irregular surface |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sor 140:x | 4 | 2B | $3.0 \times 2.7 \times 2.2$ | st | Rounded cube | - |  |
| 215h | Sor 140:2 | 4 | 2B | $4.4 \times 2.4$ | gy st | Truncated cone with convex base | - | - |
| $215 i$ | Sor 140:3 | 4 | 2B | $4.0 \times 1.7$ | gy brn st | Plano-convex | - | - |
| cf. 215 i | Sor 140:5 | 4 | 2B | $4.4 \times 2.9 \times 2.8$ | st | Plano-convex | - | - |
| cf. 215 i | Sor 140:6 | 4 | 2B | $2.4 \times 1.0$ | pur brn hem | Plano-convex, traces of drilling on convex surface | - | - |
| cf. $215 i$ | Sor 140:7 | 4 | 2B | $2.6 \times 2.0$ | pur brn hem | Plano-convex | - | - |
| - | Sor 140:8 | 4 | 2B | $4.6 \times 3.7$ | dk brn hem | Irregular plano-convex | - | - |
| cf. 215 i | Sor 140:10 | 4 | 2B | $2.9 \times 1.6$ | pur brn hem | Plano-convex | - | - |
| - | Sor 140:11 | 4 | 2B | $3.1 \times 2.6 \times 2.0$ | pur brn hem | Conical | - | - |
| cf. 215 i | Sor 140:12 | 4 | 2B | $3.7 \times 2.0$ | brn st | Plano-convex | - | - |
| cf. 215 i | Sor 140:13 | 4 | 2B | $5.1 \times 3.5$ | pur gy brn st | Plano-convex | - | - |
| cf. 215 i | Sor 140:14 | 4 | 2B | $3.5 \times 2.1 \times 1.9$ | blk hem | Plano-convex, convex rough surface | - | - |
| cf. 215 i | Sor 140:16 | 4 | 2B | $2.1 \times 2.1 \times 1.7$ | y brn st | Plano-convex | - | - |
| cf. 215 i | Sor 140:17 | 4 | 2B | $3.0 \times 1.9$ | gy brn st | Plano-convex | - | - |
| cf. 215 i | Sor 140:20 | 4 | 2B | $1.8 \times 1.4$ | brn r st | Plano-convex | - | - |
| cf. 215 i | Sor 518 | 4 | 2A-1 | $2.7 \times 1.7$ | brn and y st | Plano-convex | - | - |
| 215 j | Sor 140:4 | 4 | 2B | $5.9 \times 3.1 \times 3.0$ | gy diorite | Conical | - | - |
| 215 k | Sor 140:9 | 4 | 2B | $2.9 \times 2.5$ | dk brn hem | Conical | - | - |

29.B.3. WHETSTONES

|  | Sor 178 | $4,6,7 \mathrm{~N}$ | $2 \mathrm{~B}-1$ | $8.7 \times 2.0 \times 1.6$ | gy st |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | Sor 561 | $1,3,4$ | $3 \mathrm{~A}-1$ | $4.9+\times 1.8 \times 1.2$ | gy and tn sl |
| 215 e | Sor 712 | 25 | 1 | $4.7 \times 1.5$ | gy grn st |
| 215 f | Sor 958 | $4(?)$ | 1 | $5.5 \times 1.6$ | gy st |
| 216 f | Sor 410 | 4 | 2 A | $34.5 \times 6.1 \times 4.8$ | gy st |


| Fragment, trapezoid in section | - | - |
| :--- | :--- | :--- |
| Fragment, rrapezoid in section | - | - |
| Tapered cylinder, circular in section | - | - |
| Tapered cylinder, cut ends |  |  |
| Handee ends into ram's head, horns | Ghirshman | - |
| form circle around eyes, back of head | 1968, pl. 82: |  |
| ends in knob | GTZ 781 |  |


|  |  |  |  |  |  |  | Ghirshman 1939, fig. 7: S 896 | Sialk B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 216g | KI 100 | 1 | -1.35 | $9.7 \times 3.8 \times 1.6$ | gy st | Slender triangle, smooth faces | - | - |
| 217a | Sor 417 | 4 | 2B | $12.7 \times 1.7 \times 1.5$ | gy slate | Handle offset and conoid, almost square in section, flattened angles form octagonal | - | - |
| 217b | Sor 427 | 4 | 2B | $11.6 \times 0.9$ | gy grn sl | Tapered ends, circular in section | - | - |
| - | Sor 1265 | 9 | 1 | $3.5+\times 1.8 \times 1.4$ | gy st | Oval in section | - | - |
| - | Sor 1680 | 1/9/11 | 3A | $5.4 \times 1.7$ | gy and grn sl | Fragment, tapered end | - | - |
| 29B.4. PESTLES |  |  |  |  |  |  |  |  |
| 2151 | Sor 169 | 4 | 2A | $7.2 \times 3.8$ | gy st | Cylindrical body, rounded ends | - | - |
| $215 n$ | CS 441 | H7 | -1.30 | $9.1+\times 7.5 \times 3.1$ | gy st | Fragment, handle(?) | - | - |
| 2150 | CS 474 | H6 | -1.69 | $10.0 \times 5.5 \times 4.5$ | wt st | Circular base, tapered handle with groove | - | - |
| 216a | Sor 166 | 7 N | 2B | $11.2 \times 7.1 \times 4.2$ | gy gm st | Pear-shaped | - | - |
| 216d | Sor 784 | 1 | 3A | $22.5 \times 7.8$ | gy grn st | Cylindrical handle, head square in section, rounded top | - | - |
| 29B.5. HANDLES |  |  |  |  |  |  |  |  |
| 29B.5.1. Fragments |  |  |  |  |  |  |  |  |
| 216b | CS 459 | H6 | -1.80 | $4.4+\times 2.5 \times 1.2$ | wt and brn lmst | Broken at perforation | - | - |
| 216c | Sor 523 | GK 4 | 1 | $7.7+\times 6.0$ | gy brn st | Start of perf. at opposite points | - | - |
| 29B.5.2. Inlays |  |  |  |  |  |  |  |  |
| 220 h | CS 453 | H6 | -1.30 | $5.6 \times 4.1 \times 1.3$ | wt marble | Inlay: crescent with perforated central part, one end and central part broken | - | - |
| cf. 220h | CS 437 | H7 | -1.15 | $7.3 \times 5.1+\times 1.5$ | alabaster | Elliptical fragment, concave-convex, central perforation | - | - |
| 29B.6. STOPPER |  |  |  |  |  |  |  |  |
| $216 e$ | Sor 1020 | 1 | 3A-1 | $4.7 \times 6.1$ | gy and brn st | - | - | - |

Catalog 29. Iron Age Stone Objects (cont.)

| Plate | Site and obj no. | Area and/ or burial | Level or elevation | Dimensions in cm | Material | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

29B. TOOLS (cont.)
29B.7. DISCS PIERCED IN CENTER

| 217c | Sor 99 | 1,2 | 1 | $4.1 \times 0.8$ | wt lmst | Irr. concave-convex, pierced in center | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 217d | Sor 952 | 4 | 2B-A | $3.4 \times 0.6$ | crst | Plano-convex, pierced in center | - |  |
| cf. 217d | Sor 637 | 1-2 | 2 C | $3.6 \times 0.8$ | wt st | Plano-convex, pierced in center | - | - |
| 217e | Sor 260 | 16 | 1 | $3.6 \times 0.9$ | gy gm stea | Plano-convex, pierced in center, convex surface fluted, tri. fills each petal, groove along outer edge | - | - |
| 29B.8. WHORLS |  |  |  |  |  |  |  |  |
| 217 f | Sor 532 | 1,4 | 3A-1 | $3.4 \times 1.3 \times 0.4$ | wt and gy st | Plano-convex | $\begin{aligned} & \text { Ghirshman } \\ & \text { 1969, pl. } 85 \text { : } \\ & \text { GTZ } 746 \end{aligned}$ | - |
| cf. 217f | Sor 1686 | 9, 10 | 3A-1 | 3.2 | crst | Plano-convex | - | - |
| 217 g | Sor 493 | 2 | 2B-A | $2.1 \times 1.7 \times 0.4$ | lt lapis bl | Truncated cone | - | - |
| 217 h | Sor 1435 | 1/3 | 2 B | $3.0 \times 3.0 \times 1.4$ | wt st | Truncated cone, tapered perforation | - | - |
| cf: 217 h | Sor 471 | 1 | 2 B | $2.7 \times 2.7 \times 1.0$ | wt st | Truncated cone, straight perforation | - | - |
| 29B.9. LOOMWEIGHT |  |  |  |  |  |  |  |  |
| 217 i | Sor 315 | 1 | 2B | $7.2 \times 4.0 \times 1.5$ | st | - | - | - |

29B.10. FLINT IMPLEMENTS

| - | Kha 17 | x 1 | -0.95 | $3.2 \times 1.3 \times 0.5$ | pur brn |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 217 j | Sor 221 | 1 | 1 | $2.5 \times 2.1 \times 0.5$ | lt brn |
| 217 k | Kha 23 | x 1 | -0.95 | 3.9 | pur brn |
| 2171 | Kha 28 | x 2 | -1.05 | $3.8 \times 1.2 \times 0.4$ | - |


| Strike-a-light: lunate, straight edge | - | - |
| :--- | :--- | :--- |
| 'retouched' |  |  |
| Scraper: triangle, two sides roughly <br> retouched | - | - |
| Strike-a-light: lunate, straight edge | - | - |
| 'retouched' |  |  |
| Strike-a-light: lunate, straight edge | - | - |
| 'retouched' |  |  |


| 217m | Kha 29 | x2 | -1.05 | 4.5 |
| :--- | :--- | :--- | :--- | :--- |
| — | Kha 36 | x 2 | -1.05 | 4.4 |
| — | Kha 70 | x 8 | -0.70 | $\max .4 .3$ |
|  |  |  |  |  |
| — | KI 106 | M | -1.65 | $1.7 \times 0.9 \times 0.2$ |
| - | Sor 234 | 1 | 2B-2A | $6.7 \times 1.3$ |


| brn | Strike-a-light: Iunate, straight edge 'retouched' | - |  |
| :---: | :---: | :---: | :---: |
| pur r | Strike-a-light: lunate, straight edge 'restored' | - | - |
| pur | Strike-a-lights ( 3 exx.): lunate, straight and part of curved edges 'retouched' | - | - |
| pur brn | Blade | - | - |
| flint | Blade |  |  |

29B.11. STAMP
217n Sor 317

2B-A
$7.8 \times 5.4 \times 2.7$
gy gm st
Frgm(?) with natural markings or - started decorative pattern, other faces smooth

29C. ORNAMENTS
29C.1. BUTTON

| 217 o <br> and 221e | Sor 82 | 7 N | 1 | $3.4 \times 1.2$ |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |

29C.2. PENDANTS

| 219b | Sor 261 | 17 | 1 | $2.1 \times 1.4$ | y tan quartz |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 219d | Sor 402 | 4 | 2 A | $2.6 \times 1.1 \times 0.9$ | r bm st |


| 219 h | Sor 1249 | 7 S |
| :--- | :--- | :--- |
| 220 a | Sor 1361 | $1 / 3$ |

## 2 B

$2.9 \times 3.6+$
$1.8 \times 1.2$
wt spe st
chalk

Plano-convex, pierced loop through convex side, groove along edge, centered circles alternating with wedge-shaped incisions on flat surface


| Plate | Site and <br> obj no. | Area andl <br> or burialLevel or <br> elevation | Dimensions <br> in cm | Material | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 29C. ORNAMENTS (cont.)

## 29C.2. PENDANTS (cont.)

| 220 b | Sor 390 | 11 S | 1 | $6.8 \times 5.2 \times 0.8$ |
| :--- | :--- | :--- | :--- | :--- |

Perforation near edge with remains - of iron; centered concentric circles in center and each comer, groove connects circles in each corner, row of centered circles along edges

29C.3. UNFINISHED CYLINDER SEALS

| - | CS 455 | H6 | -1.20 | $2.6 \times 1.1$ | granite | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 220 c | Sor 154 | 4 | 2 A | $3.7 \times 1.5$ | wt gy lmst | - |
| 220 d | Sor 634 | $1-2$ | 2 C | $4.2 \times 1.5$ | dk gy st | Pierced |
| 220 e | Sor 636 | $1-2$ | 2 C | $3.2 \times 1.4$ | brn r st | Pierced |
| - | Sor 1609 | $1 / 3$ | 2 B | $1.1 \times 3.3$ | alabaster | - |

## 29D. PLAQUE TYPE PIN HEADS

| 218a <br> and 221d | Sor 744 | 1 | 1 | $3.0+\times 2.9 \times 0.7$ | cr calcite | Head only, centered concentric circles <br> filled with three centered circles, row <br> of centered circles along edges, one <br> extra in each corner |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 218 b | Sor 1434 | $1 / 3$ | $2 B$ | $2.3+\times 3.5 \times 0.9$ | cr st | Head only, central centered concentric <br> circles, surrounded by centered circles |
| 218 c | Sor 97 | 1,2 | 1 | $4.0+\times 4.5 \times 0.8$ | cr y and | Head only, central annulet with four <br> annulets in each corner, clusters of <br> three centered circles between annulets, |
| row of centered circles along edges |  |  |  |  |  |  |


| 218d | Sor 416 | 4 | 2B | $4.5 \times 5.0 \times 0.8$ | wt calcite | Head only, central centered concentric circles filled with four centered circles, four hatched cones radiating towards comers, a cluster of three centered circles between the cones, row of centered circles along edges | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 218e | Sor 951 | 4 | 2B-A | $3.7+\times 3.8 \times 0.9$ | $\boldsymbol{t a n} \mathrm{st}$ | Head only, two central centered concentric circles, surrounded by centered circles | - | - |
| $\begin{aligned} & \text { 218f } \\ & \text { and 221a } \end{aligned}$ | Sor 1630 | $1 / 3$ | 2B | $5.3+\times 5.1 \times 1.0$ | wt and tan st | Head only, five centered concentric circles, one in center, surrounded by centered circles | - | - |
| 219a <br> and 221c | Sor 1803 | (?) | 3A-1 | $4.5+\times 4.8 \times 1.1$ | crst | Head only, five centered concentric circles, one in center, maltese cross of centered circles, row of centered circles along edges, other side with six centered concentric circles and four centered circles | - | - |
| $\begin{aligned} & \text { 219c } \\ & \text { and 221b } \end{aligned}$ | Sor 1271 | 3-4 | 2B | $5.2 \times 5.1 \times 0.8$ | cr alabaster | Head only, perforation in center and near edge, central centered concentric circles filled with circles of centered circles, centered concentric circle in each comer, centered concentric circles filled with centered circles, row of centered circles along edges | - | - |
| 29E. ANIMAL FIGURINES |  |  |  |  |  |  |  |  |
| 220 g <br> and 221 f | Sor 835 | 4 | 2B-1 | 2.7 | serpentine | Hunchback, joined legs, small tail | - | - |
| - | Sor 1692:2 | - | surface | - | st | Hindlegs of animal figurine(?) | - | - |

## CHAPTER 30

# IRON AGE BONE AND SHELL OBJECTS 

by Hans H. Curvers

INTRODUCTION
Bone has always been one of the most natural materials for early man to use, since generally it was plentiful, easily splintered, and worked. It could be made into small implements, such as awls and needles; it was also suitable for carving upon.

Molluscs, too, have always been an important resource for manufacturing utilitarian and ornamental objects. Many shell artifacts, however, are lacking diagnostic features necessary for identification. The absence of any diagnostic features of the shell objects discussed in this chapter make it difficult to draw conclusive statements about the presence or absence of certain imported species in the Rumishgan Valley or at Surkh Dum-i-Luri.

The bone objects are not divided chronologically, they are presented as a whole. The Surkh Dum-i-Luri objects may be dated in general to Iron I-II. Some objects from level 1 may be dated to the beginning of Iron III.

The following bone objects (class 30A) are listed in the catalog:

```
30A.1 BUTTONS
30A.2 SHANK FRAGMENTS
30A. }3\mathrm{ PINS
30A.4 PLAQUES
30A.5 HANDLES
30A.6 BOX OR FURNITURE FRAGMENTS
30A.7 PENDANTS
30A.8 MISCELLANEOUS
```

The following shell objects (class 30B) are listed in the catalog:
30B. 1 WHORLS
30B. 2 PENDANTS
30B. 3 MISCELLANEOUS

## 30A. BONE OBJECTS

## 30A.1. BUTTONS

Bone buttons are not particularly numerous among the finds at Surkh Dum-i-Luri; only two were retrieved (Sor 1313, pl. 222a, and Sor 1360). Bronze buttons, however, were retrieved in high numbers in all levels of the sanctuary. A similar plano-convex disc with loop at the back was found in the Sialk B cemetery (Ghirshman 1939, pl. 55:S 796b).

## 30A.2. SHANK FRAGMENTS

Bone shank fragments all show elaborate carvings. Alternating bands of horizontal rings, crosshatching, and zigzags form decorative patterns near the top of the pins. Some pins may have been carved all over the shank; Sor 1340a (pl. 222f) has a band of vertical lines bordered by a band of horizontal lines near the point.

## 30A.3. PINS

## 39A.3.1. Slightly Thickened Or Flanged Heads

Three almost complete pins were found scattered throughout the sanctuary at Surkh Dum-i-Luri. One pin without any carved decoration, two pins with elaborate carving near the top, and two fragments show bands of horizontal rings, zigzags, vertical lines, and crosshatching (pl. 222i-m). The head of Sor 560 g ( pl .222 k ) shows a delicately carved flange on top. The decorative patterns of Sor 1192 (pl. 222m) are encrustated with a black substance (bitumen?).

## 30A.3.2. Cylindrical Heads

This group of pins consists of one slender rounded rectangle and two long cylinders. The rounded rectangle (Sor 180, pl. 222n) seems to have been the head of a pin made completely out of bone. Both cylinders (Sor 425 and 824 , pl. 2220, p) have a perforation in the bottom for a shank; no remains of bronze or iron shanks could be identified. The carved decorative patterns on the cylindrical heads consist of horizontal lines, alternating bands of horizontal lines, zigzags, vertical lines, and oblique crosses alternating with vertical lines.

## 30A.3.3. Spherical Heads

Two spherical fragments with carved centered circles have a shaft hole in the base (Sor 348 and 1173, pl. 222q, r). The remains of an iron shank are still present in the shaft hole of Sor 1173.

30A.3.4. Spatulate Head
One pin with spatulate head was made completely out of bone (Sor 1026, pl. 222s). The edge of the spatulate head has small incised niches and a row of three centered concentric circles carved on either side of the head. On the upper part of the shank seven zigzag lines are preserved.

## 30A.3.5. Spool Head Or Handle(?)

A bone object carved into the shape of a spool also has been provided with a perforation to take a shank (Sor 1092, pl. 222t). The unusual shape, without any carved decoration suggests that the object might have been used as a handle. No traces of a metal shank were found in the shaft hole, so it probably was attached to perishable material.

## 30A.3.6. Plaque Heads

Various fragments of pins with plaques were found in all levels of the sanctuary at Surkh Dum-i-Luri (pls. 222u-w, 223a-l, 226a, and 227c). The most common decorative pattern consists of centered circles and centered concentric circles. Two pins probably were made completely out of bone (Sor 177 and 1548, pls. 222u and 223 g ). Sor 177 has a fragile shank, due to horizontally incised rings on the shank. The neck of Sor 1548 shows crossing lines on the upper part of the shank. Most of the smaller plaque heads are set on a narrower socket, without carved decoration, to hold the shank. Other plaque heads have perforations at the base to take metal shanks.

Sor 514 (pl. 222v) has a crown which seems to be faintly similar to two fragments from Hasanlu with a pronged top set on a grooved base (Muscarella 1980, no. 211). Sor 1008 (pl. 223e) has a crenelated top which is architectural in appearance. Sor 1694 (pl. 223j) has an intricate decorative pattern of five wheels with centered circles on a hub and a circle of centered circles which encircles the central wheel. The edges of this plaque head have a band of centered
circles and zigzags which are bordered by a line of centered circles. A 'hide' plaque pin of bone resembles the examples made of bronze; the bone hide is decorated with centered circles and centered concentric circles (cf. Sor 428, 1564, and 1197; pl. 184b-d). An openwork plaque pin (Sor 1339, pl. 2231) shows a 'master-of-animals' scene-a bull-man grasping two upended horned animals. These pins were found in level 3A, which indicates that a highly developed craftmanship already existed during the earliest excavated phase of the sanctuary.

## 30A.3.7. Animal Heads

## 30A.3.7.1. Recumbent Lions

Twenty-four lion pin heads and fragments were found scattered throughout all levels of the sanctuary at Surkh Dum-i-Luri (pls. 223m-u, 226b-d, f, h, and 227f). Three snarling lions are carved with lines to indicate eyes, mouth, nose, ears, and legs as well as the musculature in relief. Centered circles sometimes cover the body (Sor 424, pl. 223n); the eye of one of the lions (Sor 1501, pl. 223u) is indicated by a centered circle. As already mentioned in chapter 27, the Luristan artisans show a characteristic freedom to vary the motifs according to their own fantasy. Sor 1260 (pls. 223q and 226d) and 543 (pl. 223m) are variations on the motif of the couchant lion; the manes are carved with small incisions, the body is less static, and the head less elaborate. The lion(?) with a rear extension to hold a shank (Sor 543) is of a less elaborate style than the other examples. It is probably a stylized variation of a couchant lion on which additional decorative patterns such as centered circles, lines, and zigzags occur.

Most lions have a hole at the rear to take a shank. Sor 1338 (pls. 223r, 226h, and 227f), however, has a hole in the base. This lion, too, is an example of the Luristan artistic freedom; hatchings, centered circles, and crosshatching, used to indicate the manes, are additional features. As already mentioned the rears of the lions have holes to take shanks. Fragments of two shanks are preserved. Sor 1260 was found with the remains of an iron shank in the hole; Sor 1800 (pls. 223s and 226f), however, was found with a fragment of a bone shank. Sor 895 (pl. 226b) shows either a variation of the couchant lion or another feline; the head is more elegantly carved, centered circles indicate the eyes, and crosshatchings indicate the manes on head and back. Sor 1090 (pl. 223p) is a fragment with a poorly carved head which has a band of zigzags bordered by two lines to indicate a collar around the neck (mane?). Couchant lion pins in bronze with iron shanks, together with lions in ivory, have been excavated in the buildings at Hasanlu, assigned to Hasanlu IV (Porada 1965a:116, pl. 29, fig. 67; Muscarella 1980, no. 187). Another bronze couchant lion of this type was found at Baba Jan (Meade 1968:129, fig. 12).

## 30A.3.7.2. Horned

Pins with horned animal heads all seem to have been made from a single piece of bone (pls. $223 \mathrm{v}-\mathrm{x}$ and $226 \mathrm{e}, \mathrm{g}$ ). Their flat sections suggest that there was no space for a hole to take a shank of either bone or metal. Sor 1202 (pl. 223x), for example, has a bone shank with an elaborate decorative pattern of bands with horizontal and vertical lines and zigzags. The bone pins with horned animal heads closely resemble similar pins cast in bronze (cf. ch. 27, D.16.1, pl. 171).

## 30A.3.7.3. Winged

Winged animals carved in bone were found scattered throughout all levels of the sanctuary at Surkh Dum-i-Luri (pls. 224a-c, f, g, 226i, and 227b). Two examples clearly illustrate a winged bull, the wings of which are elaborately carved (Sor 1200, 1254, pls. 224f, $\mathrm{g}, 226 \mathrm{i}$, and 227 b ). The remaining examples are only fragments of similar decorated animals. A rosette of centered circles occurs at either side of the haunches of Sor 365 (pl. 224b). A rayed circle with a centered circle on either side of the haunches of the winged bull, Sor 1254, is encrustated with a black substance, as are the elaborate designs of the wing. The latter is
attached to a large biconvex disc of granite which has a vertical perforation. The winged bull segment, with a hole in the rear, originally may have been a pin head, but finally became part of an enigmatic object.

## 30A.3.7.4. Miscellaneous

Five of the six miscellaneous pin heads (pls. 224d, e and 227a, d, e, g) show animals which are difficult to identify. We suggest an upright bear for Sor 818 (pl. 224d). The animal was carved on a rectangular plaque; no evidence remains of a hole for a shank. The animal depicted on Sor 377 (pls. 224e and 227d) looks like an owl. The owl's head protrudes from the plaque; the eyes of centered circles are owl-like. The plaque head of Sor 1175 (pl. 227e) is carved with a lion's mask and the back face is decorated with six centered circles. A hole at the base originally held a shank of either bone or metal. Another small bone pin has a muzzle that suggests a pig (Sor 1486 , pl. 227 g ). The shank shows a decorative pattern consisting of a crosshatched band bordered by multiple rings.

## 30A.4. PLAQUES

Two fragments without any perforation or hole to take a thread or shank were found in the sanctuary at Surkh Dum-i-Luri. One rectangular plaque is decorated with centered circles on either face (Sor 1103). Another plaque has a more elaborate decorative pattern that includes a central circle with a scalloped border which encircles centered concentric circles (Sor 407, pl. 224 h ). The top is crenelated like some of the pins with plaque heads. We suggest that these plaques were not completed as the holes to take the shanks were not drilled.

## 30A.5. HANDLES

A few objects are cylindrically shaped and are hollow in the center (pl. 224i-k). Sor 452 (pl. 224j) has an elaborate decoration of bands of centered circles divided by parallel lines. A similar object was found in a grave at Dinkha Tepe (Muscarella 1974a, fig. 45:1047). The excavator suggests that the object was used as a cosmetic container. I rather suggest that this type of object was used as a socket or handle. What these objects held may only be conjectured, but most likely the material was perishable.

## 30A.6. BOX OR FURNITURE FRAGMENTS

A small box or furniture fragment was found in the later levels of the sanctuary at Surkh Dum-i-Luri (Sor 460, pl. 2241). Fragments of probably two rectangular pieces were found in the earliest level of the sanctuary (Sor 666a,b). Fragment Sor 666a (pls. 224m and 228) shows a carved scene on both faces with a guilloche pattern on the lateral and upper edges. One panel has a scene illustrating two opposed running horned animals with a hatched band outlining their bodies and legs. A similar hatched band on the necks depicts collars. The front legs are incised with more widely spaced incisions. The other side of the same panel shows a scene of two opposed running and snarling lions. Here also a hatched band outlines the bodies of the lions; other hatched bands on the necks indicate the lions' manes, and like the horned animals on the other face, the lions' front legs are hatched. Another hatched band indicates the tail of the lion on the right side of the panel; the tail curls forward over the back. In the middle of the upper edge are two perforations to hold a handle, a lock, or some other attachment. Five holes for dowels were drilled into the lower edge of the panel. Sor 666b (pls. 224 n and 229 ), too, shows a carved scene on both faces of the panel. One scene shows two genies en face. A hatched band fringes the genies' skirts and a similar band is situated vertically on their chest. The genies have triangular heads, characteristic for faces found on the bronze sheet objects in Luristan (cf. ch. 28, Sor 748, pl. 207f). A hatched band borders the genies' faces, probably indicating their beards(?) and hair(?). Both genies grasp a lion. The lion shown on the right side of the panel is walking upright. A centered circle indicates the eye. A hatched
band outlines the lion's left hindleg and the right leg is outlined by small incisions. The lion on the left is larger than the lion on the right. Although the position of the animal to the left is different from the lion on the right, the general outlines and decorative patterns, such as the band with vertical lines and the bands to indicate the manes, are similar. Therefore, we suggest that the animal on the left is also a lion, in contrast to Muscarella's identification of the animal as a bear (Muscarella 1981a, no. 25). The reverse side of this panel shows a lion attacking a horned animal. The different parts of the bodies, again, are outlined with hatched bands. The edges of both faces of the panel are decorated differently. A hatched band along the lower edge and guilloche pattern of centered circles along the side edges borders the face with the 'master-of-animals' scene; no pattern appears on the upper edge. A band of oblique crosses along the upper and lower edge and a guilloche pattern of centered circles borders the face with the lion attacking a horned animal. Two dowel holes were drilled into the upper and lower edge.

A third plaque fragment (Sor 666c, pl. 2240) is similar to Sor 666 a in that it depicts two opposed running and snarling lions. The only difference in the scenes is the position of the lions' tails. A guilloche pattern runs along the lower and lateral edges; the upper edge is without any decorative pattern. At least one dowel hole was drilled into the lower edge and lateral edge. Together with these plaques three couchant lions were found (Sor 666d, pl. 227 h ). The lions have two dowel holes in the base, which seem to suggest they were used as grips. The style in which they are carved is similar to the bone lions with holes in the rear to take bone or metal shanks (cf. pl. 223q-t).

Similar lions and other animals with dowel holes in the base were found in Burned Building II at Hasanlu, and assigned to Hasanlu IV (Muscarella 1980, nos. 187, 242, and 243). Muscarella suggests that these animals were attached to a pyxis lid. Another couchant lion without any holes in the rear or base might be a blank (Sor 705:8, pl. 224q). The general outline of a lion already has been carved out. We only can guess whether the bone-worker's intention was to make a grip with dowel holes in the base or a lion pin head with a hole in the rear. Sor 705:7 (pl. 224p) represents a more functional grip, with two lines incised near both ends. Three dowel holes are drilled into the base.

## 30A.7. PENDANTS

Several pendants were found scattered throughout all levels of the sanctuary at Surkh Dum-i-Luri. Two twin-bird pendants have centered circles indicating the eyes as well as six circles incised on the rectangular part of the body (Sor 239 and 1340, pls. 224u and 227i). Similar twin-animal pendants were excavated at Tepe Hissar (Schmidt 1937, pl. 46:H 5141). The twin-bird pendants found at Surkh Dum-i-Luri therefore can be considered as belonging to an old Iranian tradition. A small plaque with a perforation near the upper edge shows crisscrossing lines on the front face (Sor 890, pl. 224r). A trapezoid plaque with perforation near the smaller edge was decorated with six centered circles on one face, probably the front, and three centered circles on the back face (Sor 1028, pl. 224s). The convex front face of Sor 1442 (pl. 224t) has an oblique cross of centered concentric circles. The two preserved 'paws' indicate that this pendant represents a 'hide'. This shape also occurs on pin heads made of bone (cf. pl. 223k) and cast in bronze (cf. pl. 184b-d).

## 30A.8. MISCELLANEOUS

An arm with bracelet and clenched perforated fist was found in the earliest level of the sanctuary at Surkh Dum-i-Luri (Sor 663, pl. 224v). Its shape is similar to the handle of an iron spoon found at Shaffe (Sha 9, pl. 158j). The only difference between these objects is that the iron hand has a stretched thumb and the bone thumb is folded. Sor 1575 is no more than a bone flake; both sides show centered concentric circles. The fragment is rectangular in section and might have been a pendant, plaque or pin with a plaque head. Sor 1581 (pl. 224w) is another hand and arm fragment decorated with a bracelet and multiple incised rings.

## 30B. SHELL OBJECTS

## 30B.1. WHORLS

## 30B.1.1. Concave-Convex

In the later levels of the sanctuary at Surkh Dum-i-Luri (levels 2B-A) four large shell discs with a central perforation were found (Sor 168a, pl. 225a, Sor 168b, Sor 153, and Sor 285). One might think these discs were attached to garments. The double perforation of Sor 702 (see 30B.1.3, pl. 225c) suggests that it could have been sown on a piece of cloth. Evidence however from garments shown on reliefs does not exist. Therefore, we suggest that these discs were used as whorls.

## 30B.1.2. Concave-Convex With Ledge

The discs in this group (pl. 225b, d, e) were also found in the later levels of the Surkh Dum-i-Luri sanctuary (2B-A). The only difference between the discs in this group and the discs of 30B.1.1 is the ledge at the rim.

## 30B.1.3. Plano-Convex

This group of whorls may have been used as beads. Sor 702 is a shell with double perforation (pl. 225c). Sor 1412 is similar to a shell object classified as a bead (cf. pl. 230aj)

## 30B.2. PENDANTS

Two pendants made of shell were found in the sanctuary of Surkh Dum-i-Luri. A shell cut into a triangle with a stepped perforated top has three cuneiform signs (Sor 413, pl. 256e; cf. ch. 33, no. 5). A second perforation was made between the right and central petal. All three petals are decorated with a centered circle. The three cuneiform signs were incised on the polished inside. Another shell pendant (Sor 1193, pl. 225g) was cut into a rectangle. The convex face has eight irregularly positioned circles. Two other shell pendants have a perforated top (Sor 1417) and a hole pierced near the edge (Sor 485, pl. 225f).

## 30B.3. MISCELLANEOUS

One fragment of an ostrich shell was registered by Schmidt among the finds from the sanctuary at Surkh Dum-i-Luri (Sor 1695).

## CONCLUSIONS

The bone and shell finds from Surkh Dum-i-Luri illustrate some aspects of the Iranian style of carving ivory that the artisans of Hasanlu employed. The bone workers in Luristan adopted the main themes and motifs also known from the bronze and stone objects found in the sanctuary at Surkh Dum-i-Luri. The motif of the 'master-of-animals' scene on the 'box' fragments discussed above, for example, is also known from Mesopotamian and Elamite iconography. The pin head with a winged bull, Sor 1200 (cf. 30A.9.3, pls. 224 f and 227 b ) looks very similar to Elamite winged bulls. Another pin with a winged bull (Sor 1254, pls. 224 g and 226 i ), however, shows the artistic freedom of the Luristan bone workers in that more intricate decorative patterns have been added to the object. There is no evidence for the presence of ivory objects in this sample. A check of the objects in the University Museum and the Oriental Institute revealed no ivory. We became suspicious about the identification of the objects by Schmidt when Muscarella published his mini-report on the Surkh Dum-i-Luri objects in the Metropolitan Museum of Art (Muscarella 1981a). Sor 666 is identified by Schmidt as bone, Muscarella, however, due to his familiarity with the Hasanlu ivories,
identified the material as ivory. If Sor 666 is made of ivory it would be one of the only ivory objects found at Surkh Dum-i-Luri. The carved genie, lions, and horned animals of the boxes or furniture fragments (cf. 30A.6, Sor 666a-c) represent a style faintly similar to the Iranian style ivories from Hasanlu. The herringbone pattern, used to outline the back of the animals from Hasanlu occurs on the fragments from Surkh Dum-i-Luri (Muscarella 1980:183). The hatched band, however, continues and outlines the whole body of the horned animals as well as the lions. We suggest that Luristan in its carved bone work, as it does in its famous bronze work, assimilated its own traditions to motifs common throughout the Mesopotamian world. Clear links seem to exist with Elamite iconography.

CATALOG 30. IRON AGE BONE AND SHELL OBJECTS

| Plate Site/Obj. no. Area Level Dim. in cm | Material | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- |

30A. BONE OBJECTS
30A.1. BUTTONS

| 222a | Sor 1313 | $9-11$ | $3 A$ | $2.1 \times 0.9+$ | bone | Plano-convex disc, loop on back broken | Ghirshman 1939, Sialk B <br> - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Sor 1360 | $1 / 3$ | $3 A$ | 2.5 | bone | Plano-convex disc, pierced in center | pl. 55:S 796b |

## 30A.2. SHANK FRAGMENTS

| 222b | Sor 219 | 1 | 1 | $4.9+\times 1.1$ | bone | Two series of horizontal rings on top, three horizontal bands with crosshatching, below zigzag of three lines | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 222c | Sor 415 | 4 | 2B | $3.9+\times 0.6$ | bone | Shank and part of head, double zigzag line three groups of four horizontal lines | - | - |
| 222d | Sor 560 i | 14 | 3A-1 | - | bone | Two groups of crosshatched bands bordered by two horizontal lines, zigzag of three lines below | - | - |
| cf. 222d | Sor 440 | 4 | 2B | $3.9+\times 1.0$ | bone | Band with crosshatching, two groups of three horizontal lines, below zigzag of three lines | - | - |
| 222 e | Sor 705 | 3-4 | 2B-1 | - | bone | One undecorated fragment, four incised; 1: broad crosshatched band; 2: two bands of six horizontal lines, three lines at fracture, groove on back; 3: point, two double zigzag lines alternating with bands of five or six lines; 4: four horizontal lines | - | - |
| 222f | Sor 1340a | 3(?) | 3A-2A | $3.8+x 0.7$ | bone | Flattened point, band with vertical lines bordered by horizontal lines | - | - |
| 22 | Sor 738 | 1(?) | 3A(?) | $9.7+\times 0.6$ | bone | Part of a zigzag line preserved | - | - |
| 222g, h | Sor 797a, b | 1 | 3A-2A | - | bone | a: Crosshatched band, two horizontal lines, zigzag of three lines with circlet at tip of angle; b: six bands of horizontal lines bordered by zigzags; two other exx. c: cf. b; d: part of zigzag, two horizontal lines below | - | - |
| - | Sor 1553 | 1-7-9 | 2B | - | bone | Incised designs | - | - |
|  | Sor 1557 | 1-7-9 | 2B | - | bone | Plain | - | - |
| - | Sor 1562 | 1-7-9 | 2B | - | bone | Incised designs | - | - |


| - | Sor 1570 | $1-7-9$ | $2 B$ | - |
| :--- | :--- | :--- | :--- | :--- |
| - | Sor 1574 | $1-7-9$ | $2 B$ | - |


| bone | Incised designs |
| :--- | :--- |
| bone | Incised zigzags and rings |

30A.3. PINS
30A.3.1. Slightly Thickened or Fianged Heads

| 222 i | Sor 375 | 2 | 2 A | $5.5+\times 0.6$ | bone |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 222 j | Sor 431 | 4 | 2 B | $6.7 \times 0.5$ | bone |
| 222 k | Sor 560 g | $1-4$ | $3 \mathrm{~A}-1$ | $2.0+\times 0.8$ | bone |
| 2221 | Sor 704 | 4 | $2 \mathrm{~A}-1$ | $10.4+\times 0.8$ | bone |
|  |  |  |  |  |  |
| 222 m | Sor 1192 | 3 | 3 A | $12.4 \times 0.8$ | bone |

30A.3.2. Cylindrical Heads

| 222 n | Sor 180 | $4-6-7 \mathrm{~N}$ | $.2 \mathrm{~B}-1$ | $3.7 \times 1.0$ | bone |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2220 | Sor 425 | 4 | 2 B | $4.4 \times 1.0$ | bone |
| cf. 2220 | Sor 313 | 1 | $2 B$ | $4.0 \times 1.2$ | bone |
| cf. 2220 | Sor 342 | 1 | $2 B-A$ | - | bone |
| 222 p | Sor 824 | 24 | 1 | $7.7+\times 1.5$ | bone |

30A.3.3. Spherical Heads
$\begin{array}{llllll}222 q & \text { Sor } 348 & 1 & 2 B-A & 1.3+\times 1.6 & \text { bon }\end{array}$

Fragment, five bands of horizontal lines, panels - in between filled with zigzags
No decoration - -

Head only, flanged top, crosshatched band, bor. by - three horizontal lines
Point missing, zigzag band bordered by bands of - four horizontal lines, band of vert. lines bordered by bands of four horizontal lines
Black encrusted zigzags and crosshatched band alter- - nating with bands of three or four horizontal lines

Head only, rounded rectangle in section, two closely ringed groups divided by polished part Fragment, upper incised design: incomplete(?) upper and lower band with zigzag, middle band with vert. lines alternating with bands of two horizontal lines, lower design: upper band with vert. lines, lower band with oblique crosses and vert. lines
Head only, four bands divided by multiple rings, bel. band with oblique crosses, band with vert. lines, lband with oblique crosses, upper band with zigzag
Head fragment, three bands divided by multiple rings, two bands with zigzag, middle band with oblique crosses divided by two vertical lines Head only, thirteen groups of four horizontal lines

Head only, hemispherical head with convex base - design at top cross of double lines with centered circle in center and at the end of every bar a centered circle

Catalog 30. Iron Age Bone and Shell Objects (cont.)

| Plate SitelObj. no. Area Level Dim. in cm Material | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- |

30A. BONE OBJECTS (cont.)
30A.3. PINS (cont.)
30A.3.3. Spherical Heads (cont.)

| 222r | Sor 1173 | 3 | 2B | $1.8+\times 1.6$ | bone | Head with shank fragment, globe with three centered concentric circles | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30A.3.4. Spatulate Head |  |  |  |  |  |  |  |  |
| 222 s | Sor 1026 | 1 | 3A-1 | $3.8+\times 1.3$ | bone | Frgm, grp of centered concentric circles, seven zigzag lines on upper shaft, horizontal lines bel. | - | - |
| 30A.3.5. Spool Head or Handle(?) |  |  |  |  |  |  |  |  |
| 222t | Sor 1092 | 3 | 3A-2A | $3.3+\times 1.0$ | bone | Head only | - | - |
| 30A.3.6. Plaque Heads |  |  |  |  |  |  |  |  |
| - | Sor 510 | 4 | 2B | - | bone | Fragment (object missing) | - | - |
| - | Sor 1306 | 9 | 3A-2A | 3.2 | bone | One face with centered circles all black encrusted | - | - |
| - | Sor 1546:2 | 1-7-9 | 2B |  | bone | Head only, centered circles and curl(?) | - | - |
| 222u | Sor 177 | 4-6-7N | 2B-1 | $4.0+\times 2.1$ | bone | Fragment, rectangular plano-convex head with centered circles both sides, upper part of shaft with horizontal lines | - | - |
| 222v | Sor 514 | 4 | 2B | $3.1+\times 2.0 \times 1.5$ | bone | Head only, five centered circles at each side, fluted crown and expanding base | - | - |
| 222w | Sor 1489 | 2-23 | 2C | $2.3+\times 2.9 \times 1.0$ | bone | Head only, rect. on tubular neck, five centered circles on front and back face, zigzag of three lines on edges | - | - |
| 223a | Sor 555 | 1-4 | 3A-1 | $3.6+\times 2.6 \times 1.4$ | bone | Head only, black incrustation, squared oval top, five centered concentric circles and one centered circle on front and back side continuous zigzag of three lines on the edges | - | - |
| 223b | Sor 563 | 1-4 | 1 | $2.7 \times 2.2$ | bone | Head frgm, wedge-shaped rect., five centered circles on front face, inc. fern pattern on top and side edges | - | - |


| 223c | Sor 678 | SE of 1 | 1 | $2.5+\times 1.6+\times 1.9$ | bone |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 223d | Sor 905 | 3 | 2B-1 | $2.9+\times 2.7 \times 0.5$ | bone |
| cf. 223d | Sor 1508 | 1/22 | 3A-2C | $2.3+\times 1.5+$ x 0.9 | bone |
| 223 e | Sor 1008 | 1-3 | 2B | $3.1+\times 2.3 \times 1.5$ | bone |
| 223 f | Sor 1018 | 1-3 | 2B | $2.4+\times 2.9 \times 0.5+$ | bone |
| cf. 223f | Sor 1228 | 3 | 3A-2A | $2.5+\times 2.1 \times 0.5$ | bone |
| cf. 223 f | Sor 1289 | 7 | 2B-A | $2.3+\times 2.2 \times 0.7$ | bone |
| cf. 223f | Sor 482 | 2 | 1 | 2.6+ x $0.9+$ | bone |
| cf. 223f | Sor 73 | 7 | 1 | $2.3+\times 1.1$ | bone |
| cf. 223 f | Sor 560 j | 1-4 | 3A-1 | $2.7+\times 0.8+\times 0.5$ | bone |
| 223g | Sor 1548 | 1-7-9 | 2B | $3.2+$ x $1.7 \times 0.4$ | bone |
| 223h <br> and 227c | Sor 1588a | 1-3 | 2B | $7.8 \times 1.7$ | bone |
| 223 i | Sor 1588b | 1-3 | 2B | $1.6 \times 1.2$ | bone |
| 223j | Sor 1694 | (?) | 1 | $6.5+\times 5.4+\times 0.8$ | bone |
| 223k | Sor 1307 | 9-11 | 3A | $2.9+\times 3.3+$ x 0.5 | bone |
| cf. 223 k | Sor 739 | 1(?) | 3A(?) | $2.1+\times 2.4 \times 0.5$ | bone |
| $2231$ | Sor 1339 | 3 | 3A-1 | $3.7+\times 3.1 \times 0.4$ | bone |

30A.3.7. Animal Heads

## 30A.3.7.1. Recumbent Lions

Head fragment, five centered circles on each side, hatched edges, base also hatched
Head only, five centered concentric circles, chevrons on edges
Fragmentary head, five centered concentric circles, chevrons on edges
Head fragment, studded top, on each side an oblique crossing line, in each field a centered circle
Head frgm, thirteen centered circles, rect. head -
Head only, eleven centered circles, rect. head
Head only, eleven centered circles, plano-convex head
Head fragment with centered circles on one side -
Head fragment with centered concentric circles on three smooth sides
Head fragment with centered circles on both sides
Fragment, rectangle with eleven centered circles,
unknown number on back, crossing lines on neck
Rect. head, stepped to narrower width at base,
centered circles at each side, upper shank with two crosshatched bands, below a band with zigzag
Head fragment, round plaque with guilloche design along edge
Head fragment, five wheels with centered circles on
hub, center wheel encircled by centered circles, zig-
zag frame also filled with circles, along edges row of centered circles
Head fragment, preserved comer expands into paw (hide?), both sides with centered circles and centered concentric circles
Head fragment, preserved comers expand into paws (hide?), one centered circle in center
Head only, 'master of the animals'-head, horned genie holds two reversed homed animals (ibexes), centered circles and centered wheels on haunches of genie and ibexes

Catalog 30. Iron Age Bone and Shell Objects (cont.)

| Plate | SitelObj. no. | Area | Level | Dim. in cm | Material | Description | Reference | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30A 3 PINS ( BONE OBJECTS (cont.) |  |  |  |  |  |  |  |  |
| 30A.3. PINS (cont.) |  |  |  |  |  |  |  |  |
| 30A.3.7. Animal Heads (cont.) |  |  |  |  |  |  |  |  |
| 30A.3.7.1. Recumbent Lions (cont.) |  |  |  |  |  |  |  |  |
| - | Sor 949 | 4-13 | 1 | $3.4+\times 1.1 \times 1.2$ | bone | Head fragment, heavily damaged, some centered circles iron body preserved, crossed lines on base indicate feet preserved | - | - |
| - | Sor 1161 | 1(?) | 3A-2A | $3.5+\mathrm{x} 1.0+\mathrm{x} 2.2$ | bone | Head, flaked fragment: eye with drilled hole | - | - |
| - | Sor 1264 | 9 | 1 | $4.7+$ | bone | Head only, centered circles at sides | - | - |
| - | Sor 1382 | 1/3 | 3A | $3.1 \times 0.6+$ | bone | Head only, double zigzag on back, centered circles on each side indicate ears(?) | - | - |
| - | Sor 1475 | 2/23 | 2 C | 4.1+ | bone | Black encrusted eye | - | - |
| - | Sor 1604 | 1/3 | 2B | 3.1 | bone | Zigzag on back, centered circles on sides | - | - |
| - | Sor 1692:1 | - | surf. | - | bone | Fragmentary |  |  |
| - | Sor 1692:3 | - | surf. | - | bone | Fragmentary |  |  |
|  | Sor 1797 | (?) | 3A-1 | 3.5 | bone | Head only, trace of shafthole |  |  |
| 223m | Sor 543 | 4 | 1 | $3.0+\times 1.4 \times 0.6+$ | bone | Head fragment, oval neck with double zigzag bordered by multiple rings | - | - |
| 223n | Sor 424 | 4 | 2B | $4.1+\times 1.7 \times 1.1$ | bone | Head only, shafthole in rear, centered circles on bdy | - | - |
| $\begin{aligned} & 223 \mathrm{o} \\ & \text { and } 226 \mathrm{c} \end{aligned}$ | Sor 727 | 1-2 | 2 C | $3.6+\times 1.3 \times 0.7$ | bone | Head only, shafthole in rear | - | - |
| cf. 2230 | Sor 503 | 19 | 1 | $3.4+\times 0.7 \times 1.2$ | bone | Head only, holes in base and rear | - | - |
| cf. 2230 | Sor 831 | 4 | 2B-1 | $2.9+\times 1.4 \times 0.7$ | bone | Head fragment, hindquarters missing | - | - |
| cf. 2230 | Sor 879 | 1-3 | 1 | $3.4+\times 0.8+$ | bone | Head fragment, broken alongside | - | - |
| cf. 2230 | Sor 1126 | 13 | 1 | $3.2+$ | bone | Head only | - | - |
| 223p | Sor 1090 | 3 | 3A-2A | $2.8+\times 1.4$ | bone | Head fragment, only front part preserved, chevrons indicate manes | - | - |
| $\begin{aligned} & 223 \mathrm{q} \\ & \text { and } 226 \mathrm{~d} \end{aligned}$ | Sor 1260 | 9 | 1 | $4.3+\times 1.7 \times 0.6$ | bo/ir | Fragment, iron shaft protrudes from rear, black encrusted centered circles, centered concentric circles on body | - | - |
| 223 r , <br> 226h, and | $\begin{aligned} & \text { Sor } 1338 \\ & \text { 227f } \end{aligned}$ | 1-3 | 3 | $3.5+\times 3.5$ | bone | Head only, crosshatching indicates manes, centered circles and centered concentric circles on body | - | - |
| $\begin{aligned} & 223 \mathrm{~s} \\ & \text { and } 226 \mathrm{f} \end{aligned}$ | Sor 1800 | (?) | 3A-1 | $7.6+\times 1.9 \times 0.9$ | bone | Fragment with bone shaft | - | - |


| cf. 223s | Sor 521a | 4 | 2 A | - | bone |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 223 t | Sor 1201 | 3 | 3 A | $5.2+\times 1.4 \times 0.9$ | bone |

Head fragment
Head fragment part of rear missing, two black en- crusted centered circles on each side and haunch
Head fragment, only front part preserved, centered circles on body
Head fragment, hindquarters missing - _

30A.3.7.2. Horned

| 223 v | Sor 521b | 4 | 2A | $3.0+\times 1.0 \times 0.3$ | bone |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 223w | Sor 1080 | 3 | 3A-2A | $3.2+x 0.8$ | bone |
| and 226g |  |  |  |  |  |
| 223x | Sor 1202 | 3 | 3A | $7.2+\times 0.8 \times 0.5$ | bone |
| 226 e | Sor 1659 | 2(?) | $2 \mathrm{C}($ ? | $4.7+\times 1.4 \times 0.7$ | bone |

30A.3.7.3. Winged

| 224 a | Sor 1212 | 3 | 3A-2A | $3.7+\times 1.1 \times 0.7$ | bone |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 224 b | Sor 365 | $1-2$ | 2C <br> step 3 | $5.0+\times 2.3+\times 0.5$ | bone |
| 224 c | Sor 436 | 4 | 2 B | $4.4+\times 1.1+\times 0.8$ | bone |
| 224 f | Sor 1200 | 3 | 3 A | $4.8+\times 3.3$ | bone |
| and 227 b <br> 224 g | Sor 1254 | 7 S | 2B | $5.6+\times 3.2 \times 2.3$ | bone/st |

rings on neck, centered circle indicates eye
Head fragment, only hind part preserved, rosette of seven overlapping centered concentric circles on either side of the haunches
Head fragment, wings indicated by two bands with oblique lines bordered by rings, hind part missing Head only, winged bull, centered concentric circles $\qquad$ on body, shafthole in rear
Fragment, shafthole in rear, black encrusted decora- - tive patterns on wings and body, attached to large granite biconvex disc bead

## 30A.3.7.4. Miscellaneous

|  | Sor 1580 | $1-7-9$ | 2 B | - | bone |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 224d | Sor 818 | 3 | $2 \mathrm{~A}-1$ | $4.0+\times 1.5 \times 0.5$ | bone |
| 224 e | Sor 377 | 2 | 2 C | $3.8+\times 2.8 \times 1.8$ | bone |
| and 227 d |  |  |  |  |  |


| Fragment with rampant animal | - | - |
| :--- | :--- | :--- |
| Head fragment, heavily damaged, upright bear(?) | - | - |
| Head only, owl(?), centered circles indicate eyes | - |  |

Catalog 30. Iron Age Bone and Shell Objects (cont.)

| Plate SitelObj. no. Area Level Dim. in cm | Material Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

30A. BONE OBJECTS (cont.)
30A.3. PINS (cont.)
30A.3.7. Animal Heads (cont.)
30A.3.7.4. Miscellaneous (cont.)

| 227 a | Sor 944 | 11 N | 1 | $3.7+\times 3.8+\times 0.8$ | bone |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| 227 e | Sor 1175 | 3 | 2 A | $3.3+\times 2.6 \times 0.8$ | bone |
| 227 g | Sor 1486 | $2-23$ | 2 C | $6.1 \times 0.8 \times 0.6$ | bone |


| Head fragment, hatchings indicate wings, centered |  |  |
| :--- | :--- | :--- |
| circles and centered concentric circles on body |  | - |
| Head only, lion mask, six centered circles on back | - | - |
| Recumbent animal (boar?), chevrons on nose and | - | - |
| base, crosshatched band bordered by multiple rings |  |  |
| on neck |  |  |

30A.6. BOX OR FURNITURE FRAGMENTS
2241 Sor $460 \quad 4 \quad$ 2B-A $\quad 3.3+\times 2.2+x 0.8$ bone
Fragment: hatched leaf-shaped decorative patterns, guilloche of centered circles at edge

| 224 m <br> and 228 | Sor 666a | 1 | 3 A | $11.3 \times 3.3 \times 0.8$ | bone |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 224 n <br> and 229 | Sor 666b | 1 | 3 A | $11.3 \times 4.1 \times 0.6$ | bone |
|  |  |  |  |  |  |


| Fragment: one side with opposed running ibexes, guilloche of centered circles along upper and side edges, other side with opposed lions, guilloche of centered circles along upper and side edges, five attachment holes in base, two perforations above animal heads (lock?) |  |  |
| :---: | :---: | :---: |
| Fragment: one side lion pursuing ibex, band of oblique crosses along upper and lower edge, guilloche of centered circles along side edges, other side two genies grasping lions, guilloche of centered circles along side edges, no decoration along upper edge, band of vertical lines along lower edge, two holes in upper and lower edge | Muscarella 1981a, no. 25 |  |
| Fragment: both sides opposed running lions, guilloche of centered circles along lower edges, band of vertical lines along upper edge, at least one hole for attachment in lower edge, one hole for attachment in side edge | - | - |
| Grip: rectangle with two lines incised left and right, three holes for attachment in base Grip: highly stylized recumbent lion, no mention of holes for attachment of base | - | - |
| Grips: three recumbent lions with two holes for attachment in base | Muscarella 1981a, nos. 28-30; 1980: 187 | Hasanlu IV |
| Rounded rectangle criss-crossing incisions on front side | - | - |
| Trapeze, three centered circles on concave side, six centered circles on convex side | - | - |
| Square with two preserved corners, comers expand into paws (hide?), oblique cross of centered concentric circles on convex front side | - | - |
| Twin bird: eyes indicated by centered circles, perforation between necks on upper body, six centered circles on body | - | - |
| Twin bird: centered circles on body, part of | - | - |

Catalog 30. Iron Age Bone and Shell Objects (cont.)

| Plate SitelObj. no. Area Level Dim. in cm | Material | Description | Reference |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

30A. BONE OBJECTS (cont.)
30A.8. MISCELLANEOUS

| - | Sor 1575 | $1-7-9$ | $\cdot 2 \mathrm{~B}$ | $0.8+\times 0.7 \times 0.2$ | bone | Fragment: rectangular in section, on both sides <br> one concentric circle | - | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 224 v | Sor 663 | 1 | $3 A$ | $3.9+\times 0.9 \times 0.6$ | bone | Arm with bracelet, perforation through clenched <br> fist (spoon handle?) | Muscarella 1980: | Hasanlu IV |

30B. SHELL OBJECTS
30B.1. WHORLS
30B.1.1. Concave-Convex

| 225a | Sor 168a | 4 | 2 A | $6.6 \times 5.5 \times 1.8$ | shell |
| :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 225a | Sor 168b | 4 | 2 A | $5.6 \times 5.5 \times 1.5$ | shell |
| cf. 225a | Sor 153 | 4 | 2 A | $5.0 \times 1.1$ | shell |
| cf. 225a | Sor 285 | 4 | 2B-A | $4.0 \times 1.0$ | shell |
| cf. 225a | Sor 615 | $1 / 2$ | 2C | 2.7 | shell |

Concave-convex disc with ledge, pierced in center Concave-convex
Concave-convex disc, pierced in center
Concave-convex disc, pierced in center
Concave-convex disc, pierced in center

## 30B.1.2. Concave-Convex with Ledge

| 225b | Sor 161 | 6 | 2B-1 | $6.1 \times 1.5$ | shell |
| :--- | :--- | :--- | :--- | :--- | :--- |
| cf. 225b | Sor 356 | 1 | 2B-A | $6.1 \times 1.5$ | shell |
| cf. 225b | Sor 394 | 19 | 1 | $7.5 \times 1.7$ | shell |
| cf. 225b | Sor 701 | $1-4$ | 3A-2A | $5.0 \times 1.3$ | shell |
| cf. 225b | Sor 883 | 4 | 2B | $4.0 \times 1.1$ | shell |
| cf. 225b | Sor 1024 | 1 | 3A-1 | $4.2 \times 1.0$ | shell |
| cf. 225b | Sor $1227: 1$ | 3 | 3A-2A | 3.5 | shell |
| 225d | Sor 791 | 1N(?) | 2B-A | $2.4 \times 1.1$ | shell |

Concave-convex disc with ledge, pierced in center Concave-convex disc with ledge, pierced in center Concave-convex disc with ledge, pierced in center Concave-convex disc with ledge, pierced in center Concave-convex disc with ledge, pierced in center Concave-convex disc with ledge, pierced in center Concave-convex disc with ledge, pierced in center Pierced shell with scalloped edges

| - | - |
| :--- | :--- |
| - | - |
| - | - |
| - | - |
| - | - |
|  |  |

$225 \mathrm{e} \quad$ Sor $1796 \quad(?) \quad 3 \mathrm{~A}-1 \quad 2.8 \times 0.6$

30B.1.3. Plano-Convex

| - | Sor 1412 | $1-3$ | $2 B$ | 2.2 | shell |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 225 c | Sor 702 | 14 | $3 A-2 A$ | $3.8 \times 1.0$ | shell |

30B.2. PENDANTS

|  | Sor 1417 | $1 / 3$ | $2 B$ | $2.8 \times 2.6$ | shell |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 225 f | Sor 485 | 2 | 1 | $2.3 \times 0.5$ | shell |
| 225 g | Sor 1193 | 3 | 3 A | $3.4+\times 1.6 \times 0.5$ | shell |
| 256 e | Sor 413 | 4 | $2 B$ | $3.7 \times 3.1 \times 0.5$ | shell |

30B.3. MISCELLANEOUS

- Sor $1695 \quad-\quad 1 \quad 0.01 \quad$ shell $\quad$ Fragment of ostrich egg $\quad$ -

Concave-convex disc with ledge, pierced in center, seventeen centered circles

Plano-convex, pierced in center, two stippled concentric circles
Plano-convex disc with double perforation - _

Perforated top
Natural shell pierced near edge
Rectangle with eight centered circles
Inscribed shell (see ch. 33, no. 5) cut into triangle,
$\qquad$
1
stepped top with hole for suspension, second
perforation in groove between petals, centered circle
on each petal, three cuneiform signs on inside

## CHAPTER 31

## IRON AGE BEADS

by Hans H. Curvers

## INTRODUCTION

Throughout antiquity in many regions throughout the world minerals have been selected and used for the manufacture of beads. The shapes of the beads were influenced by many considerations which were not functional and there seem to have been very few technological preferences. Stones were selected for their beauty and value and generally bright colors were favored, or stones with a good luster and transparency were chosen. In this Iron Age bead sample several stones have not been identified more specifically; they are registered as white, translucent, black, brown, yellow, gray, green, orange, purple, red or pink stone. Quite often the magical and medical properties of the stones were a major consideration in their use, but for prehistory and protohistory the knowledge of such properties is largely lost (Thureau-Dangin 1921). The many varieties of minerals also have been very widely employed for various forms of personal ornamentation in all regions. Both females and males used beads also to indicate status. Information on ethnicity might be derived from the presence or absence of certain materials and shapes. Very frequently precious and semi-precious stones with localized occurrence, such as lapis lazuli, were mined at great cost and transported over wide areas.

Molluscs, too, have always been an important resource for manufacturing utilitarian and ornamental objects. Demand for shells of certain species in areas far away from the source, such as Luristan, inevitably led to the exchange along already existing trade networks or the extension of a network into Luristan. Generally, shell artifacts are cut from larger shells, which results in the lack of diagnostic features necessary for identification. Among the beads retrieved from Iron Age contexts at Khatun Ban, Chujale, Qumish, Chigha Sabz, and Surkh Dum-i-Luri many complete or only perforated shells occur. They have been identified either by Schmidt or by Harold T. Wolff.

The sample of beads includes objects which could be classified as pendants because of the location of the perforation, or as cylinder seals because of their geometric incised pattern and cylindrical shape. One cylindrical bead (Sor 754:2f), therefore, is included in the chapter on seals (ch. 32, pls. 232ab and 248:215). One example of a stamp seal (Sor 1017) has been classified as a stamp seal and as a bead with geometric design (see pl. 232ax and pl. 249:xiii and detailed discussion in ch. 32:xiii). It is very difficult to decide whether an object is a bead or pendant. Even more arbitrary is the assignation of faience cylinders with geometric incision to beads or cylinder seals. Few groups of beads are registered as found together in situ. One observation of a group of glass beads exists in Schmidt's records: "Sor 717: glass beads strung in a row." Many beads were found together with other objects in floor and wall hoards. The bulk of the beads, however, was collected at the end of the day. The assignation of these bead lots to a specific level has been based on the information (and reconstruction) of the elevations which occur in the records for that day. This procedure resulted in a few bead lots that can be assigned to one specific level.

Most of the drawings on pls. 230 and 231, and ten examples on pl. 232 are illustrative of a group of beads found on the steps between rooms 1 and 2 of the sanctuary at Surkh Dum-i-Luri. This group of beads (Sor 731) includes the greatest variety in shapes.

## SURKH DUM-I-LURI

Table 24 gives all the beads found scattered throughout all levels of the sanctuary at Surkh Dum-i-Luri. All materials except shell and all shapes that occur at Surkh Dum-i-Luri are given.

Table 25 gives the materials of stratified beads by level; as a result of the procedure followed for assignation to a specific level, few bead lots and individually registered beads are included.

Table 26 gives a list of all shells by classification and level.
Table 27 gives all shell beads and the various shapes in which they occur. The shells which were identified by Harold T. Wolff on the "bead tallies" and the beads individually registered in the catalog of objects are combined in this table.

Table 28 gives all shell beads and their shape by level.
Table 29 gives the distribution of 'Complete Shells' which includes all shells assigned to one of the levels of the sanctuary at Surkh Dum-i-Luri. The shells which were identified by Harold T. Wolff on the "bead tallies" and the beads individually registered in the catalog of objects are combined in this table.

Table 30 gives other shapes and materials of the beads.

## MAIN CHARACTERISTICS OF THE BEADS FROM SURKH DUM-I-LURI

Although the dating of the sample as a whole evidently seems to spread over a few centuries, some general remarks can be made. Camelian ( 21.1 percent), glass (white 12.8 percent + blue 5.49 percent + green 0.54 percent $=18.83$ percent), bronze ( 15.3 percent), faience (white 9.91 percent + green 3.19 percent + brown glazed 0.067 percent + blue 0.067 percent $=13.23$ percent), and chalcedony ( 5.96 percent ) are the materials used in the greatest quantities. There are individual or small groups of beads made of agate, amethyst, granite, onyx, chlorite, bitumen, clay, et cetera.

All beads show a great skill in workmanship. A few of the carnelian beads show traces of white patination which may be due to etching (pl. 232ag, ah). Out of a total of 312 carnelian beads ( 21.1 percent of this Iron Age sample) several shapes predominate: cylinders ( 16 percent), globes ( 16 percent), barrels ( 15 percent), date-shapes ( 7.3 percent), rings ( 6.9 percent), bicones ( 6.2 percent), and discs ( 4.9 percent). A group of carnelian beads has been lumped into a category named 'other shapes'. This group includes spacer beads, a 'tooth', and eye-stone bead (pl. 232ah), some club-shapes, a barrel with four lines of inscription (Sor 1450 ; ch. 33 , no. 11 , pl. 258 a), and tubes with slightly thickened center (i.e., Sor 53 ; cf. pl. 231u, v).

The second large group of beads is made of glass. We have grouped the white glass beads together with the blue and green glass beads. The total percentage of the glass beads in this Iron Age sample is 18.83 percent. For the total number of glass beads we have calculated the percentages of the various shapes: globes ( 54 percent), rings ( 23 percent), barrels ( 7.4 percent), and bicones ( 5.8 percent). The category of 'other shapes' is small and includes a three-lobed ring (pl. 232am) an eye-stone (pl. 231 bl ), and several bird-head beads (cf. pl. 232an).

Bronze is another material used for the manufacture of numerous beads. In a culture famous for its bronze work this is no special phenomenon. The following shapes are rather numerous among the total of 226 bronze beads in this sample: cylinders ( 50 percent) and coiled spirals and globes ( 11 percent). The category of 'other shapes' includes 8.8 percent of the bronze beads (cf. tab. 30).

The occurrence of faience beads in this sample, which we date mostly to Iron I-II, is also a normal phenomenon. We have grouped together the white, green, brown glazed, and blue faience beads to calculate the various shapes. Common shapes in this sample of 195 beads are: cylinders ( 13 percent), barrels ( 13 percent), and plano-convex discs ( 8.9 percent). The group of 'other shapes' is rather large for faience beads compared to the other materials. Due to the character of faience the manufacturer of beads was able to produce a great variety of shapes. Many of the 'other shapes' are illustrated on plate 232. The faience beads show fluted designs on globes, collared globes, and long cylinders.

## FUNCTION AND MANUFACTURE

The majority of the beads retrieved from the sanctuary at Surkh Dum-i-Luri was so completely displaced or registered in such a way that it is difficult or even impossible to work out any positive or complete plan of their original stringing order or function. We may assume that the majority of the beads was strung on thread or string. There are a few examples, however, which are strung on copper, bronze, or iron wire.

Little evidence is available to show the manner in which the beads were manufactured. Certain beads were certainly manufactured of a material originally plastic and easily modeled (e.g., glass and faience), whereas other less plastic materials (carnelian, chalcedony, et cetera) were modeled into shapes like barrels, cylinders, date-shapes, et cetera. The perforations in all beads are relatively uniform in diameter. They show a tendency toward increased diameter only near the edges, and in the globes they flare outward to merge with the circular contour of the exterior.

## OTHER IRON AGE SITES

A smaller sample of beads was found in the graves at Khatun Ban, Chujale, Shaffe, and Qumish. Some of the beads found at these sites are surface finds and can be assigned only to the Iron Age, without more specific date. The beads retrieved from the graves, however, were found together with pottery and metal objects of an Iron II date (cf. chs. 25A, 27, and 28). As can be seen from the catalog many of the Iron II beads from these graves have parallels at Surkh Dum-i-Luri, which supports an Iron I-II date for the majority of the beads retrieved from the sanctuary.

## CONCLUSION AND DATING

The occurrence of several thousands of beads in the building at Surkh Dum-i-Luri is further evidence to identify the building as a sanctuary. To judge, for instance, by Temple A at Nuzi this seems to be a phenomenon characteristic for sacred buildings (Starr 1939:92). In Temple A at Nuzi there is strong evidence that the beads were used as wall decoration (Starr 1939:92-3). The excavator also noted the presence of pierced shells: "With their original brilliant coloring, they must have made a display fully as gorgeous as the glittering glass of the beads" (Starr 1939:94). We have no other evidence apart from the beads threaded with metal wire and a bone pin head, which was attached to a bead (Sor 1254, pl. 224g), for a Nuzilike decoration of the walls in the sanctuary at Surkh Dum-i-Luri. If we compare the various shapes of Surkh Dum-i-Luri with the beads from Nuzi there is a strong similarity in several special shapes: bird heads (pl. 232an; Starr 1937, pl. 120qq, ss) and pear shapes (pl. 231bu, bv; Starr 1937, pl. 120ff). From the parallels with the bead sample of Nuzi we can conclude that the assemblage retrieved from the sanctuary at Surkh Dum-i-Luri includes beads with an Iron I date. We may also conclude a date close to Iron I for the beads with inscriptions (cf. ch. 33).

From the Dinkha III graves fluted globes, collared globes, Egyptian blue beads, and cowries were retrieved (cf. pl. 232; Muscarella 1974a, figs. 6 and 36). From the Dinkha II graves a three-lobed eye-stone and a cylinder with dragged pattern also were retrieved (cf. pl. 232am, ae, af; Muscarella 1974a, fig. 45). From these parallels, dating to Iron I (Dinkha III) and Iron II (Dinkha II), we also have to conclude an Iron I-II date for most of the bead sample of Surkh Dum-i-Luri. We assume that many beads were dedicated to the sanctuary and later found their final deposition in the hoards. We propose to date the beads retrieved from the graves at the smaller soundings (Khatun Ban, Chujale, Qumish, and Merayun) to Iron II on the basis of the associated pottery.

Table 24. Materials and Shapes of Main Bead Types from All Levels in the Sanctuary at Surkh Dum-i-Luri

| Material Shape | $\begin{aligned} & 1^{\mathrm{a}} \\ & \mathrm{sq} \end{aligned}$ | $\begin{aligned} & 2 \\ & r e \end{aligned}$ | $\begin{aligned} & 3 \\ & \mathrm{tr} \end{aligned}$ | $\begin{aligned} & 4 \\ & \mathrm{bx} \end{aligned}$ | $\begin{aligned} & 5 \\ & c y \end{aligned}$ | $\begin{aligned} & 6 \\ & \mathrm{tu} \end{aligned}$ | $\begin{aligned} & 7 \\ & \mathrm{sp} \end{aligned}$ | $\begin{aligned} & 8 \\ & \text { da } \end{aligned}$ | $\begin{aligned} & 9 \\ & \mathrm{el} \end{aligned}$ | $\begin{aligned} & 10 \\ & \infty \end{aligned}$ | $\begin{aligned} & I I \\ & \mathrm{bi} \end{aligned}$ | $\begin{aligned} & I 2 \\ & \text { lo } \end{aligned}$ | $\begin{aligned} & 13 \\ & \mathrm{ba} \end{aligned}$ | $\begin{aligned} & 14 \\ & \text { ov } \end{aligned}$ | $\begin{aligned} & 15 \\ & \text { ba } \end{aligned}$ | $16$ | $\begin{aligned} & 17 \\ & \mathrm{di} \end{aligned}$ | $\begin{aligned} & 18 \\ & \mathrm{pl} \end{aligned}$ | $\begin{aligned} & 19 \\ & \text { le } \end{aligned}$ | $\begin{aligned} & 20 \\ & \mathrm{pd} \end{aligned}$ | $\begin{aligned} & 2 I \\ & \mathrm{ri} \end{aligned}$ | $\begin{aligned} & 22 \\ & d s \end{aligned}$ | $\begin{aligned} & 23 \\ & \mathrm{ch} \end{aligned}$ | $\begin{aligned} & 24 \\ & \mathrm{pc} \end{aligned}$ | $\begin{aligned} & 25 \\ & \text { po } \end{aligned}$ | $\begin{aligned} & 26 \\ & \text { ot } \end{aligned}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abbasabad | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Agate | - | 1 | 1 | 2 | 1 | - | - | 1 | 2 | - | - | 2 | 6 | - | - | - | 2 | - | - | - | - | $\bar{\square}$ | $\bar{\square}$ | - | - | - | 18 |
| Alabaster | - | - | - | 1 | 5 | - | - | 6 | 1 | - | 1 | - | 5 | 2 | - | - | - | - | - | - | - | 1 | 3 | - | - | 2 | 27 |
| Amethyst | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | " | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Amber | - | - | - | - | - | - | - | - | - | - | 1 | - | 2 | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | 5 |
| Bitumen | - | - | - | - | 2 | - | - | - | - | - | 1 | - | 2 | - | 3 | - | 1 | - | - | - | - | - | - | - | - | 1 | 10 |
| Bone | - | - | - | - | 3 | - | - | - | - | - | - | - | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | 4 | 9 |
| Bronze | - | - | - | - | 114 | 2 | 62 | - | - | 1 | 5 | - | 4 | 1 | 5 | - | 2 | - | - | - | 24 | - | - | - | - | 6 | 226 |
| Camelian | - | - | - | - | 25 | 12 | - | 26 | 1 | 1 | 37 | - | 114 | - | 39 | - | 22 | - | - | 2 | 5 | - | 2 | 1 | 4 | 21 | 312 |
| Chlorite | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | $\overline{7}$ | - | - | 5 | 1 |
| Chalcedony | - | 1 | 1 | 3 | 4 | - | - | 27 | 3 | 1 | - | - | 23 | 5 | 4 | - | 2 | 1 | - | - | - | 2 | 7 | 1 | - | 5 | 90 |
| Clay | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | 7 | 1 |
| Composite | - | - | - | - | 5 | 1 | - | 3 | - | - | - | - | 7 | - | 3 | - | 8 | - | - | - | 2 | i | - | - | - | 7 | 36 |
| Conglomerate | - | 1 | 1 | 1 | 2 | - | - | 2 | - | - | - | - | 5 | - | - | - | - | - | 1 | - | - | 1 | - | - | - | - | 14 |
| Crystal | - | - | 1 | - | - | - | - | - | - | - | - | - | 2 | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | 5 |
| Faience, blue | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 |
| Faience, brown | - | - | - | - | 1 | - | - | - | , | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Faience, green | - | 2 | - | - | 16 | 2 | - | 2 | 1 | 3 | 1 | - | 4 | - | 2 | - | - | - | - | - | 2 | - | - | - | - | 12 | 47 |
| Faience, white | - | 1 | 2 | 1 | 20 | 1 | 3 | 5 | 1 | 4 | 5 | - | 19 | 2 | 26 | 2 | 14 | 13 | 1 | - | 2 | 2 | 1 | - | 1 | 20 | 146 |
| Glass, blue | - | - | - | - | 2 | - | 1 | 1 | - | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | 1 | 2 | 8 |
| Glass, green | - | - | - | - | 2 | 3 | 1 | 1 | - | 4 | 2 | - | 1 | - | 48 | - | 1 | - | - | - | 14 | " | - | - | - | 4 | 81 |
| Glass, white | - | - | - | - | 4 | - | - | 1 | 1 | 1 | 11 | - | 14 | 1 | 103 | - | 1 | 1 | - | - | 45 | - | - | 1 | - | 6 | 190 |
| Granite | - | - | - | - | 1 | - | - | - | - | 1 | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Gypsum | - | - | 1 | - | - | 1 | - | 1 | - | - | - | - | 6 | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | 11 |
| Hematite | - | - | - | $\bullet$ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Jasper | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Lapis lazuli | - | 1 | - | - | 2 | - | - | 1 | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | 5 |
| Onyx | - | - | - | - | 2 | - | - | - | - | - | - | - | 2 | - | - | - | $\overline{7}$ | - | - | - | $\overline{1}$ | - | $\overline{7}$ | - | - | 7 | 5 |
| Serpentine | - | 13 | - | 2 | 5 | - | - | 12 | 2 | - | - | - | 3 | - | - | - | 7 | - | - | - | 1 | - | 2 | - | - | 7 | 54 |
| Silver | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |

THE HOLMES EXPEDITIONS TO LURISTAN

| Material Shape | $\begin{aligned} & l^{a} \\ & \text { sq } \end{aligned}$ | $\begin{aligned} & 2 \\ & \mathbb{R} \end{aligned}$ | $\begin{aligned} & 3 \\ & \mathrm{tr} \end{aligned}$ | $\begin{aligned} & 4 \\ & b x \end{aligned}$ | $\begin{aligned} & 5 \\ & c y \end{aligned}$ | $\begin{aligned} & 6 \\ & \text { tu } \end{aligned}$ | $\begin{aligned} & 7 \\ & \text { sp } \end{aligned}$ | $\begin{aligned} & 8 \\ & \mathrm{da} \end{aligned}$ | $\begin{aligned} & 9 \\ & \text { el } \end{aligned}$ | $\begin{aligned} & 10 \\ & \infty \end{aligned}$ | $\begin{aligned} & 11 \\ & \mathrm{bi} \end{aligned}$ | $\begin{aligned} & 12 \\ & \text { lo } \end{aligned}$ | $\begin{aligned} & 13 \\ & \text { ba } \end{aligned}$ | $\begin{aligned} & 14 \\ & \text { ov } \end{aligned}$ | $\begin{aligned} & 15 \\ & \text { ba } \end{aligned}$ | $\begin{aligned} & 16 \\ & \text { ni } \end{aligned}$ | $\begin{gathered} 17 \\ \mathrm{di} \end{gathered}$ | $\begin{aligned} & 18 \\ & \mathrm{pl} \end{aligned}$ | $\begin{aligned} & 19 \\ & 19 \end{aligned}$ | $\begin{aligned} & 20 \\ & \mathrm{pd} \end{aligned}$ | $\begin{aligned} & 21 \\ & \mathrm{n} \end{aligned}$ | $\begin{aligned} & 22 \\ & \mathrm{ds} \end{aligned}$ | $\begin{aligned} & 23 \\ & \mathrm{th} \end{aligned}$ | $\begin{aligned} & 24 \\ & \mathrm{pe} \end{aligned}$ | $\begin{aligned} & 25 \\ & p \end{aligned}$ | $\begin{aligned} & 26 \\ & \text { ot } \end{aligned}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stone, black | - | - | - | - | 1 | - | - | 3 | - | 1 | - | - | 1 | 1 | 3 | - | 1 | - | - | - | - | - | - | - | - | 1 | 12 |
| Stone, brown | - | 3 | - | - | 2 | - | - | 3 | - | - | - | - | 11 | - | 1 | - | - | - | - | - | $\checkmark$ | - | 7 | - | - | - | 27 |
| Stone, gray | 1 | - | 1 | 2 | 3 | - | - | 3 | - | - | 2 | - | 1 | 2 | - | - | - | 1 | 1 | - | 1 | - | 1 | - | - | - | 19 |
| Stone, green | - | - | 1 | - | 3 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Stone, orange | - | - | - | - | 1 | - | - | 4 | 5 | - | - | - | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | 1 | 14 |
| Stone, pink | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Stone, purple | - | - | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Stone, red | - | - | - | - | 4 | - | - | - | 2 | 1 | - | - | 3 | - | - | - | 1 | - | - | - | 1 | - | 1 | - | - | 1 | 14 |
| Stone, transl. | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Stone, white | - | - | - | 1 | 6 | - | - | 5 | - | 1 | 1 | - | 5 | 1 | 1 | - | 12 | - | - | - | 2 | - | - | 1 | - | 3 | 39 |
| Stone, yellow | - | - | - | 1 | 4 | - | - | 6 | - | - | 2 | - | 1 | 1 | - | - | 1 | 11 | - | - | 1 | - | 2 | - | - | 2 | 32 |
| Turquoise | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Quartz, smoky | $\bullet$ | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 1 | 24 | 10 | 15 | 243 | 22 | 67 | 115 | 21 | 19 | 69 | 2 | 245 | 19 | 243 | 2 | 78 | 28 | 3 | 2 | 103 | 6 | 26 | 5 | 6 | 107 | 1481 |

${ }^{a}$ Abbreviations used for shapes 1-26:

| (1) | square | $(14)$ | ovoid |
| :--- | :--- | :--- | :--- |
| (2) | rectangle | $(15)$ | ball/globe |
| (3) | triangle | $(16)$ | ribbed ball/globe |
| (4) | biconvex | $(17)$ | disc |
| (5) | cylinder | $(18)$ | plano-convex |
| (6) | tube | $(19)$ | lentoid |
| (7) | spiral | $(20)$ | perforated disc |
| (8) | date-shaped | $(21)$ | ring |
| (9) | ellipse | $(22)$ | diamond-shaped |
| (10) | cone | $(23)$ | rhomboid |
| (11) | bicone | $(24)$ | pear-shaped |
| (12) | long bicone | $(25)$ | poppy seed |
| (13) | barrel | $(26)$ | other |

Table 25. Materials of Stratified Bead Lots from Levels 2A to 3A in the Sanctuary at Surkh Dum-i-Luri

| Sor no. | Level | Material | Number |
| :---: | :---: | :---: | :---: |
| 522 | 2A | alabaster | 1 |
|  |  | bitumen | 1 |
|  |  | camelian | 4 |
|  |  | chalcedony | 2 |
|  |  | faience | 4 |
|  |  | serpentine | 2 |
| 444 | 2B | carnelian | 8 |
|  |  | chalcedony | 2 |
|  |  | colored stone | 6 |
|  |  | faience | 3 |
|  |  | glass | 1 |
| 869 | 2 B | chalcedony | 2 |
|  |  | colored stone | 1 |
|  |  | glass | 5 |
| 1016 | 2B | bronze | 2 |
|  |  | carnelian | 9 |
|  |  | chalcedony | 2 |
|  |  | colored stone | 2 |
|  |  | composite | 1 |
|  |  | faience | 1 |
|  |  | glass | 7 |
|  |  | serpentine | 2 |
| 1569 | 2B | granite | 1 |
| 1599 | 2 B | carnelian | 2 |
|  |  | faience | 1 |
|  |  | jasper | 1 |
| 1250 | 2B | alabaster | $\mathrm{x}^{\text {a }}$ |
| 1398 | 2B | alabaster | 2 |
|  |  | faience | 2 |
| 1504 | 2B | alabaster | X |
|  |  | amber | x |
|  |  | camelian | x |
|  |  | faience | x |
|  |  | glass | x |
|  |  | serpentine | x |
| 1640 | 2B | alabaster | x |
|  |  | bronze | x |
|  |  | camelian | X |
|  |  | chalcedony | x |
|  |  | colored stone | x |
|  |  | composite | x |

${ }^{a} x=$ no specific data on the number of objects.

Table 25. Materials of Stratified Bead Lots from Levels 2A to 3A in the Sanctuary at Surkh Dum-i-Luri (cont.)

| Sor no. | Level | Material | Number |
| :---: | :---: | :---: | :---: |
| 1646 | 2 B | alabaster | x |
|  |  | bitumen | x |
|  |  | carnelian | x |
|  |  | chlorite | x |
|  |  | colored stone | x |
|  |  | faience | x |
|  |  | glass | x |
| 731 | 2 C |  |  |
|  |  | bone | $1$ |
|  |  | bronze | 36 |
|  |  | camelian | 59 |
|  |  | chalcedony | 3 |
|  |  | colored stone | 22 |
|  |  | composite | 16 |
|  |  | conglomerate | 1 |
|  |  | faience | 28 |
|  |  | glass | 35 |
|  |  | lapis lazuli | 2 |
| 735 | 2 C | amber | 1 |
|  |  | bitumen | 2 |
|  |  | bronze | 3 |
|  |  | camelian | 8 |
|  |  | chalcedony | 3 |
|  |  | colored stone | 11 |
|  |  | composite | 2 |
|  |  | faience | 3 |
|  |  | glass | 31 |
|  |  | serpentine | 1 |
| 1468 | 2C | alabaster | x |
|  |  | carnelian | x |
|  |  | composite | x |
|  |  | glass | x |
| 1491 | 2C | abbasabad | x |
|  |  | serpentine | X |
| 664 | 3A | camelian | 4 |
|  |  | chalcedony | 1 |
|  |  | colored stone | 2 |
|  |  | conglomerate | x |
|  |  | faience | 1 |
|  |  | glass | 2 |
|  |  | lapus lazuli | 1 |
| 1301 | 3A | chalcedony | $1$ |
|  |  | granite | 1 |
| 1681 | 3A | faience | 4 |

Table 25. Materials of Stratified Bead Lots from Levels 2A to 3A in the Sanctuary at Surkh Dum-i-Luri (cont.)

| Sor no. | Level | Material | Number |
| :---: | :---: | :---: | :---: |
| 1324 | 3A | alabaster | x |
|  |  | amethyst | x |
|  |  | bronze | X |
|  |  | chalcedony | x |
|  |  | composite | x |
|  |  | bronze | x |
|  |  | chalcedony | x |
|  |  |  | x |
|  |  | conglomerate | x |
|  |  | faience | x |
|  |  | glass | x |
|  |  | serpentine | x |
| 1367 | 3A | alabaster | x |
|  |  | carnelian | x |
|  |  | colored stone | x |
|  |  | glass | x |
| 1650 | 3A | bronze | x |
|  |  | carnelian | x |
|  |  | glass | x |

Total by Sor no. and level

| 522 | 2 A | 14 |
| ---: | :--- | ---: |
| 444 | 2 B | 20 |
| 664 | 3 A | 11 |
| 731 | 2 C | 207 |
| 735 | 2 C | 65 |
| 869 | 2 B | 8 |
| 1016 | 2 B | 26 |
| 1301 | 3 A | 2 |
| 1398 | $2 B$ | 4 |
| 1569 | 2 B | 1 |
| 1599 | $2 B$ | 3 |
| 1681 | 3 A | 4 |

Grand total: 365
Total by level

| 2 A | 14 |
| ---: | ---: |
| 2 B | 62 |
| 2 C | 272 |
| 3 A | 17 |

Grand total: 365

Total by material

| abbasabad | 1 | colored stone | 44 |
| :--- | ---: | :--- | ---: |
| alabaster | 3 | conglomerate | 1 |
| amber | 1 | composite | 19 |
| bitumen | 6 | faience | 47 |
| bone | 1 | glass | 81 |
| bronze | 41 | granite | 2 |
| camelian | 94 | lapis lazuli | 3 |
| chalcedony | 16 | serpentine | 5 |
|  |  |  |  |
| Grand total: |  |  | 365 |

Table 26. Species of Shell Beads from Stratified Levels in the Sanctuary at Surkh Dum-i-Luri

| Level | Genus | Number | Totals |  |
| :---: | :---: | :---: | :---: | :---: |
| 3A | Cowrie | 4 | By level |  |
|  | Olividae ${ }^{1}$ | 1 |  |  |
|  | Whelk | 1 | 3A | 6 |
|  |  |  | 2C | 104 |
| 2C | Cancellaria | 1 | 2B | 18 |
|  | Conus | 1 | 2A | 8 |
|  | Cowrie | 52 | 1 | 68 |
|  | Engina | 39 |  |  |
|  | Nassarius | 1 | Grand total: | 204 |
|  | Olividae | 2 |  |  |
|  | Olivella | 1 |  |  |
|  | Scaphoid ${ }^{2}$ | 1 | By classification |  |
|  | Terebra | 1 |  |  |
|  | Thais | 1 | Ancilla | 1 |
|  | Turritella | 1 | Arca | 1 |
|  | Whelk | 3 | Cancellaria | 1 |
|  |  |  | Conus | 8 |
| 2B | Conus | 1 | Cowrie | 111 |
|  | Cowrie | 12 | Engina | 46 |
|  | Olividae | 4 | Nassarius | 1 |
|  | Whelk | 1 | Natica | 2 |
|  |  |  | Olividae | 19 |
| 2A | Conus | 1 | Olivella | 2 |
|  | Cowrie | 4 | Scaphoid | 1 |
|  | Engina | 2 | Terebra | 1 |
|  | Whelk | 1 | Thais | 1 |
|  |  |  | Turritella | 6 |
| 1 | Ancilla | 1 | Whelk | 6 |
|  | Arca | 1 |  |  |
|  | Conus | 5 | Grand total: | 204 |
|  | Cowrie | 39 |  |  |
|  | Engina | 5 |  |  |
|  | Natica | 2 |  |  |
|  | Olividae | 12 |  |  |
|  | Olivella | 1 |  |  |
|  | Turritella | 2 |  |  |
| ${ }^{1}$ Family name |  |  |  |  |
|  | ass name |  |  |  |

Table 27. Shapes and Decorations of Shell Beads from the Sanctuary at Surkh Dum-i-Luri

| Sor no. | Level | Shapeldecoration | Number |
| :---: | :---: | :---: | :---: |
| 570 | 3A-2A | hexagon | 1 |
| 691 | 3A-2A | barrel | 1 |
|  |  | cone | 1 |
|  |  | disc | 4 |
|  |  | disc with concentric circles | 1 |
|  |  | disc with rhomboid | 1 |
|  |  | hexagon with rhomboid | 1 |
|  |  | ring | 1 |
|  |  | tube | 4 |
| 1464 | 3A-2B | not indicated | (?) |
| 562 | 3A-1 | disc | 3 |
|  |  | disc with four-pointed star | 1 |
|  |  | tube | 2 |
| 1100 | 3A-1 | disc | 6 |
|  |  | disc with rhomboid | 2 |
|  |  | disc with four-pointed star | 1 |
|  |  | rectangle | 2 |
|  |  | spacer bead | 2 |
| 1164 | 3A-1 | barrel | 3 |
|  |  | disc | 3 |
|  |  | ring | 2 |
| 1352 | 3A-1 | disc | 2 |
|  |  | disc with concentric circles | 1 |
|  |  | disc with centered circles | 1. |
| 1798 | 3A-1 | club-shaped | 1 |
|  |  | cylinder | 4 |
|  |  | disc | 6 |
|  |  | disc with concentric circles | 3 |
|  |  | disc with four-pointed star | 2 |
|  |  | ring | 3 |
| 389 | 2C-1 | disc, oval | 2 |
|  |  | hexagon with centered circles | 1 |
|  |  | rectangle | 1 |
|  |  | ring | 1 |
| 301 | 2B-A | disc | 3 |
|  |  | tube | 2 |
| 362 | 2B-A | cone with centered circles | 1 |
|  |  | cone with stippled design | 1 |
|  |  | disc with centered circles | 2 |
| 137 | 2B-1 | cone | 1 |
|  |  | disc | 1 |
| 182 | 2B-1 | lentoid with incised cross | 1 |
|  |  | ring | 1 |

Table 27. Shapes and Decorations of Shell Beads from the Sanctuary at Surkh Dum-i-Luri (cont.)

| Sor no. | Level | Shapeldecoration | Number |
| :---: | :---: | :---: | :---: |
| 183 | 2B-1 | cone | 1 |
|  |  | cylinder | 1 |
|  |  | hexagon | 1 |
| 184 | 2B-1 | cylinder | 1 |
| 241 | 2B-1 | barrel | 1 |
|  |  | cylinder | 1 |
|  |  | disc | 6 |
|  |  | hexagon | 1 |
|  |  | ring | 2 |
|  |  | tube | 1 |
| 363 | 2B-1 | barrel | 1 |
|  |  | cylinder | 1 |
|  |  | hexagon | 1 |
| 710 | 2B-1 | tube | 1 |
|  |  | irregular | 1 |
| 265 | 2B-1 | disc | 1 |
|  |  | disc with centered circles | 1 |
| 823 | 2B-1 |  | $\mathrm{x}^{1}$ |
|  |  |  | x |
|  |  | irregular | x |
| 841 | 2B-1 | disc | 3 |
|  |  | hexagon | x |
| 894 | 2B-1 | disc | 5 |
|  |  | disc, oval | 1 |
| 1350b | 2B-1 | disc | 2 |
|  |  | disc with concentric circles | 1 |
|  |  | hexagon | 1 |
|  |  | hexagon with rhomboid | 1 |
| 30 | 2A-1 | disc | 1 |
| 126 | 2A-1 | barrel | 1 |
|  |  | disc | 5 |
| 128 | 2A-1 |  | 1 |
|  |  | hexagon with stippled edge | 2 |
| 771 | 2A-1 | disc with concentric circles | 1 |
|  |  | hexagon with rhomboid | 1 |
|  |  | spacer bead | 1 |
| 945 | 2A-1 | cone | 1 |
|  |  | disc, oval | 1 |
|  |  | disc with rhomboid | 2 |
| 1654 | 3A | unknown | (?) |

Table 27. Shapes and Decorations of Shell Beads from the Sanctuary at Surkh Dum-i-Luri (cont.)

| Sor no. | Level | Shape/decoration | Number |
| :---: | :---: | :---: | :---: |
| 1681 | 3A | cylinder | 1 |
| 1689 | 3A | not indicated | 3 |
| 664 | 3A | barrel <br> disc disc with concentric circles disc with four-pointed star tube | $\begin{aligned} & 1 \\ & 1 \\ & 3 \\ & 2 \end{aligned}$ |
| 1301 | 3A | disc with centered circles | 2 |
| 735 | 2C | cylinder <br> disc disc, oval disc with rhomboid triangle | $\begin{aligned} & 2 \\ & 3 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |
| 731 | 2C | barrel <br> club-shaped <br> cone <br> cylinder <br> disc, oval <br> disc with centered circles <br> disc with concentric circles <br> rectangle <br> rhomboid <br> triangle <br> tube | $\begin{aligned} & 1 \\ & 1 \\ & 2 \\ & 1 \\ & 2 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |
| 444 | 2B | hexagon ring | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |
| 869 | 2B | rectangle | 1 |
| 1016 | 2B | cone <br> cylinder <br> disc <br> disc, oval <br> disc with rhomboid <br> irregular <br> ring | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 3 \\ & 1 \\ & 1 \end{aligned}$ |
| 1250 | 2B | not indicated | 1 |
| 1569 | 2B | disc <br> disc with centered circles ring | $\begin{aligned} & 1 \\ & 1 \\ & 1 \end{aligned}$ |
| 522 | 2A | disc, oval rectangle rhomboid ring | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 2 \end{aligned}$ |
| 48 | 1 | disc, oval ring rectangle | $\begin{aligned} & 1 \\ & 1 \\ & 1 \end{aligned}$ |

Table 27. Shapes and Decorations of Shell Beads from the Sanctuary at Surkh Dum-i-Luri (cont.)

| Sor no. | Level | Shapeldecoration | Number |
| :---: | :---: | :---: | :---: |
| 74 | 1 | hexagon with rhomboid irregular | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |
| 95 | 1 | disc with centered circles | 1 |
| 252 | 1 | barrel | 1 |
| 474 | 1 | disc, oval | 2 |
| 494 | 1 | tube | 1 |
| 506 | 1 | disc with centered circles | 1 |
| 590 | 1 | disc hexagon rhomboid | $\begin{aligned} & 1 \\ & 1 \\ & 1 \end{aligned}$ |
| 754 | 1 | disc disc with rhomboid hexagon triangle | $\begin{aligned} & 2 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |
| 855 | 1 | cylinder disc with concentric circles | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |
| 927 | 1 | disc | 2 |
| 1114 | 1 | barrel <br> disc disc with concentric circles ring | $\begin{aligned} & 1 \\ & 2 \\ & 1 \end{aligned}$ |
| 1336 | 1 | not indicated | (?) |
| Grand total: |  |  | 221 |

$\mathbf{1}_{\mathrm{X}}=$ no specific data on the number of objects.

Table 28. Distribution by Shape of Shell Beads from Levels 1-3 in the Sanctuary at Surkh Dum-i-Luri

| Level | Shape | Number | Shape | Number |
| :---: | :---: | :---: | :---: | :---: |
| 1 | barrel | 2 | hexagon with rhomboid | 1 |
|  | cylinder | 1 | irregular | 1 |
|  | disc | 7 | rectangle | 1 |
|  | disc with centered circles | 2 | rhomboid | 1 |
|  | disc with concentric circles | 2 | ring | 2 |
|  | disc, oval | 3 | triangle | 1 |
|  | disc with rhomboid | 1 | tube | 1 |
|  | hexagon | 2 |  |  |
| 2A | disc, oval | 1 | rhomboid | 1 |
|  | rectangle | 1 | ring | 2 |
| 2A-1 | barrel | 1 | dise with rhomboid | 2 |
|  | cone | 2 | hexagon | -* |
|  | disc | 6 | hexagon with rhomboid | 1 |
|  | disc with concentric circles | 1 | hexagon with stippled edge | 2 |
|  | disc, oval | 1 | spacer bead | 1 |
| 2B | cone | 1 | disc, oval | 1 |
|  | cylinder | 1 | hexagon | 1 |
|  | disc | 2 | irregular | 1 |
|  | disc with centered circles | 1 | rectangle | 1 |
|  | disc with rhomboid | 3 | ring | 3 |
|  | not indicated | 1 |  |  |
| $2 \mathrm{~B}-\mathrm{A}$ | cone with centered circles | 1 | disc with centered circles | 2 |
|  | cone with stippled design | 1 | tube | 2 |
|  | disc | 3 |  |  |
| 2B-1 | barrel | 2 | hexagon | 4 |
|  | cone | 2 | hexagon with rhomboid | 1 |
|  | cylinder | 4 | irregular | $1 *$ |
|  | disc | 18* | lentoid with incised cross | 1 |
|  | disc with centered circles | 1 | ring | 3* |
|  | disc with concentric circles | 1 | tube | 2 |
|  | disc, oval | 1 |  |  |
| 2C | barrel | 1 |  |  |
|  | club-shaped | 1 | disc with rhomboid | 1 |
|  | cone | 2 | rectangle | 1 |
|  | cylinder | 3 | rhomboid | 1 |
|  | disc | 3 | triangle | 2 |
|  | disc with centered circles | 1 | tube | 1 |
|  | disc with concentric circles | 1 |  |  |
| 2C-1 | disc, oval | 2 | rectangle | 1 |
|  | hexagon with centered circle | 1 | ring | 1 |
| 3A | barrel | 1 | disc with concentric circles | 3 |
|  | cylinder | 1 | disc with four-pointed star | 2 |

Table 28. Distribution by Shape of Shell Beads from Levels 1-3 in the Sanctuary at Surkh Dum-i-Luri (cont.)

| Level | Shape | Number | Shape | Number |
| :---: | :---: | :---: | :---: | :---: |
| 3A (cont.) |  |  |  |  |
|  | disc | 1 | tube | 1 |
|  | disc with centered circles | 2 | not indicated | 3 |
| 3A-1 | barrel | 3 | disc with four-pointed star | 4 |
|  | club-shaped | 1 | disc with rhomboid | 2 |
|  | cylinder | 4 | rectangle | 2 |
|  | disc | 20 | ring | 5 |
|  | disc with centered circles | 1 | spacer bead | 2 |
|  | disc with concentric circles | 4 | tube | 2 |
| $3 \mathrm{~A}-2 \mathrm{~A}$ | barrel | 1 | hexagon | 1 |
|  | cone | 1 | hexagon with rhomboid | 1 |
|  | disc | 4 | ring | 1 |
|  | disc with concentric circles | 1 | tube | 4 |
|  | disc with rhomboid | 1 |  |  |

## Total by level

| 1 | 28 | $2 C$ | 21 |
| :--- | :--- | :--- | :--- |

$2 \mathrm{~A} \quad 5 \quad 2 \mathrm{C}-1 \quad 5$

2A-1 17 | 17 | $3 A$ | 14 |
| :--- | :--- | :--- |

| 2 B | 16 | $3 \mathrm{~A}-1$ | 50 |
| :--- | :--- | :--- | :--- |

2B-A $\quad 9 \quad 3 \mathrm{~A}-2 \mathrm{~A} \quad 15$

2B-1 41
Grand total:

Total by shape

| barrel | 11 | hexagon | $8^{*}$ |
| :--- | :---: | :--- | :---: |
| club-shaped | 2 | hexagon with centered circle | 1 |
| cone | 8 | hexagon with rhomboid | 4 |
| cone with centered circles | 1 | hexagon with stippled disc | 2 |
| cone with stippled design | 1 | irregular | $3^{*}$ |
| cylinder | 14 | lentoid with incised cross | 1 |
| disc | $64^{*}$ | rectangle | 7 |
| disc with centered circles | 10 | rhomboid | 3 |
| diss with concentric circles | 13 | ring | $17^{*}$ |
| disc, oval | 12 | spacer bead | 3 |
| disc with rhomboid | 10 | traingle | 3 |
| disc with four-pointed star | 6 | tube | 13 |
|  |  | not indicated | $4^{*}$ |

Grand total:221

[^42]Table 29. Distribution of All Complete Shells Assigned to a Level from the Sanctuary at Surkh Dum-i-Luri

| Sor no. | Level | Genus | Number |
| :---: | :---: | :---: | :---: |
| 562 | 3A-1 | Conus | 1 |
|  |  | Cowrie | 14 |
|  |  | Engina | 1 |
|  |  | Olividae ${ }^{1}$ | 3 |
| 1100 | 3A-1 | Cowrie | 12 |
|  |  | Olividae | 4 |
| 1164 | 3A-1 | Conus | 2 |
|  |  | Cowrie | 16 |
|  |  | Dentalium | 2 |
|  |  | Marginella | 1 |
|  |  | Olividae | 4 |
|  |  | Pelecypod | 1 |
|  |  | Terebra | 1 |
|  |  | Thais | 1 |
| 1352 | 3A-1 | Cowrie | 2 |
| 1798 | 3A-1 | Conus | 4 |
|  |  | Cowrie | 52 |
|  |  | Olividae | 8 |
| 570 | 3A-2A | Arca | 1 |
|  |  | Cowrie | 3 |
| 691 | 3A-2A | Conus | 1 |
|  |  | Cowrie | 17 |
|  |  | Engina | 1 |
|  |  | Olividae | 4 |
|  |  | Whelk | 1 |
| 796 | 3A-2A | Cowrie | 1 |
| 389 | $2 \mathrm{C}-1$ |  |  |
|  |  | Cowrie | 6 |
|  |  | Turritella | 1 |
| 301 | 2B-A | Conus | 1 |
|  |  | Cowrie | 2 |
| 362 | 2B-A | Conus | 4 |
|  |  | Cowrie | 20 |
|  |  | Olividae | 7 |
|  |  | Polinices | 2 |
|  |  | Strombus | 1 |
|  |  | Whelk | 1 |
| 137 | 2B-1 | Cowrie | 3 |
| 182 | 2B-1 | Cowrie | 4 |
|  |  | Olividae | 2 |
|  |  | Whelk | 1 |
| 183 | 2B-1 | Conus | 2 |

Table 29. Distribution of All Complete Shells Assigned to a Level from the Sanctuary at Surkh Dum-i-Luri (cont.)

| Sor no. | Level | Genus | Number |
| :---: | :---: | :---: | :---: |
| 474 | 1 | Conus | 1 |
|  |  | Cowrie | 6 |
|  |  | Natica | 2 |
|  |  | Olividae | 1 |
| 183 | 2B-1 | Whelk | 1 |
| 184 | 2B-1 | Cowrie | 2 |
|  |  | Olivella | 1 |
| 241 | 2B-1 | Conus | 2 |
|  |  | Cowrie | 9 |
|  |  | Engina | 2 |
|  |  | Olividae | 4 |
|  |  | Pelecypod | 1 |
|  |  | Turritella |  |
| 265 | 2B-1 | Cowrie | 2 |
| 363 | 2B-1 | no data |  |
| 710 | 2B-1 | Conus | 3 |
|  |  | Cowrie | 3 |
|  |  | Olividae | 4 |
|  |  | Whelk | 1 |
| 823 | 2B-1 | Cowrie | $\mathrm{x}^{2}$ |
| 841 | 2B-1 | Cowrie | 3 |
|  |  | Olividae | x |
| 894 | 2B-1 | Conus | 4 |
|  |  | Cowrie | 5 |
|  |  | Engina | 1 |
|  |  | Olividae | 3 |
| 1350b | 2B-1 | Cowrie | 7 |
|  |  | Dentalium | 1 |
|  |  | Engina | 1 |
| 771 | 2A-1 | Conus | 1 |
|  |  | Cowrie | 3 |
| 30 | 2A-1 | Ancilla | 1 |
|  |  | Cowrie | 3 |
|  |  | Whelk | 1 |
| 83 | 2A-1 | Conus | 1 |
|  |  | Cowrie | 1 |
| 126 | 2A-1 | Conus | 2 |
|  |  | Cowrie | 3 |
|  |  | Olividae | 3 |
|  |  | Polinices | 1 |

Table 29. Distribution of All Complete Shells Assigned to a Level from the Sanctuary at Surkh Dum-i-Luri (cont.)

| Sor no. | Level | Genus | Number |
| :---: | :---: | :---: | :---: |
| 183 | 2B-1 | Cowrie | 4 |
| 1681 | 3A | no data | - |
| 664 | 3A | Cowrie <br> Olividae <br> Whelk | $\begin{aligned} & 4 \\ & 1 \\ & 1 \end{aligned}$ |
| 1301 | 3A | no data | - |
| 735 | 2C | Cowrie <br> Engina Olivella Scaphoid ${ }^{3}$ Turritella Whelk | $\begin{array}{r} 14 \\ 9 \\ 1 \\ 1 \\ 1 \\ 1 \end{array}$ |
| 731 | 2C | Cancellaria <br> Cowrie <br> Engina <br> Nassarius <br> Olividae <br> Terebra <br> Thais <br> Whelk | $\begin{array}{r} 1 \\ 38 \\ 30 \\ 1 \\ 2 \\ 1 \\ 1 \\ 1 \end{array}$ |
| 444 | 2B | Conus Cowrie | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |
| 869 | 2B | Olividae | 1 |
| 1016 | 2B | Cowrie Olividae | $\begin{aligned} & 5 \\ & 1 \end{aligned}$ |
| 1569 | 2B | Cowrie <br> Whelk | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |
| 1599 | 2B | Cowrie Olividae | $\begin{aligned} & 2 \\ & 1 \end{aligned}$ |
| 522 | 2A | Conus Cowrie Engina Whelk | $\begin{aligned} & 1 \\ & 4 \\ & 2 \\ & 1 \end{aligned}$ |
| 48 | 1 | Conus Cowrie Engina | $\begin{aligned} & 1 \\ & 3 \\ & 1 \end{aligned}$ |
| 74 | 1 | Cowrie | 1 |
| 95 | 1 | Conus Olividae | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |
| 252 | 1 | Cowrie Olividae | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |

Table 29. Distribution of All Complete Shells Assigned to a Level from the Sanctuary at Surkh Dum-i-Luri (cont.)

| Sor no. | Level | Genus | Number |
| :---: | :---: | :---: | :---: |
| 128 | 2A-1 | Conus | 5 |
|  |  | Cowrie | 4 |
| 945 | 2A-1 | Cowrie | 13 |
|  |  | Crepidula | 1 |
|  |  | Nerita | 1 |
|  |  | Slycemeris | 1 |
| 474 | 1 | Turritella | 1 |
| 494 | 1 | Cowrie | 4 |
|  |  | Olividae | 1 |
|  |  | Turritella | 1 |
| 506 | 1 | Arca | 1 |
|  |  | Cowrie | 3 |
|  |  | Olividae | 3 |
| 590 | 1 | Cowrie | 6 |
|  |  | Olividae | 1 |
| 601 | 1 | Ancilla | 1 |
|  |  | Cowrie | 1 |
| 754 | 1 | Cowrie | 7 |
|  |  | Engina | 3 |
|  |  | Olivella | 1 |
| 855 | 1 | Cowrie | 2 |
|  |  | Olividae | 1 |
| 927 | 1 | Conus | 1 |
|  |  | Cowrie | 1 |
|  |  | Olividae | 1 |
| 1114 | 1 | Cowrie | 4 |
|  |  | Engina | 1 |
|  |  | Olividae | 2 |
|  |  | Grand Total: | 523 |

${ }^{1}$ Family name
${ }^{2} \mathrm{x}=$ unknown number of fragments
${ }^{3}$ Class name

Table 30. Materials and Shapes of Miscellaneous Bead Types from the Sanctuary at Surkh Dum-i-Luri

| Material | Shape | Number of examples |
| :---: | :---: | :---: |
| Alabaster | hexagon | 1 |
| Bone | animal jaw | 1 |
| Bronze | club-shaped | 1 |
|  | double disc | 1 |
|  | fluted barrel | 1 |
| Camelian | "tooth" | 1 |
| Chalcedony | rectangular pendant | 1 |
|  | trapezoid | 1 |
| Composite | double globe | 1 |
|  | geometric cylinder | 1 |
|  | segmented cylinder | 1 |
|  | scalloped disc | 1 |
| Faience |  |  |
| blue | scaraboid | 1 |
| green | bird head | 1 |
|  | fluted barrel | 1 |
|  | fluted cone | 1 |
|  | geometric cylinder | 7 |
|  | irregular | 1 |
|  | scalloped disc | 1 |
|  | scaraboid | 3 |
|  | spacer bead | 2 |
| white | bird head | 2 |
|  | fluted barrel | 4 |
|  | fluted bicone | 8 |
|  | fluted cone | 1 |
|  | fluted cylinder | 1 |
|  | geometric cylinder | 2 |
|  | scaraboid | 1 |
|  | segmented cylinder | 1 |
| Glass |  |  |
| green | bird head | 1 |
| white | bird head | 2 |
|  | three-lobed ring | 1 |
| Glaze, brown | scroll | 1 |
| Gypsum | rectangular pendant | 1 |
| Serpentine | frog | 1 |
|  | scaraboid | 2 |
|  | spacer bead | 1 |
| Stone |  |  |
| black | fluted cone | 1 |
| gray | trapezoid | 1 |
| white | scaraboid | 2 |
|  | Total: | 64 |

CATALOG 31. IRON AGE BEADS

| Plate Site and |
| :--- | :--- | :--- |
| obj. no. | | Area, plot Level Dim. $(\mathrm{cm}) \quad$ Material |
| :--- |
| or burial or elev. |$\quad$ Description

31A. BEAD CLASSES
31A.1. COWRIE

|  | Kha 45 | x 3 | -1.15 | $13 \times 0.7$ | shell |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | Kha 73 | $\mathrm{x3}$ | -1.15 | - | shell |
| - | Sor 181:1-3 | 7 N | 2B-1 | - | shell |
| 230a | Sor 731:1a | $1-2$ | 2 C | $3.0 \times 2.2$ | shell |
| 230b | Sor 731:1b | $1-2$ | 2 C | $1.5 \times 1.1$ | shell |
| 230c | Sor 731:1c | $1-2$ | 2 C | $1.8 \times 1.2$ | shell |
| - | Sor 1587:1 | $1 / 3$ | 2B | - | shell |
| - | Sor 1603 | $1 / 3$ | 2B | - | shell |

Two exx., perforated tops
Six complete exx., one frgm
Three exx., sides cut off
Perforated
Perforated
Perforated
Side cut off
Two exx., sides cut off

31A.2. CONUS

| - | Sor 18 | 5 | 1 | $3.9 \times 2.3$ | shell |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | Sor 605 | $1-2$ | 2 C | $2.5 \times 2.0$ | shell |
| 230d | Sor $710: 1 \mathrm{a}$ | 1 | $2 \mathrm{~A}-1$ | $4.6 \times 2.7$ | shell |

shell shell
shell shell shell

Top perforated
Top perforated

31A.4. WHELKS

| 230 j | Sor 522:1a |
| :--- | :--- |
| - | Sor 635 |
| 31A.5. PELECYPODA |  |


| 2301 | Sor 570 a | $3-4$ | $2 \mathrm{~B}-1$ | $5.2 \times 3.5$ | shell |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 230 n | Sor $945: 1 \mathrm{i}$ | 10,11 | $2 \mathrm{~A}-1$ | $2.2 \times 2.2$ | shell |

shell
Perforated pendant(?)

31A.6. RING-SHAPED

| - | CS 174 | L7, xl | -8.10 | - |
| :---: | :---: | :---: | :---: | :---: |
|  | Sor 631 | 1-2 | 2 C | $1.3 \times 0.6$ |
| 230y | Sor 731:2c | 1-2 | 2 C | $2.1 \times 0.6$ |
| 230 z | Sor 731:2b | 1-2 | 2 C | $2.5 \times 0.5$ |
| 231 bi | Sor 731:4i | 1-2 | 2 C | $1.0 \times 0.7$ |
| 231bj | Sor 731:4k | 1-2 | 2 C | $1.1 \times 0.7$ |
| 231 bk | Sor 731:5m | 1-2 | 2 C | $0.4 \times 0.2$ |
| 231bl | Sor 731:5e | 1-2 | 2 C | $0.8 \times 0.4$ |
| 231 bm | Sor 731:51 | 1-2 | 2C | $0.5 \times 0.2$ |
| 231 bn | Sor 731:5d | 1-2 | 2 C | $0.7 \times 0.4$ |
| 231 bo | Sor 731:7i | 1-2 | 2 C | $1.3 \times 0.4$ |
| 231 bp | Sor 731:7o | 1-2 | 2C | $0.6 \times 0.4$ |
| 232am | Sor 1065 | 3 | 3A-2A | $1.9 \times 0.8$ |
| - | Sor 1579 | 1,7,9 | 2 B |  |


| car, fa <br> bronze <br> shell <br> shell <br> stone <br> bitumen <br> faience <br> glass <br> glass <br> glass | Two complete rings |
| :--- | :--- |
| bronze | - |
| bronze | Encrusted 'eye' type |
| glass | - |
| shell | - |

Catalog 31. Iron Age Beads (cont.)

| PlateSite and <br> obj. no. | Area, plot Level <br> or burial or elev. | Dim. $(\mathrm{cm})$ | Material | Description |
| :--- | :--- | :--- | :--- | :--- | :--- |

31A.7. CONE-SHAPED

| 230aa | Sor 731:2g | $1-2$ | 2C | $2.1 \times 1.0$ | shell ${ }^{\prime}$ | Perforated top |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 230ab | Sor 731:2h | $1-2$ | 2C | $1.9 \times 1.8 \times 1.1$ | shell | Lateral pcrforation |
| 231ai | Sor 691:3c | 1,2 | 3A-2A | $1.4 \times 1.1$ | glass | - |
| 231aj | Sor 691:3j | 1,2 | 3A-2A | $1.5 \times 1.5$ | faience | Br band encircles perf ends, |
|  |  |  |  |  |  | brn and y dashes |
| 231ak | Sor 735:2h | $1-2$ | 2C | $1.5 \times 1.4$ | cha | Lateral perforation |
| - | Sor 1413 | $1 / 3$ | 2B | 2.6 | shell | Irregular |
| - | Sor 1423 | $1 / 3$ | 2B | 5.8 | shell | Long |
| - | Sor 1608 | $1 / 3$ | 2B | - | shell | Two exx., irregular |
| 231al | Sor 1646 f | $1 / 3$ | 2B | $1.2 \times 1.1$ | faience | Lateral perforation |

31A.8. RHOMBOID-SHAPED

| - | Kha 12:2 | x 1 | -0.95 | $0.2 \times 0.8$ | camelian |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sha 1 | A | mdsl | $2.3 \times 1.4 \times 1.1$ | shell | Curved frgm, obl perf |
| - | Sha 14:1 | A | mdsl | $2.6 \times 1.5 \times 1.1$ | shell | Curved frgm, obl perf |
|  | Sha 14:2 | A | mdsl | $2.5 \times 1.4 \times 1.1$ | shell | Curved frgm, obl perf |
| - | Sha 15:1 | A | mdsl | $2.3 \times 1.4 \times 0.8$ | shell | Curved frgm, obl perf |
| - | Sha 15:2 | A | mdsl | $3.2 \times 1.8 \times 1.3$ | shell | Curved frgm, obl perf |
| - | Sor 1531:2 | 1, 7, 9 | 2B | - | shell | Irregular fragment |
| - | Sor 626 | 1-2 | 2 C | $1.7 \times 0.9$ | shell | Curved frgm, obl perf |
| 230ae | Sor 731:1e | 1-2 | 2 C | $3.1 \times 1.5 \times 1.2$ | shell | Oblong perforation |
| 231 bq | Sor 435 | 4-2 | 2B | $2.7 \times 2.1 \times 0.6$ | agate | - |
| 231br | Sor 1295d | 7 | 2A-1 | $0.9 \times 0.8 \times 0.3$ | turquoise | - |
| 231 bs | Sor 638 | 1-2 | 2 C | $3.3 \times 2.9 \times 1.2$ | stone | Brn, wt, blk, obl perf |
| 231bt | Sor 710:2b | 3-4 | 2B-1 | $5.8+\times 2.4 \times 0.8$ | cha | Bremer |

## 31A.9. TRIANGLE-SHAPED

$\begin{array}{ll}- & \text { Qum 2 } \\ \text { 230ad } & \text { Sor 731:2e }\end{array}$

A
bur grd
1-2 2C
$2.8 \times 1.5 \times 0.1$
$1.6 \times 1.3 \times 0.4$
shell
shell
Fragment, obl perf -

31A.10. PLANO-CONVEX-SHAPED DISCS

| - | ChJal 9 | $\begin{aligned} & 5 \mathrm{~m} \mathrm{~W} \\ & \text { of } \mathrm{xl} \end{aligned}$ | - | $2.4 \times 1.0$ | shell | Two stippled circles on top, horizontally pierced |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 20 | 5 | 1 | $2.6 \times 0.9$ | shell | Four centered circles encircled by stp line, hor perf |
| - | Sor 608:1 | 1-2 | 2C | $1.0 \times 2.5$ | shell | Horizontal and top perf |
| - | Sor 647 | 1-2 | 2C | 2.1 | shell | Stippled border and fourpointed star |
| 230aj | Sor 691:2b | 1 | 3A-1 | $2.6 \times 0.8$ | shell | Stp five-pointed star in a circle, obl perf |
| 230ak | Sor 731:2f | 1-2 | 2 C | $2.1 \times 0.8$ | shell | Four centered circles in stp circle |
| 230 al | Sor 731:2a | 1-2 | 2C | $2.4 \times 0.7$ | shell | Stippled rhomboid |
| 230am | Sor 664:2c | 1 | 3A | $2.4 \times 0.6$ | shell | Stp four-pointed star in a circle |
| 230an | Qum 1 | A | bur grd | $2.5 \times 0.6$ | shell | Stp five-pointed star in a circle, obl perf |

Catalog 31. Iron Age Beads (cont.)

| Plate | Site and <br> obj. no. | Area, plot <br> or burial <br> Level <br> or elev. | Dim. $(\mathrm{cm})$ | Material | Description |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 231bh | Sor $522: 3 \mathrm{e}$ | 4 | 2 A | $2.3 \times 0.5$ | carnelian | - |
| 232 h | Sor $1100: 3$ | 3 | $3 \mathrm{~A}-1$ | $2.2 \times 1.0$ | faience | Radiating lines, central perf |
| 232ay | Sor $731: 8 \mathrm{i}$ | $1-2$ | 2 C | $2.7 \times 0.8$ | faience | Radiating stippled lines |
|  | Sor $1531: 1$ | $1,7,9$ | 2 B | - | shell | - |

## 31A.11. VARIOUS-SHAPED PENDANTS

| 230au | Sor 1031g | 1 |
| :--- | :--- | :--- |
| 230av | Sor 809 | 3 |
| 31A.12. | RECTANGLE-SHAPED |  |


| - | Mer 4 | bur grd | - | $1.8 \times 1.4 \times 0.8$ | serp | Plano-convex rect, bird inc on base |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 29 | 5 | 2A | $2.1 \times 1.4 \times 1.2$ | agate | Rounded rectangle, obl perf |
| - | Sor 67 | 7N | 1 | $2.0 \times 1.5 \times 1.0$ | cha | Rounded rectangle, obl perf |
| - | Sor 112 | 1 | 2A | $2.2 \times 1.2 \times 0.7$ | abbasabad | Rounded rectangle |
|  | Sor 422 | 4 | 2B | $2.1+\times 1.3$ | faience | Gry body, y design, frgm |
| - | Sor 627 | 1-2 | 2C | 1.7 | faience | Rounded rect, both ends grooved |
| 230v | Sor 731:1j | 1-2 | 2 C | $1.0 \times 0.7 \times 0.4$ | shell | - |
| 231a | Sor 731:6j | 1-2 | 2 C | $0.8+\times 0.6 \times 0.4$ | cha | Rounded, obl perf |
| 231b | Sor 731:5t | 1-2 | 2 C | $1.0 \times 0.9 \times 0.3$ | faience | Rounded, obl perf |
| 231c | Sor 731:6d | 1-2 | 2 C | $1.9 \times 1.7 \times 1.0$ | stone | Yellow and brown; rounded rectangle with obl perf |
| 231d | Sor 1001 | 1-3 | 2B | $3.2 \times 1.7 \times 1.1$ | congl | Brn and wt, obl perf |
| 231 c | Sor 894:2d | 1 | 2-1 | $2.2 \times 1.4 \times 0.5$ | serp | Rounded with incisions at comers and center |
| 232aj | Sor 1100:5 | 7-2 | 2B-1 | $2.0 \times 0.8$ | gypsum | Top comer perforated |
| - | Sor 1209:2 | 3 | 2A | 2.0 | stone | Rounded rectangle |

31A.13. PRISM-SHAPED

|  | Sor 433 | 4 | $2 B$ | $2.0 \times 1.8 \times 1.7$ | cha |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 231f | Sor 996 | $1-3$ | $2 B$ | $3.2 \times 2.7$ | gypsum |

Irr prism, perf through top Triangular prism, obl perf

## 31A.14. BICONVEX-SHAPED

|  | Sor 414 | 4 | $2 B$ | $3.3 \times 2.3$ | agate |
| :--- | :--- | :--- | :--- | :--- | :--- |
| - | Sor 435 | 4 | $2 B$ | $2.5 \times 2.1$ | agate |
| 231g | Sor 580 | 19 | 1 | $1.9 \times 0.9$ | faience |
| - | Sor 618:2 | $1-2$ | 2 C | $1.4 \times 0.7$ | faience |
| - | Sor 1017 | $1-3$ | $2 B$ | $1.5 \times 1.3$ | faicnce |

Oval, polished, obl perf Lozenge, obl perf Disc, fluted, perf in center Disc
Hatched hourglass and two eyes crossed

31A.15. CYLINDER-SHAPED

| - | Kha 12:1 | x1 |
| :--- | :--- | :--- |
| - | Kha 15:3 | x1 |
| - | Kha 26a | x1 |
| - | Kha 72:1 | x1 |
| - | Sha 26 | x2 |


| -0.95 | $0.7 \times 0.7$ |
| :--- | :--- |
| -0.95 | $0.5 \times 0.5$ |
| -0.95 | - |
| bel <br> skull <br> -0.85 | $1.0 \times 0.6$ |
|  | $0.4 \times 0.7$ |

carnelian camelian camelian camelian bronze Ninety-two exx.

Three centered circles Disc with perforated tab

Plano-convex rect, bird inc on base
Rounded rectangle, obl perf Rounded rectangle, obl perf unded rectangle Geod y bion grooved

Rounded, obl perf Rounded, obl perf rectangle with obl perf Brn and wt, obl perf Rounded with incisions a Top comer perforated Rounded rectangle

Catalog 31. Iron Age Beads (cont.)

| PlateSite and <br> obj. no. | Area, plot Level <br> or burial or elev. | Dim. (cm) Material Description |
| :--- | :--- | :--- | :--- | :--- | :--- |

31A.15. CYLINDER-SHAPED (cont.)

| - | Sor 4 | 5 | 1 | $3.0 \times 1.0$ | stone | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 167 | 6 | 2A | $1.2+\times 0.6$ | composite | Both ends chipped |
| - | Sor 629 | 1-2 | 2C | $2.7 \times 0.8$ | bronze | Bothers |
| - | Sor 634 | 1-2 | 2 C | $4.2 \times 1.5$ | stone | - |
| - | Sor 636 | 1-2 | 2 C | $3.2 \times 1.4$ | stone | - |
| 230t | Sor 731:1h | 1-2 | 2C | $1.6 \times 0.6 \times 0.6$ | shell | - |
| 231h | Sor 731:6g | 1-2 | 2 C | $2.0 \times 0.7$ | faience | Oblong perforation |
| 231i | Sor 731:4c | 1-2 | 2 C | $1.4 \times 0.6$ | faience | Oblong perforation |
| 231j | Sor 731:5n | 1-2 | 2C | $0.4 \times 0.3$ | faience | - |
| 231k | Sor 731:5r | 1-2 | 2 C | $1.0 \times 0.7$ | faience | - |
| 2311 | Sor 731:4e | 1-2 | 2 C | $0.9 \times 0.6$ | lap la | - |
| 231m | Sor 731:4b | 1-2 | 2C | $1.4 \times 0.6$ | stone | Orange |
| 231n | Sor 731:6k | 1-2 | 2 C | $1.4 \times 0.6$ | carnelian | - |
| 2310 | Sor 731:7q | 1-2 | 2 C | $0.8 \times 0.4$ | bronze | - |
| 231p | Sor 731:7n | 1-2 | 2 C | $0.9 \times 0.5$ | bronze | - |
| 231q | Sor 731:7k | 1-2 | 2 C | $1.2 \times 0.8$ | bronze | - |
| 231r | Sor 731:71 | 1-2 | 2C | $1.3 \times 0.6$ | bronze | Sheet ends touch |
| 231x | Sha 27:1-4 | x 2 | - | $1.2 \times 0.5$ | bronze | Four exx., thickened in center |
| 232w | Sor 731:50 | 1-2 | 2C | $0.7 \times 0.3$ | faience | Segmented |
| - | Sor 806 | 3 | 2A | $4.8 \times 1.7$ | stone | - |
| - | Sor 1053:2 | 3 | 2B | $4.5 \times 1.4$ | glass | - |
| - | Sor 1146 | 1 | 3A | $2.6+$ | stone | - |
| 232x | Sor 1286b | 3 | 2B-1 | $0.9 \times 0.4$ | faience | Segmented |
| 232y | Sor $1295 f$ | 7 | 2B-1 | $2.8 \times 0.6$ | faience | Segmented |
| 232ac | Sor 1150 | 1 N | 3A | $2.0 \times 0.8$ | chlorite | Incised horizontal lines |
| - | Sor 1316 | 9/11 | 3A | $2.5 \times 1.5$ | bone | - |

31A.16. TUBE-SHAPED

| - | CS 175:3 | L7, xl | -8.10 | - |
| :--- | :--- | :--- | :--- | :--- |
| - | CS 470 | H 6 | -1.80 | $2.6 \times 0.6$ |
| - | Sha 21 | $\mathrm{x1}$ | 0.20 | $1.0 \times(?)$ |
| - | Sha 22 | $\mathrm{x1}$ | 0.20 | $2.8 \times 0.8$ |
| - | Sor 53 | 6 | 1 | $4.0+\times 0.8$ |
| 230u | Sor 731:1i | $1-2$ | 2 C | $1.9 \times 0.3$ |
| 231s | Sor 183:4c | 6 | $2 \mathrm{~B}-1$ | $2.9 \times 0.6$ |
| 231t | Sor 182:3u | 4 | $2 \mathrm{~B}-1$ | $2.5 \times 0.6$ |
| 231u | Sor 74f | 7 | 1 | $2.8+\times 0.7$ |
| 231v | Sor 628 | $1-2$ | 2 C | $2.7 \times 1.0$ |
| - | Sor 942 | 10 | 1 | $4.4 \times 0.8$ |
| 231w | Sha 10 | A | mdsl | $4.2 \times 0.6$ |


| faience |  |
| :---: | :---: |
| carnelian |  |
| faience | Decorated with con grooves |
| bronze | - |
| camelian | Slightly thickened in center |
| shell | - |
| carnelian | - |
| carnelian | - |
| carnelian | Thickened in center |
| faience | Thickened in center |
| shell | - |
| bronze | Rolled sheet, edges joined |

31A.17. SPIRAL-SHAPED

| - | Qum 4a | A | bur grd | bronze | Four coils |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| - | Sha 11 | A | mdsl | $2.2 \times 0.3$ | bronze | Coiled |
| - | Sha 12 | A | mdsl | $0.7 \times 0.5$ | bronze | Coiled, frgm |
|  | Sha 20 | x 1 | -0.80 | $3.7 / 4.2 \times$ | bronze | Five exx., coiled |
| - | Sha 36 |  | x 3 | -0.80 | $4.2 \times 0.6$ |  |
| 231y | Sor 731:3d | $1-2$ | $2 C$ | $0.8 \times 0.5$ | bronze | Three exx., coiled |
| 231z | Sha 16 | x 1 | -0.20 | $4.8+\times 0.7$ | faience | Spiral |
| 231aa | Sha 28 | x 2 | - | $20.4 \times 0.6$ | bronze | Spiral grooves, obl perf, frgm |
|  |  |  |  |  |  |  |

Catalog 31. Iron Age Beads (cont.)

| Plate | Site and obj. no. | Area, plot or burial | Level or elev. | Dim. (cm) | Material | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 434 | 4 | 2B | $2.8 \times 0.6$ | bronze | Coiled |
| - | Sor 480 | 4 | 1 | $3.2 \times 0.5$ | bronze | Coiled |
| 231ab | Sor 731:7r | 1-2 | 2 C | $2.3 \times 0.4$ | bronze | Coiled |
| 231 ac | Sor 731:7s | 1-2 | 2C | $1.1 \times 1.4 \times 0.2$ | silver | Bead or hairspiral |
| - | Sor 661 | 1 | 3A | $1.6 \times 1.3$ | bronze | Coiled |
| - | Sor 1488 | 2/23 | 2 C | $3.8 \times 0.5$ | bronze | Coiled |
| - | Sor 1666 | 9/11 | 3A | $1.9 \times$ (?) | bronze | Coiled |

## 31A.18. DATE-SHAPED

| - | CS $475: 3$ | H6 | -1.60 | $1.4 \times 0.5$ |
| :--- | :--- | :--- | :--- | :--- |
| - | CS 478:2 | H6 | -1.90 | $1.4 \times 0.5$ |
| - | Kha 7 | x1 | -0.95 | $2.2 \times 0.7$ |
| - | Qum 11 | A | bur grd | $1.7 \times 0.7$ |
| - | Sor 609 | $1-2$ | 2C | $2.4 \times 1.1$ |
| - | Sor 641 | $1-2$ | $3 A(?)$ | $3.9 \times 1.3$ |
| 231ad | Sor 731:6e | $1-2$ | 2C | $2.3 \times 1.0$ |
| 231ae | Sor 731:6f | $1-2$ | 2C | $2.3 \times 0.9$ |
| 231af | Sor 731:6c | $1-2$ | 2C | $3.2 \times 0.8$ |
| - | Sor 1111 | 1,7 | 1 | $2.0+\times 1.3$ |


| lap la | - |
| :--- | :--- |
| cha | - |
| camelian | - |
| camelian | - |
| cha | - |
| cha | Orange |
| stone | - |
| glass | - |
| cha | Fragment |
| stone |  |

## 31A.19. MACEHEAD-SHAPED

| 231bz | Kha 11 | x1 | -0.95 | $2.8 \times 1.4$ | bronze | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 231ca | Sor 736 | 2 | 2 C | $5.2 \times 2.2$ | lmst | - |

31A.20. VARIOUS-SHAPED 'EYE' TYPE STONES

| 232 a | Sor 282 | 4 | 2B-A | $2.5 \times 1.0$ | cha |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 257 a | Sor 610 | $1-2$ | 2C | $3.5 \times 1.2$ | onyx |
| 257 b | Sor 714 | $1-2$ | 2C | $1.9 \times 0.8$ | stone |

31A.21. VARIOUS-SHAPED SPACERS

| - | Sor 935 | 11 | 1 | $2.5 \times 2.5$ | alab |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 230at | Sor 1295 e | 7 | 2B-2A | $4.9 \times 0.7 \times 0.6$ | shell |
| 232b | Sor 650 | 1 | 3 A | $1.8 \times 1.5 \times 0.5$ | faience |
| 232c | Sor $1100: 1$ | 3 | $3 \mathrm{~A}-1$ | $1.7 \times 1.6 \times 0.6$ | serp |
| 232 d | Sor $1100: 2$ | 3 | $3 \mathrm{~A}-1$ | $2.0 \times 1.1 \times 0.4$ | faience |
|  |  |  |  |  |  |
| 232e | Sor 1451 | $3 / 13$ | $2 B$ | $3.1 \times 3.0 \times 1.0$ | serp |
| - | Sor 1605 | $1 / 3$ | 2 B | 2.8 | bone |
|  |  |  |  |  |  |
| 232 f | Sor 1077 | 3 | 3A-2A | $3.0 \times 1.4 \times 0.9$ | bone |

Disc, one beveled edge, polished, obl perf
Disc with beveled rim, top slightly offset, inscription (see ch. 33, no. 6)
Disc with beveled rim, obl perf, inscription (see ch. 33, no. 7)

Disc, two parallel perf, circle of centered circles
Four perforations
Two perf in rect with four grooves
Two perf in rect with two grooves
Three perforated tubes forming a rectangle
Rounded rect, two parallel perf Rect with two parallel perf, one face with one centered circle, other face with two Rect with three parallel perf three centered circles separated by double incised line on top

THE HOLMES EXPEDITIONS TO LURISTAN
Catalog 31. Iron Age Beads (cont.)

| PlateSite and <br> obj. no. | Area, plot <br> or burialLevel <br> or elev. | Dim. $(\mathrm{cm})$ | Material | Description |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 31A.21. VARIOUS-SHAPED SPACERS (cont.) |  |  |  |  |  |  |
| 232 g | Sor 1682 | $1 / 9 / 11$ | 3 A | $5.6 \times 0.7 \times 0.5$ | bone | Scven perf in rectangle with <br> unevenly spaced circles |
| - | Sor 1681 a | $1 / 9 / 11$ | 3 A | - | bone | Rounded rect, two parallel perfs |

31A.22. CYLINDER-SHAPED WITH GEOMETRIC DESIGNS

|  | Sor 181:4 | 7 N | $2 \mathrm{~B}-1$ | $1.9 \times 0.6$ | faience | Lozenge design, both edges <br> (rooved |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 230ac | Sor 1016d | $1-3$ | 2 B | $3.2 \times 0.9$ | shell | Centered circles |
| 232z | Sor 562:2e | 1,4 | $3 \mathrm{~A}-1$ | $0.8 \times 0.4$ | faience | Geometric design |
| 232aa | Sor 1100:4 | 3 | $3 \mathrm{~A}-1$ | $1.6 \times 0.7$ | faience | Geometric design |
| 232ab | Sor 754:2f | $1,3,4$ | 1 | $2.3 \times 0.9$ | faience | Geometric design |
| 232ad | Sor 1643 | $1 / 3$ | 2 B | $1.3 \times 1.3$ | serp | Geometric design |

## 31A.23. VARIOUS FLUTED SHAPES

| - | Sor 318 | 1 | $2 \mathrm{~B}-\mathrm{A}$ | $1.7 \times 1.7 \times 1.7$ | faience |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 232 i | Sor $691: 3 \mathrm{a}$ | 1 | $3 \mathrm{~A}-2 \mathrm{~A}$ | $2.8 \times 0.9$ | faience |
|  |  |  |  |  |  |
| 232 j | Sor $241: 14$ | 1 | $2 \mathrm{~B}-1$ | $1.8 \times 0.5$ | stone |
| 232 k | Sor $562: 21$ | 1,4 | $3 \mathrm{~A}-1$ | $1.5 \times 1.4$ | faience |
| 232 l | Sor 1031 k | 1 | $3 \mathrm{~A}-1$ | $0.8 \times 0.9$ | comp |
| 232 n | Sor $855: 1 \mathrm{~g}$ | $11,18 \mathrm{ff}$ | 1 | $1.3 \times 1.1$ | faience |
| 232 o | Sor $731: 7 \mathrm{~d}$ | $1-2$ | 2 C | $1.0 \times 0.9$ | faience |
| 232 q | Sor 265 a | $4,6,16$ | $2 \mathrm{~B}-1$ | $1.1 \times 0.9$ | faience |
| 232 s | Sor 273 | 4 | 2 A | $1.3 \times 1.1$ | faience |
| 232 t | Sor $731: 7 \mathrm{f}$ | $1-2$ | 2 C | $1.5 \times 0.6$ | faience |
| 232 u | Sor $855: 1 \mathrm{i}$ | $11,18 \mathrm{ff}$ | 1 | $2.3 \times 1.0$ | faience |
| 232 v | Sor 627 | $1-2$ | 2 C | $3.4 \times 1.0 \times 1.0$ | faience |

Plano-convex ovoid; zigzag design Concave-convex disc, radiating lines from central perf Black truncated cone Globe
Bicone
Cone, central and lat perf Bicone
Collared globe
Collared globe
Barrel
Barrel Collared barrel, square in sect

31A.24. SCROLL-SHAPED

| 232 aq | Sor 1068 | 3 | 3A-2A | $1.5 \times 0.2$ | bronze | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| - | Sor 1519 | 1 | 3A-2B | $1.9 \times 0.2$ | bronze | - |

31A.25. BARREL-SHAPED WITH ETCHED DESIGNS

| 232ag | Kha 9 | $\times 1$ | -0.95 | $2.0 \times 1.0$ | carnelian | White etched circlets all over |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 232ah | Sor 183:6a | 6 | $2 \mathrm{~B}-1$ | $1.6 \times 0.9 \times 0.4$ | camelian | Etched 'cye'type |

31A.26. CYLINDER- AND BARREL-SHAPED WITH 'DRAGGED' LINE DESIGNS

| - | Sor $608: 2$ | $1-2$ | 2C | $2.9 \times 1.5$ | faience | Barrel with brn-r dragged lines |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 232ae | Sor 721 | $1-2$ | 2C | $2.1 \times 0.9$ | faience | Cyl with dragged pattern |
| 232af | Sor $823: 2 \mathrm{~b}$ | 3 | $2 \mathrm{~B}-1$ | $1.7 \times 1.1$ | glass | Barrel with wt and y dragged |
|  |  |  |  |  |  | lines |

31A.27. VARIOUS SHAPED WITH INSCRIPTIONS

- Qum 4b A bur grd - bronze Two bicones

Catalog 31. Iron Age Beads (cont.)

| Plate | Site and obj. no. | Area, plot or burial | Level or elev. | Dim. (cm) | Material | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 256b | Sor 162 | 6 | 2B | $2.6 \times 1.5$ | agate | Barrel with five lines of inscription (see ch. 33, no. 2) |
| 256d | Sor 301a | 4 | 2B-2A | $3.6 \times 0.8$ | camelian | Tubular with two lines of inscription <br> (see ch. 33, no. 4) |
| 258a | Sor 1450 | 3/13 | 2B | $1.5 \times 1.0$ | camelian | Barrel with four lines of inscription (see ch. 33, no. 11) |

31A.28. BICONE-SHAPED

| - | CS 478:1 | H6 | -1.90 | $1.4 \times 1.2$ | stone | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Kha 1 | x 1 | - | $0.9 \times 0.7$ | carnelian | Truncated, chipped |
| - | Kha 26b | x 1 | - | - | carnelian | Three exx. |
| - | Kha 72:3 | x1 | bel skull | $0.6 \times 0.8$ | camelian | Truncated |
| - | Sor 60:1 | 7N | 1 | $2.2 \times 1.5$ | glass | - |
| - | Sor 60:2 | 7N | 1 | $1.2 \times 1.6$ | glass | - |
| - | Sor 328 | 1-2 | 2A | $2.4 \times 1.1$ | bronze | - |
|  | Sor 1587:2-3 | 1/3 | 2B | - | shell | Two exx. |
| 231am | Sor 731:7e | 1-2 | 2C | $1.0 \times 0.7$ | glass | - |
| 231an | Sor 731:5k | 1-2 | 2C | $0.8 \times 0.8$ | carnelian | - |
| 231ao | Sor 731:5g | 1-2 | 2 C | $0.8 \times 0.5$ | camelian | - |
| 231ap | Sha 23 | x 1 | -0.80 | $0.7 \times 0.7 \times 0.1$ | bronze | - |
| 231aq | Sor 731:4p | 1-2 | 2 C | $1.0 \times 0.5$ | camelian | - |
| 231ar | Sor 731:4h | 1-2 | 2 C | $1.5 \times 1.0$ | stone | Brown |
| 231as | Sor 731:4j | 1-2 | 2C | $1.3 \times 1.0$ | stone | Gray |
| 231at | Sor 731:6a | 1-2 | 2C | $2.6+\times 1.0$ | stone | - |
| 232m | Sor 664:3j | 1 | 3A | $0.9 \times 0.5$ | faience | Scalloped |
| 232p | Sor 731:7c | 1-2 | 2 C | $1.2 \times 1.1$ | faience | Grid pattern |

31A.29. BARREL-SHAPED

| - | Kha 2 | xl | -0.95 | $1.8 \times 0.8$ | chalcedony | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Kha 3 | x1 | -0.95 | $1.5 \times 0.8$ | camelian | - |
| - | Khal5:1 | x1 | -0.95 | $2.0 \times 0.9$ | carnelian | - |
| - | Kha 26c | x 1 | -0.95 | - | carnelian | Four barrels |
| - | Kha 72:2 | x1 | bel skull | $0.9 \times 0.5$ | carnelian | - |
| - | Sor 59 | 6 | 1 | $2.3 \times 1.1$ | crystal | - |
| - | Sor 87 | 5 | 2A | $2.3+\times 1.0$ | glass | - |
| - | Sor 608:3 | 1-2 | 2 C | $1.8 \times 1.2$ | stone | - |
| 230s | Sor 731:1f | 1-2 | 2 C | $1.5 \times 0.9 \times 0.6$ | shell | - |
| 231au | Sor 731:6i | 1-2 | 2 C | $2.0 \times 0.9$ | stone | Brown |
| 231av | Sor 731:4s | 1-2 | 2 C | $1.5 \times 0.7 \times 0.6$ | stone | Red, green, brown |
| - | Sor 736 | 2 | 2 C | $4.7 \times 2.2$ | stone | - |
| - | Sor 998:1 | 1-3 | 2B | $2.6 \times 0.9$ | camelian | - |
| - | Sor 998:2 | 1-3 | 2B | $1.9 \times 0.9$ | chlorite | - |
| - | Sor 1418 | 1/3 | 2B | 2.8 | alabaster | Two exx. |

31A.30. OVOID-SHAPED

THE HOLMES EXPEDITIONS TO LURISTAN
Catalog 31. Iron Age Beads (cont.)

| Plate | Site and obj. no. | Area, plot or burial | Level or elev. | Dim. (cm) | Material | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31A.30. OVOID-SHAPED (cont.) |  |  |  |  |  |  |
| - | Sor 22 | 5 | 2A | $1.7 \times 1.2$ | cha | Polished, obl perf |
| - | Sor 618:3 | 1-2 | 2 C | $2.1+\times 1.0$ | cha | - |
| - | Sor 695 | 1/4 | 2B | $2.4 \times 1.8$ | cha | Plano-convex in section |
| 230w | Sor 731:3h | 1-2 | 2 C | $2.7 \times 2.1 \times 0.6$ | shell | Two perforations |
| 230x | Sor 731:3j | 1-2 | 2 C | $2.0 \times 1.6 \times 0.5$ | shell | Oblong perforation |
| 231ag | Sor 522:2g | 4 | 2A | $3.5 \times 2.2 \times 0.8$ | cha | Rhomboid in section |
| 231ah | Sor 1463c | 3/2 | 3A-2B | $1.5 \times 1.5 \times 0.4$ | faience | Notched sides |
| 231aw | Sor 731:4f | 1-2 | 2 C | $1.4 \times 1.1 \times 0.8$ | faience | - |
| 231ax | Sor 731:5u | 1-2 | 2 C | - | faience | - |
| - | Sor 1053:4 | 3 | 2B | $2.4 \times 1.8$ | cha | Plano-convex |
| $\begin{aligned} & 232 \mathrm{ax} \\ & \text { and } 249 \end{aligned}$ | $\begin{aligned} & \text { Sor } 1017 \\ & \text { :xiii } \end{aligned}$ | 1/3 | 2B | 1.5 | faience | Convex oval, hatched hourglass, centered circles, diagonal pattem |
| - | Sor 1150 | 1 | $3 \mathrm{~A}-2 \mathrm{~A}$ | $2.7 \times 1.5$ | chlorite | Faint rings |
| - | Sor 1209:1 | 3 | 2 A | 3.6 | stone | Plano-convex |

31A.31. GLOBE-SHAPED

| - | CS 475:1 | H6 | -1.60 | $1.2 \times 1.2$ | glass | Perforation not finished |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | CS 475:2 | H6 | -1.60 | $0.7 \times 0.9$ | cha | - |
| - | CS 478:3 | H6 | -1.90 | $0.7 \times 0.8$ | camelian | - |
| - | Mer 5 | bur grd | - | $1.7 \times 1.6 \times 1.3$ | tufa | Slightly flattened |
| - | Sha 25 | x1 | -0.80 | $1.2 \times 0.9$ | glass | Three exx. |
| - | Sor 60:3 | 7 N | 1 | $1.2 \times 1.3$ | glass | - |
| - | Sor 618:4 | 1-2 | 2 C | $0.6 \times 0.7$ | bronze | - |
| - | Sor 625 | 1-2 | 2 C | $1.3 \times 0.9$ | faience | One side flattened |
| - | Sor 717 | 1-2 | 2 C | - | glass | Five exx., various dim. |
| 231ay | Sor 731:41 | 1-2 | 2 C | $1.1 \times 0.9$ | carnelian |  |
| 231az | Sor 731:5i | 1-2 | 2 C | $0.8 \times 0.7$ | carnelian | One of five exx. strung on iron wire |
| 231ba | Sor 731:7a | 1-2 | 2 C | $2.0 \times 1.8$ | glass | - |
| 231 bb | Sor 731:7b | 1-2 | 2C | $1.3 \times 1.2$ | glass | - |
| 231bc | Sor 731:7p | 1-2 | 2C | $0.6 \times 0.7$ | bronze | - |
| 232r | Sor 1798a | - | 3A-1 | $0.8 \times 0.6$ | faience | Collared, with grid pattern |
| 232ar | Sor 562:2i | 1,4 | 3A-1 | $1.6 \times 0.2$ | bronze | Double globe, upper globe perforated |
| 232as | Sor 731:5b | 1-2 | 2C | $0.8 \times 0.8$ | bitumen | Collared |
| 232at | Sor 731:5c | 1-2 | 2 C | $0.7 \times 0.5$ | comp | Collared |

31A.32. DISC-SHAPED

|  | CS 175:1-2 | L7, x1 | -8.10 | - | camelian | Two exx., rings |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| - | Kha 13 | x1 | -0.95 | $0.2 \times 0.7$ | carnelian | - |
| - | Qum 3 | A | bur grd | $1.7 \times 0.7$ | faience | - |
| 230ah | Sor 731:3g | $1-2$ | 2C | $0.6 \times 0.1$ | shell | - |
| 230ai | Sor 731:3k | $1-2$ | 2C | $0.9 \times 0.3$ | shell | - |
| 231bd | Sor 731:4m | $1-2$ | 2C | $1.0 \times 0.5$ | carnelian | Central perforation |
| 231be | Sor 731:5f | $1-2$ | 2C | $0.9 \times 0.2$ | lap la | - |
| 231bf | Sor 731:4n | $1-2$ | 2C | $1.4 \times 0.6$ | amber | Central perforation |
| 231bg | Sor 731:5s | $1-2$ | 2C | $1.2 \times 0.4$ | faience | Lateral perforation |
| - | Sor $1053: 3$ | 3 | 2B | $0.5 \times 1.9$ | serp | - |
| - | Sor 1381 | $1 / 3$ | 2B | 2.1 | faience | White and green |

Catalog 31. Iron Age Beads (cont.)

| Plate | Site and <br> obj. no. | Area, plot Level <br> or burial or elev. | Dim. $(\mathrm{cm})$ | Material | Description |
| :--- | :--- | :--- | :--- | :--- | :--- |

31A.33. CLUB-SHAPED

| 230af | Sor 731:1g | $1-2$ | 2C | $1.8 \times 0.5$ | shell | Perforated top |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 230ag | Sor 1016e | $1-3$ | 2B | $1.0 \times 0.1$ | tooth | Perforated top |
| 232ak | Sor 241:10 | 1 | 2B-1 | $2.5 \times 0.7$ | carnelian | - |
| 232al | Sor 1031j | 1 | 3A-1 | $1.7 \times 0.6 \times 0.3$ | camelian | - |
| 232ao | Sor 731:7m | $1-2$ | 2C | $2.4 \times 0.6$ | bronze | - |

## 31A.34. HEXAGON-SHAPED

| 230ao | Sor 731:2d | $1-2$ | 2C | $2.2 \times 1.9 \times 0.8$ | shell |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 230ap | Sor 691:2c | 1 | 3A-1 | $2.3 \times 2.1 \times 0.8$ | shell |
| 230aq | Sor 691:2a | 1 | $3 \mathrm{~A}-1$ | $2.6 \times 2.1 \times 0.8$ | shell |
| 230ar | Sor 1324a | 9 | $3 A$ | $2.2 \times 1.8 \times 0.6$ | shell |

Hexagon, top cut, lat perf Hexagon, stippled edge, top cut, lateral perforation Hexagon with stippled rhomboid, top cut, lateral perf Hexagon, four centered circles in stippled frames

## 31A.35. POPPY SEED-SHAPED

| - | Kha 15:2 | x 1 | -0.95 | $1.2 \times 0.5$ | carnelian | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Kha 26d | x1 | -0.95 | - | camelian | One exx. |
| 231bw | Sor 855:1h | 11-18-22 | 1 | $1.5 \times 1.2$ | glass | - |
| 231bx | Sor 618:1 | 1-2 | 2C | $2.1 \times 0.9$ | carnelian | - |
| 231 by | Sor 1324c | 9 | 3A | $1.2 \times 0.5$ | carnelian | - |

31A.36. VARIOUS SHAPED WITH ATTACHED METAL RINGS

| 232 au | Sor 1653 | $1 / 2$ | 3 A | $2.1 \times 1.0$ | fa, br | Cylinder with incised zigzag, <br> frgm with bronze ring |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 232 av | Sor 778 | 22 | 1 | $2.2 \times 1.0$ | shell, br | Bronze ring through shell band |

31A.37. GLOBE- AND BICONE-SHAPED WITH ATTACHED METAL RINGS

| 232az | Sor 406 | 4 | 2 A | $6.3+\times 1.9$ | car, ir | Car globe with ir shank broken |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 232ba | Sor 1045 | 3 | $2 B$ | $8.1 \times 1.4$ | car, br | Carnelian globe on br shank |
| 232bb | Sor 39 | 1 | 1 | $14.3 \times 1.2$ | cha/car, ir | Car globe and flat cha bicone <br> on ringed iron shank |
| 232 bc | Sor 508 | 4 | $2 B$ | $23.5 \times 1.4$ | car, ir | Carnclian globe on iron shank |

31A.38. PEAR-SHAPED

| 231bu | Sor $1031 f$ | 1 | $3 A-1$ | $1.2 \times 0.8 \times 0.6$ | gypsum | - |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 23lbv | Sor $1031 b$ | 1 | $3 A-1$ | $2.7 \times 1.2 \times 0.8$ | stone | White |

31A.39. ANIMAL- AND BIRD-HEADED SHAPES

| 232ai | Sor 1798d | - |  | 3A-1 | $1.7 \times 0.9 \times 0.6$ | faience | Animal(?) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 232an | Sor 735:3d | $1-2$ | 2 C | $1.7 \times 0.6$ | glass | Bird head |  |
| 232aw | Sor 731:7g | $1-2$ | 2C | $1.1 \times 0.5$ | serp | 'Frog'-shaped, hatched design |  |

Catalog 31. Iron Age Beads (cont.)

| Plate | Site and obj. no. | Area, plot or burial | Level or elev. | Dim. (cm) | Material | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31A.40. MISCELLANEOUS SHELL COLLECTION |  |  |  |  |  |  |
| 230e | Sor 30:2j | 5,14, 15 | 2A-1 | $1.0 \times 0.5$ | shell | Acilla sp., side perforation |
| 230 f | Sor 731:3b | 1-2 | 2 C | $1.6 \times 1.2$ | shell | Nassarius sp., side perforation |
| 230 g | Sor 731:3c | 1-2 | 2C | $1.5 \times 0.9$ | shell | Engina sp., side perforation |
| 230 h | Sor 731:3f | 1-2 | 2 C | $1.1 \times 0.6$ | shell | Engina sp., side perforation |
| 230m | Sor 945:1f | 10, 11 | 2A-1 | $1.6 \times 0.4$ | shell | Dentalium sp. |
| 2300 | Sor 735:1a | 1-2 | 2C | $3.5 \times 2.5$ | shell | Thais sp., top cut off |
| 230p | Sor 735:1i | 1-2 | 2 C | $2.1 \times 0.9$ | shell | Cancellaria sp. base end perf |
| 230q | Sor 945:11 | 10, 11 | 2A-1 | $2.2 \times 1.7$ | shell | Nerita sp., top cut off |
| 230r | Sor 731:3a | 1-2 | 2C | $1.5 \times 0.7$ | shell | Terebra sp., base end perf |

31A.41. MISCELLANEOUS BONE BEAD


## 31A.42. VARIOUS-SHAPED BEAD LOTS

| - | Sor 30 | 5, 15, 14 | 2A-1 | - |
| :---: | :---: | :---: | :---: | :---: |
|  | Sor 48 | 1,3, 22 | 1 | - |
| - | Sor 74 | 7 N | 1 | - |
| - | Sor 83 | 4, 6, 7 | 2A-1 | - |
| - | Sor 95 | $\begin{aligned} & 5,13, \\ & 14,15 \end{aligned}$ | 1 | - |
| - | Sor 126 | 1 | 2A-1 | - |
| - | Sor 128 | 1 | 2A-1 | - |
|  | Sor 137 | 1 | 2B-1 | - |
| - | Sor 182 | 4 | 2B-1 | - |
| - | Sor 183 | 6 | 2B-1 | - |
| - | Sor 184 | 4,6,7 | 2B-1 | - |
| - | Sor 241 | 1 | 2B-1 | - |
| - | Sor 252 | $\begin{aligned} & \text { 1, 11, } \\ & 18 \mathrm{ff} \end{aligned}$ | 1 | - |
| - | Sor 265 | 4, 6, 16 | 2B-1 | - |
| - | Sor 301 | 4 | 2B-A | - |
| - | Sor 362 | 1 | 2B-A | - |
| - | Sor 363 | 1 | 2B-1 | - |
| - | Sor 389 | 2 | 2C-1 | - |
| - | Sor 444 | 4 | 2B | - |
| - | Sor 474 | 1 | 1 | - |
| - | Sor 494 | 2 | 1 | - |
|  | Sor 506 | 18ff | 1 | - |
| - | Sor 522 | 4 | 2A | - |
| - | Sor 562 | 1,4 | 3A-1 | - |
| - | Sor 570 | 1,4 | 3A-2A | - |
|  | Sor 590 | 19, 21 | 1 | - |
| - | Sor 601 | KG | 1 | - |
| - | Sor 664 | 1 | 3A | - |
| - | Sor 691 | 1 | 3A-2A | - |


| car, gls, sh, st | 12 exx. (cf. tab. 27) |
| :--- | ---: |
| fa, sh, st <br> cha, gls, sh <br> cha, glass <br> car, glass, sh | 14 exx. (cf. tab. 27) |
|  | 6 exx. (cf. tab. 27) |
|  | 70 exx. (cf. tab. 27) |
| cha, gls, sh | 20 exx. (cf. tab. 27) |
| cha, fa, gls, sh |  |
| car, sh | 19 exx. (cf. tab. 27) |
| br, cha, fa, | 77 exx. (cf. tab. 27) |
| gls, sh, st | 47 exx. (cf. tab. 27) |
| cha, fa, gls, | 38 exx. (cf. tab. 27) |
| sh, st |  |
| car, cha, lmst, | 9 exx. (cf. tab. 27) |
| sh |  |
| bit, gls, sh, st | 49 exx. (cf. tab. 27) |
| cha, sh | 5 exx. (cf. tab. 27) |
|  |  |
| misc | 11 exx. (cf. tab. 27) |
| cha, fa, gls, sh | 33 exx. (cf. tab. 27) |
| shell | 43 exx. (cf. tab. 27) |
| fa, gls, sh, st | 34 exx. (cf. tab. 27) |
| bo, fa, gls, | 26 exx. (cf. tab. 27) |
| sh, st |  |
| fa, gls, sh, st | 25 exx. (cf. tab. 27) |
| fa, gls, sh, st | 27 exx. (cf. tab. 27) |
| gls, sh, st | 18 exx. (cf. tab. 27) |
| car, cha, pa, sh | 12 exx. (cf. tab. 27) |
| misc | 22 exx. (cf. tab. 27) |
| br, car, cha, sh | 82 exx. (cf. tab. 27) |
| fa, sh, st | 8 exx. (cf. tab. 27) |
| fa, qu, sh, st | 18 exx. (cf. tab. 27) |
| misc | 7 exx. |
| misc | 24 exx. (cf. tab. 27) |
| misc | 55 exx. (cf. tab. 27) |

Catalog 31. Iron Age Beads (cont.)

| Plate | Site and obj. no. | Area, plot or burial | Level or elev. | Dim. (cm) | Material | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | Sor 710 | 3,4 | 2B-1 | - | misc | 35 exx. (cf. tab. 27) |
| - | Sor 731 | 1-2 | 2 C | - | misc | 155 exx. (cf. tab. 27) |
| - | Sor 735 | 1-2 | 2 C | - | misc | 96 exx. (cf. tab. 27) |
| - | Sor 754 | 1, 3, 4 | 1 | - | misc | 36 exx. (cf. tab. 27) |
| - | Sor 771 | SE 2 | 2A-1 | - | misc | 7 exx. (cf. tab. 27) |
| - | Sor 796 | 1 | 3A-2A | - | misc | 10 exx. |
| - | Sor 823 | 3 | 2B-1 | - | misc | 17 exx. (cf. tab. 27) |
| - | Sor 841 | 4 | 2B-1 | - | misc | 18 exx. (cf. tab. 27) |
| - | Sor 855 | 11,18ff | 1 | - | misc | 18 exx. (cf. tab. 27) |
| - | Sor 869 | 1-3 | 1B | - | misc | 10 exx. (cf. tab. 27) |
| - | Sor 894 | 1 | 2B-1 | - | misc | 16 exx. (cf. tab. 27) |
| - | Sor 927 | 4 | 1 | - | misc | 10 exx. (cf. tab. 27) |
| - | Sor 945 | 10,11 | 2A-1 | -_ | misc | 27 exx. (cf. tab. 27) |
| - | Sor 1016 | 1-3 | 2B | - | misc | 38 exx. (cf. tab. 27) |
| - | Sor 1031 | 1 | 3A-1 | - | misc | 203 exx. |
| - | Sor 1100:6-89 | 3 | 3A-1 | - | misc | 84 exx. (cf. tab. 27) |
| - | Sor 1114 | 1,7 | 1 | - | misc | 23 exx. (cf. tab. 27) |
| - | Sor 1164 | 1 | 3A-1 | - | misc | 90 exx. (cf. tab. 27) |
| - | Sor 1238 | 3 | 3A-2A | - | misc | (?) exx. |
| - | Sor 1250 | 7 | 2B | - | alab, sh | 2 exx. (cf. tab. 27) |
| - | Sor 1259 | 7 | 2B-A | - | misc | (?) exx. |
| - | Sor 1270 | 9 | 1 | - | misc | (?) exx. |
| - | Sor 1286 | 3 | 2B-1 | - | misc | (?) exx. |
| - | Sor 1295 | 7 | 2A-1 | - | misc | (?) exx. |
| - | Sor 1301a, b, d | 9 | 3A | - | cha, shell | 3 exx. (cf. tab. 27) |
| - | Sor 1324 | 9 | 3A | - | misc | (?) exx. |
| - | Sor 1336 | 13 | 1 | - | gls, shell | (?) exx. (cf. tab. 27) |
| - | Sor 1345 | 2 | $2 \mathrm{C}-1$ | - | misc | (?) exx. |
| - | Sor 1350b | 13,14 | 2B-1 | - | misc | 27 exx. (cf. tab. 27) |
| - | Sor 1351 | 3 | 2B-1 | - | bone(?) exx. |  |
| - | Sor 1352 | 9 | 3A-1 | - | misc | 11 exx. (cf. tab. 27) |
| - | Sor 1367 | 1/3 | 3A | - | misc | (?) exx. |
| - | Sor 1398 | 1/3 | 2B | - | misc | (?) exx. |
| - | Sor 1463 | - | - | - | misc | (?) exx. |
| - | Sor 1464 | 3 | $3 \mathrm{~A}-2 \mathrm{~B}$ | - | shell | (?) exx. (cf. tab. 27) |
| - | Sor 1468 | 2 | 2 C | - | misc | (?) exx. |
| - | Sor 1491 | 2/23 | 2 C | - | misc | (?) exx |
| - | Sor 1504 | 3/13(?) | 2B | - | misc | (?) exx. |
| - | Sor 1520 | - | - | - | misc | (?) exx. |
| - | Sor 1569 | 1, 7, 9 | 2B | - | granite, shell | 5 exx. (cf. tab. 27) |
| - | Sor 1599 | $1 / 3$ | 2B | - | misc | 7 exx. |
| - | Sor 1627 | - | - | - | misc | (?) exx. |
| - | Sor 1640 | 1/3 | 2B | - | misc | (?) exx. |
| - | Sor 1646 | 1/3 | 2B | - | misc | (?) exx. |
| - | Sor 1650 | 1/2 | 3A | - | misc | (?) exx. |
| - | Sor 1654 | 1/2 | 3 A | - | $\mathrm{br}, \mathrm{sh}, \mathrm{st}$ | (?) exx. (cf. tab. 27) |
| - | Sor 1655 | - | - | - | misc | (?) exx. |
| - | Sor 1675 | 1/9/11 | 3 A | - | misc | (?) exx. |
| - | Sor 1681 | 1/9/11 | 3A | - | misc | (?) exx. (cf. tab. 27) |
| - | Sor 1689 | 9/10(?) | 3A | - | shell | 3 exx. (cf. tab. 27) |
| - | Sor 1690 | 1/11 | 3A | - | misc | (?) exx. |
| - | Sor 1798 | - | 3A-1 | - | misc | 176 exx. (cf. tab. 27) |

## CHAPTER 32

## IRON AGE CYLINDER AND STAMP SEALS ${ }^{1}$

by Maurits $N$. van Loon

## INTRODUCTION

A large proportion (14 percent) of the objects found at Surkh Dum-i-Luri were seals or inscribed stones. Many of them ( 125 pieces) had been incorporated into the floors and walls of the sanctuary along with many ornaments and other objects that must previously have formed part of the sacred inventory. The remainder ( 132 pieces), found on or above the latest floors, may likewise have been given by worshipers to the deity worshiped here. In contrast to the inscribed stones, none of the seals seem to have been made expressly for presentation to the sanctuary. ${ }^{2}$ Some of them had been worn for a long time before being presented.

Not only the Iron Age seals from Surkh Dum-i-Luri but also eleven seals from Chigha Sabz, two from Kamtarlan I, and one from Khatun Ban are treated below.

## 32A. CYLINDER SEALS

True to Mesopotamian and Elamite tradition, most seals from Surkh Dum-i-Luri (79 percent) are cylinder seals, and of these at least thirty-four can be recognized as belonging to well-known earlier groups. These are described in chapters 19B and 24. The remainder seem attributable to the Iron Age. It is to be noted, however, that the 10 th and 9 th centuries B.C., preceding construction of the sanctuary, are much better represented among the cylinder seals than the 8th and early 7th centuries B.C., during which the sanctuary was used. It is as if cylinder seals were considered worthy of presentation to the deity only after they had become antiques.

Of the 168 Iron Age cylinder seals from Surkh Dum-i-Luri nine can be recognized as being Neo-Assyrian or provincial Neo-Assyrian products. Some seals of Mesopotamian type that may have been made in Iran are included in this group. Of eleven Iron Age cylinder seals from Chigha Sabz two are provincial Neo-Assyrian and one is Neo-Babylonian. The remainder, including two from Kamtarlan I and one from Khatun Ban, are carved either in Neo-Elamite style or in cruder styles that seem derivative thereof.

## 32A.1. NEO-ASSYRIAN, PROVINCIAL NEO-ASSYRIAN, AND <br> ASSYRIANIZED NEO-ELAMITE SEALS (Seals 41-52)

No. 41 (Sor 1309, pl. 233)
On 41, two quadrupeds are climbing against a tree and looking back, as on Morgan 638 and on the border of a robe on a relief of Ashurnasirpal II (Layard 1849, pl. 50). For this and other reasons, Edith Porada assumes a 9 th century B.C. dating for Morgan 638. On 41, the rounded to conical leaves are arranged so as to fit within a stelelike outline, as on 9 th century B.C. seals. This suggests for 41 a date in the 9 th century B.C. An archer introduces an element

[^43]of combat into the heraldic scene, as on the 12th to 11th century B.C. seal Choga Zanbil 36 and on a probably 10th century b.c. local style seal from Surkh Dum-i-Luri (86, below).

No. 42 (Sor 979, pl. 233)
The king raising a drinking bowl while leaning on his bow is often portrayed on the reliefs of Ashurnasirpal II (883-859 b.c.). ${ }^{3}$ It is also a favorite motif on the group of NeoAssyrian linear-style cylinder seals to which 42 corresponds. Five seals with this motif were excavated at Assur in a 9th to 8th century b.c. context. ${ }^{4}$ Unusual and probably provincial features on 42 are the horizontally striated garments and the staff held by the attendant. Perhaps the seal cutter misunderstood the long napkin which is usually held by the attendant.

## Nos. 43-49 (General Discussion)

The graceful designs of 43-45 and 48-49 are dominated by serrate lines that indicate human hair, monsters' wings, and so forth. This is a distinctively Iranian provincial NeoAssyrian style, which developed as a parallel to the Neo-Assyrian linear style, having a similar repertoire of subject matter but, in the finest seals, a much more precise and delicate execution. ${ }^{5}$

No. 43 (Sor 1241, pl. 233)
Another motif that occurs both on the reliefs of Ashurnasirpal $\mathrm{II}^{6}$ and on Neo-Assyrian linear-style cylinder seals of the 9 th and 8th centuries B.c. is the bull hunt. Certain features, such as the apronlike garment on the archer's haunches and the chariot box with cross (actually crossed quivers) and standard or spear leaning backward, occur on 9th century but not on 8th century b.c. reliefs (Hrouda 1965, pls. 26, 30:no. 3, and 41:no. 1). A late Middle Assyrian seal like Walters 79, with large, modeled lion in violent movement, may have served as an example for the composition of 43, especially in the proportions of horse, chariot and men. Our seal should therefore be close to 900 b.c. in date. Ur 611, a carnelian seal with comparable chariot scene, showing clear traces of cutting disc and drill, was found in a context predating Nebuchadnezzar. ${ }^{7}$ Morgan 659 , probably of the 9 th century b.c., has a collapsing bull portrayed below the galloping horses in the same way as on 43 . Features not often seen on Assyrian seals are the seven-spoked wheel and the closely serrate strokes of engraving along the men's hair (cf. the early Middle Elamite seal 32, above) and along the horses' and the bulls' manes.

No. 44 (Sor 1600, pl. 233)
The kneeling archer aiming at his prey is another popular theme of Neo-Assyrian linearstyle cylinders of the 9 th to 8th centuries B.c. The closely serrate strokes along the goat's horns occur on some Assyrian seals, but, together with the similar treatment of the goat's body and the archer's clothing, they may point to an origin in the Assyro-Iranian borderland for this as well as for the previous and the following seals.
${ }^{3}$ E.g., Layard 1849, pl. 12.
${ }^{4}$ Berlin Rollsiegel 665, 668, 669, 670, and 672. See Moortgat 1940:70.
${ }^{5}$ I owe this observation, like many others in the present chapter, to Edith Porada.
${ }^{6}$ E.g., Layard 1849, pl. 11.
${ }^{7}$ Legrain 1951:43; (cf. Woolley 1962:26), describing the brick conduit with foundations of Nebuchadnezzar northwest of E-nun-mah, below which Ur 611 was apparently found.

No. 45 (Sor 1625, pl. 233)
In this seal the composition is augmented by a hunting dog. Here, the closely serrate strokes appear on the archer's hair, the goat's horns, and both animals' bodies. This seal is extremely close in style and subject matter to seals ND. 5364 and ND. 5368 found in the Ninurta Temple cache at Kalhu (modern Nimrud) (Parker 1962, pl. 13:nos. 2 and 3). In the corridor behind this sanctuary, built about 879 b.C., a deposit of beads and seals was sealed below a secondary floor prior to the blocking of the corridor. The latest tablet found in the temple dates to 713 b.C., but the final destruction did not occur until 614-612 b.c. (Mallowan 1957, especially p. 20). One of the seals (Parker 1962, pl. 14:no. 3) is comparable to a seal from Dur Untash (modern Choga Zanbil) which Amiet dates to the 8th-7th centuries b.C. (Amiet 1966, fig. 419). Mallowan felt that the alterations made, during which the cache was deposited, need not have been carried out before the 7th century B.c. (Mallowan 1957:20). On the other hand, the parallels that Miss Parker has cited for the seals from the cache are mostly from the 8th century or earlier (Parker 1962:28, 31-33). Another seal from a 7th century room at Kalhu shows flat outlined animals with closely serrate features and large outlined eyes somewhat like 48 (below), together with a horseman shooting backward in Iranian fashion (Parker 1955, no. ND. 2197, pl. 14:no. 3). Miss Parker has attributed it to the 8th century b.C. Miss Parker also has remarked upon the Iranian features on some of the seals in the Ninurta Temple cache. If both the seals from the cache and our seals $43-45$ and 48-49 were made in the Assyro-Iranian borderland in the 8th century, this would explain the non-Assyrian features found in these groups.

No. 46 (CS 377, pl. 233)
Among the objects buried in plot I7 at Chigha Sabz during Iron Age III were two worn porphyry seals, 46 and 47 (CS 377 and CS 380), each showing a kneeling archer and a goat, as well as some seals of late Neo-Elamite type, 69 and 153 (ca. 625-500 b.c.; see below). Despite their worn condition the main elements of the design stand out quite clearly, showing that they were treated in considerable relief.

Both in theme and in positioning of the bodies they seem related to 44 and 45 and to ND. 5364 and 5368, mentioned above.

No. 47 (CS 380, pl. 233)
The lively movement of the goat on 47 is stressed by the diagonal placement of animal bodies, so often seen in 7th-6th century seals B.c. (see the discussion below of 110, 111, 130, 152, and 153). A similar seal with an Elamite inscription was rolled on a Neo-Elamite II tablet from Susa (Amiet 1973a, no. 21).

No. 48 (Sor 1480, pl. 233)
This seal is obviously related to 45 by the rampant pose of the hollow-backed animals and by the shape of the herbivores' heads. Closely serrate strokes here occur along the sabershaped wings. Such wings are also seen on probably 8th century B.c. seals from Susa. ${ }^{8}$ We can now see that the worn seals ND. 5369 and ND. 5386 from the Ninurta Temple cache (Parker 1962, pls. 13, no. 4 and 14, no. 1) also belong to this group.

No. 49 (Sor 1219, pl. 233)
Yet another example is 49 , on which both contesting monsters seem to have human heads.
${ }^{8}$ Susa 2126 and 2127.

No. 50 (Sor 1236, pl. 233)
Finally, the group of Neo-Assyrian linear-style cylinder seals from Surkh Dum-i-Luri comprises two faience seals. Seal 50 , with its opposed eagles, is closely comparable to Morgan 634 and to Berlin Rollsiegel 710 and 722, both from Assur. The latter seal comes from a 9 th-8th century B.C. grave.

No. 51 (Sor 1353, pl. 233)
Seal 51, with its more cursively executed eagles pursuing each other, is closely paralleled by Berlin Rollsiegel 718. The latter piece was excavated at Guzana (modern Tell Halaf) and is probably to be dated to about 800 B.C. (Moortgat 1940:72). Another, similar seal was excavated at Kalhu in a level probably dating to Sargon II (721-705 b.c.) (Parker 1955:104, no. ND. 1686, pl. 15, no. 4), and a third one in Sargon's palace at Dur Sharrukin (modern Khorsabad) (Loud and Altman 1938, pl. 58, no. 94). This class of seals was widely distributed in Iran and other areas neighboring Assyria in the 8th-7th centuries b.c. ${ }^{9}$

No. 52 (CS 445, pl. 233)
The crystal seal 52, found at a site that was not occupied between Iron Age I and Iron Age III, is carved in the late cut style of Babylonia and Assyria (700-500 b.c.). With its many diagonal incisions it seems closest to the Babylonian examples of this style, for example, Morgan 741-746. The motif of the two cocks (or cock and hen) confronting each other also occurs on Berlin Rollsiegel 755, a faience seal that Moortgat recognized as Neo-Babylonian. The two birds seem to be feeding on some vegetal matter growing or piled between them.

## 32A.2. LATE MIDDLE ELAMITE, NEO-ELAMITE, AND CONTEMPORARY LOCAL SEALS (Seals 53-222)

The remaining one hundred fifty-nine cylinder seals from Surkh Dum-i-Luri, two from Kamtarlan I, eight from Chigha Sabz, and one from Khatun Ban are treated in this section. Most, if not all, of these seals must have been made between about 1200 and 600 b.c. in more or less provincial parts of the Elamite realm, to which southeastern Luristan presumably belonged. Within this very heterogeneous category a number of different materials, carving techniques, and artistic styles are represented. Because of the many uncertainties, however, we have not tried to divide them into earlier and later, metropolitan or provincial Elamite groups. Instead, we have divided them here and in the catalog according to subject matter, as follows:

| 32A.2.1 | Nos. 53-62 | Banquet Scenes |
| :--- | :--- | :--- |
| 32A.2.2 | Nos. 63-72 | Standing Figures, Possibly in Various Ritual Actions |
| 32A.2.3 | Nos. 73-80 | Drinking, Dancing, and Love-Making Scenes |
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| 32A.2.13 | Nos. 197-222 | Geometric Designs |
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| 9See, c.g., Legrain 1934, pl. 24, nos. 64-67. |  |  |

Within each of these groups seals occur in a variety of stones, bitumen, bone, shell, bronze, or faience. ${ }^{10}$ Bitumen was an easily available and popular material for seals in the Susa area, only temporarily eclipsed by faience during the 13 th-12th centuries B.c. ${ }^{11}$ Out of one hundred fifty-nine cylinder seals from Surkh Dum-i-Luri treated below, eighty-two are made of faience and eight of bitumen.

Among the multitude of styles listed below a few are represented by examples in several of the groups named above:
a. An elegant flat linear style is found on $60,66,68,90$, and 143 . Bodies are carved in flat relief with elegantly curved outlines.
b. An elegant bold style, in which bodies are deeply carved with curved outlines similar to those in style a, is found on 81 (cf. style j, below). A somewhat comparable but much later style, seen on 69 and 153, arose under Neo-Babylonian influence. No. 96 seems intermediate between these two, both stylistically and chronologically.
c. The "bird-head" group is a name we have given to a heterogeneous assortment of styles in which the human head is simplified into a birdlike shape. It is found on $58,72,75-77$, 157 , and 161.
d. The bone-seal style is characterized by thin angular engraving and stiff elongated figures. It is found on 59 and 67.
e. The bronze-seal style is distinguished by very bold, deeply carved, simplified figures, mostly of single animals or rows of animals (127-130). No. 96, although made of bronze, seems more closely related to style $b$, above.

Among the faience seals, one can distinguish:
f. A patterned style, in which the composition is usually framed. The engraving is shallow and bodies are often patterned by hatching or crosshatching. The scene is usually terminated by a tall tree. An animal with a large diagonal wing is often prominent in the composition ( $62,63,65,101,108,123,132$, and 133).This style has many characteristics in common with the deep-line style (i, below).
g. A full-bodied style, in which the composition is usually dominated by diagonal lines. The engraving is deeper and bodies are treated as one mass. Animals in rampant postures create a frieze of mostly diagonal shapes (106 and 110).
h. A blob-figure style, in which the effects of carving on an as yet semi-liquid surface are obvious. In this naive yet individual style, human and animal figures consist of bloblike masses without interior features, but with noses and upswept hair indicated by minute projections. Figures facing right have their faces tilted slightly upward. This style is attested at Sialk B (ca. 825-650 b.C.; see note 86, below). At Surkh Dum-i-Luri, it is found on 61 and 159.
i. The deep-line style, in which outlines receive much attention, is attested at Dur Untash (Choga Zanbil 31-34, found in 10th to 7th century b.c. contexts) and at Susa (Susa 21312134). Although Amiet is inclined to date this style to the 8th and 7th centuries B.c. (mostly the latter), Porada has pointed to a number of early features in these seals that make

[^44][^45]a 10th to 9 th century b.c. date more likely. ${ }^{12}$ At Surkh Dum-i-Luri this style is found on 89 and 145 , and certain characteristics of this style occur also in style f .

In bitumen seals, especially at Susa, one finds:
j. An early Neo-Elamite elegant bold style (Susa 2124; cf. our style b, above).
k. A later, perhaps 9th to 8th century B.C., deeply gouged style (Susa 2126 and 2127). This style is represented at Surkh Dum-i-Luri by 109 and 118.

Finally, there seems to be a late group of seals of various materials that illustrate the following style:

1. A slender decorative animal style (cf. Susa 2155, of bitumen). At Surkh Dum-i-Luri, we see this style on $94,97,112$, and 138.

## 32A.2.1. Banquet Scenes (Seals 53-62)

The banquet scene-probably a king's repast with connotations for the well-being of his subjects-was the most favored motif on Elamite cylinder seals of the 13th-11th centuries B.C. (Porada 1970:59). Out of seventy-six cylinder seals found in chapel IV at Dur Untash (modern Choga Zanbil), twenty-one showed the banquet scene. This group, which probably dates to the 13th century b.c., had intelligible inscriptions (Porada 1970:58, 128). Garbled inscriptions were found in chapel III, where nine out of forty-five cylinder seals showed the banquet scene. The chapel III deposit probably dates from the 12 th -1 1th centuries b.c.

Nos. 53-54 (Sor 46 and 679, pl. 234)
The columns of wedges on 53 and 54 are obviously attempts on the part of the seal cutters to simulate the cuneiform prayer that accompanied the banquet scene on late Middle Elamite seals. Other characteristic features of this 12 th to 11 th century B.C. group are elongated figures with long garments and simplified faces (Porada 1970:60, 128), as seen on 53 and 54. The protruding haunches of the seated figure on 53 are also found on Choga Zanbil 66, 74, and 75.

No. 55 (Sor 206, pl. 234)
Whereas couchant animals in two superimposed registers often occur as terminal motifs on 12th to 11 th century b.c. banquet scenes, seals with rampant or standing animals added, such as $55,56,60$, and 61 , seem to date from the 10th to 8th centuries B.C. On 55 the figures, it is true, are elongated, but the seated person seems to wear the horns of divinity, unlike the 12th to 11th century B.C. prototypes. ${ }^{13}$ In contrast to earlier seals, in this and the following scene the recipient of the banquet sits on the left. ${ }^{14}$

No. 56 (Sor 1649, pl. 234)
On 56 , the secondary motif of archer and game takes up almost as much space as the principal banquet scene. The faces of archer and attendant resemble those on 53 and 54 . The

[^46]square torsos are also found on 53. The archer has protruding haunches and the long bellshaped kilt that was still worn in Elam toward 700 b.c. ${ }^{15}$ The sheep has one foot on the seat of a figure that seems to have a head in the shape of a fly or bee with the S-shaped horn of divinity that is another Elamite feature. ${ }^{16}$ The sheep, on the other hand, seems to have one horn in the shape of a fly or bee, perhaps to stress its relation to the deity. There is no table, only a jar near the deity's knees, as on 53 and, apparently, on 62.

No. 57 (Sor 1521, pl. 234)
On 57 , there must have been a table with food, but the attendant stood behind the seated figure, a variation that does not occur on Middle Elamite examples. Of the remaining design little is left except for a few deep drillings, but the seal is placed here because the bell-shaped robes somewhat resemble those on 56 .

No. 58 (Sor 200, pl. 234)
On 58, a flounced garment, often associated with divinity, ${ }^{17}$ appears on the seated figure with a birdlike face. This seal has dentate borders, also seen on 12th to 10th century B.C. Syrian seals. ${ }^{18}$ The rest of the design was either never finished or purposely abraded.

No. 59 (Sor 1293, pl. 234)
On 59, which also has dentate borders, we see flounced garments on the attendant and on the winged genie who is raising his hands in prayer. The attendant has one arm hanging down, which is a 10th to 8th century B.c. feature, seen on Choga Zanbil 87 (Porada 1970:61). The genie wears a horned crown and has eagles' heads growing out of his shoulders. Vertical wedges, not enclosed in a column, form the terminal.

No. 60 (Sor 1661, pl. 234)
On 60, a third seal with dentate borders, the principal attendant also has one arm hanging down. His waist is extremely narrow, as on Choga Zanbil 87. Behind the seated figure there is a second attendant, one of whose feet is overlapped by a lion drawn in the "elegant flat linear" style (cf., e.g., 143, below). The lion is looking back at a bull's head, left over from his repast. ${ }^{19}$ The principal figures wear shorter garments, with one long fringe below, as on Choga Zanbil 32, a seal probably dated toward 800 B.C.
${ }^{15}$ E.g., on a relief near Malamir (Amiet 1966, fig. 421).
${ }^{16}$ See, e.g., Amiet (1966), figs. 232c, 249, 282-85, and 375.
${ }^{17}$ Heuzey and Heuzey 1935:52; see also Porada 1948:35.
${ }^{18}$ E.g., Ashmolean 992, 994, and 994A (Riis 1948:153, 202, figs. 195A and D) dated to ca. 1200-1075 B.C. Hogarth (1920, figs. 87, 89, and 90) shows seals with dentate borders from Merj Khamis cremation cemetery, which preceded the Yunus cemetery; the seals from Yunus (Hogarth 1920, figs. 91 and 92) are in classical 9th-8th century B.C. Assyrian style.
${ }^{19}$ A lion crouching before a goat's head is shown on the Choga Zanbil seal 122 , which should date toward 800 B.C.

No. 61 (Sor 515, pl. 234)
This seal has the table placed at a much higher level than the stool, as on 55 and 60 . In 61 a winged standing goat appears as a terminal. A walking bull appears as the terminal on a seal from Sialk B (ca. 825-650 B.C.), which closely parallels $61 .{ }^{20}$ One wonders whether seals like 55,56 , and 61 , showing an intimate relationship between the seated figure and a goat or sheep, were made expressly for presentation to the goddess worshiped at Surkh Dum-i-Luri, whose intimate relationship with the hunting of such game is also apparent from many other finds.

No. 62 (Sor 1169, pl. 234)
This faience seal, carved in the "patterned" style, is very close to Choga Zanbil 87 and 117 in several respects: the heads are large and flat-topped, with eyes carved so that they stand out in the impression, and the tall narrow goblet is held horizontally. Choga Zanbil 87 and 117 should date to the 8th century B.c. (Porada 1970:61, 98). A date close to 800 b.C. seems likely for 62 on account of the ladder borders, which are characteristic of faience Neo-Elamite seals. ${ }^{21}$ At Hama in Syria, faience seals with ladder borders are found in 11th to 10th century B.C. context. ${ }^{22}$ Choga Zanbil 25, from the 12th to 11 th century B.C. deposit in chapel III, seems to be the earliest Elamite seal with a ladder border (Amiet 1972:274).

## 32A.2.2. Standing Figures, Possibly In Various Ritual Actions (Seals 63-72)

This miscellaneous group may partly reflect themes inherited from the late Middle Elamite repertoire.

No. 63 (Sor 1624, pl. 235)
Scenes involving a flaming lamp or censer and a god holding a branch occur on faience seals 28-30 from Choga Zanbil, found in chapel III, and date to the 12 th-11th centuries b.c. Vertical crosshatched panels occurred both in chapel III (Choga Zanbil 15 and 21) and in the 13th century B.C. chapel IV deposit (Choga Zanbil 18-20). Two more faience seals, Choga Zanbil 31 and 32 , found elsewhere on the site and presumably dating to the 10th-9th centuries B.C. are more closely comparable to 63 . On Choga Zanbil 31 it is the tall tree and the low lamp, on Choga Zanbil 32 the tall zigzagging flames and the forward-bending god that recall features on 63. These features are also found on seal impression Susa 2081 and on the faience seal Susa 2091 that Amiet has associated with Nusku, the god of light. ${ }^{23}$

No. 64 (Sor 1329, pl. 235)
Three long-robed figures alternate with trees on another faience seal, 64, that one might compare to Susa 2141, a faience seal with ladder border.
${ }^{20}$ Ghirshman 1939, pls. 30, nos. 2 and 96, no. S 1795. For the date see Dyson 1965b:207, 211 and de Schauensee and Dyson 1983:76.
${ }^{21}$ E.g., Susa 2111, 2119, 2131-2134, 2138-2141, 2144, and 2152 in Amiet 1972:273-74; 1966, figs. 415 and 416 . One seal with ladder borders, Choga Zanbil 25, was found in 12 th-11th century B.C. context (Porada 1970:32, 128).
${ }^{22}$ Riis 1948 , pp. 153, 202, figs. 195B and C (ca. 1075-925 B.C.).
${ }^{23}$ Amiet 1972:266; see also Amiet 1966:369. This god was worshiped in a large open-air sanctuary at Dur Untash (Choga Zanbil).

No. 65 (Sor 924, pl. 235)
The configurations that appear between the trees on a fourth faience seal, 65 , cannot be definitely identified as human heads and torsos. A long-nosed man appears on Choga Zanbil 39 and long-nosed individuals alternate with trees on Susa 2141, but their noses point down. Perhaps the seal cutter intended to portray the upswept hairdo of the Elamites, as, for example, on Choga Zanbil 87 and on Susa 2091. The double ladder border suggests a 9th century b.C. date for this seal (see the remarks on 62, above). A double ladder border occurs on the peripheral Assyrian 9th century B.C. seal Morgan 626.

No. 66 (Sor 962, pl. 235)
As we have seen in 58-60, 12th-10th century b.c. parallels exist for the dentate border on 66. Like the principal attendant on 60 , the two turbaned men on 66 are wearing garments with one long fringe and have one arm hanging down. The other hands are raised toward the top of a pole and touch each other in an attitude that has been interpreted as the swearing of an oath (Schaeffer 1956, pl. 6; Dunand 1937, pl. 107, no. 1148). They may, however, both be praying before a divine symbol. ${ }^{24}$ In a subsidiary scene almost as wide as the principal theme, a lion engraved in the "elegant flat linear" style is attacking a rampant goat. The lion has a disproportionately large head, as on Susa 2133 (Amiet 1966, fig. 416) and on Choga Zanbil 122; both faience seals probably date to the 9th century b.c. (Porada 1970:129).

No. 67 (Sor 358, pl. 235)
The bone seal 67 also has a dentate border, perhaps indicating a 10 th century B.C. date, and reversed wedges, as on 70 (see below). The lion's large hook-jawed head is not unlike that on 91. Below him is a small flattened bovine with a tapered muzzle. Somewhat questionable are the interpretations of the tall object as an altar and the presence of a worshiper.

No. 68 (Sor 659, pl. 235)
On this seal, two men in garments with one long fringe, who have one arm hanging down, are crowned with the feathered headdress that may have been a mark of rank among Iranians since about 2000 B.C. ${ }^{25}$ One of the men is grasping a stirrup-shaped object, perhaps an altar, supported by two bulls' heads and strikingly similar to objects pictured on a ProtoElamite seal. ${ }^{26}$ The other man is grasping a rearing bull, engraved in the "elegant flat linear" style, and seems to be leading it toward the altar. The indistinct shapes below the altar could be horned animals' heads or perhaps sitting birds. Feather crowns and bull protomes back to back were to become such favorite themes of Achaemenid sculpture that one might be tempted to date this seal to the very end of the Elamite realm. Nevertheless a number of features indicate a date nearer the middle than the end of Surkh Dum-i-Luri glyptic. The birdlike faces are

[^47]${ }^{25}$ Seidl 1975:298-309, pl. 183, leader of procession of captives on relief at Sar-i Pul, Iran, ca. 1950 B.C.; Barnett 1967. On a Luristan disc pin a feathered headdress is worn by a four-winged master of animals (Pope 1945, pl. 16B).
${ }^{26}$ Amiet 1961, no. 552; Amiet compares these, in turn, to the double bulls' heads on Susa B stamp seals (Amiet 1961, nos. 129, 133B, and p. 70); see also Barrelet 1954.
reminiscent of 58, and the bulls' heads with strongly curved neck and drop-shaped muzzle occur also on $73,83,92$, and 94 .

No. 69 (CS 272, pls. 235 and 259c)
The speckled granite seal 69 (see ch. 33B, no. 15, for inscription), one of several Iron Age III objects buried in plots H-J, 6-7 at Chigha Sabz, belongs to a late Neo-Elamite style that was largely contemporary with the Neo-Babylonian empire, as Amiet has shown. ${ }^{27}$ Characteristic of this style are full-bodied animals in elegant hollow-backed poses, and vertical panels with an Elamite inscription on several horizontal lines (cf. Susa 2193 and 2194; the latter was found near and slightly above the temple of Shutruk-Nahhunte II ). A worshiper or priest confronting the monstrous mount of a deity is also seen on a seal impression from Persepolis ${ }^{28}$ and on a carnelian seal in a British private collection. ${ }^{29}$ Amiet dates these seals to the 6 th century B.C. on account of similarity in subject to certain Neo-Babylonian seals. ${ }^{30}$

No. 70 (Sor 1246, pl. 235)
A seal with dentate border, perhaps indicating a 12th to 10th century B.C. date, shows two frontal winged genies, with hands lifted in prayer as on 59 , alternating with columns of reversed wedges. The latter presumably simulate the cuneiform prayer often included in 13th century B.C. and earlier designs.

No. 71 (Sor 1134, pl. 235)
The damaged bone seal 71 is placed here because it also shows a frontal winged genie. We have seen a third such genie on 59.

No. 72 (Sor 131, pl. 235)
Finally, 72, a stone seal carved in a crude, probably local style, shows one figure with frontal body and arms raised, beside two figures with frontal body and arms akimbo. All three have crested birdlike heads facing left and hourglass-shaped bodies with swords at the waist. The figure with raised arms has an object, perhaps a sling with slingstone, in his left hand. The posture of the other two recalls that of the right-hand figure on 76; perhaps they should be thought of as dancing. The birdlike heads suggest a 10 th to 9 th century b.c. date for this seal (see the discussion on 76, below).

## 32A.2.3. Drinking, Dancing, and Love-Making Scenes (Seals 73-80)

No. 73 (Sor 27, pl. 235)
On 73, a bronze seal, two bull-headed men with hourglass-shaped bodies are drinking beer through straws from a jar. Beer drinking scenes were popular in mid-third millennium Mesopotamia and again in early second millennium Syria. ${ }^{31}$ The man on the left seems to be raising one foot in a dancing pose. ${ }^{32}$ The wide subsidiary motif includes a large-headed lion
${ }^{27}$ Amiet 1972:274-75; 1973a (these statements replace his 1966:569); de Miroschedji 1982.
${ }^{28}$ Persepolis Fortification tablets, Fort. 10264 and 10266, now in Chicago, published by Amiet (1973a) as no. 26.
${ }^{29}$ Lambert 1970, fig. 3, included by Amiet (1973a), as no. 46.
${ }^{30}$ E.g., Berlin Rollsiegel 753, Morgan 781-785.
${ }^{31}$ Porada apud Mellink 1957.
${ }^{32}$ Note that on an Old Elamite seal, Susa 2013, two men are dancing with a large jar between them.
attacking a bull. The bulls' heads have the strongly curved neck and drop-shaped muzzle discussed above (see 68).

No. 74 (Sor 1282, pl. 236)
Dancing is certainly the subject of 74 . A date before 1000 B.C. is suggested by the large size and spacious split-level composition of this seal. The tuft-shaped tree recalls trees on Middle Assyrian seals. The cross, apparently a traditional Iranian rendering of the sun, ${ }^{33}$ was especially popular on Kassite seals. In Egyptian art, monkeys often greet the sun at its rising. ${ }^{34}$ One wonders if such a connection should also be sought here between the greeting monkeys and the cross placed low in the field, above a boar that is awkwardly inserted behind the dancers. Perhaps the boar is a later addition. The lentoid, also popular on Kassite seals, occurs close to a bird here and on 100 , suggesting that it may be intended to represent an egg. A glass seal found in the 13th century b.c. level V at Abu Hawam, Palestine, ${ }^{35}$ has a similar pair of naked men almost joining hands and performing a dance on one leg. ${ }^{36}$ An Elamite origin for the Abu Hawam seal is suggested by the fact that it is made of glass, one of the favorite materials for Elamite seals in the 13th-12th centuries B.C. (Porada 1970:128), and by the occurrence of a crosshatched panel and of centered circles, the hallmarks of Porada's "elaborate Elamite" group (Porada 1970:21-22).On the Abu Hawam seal the composition is symmetrically balanced and includes a naked goddess grasping two upended animals. One might imagine her to be the deity in whose honor the dance is being performed.The faience seal Susa 2136 shows two dancers as well as two monkeys flanking a cypresslike tree; centered circles, lentoids, bird, and fly occur as fillers. Our seal shows a beginning of the unbalanced composition that was to be characteristic of 10 th- 9 th century B.C. seals. ${ }^{37}$

No. 75 (Sor 1660, pl. 236)
As Near Eastern dancing often involves the joining of hands, the smaller faience seals 75 and 76 are tentatively included among dancing scenes. On 75, two crested persons in birdhead style seem to be led by a third with pointed cap, who is raising his hand toward a globe. The ladder border indicates a 10 th- 9 th century B.C. date.

No. 76 (Sor 547, pl. 236)
On 76, two persons, one crested and one without crest, hold each other by the hand. The crestless person is looking back at another crested person standing to the right, seemingly with elbows up. The crosshatched borders, which occur in 13th-11th century B.C. context at

[^48]${ }^{34}$ Yoyotte 1959; see also Piankoff 1954:236, pl. 74 (I owe this reference to B. W. Baptiste Garthoff).
${ }^{35}$ Hamilton 1935, no. 411; see also G. Wright 1961:93-94.
${ }^{36}$ Parker 1949, pl. 23, no. 155. The motif of the dancer on one leg occurs as early as the Early Dynastic I period on a seal impression (Legrain 1936, no. 374). The dancer is standing next to and seems to be greeting a temple facade. On the Old Elamite seal Susa 2013 two men are grasping their ankles and joining hands over a large jar. On Old Babylonian seals this motif is fairly common; see Frankfort 1939:173, pl. 29c, fig. 40, and Porada 1962:107-8. It also occurs on Mitannian seals; see, e.g., Nuzi 940.
${ }^{37}$ Porada 1970:45, 128 in discussing Choga Zanbil 41.

Choga Zanbil, ${ }^{38}$ suggest a date not long after 1000 b.c. The short garments with one long fringe, on the other hand, can hardly predate the 10th century b.c. (Porada 1970:128). In this connection it is worth noting that the bird-head style, or at least a style in which nose and eyes are very prominent, also occurs on seals, ivories, and metal vessels from Hasanlu IV (ca. 1000-800 в.с.) (Dyson 1963:131-33; 1964b, figs. 1-9; Muscarella 1966-67, figs. 7-14).

Nos. 77-80 (Sor 1461, 1517, and 584; CS 449 and 469, pl. 236)
All seem to portray an erotic scene. On the first four seals the woman is leaning on a table or abbreviated couch while the man is making love, holding on to her from behind. On 77, both persons have crested birdlike heads and wear the same fringed garments as, for example, on 76, described above. A curly-tailed dog(?) appears above a bowl on a pedestal(?) in 77 and probably also in 78. In addition, a dwarf or boy holding a utensil (drinking tube?) assists at the scene in 77 and 80, and perhaps also in 78. Seals 77, 78, and 80 all have 10th-9th century b.c. ladder borders, but 78 does not seem to have the birdlike human heads. On 79A, 79B (CS 449, pl. 236), and 80 (CS 469, pl. 236), the persons are apparently naked; in the first-named seal, the woman seems to be leaning on the table with her elbows. In 80, both persons have their knees bent and the woman seems to be holding on to a kind of plow rather than to a table or couch. There is a circle below the man and a lentoid below the woman. More or less comparable erotic scenes occur in several different periods and areas of the Near East (Cooper 1972-75), for example, on Early Dynastic I seal impressions (Legrain 1936, nos. 368-70), on an Akkad period seal (Woolley 1934, pl. 210, no. 272), on an Old Babylonian seal in the Metropolitan Museum (Osten 1931:222, fig. D), on an Old Syrian seal published by Porada (1964a:234-38, pl. 33, no. 4), and on the Old Elamite seal Susa 2012. A dog and a vessel are associated with such a scene on the crude Early Dynastic III seal Diyala 340, and in many instances the woman in such a scene is drinking from a tube immersed in a vessel, for example, on Old Babylonian clay reliefs (Opificius 1961:166-68, pl. 20, no. 612), on a seal from Bahrain (Porada 1971, fig. 7), on Achaemenid stamp seals in the Louvre (Louvre D. 148 and 149), and in the Metropolitan Museum (Osten 1931:225, fig. 14B). Cooper has suggested that such seals have the function of warding off succubus. ${ }^{39}$

## 32A.2.4. Animals Flanking Trees (Seals 81-89)

This group is a good illustration of the variety of styles represented within one iconographic category.

No. 81 (Sor 565, pl. 236)
A group of Late Kassite seals shows the motif of two rampant and often winged bulls flanking a stylized palm tree. ${ }^{40}$ This heraldic scene found great favor in Iran, where it occurs on the famous gold beaker from Marlik (ca. 1200 B.C.) (Negahban 1964, pl. 5, fig. 139) and on a series of signet rings (Porada 1964b, pl. 1, figs. 2-4). Clothes embroidered with the same motif are shown on Babylonian "boundary stones" of the 11th-10th centuries b.c. (King 1912, pls. 54 [headdresses] and 74). On these monuments, however, the tree has buds or pointed leaves, rounded toward the base and arranged fanwise. On 81, the leaves are rounded at the end and pointed toward the base, like the trees that appear on Neo-Assyrian seals from the
${ }^{38}$ See, e.g., Choga Zanbil 60, 75, and 79.
${ }^{39}$ Cooper 1972-75, pp. 265 and 267.
${ }^{40}$ Beran 1957-58:274-77, discussing his "third Kassite" group (ca. 1250-950 B.C.), e.g., Berlin Rollsiegel 560 and Ashmolean 563 and 564; cf. also Berlin Rollsiegel 559. The motif goes back to an Early Kassite subsidiary scene (a relief above the entrance to a temple?) in which the tree is much smaller and the bulls are walking, e.g., on Berlin Rollsiegel 554.

10th-9th centuries B.c. ${ }^{41}$ The two bottom "leaves" are in a position suggesting that they represent the fruit of the date palm. From the base of the tree $S$-shaped sprouts curl outward in a way also seen on the Late Kassite seals, on the 11th century b.c. Babylonian boundary stone, on a 12 th-10th century b.c. Middle Assyrian seal, ${ }^{42}$ and on several Middle and Neo-Elamite seals. ${ }^{43}$ The small celestial body also occurs on one of these Elamite seals (118), of which the material-bitumen-suggests a first millennium B.c. date (Porada 1970:128). The pigtails of the bulls on 81 recall the bull-men's pigtails on Middle and Neo-Elamite monuments (Amiet 1966, figs. 284, 299 and the figure on p. 490). On a 9 th-8th century B.C. faience tankard from Susa, the bull's mane is stylized in a similar way (Amiet 1966, fig. 376; for the date, see de Miroschedji 1981a:38).

In the shape of the animal's muzzles and horns, in its elegant full-bodied engraving, and in its strict symmetry, 81 is closely related to Susa 2124, a bitumen seal that Porada would date to the 11th, ${ }^{44}$ Amiet to the 10th century B.c. (Amiet 1972:273).

No. 82 (Sor 1485, pl. 236)
This seal shows the same motif in a completely different style. The design has been carved into the hard stone with the help of drills and culting wheels such as were used for the drilled and cut-style seals of Assyria and Babylonia in the 9th-7th centuries b.c. (Porada 1948: 83-89). In subject matter, however, Sor 1485 fits into neither of these categories. Winged bulls appear on several of the works mentioned as parallels of 81; for example, the Marlik gold bowl (ca. 1200 b.c.), the Late Kassite seals Berlin Rollseigel 559 and 560 (lower register), and the 11 th century b.c. Babylonian boundary stone. The spacious composition recalls that of the 13th to 12 th century b.c. Assyrian seals (Moortgat 1941-42:76, figs. 50-51; 1944:30, fig. 18; 35, fig. 32), while the imperfect symmetry and lack of balance may point to an early first millennium b.c. date (Porada 1970:45).

## No. 83 (Sor 943. pl. 236)

This lack of balance is even more striking in 83 , on which the bulls have the same strongly curved necks and drop-shaped muzzle as on 68 and 73 and on 92 and $94 .{ }^{45}$ The tree on 83 is tall and quite simply shaped, with two small branches on top and two larger ones lower down. Below it are the hindquarters of a calf, apparently simplified to a snakelike shape. ${ }^{46}$ Comparison with 92 , however, suggests that possibly a complete lying calf was originally shown. The stiltike legs of the walking bovine are also visible on 92 .

No. 84 (Sor 643, pl. 236)
The much lower tree on 84 may be a later feature, to be dated to the 10 th- 8 th centuries B.C. No exact parallels exist, but 10th-8th century b.c. Assyrian contest scenes usually include

[^49]a low tree. ${ }^{47}$ The 10th century b.c. Babylonian boundary stone mentioned before likewise shows a low tree (King 1912, pl. 74). There is a lack of balance in 84 as in 82 and 83. In Mesopotamian iconography stars usually have either eight or six rays. The seventh ray on 84 may be due to a slip of the seal cutter's tool. Strangely enough, similar slips(?) have occurred on 82 (where the seventh and eighth ray of the star seem to have coalesced) and on 118.

No. 85 (Sor 844, pl. 237)
A bitumen seal, 85 , is the only Surkh Dum-i-Luri seal to show two bull-men flanking a tree that they are grasping. With different details, bull-men are shown grasping trees on stone and brick reliefs from 13th-12th century B.c. Susa (Amiet 1966, figs. 284 and 299). On 85 the tall tree is crowned by three long rounded leaves of the type seen on 81 . Three more such leaves grow out of each sprout at the base. The rather spiky figures are drawn with assurance in a style which, especially in the monster's wings and in the bulls' tails, recalls the serrate features on several of the provincial Neo-Assyrian seals from Surkh Dum-i-Luri (see 43-49 above).

The bull-men with pointed helmets, however, and the genie with the head of a widemouthed animal do not occur on Neo-Assyrian seals. The bull-men's faces recall the simplified human features on 53 and 54 , which we have tentatively dated to the late 12th or 11 th century B.C. Being made of bitumen, 85 probably belongs to the 11th century B.C. The kneeling genie holding a bird has a lion's head with very exaggerated, wide-open jaws. Such wide-open lion's maws often occur on Elamite monsters in conjunction with features of other animals. At Surkh Dum-i-Luri several examples can be cited: 94 and 95 with wings, 96 with hooves, 110 with wings, and 119 with topknot. The fly with its T-shaped head is more like Middle Elamite examples ${ }^{48}$ than like Neo-Elamite ones. ${ }^{49}$

No. 86 (Sor 1299, pl. 237)
This seal is carved from bitumen in yet another, peculiarly awkward style. ${ }^{50}$ The lack of balance and the tall tree with four rising and two descending leaves, which seem derived from Late Kassite ${ }^{51}$ or late Middle Elamite prototypes, ${ }^{52}$ might lead one to date this seal to the 10th century b.c. The sunburst in the shape of a dot encircled by more than eight wedges occurs on the 13th century seal Choga Zanbil 24 and on a seal from Hasanlu IV (1000-800 b.C.) (Dyson 1960:128). On Assyrian seals of the 9th-8th centuries b.c., the sunburst usually has eight rays. ${ }^{53}$ The bird, with its serrate wings, is not unlike the bird on 90.

No. 87 (CS 422, pl. 237)
The worn steatite seal 87, one among several objects buried during Iron Age III in plots H-J, 6-7 at Chigha Sabz, shows two rampant goats flanking a low three-leaved plant and looking back at the moon. The deeply engraved but rather linear bodies of the goats are rendered with an almost exaggerated elegance somewhat reminiscent of 9th century b.c. Assyrian seals, for example Morgan 638.

[^50]No. 88 (Sor 1407, pl. 237)
Goats are almost invariably pictured flanking a tree. Although now badly worn, 88 must have shown at least a low plant at this point. The goats' drop-shaped muzzles (only one is clearly visible) are prolonged by an equally drop-shaped beard. The curious mincing gait of the animals' forelegs is duplicated by the bull on 99 .

No. 89 (Sor 484, pl. 237)
The broken faience seal 89 shows two goats on either side of a tree. Both goats have flaring snouts, large hollow eyes, and notched horns rising vertically from their foreheads and then bent back at right angles. In these respects they somewhat resemble the winged goat on Susa 2131, carved in the deep-line style that Porada would date to ca. $1000-800$ b.c. (see the discussion of 101, below). The goat to the left of the tree has turned his chest away from the tree. His foreleg is hanging close to the man's garment, but his head is turned back toward the tree. The tree itself is of the tall, coniferous type with base in the shape of a reversed T. The other goat is apparently being held upside down by a narrow-waisted man, who wears a garment with one fairly long fringe.

## 32A.2.5. Symmetrical Animal Combats (Seals 90-98)

No. 90 (Sor 1266, pl. 237)
Seal 90 is engraved in the "elegant flat linear" style, with two confronted lions that seem to be fighting over some prey. The hindquarters and tail of a small recumbent quadruped are visible in the damaged area between them. Confronted animals fighting over some prey ${ }^{54}$ or, often, a carnivore attacking two herbivores, mother and child, ${ }^{55}$ were favorite themes of Middle Assyrian seals. Both result in a similar composition. The lions' jaws are hooked, but less extremely so than in the next seal. In the narrow terminal space stands a bearded man in a long flounced robe of late Middle Elamite type. Although both his hands are touching the lions' tails, he seems to be praying rather than participating in the combat. ${ }^{56}$ Wedges in the field are characteristic of 10 th to 8 th century b.c. Assyrian seals, ${ }^{57}$ so this seal probably belongs to the period around 1000 b.c.

No. 91 (Sor 1000, pl. 237)
Seal 91 is somewhat similar to 90 in subject matter, but is different in style. The shapes are both less sophisticated and more full-bodied. The right-hand lion is pictured in a particularly unbalanced stance. Hooked jaws on lions often occur on bronzes said to come from Luristan. ${ }^{58}$ Below one of the lions is a small goat's head, left over from a repast. This feature appears on one of the late faience seals from Dur Untash (Choga Zanbil 122), dating perhaps toward 800 B.C., and on other seals from Surkh Dum-i-Luri (e.g., 96).

[^51]On 91, as on 90, the man inserted in the terminal space does not seem to be actively intervening in the animal combat, although he is touching one lion's back. It may be significant that he is lifting his face toward heaven. His garment is short, as on most first millennium B.C. seals.

No. 92 (Sor 1185, pl. 237)
In the shape of its bulls 92 is related to 83. The seal cutter seems to have carved two symmetrical scenes. The one in the upper register has its center on the opposite side of the seal from that in the lower. Subsequently he filled the spaces remaining below the one and above the other. In the upper register we see a lion grasping a fallen bovine by its hindlegs while being confronted by a rearing bull. The fallen bovine is in the same position as on Choga Zanbil 41 and on Susa 2127. The rather wide terminal space of this scene contains a lion pawing a bovine, with a hollow lentoid underneath. Below this subsidiary scene is the main scene of the lower register. In it we see two lions closing in on a bovine with two calves kneeling below it. The narrow terminal space is filled by a rampant bovine and a hollow lentoid. The significance of the hollow lentoid, a very common motif on Kassite and NeoAssyrian seals, has never been satisfactorily explained. In shape it reminds one of the oval Luwian hieroglyph for "woman" or "mother" (Laroche 1960, no. 79). One wonders whether the lentoid could have some similar significance.

No. 93 (Sor 750, pl. 237)
Like 82, 93 has been carved mainly by means of drills and cutting discs. Its clumsy style, with characteristically large-headed and widemouthed lions, is not without parallels among faience Neo-Elamite seals; Choga Zanbil 52 (probably dated toward 800 b.c.) is rather similar in some respects. The centered circle, also cut in some mechanical way, occurs on Choga Zanbil 52 as well. The "lion griffins" on the calcite seal Newell 436, in the cut style of the 7th-6th centuries B.C., have the same heads and claws as seen on 93 .

No. 94 (Sor 1101, pl. 237)
Whereas the animals on seal 93 may represent lions, the monsters on 94 have birds' tails simplified to a blossom shape. The wide-open lower jaws are straight, like those of the monsters on the next two seals. Their wings are sickle-shaped, as on 8th-7th century b.c. bitumen Elamite seals (Amiet 1966, figs. 418 and 419). The bull has the strongly curved neck and drop-shaped muzzle to which we have drawn attention in discussing 68, 73, 83, and 92. Bad planning on the part of the seal cutter has resulted in crowding and lack of symmetry.

No. 95 (Sor 850, pl. 237)
On the bitumen seal 95 another winged monster with wide-open straight jaws seems to be portrayed on the left defending her two young, some legs of which have already been eaten, against a lion or bear. This hyenalike animal, with its hollow erect ear, strangely recalls the animals on the Protoliterate c seal Diyala 34, on some Proto-Elamite seals (Amiet 1961, nos. $565-67,571,573$, and pl. 38 bis D), and on a seal found in Hissar IIIB ( $2150-2000$ B.C.). ${ }^{59}$ Erect loop-shaped ears, however, also occur on lions with straight, curling jaws painted on a Sialk B pitcher (825-650 B.C., Ghirshman 1939, pl. 86). The left-hand monster has a solid erect ear, like the "sphinxes" on Choga Zanbil 88. The "griffins" on Susa 2126 and 2127 have, in addition to their ears, similar excrescences on their foreheads. The sunburst in the shape of a

[^52]dot encircled by more than eight wedges occurs as early as the 13th century on Choga Zanbil 24 and as late as the 8th-7th centuries b.C. on Morgan 1104 (Porada 1970:61, 98) and on Susa 2182.60 With its serrate wings, erect ears, and incomplete animal bodies, 95 seems to belong to the 8th-7th centuries B.C., in which Elamite bitumen seals regularly displayed these features. ${ }^{61}$

No. 96 (Sor 923, pl. 238)
The bronze seal 96 clearly shows two monsters with wide-open straight jaws fighting over a goat's head and neck, left over from their prey. The bull's head (which also occurs on 111) may be the remains of another repast. ${ }^{62}$ The monsters have no wings, but they do have hooves. Their snouts are curled up like those of Middle Elamite snakes (Amiet 1966, figs. 281A, B, and 293) and Neo-Babylonian snake-headed monsters (Koldewey 1913, figs. 31 and 32). This seal displays the tendency toward a diagonally interwoven frieze which is typical of 7th-6th century b.c. cut-style seals of Mesopotamia ${ }^{63}$ and Elam. ${ }^{64}$

No. 97 (Sor 1583, pl. 238)
Confronted griffins seem to be the subject of the bone seal 97. A somewhat similar monster is seen on the bitumen seal Susa 2155 that Amiet would date to about $800-600$ b.c. The design is too badly damaged to permit any definite statement except that the elongated figures have been crowded into the available space in such a way that one beak is above the other and only one griffin is able to lift a claw. This lack of symmetry due to crowding is very similar to 94 in the present group, for example.

No. 98 (Sor 1156, pl. 238)
The convex stone 'seal' 98 is hardly more than a cylindrical bead on which the owner or donor has scratched two extremely abbreviated erect quadrupeds with hollow backs and squarish heads, their forepaws touching in combat.

32A.2.6. Assymmetrical Animal Combats (Seals 99-112)
In this group we find many of the same elements that occurred in the two preceding groups.

No. 99 (Sor 1288, pl. 238)
The stylized (palm?) tree and winged bull of 99 are favorite elements of Late Kassite glyptic, ${ }^{65}$ in which, however, the tree is normally flanked by two such bulls. Here the bull is being attacked by a lion, and a curly-tailed dog (or monkey?) is sitting below the tree, which

[^53]has lanceolate leaves arranged fanwise, as on the 11th to 10 th century b.C. Babylonian boundary stones mentioned before. ${ }^{66}$ The bracket-shaped shoots at the base of the tree are bent out and down, as, in more elaborate form, on the Late Kassite seal Berlin Rollsiegel 560 and on the late Middle Assyrian seal Morgan 609. Other Babylonian elements are the symbols of Marduk and Adad. The cross, on the other hand, is an ancient Iranian element also used extensively in Kassite glyptic art. ${ }^{67}$ With its more or less drop-shaped muzzle and mincing gait, the bull recalls the bulls on Berlin Rollsiegel 560, Bibliothèque Nationale 305, and the goats on 88. Perhaps we should date 99 toward 1000 B.c.

No. 100 (Sor 1476, pl. 238)
This faience seal has wide, crudely dentate borders, such as are seen on 12 th to 10 th century B.C. seals from Syria. ${ }^{68}$ The scene, with a bird apparently diving for some fish in a pond, seems related to the bird-and-fish scene on an unpublished seal from Hasanlu V (12001000 b.c.). ${ }^{69}$ In this seal, as in the next and in 74, the lentoid occurs in such a position as to suggest that it represents the bird's egg.

No. 101 (Sor 405, pl. 238)
Although the two animals are facing in opposite directions, the faience seal 101 may represent some stage in another animal combat. Perhaps the unusual position of the goat, lying on its side, is meant to indicate that it is dead and about to be eaten by the eagle. A crosshatched bird's body, with wing and tail in the same position, occurs on Choga Zanbil 51 and Susa 2131, carved in the deep-line style that Porada would date to about 1000-800 b.c. (Porada 1970:35-36, 128-29; 1965a:51) and Amiet to about 800-600 b.c. (Amiet 1972:274). On account of the ladder borders, which occur in Syria as early as the 11th-10th centuries B.C., ${ }^{70}$ I would favor a date before 800 b.c. for 101.

No. 102 (Sor 224, pl. 238)
Another faience seal, 102 , includes a winged and bird-tailed creature with crosshatched body, but the remainder of its design is not clear.

No. 103 (Sor 987, pl. 238)
What is left of the stone seal 103 shows a goat with bent forelegs browsing on a plant and apparently suckling her young, while the forepaws and hooked jaw of an attacking lion (?) are visible above her back. Although 103 and 144 are by no means identical, the position of the animals on 144 is somewhat comparable.

No. 104 (Sor 1351a, pl. 238)
This bone seal, also incomplete, shows a crudely carved confrontation of lion with bull between two mechanically drilled wide guilloche bands. Several seals with wide borders are
${ }^{66}$ See King 1912, pls. 24 (headdress) and 74.
${ }^{67}$ See note 33.
${ }^{68}$ See note 18 .
${ }^{69}$ HAS 59-83; Robert H. Dyson, Jr., director of the Hasanlu Project, has kindly permitted me to refer to this seal.
${ }^{70}$ See notes 21 and 22.
treated below ( $150,151,160$, and $165-169$ ). They do not seem to be restricted to any particular phase within the late Middle Elamite and Neo-Elamite periods.

No. 105 (Sor 453, pl. 238)
The badly worn seal 105 seems to show a composition similar to that of Susa 2133, a seal in the deep-line style dated by Porada to about $1000-800$ B.C. ${ }^{71}$ and by Amiet to about $800-$ 600 B.C.72 In both seals a goat climbing against a tree seems to be looking back at a largeheaded lion that is attacking it.

No. 106 (Sor 1290, pl. 238)
In this seal a lion is attacking a sitting animal, possibly an unleashed dog, while a shortkilted man with a large head seems about to intervene. He is placed at a higher level in the composition, as, for example, on 91. On account of the short kilt (Porada 1970:128) and the large head (Porada 1971:61) this seal, too, should no doubt be dated to $1000-800$ b.c. With its emphasis on diagonal lines, 106 seems related to 110 and 111 , which we would date to about $800-600$ B.C. It should therefore belong to the final stage of Elamite faience seal production, toward 800 b.c.

No. 107 (Sor 397, pl. 239)
While the sphinx of 107 is an unusual feature, we have seen several of the other elements before, for example, the tree between two vertical lentoids on 105, and the upended herbivore on Choga Zanbil 41 and Susa 2127. The latter seal probably belongs to the 8th century B.C.; 107 may therefore also belong to the time around 800 в.с.

No. 108 (KI 109, pl. 239)
A slightly earlier date, around 850 B.C., seems likely for 108 , a faience seal with 10 th9 th century B.C. ladder border, that shows a large-winged sphinx, apparently holding an animal upside down, next to a cypresslike tree. The sphinx's eye is drawn as a horizontal line in relief (cf. 62). Of the sphinx's prey, the hindquarters with short curly tail are just visible above the break. In the sky one sees a rounded swastika, a four-pointed star, and a globe. The swastika, oriented in the opposite direction, occurs on Susa 2131, a seal of the deep-line style that Porada would date to about 1000-800 B.C. (Porada 1970:35-36, 128-29; and 1965a:51) and Amiet to about $800-600$ B.c. (Amiet 1972:274). The large diagonally placed wing is reminiscent of a seal found at Choga Zanbil in a vessel probably dating to about 700-550 B.c. ${ }^{73}$ (cf. also 124).

No. 109 (Sor 103, pl. 239)
Seal 109, described as black stone, is probably made of bitumen and is carved in the deeply gouged full-bodied style that also characterizes the 8th century b.c. bitumen seals Susa 2126 and 2127 . Other features that link it to these Susa seals are the eyeless, strongly beaked griffins with erect ear and topknot, the serrate sickle-shaped wings, and the V-shaped fly with bulging eyes. As in seal 92, the lentoid is placed below the rampant animals' bellies in 109, and in 110 as well. Note also the small star (cf. 85), which seems to have eight rays.

[^54]No. 110 (Sor 828, pl. 239)
In 94 and 95 we have seen winged monsters with wide-open straight jaws and solid erect ears, comparable to the topknots of griffins. Such a monster appears on 110, in violent pursuit of a goat and followed by a fox. All three animals are placed diagonally so that the seal impression creates a continuous frieze.

No. 111 (Sor 793, pl. 239)
Such diagonal composition, giving the illusion of frenzied movement, is even more pronounced in 111, a seal carved in the 7th-6th century b.c. drilled and cut style of Mesopotamia ${ }^{74}$ and Elam. ${ }^{75}$ The bull's head also occurs on 96 in the previous group, on Morgan 713 (a seal probably made in northern Mesopotamia), and on the related seal Morgan 721.

No. 112 (Sor 16, pl. 239)
Of this seal only the lower half is preserved. It must have shown a rampant animal with claws-a lion or perhaps a griffin-pursuing a hoofed animal that is also rampant but has its hooves one above the other as if falling backward. A conical shape may represent a rock or the base of a tree. The slender elegant animals are reminiscent of Susa 2184, a seal that Amiet would date to ca. 625-500 B.C. or a little earlier. The earlier date would fit the context at Surkh Dum-i-Luri better.

32A.2.7. Single Animals Or Monsters (Seals 113-134)
Nos. 113-114 (Sor 330 and 808, pl. 239)
These seals are related to 39 on account of their five-cone trees, although each is carved in a different style. Seal 39 should belong to the period ca. 1200-1075 b.C., and 113-114 may also be early Neo-Elamite (cf. Choga Zanbil 47 and 48 and Susa 2135, which Amiet compares to Choga Zanbil 48 [Amiet 1972:273, n. 3]). There may be a generic resemblance to certain Late Kassite faience seals from Ur that seem to precede the period of Neo-Assyrian influence in Babylonia (Ur 585-588, 590-593). ${ }^{76}$

No. 115 (Sor 1308, pl. 239)
A Late Kassite seal, Berlin Rollsiegel 561, dated to before 1150 b.C., might be compared to the faience seal 115 . On both seals a spread-legged goat is seen approaching a seven-cone tree. The winged goat of 115 presumably indicates a later date (cf. Susa 2131), but it is hard to say how late.

[^55]No. 116 (Sor 849, pl. 239)
Of this seal not much more can be said than that it may represent a winged goat climbing against a tree; the dentate border points to a date between 1200 and 900 в.c.

No. 117 (Sor 1611, pl. 239)
On 117 the tree is of a many-branched type not yet seen in this group but occurring, in a much more sophisticated style, with bird and goat on Choga Zanbil 49 (from chapel III, 1150-1000 B.C). A somewhat similar composition, with goat approaching a pine tree from which a bird seems to be flying away, occurs on a gold bowl from Marlik (ca. 1200-1000 B.C., Negahban 1964, fig. 107). The motif of a bird above a pine tree apparently remained popular in Iran. It reappears as a terminal element on Achaemenid cylinder seals, for example, Morgan 823 and 826.

No. 118 (Sor 1172, pl. 239)
This bitumen seal has a goat climbing against a large tree, whose top, lateral branches, and outcurling sprouts all terminate in tufts of leaves. The goat's beard is rendered by a long groove. A small nick above the muzzle is probably due to accidental damage. A lentoid appears close to him in the lower register, a monkey and a seven(?)-rayed star in the upper register. While the tuftlike tree is a regular feature on 13th century b.C. Assyrian seals, ${ }^{7}$ the five-tufted tree occurs on the Late Kassite seal Berlin 560, which may belong to the 11th century B.c. The deeply gouged carving on our seal, however, suggests a date closer to the 9th century B.C. The lentoid filler also points to such a date (Porada 1970:129).

No. 119 (Sor 807, pl. 240)
The bitumen seal 119 has a monkey and a cross in the upper register, near the top of a large stylized palm tree. We have seen a monkey and a cross on 74 and will see them again on the next seal. The association of monkey and date palm was also popular in Iran. An early, perhaps 11th century b.c. example, Susa 2124, shows the monkey raised above another animal's back, as on our seal. The reason for this association can be guessed from a late example: on Sialk 1725 (Ghirshman 1939, pl. 31, no. 2; pl. 96) we actually see two monkeys reaching for the date bunches that hang from the palm tree. ${ }^{78}$ On 119 the tree's trunk and lateral branches each end in three tall rounded leaves as on 85 , which we have tentatively dated to the 11th century. Pendent serrate elements occur on 86, tentatively assigned to the 10 th century B.C. The outward-curling sprouts at the base of the tree are a feature already encountered on 81, which has parallels mostly among 11th century B.C. seals. The monster has claws, ear, and topknot like those of the later griffins (see, e.g., 109), but the barely hooked jaws, protruding tongue, and lack of wings suggest that this again may represent the widemouthed monster. The protruding tongue also occurs on Choga Zanbil 40 and 41, which show monsters that combine leonine and aquiline features.

No. 120 (Sor 66, pl. 240)
Of this faience seal only the top half is preserved, with the head and striate neck of a goat similar to that shown on Choga Zanbil 49. The latter seal was found in chapel III and should therefore date to about $1150-1000$ b.c. (Porada 1970:128). In the upper register we see a monkey and a cross-perhaps representing the sun ${ }^{79-\text { as on } 74 \text {, which also seemed to be of }}$

[^56]earlier date than 1000 b.c. The ladder border on 120 is not inconsistent with an 11th century B.C. date, since ladder borders occur at Hama ca. 1075-925 b.c. ${ }^{80}$

No. 121 (Sor 954, pl. 240)
On 121 a rampant goat is shown as if climbing against a tree. Possibly the abraded part of the design included a tree. There is a hollow lentoid below the goat. The configuration behind the goat's back somewhat resembles the forepaws of an attacking lion, but on another seal with a goat in a similar pose ${ }^{81}$ an isolated boomerang-shaped object appears in the same position. The latter seal was found at Choga Zanbil in a pot dated to ca. 700-550 b.c.

No. 122 (Sor 1100a, pl. 240)
Due to breakage and wear, only part of the design is visible on this seal. It includes a small goat with vertical muzzle and horn, and with forelegs slightly bent, as if standing on a rock (cf., e.g., Susa 2134). There is a seven-rayed star below him. Another quadruped is placed sideways on the seal.

No. 123 (Sor 1644, pl. 240)
On the next two seals the goat-and-tree or sheep-and-tree theme is resolved into a static, almost heraldic composition, with the winged goat or winged sheep in a sphinxlike attitude. The tree in 123 seems to be of the wavy type generally associated with Late Kassite seals (e.g., Berlin 559) and with Middle Assyrian seals (e.g., Morgan 599-603 and Hama 190B-C). The goat, with vertical muzzle and horn, is reminiscent of Choga Zanbil 50 (from chapel III, 11501000 B.C.). The ladder border points to a date after 1100 B.C.

No. 124 (Sor 1502, pl. 240)
This seal, with its composition completely dominated by a sheep's diagonal wing, would seem to be later. It can be compared to a seal found by de Mecquenem at Choga Zanbil in a pot dated ca. 700-550 в.c. ${ }^{82}$

No. 125 (Sor 1445, pl. 240)
The design on this seal seems related to the two preceding seals. So little of it remains, however, that we are unable to make any specific statements.

No. 126 (Sor 822, pl. 240)
The burned faience seal 126 shows a rearing straight-legged goat, touching with both its chest and its tail the downward-hanging branches of a sprucelike tree. This, at least, is what the visible shape suggests. If the 'branches' represent the arms of a man, then it is hard to explain the absence of his head and feet. The hourglass shape of the goat's body and its straight legs and rearing movement are somewhat reminiscent of 164.

[^57]Nos. 127-130 (Sor 572, 861, 1626, and 1130, pl. 240)
There are four bronze seals all showing a single animal in various crude but lively styles. A goat with cross is the subject of 127, a bull that of 128 . On 128 and on 130, the animal's head and hindquarters overlap, so that a full rolling gives the impression of an animal frieze. On 129 the bovine seems to be in a goring attitude as, for example, on a gold beaker from Marlik (Negahban 1964, pl. 16, fig. 109) and on a painted pitcher from Sialk necropolis B (ca. 825-650 в.c.). ${ }^{83}$ The peculiar configuration between the animal's hindlegs is hard to interpret: is it a bull's genitals, or a cow's udder, or a variant of the lentoid discussed before? The animal on 130 is also hard to identify. The protruding tongue and extended body are reminiscent of a hunting dog, but the quatrefoil and hooflike forepaw make it more likely to be goat or gazelle. The frenzied diagonal movement is characteristic of the 7th and 6th centuries B.C., as we have seen in discussing 110 and 111. Galloping animals were particularly popular on a group of late Elamite seals dated by Amiet to about 625 B.c. (1973, pl. 4, no. 16; pl. 8, nos. 51-54).

Nos. 131-134 (Sor 1112, 903, KI 115, and Sor 737, pl. 241)
Finally, four seals show a single bird. The damaged faience seal 131 must have included a large tall-legged bird, probably an ostrich. Ostriches occasionally appeared on Middle Assyrian, ${ }^{84}$ Neo-Assyrian, ${ }^{85}$ and Neo-Babylonian seals. ${ }^{86}$ On the first, they are sometimes accompanied by their young. There may be some traces of this on 131. Seals 132 and 133 are very close to the "patterned" style seal 101, as well as to Susa 2131, a seal of the deep-line style which Porada would date to ca. 1000-800 b.c. ${ }^{87}$ At first sight, 132 and 133 might seem to belong more properly with 99-112 (32A.2.6. Asymmetrical Animal Combats). Since the monkey is so often associated with a tree and is never involved in combat, however, we have classified 132 and 133 in the "single animal" group. In design seal 134 is closely related to some Neo-Assyrian and Neo-Babylonian seals of the 9th-8th centuries B.C. that show only a sunburst or a rosette with a single bird or quadruped. ${ }^{88}$ The sunburst on 134 is of the classical 9 th-8th century b.c. Assyrian type, consisting of a dot surrounded by eight wedges (Porada 1964a:13).

32A.2.8. Animal Rows (Seals 135-141)
On these cylinders, two or three similar animals are engraved so that a more or less homogeneous frieze is obtained by rolling the cylinder. Somewhat comparable animal rows occurred on late Middle Elamite seals (e.g., Choga Zanbil 88 and 97), but there they usually did not fill the full height of the seal.

No. 135 (Sor 775, pl. 241)
The faience seal 135 has crosshatched borders such as are seen on a number of 13th11 th century b.c. seals (Choga Zanbil 58, 60, 75, 79, 89, 92, and 100; Susa 2085 and 2149). Foxes, such as appear on this seal, also occur on a seal from 12th-11th century B.c. context (Choga Zanbil 91) and the birds on 135 seem to be simplified versions of the ones seen on
${ }^{83}$ Ghirshman 1939, pls. 9 and 82; cf. Dyson 1965b:207, 211; de Schauensee and Dyson 1983:76.
${ }^{84}$ E.g., Morgan 606.
${ }^{85}$ E.g., Hague 148.
${ }^{86}$ E.g., Morgan 759 and 760.
${ }^{87}$ See Porada 1970:35-36, 128-29; and 1965a:51.
${ }^{88}$ E.g., Berlin Rollsiegel 724, Morgan 635, and Ashmolean 587 and 589.

Susa 2085, just mentioned. A similarly simplified bird occurs on 145, probably dating to between 1000 and 800 b.c.

No. 136 (CS 461, pl. 241)
Above the 11th-9th century b.c. ladder border on this faience fragment one sees an adult goat with its young, touching so closely that it is hard to tell whether the kid is following or preceding the adult. Parent and kid have a beard that curls forward as on the following seal. The parent's hindquarters are shaped like a hollow circle. The kid's hollow eye and flaring snout are even more exaggerated than on 89. The kid's snout is prolonged upward and almost touches the pendent tail of another quadruped. Seal 136 is one of a number of seals buried in plots H-J, 6-7 at Chigha Sabz during Iron Age III.

No. 137 (Sor 968, pl. 241)
This bronze seal shows two sheep. One is in a recumbent pose somewhat reminiscent of that seen on a seal from Sialk B (ca. 825-650 b.c.). ${ }^{89}$ On the Sialk seal, however, the animals are looking back. The second sheep on 137 has one of its hindlegs bent in a similar way, but the remaining legs are stretched forward. A prominent beard and a strangely abbreviated muzzle also distinguish him from his fellow. The configuration above his back "fparently represents an ear of grain drawn on a very large scale. The resemblance to the "fringed cloth" symbol that sometimes appears above the backs of herbivores on Protoliterate a-b seals from Uruk and Susa ${ }^{90}$ is probably fortuitous. The ear of grain interrupts a row of chevrons that recalls the chevron borders on Assyrian seals of the 9th century b.c. (Porada 1948:73). In addition, there are small dentate borders. We have seen that dentate borders occur on Syrian seals of the 12 th-10th centuries B.C. ${ }^{91}$

No. 138 (Kha 27, pl. 241)
This alabaster seal was found in the Iron Age II cemetery at Khatun Ban. Apart from the deep drillings made for the goats' swaybacked bodies and heads, only traces of the strongly arched necks and parallel angled hindlegs are visible. These features seem distantly connected to such seals as Sialk 737, 810, 1327, 1574, and 1714 (Ghirshman 1939, pl. 30, nos. 3, 5, and 7; pl. 31, no. 3; pls. 96 and 97). Despite its worn condition our seal can therefore hardly antedate 825 B.C. The outline of the griffin on Susa 2155 is somewhat like that of our animals. A comparison with 174 and 175 shows that the now unintelligible drillings of the latter seals may have originated in designs comparable to 138.

No. 139 (Sor 1613, pl. 241)
This faience seal shows two animals that seem to be leaping downward as from a mountain. One animal clearly has a horn and an ear, the other may have only a horn. Downward-leaping animals were popular on 13th century b.C. Assyrian seals, ${ }^{92}$ but it is

[^58]${ }^{91}$ See note 18 .
${ }^{92}$ E.g., Morgan 601 and 604.
doubtful whether there is any direct connection. The animals' heads, forequarters, and hindquarters have been drilled and subsequently connected, giving them long narrow necks and waists.

No. 140 (Sor 1497, pl. 241)
The design on the faience seal 140 is tentatively interpreted as a row of two swimming ducks below a guilloche which, as a stylization of water, would fit well with such animals. Next to wild goats, swimming ducks are also very popular as pinhead decorations at Surkh Dum-i-Luri. The faience seal Susa 2050, found in a layer dating to between 1650 and 1500 B.C., shows two rows of fish swimming below a guilloche. On account of the ladder-shaped lower border, 140 should probably be dated toward 1000 в.c.

No. 141 (Sor 537, pl. 241)
Another faience seal, 141, is engraved with two walking birds that seem to have their wings spread above their bodies, one forward and one backward. For this, too, there is a parallel at Sialk B (ca. 825-650 B.C.). ${ }^{93}$ The Sialk seal, however, shows a long-necked bird, presumably an ostrich. It is, again, probably fortuitous that birds were shown in the same position more than 2000 years earlier on Protoliterate seals and sealings from Uruk and Susa. ${ }^{94}$ Some of these portray the lion-headed eagle. On 141 details of the large squarish heads are not visible. Rows of walking birds with raised wings were a popular motif on Assyrian faience seals around 800 b.c. ${ }^{95}$

## 32A.2.9. Hunting and Farming Scenes (Seals 142-164)

The first twelve seals in this group show the huntsman aiming at his prey. Seal 154 (pl. 243) shows the huntsman holding his prey upside down. On 155 and 156 (pl. 243) the stags and other wild animals seem to imply hunting. Seals 157-159 (pl. 243) picture horned animals next to a man who is raising his hand as if praying for success in hunting. These seventeen seals form a first subgroup, of which hunting seems to be the subject.

Scenes including a man and an ox or a horse are taken to signify farming or animal husbandry. They form a second subgroup.

## 32A.2.9.1. Men with Wild Animals or Wild Animals with Other Animals (Seals 142-159)

No. 142 (Sor 1162, pl. 242)
The association of winged bulls with a stylized tree (palm?) links the first seal in this group to Late Kassite glyptic art (Beran's 'third Kassite' group, ca. 1250-950 B.C.). ${ }^{96}$ The vertical hatching on the bulls' bodies also occurs in 13th century B.C. ivory inlays from Assur (Preusser 1955, pl. 25) and on the gold beaker from Marlik. ${ }^{97}$ The tree, however, is drawn in a stiff manner quite different from that of its prototypes. The base, in the shape of an inverted T, and the serrate leaves are comparable to those of the tree on 86 (pl. 237), which also includes an archer aiming at one of the animals. On 142, however, both animals are walking to

[^59]the right, and the chase, rather than the tree that feeds the animals, seems to be the principal theme. The right-hand bull has the tapered muzzle also noted on 67 (pl. 235), 81 (pl. 236), and others. The left-hand animal's muzzle is slightly blurred by corrosion and may actually be a beak, in which case this animal is a griffin like the creature shown above it. However, whereas the upper griffin has an ear and a topknot, like most griffins on Neo-Elamite seals, the lower animal has a bull's horn sweeping forward. The horn of the winged bull in front of him sweeps down in an even more exaggerated movement. The bent foreleg also occurs on 99 (pl. 238). The archer is dressed in a fairly long garment that is horizontally hatched, unlike the late Middle Elamite garments, and has one long fringe. ${ }^{98}$ His simplified face, with projecting beard but no eye indicated, can be compared to the face on 53 (pl. 234), a seal that probably dates to before 1000 b.c. His headgear is of the same type as that on 66 (pl. 235). The dentate borders also point to a date not later than the 10th century B.C. ${ }^{99}$ The wedges strewn among the figures are a feature of the early first millennium B.c. ${ }^{100}$ All in all, a date in the 10 th century B.C. seems most likely for this seal.

No. 143 (Sor 1123, pl. 242)
Another seal with dentate border is carved in the "elegant flat linear" style also exemplified by 60 (pl. 234). In comparison to the previous seal, the archer has a shorter, more bell-shaped garment and an upswept hairdo or headgear projecting forward in a point, as also seen on Morgan 1104, a seal that may date to as late as the 8th century b.c. (Porada 1970:61), and on an 8th century relief at Malamir. ${ }^{101}$ In view of the border, however, 143 can hardly date to later than 800 b.c.

No. 144 (Sor 1135, pl. 242)
This seal is related in subject matter and composition to the two previous seals. Lowslung animal bodies characterize all three seals. On 144 the archer's haunches are even more protruding than on the preceding seal. On the archer's face the nose is the most prominent feature (cf. 59, pl. 234).

No. 145 (Sor 892, pl. 242)
Of this damaged faience seal enough is preserved to indicate that it had a design resembling that of Choga Zanbil 33 and 34 and Susa 2132 and 2134. The latter two seals have ladder borders and all four are carved in what Porada has termed the "deep-line" style (Porada 1970:35). For this style, which has points in common with both Middle Assyrian and NeoAssyrian glyptic art, Porada ultimately favors a date between 1000 and 800 b.c. ${ }^{102}$ Our seal shows the hindquarters of a goat perched on top of a rock, drawn as a pyramid of scales. At the base of the rock we see a tiny tree, and, next to it, the foot of the archer, who must have been kneeling (cf. Susa 2134). The top of the tree and the archer's knee merge into a damaged area which must have contained bow and arrow. In the sky we see a flying bird drawn as a bar with a crossbar to which the wings are attached (cf. 135, pl. 241).

[^60]No. 146 (Sor 929a, pl. 242)
This fragmentary faience seal seems to have included an archer. His prey is too damaged to be identified.

No. 147 (Sor 1043, pl. 242)
Seals 147 and 148 both feature a four-horse chariot. Seal 147 includes an archer. His head and that of the charioteer are simplified in a manner recalling seal and painted pottery designs from Sialk B (825-650 b.c.) (Ghirshman 1939, pls. 30, no. 5; 90, no. 2; and 96, no. S 810), among which parallels for the stylization of the horse can also be found (Ghirshman 1939, pls. 30, no. 7 and 96, no. S 1327). The superposition of four horse muzzles and three reins also occurs on Susa 2143. Amiet tends to date most Neo-Elamite faience seals like Susa 2143 to the 8th and 7th centuries B.C., but in view of the ladder border a date toward 800 B.C. seems likely for $147 . .^{103}$

No. 148 (Sor 204, pl. 242)
The eight-spoked chariot indicates a date after 750 b.c. for 148.104 The diagonally stretched legs of all quadrupeds may even indicate a date after 700 B.C. ${ }^{105}$ Although drawn on a much smaller scale, the charioteer seems to have a prominent nose and haunches like the archer on 144 in this group. Curiously enough, no archer accompanies the charioteer on 148.

No. 149 (Sor 1662, pl. 242)
On this faience seal the hunter seems to be threatening his prey with a club. He is wearing a short kilt with an appendage (the tassels of his belt?), and the sheath of his dagger protrudes from his loins. He appears to be wearing a beard and a pointed headgear. The longsnouted animal is climbing against a spade-shaped tree, rather like the central part of the tree on 114 (pl. 239). In its rather awkward style and in its size, faience seal 114 seems related to 149. The configuration behind the quadruped may represent a bird, fly, or star (cf. 40, above).

No. 150 (Sor 1184, pl. 242)
Faience seal 150 also includes a quadruped (here clearly a goat), a hunter, a bird or fly, and the moon. This time the hunter is wielding a dagger, but his left hand is raised. This crudely carved scene is inserted between two wide borders of geometric ornament, consisting of solid trapezoids alternating with hatched trapezoids. Hollow trapezoids alternating with hatched trapezoids form wide borders on faience seal Susa 2154, which Amiet dates to about $800-600$ B.C. Solid triangles alternate with hatched triangles to form the borders of ND. 5379 , a possibly Iranian faience seal from the 8th-7th century b.c. Ninurta Temple cache at Kalhu (modern Nimrud). ${ }^{106}$
${ }^{103}$ Sce note 21 and the discussion of our seal 62.
${ }^{104}$ Hrouda 1965:95. Outside of Assyria, however, eight-spoked chariots occurred as early as the 9th century B.C. (Orthmann 1971:158).
${ }^{105}$ See notes $63,64,74$, and 75.
${ }^{106}$ Parker 1962:33, pl. 15, no. 1. Sec also our discussion of seals 45-48 above.

No. 151 (Sor 1348, pl. 243)
Wide borders of geometric and vegetal ornament fill the lower two-thirds of 151. In the upper register of this badly worn seal a man is extending his arm toward a running quadruped. The man seems to be hurling a spear at the animal, but on account of the conical shape in front of the man and the lentoid above the animal one should perhaps seek a connection with the plowing scene on 160 (pl. 244). In that case the man may be cracking a whip and the vegetal ornament may represent the field. The man is wearing the bell-shaped kilt mentioned above (143, pl. 242), possibly an 8th century B.c. feature.

No. 152 (Sor 862, pl. 243)
The finely cut and drilled seal no. 152 shows a mounted hunter about to hurl a spear at a winged goat. This chalcedony seal belongs to a Neo-Elamite II group that de Miroschedji would now date to about 700-550 b.c. ${ }^{107}$ Our seal and seals like Susa 2188 and Morgan 812 seem to belong to the earlier part of this group and may date to before 625 b.c. The borders are divided into trapezoids by diagonals going in alternate directions, somewhat like the borders on 150, above, and Susa 2154, which Amiet would date to the 8th-7th centuries B.c. Paired diagonals occasionally divide the border into trapezoids on 8th-7th century b.c. Assyrian seals, for example, on ND. 3211 from Kalhu (modern Nimrud). ${ }^{108}$ On the possibly Iranian faience seal ND. 5385B, from the 8th-7th century B.C. Ninurta Temple cache at that site, a continuous zigzag divides the border into triangles. ${ }^{109}$ In any case, 152 is the latest datable seal from Surkh Dum-i-Luri and indicates that the 2A floor can hardly have been laid down before 700 B.c. On the other hand, the scarcity of 7th century B.C. material makes it unlikely that the sanctuary remained in use beyond, say, ca. 650 b.c.

No. 153 (CS 421, pl. 243)
This porphyry seal had been buried along with other Iron Age III objects in plots H-J, 6-7 at Chigha Sabz. It is another typical example of the late Neo-Elamite style. Amiet dated such finely modeled and detailed cylinders that show a mounted spearman pursuing a horned animal with head reversed to ca. $625-550$ B.c. ${ }^{110}$ on the basis of comparable seal impressions involving a bowman and found at Susa. ${ }^{111}$ However, the latest excavations at Susa indicate that this style may have begun around 700 b.c. (de Miroschedji 1982). Porada, discussing the very similar seal Morgan 812, had already suggested dating this style between 721 and 550 B.C. on the basis of a 'Sargonid' seal impression from Susa, Louvre S 555 (Delaporte 1920:65, pl. 48:7).

No. 154 (Sor 1275, pl. 243)
The crudely scratched design on 154 seems to represent a quadruped held up-side down by a man standing beside a tree. The ladderlike terminal is hard to explain unless it can be a reproduction of the cuneiform inscriptions on late Middle Elamite seals. ${ }^{112}$ A ladder
${ }^{107}$ de Miroschedji 1982, cf. Amiet 1972:274-75; 1973a, see the discussion of seal no. 153.

[^61]terminal also occurs on a crude seal from Sialk B (Ghirshman 1939, pls. 31, no. 5 and 97, no. S 1348) and on two 13th century B.C. stone seals, Choga Zanbil 124 and 125.

No. 155 (Sor 673, pl. 243)
The design on 155 is shallower than that on 154 , but more curvilinear in the figures of the stag and of the dog(?) that are standing back to back. Above and in front of the dog one seems to see a centered circle and 'stick figures', possibly representing hunters.

No. 156 (Sor 205, pl. 243)
On this somewhat comparable bitumen seal the animal confronting the stag seems to be a boar with a hollow circular snout (cf., however, Susa 2156, where a dog is clearly pursuing a goat and a stag). Above, one sees an outlined cross and a goat. Although no hunters are shown, the various animals of the chase suggest a relation to hunting.

Nos. 157-159 (Sor 1167, 607, and 327)
On the next three seals the men are raising their hands as if praying for success in hunting. Perhaps the simplified bodies with raised arms merely imply the presence of human beings, without specifying their actions. This is certainly true of such crude seals as Susa 2273.

No. 157 (Sor 1167, pl. 243)
On this alabaster seal the drill and cutting wheel have been extensively used. As a result, the herbivore pictured has straight horns like a gazelle's and the enclosed lentoid is replaced by a rhomb with horizontal dividing line, as on late Middle Elamite faience seals (e.g., Choga Zanbil 27, 36, 69, and 91) and on Kassite and early Neo-Assyrian seals (e.g., Morgan 582-584, and 613-615).

No. 158 (Sor 607, pl. 243)
On this faience seal the man has a birdlike head and the horned animal-also somewhat resembling a gazelle-is flanked by a lentoid and a cone.

No. 159 (Sor 327, pl. 243)
This seal, also made of faience, comes from the same workshop as 61 (pl. 234) and a seal from Sialk B (ca. 825-650 в.c., Ghirshman 1939, pls. 30, no. 2 and 96, no. S 1795). In this stylistic group the men are characterized by globular heads from which only nose and upswept hairdo project, and by long thin bell-shaped kilts. The bulls are recognizable by their upturned faces and horns projecting foward and upward, the upward projection marked by a separate stroke.

## 32A.2.9.2. Men with Tame Animals (Seals 160-164)

No. 160 (Sor 157, pl. 244)
This seal is unfortunately damaged at the very point where a plow must almost certainly have been pictured between the forward-bending man and the humped ox. The broken seal Susa 2138 shows man and animal in the same position, with the plow between them. The palmette chain along the top of the scene may then represent the field bearing fruit. Other
elements shown are the lentoid (seed?) and the cone in front of the ox; an eight(?)-rayed star, a square, and a wedge behind the man; and a fly above the ox. The fly has the blossomlike shape often seen on Neo-Elamite seals (cf. Susa 2121, 2123, 2126, and 2127). With eyes and wings dwarfing its body, it resembles most of all the flies on Susa 2126 and 2127, two seals that probably date from the 8 th century b.c. (Amiet 1972:273). A similar date is indicated by the protruding haunches and bell-shaped kilt of the plowman. ${ }^{113}$

No. 161 (Sor 1399, pl. 244)
With some hesitation 161 also has been put into this group, although there are several similarities with 77 (pl. 236), especially the forward-leaning, bird-headed figure and the tiny quadruped. But the figures of 77-79 (pl. 236) are leaning on stools, with only two legs visible, and the traces behind the bird-headed figure on 161 are hard to reconcile with a second human being. On the other hand, several elements that appear on 160 seem to occur here also: the plant, the lentoid, and even the excrescence on the ox's back, whether it is to be interpreted as a hump or as a separate cone. The birdlike human head and the crosshatched and ladder borders point to a date not long after 1000 B.C. (see the discussion of 75-77).

No. 162 (Sor 1284, pl. 244)
This faience seal is carved in the 'patterned' style (cf. 63, pl. 235, for the human figure), with a bushy-tailed quadruped, presumably a horse, facing a man who wears a short garment with long fringe below, such as appears on 10th-9th B.C. century seals at Choga Zanbil. ${ }^{114}$

No. 163 (Sor 648, pl. 244)
This seal carries an extremely crude crowded design consisting of a horse with tail hanging down and mane in the shape of horizontal strokes, held by a man with square body, tall neck, and horned head. The curve next to the sunburst may well represent his raised left arm.

No. 164 (Sor 753, pl. 244)
This seal also shows a simplified man checking a horse, but in a much more spacious composition. The man's head is birdlike and his body has an hourglass outline. The horse's rump and hindlegs are straight, but its head and neck are somewhat similar to those on 147.

32A.2.10. Miscellaneous Scenes with
Wide Borders (Seals 165-169)
These seals are either too fragmentary or too worn for the central theme to be identified.
Nos. 165-166 (Sor 1405 and 89, pl. 244)
Crosshatched borders such as are seen on 165 and 166 occur in 13th-11th century B.C. context at Choga Zanbil ${ }^{115}$ and Susa (e.g., on Susa 2085, 2094, and 2149). Seal 166 may have shown a winged goat facing left, of the type seen facing right on Susa 2131, a seal carved in
${ }^{113}$ See note 15 .
${ }^{114}$ See note 98 .
${ }^{115}$ See note 38.
the deep-line style that Porada would date to about $1000-800$ b.c. ${ }^{116}$ Perhaps 166 should be dated to around 1000 b.c.

No. 167 (Sor 544, pl. 244)
This seal seems to have had three pomegranates(?) (cf. Susa 2119 and our 168, below) filling the upper part of a two-register panel. A taller configuration with two drillings at the top (cf. 174, pl. 245) stood next to this panel.

No. 168 (Sor 611, pl. 244)
On 168, another fragmentary seal, the feet of a human being and the scaly curling tails of two opposed animals(?) seem to be visible in what is left of the central register. Pomegranates form a wide border below, and there may have been a similar wide border above.

No. 169 (Sor 929b, pl. 244)
The scanty remains of the central register in 169 seem to belong to a goat kneeling before a tree or possibly being menaced by a rampant lion. The border, with its half diamonds in relief, is related to 219 (pl. 248), Susa 2112, and Choga Zanbil 151, found in 7th century B.C. context but probably dating from the 13th-11th centuries b.c. (see 208-212 and 219, below).

## 32A.2.11. Recut Designs (Seals 170-171)

No. 170 (Sor 1198, pl. 244)
On this serpentine seal clear traces can be seen of the well-known 19th-18th century B.C. Babylonian design illustrating a god with mace facing a suppliant goddess. ${ }^{117}$ The inscription, which could run up to four lines, usually began immediately behind the god, leaving some space behind the goddess. ${ }^{118}$ Here traces of the inscription (including an ' $a$ ' sign) are visible close to the goddess's back, while a depression to the left of the god suggests the original presence of another figure and/or animal there, possibly the thunder god on his bull, as on Berlin Rollsiegel 352. Perhaps inspired by these earlier traces, a 'stick-figure' deity(?) flanked by globes and standing on a quadruped had later been crudely cut and drilled. Several additional scratches give the almost effaced central male figure an hourglass-shaped head and bust, and the female figure raised arms.

No. 171 (Sor 1310, pl. 244)
This bitumen seal at first had two opposed pine cone and pomegranate chains as its only, rather carefully executed design (cf. Susa 2117, with two rows of triangular pine cones flanking an empty band). The pomegranates were drawn as spiked balls. Subsequently an unskilled hand added a foxlike animal that cuts across the earlier design.
${ }^{116}$ See Porada 1970:35-36, 128-29; 1965a:51; and the comments on our seal 101, above.
${ }^{117}$ Cf., e.g., Louvre pls. 112-116 and Morgan 427-462.
${ }^{118}$ See, however, e.g., Morgan 429,431, 432, and 434.

## 32A.2.12. Unidentifiable Designs (Seals 172-196, pls. 245-46)

Those seals of which photographs are available are listed in the catalog and illustrated first (172-186, pls. 245-46), those for which we have only drawings next (187-190, pl. 246), and those for which we have only descriptions last (191 and 192). The traces of the designs are described and tentative suggestions as to their possible interpretation are given in the catalog. Cylinder seals only mentioned as having unidentifiable designs are listed at the very end (193-196).

## 32A.2.13. Geometric Designs (Seals 197-222)

At Choga Zanbil, squat chevron-decorated faience cylinder seals or seal-shaped beads 2.7 to 3.4 cm tall and about 1.3 cm wide were found in a 13th century b.C. context. Taller seals of similar design, measuring about 4.0 by 1.0 cm , occurred in 13th-11th century B.C. contexts. Finally, thinner variants, measuring about 3.0 by 0.9 cm , date to the 10th-7th centuries B.C. Some of the latter show horizontal or vertical continuous zigzag lines with some space in between, rather than the closely superimposed alternate hatching that produced the chevron effect of the earlier seals.

Nos. 197-198 (Sor 1665 and 716, pl. 247)
Our 197 and 198 seem to belong to the 13th century B.C. category.
No. 199 (CS 473, pl. 247)
Our 199 has a double-line border not found on the Middle Elamite examples.
Nos. 200-201 (Sor 264 and 42, pl. 247)
The squat seals 200 (not illustrated) and 201 may be Neo-Elamite, despite their proportions. Seal 200 has vertical zigzags (cf. Choga Zanbil 126, 148, and 149, from 10th7th century B.C. context, as against Susa 2100, from Middle Elamite context). Seal 201 has mostly oblique hatching (cf. Susa 2103, found in 6th century B.C. context).

Nos. 202-204 (Sor 1440, 770, and 1478, pl. 247)
The 10th to 7th century b.C. category mentioned above may be represented at Surkh Dum-i-Luri by 202-204.

Nos. 205-206 (CS 450 and Sor 1188, pl. 247)
The squat faience seal 205 and the bronze seal 206 resemble this category.
No. 207 (Sor 1245, pl. 247)
A baked clay seal, 207, has zigzags of much taller proportion, separated by a double ladder band (cf. 65, pl. 235, and Susa 2152).

Nos. 208-212 (Sor 542, 1059, 115, 539, and 1052, pl. 248)
Wide crosshatched bands occur frequently in 13th-11th century B.C. context, sometimes alone (Choga Zanbil 153, 154, and 156; Susa 2115), sometimes framing either figured bands (Choga Zanbil 58, 60, 75, 79, 89, 92, and 100; Susa 2085 and 2149) or bands of geometric ornament (Susa 2094, 2110, and 2112). The solid lozenges of Susa 2112 occur within the
same frame on Choga Zanbil 151, which was found in 7th century B.c. context but must also be of 13th-11th century B.C. date (see discussion of 169, above, and 219, below). At Surkh Dum-i-Luri, wide crosshatched bands occur alone (208 and 209), or framing figured bands ( $76,135,161,165$, and 166), or framing geometric bands (210-212). The centered circles of 210 and 212 are also very common on Middle Elamite seals (cf. Choga Zanbil 15-19, 26, 29, $40,42,70,83$, and 101; Susa 2082-2084). The honeycomb design of 212 was popular in 11th century b.C. embroidery, as shown on a Babylonian boundary stone (King 1912, pl. 54; Seidl 1975, illustration 193b).

Nos. 213-214 (Sor 1039 and 1137, pl. 248)
A wider network of doubly outlined lozenges is created by paired diagonal incisions on 213. A line divides 214 into two registers and here the paired diagonal incisions form two double zigzags. In proportion, 213 and 214 are comparable to the 13th century b.c. geometric seals from Choga Zanbil.

Nos. 215-218 (Sor 754:2f, 792, 764, and 763, pl. 248)
On the next four seals the double-line borders probably point to an 8th or early 7th century B.C. date. Sialk 1573 (Ghirshman 1939, pl. 97) shows a crosshatched band with a double-line border such as on 215 and 216. On 217 the pairs of carelessly incised diagonals form double Xs that fall short of enclosing lozenges. Seal 218, on the other hand, shows lozenges enclosed by diagonals so carelessly incised that few of them form pairs.

No. 219 (Sor 540, pl. 248)
This seal has been mentioned above as having solid lozenges and half-lozenges such as are found on certain Middle Elamite seals. On account of the ladder bands, this small-sized seal should probably be dated from about 1075 to 900 or even 800 B.C. A blank band such as is seen on 219 also occurs on the Neo-Elamite seal Susa 2137. The latter seal includes the cross with branches between the arms that occurs also with a ladder border on Susa 2133. In discussing 105 we have seen that Porada dates Susa 2133 to about 1000-800 b.C.

No. 220 (Sor 1066, pl. 248)
The design on this bronze seal might be compared to a row of crosses with branches. Additional filling motifs include Y-shaped horizontal wedges such as used in 7th-6th century B.C. Neo-Elamite cuneiform script (e.g., on Susa 2193 and Amiet 1973a:19).

Nos. 221-222 (Sor 726 and 1139)
Finally, two cylinders are described as unfinished seals: the alabaster seal 221 has line borders and three drill holes, like the late Middle Elamite faience seal Susa 2120. The white stone seal 222 has only stippled borders. Seals 221 and 222 are comparable in size to the 13th to 11 th century b.c. geometric faience seals from Choga Zanbil. Jemdet Nasr stone seals occasionally show nothing but drill holes (e.g., Diyala 239), but they are usually much smaller.

Pierced cylinders without any trace of design (e.g., Sor 154, 636, and 1609) are treated together with beads of other shapes in chapter 31.

## 32A.3. CYLINDER SEAL IMPRESSION

No. 223 (KI 105, pl. 248)
In the same Iron Age complex as seals 108 and 133 Schmidt found a seal impression on clay that, unfortunately, does not add much information. To judge from the drawing it was made with a cylinder seal that had a zigzag band as border and a diagonal zigzag band as one design element. The other design elements defy identification.

## 32A.4. DATING OF THE NEO-ELAMITE (PROVINCIAL) CYLINDER SEALS

Table 31, p. 454, shows the outside comparisons that have been used to date the NeoElamite and probably contemporary local cylinder seals.

Few outside comparisons have been found for the following features that are shared by several of our seals.

| Suggested dates (B.C.) | Features | Seals on which feature occurs |
| :--- | :--- | :--- |
|  |  |  |
| $1150-800$ | Frontal praying genie | 59,70, and 71 |
| $1150-800$ | Bird with square shoulders | 91,135 , and 145 |
| $1100-1000$ | Monkcy and cross | 74,119 , and 120 |
| $1100-900$ | "Duck-billed" bull | $67,81,99$, and 142 |
| $1000-900$ | Serrate leaves | 86,119, and 142 |
| $1000-800$ | T-shaped trec base | 86,89, and142 |
| $1000-800$ | Man above ground line | 91,106, and 142 |
| $1000-800$ | Arched neck and drop-shaped muzzle | $68,73,83,88,92$, and 94 |
| $1000-800$ | Stiltlike legs | 83 and 92 |
| $1000-800$ | Low-slung animals | $142-144$ |
| ca. 800 | Rearing animals | 126 and 164 |
| $800-700$ | Band of vegetal omament | $151,160,167,168$, and 171 |
| $800-600$ | Symmetry disturbed by crowding | 94 and 97 |
| $800-500$ | Copper used for seals | $96,127-130,137,206$, and 220 |
| $625-550$ | Single animal and cross or quatrefoil | 127 and 130 |
|  |  |  |

In the depiction of the rampant or walking bull, there seems to have been a long and gradual development. At first the bulls have their almost duck-billed muzzles in a horizontal position (our seal 81 , perhaps dating to the 11th century B.C.; cf. our seals 67 and 142). A transitional stage is seen in Berlin Rollsiegel 560 and our seal 99, in all likelihood still belonging to the 11 th century b.c. Here the head is held diagonally, with the large bulging forehead and the smaller bulge of the nose presenting a vertical front, whereas the neck is more strongly arched than before (cf. the gold beaker from Marlik tomb 22H and Negahban 1964, pl. 16 and figs. 109 and 136). Finally the muzzle becomes a drop-shaped element that hangs straight down (in our seal 68) and dominates all other facial features in size (our seals 73, 83, 88,92 , and 94 ). Here one is reminded of painted pottery designs from Sialk B (Ghirshman 1939, pl. 83A-F).

Many of the dates quoted in table 31 for sites outside of Luristan are only tentative to begin with, so that our dating derived from them is doubly uncertain. Such is the case, for instance, with Hama Cremation cemetery levels I (one comparison) and II (two comparisons). All we know is that levels I-III of that cemetery have to fit between the extremes of 1200 and 800 в.c. (Riis $1948: 202$ ). The excavators have tentatively suggested 1200-1075(?), 1075(?)925(?), and 925(?)-800 b.C. as dates for Hama Cremation cemetery levels I, II, and III
respectively. Even more uncertain is the situation at Merj Khamis, a cremation cemetery near Carchemish that yielded a number of seals with borders that we have used for comparison. All we know is that it seems to have been succeeded by the cemetery of Yunus, also near Carchemish, which yielded cylinder seals of Neo-Assyrian type (Hogarth 1920:79-80).

In the discussion of our seals reference has often been made to the various parts of Dur Untash (modern Choga Zanbil), the new capital built by Untash-Napirisha (ca. 1265-1245 B.C.) 30 km southeast of Susa. Most of the cylinder seals have been found in the following parts of the huge site:

1. Chapel IV yielded seventy-four cylinder seals. As most of the 14-13th century B.C. pseudo-Kassite and elaborate Elamite cylinders were concentrated in chapel IV, Porada has convincingly suggested that this deposit dates to the founding of Dur Untash and/or shortly thereafter, that is, to ca. 1250-1200 в.c. (Porada 1970:129).
2. Chapel III contained thirty-three cylinder seals, still in the Middle Elamite tradition, but with some hints that this tradition was dying out: some older seals were recut by craftsmen who no longer understood the original design; the standard inscription was often incorrectly written. Faience seals in the "deep-line" style started appearing, with such new motifs as the archer on one knee. Porada suggested that this deposit may date to ca. 1150-1000 b.c. (Porada 1970:128).
3. Before Ghirshman started to excavate Dur Untash, de Mecquenem had done some exploratory work, during which he found nine cylinder seals in a pot of a type that he attributes to the 'fourth Elamite' period (ca. 850?-640 B.c.). ${ }^{119}$
4. The 'Temenos East' sector of the site yielded the important seals Choga Zanbil 31, 34, 41, and 122, to which Choga Zanbil 32, 33, 51, 52, and 117, found in other parts of the site, can be linked on stylistic grounds. For most of these seals Porada seems to favor dates in the tenth, ninth, and possibly eighth centuries b.c., with bitumen seals perhaps starting in the eleventh century, seals with crosshatched birds or goats on mountains belonging to the tenth, and seals with Neo-Assyrian affinities belonging to the ninth and possibly eighth centuries B.C. (Porada 1970:29, 35-36, 45, 51, 98-99, and 128-29). All these suggestions are formulated by Porada with great caution and should perhaps not be understood in the narrow sense here given to them.
5. Chapel II and the Palace have produced the latest seals from Dur Untash: Choga Zanbil 68, 87, 142, 144, 147-150, and 157. According to Ghirshman these were found in 7th century b.c. context, and Porada seems to favor an 8th to early 7th century b.c. date for this group (Porada 1970:61, 98, and 111-12).
6. A bitumen seal showing a griffin of 8th to 7 th century B.c. Susa type (see below) was found by de Mecquenem in loose fill. ${ }^{120}$

Susa, capital of Elam before and after the ephemeral residence at Dur Untash, has yielded its share of Late Middle Elamite and Neo-Elamite cylinder seals. Unfortunately, no useful stratigraphic information is available except for the most recently excavated ones. After some preliminary treatments (Amiet 1966:478 and 569-73, 1970:22-29), Amiet discussed the subject as a whole (1972:273-83). Disregarding matters of detail for the moment, one can say that there seem to be two successive groups of Neo-Elamite seals, an early one, related to the late Middle Elamite group, consisting of faience seals engraved in the "deep-line" style (Susa 2130-2145); and a subsequent one, of seals often made of bitumen and carved in a deeply gouged style with a new repertoire of motifs (griffins with sickle-shaped wings, et cetera: Susa 2126,2127 , and 2155). We tend to agree with Amiet's earlier dating of ca. 1000-800 or 750

[^62]b.C. for the first group and ca. $800-700^{121}$ or $750-650$ b.c. for the second group. Amiet now suggests, on grounds of political history, that both groups date to the late 8th and 7th centuries B.C. It seems hard to believe that two groups so different not only in style but also in iconography could be contemporary.

These groups in turn were succeeded, after the final Assyrian defeat of Elam, and perhaps even earlier (de Miroschedji 1982) by a late Neo-Elamite (or should one say Median?) group of cylinder seals, clearly defined by Amiet (1973a). Within this group there are three subgroups, the earliest of which (characterized by galloping animals, et cetera, Susa 2188) is dated to ca. 625-500 в.c. by Amiet. An initial date earlier than this is indicated by the name of Cyrus I (ca. 640-600 B.c.) appearing on an example of this subgroup from Persepolis.

Another point that needs to be made here is the very unequal weight carried by the different comparisons. The dentate borders and ladder borders on Syrian seals of the 12th-10th centuries b.C. cannot provide close dating evidence, on account of the distance involved and the common occurrence of such simple motifs. Certain pairs of seals, on the other hand, like Susa 2131 and our seal 101, or Choga Zanbil 87 and our seal 62, or Sialk 1795 and our seal 61 , are so closely related that they must be strictly contemporary.

Finally, a word should be said about the contribution of the cylinder seals toward dating the successive levels at Surkh Dum-i-Luri. We have seen before that the vast majority of objects found in the sanctuary had been made long before they were deposited there. So, too, the cylinder seals that can provide dates post quem for the various stages of the sanctuary are limited to only a few: ${ }^{122}$

1. The latest of the cylinder seals found in level 3A seem to be seals 51 and 57 . Seal 51 belongs to a well-known (provincial) Neo-Assyrian type occurring from 800 B.C. at the earliest. Our much worn seal 57, with its bell-shaped kilts, cannot have been made long before 800 b.C. either. These seals indicate that the level 2 C construction of the sanctuary did not take place before 800 в.c. at the earliest. Should one want to discount this evidence, then seals such as 41 and 134 would still force one to accept a 9th century b.C. date for construction of the sanctuary as we know it.
2. The latest cylinder seal from level 2C is probably seal 204, of a type attested at the Dur Untash palace in the 8 th or even 7th century b.c. This seal indicates that the level 2B alteration is probably to be dated around 750 B.C., if not later. Seal 48 is also unlikely to antedate the 8th century b.C.
3. In level 2B, the most recent cylinder seal is certainly our 152, a close relative of the well-established Neo-Elamite II group of seals that de Miroschedji has assigned to the years $725 / 700-550 / 520$ b.c. Our seal may be an early example of this style, but had been used for some time when it was deposited prior to the level 2A alterations. The latter should thus have taken place about 700 b.c. Seal 96 tends to confirm this.
4. The only late 7th or 6th century B.c. cylinder seal (our 69) comes from Chigha Sabz. The absence of such seals from Surkh Dum-i-Luri levels 2A and 1 is an argument for that sanctuary's having been abandoned before the late 7th century, possibly around 650 B.C.

## 32B. STAMP SEALS

## INTRODUCTION

Stamp seals, which had never lost favor completely in the outlying regions of western Asia, regained their former popularity in the Iron Age, finally ousting cylinder seals even from Mesopotamia as writing on clay was replaced by writing on other materials.

[^63]Among the thirty-two stamp seals found in the sanctuary at Surkh Dum-i-Luri, we can distinguish the following major classes:

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32B.1 SEAL WITH LENTOID SECTION
32B.2 PYRAMIDAL AND CONICAL SEALS
32B.3 ROCKER SEALS
32B.4 PENDANT SEALS
32B.5 ANIMAL-SHAPED SEALS WITH GEOMETRIC DESIGNS ON THE BASE
32B.6 ANIMAL-SHAPED SEALS WITH ZOOMORPHIC DESIGNS ON THE BASE
32B.7 SIGNET RINGS
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## 32B.1. SEAL WITH LENTOID SECTION (Seal xiii)

No. xiii (Sor 1017, pl. 249)
Centered circles engraved on the convex surface of this faience seal give it a facelike appearance. Despite the extreme simplicity of the seal design, it probably dates from ca. 800 b.c. The hourglass design on the back may be derived from such scarabs as Sialk 1423, whereas the eyes might be inspired by face-shaped seals such as an example from Hama (Riis 1948, fig. 199A) dated to ca. $925-800$ в.c.

## 32B.2. PYRAMIDAL AND CONICAL SEALS (Seals xiv-xx)

Nos. xiv-xv (Sor 805 and 1622, pl. 249)
A white stone pyramid, pierced near its apex, was one of three stamplike objects with scorpion designs from the earlier Larsa period (ca. 2000-1900 b.c.) found at Eshnunna (modern Tell Asmar, Frankfort et al. 1940:204, figs. 105a-c). Frankfort interpreted them as amulets against scorpion stings, rather than stamp seals. In the same vein, one might interpret our seal xv as an amulet against dog bites. The scorpion on our seal xiv, however, is drawn in a style different from that of the Eshnunna amulets. Stamp seals with single animals have been found at sites that are closer to ours chronologically: Choga Zanbil 163-64 at Dur Untash chapel IV (ca. 1250-1200 в.c.), Susa 2288-95 at Neo-Elamite Susa (although Susa 2288-89 are similar in shape to Choga Zanbil 163/64), Berlin Stempelsiegel 368-81 and 385 at 9th to 7th century B.C. Assur and Babylon, and Berlin Stempelsiegel 117 at Samal (modern Zincirli, ca. 800-670 b.c.; cf. also Halaf 73 and 80 ). Perhaps one should look to the west for the origin of our seals xiv-xv. Berlin Stempelsiegel 146 and 148-49 are also truncated pyramidal in shape and the latter has faint plant designs on the sides; these serpentine seals from Sam'al are dated ca. $800-670$ в.с.

No. xvi (Sor 511, pl. 249)
We tend to attribute this seal to Iron Age III as well, when western influence was strong in Iran. This might seem very arbitrary, as similar designs occur on early seals of different material and shape, such as Hissar H 4534 (Hissar IC, $3250-2900$ B.c.). Truncatedpyramid seals with related designs, however, come from Cyprus (Louvre A. 1170, vol. 2, pl. 106:1) and from Persepolis (Schmidt 1957, pl. 19:PT4 1032).

No. xvii (Sor 1237, pl. 249)
By its material and shape, this seal is related to the preceding one. The design on the base, a grid, is so simple that one might doubt its actual use as a seal. We shall see the same pattern on the bases of the faience rocker seals (xxi-xxii, pl. 250). Faience bird pendants usually have a grid design on the base as well (see ch. 26).

No. xviii (Sor 810, pl. 249)
This is a stamp seal of Neo-Assyrian type. For the shape, one can compare Berlin Stempelsiegel 385; for the design, Berlin Stempelsiegel 334. Both of these are from Assur, 9th to 7th centuries b.c.

No. xix (Sor 1296, pl. 250)
In shape, this seal conforms to the preceding one. A parallel in shape and design exists in Halaf 71; Halaf 72 and 73 are similar in shape. They are called Neo-Assyrian, but are not stratified.

No. $x x$ (Sor 1799, pl. 250)
In view of its material and of its design, which recurs on many disc-headed pins, this is probably a local product influenced by the Neo-Assyrian class to which xviii and xix belong.

## 32B.3. ROCKER SEALS (Seals xxi-xxiii)

Nos. xxi-xxii (Sor 684 and 1429, pl. 250)
"Orange-quarter" pendants of faience with grid patterns incised on the base also have been found at Sialk B (ca. 825-700 B.C.; Ghirshman 1939, pl. 95:S 1335b, 1786). Seal xxi is expressly stated as found below the floor of the sanctuary.

No. xxiii (Sor 1301c, pl. 250)
This is a more elongated version, in granite, of the rocker seals exemplified by xxi-xxii. It was found with three shell and chalcedony beads.

## 32B.4. PENDANT SEALS (Seals xxiv-xxvi)

No. xxiv (Sor 171, pl. 250)
On the amuletic value of 'stamp seals' showing scorpions the same applies as has been said above (seal xiv). In addition to a scorpion, seal xxiv shows a sunburst carved in the NeoAssyrian manner as a dot surrounded by triangles (cf. seal xviii). The wedges used as fillers, too, indicate familiarity with Neo-Assyrian seal cutting.

Nos. xxv-xxvi (Sor 333 and 1295a)
The scratchings on these pendants may have been made by the owners themselves. The duck-billed man on xxvi, however, can be compared to the men on cylinder seals 72 (pl. 235), 158 (pl. 243), and 164 (pl. 244).

## 32B.5. ANIMAL-SHAPED SEALS WITH GEOMETRIC <br> DESIGNS ON THE BASE (Seals xxvii-xxx)

## 32B.5.1. Scaraboid-Shaped

No. xxvii (Sor 308, pl. 251)
The sunburst, drawn as a dot surrounded by triangles, suggests the Neo-Assyrian realm as the place of origin for seal xxvii. The scaraboid shape points, more specifically, to its
western confines. Halaf 80 provides a parallel for the shape; it has a scorpion carved on the base.

32B.5.2. Bird- / Lion- / and Monkey-Shaped Seals
Nos. xxviii-xxx (Sor 804, 119, and 1145, pls. 251-52)
The geometric designs of seals xxviii-xxx include a curved swastika, a Maltese cross, and an hourglass within a rounded square in relief.

## 32B.6. ANIMAL-SHAPED SEALS WITH ZOOMORPHIC DESIGNS ON THE BASE

Nos. xxxi-xxxiv (Sor 1189, 1042, 1155, and 1136, pl. 252)
There is a marked contrast between the lively and varied animal shapes in which these copper or bronze seals were cast and the very simplified sealing designs that they carry on their bases. The zoomorphic designs on the bases of the animal-shaped seals (xxxi-xxxiv) are evenly sunk so that they stand out in the seal impression as a flat raised body without interior divisions. It is a technique that we also find on the Iron Age II lobed signet rings discussed by Porada (1964b:17) and exemplified by our seals xxxviii-xl. The birds of prey (xxxi and xxxii) and the grazing goat (xxxiii) seem to be popular. A winged lion may also occur on signet ring xl . For the motif of the 'sleeping duck', exemplified by the shape of seal xxxiii, see chapter 27C.16.8. Zoomorphic Pins.

The drop-shaped muzzle of the bull on seal xxxiv is a feature seen on a number of cylinder seals ( $68,92,94$, and 99 ). We have related it to the bulls on painted pottery from Sialk B (e.g., Ghirshman 1939, pl. 83A-F). A bull on a Sialk B cylinder seal has a similarly hatched, loop-shaped wing (Ghirshman 1939, pl. 30:3).

## 32B.7. SIGNET RINGS (Seals xxxv-xliv)

Porada divides the signet rings that are said to come from Luristan into various groups which she convincingly assigns to successive stages of the Iron Age (Porada 1964b:16-19; Porada 1965a:75-78). In some preliminary remarks on the signet rings from Surkh Dum-iLuri (van Loon 1967:24) we failed to take into account that most of the finds from this site were deposited there long after they had become obsolete. Only the bezel ring xliv is now considered contemporary with the locus in which it was found, viz., on the 2B sanctuary floor (early Iron Age III). All the other signet rings must have been heirlooms.

No. xxxv (Sor 1601, pls. 253 and 258b; see ch. 33B, no. 12)
The sheet rings of Iron Age I are represented at Surkh Dum-i-Luri by seals xxxv (Sor 1601) and, perhaps, xxxvi (Sor 832), and xxxvii (Sor 1804). Seal xxxv has a design, with stylized palm tree flanked by animals, that seems to be classical for this group of rings and that we have considered above in discussing cylinder seals 81-84. There we have seen that it is a hallmark of Beran's third Kassite group of cylinder seals, to be dated ca. 1100-950 b.c. (Beran 1957-58:274-78). Among the signet rings illustrated by Porada (1964b, pl. 1:2-4), the first shows a seven-cone tree flanked by bulls behind which three-tufted shrubs appear. The tree is relatively tall, as on a Babylonian boundary stone of the 11 th century B.c. (King 1912, pl. 54). Between bulls and tree we see a lentoid and a tiny, many-rayed sunburst or rosette. Above the bulls the signs tuk and meš appear mirrored in the impression. This is a defective writing for the complete inscription dinger-mes tuk ("have luck") which appears mirrored in the impression of our seal (for the inscription, see ch. 33B, no. 12). If understood at all (and not just inserted for their amuletic value), both inscriptions were obviously meant to be read
directly from the ring and not from its impression. The second signet ring illustrated by Porada is engraved with an extremely squat version of the standard heraldic design. This time the three-tufted shrub is the central motif, flanked by bulls that are probably meant to be couchant and with many-rayed sunbursts or rosettes as terminals. A more carefully engraved ring in the David Weill collection clearly shows two couchant bulls flanking a five-tufted tree (Amiet 1976a, no. 30). The Allard Pierson Museum in Amsterdam displays the gold leaf overlay from a similar ring. The third signet ring illustrated by Porada shows a medium-sized five-cone tree flanked by bulls in the upper register and a three-tufted shrub flanked by sheep and goats in the lower register. With its squatter tree the upper design seems related to a Babylonian boundary stone of the 10th century B.c. (King 1912, pl. 74). Although our seal xxxv has some traits in common with each of the sheet rings assigned to the 12 th and 11 th centuries B.c. by Porada, I would place our seal early in the sequence on account of its correct inscription. At Dur Untash, garbled inscriptions seem to occur as early as the 11th century b.C. (Porada 1970, nos. 73 and 82 from chapel III).

No. xxxvi (Sor 832, pl. 253)
Seal xxxvi seems to have a minute gap between the two ends of the sheet, but its classification as a true sheet ring may be mistaken as oxidation has eaten several holes into it. Due to this damage the design is unidentifiable. It was framed by vertical and horizontal lines as on some of the lobed rings discussed below.

No. xxxvii (Sor 1804, pl. 253)
Although made of faience and closed behind the finger, the seal ring xxxvii is similar in shape to the sheet rings. The motif of bird and fish (not illustrated on the drawing, pl. 253) is also seen on seal 100 (pl. 238) and on a seal from Hasanlu V (1200-1000 b.c.; see discussion of seal 100 above). The motif and the shape of this object indicates an Iron Age I date.

No. xxxviii (Sor 655, pl. 253)
Of the lobed rings illustrated by Porada (1964b, pl. 2:1-2), the first is faintly lobed and crudely engraved with a heavy animal, shown mainly in outlines and compared by her to seal and pottery designs from Sialk B (now dated ca. 825-700 B.C.; de Schauensee and Dyson 1983:76; cf. Dyson 1965b:201). Nevertheless, her dating of about 1000-800 b.c. for this group remains persuasive. Our seals xxxviii-xl seem to belong to this group. A quatrefoil similar to that on xxxviii also appears on the copper cylinder seal 130 (pl. 240).

No. xxxix (Sor 102, pl. 254)
The feeding of a bird of prey on a goat is only hinted at on xxxix (cf. seal 101, pl. 238, which we have tentatively dated ca. $1000-800$ B.C.).

No. xl (Sor 210, pl. 254)
Animals with erect, insectlike wings as on seal $x 1$ appear in Sialk $B$ seal and painted pottery designs (Ghirshman 1939, pls. 30:3, 80A-B, 90:1, 7, and 91:16). The animal design with a wide-open, straight jaw and erect, loop-shaped ears also appears on cylinder seals 94-96 (pls. 237-38), which we have tentatively dated 800-700 B.C., mainly on the basis of parallels at Susa and Sialk B.

No. xli (Sor 758, pl. 254)
The second lobed ring illustrated by Porada (1964b, pl. 2:2) is more strongly lobed and delicately engraved with a design reminiscent of Late Elamite modeled-style seals. While the designs on our seals xli and xlii do not correspond to the latter group, their engraving is somewhat more detailed than that of xxxviii-xl. Seal xli shows the scene of a vulture feeding on a doe (or similar prey) in gory detail. The hindquarters of the victim had already been eaten, as is illustrated on our cylinder seals 83 (pl. 236) and 95 (pl. 237) and on Susa 2126-2127, which we have dated $800-650$ B.C.

No. xlii (Sor 774, pl. 254)
The straight-bodied flying bird on this seal, with shoulders shaped like a crossbar to which the wings are attached, occurs on our cylinder seal 85 (pl. 237) and on Choga Zanbil 48 , which may be as old as $1150-1000$ B.c. The shape of our signet ring, however, indicates a date during the early part of Iron Age III. With its bird flanked by globes, possibly representing celestial bodies, seal xlii also seems related to the unidentifiable cylinder seal 186 (pl. 246) which may represent a similar scene.

No. xliii (Sor 65, pl. 255)
The silver ring, no. xliii, of the Iron III strongly lobed shape, has a punctate border as its only decoration.

No. xliv (Sor 459, pl. 255)
Finally, our copper seal xliv comes close to the 8th-7th century B.C. group that Porada has called bezel rings. By this she means rings in which the hoop is broadened to a circular sealing surface. In the true bezel rings this sealing surface is flat or even takes the shape of a disc attached to the hoop. In our seal xliv the circular sealing surface is rounded to fit the form of the finger and the transition from sealing surface to hoop is hidden by small animal masks in relief. Copper or bronze objects from Luristan, including a pin excavated at Iron Age II Baba Jan B, often carry such animal masks in relief with large loop-shaped ears and with puffed-up cheeks flanking the nose (Meade 1968:128-29, fig. 12). In contrast to the detailed, if stylized, treatment of these relief animals is the linear simplification of the actual seal design undoubtedly engraved by someone else. In it the vegetation on which the goat feeds is shown in abstract form above the animal's back, much as Susa A pottery painters had done 3000 years before (Amiet 1966, fig. 13). The goat's head is compacted into horn, ear, and snout, at the end of which a right angle indicates the beard. Although quite different in detail, it is perhaps best compared to the linear animals on certain copper cylinder seals such as our 137 (pl. 241), which we have tentatively dated around 800 B.C. or later. On the openwork cast pin Sor 1573 (ch. 27D.18.4, pl. 185a) the three-dimensional goats' heads have similarly squared-off snouts and tall erect ears inscribed within looped horns.

THE HOLMES EXPEDITIONS TO LURISTAN
Table 31. External Dating Criteria for the Cylinder Seals ${ }^{1}$
Site
Date ca. B.C. Find referred to
Feature
Seal in chapter 32 on which feature occurs

| Abu Hawam V | 1300-1200 | Elamite gls seal no. 411 | Dancers | 74 |
| :---: | :---: | :---: | :---: | :---: |
| Dur Untash | 1250-1200 | TZ 140-141 | Squat geometric seal | $\begin{aligned} & 197 \text { and 198; cf. 213, } \\ & \text { and } 214 \end{aligned}$ |
| (Choga Zanbil) <br> Chapel IV |  | TZ 128, 140 | Closely superimposed chevrons | 197-99 |
| Uruk Kassite level | 1250-1150 | Berlin 561 | Spread-leg goat, sevencone tree | 115 |
| Susa, reigns of UntashNapirisha to ShilhakInshushinak | 1250-1100 | Stone, brick reliefs | Bull-men grasping trees | 85 |
| Dur-Untash | 1250-1000 | TZ 15,18-21 | Vert crosshatched panels | 63 |
| Chapels IV-III |  | $\begin{aligned} & \text { TZ } 58,60, \text { and } 75, \\ & 79,89,92, \text { and } 100 \end{aligned}$ | Crosshatched borders | $\begin{aligned} & 76 \text { and } 135, \text { cf. } 161, \\ & 165,166, \text { and } 208-12 \end{aligned}$ |
| - | 1250-950 | Babylonian "Third Kassite" grp seals (cf. Beran 1957-58) | Tuft tree, cross, lentoid Winged bull flk tree | $74$ <br> cf. $81-84,99$, and 142 |
|  |  |  | Five-tuft tree Mincing gait | $\begin{aligned} & 118 \\ & 88,99, \text { and } 142 \end{aligned}$ |
| Hama Cremation Cmty I | 1200-1075 | Riis 1948, figs. 190C, 195D | Five-cone tree | 113 and 114, cf. 149 |
|  |  | Riis 1948, fig. 195A | Dentate borders | 58-60, 66, 67, 100 |
| Merj Khamis | 1200-900 | Hogarth 1920, figs. 87-92 | Dentate borders | 116, 137, 142, and 143 |
| Marlik | 1200-1000 | Se | Winged bull flk tree Bird, pine tree, goat | $\begin{aligned} & \text { cf. } 81-84,99, \text { and } 142 \\ & 117 \end{aligned}$ |
| Hasanlu V | 1200-1000 |  | Bird and fish | 100 |
|  | 1200-900 | Late Middle Assyrian seals from Assyria | Ostrich with young | 131 |
| Dur Untash | 1150-1000 | TZ 73 and 82 | Garbled inscriptions | 53, 54, and 70; cf. 154 |
| Chapel III |  | TZ 64, 73, and 84 | Elongated figs with long garments, simp faces | $53,54,85,90$, and 142 |
|  |  | TZ 48 | T-shaped fly | 85; cf. 120 |
|  |  | TZ 49 | Bird, pine tree, goat | 117 |
|  |  |  | Goat with striate neck | 120 |
|  |  | TZ 50 | Goat with vert muzzle and hom | 122 and 123 |
| Dur Untash | 1100-1000 | TZ 21 | Bitumen used for seals | cf. $81,85,86$, and 95 ; <br> cf. 109, 118, and 119 |
| Babylon, reigns | 1100-950 | Boundary stones | Winged bull flk tree | cf. 81-84, 99, and 142 |
| of Marduk-nadin- |  |  | Base sprouts curling out | 81 and 119 |
| ahhe to Nabu-mukin-apli |  |  | Honeycomb pattern | 212 |
| Dur Untash Chapel III | 1150-1000 | TZ 25 | Ladder borders | $\begin{aligned} & 62,65,75,77,78,80 \\ & 101,108,120,123,136 \end{aligned}$ |
| Hama Cremation Cmty II | 1075-925 | Riis 1948, fig. 195B-C | Ladder borders | 140, 147, and 161 |
| (not at Dur | 1000-700 | (TZ 54, 55, | Banquet with recip at left | 55 and 56 |
| Untash |  | 57-60, 62-67, | Banquet with anim added | $55,56,60$, and 61 |
| Chapels IV-III) |  | and 69-86) | Banquet with attendant behind king | 57 |

${ }^{1}$ Negative evidence for external dating criteria is enclosed within parentheses.

Table 31. External Dating Criteria for the Cylinder Seals (cont.)

| Site | Date ca. B.C. | Find referred to | Feature | Seal in chapter 32 on which feature occurs |
| :---: | :---: | :---: | :---: | :---: |
| Dur Untash (unlike NeoAssyrian seals) | 1000-900 | TZ 117 | Banquet with deity instead of king | 55 and 56 |
|  |  | TZ 51 | Crosshatched bird; cf. deep-line style | 101 and 102 |
|  |  | TZ 31-34 | Deep-line style | 89, 108, and 145 |
|  |  |  | Short garments with one | $60,66,68,76,77$ |
|  |  |  | Tall tree, low lamp with tall flames, god bending forward | 63 |
| Dur Untash | 1000-800 | TZ 41 | Wedges in field Lack of balance | 59,67,90, 142, and 144 |
| Temenos E; cf. |  |  |  | 74, 82-84, 86, and |
| Hasanlu IV seal |  |  |  | 91 |
| Hasanlu IV | 1000-800 | Seals, ivories, and metal vessels TZ 122 | Birdlike human heads | 58, 68, 72, 75-77, |
| Dur Untash | 900-700 |  | Animal head left over from repast | 60,91, and 96 |
| Temenos E; cf Neo-Assyrian seals |  |  | Large lion head | 66, 733, 91, 93, and 105 |
| Susa; cf. NeoAssyrian seals | 900-700 | Susa 2133 <br> Linear-style seals | Cross with branches | cf. 220 |
|  |  |  | Wedges in field | 59, 67, 90, 142, and 144 |
|  |  |  | Low tree | 84 and 87 |
|  |  |  | Animal and sunburst | 134 |
|  |  |  | Chevron border | 137 and 151 |
|  |  |  | Double ladder | 65 and 207 |
| Dur Untash | 800-650 | TZ 87 | One arm hanging down | 59,60,66, and 68 |
|  |  |  | Wasp waist | 60 and 89 |
|  |  |  | Patterned style | $62,63,65,101,132$ and 133 |
|  |  |  | Large human head | 62 and 106 |
|  |  | TZ 147-49 | Thin seals with continuous zigzags | $\begin{aligned} & \text { 200, 202-204; cf. } 205 \\ & \text { and } 206 \end{aligned}$ |
| Malamir, Susa, reigns of ShutrukNahhunte II to Atta-hamitiInshushinak Susa | 800-650 | Reliefs | Long, bell-shaped kilt | $\begin{aligned} & 56,57,143,144,151 \text {, } \\ & \text { and } 160 \end{aligned}$ |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | 800-650 | Susa 2126, 2127 | Incomplete anim bodies | cf. 83 and 95 |
|  |  |  | Upended herbivores | cf. 92,107 , and 108 |
|  |  |  | Sickle-shaped wings | 94 and 109 |
|  |  |  | Erect ears or topknots | 95, 109, and 110 |
|  |  |  | V-shaped fly | 109 and 160 |
|  |  | Susa 2154 | Trapezoid borders | 150 |
| Sialk B | 825-650 | Seals, painted pottcry | Blob-figure style | 61 and 159 |
|  |  |  | Lion with straight, curling jaws and erect loop ears | 94-96 |
|  |  |  | Goring bull | 129 |
|  |  |  | Couchant sheep | 137 |
|  |  |  | Anim with arched neck | 138, 147, and 164 |
|  |  |  | Walking bird with spread wings | 141 |

THE HOLMES EXPEDITIONS TO LURISTAN
Table 31. External Dating Criteria for the Cylinder Seals (cont.)

| Site | Date ca. B.C. | Find referred to | Feature | Seal in chapter 32 on <br> which feature occurs |
| :--- | :--- | :--- | :--- | :--- |
| Sialk B (cont.) |  |  | Crested men <br> Double-line border | 147 <br> $124,149,201,204,205$, <br> and 215-18 |
|  |  |  |  | Reliefs from Assyria | | Eight-spoked chariot |
| :--- |
| - |

CATALOG 32. IRON AGE CYLINDER AND STAMP SEALS

| Plate and <br> ser. no. | Site and <br> obj. no. | Area, level <br> or elevation | Length <br> in cm | Diam. <br> $(\mathrm{cm})$ | Material | Cond. | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 32A. CYLINDER SEALS

32A.1. NEO-ASSYRIAN, PROVINCIAL NEO-ASSYRIAN, AND ASSYRIANIZED NEO-ELAMITE SEALS

| 233:41 | Sor 1309 | 9/11, 3A | 3.0 | 1.4 | serpentine | - | Stylized tree flanked by rampant goats(?) looking back; one goat is being aimed at by standing archer; lentoid below other goat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 233:42 | Sor 979 | $1 \mathrm{~N}, 2 \mathrm{~B}$ | 2.5 | 1.1 | serpentine | - | Attendant with staff facing king who is holding bow and drinking bowl; a stand with jar between them; terminal: moon above plant |
| 233:43 | Sor 1241 | 25W, 3A(?) ${ }^{1}$ | 3.4 | 1.5 | serpentine | - | Archer standing next to driver in seven-spoked chariot and aiming at rearing bull; pomegranate standard in rear of chariot; collapsing bull below horses |
| 233:44 | Sor 1600 | $1 / 3,2 \mathrm{~B}$ | 2.6 | 1.0 | serpentine | - | Goat running over plant and looking back at kneeling archer; moon and stars in sky; fish(?) between goat and bow |
| 233:45 | Sor 1625 | 1/3,2B | 2.6 | 1.0 | serpentine | - | Kneeling archer aiming over dog at goat which is looking back; star in sky |
| 233:46 | CS 377 | 17, -2.20 | 2.6 | 1.2 | porphyry | - | Running goat looking back at kneeling archer |
| 233:47 | CS 380 | I7, -2.60 | 2.5 | 1.0 | porphyry | - | Kneeling archer aiming at running goat |
| 233:48 | Sor 1480 | 2/23, 2C | 2.4 | 1.1 | alabaster | - | Bird-tailed griffin attacking winged bull; fish(?) below griffin, plant below bull; terminal: star |
| 233:49 | Sor 1219 | 3,3A-2A | 2.1 | 0.8 | serpentine | - | Two human-headed(?) winged quadrupeds, one facing front and one in profile |
| 233:50 | Sor 1236 | 3, 3A-2A | 2.3 | 1.0 | faience | - | Two walking crested eagles facing each other; terminal: moon; line borders |
| 233:51 | Sor 1353 | 1/3,3A | 2.2 | 1.0 | faience | - | Two walking eagles pursuing each other, line borders |
| 233:52 | CS 445 | H11, -10.40 | 2.5 | 1.1 | crystal | - | Plant flanked by cocks; star above left cock |

${ }^{1}$ See chapter 14, p. 68, table 13.

Catalog 32. Iron Age Cylinder and Stamp Seals (cont.)

| Plate and <br> ser. no. | Site and <br> obj. no. | Area, level <br> or elevation | Length <br> in cm | Diam. <br> $(\mathrm{cm})$ | Material |
| :--- | :--- | :---: | :--- | :---: | :--- | Cond. Description

## 32A. CYLINDER SEALS (cont.)

32A.2. LATE MIDDLE ELAMITE, NEO-ELAMITE, AND CONTEMPORARY LOCAL SEALS
32A.2.1. Banquet Scenes

| 234:53 | Sor 46 | 1,1 | 4.5 | 1.4 | marble | - | Attendant fanning seated king(?) who is drinking from small jar; globe, jar, lentoids, and second attendant around king; column of pseudocuneiform signs; line borders |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 234:54 | Sor 679 | 22, 1 | 2.3 | 0.7 | faience | - | Attendant fanning seated king(?) who is drinking from goblet; fish between them; column of wedges; line border |
| 234:55 | Sor 206 | 1,1 | 2.5 | 0.8 | limestone | circle around jar added later(?) | Seated deity drinking from jar and facing attendant across table; monkey (?) on stool below table; terminal: climbing goat; line borders |
| 234:56 | Sor 1649 | 1/2,2C | 3.2 | 1.8 | serpentine | - | Seated deity with fly- or bee-shaped head, drinking from small jar, being fanned by attendant with jar; jar, bird, and fish around attendant; terminal: archer aiming at sheep; lentoids in sky; line borders |
| 234:57 | Sor 1521 | 3, 3A | 4.0 | 1.4 | y banded st | very worn | Table with fish(?) before seated king(?) drinking from jar and being fanned by attendant; globes around table; line borders |
| 234:58 | Sor 200 | 1,2B | 3.1 | 1.4 | brown stone | - | Seated figure with birdiike head in flounced robe drinking from small jar; rest of field empty; dentate borders |
| 234:59 | Sor 1293 | 7S, 2B | 3.9 | 1.9 | bone | most of seated fig chipped off | Winged genie with eagles' heads sprouting from his shoulders, raising his hands; attendant holding spouted pitcher above goblet of figure seated at table with fish; hollow lentoid and bird(?) in sky; terminal: vertical wedges; dentate borders |
| 234:60 | Sor 1661 | 1/9,3A | 3.8 | 1.2 | brown stone | top broken | Attendant facing figure seated at table with fish; fly(?), lentoid, and second attendant around seated figure; terminal: frontal monkey above lion looking back at bull's head; dentate border |


| 234:61 | Sor 515 | 4, 2A-1 | 2.6 | 0.9 | faience | - | Attendant facing figure with conical round-based jar(?), seated at table; terminal: winged goat above reversed crescent; line borders |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 234:62 | Sor 1169 | 3, 2B | $1.9+$ | 0.9 | faience | bottom broken | Attendant fanning seated figure who is drinking from goblet; jar(?) between them; ladder border |
| 32A.2.2. Standing Figures, Possibly in Various Ritual Actions |  |  |  |  |  |  |  |
| 235:63 | Sor 1624 | 1B,2B | $2.2+$ | 1.1 | faience on iron rod | top broken | Tree; flames rising from low stand before standing figure, terminal: crosshatched panel |
| 235:64 | Sor 1329 | 13,1 | 2.6 | 0.8 | faience | - | Three trees and three persons alternating; line borders |
| 235:65 | Sor 924 | 9,1 | $2.3+$ | 1.2 | faience | bottom broken | Two trees and two persons(?) alternating; double ladder border |
| 235:66 | Sor 962 | 13, 2B-A | 3.2 | 1.2 | limestone | - | Two men in caps with brims grasping top of pole; terminal: lion attacking goat; dentate borders |
| 235:67 | Sor 358 | 1, 2B-A | 3.1 | 1.3 | bone on copper pin | damaged | Winged lion over recumbent calf(?), man with hand raised(?); hollow lentoid, reversed wedges and flaming altar between them; dentate borders |
| 235:68 | Sor 659 | 1,3A | 3.3 | 1.2 | limestone | - | Two feather-crowned men, one grasping rearing bull, other grasping twin-bull stand; three indistinct shapes below stand; line borders |
| $\begin{aligned} & 235: 69, \\ & 239 \mathrm{c} \text {, and } 259 \end{aligned}$ | $\begin{aligned} & \text { CS } 272 \\ & 59 \mathrm{c} \end{aligned}$ | J7, -4.40 | 2.3 | 1.1 | granite | - | Worshiper or priest praying before couchant dragon; terminal: inscription ${ }^{2}$ |
| 235:70 | Sor 1246 | 7S, 2B | 2.9 | 1.5 | conglomerate | top broken | Two frontal winged genies with raised hands alternating with two columns of pseudo-cunciform signs; dentate border |
| 235:71 | Sor 1134 | 1N, 2B | 3.2 | 1.4 | bone | - | Frontal winged genie with raised hands, tall headdress, and spotted body; terminal: rearing winged bull; five- and seven-rayed stars in sky |
| 235:72 | Sor 131 | 1,2A | 3.5 | 1.6 | alabaster | - | Two men with crested birdlike heads, sword at waist, and arms akimbo; third similar man raising hands, sling(?) in left hand; six crosses; line border |
| 32A.2.3. Drinking, Dancing, and Love-Making Scenes |  |  |  |  |  |  |  |
| 235:73 | Sor 27 | 5, 2A | 2.0 | 1.7 | copper | - | Two bull-headed men drinking through straws from jar, left man bending knee; terminal: reversed goat, lion attacking bull |

Catalog 32. Iron Age Cylinder and Stamp Seals (cont.)

| Plate and ser. no. | Site and obj. no. | Area, level or elevation | Length in cm | $\begin{aligned} & \text { Diam. } \\ & (\mathrm{cm}) \end{aligned}$ | Material | Cond. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32A. CYLINDER SEALS (cont.) |  |  |  |  |  |  |  |
| 32A.2. LATE MIDDLE ELAMITE, NEO-ELAMITE, AND CONTEMPORARY LOCAL SEALS (cont.) |  |  |  |  |  |  |  |
| 32A.2.3. Drinking, Dancing, and Love-Making Scenes (cont.) |  |  |  |  |  |  |  |
| 236:74 | Sor 1282 | 3,2B | 4.8 | 1.5 | faience | - | Two men, each holding or slapping raised foot with one hand; one man raising other hand, other extending it; bird and lentoid in sky; terminal: two monkeys, one on tree; cross above boar; line borders |
| 236:75 | Sor 1660 | 2, 2C | 1.6+ | 1.0 | faience | bottom broken | Man in pointed cap holding up(?) globe and leading crested man with birdlike head; third similar man; ladder border |
| 236:76 | Sor 547 | 4, 2A | 3.1 | 1.0 | faience | - | Three persons with birdlike heads; second, led by first, looking back at third; first and third crested; globes in field; terminal: tree; crosshatched borders |
| 236:77 | Sor 1461 | 2/3, 3A | 3.0 | 0.9 | faience | - | Person with crested birdlike head making love to similar person who is leaning on a table or couch; dog above bowl on pedestal; monkey or boy holding drinking tube(?); ladder borders |
| 236:78 | Sor 1517 | 1(?), 3A-2B | 3.5 | 0.9 | faience | - | Man making love to woman who is leaning on table or couch; dog above bowl on pedestal; globe in field; ladder and line borders |
| 236:79A | Sor 584 | $\begin{aligned} & \text { 19,21, } \\ & 1 \text { (level) } \end{aligned}$ | 2.5+ | 1.1 | faience | top broken | Man making love to woman who is leaning on table or couch; terminal: tree; double-line border |
| 236:79B | CS 449 | H6, -1.00 | 4.5 | 1.1 | faience | - | Man making love to woman who is leaning on small stand; bird, monkey(?), and globe; double-line border |
| 236:80 | CS 469 | H6, -1.45 | 2.6+ | 1.1 | faience | - | Man making love to woman who is leaning on plow(?); monkey or boy holding drinking tube(?); globe, lentoid, and circle in field; line and ladder border |
| 32A.2.4. Animals Flanking Trees |  |  |  |  |  |  |  |
| 236:81 | Sor 565 | 2, 1 | 2.7 | 1.1 | black stone | - | Two rampant bulls with extended forelegs flanking stylized palm(7) tree; terminal: star; line borders |


| 236:82 | Sor 1485 | 2/23, 2C | 3.6 | 1.6 | chalcedony | - | Two rampant winged bulls with bent forelegs flanking stylized tree; terminal: star |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 236:83 | Sor 943 | 11N, 1 | 2.5 | 1.3 | alabaster | - | Two rampant bulls flanking tree; calf below one bull, bovine behind other; terminal: star |
| 236:84 | Sor 643 | 1-2, 2C | 2.8 | 1.0 | buff stone | - | Two rampant bulls flanking low tree; terminal: moon over star |
| 237:85 | Sor 844 | 11N, 1 | 3.7 | 1.4 | bitumen | - | Two bull-men grasping stylized palm(?) tree; terminal: kneeling lionheaded genie holding bird; small stars and fly around him |
| 237:86 | Sor 1299 | 7, 2B-A | 4.3 | 1.3 | bitumen | - | Two rampant goats flanking stylized palm(?) tree; terminal: kneeling archer; twelve-rayed sun above, bird below him |
| 237:87 | CS 422 | I7, -3.70 | 2.9 | 1.2 | steatite | - | Two rampant goats flanking plant and looking back at moon; triple ground line; line borders |
| 237:88 | Sor 1407 | 1/3,2B | 3.1 | 1.5 | limestone | - | Two goats walking toward bush(?); three globes in sky; line borders |
| 237:89 | Sor 484 | 2, 1 | $3.2+$ | 1.3 | faience | top broken | Tree flanked by goats, one of which is held upside down by man; doubleline border |
| 32A.2.5. Symmetrical Animal Combats |  |  |  |  |  |  |  |
| 237:90 | Sor 1266 | 9, 1 | 3.7 | 1.7 | gray stone | - | Two lions fighting over prey; wedges and bird in sky; terminal: man with one hand raised touching both lions' tails |
| 237:91 | Sor 1000 | 1-3,2B | 3.4 | 1.5 | alabaster | - | Two lions attacking two goats; bird and goat head below lions; terminal: man touching one lion |
| 237:92 | Sor 1185 | 3,3A | 3.3 | 1.4 | alabaster | - | Upper register: lion holding upended bovine, which rearing bull is defending; bovine being attacked by lion; lentoid below bovine; lower register: two lions attacking cow; two calves below cow; rearing bovine; lentoid below bovine; line borders |
| 237:93 | Sor 750 | 1,1 | 2.4 | 0.8 | brown stone | - | Two lions fighting and looking backward; terminal: circle and four globes, one above the other |
| 237:94 | Sor 1101 | 1-11, 2B | 3.3 | 1.1 | white stone | - | Two lion-headed winged monsters attacking bull; line borders |
| 237:95 | Sor 850 | 19, 21, 1 (level) | 4.3 | 1.4 | bitumen | - | Lion-headed winged monster defending two young monsters against lion or bear; eleven-rayed sun in sky; line borders |

Catalog 32. Iron Age Cylinder and Stamp Seals (cont.)

| Plate and <br> ser. no. | Site and <br> obj. no. | Area, level <br> or elevation | Length <br> in cm | Diam. <br> $(\mathrm{cm})$ | Material | Cond. |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |

## 32A. CYLINDER SEALS (cont.)

32A.2. LATE MIDDLE ELAMITE, NEO-ELAMITE, AND CONTEMPORARY LOCAL SEALS (cont.)
32A.2.5. Symmetrical Animal Combats

| 238:96 | Sor 923 | 1,28(?) | 2.9 | 1.0 | copper | - | Two reptile-headed winged monsters fighting over goat's head and neck; globe between them; terminal: bull's head; line borders |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 238:97 | Sor 1583 | 1/7/9, 2B | 3.1 | 1.1 | bone | damaged | Two griffins fighting; indistinct shapes below them; line border |
| 238:98 | Sor 1156 | 1,3A-2A | 2.6 | 1.4 | brown stone | - | Two simplified rampant quadrupeds facing each other |
| 32A.2.6. Asymmetrical Animal Combats |  |  |  |  |  |  |  |
| 238:99 | Sor 1288 | 7,2B-2A | 3.5 | 1.5 | brown stone | - | Lion attacking winged bull; small dog(?) sitting under stylized palm tree; fork, spade, and cross in sky; line border |
| 238:100 | Sor 1476 | 2/23, 2C | 3.7 | 1.8 | faience | - | Two fish at right angles to each other, one being attacked by bird; lentoid behind bird; terminal: trees; dentate borders |
| 238:101 | Sor 405 | 4, 2A | 3.4 | 1.0 | faience | - | Bird of prey bending over indistinct shape, enclosed lentoid behind bird; goat lying in background; small lentoid near goat; ladder borders |
| 238:102 | Sor 224 | 1,1 | 2.2 | 1.0 | faience | top broken | Large bird and small bird attacking indistinct shape; lentoid behind small bird; line border |
| 238:103 | Sor 987 | 2, 2B-A | 2.9 | 1.4 | white stone | split | Lion(?) pursuing goat that is browsing on plant and suckling kid; line border |
| 238:104 | Sor 1351a | 3(7), 2B-A | 3.0 | 1.2 | bone | damaged | Lion confronting bull; wide guilloche borders |
| 238:105 | Sor 453 | 1, 3A-2A | 3.3 | 1.1 | faience | abraded | Goat climbing against tree and looking back at lion that is attacking him; lentoids near tree top; line borders |


| 238:106 | Sor 1290 | 7, 2B-2A | 2.7 | 0.9 | faience | abraded | Man facing attacking lion over sitting dog(?); indistinct shape in sky; line borders |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 239:107 | Sor 397 | 19, 1 | 4.3 | 1.1 | faience | - | Sphinx about to devour upended goat; three stars(?) in sky; terminal: tree lentoids near top; line borders |
| 239:108 | KI 109 | M, -2.60 | $2.8+$ | 1.0 | faience | - | Sphinx holding quadruped upside down; swastika, star, and globe in sky; terminal: tree; ladder border |
| 239:109 | Sor 103 | 1,1 | 2.6 | 1.2 | black stone | - | Griffin menacing winged bull; lentoid below griffin, fly above bull; terminal: fish, star, monkey; line borders |
| 239:110 | Sor 828 | 4, 2B-1 | 2.8 | 0.8 | faience | - | Rampant goat collapsing under attack by lion(?)-headed winged monster; lentoid below goat, fox, and globes above monster; line borders |
| 239:111 | Sor 793 | 1N, 2B-A | 2.9 | 1.1 | fossil coral | - | Recumbent horned animal, bird, galloping animal; bull's head in sky |
| 239:112 | Sor 16 | 5,1 | $2.1+$ | 1.5 | alabaster | - | Beast with claws pursuing animal with hooves; conical rock(?); line border |
| 32A.2.7. Single Animals or Monsters |  |  |  |  |  |  |  |
| 239:113 | Sor 330 | 1,2B | 2.9 | 1.0 | faience | - | Tree being approached by goat; moon in sky; line borders |
| 239:114 | Sor 808 | 3,1 | 3.8 | 1.2 | faience | - | Tree being approached by bull; lentoid in sky; line borders |
| 239:115 | Sor 1308 | 9/11, 3A | 2.5 | 1.0 | faience | - | Tree being approached by running winged goat; line border |
| 239:116 | Sor 849 | $11 \mathrm{~N}, 3 \mathrm{~A}(\text { ? })^{3}$ | 1.9 | 0.9 | faience | - | Tree being approached by rampant winged quadruped(?); dentate border |
| 239:117 | Sor 1611 | 1/3, 3A | 3.2 | 1.2 | serpentine | - | Tree being approached by goat; bird above tree, globes behind goat |
| 239:118 | Sor 1172 | 3, 2B | 2.3 | 0.9 | bitumen | - | Goat climbing against tree; star in sky; terminal: monkey, lentoid; line borders |
| 240:119 | Sor 807 | 3, 2A(?) | 4.0 | 1.0 | bitumen | - | Wingless griffin(?), cross, monkey, and bird around stylized tree; line borders |
| 240:120 | Sor 66 | 7N, 1 | 2.2 | 1.1 | faience | bottom broken | Goat approaching indistinct shape; monkey, globes, fly, and cross in sky; ladder border |

[^64]Catalog 32. Iron Age Cylinder and Stamp Seals (cont.)

| Plate and <br> ser. no. | Site and <br> obj. no. | Area, level <br> or elevation | Length <br> in cm | Diam. <br> $(\mathrm{cm})$ |
| :--- | :--- | :---: | :--- | :--- | Material $\quad$ Cond. Description

## 32A. CYLINDER SEALS (cont.)

32A.2. LATE MIDDLE ELAMITE, NEO-ELAMITE, AND CONTEMPORARY LOCAL SEALS (cont.)
32A.2.7. Single Animal or Monsters (cont.)

| 240:121 | Sor 954 | 13, 1 | 3.4 | 0.9 | faience | - | Tree(?); goat climbing against it, boomerang(?) behind goat, moon in sky, hollow lentoid below goat; line borders |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 240:122 | Sor 1100a | 3, 3A-2A | 1.7 | 0.8 | alab | top broken | Goat over star; upended quadruped |
| 240:123 | Sor 1644 | 1/3,2B | 2.5 | 0.9 | faience | bottom broken | Tree being approached by sitting winged goat; moon in sky; ladder border |
| 240:124 | Sor 1502 | $\begin{aligned} & 3 / 13(?, \\ & 2 \mathrm{~B}(?) \end{aligned}$ | 2.2 | 0.9 | faience | bottom broken | Tree being approached by winged sheep; double-line border |
| 240:125 | Sor 1445 | 3/13, 2B | 2.3 | 0.9 | faience | abraded | Tree being approached by winged quadruped; line border |
| 240:126 | Sor 822 | 3, 2B | 2.4 | 1.0 | faience | - | Tree(?) touching chest and tail of skipping goat |
| 240:127 | Sor 572 | 20, 2A | 3.7 | 1.1 | copper | - | Goat; cross in sky; line borders |
| 240:128 | Sor 861 | 1N, 2B | 3.2 | 0.8 | copper | - | Bull; line borders |
| 240:129 | Sor 1626 | 1/3,2B | 2.1 | 1.2 | copper | - | Goring bull with dotted loop between hindlegs; line borders |
| 240:130 | Sor 1130 | 13, 1 | 2.8 | 1.0 | copper | - | Galloping gazelle(?); quatrefoil above its back; double-line broders |
| 241:131 | Sor 1112 | 1,7, 1 (lev) | 4.2 | 1.4 | faience | abraded | Tall-legged bird, smaller bird(?) |
| 241:132 | Sor 903 | $\begin{aligned} & 3,4 \\ & 2 \mathrm{~B}-1(\mathrm{lev}) \end{aligned}$ | $2.2+$ | 1.1 | faience | top broken | Tree being approached by flying eagle; monkey below eagle; double-line border |
| 241:133 | KI 115 | M, -2.90 | $1.8+$ | 1.0 | faience | - | Flying eagle; monkey, star above eagle; terminal: tree; double-line border |


| 241:134 | Sor 737 | 1,3A | 2.0 | 1.1 | faience | - | Bird flying toward sun; line borders |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32A.2.8. Animal Rows |  |  |  |  |  |  |  |
| 241:135 | Sor 775 | 19,1 | 2.6 | 0.8 | faience | - | Two foxes looking back at two flying birds; line borders within wide crosshatched borders |
| 241:136 | CS 461 | H6, -1.55 | $2.1+$ | 1.0 | faience | - | Bearded goat leading bearded kid; above goat, quadruped with hanging tail; ladder border |
| 241:137 | Sor 968 | $1 \mathrm{~N}, 2 \mathrm{~B}$ | 2.9 | 1.1 | copper | - | Recumbent winged(?) sheep, standing sheep, inverted crescent above former, ear of grain above latter; chevron border, and dentate borders |
| 241:138 | Kha 27 | x2, bur. | 3.0 | 1.5 | alabaster | - | Three long-necked, long-legged goats walking to right; lentoid(?), two globes, seven globes in sky |
| 241:139 | Sor 1613 | 1/3,3A | 2.5 | 1.2 | faience | - | Two homed animals leaping downward; line borders |
| 241:140 | Sor 1497 | 2/12, 2C | 3.1 | 1.0 | faience | - | Above line: guilloche; line border; below line: two swimming ducks(?); ladder border |
| 241:141 | Sor 537 | 1,1 | 1.9 | 1.0 | faience | - | Two walking birds with spread wings; double line borders |
| 32A.2.9. Hunting and Farming Scenes |  |  |  |  |  |  |  |
| 32A.2.9.1. Men with Wild Animals or Wild Animals with Other Animals |  |  |  |  |  |  |  |
| 242:142 | Sor 1162 | 1,3A-2A | 3.1 | 1.8 | sandstone | - | Archer aiming at winged bull(?), tree, second winged bull; griffin lying above first bull, bird of prey swooping down toward second bull; hollow lentoid, four-rayed star, and wedges in field; dentate borders |
| 242:143 | Sor 1123 | 12, 2A | 4.0 | 1.5 | alabaster | - | Archer aiming at lion that is attacking recumbent goat with its young; above: lion attacking rumning goat whose companion is fleeing; below: upended goat flanked by lions; lentoid and wedge in field; dentate borders |
| 242:144 | Sor 1135 | 1N, 2B | 3.6 | 1.7 | alabaster | - | Archer aiming at lion that is attacking goat; dog behind archer, bird above lion, fish below goat; hollow lentoid, four-rayed stars, and wedges in field |
| 242:145 | Sor 892 | 1, 2B-A | 2.9 | 0.8 | faience | damaged | Goat on mountain, small tree, kneeling archer with only one leg visible(?), bird in sky; line borders |
| 242:146 | Sor 929a | $11 \mathrm{~N}, 2 \mathrm{~A}($ ? $)$ | $1.8+$ | 1.1 | faience | - | Archer aiming at indistinet shape |

Catalog 32. Iron Age Cylinder and Stamp Seals (cont.)

| Plate and ser. no. | Site and obj. no. | Area, level or elevation | Length in cm | $\begin{gathered} \text { Diam. } \\ (\mathrm{cm}) \end{gathered}$ | Material | Cond. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## 32A. CYLINDER SEALS (cont.)

32A.2. LATE MIDDLE ELAMITE, NEO-ELAMITE, AND CONTEMPORARY LOCAL SEALS (cont.)
32A.2.9.1. Men with Wild Animals or Wild Animals with Other Animals (cont.)

| 242:147 | Sor 1043 | 3,2B | $3.7+$ | 1.3 | faience | - | Quadruped being aimed at by archer who is standing beside driver on four-horse chariot; moon in sky; ladder border |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 242:148 | Sor 204 | 1,2B-A | 2.9 | 1.4 | black stone | - | Driver in eight-spoked chariot, pulled by four horses, chasing two goats; two birds in sky; line borders |
| 242:149 | Sor 1662 | 1/9,3A | 3.8 | 1.2 | faience | - | Man holding club and approaching tree on which quadruped is browsing; moon and bird (or fly or star) in sky; double-line borders |
| 242:150 | Sor 1184 | 3,2B | 2.8 | 1.1 | faience | - | Goat being pursued by man holding dagger; moon and bird between them; borders of alternately hatched and solid trapezoids |
| 243:151 | Sor 1348 | 9W, 2A | 4.3 | 1.3 | limestone | - | Top: man extending arm toward quadruped; cone behind, solid lentoid above, indistinct shapes in front of animal; bottom: herringbone above rows of pomegranates and cones |
| 243:152 | Sor 862 | 1N, 2B | 2.5 | 1.2 | chalcedony | - | Horseman hurling spear at winged goat that is looking back at him; line and zigzag borders |
| 243:153 | CS 421 | 17, -3.50 | 2.2 | 0.9 | porphyry | - | Horseman aiming spear at goat that is looking back at him |
| 243:154 | Sor 1275 | 3-4, 2B | 3.2 | 1.5 | serpentine | - | Upended goat being held by man; tree; terminal: ladder |
| 243:155 | Sor 673 | 1,3A | 4.7 | 1.7 | serpentine | - | Dog (or boar) being held by man(?) who is grasping stag with other hand; indistinct shapes above dog; double-line borders |
| 243:156 | Sor 205 | 1,1 | 4.0 | 1.3 | bitumen | - | Goat and boar confronting stag; terminal: cross within quatrefoil |
| 243:157 | Sor 1167 | 3, 2B | 2.7 | 1.1 | alabaster | - | Recumbent straight-horned animal facing man with raised hands; hollow rhomboid above animal |


| 243:158 | Sor 607 | $1-2,2 \mathrm{C}$ | 2.3 | 1.0 | faience |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 243:159 | Sor 327 | 1,2B | 2.5 | 1.0 | faience |
| 32A.2.9.2. Men with Tame Animals |  |  | - |  |  |
| 244:160 | Sor 157 | $6,2 \mathrm{~B}$ | 3.3 | 1.5 | alabaster |
| 244:161 | Sor 1399 | $1 / 3,2 B$ | 3.3 | 0.9 | faience |
| 244:162 | Sor 1284 | $3,2 \mathrm{~B}-\mathrm{A}$ | $2.3+$ | 1.2 | faience |
| 244:163 | Sor 648 | $1-2,2 \mathrm{C}$ | 2.6 | 0.8 | alabaster |
| 244:164 | Sor 753 | 1N, 1 | 2.7 | 1.2 | alabaster |
| 32A.2.10. Miscellaneous Scenes with Wide Borders |  |  |  |  |  |
| 244:165 | Sor 1405 | $1 / 3,2 B$ | 4.7 | 1.2 | faience on copper wire |
| 244:166 | Sor 89 | 13, 1 | $2.9+$ | 1.2 | faience |
| 244:167 | Sor 544 | 4, 2B-1 | $2.0+$ | 0.9 | faience |
| 244:168 | Sor 611 | $1-2,2 \mathrm{C}$ | $1.8+$ | 1.5 | bitumen |
| 244:169 | Sor 929b | 25,1(?) | $2.5+$ | 1.8 | faience |

- $\quad$| Straight-horned animal being followed by man with raised arms; cone and |
| :--- |
| lentoid between them; line borders |
- $\quad$ Two bulls walking toward man with raised arms; line borders

Top: palmette chain; bottom: man holding plow(?) pulled by ox; fly between them, teminal: lentoid, cone, star, square, and wedge; line borders
damaged Plant, ox with conical hump(?) being driven by man; small quadruped above ox, indistinct shapes and lentoid behind man; crosshatched and ladder borders

Bushy-tailed quadruped facing man who is holding staff(?); double-line border

Horse being held by homed man with raised arms(?); nine-rayed sun and globes in sky

Man holding horse; moon in sky

| damaged | Tree, animal(?), lentoid; moon in sky; wide crosshatched borders within <br> line borders |
| :--- | :--- |
| bottom <br> broken | Tree(?), winged goat(?), lentoid and globes; wide crosshatched border <br> within line borders |
| bottom <br> broken | Three pomegranates above line; indistinct shape; double-line border |
| top | Man flanked by scorpions(?); pomegranate chain within line borders |
| broken |  |
| top <br> broken | Tree, recumbent goat(?), indistinct shape; zigzag border within hatched <br> borders |

Catalog 32. Iron Age Cylinder and Stamp Seals (cont.)

| Plate and | Site and | Area,level | Length | Diam. | Material | Cond. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| ser. no. | obj. no. | or elevation | in cm | $(\mathrm{cm})$ |  |  |

## 32A. CYLINDER SEALS (cont.)

## 32A.2. LATE MIDDLE ELAMITE, NEO-ELAMITE, AND CONTEMPORARY LOCAL SEALS (cont.)

32A.2.11. Recut Designs
44•170

44:170 Sor 1198
1.4
serpentin
Original design (almost effaced): god on bull(?), god with mace being approached by suppliant goddess; terminal: inscription; recut design figure flanked by globes on quadruped, figure with hourglass-shaped head and chest, figure with arms raised; vertical and horizontal scratches

244:171 Sor $1310 \quad 9 / 11,3 A$
1.1
itumen
Original design: two pinecone and pomegranate chains, lower one reversed; recut design: quadruped

32A.2.12. Unidentifiable Designs

| 245:172 | Sor 58 | 4,1 | 4.0 | 1.2 | brown stone | - | Indistinct shapes include tall tree(?) and low altar (?) (cf. seal 63) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 245:173 | Sor 101 | 1,1 | $3.2+$ | 1.1 | faience | - | Indistinct shapes include quadruped with raised tail(?); triple-line border |
| 245:174 | Sor 229 | 1,1 | 3.0 | 0.7 | shell | - | Symmetrical pattern of partly connected drillings: possibly tree on mountain flanked by rampant goats; small recumbent goats below |
| 245:175 | Sor 891 | $1,2 \mathrm{~B}-\mathrm{A}$ | 2.5 | 1.0 | faience | - | Indistinct drilled and linear shapes, possibly including three small recumbent goats below |
| 245:176 | Sor 519 | 4, 2A | 3.1 | 1.2 | copper | - | Indistinct shapes, including rampant quadruped |
| 245:177 | Sor 780 | KG, 1 | 1.8 | 1.0 | faience | - | Indistinct shapes, including winged quadruped(?) that faces rampant lion(?); line borders |
| 245:178 | Sor 897 | 1-3,1 | 4.4 | 1.0 | faience | - | Indistinct shapes, including man(?) facing rampant lion(?); line borders |
| 245:179 | Sor 956 | 4,1 | $2.6+$ | 1.2 | faience | - | Irregular crosshatching, feet of figure(?); line border |
| 245:180 | Sor 1034 | 4,2A(?) | $2.0+$ | 1.0 | faience | - | Legs of man(?) facing rampant bull(?) over tree(?); ladder border |


| 245:181 | Sor 1051 | 3, 2B | 2.7 | 1.3 | faience | - | Indistinct shapes, including tree(?); moon above low stand(?), figure <br> (?, cf. seal 63); line borders |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 246:182 | Sor 1174 | 3, 2A | 2.1 | 1.3 | white stone | - | Over irregular grid: three drillings above five-spoked wheel, four drill- <br> ings connected by double lozenge; hollow lentoids near drillings |
| 246:183 | Sor 1459 | 2/3, 3A | 2.4 | 1.1 | steatite | - | Cutings and drillings, possibly including tree(?) and animals and/or <br> men(?); line borders |
| 246:184 | Sor 1516 | 1(?), 3A-2B | $1.9+$ | 1.1 | faience | - | Indistinct shapes, possibly including four-rayed star, wing of animal, <br> tree (cf. seal 108); alternately hatched border |
| 246:185 | Sor 1683 | 9/10, 3A | $2.5+$ | 1.2 | faience | - | Indistinct shapes, possibly including winged animal(?), X in panel, <br> line border |
| 246:186 | Sor 1701 | (?), 3A-1 | 2.3 | 0.9 | red stone | - | Indistinct shape, possibly representing flying bird(?); double-, single- |
| 246:187 | Sor 96 | 1, 1 | 2.7 | 1.5 | brown stone | - | Indistinct shape, possibly representing man sideways |

32A.2.13. Geometric Designs
247:197 Sor 1665 9/11, 3A $3.1 \quad 1.2$ faience $\quad$ Three and a half columns of ten chevrons

Catalog 32. Iron Age Cylinder and Stamp Seals (cont.)

| Plate and <br> ser. no. | Site and <br> obj. no. | Area, level <br> or elevation | Length <br> in cm | Diam. <br> $(\mathrm{cm})$ | Material | Cond. | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 32A. CYLINDER SEALS (cont.)

32A.2. LATE MIDDLE ELAMITE, NEO-ELAMITE, AND CONTEMPORARY LOCAL SEALS (cont.)
32A.2.13. Geometric Designs (cont.)

| 247:198 | Sor 716 | 1-2, 2C | 2.7 | 1.1 | faience | - | Three columns of five to seven chevrons; line borders |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 247:199 | CS 473 | H6, -1.60 | $2.0+$ | 1.0 | faience | - | Three columns of four chevrons; line border |
| -:200 | Sor 264 | 17, 2B-1 | 3.2 | 1.5 | faience | - | Vertical zigzags |
| 247:201 | Sor 42 | 1,1 | 2.7 | 1.3 | faience | - | Five columns of eight to thirteen horizontal or oblique strokes; double-line border |
| 247:202 | Sor 1440 | 3/13, 2B | 3.1 | 0.9 | faience | - | Six zigzags; line borders |
| 247:203 | Sor 770 | 23, 2A-1 | 2.4 | 1.1 | faience | - | Five zigzags; line border |
| 247:204 | Sor 1478 | 2/23, 2C | 2.2 | 0.9 | faience | - | Three zigzags; double-line borders |
| 247:205 | CS 450 | H6, -1.95 | 2.6 | 1.2 | faience | - | Two zigzags; double-line borders |
| 247:206 | Sor 1188 | 3, 2A | 2.3 | 1.1 | bronze | - | Two zigzags; line borders |
| 247:207 | Sor 1245 | 7S, 2A | 3.7 | 2.0 | baked clay | - | Two zigzags framing double ladder; double-line borders |
| 248:208 | Sor 542 | 4(?), 1 | $2.0+$ | 0.9 | faience | - | Crosshatching above and below line; double-line border |
| -:209 | Sor 1059 | 3,3A-2A | 2.2 | (?) | faience | - | Crosshatching above and below double line; line borders |
| 248:210 | Sor 115 | 1,2A | $1.8+$ | 0.9 | faience | bottom broken | Centered circle amid intermittent crosshatching; four-line border, intermittently crosshatched |
| 248:211 | Sor 539 | 4, 2A | 3.0 | 1.0 | faience | - | Herringbone band; wide crosshatched borders |
| 248:212 | Sor 1052 | 3, 2B | $2.3+$ | 1.0 | faience | bottom broken | Hexagon network, each hexagon enclosing centered circle; wide crosshatched border |
| 248:213 | Sor 1039 | 3, 2A(?) | 3.0 | 1.4 | faience | - | Lozenge pattern of paired lines; line borders |
| 248:214 | Sor 1137 | $1 \mathrm{~N}, 2 \mathrm{~B}$ | 3.0 | 1.2 | faience | - | Line between two double zigzags; line borders |


| 248:215 | Sor 754:2f | $\begin{aligned} & 1,3,4 \\ & 1 \text { (level) } \end{aligned}$ | 2.3 | 0.9 | faience | - | Crosshatched band; line borders |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 248:216 | Sor 792 | 1,3A-2A | 1.8 | 0.8 | faience | - | Crosshatching; double-line borders |
| 248:217 | Sor 764 | 23, 2A-1 | 2.5 | 1.1 | faience | - | Lozenge pattern of paired lines; double-line borders |
| 248:218 | Sor 763 | 23, 2A-1 | 2.5 | 1.0 | faience | - | Irregular pattern of isolated hollow lozenges; double-line borders |
| 248:219 | Sor 540 | 4, 2B | 2.6 | 0.9 | faience | - | Top: solid lozenges and half lozenges separated by ladders; ladder border; bottom: blank |
| 248:220 | Sor 1066 | 3, 3A-2A | 2.8 | 1.0 | copper | - | Two joined eight-rayed stars; irregular crosses in field; double-line borders |
| -:221 | Sor 726 | 1-2, 2C | 4.1 | 1.4 | alabaster | split | Unfinished: three drill holes; line borders |
| -:222 | Sor 1139 | 1N, 2B | 3.6 | 1.2 | white stone | - | Unfinished: stippled borders only |

32A.3. CYLINDER SEAL IMPRESSION

| 248:223 | KI 105 | M, fill | 3.5 | 2.4 (wdh) | baked clay | damaged |  | zigzag band between | able elements; zigzag band |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plate and ser. no. | Site and obj. no. | Area and level | Elevation | Locus | Measurements <br> (cm) | Material |  | Shape | Design |
| 32B. STAMP SEALS |  |  |  |  |  |  |  |  |  |
| 32B.1. SEAL WITH LENTOID SECTION |  |  |  |  |  |  |  |  |  |
| 249:xiii | Sor 1017 | $1-3,2 \mathrm{~B}$ | 6.85-6.95 | 112 | $1.5 \times 1.3 \times 0.6$ | faience | - | Flattened ovoid, pierced lengthwise | Obverse: X over lozenge; reverse: hatched hourglass between two centered circles |
| 32B.2. PYRAMIDAL AND CONICAL SEALS |  |  |  |  |  |  |  |  |  |
| 249:xiv | Sor 805 | 3, 2A(?) | 7.41 disturbed | - | $1.7 \times 1.5 \times 1.7$ | spst | - | Truncated pyramid, pierced through top | Scorpion |
| 249:xv | Sor 1622 | 1/3,2B | 7.50 | 175 | $1.7 \times 1.4 \times 2.0$ | wt st | - | Pyramid, pierced from side to side | On side: tree; on base: $\operatorname{dog}$ (?) |

Catalog 32. Iron Age Cylinder and Stamp Seals (cont.)

| Plate and <br> ser. no. | Site and <br> obj. no. | Area and <br> level | Elevation | Locus | Measurements <br> $(\mathrm{cm})$ | Material |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 32B. STAMP SEALS (cont.)

## 32B.2. PYRAMIDAL AND CONICAL SEALS (cont..)

| 249:xvi | Sor 511 | 4, 2B | 7.70-8.00 | 24 | $1.4 \times 1.4 \times 2.1$ | faience | - | Truncated cone, <br> pierced through top | Cross with dots in quadrants |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

32B.3. ROCKER SEALS

| 250:xxi | Sor 684 | 1,3 | below floor | - | $1.6 \times 1.6 \times 1.4$ | faience | - | Flattened quarter-sphere pierced from side to side | Grid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 250:xxii | Sor 1429 | 1/3, 2B | 8.05-8.15 | 175 | $2.0 \times 1.4 \times 1.3$ | faience | - | See Sor 684 | Grid |
| 250:xxiii | Sor 1301c | 9E, 3 | 6.65 | - | $2.5 \times 1.5 \times 1.2$ | granite | - | Drop-shaped pendant with convex sealing surface | Grid |

## 32B.4. PENDANT SEALS

| 250:xxiv | Sor 171 | 6,2B | 8.01 | - | $3.4 \times 1.7 \times 1.0$ | blk st | - | Drop-shaped | Sun, moon, scorpion, wedges |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 251:xxv | Sor 333 | 1,1 | - | - | $2.2 \times 1.3 \times 1.2$ | alabaster | - | Inverted drop-shaped | Forked tree with drilled foliage |
| 251:xxvi | Sor 1295a | 7, 2B-2A | - | - | $2.0 \times 0.8 \times 0.8$ | shell | - | Tapered cylinder | Unidentified shape, man with stretched arms |

## 32B.5. ANIMAL-SHAPED SEALS WITH GEOMETRIC DESIGNS ON THE BASE

32B.5.1. Scaraboid-Shaped

| 251:xxvii | Sor 308 | 1, 2B-2A | fill | - | $1.9 \times 1.8 \times 0.8$ | faience | - | Scarab, pierced lengthwise | Seven-rayed star |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 251:xxviii | Sor 804 | $3,3(?)$ | 6.82 <br> disturbed | - | $2.6 \times 1.6 \times 2.4$ | copper | - | Bird with loop on back <br> and round base | Curved swastika |

## 32B.6. ANIMAL-SHAPED SEALS WITH ZOOMORPHIC DESIGNS ON THE BASE

| 252:xxxi | Sor 1189 | 3,3 | 6.95 | 150 | $4.5 \times 2.4 \times 0.6$ | copper | - | Frog with loop at rear | Walking bird |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 252:xxxii | Sor 1042 | 3, 2B | 7.15 | - | $2.1 \times 1.2 \times 1.8$ | copper | - | Bird with loop on back | Winged quadruped(?) |
| 252:xxxiii | Sor 1155 | $1,3-2 A$ | - | - | $2.7 \times 1.5 \times 1.5$ | copper | - | Duck with head on back | Goat |

${ }^{4}$ For inscription, see chapter 33.

Catalog 32. Iron Age Cylinder and Stamp Seals (cont.)

| Plate and ser. no. | Site and obj. no. | Area and level | Elevation | Locus | Measurements (cm) | Material |  | Shape | Design |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32B. STAMP SEALS (cont.) |  |  |  |  |  |  |  |  |  |
| 32B.7. SIGNET RINGS (cont.) |  |  |  |  |  |  |  |  |  |
| 253:xxxviii | Sor 655 | 1,3-2A | fill | - | $2.5 \times 2.5 \times 2.4$ | copper | - | Faintly lobed ring | Quatrefoil; line borders |
| 254:xxxix | Sor 102 | 1,1 | 7.67 | - | $2.1 \times 2.1 \times 2.5$ | copper | - | See Sor 655 | Vulture looking down on goat that grazes; line borders |
| 254:xl | Sor 210 | 1-2, 1 | 7.80 | - | $2.9 \times 2.9 \times 3.3$ | copper | - | See Sor 655 | Winged lion; terminal: horizontal lines; line borders |
| 254:xli | Sor 758 | 23, 1 | fill | - | $2.5 \times 2.5 \times 2.9$ | copper | - | Strongly lobed ring | Vulture feeding on supine doe; terminal: vertical strokes, horizontal line; line borders |
| 254:xIIi | Sor 774 | 22, 1 | dump | - | $2.7 \times 2.5 \times 2.5$ | copper | - | Sce Sor 758 | Bird of prey flying between two globes; line borders |
| 255:xliii | Sor 65 | 4, 1 | 8.73 | - | $3.0 \times 3.0 \times 3.2$ | silver | broken | Strongly lobed ring | Punctate border |
| 255:xliv | Sor 459 | 1,2B | 6.68 floor | - | $2.6 \times 2.6 \times 3.1$ | copper | - | Bezel ring; lion(?) masks at juncture of bezel and ring | Goat below branch |

## CHAPTER 33

## THE INSCRIPTIONS

by J. A. Brinkman

## 33A. INVENTORY

|  |  |  |
| ---: | :--- | :--- |
| 1. | SOR 151 | CYLINDER SEAL |
| 2. | SOR 162 | BEAD |
| 3. | SOR 170 | CYLINDER SEAL |
| 4. | SOR 301a | BEAD |
| 5. | SOR 413 | PENDANT |
| 6. | SOR 610 | EYE-STONE |
| 7. | SOR 714 | EYESTONE |
| 8. | SOR 786 | CYLINDER SEAL |
| 9. | SOR 1272 | CYLINDER SEAL |
| 10. | SOR 1428 | CYLINDER SEAL |
| 11. | SOR 1450 | BEAD |
| 12. | SOR 1601 | SIGNETRING |
| 13. | SOR 1691 | CYLINDER SEAL |
| 15. | CS 272 | CYLINDER SEAL |
|  |  |  |

Nos. 1-13 were excavated at Surkh Dum-i-Luri. No. 14 (seal no. 224, ch. 35) was in private possession in 1938, when seen and recorded by Erich Schmidt. No. 15 was excavated at Chigha Sabz.

With the exception of Sor 162 and Sor 714 (nos. 2 and 7), I have not had the opportunity to examine the original objects; hence most inscriptions have had to be read from photographs of the impression. ${ }^{1}$

## 33B. INSCRIPTIONS $^{2}$

No. 1. Sor 151 (see ch. 24C.4, no. 28; pls. 133:28 and 256a)
Complete carnelian cylinder seal (brown-red); translucent, polished, pierced lengthwise. $1.5 \times 0.8 \mathrm{~cm}$. Present whereabouts unknown (formerly in the possession of the American Institute for Iranian Art and Archaeology, New York City). Provenience: level 2B, plot IH , area 4 , locus 17 , elevation 7.89 (pl. 53). Sumerian inscription containing a prayer to a god (name as yet unread).

[^65]Transliteration:
(1) $d_{X X}$
(2) $x$ šà-lá-s[ù?]
(3) $\mathrm{xxx}^{(\mathrm{xx})}$
(4) [ar]hus tuk-a $x \times$

Translation: $\quad \mathrm{O}$ (name of god or goddess), merciful deity . . . have mercy on ... .

Commentary. Van Loon dates this seal on stylistic grounds to the Old Babylonian period. The inscription seems to be a crude copy of an Old Babylonian or Kassite period seal impression. Similar seal inscriptions are amply attested, e.g., Limet 1971:67-77.

No. 2. Sor 162 (see ch. 31, catalog 31A.27; pl. 256b)
Pierced cylindrical bead of reddish-brown agate with black veining; translucent, pierced lengthwise. 2.6 cm wide, $1.0-1.5 \mathrm{~cm}$ preserved diameter (left portion broken away). At present in the Oriental Institute, Chicago, A 25036. Provenience: level 2B, plot IH, area 6, locus 22, elevation 8.25 (pl. 53). Sumerian votive inscription of Kurigalzu II (1332-1308 B.C.) to a goddess whose name is mostly missing (possibly Ninlil). Listed in Brinkman 1976:228 as Q.2.96.

Transliteration:

(2) $[k u-r i-g a] 1-z u$
(3) [dumu bur-na-bu-r]i-ia-aš
(4) [nam-ti-1]a?-a-ni-sè
(5) [in-na]-an-ba

Translation: [To Ninl]il, his lady: [Kuriga]lzu, [son of Burna-Bur]ias, [ga]ve (this object) for his [life].

Commentary. Line 3: this restoration of the royal name is based on its most frequent writing in the inscriptions of Kurigalzu II, though other restorations are possible. ${ }^{3}$

No. 3. Sor 170 (see ch. 24C.4, no. 26; pls. 133:26 and 256c)
Rock-crystal cylinder seal; translucent, pierced lengthwise. $3.2 \times 1.7 \mathrm{~cm}$. At present in the Muze-ye Iran Bastan, Tehran, DK 1471. Provenience: level 2B, plot IH, area 4, locus 26, elevation 7.80 (pl. 53).

Transliteration: (1) [r]a-šu-ub-x
(2) [DU]MU e-til -KA-x
(3) 「İR ${ }^{1} d_{\text {mar-d[ú] }}$

Translation: $\quad$ Rašub-x, son of Etel-pī-x, servant of the god Mard[u].
Commentary. The seal is dated on stylistic grounds by van Loon to the Old Babylonian period. The final sign in line 2 might be DINGIR or ${ }^{\lceil i}\lceil a]$.

[^66]No. 4. Sor 301a (see ch. 31A.27; pl. 256d)
Red-brown carnelian bead, with blue veining; translucent, pierced lengthwise; left end missing. $3.6(+) \times 0.8 \mathrm{~cm}$. At present in Muze-ye Iran Bastan, Tehran, DK 732.4 Provenience: level 2B-2A, plot II, area 4, fill (pl. 53).

Transliteration: (1) [(...)] x igi-bar-re-a
(2) $[(\ldots) x]$ dpap? 'nun?'

Commentary. The reading of the divine name in line 2 has yet to be established.

No. 5. Sor 413 (see ch. 30B.2; pl. 256e)
Triangular shell pendant, with hole for suspension. $3.8 \times 3.2 \times 0.5 \mathrm{~cm}$. At present in Muze-ye Iran Bastan, Tehran, number unknown. Provenience: level 2B, plot II, area 4, locus 24, elevation 7.96 (pl. 52). Apparently unfinished inscription.

Transliteration: $\quad \mathrm{x}(\mathrm{x})$
Commentary. Readings of ( x )-ni-tú or $\mathrm{NA}_{4}!5$ seem possible, but are uncertain. There are faint traces (apparently scratches) to the left of the firm wedges. For the stratigraphy of the find, see chapter 11, table 8.

No. 6. Sor 610 (see ch. 31, catalog 31A.20; pl. 257a)
Fragmentary onyx eye-stone with dark brown center and white rim; polished, pierced diametrically. $3.5 \times 1.2 \mathrm{~cm}$. At present in Muze-ye Iran Bastan, Tehran, number unknown. Provenience: level 2C, plot JI, area 1-2, locus 52, elevation 6.50-6.95 (pl. 52). Listed in Brinkman 1976:227 as Q.2.89.

Transliteration:

$$
\begin{aligned}
& \text { (1) }(x) x(x) \\
& \left(2^{\prime}\right) \text { ku-ri-gal-zu } \\
& \text { (3) } \\
& (\ldots)
\end{aligned}
$$

Translation: ... Kurigalzu, viceroy (appointed by) En[lil](...).
Commentary. For the stratigraphy of this find, see chapter 11 , table 8 .

No. 7. Sor 714 (see ch. 31, catalog 31A.20, pl. 257b)
Chalcedony eye-stone with salmon-colored pupil above cream iris with black and gray veining; polished, iris pierced diametrically. $1.9 \times 0.8 \mathrm{~cm}$. At present in the Oriental Institute, Chicago, A 25119. Provenience: level 2C, plot JI, area 1-2, locus 52, elevation 6.72 (pl. 52).

[^67]Transliteration: (1) dnin-
(2) 11

Translation: Ninlil.

No. 8. Sor 786 (see ch. 24C.4, no. 20, pls. 133:20 and 257c)
Black hematite cylinder seal; pierced lengthwise. $2.3 \times 1.3 \mathrm{~cm}$. At present in the Metropolitan Museum, New York, 43.102.35. Provenience: level 1, plot JI, area 1N, locus 72 , elevation 7.82 (pl. 53).

Transliteration: (1) dutu kud di
(2) ir i-la-ni

Translation: Samaš-dayyān(̄̄)[?], servant of Ilāni (or Ilānu).
Commentary. This seal is dated on stylistic grounds by van Loon to the Old Babylonian period. If the final two signs in the first line are transposed, the name can be read as suggested in the translation. The object is published in photo and discussed in Muscarella 1981a:352353 , no. 33, with the text edited by J. Huehnergard. In line 2 , $i$-la-ni is more likely a personal name ${ }^{6}$ than the plural common noun "gods"; the "servant of" phrase in Old Babylonian seals is usually followed by a proper name, either of a god (or gods), a king, or an official. ${ }^{7}$

No. 9. Sor 1272 (see ch. 24C.4, no. 21, pls. 133:21 and 257d)
Blue-gray hematite cylinder; pierced; left side broken away. $1.6(+) \times 1.1 \mathrm{~cm}$. At present in Muze-ye Iran Bastan, Tehran, number unknown. Provenience: level 2B-2A, plot JI, area 3-4 (door), locus 170, elevation 7.15 (pl. 53).

Transliteration: (1) [(...)] $\times$ hi-rum
(2) $[(. .)]$.$x hi? gal$
(3) $[(. .).] \times(-) b a-d i-t u m$
(4) $[(\ldots)](-) x$-bi-im?

Commentary. This seal is dated on stylistic grounds by van Loon to the Old Babylonian period.

No. 10. Sor 1428 (see ch. 24C.7, no. 34, pls. 134:34 and 257e)
Chalcedony cylinder seal, gray-white, with red-brown spots; opaque, pierced lengthwise. $3.8 \times 1.7 \mathrm{~cm}$. At present in the University Museum, Philadelphia, number unknown. Provenience: level 2B, plot JI, area 1/3, locus 175, elevation 8.05-8.15 (pl. 52). Prayer inscription (either in logograms or Sumerian) in the name of Iī-rabi, the ša rēsi official of a Kurigalzu, to Marduk. Listed in Brinkman 1976:231 as Q.2.110.
${ }^{6}$ Cf. Ilānum in Gelb 1980: 591, no. 2541; Figulla and Martin 1953, 173 case 14, 435:5, 599:6 and passim.
${ }^{7}$ Sce Gelb 1977:115-126.

| Transliteration: | (1) mDINGIR-GAL LÚ.SAG |
| ---: | :--- |
| in field | (2) mku-ri-gal-zu |
|  | (3) GIŠ!.TUK |
|  | (4) dMES |
| Translation: | Ilī-rabi, ša rē̆ši official of Kurigalzu, obedient to (the <br> god) Marduk. |

Commentary. Line 1: The name could also be read as Anu-rabi, but this is less likely. The title of the courtier ša rēš RN is attested also in seals of Kidin-Marduk ${ }^{8}$ and his son Adadušabši, ${ }^{9}$ and it is perhaps to be connected with the official otherwise designated ša rē̌̌ šarri. ${ }^{10}$ Line 3: the GIS sign is not entirely clear and seems to have traces of a wedge or wedges in the middle; the generally compact shape of the sign favors a reading GIS rather than ARHUŠ, which is usually longer horizontally in proportion to its height and has more internal wedges. semû in the sense of "obey" is amply attested in Old and Middle Babylonian. ${ }^{11}$

It is not known to which Kurigalzu the inscription refers. Either the first (reigned ca. 1390 B.C.) or the second (reigned 1332-1308 B.C.) could be meant. ${ }^{12}$

No. 11. Sor 1450 (see ch. 31, catalog 31A.27, pl. 258a)
Brown-red, carnelian barrel bead; translucent, left half broken away. $1.5 \times 1.0 \mathrm{~cm}$. Present whereabouts unknown. Provenience: level 2B, plot II, area 3/13, wall, elevation 8.10 (pl. 52). ${ }^{13}$ Damaged Sumerian votive inscription of a king whose name ends in $-[r] i a s$ to a deity whose name ends in [ ]-1il. Listed in Brinkman 1976:107 as E.2.8.

Transliteration: (1) [den/nin ]-1í
(2) $[-n] i-i r!(N I)$
(3) $[-r] i-i a-a s ̌$
(4) $[-n] a-b a$

Translation: $\quad$ To (the god)] .. ${ }^{14}$, [h]is [lord/lady], [Burna-Bur]iaš [has] dedicated (this).
${ }^{8}$ Moortgat 1940: no. 554; Brinkman 1981-82:74, no. 26.
${ }^{9}$ Muscarella 1981b:118-120, no. 77.
${ }^{10}$ Brinkman 1968:310-311.
${ }^{11}$ E.g., Bergmann 1953, ii 23; Sollberger 1969:35-36, lines 91 and 117; Biggs 1965:97:19; Weidner 1959:30, no. 17:19 (=Grayson 1987:275, line 30); cf. the Middle Babylonian personal name Nahiš-sē-mûša "he who obeys her [scil. the goddess] is prosperous" in Clay 1906, 188 i 11.

[^68]Commentary. Though the RN could be restored as Sagarakti-Suriaš or Burna-Buriaš, the preference has been given to the latter because of the estimated space available in the line and because an inscription of Kurigalzu II (son of Burna-Buriaš II) and two other Kurigalzurelated texts were found in the same building. For the stratigraphy of the find, see chapter 11, table 9.

No. 12. Sor 1601 (see ch. 32B.7, no. xxxv; pls. 253:xxxv and 258b)
Copper/bronze signet ring. $2.3 \times 2.5 \mathrm{~cm}$. At present in the Metropolitan Museum, New York, 43.102.13. Provenience: level 2B, plot JI, area 1/3, locus 175/wall, elevation 7.70 (pl. 52). Sumerian inscription.

Transliteration: (1) dingir-meš
(2) tuk

Translation: Have (an interceding) god!
Commentary. Dated above to Iron Age I, where the iconography of the representation is discussed. Three signs are inscribed in the field around the stylized tree and animals; the sequence in which the signs are to be read is not immediately apparent from their arrangement. The inscription is a prayer for good luck; the translation here presumes that the plural sign MES is a corrupt addition. ${ }^{15}$ For the stratigraphy of the find, see chapter 11, table 9 . The object has been published in photo and discussed in Muscarella 1981a:344, no. 20.

No. 13. Sor 1691 (see ch. 24C.4, no. 22; pls. 133:22 and 259a)
Red-brown hematite cylinder seal. $2.0 \times 1.0 \mathrm{~cm}$. At present in Muze-ye Iran Bastan, Tehran, number unknown. Provenience: level 3A, plot JH, between rooms 9 and 11, locus 5/wall, elevation 6.50 (pl. 52).

Transliteration: (1) dnin-kar-ra-ak
(2) 「d?? pa-「bil(bíl?)'-sag

Translation: Ninkarrak, Pabilsag.
Commentary. This seal is dated on stylistic grounds by van Loon to the Old Babylonian period. For the stratigraphy of the find, see chapter 11 , table 9.

No. 14. (Seal no. 224; see ch. 35, item A; pls. 255:224 and 259b)
Large stone cylinder seal (Photo $L_{2}-97$ ). $4.5 \times 1.4 \mathrm{~cm}$. Owned in 1938 by Asadullah Khan, the sarhatdar or governor of Dilfan. This edition is based on a photograph of the impression made by Erich Schmidt.

Transliteration: (1) mkaš-til?-à(PI)-à(PI)-šu
(2) DUMU msunki?-un-taš?

Translation: Kašiliašu, son of Sunki-Untaš.
${ }^{15}$ The literal translation would be: Have gods!

Commentary. The reading of most of these signs is not clear, and the interpretation suggested here is uncertain.

No. 15. CS 272 (see ch. 32A.2.2, no. 69; pls. 235:69 and 259c)
Speckled granite seal. $2.3 \times 1.1 \mathrm{~cm}$. At present in Muze-ye Iran Bastan, Tehran, number unknown. Provenience: Chigha Sabz, plot J7, elevation -4.40 (see plan and section, pl. 22b).

Transliteration:
(1) md
(2) hu-
(3) ban-
(4) $x$
(5) pir

Commentary. The text appears to consist of an Elamite personal name.

CATALOG 33. THE INSCRIPTIONS*

| Plate | Site and obj. no | Rmiarea, lev. or elev. | Dim. (cm) | Material | Condition | Description | Reference |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 133: 28 \\ & \text { and } 256 a \end{aligned}$ | Sor 151 | 4, 2B | $1.5 \times 0.8$ | camelian | - | Cylinder seal: suppliant goddess, four lines of inscription | chapter 24C.4, no. 28 |
| 256b | Sor 162 | $6,2 \mathrm{~B}$ | $2.6+\times 1.5$ | red brown agate or carnelian | one-half preserved | Long barrel bead with five lines of positive inscription | catalog 31A. 27 |
| $\begin{aligned} & 133: 26 \\ & \text { and } 256 \mathrm{c} \end{aligned}$ | Sor 170 | 4,2B | $3.2 \times 1.7$ | rock crystal | - | Cylinder seal: god reaching toward two shepherd's crooks on back of gazelle, being approached by worshiper; three lines of inscription | chapter 24C.4, no. 26 |
| 256d | Sor 301a | 4, 2B-2A | $3.6+\times 0.8$ | red-brown camelian | one end missing | Tubular bead with two lines of inscription | catalog 31A. 27 |
| 256e | Sor 413 | 4, 2B | $3.7 \times 3.1$ | shell | - | Triangular pendant with one side scalloped; three petals separated by flutes running to apex; centered circlet on each petal; three cuneiform signs on concave back | chapter 30B. 2 |
| 257a | Sor 610 | $\begin{aligned} & 1-2 \text { (steps), } \\ & 2 \mathrm{C} \end{aligned}$ | $3.5 \times 1.2$ | brown and white onyx | one-half preserved | Eye-stone: disc with beveled rim, perforated lengthwise, inscribed on top and rim | catalog 31A. 20 |
| 257b | Sor 714 | $\begin{aligned} & 1-2 \text { (steps), } \\ & 2 C \end{aligned}$ | $1.9 \times 0.8$ | red and cream chalcedony | - | Eye-stone: disc with beveled rim, perforated lengthwise, inscribed on top | catalog 31A. 20 |
| 133:20 <br> and 257c | Sor 786 | 1N, 1 | $2.3 \times 1.3$ | hematite | - | Cylinder seal: suppliant goddess and worshiper before king or god enthroned on stool, holding goblet; sun within moon in sky; two lines of inscription | chapter 24 C .4 , no. 20 |

[^69]| $\begin{aligned} & 133: 21 \\ & \text { and } 257 \mathrm{~d} \end{aligned}$ | Sor 1272 | $\begin{aligned} & 3-4 \text { (door), } \\ & 2 \mathrm{~B}-2 \mathrm{~A} \end{aligned}$ | $1.6+\times 1.1$ | hematite | broken: break ground | Cylinder seal: god with mace approaching suppliant goddess; four lines of inscription | chapter 24 C .4 , no. 21 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 134: 34 \\ & \text { and } 257 \mathrm{e} \end{aligned}$ | Sor 1428 | 1/3, 2B | $3.8 \times 1.7$ | chalcedony | chipped | Cylinder seal: female worshiper and goddess with jar from which water is flowing into lower jar, approaching water god enthroned on goatifish, who is extending a ring; sun within moon in sky; four lines of inscription | chapter 24C.7, no. 34 |
| 258 a | Sor 1450 | 3/13, 2B | $1.5 \times 1.0$ | carnelian | one-half preserved | Barrel bead with four lines of inscription | catalog 31A. 27 |
| $\begin{aligned} & \text { 253:xxxv } \\ & \text { and } 258 \mathrm{~b} \end{aligned}$ | Sor 1601 | 1/3,2B | $2.3 \times 2.5$ | copper or bronze | - | Sheet signet ring: five-cone tree flanked by stag and sheep; rosette behind animals; inscription around them; line borders | chapter 32B.7, no. xxxv |
| $\begin{aligned} & 133: 22 \\ & \text { and } 259 \mathrm{a} \end{aligned}$ | Sor 1691 | 9/11, 3A | $2.0 \times 1.0$ | hematite | - | Cylinder seal: god with mace approaching suppliant goddess; two fish; two lines of inscription | chapter 24C.4, no. 22 |
| $\begin{aligned} & 255: 244 \\ & \text { and } 259 \mathrm{~b} \end{aligned}$ | - | Dilfan prov.(?) | $4.5 \times 1.4$ | stone | - | Cylinder seal: cow suckling its calf, followed by second cow(?) suckling its calf; two lines of inscription | chapter 35 |
| $\begin{aligned} & 235: 69 \\ & \text { and } 259 \mathrm{c} \end{aligned}$ | CS 272 | J7, -4.40 | $2.3 \times 1.1$ | granite, speckled | - | Cylinder seal: full-bodied couchant animal (horse?) confronted by worshiper or priest; vertical panel enclosing five lines of inscription | chapter 32A.2.2, no. 69 |

## CHAPTER 34

## CONCLUSIONS

by Maurits N. van Loon and Hans H. Curvers

Since Schmidt's epic expeditions of the nineteen-thirties, considerable archaeological and ethnoarchaeological work has been done in and around Luristan. But in spite of the many workers ${ }^{1}$ our knowledge of Luristan's cultural history contains many gaps that are only partly filled by Schmidt's meticulously recorded results. Still, even some of Schmidt's negative results may help toward a better understanding of prehistoric and protohistoric Luristan.

Like many others of his generation, Schmidt seems to have paid little attention to unpainted pottery. Goff (1971), Mortensen (1976), and Smith (1967, 1970, and 1972) have shown that seventh and sixth millennium sites exist in Luristan.

## CHALCOLITHIC

First of all it should be stressed that few, if any, of Schmidt's Chalcolithic, Early Bronze, and Middle Bronze sites (see tab. 32) can be interpreted as nomadic. At most, the lack of solid structures in the Chalcolithic levels investigated close to the surface at Chigha Sabz can be seen as an indication that the site was only inhabited part of the year. Still, habitation left enough debris to form a mound 5 to 7 m high over the course of 1500 years. The presence of complete vessels in the Susa $A(I)$ levels invites comparison to the situation at Susa itself, where many secondary inhumations were found in vessels not unlike those from Chigha Sabz (de Mecquenem 1943:5 and Canal 1978:33). It seems unlikely, though, that all bones or ashes would have disappeared without a trace.

As stated in chapter 15 , pottery comparisons suggest that Luristan culture developed parallel to, but independently from Khuzistan or Susiana during the fifth millennium, becoming more and more dependent on that of Susa in the fourth millennium b.c. Links with Giyan VC, though spectacular, are few in number. If we may trust its stratification as reconstructed, a copper ring gives evidence of advanced metallurgy during the fifth millennium in Luristan.

At Kamtarlan I we catch a glimpse of the impact that the early urban culture of Susa BC (II-IIIA) and, possibly, other lowland states (Johnson 1973) had on Luristan as well as on regions farther to the northwest (Weiss and Young 1975; see also Goff 1971:145). A faience seal and a faience bead attest to another advanced industry in Luristan during the fourth millennium.

## EARLY BRONZE AGE

The ensuing gap in the occupation record is only filled by gallery tombs II-V at Mir Vali, which we compare mostly to Susa Da-b (IIIB) and date ca. 2750-2600 B.C. on account of the presence of polychrome painted ware (in the monochrome ware, however, several parallels exist to Godin III: 6 , dated ca. 2600-2350 b.C.). Large family tombs like those at Mir Vali have
${ }^{1}$ Goff (1969, 1970, 1971, 1976, 1977, and 1978), Hole (1978 and 1979), E. F. Henrickson (1985), R. C. Hentickson (1984a,b, 1985, and 1986), Meade (1968), Meldgaard, Mortensen, and Thrane (1964), Thrane (1965), Smith (1967, 1970, and 1972), Vanden Berghe (1964, 1967, 1968a,b, 1969, 1970a,b, 1971a,b, 1972, 1973a,b,c, 1974, 1975a,b, 1976, 1978, and 1982), Vanden Berghe and Haerinck (1984), Young with his team (1969) and then with Levine (1974), Weiss and Young (1975).
exist to Godin III: 6 , dated ca. 2600-2350 b.c.). Large family tombs like those at Mir Vali have been taken as evidence for the rise of tribally organized elements, perhaps without fixed abode, during this period when urban expansion was at a low ebb. However, a large town of stonefounded houses a few hundred meters below the cemetery yielded sherds of the next, Susa Dcd (IVA) phase, to which Mir Vali tombs II-V also relate. Goff (1971:149) sees the new settlement pattern indicated by the gallery graves as the sign of a radical break with the past, heralding a general shift toward the mountains and toward exploitation of the upland pastures, which made transhumance necessary (see also Gilbert 1983:112). Such a shift would agree with the tendency, observed elsewhere as well, of societies to develop more emphasis on pastoralism in times of decreasing government authority (Adams 1974).

Be that as it may, the subsequent Susa Dc-d (IVA/Giyan IVA phase, ca. 2600-2300 B.C.) is well represented by houses at Kamtarlan I and II and intramural burials at Kamtarlan I, Chigha Sabz(?), and Dum'avize.

Pottery comparisons can be made to Godin III:6-5, but not to III:4. R. Henrickson (1986) has connected the obvious prosperity of Luristan in the Early Dynastic III period to Mesopotamia's demand for metals and minerals. A chlorite vessel fragment with whirl motif from Kamtarlan II, level 2, testifies both to the contemporaneity with Early Dynastic III sites and to Luristan's contact with the long-distance trade network by which such "intercultural style" objects were distributed throughout Mesopotamia, Iran, and the Persian Gulf (Kohl 1976).

Imperfect knowledge of the distinctive traits of the late third millennium B.C. may be to blame for the apparent lack of Susa De (IVB) material in our area. Henrickson's findings in and around Godin, however, also convey the impression that the highlands remained isolated, resisting military and political pressure of the Akkad and Ur III dynasties from the lowlands (R. Henrickson 1986). In our view, the development from Early Bronze to Middle Bronze Luristan painted pottery should be seen as a continuous process, independent of developments in and around Susa (Carter 1980:31).

## MIDDLE BRONZE AGE

The Middle Bronze Age (ca. 2000-1600 в.c.) is well represented by houses and burials at Kamtarlan II and Chigha Sabz. Tombs at Chaman, Surkh Dum-i-Luri, and Gar Zore seem to belong to this stage as well. Close parallelism in house and grave contents to Giyan IVC-III and Godin III:2 suggests uniform material culture over a wide area, perhaps corresponding to a political unit (Simaški under the sukkalmahbus of Elam?, cf. Henrickson 1984b).

On the basis of the Giyan IVC-III settlement pattern, Goff (1971:150) envisages an economy similar to that of today, based on mixed farming, with biannual migration of part of the population along with most of the livestock. Town sites in the larger plains presumably represent administrative centers, while the hilly flanks and smaller valleys contain small village sites in easily defensible positions.

## LATE BRONZE AGE

Goff, who did not separate the Giyan III and II materials, assumes a dramatic end to this cultural sequence around 1200 B.C. (Goff 1971:151). Despite their limited extent Schmidt's results seem to indicate a decline in urban prosperity as early as the Late Bronze Age (ca. 16001350 b.C.). Besides isolated graves at Kamtarlan II, Chigha Sabz, Mir Vali, and Zarde Savar, we only find a well and a pit at Chigha Sabz. Warlike destruction by the Elamites at the end of the Bronze Age and influence from Kassite and post-Kassite Babylonia in the last centuries of the second millennium are postulated by Goff, who dates many boulder ruins and graveyards up in the mountains yielding ribbed pithos fragments to this period (Goff 1971:151).

Surkh Dum-i-Luri, level 3B, presents a special problem. Its pottery has only tenuous links with that found at known Late Bronze Age sites-most notably pitchers with a band painted around their widest part and a small krater painted with metopes and triglyphs-but even less in common with Iron Age pottery, unless one would want to compare the painted
pitcher from Pa-yi Kal (Vanden Berghe 1973a:60, pl. 27:1). Considering the stratigraphy, the best assumption seems to be that the level 3B building at Surkh Dum-i-Luri was erected toward 1350 B.C. and soon destroyed, flimsily restored but gathering riches from passers-by until the new level 2C sanctuary was built toward 800 b.c. At first sight the beads dedicated to the goddess NIN.Líl by the Babylonian kings Burna-buriash II (1359-1333) and Kurigalzu II (1332-1308 в.c.; Brinkman 1976:48, 107, 227, 228, and 231) might seem to indicate some link between these Kassite kings of Babylonia and Late Bronze Surkh Dum-i-Luri. As Brinkman makes clear, however, such beads have been found in a great variety of unrelated contexts. They were obviously carried from one place to another and treasured for their value as semiprecious stones, not as inscribed objects. Their value for us as pieces of evidence for local history is, unfortunately, negligible.

The founding of a sanctuary along one of the main transhumance routes might be seen as a sign of confidence induced by a new way of life. We interpret the building at Surkh Dum-i-Luri as a sanctuary of the mistress of nature, to whom hunters would offer token animals and other trinkets when praying for success in the chase or giving thanks for such success (see chs. 27 and 28). Our interpretation of the building as a sanctuary is based on the ground plan (pl. 51) with its buttresses, recessed outer doorway, and triple-recessed cella doorway, accessible from a one-column hall. We compare the latter to the eight-column hall of Hasanlu Burned Building II, also no doubt a temple (Young 1966b:59, fig. 1) and to the two-column hall ("Painted Chamber") of Baba Jan, from which one small and one larger cella, both with triplerecessed doorways, were accessible (Goff 1970:144-48; 1977, fig. 1). In its final form (pl. 53) the cella contained a niche in its far wall. However, the other standard feature for a sanctuary, the altar, seems to be lacking. We consider the central mudbrick feature of room 1 (pl.50) as a column base similar to the ones at Hasanlu, while the recess in the southwestern wall of room 1 suggests a cooking range rather than a sacrificial table. Perhaps the black ash covering the southeastern half of the room 1 floor indicates that sacrifices were performed on the floor.

Our interpretation of the sanctuary as dedicated to the "mistress of the mountain" with power over wild animals is mainly based on the many cast ibex horns (forty-eight items in ch. 27 E ) and hammered 'mouflon' horn-shaped ornaments (two items in ch. 28M). These seem to be counterparts in bronze of the clay votive ibex horns deposited at a precursor of the Susa Acropolis temple to Narunte or NIN.HUR.SAG (Amiet 1976b:52; Stève and Gasche 1971:167). The scarcity of weapons and the profusion of pins and other ornaments deposited in the sanctuary are strong indications that the deity honored there was female.

## IRON AGE

## IRON AGEI

Outside of Surkh Dum-i-Luri, Iron Age I is only represented among Schmidt's materials by two graves at Chigha Sabz. In contrast to the situation at Giyan, which lies northeast of Luristan proper and where Early Western Gray Ware appears in levels I4-3 (Young 1965:66, 70-72; R. Henrickson 1983-84:204, 215-16, Iron I goblet phase, 1400-1100 B.C.), no such trace of northeastern influence on local pottery is found in Iron Age I or at any of the Iron Age II sites except, possibly, at Chujale. We do not exclude the possibility that many of the metal and other objects retrieved from Surkh Dum-i-Luri may date to Iron Age I; some may even have a longer history. The latter is clearly the case with many of the cylinder seals and inscribed objects.

## IRON AGE II

On account of the latest objects found under the original floor, however (especially cylinder seal 51 , ch. 32), the sanctuary excavated at Surkh Dum-i-Luri cannot be dated before

800 b.c. and therefore belongs to the end of Iron Age II. ${ }^{2}$ The presence of nine iron objects as well as two composite bronze and iron objects below the 2C floor confirms this Iron II dating (Pigott 1977, 1980; Vanden Berghe 1973a:54-55). The sanctuary's likeness in plan to the contemporary Burned Building II at Hasanlu indicates a partly shared Iranian culture despite ceramic differences.

After some time the floor of the cella was raised by 66 cm and three steps were built out into the one-column hall to bridge the difference in height. The material found below the floor and steps is labeled 2C. Among it are ten iron objects, including one D-shaped iron fibula(?). Roughly semicircular iron fibulae occur along with the much commoner bronze fibulae at War Kabud and other Iron III, i.e., late 8th century B.C. and later, sites (Vanden Berghe 1978:3840, fig. 3:6). This first alteration therefore cannot antedate 750 b.c.

## IRON AGE II/III

To judge by the cylinder seals found in the Iron Age strata of Kamtarlan I, these levels run parallel to Surkh Dum-i-Luri and belong mostly to Iron Age II and early III. With their heavy, buttressed architecture these remains seem to belong in the same class as the Baba Jan manors (Goff 1969:115-122; the Godin manor may be a later representative of this class, Young and Levine 1974:30-35, fig. 40:1, cf. Stronach and Roaf 1978:11). The Iron Age levels at Chigha Sabz, on the other hand, represent an entirely different, transient form of occupation that must also be chronologically distinct. Ceramic and glyptic comparisons show they belong to Iron Age III, probably not predating the 7th century B.C. Hollow bull-shaped vessels typical of Iron Age III occur at Chigha Sabz and fragments of such vessels were found at Surkh Dumi -Luri in levels 2B-1, indicating that the latter must have lasted into Iron III.

A problem is created by the occurrence, in level 2B at Surkh Dum-i-Luri, below the last floor of the sanctuary of a chalcedony cylinder seal of Neo-Elamite II style that can hardly predate the 7th century b.c. The motif-a horseman pursuing a winged goat, both in flying gallop-is without precedent, typically Iranian, and popular from the late 7th century B.C. into Achaemenid times. The style of execution-with a revolving disc cutting into the hard stoneis related to the late cut style of 7th century b.c. Babylonia and Assyria. Nimrud 2197 (Parker 1955:103, pl. 14:3), a buff stone seal with somewhat comparable chevron border, shows a galloping horseman shooting back at an attacking bull in 8th century B.C. linear style and might be taken as an indication that such scenes of wild pursuit started as early as 700 B.c., possibly in the Assyro-Iranian borderland. The remainder of the finds from the sanctuary has parallels, if any, among Iron Age II material except, perhaps, for the most elaborate bronzes. These may belong to the beginning of Iron Age III, i.e., to about 750-700 b.C., on the basis of finds from Tattulban (Vanden Berghe and Haerinck 1984:203). Among the copper or bronze disc-headed pins, for instance, that were deposited in such numbers at Surkh Dum-i-Luri, all but one of the examples with vegetal, zoomorphic, or anthropomorphic decoration come from level 2B or later levels. Copper or bronze sheet pendants with vegetal or anthropomorphic decoration also come from levels 2B-1. In the cast copper and bone pins, however, elaborate zoomorphic or anthropomorphic decoration occurs as early as levels 3A (Sor 1208 and 1339, pls. 174c, 183e, 2231, and 226a) and 2C (Sor 1341 and 1465, see ch. 27 and pl. 184a). On the other hand, winged monsters as pin heads seem to be limited to levels $2 \mathrm{~A}-1$ (except for a bone example, Sor 1200 , pls. 224 f and 227 b , from level 3 A ) ${ }^{3}$ recumbent horned animals and 'openwork' cages as pin heads occur only in levels 2B-1. All complete disc-headed pins longer than 12.5 cm and all complete cast pins longer than 14.8 cm come from levels $2 \mathrm{~B}-1$. Stone plaques with patterns of centered circles occur as pin heads in levels 2B-1, but not before.

Schmidt (1937-38:210, note 5) suggested that all pins found in the Surkh Dum-i-Luri sanctuary should be considered as 'wands' serving to affix confronted-animal "talismans" to

[^70][^71]their bottle-shaped holders (for a 'talisman' so fixed by a simple spherical-headed pin, see Amiet 1976a, fig. 48). As Amiet (1976a:72) has argued, this is unlikely because it can be shown that the pins were meant to be seen with the shank pointing up, as worn by the women of the time (see Sor 820 , pl. 210a, in ch. 28 H .5 .2 ). This applies not only to the disc-headed pins, but to the 'openwork'-headed pins as well (see Sor 1465, pl. 185d, in ch. 27D.21). Despite their likeness to the 'talismans', it is unlikely that they were made as 'icons' (cf. Moorey 1971a:200).

Another possibility comes to mind in cases where pins have been found inserted through 'talismans' into bottle-shaped holders. One is forcefully reminded of modern kohl (eye black) containers in the shape of a metal vase, into which a florally decorated metal pin is stuck. The pin serves to extract kohl from the vase and apply it to the eyelids. If the analogy is justified, bottle-shaped stands like Kha 54 (ch. 27J, pl. 1751) could have served as kohl containers and the eye paint would have been extracted by passing a pin through the accompanying tube (cf. Kha 53, ch. 27J, pl. 175k) into the container. Because of the difficulty of refilling the vessel through the bottleneck, the base would have been detachable, accounting for the open base of the bottle-shaped stands. In most cases three slight notches can be seen around the base; they may have helped to secure a wooden or clay stopper. ${ }^{4}$ The placing of cosmetic containers and/or applicators in graves, if confirmed, would continue an old Iranian and Persian Gulf custom, exemplified at Hissar (Schmidt 1937:212, fig. 122; 216, fig. 130), Shahdad (Amiet 1973:23; note, however, that examples from Shahdad contained lead oxide), Oman (Frifelt 1975:67; 1976:59, fig. 4; de Cardi et al. 1977:23, fig. 4), and Susa (de Miroschedji 1973:32-33). At Hissar III, copper 'wands' were often found in or near copper or lead or pottery bottles, usually in graves (Schmidt 1937:194, 211, 310, pls. 48:H 3496 and $57: \mathrm{H} 3497$ ), perhaps forming a precedent for the Iron Age custom. ${ }^{5}$

Yet another hypothesis, inspired by ethnographic data, may explain the abundance of pins among the finds from Surkh Dum-i-Luri. The presence of large jars in level 3 and, to a lesser extent, in level 2 suggests that the shrine had an economic and administrative function as well as a religious one. This biannual stopover between summer and winter pastures would have served not only to pray for a successful hunting season, but also to perform oaths and other acts of a legally binding nature. In many cultures nails, pins or needles are used as tangible evidence of such contracts. A particularly relevant example is given by the Baharvand tribe of the Zagros mountains (Amanolahi 1975:84). It is interesting to note that traditional marriage contracts among the Baharvand still are confirmed by the symbolic gift of a needle from parents of the bride to the parents of the groom. In times when there was no literate sayed or mullah, the marriage contract was symbolically confirmed by the gift of the needle only. When their migration route reached the neighborhood of Khurramabad or Dizful, the marriage agreement was then written down and recorded. From this ethnographic study some conclusions might be drawn about the function of Surkh Dum-i-Luri. Part of the abundance of pins at the sanctuary might result from the recording of marriage agreements of the pastoral nomads attending the sanctuary on their migration route. We might, therefore, consider Surkh Dum-i-Luri as one of the few, if not the only, administrative centers in Iron Age Luristan. The partly exposed architectural remains adjacent to the sanctuary can be seen as evidence for Surkh Dum-i-Luri being more than just a religious center, in contrast to Tang-i Hammamlan, which we consider as a mountain shrine without any administrative function (Thrane 1965). ${ }^{6}$

[^72][^73]In discussing the huge amount of bronze pins and other metal objects deposited in the sanctuary we should draw attention to the fact that many of them were broken. Although it is natural for iron to disintegrate through oxidation, one would expect bronze objects to be better preserved than the extremely fragmentary state, for instance, of many of the disc-headed pins from the fill (ch. 28, Sor numbers between 1701 and 1800). It looks as if many obsolete items of the temple inventory were scrapped and kept only for their value in metal. Most clearly this is the case where cast pins have been folded (e.g., Sor $52,78,130,135$, and 306 in ch. 27) or hammered beakers and bracelets have been flattened (e.g., Sor 915 and 384 in ch. 28, sections A. 4 and $G$ respectively).

## IRON AGE III

The second alteration at Surkh Dum-i-Luri, which raised the floor throughout the sanctuary, and its final abandonment cannot be placed very far into Iron Age III because below or above this last floor not one bronze fibula was found, as against 769 pins. Fibulae replaced pins in Iron Age III, as we know from Vanden Berghe's excavations (Vanden Berghe 1982:78). Iron finds from level 2B (below the last floor) amounted to thirty items. We are therefore inclined to date Surkh Dum-i-Luri level 2B (the material under the last floor) to about 750-700 B.C. and level 2A (the material on the last floor) in the early 7th century B.c. ${ }^{7}$

Historical sources indicate that the kingdom of Ellipi, comprising northwestern Luristan and intermittently loyal to Assyria or to Elam around 700 B.C., disappeared from the scene after Esarhaddon (ca. 675 b.c.; Carter and Stolper 1984:46-48). If we follow de Miroschedji's reconstruction (1982:62), it is Shutruk-Nahhunte I who is to be blamed for the defeats suffered by Elam from 716 to 699 b.c. Subsequently, the political capital of Elam seems to have been moved to Madaktu and Hidalu (Carter and Stolper 1984:47-49), but building activity at Susa continued under local rulers who played no political part. Shutruk-Nahhunte II, son of Hubanimmena (king of Elam 692-689, Carter and Stolper 1984:48) appears to be one of these. Shutruk-Nahhunte II has left five building inscriptions (de Miroschedji 1982:62 and Lambert 1967:48). It looks as if he caused a cultural revival that made itself felt as far as southeastern Luristan. It was Shutruk-Nahhunte II who built a one room chapel on the acropolis at Susa and decorated it with glazed bricks, tiles, and wall nails (Amiet 1967:27-29). The chapel-like installation of level 1B in room 5, containing faience tankards of Neo-Elamite I type (Sor 14 and 21, pls. 150d, 151b, and 154c, d; ch. 26A.9.3; cf. de Miroschedji 1981a:38), a winged ibex pin (Sor 17, pl. 179g; ch. 27D.16.2) and a flower pin with petals in high relief (Sor 7, pl. $170 \mathrm{~m} ; \mathrm{ch} .27 \mathrm{D} .14$ ) might be seen as an Elamite attempt to revive the sanctuary during a period of local loyalty to Elam in the first half of the 7th century B.C.

Esarhaddon's successor Ashurbanipal dealt Elam blow after blow, culminating in the ruthless destruction of Susa ( 646 B.c.). Southeastern Luristan cannot have escaped the turmoil of the mid seventh century b.C. All in all, it is perhaps wisest to date the ultimate abandonment of Surkh Dum-i-Luri around 650 b.C., and the late camp site at Chigha Sabz about 650-550 B.C.

[^74]Table 32. Chronology of the Holmes Expeditions to Luristan Sites


## CHAPTER 35

## UNEXCAVATED OBJECTS

by Maurits $N$. van Loon

Erich Schmidt's own 1935-38 excavation results are reported in the main body of this work. In addition, however, Schmidt brought back some drawings and photographs of objects not excavated by him but derived from chance finds of illegal excavations. For purposes of identification we deem it useful to publish these drawings and photographs as a final chapter to the excavation report. They comprise:
A. A large stone cylinder seal (no. 224), which in 1938 was in the possession of Asadullah Khan, the sarhatdar or governor of Dilfan, and was photographed by Schmidt (pls. 255:224 and 259b).
B. One stone and two copper or bronze objects which were in the possession of the inhabitants of Qumish (see ch. 10), and drawn by Richard C. Haines on 28 May 1938 (p1. 260a-c).
C. Twenty-one copper or bronze and iron objects bought by the expedition from Tehran dealers in 1938 to make up for what Schmidt obviously felt to be a disappointing yield in objects worthy of display (see ch. 14 for the allocation of acquisitions); they were drawn by the expedition draftsmen. In the catalog below we present these in the same order as in chapters 27 and 28.

CATALOG 35. UNEXCAVATED OBJECTS

| Plate | Obj. no. | Provenience | Dim. (cm) | Mat. | Cond. | Description | Comparison | Allocation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 35A. PHOTOGRAPHED AT DILFAN, 1938 |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 255: 224 \\ & \text { and } 759 \mathrm{~h} \end{aligned}$ | Seal 224 | Dilfan prov.(?) | $4.5 \times 1.4 \times 1.4$ | stone | - | Cylinder seal: cow suckling calf, followed by second cow(?) suckling calf; for inscription see chapter 33 , no. 14 | Amiet 1973a, nos. 19 and 49 (625-550 B.C.) | Sarhatdar of of Dilfan |
| 35B. DRAWN AT QUMISH, 1938 |  |  |  |  |  |  |  |  |
| 260a | - | Qumish burial ground | $6.1 \times 5.3 \times 3.1$ | stone | chipped | Twin pommel inlays: crescents with pierced central tab | $\begin{aligned} & \text { CS } 453 \text { (ch. } \\ & \text { 29B.5.2) } \end{aligned}$ | Inhabitants of Qumish |
| 260b | - | Qumish burial ground | $7.3 \times 2.1 \times 1.3$ | co/br | - | Tube, one end of which consists of two homed beardless human heads with pierced ears, back to back | $\begin{aligned} & \text { Kha } 53 \text { (ch. } \\ & \text { 27J) } \end{aligned}$ | Inhabitants of Qumish |
| 260 c | - | Qumish burial ground | $10.4 \times 3.7 \times 3.7$ | co/br | rim bent | Bottle-shaped stand with two triple rings and hole at widest point | $\begin{aligned} & \text { Kha } 54 \text { (ch. } \\ & \text { 27J) } \end{aligned}$ | Inhabitants of Qumish |
| 35C. PURCHASED AND DRAWN AT TEHRAN, 1938 |  |  |  |  |  |  |  |  |
| 261a | Teh 10 | Luristan(?) | $37.7 \times 2.6 \times 1.6$ | co/br | inlays missing | Lappet-flanged dirk: faintly splayed with indented guard; guilloche traced on flanges; broad flat midrib | Dyson 1964, fig. 2:1-3 <br> (1100-800 B.C.) | UM-(?) |
| 261b | Teh 11 | Luristan(?) | $40.7 \times 8.0 \times 6.3$ | iron | corroded; <br> cord imprints on hilt | Disc-pommeled dirk: two lions' masks facing each other on top and two bearded men's heads on sides of disc; grip once bound with cord separated by two ridges; recumbent lion cubs at guard; flat midrib | - | OI A24180 |
| 260 d | Teh 8 | Luristan(?) | $33.0 \times 11.6 \times 2.3$ | co/br | whetstone missing | Whetstone handle and core(?), square in section: forepart of wild goat with two heads and necks being attacked by reptile-headed feline | - | OI A24178 |


| 262a | Teh 19 | Luristan(?) | $7.8 \times 7.2 \times 0.6$ | co/br | - | Open bracelet, ending in lions ${ }^{2}$ heads; crosshatched band and zigzag traced on lions' necks | - | Boston Museum of Fine Arts |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 262b | Teh 17a, b | Luristan(?) | $6.9+\times 5.8 \times 1.4$ | co/br | shank missing | Twin pins: recumbent griffin, iron shank remains in rear | - | OI A24183-84 |
| 262c | Teh 7 | Luristan(?) | $10.1+\times 8.5 \times 0.3$ | co/br/ir | shank missing | Openwork disc-headed pin: female with necklace, oval apron, and spread legs grasping two upended lions; lions' masks on her head and (reversed) between her legs; two loops flanking ringed socket for iron shank | - | OI A24177 |
| $262 d$ | Teh 12 | Luristan(?) | $6.6 \times 6.2 \times 1.8$ | co/br | - | Confronted-animal standard: two wild goats standing on lower ring, their joined forelegs forming upper ring | Vanden Berghe 1973a, fig. 19 (1100-900 B.C.) | UM-(?) |
| 263a | Teh 13 | Luristan(?) | $21.6 \times 7.2 \times 2.5$ | co/br | - | Master-of-animals standard: tube with front and back showing bearded man grasping two lions' necks above; bearded face flanked by cocks' heads above lozenge at center; lions' hindquarters below and bearded face between hands(?) on base | Vanden Berghe and Haerinck 1984, fig. 9 (ca. 750 B.C.) | Mrs. Thompson |
| - | Teh 14 | Luristan(?) | $14.0 \times 6.9 \times 0.2$ | co/br | - | Master-of-animals standard: tube with front and back showing beardless human face with large ears touched by lions' maws above; hands at junction of necks; lions' hindquarters below | Vanden Berghe and Haerinck 1984, fig. 9 (ca. 750 B.C.) | OI A24181 |
| 262 e | Teh 21 | Luristan(?) | $18.0 \times 3.9 \times 3.9$ | co/br | - | Bottle-shaped stand: three rings around open base | Kha 54 (ch. 27J) | UM-(?) |
| 263b | Teh 18a, b | Luristan(?) | $11.2 \times 9.6 \times 2.4$ | co/br | - | Twin horse-bit cheekpieces: winged mouflon pierced through chest and turning head outward; loop and two spurs on reverse | - | UM-(?) |

Catalog 35. Unexcavated Objects (cont.)

| Plate | Obj. no. | Provenience | Dim. (cm) | Mat. | Cond. | Description | Comparison | Allocation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 264a | Teh 9 | Luristan(?) | 12.6 x (rim) 5.3 | co/br | chipped | Repoussé and traced nipple beaker. guilloche and loop borders; two winged ibexes with bearded human faces climbing onto descending branches of nine-cone tree | $\begin{aligned} & \text { Sor 185, } 915 \text {, } \\ & 1647 \text { (ch. } \\ & \text { 28A.4) } \end{aligned}$ | OI A24179 |
| 264b | Teh 1 | Kuhdasht(?) | $18.5 \times 10.9 \times 1.6$ | co/br bent | shank | Disc-headed pin with central lion's mask: bull-eared four-winged genic with lions' heads on his shoulders, feeding branches to two wild goats with half-rosettes above their backs | $\begin{aligned} & \text { Sor 45, 278, } \\ & 1746 \text { (ch. } \\ & 28 \mathrm{H} .4 .1) \end{aligned}$ | UM-(?) |
| 264c | Teh 2 | Kuhdasht?) | $24.5 \times 12.5 \times 1.4$ | $\mathrm{co} / \mathrm{br}$ | chipped | Disc-headed pin with central lion's mask: griffins flanking pendent plant above; lions, with heads merging to face out, below; halfrosettes above all animals | $\begin{aligned} & \text { Sor } 45,278 \\ & 1746 \text { (ch. } \\ & 28 \mathrm{H} .4 .1 \text { ) } \end{aligned}$ | Mrs. Holmes |
| 265a | Teh 3 | Kuhdasht(?) | $14.7+\times 10.2 \times 0.5$ | $\mathrm{co} / \mathrm{br}$ | shank bent | Disc-headed pin: two winged bulls climbing against palm tree | - | OI A24176 |
| 265b | Teh 5 | Kuhdasht(?) | $17.6+\mathrm{x} 9.2 \times 0.5$ | co/br | tip broken | Disc-headed pin with central boss: lion pursuing gazelle; repoussé dots in stippled circlets on and above animals | Sor 1 et cetera (ch. 28H.2.1) | UM-(?) |
| 265 c | Teh 4 | Kuhdasht?) | $15.0 \times 10.6 \times 0.7$ | co/br bent | shank | Disc-headed pin with central human face: beardless face with tiny round ears; winged bulls flanking tree above; griffins with human hands and hooved feet flanking tree below | Sor 1704, 1705, 1707 (ch. 28H.5.1) | Boston Museum of Fine Arts |

$\left.\begin{array}{llllllll}\text { 265d } & \text { Teh 6 } & \text { Kuhdasht(?) } & 8.8 \times 5.9 \times 0.5 & \begin{array}{l}\text { co/br } \\ \text { broken }\end{array} & \text { left end } & \begin{array}{l}\text { Rectangular plaque with attachment } \\ \text { hole at right end: lion being attacked } \\ \text { by dogs(?) and archer above; recum- } \\ \text { bent winged bulls and mouflons in }\end{array} & \text { UM-(?) } \\ \text { compartments below }\end{array}\right]$

## LIST OF BIBLIOGRAPHIC ABBREVIATIONS

AA
AfO
AJA
AMI
AMI Ergänzungsband
BAIIAA
BAIPAA
BAOM
BiOr
CAH
CDAFI
JAOS
JCS
JFA
JNES
MDAI
MDP
MMAI
OIC
OIP
PPS
QDAP
RA
RLA
SAOC
TUIIAER
WVDOG
ZA

Archäologischer Anzeiger
Archiv für Orientforschung
American Journal of Archaeology
Archäologische Mitteilungen aus Iran
Archäologische Mitteilungen aus Iran Ergänzungsband
Bulletin of the American Institute for Iranian Art and Archaeology
Bulletin of the American Institute for Persian Art and Archaeology
Bulletin of the Ancient Orient Museum
Bibliotheca Orientalis
Cambridge Ancient History
Cahiers de la délégation archéologique française en Iran
Journal of the American Oriental Society
Journal of Cuneiform Studies
Journal of Field Archaeology
Journal of Near Eastern Studies
Mémoires de la délégation archéologique en Iran
Mémoires de la délégation archéologique en Perse
Mémoires de la mission archéologique en Iran
Oriental Institute Communications
Oriental Institute Publications
Procecdings of the Prehistoric Society
Quarterly of the Department of Antiquitics in Palestine
Revue d'assyriologie et d'archéologie orientale
Reallexikon der Assyriologie
Studies in Ancient Oriental Civilization
The Tokyo University Iraq-Iran Archacological Expedition Reports
Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft
Zeitschrift für Assyriologie und Vorderasiatische Archäologie

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## INTRODUCTION TO INDEX OF CATALOG FIELD NUMBERS

We have included the index of site field numbers assigned by Schmidt in the field so that the reader may readily find the text passage and text catalog references for individual items and the plate illustrations. Additional information not contained in the text catalog sections also is listed. For all objects from Surkh Dum-i-Luri, to which we have assigned our own area and level numbers in the text catalog sections, we have listed the plot, locus, and elevation as given by Schmidt in the excavation records. The reader can thus draw his own conclusions as to stratigraphy and spatial distribution independently from the interpretation that we have given above. Wherever the excavation records mention pertinent information other than the elevation, we give this in the elevation column, abbreviated as follows:
\(\left.$$
\begin{array}{ll}\begin{array}{l}\text { cmty } \\
\text { dist }\end{array} & \begin{array}{l}\text { cemetery } \\
\text { disturbed by unauthorized digging prior to excavation }\end{array} \\
\text { dump } & \begin{array}{l}\text { found on the dump from that plot } \\
\text { fill }\end{array} \\
& \begin{array}{l}\text { found in fill (or, in Schmidt's words, "refuse"). This seems to have }\end{array}
$$ <br>

floor \& found on floorchall phrase used in the absence of other particulars\end{array}\right\}\)| jamb | found in doorjamb |
| :--- | :--- |
| lo sl | lower slope |
| mdsl | midslope |
| nr | near (measured horizontally, not vertically) |
| sieve | found in sieving the dirt from that plot or locus |
| surf | found on surface |
| T. | Trench |
| top lay | top layer |
| upsl rm | upslope room |
| unstrat | unstratified |
| vill | village |
| wall | found in or below wall or during wall removal |

For objects from all sites the final allocation (museum and museum number) is given below in the right-hand column, as far as this information could be retrieved. The following abbreviations are used:

| MIB | Muze-ye Iran Bastan, Tehran |
| :--- | :--- |
| MMA | Metropolitan Museum of Art, New York |
| NY | American Institute for Iranian Art and Archaeology, New York |
| OI | Oriental Institute Museum, Chicago |
| Thompson | Mrs. William B. Thompson |
| UM | University Museum, Philadelphia |

Items registered by Schmidt but subsequently identified as fossils are not treated in our text.

Use of a parenthetical " $t$ " in the "Elev." column means context is mixed and the object is assigned to this period on typological grounds.

For the typological subdivisions in the "Chap. sect." column, also see catalogs of the finds at the end of each relevant chapter (15-33) for a complete description of the finds.

Abbreviations within parentheses in the "Description" column indicate the material from which each object is made, and are included within the list of General Abbreviations on page xvii. All objects without parenthetical abbreviations are pottery vessels and sherds.

# INDEX OF CATALOG FIELD NUMBERS 

| Cat. no. | Plot | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CHAMAN |  |  |  |  |  |  |
| Cha 1 | B | - | 10 | - | Sherds, 2 exx. | (?) |
| Cha 2 | C | - | 10 | - | Sherds, 36 exx. | (?) |
| Cha 3 | C | - | 10 | - | Sherds, 27 exx. | (?) |
| Cha 4 | C | - | 10 | - | Sherds, 8 exx. | (?) |
| Cha 5 | Environs | - | 21B.5.2 | 124f | Goblct (br) | (?) |
| CHAM ASIYAN |  |  |  |  |  |  |
| Chas 1 | A | Upsl rm | 25A.2.11 | - | Sherds | (?) |
| ChAs 2 | A | Ups1 rm | 25A.2.7 | 135p | Pot | (?) |
| ChAs 3 | A | Upsl rm | 25A.2.8 |  | Jar | (?) |
| Chas 4 | A | Upsl rm | 25A.2.10 | 136a | Flask | (?) |
| ChAs 5 | A | - | 27B. 12 | - | Fragments (ir) | (?) |
| ChAs 5 | A (NW) | - | 25A.2.11 | - | Sherds | (?) |
| ChAs 6 | W | - | 25A.2.11 | - | Sherds | (?) |
| ChAs 7 | A (SW) | - | 25A.2.11 | - | Sherds | (?) |
| Cat. no. | ArealTomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| CHUB JALEH |  |  |  |  |  |  |
| ChJal 1 | x 1 | -0.70 | 27C.1.5 | 160c | Earring (br) | (?) |
| ChJal 2 | x 1 | -0.70 | 27C.1.5 | cf. 160 c | Earring (br) | (?) |
| ChJal 3a | 0.5 m W of xl | - | 25A.2.4 | 135j, 139c | Jar | (?) |
| ChJal 3b | 0.5 m W of x 1 | - | 25A.2.6 | 135n, 139e | Cup | (?) |
| ChJal 3c | 0.5 m W of x 1 | - | 25A.2.1 | 135f, 139b | Bowl | OI A25358 |
| ChJal 4 | Area of bur. | - | 25A.2.11 | - | Sherds | (?) |
| ChJal 5 | 0.5 m W of xl | - | 27D. 11 | cf. 1670 | Pin (br/ir) | (?) |
| ChJal 6 | 0.5 m W of xl | - | 27D. 1 | - | Pin shank (br) | OI A25359 |
| ChJal 7 | 0.5 m W of x 1 | - | 25B. 1 | - | Missile (cl) | (?) |
| ChJal 8 | 0.5 m W of x 1 | - | 27D.11 | 1670 | Pin (br/ir) | (?) |
| ChJal 9 | 0.5 m W of xl | - | 31A. 10 | - | Bead (sh) | OI A25360 |
| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| CHIGHA SABZ |  |  |  |  |  |  |
| CS 1 | N7 | -8.50 | 20B.2.2.1 | 70 q | Whorl (cl) | MIB |
| CS 2 | N7 | -8.50 | 20B.2.2.1 | 1161 | Whorl (cl) | UM-43-25-225 |
| CS 3 | N7 | -8.40 (t) | 15C.3.1 | cf. 70 m | Whorl (cl) | MIB |
| CS 4 | N7 | -9.25 | 20A.2.2.1.3 | cf. 94 f | Goblet | MIB |
| CS 5 | N7 | -9.20 | 20A.2.1.2.1 | 92 n | Bowl | UM-43-25-7 |
| CS 6 | N7 | -8.85 (t) | 17A.2.1 | - | Blade (fl) | MIB |
| CS 7 | N7 | -8.85 | 17C | - | Bracelet (fa) | MIB |
| CS 8 | N7 | -9.05 (t) | 17A.3.5 | 74 i | Borer (fl) | UM-43-25-179 |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 9 | N7 | -9.05 | 21B.2.2 | 121g | Sieve (br) | UM-(?) |
| CS 10 | N7, x1 | -9.35 | 21B.3.4 | cf. 122j | Pin (br) | MIB |
| CS 11 | N7, x1 | -9.35 | 20A.2.4.5.3 | 100c | Pot | UM-43-25-24 |
| CS 12 | N7, x1 | -9.35 | 20A.2.4.5.3 | 100d | Pot | UM-43-25-26 |
| CS 13 | N7, $\times 1$ | -9.35 | 20A.2.1.1.3 | 92 d | Bowl | MIB |
| CS 14 | N7, xl | -9.35 | 20A.2.1.6.1 | 93b | Bowl | UM-43-25-8 |
| CS 15 | N7, x 1 | -9.35 | 20A.2.2.1.3 | cf. 94f | Goblet | MIB |
| CS 16 | N7, x1 | -9.35 | 20A.2.3.1.2 | 94 u | Cup | MIB |
| CS 17 | N7, x 1 | -9.35 | 20A.2.5.1.3 | 101a | Jar | MIB |
| CS 18 | N7, x3 | -9.00 | 20A.2.1.1.3 | 92 f | Bowl | MIB |
| CS 19 | N7, x 4 | -9.05 | 20A.2.2.1.3 | 94c | Goblet | UM-43-25-48 |
| CS 20 | N7, x 4 | -9.05 | 20A.2.1.6.1 | 93r | Bowl | MIB |
| CS 21 | N7, x 5 | -9.15 | 20A.2.7 | - | Sherd, jar(?) | MIB |
| CS 22 | N7, x5 | -9.15 | 20A.2.2.1.3 | cf. 94c | Goblet | MIB |
| CS 23 | N7 | -9.25 | 20B.2.5 | 117d | Spheroid (cl) | UM-43-25-172 |
| CS 24 | N7 | -9.25 (t) | 17A.2.1 | - | Blade (fl) | MIB |
| CS 25 | N7, x1 | -9.45 | 24A. 2 | cf. 1300:10 | Bead (ca) | UM-43-25-275 |
| CS 26 | N7 | -9.45 (t) | 15C.3.1 | - | Whorl (cl) | MIB |
| CS 27 | N7 | -9.45 (t) | 15C.8 | 117a | Fig., animal (cl) | UM-43-25-115 |
| CS 28 | N7, x2 | -9.10 | 21B.3.1 | 121j | Pin (br) | MIB |
| CS 29 | N7, x2 | -9.10 | 20A.2.5.4.1 | 103a | Jar | UM-43-25-62 |
| CS 30 | N7, x2 | -9.10 | 21B.5.2 | - | Goblet (br) | MIB |
| CS 31 | N7, x2 | -9.10 | 21B.1.3 | 121b | Dagger (br) | MIB |
| CS 32 | N7, x 2 | -9.10 | 20A.2.1.6.1 | cf. 93 r | Bowl | UM-43-25-21 |
| CS 33 | N7, x2 | -9.10 | 20A.2.5.1.3 | 100 g | Jar | UM-43-25-286 |
| CS 34 | N7, x2 | -9.10 | 20A.2.4.5.1 | 100a | Pot | MIB |
| CS 35 | N7, x 2 | -9.10 | 20A.2.2.1.3 | cf. 94 g | Goblet | MIB |
| CS 36 | N7, x2 | -9.10 | 20A.2.1.6.1 | 93 d | Bowl | MIB |
| CS 37 | N7, x2 | -9.10 | 20A.2.1.6.1 | 93n | Bowl | UM-43-25-20 |
| CS 38 | N7 | -9.30 | 21B.4.2 | 122n | Ring, finger (br) | UM-43-25-254 |
| CS 39 | N7 | -9.35 | 20A.2.5.4.1 | 103b | Jar | MIB |
| CS 40 | N7 | -9.45 | 21B.4.3 | cf. 122q | Earring (le) | UM-43-25-256 |
| CS 41 | N7 | -9.55 | 22B. 2 | - | Disc (st) | UM-43-25-216 |
| CS 42 | N7 | -9.45 | 20B.2.1 | cf. 116j | Missile (cl) | MIB |
| CS 43 | M7 | -8.00 | 27B. 12 | - | Metal lump (ir) | MIB |
| CS 44 | N7 | -9.40 | 21B.5.2 | cf. 124i | Goblet (br) | MIB |
| CS 45 | N7 | -9.50 (t) | 17A.3.5 | - | Borer(?) (ob) | MIB |
| CS 46 | N7 | -9.50 (t) | 15C.3.1 | - | Whorl (cl) | UM-43-25-123 |
| CS 47 | N7 | -9.50 (t) | 15C.3.1 | - | Whorl (cl) | MIB |
| CS 48 | N7 | -9.50 | 22B. 2 | 128 g | Disc (st) | UM-43-25-262 |
| CS 49 | N7 | -9.45 | 20B.2.2.2 | 116 m | Whorl (cl) | MIB |
| CS 50 | N7 | -9.50 (t) | 17A.3.3 | - | Blade, sickle (fl) | UM-43-25-180a |
| CS 51 | N7 | -9.50 (t) | 17A.2.2 | - | Flake (II) | UM-43-25-153 |
| CS 52 | N7 | -9.50 (t) | 17A.2.1 | - | Blade (fl) | UM-43-25-108b |
| CS 53 | N7 | -9.70 | 15A.1.4 | 68d | Bowl | UM-43-25-85 |
| CS 54 | N7, x 7 | -9.25 | 20A.2.2.1.3 | cf. 94e | Goblet | UM-43-25-43 |
| CS 55 | N7 | -9.55 | 20A.2.2.1.3 | 94h | Goblet | UM-43-25-41 |
| CS 56 | N7, 66 | -9.20 | 20A.2.4.1.1 | 94w | Pot | UM-43-25-73 |
| CS 57 | N7, x6 | -9.20 | 20A.2.4.3.1 | 98 b | Pot | (?) |
| CS 58 | N7, 66 | -9.20 | 20A.2.3.1.2 | cf. 94 t | Goblet | UM-43-25-69 |
| CS 59 | N7, x 6 | -9.20 | 20A.2.1.3.2 | 920 | Bowl | MIB |
| CS 60 | N7, x6 | -9.20 | 21B.5.1 | 123h, 126e | Bowl (br) | MIB |
| CS 61 | N7, x6 | -9.20 | 21B.5.2 | 124 g | Goblet (br) | MIB |
| CS 62 | N7, x 6 | -9.20 | 20A.2.4.5.3 | 107e | Pot | UM-43-25-25 |
| CS 63 | N7, x 6 | -9.20 | 21B.3.1 | cf. 121j | Pin (br) | UM-43-25-242 |
| CS 64 | M7 | -8.85 | 20B.2.5 | - | Discs, sherds | UM-43-25-174 |
| CS 65 | M7 | -8.60 (t) | 15C.3.1 | cf. 70 m | Whorl (cl) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 66 | M7 | -8.75 | 6 | - | Blade with loop handle (ir) | MIB |
| CS 67 | M7 | -8.75 | 6 | - | Sherd (ce?) | UM-43-25-260 |
| CS 68 | M7 | -8.75 | 22B. 3 | - | Whetstone (gy st) | MIB |
| CS 69 | M7 | -8.25 | 24A. 2 | 130q | Bead (ch?) | MIB |
| CS 70 | M7 | -8.25 | 6 | - | Sculpture, frgm (st) | MIB |
| CS 71 | M7 | -8.25 (t) | 17A.2.1 | - | Blade (fl) | MIB |
| CS 72 | M7 | -8.30 | 24 A .2 | cf. 130n:1 | Bead (lap la) | UM-43-25-277 |
| CS 73 | M7 | -8.30 (t) | 15C.3.1 | cf. 70a | Whorl (cl) | MIB |
| CS 74 | M7 | -8.30 | 20B.2.2.1 | cf. 116 k | Whorl (cl) | MIB |
| CS 75 | M7 | -8.45 (t) | 15C.3.1 | 70 c | Whorl (cl) | UM-43-25-124 |
| CS 76 | M7 | -8.30 (t) | 17A.2.1 | - | Blade (fl) | MIB |
| CS 77 | M7 | -8.30 (t) | 17A.2.1 | - | Blade (fl) | UM-43-25-181 |
| CS 78 | M7 | -8.30 (t) | 17A.1.1 | - | Blade(?) (fl) | UM-43-25-177 |
| CS 79 | M7 | -8.45 (t) | 15C.3.1 | 70 j | Whorl (cl) | UM-43-25-125 |
| CS 80 | M7 | -8.30 (t) | 15C.3.1 | cf. 70 m | Whorl (cl) | MIB |
| CS 81 | M7 | -8.45 | 15C. 7 | 721 | Token (cl) | MIB |
| CS 82 | M7 | -8.60 (t) | 17A.2.1 | - | Blade (fl) | UM-43-25-182 |
| CS 83 | M7 | -8.60 (t) | 17A.2.1 | - | Bladelct (fl) | MIB |
| CS 84 | M7 | -8.30 (t) | 17A.2.1 | - | Blade (II) | MIB |
| CS 85 | M7 | -8.60 (t) | 15C.3.1 | cf. 70 i | Whorl (cl) | UM-43-25-126 |
| CS 86 | M7 | -8.45 (t) | 17 A .4 | 74k | Core (fl) | (?) |
| CS 87 | M7 | -8.45 (t) | 15C.3.1 | cf. 70 n | Whorl (cl) | MIB |
| CS 88 | M7 | -8.30 (t) | 17A.2.1 | - | Blade (fl) | MIB |
| CS 89 | M7 | -8.45 (t) | 15C.3.1 | cf. 70 m | Whorl (cl) | UM-43-25-127 |
| CS 90 | M7 | -8.30 (t) | 15C.3.1 | cf. 70 m | Whorl (cl) | UM-43-25-128 |
| CS 91 | M7 | -8.45 (t) | 17A.3.4 | - | Blade, sickle (fl) | UM-43-25-183 |
| CS 92 | M7 | -8.45 (t) | 17A.2.1 | - | Blade (fl) | UM-43-25-184 |
| CS 93 | M7 | -8.95 | 21B.5.3 | 124k | Jug (br) | (?) |
| CS 94 | M7 | -8.80 | 20B.2.3 | - | Fig., animal (cl) | UM-(?) |
| CS 95 | M7 | -8.80 (t) | 17A.2.1 | - | Blade (fi) | MIB |
| CS 96 | M7 | -8.80 (t) | 15C.3.1 | cf. 70c | Whorl (cl) | UM-43-25-129 |
| CS 97 | M7 | -8.90 | 15C. 8 | - | Fig., animal (cl) | UM-(?) |
| CS 98 | M7 | -8.90 | 20B.2.1 | 116j | Missile (cl) | UM-43-25-165 |
| CS 99 | M7 | -8.90 (t) | 17A.3.1 | 74 f | Blade (fl) | MIB |
| CS 100 | M7 | -8.90 (t) | 17A.3.4 | - | Blade, sickle (fl) | UM-43-25-185 |
| CS 101 | M7 | -8.90 | 20B.2.5 | - | Toggle (cl) | MIB |
| CS 102 | M7 | -8.90 (t) | 17A.2.1 | - | Blade (fl) | MIB |
| CS 103 | M7 | -8.80 | 27B. 2 | - | Knife (ir) | UM-43-25-251 |
| CS 104 | M7, x3 | -9.00 | 21B.1.1 | 120a | Axe (br) | MIB |
| CS 105 | M7, x3 | -9.00 | 21B.1.3 | - | Dagger (br) | MIB |
| CS 106 | M7, x3 | -9.00 | 21B.5.2 | 124a | Goblet (br) | UM-(?) |
| CS 107 | M7, x3 | -9.00 | 20A.2.1.5.1 | 93a | Bowl | UM-43-25-10 |
| CS 108 | M7, x3 | -9.00 | 20A.2.4.1.4 | 95 e | Pot | UM-43-25-54 |
| CS 109 | M7, x3 | -9.00 | 20A.2.4.3.2 | 98 c | Pot | UM-43-25-76 |
| CS 110 | M7, x3 | -9.00 | 20A.2.1.3.1 | cf. 92 q | Bowl | UM-43-25-9 |
| CS 111 | M7, x 4 | -8.25 | 20A.2.4.1.4 | 96 c | Pot | MIB |
| CS 112 | M7, x 4 | -8.25 | 20A.2.1.6.2 | cf. 93 t | Bowl | MIB |
| CS 113 | M7, x4 | -8.25 | 20A.2.2.1.3 | cf. 94 h | Goblet | MIB |
| CS 114 | M7, x4 | -8.25 | 20A.2.2.1.3 | cf. 941 | Goblet | MIB |
| CS 115 | M7, x4 | -8.25 | 20A.2.1.2.3 | cf. 92 m | Bowl | UM-43-25-3 |
| CS 116 | M7, x4 | -8.25 | 21B.3.1 | cf. 121 j | Pin (br) | UM-(?) |
| CS 117 | M7, x4 | -8.25 | 20A.2.1.2.3 | cf. 92 m | Bowl | UM-43-25-2 |
| CS 118 | M7, $\times 4$ | -8.25 | 20A.2.1.2.3 | cf. 92 m | Bowl | UM-(?) |
| CS 119 | M7, x 4 | -8.25 | 20A.2.1.2.3 | cf. 92 m | Bowl | UM-43-25-1 |
| CS 120 | M7, x 4 | -8.25 | 20A.2.1.2.3 | cf. 92 m | Bowl | MIB |
| CS 121 | M7, x4 | -8.25 | 20A.2.1.2.3 | cf. 92 m | Bowl | MIB |
| CS 122 | M7, x4 | -8.25 | 20A.2.4.1.4 | 95 i | Pot | MIB |


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| CS 123 | M7, $\times 4$ | -8.25 | 20A.2.4.2.1 | 97 f | Pot | UM-43-25-55 |
| CS 124 | M7, $\times 4$ | -8.25 | 20A.2.7 | - | Sherd | MIB |
| CS 125 | M7, $\times 4$ | -8.25 | 21B.3.1 | cf. 121j | Pin (br) | UM-(?) |
| CS 126 | M7, x 4 | -8.25 | 20A.2.2.1.3 | 941 | Goblet | UM-43-25-46 |
| CS 127 | M7, $\times 4$ | -8.25 | 21B.5.1 | 123f, 126a | Bowl (br) | MIB |
| CS 128 | M7, x 4 | -8.25 | 21B.3.1 | cf. 121i | Pin (br) | MIB |
| CS 129 | M7, x2 | -8.35 | 21B.1.3 | 120c | Dagger (br) | UM-43-25-234 |
| CS 130 | M7, x2 | -8.35 | 21B.1.1 | 125d | Axe (br) | UM-43-25-233 |
| CS 131 | M7, x2 | -8.55 | 21B.3.1 | cf. 121 i | Pin (br) | MIB |
| CS 132 | M7, x2 | -8.35 | 20A.2.1.5.1 | 92s | Bowl | MIB |
| CS 133 | M7, x 2 | -8.40 | 20A.2.2.1.3 | cf. 94 f | Goblet | MIB |
| CS 134 | M7, x2 | -8.40 | 20A.2.1.6.1 | 93k | Bowl | MIB |
| CS 135 | M7, x1 | -8.35 | 20A.2.2.1.3 | cf. 94 f | Goblet | UM-43-25-42 |
| CS 136 | M7, x 1 | -8.35 | 20A.2.4.1.2 | 95a | Pot | UM-43-25-29 |
| CS 137 | M7, $\times 1$ | -8.35 | 20A.2.4.5.1 | cf. 99e | Pot | UM-43-25-28 |
| CS 138 | M7, x 1 | -8.45 | 20A.2.1.6.1 | 93g | Bowl | UM-43-25-23 |
| CS 139 | M7, x 2 | -8.35 | 20A.2.2.1.3 | cf. 94 f | Goblet | UM-43-25-49 |
| CS 140 | M7, x1 | -8.40 | 20A.2.2.1.3 | cf. 94 f | Goblet | UM-43-25-44 |
| CS 141 | L7 | -7.25 (t) | 15A.5.1 | 69k | Jar lug | MIB |
| CS 142 | L7 | -8.00 | 15C.3.1 | cf. 70 c | Whorl (cl) | MIB |
| CS 143 | L7 | -8.00 | 15C.3.1 | 71a | Whorl (cl) | MIB |
| CS 144 | L7 | -8.00 | 17A.5.1 | cf. 75 a | Mortar (st) | UM-43-25-206 |
| CS 145 | L7 | -8.00 | 17A.5.1 | 75a | Mortar (st) | MIB |
| CS 146 | L7 | -7.80 | 15C.3.1 | cf. 70 n | Whorl (cl) | UM-43-25-130 |
| CS 147 | L7 | -7.80 | 15C.3.1 | cf. 701 | Whorl (cl) | UM-43-25-131 |
| CS 148 | L7 | -7.80 | 15C.3.1 | 71 b | Whorl (cl) | MIB |
| CS 149 | L7 | -7.80 | 17A.1.2 | - | Flake (fl) | MIB |
| CS 150 | L7 | -7.80 | 15C.3.1 | cf. 70 c | Whorl (cl) | MIB |
| CS 151 | L7 | -7.80 | 17A.3.4 | - | Blade, sicklc (cht) | UM-43-25-187 |
| CS 152 | L7 | -7.80 | 17A.5.4 | - | Celt (fl) | UM-43-25-205 |
| CS 153 | L7 | -7.75 | 15C.3.1 | cf. 70 j | Whorl (cl) | MIB |
| CS 154 | L7 | -7.80 | 15C.3.1 | 71c | Whorl (cl) | UM-43-25-132 |
| CS 155 | L7 | -7.80 | 15A.3.2.2 | cf. 69 f | Sherd, pot(?) | MIB |
| CS 156 | L7 | -7.80 | 15A.3.2.2 | cf. 69 f | Sherd, pot(?) | UM-43-25-89 |
| CS 157 | L7 | -7.80 | 15A.3.1.2 | cf. 69a | Sherd, pot(?) | MIB |
| CS 158 | L7 | -7.75 | 17A.3.4 | - | Blade, sickle (cht) | UM-43-25-186 |
| CS 159 | L7 | -7.65 | 15C.3.1 | 70b | Whorl (cl) | UM-43-25-133 |
| CS 160 | L7 | -7.75 | 15C.3.1 | cf. 71 f | Whorl (cl) | UM-43-25-134 |
| CS 161 | L7 | -7.65 | 15A.3.1.2 | cf. 69a | Sherd | MIB |
| CS 162 | L7 | -7.80 | 15C.3.1 | cf. 70 j | Whorl (cl) | UM-43-25-135 |
| CS 163 | L7 | -7.70 | 15C.3.1 | 700 | Whorl (cl) | UM-43-25-136 |
| CS 164 | L7 | -7.95 | 15C.3.1 | 70 i | Whorl (cl) | UM-43-25-137 |
| CS 165 | L7 | -7.80 | 15C.3.1 | 70h | Whorl (cl) | UM-43-25-138 |
| CS 166 | L7, x1 | -8.10 | 25A.1.4 | cf. 135d | Jar | MIB |
| CS 167 | L7, x 1 | -8.10 | 25A.1.4 | 135d | Jar | UM-43-25-70 |
| CS 168 | L7, x 1 | -8.10 | 25A.1.1 | 135a | Jar, spouted | MIB |
| CS 169 | L7, x 1 | -8.10 | 25A.2.1 | 135c | Jar | UM-43-25-75 |
| CS 170 | L7, x 1 | -8.10 | 25A.1.1 | 135b, 139a | Jar, spouted | MIB |
| CS 171 | L7, xl | -8.10 | 25A.1.1 | cf. 135b | Jar, spouted | UM-43-25-82 |
| CS 172 | L7, xl | -8.10 | 25A.1.3 | cf. 135c | Jar | MIB |
| CS 173 | L7, x 1 | -8.10 | 25A.1.1 | cf. 135b | Jar, spouted | UM-43-25-81 |
| CS 174 | L7, x 1 | -8.10 | 31A. 6 | - | Bead (ca) | UM-43-25-271 |
| CS 175:1 | L7, x 1 | -8.10 | 31 A .32 | - | Bead (ca) | UM-42-25-210 |
| CS 175:2 | L7, x 1 | -8.10 | 31A. 32 | - | Bead (ca) | UM-43-25-210 |
| CS 175:3 | L7, xl | -8.10 | 31A. 16 | - | Bead (fa) | UM-43-25-210 |
| CS 175:4 | L7, x 1 | -8.10 | 29B. 1 | 215a | Pounder (st) | UM-43-25-210 |
| CS 175:3 | L7, x1 | -8.10 | 31 A .16 | - | Bead (fa) | UM-43-25-210 |
| CS 175:4 | L7, xl | -8.10 | 298.1 | 215a | Pounder (st) | UM-43-25-210 |


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| CS 176 | L7 | -8.00 | 17A.3.1 | - | Blade (cht) | MIB |
| CS 177 | L7 | -7.90 | 15C.3.1 | 70 g | Whorl (cl) | MIB |
| CS 178 | L7 | -7.90 | 15C.3.1 | 71d | Whorl (cl) | MIB |
| CS 179 | L7 | -7.90 | 15C.3.1 | 70a | Whorl (cl) | MIB |
| CS 180 | L7 | -7.90 | 18A.2.1 | 76 b | Awl (bo) | MIB |
| CS 181 | L7 | -7.90 | 17A.2.1 | - | Blade (fl) | MIB |
| CS 182 | L7 | -7.80 | 15C.3.1 | cf. 70b | Whorl (cl) | UM-43-25-139 |
| CS 183 | L7 | -8.25 | 15C.3.1 | 71 e | Whorl (cl) | MIB |
| CS 184 | L7 | -8.25 | 15C.3.1 | cf. 70 g | Whorl (cl) | UM-43-25-140 |
| CS 185 | L7 | -8.20 | 17A.1.1 | - | Blade (fl) | MIB |
| CS 186 | L7 | -8.20 | 17A.2.1 | - | Blade (cht) | MIB |
| CS 187 | L7 | -8.20 | 15C. 1 | 70p | Disc (cl) | MIB |
| CS 188 | L7 | -8.20 | 15C. 4 | cf. 72 g | Missile (cl) | MIB |
| CS 189 | L7 | -8.25 | 17A.1.1 | - | Blade (fl) | UM-43-25-188 |
| CS 190 | L7 | -8.25 | 15C. 7 | - | Token (cl) | MIB |
| CS 191 | L7, x 2 | -8.05 | 25A.1.2 | 135e | Cup | UM-43-25-74 |
| CS 192 | L7 | -8.25 | 15C.3.1 | cf. 70 b | Whorl (cl) | MIB |
| CS 193 | L7 | -8.25 | 15C.3.1 | cf. 70a | Whorl (cl) | UM-43-25-141 |
| CS 194 | L7 | -8.50 | 15C.3.1 | 71 f | Whorl (cl) | MIB |
| CS 195 | L7 | -8.50 | 15C.3.1 | cf. 70 b | Whorl (cl) | MIB |
| CS 196 | L7 | -8.50 | 18A.2.2 | - | Awl (bo) | MIB |
| CS 197 | L7 | -8.10 | 15A.3.3 | 681 | Pot base, pedestal | UM-(?) |
| CS 198 | L7 | -8.85 | 18A.2.2 | $76 c$ | Awl (bo) | MIB |
| CS 199 | L7 | -8.85 | 17A.5.5 | - | Sphere (alab) | MIB |
| CS 200 | L7 | -8.85 | 17A.2.1 | 74b | Blade (fl) | MIB |
| CS 201 | L7 | -8.85 | 17A.3.3 | 74h | Blade, sickle (cht) | UM-43-25-189 |
| CS 202 | L7 | -8.85 | 17A.3.4 | - | Blade, sickle (cht) | UM-43-25-190 |
| CS 203 | L7 | -8.85 | 18A. 6 | - | Shell, unused | MIB |
| CS 204 | L7 | -8.85 | 18A.2.1 | cf. 76 b | Awl (bo) | UM-43-25-226 |
| CS 205 | L7 | -8.85 | 17A.6.1 | - | Bead (st) | MIB |
| CS 206 | L7 | -9.20 | 15C.3.1 | cf. 70 i | Whorl (cl) | MIB |
| CS 207 | L7 | -9.10 | 17A.3.4 | - | Blade, sickle (fl) | UM-43-25-191 |
| CS 208 | L7 | -9.10 | 15C. 5 | - | Ring (cl) | UM-43-25-264 |
| CS 209 | L7 | -9.10 | 15C. 6 | 72k | Pendant (cl) | UM-43-25-266 |
| CS 210 | L7, pit 1 | -8.25 | 20A.3.5.2.1 | 112c | Jar | UM-43-25-36 |
| CS 211 | L7, pit 1 | -8.25 | 20A.3.2.2.1 | cf. 109j | Goblet | MIB |
| CS 212 | L7, pit 1 | -8.25 | 20A.3.2.2.1 | cf. 109j | Goblet | UM-43-25-34 |
| CS 213 | L7, pit 1 | -8.25 | 20A.3.11 | - | Sherds | MIB |
| CS 214 | L7, pit 2 | -8.75 | 15A.2.1 | cf. 68 e | Goblet | MIB |
| CS 215 | L7, pit 2 | -8.75 | 15A.3.2.2 | 69 g | Sherd, pot | MIB |
| CS 216 | L7, pit 2 | -8.75 | 15A.5.3 | - | Sherds | MIB |
| CS 217 | K7 | -5.35 | 22B. 4 | - | Tool, grinding (st) | UM-43-25-207 |
| CS 218 | K7 | -5.25 | 24B.1 | 131:xi | Stamp (cl) | MIB |
| CS 219 | K7 | -6.05 | 23B | - | Horn (bo) | UM-43-25-222 |
| CS 220 | K7 | -6.25 (t) | 15A.1.2 | 68b | Bowl | UM-(?) |
| CS 221 | K7 | -6.05 | 22B. 4 | - | Tool, grinding (st) | MIB |
| CS 222 | K7 | -6.15 (t) | 15A.3.1.1 | 67g | Pot | UM-43-25-13 |
| CS 223 | K7 | -6.05 | 17A.2.1 | - | Blade (cht?) | MIB |
| CS 224 | K7 | -6.05 | 17A.2.1 | - | Blade (cht?) | MIB |
| CS 225 | K7 | -6.25 (t) | 15A.3.1.2 | cf. 67a | Pot(?) | UM-43-25-90 |
| CS 226 | K7 | -6.80 (t) | 15A.2.2.2 | 67d | Goblet | MIB |
| CS 227 | K7 | -6.80 (t) | 15C.3.1 | cf. 70 h | Whorl (cl) | UM-43-25-142 |
| CS 228 | K7 | -6.80 | 20B.2.3 | - | Fig., animal (cl) | MIB |
| CS 229 | K7 | -6.80 | 20B.2.4 | 118 f | Fig., human (cl) | MIB |
| CS 230 | K7 | -6.80 (t) | 15C.3.1 | 71 g | Whorl (cl) | MIB |
| CS 231 | K7 | -6.80 (t) | 15C.3.1 | 71h | Whorl (cl) | MIB |
| CS 232:1 | K7 | -6.85 | 15A.3.1.2 | 69a, cf. 69f | Sherd, pot(?) | UM-43-25-93 |
| CS 232:2 | K7 | -6.85 | 15A.3.2.2 | cf. 69 f | Sherd, pot(?) | UM-43-25-93 |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 232:3 | K7 | -6.85 | 15A.3.2.2 | cf. 69 f | Sherd, pot(?) | UM-43-25-93 |
| CS 232:4 | K7 | -6.85 | 15A.3.2.2 | cf. 69 f | Sherd, pot(?) | UM-43-25-93 |
| CS 233 | K7 | -6.85 | 18A.4.1 | - | Horn (bo) | MIB |
| CS 234:1 | K7 | -7.00 | 15A.3.1.2 | cf. 69a | Sherd, pot(?) | UM-43-25-91 |
| CS 234:2 | K7 | -7.00 | 15A.3.2.2 | cf. 69 f | Sherd, pot(?) | UM-43-25-91 |
| CS 234:3 | K7 | -7.00 | 15A.3.2.2 | 69 f | Sherd, pot(?) | UM-43-25-91 |
| CS 234:4 | K7 | -7.00 | 15A.3.2.2 | cf. 69 f | Sherd, pot(?) | UM-43-25-91 |
| CS 235 | K7 | -7.00 | 15C.3.1 | 701 | Whorl (cl) | MIB |
| CS 236 | K7 | -7.00 | 15C.3.1 | - | Whorl (cl) | MIB |
| CS 237 | K7 | -7.00 | 17A.3.4 | - | Blade, sickle (ch?) | UM-43-25-192 |
| CS 238 | K7 | -7.10 | 18A.4.2 | 76 e | Horn (bo) | MIB |
| CS 239 | K7 | -7.45 | 20B.2.4 | 118 e | Fig., human (cl) | UM-43-25-108 |
| CS 240 | K7 | -7.60 | 15A.1.1.1 | 67a | Bowl | MIB |
| CS 241 | N7 | -7.55 | 18A.2.2 | cf. 76 c | Awl (bo) | UM-43-25-229 |
| CS 242 | K7 | -7.55 | 15A.1.1.2 | cf. 67a | Bowl | MIB |
| CS 243:1 | K7 | -7.55 | 15A.3.2.2 | - | Sherd, pot(?) | UM-43-25-94 |
| CS 243:2 | K7 | -7.55 | 15A.3.1.2 | cf. 69f | Sherd, pot(?) | UM-43-25-94 |
| CS 244 | K7 | -7.60 | 15C.3.1 | 71 i | Whorl (cl) | UM-43-25-143 |
| CS 245 | K7 | -7.60 | 15C.3.1 | 70 m | Whorl (cl) | MIB |
| CS 246 | K7 | -7.60 | 17A.3.4 | 74 c | Blade, sickle (cht?) | UM-43-25-193 |
| CS 247 | K7 | -7.75 | 15A.3.1.2 | 69 b | Sherd, pot(?) | UM-43-25-95 |
| CS 248 | K7 | -7.75 | 15A.1.1.2 | cf. 67 a | Sherd, bowl(?) | MIB |
| CS 249 | K7 | -7.75 | 17A.6.2 | 74 m | Pendant (ch?) | UM-43-25-267 |
| CS 250 | K7 | -7.75 | 15C.3.1 | 70 f | Whorl (cl) | UM-43-25-144 |
| CS 251 | K7 | -7.70 | 15C. 7 | 72 m | Token (cl) | UM-43-25-178 |
| CS 252 | K7 | -7.70 | 15C. 8 | - | Fig., animal (cl) | UM-43-25-111 |
| CS 253 | K7 | -7.75 | 18A.4.1 | - | Horn (bo) | UM-43-25-224a |
| CS 254 | K7 | -7.85 | 15C.3.1 | 70n | Whorl (cl) | UM-43-25-145 |
| CS 255 | K7 | -7.90 | 18A.2.1 | cf. 76 b | Awl (bo) | MIB |
| CS 256 | K7 | -7.90 | 18A.2.1 | cf. 76 b | Awl (bo) | UM-43-25-227 |
| CS 257 | K7 | -7.90 | 18A.1 | 76a | Pin (bo) | MIB |
| CS 258 | K7 | -7.90 | 18A. 1 | cf. 76 a | Pin (bo) | (?) |
| CS 259 | K7 | -7.90 | 17A.2.2 | 74e | Flake (cht?) | MIB |
| CS 260 | K7, x1 | -7.70 | 20A.2.2.1.3 | cf. 941 | Goblet | MIB |
| CS 261 | K7, x 1 | -7.70 | 20A.2.2.1.3 | cf. 94j | Goblet | UM-43-25-35 |
| CS 262 | K7, x 1 | -7.70 | 21B.4.1.2 | cf. 122 k | Bracelet (br) | MIB |
| CS 263 | K7, x1 | -7.70 | 21B.4.3 | cf. 122q | Earring (br) | UM-43-25-250 |
| CS 264 | K7, x1 | -7.70 | 24A. 2 | cf. 130q | Bead (ch) | UM-43-25-278 |
| CS 265 | K7 | -8.00 | 15C.3.1 | 70 e | Whorl (cl) | UM-43-25-146 |
| CS 266 | K7 | -8.00 | 15C.3.1 | 70d | Whorl (cl) | UM-43-25-147 |
| CS 267 | K7 | -8.00 | 17A.6.2 | - | Pendant (ch) | MIB |
| CS 268 | J7 | -3.15 | 20A.2.2.1.2 | cf. 94b | Goblet | UM-43-25-292 |
| CS 269 | J7 | -3.20 | 21B.3.1 | cf. 121j | Pin (br) | UM-43-25-243 |
| CS 270 | J7 | -3.85 | 25A.3.14 |  | Vessel, bull-shaped | MIB |
| CS 271 | J7 | -3.90 | 25A.3.14 | 140d | Vessel, bull-shaped | MIB |
| CS 272 | J7 | -4.40 | 32A.2.2/33B | 235:69, 259c | Cyl. seal (st) | MIB |
| CS 273 | J7 | -4.40 | 21B.4.1.1 | cf. 1221 | Bracelet (br) | UM-(?) |
| CS 274 | J7 | -4.80 | 22B. 2 | - | Disc (alab) | MIB |
| CS 275 | J7, x4 | -4.55 | 21B.3.2 | 1211 | Pin (br) | UM-43-25-238a |
| CS 276 | J7, x4 | -4.55 | 21B.3.2 | 122a | Pin (br) | MIB |
| CS 277 | J7, x 4 | -4.55 | 21B.3.2 | 122b | Pin (br) | MIB |
| CS 278 | J7, x4 | -4.55 | 21B.3.2 | 122c | Pin (br) | UM-43-25-239 |
| CS 279 | J7, x 4 | -4.55 | 21B.3.2 | 122d | Pin (br) | UM-43-25-240 |
| CS 280 | J7, x 4 | -4.55 | 20A.2.4.1.4 | 96 d | Pot | MIB |
| CS 281 | J7, x 4 | -4.55 | 20A.2.1.6.1 | 93 e | Bowl | UM-43-25-22 |
| CS 282 | J7, x 4 | -4.55 | 20A.2.1.6.1 | 107c | Bowl | MIB |
| CS 283 | J7, x4 | -4.55 | 20A.2.4.4.1 | cf. 97e | Pot | UM-43-25-57 |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 284 | J7, x4 | -4.55 | 21B.3.1 | 121i | Pin (br) | MIB |
| CS 285 | J7, x 4 | -4.55 | 21B.5.1 | 123i, 127a | Bowl (br) | MIB |
| CS 286 | J7, x 4 | -4.55 | 20A.2.2.1.3 | cf. 94 g | Goblet | UM-43-25-45 |
| CS 287 | J7, x2 | -4.65 | 21B.5.1 | 123j, 127b | Bowl (br) | MIB |
| CS 288 | J7, x2 | -4.65 | 21B.4.2 | 1220 | Ring, finger (si) | MTB |
| CS 289 | J7, x2 | -4.65 | 21B.4.2 | cf. 1220 | Ring, finger (si) | UM-43-25-253 |
| CS 290 | J7, x2 | -4.65 | 21B.4.2 | - | Ring, finger (si) | UM-(?) |
| CS 291 | J7, x2 | -4.65 | 21B.3.1 | - | Pin (br) | MIB |
| CS 292 | J7, x2 | -4.65 | 21B.3.1 | cf. 121 i | Pin (br) | UM-(?) |
| CS 293 | J7, x2 | -4.65 | 21B.3.1 | cf. 121i | Pin (br) | MIB |
| CS 294 | J7, x2 | -4.65 | 21B.3.1 | cf. 121i | Pin (br) | UM-(?) |
| CS 295 | J7, x2 | -4.65 | 21B.3.1 | cf. 121i | Pin (br) | MIB |
| CS 296 | J7, x2 | -4.65 | 21B.3.1 | cf. 121i | Pin (br) | MIB |
| CS 297 | J7, x 2 | -4.65 | 20A.2.1.1.4 | 92i | Bowl (br) | UM-43-25-5 |
| CS 298 | J7, x2 | -4.65 | 20A.2.1.1.4 | cf. 92i | Bowl (br) | UM-43-25-4 |
| CS 299 | J7, x2 | -4.65 | 20A.2.2.1.3 | 94 i | Goblet | MIB |
| CS 300 | J7, x2 | -4.65 | 21B.5.2 | 124i | Goblet (br) | UM-43-25-232 |
| CS 301 | J7, x2 | -4.65 | 20A.2.5.1.3 | cf. 101d | Jar | UM-43-25-64 |
| CS 302 | J7, x2 | -4.65 | 20A.2.4.1.4 | cf. 96b | Pot | MIB |
| CS 303 | J7, x2 | -4.65 | 20A.2.2.1.3 | 94j | Goblet | UM-43-25-37 |
| CS 304 | J7, x2 | * -4.85 | 20A.2.4.1.4 | 95 f | Pot | MIB |
| CS 305 | J7, x2 | -4.65 | 20A.2.4.4.3 | 99c | Pot | UM-43-25-63 |
| CS 306 | J7, x2 | -4.65 | 21B.5.2 | 124h | Goblet (br) | MIB |
| CS 307 | J7, x2 | -4.65 | 23B | - | Pins (bo) | MIB |
| CS 308 | J7, x3 | -4.45 | 20A.2.2.1.3 | cf. 94c | Goblet | UM-43-25-52 |
| CS 309 | J7, x 3 | -4.45 | 20A.2.2.1.3 | 94k | Goblet | MIB |
| CS 310 | J7 | -4.65 (t) | 17A.3.5 | - | Borer (fl) | UM-43-25-194 |
| CS 311 | J7 | -4.85 | 20A.2.5.2.2 | 102b | Jar | MIB |
| CS 312 | J7 | -4.80 | 23B | 129c | Pin (bo) | MIB |
| CS 313 | J7 | -3.85 | 20A.2.7 | 106b | Sherds | MIB |
| CS 314 | J7 | -4.60 | 21B.4.2 | - | Ring, finger (br) | MIB |
| CS 315 | J7 | -5.25 | 15A.2.2.1 | cf. 67b | Goblet | UM-43-25-14 |
| CS 316 | J7 | -5.40 | 15A.2.2.1 | 68 h | Goblet | UM-43-25-83 |
| CS 317 | J7 | -5.50 | 15C.3.1 | 71 j | Whorl (cl) | UM-43-25-148 |
| CS 318 | J7 | -4.35 | 21B.1.2 | 120b | Celt (br) | MIB |
| CS 319 | J7 | -4.35 | 21B.1.3 | 121e | Dagger (br) | MIB |
| CS 320 | J7, x6 | -4.40 | 21B.3.1 | cf. 121i | Pin (br) | UM-(?) |
| CS 321 | J7, x6 | -4.40 | 21B.4.3 | 122s | Earring (si) | MIB |
| CS 322 | J7, x6 | -4.40 | 24A. 2 | cf. 130i | Bead (ca) | MIB |
| CS 323 | J7, x6 | -4.40 | 21B.4.2 | - | Ring, finger (br) | MIB |
| CS 324 | J7, x6 | -4.40 | 20A.2.1.1.3 | 92g | Bowl | MIB |
| CS 325 | J7, x6 | -4.40 | 20A.2.5.1.3 | 101d | Jar | UM-43-25-59 |
| CS 326 | J7, x6 | -4.40 | 20A.2.5.1.3 | 101b | Jar | UM-43-25-53 |
| CS 327 | J7, x6 | -4.40 | 20A.2.4.4.1 | 98e | Jar | UM-43-25-56 |
| CS 328 | J7 | -4.60 (t) | 15A.5.2 | 680 | Lid | UM-43-25-175 |
| CS 329 | J7 | -4.60 (t) | 15A.5.2 | cf. 680 | Lid | MIB |
| CS 330 | J7 | -4.50 (t) | 15B.1.3 | 68 c | Bowl | UM-43-25-16 |
| CS 331 | J7 | -4.60 | 22B. 4 | - | Pounder (st) | MIB |
| CS 332 | J7 | -5.70 | 15C. 2 | - | Oval object (cl) | MIB |
| CS 333 | J7 | -5.80 | 15C. 2 | - | Oval object (cl) | UM-43-25-173 |
| CS 334 | J7 | -5.70 | 15C.3.2 | 71n | Whorl (cl) | MIB |
| CS 335 | J7 | -5.70 | 17A.3.4 | - | Blade, sickle (fl) | UM-43-25-195 |
| CS 336 | J7 | -5.70 | 17A.3.2 | - | Blade, sickle (cht?) | UM-43-25-196 |
| CS 337 | J7 | -5.50 | 17A.3.4 | - | Blade, sickle (cht?) | UM-43-25-197 |
| CS 338 | J7, x6(?) | -5.70 | 21B.4.3 | 122t | Earring (si) | MIB |
| CS 339 | J7, x6(?) | -5.70 | 21B.4.3 | 122q | Earring (si) | MIB |
| CS 340 | J7 | -5.85 | 17A.5.5 | - | Sphere (alab) | UM-43-25-272 |
| CS 341 | J7 | -5.75 | 15C. 8 | - | Fig., animal (cl) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 342 | J7 | -5.85 | 15A.3. ${ }^{\text {. } 2}$ | cf. 67 a | Sherd, pot(?) | MIB |
| CS 343 | J7 | -5.50 | 15A.3.2.1 | 69 e | Pot | MIB |
| CS 344 | J7 | -5.10 (t) | 15A.2.2.1 | 67 c | Goblet | UM-43-25-15 |
| CS 345 | J7 | -6.05 | 15C.3.1 | 70 u | Whorl (cl) | MIB |
| CS 346 | J7 | -6.15 | 15C.3.1 | 70k | Whorl (cl) | UM-43-25-149 |
| CS 347 | J7 | -6.00 | 15C.3.1 | 71k | Whorl (cl) | UM-43-25-150 |
| CS 348 | J7 | -6.05 | 15C. 4 | 72 g | Missile, sling (cl) | MIB |
| CS 349 | J7 | -6.15 | 15C.3.1 | cf. 70 u | Whorl (cl) | MIB |
| CS 350 | J7 | -6.10 | 18A. 6 | - | Shell, unused | UM-43-25-223a |
| CS 351 | J7 | -6.10 | 15C. 5 | - | Ring (cl) | UM-43-25-263 |
| CS 352 | J7, x7 | -5.50 | 17A.5.2 | 75b | Abrader (st) | MIB |
| CS 353 | J7, x7 | -5.50 | 18A. 5 | 76 f | Pendant (tooth) | UM-43-25-221 |
| CS 354:1 | J7, x7 | -5.50 | 17A.6.1 | 130r:1 | Bead (lmst) | UM-43-25-279 |
| CS 354:2 | J7, x7 | -5.50 | 17A.6.1 | 130r:2 | Bead (lmst) | UM-43-25-279 |
| CS 355 | J7, x8 | -6.80 | 21 A. 5 | 125b | Vessel (br) | MIB |
| CS 356 | J7, x8 | -6.80 | 20A.1.3.2.2 | 80f | Pot | UM-43-25-288 |
| CS 357 | J7, x8 | -6.80 | 20A.1.5.1.2 | 83a | Jar | MIB |
| CS 358 | J7, x8 | -6.80 | 20A.1.5.1.1 | 82c | Jar | MIB |
| CS 359 | J7, 88 | -6.80 | 20A.1.5.1.3 | 83c | Jar | MIB |
| CS 360 | J7, x8 | -6.80 | 21A.4.3 | - | Earring (si) | MIB |
| CS 361 | J7 | -6.10 | 15C.3.1 | cf. 701 | Whorl (cl) | UM-43-25-151 |
| CS 362 | J7 | -6.15 | 18A. 3 | 76d | Pick (bo) | UM-43-25-228 |
| CS 363 | J7 | -6.15 | 18A. 6 | - | Shell, unused | UM-43-25-223b |
| CS 364 | J7 | -6.00 | 17A.3.4 | - | Blade, sickle (cht?) | UM-43-25-198 |
| CS 365 | J7 | -4.55 (t) | 15A.4.3 | 68n | Jar | MIB |
| CS 366 | J7, pit 1 | -4.65 | 20B.2.3 | - | Fig., animal (cl) | MIB |
| CS 367 | J7, pit 3 | (?) | 20A.2.2.1.2 | cf. 94b | Goblet | MIB |
| CS 368 | J7 | -4.40 | 25A.3.14 | 140 e | Vessel, bull-shaped | UM-43-25-119 |
| CS 369 | J7, x2 | -4.65 | 20A.2.4.2.1 | 97 e | Pot | UM-43-25-287 |
| CS 370 | J7 | -4.40 | 21B.4.1.1 | cf. 1221 | Bracelet (br) | MIB |
| CS 371 | J7 | -5.40 | 17A.5.3 | 75 c | Whetstone (gy-blk) | UM-43-25-211 |
| CS 372 | J7 | -5.45 | 15C. 5 | 72h | Ring (cl) | MIB |
| CS 373 | J7 | -5.45 | 17A.1.1 | - | Bladelet (ob) | MIB |
| CS 374 | J7, x 4 | -4.55 | 20A.2.1.1.4 | cf. 92 i | Bowl | UM-(?) |
| CS 375 | J7, x8 | -6.80 | 20A.2.4.1.4 | 96 e | Pot | MIB |
| CS 376 | I7 | -2.20 | 25A.3.6 | 136i | Jar | MIB |
| CS 377 | 17 | -2.20 | 32A.1 | 233:46 | Cyl. seal (por?) | MIB |
| CS 378 | 17 | -2.05 (t) | 15C.3.1 | cf. 71 f | Whorl (cl) | MIB |
| CS 379 | 17 | -2.95 | 24C. 1 | 132:7 | Cyl. seal (ste?) | MIB |
| CS 380 | 17 | -2.60 | 32A. 1 | 233:47 | Cyl. seal (por?) | UM-43-25-280 |
| CS 381 | 17 | -2.85 | - | - | Fossil, echinoderm | UM-43-25-219 |
| CS 382 | 17 | -2.95 | 21B.2.2 | - | Sieve (br) | MIB |
| CS 383 | 17 | -2.95 | 24A. 2 | cf. 130n:1 | Bead (st) | MIB |
| CS 384 | 17 | -1.90 | 25A.3.12 | 138h | Pot, cooking | UM-43-25-78 |
| CS 385 | 17 | -3.10 | 20B.2.3 | 1160 | Fig., animal (cl) | MIB |
| CS 386 | 17 | -2.90 | 25A.3.14 | cf. 140c | Vessel, bull-shaped | MIB |
| CS 387 | 17 | -2.90 | 25A.3.14 | 141c | Vessel, bull-shaped | MMA 43.89.1 |
| CS 388 | 17 | -2.25 | 20A.2.2.1.3 | cf. 94f | Goblet | MIB |
| CS 389 | 17, x1 | -2.40 | 20A.2.5.3.2 | 102d | Jar | MIB |
| CS 390 | 17, x1 | -2.40 | 20A.2.4.4.1 | 99 a | Pot | UM-43-25-71 |
| CS 391 | 17, x 1 | -2.40 | 21B.1.3 | 120d | Dagger (br) | UM 43-25-235 |
| CS 392 | 17 | -3.25 | 21B.3.1 | cf. 121j | Pin (br) | UM-(?) |
| CS 393 | 17 | -3.25 | 20A.2.1.1.1 | 92b | Bowl | MIB |
| CS 394 | 17 | -3.10 | 20A.2.4.1.4 | 95 g | Pot | MIB |
| CS 395 | 17 | -3.75 | 24A.2.1 | 130u | Bead (ch?) | MIB |
| CS 396 | 17 | -3.50 | 25A.3.14 | 138a, 141a | Vessel, bull-shaped | UM-43-25-121 |
| CS 397 | 17 | -3.50 | 25A.3.13 | 137 i | Sherd | UM-43-25-86 |
| CS 398 | I7 | -3.50 | 25A.3.14 | 140c | Vessel, bull-shaped | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 399 | 17 | -3.50 | 25B. 8 | 145g, 147a | Fig., human (cl) | MIB |
| CS 400 | 17 | -3.50 | 27B. 12 | 159 h | Hook (br) | UM-43-26-237 |
| CS 401 | 17 | -3.50 | 25B. 8 | 145h, 147b | Fig., human (cl) | MMA 43.89.3 |
| CS 402 | I7, x3 | -2.85 | 20A.2.1.6.1 | 93 f | Bowl | MIB |
| CS 403 | 17, x3 | -2.85 | 20A.2.2.1.3 | cf. 94c | Goblet | UM-43-25-51 |
| CS 404 | I7, x3 | -2.85 | 21B.3.1 | cf. 121i | Pin (br) | MIB |
| CS 405 | I7, x3 | -2.85 | 21B.3.1 | cf. 121 i | Pin (br) | UM-(?) |
| CS 406 | I7, x3(?) | -2.85 | 21B.1.3 | 121a | Dagger (br) | MIB |
| CS 407 | 17 | -2.80 | 20A.2.1.1.4 | cf. 92 i | Bowl | MTB |
| CS 408 | 17, x 4 | -3.75 | 21B.4.1.2 | cf. 122 k | Bracelet (br) | MIB |
| CS 409 | 17, x 4 | -3.75 | 21B.4.1.2 | - | Bracelet (br) | UM-43-25-246 |
| CS 410 | 17 | -3.75 | 21B.4.1.2 | cf. 122 k | Bracelet (br) | M ${ }^{\text {B }}$ |
| CS 411 | 17 | -3.15 | 21B.4.1.2 | cf. 122 k | Bracelet (br) | UM-43-25-247 |
| CS 412 | 17 | -3.65 (t) | 15C.3.3 | - | Whorl (cl) | UM-43-25-152 |
| CS 413 | 17 | -3.65 (t) | 17A.2.1 | 74d | Blade (cht?) | UM-43-25-199 |
| CS 414 | 17 | -3.20 | 20A.2.2.1.3 | cf. 94 m | Goblet | MIB |
| CS 415 | 17 | -4.05 | 20A.2.2.1.3 | 94 d | Goblet | UM-43-25-47 |
| CS 416:1 | 17 | -4.05 | 24A. 2 | - | Bead (ca) | MIB |
| CS 416:2 | 17 | -4.05 | 24A. 2 | cf. 130n:1 | Bead (ca) | MIB |
| CS 417 | I7 | -3.80 | 20B.2.3 | - | Fig., animal (cl) | UM-43-25-117 |
| CS 418 | I7 | -3.80 | 22B. 4 | - | Pounder (st) | UM-43-25-214 |
| CS 419 | I7 | -3.60 | 20B.2.1 | cf. 116j | Missile (cl) | MIB |
| CS 420 | 17 | -3.80 (t) | 17A.3.2 | 74 g | Blade, sickle (cht?) | UM-43-25-200 |
| CS 421 | 17 | -3.50 | 32A.2.9.1 | 243:153 | Cyl. seal (por?) | MIB |
| CS 422 | 17 | -3.70 | 32A.2.4 | 237:87 | Cyl. seal (ste?) | UM-43-25-281 |
| CS 423 | 17 | -4.05 | 24A. 2 | cf. 130n:1 | Bead (ca) | MIB |
| CS 424 | 17 | -3.80 (t) | 17A.2.1 | - | Blade (fl) | UM-43-25-201 |
| CS 425 | 17 | -4.05 | 20B.2.1 | cf. 116j | Missile (cl) | UM-43-25-169 |
| CS 426 | 17 | -3.80 | 24B. 1 | 131:xii | Stamp impr. (cl) | UM-43-25-113 |
| CS 427 | 17 | -4.05 | 22B. 4 | - | Hammer(?) (st) | MIB |
| CS 428 | 17 | -4.15 (t) | 17A.2.1 | - | Blade (fl) | MIB |
| CS 429 | 17 | -4.05 (t) | 17A.5.5 | - | Sphere (alab) | UM-43-25-259 |
| CS 430 | 17 | -4.15 | 25B. 5 | - | Fig., animal (cl) | MIB |
| CS 431 | 17 | -4.15 | 24A. 2 | cf. 130n:1 | Bead (fa) | MIB |
| CS 432 | H7 | -1.05 | 6 | - | Bracelet (glass) | MIB |
| CS 433 | H7 | -1.10 (t) | 17A.2.1 | - | Blade (11) | MIB |
| CS 434 | H7 | -1.10 | 25A.3.14 | 141b | Vessel, bull-shaped | MIB |
| CS 435 | H7 | -1.15 (t) | 15C. 4 | cf. 72 g | Missile, sling (cl) | UM-43-25-168 |
| CS 436 | H7 | -1.10 | 20A.2.2.1.1 | cf. 94a | Goblet | UM-43-25-291 |
| CS 437 | H7 | -1.15 | 29B.5.2 | cf. 220 h | Handle inlay (alab) | UM-43-25-208 |
| CS 438 | H7 | -1.20 | 27B. 12 | - | Rod (ir) | UM |
| CS 439 | H7 | -1.20 | 25A.3.13 | 137j | Sherd | MIB |
| CS 440 | H7 | -1.40 | 20A.3.2.3.1 | 109k | Goblet | UM-43-25-33 |
| CS 441 | H7 | -1.30 | 29B. 4 | 215n | Pestle (st) | UM-43-25-217 |
| CS 442 | H7 | -1.30 | 6 | - | Bracelet (glass) | UM-43-25-261 |
| CS 443 | H7 | -1.10 | 25B. 2 | cf. 142a | Whorl (cl) | MIB |
| CS 444 | H11 | -10.40 | 27C.4.4 | 162 m | Bracelet (br) | UM-43-25-258 |
| CS 445 | H11 | -10.40 | 32A.1 | 233:52 | Cyl. seal (crystal) | UM-43-25-282 |
| CS 446 | H11 | -10.50 | - | - | Fossil, shell(?) | MIB |
| CS 447 | H11 | -10.70 | 25B. 9 | 144 g | Vessel, zoomorphic bird (cl) | MIB |
| CS 448 | H11, x1(?) | -11.00 | 24A. 2 | cf. 130n:1 | Beads (ca) | UM-43-25-274 |
| CS 449 | H6 | -1.00 | 32A.2.3 | 236:79B | Cyl. seal (fa?) | MIB |
| CS 450 | H6 | -1.95 | 32A.2.13 | 247:205 | Cyl. seal (fa?) | MIB |
| CS 451 | H6 | -2.00 | 27A. 5 | - | Arrowhead (br) | MIB |
| CS 452 | H6 | -1.20 | 27B. 12 | - | Rod (br) | MIB |
| CS 453 | H6 | -1.90 | 29B.5.2 | 220h | Handle inlay (mar?) | MIB |
| CS 454 | H6 | -1.20 | 27A. 5 | 156k | Arrowhead (ir) | MIB |


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| CS 455 | H6 | -1.20 | 29C. 3 | - | Cyl. seal (st) | UM-43-25-273 |
| CS 456 | H6 | -0.90 | 25A.3.14 | 138b | Vessel, bull-shaped | UM-43-25-118 |
| CS 457 | H6 | -1.20 | 25B. 9 | 144f | Statuette (?) (cl) | MIB |
| CS 458 | H6 | -1.45 | 25B. 5 | 145c | Fig., animal (cl) | UM-43-25-110 |
| CS 459 | H6 | -1.80 | 29B.5.1 | 216b | Handle (Imst?) | UM-43-25-215 |
| CS 460 | H6 | -1.45 | 27C.4.3.1 | - | Bracelet (br) | UM-43-25-248 |
| CS 461 | H6 | -1.55 | 32A.2.8 | 241:136 | Cyl. seal (fa?) | UM-43-25-283 |
| CS 462 | H6 | -1.45 | 27B. 12 | - | Rods (ir/br) | UM-(?) |
| CS 463 | H6 | -1.45 | 27B. 12 | - | Rods (ir/br) | MIB |
| CS 464 | H6 | -1.45 | 27A. 5 | - | Arrowhead (br) | UM-43-25-252 |
| CS 465 | H6 | -1.45 | 27A. 5 | - | Arrowhead (br) | MIB |
| CS 466 | H6 | -1.45 | 27A. 5 | - | Arrowhead (br) | MIB |
| CS 467 | H6 | -1.45 | 27B.12 | 159i | Serpent(?) (br) | UM-43-25-257 |
| CS 468 | H6 | -1.45 | 27B.12 | 159j | Serpent(?) (ir) | UM-43-25-295 |
| CS 469 | H6 | -1.45 | 32A.2.3 | 236:80 | Cyl. seal (fa?) | UM-43-25-284 |
| CS 470 | H6 | -1.80 | 31 A .16 | - | Bead (ca) | UM-43-25-269 |
| CS 471 | H6 | -1.80 | 25A.3.13 | - | Sherd, disc | UM-43-25-96 |
| CS 472 | H6 | -1.80 | 25B. 6 | 145d | Nail, wall (bull type) (cl) | MIB-7064 |
| CS 473 | H6 | -1.60 | 32A.2.13 | 247:199 | Cyl. seal (fa?) | MIB |
| CS 474 | H6 | -1.69 | 29B. 4 | 2150 | Pestle (st) | UM-43-25-218 |
| CS 475:1 | H6 | -1.60 | 31A. 31 | - | Bead (glass) | UM-43-25-276 |
| CS 475:2 | H6 | -1.60 | 31A. 31 | - | Bead (ch) | UM-43-25-276 |
| CS 475:3 | H6 | -1.60 | 31A. 18 | - | Bead (lap la) | UM-43-25-276 |
| CS 476 | H6 | -2.10 | 20A.2.1.3.1 | 92p | Bowl | UM-43-25-12 |
| CS 477 | H6 | -1.90 | 25B. 7 | 145e | Adze, model (cl) | MIB |
| CS 478:1 | H6 | -1.90 | 31A. 28 | - | Bead (st) | MIB |
| CS 478:2 | H6 | -1.90 | 31A. 18 | - | Bead (ch) | MIB |
| CS 478:3 | H6 | -1.90 | 31A. 31 | - | Bead (ca) | MIB |
| CS 479 | H6 | -2.25 | 27A.3.1 | 120e | Dagger (br) | MIB |
| CS 480 | H6 | -2.75 | 20A.2.1.4.1 | cf. 92p | Bowl | MIB |
| CS 481 | H6 | -2.75 | 20A.2.2.1.3 | cf. 94 f | Goblet | UM-43-25-50 |
| CS 482 | H6 | -2.50 | 20A.2.1.4.1 | cf. 92p | Bowl | UM-43-25-11 |
| CS 483 | H5 | -4.30 | 20B.2.3 | 117c | Fig., curved hom (cl) | UM-43-25-170 |
| CS 484 | H5 | -4.05 | 24A. 2 | cf. 130d | Bead (cl) | MIB |
| CS 485 | H5 | -4.40 (t) | 17A.2.1 | - | Blade (fl) | UM-43-25-202 |
| CS 486 | H5, x 3 | -3.60 | 20A.2.2.1.3 | cf. 94 j | Goblet | MIB |
| CS 487 | H5, x 3 | -3.60 | 20A.2.2.1.3 | cf. 94 g | Goblet | MIB |
| CS 488 | H5, x3 | -3.60 | 20A.2.1.1.4 | cf. 92 i | Bowl | MIB |
| CS 489 | H5, x 3 | -3.60 | 20A.2.1.1.4 | cf. 92 i | Bowl | UM-43-25-19 |
| CS 490 | H5, x3 | -3.60 | 20A.2.1.1.4 | cf. 92i | Bowl | MIB |
| CS 491 | H5, x 3 | -3.60 | 20A.2.4.5.1 | cf. 107f | Pot | UM-43-25-27 |
| CS 492 | H5, x 3 | -3.60 | 20A.2.1.2.3 | cf. 92 m | Bowl | MTB |
| CS 493 | H5, x 3 | -3.60 | 21B.5.1 | $123 \mathrm{k}, 126 \mathrm{~g}$ | Bowl (br) | MIB |
| CS 494 | H5, x 3 | -3.60 | 21B.1.3 | 121c | Dagger (br) | UM-43-25-236 |
| CS 495 | H5, x3 | -3.60 | 22B. 3 | 128h | Whetstone (gy st) | UM-43-25-212 |
| CS 496 | H5, x2 | -3.50 | 20A.2.2.1.3 | cf. 94 m | Goblet | UM-43-25-289 |
| CS 497 | H5, x2 | -3.50 | 20A.2.2.1.3 | cf. 94c | Goblet | MIB |
| CS 498 | H5, x2 | -3.50 | 20A.2.2.1.3 | cf. 94c | Goblet | MIB |
| CS 499 | H5, x 1 | -3.60 | 20A.2.2.1.3 | 940 | Goblet | MIB |
| CS 500 | H5, x 1 | -3.60 | 20A.2.4.4.2 | 99 b | Pot | UM-43-25-79 |
| CS 501 | H5, x 1 | -3.60 | 20A.2.4.1.5 | cf. 97c | Pot | UM-(?) |
| CS 502 | H5, x1 | -3.60 | 21B.3.2 | 121k | Pin (br) | UM-43-25-244 |
| CS 503 | H5, x 1 | -3.60 | 20A.2.2.1.3 | cf. 94e | Goblet | MIB |
| CS 504:1 | H5, x 1 | -3.60 | 20A.2.2.1.3 | cf. 94e | Goblet | UM-43-25-38 |
| CS 504:2 | H5, x1 | -3.60 | 20A.2.2.1.3 | cf. 94 g | Goblet | UM-43-25-38 |
| CS 505 | H5, x3(?) | -4.20 | 20A.2.4.1.4 | 97 a | Pot | UM-43-25-58 |
| CS 506 | H5, x3(?) | -4.20 | 20A.2.2.1.3 | cf. 941 | Goblet | UM-43-25-40 |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 507 | H5, x2(?) | -3.50 | 21B.4.1.1 | 1221 | Bracelet (br) | UM-43-25-249 |
| CS 508 | H4 | -5.95 (t) | 15A.2.2.1 | 68g | Goblet | UM-43-25-84 |
| CS 509 | H4 | -5.95 (t) | 17A.2.1 | - | Blade (cht) | MIB |
| CS 510 | H4 | -6.00 (t) | 15C.3.1 | 711 | Whorl (cl) | MIB |
| CS 511 | H4 | -6.75 | 16 | 74a | Ring (br) | MIB |
| CS 512 | H4 | -6.75 | 15C. 7 | 72 n | Token (cl) | UM-43-25-176 |
| CS 513 | H4 | -6.85 | 15A.2.1 | 68 e | Goblet | UM-43-25-294 |
| CS 514 | H4 | -7.05 | 15A.3.3 | 68k | Vessel, ped. frgm | MIB |
| CS 515 | H4 | -7.00 | 15A.3.3 | 68j | Vessel, ped. frgm | MIB |
| CS 516 | H4 | -7.00 | 15C.3.1 | 71 m | Whorl (cl) | MIB |
| CS 517 | H4 | -6.60 | 17A.5.6 | 741 | Token (st) | MIB |
| CS 518 | N7 | -9.30 (t) | 15A.3.2.2 | 69h | Sherd, pot(?) | MIB |
| CS 519 | H4 | -7.40 | - | - | Fossil, snail(?) | UM-43-25-220 |
| CS 520 | H4 | -6.80 | 17A.2.1 | - | Blade (fl) | MIB |
| CS 521 | H4 | -7.20 | 15C.3.3 | 72a | Whorl (cl) | MIB |
| CS 522 | H4 | -7.50 | 15 C .8 | 720 | Fig., bird (cl) | UM-43-25-116 |
| CS 523 | H4 | -7.50 | 15C. 8 | 72 p | Fig., animal (cl) | MIB |
| CS 524 | H4 | -7.50 | 15C. 8 | cf. 72p | Fig., animal (cl) | UM-43-25-114 |
| CS 525 | H4 | -7.30 | 15C.3.3 | 70 s | Whorl (cl) | MIB |
| CS 526 | H4 | -7.30 | 15C.3.3 | cf. 72 a | Whorl (cl) | UM-43-26-154 |
| CS 527 | H4 | -7.30 | 15C. 5 | - | Ring (cl) | UM-43-25-265 |
| CS 528 | H4 | -7.55 | 17A.3.4 | - | Blade, sickle (fl) | UM-43-25-203 |
| CS 529 | H4 | -7.30 | 15C.3.3 | 72b | Whorl (cl) | MIB |
| CS 530 | H4 | -7.30 | 15C.3.3 | cf. 72 a | Whorl (cl) | UM-43-25-155 |
| CS 531 | H4 | -7.30 | 15C.3.3 | 72 c | Whorl (cl) | UM-43-25-156 |
| CS 532 | H3 | -8.30 | 20A.2.2.1.3 | 94 n | Goblet | UM-43-25-32 |
| CS 533 | H3 | -8.35 (t) | 15A.2.2.1 | 68 f | Goblet | MIB |
| CS 534 | H3 | -8.35 | 15C.3.1 | cf. 70 m | Whorl (cl) | UM-43-25-157 |
| CS 535 | H3 | -8.55 | 20B.2.3 | 118d | Fig., animal (cl) | MIB |
| CS 536 | H3 | -8.55 | 20B.2.2.3 | 116 n | Whorl (cl) | UM-43-25-158 |
| CS 537 | H3 | -8.55 (t) | 15C. 4 | cf. 72 g | Missile, sling (cl) | UM-43-25-167 |
| CS 538 | H3 | -8.70 | 15A.3.2.2 | 69 j | Sherd, pot(?) | UM-43-25-97 |
| CS 539 | H3 | -8.80 | 15A.2.2.1 | 67 b | Goblet | MIB |
| CS 540 | H3, x2 | -8.80 | 21B.2.1 | 121h, 126 f | Mirror (br) | UM-43-25-245 |
| CS 541 | H3, x2 | -8.80 | 21B.5.1 | 123e, 126b | Bowl (br) | UM-43-25-231 |
| CS 542 | H3, x2 | -8.80 | 20A.2.4.1.4 | 97 b | Pot | UM-43-25-65 |
| CS 543 | H3 | -8.75 | 21B.3.2 | - | Pin (br) | UM-(?) |
| CS 544 | H3, x 1 | -8.60 | 21B.4.2 | - | Ring, finger (br) | UM-43-25-255 |
| CS 545 | H3, x 1 | -8.60 | 20A.2.5.4.1 | 104a | Jar | MIB |
| CS 546 | H3, x 1 | -8.60 | 20A.2.5.1.3 | 101c | Jar | UM-43-25-80 |
| CS 547 | H3, x 1 | -8.60 | 20A.2.1.6.2 | cf. 93t | Bowl | MIB |
| CS 548 | H3 | -8.65 | 15A.3.2.1 | 68 i | Pot | MIB |
| CS 549 | H3 | -8.90 | 15A.4.1 | 68m | Jar | MIB |
| CS 550 | H3 | -8.90 | 15 C .8 | 72 q | Fig., animal (cl) | (?) |
| CS 551 | H3 | -8.90 | 15C. 8 | - | Fig., animal (cl) | UM-(?) |
| CS 552 | H3, pit 1 | -9.00 | 20A.3.2.1.2 | 109 g | Goblet/cup | MIB |
| CS 553 | H3, pit 1 | -9.00 | 20A.3.6.2.2 | 112a | Jar | MIB |
| CS 554 | H3, pit 1 | -9.00 | 20A.3.4.2.2 | 110b | Pot | MIB |
| CS 555 | H3, pit 1 | -9.00 | 20A.3.7.1.1 | 112e | Pitcher | MIB |
| CS 556 | H3, pit 1 | -9.00 | 20A.3.3.3.1 | cf. 1090 | Goblet/cup | UM-43-25-68 |
| CS 557 | H3, pit 1 | -9.00 | 20A.3.3.3.1 | 109p | Goblet/cup | MIB |
| CS 558 | H3, pit 1 | -9.00 | 20A.3.7.2.1 | 115a | Pitcher | UM-43-25-66 |
| CS 559 | H3, pit 1 | -9.00 | 20A.3.3.2.1 | 109n | Goblet/cup | MIB |
| CS 560 | H3, pit 1 | -9.00 | 22C. 1 | - | Whetstone (pur-grn st) | MIB |
| CS 561 | H3, pit 1 | -9.00 | 20B.3.2 | 118 g | Fig., animal (cl) | UM-43-25-112 |
| CS 562 | H3, pit 1 | -9.00 | 20A.3.2.2.1 | cf. 109j | Goblel/cup | MIB |
| CS 563 | H3, pit 1 | -9.00 | 20A.3.1.3.1 | 109d | Bowl | MIB |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 564 | H3, pit 1 | -9.00 | 20A.3.2.2.1 | 109j | Goblet/cup | MIB |
| CS 565 | H3, pit 1 | -9.00 | 20A.3.7.2.1 | 112 f | Pitcher | UM-43-25-67 |
| CS 566 | H3, pit 1 | -9.00 | 21C.1.1 | cf. 122i | Pin (br) | UM-43-25-241 |
| CS 567 | H3, pit 1 | -9.00 | 23C | 129d | Pin (bo) | MIB |
| CS 568 | H3, pit 1 | -9.00 | 23 C | - | Horn (bo) | MIB |
| CS 569 | H3, pit 1 | -9.00 | 23C | - | Horn (bo) | UM-43-25-224b |
| CS 570 | H3, pit 1 | -9.00 | 20A.3.6.3.1 | 112b | Jar | UM-43-25-77 |
| CS 571 | H3, pit 1 | -9.00 | 20A.3.5.1.1 | 111f | Jar, small | UM-43-25-290 |
| CS 572 | H3, pit 1 | -9.00 | 20A.3.4.2.3 | 110d | Pot | MIB |
| CS 573 | H3, pit 1 | -9.00 | 21C.2.1 | - | Bracelet (br) | MIB |
| CS 574 | H3, pit 1 | -9.00 | 20A.3.1.2.1 | 109b | Bowl | UM-43-25-87 |
| CS 575 | H3, pit 1 | -9.00 | 20A.3.2.2.1 | 109i | Goblet/cup | MIB |
| CS 576 | H3, pit 1 | -9.00 | 20A.3.4.4.1 | 110 f | Pot | UM-43-25-72 |
| CS 577 | H3, pit 1 | -9.00 | 20A.3.4.1.1 | 109q | Pot | MIB |
| CS 578 | H3, pit 1 | -9.00 | 20A.3.11 | - | Sherds | MIB |
| CS 579 | F7 | -2.00 | 20A.2.4.5.1 | cf. 107f | Pot | MIB |
| CS 580 | F7 | -2.70 (t) | 15C.3.1 | cf. 71 f | Whorl (cl) | MIB |
| CS 581 | F7 | -3.15 | 15A.2.3 | 67e | Goblct | MIB |
| CS 582 | F7 | -3.15 | 15A.5.3 | - | Sherds | MIB |
| CS 583 | F7 | -2.85 | 15C. 8 | 72r | Fig., animal (cl) | UM-43-25-109 |
| CS 584 | F7 | -2.85 | 15C.3.3 | 72d | Whorl (cl) | MIB |
| CS 585 | F7 | -2.85 | 15A.1.1.1 | 68 a | Bowl | UM-43-25-17 |
| CS 586 | F7 | -3.15 | 15A.2.3 | 67f | Goblet | MIB |
| CS 587 | F7 | -3.05 | 15A.5.3 | - | Sherds | MIB |
| CS 588 | F7 | -2.80 (t) | 15C.3.2 | cf. 70 t | Whorl (cl) | UM-43-25-159 |
| CS 589 | F7 | -3.45 | 15A.1.1.1 | cf. 68 a | Bowl | MIB |
| CS 590 | F7 | -3.00 | 20A.2.1.6.1 | 93j | Bowl | MIB |
| CS 591 | F7 | -3.00 | 21B.3.2 | 122e | Pin (br) | UM-43-25-238b |
| CS 592 | F7 | -3.25 | 17A.6.2 | 74 n | Pendant (sh) | UM-(?) |
| CS 593 | F7 | -3.55 | 15C.3.3 | cf. 73 g | Whorl (cl) | UM-43-25-160 |
| CS 594 | F7 | -3.25 | 15C. 5 | 72i | Bead (cl) | MIB |
| CS 595 | F7 | -3.25 | 15C. 5 | 72j | Ring (cl) | MIB |
| CS 596 | F7 | -3.25 | 15 C .5 | - | Ring (cl) | MIB |
| CS 597 | F7 | -3.25 | 17A.3.6 | 74j | Point (cht?) | MIB |
| CS 598 | F7 | -3.25 | 15C. 5 | - | Bead (cl) | UM-43-25-171 |
| CS 599 | F7, x 1 | -2.35 | 24A. 2 | 130s | Bead (st) | UM-43-25-270 |
| CS 600 | F7, x 1 | -2.35 | 20A.3.4.3.1 | cf. 98 e | Pot | MIB |
| CS 601 | F7, x 1 | -2.35 | 20A.3.4.2.2 | 110 c | Pot | UM-43-25-30 |
| CS 602 | F7 | -3.45 | 17A.6.2 | 740 | Pendant (alab) | UM-43-25-268 |
| CS 603 | F7 | -3.50 | 15C.3.2 | $70 t$ | Whorl (cl) | UM-43-25-161 |
| CS 604 | F7 | -3.55 | 15C.3.2 | cf. 70 t | Whorl (cl) | MIB |
| CS 605 | F7 | -3.50 | 15C.3.3 | cf. 72 a | Whorl (cl) | UM-43-25-162 |
| CS 606 | F7 | -3.50 | 15C.3.3 | 70r, 72e | Whorl (cl) | MIB |
| CS 607 | F7 | -3.55 | 15C.3.3 | 72 f | Whorl (cl) | MIB |
| CS 608 | F7 | -3.55 | 17A.3.4 | - | Blade, sickle (ch?) | UM-43-25-204a |
| CS 609 | F7 | -3.55 | 17A.2.1 | - | Blade (fl) | MIB |
| CS 610 | 17 | -3.05 | 22B. 3 | - | Whetstone (gy st) | UM-43-25-213 |
| CS 611 | 17 | -3.05 | 22B. 3 | - | Whetstone (gy st) | MIB |
| CS 612 | 17 | -3.70 | - | - | Fossil, shell | MIB |
| CS 613 | 17 | -3.35 (t) | 17A.2.1 | - | Blade (ob) | MIB |
| CS 614 | 17 | -3.35 (t) | 17A.2.1 | - | Blade (cht?) | UM-43-25-204b |
| CS 615 | K7 | -7.25 | 15A.3.1.2 | cf. 69a | Sherd, pot(?) | MIB |
| CS 616:1 | K7 | -7.25 | 15A.3.1.2 | cf. 69a | Sherd, pot(?) | UM-43-25-98 |
| CS 616:2 | K7 | -7.25 | 15A.3.1.2 | cf. 69 a | Sherd, pot(?) | UM-43-25-98 |
| CS 616:3 | K7 | -7.25 | 15A.3.1.2 | cf. 69 a | Sherd, pot(?) | UM-43-25-100 |
| CS 616:4 | K7 | -7.25 | 15A.3.1.2 | cf. 69 a | Sherd, pot(?) | UM-43-25-99 |
| CS 617 | K7 | -7.25 | 15A.3.1.2 | 69 c | Sherd, pot(?) | MIB |
| CS 618:1 | K7 | -7.20 | 15A.3.1.2 | cf. 69a | Sherd, pot(?) | UM-43-25-101 |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CHIGHA SABZ |  |  |  |  |  |  |
| CS 618:2 | K7 | -7.20 | 15A.3.2.2 | cf. 69 f | Sherd, pot(?) | UM-43-25-101 |
| CS 618:3 | K7 | -7.20 | 15A.3.1.2 | cf. 69 a | Sherd, pot(?) | UM-43-25-100 |
| CS 618:4 | K7 | -7.20 | 15A.3.1.2 | cf. 69 a | Sherd, pot(?) | UM-43-25-102 |
| CS 619:1 | K7 | -7.20 | 15A.3.1.2 | cf. 69 a | Sherd, pot(?) | UM-43-25-104 |
| CS 619:2 | K7 | -7.20 | 15A.3.1.2 | cf. 69 a | Sherd, pot(?) | UM-43-25-103 |
| CS 619:3 | K7 | -7.20 | 15A.3.1.2 | cf. 69 a | Sherd, pot(?) | UM-43-25-103 |
| CS 619:4 | K7 | -7.20 | 15A.3.1.2 | cf. 69 a | Sherd, pot(?) | UM-43-25-103 |
| CS 620 | K7 | -7.20 | 15C.3.1 | - | Whorl (cl) | MIB |
| CS 621 | K7 | -7.20 | 15C.3.1 | cf. 70 c | Whorl (cl) | MIB |
| CS 622 | K7 | -7.20 | 15C. 4 | cf. 72 g | Missile, sling (cl) | UM-43-25-166 |
| CS 623 | K7 | -7.15 | 15C.3.1 | cf. 71 f | Whorl (cl) | MIB |
| CS 624 | K7 | -6.55 (t) | 15C.3.2 | 710 | Whorl (cl) | UM-43-25-163 |
| CS 625 | K7 | -6.55 | 15C.3.1 | cf. 70 m | Whorl (cl) | UM-43-25-164 |
| CS 626 | H5, x3(?) | -4.20 | 20A.2.4.1.4 | 96 b | Pot | UM-43-25-61 |
| CS 627 | J7 | -4.55 | 20A.2.2.1.3 | cf. 94c | Goblet | MIB |
| CS 628a, b | J7 | -2.05 | 29B. 1 | 214d | Grinding device/ potter's wh(?) | UM-43-25-209a, b |
| CS 629 | H4 | -6.30 | 20A.2.7 | 106c | Sherd, jar | UM-43-25-88 |
| CS 630-92 | - | - | - | - | Sherds | (?) |
| CS 693 | 17 | -3.90 | 20B.2.3 | - | Fig., animal (cl) | MIB |
| CS 694 | H4 | -7.00 | 15A.3.2.2 | 69i | Sherd, pot(?) | UM-43-25-105 |
| CS 695 | J-L7 | (?) (t) | 15A.3.1.2 | 69d | Sherd, pot(?) | UM-43-25-106 |
| CS 696 | J-L7 | (7) (t) | 15A.4.2 | - | Sherd, jar | UM-43-25-107 |

Cat. no. Plot/Tomb Elev. Chap.sect. Plate Description | Mus. no. |
| :--- |

## DUM'AVIZE

| Do 1 | B, x1 | -2.05 | 20 A .1 .3 .3 .5 | 88 a | Pot | MIB |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Do 2 | B, x1 | -2.05 | $21 A .2 .2$ | 125 a | Mirror (br) | OI A25378 |
| Do 3 | B, x1 | -2.05 | 21 A .5 | 119 r | Vessel (br) | MIB |
| Do 4 | B, x1 | -2.05 | $20 A .1 .5 .2 .1$ | 84 a | Jar | (?) |
| Do 5 | B, x1 | -2.05 | $20 A .1 .3 .2 .1$ | 80 d | Pot | MIB |
| Do 6 | B, xl | -2.05 | $20 A .1 .5 .3 .3$ | cf. 88a | Jar | UM-(?) |
| Do 7 | B, xl | -2.05 | $21 A .4 .5$ | 119 p | Pendant (si) | MIB |
| Do 8 | B, x2 | -2.35 | 20A.1.5.1.3 | 83 b | Jar | MIB |
| Do 9 | A (Fill) | - | 20A.1.2.1.2 | 87 a | Goblet | OI A25379 |
| Do 10 | B | 9.13 | 20A.1.5.1.1 | 82 a | Jar | (?) |
| Do 11 | B | 9.22 | $20 A .1 .1 .1 .1$ | cf. 79a | Bowl | MIB |


| Cat. no. Plot Elev. Chap. sect. Plate Description | Mus. no. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

GAR ZORE

| GZ 1 | - | - | - | - | - | (?) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GZ 2 | Surf. | - | 20B.2.3 | - | Fig., animal (cl) | UM-(?) |
| GZ 3 | - | - | - | - | - | (?) |
| GZ 4 | A (Fill) | - | 20B.2.1 | cf. 116 j | Missile (cl) | (?) |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KAMTARLAN I |  |  |  |  |  |  |
| KI 1 | A | -7.20 | 22A. 1 | - | Blade (fl) | UM-43-26-137 |
| KI 2 | A | -7.20 | 22A. 1 | 128b | Flake (ob) | UM-43-26-135 |
| KI 3 | A | -7.20 | 20B.1.3.1 | $116 c$ | Whorl (cl) | UM-43-26-120 |
| KI 4 | A | -4.70 | 21A.4.1 | 119 g | Bracelet (br) | MIB |
| KI 5 | A | -7.40 | 20B.1.5 | 116 g | Fig., animal (cl) | UM-43-26-111 |
| KI 6 | A | -7.40 | 23A | - | Awl (bo) | UM-43-26-140 |
| KI 7 | A | -7.40 | 20B.1.2 | 116b | Disc (cl) | MIB |
| KI 8 | A | -7.50 | 20B.1.3.1 | cf. 116 f | Whorl (cl) | MIB |
| KI 9 | A | -7.75 | 24A. 1 | 130b | Bead (fa) | MIB |
| KI 10 | A | -7.75 | 21A.4.2 | 119j | Ring, finger (br) | UM-43-26-159 |
| KI 11 | A | -7.60 | 20B.1.2 | cf. 116b | Disc (cl) | UM-43-26-131 |
| KI 12 | A | -7.75 | 22A. 3 | - | Whetstone ( lt grn st ) | UM-43-26-134 |
| KI 13 | A | -6.90 | 20A.1.7 | - | Sherds | UM-43-26-109 |
| KI 14 | A | -7.20 | 20A.1.7 | - | Sherds | UM-43-26-100/2 |
| KI 15 | A | -7.40 | 20A.1.7 | - | Sherds | UM-43-26-106 |
| KI 15:15 | A | -7.40 | 20B.1.2 | cf. 116b | Disc (cl) | UM-43-26-106 |
| KI 16 | A | -7.75 | 20A.1.7 | - | Sherds | MIB |
| KI 17 | A | -7.95 | 20A.1.7 | - | Sherds | (?) |
| KI 18 | A | -8.30 | 20A.1.7 | - | Sherds | (?) |
| KI 18:8 | A | -7.95 | 20A.1.1.1.2 | 79b | Bowl, sherd | (?) |
| KI 19 | A | -8.40 | 20A.1.7 | - | Sherds | MIB |
| KI 20 | B | -5.65 | 20A.1.5.1.1 | 82b | Jar | MIB |
| KI 21 | B | -5.75 | 20B.1.5 | 118b | Fig., animal (cl) | UM-43-26-112 |
| KI 22 | B | -5.80 | 20A.1.5.2.1 | cf. 83 e | Jar | UM-43-26-66 |
| KI 23 | B | -5.85 | 20B.1.5 | 118c | Fig., animal (cl) | UM-43-26-113 |
| KI 24 | B, x 4 | -5.85 | 20A.1.6.1.1 | 90 b | Jar, storage | UM-43-26-195 |
| KI 25 | B, x 4 | -5.85 | 20A.1.2.2.1 | 79 n | Goblet | MMA 43.89.14 |
| KI 26 | B | -5.35 | 20A.1.5.2.1 | cf. 82 d | Jar | MIB |
| KI 27 | B | -6.25 | 23A | 129a | Awl(?) (bo) | UM-43-26-142 |
| KI 28 | B | -6.50 | 20A.1.5.3.1 | 91a | Jar | UM-43-26-52 |
| KI 28a | B | -6.50 | 20A.1.5.3.1 | 91b | Jar | MMA 43.89.13 |
| KI 28b | B | -6.50 | 20A.1.5.3.1 | 91c | Jar | UM-43-26-54 |
| KI 29 | B, x2 | -6.30 | 20A.1.5.2.2 | 84b | Jar | UM-43-26-65 |
| KI 30 | B, x1 | -5.80 | 20A.1.3.3.2 | 87c | Pot | MIB |
| KI 31 | B | -6.25 | 20B.1.5 | - | Fig., animal (cl) | MIB |
| KI 32 | B | -6.45 | 20B.1.3.1 | cf. 116 c | Whorl (cl) | MIB |
| KI 33 | B | -6.40 | 20A.1.3.3.5 | 81h | Pot | MIB |
| KI 34 | B | -6.45 | 20A.1.3.2.2 | 80 | Pot | MIB |
| KI 35 | B | -6.75 | 20A.1.7 | - | Sherd | UM-43-26-93 |
| KI 36 | B | -6.70 | 23A | - | Receptacle (sh) | MIB |
| KI 37 | B | -6.85 | 22A.1 | 128a | Blade (ob) | UM-43-26-136 |
| KI 38 | B | -5.80 | 20A.1.7 | - | Sherds | UM-43-26-97/8 |
| KI 39 | B, x3 | -6.30 | 20A.1.2.1.1 | 791 | Goblet | MIB |
| KI 40 | B, x2 | -6.30 | 21A. 5 | 119q | Vessel (br) | UM-(?) |
| KI 41 | C | -5.35 | 20A.1.1.2.2 | 79 c | Bowl | UM-43-26-92 |
| KI 42 | C | -5.80 | 20A.1.5.3.1 | 84d | Jar | UM-43-26-182 |
| KI 43 | C | -5.85 | 20A.1.5.2.1 | 83 e | Jar | MIB |
| KI 44 | C | -5.85 | 20B.1.1 | cf. 116a | Missile (cl) | UM-43-26-128 |
| KI 45 | C | -6.10 | 20B.1.3.2 | cf. 116d | Whorl (cl) | MIB |
| KI 46 | C | -6.35 | 22A. 4 | 128d | Tool (st) | UM-43-26-133 |
| KI 47 | C | -6.35 | 24A. 1 | 130c | Bead (por) | UM-43-26-171 |
| KI 48 | C | -6.35 | 20B.1.1 | cf. 116a | Missile (cl) | MIB |
| KI 49 | D | -5.15 | 21A.4.1 | 119h | Bracelet (br) | UM-43-26-156 |
| KI 50 | D | -5.15 | 23A | - | Flake (bo) | UM-43-26-141 |
| KI 51 | D | -5.50 | 21A.3.2 | 119d | Pin (br) | UM-43-26-154 |
| KI 52 | D | -5.60 | 23A | 129 b | Spatula (bo) | MIB |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KI 53 | D | -5.60 | 24A. 1 | - | Bead (diorite) | MIB |
| KI 54 | E, x1 | -4.45 | 20A.1.5.1.1 | cf. 82 d | Jar | MIB |
| KI 55 | E | -4.40 | 20A.1.1.1.1 | cf. 79a | Bowl | MIB |
| KI 56 | E | -4.35 | 24A. 1 | 130d | Bead (st) | MIB |
| KI 57 | F | -4.10 | 24A. 1 | 130e | Bead, spacer (lmst) | MIB |
| KI 58 | D | -4.15 | 21A.2.3 | - | Needle (br) | MIB |
| KI 59 | F | -4.15 | 20A.1.2.3.1 | 80a | Goblet | UM-43-26-32 |
| KI 60 | F | -5.10 | 20A.1.1.3.2 | 79 f | Bowl | UM-43-26-131 |
| KI 61 | F | -5.15 | 23A | - | Pendant (sh) | MIB |
| KI 62 | F | -4.20 | 20B.1.1 | 116a | Missile (cl) | UM-43-26-129 |
| KI 63 | F | -5.05 | 22A. 2 | 128c | Disc (st) | MIB |
| KI 64 | F | -4.15 | 20A.1.7 | - | Sherds | UM-43-26-95 |
| KI 65 | G | -3.80 | 20A.1.7 | - | Sherds | UM-43-26-192 |
| KI 66 | G | -3.60 | 24A. 1 | 130f | Bead (ca) | MIB |
| KI 67 | G | -4.90 | 23A | - | Awl (bo) | MIB |
| KI 68 | G | -5.05 | 22A. 1 | - | Blade (fl) | MIB |
| KI 69 | G | -5.05 | 20B.1.5 | 118a | Fig., animal (cl) | UM-43-26-114a |
| KI 70 | G | -5.05 | 24A.1 | 130 g | Bead (sh) | UM-43-26-168 |
| KI 71 | G | -5.50 | 24A. 1 | 130h | Bead (glass) | UM-43-26-174 |
| KI 72 | H | -3.45 | 20A.1.3.1.3 | 80 c | Pot | UM-43-26-189 |
| KI 73 | H | -3.50 | 20B.1.3.2 | 116d | Whorl (cl) | UM-43-26-124 |
| KI 74 | I | -4.30 | 20A.1.2.1.1 | 79 m | Goblet | UM-43-26-67 |
| KI 75 | I | -4.25 | 20A.1.3.3.4 | cf. 81 f | Pot | MIB |
| KI 76:1 | I | -4.30 | 24A.1 | cf. 130a:3 | Bead (ch) | UM-43-26-169 |
| KI 76:2 | I | -4.30 | 24A. 1 | cf. 130a:3 | Bead (ch) | UM-43-26-169 |
| KI 77 | I | -4.50 | 20B.1.4 | 116 f | Wheel, model (cl) | MIB |
| KI 78 | I, x1 | -4.90 | 21A.1.1 | 119a | Axe (br) | MIB |
| KI 79 | I, x1 | -4.90 | 21A.4.2 | - | Ring, finger (br) | UM-43-26-160 |
| KI 80 | I, x1 | -4.90 | 20A.1.2.1.2 | 79j | Goblet | UM-43-26-41 |
| KI 81 | I, x1 | -4.90 | 20A.1.3.3.3 | cf. 81c | Pot | UM-43-26-74 |
| KI 82 | $\mathrm{I}, \mathrm{x} 1$ | -4.90 | 20B.1.3.2 | 116e | Whorl (cl) | UM-43-26-123 |
| KI 83 | J, x1 | -1.75 | 27C.4.1.3 | 1611 | Bracelet (br) | MIB |
| KI 84 | J | -2.65 | 22B. 5 | 128j | Vessel (alab) | MIB |
| KI 85 | J | -3.75 | 21A.3.1 | - | Pin (br) | UM-43-26-151 |
| KI 86 | J | -3.90 | 20A.1.2.1.2 | 79 k | Goblet | MIB |
| KI 87 | J | -3.90 | 24A.1 | 130i | Bead (lap la) | MIB |
| KI 88 | J | -3.90 | 21A.4.1 | 119i | Bracelet (br) | MIB |
| KI 89 | J | -4.00 | 21A.4.2 | 119k | Ring, finger (br) | UM-43-26-163 |
| KI 90 | J | -5.00 | 20A.1.7 | - | Sherds | UM-43-26-196 |
| KI 91 | J | -5.05 | 24A. 1 | 130 j | Bead (bo) | UM-43-26-166 |
| KI 92 | J | -5.15 | 20B.1.5 | 116 i | Fig., bird(?) (cl) | MIB |
| KI 93 | K | -0.95 | 25B. 3 | cf. 142d | Loomweight (cl) | UM-43-26-126 |
| KI 94 | K | -0.95 | 25B. 2 | 142a | Whorl (cl) | MIB |
| KI 95 | K | -1.85 | 25B. 5 | 145b-c | Fig., animal (cl) | MIB |
| KI 96 | L | -0.40 | 25A.3.3 | 136d | Saucer | MIB |
| KI 97 | L | -0.50 | 25A.3.5 | 136h | Jar | MIB |
| KI 98 | L | -1.20 | 25B. 2 | cf. 142a | Whorl (cl) | MIB |
| K199 | L | -1.25 | 29B.2.2 | cf. 215 g | Weight (st) | MIB |
| KI 100 | L | -1.35 | 29B. 3 | 216 g | Whetstone (gy st) | MIB |
| KI 101 | L | -1.80 | 25A.3.2 | cf. 136c | Bowl | UM-43-26-4 |
| KI 102 | L | -2.05 | 25A.3.11 | 140 b | Vessel, brazier | UM-43-26-90 |
| KI 102a | L | -2.05 | 25A.3.5 | 1365 | Bowl | UM-43-26-84 |
| KI 103 | L | -1.35 | 20A.1.3.1.2 | cf. 79 j | Pot | MIB |
| KI 104 | L | -1.30 | 25A.3.13 | - | Sherd, jar | UM-43-26-55 |
| KI 105 | M | - | 32A. 3 | 248:223 | Seal, impr. (cl) | UM-43-26-181 |
| KI 106 | M | -1.65 | 29B. 10 | - | Blade (fl) | MIB |
| KI 107 | M | -1.50 | 29B. 3 | 142b | Loomweight (cl) | MIB |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KI 108 | M | -1.45 | 25A.3.7 | 136j | Pitcher | MIB |
| KI 109 | M | -2.60 | 32A. 2.6 | 239:108 | Cyl. seal (fa) | UM-43-26-177 |
| KI 110 | M | -1.75 | 25A.3.1 | 136b | Bowl | MIB |
| KI 111 | M | -1.65 | 25B. 9 | 144c | Fig. (?), frgm (cl) | UM-43-26-119 |
| KI 112 | M | -1.90 | 25A.3.14 | 138c | Vessel, bull-shaped | UM-43-26-115 |
| KI 113a, b | M | -1.90 | 25A.3.14 | cf. 138c | Vessel, bull-shaped | UM-43-26-116 |
| KI 114 | M | -2.35 | 27B. 2 | 1571 | Knife (ir) | MIB |
| KI 115 | M | -2.90 | 32A.2.7 | 241:133 | Cyl. seal (fa) | MIB |
| KI 116 | M | -3.00 | 25A.3.2 | 136c | Bowl | UM-43-26-1 |
| KI 117 | M | -3.15 | 25B. 3 | 142c | Loomweight (cl) | UM-43-26-127 |
| KI 118 | N (pit) | -3.75 | 27B. 2 | cf. 1571 | Knife (ir) | UM-(?) |
| KI 119 | N | -3.75 | 25B. 3 | 142d | Loomweight (cl) | UM-43-26-125 |
| KI 120 | N (pit) | -3.75 | 25A.3.13 | - | Sherds | UM-43-26-110 |
| KI 121 | N | -2.85 | 25A.3.9 | 1361 | Crucible (cl) | MIB |
| KI 122 | N | -2.85 | 25B. 4 | 142e | Wheel, model (cl) | UM-43-26-130 |
| KI 123a | N | -3.35 | 20A.1.5.3.1 | 85 e | Sherd | MIB |
| KI 123b | N | -3.35 | 20A.1.5.3.1 | 85f | Sherd | MIB |
| KI 124 | N, x1 | -3.75 | 27B. 2 | - | Knife (ir) | MIB |
| KI 125 | O | -4.25 | 17C | 75k | Bead (fa) | UM-43-26-167 |
| KI 126 | 0 | -4.10 | 17B. 4 | - | Bead (ca) | MIB |
| KI 127a-c | 0 | -3.80 | 25A.3.10 | 136m, 140a | Kernos ring | UM-43-26-117 |
| KI 128 | 0 | -4.45 | 15D. 2 | 73g | Whorl (cl) | UM-43-26-121 |
| KI 129 | 0 | -4.30 ( t ) | 17B. 2 | 75 e | Blade (fl) | MIB |
| KI 130 | 0 | -4.70 | 15D. 1 | 73f | Hook, Muller (cl) | MIB |
| KI 131 | 0 | -4.70 | 17B. 4 | 75h | Bead (ch) | MTB |
| KI 132 | 0 | -4.70 | 17B. 1 | 75d | Blade (ob) | MIB |
| KI 133 | 0 | -4.60 | 15B. 4 | - | Sherd, goblet(?) | UM-43-26-105 |
| KI 134 | 0 | -5.30 | 15D. 3 | 73h | Missile, sling (cl) | MIB |
| KI 135a | 0 | -5.30 | 15B.3.2 | - | Jar (misc) | MIB |
| KI 135b | 0 | -5.30 | 15B.3.2 | - | Jar (misc) | MIB |
| KI 136a | 0 | -5.20 | 15B. 2 | cf. 73 b | Bowl, beveled-rim | UM-43-26-193 |
| KI 136b | 0 | -5.20 | 15B. 2 | cf. 73 b | Bowl, beveled-rim | UM-43-26-193 |
| KI 136c | 0 | -5.20 | 15B. 2 | cf. 73 b | Bowl, beveled-rim | UM-43-26-193 |
| KI 137 | O, x1 | -4.60 | 15B.3.1 | 73 c | Jar | MIB |
| KI 138 | O | -6.45 | 15D. 4 | 73 i | Fig., human (cl) | MIB |
| KI 139 | P | -4.90 | 18B. 1 | 76 g | Spoon (bo) | UM-43-26-139 |
| KI 140 | P | -3.90 | 25A.3.8 | 136k | Jar, spouted | MIB |
| KI 141 | P | -5.05 | 17B. 2 | 75 f | Blade (jasper) | UM-43-26-138 |
| KI 142 | P | -5.30 | 17B. 4 | $75 i$ | Pendant (chl) | UM-43-26-170 |
| KI 143 | P | -5.10 | 15B. 1 | 73a | Platter | UM-43-26-86 |
| KI 144 | P | -4.80 | 15B. 2 | 73 b | Bowl, beveled-rim | UM-43-26-194 |
| KI 145 | P | -5.15 | 19B. 1 | 78:2 | Cyl. seal (gypsum) | MIB |
| KI 146 | P | -5.10 | 19B. 1 | 78:1 | Cyl. seal (mar) | UM-43-26-179 |
| KI 147 | P | -5.40 | 178. 3 | - | Celt (ob) | MIB |
| KI 148 | P | -5.40 | 17B. 1 | 75g | Bladclet (ob) | MIB |
| KI 149 | P | -5.55 | 18B. 2 | 76 h | Shutte (bo) | MIB |
| KI 150 | P | -5.45 | 15B.5.2 | 73 e | Pot, large | MIB |
| KI 151 | P | -5.50 | 19B. 1 | 78:3 | Cyl. seal (Imst) | UM-43-26-178 |
| KI 152 | P | -6.00 | 17B. 4 | 75 j | Bead (serp) | (?) |
| KI 153 | P | -5.70 | 15B.5.1 | 73d | Pot, small | MIB |
| KI 154 | P | -5.95 | 18B. 3 | 76 i | Bead (sh) | MIB |
| - 155-416 (see Kamtarlan II section of this index) |  |  |  |  |  |  |
| KI 417 | I, x1 | -4.90 | 21A. 5 | - | Bowl (br) | UM-(?) |
| -418 (see Kamtarlan II section of this index) |  |  |  |  |  |  |
| KI 419 | 1 (Fill) | - | 20A.1.5.3.1 | 84e | Jar | UM-43-26-57 |
| KI 420-512 | - | - | - | - | Sherds | (?) |
| KI 513 | J | -2.70 | 25B. 8 | 145f | Fig., human (cl) | UM-43-26-118 |


| Cat. no. Plot/Tomb Elev. Chap. sect. | Plate | Description | Mus. no. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

KAMTARLAN I

| KI 514 | L | -1.60 | $25 B .9$ | 144 b | Vessel frgm, animal MIB |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| KI 515 | O | -6.55 | 20 A .1 .5 .3 .1 | 85 g | Sherd, jar | MIB |

Cat. no. Plot/Tomb Elev. Chap. sect. Plate Description 

KAMTARLAN II

| KII 155 | B | -3.70 | 20A.2.2.1.3 | cf. 94 e | Goblet | MIB |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KII 156 | B, x 1 | -4.40 | 20A.2.1.6.1 | cf. 930 | Bowl, tripod | UM-43-26-14 |
| KII 157 | B, x 1 | -4.40 | 21B.1.3 | 125e | Dagger (br) | MIB |
| KII 158 | B, x 1 | -4.40 | 21B.1.1 | 125c | Axe (br) | MIB |
| KII 159 | B, xl | -4.40 | 20A.2.1.6.1 | 930 | Bowl, tripod | UM-43-26-13 |
| KII 160 | B, x 1 | -4.40 | 20A.2.1.6.1 | cf. 93 r | Bowl, tripod | UM-43-26-11 |
| KII 161 | B, x 1 | -4.40 | 20A.2.2.1.3 | cf. 94e | Goblet | UM-43-26-47 |
| KII 162 | B, xl | -4.40 | 20A.2.4.1.4 | 107c | Pot | MMA 43.89.16 |
| KII 163 | B, xl | -4.40 | 20A.2.3.1.2 | 94t | Cup | UM-43-26-77 |
| KII 164 | B, x 1 | -4.40 | 20A.2.4.4.1 | 98 f | Pot | UM-43-26-58 |
| KII 165 | B, x 1 | -4.40 | 20A.2.4.1.4 | cf. 107c | Pot | UM-43-26-72 |
| KII 166 | B, x 1 | -4.40 | 22B. 4 | - | Tool (diorite) | MIB |
| KII 167 | B, x 2 | -4.60 | 20A.2.1.6.1 | cf. 93h | Bowl, tripod | MMA 43.89 .5 |
| KII 168 | B, x 2 | -4.60 | 20A.2.2.1.3 | 94 e | Goblet | UM-43-26-45 |
| KII 169 | B, x 2 | -4.60 | 20A.2.1.6.1 | 93h | Bowl, tripod | MIB |
| KII 170 | B, x 2 | -4.60 | 20A.2.1.6.1 | 93i | Bowl, tripod | MTB |
| KII 171 | B, x 2 | -4.60 | 20A.2.4.3.2 | 98 d | Pot | MIB |
| KII 172 | B, x2 | -4.60 | 21B.1.3 | 125f | Dagger (br) | MIB |
| KII 173 | B, $\times 3$ | -4.60 | 20A.2.1.6.2 | 93 t | Bowl, tripod | MIB |
| KII 174 | B, x 3 | -4.60 | 20A.2.2.1.3 | cf. 94 e | Goblet | MIB |
| KII 175 | C, $\times 2$ | -4.45 | 20A.2.5.1.2 | 108c | Jar | UM-43-26-94 |
| KII 175a:1 | C, $\times 2$ | -4.45 | 20A.2.7 | 106e | Sherd | MIB |
| KII 175a:2 | C, x 2 | -4.45 | 20A.2.7 | 106f | Sherd | MIB |
| KII 175a:3 | C, x 2 | -4.45 | 20A.2.7 | 106 g | Sherd | MIB |
| KII 176 | C, x2 | -4.45 | 20A.2.1.6.1 | 931 | Bowl, tripod | UM-43-26-10 |
| KII 177 | C, $\times 2$ | -4.45 | 20A.2.1.6.1 | 93m | Bowl, tripod | (?) |
| KII 178 | C, $\times 2$ | -4.45 | 20A.2.1.4.2 | 92 q | Bowl | UM-43-26-5 |
| KII 179 | C, $\times 2$ | -4.45 | 20A.2.1.6.1 | cf. 93 b | Bowl | (?) |
| KII 180 | C, x 2 | -4.45 | 20A.2.4.4.1 | cf. 99a | Pot | UM-43-26-70 |
| KII 181 | C, $\times 2$ | -4.45 | 20A.2.3.1.2 | cf. 94t | Cup | UM-43-26-78 |
| KII 182 | C, $\times 2$ | -4.45 | 20A.2.2.1.3 | cf. 94 e | Goblet | UM-43-26-46 |
| KII 183 | C, $\times 2$ | -4.45 | 20A.2.3.1.2 | cf. 94t | Cup | MIB |
| KII 184 | C, $\times 2$ | -4.45 | 20A.2.4.5.2 | 100b | Pot, tripod | UM-43-26-27 |
| KII 185 | C, x 2 | -4.45 | 21B.3.4 | 122i | Pin (br) | UM-43-26-150 |
| KII 186 | C, x 2 | -4.45 | 20A.2.1.1.1 | 92a | Bowl | UM-43-26-7 |
| KII 187 | C | -4.00 | 20A.2.4.1.4 | 95d | Pot | UM-(?) |
| KII 188 | C | -4.15 | 20A.2.1.2.3 | 92j | Bowl | MIB |
| KII 189 | C | -4.75 | 21B.4.3 | cf. 122q | Earrings (si) | UM-43-26-164 |
| KII 190 | C | -4.15 | 24A. 2 | 130p | Bead (sh) | MIB |
| KII 191 | C | -4.45 | 22B. 1 | - | Blade (fl) | M ${ }^{\text {B }}$ |
| KII 192 | C, x 1 | -4.20 | 20A.2.3.1.2 | cf. 94t | Cup | UM-43-26-79 |
| KII 193 | C, x 1 | -4.20 | 20A.2.7 | - | Sherds | UM-(?) |
| KII 194 | C | -3.90 | 20A.2.2.1.3 | cf. 94e | Goblet | UM-43-26-42 |
| KII 195-96 | C | -4.90 | 20A.1.6.2.1 | 86d | Jar, storage | MIB |
| KII 197 | C | -5.35 | 20A.1.1.1.1 | cf. 79 a | Bowl | UM-43-26-99 |
| KII 198 | D | -3.75 | 20A.2.5.2.1 | 102a | Jar | UM-43-26-63 |
| KII 199 | D | -3.75 | 20A.2.2.1.3 | 94 f | Goblet | UM-43-26-34 |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KII 200 | D | -3.75 | 20A.2.2.1.3 | 94 m | Goblet | UM-43-26-35 |
| KII 201 | D | -3.75 | 20A.2.2.1.3 | cf. 94 f | Goblet | MMA 43.89.10 |
| KП 202 | D | -3.75 | 20A.2.7 | - | Sherds | MIB |
| KII 203 | D | -4.10 | 21B.3.1 | cf. 121j | Pin (br) | UM-43-26-153 |
| KII 204 | D | -2.10 | 21B.4.1.4 | - | Bracelet (br) | UM-(?) |
| KII 205 | D | -4.10 | 21B.3.1 | cf. 121i | Pin (br) | UM-(?) |
| KII 206 | D | -3.90 | 21B.1.3 | 121f | Dagger (br) | MIB |
| KII 207 | D | -3.90 | 21B.3.4 | 122 g | Pin (br) | UM-43-26-152 |
| KII 208 | D | -4.20 | 20A.2.4.5.1 | 99 d | Pot, tripod | (?) |
| KII 209a | D | -4.20 | 20A.2.2.1.3 | cf. 94e | Goblet | UM-43-26-50 |
| KII 209b | D | -4.20 | 20A.2.1.2.3 | cf. 92 m | Bowl | MIB |
| KII 210 | D | -4.20 | 20A.2.2.1.3 | cf. 94 e | Goblet | MIB |
| KII 211 | D | -4.25 | 20A.2.2.1.3 | cf. 94c | Goblet | MIB |
| KII 212 | D | -4.35 | 21B.3.1 | cf. 121j | Pin (br) | MIB |
| KII 213 | D | -4.30 | 21B.4.2 | - | Ring, finger (si) | MIB |
| KII 214 | D | -4.30 | 21B.4.1.4 | - | Bracelet (br) | UM-(?) |
| KII 215 | D | -4.30 | 21B.3.1 | - | Pin (br) | (?) |
| KII 216 | D | -4.10 | 21B.3.1 | cf. 121i | Pin (br) | UM-(?) |
| KII 217 | D, x1 | -4.65 | 20A.2.2.1.3 | cf. 94 e | Goblet | UM-43-26-48 |
| KII 218 | D, x1 | -4.65 | 20A.2.1.2.2 | 921 | Bowl | MIB |
| KII 219 | D | -4.75 | 21B.3.3 | cf. 122f | Pin (br) | UM-43-26-161 |
| KII 220:1 | D, $\times 2$ | -4.95 | 24A. 2 | 130k:1 | Bead (ca) | MIB |
| KII 220:2 | D, x2 | -4.95 | 24A. 2 | 130k:2 | Bead (ca) | MIB |
| KII 220:3 | D, x 2 | -4.95 | 24A. 2 | 130k:3 | Bead (si) | MIB |
| KII 220:4 | D, x2 | -4.95 | 24A. 2 | 130k:4 | Bead (si) | MIB |
| KII 220:5 | D, x 2 | -4.95 | 24A. 2 | 130k:5 | Bead (si) | MIB |
| KII 221 | D, x2 | -4.95 | 21B.4.1.4 | - | Bracelet (br) | UM-(?) |
| KII 222 | D, x2 | -4.95 | 21B.3.1 | cf. 122 i | Pin (br) | (?) |
| KII 223 | D, x 2 | -4.95 | 21B.3.1 | cf. 122i | Pin (br) | UM-(?) |
| KII 224 | D, x 2 | -4.95 | 20A.2.4.1.4 | 95h | Pot | MIB |
| KII 225 | D, x2 | -4.95 | 20A.2.1.6.1 | 93s | Bowl, tripod | UM-43-26-16 |
| KII 226 | D, x 2 | -4.95 | 21B.5.2 | 124c, 126c | Goblet (br) | UM-(?) |
| KII 227 | D, x 2 | -4.95 | 24A. 2 | cf. 1300:2 | Bead (ca) | MBB |
| KII 228 | D, x3 | -4.75 | 21B.3.3 | cf. 122f | Pin (br) | UM-(?) |
| KII 229 | D, x 3 | -4.75 | 318.3.3 | cf. 122f | Pin (br) | UM-(?) |
| KII 230 | D, x3 | -4.75 | 20A.2.2.1.3 | cf. 94 f | Goblet | MIB |
| KII 231 | D, x3 | -4.75 | 20A.2.1.5.1 | 92 r | Bowl | UM-43-26-6 |
| KII 232 | D, x3 | -4.75 | 20A.2.1.6.1 | cf. 93 i | Bowl, tripod | MIB |
| KII 233 | D, x3 | -4.75 | 21B.5.3 | - | Cup (br) | UM-(?) |
| KII 234 | D, x3 | -4.75 | 21B.5.1 | 1231 | Bowl (br) | MIB |
| KII 235 | D, x3 | -4.75 | 20A.2.4.1.5 | 97c | Pot | MIB |
| KII 236 | D, x3 | -4.75 | 20A.2.5.1.1 | 100f | Jar | UM-43-26-191 |
| KII 236a | D, x3 | -4.95 | 20A.2.5.3.1 | 102c | Jar | MIB |
| KII 236b | D, x3 | -4.95 | 20A.2.1.5.1 | cf. 92 r | Bowl | MIB |
| KII 237 | D, x3 | -4.75 | 20A.2.6.2 | 105c | Pipe | UM-43-26-89 |
| KII 238 | D, x3 | -4.75 | 20A.2.2.1.3 | cf. 94 f | Goblet | MIB |
| KII 239 | D, x3 | -4.75 | 20A.2.4.4.1 | cf. 98 f | Pot | UM-43-26-71 |
| KII 240 | D | -5.05 | 21B.1.3 | - | Dagger (br) | UM-43-26-145b |
| KII 241 | D | -5.00 | 21A.2.1 | 119b | Gauge (br) | UM-43-26-162 |
| KII 242:1-4 | D | -5.05 | 21A.4.4 | 1190:1-4 | Ornaments (br) | UM-(?) |
| KII 243 | D | -5.30 | 21A.4.1 | cf. 119k | Bracelet (br) | UM-(?) |
| KII 244 | D | -5.30 | 21B.5.2 | cf. 124d | Goblet (br) | MIB |
| KII 245 | D, x5 | -5.45 | 21B.5.2 | cf. 124c | Goblet (br) | UM-(?) |
| KII 246 | D, $\times 5$ | -5.45 | 20A.2.4.5.1 | 99 e | Pot, tripod | MIB |
| KII 247 | D, x5 | -5.45 | 20A.2.2.1.3 | cf. 94 e | Goblet | MIB |
| KII 248 | D, x5 | -5.45 | 20A.2.5.4.1 | cf. 102e | Jar | MIB |
| KII 249 | D, x5 | -5.45 | 20A.2.4.5.1 | 108b | Pot, tripod | MIB |
| KII 250 | D, x5 | -5.45 | 20A.2.4.1.5 | cf. 97c | Jar, storage | MIB |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KII 251 | D, $\times 5$ | -5.45 | 20A.2.4.5.1 | 107g | Pot, tripod | MMA 43.89.9 |
| KII 252 | D, $\times 5$ | -5.45 | 20A.2.4.2.1 | 97 d | Pot | MIB |
| KII 253 | D, $\times 5$ | -5.45 | 21B.5.2 | 124d | Goblet (br) | MIB |
| KII 254 | D, $\times 5$ | -5.45 | 21B.3.1 | cf. 121i | Pin (br) | UM-43-26-148 |
| KII 255 | D, $\times 5$ | -5.45 | 21B.4.4 | 123b | Omament (br) | UM-(?) |
| KII 256 | D, $\times 5$ | -5.45 | 21B.4.4 | cf. 123b | Ornament (br) | MIB |
| KII 257 | D, $\times 5$ | -5.45 | 21B.3.4 | 122h | Pin (br) | MIB |
| KII 258 | D, $\times 5$ | -5.45 | 20A.4.2.4.6 | 100e | Cups, twin, tetrapod | MIB |
| KII 259 | D, $\times 5$ | -5.45 | 20A.2.1.6.1 | cf. 93 h | Bowl, tripod | MMA 43.89.4 |
| KII 260 | D, $\times 5$ | -5.45 | 20A.2.1.6.1 | 93p | Bowl, tripod | UM-43-26-12 |
| KII 261 | D, $\times 5$ | -5.45 | 20A.2.2.1.3 | cf. 948 | Goblet | MIB |
| KII 262 | D, $\times 5$ | -5.45 | 20A.2.6.2 | cf. 105c | Pipe | MIB |
| KII 263 | D, $\times 5$ | -5.45 | 21B.4.2 | - | Rings, finger (si) | MIB |
| KII 264:1 | D, $\times 5$ | -5.45 | 24A. 2 | 1301:1 | Bead (ca) | UM-43-26-175 |
| KII 264:2 | D, $\times 5$ | -5.45 | 24A. 2 | 1301:2 | Bcad (ca) | UM-43-26-175 |
| KII 265 | D, $\times 5$ | -5.45 | 21B.4.3 | cf. 122r | Earring (si) | UM-43-26-165 |
| KII 266 | D, $\times 5$ | -5.45 | 20A.2.4.1.4 | 95 c | Pot | MIB |
| KII 267 | D, x5 | -5.45 | 20A.2.1.6.1 | cf. 93 h | Bowl, tripod | MIB |
| KII 268 | D, $\times 5$ | -5.45 | 20A.2.2.1.3 | cf. 94 f | Goblet | MIB |
| KII 269 | D, $\times 5$ | -5.45 | 20A.2.2.1.3 | cf. 94 e | Goblet | UM-43-26-40 |
| KII 270 | D, x 4 | -5.45 | 20A.2.4.5.1 | 108a | Pot, tripod | MMA 43.89.8 |
| KП1 271 | D, x 4 | -5.45 | 20A.2.6.1 | 105b | Pipe | UM-43-26-91 |
| KII 272 | D, x 4 | -5.45 | 20A.2.4.1.4 | 96 a | Pot | MIB |
| KII 273 | D, x 4 | -5.45 | 20A.2.1.2.3 | cf. 92 m | Bowl | MIB |
| KII 274 | D, x 4 | -5.45 | 21B.5.2 | 124e | Goblet (br) | UM-(?) |
| KII 275 | D, x 4 | -5.45 | 21B.5.2 | 124b | Goblet (br) | UM-43-26-143 |
| KII 276 | D, x 4 | -5.45 | 20A.2.4.2.1 | 98a | Pot | MIB |
| KII 277 | D, x 4 | -5.45 | 20A.1.6.1.1 | 93 q | Bowl, tripod | MIB |
| KII 278 | D, $\times 4$ | -5.45 | 20A.2.2.1.3 | 94 g | Goblet | MIB |
| KII 279 | D, x 4 | -5.45 | 20A.2.1.6.1 | cf. 93 r | Bowl, tripod | MIB |
| KII 280 | D, x 4 | -5.45 | 20A.2.1.6.2 | cf. 93 t | Bowl, tripod | UM-43-26-19 |
| KII 281 | D, x 4 | -5.45 | 21B.5.1 | 123g, 126d | Bowl (br) | UM-43-26-144 |
| KII 282 | D, x 4 | -5.45 | 20A.2.2.1.3 | cf. 94 e | Goblet | MIB |
| KII 283 | D, x 4 | -5.45 | 21B.3.1 | cf. 121i | Pin (br) | MIB |
| KII 284 | D, x4 | -5.45 | 21B.3.1 | cf. 121i | Pin (br) | UM-43-26-149 |
| KII 285:1 | D, x 4 | -5.45 | 24A. 2 | 130m:1 | Bead (si) | UM-43-26-176 |
| KII 285:2 | D, x 4 | -5.45 | 24A. 2 | 130m:2 | Bead (si) | UM-43-26-176 |
| KII 286:1 | D, $x 4$ | -5.45 | 24A. 2 | 130n:1 | Bead (ca) | UM-43-26-173 |
| KII 286:2 | D, x 4 | -5.45 | 24A. 2 | 130n:2 | Bead (ca) | UM-43-26-173 |
| KII 286:3 | D, x 4 | -5.45 | 24A. 2 | 130n:3 | Bead (ca) | UM-43-26-173 |
| KII 286:4 | D, x 4 | -5.45 | 24A. 2 | 130n:4 | Bead (ca) | UM-43-26-173 |
| KII 287 | D, $\times 4$ | -5.45 | 21B.4.3 | cf. 122r | Earrings (si) | MIB |
| KII 288 | D, x 4 | -5.45 | 21B.4.3 | 122r | Earring (si) | MIB |
| KII 289 | D, x6 | -5.90 | 20A.2.2.1.3 | cf. 94 e | Goblet | UM-43-26-44 |
| KII 290 | D, $x 6$ | -5.90 | 20A.2.1.2.3 | cf. 92 m | Bowl | MIB |
| KII 291 | D, $\times 6$ | -5.90 | 20A.2.1.6.1 | cf. 93p | Bowl, tripod | UM-43-26-17 |
| KII 292 | D, x6 | -5.90 | 20A.2.1.2.3 | 92m | Bowl | UM-43-26-8 |
| KII 293 | D, x6 | -5.90 | 20A.2.2.1.3 | cf. 94 g | Goblet | MIB |
| KII 294 | D, $\times 6$ | -5.90 | 21B.4.1.3 | 122 m | Bracelet (si) | MIB |
| KII 295 | D, $x 6$ | -5.90 | 21B.5.3 | 124j | Jug (br) | MIB |
| KII 296 | D, x6 | -5.90 | 21B.1.3 | 121d | Dagger (br) | UM-43-26-146 |
| KII 297 | D, x6 | -5.90 | 24A. 2 | 130t | Bead (ca) | MIB |
| KII 298:1-3 | D, x6 | -5.90 | 21B.4.4 | 123c:1-3 | Ornaments (si/br) | MIB |
| KII 299 | D, x6 | -5.90 | 22B. 4 | - | Tool (st) | MIB |
| KII 300:1-3 | D, x6 | -5.90 | 20A.2.7 | - | Sherds | MIB |
| KII 301 | D | -5.50 | 21B.5.2 | - | Goblet (br) | MIB |
| KII 302 | D, x5 | -5.45 | 20A.2.1.6.1 | 93b | Bowl | UM-43-26-9 |
| KII 303 | E | -4.00 | 20A.2.2.1.1 | 94a | Goblet | UM-43-26-59 |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KII 304 | E | -3.95 | 20A.2.2.1.2 | 94b | Goblet | MIB |
| KII 305 | E | -3.90 | 20A.2.3.1.2 | 94 v | Cup | MIB |
| KII 306 | E | -4.65 | 24A. 2 | cf. 130n:1 | Bead (ca) | MIB |
| KII 307 | E, x 1 | -4.25 | 20A.2.2.1.4 | cf. 94 r | Goblet | MIB |
| KII 308 | E, x1 | -4.25 | 20A.2.3.1.1 | 94 r | Cup | MMA 43.89.17 |
| KII 309 | E, x1 | -4.25 | 21B.4.4 | 123a | Ornament (br) | MIB |
| KII 310:1 | E, x1 | -4.25 | 24A. 2 | 1300:1 | Bead (ch) | UM-43-26-172 |
| KII 310:2 | E, x1 | -4.25 | 24A. 2 | 1300:2 | Bead (ca) | UM-43-26-172 |
| KII 310:3 | E, xl | -4.25 | 24A. 2 | 1300:3 | Bead (br) | UM-43-26-172 |
| KII 310:4 | E, x1 | -4.25 | 24A. 2 | 1300:4 | Bead (ca) | UM-43-26-172 |
| KII 310:5 | E, x1 | -4.25 | 24A. 2 | 1300:5 | Bead (ca) | UM-43-26-172 |
| KII 310:6 | E, x1 | -4.25 | 24A. 2 | 1300:6 | Bead (ca) | UM-43-26-172 |
| KII 310:7 | E, x 1 | -4.25 | 24A. 2 | 1300:7 | Bead (ca) | UM-43-26-172 |
| KII 310:8 | E, x1 | -4.25 | 24A. 2 | 1300:8 | Bead (ca) | UM-43-26-172 |
| KII 310:9 | E, x1 | -4.25 | 24A. 2 | 1300:9 | Bead (ca) | UM-43-26-172 |
| KII 310:10 | E, x1 | -4.25 | 24A. 2 | 1300:10 | Bead (fa) | UM-43-26-172 |
| KII 310:11 | E, x1 | -4.25 | 24A. 2 | 1300:11 | Bead (sh) | UM-43-26-172 |
| KII 310:12 | E, x1 | -4.25 | 24A. 2 | - | Bead (ca) | UM-43-26-172 |
| KII 310;13 | E, x1 | -4.25 | 24A. 2 | - | Bead (ca) | UM-43-26-172 |
| KII 310:14 | E, x 1 | -4.25 | 24A. 2 | - | Bead (ca) | UM-43-26-172 |
| KII 311 | E, xl | -4.25 | 21B.3.3 | cf. 122f | Pin (br) | MIB |
| KII 312 | E, x1 | -4.25 | 22B. 3 | 128 i | Whetstone (sl) | MIB |
| KII 313 | E | -4.25 | 20A.2.7 | 106h | Sherd | UM-43-26-103 |
| KII 314 | E | -5.05 | 22A. 4 | 128e | Pestle(?) (st) | UM-43-26-132 |
| KII 315 | E | -4.95 | 22A. 5 | 128f | Vessel, min. (chl) | MIB |
| KII 316 | E | -4.80 | 21B.3.1 | cf. 121i | Pin (br) | MIB |
| KII 317 | E | -4.80 | 20B.2.2.1 | 116 k | Whorl (cl) | MIB |
| KII 318 | E | -4.35 | 20A.2.4.5.1 | cf. 99e | Pot, tripod | MIB |
| KII 319 | E | -4.80 | 20A.2.4.1.3 | 95b | Pot | UM-43-26-190 |
| KII 320 | E | -4.15 | 20A.2.3.1.1 | 94s | Cup | UM-43-26-75 |
| KII 321 | F | -3.90 | 20A.2.1.1.4 | 92h | Bowl | MIB |
| KII 322 | F | -4.00 | 20A.2.6.2 | 105d | Pipe | MIB |
| KII 323 | F | -4.30 | 20B.1.5 | 116h | Fig., animal (cl) | UM-43-26-114b |
| KII 324 | F | -4.50 | 21B.4.3 | 122p | Earring (br) | MIB |
| KII 325 | F | -4.40 | 21B.3.3 | 122 f | Pin (br) | MIB |
| KII 326 | F | -4.70 | 20A.1.5.3.3 | 85d | Jar | UM-43-26-60 |
| KII 327 | F | -4.60 | 21B.4.1.1 | cf. 1221 | Bracelet (br) | UM-43-26-158 |
| KII 328 | F | -5.45 | 24C. 2 | 132:10 | Cyl. seal (fa) | MIB |
| KII 329 | F | -4.00 | 20A.2.3.1.2 | cf. 94v | Cup | UM-43-26-81 |
| KII 330 | F | -4.00 | 20A.2.2.1.3 | cf. 94c | Goblet | UM-43-26-43 |
| KII 331 | F | -5.45 | 20A.1.3.1.1 | 80 b | Pot | UM-(?) |
| KII 332 | F | -5.45 | 20A.1.5.1.1 | 82d | Jar | MIB |
| KII 333 | F | -5.00 | 24C. 2 | 132:11 | Cyl. seal (cl) | UM-43-26-180 |
| KII 334 | G | -3.80 | 20B.2.2.1 | cf. 116 k | Whorl (cl) | UM-43-26-122 |
| KII 335 | G | -3.80 | 20B.2.3 | 117b | Fig., animal (cl) | (?) |
| KII 336 | G | -3.85 | 20A.2.2.1.4 | 94 q | Goblet | MIB |
| KII 337 | G | -4.45 | 21B.4.2 | - | Ring, finger (br) | UM-43-26-158 |
| KII 338 | G | -4.10 | 20B.2.3 | - | Fig., animal (cl) | MIB |
| KII 339 | G | -3.95 | 20A.2.7 | 106d | Sherd | MIB |
| KII 340 | G | -4.35 | 20A.2.2.1.3 | cf. 94c | Goblet | MIB |
| KII 341 | G, xl | -4.25 | 20A.2.2.1.3 | cf. 94 e | Goblet | MMA 43.89.12 |
| KII 342 | G, x 1 | -4.25 | 20A.2.1.1.3 | 92e | Bowl | MIB |
| KII 343 | G, x 1 | -4.25 | 20A.2.2.1.4 | 94p | Goblet | UM-43-26-85 |
| KII 344 | $\mathrm{G}, \mathrm{x} 1$ | -4.25 | 21B.4.1.2 | cf. 122k | Bracelet (br) | MIB |
| KII 345 | G, x 1 | -4.25 | 21B.4.1.2 | - | Bracelet (br) | UM-43-26-157 |
| KII 346 | G, x2 | -4.00 | 20A. 2.7 | - | Sherd | UM-43-26-183 |
| KII 347 | H | -4.00 | 20A.2.5.4.1 | 105a | Jar, storage | UM-43-26-185 |
| KII 348 | H | -4.00 | 20A.2.3.1.1 | cf. 94 r | Cup | MIB |


| Cat. no. | Plot/Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KII 349 | H | -4.00 | 20A.2.3.1.1 | cf. 94 r | Cup | MIB |
| KII 350 | H | -4.30 | 20A.2.7 | cf. 102 d (?) | Sherd | MIB |
| KII 351 | H | -4.30 | 20A.2.7 | - | Sherd | UM-43-26-187 |
| KII 352 | H | -5.20 | 20A.1.5.3.1 | 85a | Jar | MIB |
| KII 352a | H | -5.20 | 20A.1.1.1.1 | 79a | Bowl | MIB |
| КП 352b | H | -5.20 | 20A.1.5.2.2 | 88 c | Jar | UM-43-26-51 |
| KII 353 | H | -4.75 | 20A.1.2.2.1 | 790 | Goblet | MIB |
| KII 354 | H | - | 20A.1.5.3.2 | 85 c | Jar | UM-43-26-56 |
| KII 355 | H, x1 | -3.95 | 20A.2.1.1.2 | 92 c | Bowl | MIB |
| KII 356 | H | -4.90 | 21B.1.3 | 120f | Dagger (br) | UM-43-26-147 |
| KII 357 | H | -4.90 | 20A.2.7 | - | Sherd | UM-43-26-188 |
| KII 358 | H | -5.50 | 20B.1.5 | - | Fig., animal (cl) | MIB |
| KII 359 | I | -4.25 | 24A. 2 | cf. 1300:10 | Bead (sh) | MTB |
| KII 360 | I | -5.20 | 21B.4.3 | - | Earring (si) | MIB |
| KII 361 | I | -5.15 | 21A.2.3 | 119c | Needle (br) | UM-43-26-155 |
| KII 362 | I, x1 | -4.30 | 20A.3.3.3.1 | cf. 1090 | Cup | UM-43-26-80 |
| KII 363 | I, x1 | -4.30 | 20A.3.4.5.1 | 114b | Pot, tripod | MIB |
| KII 364 | I, x1 | -4.30 | 20A.3.6.2.1 | 111k | Jar | UM-43-26-62 |
| KII 365 | I, x1 | -4.30 | 20A.3.6.2.1 | 115b | Jar | UM-43-26-64 |
| KII 366 | I, x 1 | -4.30 | 20A.3.6.2.1 | cf. 111 k | Jar | UM-43-26-61 |
| KII 367 | I, x1 | -4.30 | 20A.3.4.6.2 | 114 d | Pot, tetrapod | UM-43-26-30 |
| KII 368 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.2.2 | cf. 110g | Pot | MIB |
| KII 369 | I, x 1 | -4.30 | 20A.3.2.1.1 | 109f | Goblet | MIB |
| KII 370 | I, x 1 | -4.30 | 20A.3.4.2.1 | 110a | Pot | MIB |
| KII 371 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.9.2 | 115c | Pipe | (?) |
| KII 372 | I, x1 | -4.30 | 20A.3.4.5.1 | cf. 111b | Pot, tripod | MIB |
| KII 373 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.3.3.1 | 1090 | Cup | MIB |
| KII 374 | I, x1 | -4.30 | 20A.3.4.4.2 | 110 g | Pot | MIB |
| KII 375 | I, x1 | -4.30 | 20A.3.4.6.1 | 114c | Pot, double | UM-43-26-26 |
| KII 376 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.5.1.1 | 111 g | Jar, small | UM-43-26-37 |
| KII 377 | 1, x1 | -4.30 | 20A.3.7.2.1 | 113b | Pitcher | MIB |
| KII 378 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.5.1 | cf. 111b | Pot, tripod | MIB |
| KII 379 | I, x 1 | -4.30 | 20A.3.4.5.1 | cf. 111b | Pot, tripod | UM-43-26-23 |
| KII 380 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.1.2.1 | cf. 109e | Bowl | MIB |
| KII 381 | I, x1 | -4.30 | 20A.3.9.2 | cf. 115c | Pipe | UM-43-26-88 |
| KII 382 | I, x1 | -4.30 | 20A.3.8.1.1 | 113 c | Jar, storage | MIB |
| KII 383 | I, x1 | -4.30 | 20A.3.2.2.1 | cf. 109j | Goblet | MIB |
| KII 384 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.5.1 | cf. 111b | Pot, tripod | MIB |
| KII 385 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.5.1 | 111b | Pot, tripod | UM-43-26-22 |
| KII 386 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.4.1 | cf. 110f | Pot | MMA 43.89.15 |
| KII 387 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.6.2.1 | cf. 111k | Jar | MIB |
| KII 388 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.5.1 | 111c | Pot, tripod | MIB |
| KII 389 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.9.1 | cf. 105b | Pipe | MIB |
| KII 390 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.2.1 | cf. 110a | Pot | UM-43-26-184 |
| KII 391 | I, x 1 | -4.30 | 20A.3.4.5.1 | cf. 111b | Pot, tripod | MIB |
| KII 392 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.2.2 | cf. 110g | Pot | UM-43-26-83 |
| KII 393 | I, x 1 | -4.30 | 20A.3.4.5.1 | cf. 111b | Pot, tripod | M ${ }^{\text {B }}$ |
| KII 394 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.5.1 | cf. 111b | Pot, tripod | MMA 43.89.6 |
| KII 395 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.5.1.2 | 111h | Jar, small | MIB |
| KII 396 | I, x 1 | -4.30 | 20A.3.4.5.1 | 111d | Pot, tripod | MIB |
| KII 397 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.9.1 | cf. 105b | Pipe | MIB |
| KII 398 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.6.2.2 | 1111 | Jar | MIB |
| KII 399 | I, x 1 | -4.30 | 20A.3.2.2.1 | cf. 109j | Goblet | UM-43-26-39 |
| KII 400 | I, x 1 | -4.30 | 20A.3.4.5.1 | 111a | Pot, tripod | MIB |
| KII 401 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 21C.1.1 | cf. 122i | Pin (br) | MIB |
| KII 402:1 | $\mathrm{I}, \mathrm{xl}$ | -4.30 | 20A.3.1.3.1 | 109e | Bowl | UM-43-26-3 |
| KII 402:2 | I, x 1 | -4.30 | 20A.3.1.3.1 | cf. 109e | Sherd | UM-43-26-3 |
| KII 403 | I, x 1 | -4.30 | 20A.3.2.2.1 | 109j | Goblet | UM-43-26-38 |


| Cat. no. | Plot/Tomb | Elev. | Chap sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KAMTARLAN II |  |  |  |  |  |  |
| KII 404 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.2.1.2 | 109h | Goblet | UM-43-26-33 |
| KII 405 | I, x 1 | -4.30 | 20A.3.9.2 | cf. 115c | Pipe | UM-43-26-87 |
| KII 406 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.6.2.1 | cf. 111 k | Jar | MIB |
| KII 407 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.5.1 | cf. 111a | Pot, tripod | MIB |
| KII 408 | I, x1 | -4.30 | 20A.3.4.5.1 | cf. 111b | Pot, tripod | UM-43-26-25 |
| KII 409 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.5.2 | 114a | Pot | MIB |
| KII 410 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.3.1.1 | 109m | Cup | UM-43-26-82 |
| KII 411 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.4.5.1 | 111e | Pot, tripod | MMA 43.89.7 |
| KII 412 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.1.2.1 | 109c | Bowl | UM-43-26-2 |
| KII 413 | I, x 1 | -4.30 | 21C.2.2 | - | Ring, finger (br) | MIB |
| KII 414 | I, x1 | -4.30 | 21C.1.1 | cf. 122 i | Pin (br) | MIB |
| KII 415 | $\mathrm{I}, \mathrm{x} 1$ | -4.30 | 20A.3.5.1.2 | 111i | Jar, small | MIB |
| KII 416 | I | -5.15 | 21B.3.1 | - | Pin (br) | MIB |
| - 417 (see Kamtarlan I section of this index) |  |  |  |  |  |  |
| KII 418 | C | -4.35 | 19A. 1 | 77ii | Seal, stamp (st) | MIB |
| KII 516-549 - |  | section | index) |  |  |  |
|  |  | - | - | - | Sherds | (?) |
| KII 550 | D | -4.30 | 20A.2.7 | 106a | Sherd | UM-43-26-104 |


| Cat. no. Tomb Elev. Chap. sect. Plate Description | Mus. no. |
| :--- | :--- | :--- | :--- | :--- | :--- |

## KHATUN BAN

| Kha 1 | x 1 | -0.95 | 31A. 28 | - | Bead (ca) | UM-(?) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kha 2 | x 1 | -0.95 | 31A. 29 | - | Bead (ch) | OI A25361 |
| Kha 3 | x 1 | -0.95 | 31A. 29 | - | Bead (ca) | MIB |
| Kha 4 | x1 | -0.95 | 28F | cf. 192h | Ring (ir) | OI A25362 |
| Kha 5 | x1 | -0.95 | 27D. 1 | - | Pin shank (ir) | NY |
| Kha 6 | x 1 | -0.95 | 25A.2.5 | 1351 | Cup | OI A25363 |
| Kha 7 | x 1 | -0.95 | 31A. 18 | - | Bead (ca) | MIB |
| Kha 8 | x 1 | -0.95 | 28F | 192h | Ring (ir) | MIB |
| Kha 9 | x1 | -0.95 | 31A. 25 | 232ag | Bead (ca) | NY |
| Kha 10 | x1 | -0.95 | 27C.4.1.1 | - | Bracelet (br) | NY |
| Kha 11 | x 1 | -0.95 | 31A. 19 | 231 bz | Bcad (br) | MIB |
| Kha 12:1 | x 1 | -0.95 | 31A. 15 | - | Bead (ca) | NY |
| Kha 12:2 | x1 | -0.95 | 31A. 8 | - | Bead (ca) | NY |
| Kha 13 | x 1 | -0.95 | 31A. 32 | 一 | Bead (ca) | NY |
| Kha 14 | xl | -0.95 | 27C.4.1.1 | - | Bracelet (br) | MIB |
| Kha 15:1 | x 1 | -0.95 | 31A. 29 | - | Bead (ca) | MIB |
| Kha 15:2 | x1 | -0.95 | 31A. 35 | - | Bead (ca) | MIB |
| Kha 15:3 | x 1 | -0.95 | 31A. 15 | - | Bead (ca) | MIB |
| Kha 16 | x 1 | -0.95 | 28A. 2 | 204 a | Bowl, dipper (br) | UM-(?) |
| Kha 17 | xl | -0.95 | 29B. 10 | - | Strike-a-light (fl) | OI A25364 |
| Kha 18 | x 1 | -0.95 | 28F | cf. 192h | Ring (ir) | NY |
| Kha 19 | x 1 | -0.95 | 27D. 1 | - | Pin shanks (ir) | OI A25365 |
| Kha 20 | x1 | -0.95 | 28F | cf. 192h | Ring (ir) | NY |
| Kha 21 | x 1 | -0.95 | 28F | cf. 192h | Ring (ir) | NY |
| Kha 22 | x 1 | -0.95 | 28 K .5 | 202j | Metal boss (ir) | MIB |
| Kha 23 | x 1 | -0.95 | 29B. 10 | 217k | Strike-a-light (fl) | MIB |
| Kha 24 | x 1 | -0.95 | 28F | cf. 192h | Ring (ir) | UM-(?) |
| Kha 25 | x1 | -0.95 | 28A. 5 | 204e | Pot (br) | MIB |
| Kha 26a | x1 | -0.95 | 31A. 15 | - | Beads (ca) | UM-(?) |


| Cat. no. | Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kha 26b | x1 | -0.95 | 31A. 28 | - | Beads (ca) | UM-(?) |
| Kha 26c | x 1 | -0.95 | 31A. 29 | - | Bead (ca) | UM-(?) |
| Kha 26d | x 1 | -0.95 | 31A. 35 | - | Bead (ca) | UM-(?) |
| Kha 27 | x 2 | -1.05 | 32A.2.8 | 241:138 | Cyl. seal (alab) | MIB-732 |
| Kha 28 | $\times 2$ | -1.05 | 29B. 10 | 2171 | Strike-a-light (fl) | NY |
| Kha 29 | x 2 | -1.05 | 29B. 10 | 217m | Strike-a-light (fl) | MIB |
| Kha 30 | x2 | -1.05 | 27A.3.3 | 156a | Dagger (ir) | NY |
| Kha 31 | x 2 | -1.05 | 27A.3.3 | - | Dagger (ir) | MIB |
| Kha 32 | x 2 | -1.05 | 25A.2.6 | 135m | Cup | MIB |
| Kha 33 | x 2 | -1.05 | 25A.2.11 | - | Sherd | NY |
| Kha 34 | x 2 | -1.05 | 25A.2.11 | - | Sherd | (?) |
| Kha 35 | x 2 | -1.05 | 27C.4.3.1 | - | Bracelets (ir) | MIB |
| Kha 36 | x 2 | -1.05 | 29B. 10 | - | Strike-a-light (fl) | UM-(?) |
| Kha 37 | x3 | -1.15 | 27C.4.7 | 163c | Bracelet (br) | MIB |
| Kha 38 | x3 | -1.15 | 25A.2.2 | 135g | Bowl | UM-(?) |
| Kha 39 | x3 | -1.15 | 25A.2.8 | 135q | Jar | UM-(?) |
| Kha 40 | x3 | -1.15 | 27D. 9 | cf. 166c | Pin (ir) | MIB |
| Kha 41 | x3 | -1.15 | 28F | cf. 192h | Ring (ir) | MIB |
| Kha 42 | x3 | -1.15 | 27D. 9 | 166c | Pin (ir) | NY |
| Kha 43 | x3 | -1.15 | 28F | cf. 192h | Ring (ir) | MIB |
| Kha 44 | x3 | -1.15 | 28F | cf. 192h | Ring (ir) | MIB |
| Kha 45 | x3 | -1.15 | 31 A .1 | - | Beads (sh) | MIB |
| Kha 46 | x3 | -1.15 | 27 D .2 | - | Pin (ir) | (?) |
| Kha 47 | x3 | -1.15 | 28H.2.1 | cf. 200b | Pin (ir) | OI A25366 |
| Kha 48 | x3 | -1.15 | 28F | cf. 192h | Ring (ir) | MIB |
| Kha 49 | x3 | -1.15 | 27D. 1 | - | Pin shank (ir) | MIB |
| Kha 50 | x4 | -0.85 | 25A. 2.5 | cf. 1351 | Cup | MMA 43.102.41 |
| Kha 51 | x4 | -0.85 | 25A. 2.9 | 135s | Flask | MIB |
| Kha 52 | x4 | -0.85 | 27C.4.8 | - | Bracelet (ir) | OI A25367 |
| Kha 53 | x4 | -0.85 | 27J | 175k | Standand (br) | MIB |
| Kha 54 | x4 | -0.85 | 27J | 1751 | Standard (br) | OI A25368 |
| Kha 55 | x5 | -0.75 | 27A.3.1 | 155k | Dagger (br) | MIB |
| Kha 56 | $\times 5$ | -0.75 | 25A.2.4 | 1350 | Jar | MIB |
| Kha 57 | x6 | -0.60 | 27C.4.1.4 | - | Bracelets (ir) | MIB |
| Kha 58 | x6 | -0.60 | 25A.2.3 | 135h | Bowl | MIB |
| Kha 59 | x6 | -0.60 | 27D. 9 | 166a | Pin (br) | MIB |
| Kha 60 | x7 | -0.65 | 28K. 2 | cf. 213d | Metal boss (br) | NY |
| Kha 61 | x7 | -0.65 | 28K. 2 | cf. 213d | Metal boss br) | OI A25369 |
| Kha 62 | $\times 7$ | -0.65 | 28K. 2 | 213d | Metal boss (br) | MIB |
| Kha 63 | x7 | -0.65 | 28A. 4 | 204d | Goblet (br) | MIB |
| Kha 64 | x7 | -0.65 | 27A.3.3 | 156b | Dagger (ir) | MIB |
| Kha 65 | x7 | -0.65 | 27C.4.8 | - | Bracelets (ir) | OI A25370 |
| Kha 66 | x7 | -0.65 | 25A.2.4 | 135k | Jar | MIB |
| Kha 67 | x8 | -0.70 | 25A.2.5 | 139d | Cup | MMA 43.102.42 |
| Kha 68 | x8 | -0.70 | 27A.3.2 | 1551 | Dagger (br/ir) | OI A25371 |
| Kha 69a, b | x8 | -0.70 | 27C.4.3.1 | cf. 162j | Bracelets (ir) | UM-(?)/MIB |
| Kha 70 | x8 | -0.70 | 29B. 10 | - | Strike-a-light (fl) | MIB |
| Kha 71 | x8 | -0.70 | 25A.2.4 | $135 i$ | Jar | NY |
| Kha 72:1 | x 1 | -0.95 | 31A. 15 | - | Bead (ca) | MIB |
| Kha 72:2 | x1 | -0.95 | 31A. 29 | - | Bead (ca) | MIB |
| Kha 72:3 | x 1 | -0.95 | 31A. 28 | - | Bead (ca) | MIB |
| Kha 73 | x3 | -1.15 | 31A. 1 | - | Beads (sh) | MIB |
| Kha 74 | - | - | 25A.2.11 | - | Sherds | (?) |


| Cat. no. | Provenience | Elev. | Chap sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MERAYUN |  |  |  |  |  |  |
| Mer 1 | Cemetery | - | 27C.6.4 | 163q | Button (ir) | OI A25380 |
| Mer 2 | Cemetery | - | 27C.6.4 | 163r | Button (ir) | OI A25381 |
| Mer 3 | Cemetery | - | 27C.6.4 | 163s | Button (ir) | (?) |
| Mer 4 | Cemetery | - | 31A. 12 | - | Bead (serpentine) | (?) |
| Mer 5 | Cemetery | - | 31A. 31 | - | Bead (tufa) | (7) |
| Mer 6 | Cemetery | - | 25A.2.11 | - | Sherds | (?) |
| Cat. no. | Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| MIR VALI |  |  |  |  |  |  |
| MV 1 | Tomb I | 0.20 | 20A.3.1.1.1 | 109a | Bowl | MIB |
| MV 2 | Tomb I | 0.20 | 21C.1.2 | 127e | Pin (br) | MIB |
| MV 3 | Tomb I | 0.20 | 21C.1.2 | 127f | Pin (br) | UM-43-27-22 |
| MV 4 | Tomb I | 0.20 | 20B.3.1 | 117e | Whorl (cl) | MIB |
| MV 5 | Tomb II | - | 20A.1.1.3.2 | 79 g | Bowl | MIB |
| MV 6 | Tomb II | - | 20A.1.3.3.3 | 81d | Pot | UM-43-27-9 |
| MV 7 | Tomb II | - | 20A.1.5.3.4 | 86b, c | Jar | MIB |
| MV 8 | Tomb II | - | 20A.1.5.3.4 | cf. 86b | Jar | MIB |
| MV 9 | Tomb II | - | 20A.1.5.2.1 | 83 d | Jar | MIB |
| MV 10 | Tomb II | - | 20A.1.3.3.3 | 81c | Pot | MIB |
| MV 11 | Tomb II | - | 20A.1.1.3.2 | 79 h | Bowl | MIB |
| MV 12 | Tomb II | - | 20A.1.3.3.1 | 81b | Pot | UM-43-27-5 |
| MV 13 | Tomb II | - | 20A.1.5.3.1 | 89 | Jar | UM-43-27-12 |
| MV 14 | Tomb II | - | 20A.1.5.2.2 | cf. 84b | Jar | UM-43-25-13 |
| MV 15 | Tomb II | - | 20A.1.5.2.2 | cf. 84b | Jar | (?) |
| MV 16 | Tomb II | - | 20A.1.3.3.3 | cf. 81c | Pot | MIB |
| MV 17 | Tomb II | - | 20A.1.1.2.1 | cf. 79 d | Bowl | MIB |
| MV 18 | Tomb II | - | 20A.1.5.3.1 | 85b | Jar | UM-43-27-20 |
| MV 19 | Tomb II | - | 20A.1.3.3.3 | 81 g | Pot | UM-43-27-6 |
| MV 20 | Tomb III | - | 20A.1.3.3.4 | 81f | Pot | UM-43-27-4 |
| MV 21 | Tomb III | - | 20A.1.3.2.2 | cf. 80e | Pot | UM-43-27-11 |
| MV 22 | Tomb III | - | 20A.1.3.2.3 | cf. 81a | Pot | UM-43-27-18 |
| MV 23 | Tomb III | - | 20A.1.5.3.1 | 84c | Jar | UM-43-27-16 |
| MV 24 | Tomb III | - | 20A.1.3.2.3 | 81a | Pot | UM-43-27-17 |
| MV 25 | Tomb III | - | 20A.1.1.3.1 | 79d | Bowl | UM-43-27-2 |
| MV 26 | Tomb III | - | 20A.1.3.3.3 | cf. 81c | Pot | UM-43-27-8 |
| MV 27 | Tomb III | - | 20A.1.1.3.1 | cf. 79 d | Bowl | MIB |
| MV 28 | Tomb IV | - | 20A.1.2.2.2 | 79p | Cup | UM-43-27-10 |
| MV 29 | Tomb IV | - | 20A.1.4.1.1 | 811 | Jar, small | UM-43-27-15 |
| MV 30 | Tomb IV | - | 21A.3.3 | 119e | Pin (br) | MIB |
| MV 31 | Tomb IV | - | 21A.3.3 | 119 f | Pin (br) | UM-(?) |
| MV 32 | Tomb IV | - | 20A.1.1.1.2 | cf. 79 d | Bowl | UM-43-27-3 |
| MV 33 | Tomb IV | - | 20A.1.5.3.3 | 86a | Jar | MIB |
| MV 34 | Tomb IV | - | 20A.1.4.2.1 | 88b | Jar, small | MIB |
| MV 35 | Tomb IV | - | 20A.1.5.3.1 | 90a | Jar | MIB |
| MV 36 | Tomb IV | - | 20A.1.1.4.1 | 79 i | Bowl | UM-43-27-1 |
| MV 37 | Tomb IV | - | 20A.1.4.1.1 | 81i | Jar, small | UM-43-27-14 |
| MV 38 | Tomb IV | - | 21A.4.3 | 119 n | Earring (si) | UM-43-27-24 |
| MV 39 | Tomb IV | - | 21A.4.2 | 1191 | Ring, finger (si) | UM-43-27-23 |
| MV 40:1 | Tomb IV | - | 24A.1 | 130a:1 | Bead (sh) | UM-43-27-25 |
| MV 40:2 | Tomb IV | - | 24A. 1 | 130a:2 | Bead (sh) | UM-43-27-25 |
| MV 40:3 | Tomb IV | - | 24A. 1 | 130a:3 | Bead (gypsum) | UM-43-27-25 |
| MV 40:4 | Tomb IV | - | 24A. 1 | 130a:4 | Bead (gypsum) | UM-43-27-25 |
| MV 40:5 | Tomb IV | - | 24A. 1 | 130a:5 | Bead (st) | UM-43-27-25 |


| Cat. no. | Tomb | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MIR VALI |  |  |  |  |  |  |
| MV 41 | Tomb IV | - | 21A.4.3 | - | Earring (br) | (?) |
| MV 42 | Tomb IV | - | 21A.4.3 | 119m | Earring (br) | UM-(?) |
| MV 43 | Tomb IV | - | 20A.1.4.1.1 | 81j | Jar, small | UM-43-27-21 |
| MV 44 | Tomb IV | - | 20A.1.1.3.1 | cf. 79 d | Bowl | MIB |
| MV 45 | Tomb IV | - | 20A.1.1.3.2 | 79 e | Bowl | MIB |
| MV 46 | Tomb V | - | 20A.1.3.3.4 | 81 e | Pot | UM-43-27-7 |
| MV 47 | Tomb IV | - | 20A.1.2.2.3 | 87b | Goblet | MIB |
| MV 48 | Tomb IV | - | 20A.1.4.1.1 | 81k | Jar, small | MIB |
| MV 49 | Tomb IV | - | 20A.1.1.1.2 | cf. 79 d | Bowl | MIB |
| MV 50 | Tomb III | - | 20A.1.3.3.4 | cf. 81f | Pot | MIB |
| MV 51 | Tomb III | - | 20A.1.5.3.2 | 88d | Jar | UM-43-27-19 |
| Cat. no. | Area | Level | Chap. sect. | Plate | Description | Mus. no. |

## QAL'E ALAN

| Qal 1 | - | Surf. | 27 C .3 | 161a | Torque(?) (br) | (?) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Cat. no. | Plot | Level | Chap. sect. | Plate | Description | Mus. no. |

## QUMISH A

| Qum 1 | A | - | 31A. 10 | 230an | Bead (sh) | OI A25372 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Qum 2 | A | - | 31A. 9 | - | Bead (sh) | (?) |
| Qum 3 | A | - | 31A. 32 | - | Bead (fa) | (?) |
| Qum 4a | A | - | 31 A .17 | - | Beads (br) | (?) |
| Qum 4b | A | - | 31 A .27 | - | Beads (br) | (?) |
| Qum 5 | A | - | 28A. 10 | - | Vessel (br) | (?) |
| Qum 6 | A | - | 27D. 6 | 165d | Pin (br) | (?) |
| Qum 7 | A | - | 27D. 13 | 170a | Pin (br) | (?) |
| Qum 8 | A | - | 27D. 11 | 168b | Pin (ir) | (?) |
| Qum 9 | A | - | 27D. 14 | cf. 169h | Pin (ir) | (?) |
| Qum 10 | A | - | 27C.6.2.1 | 1630 | Button (br) | (?) |
| Qum 11 | A | - | 31A. 18 | - | Bead (ca) | (?) |
| Qum 12 | A, Cmty | - | 25A.2.11 | - | Sherds | (?) |
| Cat. no. | Plot/Tomb | Lev | Chap. sect. | Plate | Description | Mus. no. |

## SHAFFE

| Sha 1 | A | Mdsl | 31A. 8 | - | Bead (sh) | UM-(?) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sha 2 | A | Mds | 27A.3.3 | - | Dagger (ir) | MIB |
| Sha 3 | A | Lo sl | 27C.4.3.2 | 162j | Bracelet (br) | NY |
| Sha 4 | A | Lo sl | 27A.3.3 | 155 m | Dagger (ir) | NY |
| Sha 5 | A | Lo sl | 27C.6.2.1 | cf. 1630 | Button (br) | MIB |
| Sha 6 | A | $1 / 3 \mathrm{sl}$ | 27C.4.3.1 | cf. 162j | Bracelet (ir) | MIB |
| Sha 7 | A | Mdsl | 28 K .5 | 202i | Metal boss (ir) | NY |
| Sha 8 | A | Mds1 | 27D. 1 | - | Shank (ir) | MIB |
| Sha 9 | A | Mdsl | 27B. 4 | 158j | Spoon (ir) | MIB |
| Sha 10 | A | Mdsl | 31 A. 16 | 231w | Bead (br) | MIB |
| Sha 11 | A | Mdsl | 31 A .17 | - | Bead (br) | MIB |
| Sha 12 | A | Mdsl | 31 A .17 | - | Bead (br) | OI A25373 |
| Sha 13 | A | Mds1 | 28A. 10 | - | Vessel (br) | MIB |


| Cat. no. | Plot/Tomb | Level | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SHAFFE |  |  |  |  |  |  |
| Sha 14:1 | A | Mdsl | 31A.8 | - | Bead (sh) | NY |
| Sha 14:2 | A | Mdsl | 31 A .8 | - | Bead (sh) | NY |
| Sha 15:1 | A | Mdsl | 31A. 8 | - | Bead (sh) | MIB |
| Sha 15:2 | A | Mdsl | 31 A .8 | - | Bead (sh) | MIB |
| Sha 16 | B, x 1 | -0.80 | 31A. 17 | 231z | Bead (fa) | MIB |
| Sha 17 | A | Mdsl | 27C.6.4 | 163p | Button (br) | OI A25374 |
| Sha 18 | A | Mdsl | 27C.2.1 | cf. 160 n | Ring, finger (br) | NY |
| Sha 19 | A | Mdsl | 27C.1.1 | - | Earring (br) | UM-(?) |
| Sha 20 | B, x 1 | -0.80 | 31 A. 17 | - | Beads (br) | MIB |
| Sha 21 | B, x 1 | -0.80 | 31A. 16 | - | Bead (fa) | OI A25375 |
| Sha 22 | B, x 1 | -0.80 | 31 A .16 | - | Bead (br) | MBB |
| Sha 23 | B, x 1 | -0.80 | 31 A .28 | 231ap | Bead (br) | MIB |
| Sha 24 | B, x 1 | -0.80 | 27C.2.2 | - | Ring, finger (br) | MIB |
| Sha 25 | B, x 1 | -0.80 | 31 A .31 | - | Beads (glass) | MIB |
| Sha 26 | B, x2 | -0.85 | 31 A .15 | - | Beads (br) | MIB |
| Sha 27 | B, x2 | -0.85 | 31A. 15 | 231x | Beads (br) | MIB |
| Sha 28 | B, x 2 | -0.85 | 31 A. 17 | 231aa | Beads (br) | NY |
| Sha 29 | B, x 2 | -0.85 | 27C.6.2.1 | cf. 1630 | Buttons (br) | MIB |
| Sha 30 | B, x2 | -0.85 | 27C.6.2.1 | - | Button (br) | MIB |
| Sha 31 | B, x2 | -0.85 | 28K. 5 | cf. 202i | Metal boss (ir) | MIB |
| Sha 32 | B, x2 | -0.85 | 27C.4.1.1 | - | Bracelet (ir) | MIB |
| Sha 33 | B, x2 | -0.85 | 27B. 12 | - | Rod (ir) | OI A25376 |
| Sha 34 | B, x2 | -0.85 | 25A.2.8 | 135r, 139 f | Jar | MIB |
| Sha 35 | B, x3 | -0.50 | 27B. 5 | - | Chisel (ir) | NY |
| Sha 36 | B, x3 | -0.50 | 31A. 17 | - | Beads (br) | OI A25377 |
| Sha 37 | A | - | 25A.2.11 | - | Sherds | (?) |
| Sha 38 | B, x 1 | -0.80 | 25A.2.11 | - | Sherds | (?) |
| Sha 39 | B, x2 | -0.85 | 25A.2.11 | - | Sherds | (?) |
| Sha 40a | B, x3 | -0.50 | 27B. 12 | - | Rods (ir) | (?) |
| Sha 40b | B, x3 | -0.50 | 25A.2.11 | - | Sherds | (?) |
| Sha 41 | C | - | 25A.2.11 | - | Sherds + blade (ir) | (\%) |
| Cat. no. | Area | Elev. | Chap. sect. | Plate | Description | Mus. no. |
| SIYAH GUR |  |  |  |  |  |  |
| S Gor 1 | Cemetery | - | 27C.4.1.1 | cf. 161b | Bracelct (br) | (?) |
| S Gor 2 | Cemetery | - | 25A.2.11 | - | Sherds, 32 exx. | (?) |
| S Gor 3 | - | - | 10 | - | Sherds, 15 exx. | (?) |


| Cat. no. Plot / Elev. / Locus Chap. sect. Plate Description | Mus. no. |
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## SURKH DUM-I-LURI

| Sor 1 | - | Surf. | - | 28 H .2 .1 | 193 b | Pin (co/br | NY |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Sor 2 | Vill. | Surf. | - | 28 J .4 | 212 b | Plaque (co/br) | MIB |
| Sor 3 | II | Top lay | - | 27 D .12 | cf. 168 h | Pin (br) | MIB |
| Sor 4 | II | Top lay | - | 31A.15 | - | Bead (st) | MIB |
| Sor 5 | II | Top lay | - | 27 C .2 .4 | - | Ring, finger (br) | MIB |
| Sor 6 | II | Fill | - | 26 A .9 .3 | 151 c | Base (fa) | NY |
| Sor 7 | II | 8.90 | 1 | 27 D .14 | 170 m | Pin (br) | OI A25007 |
| Sor 8 | II | Fill | 1 | $28 \mathrm{H.1}$ | - | Pin (co/br) | MIB |
| Sor 9 | II | Fill | - | 27 D .12 | cf. 169 a | Pin shank (br) | MIB |
| Sor 10 | II | Fill | - | 27 D .16 .1 | 171d | Pin (br) | MIB |


| Cat. no. | Plot / Elev. / Locus |  |  | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 11 | II | Fill | - | 27D. 14 | cf. 170t | Pin (ir) | MIB |
| Sor 12 | II | Surf. | - | 27D. 12 | 168h | Pin (br) | UM-(?) |
| Sor 13 | II | Surf. | - | 27C.4.1.1 | - | Bracelet (br) | (?) |
| Sor 14 | II | 8.62 | 2 | 26A.9.3 | 150d, 154c | Beaker (fa) | MMA 43.102.45 |
| Sor 15 | III | - | nr 2 | 27E | - | Horns (ibex) (br) | MIB |
| Sor 16 | II | Fill | nr 2 | 32A.2.6 | 239:112 | Cyl. seal (alab) | MIB-732 |
| Sor 17 | II | 8.57 | 3 | 27D.16.2 | 179 g | Pin (br) | OI A25008 |
| Sor 18 | III | 8.52 | 4 | 31 A .2 | - | Bead (sh) | NY |
| Sor 19 | III | Fill | - | 31 A .30 | - | Bead (st) | NY |
| Sor 20 | II | 8.50 | 5 | 31A. 10 | - | Bead (sh) | MIB |
| Sor 21 | II | 8.65 | 6 | 26A.9.3 | 151b, 154d | Beaker (fa) | MIB |
| Sor 22 | II | Fill | - | 31A. 30 | - | Bead (ch) | MIB |
| Sor 23 | III | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 24 | III | 8.25 | 8 | 27D. 13 | 169n | Pin (br) | MIB |
| Sor 25 | III | 9.41 | 9 | 27D. 10 | cf. 166d | Pin (le) | NY |
| Sor 26 | II | Floor | - | 26A. 5 | 149f | Button (st) | UM-(?) |
| Sor 27 | II | Fill | - | 32A.2.3 | 235:73 | Cyl. seal (co) | UM-(?) |
| Sor 28 | II | Fill | - | 27A.3.3 | - | Dagger (ir) | MIB |
| Sor 29 | II | Floor | - | 31A. 12 | - | Bead (ag) | OI A25009 |
| Sor 30 | II | Fill | - | 31A. 42 | - | Beads (various) | UM-(?) |
| Sor 30:2j | III | Fill | - | 31 A .16 | 230 e | Bead (sh) | UM-(?) |
| Sor 31 | JI | Top lay | - | 28H.3.1 | 195 g | Pin (co/br) | MIB |
| Sor 32 | Л | Top lay | - | 28H.3.1 | 195h | Pin (co/br) | MIB |
| Sor 33 | JI | Fill | - | 27B. 1 | 157 g | Handle (br/ir) | MIB |
| Sor 34 | ת | 7.75 | 1 | 27D.18.1 | 173f | Pin (br) | MIB |
| Sor 35 | JI | Fill | - | 28G | - | Metal band (co/br) | OI A25010 |
| Sor 36 | JI | 7.72 | 2 | 24C. 3 | 132:12 | Cyl. seal (serp) | MIB-1463 |
| Sor 37 | JI | Fill | - | 27B. 9 | 159d | Weight(?) (br) | MIB |
| Sor 38 | JI | Top lay | - | 28A. 9 | 191b | Handle (co/br) | MIB |
| Sor 39 | JI | 7.82 | 3 | 31 A .37 | 232bb | Pin, bead-headed ( $\mathrm{ca} / \mathrm{ch} / \mathrm{ir}$ ) | MIB |
| Sor 40 | Л | 8.16 | 4 | 27D.18.3 | 174a | Pin (br) | MIB |
| Sor 41 | J | Top lay | - | 27D.18.1 | cf. 173k | Pin (br) | NY |
| Sor 42 | JI | 7.66 | 5 | 32A. 1 | 247:201 | Cyl. seal (fa) | OI A25011 |
| Sor 43 | Л | Top lay | - | 28B | 191e | Tube, drinking (co/br) | NY |
| Sor 44 | JI | Top lay | - | 17D. 18.4 | 174d | Pin (br) | MMA 43.102.17 |
| Sor 45 | J | Top lay | - | 28H.4.1 | 205c | Pin (co/br) | MIB |
| Sor 46 | JI | 7.64 | 6 | 32A.2.1 | 234:53 | Cyl. seal (mar) | MIB-1495 |
| Sor 47 | JI | Fill | - | 26B. 1 | 152 g | Button (glass) | UM-(?) |
| Sor 48 | JI | Top lay | - | 31A. 42 | - | Beads (various) | NY |
| Sor 49 | IH | Surf. | - | 28H.3.2 | 196h | Pin (co/br) | MIB |
| Sor 50 | IH | 9.03 | 1 | 27D.16.7 | 181d | Pin (br) | MIB |
| Sor 51 | IH | 9.03 | 1 | 27D.18.1 | 173g | Pin (br) | MIB |
| Sor 52 | IH | 9.03 | 1 | 27D. 3 | 164 i | Pin (ir) | OI A25012 |
| Sor 53 | IH | Top lay | - | 31A. 16 | - | Bead (ca) | MIB |
| Sor 54 | IH | - | nr 1 | 27D.16.1 | 171e | Pin (br) | OI A25013 |
| Sor 55 | IH | 8.58 | 2 | 28H.2.1 | 193c | Pin (co/br) | NY |
| Sor 56 | IH | Surf. | - | 27C.4.1.1 | - | Bracelet (br) | NY |
| Sor 57 | IH | 8.05 | 3 | 28H.2.2 | 200d | Pin (si) | MIB |
| Sor 58 | IH | 8.40 | 4 | 32A.2.12 | 245:172 | Cyl. seal (st) | MIB |
| Sor 59 | IH | Fill | - | 31A. 29 | - | Bead (crystal) | OI A25014 |
| Sor 60:1 | IH | Fill | - | 31A. 28 | - | Bead (glass) | MIB |
| Sor 60:2 | IH | Fill | - | 31 A .28 | - | Bead (glass) | MIB |
| Sor 60:3 | IH | Fill | - | 31A. 31 | - | Bead (glass) | MIB |
| Sor 61 | IH | Fill | - | 27C.4.3.1 | 162i | Bracelet (ir) | NY |
| Sor 62 | IH | 8.77 | 5 | 27D.16.1 | 179d | Pin (br) | MIB |
| Sor 63 | IH | 8.73 | 6 | 27D. 12 | 168i | Pin (br) | NY |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 64 | IH | Fill | - | 28K. 1 | 201h | Whorl (co/br) | MIB |
| Sor 65 | IH | 8.73 | 7 | 32B. 7 | 255:xliii | Ring, signet (si) | OI A25015 |
| Sor 66 | IH | 8.02 | 8 | 32A.2.7 | 240:120 | Cyl. seal (fa) | OI A25016 |
| Sor 67 | IH | Fill | - | 31A. 12 | - | Bead (ch) | MIB |
| Sor 68 | 1H | 8.55 | 9 | 27D. 12 | cf. 168 i | Pin (br) | MIB |
| Sor 69 | IH | Fill | - | 24C. 3 | 132:17 | Cyl. seal (lmst) | MIB-1470/732 |
| Sor 70 | IH | Top lay | - | 27C.1.6 | cf. 160 i | Earring (ir) | MIB |
| Sor 71 | IH | 7.79 | 10 | 28D | 191i | Mirror (co/br) | MIB |
| Sor 72 | IH | 8.09 | 11 | 29B.2.2 | 215 g | Weight (st) | OI A25017 |
| Sor 73 | IH | Fill | - | 30A.3.6 | cf. 223f | Pin (bo) | OI A25018 |
| Sor 74 | IH | Fill | - | 31A. 42 | - | Beads (various) | NY |
| Sor 74f | IH | Fill | - | 31 A. 16 | 231u | Bead (ca) | NY |
| Sor 75 | IH | Top lay | - | 28K. 1 | cf. 201h | Whorl | OI A25019 |
| Sor 76 | IH | Fill | - | 26A.1.1 | 148a | Disc (fa) | M1B |
| Sor. 77 | IH | Top lay | - | 28B | cf. 204f | Sieve (co/br) | MIB |
| Sor 78 | IH | 8.13 | 12 | 27D. 10 | 166i | Pin (br) | MIB |
| Sor 79 | IH | 8.11 | 13 | 26A. 7 | 149i, 153c | Statuette (fa) | UM-(?) |
| Sor 80 | IH | Top lay | - | 28H.2.1 | - | Pin (co/br) | MIB |
| Sor 81 | IH | Top lay | - | 27D. 14 | cf. 1701 | Pin (br) | MIB |
| Sor 82 | IH | Fill | - | 29C. 1 | 2170, 221e | Button (st) | MIB |
| Sor 83 | HH | Fill | - | 31 A .42 | - | Beads (various) | MIB |
| Sor 84 | III | Top lay | - | 25B. 5 | 142g, 145a | Fig., animal (cl) | NY |
| Sor 85 | III | Fill | - | 26B. 1 | 152f | Button (crystal) | MIB |
| Sor 86 | III | 8.65 | 10 | 27D. 11 | 168a | Pin (ir) | MIB |
| Sor 87 | III | 8.65 | 11 | 31 A .29 | - | Bead (glass) | MIB |
| Sor 88 | III | Fill | - | 28H.2.2 | 194d | Pin (co/br) | OI A25020 |
| Sor 89 | II | 8.56 | 12 | 32A.2.10 | 244:166 | Cyl. seal (fa) | UM-(?) |
| Sor 90 | II | 8.65 | 13 | 27D. 1 | - | Pin shank (br) | MIB |
| Sor 91 | II | Fill | - | 27D. 14 | cf. 170t | Pin (ir) | NY |
| Sor 92 | II | Fill | - | 28 G | 192j | Metal band (co/br) | NY |
| Sor 93 | II | 8.64 | 14 | 27D.16.1 | 171 f | Pin (br) | MIB |
| Sor 94 | II | Top lay | - | 28H.4.2 | 199d | Pin (co/br) | NY |
| Sor 95 | II | Fill | - | 31A. 42 | -. | Beads (various) | MIB |
| Sor 96 | JI | 7.87 | 7 | 32A.2.12 | 246:187 | Cyl. seal (st) | MIB |
| Sor 97 | JI | Fill | - | 29D | 218 c | Pin (st) | NY |
| Sor 98 | JI | Top lay | - | 27D. 12 | cf. 168 i | Pin (br) | M ${ }^{\text {B }}$ |
| Sor 99 | JI | Top lay | - | 29B. 7 | 217c | Disc (st) | UM-(?) |
| Sor 100 | JI | Top lay | - | 28H.5.2 | 209c | Pin (co/br) | MIB |
| Sor 101 | JI | 7.67 | 8 | 32A. 2.12 | 245:173 | Cyl. seal (fa) | NY |
| Sor 102 | JI | 7.67 | 9 | 32B. 7 | 254:xxxix | Ring, signet (br) | MMA 43.102.14 |
| Sor 103 | JI | 7.67 | 10 | 32A.2.6 | 239:109 | Cyl. seal (st) | MMA 43.102.40 |
| Sor 104 | JI | - | nr 9/10 | 27D. 13 | 169i | Pin (br) | MIB |
| Sor 105a | JI | Top lay | - | 28H.3.1 | 195i | Pin (co/br) | NY |
| Sor 105b | JI | Top lay | - | 28H.3.1 | 196a | Pin (co/br) | NY |
| Sor 105c | JI | Top lay | - | 28H.3.1 | 196b | Pin (co/br) | NY |
| Sor 106 | JI | 7.40 | 11 | 28 E | - | Spiral, hair (co/br) | OI A25021 |
| Sor 107 | JI | Fill | - | 27E | 174 g | Horns, ibex (br) | MIB |
| Sor 108 | JI | Fill | - | 24C. 3 | 132:18 | Cyl. seal (gr st) | MIB-1497 |
| Sor 109 | JI | Fill | - | 25B. 9 | 144d | Disc (cl) | MIB |
| Sor 110 | JI | 7.35 | 12 | 27D. 13 | cf. 169r | Pin (br) | OI A25022 |
| Sor 111 | JI | - | nr 12 | 27D.16.1 | 171 g | Pin (br) | UM-(?) |
| Sor 112 | JI | Fill | - | 31A. 12 | - | Bead | MIB |
| Sor 113 | JI | 7.44 | 13 | 27 D .12 | cf. 168i | Pin (br) | UM-(?) |
| Sor 114 | JI | 7.44 | 14 | 27D. 2 | 164 e | Pin (br) | UM-(?) |
| Sor 115 | JI | 7.44 | 15 | 32A.2.13 | 248:210 | Cyl. seal (fa) | MIB-732 |
| Sor 116 | II | Top lay | - | 27D. 11 | 167h | Pin (br, ir) | MIB |
| Sor 117 | JI | 7.30 | 16 | 28 J .5 | 212 g | Plaque (co/br) | MIB |
| Sor 118 | JI | 7.30 | 16 | 27D.11 | cf. 167q | Pin (ir) | NY |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 119 | Л | 7.46 | 17 | 32B.5.2 | 251:xxix | Seal, stamp (co) | MIB |
| Sor 120 | J | 7.72 | 18 | 27G.2.2 | 187k | Anim., homed (br) | MIB |
| Sor 121 | JI | Fill | nr 12 | 30A. 5 | 224i | Handle (bo) | MIB |
| Sor 122 | JI | Floor | - | 28H.2.1 | 193d | Pin (co/br) | MIB |
| Sor 123 | JI | Top lay | - | 28H.5.2 | 209d | Pin (co/br) | MIB |
| Sor 124 | JI | Top lay | - | 28G | 192k | Metal band (co/br) | NY |
| Sor 125 | J | - | - | 27 D .12 | 169d | Pin (ir) | MIB |
| Sor 126 | J | - | - | 31 A .42 | - | Beads (various) | OI A25023 |
| Sor 127a | - | Fill | - | 28H.5.2 | 209e | $\operatorname{Pin}(\mathrm{co} / \mathrm{br})$ | OI A25025 |
| Sor 127b | - | Fill | - | 28H.4.2 | 199e | Pin (co/br) | NY |
| Sor 128 | Л | Fill | - | 31A. 42 | - | Beads (various) | OI A25024 |
| Sor 129 | J | Fill | - | 28F | cf. 192h | Ring, sheet (ir) | MIB |
| Sor 130 | J | Fill | - | 27D. 3 | 164 g | Pin (br) | OI A25026 |
| Sor 131 | KI | 7.29 | 1 | 32A.2.2 | 235:72 | Cyl. seal (alab) | MMA 43.102.32 |
| Sor 132 | KI | Surf. | - | 27E | - | Horns, ibex (ir) | NY |
| Sor 133 | KI | 7.06 | 2 | 27A.3.1 | 177b | Dagger (br) | OI A25027 |
| Sor 134 | KI | - | nr 2 | 27D. 3 | 164j | Pin (ir) | NY |
| Sor 135 | KI | Top lay | - | 27D. 10 | 166j | Pin (br) | MIB |
| Sor 136 | KI | Top lay | - | 27D. 8 | cf. 165 g | Pin (br) | MIB |
| Sor 137 | KI | Fill | - | 31A. 42 | - | Beads (ca, sh) | MIB |
| Sor 138 | IH | Floor | - | 27C.6.1 | cf. 163g | Bution (br) | MIB |
| Sor 139 | IH | 8.05 | 14 | 32A.2.12 | - | Cyl. seal (fa) | NY |
| Sor 140:1 | IH | 7.84 | 15 | 29B. 1 | - | Pounder (st) | MIB |
| Sor 140:2 | IH | 7.84 | 15 | 29B.2.2 | 215h | Weight (st) | MIB |
| Sor 140:3 | IH | 7.84 | 15 | 29B.2.2 | 215 i | Weight (st) | UM-(?) |
| Sor 140:4 | IH | 7.84 | 15 | 29B.2.2 | 215j | Weight (st) | MIB |
| Sor 140:5 | IH | 7.84 | 15 | 29B.2.2 | cf. 215 i | Weight (st) | NY |
| Sor 140:6 | IH | 7.84 | 15 | 29B.2.2 | cf. 215 i | Weight (st) | MTB |
| Sor 140:7 | IH | 7.84 | 15 | 29B.2.2 | cf. 215i | Weight (st) | OI A25028 |
| Sor 140:8 | IH | 7.84 | 15 | 29B.2.2 | - | Weight (st) | MIB |
| Sor 140:9 | IH | 7.84 | 15 | 29B.2.2 | 215k | Weight (st) | MIB |
| Sor 140:10 | IH | 7.84 | 15 | 29B.2.2 | cf. 215 i | Weight (st) | MIB |
| Sor 140:11 | IH | 7.84 | 15 | 29B.2.2 | - | Weight (st) | OI A25029 |
| Sor 140:12 | IH | 7.84 | 15 | 29B.2.2 | cf. 215 i | Weight (st) | MIB |
| Sor 140:13 | 1H | 7.84 | 15 | 29B.2.2 | cf. 215i | Weight (st) | (?) |
| Sor 140:14 | IH | 7.84 | 15 | 29B.2.2 | cf. 215 i | Weight (st) | UM-(?) |
| Sor 140:15 | IH | 7.84 | 15 | 29B.2.1 | 215b | Weight (st) | (?) |
| Sor 140:16 | IH | 7.84 | 15 | 29B.2.2 | cf. 215 i | Weight (st) | (?) |
| Sor 140:17 | IH | 7.84 | 15 | 29B.2.2 | cf. 215 i | Weight (st) | (?) |
| Sor 140:18 | IH | 7.84 | 15 | 29B.2.1 | 215c | Weight (st) | OI A25030 |
| Sor 140:19 | IH | 7.84 | 15 | 29B.2.1 | - | Weight (st) | (?) |
| Sor 140:20 | IH | 7.84 | 15 | 29B.2.2 | cf. 215i | Weight (st) | (?) |
| Sor 140x | IH | 7.84 | 15 | 29B.2.2 | - | Weight (st) | MIB |
| Sor 141 | IH | Fill | - | 27C.2.2 | 160s | Ring, finger (br) | MIB |
| Sor 142 | IH | Fill | - | 27D.11 | cf. 167j | Pin (br/ir) | OI A25031 |
| Sor 143a | IH | Fill | - | 27C.6.2.1 | cf. 163h | Button (br) | OI A25032 |
| Sor 143b | IH | Fill | - | 27C.6.2.2 | cf. 163k | Button (br) | MIB |
| Sor 144 | IH | Fill | - | 27C.4.1.1 | 161g | Bracelet (ir) | MIB |
| Sor 145 | IH | 8.60 | 16 | 27D. 9 | cf. 166b | Pin (ir) | MIB |
| Sor 146 | IH | 8.60 | 16 | 27D. 1 | - | Pin shank (br) | OI A25033 |
| Sor 147 | IH | Fill | - | 27C.6.2.2 | 163k | Bution (br) | NY |
| Sor 148 | IH | Fill | - | 27E | - | Horns, ibex (br) | OI A25034 |
| Sor 149 | IH | Fill | - | 27D. 8 | 165g | Pin (br) | MIB |
| Sor 150 | IH | Fill | - | 27B. 7 | 159a | Bell clapper(?) (br) | MIB |
| Sor 151 | JH | 7.89 | 17 | 24C.4/33B | 133:28, 256a | Cyl. seal, inscr. (ca) | NY |
| Sor 152 | IH | 8.05 | 18 | 27D.16.4 | 180d | Pin (br) | MIB |
| Sor 153 | IH | Floor | - | 30B.1.1 | cf. 225a | Whorl (sh) | MIB |
| Sor 154 | IH | Floor | - | 29C. 3 | 220 c | Cyl. seal (lmst) | NY |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 155 | IH | 8.25 | 19 | 27D. 12 | 169 e | Pin (ir) | MIB |
| Sor 156 | IH | Floor | - | 27D.16.8 | 172h | Pin (br) | NY |
| Sor 157 | IH | 8.25 | 20 | 32A.2.9.2 | 244:160 | Cyl. seal (alab) | MIB-1451 |
| Sor 158 | IH | Floor | - | 27E | 174h | Horns, ibex (br) | MIB |
| Sor 159 | IH | 8.25 | 21 | 27D. 13 | 169p | Pin (br) | NY |
| Sor 160 | IH | 8.25 | 21 | 27C.4.1.5 | 162d | Bracelet (ir) | OI A25035 |
| Sor 161 | IH | Fill | - | 30B.1.2 | 225b | Whorl (sh) | NY |
| Sor 162 | IH | 8.25 | 22 | 31A.27/33B | 256b | Bead, inscr. (ag) | OI A25036 |
| Sor 163 | IH | Floor | - | 27D. 10 | cf. 166 m | Pin (br) | MIB |
| Sor 164 | HH | 8.07 | 23 | 28 E | 192a | Hair, spiral (co/br) | MIB |
| Sor 165 | IH | 7.69 | 24 | 24C. 3 | 132:13 | Cyl. seal (serp) | NY |
| Sor 166 | IH | 7.49 | 25 | 29B. 4 | 216a | Pestle (st) | NY |
| Sor 167 | IH | Floor | - | 31A. 15 | - | Bead (comp) | MIB |
| Sor 168a | IH | Floor | - | 30B.1.1 | 225a | Whorls (sh) | MIB |
| Sor 168b | IH | Floor | - | 30B.1.1 | cf. 225a | Whorls (sh) | OI A25037 |
| Sor 169 | H | Floor | - | 29B. 4 | 2151 | Pestle (st) | MIB |
| Sor 170 | IH | 7.80 | 26 | 24C.4/33B | $\begin{aligned} & 133: 26, \\ & 256 \mathrm{c} \end{aligned}$ | Cyl. seal, inscr. (rock crystal) | MIB-1471 |
| Sor 171 | IH | 8.01 | 27 | 32B. 4 | 250:xxiv | Seal, stamp (st) | MIB |
| Sor 172 | IH | Fill | - | 27C.6.2.2 | 1631 | Button (br) | MIB |
| Sor 173:1 | IH | Fill | - | 27D.11 | 1660 | Pin (br) | (?) |
| Sor 173:2, 3 | IH | Fill | - | 27D. 11 | cf. 167p | Pins (ir) | (?) |
| Sor 174 | IH | Fill | - | 27C.2.2 | 160t | Ring, finger (br) | MIB |
| Sor 175 | IH | Fill | - | 27C.1.3 | 160j | Earring (si) | (?) |
| Sor 176 | 1 H | Fill | - | 27C.4.1.1 | - | Bracelet (ir) | MIB |
| Sor 177 | IH | Fill | - | 30A.3.6 | 222u | Pin (bo) | MIB |
| Sor 178 | HH | Fill | - | 29B. 3 | - | Whetstone (gy st) | (?) |
| Sor 179 | IH | Fill | - | 26A.1.3 | 148c | Disc (fa) | MIB |
| Sor 180 | IH | Fill | - | 30A.3.2 | 222 n | Pin (bo) | (?) |
| Sor 181:1-3 | IH | Fill | - | 31 A .1 | - | Beads (sh) | (?) |
| Sor 181:4 | IH | Fill | - | 31 A .22 | - | Bead (fa) | (?) |
| Sor 182 | IH | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 182:3u | IH | Fill | - | 31A. 16 | 231t | Bead (ca) | MIB |
| Sor 183 | IH | Fill | - | 31A. 42 | - | Beads (various) | (?) |
| Sor 183:4e | IH | Fill | - | 31A. 16 | 231s | Bead (ca) | (?) |
| Sor 183:6a | IH | Fill | - | 31A. 25 | 232ah | Bcad (ca) | (?) |
| Sor 184 | IH | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 185 | II | Fill | - | 28A. 4 | 190f | Beaker, nipple (br) | MIB |
| Sor 186 | III | Fill | - | 27D. 14 | 170 g | Pin (br) | (?) |
| Sor 187 | III | Fill | - | 27D. 12 | cf. 169c | Pin (br/ir) | MIB |
| Sor 188 | II | Fill | - | 25B. 5 | 142h | Fig., animal (cl) | MIB |
| Sor 189 | II | Fill | - | 25B. 5 | 143a | Fig., animal (cl) | MIB |
| Sor 190 | II | Fill | - | 25B. 4 | 142 f | Wheel, model (cl) | MIB |
| Sor 191a | II | Fill | - | 25A. 3.13 | - | Sherd | UM |
| Sor 191b | II | Fill | - | 25A.3.13 | - | Sherd | NY |
| Sor 192 | III | Fill | - | 27E | - | Horns, ibex (br) | (?) |
| Sor 193 | III | Fill | - | 25B. 5 | 143b | Fig., animal (cl) | (?) |
| Sor 194 | JH | Fill | - | 27C. 5 | cf. 163e | Tack (br) | MIB |
| Sor 195 | JI | - | nr 12 | 24C. 8 | 134:37 | Cyl. seal (fa) | (?) |
| Sor 196 | JI | - | nr 12 | 32A.2.12 | 246:188 | Cyl. seal (st) | OI A25039 |
| Sor 197 | JI | 7.45 | 19 | 27D.16.1 | 171h | Pin (br) | MMA 43.102.21 |
| Sor 198 | JI | 7.25 | 20 | 27A.1 | 155a | Adze (br) | MIB |
| Sor 199 | II | Dump | - | 27E | - | Horns, ibex (br) | (?) |
| Sor 200 | JI | 7.25 | 22 | 32A.2.1 | 234:58 | Cyl. seal (st) | UM-(?) |
| Sor 201 | JI | 8.32 | 23 | 27D.18.4 | 185b | Pin (br) | UM-(?) |
| Sor 202 | JI | Fill | - | 32A.2.12 | - | Cyl. seal (fa) | MIB-732 |
| Sor 203 | JI | Fill | - | 27D. 13 | cf. 169r | Pin (br) | OI A25040 |
| Sor 204 | JI | Fill | - | 32A.2.9.1 | 242:148 | Cyl. seal (st) | MIB-1456 |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 205 | JI | Top lay | - | 32A.2.9.1 | 243:156 | Cyl. seal (bit) | MIB-729 |
| Sor 206 | JI | Top lay | - | 32A.2.1 | 234:55 | Cyl. seal (lmst) | (?) |
| Sor 207 | JI | 7.85 | 24 | 27D.18.1 | cf. 173k | Pin (br) | (?) |
| Sor 208 | JI | Floor | - | 27D. 12 | cf. 168 i | Pin (br) | MIB |
| Sor 209 | JI | 7.90 | 25 | 27D.16.7 | 181f | Pin (br) | MMA 43.102.3 |
| Sor 210 | Л | 7.80 | 27 | 32B. 7 | 254:xl | Ring, signet (co) | UM-(?) |
| Sor 211 | JI | 7.60 | 26 | 27A. 5 | - | Arrowhead (br) | (?) |
| Sor 212 | JI | 7.60 | 26 | 27A. 5 | 156d | Arrowhead (br) | OI A25041 |
| Sor 213 | JI | 7.60 | 26 | 27C.4.1.3 | - | Bracelet (br) | (?) |
| Sor 214 | J | Top lay | - | 27C. 5 | 163d | Tack (br) | MIB |
| Sor 215 | JI | Top lay | - | 27C.1.3 | cf. 160 j | Earring (si) | OI A25042 |
| Sor 216 | JI | Top lay | - | 28H.2.2 | - | Pin (co/br) | OI A25043 |
| Sor 217 | JI | Top lay | - | 27A. 5 | - | Arrowhead (br) | MIB |
| Sor 218 | JI | Top lay | - | 27C.4.1.1 | - | Bracelet (ir) | (?) |
| Sor 219 | JI | Top lay | - | 30A. 2 | 222b | Shank (bo) | MIB |
| Sor 220 | J | Top lay | - | 27C.1.1 | 159q | Earring (br) | (?) |
| Sor 221 | JI | Top lay | - | 29B. 10 | 217j | Scraper (fl) | (?) |
| Sor 222 | JI | Top lay | - | 27D. 14 | cf. 169 h | Pin (ir) | UM-(?) |
| Sor 223 | J | Top lay | - | 27C.4.1.1 | 161b | Bracelet (br) | MIB |
| Sor 224 | JI | Top lay | - | 32A.2.6 | 238:102 | Cyl. seal (fa) | M1B-732 |
| Sor 225 | J | Top lay | - | 27B. 4 | 158h | Ladle (ir) | MIB |
| Sor 226 | JI | Top lay | - | 27C.4.1.1 | - | Bracelet (br) | OI A25044 |
| Sor 227 | JI | Top lay | - | 27C.4.1.1 | 161h | Bracelet (ir) | MIB |
| Sor 228 | JI | - | nr 25 | 27B. 8 | 159c | Hammer (br) | UM-(?) |
| Sor 229 | JI | Top lay | - | 32A.2.12 | 245:174 | Cyl. seal (sh) | MIB |
| Sor 230 | JI | Top lay | - | 28H. 1 | - | Pin (co/br) | (?) |
| Sor 231 | JI | Fill | - | 27D.18.1 | 173b | $\operatorname{Pin}(\mathrm{br})$ | MIB |
| Sor 232 | II | Fill | - | 27C. 7 | 163t | Cap (br) | OI A25045 |
| Sor 233 | JI | - | nr 19 | 27C.1.1 | 1591 | Earring (br) | MIB |
| Sor 234 | JI | Fill | - | 29B. 10 | - | Blade (fl) | UM-(?) |
| Sor 235 | JI | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 236 | JI | Fill | - | 27B. 5 | cf. 1581 | Chisel (br) | OI A25046 |
| Sor 237 | JI | Fill | - | 27B. 2 | 157i | Knife (br) | UM-(?) |
| Sor 238 | JI | Fill | - | 27D. 12 | 168s | Pin (br) | (?) |
| Sor 239 | JI | Fill | - | 30A. 7 | cf. 227 j | Pendant, twin birds (bo) | UM-(?) |
| Sor 240 | JI | Fill | - | 26B. 1 | 152h | Button (crystal) | UM-(?) |
| Sor 241 | J | Fill | - | 31 A .42 | - | Beads (various) | MIB |
| Sor 241:10 | JI | Fill | - | 31A. 33 | 232ak | Bead (ca) | MIB |
| Sor 241:14 | JI | Fill | - | 31A. 23 | 232j | Bead (blk st) | MIB |
| Sor 242 | KI | 6.94 | 3 | 27D.16.1 | 171i | $\operatorname{Pin}(\mathrm{br})$ | (?) |
| Sor 243:1 | KI | Fill | - | 27C.4.1.2 | 161j | Bracelet (br) | MIB |
| Sor 243:2 | KI | Fill | - | 27C.4.1.1 | 161c | Bracelet (br) | MIB |
| Sor 243:3 | KI | Fill | - | 27C.4.1.1 | 161d | Bracelet (br) | MIB |
| Sor 244 | KI | Fill | - | 27D. 10 | cf. 166d | Pin (br) | (?) |
| Sor 245 | KI | Top lay | - | 27E | - | Horns, ibex (br) | (?) |
| Sor 246 | KI | Top lay | - | 27D. 12 | cf. 168 i | Pin (br) | (?) |
| Sor 247 | KI | Top lay | - | 27D.11 | 166p | Pin (br) | MIB |
| Sor 248 | KI | Top lay | - | 27D.11 | cf. 166p | Pin (br) | MIB |
| Sor 249 | KI | Top lay | - | 27 E | - | Horns, ibex (br) | OI A25047 |
| Sor 250 | KI | Top lay | - | 28H.2.2 | 194e | Pin (co/br) | MIB |
| Sor 251 | KI | Top lay | - | 28M | 1030 | Horns, 'mouflon' (co/br) | (?) |
| Sor 252 | KI | Fill | - | 31A. 42 | - | Beads (various) | (?) |
| Sor 253 | IH | Fill | - | 27D. 12 | 168j | Pin (br) | (?) |
| Sor 254 | IH | Fill | - | 25B. 2 | cf. 142a | Whorl (cl) | MIB |
| Sor 255 | IH | 8.65 | 28 | 26A.9.1 | 150a | Cup (fa) | MIB |
| Sor 256 | IH | Fill | - | 28H.5.2 | cf. 200b | Pin (ir) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 257 | IH | Fill | - | 27F. 2 | 187n | Anim., homed (br) | MIB |
| Sor 258 | IH | Top lay | - | 28G | 1921 | Metal band (co/br) | UM-(?) |
| Sor 259 | IH | Fill | - | 27D.11 | 167i | Pin (br/ir) | (?) |
| Sor 260 | IH | Fill | - | 29B. 7 | 217e | Disc (st) | (?) |
| Sor 261 | IH | Fill | - | 29C. 2 | 219b | Pendant (st) | MIB |
| Sor 262 | IH | 7.54 | 30 | 27A.4.1 | 156c | Spearhead (br) | MIB |
| Sor 263 | IH | Top lay | - | 27C.2.1 | cf. 160n | Ring, finger (br) | (?) |
| Sor 264 | IH | Fill | - | 32A.2.13 | - | Cyl. seal (fa) | (?) |
| Sor 265 | IH | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 265a | IH | Fill | - | 31 A .23 | 232q | Bead (fa) | MIB |
| Sor 266 | II | 8.60 | 16 | 27F. 2 | 187q | Anim., homed (br) | OI A25048 |
| Sor 267 | III | 7.98 | 17 | 26A.6.2 | 149g | Head, animal (fa) | MIB |
| Sor 268 | II | - | nr 17 | 28H.2.1 |  | Pin (co/br) | (?) |
| Sor 269 | III | Top lay | - | 27G.2.2 | 1871 | Anim., homed (br) | OI A25049 |
| Sor 270 | II | 7.79 | 18 | 28A. 1 | 189a | Bowl (co/br) | MIB |
| Sor 271 | II | Floor | - | 27D. 13 | 169j | Pin (br) | MIB |
| Sor 272 | III | Floor | - | 27D. 12 | 169 f | Pin (ir) | OI A25050 |
| Sor 273 | II | Floor | - | 31A. 23 | 232s | Bead (fa) | MIB |
| Sor 274 | II | Floor | - | 27D. 14 | 170s | Pin (ir) | OI A25050 |
| Sor 275 | II | Floor | - | 28H.5.2 | cf. 200b | Pin (ir) | (?) |
| Sor 276 | III | 7.75 | 19 | 27D. 4 | 164n | Pin (ir) | OI A25051 |
| Sor 277 | III | Floor | - | 28H.2.1 | - | Pin (co/br) | MIB |
| Sor 278 | II | Floor | - | 28H.4.1 | 199b | Pin (co/br) | OI A25052 |
| Sor 279 | II | Fill | - | 27D.16.1 | 171j | Pin (br) | MMA 43.102.22 |
| Sor 280 | III | Fill | - | 27D. 14 | cf. 170 t | Pin (ir) | OI A25053 |
| Sor 281 | II | Floor | - | 27C.1.2 | 159 r | Earring (br) | MIB |
| Sor 282 | II | Fill | - | 31A. 20 | 232a | Bead (ch) | OI A25054 |
| Sor 283 | II | - | nr 18/19 | 25B. 5 | 143c | Fig., animal (cl) | NY |
| Sor 284 | II | 7.95 | 20 | 19A. 2 | 77:vii | Seal, stamp (ste) | MIB |
| Sor 285 | II | Fill | - | 30B.1.1 | cf. 225a | Whorl (sh) | (?) |
| Sor 286 | II | 8.06 | 21 | 28H.4.2 | 206b | Pin (co/br) | MIB |
| Sor 287 | II | 8.06 | 21 | 28H.3.2 | 196i | Pin (co/br) | MIB |
| Sor 288 | III | 8.06 | 21 | 28A.1 | 189b | Bowl (co/br) | (?) |
| Sor 289 | II | 8.06 | 21 | 27D. 11 | 167j | Pin (br/ir) | (?) |
| Sor 290 | II | 8.06 | 21 | 28H.2.1 | - | Pin (co/br) | (?) |
| Sor 291 | II | 8.06 | 21 | 27C. 5 | 163 e | Tack (br) | UM-(?) |
| Sor 292 | III | 8.06 | 22 | 27D. 19 | 174e | Pin (br) | MIB |
| Sor 293 | II | 8.06 | 23 | 27D.11 | cf. 166p | Pin (br) | (?) |
| Sor 294 | II | 8.06 | 23 | 27D. 4 | 1641 | Pin (br/ir) | MIB |
| Sor 295 | II | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 296 | II | Fill | - | 29B.2.1 | 215d | Weight (st) | (?) |
| Sor 297 | II | Fill | - | 27D.11 | 167 g | Pin (br/ir) | (?) |
| Sor 298:1 | II | Fill | - | 27C.4.1.4 | g | Bracelet (br) | UM-(?) |
| Sor 298:2 | II | Fill | - | 28G | - | Metal band (co/br) | (?) |
| Sor 298:3 | II | Fill | - | 27C.4.1.1 | - | Bracelet (br) | UM-(?) |
| Sor 299:1 | II | Fill | - | 27D. 2 | cf. 164e | Pin (br) | UM-(?) |
| Sor 299:2 | II | Fill | - | 27D. 13 | cf. $166{ }^{\text {r }}$ | Pin (br) | UM-(?) |
| Sor 299:3 | II | Fill | - | 28H.2.1 | 193e | Pin (co/br) | UM-(?) |
| Sor 299:4 | II | Fill | - | 27C. 5 | cf. 163e | Tack (br) | UM-(?) |
| Sor 300 | III | Fill | - | 27C.1.3 | 160 m | Earring (le) | MIB |
| Sor 301 | II | Fill | - | 31A. 42 | - | Beads (various) | NY |
| Sor 301a | II | Fill | - | 31A.27/33B | 256d | Bead, inscr. (ca) | MIB-732 |
| Sor 302 | II | Floor | - | 27D.16.8 | 172t | Pin ( br/ir) | (?) |
| Sor 303 | II | Floor | - | 28B | cf. 204 f | Sieve (co/br) | MIB |
| Sor 304 | JI | Floor | - | 27D. 12 | 168k | Pin (br) | OI A25055 |
| Sor 305 | JI | Floor | nr 28 | 27D.16.7 | 181e | Pin (br) | MIB |
| Sor 306 | JI | 7.37 | 28 | 27D.16.1 | 171k | Pin (br) | OI A25056 |
| Sor 307 | JI | 7.37 | 29 | 19A. 2 | 77:vi | Seal, stamp (ste) | OI A25057 |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 308 | ת | Fill | - | 32B.5.1 | 251:xxvii | Seal, stamp (fa) | MIB |
| Sor 309:1 | ת | Fill | - | 27 D .12 | cf. 168 g | Pin (br) | OI A25058 |
| Sor 309:2 | JI | Fill | - | 27D. 14 | 170b | Pin (br) | MIB |
| Sor 310 | JI | - | nr 28 | 27E | - | Horns, ibex (br) | (?) |
| Sor 311 | JI | 8.23 | 31 | 28H.3.1 | 196c | $\operatorname{Pin}$ (co/br) | OI A25059 |
| Sor 312 | JII | Floor | - | 27C.6.2.2 | cf. 163m | Button (br) | MIB |
| Sor 313 | JI | 6.65 | 33 | 30A.3.2 | cf. 222p | Pin (bo) | OI A25060 |
| Sor 314 | JI | 6.70 | 36 | 28A. 7 | 190k | Rhyton (co/br) | (?) |
| Sor 315 | JI | 6.70 | 34 | 29B. 9 | 217i | Loomweight (st) | MIB |
| Sor 316 | JI | 6.70 | 35 | 25A.3.6 | 136 g | Jar | MIB |
| Sor 317 | JI | Fill | - | 29B. 11 | 217n | Stamp(?) (st) | OI A25061 |
| Sor 318 | JI | Fill | - | 31 A. 23 | - | Bead (fa) | MIB |
| Sor 319 | JI | Fill | - | 28G | 192p | Metal band (ir) | MIB |
| Sor 320 | JI | Fill | - | 27D.16.1 | 1711 | Pin (br) | MIB |
| Sor 321 | J | Fill | - | 27C.1.4 | 160d | Earring (ir) | (?) |
| Sor 322 | JI | Fill | 3 | 25B. 2 | cf. 142a | Whorl (cl) | Ol A25062 |
| Sor 323 | JI | 7.37 | 30 | 27F. 2 | 187p | Anim., horned (br) | (?) |
| Sor 324 | JI | 7.22 | 32 | 27D. 14 | cf. 1701 | Pin (br) | (?) |
| Sor 325 | JI | 7.22 | 32 | 27D. 14 | 178 f | Pin (br) | OI A25064 |
| Sor 326 | JI | 7.22 | 32 | 27D. 14 | 178 e | Pin (br) | MIB |
| Sor 327 | J | Floor | - | 32A.2.9.1 | 243:159 | Cyl. seal (fa) | MIB-732 |
| Sor 328 | JI | 7.60 | 37 | 31A. 28 | - | Bead (br) | MIB |
| Sor 329 | JI | 7.60 | 37 | 27A.3.1 | 155j | Dagger (br) | MIB |
| Sor 330 | J | 7.00 | 38 | 32A.2.7 | 239:113 | Cyl. seal (fa) | (?) |
| Sor 331 | JI | 7.15 | 39 | 27D. 12 | 168e | Pin (br) | (?) |
| Sor 332 | JI | 7.13 | 40 | 27D. 14 | cf. 169h | Pin (ir) | (?) |
| Sor 333 | JI | Top lay | - | 32B. 4 | 251:xxy | Seal, stamp (ck) | NY |
| Sor 334 | JI | Top lay | - | 27D. 12 | cf. 168 i | Pin (br) | MIB |
| Sor 335 | JI | 7.40 | 41 | 27C.6.2.2 | 163 m | Button (br) | (?) |
| Sor 336 | J | Floor | - | 28H.2.1 | - | Pin (co/br) | OI A25064 |
| Sor 337 | JI | 7.42 | 43 | 271 | 175h | Fibula (ir) | (?) |
| Sor 338 | ת | 7.42 | 43 | 29B.2.1 | 215 m | Weight (st) | MIB |
| Sor 339 | II | 7.42 | 43 | 27A.3.1 | 155 h | Dagger (br) | (?) |
| Sor 340 | J | Floor | - | 27D. 4 | 164 m | Pin (br/ir) | MIB |
| Sor 341 | JI | Fiil | - | 27D. 12 | cf. 168e | Pin (br) | MIB |
| Sor 342 | JI | Fill | - | 30A.3.2 | cf. 222 p | Pin (bo) | MIB |
| Sor 343 | J | Fill | - | 27A.3.1 | cf. 155i | Dagger (br) | MIB |
| Sor 344 | JI | Fill | - | 27D. 12 | 169 g | Pin (ir) | MIB |
| Sor 345 | JI | Fill | - | 27D. 11 | cf. 1660 | Pin (br) | OI A25065 |
| Sor 346 | JI | Fill | - | 28J. 1 | 200 g | Metal band (co/br) | (?) |
| Sor 347 | JI | Fill | - | 27E | - | Homs, ibex (br) | (?) |
| Sor 348 | JI | Fill | - | 30A.3.3 | 222 r | Pin (bo) | (?) |
| Sor 349 | JI | Fill | - | 28H.5.2 | cf. 200b | Pin (ir) | MIB |
| Sor 350 | JI | Fill | - | 27D. 12 | cf. 168 e | Pin (br) | MIB |
| Sor 351 | JI | Fill | - | 26A. 7 | cf. 153 c | Fig., human (fa) | MIB |
| Sor 352 | JI | Fill | - | 27D. 10 | cf. 166d | Pin (br) | MIB |
| Sor 353 | JI | Fill | - | 19A.1 | 77 v | Seal, stamp (ste) | Or A25067 |
| Sor 354 | JI | Fill | - | 27A. 5 | 156f | Arrowhead (br) | MIB |
| Sor 355 | JII | Fill | - | 27D. 12 | cf. 169f | Pin (ir) | OI A25068 |
| Sor 356 | J | Fill | - | 30B.1.2 | cf. 225 b | Whorl (sh) | OI A25068 |
| Sor 357 | J | Fill | - | 27C.6.2.1 | 163 h | Button (br) | (?) |
| Sor 358 | JII | Fill | - | 32A.2.2 | 235:67 | Cyl. seal (bo) | OI A25070 |
| Sor 359 | JI | Fill | - | 28 J .3 | 201 b | Plaque (co/br) | MIB |
| Sor 360:1-2 | J | Fill | - | 27C.4.8 | - | Bracelets (br) | MIB |
| Sor 360:3 | JI | Fill | - | 27C.4.3.1 | 162h | Bracelet (br) | MIB |
| Sor 360:4 | JI | Fill | - | 27C.4.1.1 | - | Bracelet (br) | MIB |
| Sor 360:5 | JI | Fill | - | 28G | - | Metal band (co/br) | MIB |
| Sor 361 | JI | Fill | - | 27C.4.1.1 | - | Bracelet (ir) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 362 | JI | Fill | - | 31A. 42 | - | Beads (sh) | (?) |
| Sor 363 | J | Fill | - | 31 A. 42 | - | Beads (various) | (?) |
| Sor 364 | JI | 7.42 | 42 | 27D. 14 | cf. 170t | Pin (ir) | MIB |
| Sor 365 | JI | 7.42 | 42 | 30A.3.7.3 | 224b | Pin (bo) | (?) |
| Sor 366a | J | Fill | - | 27D. 14 | cf. 170e | Pin (br) | UM-(?) |
| Sor 366b | JI | Fill | - | 27D. 2 | cf. 164f | Pin (br) | OI A25071 |
| Sor 366c | JI | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 366d | JI | Fill | - | 27D. 14 | cf. 170 c | Pin (br) | UM-(?) |
| Sor 366e | JI | Fill | - | 27D. 2 | cf. 164e | Pin (br) | UM-(?) |
| Sor 367 | JI | Fill | - | 27D. 14 | cf. 169 h | Pin (ir) | (?) |
| Sor 368 | II | Fill | - | 27D. 11 | 167p | Pin (ir) | OI A25072 |
| Sor 369 | II | Fill | - | 27C.1.4 | 160 e | Earring (ir) | MIB |
| Sor 370 | JI | Top lay | - | 27A.3.1 | - | Dagger (br) | (7) |
| Sor 371 | II | Top lay | - | 27C.4.1.3 | 161w | Bracelet (ir) | MIB |
| Sor 372 | JI | Fill | - | 27D. 12 | 168g | Pin (br) | MIB |
| Sor 373 | JI | Fill | - | 27C.4.1.1 | - | Bracelet (ir) | OI A25073 |
| Sor 374 | JI | 7.62 | 1 | 26A.1.2 | 148b | disc (fa) | (?) |
| Sor 375 | JI | 7.62 | 1 | 30A.3.1 | 222i | Pin (bo) | (?) |
| Sor 376 | II | Surf. | - | 27D. 10 | 166d | Pin (br) | (?) |
| Sor 377 | JI | 7.42 | 2 | 30A.3.7.4 | 224e, 227d | Pin (bo) | (?) |
| Sor 378 | JI | 7.40 | 3 | 27D. 12 | cf. 169d | Pin (ir) | (?) |
| Sor 379 | JI | Dump | 3 | 27D. 14 | 170 i | Pin (br) | MIB |
| Sor 380 | JI | Fill | - | 27B. 6 | cf. 1580 | Needle (br) | OI A25074 |
| Sor 381 | JI | Fill | - | 27C.2.1 | 160w | Ring, finger (ir) | MIB |
| Sor 382 | JI | Fill | - | 27A. 5 | - | Arrowhead (br) | OI A25075 |
| Sor 383 | JI | Fill | - | 27D. 11 | cf. 167i | Pin (br/ir) | MIB |
| Sor 384 | JI | Fill | - | 28G | 192i | Bracelet (co/br) | (?) |
| Sor 385a | Л | Fill | - | 25A.3.13 | - | Sherd | MIB |
| Sor 385b | II | Fill | - | 25A.3.13 | - | Sherd | MIB |
| Sor 386 | JI | Fill | - | 27D. 4 | cf. 164n | Pin (ir) | UM-(?) |
| Sor 387 | JI | Fill | - | 19A. 1 | 77:iii | Seal, stamp (ste) | MIB |
| Sor 388 | JI | Fill | - | 27C.2.2 | cf. 160s | Ring, finger (br) | (?) |
| Sor 389 | JJ | Fill | - | 31A. 42 | - | Beads (various) | (?) |
| Sor 390 | KI | 6.07 | 5 | 29C. 2 | 220b | Pendant (st) | MIB |
| Sor 391 | KI | Fill | - | 27D. 12 | cf. 168i | Pin (br) | (?) |
| Sor 392 | KI | Surf. | - | 27A. 5 | 156j | Arrowhead (br) | OI A25076 |
| Sor 393 | KI | Surf. | - | 27D. 10 | 166k | Pin (br) | UM-(?) |
| Sor 394 | KI | Surf. | - | 30B.1.2 | cf. 225 b | Whorl (sh) | (?) |
| Sor 395 | KI | Surf. | - | 27D. 8 | 165h | Pin (br) | (?) |
| Sor 396 | KI | Surf. | - | 27D. 15 | 171a | Pin (br) | OI A25007 |
| Sor 397 | KI | Surf. | - | 32A.2.6 | 239:107 | Cyl. seal (fa) | (?) |
| Sor 398 | II | Dump | - | 27F. 2 | 187m | Anim., horned (br) | UM-(?) |
| Sor 399 | II | 8.03 | 24 | 27D. 11 | 167 q | Pin (ir) | MIB |
| Sor 400 | II | Sieve | 24 | 27D.16.6 | 181b | Pin (br/ir) | MMA 43.102.4 |
| Sor 401 | II | Sieve | 24 | 27 E | - | Horns, ibcx (br) | MIB |
| Sor 402 | II | Sieve | 24 | 29C. 2 | 219d | Pendant (st) | MIB |
| Sor 403 | II | Sieve | 24 | 26A.9.6 | 152b | Vessel (fa) | UM-(?) |
| Sor 404 | 11 | Sieve | 24 | 27 I | 175 i | Pin(?) (ir) | MIB |
| Sor 405 | II | Sicve | 24 | 32A.2.6 | 238:101 | Cyl. seal (fa) | OI A25077 |
| Sor 406 | II | Sicve | 24 | 31 A .37 | 232az | Pin, bead-hded (ca/ir) | (?) |
| Sor 407 | III | Sieve | 24 | 30A. 4 | 224h | Plaque (bo) | MIB |
| Sor 408 | II | Sieve | 24 | 27D. 11 | 167k | Pin ( $\mathrm{br} / \mathrm{ir}$ ) | MIB |
| Sor 409 | II | Sieve | 24 | 32A:194 | - | Cyl. seal (fa) | MIB |
| Sor 410 | II | 8.03 | 24 | 29B. 3 | 216 f | Whetstone (gy st) | MIB |
| Sor 411 | II | 8.03 | 24 | 27C.4.1.4 | - | Ring (br) | (?) |
| Sor 412 | II | 7.96 | 24 | 27D. 9 | cf. 166b | Pin (ir) | (?) |
| Sor 413 | II | 7.96 | 24 | 30B.2/33B | 256e | Pendant, inscr. (sh) | MBB |
| Sor 414 | II | 7.70 | 24 | 31A. 14 | - | Bead (ag) | (?) |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 415 | II | 7.70-8.00 24 | 30A. 2 | 222c | Pin shank (bo) | MIB |
| Sor 416 | II | 7.70-8.00 24 | 29D | 218d | Pin (st) | MIB |
| Sor 417 | II | 7.70-8.00 24 | 29B. 3 | 217a | Whetstone (grn sl) | (?) |
| Sor 418 | II | 7.70-8.00 24 | 28D | 191j | Mirror ( $\mathrm{co} / \mathrm{br}$ ) | MIB |
| Sor 419 | II | 7.70-8.00 24 | 28L. 4 | 214a | Pendant (co/br) | MMA 43.102.5 |
| Sor 420 | II | 7.70-8.00 24 | 27D. 11 | cf. 167p | Pin (ir) | MIB |
| Sor 421 | II | 7.70-8.00 24 | 28L. 1 | 202k | Pendant (co/br) | (?) |
| Sor 422 | II | 7.70-8.00 24 | 31A. 12 | - | Bead (fa) | UM-(?) |
| Sor 423 | II | 7.70-8.00 24 | 27D.16.9 | 182a | Pin (br) | MMA 43.102.19 |
| Sor 424 | II | 7.70-8.00 24 | 30A.3.7.1 | 223n | Pin (bo) | MIB |
| Sor 425 | II | 7.70-8.00 24 | 30A.3.2 | 2220 | Pin (bo) | MIB |
| Sor 426 | II | 7.70-8.00 24 | 27D.16.2 | 180b | Pin (br) | MIB |
| Sor 427 | II | 7.70-8.00 24 | 29B. 3 | 217b | Whetstone (grn gy st) | MIB |
| Sor 428 | II | 7.70-8.00 24 | 27D. 20 | 184b | Pin (br) | MIB |
| Sor 429 | II | 7.70-8.00 24 | 27D. 12 | cf. 168 i | Pin (br) | MIB |
| Sor 430 | II | 7.70-8.00 24 | 27H | - | Fig., human (br) | OI A25078 |
| Sor 431 | II | 7.70-8.00 24 | 30A.3.1 | 222j | Pin (bo) | OI A25078 |
| Sor 432 | II | 7.70-8.00 24 | 28A.1 | 189c | Bowl (co/br) | MIB |
| Sor 433 | II | 7.70-8.00 24 | 31A. 13 | - | Bead (ch) | (?) |
| Sor 434 | II | 7.70-8.00 24 | 31A. 17 | cf. 231aa | Bead (br) | MIB |
| Sor 435 | II | 7.70-8.00 24 | 31A. 14 | 231 bq | Bead (ag) | MIB |
| Sor 436 | III | Fill 24 | 30A.3.7.3 | 224c | Pin (bo) | (?) |
| Sor 437 | II | Fill 24 | 27C.4.2 | 162 g | Bracelet (br) | MIB |
| Sor 438 | II | Fill 24 | 27C.1.6 | cf. 160 i | Earring (ir) | OI A25079 |
| Sor 439 | II | Fill 24 | 27B. 1 | 157f | Handle ( $\mathrm{br} / \mathrm{ir}$ ) | MIB |
| Sor 440 | II | Fill 24 | 30A. 2 | cf. 222d | Pin shank (bo) | MIB |
| Sor 441 | II | Fill 24 | 27C.4.1.1 | - | Bracelet (br) | MIB |
| Sor 442 | II | Fill 24 | 28H.3.2 | 197a | Pin (co/br) | MIB |
| Sor 443 | II | Fill 24 | 27D. 14 | 170k | Pin (br) | MIB |
| Sor 444 | II | Fill 24 | 31A. 42 | - | Beads (various) | UM-(?) |
| Sor 445 | JI | Top lay | 27A.3.1 | 155h | Dagger (br) | MIB |
| Sor 446 | ת | Top lay | 27D.16.1 | 171m | Pin (br) | OI A25080 |
| Sor 447 | JI | Top lay | 27C.6.2.2 | cf. 163k | Button (br) | (?) |
| Sor 448 | JI | Top lay | 27C.4.1.5 | 162b | Bracelct (br) | MIB |
| Sor 449 | JI | Top lay | 27C.6.2.2 | cf. 163k | Button (br) | MIB |
| Sor 450 | JI | Dump | 27B. 3 | 157m | Socket (br) | MIB |
| Sor 451 | JI | 6.5245 | 25B. 9 | 144e | Phallus, mdl (cl) | MIB |
| Sor 452 | JI | 6.5646 | 30A. 5 | 224j | Handle (bo) | (?) |
| Sor 453 | J | Fill | 32A.2.6 | 238:105 | Cyl. seal (fa) | MIB |
| Sor 454 | JI | Floor | 27D. 1 | - | Pin shank (br) | MIB |
| Sor 455 | JI | Floor | 25A.3.4 | 136e | Goblet (fa) | MIB |
| Sor 456a | JI | Fill | 27C.4.1.4 | - | Bracelet (br) | MIB |
| Sor 456b | JI | Fill | 27C.4.1.4 | - | Bracelet (br) | MIB |
| Sor 457 | JI | Fill | 27D. 14 | 170n | Pin (br) | UM-(?) |
| Sor 458 | JI | 7.96 44 | 25B. 8 | 146a | Fig., human (fa?) | MIB |
| Sor 459 | JI | 6.68 47 | 32B. 7 | 255:xliv | Seal, bezel ring (co) | MIB |
| Sor 460 | JI | Fill | 30A. 6 | 2241 | Box frgm (bo) | MIB |
| Sor 461 | JI | Top lay | 28G | - | Bracelet, sheet ( $\mathrm{co} / \mathrm{br}$ ) | OI A25081 |
| Sor 462 | JI | Top lay | 27D.11 | cf. 1660 | Pin (br) | UM-(?) |
| Sor 463 | JI | Top lay | 27D. 16.8 | 172 i | Pin (br) | MIB |
| Sor 464 | JI | Top lay | 27D. 13 | 1690 | Pin (br) | (?) |
| Sor 465 | JI | Top lay | 27D. 12 | cf. 169d | Pin (ir) | MIB |
| Sor 466 | JI | Top lay | 27D. 1 | - | Pin shank (br) | UM-(?) |
| Sor 467 | JI | Top lay | 25B. 8 | 146b | Fig., human (cl) | MIB |
| Sor 468 | JI | Top lay | 27D. 2 | cf. 164e | Pin (br) | MIB |
| Sor 469 | JI | Top lay | 28L. 2 | - | Pin (br) | (?) |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 470 | JI | Fill | - | 27A. 1 | - | Blade (br) | (?) |
| Sor 471 | J | Wall | - | 29B. 8 | cf. 217 h | Whorl (st) | (?) |
| Sor 472 | JI | Wall | - | 28G | 192m | Metal band ( $\mathrm{co} / \mathrm{hr}$ ) | MIB |
| Sor 473 | JI | Fill | - | 26A. 7 | - | Fig., human (fa) | MIB |
| Sor 474 | JI | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 475 | JI | Fill | nr 44 | 27E | - | Horns, ibex (br) | NY |
| Sor 476 | JJ | Dump | - | 27D. 9 | 165p | Pin (br) | OI A25082 |
| Sor 477 | JJ | Dump | - | 27D. 12 | cf. 169g | Pin (ir) | MIB |
| Sor 478 | JJ | Top lay | - | 27D. 9 | 166b | Pin (ir) | MIB |
| Sor 479 | JJ | Top lay | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 480 | JJ | Top lay | - | 31 A .17 | cf. 231aa | Bead (br) | OI A25083 |
| Sor 481 | JJ | Top lay | - | 27C.6.2.1 | cf. 163h | Button (br) | MIB |
| Sor 482 | JJ | Top lay | - | 30A.3.6 | cf. 223f | Pin (bone) | UM-(?) |
| Sor 483a | JJ | Top lay | - | 27C.4.1.3 | - | Bracelet (ir) | MIB |
| Sor 483b | JJ | Top lay | - | 27C.2.4 | - | Ring, finger (ir) | MIB |
| Sor 484 | JJ | Top lay | - | 32A.2.4 | 237:89 | Cyl. seal (fa) | MIB |
| Sor 485 | JJ | Top lay | - | 30B. 2 | $225 f$ | Pendant (sh) | MIB |
| Sor 486 | JJ | Fill | - | 19B. 1 | 78:6 | Cyl. seal (bit) | UM-(?) |
| Sor 487 | JJ | Fill | - | 27A. 5 | - | Arrowhead (br) | MIB |
| Sor 488 | JJ | Fill | - | 27E | - | Horns, ibex (br) | OI A25084 |
| Sor 489 | JJ | Fill | - | 27D.16.8 | 172j | Pin (br) | MIB |
| Sor 490 | JJ | 7.65 | 4 | 27D.16.1 | 179c | Pin (br) | MIB |
| Sor 491 | JJ | Fill | - | 27D. 12 | cf. 169d | Pin (ir) | (?) |
| Sor 492 | JJ | Top lay | - | 27D. 15 | 171c | Pin (br/ir) | UM-(?) |
| Sor 493 | JJ | Top lay | - | 29B. 8 | 217 g | Whorl (st) | MIB |
| Sor 494 | JJ | Top lay | - | 31 A .42 | - | Beads (various) | MIB |
| Sor 495 | KI | Top lay | - | 27D. 12 | cf. 168r | Pin (br) | MIB |
| Sor 496 | KI | Top lay | - | 27C.4.1.2 | 161k | Bracelet (ir) | (?) |
| Sor 497 | KI | 5.40 | 6 | 27G.2.2 | 188j | Anim., homed (br) | MIB |
| Sor 498 | KI | 6.39 | 7 | 19B. 1 | 78:4 | Cyl. seal (ck) | MIB-732 |
| Sor 499 | KI | Top lay | - | 27D.11 | cf. 167p | Pin (ir) | MIB |
| Sor 500 | KI | Top lay | - | 27D. 12 | 169h | Pin (ir) | NY |
| Sor 501 | KI | 6.22 | 8 | 27D. 14 | 170t | Pin (ir) | NY |
| Sor 502 | KI | Fill | 8 | 27D. 14 | 1700 | Pin (br) | MIB |
| Sor 503 | KI | Surf. | - | 30A.3.7.1 | cf. 2230 | Pin (bo) | 'UM-(?) |
| Sor 504 | KI | Top lay | - | 27C.4.1.2 | - | Bracelet (br) | MIB |
| Sor 505 | KI | Top lay | - | 27B. 12 | - | Rod (br) | MIB |
| Sor 506 | KI | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 507 | KI | Top lay | - | 27D. 12 | 1681 | Pin (br) | MIB |
| Sor 508 | II | 7.70-8.00 | 24 | 31 A .37 | 232be | Pin, bead-hded (ca) | MIB |
| Sor 509 | III | 7.70-8.00 | 24 | 27C.4.1.1 | - | Bracelet (br) | NY |
| Sor 510 | III | $7.70-8.00$ | 24 | 30A.3.6 | - | Pin (bo) | (?) (Lost) |
| Sor 511 | II | 7.70-8.00 | 24 | 32B. 2 | 249:xvi | Stamp seal (fa) | NY |
| Sor 512 | II | 7.70-8.00 | 24 | 27C.4.1.4 | - | Bracelet (br) | MIB |
| Sor 513 | II | 7.70-8.00 | 24 | 28K. 1 | cf. 201h | Whorl (cl) | UM-(?) |
| Sor 514 | II | 7.70-8.00 | 24 | 30A.3.6 | 222v | Pin (bo) | NY |
| Sor 515 | II | Dump | - | 32A.2.1 | 234:61 | Cyl. seal (fa) | OI A25085 |
| Sor 516 | II | Dump | - | 27E | - | Horns, ibex (br) | UM-(?) |
| Sor 517a | II | Dump | - | 27D. 13 | 169k | Pin (br) | MIB |
| Sor 517b | II | Dump | - | 27D. 12 | cf. 168j | Pin (br) | MIB |
| Sor 517c | II | Dump | - | 27D.16.8 | 172k | Pin (br) | MIB |
| Sor 517d | III | Dump | - | 28H.3.2 | 197b | Pin (co/br) | MIB |
| Sor 517e | II | Dump | - | 27D. 9 | 165n | Pin (br) | MIB |
| Sor 517f | II | Dump | - | 28H. 1 | - | Pin (co/br) | MIB |
| Sor 517g | II | Dump | - | 27A. 5 | - | Arrowhead (br) | MIB |
| Sor 518 | III | Dump | - | 29B. 2.2 | cf. 215i | Weight (st) | MIB |
| Sor 519 | II | - | nr 24 | 32A.2.12 | 245:176 | Cyl. seal (co) | NY |
| Sor 520 | II | - | - | 27B. 1 | 157c | Handle (br) | NY |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 521a | II | Fill | - | 30A.3.7.1 | cf. 223 s | Pin (bo) | MIB |
| Sor 521b | II | Fill | - | 30A.3.7.2 | 223v | Pin (bo) | MIB |
| Sor 521c | II | Fill | - | 26A.4.1 | 148i | Pendant, bird (fa) | MIB |
| Sor 522 | II | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 522:la | II | Fill | - | 31A. 4 | 230 j | Bead (sh) | MIB |
| Sor 522:2g | III | Fill | - | 31A. 30 | 231ag | Bead (ch) | MIB |
| Sor 522:3e | II | Fill | - | 31A. 10 | 231bh | Bead (ca) | MIB |
| Sor 522:3j | II | Fill | - | 31A. 3 | 230k | Bead (sh) | MIB |
| Sor 523 | GK4 | Fill | - | 29B.5.1 | 216c | Handle (st) | MIB |
| Sor 524 | GK6 | Fill | - | 27D. 8 | cf. 165 g | Pin (br) | NY |
| Sor 525 | JI | 6.58 | 48 | 25B. 8 | 146c | Fig., human (cl) | NY |
| Sor 526 | JI | - | - | 27C.4.1.3 | 161m | Bracelet (br) | MIB |
| Sor 527 | JI | - | - | 28L. 1 | 203a | Pendant (co/br) | MIB |
| Sor 528 | J | 7.70 | 24 | 24C. 9 | 134:38 | Cyl. seal (ch) | MMA 43.102.37 |
| Sor 529 | JI | Fill | - | 28 E | - | Spiral, hair (co/br) | MIB |
| Sor 530 | J | Fill | - | 27F. 2 | 187b | Anim., homed (br) | MIB |
| Sor 531 | J | 8.14 | 49 | 27B. 12 | - | Rod (br) | MIB |
| Sor 532 | Л | Dump | - | 29B. 8 | 217f | Whorl (st) | MIB |
| Sor 533 | Л | Dump | - | 27E | - | Homs, ibex (br) | MIB |
| Sor 534 | J | Dump | - | 27C.4.1.6 | 162e | Bracelet (br) | OI A25086 |
| Sor 535 | JI | Dump | - | 27B. 1 | 157b | Handle (br) | OI A25087 |
| Sor 536 | JI | Dump | - | 28H.2.1 | 193f | Pin (co/br) | NY |
| Sor 537 | JI | Fill | - | 32A.2.8 | 241:141 | Cyl. seal (fa) | MIB-732 |
| Sor 538 | JI | Floor | - | 27C.6.2.2 | cf. 163k | Button (br) | MIB |
| Sor 539 | JI | 8.05 | 51 | 32A.2.13 | 248:211 | Cyl. scal (fa) | MIB-732 |
| Sor 540 | JI | Floor | - | 32A.2.13 | 248:219 | Cyl. seal (fa) | NY |
| Sor 541 | JI | Floor | - | 27B. 6 | cf. 1530 | Needle (br) | MIB |
| Sor 542 | JI | Top lay | - | 32A.2.13 | 248:208 | Cyl. seal (fa) | NY |
| Sor 543 | JI | Dump | - | 30A.3.7.1 | 223m | Pin (bo) | MIB |
| Sor 544 | J | Dump | - | 32A.2.9.2 | 244:167 | Cyl. seal (fa) | MIB |
| Sor 545 | Л | Top lay | - | 26A.9.6 | 152c | Vessel (fa) | MIB |
| Sor 546 | JI | Floor | - | 27C.4.1.4 | - | Bracelet (br) | UM-(?) |
| Sor 547 | JI | Floor | - | 32A.2.3 | 236:76 | Cyl. seal (fa) | MIB-730 |
| Sor 548 | JI | Floor | - | 27D. 1 | - | Pin shank (br) | (?) |
| Sor 549 | JI | Fill | - | 27C.4.1.4 | - | Bracelet (ir) | UM-(?) |
| Sor 550 | Л | Fill | - | 28K. 5 | 202h | Metal boss (ir) | OI A25088 |
| Sor 551 | JI | Fill | - | 27E | - | Horns, ibex (br) | OI A25089 |
| Sor 552 | JI | Fill | - | 28H.3.2 | 197c | Pin (co/br) | UM-(?) |
| Sor 553 | JI | Fill | - | 28H.5.2 | 200a | Pin (co/br) | MIB |
| Sor 554 | JI | Fill | - | 28H.2.1 | 193g | Pin (co/br) | MIB |
| Sor 555 | JI | Fill | - | 30A.3.6 | 223a | Pin (bo) | MIB |
| Sor 556 | JI | Fill | 一 | 28 J .6 | 201g | Buckle (co/br) | MIB |
| Sor 557 | JI | Fill | - | 27C.4.1.1 | - | Bracelet (br) | MIB |
| Sor 558 | JI | Fill | - | 27D. 12 | cf. 169d | Pin (ir) | NY |
| Sor 559 | II | Fill | - | 27C.4.1.4 | - | Bracelet (br) | NY |
| Sor 560 g | JI | Fill | - | 30A.3.1 | 222k | Pin (bo) | MIB |
| Sor 560i | JI | Fill | - | 30A. 2 | 222d | Shanks (bo) | MIB |
| Sor 560j | JI | Fill | - | 30A.3.6 | cf. 223f | Pin (bo) | MIB |
| Sor 561 | JI | Fill | - | 29B. 3 | - | Whetstone (tn gy st) | MIB |
| Sor 562 | JI | Fill | - | 31A. 42 | - | Beads (various) | UM-(?) |
| Sor 562:2e | J | Fill | - | 31A. 22 | 232z | Bead (fa) | UM-(?) |
| Sor 562:2i | JI | Fill | - | 31 A .31 | 232ar | Bead (br) | UM-(?) |
| Sor 562:21 | JI | Fill | - | 31A. 23 | 232k | Bead (fa) | UM-(?) |
| Sor 563 | JI | Top lay | - | 30A.3.6 | 233b | Pin (bo) | MIB |
| Sor 564 | JJ | - | 5 | 27A.2.2 | 176b | Axe, min. (br) | MIB |
| Sor 565 | JJ | Surf. | - | 32A.2.4 | 236:81 | Cyl. seal (st) | MIB-1454 |
| Sor 566 | JJ | Fill | - | 27C.4.4 | cf. 162n | Bracelet (br) | OI A25091 |
| Sor 567 | JI | Fill | - | 28H.2.2 | 194f | Pin (co/br) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 568 | J | Fill | - | 28H. 1 | - | Pin (co/br) | MIB |
| Sor 569 | JII | Fill | - | 27 D .9 | cf. 166b | Pin (ir) | OI A25092 |
| Sor 570 | JI | Fill | - | 31 A .42 |  | Beads (various) | OI A25093 |
| Sor 570a | JI | Fill | - | 31A. 5 | 2301 | Bead (shell) | OI A25093 |
| Sor 571 | KI | 5.80 | 9 | 27D. 16.8 | 1721 | Pin (br) | UM-(?) |
| Sor 572 | KI | 5.56 | 10 | 32A.2.7 | 240:127 | Cyl. seal (co) | MIB-1465 |
| Sor 573 | KI | 5.56 | 10 | 28 H .1 | - | Pin (co/br) | OI A25094 |
| Sor 574 | KI | Fill | - | 27D. 14 | 1701 | $\operatorname{Pin}(\mathrm{br})$ | MIB |
| Sor 575 | KI | Surf. | - | 27A. 5 | 156h | Arrowhead (br) | NY |
| Sor 576 | KI | Fill | - | 27C.4.1.4 | - | Bracelet (br) | M1B |
| Sor 577 | KI | 5.86 | 11 | 27D. 14 | cf. 169 h | Pin (ir) | OI A25095 |
| Sor 578 | KI | 5.86 | 11 | 27D. 14 | cf. 1701 | Pin (br) | MMA 43.102.24 |
| Sor 579 | KI | Fill | - | 26A.6.2 | 153b | Anim, head (fa) | OI A25096 |
| Sor 580 | KI | Fill | - | 31A. 14 | 231 g | Bead (fa) | OI A25097 |
| Sor 581 | KI | Fill | - | 27D. 12 | cf. 169d | Pin (ir) | NY |
| Sor 582 | KI | Fill | - | 27D. 14 | cf. 1701 | Pin (br) | MIB |
| Sor 583 | KI | Fill | - | 28F | 192 g | Ring, sheet (ir) | OI A25098 |
| Sor 584 | KI | Fill | - | 32A.2.3 | 236:79A | Cyl. seal (fa) | MIB-732 |
| Sor 585 | KI | Fill | - | 27B. 4 | cf. 158a | Spatula (br) | UM-(?) |
| Sor 586 | KI | Fill | - | 27C.4.1.4 | - | Bracelet (br) | MIB |
| Sor 587 | KI | Fill | - | 27C.2.2 | cf. 160t | Ring, finger (br) | MIB |
| Sor 588 | KI | Fill | - | 27D. 12 | cf. 168 j | Pin (br) | MIB |
| Sor 589 | KI | Fill | - | 24C. 3 | 132:19 | Cyl. scal (serp) | MTB |
| Sor 590 | KI | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 591 | KH | Fill | - | 28H.5.2 | cf. 200b | Pin (ir) | NY |
| Sor 592 | KH | Fill | - | 27D. 14 | cf. 169h | Pin (ir) | MIB |
| Sor 593 | GK | Top lay | - | 27D. 1 | - | Pin shank (br) | NY |
| Sor 594 | KG1 | Top lay | - | 25B. 5 | 143d | Fig., animal (cl) | MIB |
| Sor 595 | KG1 | Top lay | - | 27D. 14 | cf. 170t | Pin (ir) | MTB |
| Sor 596 | KG1 | Top lay | - | 25B. 2 | cf. 142a | Whorl (cl) | NY |
| Sor 597 | KG | Top lay | - | 27C.4.1.1 | 161e | Bracelet (br) | OI A25101 |
| Sor 598 | KG | Top lay | - | 28A. 1 | 189d | Bowl(?) (co/br) | NY |
| Sor 599 | KG2 | Fill | - | 27B. 4 | 158a | Spatula (br) | MIB |
| Sor 600 | KG | Fill | - | 27D. 12 | cf. 169c | Pin (br/ir) | OI A25100 |
| Sor 601 | KG | Fill | - | 31A. 42 | - | Beads (various) | OI A25101 |
| Sor 602 | JI | 6.98 | 52 | 26A.4.1 | 148j | Pendant, bird (fa) | NY |
| Sor 603 | JI | 6.50-6.95 | 52 | 27C.2.1 | 160 n | Ring, finger (br) | MIB |
| Sor 604 | JI | 6.50-6.95 | 52 | 27A.2.2 | 155d | Axe, min. (br) | NY |
| Sor 605 | JI | 6.50-6.95 | 52 | 31A. 2 | - | Bead (shell) | MIB |
| Sor 606 | JI | 6.50-6.95 | 52 | 27C.1.1 | 159n | Earring (br) | UM-(?) |
| Sor 607 | JI | 6.50-6.95 | 52 | 32A.2.9.1 | 243:158 | Cyl. seal (fa) | NY |
| Sor 608:1 | JI | 6.50-6.95 | 52 | 31 A .10 | - | Bead (shell) | OI A25102 |
| Sor 608:2 | JI | 6.50-6.95 | 52 | 31A. 26 | - | Bead (fa) | OI A25102 |
| Sor 608:3 | JI | 6.50-6.95 | 52 | 31 A .29 | - | Bead (st) | OI A25102 |
| Sor 609 | JI | 6.50-6.95 | 52 | 31A. 18 | - | Bead (ch) | MIB |
| Sor 610 | II | 6.50-6.95 | 52 | 31A.20/33B | 257a | Eye stone, inscr. (onyx) | MIB |
| Sor 611 | JI | 6.50-6.95 | 52 | 32A.2.9.2 | 244:168 | Cyl. seal (bit) | OI A25103 |
| Sor 612 | JI | 6.50-6.95 | 52 | 27C.6.2.2 | cf. 163 k | Bution (br) | UM-(?) |
| Sor 613 | JI | 6.50-6.95 | 52 | 27C.4.1.1 | - | Bracelet (br) | OI A25104 |
| Sor 614 | JI | 6.50-6.95 | 52 | 27D. 10 | 1661 | Pin (br) | OI A25105 |
| Sor 615 | JI | 6.50-6.95 | 52 | 30B.1.1 | cf. 225a | Whorl (shell) | NY |
| Sor 616 | JI | 6.50-6.95 | 52 | 27C.1.3 | 160k | Earring (si) | MIB |
| Sor 617 | JI | 6.50-6.95 | 52 | 27G. 2 | 187a | Pendant, anim. (br) | MMA 43.102.15 |
| Sor 618:1 | JI | 6.50-6.95 | 52 | 31A. 35 | 321bx | Bead (ca) | MIB |
| Sor 618:2 | JI | 6.50-6.95 | 52 | 31A. 14 | - | Bead (fa) | MIB |
| Sor 618:3 | JI | 6.50-6.95 | 52 | 31A. 30 | - | Bead (ch) | MIB |
| Sor 618:4 | JI | 6.50-6.95 | 52 | 31A. 31 | - | Bead (br) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 619 | JI | 6.50-6.95 | 52 | 27C.6.1 | cf. 163g | Button (br) | NY |
| Sor 620 | ת | 6.50-6.95 |  | 29C. 2 | 219 e | Pendant (st) | MIB |
| Sor 621 | JI | 6.50-6.95 | 52 | 27C.2.4 | - | Ring, finger (br) | MIB |
| Sor 622 | JI | 6.50-6.95 | 52 | 24C. 8 | 134:36 | Cyl. seal (fa) | MIB |
| Sor 623 | JI | 6.50-6.95 | 52 | 28K. 1 | 201i | Bracteate (co/br) | UM-(?) |
| Sor 624 | JI | 6.50-6.95 | 52 | 26A.4.1 | 148k | Pendant, bird (fa) | NY |
| Sor 625 | J | - | 52 | 31A. 31 | - | Bead (fa) | UM-(?) |
| Sor 626 | JI | - | 52 | 31A. 8 | - | Bead (sh) | NY |
| Sor 627 | JI | - | 52 | 31A. 12 | 232v | Bead (fa) | MIB |
| Sor 628 | JI | - | 52 | 31A. 16 | 231v | Bead (fa) | MIB |
| Sor 629 | JI | - | 52 | 31A. 15 | - | Bead (br) | NY |
| Sor 630 | JI | - | 52 | 28H. 1 | - | Pin (co/br) | OI A25106 |
| Sor 631 | JI | - | 52 | 31A. 6 | - | Bead (br) | NY |
| Sor 632 | JI | - | 52 | 26A.4.1 | 149a | Pendant, bird (fa) | MIB |
| Sor 633 | JI | - | 52 | 27C. 7 | cf. 163t | Metal cap (br) | NY |
| Sor 634 | JI | - | 52 | 29C. 3 | 220 d | Cyl. seal (st) | MIB |
| Sor 635 | JI | - | 52 | 31A. 4 | - | Bead (sh) | OI A25109 |
| Sor 636 | J | - | 52 | 29C. 3 | 220 e | Cyl. seal (st) | MIB |
| Sor 637 | Л | - | 52 | 29B. 7 | cf. 217d | Disc (st) | MIB |
| Sor 638 | JI | - | 52 | 31A. 8 | 231bs | Bead (st) | UM-(?) |
| Sor 639 | JI | - | 52 | 27B. 4 | 158b | Spatulate (br) | MIB |
| Sor 640 | JI | - | 52 | 27C. 8 | 164c | Chain (br/ir) | OI A25108 |
| Sor 641 | JI | 6.45 | 52 | 31A. 18 | - | Bead (ch) | OI A25109 |
| Sor 642 (number not used) |  |  |  |  |  |  |  |
| Sor 643 | JI | 7.20 | 52 | 32A.2.4 | 236:84 | Cyl. seal (st) | Thompson |
| Sor 644 | JI | 7.20 | 52 | 24C. 6 | 134:33 | Cyl. seal (hem) | NY |
| Sor 645 | JI | 7.20 | 52 | 27C.4.3.1 | - | Bracelet (br) | MTB |
| Sor 646 | JI | 7.15 | 52 | 27D. 14 | cf. 170g | Pin (br) | NY |
| Sor 647 | JI | 7.15 | 52 | 31A. 10 | - | Bead (sh) | MIB |
| Sor 648 | JI | - | 52 | 32A.2.9.2 | 244:163 | Cyl. seal (alab) | NY |
| Sor 649 | JI | 6.42 | 55 | 28J. 4 | 212c | Plaque (co/br) | MIB |
| Sor 650 | JI | 6.42 | 55 | 31A. 21 | 232b | Bead, spacer (fa) | MIB |
| Sor 651 | JI | 6.38 | 56 | 26A.9.4 | 151a | Bowl, spouted (fa) | MIB |
| Sor 652 | JI | Column | - | 27D. 12 | cf. 169d | $\operatorname{Pin}$ (ir) | MIB |
| Sor 653 | JI | Column | - | 30A. 5 | 224k | Handle (bo) | NY |
| Sor 654 | JI | Column | - | 27C.2.1 | cf. 160n | Ring, finger (br) | NY |
| Sor 655 | ЛI | Fill | - | 32B. 7 | 253:xxxviii | Scal, sig. ring (br) | MIB |
| Sor 656 | JI | 6.32 | 58 | 27F. 2 | 187c | Anim., horned (br) | MIB |
| Sor 657 | II | 6.48 | 57 | 27C.6.5 | - | Button (br) | MIB |
| Sor 658:1 | JI | 6.48 | 57 | 27C.4.1.3 | - | Bracelet (br) | OI A25110 |
| Sor 658:2 | Л | 6.48 | 57 | 28G | 192n | Metal band (co/br) | OI A25110 |
| Sor 658:3 | JI | 6.48 | 57 | 27C.4.1.1 | - | Bracelet (br) | UM-(?) |
| Sor 659 | JI | 6.48 | 57 | 32A.2.2 | 235:68 | Cyl. seal (lmst) | MIB |
| Sor 660 | JI | 6.48 | 57 | 27B. 12 | - | Rod (br) | NY |
| Sor 661 | JI | 6.48 | 57 | 31A. 17 | - | Bcad (br) | MIB |
| Sor 662 | JI | 6.48 | 57 | 27F. 1 | 1741 | Fig., quad. (br) | MIB |
| Sor 663 | JI | 6.48 | 57 | 30A. 8 | 224v | Spoon (bo) | OI A25110 |
| Sor 664 | JI | 6.48 | 57 | 31A. 42 | - | Beads (various) | MIB |
| Sor 664f | JI | 6.48 | 57 | 27C.6.2.1 | cf. 163 h | Button (br) | MIB |
| Sor 664:2c | JI | 6.48 | 57 | 31A. 10 | 230am | Bead (sh) | MIB |
| Sor 664:3j | JI | 6.48 | 57 | 31A. 28 | 232m | Bead (fa) | MIB |
| Sor 665 | JI | 6.53 | 59 | 27D. 17 | 182d | Pin (br) | MIB |
| Sor 666a | JI | 6.53 | 60 | 30A. 6 | 43, 224m, 228 | Box frgm (bo) | MIB |
| Sor 666b | JI | 6.53 | 60 | 30A. 6 | 43, 224n, 229 | Box frgm (bo) | MIB |
| Sor 666c | JI | 6.53 | 60 | 30A. 6 | 43, 2240 | Box frgm (bo) | MIB |
| Sor 666d | JI | 6.53 | 60 | 30A. 6 | 43, 227h | Box grips (bo) | MMA 43.102.28-30 |
| Sor 667 | JI | 6.49 | 61 | 28K. 1 | 201j | Whorl (co/br) | MIB |
| Sor 668 | JI | 6.49 | 61 | 28H.2.1 | 193h | Pin (co/br) | MIB |


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| Sor 669 | J | 6.49 | 61 | 27C.4.1.1 | - | Bracelct (br) | MIB |
| Sor 670 | JI | Floor | - | 27 D .14 | cf. 170 c | Pin (br) | NY |
| Sor 671 | JI | 6.48 | 62 | 27C.1.2 | 159s | Earring (br) | OI A25112 |
| Sor 672 | Л | Floor | - | 27D. 14 | 170c | Pin (br) | MIB |
| Sor 673 | JI | 6.50 | 63 | 32A.2.9.1 | 243:155 | Cyl. seal (serp) | MIB |
| Sor 674 | JI | Fill | - | 27A. 5 | 156e | Arrowhead (br) | UM-(?) |
| Sor 675 | JI | Fill | - | 27E | - | Horns, ibex (br) | UM-(?) |
| Sor 676 | Л | Fill | - | 27D. 12 | cf. 168 i | Pin (br) | MIB |
| Sor 677 | JI | Fill | - | 27C.6.2.2 | cf. 163k | Button (br) | MIB |
| Sor 678 | JI | Fill | - | 30A.3.6 | 223c | Pin (bo) | MIB |
| Sor 679 | JI | Fill | - | 32A.2.1 | 234:54 | Cyl. seal (fa) | OI A25113 |
| Sor 680 | JI | Fill | - | 27E | - | Horns, ibex (br) | OI A25114 |
| Sor 681 | JI | Fill | - | 27A. 5 | - | Arrowhead (br) | MIB |
| Sor 682 | JI | Fill | - | 27D. 12 | cf. 169d | Pin (ir) | OI A25115 |
| Sor 683 | JI | Floor | - | 26A.4.1 | cf. 148j | Pendant, bird (fa) | MIB |
| Sor 684 | JI | Fill | - | 32B. 3 | 250:xxi | Seal, stamp (fa) | MIB |
| Sor 685 | J | Fill | - | 27C.1.1 | 159m | Earring (br) | NY |
| Sor 686 | JI | Floor | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 687 | JI | Fill | - | 27C.4.1.3 | - | Bracelet (br) | MIB |
| Sor 688 | JI | Fill | - | 27D. 1 | - | Pin shank (br) | MIB |
| Sor 689 | JI | Fill | - | 27D. 11 | 167a | Pin (br) | NY |
| Sor 690 | JI | Fill | - | 27D. 12 | cf. 168i | Pin (br) | NY |
| Sor 691 | JI | Fill | - | 31 A. 42 | - | Beads (various) | MIB |
| Sor 691:2a | JI | Fill | - | 31A. 34 | 230aq | Bead (sh) | MIB |
| Sor 691:2b | JI | Fill | - | 31 A .10 | 230aj | Bead (sh) | MIB |
| Sor 691:2c | JI | Fill | - | 31A. 34 | 230ap | Bead (sh) | MIB |
| Sor 691:3a | JI | Fill | - | 31 A .23 | 232i | Bead (fa) | MIB |
| Sor 691:3c | JI | Fill | - | 31 A .7 | 231ai | Bead (glass) | MIB |
| Sor 691:3j | JI | Fill | - | 31 A .7 | 231aj | Bead (fa) | MIB |
| Sor 692 | JI | Fill | - | 27D. 9 | cf. 165 m | Pin (br) | MBB |
| Sor 693 | JI | 7.83 | 54 | 27D. 12 | cf. 168 g | Pin (br) | MIB |
| Sor 694 | JI | 7.83 | 54 | 27D. 12 | cf. 169 g | Pin (ir) | MIB |
| Sor 695 | JI | 7.83 | 54 | 31A. 30 | - | Bead (ch) | NY |
| Sor 696 | JI | Fill | - | 24C. 3 | 132:14 | Cyl. seal (st) | MIB-723 |
| Sor 697 | JI | Fill | - | 27C.4.1.4 | - | Bracelet (br) | MIB |
| Sor 698 | JI | Fill | - | 27F. 2 | 174n | Anim., homed (br) | MIB |
| Sor 699 | JI | Fill | - | 28E | 192b | Spiral, hair (co/br) | NY |
| Sor 700 | JI | Fill | 一 | 27C.1.6 | 160f | Earring (ir) | UM-(?) |
| Sor 701 | JI | Fill | - | 30B.1.2 | cf. 225b | Whorl (sh) | MIB |
| Sor 702 | JI | Fill | - | 30B.1.3 | 225c | Whorl (sh) | NY |
| Sor 703 | JI | Fill | - | 26A.4.2 | 149d | Pendant (fa) | NY |
| Sor 704 | JI | Fill | - | 30A.3.1 | 2211 | Pin (bo) | UM-(?) |
| Sor 705 | JI | Fill | - | 30A. 2 | 222 e | Pin shanks (bo) | NY |
| Sor 705:7 | II | Fill | - | 30A. 6 | 224p | Box grip (bo) | NY |
| Sor 705:8 | JI | Fill | - | 30A. 6 | 2249 | Box grip (bo) | NY |
| Sor 706a | JI | Fill | - | 27D. 11 | cf. 167h | Pin (br/ir) | NY |
| Sor 706b | J | Fill | - | 27D. 11 | cf. 167h | Pin (br/ir) | NY |
| Sor 706c | JI | Fill | - | 27D. 12 | - | Pin (br/ir) | NY |
| Sor 706d | Л | Fill | - | 27 D .8 | 165i | Pin (br) | NY |
| Sor 706 e | JI | Fill | - | 28H.1 | - | Pin (co/br) | NY |
| Sor 706 f | JI | Fill | - | 27B. 4 | cf. 158a | Spatula (br) | NY |
| Sor 707 | JI | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 708a | JI | Fill | - | 27D. 11 | cf. 167q | Pin (ir) | MIB |
| Sor 708b | II | Fill | - | 27D. 14 |  | Pin (ir) | MIB |
| Sor 708c | II | Fill | - | 27D. 10 | - | Pin (ir) | MIB |
| Sor 708d | JI | Fill | - | 27D.18.1 | - | Pin (ir) | MIB |
| Sor 708e | JI | Fill | - | 28H.5.2 | cf. 200b | Pin (ir) | MIB |
| Sor 709 | II | Fill | - | 27C.4.1.3 | - | Bracclet (br) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 710 | J | Fill | - | 31A. 42 | - | Beads (various) | OI A25116 |
| Sor 710:1a | JI | Fill | - | 31 A .2 | 230 d | Bead (sh) | Ol A25116 |
| Sor 710:2b | J | Fill | - | 31A. 8 | 231bt | Bead (ch) | OI A25116 |
| Sor 711 | KI | Fill | - | 28H.1 | - | Pin (co/br) | MIB |
| Sor 712 | KG | 6.86 | 2 | 298.3 | 215e | Whetstone (gy gm st) | OI A25117 |
| Sor 713 | - | Dump | - | 28A. 1 | 189 e | Bowl (co/br) | OI A25118 |
| Sor 714 | JI | 6.72 | 52 | 31A.20/33B | 257b | Eyc stone, inscr. (st) | OI A25116 |
| Sor 715 | J | 6.75 | 52 | 27C.4.1.4 | - | Bracelet (br) | OI A25120 |
| Sor 716 | JI | 6.92 | 52 | 32A.2.13 | 247:198 | Cyl. seal (fa) | MIB |
| Sor 717 | JI | 6.72 | 52/47 | 31A. 31 | - | Beads (glass) | NY |
| Sor 718 | JI | 6.72 | 52/47 | 27C.4.1.2 | - | Bracelet (ir) | NY |
| Sor 719a | J | 6.72 | 52/47 | 27D. 14 | cf. 170 t | Pin (ir) | OI A25121 |
| Sor 719b | JI | 6.72 | 52/47 | 27D. 14 | cf. 170t | Pin (ir) | OI A25122 |
| Sor 720 | JI | 6.72 | 52/47 | 27D. 12 | cf. 168e | Pin (br) | MIB |
| Sor 721 | JI | - | 52/48 | 31A. 26 | 232 ae | Bead (fa) | MIB |
| Sor 722 | II | - | 52/48 | 27C.1.2 | 159t | Earring (br) | MIB |
| Sor 723 | JI | 6.72 | 52 | 27C.4.3.1 | - | Bracelet (br) | MIB |
| Sor 724 | JI | 7.37 | 52 | 27D. 14 | 170j | Pin (br) | MIB |
| Sor 725 | J | 7.37 | 52 | 27C. 8 | 164d | Chain (br/ir) | MIB |
| Sor 726 | JI | - | 52/53 | 32A.2.13 | - | Cyl. seal (alab) | NY |
| Sor 727 | JI | - | 52/53 | 30A.3.7.1 | 2230, 226c | Pin (bo) | NY |
| Sor 728 | JI | - | 52/53 | 27C.6.2.2 | cf. 163 m | Button (br) | OI A25123 |
| Sor 729 | J | - | 52/53 | 27C.6.2.1 | cf. 163h | Button (br) | MIB |
| Sor 730 | JI | - | 52/53 | 27C. 7 | 163u | Metal cap (br) | MIB |
| Sor 731 | JI | - | 52/53 | 31A. 42 | - | Beads (various) | MIB |
| Sor 731:1a | Л | - | 52/53 | 31A. 1 | 230a | Bead (sh) | MIB |
| Sor 731:1b | JI | - | 52/53 | 31A. 1 | 230b | Bead (sh) | MIB |
| Sor 731:1c | J | - | 52/53 | 31A. 1 | 230 c | Bead (sh) | MIB |
| Sor 731:1d | JI | - | 52/53 | 31A. 3 | 230 i | Bead (sh) | MIB |
| Sor 731:1e | JI | - | 52/53 | 31A. 8 | 230ac | Bead (sh) | MIB |
| Sor 731:1f | JI | - | 52/53 | 31A. 29 | 230s | Bead (sh) | MIB |
| Sor 731:1g | JI | - | 52/53 | 31 A .33 | 230af | Bead (sh) | MIB |
| Sor 731:1h | Л | - | 52/53 | 31A. 15 | 230t | Bead (sh) | MIB |
| Sor 731:1i | J | - | 52/53 | 31 A. 16 | 230u | Bead (sh) | MIB |
| Sor 731:1j | J | - | 52/53 | 31A. 12 | 230v | Bead (sh) | MIB |
| Sor 731:2a | JI | - | 52/53 | 31A. 10 | 230al | Bead (sh) | MIB |
| Sor 731:2b | J | - | 52/53 | 31A. 6 | 230z | Bead (sh) | MIB |
| Sor 731:2c | JI | - | 52/53 | 31A. 6 | 230y | Bead (sh) | MIB |
| Sor 731:2d | JI | - | 52/53 | 31A. 34 | 230 ao | Bead (sh) | MIB |
| Sor 731:2e | JI | - | 52/53 | 31A. 9 | 230ad | Bead (sh) | MIB |
| Sor 731:2f | J | - | 52/53 | 31A. 10 | 230ak | Bead (sh) | MIB |
| Sor 731:2g | ת | - | 52/53 | 31 A .7 | 230aa | Bead (sh) | MIB |
| Sor 731:2h | JI | - | 52/53 | 31 A .7 | 230ab | Bead (sh) | MIB |
| Sor 731:3a | Л | - | 52/53 | 31A. 40 | 230r | Bead (sh) | MIB |
| Sor 731:3b | JI | - | 52/53 | 31 A. 40 | 230 f | Bead (sh) | MIB |
| Sor 731:3c | JI | - | 52/53 | 31A. 40 | 230 g | Bead (sh) | MIB |
| Sor 731:3d | Л | - | 52/53 | 31 A .17 | 231 y | Bead (fa) | MIB |
| Sor 731:3f | JI | - | 52/53 | 31A. 40 | 230h | Bead (sh) | MIB |
| Sor 731:3g | JI | - | 52/53 | 31A. 32 | 230ah | Bead (sh) | MIB |
| Sor 731:3h | JI | - | 52/53 | 31 A .30 | 230w | Bead (sh) | MIB |
| Sor 731:3j | JI | - | 52/53 | 31A. 30 | 230x | Bead (sh) | MIB |
| Sor 731:3k | JI | - | 52/53 | 31A. 32 | 230ai | Bead (sh) | MIB |
| Sor 731:4b | ת | - | 52/53 | 31A. 15 | 231 m | Bead (st) | MIB |
| Sor 731:4c | JI | - | 52/53 | 31A. 15 | 231 i | Bead (fa) | MIB |
| Sor 731:4e | JI | - | 52/53 | 31A. 15 | 2311 | Bead (lap la) | MIB |
| Sor 731:4f | Л | - | 52/53 | 31 A .30 | 231aw | Bead (fa) | MIB |
| Sor 731:4h | ת | - | 52/53 | 31A. 28 | 231ar | Bcad (bm st) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 731:4i | J | - | 52/53 | 31A. 6 | 231bi | Bead (brn st) | MIB |
| Sor 731:4j | JI | - | 52/53 | 31A. 28 | 231as | Bead (grst) | MIB |
| Sor 731:4k | J | - | 52/53 | 31A. 6 | 231bj | Bead (bit) | MIB |
| Sor 731:41 | JI | - | 52/53 | 31A. 31 | 231ay | Bead (ca) | MIB |
| Sor 731:4m | JI | - | 52/53 | 31A. 32 | $2316 d$ | Bead (ca) | MIB |
| Sor 731:4n | ת | - | 52/53 | 31A. 32 | 231bf | Bead (amber) | MIB |
| Sor 731:4p | JI | - | 52/53 | 31A. 28 | 231aq | Bead (ca) | MIB |
| Sor 731:4s | JI | - | 52/53 | 31A. 29 | 231av | Bead (st) | MIB |
| Sor 731:5b | JI | - | 52/53 | 31A. 31 | 231as | Bead (bit) | MIB |
| Sor 731:5c | JI | - | 52/53 | 31A. 31 | 232at | Bead (comp) | M1B |
| Sor 731:5d | JI | - | 52/53 | 31 A. 6 | 231bn | Bead (glass) | MIB |
| Sor 731:5e | JI | - | 52/53 | 31A. 6 | 231bl | Bead (glass) | MIB |
| Sor 731:5f | J | - | 52/53 | 31A. 32 | 231be | Bead (lap la) | MIB |
| Sor 731:5g | JI | - | 52/53 | 31 A. 28 | 231ao | Bead (ca) | MIB |
| Sor 731:5i | JI | - | 52/53 | 31A. 31 | 231az | Bead (ca) | MIB |
| Sor 731:5k | JI | - | 52/53 | 31 A. 28 | 231an | Bead (ca) | MIB |
| Sor 731:51 | JI | - | 52/53 | 31 A. 6 | 231 bm | Bead (glass) | MIB |
| Sor 731:5m | JI | - | 52/53 | 31A. 6 | 231bk | Bead (fa) | MIB |
| Sor 731:5n | JI | - | 52/53 | 31A. 15 | 231j | Bead (fa) | MIB |
| Sor 731:50 | JI | - | 52/53 | 31A. 15 | 231w | Bead (fa) | MIB |
| Sor 731:5p | J | - | 52/53 | 31 A .41 | 232ap | Bead (bo) | MIB |
| Sor 731:5r | JI | - | 52/53 | 31A. 15 | 231k | Bead (fa) | MIB |
| Sor 731:5s | JI | - | 52/53 | 31 A .32 | 231bg | Bead (fa) | MIB |
| Sor 731:5t | JI | - | 52/53 | 31 A .12 | 231b | Bead (fa) | MIB |
| Sor 731:5u | JI | - | 52/53 | 31 A .30 | 231ax | Bead (fa) | MIB |
| Sor 731:6a | JI | - | 52/53 | 31A. 28 | 231at | Bead (st) | MIB |
| Sor 731:6c | JI | - | 52/53 | 31 A .18 | 231af | Bead (ch) | MIB |
| Sor 731:6d | JI | - | 52/53 | 31 A .12 | 231c | Bead (st) | MIB |
| Sor 731:6e | JI | - | 52/53 | 31 A .18 | 231ad | Bead (st) | MIB |
| Sor 731:6f | JI | - | 52/53 | 31A. 18 | 231ae | Bead (glass) | MIB |
| Sor 731:6g | JI | - | 52/53 | 31 A .15 | 231h | Bead (fa) | MIB |
| Sor 731:6i | JI | - | 52/53 | 31A. 29 | 231au | Bead (st) | MIB |
| Sor 731:6j | JI | - | 52/53 | 31A. 12 | 231a | Bead (ch) | MIB |
| Sor 731:6k | JI | - | 52/53 | 31 A. 15 | $231 n$ | Bead (ca) | MIB |
| Sor 731:7a | JI | - | 52/53 | 31A. 31 | 231 ba | Bead (glass) | MIB |
| Sor 731:7b | JI | - | 52/53 | 31 A .31 | 231bb | Bead (glass) | MIB |
| Sor 731:7c | JI | - | 52/53 | 31 A. 28 | 232p | Bead (fa) | MIB |
| Sor 731:7d | JI | - | 52/53 | 31 A .23 | 2320 | Bead (fa) | MIB |
| Sor 731:7e | JI | - | 52/53 | 31 A. 28 | 231 am | Bead (glass) | MIB |
| Sor 731:7f | JI | - | 52/53 | 31 A .23 | 232t | Bead (fa) | MIB |
| Sor 731:7g | JI | - | 52/53 | 31 A .39 | 232aw | Bead (serp) | MIB |
| Sor 731:7i | JI | - | 52/53 | 31A. 6 | 231bo | Bead (br) | MIB |
| Sor 731:7k | JI | - | 52/53 | 31 A .15 | 231q | Bead (br) | MIB |
| Sor 731:71 | JI | - | 52/53 | 31A. 15 | 231r | Bead (br) | MIB |
| Sor 731:7m | JI | - | 52/53 | 31 A .33 | 232ao | Bead (br) | MIB |
| Sor 731:7n | JI | - | 52/53 | 31A. 15 | 231p | Bead (br) | MIB |
| Sor 731:70 | J | - | 52/53 | 31 A. 6 | 231bp | Bead (br) | MIB |
| Sor 731:7p | JI | - | 52/53 | 31 A .31 | 231bc | Bead (br) | MIB |
| Sor 731:7q | JI | - | 52/53 | 31A. 15 | 2310 | Bead (br) | MIB |
| Sor 731:7r | JI | - | 52/53 | 31 A .17 | 231ab | Bead (br) | MIB |
| Sor 731:7s | JI | - | 52/53 | 31 A .17 | 231ac | Bead (si) | MIB |
| Sor 731:8i | JI | - | 52/53 | 31 A .10 | 232ay | Bead (fa) | MIB |
| Sor 731h | JI | - | 52/53 | 27C.6.5 | - | Buttons (br) | MIB |
| Sor 732a | JI | - | 52/50 | 27D. 10 | cf. 166f | Pin (br) | NY |
| Sor 732b | JI | - | 52/50 | 27D. 14 | 170d | Pin (br) | NY |
| Sor 733 | JI | - | 52/50 | 32A.2.12 | - | Cyl. seal (ch) | UM-(?) |
| Sor 734 | JI | - | 52/50 | 27D. 4 | cf. 164n | Pin (ir) | MIB |
| Sor 735 | JI | - | 52/50 | 31A. 42 | - | Beads (various) | NY |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 735:1a | JI | - | 52/50 | 31 A .40 | 2300 | Bead (sh) | NY |
| Sor 735:1i | JI | - | 52/50 | 31 A .40 | 230p | Bead (sh) | NY |
| Sor 735:2h | JI | - | 52/50 | 31 A .7 | 231ak | Bead (ch) | NY |
| Sor 735:3d | JI | - | 52/50 | 31A. 39 | 232an | Bead (glass) | NY |
| Sor 735:31 | Л | - | 52/50 | 31A.2.12 | - | Cyl. seal (ch) | NY |
| Sor 736 | JI | 7.20 | 64 | 31 A .29 | 231ca | Bead (st) | MIB |
| Sor 737 | JI | Fill | - | 32A.2.7 | 241:134 | Cyl. seal (fa) | MIB-732 |
| Sor 738 | J | - | - | 30A. 2 | - | Pin shank (bo) | MIB |
| Sor 739 | Л | Fill | - | 30A.3.6 | cf. 223 k | Pin (bo) | NY |
| Sor 740 | JI | Fill | - | 27C.6.2.1 | cf. 163h | Button (br) | (?) |
| Sor 741 | ת | 6.70 | 69 | 27D.16.1 | 171n | Pin (br) | NY |
| Sor 742 | JI | Fill | - | 26A.4.1 | 149b | Pendant, bird (fa) | MIB |
| Sor 743 | J | Fill | - | 28H. 2.2 | - | Pin (co/br) | OI A25124 |
| Sor 744 | ת | Top lay | - | 29D | 218a, 221d | Pin (st) | MIB |
| Sor 745 | JI | Top lay | - | 27C.6.2.2 | cf. 1631 | Bution (br) | OI A25125 |
| Sor 746a | JI | Fill | - | 28H.4.2 | 206c | Pin (co/br) | NY |
| Sor 746b | JI | Fill | - | 28H.2.1 | 193i | Pin (co/br) | NY |
| Sor 747 | JI | Fill | - | 27C.4.1.3 | - | Bracelet (br) | OI A25126 |
| Sor 748 | JI | 8.42 | 66 | 28H.5.1 | 207f | Pin (co/br) | MIB |
| Sor 749 | J | 8.12 | 67 | 27F. 2 | 187 g | Anim., homed (br) | UM-(?) |
| Sor 750 | JI | Fill | - | 32A. 2.5 | 237:93 | Cyl. seal (st) | MIB |
| Sor 751a | JI | Fill | - | 28 J .5 | 212h | Plaque (co/br) | OI A25127 |
| Sor 751b | J | Fill | - | 28 J .5 | 212i | Plaque (co/br) | OI A25127 |
| Sor 751c | Л | Fill | - | 28J. 4 | - | Plaque (co/br) | OI A25127 |
| Sor 752 | JI | Fill | - | 28K. 3 | 202c | Bracteate (co/br) | UM-(?) |
| Sor 753 | JI | 7.90 | 68 | 32A.2.9.2 | 244:164 | Cyl. seal (alab) | MIB-1458 |
| Sor 754 | JI | Fill | - | 31 A. 42 | - | Beads (various) | MIB |
| Sor 754:2f | JI | Fill | - | $\begin{aligned} & \text { 31A.22/ } \\ & 32 A .2 .13 \end{aligned}$ | 232ab, 248:215 | Bead, Cyl. seal (fa) | MIB |
| Sor 755 | J | Top lay | - | 28H.1 | 193a | Pin ( $\mathrm{co} / \mathrm{hr}$ ) | NY |
| Sor 756 | JI | Top lay | - | 27D. 12 | - | Pin (br/ir) | NY |
| Sor 757 | JJ | Fill | - | 27D. 12 | cf. 168 i | Pin (br) | OI A25128 |
| Sor 758 | JJ | Top lay | - | 32B. 7 | 254:xli | Seal, signet ring (br) | MIB |
| Sor 759 | JI | 7.12 | 6 | 27D.16.1 | 1710 | Pin (br) | OI A25129 |
| Sor 760 | JJ | - | nr 6 | 28H.3.2 | 197d | Pin (co/br) | NY |
| Sor 761 | JJ | Fill | - | 27D. 12 | cf. 168i | Pin (br) | MIB |
| Sor 762a | JJ | Fill | - | 27D. 10 | cf. 166f | Pin (br) | MBB |
| Sor 762b | JJ | Fill | - | 27D. 10 | cf. 166f | Pin (br) | NY |
| Sor 763 | JJ | Fill | - | 32A.2.13 | 248:218 | Cyl. seal (fa) | NY |
| Sor 764 | JJ | Fill | - | 32A.2.13 | 248:217 | Cyl. seal (fa) | UM-(?) |
| Sor 765 | JJ | Fill | - | 27D. 2 | cf. 164f | Pin (br) | NY |
| Sor 766 | JJ | Dump | - | 27D. 14 | 170 e | Pin (br) | OI A25130 |
| Sor 767 | JJ | Fill | - | 28L. 4 | 214b | Pendant (co/br) | UM-(?) |
| Sor 768 | JJ | Fill | - | 27D. 12 | 168f | Pin (br) | MIB |
| Sor 769 | JJ | Fill | - | 27D. 14 | 170p | Pin (br) | UM-(?) |
| Sor 770 | JJ | Fill | - | 32A.2.13 | 247:203 | Cyl. seal (fa) | M1B |
| Sor 771 | JJ | Fill | - | 31 A .42 | - | Beads (various) | MIB |
| Sor 772 | JJ | Fill | - | 27D. 17 | 172u, 182e | Pin (br) | MIB |
| Sor 773 | KI | Fill | - | 27C.2.2 | cf. 160u | Ring, finger (br) | UM-(?) |
| Sor 774 | KI | Dump | - | 32B. 7 | 254:xlii | Seal, sig. ring (br) | MIB |
| Sor 775 | KI | Fill | - | 32A.2.8 | 241:135 | Cyl. seal (fa) | MIB |
| Sor 776 | KI | Fill | - | 27D. 7 | 165 e | Pin (br) | NY |
| Sor 777 | KI | Fill | - | 26A.6.1 | 149h | Bird | MIB |
| Sor 778 | KI | Fill | - | 31A. 36 | 232av | Bead (sh) | (?) |
| Sor 779 | KI | Top lay | - | 27B. 10 | 159f | Tweezers (ir) | NY |
| Sor 780 | KG | Fill | - | 32A. 2.12 | 245:177 | Cyl. seal (fa) | NY |
| Sor 781 | KH | Fill | - | 27D. 12 | cf. 168i | Pin (br) | OI A25131 |
| Sor 782 | KH | Fill | - | 27D. 12 | cf. 169a | Pin (br) | OI A25132 |


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| Sor 783 | KH | Top lay | - | 28H. 1 | - | Pin (co/br) | MIB |
| Sor 784 | Л | 5.82 | 70 | 29B. 4 | 216d | Pestle (st) | OI A25133 |
| Sor 785 | JI | 5.82 | 70 | 30A.3.7.1 | - | Pin (bo) | (?) |
| Sor 786 | J | 7.82 | 72 | 24C.4/33B | 133:20, 257c | Cyl. seal, inscr. (hem) | MMA 43.102.35 |
| Sor 787 | J | 7.22 | 75 | 28K. 1 | cf. 201n | Metal boss (co/br) | NY |
| Sor 788 | J | Fill | - | 27C.1.6 | 160 g | Earring (ir) | MIB |
| Sor 789 | JI | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 790 | JI | Fill | - | 27C.1.4 | cf. 160 d | Earring (ir) | OI A25135 |
| Sor 791 | JI | Sieve | - | 30B.1.2 | 225 d | Whorl (sh) | NY |
| Sor 792 | Л | Sieve | - | 32A.2.13 | 248:216 | Cyl. seal (fa) | (?) |
| Sor 793 | JI | Fill | - | 32A.2.6 | 239:111 | Cyl. seal (foss. coral) | MIB-732 |
| Sor 794 | JI | Fill | - | 27D.16.1 | 171p | Pin (br) | MIB |
| Sor 795 | JI | Fill | - | 27C.2.2 | 160u | Ring, finger (br) | MIB |
| Sor 796 | JI | Fill | - | 31 A. 42 | - | Beads (various) | MIB |
| Sor 797a,b | JI | Fill | - | 30A. 2 | 222g, h | Pin shanks (bo) | MIB |
| Sor 798a | JI | Fill | - | 28H.2.1 | 193j | Pin (co/br) | MIB |
| Sor 798b | JI | Fill | - | 27D. 14 | cf. 170 c | Pin (br) | MIB |
| Sor 798c | JI | Fill | - | 27D.11 | cf. 166p | Pin (br) | MIB |
| Sor 798d | JI | Fill | - | 27D. 11 | cf. 166p | Pin (br) | MIB |
| Sor 798e | JI | Fill | - | 27D. 12 | cf. 168 g | Pin (br) | MIB |
| Sor 798f | JI | Fill | - | 27D. 10 | cf. 166f | Pin (br) | MIB |
| Sor 798g | JI | Fill | - | 27D. 1 | - | Pin shank (br) | MIB |
| Sor 799 | Л | Fill | - | 27D. 2 | cf. 164e | Pin (br) | MIB |
| Sor 800 | JI | - | - | 27D.18.1 | cf. 173i | Pin (br) | NY |
| Sor 801 | JI | 7.57 | 73 | 26A.4.1 | 149c | Pendant, bird (fa) | OI A25136 |
| Sor 802 | J | Fill | - | 27D. 12 | 168 m | Pin (br) | MIB |
| Sor 803 | JI | 7.57 | 73 | 27D. 2 | 164f | Pin (br) | MIB |
| Sor 804 | JI | 6.82 | 74 | 32B.5.2 | 251:xxviii | Seal, stamp (co) | NY |
| Sor 805 | JI | 7.41 | 76 | 32B. 2 | 249:xiv | Seal, stamp (spst) | NY |
| Sor 806 | JI | 7.48 | 77 | 31 A .15 | - | Bead (st) | NY |
| Sor 807 | JI | 7.48 | 77 | 32A.2.7 | 240:119 | Cyl. seal (bit) | MMA 43.102.38 |
| Sor 808 | JI | 7.77 | 79 | 32A.2.7 | 239:114 | Cyl. seal (fa) | OI A25137 |
| Sor 809 | JI | 7.52 | 80 | 31A. 11 | 230 av | Bead (sh) | MIB |
| Sor 810 | JI | 7.52 | 81 | 32B. 2 | 249:xviii | Seal, stamp (fa) | MIB |
| Sor 811 | Л | 7.50 | 82 | 28H.4.2 | 206d | Pin (co/br) | MIB |
| Sor 812 | JI | Fill | - | 28 E | - | Spiral, hair (co/br) | MIB |
| Sor 813 | ת | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 814 | J | Sieve | - | 27C.2.1 | 1600 | Ring, finger (br) | NY |
| Sor 815 | JI | Sieve | - | 27D. 12 | 168n | Pin (br) | MIB |
| Sor 816 | JI | Fill | - | 28H.2.1 | - | Pin (co/br) | OI A25138 |
| Sor 817 | JI | Fill | - | 27B. 4 | 158c | Spatula (br) | MIB |
| Sor 818 | JI | Fill | - | 30A.3.7.4 | 224d | Pin (bo) | MIB |
| Sor 819 | JI | Fill | - | 28F | 192d | Ring, sheet (co/br) | MIB |
| Sor 820 | JI | Fill | - | 28H.5.2 | 210a | Pin (co/br) | MIB |
| Sor 821a | JI | Fill | - | 27D. 11 | 167n | Pin ( $\mathrm{br} / \mathrm{ir}$ ) | MIB |
| Sor 821b | JI | Fill | - | 27D. 14 | 170q | Pin (br) | MIB |
| Sor 821c | JI | Fill | - | 27 D .13 | 169q | Pin (br) | MIB |
| Sor 822 | JI | 7.37 | 83 | 32A.2.7 | 240:126 | Cyl. seal (fa) | OI A25140 |
| Sor 823 | JI | Fill | - | 31A. 42 | - | Beads (various) | NY |
| Sor 823:2b | JI | Fill | - | 31 A. 26 | 232af | Bead (glass) | NY |
| Sor 824 | JJ | 7.52 | 7 | 30A.3.2 | 222p | Pin (bo) | MMA 43.102.27 |
| Sor 825 | JJ | Fill | - | 27D. 10 | 166e | Pin (br) | OI A25141 |
| Sor 826 | JJ | Fill | - | 27D.16.1 | 171q | Pin (br) | MIB |
| Sor 827 | II | Dump | - | 27D.16.3 | 187e | Pin (br) | UM-(?) |
| Sor 828 | II | Dump | - | 32A.2.6 | 239:110 | Cyl. seal (fa) | OI A25142 |
| Sor 829 | II | Dump | - | 27C.4.5 | - | Bracelet (br) | MIB |


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| Sor 830 | III | Dump | - | 28K. 1 | cf. 201 m | Whorl (co/br) | MIB |
| Sor 831 | III | Dump | - | 30A.3.7.1 | cf. 2230 | Pin (bo) | MIB |
| Sor 832 | II | Dump | - | 32B. 7 | 253:xxxvi | Seal, sig. ring (co) | OI A25143 |
| Sor 833 | III | Dump | - | 30B.1.2 | cf. 225b | Whorl (sh) | MIB |
| Sor 834 | III | Dump | - | 27D. 10 | 166f | Pin (br) | MIB |
| Sor 835 | II | Dump | - | 29E | 220g, 221f | Fig., animal (st) | MIB |
| Sor 836 | III | Dump | - | 27D. 16.8 | 181g | Pin (br) | MIB |
| Sor 837 | II | Dump | - | 27D.16.1 | 171r | Pin (br) | OI A25144 |
| Sor 838 | II | Dump | - | 27C.4.1.4 | 162a | Bracelet (br) | MIB |
| Sor 839 | II | Dump | - | 28 J .5 | 201e | Plaque (co/br) | OI A25145 |
| Sor 840a | III | Dump | - | 28H. 1 | - | $\operatorname{Pin}(\mathrm{co} / \mathrm{br})$ | NY |
| Sor 840b | II | Dump | - | 27D.18.1 | cf. 173b | Pin (br) | NY |
| Sor 840c | II | Dump | - | 27D. 13 | 169v | Pin | NY |
| Sor 840d | II | Dump | - | 27D. 12 | 168c | Pin (br) | NY |
| Sor 840e | II | Dump | - | 27A. 5 | 156 g | Arrowhead (br) | NY |
| Sor 840 f | II | Dump | - | 27D. 12 | - | Pin (ir) | NY |
| Sor 840g | III | Dump | - | 27D. 12 | cf. 169d | Pin (ir) | NY |
| Sor 841 | II | Dump | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 842 | KH | 5.65 | 1 | 28H.4.2 | 199 f | Pin (co/br) | MIB |
| Sor 843 | KH | Fill | - | 27C.4.14 | - | Bracelet (br) | NY |
| Sor 844 | KH | 6.72 | 2 | 32A.2.4 | 237:85 | Cyl. seal (bit) | MIB-1464 |
| Sor 845 | KH | Fill | - | 27D. 12 | 169a | Pin (br) | OI A25146 |
| Sor 846 | KH | Fill | - | 27D. 2 | cf. 164e | Pin (br) | NY |
| Sor 847 | KH | Fill | - | 27C.6.2.2 | cf. 163 m | Button (br) | MBB |
| Sor 848 | KH | 6.80 | 3 | 28H. 1 | - | Pin (co/br) | NY |
| Sor 849 | KH | 6.32 | 4 | 32A.2.7 | 239:116 | Cyl. seal (fa) | OI A25147 |
| Sor 850 | KI | Fill | - | 32A.2.5 | 237:95 | Cyl. seal (bit) | MIB-1461 |
| Sor 851 | KI | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 852 | KI | Fill | - | 27D.16.1 | 171s | Pin (br) | MIB |
| Sor 853 | KI | Fill | - | 28F | 192e | Ring, sheet (co/br) | MIB |
| Sor 854:1 | KI | Fill | - | 27D. 12 | cf. 169d | Pin (ir) | MIB |
| Sor 854:2-4 | KI | Fill | - | 27D. 12 | cf. 169 g | Pins (ir) | MIB |
| Sor 855 | KI | Fill | - | 31A. 42 | - | Beads (various) | UM-(?) |
| Sor 855:1g | KI | Fill | - | 31A. 23 | 232n | Bead (fa) | UM-(?) |
| Sor 855:1h | KI | Fill | - | 31A. 35 | 231 bw | Bead (glass) | UM-(?) |
| Sor 855:1i | KI | Fill | - | 31A. 23 | 232u | Bead (faicnce) | UM-(?) |
| Sor 856 | JI | 8.25 | 85 | 27D. 9 | 1650 | Pin (br) | OI A25148 |
| Sor 857 | JI | 8.12 | 86 | 28H.2.1 | 194a | Pin (co/br) | OI A25149 |
| Sor 858 | JI | 7.35 | 91 | 28H.5.1 | 207 g | Pin (co/br) | MMA 43.102.10 |
| Sor 859 | JI | 7.30 | 92 | 27D.16.8 | 181 ${ }^{\text {h }}$ | Pin (br) | MTB |
| Sor 860 | J | 7.35 | 93 | 27D. 3 | 164k | Pin (ir) | OI A 25150 |
| Sor 861 | JI | 7.15 | 94 | 32A.2.7 | 240:128 | Cyl. seal (co) | MIB-724 |
| Sor 862 | JI | 6.96 | 95 | 32A.2.9.1 | 243:152 | Cyl. seal (ch) | MIB-729 |
| Sor 863 | JI | 7.00-7.10 | 96 | 27B. 1 | - | Handle (br) | NY |
| Sor 864 | JI | 7.10 | 96 | 27C.2.1 | 160p | Ring, finger (br) | NY |
| Sor 865 | II | 7.10 | 96 | 27D.18.3 | 174b | Pin (br) | NY |
| Sor 866 | JI | 7.10 | 96 | 27D.16.1 | 172a | Pin (br) | NY |
| Sor 867a | JI | 7.10 | 96 | 27D.11 | - | Pin (br/ir) | MIB |
| Sor 867b | JI | 7.10 | 96 | 27D. 12 | cf. 169c | Pin ( $\mathrm{br} / \mathrm{ir}$ ) | MIB |
| Sor 867c | JI | 7.10 | 96 | 27D. 11 | 1671 | Pin (br/ir) | MIB |
| Sor 868 | JI | 7.10 | 96 | 27C.6.2.1 | 163 i | Buttons (br) | MIB |
| Sor 869 | JI | 7.10 | 96 | 31 A .42 | - | Beads (various) | MIB |
| Sor 870 | II | 7.10 | 96 | 27B. 7 | 159b | Bell clapper (br) | MIB |
| Sor 871 | JI | 7.10 | 98 | 28H.2.1 | - | Pin (co/br) | MIB |
| Sor 872 | JI | 7.60 | 98 | 27D. 12 | cf. 168e | Pin (br/ir) | NY |
| Sor 873 | JI | 7.60 | 98 | 27D. 9 | cf. 166b | Pin (ir) | MIB |
| Sor 874 | JI | 7.60 | 98 | 27B. 4 | 158 g | Spatula (ir) | MIB |
| Sor 875 | ת | 6.90 | 99 | 27F. 2 | 187f | Anim., horned (br) | NY |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 876 | JI | Top lay | 一 | 27D. 9 | 1651 | Pin (br) | (?) |
| Sor 877 | JI | Fill | - | 27D. 12 | 168d | Pin (br) | OI A25151 |
| Sor 878 | JII | Fill | - | 27E | 174 i | Horns, ibex (br) | NY |
| Sor 879 | JI | Top lay | - | 30A.3.7.1 | cf. 2230 | Pin (bo) | NY |
| Sor 880 | JI | Top lay | - | 27C.4.1.3 | - | Bracelet (br) | UM-(?) |
| Sor 881 | J | Top lay | - | 27C.4.5 | 163a | Bracelet (br) | MIB |
| Sor 882 | JI | Top lay | - | 27D. 13 | cf. 169r | Pin (br) | MIB |
| Sor 883 | JI | Top lay | - | 27D. 9 | cf. 166b | Pin (ir) | UM-(?) |
| Sor 884a | JI | Surf. | - | 27D. 11 | cf. 167p | Pin (ir) | NY |
| Sor 884b | JI | Surf. | - | 27D. 11 | cf. 167q | Pin (ir) | NY |
| Sor 885 | JI | Sieve | - | 32A.2.12 | 246:189 | Cyl. seal (fa) | OI A25152 |
| Sor 886 | JI | Sieve | - | 27C.6.5 | - | Button (si) | NY |
| Sor 887 | JI | Sieve | - | 27F. 3 | 175a | Anim., recum. (br) | MIB |
| Sor 888 | JI | Sieve | - | 27C.6.2.1 | 163j | Button (br) | (?) |
| Sor 889 | JI | Top lay | - | 27D. 12 | 168r | Pin (br) | MIB |
| Sor 890 | JI | Fill | - | 30 A .7 | 224 r | Pendant (bo) | OI A25153 |
| Sor 891 | JI | Fill | - | 32A.2.12 | 245:175 | Cyl. seal (fa) | MIB-732 |
| Sor 892 | JI | Fill | - | 31A.2.9.1 | 242:145 | Cyl. seal (fa) | MIB |
| Sor 893 | JI | Fill | - | 27G. 1 | 175g | Pendant, foot (le) | OI A25154 |
| Sor 894 | JI | Fill | - | 31A. 42 | - | Beads (various) | NY |
| Sor 894:2d | JI | Fill | - | 31A. 12 | 231c | Bead (serp) | NY |
| Sor 895 | JI | 7.59 | 84 | 30A.3.7.1 | 226b | Pin (bo) | MIB |
| Sor 896 | JI | 7.26 | 87 | 27D.16.3 | 188c | Pin (br) | MIB |
| Sor 897 | JI | 8.01 | 88 | 32A.2.12 | 245:178 | Cyl. seal (fa) | MIB-732 |
| Sor 898 | JI | 7.70 | 89 | 28H. 1 | - | Pin (co/br) | OI A25155 |
| Sor 899 | JI | 7.94 | 90 | 27F. 2 | 187d | Anim., homed (br) | NY |
| Sor 900 | JI | 7.75 | 100 | 28H. 1 | - | Pin (co/br) | (?) |
| Sor 901 | JI | 7.75 | 100 | 27D.16.1 | 172b | Pin (br) | NY |
| Sor 902 | II | Fill | - | 28E | - | Spiral, hair (co/br) | UM-(?) |
| Sor 903 | JI | Fill | - | 32A. 2.7 | 241:132 | Cyl. seal (fa) | MIB-732 |
| Sor 904 | JI | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 905 | JI | Fill | - | 30A.3.6 | 223d | Pin (bo) | MIB |
| Sor 906 | JI | Fill | - | 27A. 5 | - | Arrowhead (br) | MIB |
| Sor 907 | JI | Fill | - | 27C.4.1.4 | - | Bracelet (br) | MIB |
| Sor 908 | JI | Fill | - | 27C.4.1.6 | 162 f | Bracelet (ir) | MIB |
| Sor 909 | JI | Fill | - | 27C.6.2.2 | cf. 163k | Button (br) | MIB |
| Sor 910 | JI | Fill | - | 27F. 2 | 186a | Anim., horned (br) | (?) |
| Sor 911 | JI | Fill | - | 27F. 3 | 175b | Anim., homed (br) | MIB |
| Sor 912 | JI | Fill | - | 27D.11 | cf. 166p | Pin (br) | OI A25156 |
| Sor 913 | II | Fill | - | 26A.4.1 | - | Pendant, bird (fa) | MIB |
| Sor 914 | JI | Fill | - | 26A.9.6 | - | $\mathrm{Jar}($ ) (fa) | OI A25147 |
| Sor 915 | JI | Fill | - | 28A. 4 | 204b | Beaker, nipple (co/br) | NY |
| Sor 916 | JI | Fill | - | 28H.5.1 | 208a | Pin (co/br) | MIB |
| Sor 917 | JI | Fill | - | 27D. 12 | cf. 169 g | Pin (ir) | OI A25158 |
| Sor 918 | J | Fill | - | 27C.6.1 | 163 g | Bution (br) | OI A25159 |
| Sor 919 | JI | Fill | - | 27D. 16.8 | 172m | Pin (br) | MIB |
| Sor 920a | JI | Fill | - | 27D. 14 | - | Pin (br) | MIB |
| Sor 920b | JI | Fill | - | 27D. 10 | - | Pin (br) | MIB |
| Sor 920c | JI | Fill | - | 27D. 11 | cf. 169p | Pin (br) | MIB |
| Sor 920d | JI | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 920e | ת | Fill | - | 27C. 5 | cf. 163e | Tack (br) | MIB |
| Sor 920 f | JI | Fill | - | 27C. 5 | 163f | Tack (br) | MIB |
| Sor 921 | JJ | Fill | - | 27C.4.3.2 | 162k | Bracelet (br) | NY |
| Sor 922a | JJ | Fill | - | 27D. 12 | cf. 168i | Pin (br) | MIB |
| Sor 922b | JJ | Fill | - | 27D. 12 | cf. 168i | Pin (br) | MIB |
| Sor 922c | JJ | Fill | - | 27D. 10 | 166 g | Pin (br) | MIB |
| Sor 922d | JJ | Fill | - | 27D. 10 | - | Pin (br) | MIB |


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| Sor 922e | JJ | Fill | - | 27D. 12 | - | Pin (ir) | MIB |
| Sor 922f | JJ | Fill | - | 27D. 12 | - | Pin (ir) | MIB |
| Sor 923 | JH | 7.25 | - | 31A.2.5 | 238:96 | Cyl. seal (co) | UM-(?) |
| Sor 924 | JH | Top lay | - | 32A.2.2 | 235:65 | Cyl. seal (fa) | NY |
| Sor 925a | JH | Top lay | - | 27D. 12 | - | Pin (br) | NY |
| Sor 925b | JH | Top lay | - | 27D. 12 | - | Pin (br) | NY |
| Sor 925c | JH | Top lay | - | 27D. 14 | cf. 169h | Pin (ir) | NY |
| Sor 925d | JH | Top lay | - | 27D. 14 | cf. 169h | Pin (ir) | NY |
| Sor 926a | JH | Top lay | - | 28H.3.1 | 196d | Pin (co/br) | MIB |
| Sor 926b | JH | Top lay | - | 27D. 11 | - | Pin (br) | MIB |
| Sor 926c | JH | Top lay | - | - | - | Pin (?) | (?) (Lost) |
| Sor 926d | JH | Top lay | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 926e | JH | Top lay | - | 27D. 12 | cf. 169g | Pin (ir) | MIB |
| Sor 927 | JH | Top lay | - | 31A. 42 | - | Beads (various) | UM-(?) |
| Sor 928 | KH | Fill | - | 27D. 1 | - | Pin shank (br) | OI A25160 |
| Sor 929a | KH | Fill | - | 32A.2.9.1 | 242:146 | Cyl. seal (fa) | Ol A25161 |
| Sor 929b | KH | Surf. | - | 32A.2.10 | 244:169 | Cyl. seal (fa) | NY |
| Sor 930 | KH | Fill | - | 27C.6.2.2 | cf. 163k | Button (br) | MIB |
| Sor 931 | KH | Fill | - | 27D. 8 | 165j | Pin (br) | NY |
| Sor 932 | KH | Fill | - | 27D. 8 | 178d | Pin (br) | OI A25162 |
| Sor 933 | KH | Fill | - | 26A.9.3 | 152 d | Beaker, base (fa) | OI A25163 |
| Sor 934 | KH | Fill | - | 27D.18.1 | 173h | Pin (br) | MIB |
| Sor 935 | KH | Top lay | - | 31 A .21 | - | Bead, spacer (alab) | NY |
| Sor 936 | KH | Top lay | - | 27C.4.1.2 | - | Bracelet (br) | NY |
| Sor 937 | KH | Top lay | - | 27D.11 | - | Pin (br) | MIB |
| Sor 938 | KH | Top lay | - | 27C.4.1.3 | - | Bracelet (br) | OI A25164 |
| Sor 939 | KH | Top lay | - | 27D. 13 | 1691 | Pin (br) | MIB |
| Sor 940 | KH | Top lay | - | 27A.3.1 | 155 f | Hilt, dagger (br) | NY |
| Sor 941 | KH | Top lay | - | 27B. 10 | 159c | Tweezers (br) | MIB |
| Sor 942 | KH | Top lay | - | 31 A .16 | - | Bead (sh) | OI A25165 |
| Sor 943 | KH | Top lay | - | 32A.2.4 | 236:83 | Cyl. seal (alab) | NY |
| Sor 944 | KH | Top lay | - | 30A.3.7.4 | 227a | Pin (bo) | MIB |
| Sor 945 | KH | Fill | - | 31 A .42 | - | Beads (various) | MIB |
| Sor 945:1f | KH | Fill | - | 31 A .40 | 230m | Bead (sh) | MIB |
| Sor 945:1i | KH | Fill | - | 31A. 5 | 230 n | Bead (sh) | MIB |
| Sor 945:11 | KH | Fill | - | 31A. 40 | 230q | Bead (sh) | MIB |
| Sor 946 | II | Top lay | - | 27D. 9 | 165q | Pin (br) | NY |
| Sor 947 | II | Top lay | - | 28H.2.2 | - | Pin (co/br) | OI A25166 |
| Sor 948 | II | Top lay | - | 28H.4.2 | 199g | Pin (co/br) | MIB |
| Sor 949 | II | Top lay | - | 30A.3.7.1 | - | Pin (bo) | NY |
| Sor 950 | II | Top lay | - | 27C.6.2.2 | cf. 163 k | Button (br) | NY |
| Sor 951 | III | Fill | - | 29D | 218e | Pin (st) | OI A25167 |
| Sor 952 | III | Fill | - | 29B. 7 | 217d | Disc (st) | MIB |
| Sor 953 | III | Top lay | - | 27C.6.2.2. | cf. 163k | Button (br) | OI A25168 |
| Sor 954 | III | Top lay | - | 32A.2.7 | 240:121 | Cyl. scal (fa) | MIB |
| Sor 955 | II | Top lay | - | 27G.2.1 | 188f | Fig., quad. (br) | MIB |
| Sor 956 | II | Top lay | - | 32A.2.12 | 245:179 | Cyl. seal (fa) | MIB-732 |
| Sor 957 | II | Top lay | - | 27A. 7 | 157h | Ring, bow (ir) | MIB |
| Sor 958 | II | Top lay | - | 29B. 3 | 215 f | Whetstone (gy st) | MIB |
| Sor 959 | III | Top lay | - | 28G | 1920 | Metal band (co/br) | MIB |
| Sor 960a | II | Top lay | - | 27D. 12 | cf. 168i | Pin (br) | UM-(?) |
| Sor 960b | III | Top lay | - | 27D. 11 | 167b | Pin (br) | UM-(?) |
| Sor 960c | III | Fill | - | 27D. 11 | cf. 167q | Pin (ir) | UM-(?) |
| Sor 961 | II | 8.35 | 25 | 19A. 2 | 77x | Seal, stamp (Imst) | MIB |
| Sor 962 | II | Fill | - | 32A.2.2 | 235:66 | Cyl. seal (lmst) | UM-(?) |
| Sor 963 | - | Surf. | - | 28A. 8 | 191a | Spout, trough (co/br) | MIB |
| Sor 964 | JI | 7.42 | 101 | 27D.16.3 | 188a | Pin (br) | NY |


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| Sor 965 | J | 6.90 | 102 | 27A.3.1 | cf. 155 i | Dagger (br) | MIB |
| Sor 966 | JI | 6.90 | 103 | 27C.2.1 | 160q | Ring, finger (br) | OI A25169 |
| Sor 967 | J | 7.02 | 105 | 28L. 3 | 203k | Pendant (co/br) | OI A25170 |
| Sor 968 | JI | 7.32 | 106 | 32A.2.8 | 241:137 | Cyl. seal (co) | NY |
| Sor 969 | JI | 7.30-7.50 | 107 | 27F. 2 | 1740, 186e | Anim., homed (br) | (?) |
| Sor 970 | JI | 7.30-7.50 | 107 | 27G.2.2 | 186c | Anim., homed (br) | UM-(?) |
| Sor 971 | JI | 7.30-7.50 | 107 | 27D.16.3 | 188b | Pin (br) | OI A25171 |
| Sor 972 | JI | 7.30-7.50 | 107 | 27F. 2 | - | Anim., horned (br) | MIB |
| Sor 973 | JI | 7.52 | 108 | 27A.1 | - | Blade (br) | (?) |
| Sor 974 | JI | 7.67 | 109 | 27D. 9 | cf. 165m | Pin (br) | MIB |
| Sor 975 | JI | 6.85 | 113 | 27D. 6 | 165b | Pin (br) | MIB |
| Sor 976 | JI | 6.85 | 114 | 27A.2.1 | 155b | Axe (br) | NY |
| Sor 977 | JI | 6.60 | 121 | 27D.16.4 | 180f | Pin (br) | MIB |
| Sor 978 | II | 6.60 | 122 | 27D.16.6 | 181c | Pin (br/ir) | MIB |
| Sor 979 | JI | 6.65 | 126 | 32A. 1 | 233:42 | Cyl. seal (serp) | MIB-1467 |
| Sor 980 | J | 6.75 | 127 | 27F. 1 | 174m | Fig., quad. (br) | OI A25172 |
| Sor 981 | JI | 6.60 | 128 | 27G.2.2 | 186 g | Anim., homed (br) | MTB |
| Sor 982 | JI | Fill | - | 27D.16.3 | - | Pin (br) | MIB |
| Sor 983 | JI | Sieve | - | 27G.2.2 | 186d | Anim., homed (br) | NY |
| Sor 984 | JI | Sieve | - | 27C.1.4 | 159w | Earring (br) | MIB |
| Sor 985 | JI | Sieve | - | 27C.1.3 | 159u | Earring (br) | MIB |
| Sor 986 | JI | Sicve | - | 27C. 5 | cf. 163e | Tack (br) | OI A25173 |
| Sor 987 | JI | Sieve | - | 32A.2.6 | 238:103 | Cyl. seal (st) | UM-(?) |
| Sor 988 | JI | 7.10-7.20 | 112 | 27D.11 | 167f | Pin (br) | NY |
| Sor 989 | JI | 7.10-7.20 | 112 | 28L. 2 | 203f | Pendant (co/br) | NY |
| Sor 990 | JI | 7.10-7.20 | 112 | 27D. 1 | - | Pin shank (br) | NY |
| Sor 991 | JI | 7.10-7.20 | 112 | 27C.6.2.2 | cf. 163 k | Button (br) | NY |
| Sor 992 | JI | 7.10-7.20 | 112 | 28B | $204 f$ | Sieve (co/br) | OI A25174 |
| Sor 993 | JI | 7.10-7.20 | 112 | 27F. 2 | $186 f$ | Anim., homed (br) | MIB |
| Sor 994 | J | 7.10-7.20 | 112 | 27C.6.2.2 | cf. 163k | Button (br) | MIB |
| Sor 995 | JI | 7.10-7.20 | 112 | 27D. 10 | 166m | Pin (br) | MIB |
| Sor 996 | JI | 7.10-7.20 | 112 | 31A. 13 | 231f | Bead (gypsum) | MIB |
| Sor 997 | JI | 7.10-7.20 | 112 | 27C.1.1 | 1590 | Earring (br) | MIB |
| Sor 998:1 | JI | 7.10-7.20 |  | 31A. 29 | - | Bead (ca) | OI A25175 |
| Sor 998:2 | JI | 7.10-7.20 | 112 | 31A. 29 | - | Bead (chl) | OI A25176 |
| Sor 999 | JI | 7.10-7.20 | 112 | 29C. 2 | 219 f | Pendant (st) | NY |
| Sor 1000 | JI | 7.10 | 112/22 | 32A. 2.5 | 237:91 | Cyl. seal (alab) | NY |
| Sor 1001 | JI | 7.10-7.20 | 112/14 | 31A. 12 | 231d | Bead (congl) | MIB |
| Sor 1002 | JI | 6.95 | 112/15 | 27D. 13 | cf. 169r | Pin (br) | NY |
| Sor 1003 | J | 6.75 | 112/15 | 25B. 8 | 146d | Fig., human (cl) | UM-(?) |
| Sor 1004 | JI | 6.75 | 112/17 | 26A.9.2 | 150c, 154a | Cup, triple (fa) | OI A25177 |
| Sor 1005 | JI | 6.55 | 112/18 | 27D. 12 | cf. 169a | Pin (br) | NY |
| Sor 1006 | JI | 6.75 | 112/20 | 27C.4.1.1 | $161 f$ | Bracelet (br) | OI A25178 |
| Sor 1007 | JI | 7.10-7.20 | 112/21 | 27C.6.2.1 | cf. 163h | Button (br) | UM-(?) |
| Sor 1008 | JI | 7.10-7.20 | 112/21 | 30A.3.6 | 223 e | Pin head (bo) | MIB |
| Sor 1009 | JI | 7.10-7.20 | 112/21 | 28H.3.2 | 197e | Pin (co/br) | MIB |
| Sor 1010:1 | JI | 7.10-7.20 | 112/21 | 27C.4.1.2 | - | Bracelet (br) | NY |
| Sor 1010:2 | JI | 7.10-7.20 | 112/21 | 27C.4.1.2 | - | Bracelet (br) | NY |
| Sor 1011 | JI | 7.10-7.20 | 112/21 | 27B. 1 | 157d | Handle (br) | NY |
| Sor 1012 | JI | 7.10-7.20 | 112/21 | 27C.6.2.2 | cf. 163 m | Button (br) | MIB |
| Sor 1013 | JI | 7.10-7.20 | 112/21 | 27G.2.3 | 175e, 188h | Pendant, bird (br) | MMA 43.102.16 |
| Sor 1014 | Л | 6.85-6.95 | 112/23 | 27C.1.4 | 160a | Earring (br) | NY |
| Sor 1015 | JI | 6.85-6.95 | 112/23 | 27C.1.1 | 159p | Earring (br) | MIB |
| Sor 1016 | J | 6.85-6.95 | 112/23 | 31A. 42 | - | Beads (various) | NY |
| Sor 1016d | JI | 6.85-6.95 | 112/23 | 31 A .22 | 230ac | Bead (sh) | NY |
| Sor 1016e | J | 6.85-6.95 | 112/23 | 31A. 33 | 230 ag | Bead (tooth) | NY |
| Sor 1016f | JI | 6.85-6.95 | 112/23 | 31A. 10 | 230as | Bead (sh) | NY |


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| Sor 1017 | JI | 6.85-6.95 | 112/23 | $\begin{aligned} & \text { 31A.14/ } \\ & \text { 32B. } 1 \end{aligned}$ | $\begin{aligned} & \text { 232ax, } \\ & \text { 249:xiii } \end{aligned}$ | Bead or stamp seal (fa) | MIB |
| Sor 1018 | JI | 6.85-6.95 | 112/23 | 30A.3.6 | 223f | Pin (bo) | MIB |
| Sor 1019 | JI | 6.70 | 129 | 24C. 4 | 133:25 | Cyl. seal (hem) | MIB-1468 |
| Sor 1020 | JI | Fill | - | 29B. 6 | 216e | Stopper (st) | NY |
| Sor 1021 | Л | Fill | - | 27E | - | Homs, ibex (br) | MIB |
| Sor 1022 | JI | Fill | - | 27C.1.6 | - | Earring (ir) | MIB |
| Sor 1023 | ת | Fill | - | 27D. 6 | 165c | Pin (br) | NY |
| Sor 1024 | Л | Fill | - | 30B.1.2 | cf. 225b | Whorl (sh) | MIB |
| Sor 1025 | II | Fill | - | 24C. 9 | 134:39 | Cyl. seal (fa) | NY |
| Sor 1026 | JI | Fill | - | 30A.3.4 | 222 s | Pin (bo) | MIB |
| Sor 1027a | ת | Fill | - | 27D. 14 | cf. 170 c | Pin (br) | OI A25179 |
| Sor 1027b | JI | Fill | - | 27D. 14 | cf. 170 g | Pin (br) | OI A25180 |
| Sor 1028 | JI | Fill | - | 30A. 7 | 224 s | Pendant (bo) | NY |
| Sor 1029a | ת | Fill | - | 27C. 5 | cf. 163e | Tack (br) | MIB |
| Sor 1029b | JI | Fill | - | 27C.6.2.1 | cf. 163h | Button (br) | MIB |
| Sor 1030 | J | Fill | - | 26A.4.1 | - | Pendant, bird(?) (fa) | OI A25181 |
| Sor 1031 | JI | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 1031b | JI | Fill | - | 31A. 38 | 231 bv | Bead (whst) | MIB |
| Sor 1031f | J | Fill | - | 31A. 38 | 231bu | Bead (gypsum) | MIB |
| Sor 1031g | JI | Fill | - | 31 A .11 | 230au | Bead (sh) | MIB |
| Sor 1031j | JI | Fill | - | 31 A .33 | 232al | Bead (ca) | MIB |
| Sor 1031k | JI | Fill | - | 31A. 23 | 2321 | Bcad (comp) | MIB |
| Sor 1032 | II | 7.95 | 104 | 27F. 2 | 188e | Anim., homed (br) | Thompson |
| Sor 1033 | JI | 7.65 | 110 | 27G.2.3 | 175d, 188i | Pendant, bird (br) | MIB |
| Sor 1034 | JI | 8.10 | 111 | 32A.2.12 | 245:180 | Cyl. seal (fa) | NY |
| Sor 1035 | JI | 8.20 | 115 | 27B.1 | 177e | Handle (br/ir) | OI A25182 |
| Sor 1036 | JI | 7.50 | 116 | 27F. 1 | 186b | Fig., quad. (br) | MIB |
| Sor 1037 | JI | 7.56 | 117 | 27D.16.2 | 172g, 179e | Pin (br) | UM-(?) |
| Sor 1038 | JI | 7.56 | 120 | 28K. 1 | 201k | Whorl (co/br) | MIB |
| Sor 1039 | JI | 7.60 | 120 | 32A.2.13 | 248:213 | Cyl. seal (fa) | MIB-732 |
| Sor 1040 | JI | 7.35 | 123 | 27F. 4 | 175c | Pendant, bird (br) | NY |
| Sor 1041 | JI | 7.15 | 124 | 29B.2.1 | - | Weight (st) | MIB |
| Sor 1042 | JI | 7.15 | 124 | 32B. 6 | 252:xxxii | Seal, stamp (co) | MIB |
| Sor 1043 | JI | 7.15 | 125 | 32A.2.9.1 | 242:147 | Cyl. seal (fa) | NY |
| Sor 1044 | JI | 7.15 | 125 | 28L. 1 | 203b | Pendant (co/br) | NY |
| Sor 1045 | JI | 7.15 | 130 | 31 A .37 | 232ba | Pin, bead-hded (ca/br) | NY |
| Sor 1046 | JI | 7.15 | 130 | 27D. 12 | - | Pin (br) | NY |
| Sor 1047 | JI | 7.15 | 130 | 27C. 5 | cf. 163e | Tack (br) | MIB |
| Sor 1048 | JI | 7.15 | 130 | 27D.11 | cf. 167p | Pin (ir) | MIB |
| Sor 1049 | JI | 7.15 | 130 | 27C.1.6 | 160h | Earring (ir) | NY |
| Sor 1050 | JI | 7.15 | 130 | 28K. 1 | 2011 | Whorl (co/br) | OI A25183 |
| Sor 1051 | JI | 7.15 | 130 | 32A.2.12 | 245:181 | Cyl. seal (fa) | OI A25184 |
| Sor 1052 | JI | 7.15 | 130 | 32A.2.13 | 248:212 | Cyl. seal (fa) | NY |
| Sor 1053:1 | J | 7.15 | 130 | 31 A .3 | - | Bead (sh) | MIB |
| Sor 1053:2 | JI | 7.15 | 130 | 31A. 15 | - | Bead (glass) | MIB |
| Sor 1053:3 | JI | 7.15 | 130 | 31A. 32 | - | Bead (serp) | MIB |
| Sor 1053:4 | J | 7.15 | 130 | 31A. 30 | - | Bead (ch) | MIB |
| Sor 1054 | JI | 7.00 | 131 | 27F. 2 | 188d | Anim., horned (br) | MIB |
| Sor 1055 | JI | 7.00 | 131 | 28A. 3 | 190e | Bucket (co/br) | MIB |
| Sor 1056 | JI | Fill | - | 27D. 12 | cf. 168i | Pin (br) | MIB |
| Sor 1057 | JI | Fill | - | 27C.4.3.2 | 1621 | Bracelet (br) | NY |
| Sor 1058 | J | Fill | - | 27D. 13 | cf. 169r | Pin (br) | UM-(?) |
| Sor 1059 | JI | Fill | - | 32A. 2.13 | - | Cyl. seal (fa) | UM-(?) |
| Sor 1060 | JI | Fill | - | 27B. 12 | 159k | Rod (br) | MIB |
| Sor 1061 | J | Fill | - | 27C. 8 | 164a | Chain (br) | MIB |


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| Sor 1062 | J | Fill | - | 28H.2.1 | cf. 200b | Pin (ir) | UM-(?) |
| Sor 1063 | JI | Fill | - | 28A. 9 | 191c | Handle (co/br) | MIB |
| Sor 1064 | JI | Fill | - | 27C. 8 | 164b | Chain (br) | MIB |
| Sor 1065 | JI | Fill | - | 31A. 6 | 232am | Bead (glass) | MIB |
| Sor 1066 | JI | Fill | - | 32A.2.13 | 248:220 | Cyl. seal (co) | OI A25185 |
| Sor 1067 | JI | Fill | - | 27D. 12 | 169b | Pin (br) | MIB |
| Sor 1068 | JI | Fill | - | 31A. 24 | 232 aq | Bead (br) | MIB |
| Sor 1069 | JI | Fill | - | 28L. 2 | 203g | Pendant (co/br) | MIB |
| Sor 1070a | JI | Fill | - | 27D. 13 | 169 m | Pin (br) | MIB |
| Sor 1070b | JI | Fill | - | 27D. 13 | 169r | Pin (br) | MIB |
| Sor 1071 | JI | Fill | - | 27 E | - | Horns, ibex (br) | NY/OI A25186 |
| Sor 1072 | JI | Fill | - | 27C.6.2.2 | cf. 163k | Button (br) | NY |
| Sor 1073 | JI | Fill | - | 28 K .3 | 202d | Whorl (co/br) | NY |
| Sor 1074 | JI | Fill | - | 26A.4.1 | cf. 149a | Pendant, bird (fa) | OI A25187 |
| Sor 1075 | JI | Fill | - | 27B. 11 | 159 g | Cyl. (ir) | OI A25188 |
| Sor 1076 | JI | Fill | - | 28A. 8 | - | Spout, trough (co/br) | (?) |
| Sor 1077 | JI | Fill | - | 31 A .21 | 232 f | Bead, spacer (bo) | MIB |
| Sor 1078 | JI | Sieve | - | 27D. 16.4 | 180e | Pin (br) | MMA 43.102.8 |
| Sor 1079 | JI | Sieve | - | 27A. 5 | 177c | Arrowhead (br) | MIB |
| Sor 1080 | JI | Sieve | - | 30A.3.7.2 | 223w, 226g | Pin (bo) | MIB |
| Sor 1081 | J | Sieve | - | 27G.2.4 | 188g | Animal head (br) | OI A25189 |
| Sor 1082 | JI | Sieve | - | 28H.3.2 | 197f | $\operatorname{Pin}(\mathrm{co} / \mathrm{br})$ | MIB |
| Sor 1083 | JI | Sieve | - | 27D.16.1 | 172c | Pin (br) | MIB |
| Sor 1084 | Л | Sieve | - | 28 E | - | Spiral, hair (co/br) | NY |
| Sor 1085 | JI | Sieve | - | 24C. 8 | 134:35 | Cyl. seal (fa) | UM-(?) |
| Sor 1086 | JI | Sieve | - | 27D.16.1 | - | Pin (br) | OI A25190 |
| Sor 1087 | JI | Sieve | - | 26A.3.1 | 148h | Pin, min. mace (fa) | OI A25191 |
| Sor 1088a | JI | Fill | - | 28 J .5 | 213a | Plaque(co/br) | OI A25192 |
| Sor 1088b | JI | Fill | - | 28J. 4 | 212d | Plaque (co/br) | OI A25193 |
| Sor 1089 | JI | Fill | - | 27B. 5 | 158m | Chisel (ir) | UM-(?) |
| Sor 1090 | JI | Fill | - | 30A.3.7.1 | 223p | Pin (bo) | NY |
| Sor 1091 | JI | Fill | - | 27D.16.1 | , | Pin (br) | MIB |
| Sor 1092 | JI | Fill | - | 30A. 3.5 | 222t | Pin (or handle?) (bo) | MIB |
| Sor 1093:1 | J | Fill | - | 27D. 13 | cf. 169r | Pin (br) | UM-(?) |
| Sor 1093:2 | J | Fill | - | 27D. 12 | 1680 | Pin (br) | UM-(?) |
| Sor 1093:3 | JI | Fill | - | 27D. 10 | - | Pin (br) | UM-(?) |
| Sor 1093:4 | Л | Fill | - | 27D. 12 | cf. 168 s | Pin (br) | UM-(?) |
| Sor 1093:5 | JI | Fill | - | 27D. 14 | cf. 170 c | Pin (br) | UM-(?) |
| Sor 1093:6 | JI | Fill | - | 27D. 14 | cf. 170c | Pin (br) | UM-(?) |
| Sor 1093:7 | JI | Fill | - | 27D. 14 | 170f | Pin (br) | UM-(?) |
| Sor 1093:8 | JI | Fill | - | 27D. 12 | - | Pin (br) | UM-(?) |
| Sor 1093:9 | JI | Fill | - | 27D. 11 | 167d | Pin (br) | UM-(?) |
| Sor 1093:10 | JI | Fill | - | 27D. 2 | - | Pin (br) | UM-(?) |
| Sor 1093:11 | JI | Fill | - | 27D. 19 | 174f | Pin (br) | UM-(?) |
| Sor 1093:12 | J | Fill | - | 28H. 1 | - | Pin (co/br) | UM-(?) |
| Sor 1093:13 | JI | Fill | - | 27D. 11 | cf. 167p | Pin ( $\mathrm{br} / \mathrm{ir}$ ) | UM-(?) |
| Sor 1093:14 | JI | Fill | - | 27D. 11 | 167 m | Pin ( $\mathrm{br} / \mathrm{ir}$ ) | UM-(?) |
| Sor 1093:15 | J | Fill | - | 27D. 14 | 170r | Pin (br) | UM-(?) |
| Sor 1094a | JI | Fill | - | 27C.2.1 | 160r | Ring, finger (br) | MIB |
| Sor 1094b | JI | Fill | - | 27C.4.8 | - | Bracelets/rings (br) | MIB |
| Sor 1095:1 | JI | Fill | - | 27D. 4 | cf. 164n | Pin (ir) | NY |
| Sor 1095:2 | JI | Fill | - | 27D.11 | cf. 167p | Pin (ir) | NY |
| Sor 1095:3 | JI | Fill | - | 27D. 11 | - | Pin (ir) | NY |
| Sor 1095:4 | JI | Fill | - | 27D. 12 | - | Pin (ir) | NY |
| Sor 1095:5 | JI | Fill | - | 27D. 11 | - | Pin (ir) | NY |
| Sor 1095:6 | JI | Fill | - | 27D. 9 | cf. 166b | Pin (ir) | NY |
| Sor 1095:7 | JI | Fill | - | 27A. 5 | 1561 | Arrowhead (ir) | NY |
| Sor 1096:1 | JI | Fill | - | 27C.4.1.1 | 161i | Bracelet (ir) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 1096:2 | JI | Fill | - | 27C.4.1.1 | - | Bracelet (ir) | MIB |
| Sor 1097:1 | JI | Fill | - | 28 K .1 | 201m | Whorl (co/br) | MIB |
| Sor 1097:2 | JI | Fill | - | 28 K .1 | 201n | Whorl (co/br) | MIB |
| Sor 1097:3 | JI | Fill | - | 27C.6.2.1 | cf. 163h | Button (br) | MIB |
| Sor 1098 | J | Fill | - | 27C.1.6 | - | Earring (ir) | MIB |
| Sor 1099 | Л | Fill | - | 27E | - | Homs, ibex (br) | MIB |
| Sor 1100a | JI | Fill | - | 32A.2.7 | 240:122 | Cyl. seal (alab) | NY |
| Sor 1100:1 | JI | Fill | - | 31 A .21 | 232c | Bead (serp) | NY |
| Sor 1100:2 | JI | Fill | - | 31 A .21 | 232d | Bead (fa) | NY |
| Sor 1100:3 | ת | Fill | - | 31 A .10 | 232h | Bead (fa) | NY |
| Sor 1100:4 | JI | Fill | - | 31 A. 22 | 232aa | Bead (fa) | NY |
| Sor 1100:5 | JI | Fill | - | 31 A. 12 | 232aj | Bead (gypsum) | NY |
| Sor 1100:6-89 | Л | Fill | - | 31A. 42 | - | Beads (various) | NY |
| Sor 1101 | JH | 6.76 | 2 | 32A.2.5 | 237:94 | Cyl. seal (st) | NY |
| Sor 1102 | JH | 7.55 | 3 | 24C. 5 | 133:29 | Cyl. seal (hem) | OI A25194 |
| Sor 1103 | JH | Fill | - | 30A. 4 | - | Plaque, head(?) (bo) | UM-(?) |
| Sor 1104 | JH | Fill | - | 27D. 12 | cf. 168 g | Pin (br) | OI A25195 |
| Sor 1105 | JH | Surf. | - | 27D. 14 | 170h | Pin (br) | MIB |
| Sor 1106 | JH | Surf. | - | 27D. 13 | - | Pin (br) | MIB |
| Sor 1107 | JH | 7.60 | 4 a | 27F. 2 | 174p | Anim., homed (br) | NY |
| Sor 1108:1 | JH | Fill | - | 27D.11 | cf. 167p | Pin (ir) | NY |
| Sor 1108:2 | JH | Fill | - | 27D. 11 | - | Pin (ir) | NY |
| Sor 1108:3 | JH | Fill | - | 27D. 11 | cf. 167p | Pin (ir) | NY |
| Sor 1108:4 | JH | Fill | - | 27D. 12 | - | Pin (ir) | NY |
| Sor 1108:5 | JH | Fill | - | 27D. 11 | cf. 167p | Pin (ir) | NY |
| Sor 1108:6 | JH | Fill | - | 28 H .1 | - | Pin (co/br) | NY |
| Sor 1108:7 | JH | Fill | - | 27B. 5 | - | Chisel (ir) | NY |
| Sor 1109 | JH | Fill | - | 25A.3.14 | 138d | Vessel, anim. (cl) | OI A25196 |
| Sor 1110 | JH | Fill | - | 27C.6.5 | - | Button (br) | NY |
| Sor 1111 | JH | Fill | - | 31 A .18 | - | Bead (st) | MIB |
| Sor 1112 | JH | Fill | - | 32A.2.7 | 241:131 | Cyl. seal (fa) | MIB-732 |
| Sor 1113 | JH | Fill | - | 27D.18.1 | cf. 173b | Pin (br) | MIB |
| Sor 1114 | JH | Fill | - | 31 A. 42 | - | Beads (various) | OI A25197 |
| Sor 1115 | KH | Fill | - | 28H.2.1 | - | Pin (co/br) | OI A25198 |
| Sor 1116 | KH | 5.50 | 5 | 28N | 214c | Fig., human (co/br) | MIB |
| Sor 1117 | KH | 5.44 | 6 | 27A.4.2 | 177d | Hilt, socketed (ir) | UM-(?) |
| Sor 1118 | KH | 5.35 | 6 | 28B | 191f | Cone (co/br) | MIB |
| Sor 1119 | KH | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 1120 | KH | Fill | - | 27D. 10 | cf. 166f | Pin (br) | NY |
| Sor 1121 | KH | Fill | - | 27D. 5 | 165a | Pin (br) | NY |
| Sor 1122 | KH | Fill | - | 27D.16.1 | - | Pin (br) | UM-(?) |
| Sor 1123 | IJ | 8.40 | 2 | 32A.2.9.1 | 242:143 | Cyl. seal (alab) | UM-(?) |
| Sor 1124 | II | Fill | - | 24C. 2 | 132:15 | Cyl. seal (ivory) | MMA 43.102.34 |
| Sor 1125:1 | II | Fill | - | 27D. 6 | - | Pin (br) | NY |
| Sor 1125:2 | II | Fill | - | 27D. 16.8 | 172s | Pin (br) | NY |
| Sor 1125:3 | II | Fill | - | 27D.11 | - | Pins (br/ir) | NY |
| Sor 1125:4 | III | Fill | - | 27D.11 | - | Pins (br/ir) | NY |
| Sor $1125: 5$ | II | Fill | - | 28H.1 | - | Pins (co/br) | NY |
| Sor 1125:6 | II | Fill | - | 28H.5.2 | - | Pin (ir) | NY |
| Sor 1125:7 | II | Fill | - | 28H.5.2 | - | Pin (ir) | NY |
| Sor 1126 | II | Fill | - | 30A.3.7.1 | cf. 2230 | Pin (bo) | OI A25200 |
| Sor 1127 | II | 8.55 | 118 | 27D.16.1 | - | Pin (br) | MIB |
| Sor 1128 | III | 8.55 | 26 | 27F. 2 | 186j, 1870 | Anim., homed (br) | MIB |
| Sor 1129 | II | 8.15 | 26 | 27D.16.3 | 180c | Pin (br) | OI A25008 |
| Sor 1130 | II | Fill | - | 32A.2.7 | 240:130 | Cyl. seal (co) | MIB-725 |
| Sor 1131 | JI | 6.70 | 142 | 27F. 2 | 1861 | Anim., homed (br) | MIB |
| Sor 1132 | JI | 6.72 | 143 | 27D. 17 | 182b | Pin (br) | (?) |
| Sor 1133 | JI | 6.72 | 143 | 27D. 17 | - | Pin (br) | (?) (Lost) |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 1134 | JI | 6.84 | 144 | 32A.2.2 | 235:71 | Cyl. seal (bo) | OI A25201 |
| Sor 1135 | JI | 6.84 | 145 | 32A.2.9.1 | 242:144 | Cyl. seal (alab) | MIB-1455 |
| Sor 1136 | J | 6.56 | 148 | 32B. 6 | 252:xxxiv | Seal, stamp (st) | OI A25202 |
| Sor 1137 | JI | 6.80 | 148 | 32A.2.13 | 248:214 | Cyl. seal (fa) | MIB-732 |
| Sor 1138 | JI | 6.76 | 149 | 27B. 4 | 158d | Spatula (br) | MIB |
| Sor 1139 | J | 7.14 | 151 | 32A.2.13 | - | Cyl. seal (st) | UM-(?) |
| Sor 1140 | JI | 7.14 | 151 | 28H.5.1 | - | Pin (co/br) | MIB |
| Sor 1141 | JI | 6.60 | 152 | 27A. 5 | 156i | Arrowhead (br) | NY |
| Sor 1142 | JI | 6.45 | 164 | 28H.2.2 | - | Pin (co/br) | MIB |
| Sor 1143 | Л | 6.45 | 164 | 27E | - | Horns, ibex (br) | NY |
| Sor 1144 | JI | 6.45 | 164 | 27F. 2 | 187h | Anim., homed (br) | MIB |
| Sor 1145 | JI | 6.45 | 164 | 32B.5.2 | 252:xxx | Seal, stamp (br) | MIB |
| Sor 1146 | JI | 6.50 | 165 | 31A. 15 |  | Bead (st) | NY |
| Sor 1147 | Л | 6.75 | 166 | 27D. 13 | 169s | Pin (br) | OI A25204 |
| Sor 1148 | JI | Fill | - | 26A.1.2 | cf. 148b | Disc (fa) | MIB |
| Sor 1149a | JI | Fill | - | 27 D .9 | - | Pin (br) | MIB |
| Sor 1149b | JI | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1150 | JI | Fill | - | 31A. 30 | 232ac | Bead (chl) | MIB |
| Sor 1151:1 | JI | Fill | - | 27C.2.2 | - | Ring, finger (br) | NY |
| Sor 1151:2 | JI | Fill | - | 27C.4.1.4 | - | Bracelet (br) | NY |
| Sor 1152 | Л | Fill | - | 25A.3.13 | - | Sherd | OI A25205 |
| Sor 1153 | JI | Fill | - | 29C. 2 | 219 g | Pendant (st) | OI A25206 |
| Sor 1154:1 | JI | Fill | - | 27D. 14 |  | Pin (br) | MIB |
| Sor 1154:2 | JI | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1155 | JI | Fill | - | 32B. 6 | 252:xxxiii | Seal, stamp (co) | OI A25207 |
| Sor 1156 | JI | Fill | - | 32A.2.5 | 238:98 | Cyl. seal (st) | MIB |
| Sor 1157 | JI | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1158 | J | Fill | - | 27D. 9 | - | Pin (br) | MIB |
| Sor 1159:1 | J | Fill | - | 27 D .6 | - | Pin (br) | MIB |
| Sor 1159:2 | JI | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1160 | JI | Fill | - | 27C.6.5 | - | Button (br) | NY |
| Sor 1161 | JI | Fill | - | 30A.3.7.1 | - | Pin, lion head (bo) | UM-(?) |
| Sor 1162 | JI | Fill | - | 32A.2.9.1 | 242:142 | Cyl. seal (snst) | MIB-1469 |
| Sor 1163 | JI | Fill | - | 27D.16.2 | 179f | Pin (br) | MIB |
| Sor 1164 | JI | Fill | - | 31A. 42 | - | Beads (various) | OI A25208 |
| Sor 1165 | J | 7.16 | 132 | 26A.9.5 | 152a, 154b | Amphoriskos (fa) | MBB |
| Sor 1166 | JI | 7.30 | 133 | 28 K .3 | 202e | Whorl (co/br) | NY |
| Sor 1167 | J | 7.30 | 133 | 32A.2.9.1 | 243:157 | Cyl. seal (alab) | MIB-733 |
| Sor 1168 | JI | 7.30 | 133 | 28A. 9 | - | Handle (co/br) | (?) |
| Sor 1169 | JI | 7.21 | 134 | 32A.2.1 | 234:62 | Cyl. seal (fa) | MIB |
| Sor 1170 | JI | 7.25 | 135 | 27C.4.8 | - | Bracelet (br) | MIB |
| Sor 1171 | JI | 7.25 | 135 | 271 | 175j | Shank + disc (br) | MIB |
| Sor 1172 | JI | 7.25 | 135 | 32A.2.7 | 239:118 | Cyl. seal (bit) | MIB-1453 |
| Sor 1173 | J | 7.25 | 135 | 30A.3.3 | 222 r | Pin (bo) | MIB |
| Sor 1174 | JI | 7.55 | 137 | 32A.2.12 | 246:182 | Cyl. seal (st) | NY |
| Sor 1175 | JI | 7.25 | 135 | 30A.3.7.4 | 227e | Pin (bo) | UM-(?) |
| Sor 1176 | JI | 7.10 | 138 | 28H.2.1 | - | Pin (co/br) | NY |
| Sor 1177 | JI | 7.10 | 138 | 24C. 1 | 132:8 | Cyl. seal (ck) | MIB-722 |
| Sor 1178 | JI | 7.10 | 138 | 27D. 12 | - | Pin (br) | NY |
| Sor 1179 | JI | 7.10 | 138 | 27D. 13 | - | Pin (br) | NY |
| Sor 1180 | ת | 7.10 | 138 | 27C.4.8 | - | Bracclet (br) | MIB |
| Sor 1181 | JI | 7.10 | 138 | 27C.6.5 | - | Button (br) | MIB |
| Sor 1182:1 | JI | 7.30 | 139 | 27D. 12 | 169c | Pin (br/ir) | OI A25210 |
| Sor 1182:2 | JI | 7.30 | 139 | 27D. 12 | cf. 168m | Pin (br) | Ol A25209 |
| Sor 1183 | JI | 7.30 | 139 | 27B. 4 |  | Spatula (ir) | MIB |
| Sor 1184 | Л | 7.20 | 141 | 32A.2.9.1 | 242:150 | Cyl. seal (fa) | MIB-731 |
| Sor 1185 | JI | 7.00 | 146 | 32A.2.5 | 237:92 | Cyl. seal (alab) | NY |
| Sor 1186 | Л | 7.00 | 146 | 27E | - | Horns, ibex (br) | NY |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 1187 | II | 7.00 | 146 | 27C.4.1.4 | - | Bracelet (br) | UM-(?) |
| Sor 1188 | JI | 7.40 | 147 | 32A.2.13 | 247:206 | Cyl. seal (br) | MIB-732 |
| Sor 1189 | JI | 6.95 | 150 | 32B. 6 | 252:xxxi | Seal, stamp (co) | NY |
| Sor 1190 | JI | 6.95 | 150 | 28 K .1 | - | Disc (co/br) | UM-(?) |
| Sor 1191 | JI | 6.95 | 150 | 27D. 1 | - | Pin shank (br) | MIB |
| Sor 1192 | JI | 6.95 | 150 | 30A.3.1 | 222m | Pin (bo) | MIB |
| Sor 1193 | J | 6.95 | 150 | 30B. 2 | 225 g | Pendant (sh) | OI A25211 |
| Sor 1194 | II | 6.95 | 150 | 27C.4.1.5 |  | Bracelet (br) | MIB |
| Sor 1195 | Л | 7.30 | 150 | 19 A .2 | 77:viii | Seal, stamp (serp) | NY |
| Sor 1196 | JI | 7.16 | 154 | 27D. 16.8 | 172n | Pin (br) | MIB |
| Sor 1197 | JI | 6.90 | 155 | 27D. 20 | 184d | Pin (br) | NY |
| Sor 1198 | JI | 6.90 | 156 | 32A.2.11 | 244:170 | Cyl. seal (serp) | NY |
| Sor 1199 | JI | 6.90 | 156 | 27 A .1 | - | Blade (br) | MIB |
| Sor 1200 | JI | 6.95 | 157 | 30A.3.7.3 | 224f, 227b | Pin (bo) | MIB |
| Sor 1201 | Л | 6.95 | 157 | 30A.3.7.1 | 223t | Pin (bo) | MIB |
| Sor 1202 | JI | 6.90 | 159 | 30A.3.7.2 | 223x | Pin (bo) | OI A25212 |
| Sor 1203 | JI | 6.95 | 160 | 27D.16.1 | 179b | Pin (br) | MMA 43.102.18 |
| Sor 1204 | JI | 6.95 | 161 | 27D. 1 | - | Pin shank (br) | MIB |
| Sor 1205 | Л | 6.95 | 162 | 27D. 9 | - | Pin (br) | MIB |
| Sor 1206 | ת | 6.95 | 162 | 27C.2.4 | - | Ring, finger (br) | NY |
| Sor 1207 | II | 6.95 | 163 | 27D. 17 | 182c | Pin (br) | MMA 43.102.6 |
| Sor 1208 | J | 7.10 | 167 | 27D.18.3 | 174c, 183e | Pin (br) | MIB |
| Sor 1209:1 | JI | 7.40 | 168 | 31A. 30 | - | Bead (st) | NY |
| Sor 1209:2 | JI | 7.40 | 168 | 31A. 12 | - | Bead (st) | NY |
| Sor 1210 | JI | 7.10 | 169 | 28 K .2 | 2010 | Bracteate (co/br) | NY |
| Sor 1211 | JI | Fill | - | 27B. 1 | 157e | Handle (br) | Ol A25213 |
| Sor 1212 | JI | Fill | - | 30A.3.7.3 | 224a | Pin (bo) | UM-(?) |
| Sor 1213 | JI | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1214 | JI | Fill | - | 19A. 2 | 77:ix | Seal, stamp (serp) | MIB |
| Sor 1215 | JI | Fill | - | 27D. 7 | 165f | Pin (br) | MIB |
| Sor 1216 | JI | Fill | - | 24C. 4 | 133:23 | Cyl. seal (serp) | MIB |
| Sor 1217 | JI | Fill | - | 27D. 12 | cf. 168e | Pin (br) | OI A25214 |
| Sor 1218 | JI | Fill | - | 27D.16.1 | - | Pin (br) | MIB |
| Sor 1219 | JI | Fill | - | 32A. 1 | 233:49 | Cyl. seal (serp) | OI A25215 |
| Sor 1220 | JI | Floor | - | 27B. 6 | 1580 | Needle (br) | MIB |
| Sor 1221:1 | JI | Fill | - | 27B. 6 | 158n | Ncedle (br) | MIB |
| Sor 1221:2 | JI | Fill | - | 27D. 14 | - | Pin (br) | MIB |
| Sor 1221:3 | JI | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1222 | J | Fill | - | 27D.18.1 | cf. 173i | Pin (br) | OI A25216 |
| Sor 1223:1 | JI | Fill | - | 27D. 10 | - | Pin (br) | OI A25217 |
| Sor 1223:2 | JI | Fill | - | 27D. 14 | - | Pin (br) | OI A25218 |
| Sor 1223:3 | JI | Fill | - | 27 D .14 | cf. 170 c | Pin (br) | Ol A25219 |
| Sor 1223:4 | J | Fill | - | 27D. 11 | - | Pin (br) | OI A25221 |
| Sor 1223:5 | JI | Fill | - | 27D. 11 | cf. 167e | Pin (br/ir) | OI A25223 |
| Sor 1223:6 | JI | Fill | - | 27D. 11 | cf. 166p | Pin (br/ir) | OI A25220 |
| Sor 1223:7 | JI | Fill | - | 27D. 12 |  | Pin (br) | (?) |
| Sor 1223:8 | ת | Fill | - | 27D. 12 | cf. 168e | Pin (br) | OI A25222 |
| Sor 1224:1 | JI | Fill | - | 27D.11 | cf. 167p | Pin (ir) | OI A25224 |
| Sor 1224:2 | JI | Fill | - | 27D. 11 | cf. 167p | Pin (ir) | OI A25224 |
| Sor 1224:3 | JI | Fill | - | 27D. 11 | cf. 167p | Pin (ir) | OI A25224 |
| Sor 1224:4 | JI | Fill | - | 27D. 11 | cf. 167p | Pin (ir) | OI A25224 |
| Sor 1224:5 | JI | Fill | - | 27D. 12 | cf. 169e | Pin (ir) | OI A25224 |
| Sor 1224:6 | JI | Fill | - | 27D. 12 | - | Pin (ir) | OI A25224 |
| Sor 1224:7 | JI | Fill | - | 27D. 12 | - | Pin (ir) | OI A25224 |
| Sor 1224:8 | JI | Fill | - | 27H.5.2 | - | Pin (ir) | OI A25224 |
| Sor 1225 | JI | Fill | - | 27C.6.5 | - | Button (br) | MIB |
| Sor 1225a | JI | Fill | - | 27B. 5 | 158k | Chisel (br) | NY |
| Sor 1226 | JI | Fill | - | 28K. 2 | 201p | Bracteate (co/br) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 1227:1 | JI | Fill | - | 30B.1.2 | cf. 225b | Whorl (sh) | MIB |
| Sor 1227:2 | JI | Fill | - | 26A.1.1 | cf. 148a | Disc (fa) | MIB |
| Sor 1227:3 | JI | Fill | - | 26A.1.1 | cf. 148a | Disc (fa) | MIB |
| Sor 1228 | JI | Fill | - | 30A.3.6 | cf. 223f | Pin (bo) | OI A25225 |
| Sor 1229 | JI | Fill | - | 28E | - | Spiral, hair (co/br) | OI A25225 |
| Sor 1230 | JI | Fill | - | 27A. 5 | - | Arrowhead (ir) | MIB |
| Sor 1231 | JI | Fill | - | 27C.1.6 | cf. 160 i | Earring (ir) | MIB |
| Sor 1232 | Л | Fill | - | 28E | 192f | Ring, sheet (co/br) | MIB |
| Sor 1233:1 | JI | Fill | - | 27C.6.3 | 163n | Button (br) | MIB |
| Sor 1233b | J1 | Fill | - | 28K. 1 | - | Bracteate (co/br) | MIB |
| Sor 1234 | JI | Fill | - | 27C.4.8 | - | Bracelets (br) | MIB |
| Sor 1235 | JI | Fill | - | 27C.4.8 | - | Bracelets (ir) | NY |
| Sor 1236 | JI | Fill | - | 32A. 1 | 233:50 | Cyl. scal (fa) | UM-(?) |
| Sor 1237 | J | Fill | - | 32B. 2 | 249:xvii | Seal, stamp (fa) | MIB |
| Sor 1238 | JI | Fill | - | 31A. 42 | - | Beads (various) | NY/MIB |
| Sor 1239 | KH | Fill | - | 27D. 11 | - | Pin (br) | NY |
| Sor 1240 | KH | Fill | - | 27D. 11 | - | Pin (br) | MIB |
| Sor 1241 | KH | 4.72 | 8 | 32A. 1 | 233:43 | Cyl. seal (serp) | NY |
| Sor 1242 | II | Fill | - | 27D. 8 | 165k | Pin (br) | NY |
| Sor 1243 | II | Fill | - | 27C.4.8 | - | Bracelet (br) | MIB |
| Sor 1244 | JH | Fill | - | 28H.2.2 | 194g | Pin (co/br) | MIB |
| Sor 1245 | JH | 7.50 | 5 a | 32A.2.13 | 247:207 | Cyl. seal (cl) | MIB |
| Sor 1246 | JH | 7.20 | 6 a | 32A.2.2 | 235:70 | Cyl. seal (congl) | OI A25227 |
| Sor 1247 | JH | 7.20 | 6 a | 27F. 2 | 174q | Anim., homed (br) | MIB |
| Sor 1248 | JH | 7.20 | 6 a | 32A.2.12 | 246:190 | Cyl. seal (bo) | MIB |
| Sor 1249 | JH | 7.20 | 6 a | 29C. 2 | 219h | Pendant (st) | MIB |
| Sor 1250 | JH | 7.20 | 6a | 31A. 42 | - | Bcads (alab, sh) | NY |
| Sor 1251 | JH | 7.20 | 6a | 25B. 2 | cf. 142a | Whorl (cl) | MIB |
| Sor 1252 | JH | 7.40 | 7 | 26A. 8 | 149j | Ornament, bull (fa) | MIB-7167 |
| Sor 1253 | JH | Fill | - | 31A.2.12 | - | Cyl. seal (bo) | NY |
| Sor 1254 | JH | 7.20 | 6 | 30A.3.7.3 | 224g, 226i | Pin (bo) | MMA 43.102.26 |
| Sor 1255:1 | JH | Fill | - | 27D. 2 | cf. 164f | Pin (br) | NY |
| Sor 1255:2 | JH | Fill | - | 27D. 11 | - | Pin (ir) | NY |
| Sor 1256 | JH | Fill | - | 27C.4.8 | - | Bracelets (br) | MIB |
| Sor 1257:1 | JH | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 1257:2 | JH | Fill | - | 27E | 174j | Horns, ibex (ir) | MIB |
| Sor 1258 | JH | Fill | - | 29A. 1 | - | Macehead (st) | MIB |
| Sor 1259 | JH | Fill | - | 31 A .42 | - | Beads (various) | MIB |
| Sor 1260 | JH | Fill | - | 30A.3.7.1 | 223q, 226 d | Pin (bo) | OI A25228 |
| Sor 1261 | JH | Fill | - | 28H. 1 | - | $\mathrm{Pin}(\mathrm{co} / \mathrm{br})$ | MIB |
| Sor 1262 | JH | Fill | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1263 | JH | Fill | - | 27B.1 | 177f | Handle (br) | MIB |
| Sor 1264 | JH | Fill | - | 30A.3.7.1 | - | Pin (bo) | MIB |
| Sor 1265 | JH | Fill | - | 29B. 3 | - | Whetstone (gy st) | MIB |
| Sor 1266 | JH | Fill | - | 32A. 2.5 | 237:90 | Cyl. seal (st) | MIB-734 |
| Sor 1267 | JH | Fill | - | 26A.3.2 | cf. 153a | Pin, head (fa) | NY |
| Sor 1268 | JH | Fill | - | 20A.3.11 | - | Sherd | MIB |
| Sor 1269 | JH | Fill | - | 28 J .4 | 212e | Plaque (co/br) | MMA 43.102.12 |
| Sor 1270 | JH | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 1271 | JI | 7.15 | 170 | 29D | 219c | Plaque-pin (st) | UM-(?) |
| Sor 1272 | JI | 7.15 | 170 | 24C.4/33B | 133:21, 257d | Cyl. seal, inscr. (hem) | MIB |
| Sor 1273 | JI | 7.15 | 171 | 27C.4.5 | 178a | Bracelet (br) | MIB |
| Sor 1274 | JI | 7.15 | 172 | 27C.4.5 | 177 g | Bracelet (br) | MIB |
| Sor 1275 | JI | 7.30 | 172 | 32A.2.9.1 | 243:154 | Cyl. seal (serp) | MIB-1450 |
| Sor 1276a | JI | Fill | - | 28A. 1 | - | Bowl (co/br) | MIB |
| Sor 1276b | JI | Fill | - | 28A. 1 | - | Bowl (co/br) | MIB |
| Sor 1276c | JI | Fill | - | 28A. 1 | - | Bowl (co/br) | MIB |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 1276d | Л | Fill | - | 28A. 1 | 189 f | Bowl (co/br) | MIB |
| Sor 1276e | JI | Fill | - | 28A.5 | 190h | Pot (co/br) | MIB |
| Sor 1276f | JI | Fill | - | 28A. 5 | 190i | Pot (co/br) | MIB |
| Sor 1276g | JI | Fill | - | 28A. 5 | - | Pot (co/br) | MIB |
| Sor 1276h | Л | Fill | - | 28A. 5 | - | Pot (co/br) | MIB |
| Sor 1276i | J | Fill | - | 28A. 9 | 191d | Handle (co/br) | (?) |
| Sor 1277 | J | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 1278 | J | - | 171 | 27D.18.2 | 1731 | Pin (br) | (?) |
| Sor 1279:1 | Л | Fill | - | 27C.4.3.2 | - | Bracelet (br) | OI A25229 |
| Sor 1279:2 | II | Fill | - | 27C.4.3.2 | - | Bracelet (br) | OI A25230 |
| Sor 1280 | JI | 7.25 | 173 | 28C | 191h | Bell (co/br) | NY |
| Sor 1281 | ת | 7.25 | 173 | 26A. 5 | - | Button (fa) | MIB |
| Sor 1282 | J | 7.25 | 173 | 32A.2.3 | 236:74 | Cyl. seal (fa) | OI A25231 |
| Sor 1283 | JI | Fill | - | 27C.4.8 | - | Bracelet (br) | NY |
| Sor 1284 | Л | Fill | - | 32A.2.9.2 | 244:162 | Cyl. seal (fa) | (?) |
| Sor 1285 | JI | Fill | - | 27C.1.6 | - | Earring (ir) | MIB |
| Sor 1286 | JI | Fill | - | 31A. 42 | - | Beads (various) | UM-(?) |
| Sor 1286b | J | Fill | - | 31A. 15 | 232x | Bead (fa) | UM-(?) |
| Sor 1287 | JH | Fill | - | 27C. 5 | - | Tack (br) | NY |
| Sor 1288 | JH | Fill | - | 32A.2.6 | 238:99 | Cyl. seal (st) | MIB-1452 |
| Sor 1289 | JH | Fill | - | 30A.3.6 | cf. 223f | Pin (bo) | NY |
| Sor 1290 | JH | Fill | $\cdots$ | 32A.2.6 | 238:106 | Cyl. seal (fa) | NY |
| Sor 1291 | JH | 7.25 | 10 | 26A.9.1 | 150b | Cup (fa) | NY |
| Sor 1292 | JH | Fill | - | 19A. 1 | 77 i | Seal, stamp (serp) | UM-(?) |
| Sor 1293 | JH | 7.25 | 10 | 32A.2.1 | 234:59 | Cyl. seal (bo) | OI A25232 |
| Sor 1294 | JH | 7.15 | 11 | 24C. 2 | 132:9 | Cyl. seal (bit) | MIB |
| Sor 1295 | JH | Fill | - | 31 A .42 | - | Beads (various) | OI A25233 |
| Sor 1295a | JH | Fill | - | 32B. 3 | 251:xxvi | Seal, stamp (sh) | OI A25233 |
| Sor 1295d | JH | Fill | - | 31A. 8 | 231 br | Bead (turquoise) | OI A25233 |
| Sor 1295e | JH | Fill | - | 31A. 21 | 230at | Bead (sh) | OI A25233 |
| Sor 1295f | JH | Fill | - | 31A. 15 | 232y | Bead (fa) | OI A25233 |
| Sor 1296 | JH | Fill | - | 32B. 2 | 250:xix | Seal, stamp (fa) | MIB |
| Sor 1297 | JH | Fill | - | 27D. 10 | 166n | Pin (br) | OI A25234 |
| Sor 1298 | JH | Fill | - | 27C.6.2.2 | cf. 163k | Button (br) | UM-(?) |
| Sor 1299 | JH | Fill | - | 32A.2.4 | 237:86 | Cyl. scal (bit) | MMA 43.102.33 |
| Sor 1300 | JH | 6.65 | 8 | 27D. 10 | cf. 166f | Pin (br) | MIB |
| Sor 1301a,b,d | JH | 6.65 | 8 | 31A. 42 | - | Beads (ch, sh) | NY |
| Sor 1301c | JH | 6.65 | 8 | 32B. 3 | 250:xxiii | Seal, stamp (gra) | NY |
| Sor 1302 | JH | 6.55 | 9 | 19B. 1 | 78:5 | Seal, stamp (serp) | OI A25235 |
| Sor 1302:1 | JH | 6.50-7.00 | 12/Wall | 27D. 13 | - | Pin (br) | NY |
| Sor 1303:2 | JH | 6.50-7.00 | 12/Wall | 27D. 10 | cf. 166f | Pin (br) | MIB |
| Sor 1304:1 | JH | Fill | - | 27D. 14 | - | Pin (br) | MIB |
| Sor 1304:2 | JH | Fill | - | 27D. 9 | - | Pin (br) | MIB |
| Sor 1305 | JH | Fill | - | 27D.11 | - | Pin (ir) | NY |
| Sor 1306 | JH | Fill | - | 30A.3.6 | - | Pin (bo) | MIB |
| Sor 1307 | JH | 6.50-7.00 | 12/Wall | 30A.3.6 | 223k | Pin (bo) | MIB |
| Sor 1308 | JH | 6.50-7.00 | 12/Wall | 32A.2.7 | 239:115 | Cyl. seal (fa) | UM-(?) |
| Sor 1309 | JH | 6.50-7.00 | 12/Wall | 32A. 1 | 233:41 | Cyl. seal (serp) | NY |
| Sor 1310 | JH | 6.50-7.00 | 12/Wall | 32A.2.11 | 144:171 | Cyl. seal (bit) | MIB-728 |
| Sor 1311 | JH | 6.50-7.00 | 12/Wall | 24C. 4 | 133:24 | Cyl. seal (hem) | MIB |
| Sor 1312 | JH | 6.50-7.00 | 12/Wall | 26A.1.3 | 148d | Disc (fa) | MIB |
| Sor 1313 | JH | 6.50-7.00 | 12/Wall | 30A. 1 | 222a | Button (bo) | NY |
| Sor 1314 | JH | 6.50-7.00 | 12/Wall | 27C. 2.2 | - | Ring, finger (br) | UM-(?) |
| Sor 1315:1 | JH | 6.50-7.00 | 12/Wall | 27D.16.8 | - | Pin (br) | MIB |
| Sor 1315:2 | JH | 6.50-7.00 | 12/Wall | 27D. 12 |  | Pin (br) | MBB |
| Sor 1315:3 | JH | 6.50-7.00 | 12/Wall | 27D. 13 | $169 t$ | Pin (br). | MIB |
| Sor 1315:4 | JH | 6.50-7.00 | 12/Wall | 27B. 4 | 158 e | Spatula (br) | MIB |
| Sor 1316 | JH | 6.50-7.00 | 12/Wall | 31A. 15 | - | Bead (bo) | NY |


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| Sor 1317 | JH | 6.50 | 13 | 24C. 6 | 134:32 | Cyl. seal (grn comp) | MMA 43.102.34 |
| Sor 1318 | JH | Fill | - | 27G.2.2 | 175 f | Anim., homed (br) | MIB |
| Sor 1319a | JH | Floor | - | 26A.9.6 | - | Jar(?) (fa) | MIB |
| Sor 1319b | JH | Floor | - | 27B. 2 | 157k | Knife (iron) | MIB |
| Sor 1320 | JH | Floor | - | 27C.4.1.4 | - | Bracelet (br) | MIB |
| Sor 1321 | JH | Floor | - | 27C.2.2 | - | Ring, finger (br) | MIB |
| Sor 1322 | JH | Floor | - | 27B.11 | cf. 159g | Cylinder (ir) | MIB |
| Sor 1323:1 | JH | Floor | - | 27D. 14 | - | Pin (br) | MIB |
| Sor 1323:2 | JH | Floor | - | 27D. 13 | - | Pin (br) | MIB |
| Sor 1323:3 | JH | Floor | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1323:4 | JH | Floor | - | 27D. 2 | cf. 164 f | Pin (br) | MIB |
| Sor 1323:5 | JH | Floor | - | 27B. 4 | - | Spatula (ir) | MIB |
| Sor 1324 | JH | Floor | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 1324a | JH | Floor | - | 31A. 34 | 230ar | Bead (sh) | MIB |
| Sor 1324c | JH | Floor | - | 31A. 35 | 231by | Bead (ca) | MIB |
| Sor 1325 | II | 8.25 | 27 | 27F. 1 | 187j | Animal (br) | NY |
| Sor 1326 | II | 8.25 | 28 | 27D.16.2 | 179h | Pin (br) | MIB |
| Sor 1327 | III | 8.10 | 29 | 27F. 1 | 186h | Anim., homed (br) | MIB |
| Sor 1328 | II | 8.10 | 29 | 27A. 1 | - | Blade (br) | OI A25238 |
| Sor 1329 | III | Fill | - | 32A.2.2 | 235:64 | Cyl. seal (fa) | MIB-732 |
| Sor 1330 | III | Fill | - | 27D. 11 | - | Pin (br) | NY |
| Sor 1331 | II | Fill | - | 27D. 11 | - | Pin (br/ir) | MIB |
| Sor 1332 | II | Fill | - | 27E | - | Horns, ibex (br) | MIB |
| Sor 1333 | IJ | Fill | - | 27B. 2 | - | Knife (ir) | MIB |
| Sor 1334 | IJ | Fill | - | 27B. 3 | 157n | Socket (br) | OI A25239 |
| Sor 1335 | IJ | Fill | - | 27C.2.1 | - | Ring, finger (br) | UM-(?) |
| Sor 1336 | IJ | Fill | - | 31A. 42 | - | Beads (glass, sh) | MIB |
| Sor 1337 | KH | 6.60 | 9 | 27D. 10 | 166h | Pin (br) | MIB |
| Sor 1338 | JI | 7.10 | 138 | 30A.3.7.1 | $\begin{aligned} & 223 r, 226 h, \\ & 227 f \end{aligned}$ | Pin (bo) | OI A25240 |
| Sor 1339 | JI | 7.10 | 138 | 30A.3.6 | 2231, 226a | Pin (bo) | OI A25241 |
| Sor 1340 | JI | 7.00 | 146 | 30A. 7 | 227i, 224u | Pendant, twin bird (br) | MIB |
| Sor 1340a | JI | 7.00 | 146 | 30A. 2 | 222 f | Pin shank (bo) | (?) |
| Sor 1341 | JJ | 7.45 | 8 | 27D.18.4 | 184a | Pin (br/ir) | OI A25242 |
| Sor 1342 | JJ | 7.45 | 8 | 27H | 185c | Fig., human (br) | MIB |
| Sor 1343 | JJ | 7.45 | 8 | 27D. 12 | - | Pin (ir) | MIB |
| Sor 1344 | JJ | Fill | - | 27D. 3 | 164h | Pin (br) | NY |
| Sor 1345 | JJ | Fill | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 1346 | JH | 6.95 | 14 | 27A.3.1 | 177a | Dagger (br) | NY |
| Sor 1347 | JH | 6.60 | 15 | 28A.1 | - | Bowl (co/br) | NY |
| Sor 1348 | JH | 6.60 | 15 | 32A.2.9.1 | 243:151 | Cyl. seal (lmst) | NY |
| Sor 1349 | JH | - | - | 26A.1.3 | 148e | Disc (br/fa) | OI A25243 |
| Sor 1350a | JH | - | - | 27D. 14 | cf. 170c | Pin (br) | OI A25244 |
| Sor 1350b | II | Fill | - | 31A. 42 | - | Beads (various) | OI A25245 |
| Sor 1351 | JI | Fill | - | 31A. 42 | - | Beads (bo) | MIB |
| Sor 1351a | JI | Fill | - | 32A.2.6 | 238:104 | Cyl. seal (bo) | NY |
| Sor 1352 | KH | Fill | $\square$ | 31A. 42 | - | Beads (various) | Or A25246 |
| Sor 1353 | JI | 7.10 | 174 | 32A. 1 | 233:51 | Cyl. seal (fa) | MIB-722 |
| Sor 1354 | JI | 7.10 | 174 | 27B. 2 | 157j | Knife (br) | NY |
| Sor 1355 | JI | 7.10 | 174 | 28H.5.2 | - | Pin (co/br) | OI A25247 |
| Sor 1356 | JI | 7.10 | 174 | 27 E | - | Homs, ibex (br) | NY |
| Sor 1357 | JI | 7.10 | 174 | 27D.16.1 | - | Pin (br) | NY |
| Sor 1358 | J | 7.10 | 174 | 27D. 12 | - | Pin (br) | MIB |
| Sor 1359 | JI | 7.10 | 174 | 28H.5.2 | 210b | Pin (co/br) | MIB |
| Sor 1360 | JI | 7.10 | 174 | 30A. 1 | - | Button (bo) | NY |
| Sor 1361 | JI | 7.10 | 174 | 29C. 2 | 220a | Pendant (st) | MIB |
| Sor 1362 | JI | 7.10 | 174 | 20A.3.10 | 113d | Lid (cl) | MIB |


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| Sor 1363 | JI | 7.10 | 174 | 27C.4.5 | - | Bracclet (br) | NY |
| Sor 1364 | Л | 7.10 | 174 | 27E | - | Horns, ibex (br) | MIB |
| Sor 1365 | J | 7.10 | 174 | 27E | - | Horns, ibex (br) | MIB |
| Sor 1366 | Л | 7.10 | 174 | 27C.2.2 | - | Ring, finger (br) | MIB |
| Sor 1367 | JI | 7.10 | 174 | 31A. 42 | - | Bcads (various) | NY |
| Sor 1368 | JI | 8.05-8.15 | 175 | 27G.2.2 | 187i | Anim., homed (br) | MIB |
| Sor 1369 | Л | 8.05-8.15 | 175 | 26A.1.1 | cf. 148a | Disc (fa) | OI A25248 |
| Sor 1370 | JI | 8.05-8.15 | 175 | 28H.2.1 | - | Pin (co/br) | MIB |
| Sor 1371 | J | 8.05-8.15 | 175 | 27B. 12 | - | Rod (ir) | OI A25249 |
| Sor 1372 | JI | 8.05-8.15 |  | 27D. 11 | - | Pin (ir) | UM-(?) |
| Sor 1373 | JI | 8.05-8.15 | 175 | 28 E | 192c | Spiral, hair (co/br) | MIB |
| Sor 1374 | JI | 8.05-8.15 |  | 27D. 13 | 169u | Pin (br) | MIB |
| Sor 1375 | JI | 8.05-8.15 | 175 | 27D.18.1 | 183a | Pin (br) | OI A25250 |
| Sor 1376 | JI | 8.05-8.15 |  | 27D. 15 | 179a | Pin (br) | NY |
| Sor 1377 | J | 8.05-8.15 | 175 | 27D. 10 | - | Pin (br) | MIB |
| Sor 1378 | JI | 8.05-8.15 |  | 28H. 1 | - | $\operatorname{Pin}(\mathrm{co} / \mathrm{br})$ | OI A25251 |
| Sor 1379 | JI | 8.05-8.15 | 175 | 27D.18.1 | 173c | Pin (br) | MIB |
| Sor 1380 | JI | 8.05-8.15 | 175 | 27D.18.1 | $173 i$ | Pin (br) | MIB |
| Sor 1381 | JI | 8.05-8.15 | 175 | 26A.1.1/31A. 32 | - | Bead, disc (fa) | MIB |
| Sor 1382 | JI | 8.05-8.15 | 175 | 30A.3.7.1 | - | Pin (bo) | OI A25252 |
| Sor 1383 | JI | 8.05-8.15 | 175 | 27D.18.1 | - | Pin (br) | MIB |
| Sor 1384 | J | 8.05-8.15 | 175 | 28G | cf. 1920 | Bracelet (co/br) | UM-(?) |
| Sor 1385 | JI | 8.05-8.15 | 175 | 27C.4.1.4 | - | Bracelet (br) | MIB |
| Sor 1386 | JI | 8.05-8.15 | 175 | 27C.4.8 | - | Bracelet (br) | MIB |
| Sor 1387 | J | 8.05-8.15 | 175 | 28G | - | Bracelet (co/br) | OI A25253 |
| Sor 1388 | JI | 8.05-8.15 | 175 | 27C.4.8 | - | Bracelet (br) | (?) |
| Sor 1389 | JI | 8.05-8.15 | 175 | 27D. 12 | - | Pin (br) | NY |
| Sor 1390 | JI | 8.05-8.15 | 175 | 27D. 9 | 165 r | Pin (br) | MIB |
| Sor 1391 | JI | 8.05-8.15 | 175 | 27C. 3 | 160x | Torque (br) | OI A25254 |
| Sor 1392 | J | 8.05-8.15 | 175 | 28D | - | Mirror (co/br) | MIB |
| Sor 1393 | JI | 8.05-8.15 | 175 | 27D. 9 | - | Pin (br) | MBB |
| Sor 1394 | JI | 8.05-8.15 | 175 | 27D.11 | - | Pin (br) | MIB |
| Sor 1395 | JI | 8.05-8.15 | 175 | 27C.4.5 | 178b | Bracelet (br) | MIB |
| Sor 1396 | JI | 8.05-8.15 | 175 | 27C.4.4 | 162n | Bracelet (br) | MIB |
| Sor 1397 | JI | 8.05-8.15 | 175 | 27C.4.8 | - | Bracelets (br) | MIB |
| Sor 1398 | JI | 8.05-8.15 | 175 | 31A. 42 | - | Beads (various) | MIB |
| Sor 1399 | JI | 8.05-8.15 | 175 | 32A.2.9.2 | 244:161 | Cyl. seal (fa) | UM-(?) |
| Sor 1400 | JI | 8.05-8.15 | 175 | 27D. 11 | 167c | Pin (br) | OI A25255 |
| Sor 1401 | JI | 8.05-8.15 | 175 | 27D.16.8 | 1720 | Pin (br) | OI A25256 |
| Sor 1402 | JI | 8.05-8.15 | 175 | 27B. 4 | 158f | Spatula (br) | MIB |
| Sor 1403 | J | 8.05-8.15 | 175 | 27B. 6 | - | Awl (ir) | (?) |
| Sor 1404 | JI | 8.05-8.15 | 175 | 27A. 6 | 157a | Macehead (br) | MIB |
| Sor 1405 | JI | 8.05-8.15 | 175 | 32A.2.10 | 244:165 | Cyl. seal (fa) | OI A25257 |
| Sor 1406 | JI | 8.05-8.15 | 175 | 27B. 2 | - | Knife (ir) | MIB |
| Sor 1407 | JI | 8.05-8.15 | 175 | 32A.2.4 | 237:88 | Cyl. seal (lmst) | MIB-732 |
| Sor 1408 | JI | 8.05-8.15 | 175 | 27D. 12 | - | Pin (br) | NY |
| Sor 1409 | JI | 8.05-8.15 | 175 | 27D. 12 | - | Pin (br) | OI A25258 |
| Sor 1410 | JI | 8.05-8.15 | 175 | 27D. 12 | - | Pin (br) | MIB |
| Sor 1411 | JI | 8.05-8.15 | 175 | 27C.4.1.2 | - | Bracelet (ir) | (?) |
| Sor 1412 | JI | 8.05-8.15 | 175 | 30B.1.3 | - | Whorl (sh) | NY |
| Sor 1413 | JI | 8.05-8.15 | 175 | 31A. 7 | - | Bead (sh) | NY |
| Sor 1414 | JI | 8.05-8.15 | 175 | 27D.16.8 | - | Pin (br) | NY |
| Sor 1415 | JI | 8.05-8.15 | 175 | 27D. 11 | - | Pin (br/ir) | NY |
| Sor 1416 | JI | 8.05-8.15 | 175 | 28 J .1 | - | Metal shect (co/br) | NY |
| Sor 1417 | JI | 8.05-8.15 | 175 | 30B. 2 | - | Pendant (sh) | MIB |
| Sor 1418 | JI | 8.05-8.15 | 175 | 31A. 29 | - | Beads (alab) | UM-(?) |
| Sor 1419 | JI | 8.05-8.15 | 175 | 26A.1.1 | cf. 148a | Disc (fa) | MIB |
| Sor 1420 | JI | 8.05-8.15 | 175 | 28H.2.1 | 194b | Pin (co/br) | NY |


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| Sor 1421 | J | 8.05-8.15 | 175 | 28H. 1 | - | Pin (co/br) | MIB |
| Sor 1422 | J | 8.05-8.15 | 175 | 28H.5.2 | 210c | Pin (co/br) | OI A25259 |
| Sor 1423 | JI | 8.05-8.15 | 175 | 31A. 7 | - | Bead (sh) | NY |
| Sor 1424 | J | 8.05-8.15 | 175 | 28H.5.2 | - | Pin (le) | MIB |
| Sor 1425 | JI | 8.05-8.15 | 175 | 27B. 12 | - | Rod (br) | NY |
| Sor 1426 | JI | 8.05-8.15 | 175 | 27D.18.1 | - | Pin (br) | MIB |
| Sor 1427 | JI | 8.05-8.15 | 175 | 24C. 9 | 134:40 | Cyl. seal (fa) | MIB-1459 |
| Sor 1428 | J | 8.05-8.15 | 175 | 24C.7/33B | 134:34, 257e | Cyl. seal, inscr. (ch) | UM-(?) |
| Sor 1429 | JI | 8.05-8.15 | 175 | 32B. 3 | 250:xxii | Seal, stamp (fa) | UM-(?) |
| Sor 1430 | JI | 8.05-8.15 | 175 | 27D. 12 | 168p | Pin (br) | MIB |
| Sor 1431 | JI | 8.05-8.15 | 175 | 27E | P | Horns, ibex (br) | NY |
| Sor 1432 | Л | 8.05-8.15 | 175 | 27D.16.5 | 181a | Pin (br) | MMA 43.102.20 |
| Sor 1433 | JI | 8.05-8.15 | 175 | 28H.2.1 | - | Pin (co/br) | MIB |
| Sor 1434 | JI | 8.05-8.15 | 175 | 29D | 218b | Pin (st) | NY |
| Sor 1435 | JI | 8.05-8.15 | 175 | 29B. 8 | 217h | Whorl (st) | OI A25260 |
| Sor 1436 | JI | Wall | - | 27D.18.1 | - | Pin (br) | (?) |
| Sor 1437 | JI | Wall | - | 27C.4.3.1 | - | Bracelet (br) | MIB |
| Sor 1438 | JI | Wall | - | 25B. 5 | - | Fig., anim. (cl) | MIB |
| Sor 1439 | JI | Wall | - | 20A.2.7 | - | Base, tripod | MIB |
| Sor 1440 | JI | Wall | - | 32A.2.13 | 247:202 | Cyl. seal (fa) | MIB-732 |
| Sor 1441 | JI | Wall | - | 27D. 12 | - | Pin (br) | NY |
| Sor 1442 | JI | Wall | - | 30A. 7 | 224t | Pendant (bo) | MIB |
| Sor 1443 | JI | Wall | - | 28H. 1 | - | Pin (co/br) | OI A25261 |
| Sor 1444 | JI | Wall | - | 27F. 2 | 186i | Anim., homed (br) | OI A25262 |
| Sor 1445 | JI | Wall | - | 32A. 2.7 | 240:125 | Cyl. seal (fa) | MIB-732 |
| Sor 1446 | JI | Wall | - | 27D. 12 | - | Pin (br) | NY |
| Sor 1447 | JI | Wall | - | 27D. 4 | 1640 | Pin (ir) | NY |
| Sor 1448 | JI | Wall | - | 27C.4.8 | - | Bracelet (br) | MIB |
| Sor 1449 | JI | Wall | - | 28L. 1 | 203c | Pendant (co/br) | MIB |
| Sor 1450 | JI | Wall | - | 31A.27/33B | 258a | Bead, inscr. (ca) | (?) |
| Sor 1451 | II | Wall | - | 31 A .21 | 232e | Bead, spacer (serp) | MIB |
| Sor 1452 | JI | Wall | - | 27C.4.3.1 | - | Bracelet (br) | MIB |
| Sor 1453 | ת | Wall | - | 27D. 12 | - | Pin (ir) | MIB |
| Sor 1454 | JI | Wall | - | 27D.11 | - | Pin (br/ir) | MIB |
| Sor 1455 | JI | Wall | - | 27C.4.8 | - | Bracelet (br) | MIB |
| Sor 1456 | JI | Wall | - | 28B | - | Tube (co/br) | NY |
| Sor 1457 | JI | Jamb | - | 27D.18.1 | - | Pin (br) | MIB |
| Sor 1458 | JI | Jamb | - | 27D.16.1 | 172d | Pin (br) | UM-(?) |
| Sor 1459 | JI | Jamb | - | 32A.2.12 | 246:183 | Cyl. seal (ste) | OI A25263 |
| Sor 1460 | JI | Jamb | - | 28L. 2 | - | Pendant (co/br) | MIB |
| Sor 1461 | JI | Jamb | - | 32A.2.3 | 236:77 | Cyl. seal (fa) | MMA 43.102.36 |
| Sor 1462 | JI | Jamb | - | 27C.4.8 | - | Bracelets (br) | MIB |
| Sor 1463 | JI | Wall | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 1463c | II | Wall | - | 31 A .30 | 231ah | Bead (fa) | MIB |
| Sor 1464 | JH | Wall | - | 31A. 42 | - | Beads (sh) | NY |
| Sor 1465 | JJ | 7.75 | 9/Wall | 27D. 21 | 185d | Pin (br/ir) | MIB |
| Sor 1466 | JJ | 7.75 | 9/Wall | 28D | 191k | Mirror (co/br) | NY |
| Sor 1467 | JJ | 7.75 | 9/Wall | 27C. 2.2 | - | Ring, finger (br) | MIB |
| Sor 1468 | JJ | 7.75 | 9/Wall | 31 A. 42 | - | Beads (various) | MIB |
| Sor 1469 | JJ | 7.55 | 10/Wall | 27D.16.1 | - | Pin (br) | MIB |
| Sor 1470 | JJ | 7.55 | 10/Wall | 27B. 4 | 158i | Spatula (ir) | MIB |
| Sor 1471 | JJ | 7.55 | 10/Wall | 27C.1.1 | - | Earring (br) | OI A25264 |
| Sor 1472 | JJ | 7.55 | 10/Wall | 27C. 2.2 | - | Ring, finger (br) | OI A25265 |
| Sor 1473 | JJ | Wall | 10/Wall | 27E | - | Horns, ibex (br) | MIB |
| Sor 1474 | JJ | 7.55 | 10/Wall | 27D. 11 | - | Pin (br) | MIB |
| Sor 1475 | JJ | Wall | 11/Wall | 30A.3.7.1 | - | Pin (bo) | MIB |
| Sor 1476 | JJ | Wall | - | 32A.2.6 | 238:100 | Cyl. seal (fa) | NY |
| Sor 1477 | JJ | Wall | - | 27E | - | Horns, ibex (br) | OI A25266 |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 1478 | JJ | Wall | - | 32A.2.13 | 247:204 | Cyl. seal (fa) | OI A25267 |
| Sor 1479 | JJ | Wall | - | 27B. 12 | - | Metal lump (br) | NY |
| Sor 1480 | JJ | Wall | - | 32A. 1 | 233:48 | Cyl. seal (alab) | OI A25268 |
| Sor 1481 | JJ | Wall | - | 27D. 10 | cf. 166f | Pin (br) | UM-(?) |
| Sor 1482 | JJ | Wall | 178 | 28F | - | Ring, finger (ir) | NY |
| Sor 1483 | JJ | Wall | - | 28 J .1 | - | Metal band (co/br) | MIB |
| Sor 1484 | JJ | Wall | - | 27C.4.1.5 | - | Bracelet (ir) | MIB |
| Sor 1485 | JJ | 6.85 | 12/Floor | 32A.2.4 | 236:82 | Cyl. seal (ch) | MIB-1462 |
| Sor 1486 | JJ | Wall | - | 30A.3.7.4 | 227g | Pin (bo) | NY |
| Sor 1487 | JJ | Wall | - | 27D.18.1 | - | Pin (br) | MIB |
| Sor 1488 | JJ | Wall | - | 31 A .17 | cf. 231aa | Bead (br) | UM-(?) |
| Sor 1489 | JJ | Wall | $\cdots$ | 30A.3.6 | 222w | Pin (bo) | MIB |
| Sor 1490 | JJ | - | 16 | 27F. 2 | 186k | Anim., horned (br) | NY |
| Sor 1491 | JJ | Wall | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 1492 | JJ | 7.75 | 13/Wall | 28A. 1 | 189g | Bowl (br) | UM-(?) |
| Sor 1493 | JJ | 7.75 | 14/Wall | 29A. 1 | 176d | Macehead (st) | OI A25269 |
| Sor 1494 | JJ | 7.75 | 14/Wall | 27D.16.8 | 181j | Pin (br) | MIB |
| Sor 1495 | U | 8.10 | 6/Wall | 24C. 6 | 134:30 | Cyl. seal (hem) | OI A25270 |
| Sor 1496 | IJ | 7.70 | 7/Wall | 27D.16.1 | - | Pin (br) | MIB |
| Sor 1497 | IJ | 7.70 | 7/Wall | 32A. 2.8 | 241:140 | Cyl. seal (fa) | NY |
| Sor 1498 | IJ | 7.70 | 7/Wall | 27C.2.1 | - | Ring, finger (br) | OI A25271 |
| Sor 1499 | IJ | 8.25 | 8/Wall | 25B. 8 | 144a | Fig., human (cl) | MIB |
| Sor 1500 | KH | Fill | - | 27A.2.2 | 176c | Axe, min. (br) | MMA 43.102.9 |
| Sor 1501 | II | Wall | - | 30A.3.7.1 | 223u | Pin (bo) | NY |
| Sor 1502 | II | Wall | - | 32A.2.7 | 240:124 | Cyl. scal (fa) | MIB-732 |
| Sor 1503 | III | Wall | - | 28H.5.1 | - | Pin (co/br) | OI A25272 |
| Sor 1504 | II | Wall | - | 31 A. 42 | - | Beads (various) | MIB |
| Sor 1505 | JI | Dump | - | 27F. 2 | 174 r | Anim., horned (br) | OI A25273 |
| Sor 1506 | JI | Dump | - | 27C.1.6 | 160i | Earring (ir) | MIB |
| Sor 1507 | JI | Wall | - | 27D.16.8 | 172p | Pin (br) | OI A25274 |
| Sor 1508 | JI | Wall | - | 30A.3.6 | cf. 223d | Pin (bo) | OI A25275 |
| Sor 1509 | JI | Wall | - | 27C.2.3 | 160v | Ring, finger (br) | NY |
| Sor 1510 | JI | Wall | - | 27D. 13 | cf. 169j | Pin (br) | MIB |
| Sor 1511 | J | Wall | - | 28F | cf. 192h | Ring, sheet (ir) | OI A25276 |
| Sor 1512:1 | JI | Wall | - | 27D. 6 | cf. 165b | Pin (br) | OI A25277 |
| Sor 1512:2 | JI | Wall | - | 27B. 4 | - | Spoon (br) | OI A25278 |
| Sor 1512:3 | JI | Wall | - | 27B. 12 | - | Rod (ir) | OI A25279 |
| Sor 1512:4 | JI | Wall | - | 27D. 12 | cf. 169 d | Pin (ir) | OI A25280 |
| Sor 1512:5 | J | Wall | - | 27B. 12 | - | Rod (ir) | OI A25281 |
| Sor 1512:6 | JI | Wall | - | 27D. 12 | cf. 169d | Pin (ir) | OI A 25282 |
| Sor 1512:7 | JI | Wall | - | 27B. 5 | 1581 | Chisel (br) | OI A25283 |
| Sor 1512:8 | JI | Wall | - | 27B. 10 | - | Tweezers (br) | OI A25294 |
| Sor 1512:9 | JI | Wall | - | 27D. 14 | cf. 1701 | Pin (br) | OI A25285 |
| Sor 1512:10 | JI | Wall | - | 28H. 1 | - | Pin (co/br) | OI A25286 |
| Sor 1512:11 | J | Wall | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1512:12 | Л | Wall | - | 27D. 1 | - | Pin shank (br) | Ol A25288 |
| Sor 1512:13 | JI | Wall | - | 27D. 1 | - | Pin shank (br) | OI A25289 |
| Sor 1512:14 | J | Wall | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1513 | Л | Wall | - | 27C.4.8 | - | Bracelets (br/ir) | MIB |
| Sor 1514 | JI | Wall | - | 25B. 5 | 143 e | Fig., anim. (cl) | UM-(?) |
| Sor 1515 | J | Wall | - | 26A.4.2 | 149 e | Pendant (fa) | MIB |
| Sor 1516 | JI | Wall | - | 32A.2.12 | 246:184 | Cyl. seal (fa) | MIB-732 |
| Sor 1517 | Л | Wall | - | 32A.2.3 | 236:78 | Cyl. seal (fa) | MIB |
| Sor 1518 | JI | Wall | - | 27C.1.5 | 160 b | Earring (br) | MIB |
| Sor 1519 | Л | Wall | - | 31A. 24 | cf. 232aq | Bead (br) | OI A25291 |
| Sor 1520 | J | Wall | - | 31A. 42 | cf. 232aq | Beads (various) | UM-(?) |
| Sor 1520:2 | JI | Wall | - | 28K. 2 | 202a | Whorl (co/br) | UM-(?) |
| Sor 1521 | Л | Floor | - | 32A.2.1 | 234:57 | Cyl. seal (st) | OI A25292 |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sor 1522 | JH | Fill | - | 27D.18.1 | 173d | Pin (br) | MIB |
| Sor 1523 | JH | - | - | 28B | 191g | Strainer (co/br) | MIB |
| Sor 1524 | JH | Fill | - | 27D.16.8 | g | Pin (br) | NY |
| Sor 1525 | JH | Dump | - | 27D. 22 | - | Pins (br/ir) | MIB |
| Sor 1526 | JH | Dump | - | 27C.2.4 | - | Ring, finger (br) | MIB |
| Sor 1527:1 | JH | Dump | - | 27C.6.5 | - | Button (br) | MIB |
| Sor 1527:2 | JH | Dump | - | 27C.6.5 | - | Button (br) | MIB |
| Sor 1528 | JI | Fill | - | 24C. 6 | 134:31 | Cyl. seal (lap la) | MIB-722 |
| Sor 1529 | JI | 7.64 | 178/Wall | 28H.3.1 | 205a | Pin (co/br) | MIB |
| Sor 1530 | JI | 7.64 | 178/Wall | 28H.3.1 | 205b | Pin (co/br) | OI A25293 |
| Sor 1531:1 | JI | 7.64 | 178/Wall | 31 A .10 | - | Bead (sh) | NY |
| Sor 1531:2 | JI | 7.64 | 178/Wall | 31A. 8 | - | Bead (sh) | NY |
| Sor 1532 | J | 7.64 | 178/Wall | 28H.2.2 | 194h | Pin (co/br) | OI A25294 |
| Sor 1533 | Л | 7.64 | 178/Wall | 27D. 19 | 175m | Pin (br) | NY |
| Sor 1534 | JI | 7.64 | 178/Wall | 27D. 11 | - | Pin (br/ir) | MIB |
| Sor 1535a | Л | 7.64 | 178/Wall | 28A. 1 | - | Bowl (co/br) | MIB |
| Sor 1535b | JI | 7.64 | 178/Wall | 27D. 11 | - | Pin (br/ir) | MIB |
| Sor 1536 | JI | 7.64 | 178/Wall | 27D.18.3 | 183f | Pin (br) | MIB |
| Sor 1537 | JI | 7.64 | 178/Wall | 27D.16.2 | 180a | Pin (br) | MIB |
| Sor 1538 | Л | 7.64 | 178/Wall | 28H.3.2 | 206a | Pin (co/br) | NY |
| Sor 1539 | JI | 7.64 | 178/Wall | 27D.18.3 | 183d | Pin (br/ir) | MMA 43.102.27 |
| Sor 1540 | JI | 7.64 | 178/Wall | 27D.18.1 | 173 e | Pin (br) | NY |
| Sor 1541 | JI | 7.64 | 178/Wall | 27D.18.1 | 173k | Pin (br) | (?) |
| Sor 1542:1 | JI | 7.64 | 178/Wall | 27D. 1 | - | Pin shank (ir) | UM-(?) |
| Sor 1542:2 | JI | 7.64 | 178/Wall | 27D. 1 | - | Pin shank (ir) | UM-(?) |
| Sor 1542:3 | II | 7.64 | 178/Wall | 27D. 1 | - | Pin shank (ir) | UM-(?) |
| Sor 1542:4 | JI | 7.64 | 178/Wall | 27D.1 | - | Pin shank (ir) | UM-(?) |
| Sor 1542:5 | JI | 7.64 | 178/Wall | 27D. 1 | - | Pin shank (ir) | UM-(?) |
| Sor 1543 | JI | 7.64 | 178/Wall | 27D.11 | - | Pin (br/ir) | UM-(?) |
| Sor 1544 | JI | 7.64 | 178/Wall | 27B. 4 | - | Spatulac (ir) | MIB |
| Sor 1545 | JI | 7.64 | 178/Wall | 27D.11 | 167e | Pin (br) | MIB |
| Sor 1546:1 | JI | 7.64 | 178/Wall | 27D. 11 | - | Pin (ir) | MIB |
| Sor 1546:2 | Л | 7.64 | 178/Wall | 30A.3.6 | - | Pin (bo) | MIB |
| Sor 1547 | JI | 7.64 | 178/Wall | 28H.3.1 | 196e | Pin (co/br) | MIB |
| Sor 1548 | JI | 7.64 | 178/Wall | 30A.3.6 | 223 g | Pin (bo) | MIB |
| Sor 1549 | JI | 7.64 | 178/Wall | 27D. 9 | cf. 1651 | Pin (br) | NY |
| Sor 1550 | JI | 7.64 | 178/Wall | 27B. 4 | cf. 158a | Spatula (ir) | MIB |
| Sor 1551 | JI | 7.64 | 178/Wall | 28H.5.2 | 200 b | Pin (ir) | MIB |
| Sor 1552 | JI | 7.64 | 178/Wall | 28H.2.2 | 195a | Pin (co/br) | MIB |
| Sor 1553 | JI | 7.64 | 178/Wall | 30A. 2 | - | Pin shanks (bo) | NY |
| Sor 1554 | JI | 7.64 | 178/Wall | 27D.18.1 | 173j | Pin (br) | MIB |
| Sor 1555 | JI | 7.64 | 178/Wall | 27D.11 | - | Pin (br/ir) | OI A25295 |
| Sor 1556 | JI | 7.64 | 178/Wall | 28M | 203p | Horns, 'mouflon' (co/br) | MIB |
| Sor 1557 | JI | 7.64 | 178/Wall | 30A. 2 | - | Pin shanks (bo) | MIB |
| Sor 1558 | JI | 7.64 | 178/Wall | 27D. 12 | cf. $168 i$ | Pin (br) | OI A25296 |
| Sor 1559 | JI | 7.64 | 178/Wall | 27D. 2 | - | Pin (br) | MIB |
| Sor 1560 | JI | 7.64 | 178/Wall | 27D. 9 | 165m | Pin (br) | MIB |
| Sor 1561:1 | JI | 7.64 | 178/Wall | 27D. 17 | 173a | Pin (ir) | MIB |
| Sor 1561:2 | JI | 7.64 | 178/Wall | 27D. 1 | 173a | Pin shank (ir) | MIB |
| Sor 1562 | JI | 7.64 | 178/Wall | 30A. 2 | - | Pin shanks (bo) | MIB |
| Sor 1563 | JI | 7.64 | 178/Wall | 28H.2.1 | - | Pin (co/br) | OI A25297 |
| Sor 1564 | JI | 7.64 | 178/Wall | 27D. 20 | 184c | Pin (br) | OI A25298 |
| Sor 1565 | JI | 7.64 | 178/Wall | 27D.18.1 | - | Pin (br) | OI A25299 |
| Sor 1566 | JI | 7.64 | 178/Wall | 27D.18.1 | - | Pin (ir) | NY |
| Sor 1567 | JI | 7.64 | 178/Wall | 27D.16.8 | 181i | Pin (br) | MIB |
| Sor 1568 | JI | 7.64 | 178/Wall | 27C.4.1.6 | - | Bracelet (br) | NY |
| Sor 1569 | JI | 7.64 | 178/Wall | 31A. 42 | - | Beads (gra, sh) | NY |


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| Sor 1570 | J | 7.64 | 178/Wall | 30A. 2 | - | Pin shanks (bo) | NY |
| Sor 1571 | J | 7.64 | 178/Wall | 27D.18.3 | 183c | Pin (br/ir) | MIB |
| Sor 1572 | JI | 7.64 | 178/Wall | 28H.5.1 | 199k | Pin (co/br) | OI A25300 |
| Sor 1573 | JI | 7.64 | 178/Wall | 27D. 18.4 | 185a | Pin (br) | MMA 43.102.1 |
| Sor 1574 | JI | 7.64 | 178/Wall | 30A. 2 | - | Pin shanks (bo) | MIB |
| Sor 1575 | JI | 7.64 | 178/Wall | 30 A. 8 | - | Pin (bo) | UM-(?) |
| Sor 1576 | II | 7.64 | 178/Wall | 28 L .1 | - | Pendant (co/br) | (?) |
| Sor 1577 | JI | 7.64 | 178/Wall | 28H.5.1 | 208b | Pin (co/br) | MIB |
| Sor 1578 | Л | 7.64 | 178/Wall | 28A. 1 | - | Bowl (co/br) | OI A25301 |
| Sor 1579 | JI | 7.64 | 178/Wall | 31A. 6 | - | Bead (sh) | MIB |
| Sor 1580 | II | 7.64 | 178/Wall | 30A.3.7.4 | - | Pin (bo) | MIB |
| Sor 1581 | JI | 7.64 | 178/Wall | 30A. 8 | 224w | Spoon, handshped (bo) | MIB |
| Sor 1582 | JI | 7.64 | 178/Wall | 27 E | - | Horns, ibex (br) | (?) |
| Sor 1583 | JI | 7.64 | 178/Wall | 32A.2.5 | 238:97 | Cyl. seal (bo) | MIB |
| Sor 1584 | J | 7.64 | 178/Wall | 27D.16.1 | 172e | Pin (br) | NY |
| Sor 1585 | JI | 8.60 | 175/Wall | 26A.3.2 | 153a | Pin, bird (fa) | MIB |
| Sor 1586 | II | 8.60 | 175/Wall | 28H.3.2 | - | Pin (co/br) | OI A25302 |
| Sor 1587:1 | JI | 8.60 | 175/Wall | 31A. 1 | - | Bead (sh) | MIB |
| Sor 1587:2-3 | JI | 8.60 | 175/Wall | 31 A. 28 | - | Beads (sh) | MIB |
| Sor 1588a | JI | 8.60 | 175/Wall | 30A.3.6 | 223h, 227c | Pin (bo) | NY |
| Sor 1588b | JI | 8.60 | 175/Wall | 30A.3.6 | 223i | Pin (bo) | NY |
| Sor 1589 | JI | 8.60 | 175/Wall | 28D | - | Mirror (co/br) | MIB |
| Sor 1590 | JI | 8.15 | 175/Wall | 27D. 1 | - | Pin shank (br) | UM-(?) |
| Sor 1591 | Л | 8.50 | 175/Wall | 27D.18.1 | - | Pin (br) | UM-(?) |
| Sor 1592 | JI | 8.50 | 175/Wall | 28H.2.1 | - | Pin (co/br) | OI A25303 |
| Sor 1593 | J | 8.50 | 175/Wall | 28J. 1 | - | Metal band (co/br) | (?) |
| Sor 1594 | JI | 8.20 | 175/Wall | 27D. 11 | - | Pin (br/ir) | NY |
| Sor 1595 | Л | 8.50 | 175/Wall | 27D.16.8 | 172q | Pin (br) | MIB |
| Sor 1596 | J | 8.50 | 175/Wall | 26A.1.3 | 148f | Disc/shank (fa, br) | NY |
| Sor 1597 | J | 8.50 | 175/Wall | 27 E | - | Homs, ibex (br) | MIB |
| Sor 1598 | JI | 8.50 | 175/Wall | 27C.1.4 | 159v | Earring(?) (br) | NY |
| Sor 1599 | JI | 7.60 | 175/Wall | 31A. 42 | - | Beads (various) | OI A25304 |
| Sor 1600 | JI | 7.60 | 175/Wall | 32A. 1 | 233:44 | Cyl. seal (serp) | MIB-1460 |
| Sor 1601 | JI | 7.70 | 175/Wall | 32B.7/33B | $\begin{aligned} & \text { 253:xxxv, } \\ & \text { 258b } \end{aligned}$ | Seal, inscr. sig. ring (co) | MMA 43.102.13 |
| Sor 1602 | JI | 7.75-7.80 | 175/Wall | 28K. 4 | 213e | Whorl (co/br) | (?) |
| Sor 1603 | JI | 7.75-7.80 | 175/Wall | 31A. 1 | - | Beads (sh) | NY |
| Sor 1604 | Л | 7.75-7.80 | 175/Wall | 30A.3.7.1 | - | Pin (bo) | MIB |
| Sor 1605 | JI | 7.75-7.80 | 175/Wall | 31A. 21 | - | Bead, spacer (bo) | OI A25305 |
| Sor 1606 | JI | 7.75-7.80 | 175/Wall | 27A.2.1 | 155c | Axe (br) | (?) |
| Sor 1607 | JI | 7.80 | 175/Wall | 27D.18.1 | 183b | Pin (br) | MIB |
| Sor 1608 | JI | 7.80 | 175/Wall | 31A. 7 | - | Beads (sh) | UM-(?) |
| Sor 1609 | JI | 7.60 | 175/Wall | 29C. 3 | - | Cylinder (alab) | MIB |
| Sor 1610 | JI | 7.50 | 175/Wall | 27F. 3 | 186m | Anim., homed (br) | MIB |
| Sor 1611 | JI | 7.00-7.10 | 175/Wall | 32A.2.7 | 239:117 | Cyl. seal (serp) | MIB-1466 |
| Sor 1612:1 | JI | 7.00-7.10 | 175/Wall | 27D.11 | cf. 167h | Pin (br/ir) | OI A25306a |
| Sor 1612:2 | II | 7.00-7.10 | 175/Wall | 27D. 11 | - | Pin (br) | OI A25306 |
| Sor 1612:3 | JI | 7.00-7.10 | 175/Wall | 27D. 1 | - | Pin shank (br) | OI A25306 |
| Sor 1613 | J | Wall | 175/Wall | 32A.2.8 | 241:139 | Cyl. seal (fa) | MIB |
| Sor 1614 | JI | 7.00-7.15 | 175/Wall | 27D.16.1 | 172f | Pin (br) | MIB |
| Sor 1615 | JI | 7.00-7.10 | 175/Wall | 27C.2.2 | - | Ring, finger (br) | MIB |
| Sor 1616 | JI | 7.00-7.10 | 175/Wall | 28L. 1 | 203d | Pendant (co/br) | OI A25307 |
| Sor 1617 | JI | 7.00-7.15 | 175/Wall | 27D. 12 | 168q | Pin (br) | MIB |
| Sor 1618 | JI | 7.00-7.15 | 175/Wall | 27G. 1 | 188k | Pendant (br) | MIB |
| Sor 1619 | JI | 7.60 | 175/Wall | 28H.3.1 | - | Pin (co/br) | NY |
| Sor 1620 | JI | 7.60 | 175/Wall | 28H. 1 | - | Pin (co/br) | UM-(?) |
| Sor 1621 | JI | 7.60 | 175/Wall | 27D. 12 | - | Pin (br) | UM-(?) |


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| Sor 1622 | JI | 7.50 | 175/Wall | 32B. 2 | 249:xv | Seal, stamp (st) | MIB |
| Sor 1623 | JI | 7.50 | 175/Wall | 27C.4.6 | 163b | Bracelet (br) | UM-(?) |
| Sor 1624 | II | 7.50 | 175/Wall | 32A.2.2 | 235:63 | Cyl. seal (fa) | MIB-732 |
| Sor 1625 | JI | 7.45 | 175/Wall | 32A. 1 | 233:45 | Cyl. seal (serp) | Or A25308 |
| Sor 1626 | JI | 7.45 | 175/Wall | 32A.2.7 | 240:129 | Cyl. seal (co) | NY |
| Sor 1627 | JI | 7.45 | 175/Wall | 31A. 42 | - | Beads (various) | MIB |
| Sor 1628 | JI | 7.30 | 175/Wall | 27A.3.1 | 155 e | Hilt (br) | MIB |
| Sor 1629 | J | 7.20 | 175/Wall | 27D.15 | 171 b | Pin (br) | OI A25309 |
| Sor 1630 | JI | 7.70 | 175/Wall | 29D | 218f | Pin (st) | MIB |
| Sor 1631 | JI | 7.60 | 175/Wall | 27A.3.1 | 155 g | Hilt (br) | UM-(?) |
| Sor 1632 | JI | 7.30 | 175/Wall | 27C.4.5 | 178c | Bracelet (br) | MMA 43.102.2 |
| Sor 1633 | JI | 7.30 | 175/Wall | 27A.2.1 | 176a | Axe (br) | UM-(?) |
| Sor 1634 | J | - | 175/Wall | 27C.4.1.1 | - | Bracelet (br) | (?) |
| Sor 1635 | JI | - | 175/Wall | 27C.4.1.1 | - | Bracelet (br) | OI A25311 |
| Sor 1636 | JI | - | 175/Wall | 28G | - | Metal band (ir) | MIB |
| Sor 1637 | JI | - | 175/Wall | 27C.1.1 | - | Earring (br) | OI A25312 |
| Sor 1638 | II | - | 175/Wall | 27D. 12 | cf. 169d | Pin (ir) | OI A25313 |
| Sor 1639 | JI | - | 175/Wall | 27C.1.4 | - | Earring (ir) | NY |
| Sor 1640 | JI | - | 175/Wall | 31A. 42 | - | Beads (various) | NY |
| Sor 1641 | JII | - | 175/Wall | 26A. 2 | 148 g | Ring | NY |
| Sor 1642 | Л | - | 175/Wall | 27D.16.8 | 172 r | Pin (br) | OI A25314 |
| Sor 1643 | JI | - | 175/Wall | 31A. 22 | 232ad | Bead (serp) | MIB |
| Sor 1644 | JI | - | 175/Wall | 32A.2.7 | 240:123 | Cyl. seal (fa) | NY |
| Sor 1645 | JI | - | 175/Wall | 27D. 16.8 | - | Pin (br) | MIB |
| Sor 1646 | JI | - | 175/Wall | 31A. 42 | - | Beads (various) | MIB |
| Sor 1646f | JI | - | 175/Wall | 31A. 7 | 231al | Bead (fa) | MIB |
| Sor 1647 | JI | - | 175/Wall | 28A. 4 | 190 g | Beaker, nipple ( $\mathrm{co} / \mathrm{br}$ ) | MIB |
| Sor 1648a | J | - | 175/Wall | 28H.3.2 | 197g | Pin (co/br) | OI A25315 |
| Sor 1648b | JI | - | 175/Wall | 28H.3.2 | 197h | Pin (co/br) | OI A25315 |
| Sor 1649 | II | 7.50 | 177/Wall | 32A.2.1 | 234:56 | Cyl. seal (serp) | OI A25316 |
| Sor 1650 | J | 6.70 | 179/Wall | 31A. 42 | - | Beads (various) | MIB |
| Sor 1651 | JI | 6.70 | 179/Wall | 28K. 1 | cf. 201k | Whorl (co/br) | MIB |
| Sor 1652 | JI | 6.70 | 179/Wall | 27B. 4 | - | Spatula (ir) | NY |
| Sor 1653 | JI | 6.70 | 180/Wall | 31A. 36 | 232au | Bead (fa) | MIB |
| Sor 1654 | JI | 6.70 | 180/Wall | 31A. 42 | - | Beads (br, sh, st) | MIB |
| Sor 1655 | JI | Wall | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 1656:1 | J | Wall | - | 27C.1.1 | - | Earring (br) | OI A25317 |
| Sor 1656:2 | J | Wall | - | 28F | - | Ring, sheet (co/br) | OI A25318 |
| Sor 1657 | JI | Wall | - | 28L. 1 | 203e | Pendant (co/br) | OI A25319 |
| Sor 1658 | JI | Fill | - | 28H.2.2 | - | $\operatorname{Pin}(\mathrm{co} / \mathrm{br})$ | MIB |
| Sor 1659 | JJ | Fill | - | 30A.3.7.2 | 226e | Pin (bo) | MIB |
| Sor 1660 | JJ | Wall | - | 32A.2.3 | 236:75 | Cyl, seal (fa) | OI A25320 |
| Sor 1661 | JH | 6.75 | 4/Wall | 32A.2.1 | 234:60 | Cyl, seal (st) | MIB |
| Sor 1662 | JH | 6.75 | 4/Wall | 32A.2.9.1 | 242:149 | Cyl. seal (fa) | MIB-727 |
| Sor 1663 | JH | 6.75 | 4/Wall | 20A.3.11 | - | Sherds | OI A25321 |
| Sor 1664 | JH | 6.50 | 5/Wall | 27D. 12 | - | Pin (br) | MIB |
| Sor 1665 | JH | 6.50 | 5/Wall | 32A.2.13 | 247:197 | Cyl. seal (fa) | MIB |
| Sor 1666 | JH | 6.50 | 5/Wall | 31 A .17 | - | Bead (br) | NY |
| Sor 1667 | JH | 6.50 | 6/Wall | 28J. 2 | 212a | Plaque (co/br) | MIB |
| Sor 1668 | JH | Wall(?) | - | 24C. 4 | 133:27 | Cyl. scal (hem) | OI A25322 |
| Sor 1669 | JH | Wall | - | 27C.4.5 | cf. 178a | Bracelet (br) | MIB |
| Sor 1670 | JH | Wall | - | 28H.2.2 | - | Pin (co/br) | Ol A25323 |
| Sor 1671 | JH | Wall | - | 28H.2.2 | 195b | Pin (co/br) | MIB |
| Sor 1672:1 | JH | Wall | - | 27D. 12 | - | Pin (br) | MIB |
| Sor 1672:2 | JH | Wall | - | 27D.11 | - | Pin (br) | MIB |
| Sor 1672:3 | JH | Wall | - | 27D. 2 | - | $\operatorname{Pin}(\mathrm{br})$ | MIB |
| Sor 1673 | JH | Wall | - | 27C.6.5 | - | Button (br) | MIB |


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| Sor 1674 | JH | Wall | - | 20A.3.11 | - | Sherds | MIB |
| Sor 1675 | JH | Wall | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 1676 | JH | Wall | - | 27E | 174k | Horns(?), ibex (le) | NY |
| Sor 1677 | JH | Wall | - | 27C.1.6 | - | Earring (ir) | NY |
| Sor 1678 | JH | Wall | - | 27B. 10 | cf. 159e | Tweezers (br) | MIB |
| Sor 1679 | JH | Wall | - | 27C.2.2 | - | Ring, finger (br) | MIB |
| Sor 1680 | JH | Wall | - | 29B. 3 | - | Whetstone (gy y st) | UM-(?) |
| Sor 1681 | JH | Wall | - | 31A. 42 | - | Beads (various) | OI A25324 |
| Sor 1681a | JH | Wall | - | 31A. 21 | - | Bead, spacer (bo) | OI A25324 |
| Sor 1682 | JH | Wall | - | 31A. 21 | 232 g | Bead, spacer (bo) | MIB |
| Sor 1683 | KH | 6.00 | 10/Wall | 32A.2.12 | 246:185 | Cyl. seal (fa) | MIB-732 |
| Sor 1684 | KH | Wall | - | 27A. 5 | - | Arrowhead (br) | MIB |
| Sor 1685 | KH | Wall | - | 27D.16.1 | - | Pin (br) | MMA 43.102.23 |
| Sor 1686 | KH | Wall | - | 29B. 8 | cf. 217f | Whorl (st) | OI A25325 |
| Sor 1687 | KH | Wall | - | 27C.4.1.5 | - | Bracelet (br) | MIB |
| Sor 1688 | KH | Wall | - | 27B. 1 | - | Handle (br) | MIB |
| Sor 1689 | KH | Wall | - | 31A. 42 | - | Beads (sh) | NY |
| Sor 1690 | KI | Wall | - | 31A. 42 | - | Beads (various) | MIB |
| Sor 1691 | JH | 6.50 | 5/Wall | 24C.4/33B | 133:22, 259a | Cyl. seal, inscr. (hem) | MIB |
| Sor 1692:1, 3 | - | Surf. | - | 30A.3.7.1 | - | Pins (bo) | MIB |
| Sor 1692:2 | - | Surf. | - | 29E | - | Fig., anim. (st) | MIB |
| Sor 1693 | - | Surf. | - | 27C.4.1.5 | - | Bracelet (br) | (?) |
| Sor 1694 | - | Surf. | - | 30A.3.6 | 223j | Pin (bo) | NY |
| Sor 1695 | - | Surf. | - | 30B. 3 | - | Shell, ostrich | MIB |
| Sor 1696a, b | - | Surf. | - | 25A.3.13 | 一 | Sherds | NY |
| Sor 1697 | - | Surf. | - | 28A. 6 | - | Jar (co/br) | MIB |
| Sor 1698 | - | Surf. | - | 26A.9.6 | 152e | Sherd (fa) | MIB |
| Sor 1699 | - | Fill | - | 24C. 3 | 132:16 | Cyl. seal (lmst) | NY |
| Sor 1700 | - | Fill | - | 19A.1 | 77:iv | Seal, stamp (fa) | OI A25326 |
| Sor 1701 | - | Fill | - | 32A.2.12 | 246:186 | Cyl. seal (st) | (?) |
| Sor 1702 | - | Fill | - | 28H.5.1 | 208c | Pin (co/br) | MIB |
| Sor 1703 | - | Fill | - | 28H.5.1 | 208d | $\mathrm{Pin}(\mathrm{co} / \mathrm{br})$ | MIB |
| Sor 1704 | - | Fill | - | 28H.5.1 | 1991 | Pin (co/br) | MIB |
| Sor 1705 | - | Fill | - | 28H.5.1 | 208e | $\mathrm{Pin}(\mathrm{co} / \mathrm{br})$ | UM-(?) |
| Sor 1706 | - | Fill | - | 28H.5.1 | 208f | Pin (co/br) | OI A25327 |
| Sor 1707 | - | Fill | - | 28H.5.1 | 208g | Pin (co/br) | NY |
| Sor 1708 | - | Fill | - | 28H.5.1 | 209a | Pin (co/br) | MIB |
| Sor 1709 | - | Fill | - | 28H.5.1 | 209b | Pin (co/br) | MIB |
| Sor 1710 | - | Fill | - | 28H.5.1 | - | Pin (co/br) | NY |
| Sor 1711 | - | Fill | - | 28H.5.2 | 210d | Pin (co/br) | MIB |
| Sor 1712 | - | Fill | - | 28A.4 | 204c | Beaker, nipple (co/br) | MIB-1124 |
| Sor 1713 | - | Fill | - | 28H. 2 | $210 e$ | Pin (co/br) | MIB |
| Sor 1714 | - | Fill | - | 28H.5.2 | 210f | $\operatorname{Pin}(\mathrm{co} / \mathrm{br})$ | (?) |
| Sor 1715 | - | Fill | - | 28J. 5 | 201f | Plaque (co/br) | MIB |
| Sor 1716 | - | Fill | - | 28H.5.2 | 210 g | Pin (co/br) | UM-(?) |
| Sor 1717 | - | Fill | - | 28H.5.2 | 210h | Pin (co/br) | OI A25328 |
| Sor 1718 | - | Fill | - | 28H.5.2 | - | Pin (co/br) | MIB |
| Sor 1719 | - | Fill | - | 28H.4.2 | 207a | Pin (co/br) | MIB |
| Sor 1720 | - | Fill | - | 28H.5.2 | - | Pin (co/br) | OI A25329 |
| Sor 1721 | - | Fill | - | 281 | 211e | Pin (co/br) | MMA 43.102.11 |
| Sor 1722 | - | Fill | - | 28H.5.2 | 211a | Pin (co/br) | (?) |
| Sor 1723 | - | Fill | - | 28H.5.2 | 211 b | Pin (co/br) | UM-(?) |
| Sor 1724 | - | Fill | - | 28H.4.2 | 207b | Pin (co/br) | NY |
| Sor 1725 | - | Fill | - | 28H.4.2 | 207c | Pin (co/br) | NY |
| Sor 1726 | - | Fill | - | 28H.5.2 | 211c | Pin (co/br) | (?) |
| Sor 1727 | - | Fill | - | 28J. 5 | 213b | Plaque (co/br) | MIB |


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| Sor 1728 | - | Fill | - | 28H.4.2 | 207a | Pin (co/br) | MIB |
| Sor 1729 | - | Fill | - | 28 J .4 | 212 f | Plaque (co/br) | OI A25340 |
| Sor 1730 | - | Fill | - | 28H.5.2 | 211d | Pin (co/br) | UM-(?) |
| Sor 1731 | - | Fill | - | 28H.4.2 | 207e | Pin (co/br) | MIB |
| Sor 1732a | - | Fill | - | 281 | 211 f | Pin (co/br) | MIB |
| Sor 1732b | - | Fill | - | 27D. 1 | - | Pin shank (br) | MIB |
| Sor 1733 | - | Fill | - | 28H.4.2 | - | Pins (co/br) | UM-(?) |
| Sor 1733g | - | Fill | - | 28J. 5 | 2017 | Plaque (co/br) | MIB |
| Sor 1734 | - | Fill | - | 28 J .5 | 213c | Plaque (co/br) | (?) |
| Sor 1735a | - | Fill | - | 28H.4.2 | 199h | Pin (co/br) | UM-(?) |
| Sor 1735b | - | Fill | - | 28H.4.2 | 199i | Pin (co/br) | UM-(?) |
| Sor 1735c | - | Fill | - | 28H.4.2 | 199j | Pin (co/br) | UM-(?) |
| Sor 1736a | - | Fill | - | 28A.1 | 190a | Bowl (co/br) | MIB |
| Sor 1736b-d | - | Fill | - | 28H.4.2 | - | Pin (co/br) | MIB |
| Sor 1737a | - | Fill | - | 27C.4.5 | - | Bracelet (br) | MIB |
| Sor 1737b | - | Fill | - | 27C.4.5 | - | Bracelet (br) | MIB |
| Sor 1738 | - | Fill | - | 28H.4.2 | - | Pin (co/br) | OI A25342 |
| Sor 1739 | - | Fill | - | 28H.4.2 | - | Pin (co/br) | MIB |
| Sor 1740 | - | Fill | - | 28H.3.2 | 197i | Pin (co/br) | MIB |
| Sor 1741 | - | Fill | - | 28H.3.2 | 197j | Pin (co/br) | MIB |
| Sor 1742 | - | Fill | - | 28H.3.2 | 197k | Pin (co/br) | OI A25343 |
| Sor 1743 | - | Fill | - | 28H.3.2 | 1971 | Pin (co/br) | NY |
| Sor 1744 | - | Fill | - | 28L. 3 | 2031 | Pendant (co/br) | (?) |
| Sor 1745a-i | - | Fill | - | 28H.3.2 | 197m-198g | Pins (co/br) | OI A25344 |
| Sor 1746 | - | Fill | - | 28H.4.1 | 199c | Pin (co/br) | MIB |
| Sor 1747 | - | Fill | - | 28H.3.2 | 198h | Pin (co/br) | OI A25345 |
| Sor 1748 | - | Fill | - | 28H.3.1 | 1969 | Pin (co/br) | MIB |
| Sor 1749 | - | Fill | - | 28J. 3 | 201c | Plaque (co/br) | MIB |
| Sor 1750 | - | Fill | - | 28L. 3 | 203m | Pendant (co/br) | MIB |
| Sor 1751 | - | Fill | - | 28H.3.2 | - | Pin (co/br) | NY |
| Sor 1752a-d | - | Fill | - | 28H.3.2 | 198i-1 | Pins (co/br) | MIB |
| Sor 1753a | - | Fill | - | 28H.3.2 | 198m | $\mathrm{Pin}(\mathrm{co} / \mathrm{br})$ | (?) |
| Sor 1753b | - | Fill | - | 28H.3.2 | 198n | $\mathrm{Pin}(\mathrm{co} / \mathrm{br})$ | (?) |
| Sor 1754 | - | Fill | - | 28L. 3 | 203n | Pendant (co/br) | MIB |
| Sor 1755 | - | Fill | - | 28K. 3 | 202 f | Whorl (co/br) | UM-(?) |
| Sor 1756 | - | Fill | - | 28K. 3 | 202g | Bracteate (co/br) | (?) |
| Sor 1757 | - | Fill | - | 28J. 2 | 200h | Plaque (co/br) | NY |
| Sor 1758 | - | Fill | - | 28H.3.2 | 1980 | Pin (co/br) | OI A25346 |
| Sor 1759 | - | Fill | - | 28H.3.2 | 199a | Pin (co/br) | MIB |
| Sor 1760 | - | Fill | - | 28H.3.2 | - | Pin (co/br) | MIB |
| Sor 1761 | - | Fill | - | 28 J .2 | 200i | Plaque (co/br) | NY |
| Sor 1762 | - | Fill | - | 28H.3.1 | 196g | Pin (co/br) | MIB |
| Sor 1763 | - | Fill | - | 28H.2.2 | 195c | Pin (co/br) | MIB |
| Sor 1764 | - | Fill | - | 28J. 3 | 201d | Plaque (co/br) | UM-(?) |
| Sor 1765 | - | Fill | - | 28 J .2 | 200 j | Plaque (co/br) | MIB |
| Sor 1766 | - | Fill | - | 28H.2.2 | 195d | Pin (co/br) | (?) |
| Sor 1767 | - | Fill | - | 28L. 2 | 203h | Pendant (co/br) | (?) |
| Sor 1768a | - | Fill | - | 28 J .2 | - | Plaque (co/br) | MIB |
| Sor 1768b | - | Fill | - | 28H.2.2 | - | Pin (co/br) | MIB |
| Sor 1769 | - | Fill | - | 28H.2.2 | 194c | Pin (co/br) | MB |
| Sor 1770 | - | Fill | - | 28 J .2 | 200k | Plaque (co/br) | NY |
| Sor 1771 | - | Fill | - | 28H.2.2 | 195e | Pin (co/br) | MIB |
| Sor 1772 | - | Fill | - | 28H.2.2 | 195 f | Pin (co/br) | MIB |
| Sor 1773a | - | Fill | - | 281 | 200e | Pin (co/br) | NY |
| Sor 1773b | - | Fill | - | 281 | $200 f$ | Pin (co/br) | NY |
| Sor 1774 | - | Fill | - | 28 J .2 | 201a | Plaque (co/br) | MIB |
| Sor 1775 | - | Fill | - | 28 J .2 | - | Plaque (co/br) | MIB |
| Sor 1776 | - | Fill | - | 28L. 2 | 203 i | Pendant (co/br) | MIB |


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| Sor 1777 | - | Fill |  | 28L. 2 | 203j | Pendant (co/br) | OI A25347 |
| Sor 1778 | - F | Fill |  | 28K. 2 | 202b | Bracteate (co/br) | (?) |
| Sor 1779a | - F | Fill |  | 28H.2.2 | - | Pin (co/br) | NY |
| Sor 1779b | - F | Fill |  | 28J. 2 | - | Plaque (co/br) | NY |
| Sor 1780 | - F | Fill |  | 28A. 10 | - | Vessel (co/br) | MIB |
| Sor 1781 | - F | Fill |  | 28A. 10 | - | Vessel (co/br) | (?) |
| Sor 1782 | - F | Fill |  | 28A. 10 | - | Vessel (co/br) | MIB |
| Sor 1783a | - F | Fill |  | 28A. 1 | 190b | Bowl (co/br) | UM-(?) |
| Sor 1783b | - F | Fill |  | 28A. 1 | 190c | Bowl (co/br) | UM-(?) |
| Sor 1783c | - F | Fill |  | 28A. 5 | 190j | Pot (co/br) | UM-(?) |
| Sor 1783d | - F | Fill |  | 28A. 1 | 190d | Bowl (co/br) | UM-(?) |
| Sor 1784 | - F | Fill |  | 27E | - | Homs, ibex (br) | OI A25348 |
| Sor 1785 | - F | Fill |  | 27G | - | Pendant (br) | NY |
| Sor 1786 | - F | Fill |  | 27A.3.1 | - | Hilt(?) (br) | MIB |
| Sor 1787 | - F | Fill |  | 28A. 9 | - | Handle (co/br) | MIB |
| Sor 1788 | - F | Fill |  | 28H.5.2 | 200c | Pin (ir) | MIB |
| Sor 1789 | - F | Fill |  | 28H.5.2 | - | Pin (ir) | NY |
| Sor 1790 | - F | Fill |  | 27A. 5 | - | Arrowhead (ir) | NY |
| Sor 1791 | - F | Fill |  | 27D. 14 | - | Pin (br) | NY |
| Sor 1792 | - F | Fill |  | 27D. 14 | cf. 170s | Pin (ir) | NY |
| Sor 1793 | - F | Fill |  | 27D. 3 | - | Pin (ir) | NY |
| Sor 1794 | - F | Fill |  | 27D. 9 | - | Pin (ir) | MIB |
| Sor 1795 | - F | Fill |  | 27B. 2 | - | Knife (ir) | MIB |
| Sor 1796 | - F | Fill |  | 30B.1.2 | 225e | Whorl (sh) | NY |
| Sor 1797 | - F | Fill |  | 30A.3.7.1 | - | Pin (bo) | NY |
| Sor 1798 | - F | Fill |  | 31A. 42 | - | Beads (various) | OI A25349 |
| Sor 1798a | - F | Fill |  | 31A. 31 | 232r | Bead (fa) | OI A25349 |
| Sor 1798d | - F | Fill |  | 31A. 39 | 232ai | Bead (fa) | OI A25349 |
| Sor 1799 | - F | Fill |  | 32B. 2 | 250:xx | Seal, stamp (co) | MIB |
| Sor 1800 | - F | Fill |  | 30A.3.7.1 | 223s, 226f | Pin (bo) | MIB |
| Sor 1801a | F | Fill |  | 25A.3.12 | 137f | Sherd | MIB |
| Sor 1801b | - F | Fill |  | 25A.3.12 | - | Sherd, strainer | MIB |
| Sor 1802 | - F | Fill |  | 27C.4.5 | - | Bracelet (br) | MIB |
| Sor 1803 | - F | Fill |  | 29D | 219a, 221c | Pin (st) | MIB |
| Sor 1804 | - F | Fill |  | 32B. 7 | 253:xxxvii | Seal, signet ring (fa) | MIB |
| Cat. no. | Plot or tomb | Elev. or level | Locus | Chap. sect. | Plate | Description | Mus. no. |
| Sor 1805 | $\times 21$ | - | - | 20A.2.4.5.1 | 107d | Pot | OI A25350 |
| Sor 1806 | $\times 22$ | - | - | 20A.2.1.6.2 | 93u | Bowl, tripod | UM-(?) |
| Sor 1807 | $\times 21$ | - | - | 20A.2.1.2.2 | 92k | Bowl | NY |
| Sor 1808 | $\times 21$ | - | - | 20A.2.3.1.2 | cf. 107b | Cup | NY |
| Sor 1809 | $\times 21$ | - | - | 20A.2.4.5.1 | 107f | Pot | NY |
| Sor 1810 | $\times 22$ | - | - | 20A.2.1.6.1 | 93c | Bowl, tripod | MIB |
| Sor 1811 | $\times 22$ | - | - | 20A.2.1.6.2 | cf. 93t | Bowl, tripod | MIB |
| Sor 1812 | x 9 | - | - | 20A.2.3.1.2 | 107b | Cup | OI A25351 |
| Sor 1813 | $\mathrm{x}($ ? $)$ | - | - | 20A.2.3.1.2 | cf. 107b | Cup | MIB |
| Sor 1814 | IJ | 7.15 | 5 | 20A.3.4.1.2 | 109r | Pot | OI A25352 |
| Sor 1815 | IJ | 7.15 | 3 | 20A.3.8.2.1 | cf. 115d | Storage jar | MIB |
| Sor 1816 | JI | 6.12 | 140 | 20A.3.8.2.1 | cf. 115d | Storage jar | MIB |
| Sor 1817 | JI | 6.12 | 71 | 20A.3.4.4.1 | 110 e | Pot | MIB |
| Sor 1818 | JI | 5.55 | 78 | 20A.3.8.2.1 | 115d | Storage jar | OI A25353 |
| Sor 1819 | L | 7.20 | 2 | 20A.3.7.1.1 | 112d | Pitcher | (?) |
| Sor 1820 | IJ | 7.15 | 3 | 20A.3.6.1.1 | 111j | Jar | OI A25354 |
| Sor 1821 | IJ | 7.20 | 2 | 20A.3.7.3.1 | 113a | Pitcher | MIB |


| Cat. no. | Plot or tomb | Elev. or level | Locus | Chap. sect. | Plate | Description | Mus. no. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SURKH DUM-I-LURI |  |  |  |  |  |  |  |
| Sor 1822 | $\times 21$ | - | - | 21B.3.4 | 122 j | Pin (br) | UM-(?) |
| Sor 1823 | $\times 21$ | - | - | 21B.3.4 | cf. 122j | Pin (br) | MIB |
| Sor 1824 | $\times 21$ | - | - | 21B.4.1.2 | 122k | Bracelet (br) | MIB |
| Sor 1825:1-35 | 5 II | $2 \mathrm{~A}+1$ | - | 25A.3.13 | - | Sherds | Or |
| Sor 1826:1 | II | 2B-1 | - | 25A.3.13 | 137c | Sherd | OI |
| Sor 1826:16 | II | 2B-1 | - | 25A.3.13 | 1360 | Sherd | OI |
| Sor 1826:24 | II | 1 | - | 25A.3.13 | 136n | Sherd | OI |
| Sor 1826:27 | II | 2B-1 | - | 25A.3.13 | 136u | Sherd | OI |
| Sor 1827:1-25 | 5 II | 1 | - | 25A.3.13 | - | Sherds | OI |
| Sor 1828:1-48 | 8 II | 1 | - | 25A.3.13 | - | Sherds | OI |
| Sor 1829x | IH | 2B | - | 25A.3.13 | 136q | Sherd | OI |
| Sor 1830:2-3 | IH | 2B(?) | - | 25A.3.13 | 1388 | Vessel, bull-shped | OI |
| Sor 1830:4 | IH | 2B(?) | - | 25A.3.13 | 137b | Sherd | OI |
| Sor 1831:1-35 | 5 GK | ( | Rm. 2 | 25A.3.13 |  | Sherds | OI |
| Sor 1832:1-39 | 9 GK | - | Rm. 4 | 25A.3.13 | - | Sherds | OI |
| Sor 1833:1-42 | 2 GK | - | Rm. 4 | 25A.3.13 | - | Sherds | OI |
| Sor 1834:1-22 | 2 GK | - | Rm. 6 | 25A.3.13 | - | Sherds | OI |
| Sor 1835:21 | KG | 2 C | - | 25A.3.13 | 136s | Sherd | OI |
| Sor 1835:29 | KG | 2C | - | 25A.3.13 | 136t | Sherd | OI |
| Sor 1836:22 | KI | 1 | - | 25A.3.13 | 137a | Sherd | OI |
| Sor 1837:11-12 | 2 JJ | 2C | - | 25A.3.13 | 137 g | Sherds | OI |
| Sor 1837:17 | JJ | 2C | - | 25A.3.13 | 138 g | Vessel, bull-shped | OI |
| Sor 1838: 1-2 | JI | 3 | - | 25A.3.13 | 39 a | Sherds | OI |
| Sor 1839:1-6 | JI | 3 | - | 25A.3.13 | 39a | Sherds | OI |
| Sor 1840:1-10 | JI | 3 | - | 25A.3.13 | - | Sherds | OI |
| Sor 1841:1-37 | 7 JI | 3 | - | 25A.3.13 | - | Sherds | OI |
| Sor 1842:1-6 | JI | 3 | - | 25A.3.13 | - | Sherds | OI |
| Sor 1843:2 | JI | 2B | - | 25A.3.13 | 137d | Sherd | OI |
| Sor 1843:4, 27 | 27 JI | 2B(?) | - | 25A.3.13 | 136r | Sherds | OI |
| Sor 1843:10 | ת | 2B | - | 25A.3.13 | 138e | Vessel, bull-shped | OI |
| Sor 1843:20 | JI | 2B | - | 25A.3.13 | 137e | Sherd | OI |
| Sor 1844:1-48 | JI | 2B(?) | - | 25A.3.13 | - | Sherds | OI |
| Sor 1845:1-24 | $4 \mathrm{KH}+\mathrm{JI}$ | - | Unstrat. | 25A.3.13 | - | Sherds | OI |
| Sor 1846:7 | KH | 1 | - | 25A.3.13 | 136p | Sherd | OI |
| Sor 1847:1-5 | JH | - | Dump | 25A.3.13 | - | Sherds | OI |
| Sor 1848:20 | JH | 2B-1 | - | 25A.3.13 | 137h | Sherd | OI |
| Sor 1849:1-8 | IJ | 3 | - | 25A.3.13 | - | Sherds | OI |
| Sor 1850:1-6 | I, nr cmty | - | - | 25A.3.13 | - | Sherds | OI |
| Sor 1851:1-25 | 5 - | Surf. | - | 25A.3.13 | - | Sherds | OI |
| Cat. no. Plo | Plot or tomb | Elev. | Locus | Chap. sect. | Plate | Description | Mus. no. |
| ZARDE SAVAR |  |  |  |  |  |  |  |
| Zar 1 | Surf. | - | - | 21B.4.3 | 123d | Omament (br) | MIB |
| Zar 2 | x 1 | -0.80 | - | 27C.1.3 | 1601 | Earrings (si) | OI A25382/83 |
| Zar 3 | x 1 | -0.80 | - | 27C.1.3 | - | Earring (si) | MIB |
| Zar 4 | x 1 | -0.80 | - | 20A.3.11 | - | Sherds | (?) |
| Zar 5 | $\times 3$ | - | - | 21C.2.1 | - | Bracelet (br) | NY |
| Zar 6 | $\times 3$ | - | - | 20A.3.2 | 1091 | Goblet | (?) |
| Zar 7 | NW T. | - | - | 27C.4.1.5 | 162c | Bracelet (br) | (?) |
| Zar 8 | Surf. | - | - | 20A.3.11 | - | Sherds | (?) |
| Zar 9 | Pit | - | - | 20A.3.11 | - | Sherds | (?) |


[^0]:    ${ }^{1}$ The fifth millennium b.c. to thirteenth century A.D. group of sites 10 km south of Tehran were simultaneously dug by Schmidt. See Schmidt (1935-36):38-39 (M. v. L.).

[^1]:    ${ }^{2}$ Schmidt was reminded of Sasanian pottery, but the latest material at Kamtarlan I dates from the tenth to sixth centuries b.c., as we will see below (M. v. L.).

[^2]:    ${ }^{4}$ By "historic ware" Schmidt meant any ware dating to the historic periods.

[^3]:    ${ }^{1}$ Wherever I refer to these successive cultural stages in a more generic sense, as in chapters 3-13, "Giyan IV" denotes the stage characterized by vessels with straight body and carinate shoulder, "Giyan III" the stage characterized by vessels with bulging body and ridged shoulder. In Dyson's threefold division of Giyan IV, vessels with bulging body and ridged shoulder mark the beginning of Giyan IVC (ca. 2000-1800 b.c. [Dyson 1965a:234-35]); they continue throughout Giyan III (ca. 1800-1600 в.c., in some areas persisting until ca. 1200 b.c. [Dyson 1973:693, 710]). Since Dyson's "Giyan IVC" includes seven graves found in Giyan/Djamshidi levels III as well as seven graves found in Giyan/Djamshidi levels IV, I feel justified in using "Giyan IV" as an abbreviation for Dyson's Giyan IVA-IVB, and "Giyan III" as an abbreviation for Dyson's Giyan IVC-III wherever the context calls for brevity.

    In the chapters dealing with the objects found I attempt to be more specific as to their period of manufacture, and in the concluding chapter I try to present as detailed a chronology as possible for all of Schmidt's sites in Luristan together.

[^4]:    ${ }^{1}$ For acrial views see Schmidt (1940), pls. 49a, b.

[^5]:    ${ }^{2}$ Iron ore has been found in contemporary levels at Korucutepe, Turkey (van Loon 1978:61), and at Jebel' Aruda, Syria (G. van Driel, personal communication).

[^6]:    ${ }^{1}$ For aerial views see Schmidt (1940), pls. 49a, b.

[^7]:    ${ }^{1}$ A view was published in Schmidt (1940), pl. 48.
    ${ }^{2}$ The mound surface dropped off sharply to the north, reaching -4 m at the west center. A tripod bowl and pin (CS 590, pl. 93j and CS 591, pl. 122e) found at -3 m almost certainly come from an eroded grave.

[^8]:    ${ }^{3}$ Today Lur tent sites often have layers of stones filling in a rectangular area on which bedding, water bags, and other equipment can be placed. See Hole (1979) 209.

    4"Buried" is here used in a broad sense, to include (in order of likelihood) hoards concealed in the face of approaching danger, disused votive objects given a pious burial, objects dropped into rubbish pits, or objects abandoned in pit houses. The fact that no pit outlines were noted by the excavators militates against the last two possibilities. Had persons been cremated here, one would expect at least some metal weapons or ornaments.
    ${ }^{5}$ Two early second millennium b.c. mold-cast clay female figurines (CS 229, pl. 118 f and CS 239, pl. 118 e ) are said to have been found at 6.80 and 7.45 m below the summit, respectively. We assume this last figure should read 6.45 .

[^9]:    ${ }^{1}$ Throughout this table the word "disturbed" refers to decay or carth pressure, not robbers.

[^10]:    *Except as noted, throughout this table the word "disturbed" refers to decay or earth pressure, not robbers. ${ }^{\dagger}$ Could not be observed as skeletons disturbed.
    ${ }^{1}$ Recent work by Louis Vanden Berghe at Hakalan and Dum Gar Parchinah indicates that the habit of building stone cist tombs goes back even to the fifth millennium B.C. Megalithic tombs comparable to the ones at Mir Vali were found by him at Bani Surmah, Dar Tanha, Takht-i-Khan, et cetera (Vanden Berghe 1973e:208; 1976:164-66; cf 1968b, 1970a, b; 1973c, d; 1975a, b).

[^11]:    ${ }^{1}$ Sponsored by the Oriental Institute, the Mrs. William Boyce Thompson Foundation of the University Museum, and the Boston Museum of Fine Arts.
    ${ }^{2}$ Here Schmidt's account does not agree with his field notes; see chapter 10, p. 45, Shaffe (M. v. L.).

[^12]:    ${ }^{3}$ For another interpretation see chapter 11, Level 2C: The Original Structure (M. v. L.).
    ${ }^{4}$ This controversial point is discussed in the conclusions of chapter 34 (M. v. L.).
    ${ }^{5}$ More probably it represents mother and child; see chapter 26 A. 7 (M. v. L.).

[^13]:    ${ }^{6}$ Read second; see chapter 11, table 6 (M. v. L.).

[^14]:    ${ }^{1}$ If only two dimensions are given, these indicate diameter and height.

[^15]:    ${ }^{1}$ Elevations are expressed in meters above datum, for which the excavators chose a point 1540 m above sea level. Most elevations mentioned are shown on the sections through the excavated area (pl. 54). The overall plan of the site (pl. 48) shows the elevation in meters above sea level.

[^16]:    ${ }^{2}$ Red, well baked, and measuring $32.5 \times 32.5 \times 4.5 \mathrm{~cm}$.
    ${ }^{3}$ Made of yellow green soft mud with little straw, one measuring $45 \times 33 \times 9 \mathrm{~cm}$, and the other, $36.50 \times 35 \times 9 \mathrm{~cm}$.

[^17]:    ${ }^{4} \mathrm{~A}$ wall in square KI running northwest-southeast between elevations 6.00 and 6.56 m and there partly overlying the level 3 wall was attributed by the excavators to level 3 . This wall, of which only the northeastern face was noted, probably represents a second facing of the level 2 retaining wall, as it was only slightly lower than the outer wall of level 2 room 1 (at $6.30-7.23 \mathrm{~m}$ ) and actually slightly higher than the retaining wall outside of level 2 rooms $10-11$ (at 5.25-6.30 m).

[^18]:    ${ }^{7}$ Reconstructible from beads lying in rows, e.g., Sor 717.

[^19]:    ${ }^{8}$ See also Schmidt (1937-38), figure 5.
    ${ }^{9}$ Locus JI 13, which produced the finds numbered Sor 113-14 and 117-19, in turn lay more than 1 m above locus JI 55, shown on pl. 52.
    ${ }^{10}$ Admittedly the finds could have been stored on shelves that fell to the floor during a destruction of the building.

[^20]:    ${ }^{1}$ In the terminology used by Schmidt, loci were known as "plot records" or "p.r." We have consistently replaced this expression by "locus."
    ${ }^{2}$ Schmidt consistently used the word "refuse" (abbreviated "ref.") where we would use "dirt" or "fill." We have replaced "refuse" by "fill" throughout this book.

[^21]:    ${ }^{3}$ According to the information available to us, most of the drawings were made by Messrs. Sako and Minassian and most of the photographs by Boris Dubensky.

[^22]:    ${ }^{4}$ In the second and first millennia b.c. the star disc seems to represent the sun, and the star Ishtar (the planet Venus), while minor celestial bodies (such as the Pleiades) are shown as globes (Seidl 1957-71:485). Sometimes, however, the star may have had a less specific meaning. Especially when associated with the moon crescent, the eight-rayed star may represent the sun.

[^23]:    ${ }^{1}$ The University of Museum of the University of Philadelphia
    ${ }^{2}$ The Oriental Institute of the University of Chicago
    ${ }^{3}$ The Boston Museum of Fine Arts

[^24]:    ${ }^{1}$ Below summit in meters.

[^25]:    ${ }^{2}$ For the remarks on this pottery that Schmidt made in his short account of the first and second expeditions' work, see chapters 1 and 8.

[^26]:    ${ }^{3}$ In Giyan, also, a shallow tripod is found together with deep tripods (Contenau and Ghirshman 1935, pl. 27, tb. 93). Dyson dated this grave to the 'earlier' Giyan IIIa period.

[^27]:    ${ }^{1}$ The stone beads and seals are treated in chapters $24 \mathrm{~A}, 24 \mathrm{~B}$, and 24 C respectively.

[^28]:    ${ }^{2}$ In archacological literature the name "steatite" is often given to what should properly be termed chlorite; see, e.g., Kohl 1976:73-75.
    ${ }^{3}$ Schmidt 1937, pl. 21, nos. H 4460, H 2874; these show leopards with triangular heads.
    ${ }^{4}$ For discussion of this style, see Frankfort 1955:22.
    ${ }^{5}$ For related seals, see for example, Diyala 232, 235-237, 291, 527, 822, and 894.
    ${ }^{6}$ Frankfort 1939:142. See also Porada 1965a:42 and Boehmer 1957-71:708.
    ${ }^{7}$ In discussing Ashmolean 818-821.
    ${ }^{8}$ If homs were represented, one would expect two curves to radiate from the head. Since there are usually three or four curves that radiate from the head, it seems likely that these curves represent not horns (as suggested by Frankfort in the first place), but the shaggy hair of the Early Dynastic hero (see following note).

[^29]:    ${ }^{9}$ E.g., Woolley 1934, pls. 196-97, nos. 55 (seal of Meskalamdug), 57-63. This scal style was also very influential in the west, where it was misunderstood in other ways; see Frankfort 1939:232, pl. 39a-b.
    ${ }^{10}$ See also Andrae 1922:83, fig. 64 (level G, ca. 2300-2150 в.c.).

[^30]:    ${ }^{11}$ Enlarged photograph in Amiet 1966, fig. 157.
    ${ }^{12}$ For such long-tailed eagles clutching two horned animals see Boehmer 1965, figures 83, 86, and 87. For Boehmer's remarks on this motif see Boehmer 1965:18, last paragraph, and p. 19, first paragraph.

[^31]:    ${ }^{13}$ To be read as Ilabrat in Old Assyrian; the Old Babylonian reading is uncertain. Up to the reign of Hammurapi the gender of this deity is variable; thereafter only the male variant remains; see Lambert 1976:1114. Edith Porada (1962:105-6) has interpreted the "god with the mace" as the king in his warlike aspect. A count of a small number of seals has shown that the god with the mace appears on six out of sixteen seals with inscriptions invoking Ninshubur. This tends to support Lambert's suggestion that the walking figure marked by staff and windblown beard represents the herald of the gods; see Kelly-Buccellati 1977. Lambert kindly informed me that the Leningrad scal inscription quoted there probably applies to the crook, not to the mace.
    ${ }^{14}$ For characteristics and dating of this style see Buchanan's discussion of Ashmolean 539-546.
    ${ }^{15}$ Fish also were added in recutting the Old Babylonian seal Morgan 515.

[^32]:    ${ }^{16}$ Frankfort 1939:164-65; Kupper 1961. On the date of most seals showing the god with a crook see Porada 1948:40.
    ${ }^{17}$ See Kupper 1961:37-42 for discussion of this headgear.
    ${ }^{18}$ For characteristics and dating of this style see Buchanan's discussion of Ashmolean 539-546.
    ${ }^{19}$ For characteristics and dating of this style, see Buchanan's treatment of Ashmolean 547-551A, 552556. In discussing Berlin Rollsiegel 497-503 and comparing them to Louvre A. 561-573 (Delaporte 1923, pls.

[^33]:    ${ }^{20}$ For characteristics and dating of this style, see Buchanan's treatment of Ashmolean 551B-C, 557; see his discussion of Louvre A. 567 and 573 (Delaporte 1923:pl. 117), and Walters 26 in Buchanan 1957:46; and see Boehmer 1975:338, pl. 268i. In pl. 268h (Boehmer 1975) we see the same subject in the "Transitional" style, dated to ca. 1700 b.c.
    ${ }^{21}$ See Porada 1976:35-36, pl. 13A-B; cf. p. 33 for the date.

[^34]:    ${ }^{24}$ Such a date is implicit in the arguments put forward by Wilhelm 1976:160-61 and 1981:5 (I owe these references to Dr. Maynard P. Maidman). If each generation lasted about thirty years, the end of Nuzi would coincide with the warlike activity of Assuruballit I about 1360 s.c.

[^35]:    1"The common extension of this terminology (e.g., 'Northern Grey Ware Horizon') into 'pots-equal people' equations, though almost unavoidable in the present stage of research, is dangerous if it is not realized that such definitions are mere conventions" (Moorey 1981:18).

[^36]:    ${ }^{2}$ The fortified manor house at Godin Tepe is said to have been swept clean before it was abandoned and very small finds of complete pottery vessels were recovered (Young and Levine 1974:35).

[^37]:    ${ }^{3}$ The burials at War Kabud and Djub-i-Gauhar are dated by Vanden Berghe to Iron II. At Choga Zanbil, in the east complex, the bull figurines were found together with two cylinder seals dated by Porada to Iron II-III.

[^38]:    ${ }^{1}$ This functional use is based on personal observation in a Syrian village, where sheep were slaughtered using a similar type of knife with a wooden hilt.

[^39]:    ${ }^{2}$ The 'boat-shaped hooks' and 'knobbed earrings' support Vanden Berghe's opinion that omaments in the Iron II period were made of iron: "weapons in iron are still very rare but this material is often used for personal omaments" (Vanden Berghe 1971a:271).

[^40]:    ${ }^{3}$ Note that here, as throughout this book, 'bronze' stands for copper or bronze. No analyses were made by Schmidt. Muscarella (1981a:337-38) specifically states laboratory analysis has determined that Sor 1207 is made of copper, not bronze.

[^41]:    Heavily corroded blade fragment one cutting edge Curved blade fragment

    Curved blade, concave edge blunt, both ends broken
    Slightly curved blade, no tang Fragment, short blade, blunt
    point, tab may have formed guard Curved blade, concave edge, blunt short tang

[^42]:    *Plus unknown number of fragments.

[^43]:    ${ }^{1}$ For seal abbreviations, see pp. 124-27.
    ${ }^{2}$ See, however, the remarks on nos. 55,56 , and 61 .

[^44]:    ${ }^{10}$ The faience is made from a mixture incorporating crushed quartz and carrying a blue or green alkaline glaze. Faience working enjoyed a final period of unprecedented popularity during the last half of the second millennium B.C.; see Peltenburg 1971, especially p. 7.

[^45]:    ${ }^{11}$ Porada 1970:128. Note, however, that out of nineteen seals from Choga Zanbil probably to be assigned to the 10th-8th centuries B.C. (Choga Zanbil 31-34, 41, 51, 52, 68, 87, 117, 122, 142-144, 147-149, 151, and 157) all but two were made of faience.

    Out of the thirty-nine earlier Neo-Elamite cylinder seals from Susa (Susa 2121-2159), twenty-four were made of faience and seven of bitumen. Amiet (1972:274) suggests a date in the 8th-7th centuries B.C. for many of these (Susa 2131-2159). With Porada, I prefer the 10th-9th century B.C. date Amiet implicitly proposed earlier (1966:541-43), perhaps continuing to ca. 750 B.C. No faience seals are found among the late 8 th-6th century Mesopotamian imports and their imitations, nor among the late 7th-6th century B.C. Neo-Elamite cylinder seals from Susa. According to Boehmer (1975:341-43), faience was a popular material for seals in Babylonia from ca. 1100 B.C. and in Assyria from ca. 800 to 700 or 650 B.C.

[^46]:    ${ }^{12}$ See preceding note.
    ${ }^{13}$ Note that Choga Zanbil 117, of approximately the 8th century B.C., also appears to show a deity in a banquet scene.
    ${ }^{14} \mathrm{Cf}$. Morgan 1104, which Porada (1970:98) dates to the 8 th century B.C.

[^47]:    ${ }^{24} \mathrm{Cf}$. the sun standards and other divine symbols being similarly touched on Mitannian seals, e.g., on Nuzi nos. 14, 170, 174, 180, 286, and 314. Here the figures touching them are probably divine (Porada 1947:112).

[^48]:    ${ }^{33}$ See, e.g., Frankfort 1939:228, figs. 9, 70; Amiet 1961, no. 484, cross next to moon crescent, and esp. Berlin Rollsiegel 685, 686, and 688. These three seals from Babylon all show the symbols of moon, sun, Marduk, and Nabu. The first two, dating from the 9th-7th centuries B.C., show the sun in its traditional Mesopotamian form as an eight-rayed sunburst. Berlin Rollsicgel 688, a seal in the Late Kassite tradition, shows the sun as a Maltese cross.

[^49]:    ${ }^{41}$ E.g., Berlin Rollsiegel 640, from the beginning of the first millennium B.C.; Morgan 637 and 640. If correctly restored, the ivory-inlaid panel from Dur Untash (Choga Zanbil) shows such leaves as early as the 13th century B.C.; see Ghirshman 1968, pl. 34.

    ## ${ }^{42}$ Morgan 609.

    ${ }^{43}$ Choga Zanbil 47, our 118 and 119, and Susa 2122 and 2124.
    ${ }^{44}$ Porada 1965a, caption to fig. 32, supplemented by personal communication.
    ${ }^{45}$ Amiet (1972:273) has tentatively dated this style to the 9 th century B.C.
    ${ }^{46} \mathrm{Cf}$. the similar calf (?) on Susa 2126. Inasmuch as Neo-Elamite seal cutters often portray herbivore heads as the remains of a carnivore's repast (e.g., on Choga Zanbil 122 and on our 96), such incomplete bodies may represent half-eaten carcasses.

[^50]:    ${ }^{47}$ E.g., Berlin Rollsiegel 640 and 643; Morgan 612, 620, and 623.
    ${ }^{48}$ E.g., Choga Zanbil 48 (12th-11th centuries B.C.).
    ${ }^{49}$ E.g., Susa 2121, 2123, 2126, and 2127.
    ${ }^{50}$ This seal has been discussed at length by Porada (1964b, pl. 1, fig. 1).
    ${ }^{51}$ E.g., Berlin Rollsiegel 560.
    ${ }^{52}$ E.g., Choga Zanbil 50 ( $12 \mathrm{th}-11$ th centuries B.C.).
    ${ }^{53}$ E.g., Berlin Rollsiegel $642,654,655,672$, and 681.

[^51]:    ${ }^{54}$ See, e.g., Moortgat 1941-42:80, fig. 64.
    ${ }^{55}$ See, e.g., Moortgat 1941-42:62-64, figs. 22-25.
    ${ }^{56}$ Praying figures were occasionally added to symmetrical animal motifs on Middle Assyrian seals, e.g., Moortgat 1941-44:76, fig. 53 (13 century B.C.); Moortgat 1944:25, fig. 3 (12th-11th centuries B.C.); and on "third Kassite" group seals, e.g., Brussels 703 (in Speleers 1917:187).
    ${ }^{57}$ E.g., Berlin Rollsiegel 639, 640, 648, and 653; Moortgat 1940:70: see also Porada's comments on Choga Zanbil 41.
    ${ }^{58}$ E.g., Godard 1931, pl. 21, no. 65, pl. 22, no. 67, and pl. 48, no. 182.

[^52]:    ${ }^{59}$ Schmidt 1937, fig. 118, no. H 3710. Erect loop-shaped ears appear on lions painted on pitchers from Sialk B, ca. 825-650 B.C. (Ghirshman 1939, pl. 86).

[^53]:    ${ }^{60}$ Amiet even places this latter seal in the 6th century B.C.
    ${ }^{61}$ See Susa 2126 and Amiet 1966, figs. 418 and 419.
    ${ }^{62}$ Cf. Choga Zanbil 122, perhaps late 9th century B.C.; Susa 2126.
    ${ }^{63}$ E.g., Morgan 734, 739, 742, and 745.
    ${ }^{64}$ E.g., Susa 2129.
    ${ }^{65}$ See note 40.

[^54]:    ${ }^{71}$ See Porada 1970:35-36, 128-29, and 1965a:51.
    ${ }^{72}$ See Amiet 1972:274.
    ${ }^{73}$ de Mecquenem and Michalon 1953, fig. 14, no. 5; see note 119 , below.

[^55]:    ${ }^{74}$ E.g., Morgan 713, 721, 742, and 745; cf. note 63.
    ${ }^{75}$ E.g., Goldman 1963, fig. 166, no. 20; cf. note 64.
    ${ }^{76}$ On pp. 276 and 278 Beran (1957-58) seems to favor a date ca. 1100-950 B.C. for this group.

[^56]:    ${ }^{77}$ E.g., Morgan 599-603.
    ${ }^{78}$ See also Parker 1955:114, no. ND. 2328.
    ${ }^{79}$ See note 33.

[^57]:    ${ }^{80}$ See note 22.
    ${ }^{81}$ de Mecquenem and Michalon 1953, fig. 14, no. 4; see also note 119.
    ${ }^{82}$ de Mecquenem and Michalon 1953, fig. 14, no. 5; see also note 119.

[^58]:    ${ }^{89}$ Ghirshman 1939, pl. 30, no. 7; pl. 96, no. S 1327. For the date see Dyson 1965b:207, 211; and de Schauensee and Dyson 1983:76.
    ${ }^{90}$ Amiet 1961 , pl. 9 , no. 175 , pl. 14 ter H ( $=$ Susa 489 ). This symbol occurs by itself on stamp seals and sealings of Susa B and Ca (Amiet 1961, pl. 6, nos. 119A and 122; pl. 14, no. 235); and on a Protoliterate cylinder seal from Çatal Hüyük (Braidwood and Braidwood 1960, fig. 381, no. 7), also shown by Amiet (1961) as pl. 19, no. 314.

[^59]:    ${ }^{93}$ Ghirshman 1939, pl. 30, no. 6 and pl. 96, no. S 1312, also a faience scal with double line borders.
    ${ }^{94}$ E.g., Amiet 1961, pl. 13 bis I, pl. 15, no. 251, and pl. 26, no. 424.
    ${ }^{95}$ See Moortgat 1940:72.
    ${ }^{96}$ See note 40.
    ${ }^{97}$ See Negahban 1964:5, fig. 139.

[^60]:    ${ }^{98}$ Late Middle Elamite seals show long garments with short fringes; at times the superimposed layers of drapery are indicated by oblique lines (Porada 1970:60). Neo-Elamite seals show shorter garments with longer fringes (Porada 1970:128).
    ${ }^{99}$ See note 18.
    ${ }^{100}$ See note 57.
    ${ }^{101}$ See Amict 1966, fig. 421.
    ${ }^{102}$ Porada 1970:128. Amiet (1972:274) suggests an 8th-7th century B.C. dating, but this seems precluded by the ladder borders.

[^61]:    ${ }^{108}$ Parker 1955:100-1, pl. 12, no. 4. On Choga Zanbil 122, probably dating toward 800 B.C., paired diagonals divide the borders into triangles.
    ${ }^{109}$ Parker 1962:33, pl. 15, no. 3. See also our discussion of seals 45-48 above.
    ${ }^{110}$ Amiet 1973a:21 and nos. 51 (=Morgan 812), 53 (=Brussels 1474), and 54 (=London 190).
    ${ }^{111}$ Amiet 1973a, nos. 16 (ca. 625-550 B.C.), and 22 (ca. 550 B.C.).
    ${ }^{112}$ See Porada 1970:58, 60, 128, and the commentary to our seals 53 and 54.

[^62]:    ${ }^{119}$ De Mecquenem and Michalon 1953:43, 48-51, and pl. 15, no. 22. De Miroschedji 1981a:38-39 indicates the "fourth Elamite" period, renamed Neo-Elamite II, is more likely to run from 725/700 to 550/520 B.C.
    ${ }^{120}$ De Mecquenem and Michalon 1953:48-51, fig. 17, no. 10; cf. Amiet 1966:545, fig. 419.

[^63]:    ${ }^{121}$ Thus Porada 1970:44, note 4.
    ${ }^{122}$ See the discussion of the seals in numerical order, earlier in this chapter, for the reasoning behind the dates quoted here.

[^64]:    ${ }^{3}$ See chapter 14 , table 13 , p. 68.

[^65]:    ${ }^{1}$ It has not always been possible to be sure which inscriptions or impressions have reversed writings, and the reader should be aware of potential inaccuracies here.
    ${ }^{2}$ In preparing this manuscript, I have had the benefit of consulting notes on some of the texts and their provenience prepared about 1958 by Erich Schmidt, Edith Lindquist, George Cameron, and Benno Landsberger. I wish to express my gratitude to W. G. Lambert, who read through a draft of this section and offered numerous helpful comments. Matthew Stolper was kind enough to read through the draft for no. 15 and suggest the reading for the final line.

[^66]:    ${ }^{3}$ For the various writings of the royal name Burna-Burias in later texts, see Brinkman 1976:119.

[^67]:    ${ }^{4}$ Other objects share the same muscum number.
    ${ }^{5}$ This would require a wide gap between the principal elements of the sign.

[^68]:    ${ }^{12}$ Among the other seals dedicated to Marduk as ${ }^{\text {d }}$ MES, note M.76.174.401 in Porada 1981:228 and 262, no. 1208. The text has been poorly edited. Inter alia, note that the first two lines should be read: ${ }^{\mathrm{d} M E S}$ ${ }^{\text {d}}$ ka-kù-gál / en-líl dingir-gal-gai-mes (the reference to Marduk as "Enlil of the great gods" would indeed be noteworthy, if the seal should date from the fourteenth or early thirteenth century b.c., as suggested by Porada 1981:228). In line 3 and line 4, the $-a$ is clearly -za ("your").
    ${ }^{13}$ Thus the field records (Schmidt); van Loon: plot II, locus 29 (ch. 11, tab. 9).
    ${ }^{14}$ Presumably to be restored either [En]lil or [Nin]li].

[^69]:    *Catalog 33 by M. N. van Loon

[^70]:    ${ }^{2}$ Our carlier datings of the sanctuary (van Loon 1967:24 and 1972:69, note 22) are hereby superseded. They were based on an incomplete study of the material and therefore partly too bold, partly too cautious.

[^71]:    ${ }^{3}$ Note that sphinx, chimera, and griffin only occur on "group V" cast openwork cheekpieces as current in the late 8th and early 7th centuries 8.c. (Moorey 1971a:115, 305, and 1971b:123-24).

[^72]:    ${ }^{4}$ In one of the 5th-4th century b.c. graves at Kumidi (modern Kamid el-Loz, Lebanon), the open base of a bone cosmetic container was closed by a stopper made of some gray mass; the applicator found inside the container was made of bronze (Poppa 1978:84, pl. 10:8).
    ${ }^{5}$ The second author of this book, Maurits N. van Loon, takes sole responsibility for this admittedly speculative hypothesis.

[^73]:    ${ }^{6}$ The third author of this book, Hans H. Curvers, takes sole responsibility for this equally speculative hypothesis.

[^74]:    ${ }^{7}$ See note 2.

