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# NIPPUR III Kassite Buildings in Area WC-1 

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John C. Sanders and Peggy May Sanders

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B-1. Tierknochenfunde aus Nippur: 14. Season
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## LIST OF ABBREVIATIONS

| ca. | circa | m | meter(s) |
| :---: | :---: | :---: | :---: |
| CBS | Catalogue of the Babylonian Section; siglum of tablets and other objects in the collection of the Babylonian Section of the University Museum, Philadelphia | mm <br> Ni . | millimeter(s) <br> Nippur; siglum of tablets and other objects in the Nippur collection of the İstanbul Arkeoloji Müzeleri |
| cm | centimeter(s) | obv. | obverse |
| DN | divine name | $\mathrm{p}(\mathrm{p})$. | page(s) |
| IM | Iraq Museum; siglum of tablets and other objects in the collection of the Iraq Museum, Baghdad | $\begin{aligned} & \mathrm{PN}(\mathrm{~N}) \\ & \mathrm{rev} . \end{aligned}$ | personal name(s) reverse royal name |
| ha | hectare |  |  |

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CAD The Assyrian Dictionary of the Oriental Institute of the University of Chicago. Chicago and Glückstadt: The Oriental Institute of the University of Chicago, 1956-

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## PREFACE

This volume is the final report on the results of excavation in Area WC-1, carried out during the thirteenth and fourteenth seasons at Nippur (1975-76).' In presenting this report on the Kassite buildings and the remnants of later houses and burials above them, we have departed from our stated aim of devoting one preliminary monograph to each season. ${ }^{2}$ The time necessary for writing, editing, revising, and printing the reports became longer with each year, and we fell behind schedule after two publications (Gibson 1975; Gibson et al. 1978). We found that new information from the continuing excavations was forcing us to revise the manuscripts on earlier seasons, thereby delaying their appearance even though they were often almost complete. In addition, the shifting of operations to Umm al-Hafriyat in 1977 and to the salvage project at Uch Tepe in 1978-79 disrupted the rhythm of excavation and publication for Nippur proper.

It was our intention that the next monograph on Nippur would be a combined report on work during the thirteenth, fourteenth, and fifteenth seasons in Areas WA, WB, and WC. We did prepare a sizable manuscript, of which the description of the WC-1 operation was to be a part. Continuing excavation at Nippur, however, necessitated the repeated updating of that manuscript, and it became much larger than a single volume. The decision to split that report into at least three volumes was precipitated by work done on the city wall in the area north of the ziggurat and in Area WC-3 during the seventeenth season, 1987. In both these operations, we brought to light such important new information on the history of the city's fortifications that an extensive rewriting of that section of the projected monograph was necessitated. We are in process of preparing a separate volume on the fortifications.

The section of the original manuscript that dealt with Area WA has now been made obsolete by the resumption of excavation there. In the winter of 1988-89, we returned to the high part of the West Mound to initiate several seasons of excavation aimed at exposing the entire sequence of temples encountered in Area WA from 1972 to $1975 .^{3}$ Initially, we carried out investigations of the Parthian, Sasanian, and Islamic levels (Area WG), just to the southwest of WA, to prepare an even larger area for excavation. In addition, we opened a deep pit, WF, beside WA50c in the southeast end of WA, in order to search for information on the Early Dynastic-Akkadian transition. Our renewal of research on the WA temples themselves began in the nineteenth season, 1990.

In returning to Area WA, we chose to re-address the most essential feature of Nippur, its role as a sacred center. Having spent the past fifteen years working out a more secure ceramic sequence, and having evolved a much better idea of the history and growth of the city, we felt that we could now begin to deal effectively with more abstract major questions, such as the role of religion in the city, and its converse, the role of the city in religion. From an operational point of view, the high mounds no longer present as large a problem as they did in the early 1970s. The sand dunes that had previously made it impossible to carry out effective work on much of the high mounds have now moved almost completely off the site. Our season in 1990 allowed us

1. The system for designating excavation areas follows a tradition created by Donald McCown and R. C. Haines at Nippur. Thus, just as TA and TB were "Tablet Hill Trenches A and B," WA, WB, WC, and so on stand for "West Mound, Areas A, B, C, etc." Area WC was further divided into sub-areas 1, 2, and 3. See plate 2, a topographic map of Nippur, for location of the various areas.
2. For a statement of research aims and original publication plans, see Gibson 1975: 1 and 4 ; for a reassessment in the course of the work, see Gibson 1980: 193-205.
3. See Gibson 1975; 1978: 114-17; and Gibson et al. 1978.
to identify the WA temple as that of Gula, the goddess of healing (Gibson, forthcoming). We are now committed to a multi-year excavation program, and the findings from older seasons will be incorporated into a greatly expanded final monograph on the WA operations alone.

Our current overall scheme of publication is as follows:
I. The present report on WC-I.
2. A volume on the city wall: Areas WC-3 and EA, EB, EC.
3. A report on WB, with its Old Babylonian houses, Kassite palace, and later fragmentary remains.
4. A monograph on the seventh century B.C. houses in WC-2, also incorporating a re-analysis of TA (McCown and Haines 1967) in light of excavations in the sixteenth season in Area TC.
5. A volume on Area WG, with its Parthian, Sasanian, and Islamic levels (eighteenth season), as well as the remains of a small Islamic settlement northeast of the ziggurat (Area M).
6. A study of the Early Dynastic-Akkadian transition, based on deep pits WA50c and WF.
7. The aforementioned report(s) on WA.

The monograph on Areas WC-2 and TC, by James A. Armstrong, will probably be the next report published, with the city wall monograph following. But as manuscripts are revised and edited, they will be published regardless of their position in the list given here. ${ }^{4}$

The present volume by Richard L. Zettler, with contributions by James A. Armstrong, Miguel Civil, J. A. Brinkman, Augusta McMahon, Joachim Boessneck, Mostefa Kokabi, Gerhard Falkner, and myself represents considerable commitment and sacrifice by all the authors.

Zettler was in charge of the greatest part of the excavation in WC-1, which was carried out during the fourteenth season. As often happens when an area of excavation is expanded, complexities became simplified. Zettler found that there was a uniform stratigraphy in the buildings, despite the intrusion of pits dug during the first millennium B.C. into Kassite levels. Because the excavated area had been so restricted in the thirteenth season, we did not realize that some fill lines in the largest pit had been misinterpreted as occupational surfaces, which were given floor designations. This error created problems in interpreting a few loci, especially Locus 12 of Level III. To prepare this report, Zettler was obliged to make a detailed study of the earlier season's notes and plans in order to correct them and harmonize the data with his own findings. This work entailed the laborious and meticulous renumbering of some loci, the changing of floor designations, and the annotating of records to reflect these changes. Researchers in future, working with object catalogues and other materials in the Iraq Museum archives, should be aware that the changes represented in notes at Chicago and in this publication have not yet been made in the registers of photographs and objects in Baghdad. Therefore, this publication and the field materials in Chicago should be given precedence, in cases of disagreement.

James A. Armstrong prepared the chapter on pottery, taking time from the revision of his own volume on WC-2 and TC. His analysis, although benefiting from his research in subsequent campaigns, is based on the sorting and typing of WC-I pottery by the supervisors of the thirteenth and fourteenth seasons.

Miguel Civil and Robert D. Biggs, as epigraphers in the thirteenth and fourteenth seasons, respectively, were responsible for recording, baking, and conserving tablets in the field and for preparation of the field catalogue descriptions. They have relinquished publication rights to the Kassite and later texts in WC-1 to J. A. Brinkman. Brinkman was not able to examine the texts themselves and had to work without collations that, under more normal conditions, could have been requested from epigraphers in Baghdad.

Joachim Boessneck, whose death occurred shortly before this volume was given to the editors, was remarkably prompt in analyzing and writing up each seasons' faunal specimens. He and his colleagues
4. The final report on the Inanna Temple, excavated under the direction of Richard C. Haines in the 1950s and early 1960 s , is being readied for publication by Donald P. Hansen, Richard L. Zettler, and Karen Wilson. The publication of the Parthian Fortress and other Parthian remains at Nippur is the responsibility of Edward J. Keall and is in advanced manuscript form.
patiently waited for years while their reports went unpublished. In order to reduce the delay, we present here the complete faunal reports from the thirteenth and fourteenth seasons, including not just specimens from Area WC-1, but material from Areas WA, WB, the Ur III levels associated with the city wall in WC-3, and the first millennium houses in WC-2. Because the faunal reports are devoted predominantly to materials from areas other than WC-1, they appear as Appendices $A-C$, rather than being incorporated as chapters. The information from areas other than WC-1 will be used in the analysis of finds from those areas as those publications are prepared.

In the past, we have found that the variable distribution of faunal material in buildings can be a valuable indication of locus functions. ${ }^{5}$ But in the present report, the faunal data have not been as useful because there were very few bones found on occupation floors in WC-1. In fact, the bulk of WC-1 samples are from first millennium pits, which contain fill that is a mixture of second and first millennium material. Even Boessneck and Kokabi's attempt to derive from this sample some general trends in the development of particular species must be hedged with uncertainty because critical samples are from pits rather than securely dated primary contexts.

Area WC-1 was excavated during two seasons at Nippur. The expedition staff in the thirteenth season (October 9-December 16, 1975) consisted of the following members:

McGuire Gibson, Director
Sayyid Abdul Hadi Hassan and Sayyid Abdul Salaam Sam'an, Representatives of the Directorate General of Antiquities
Judith A. Franke, Assistant Director and Supervisor of Area WB
John C. Sanders, Architect
Richard L. Zettler, Supervisor of Area WA and Registrar
Miguel Civil, Epigrapher
Raymond D. Tindel, Field Epigrapher and Conservator
Paul Zimansky, Photographer and Supervisor of WA and later of Area WC-2, he also worked up a field typology for the Kassite pottery
Elizabeth Stone, Supervisor of Area WC-1
Stephen Lintner, Environmental Specialist ${ }^{6}$
Abda Sadeh Abid, a Nippur local man, was the foreman during the thirteenth season, working with three Sherqati pickmen (Saleh Hussayn Hameda, Saleh al-Jar, and Atiya Ali) and eight pickmen from Nippur (Nassir Hussayn Rabat, Ghafil Ghanim, Nadhim Maktuf, Na'im Jerayuwid, Dhiab Mezyoun, Mehdi Shakir, Hamza Imjelli, and Aouf Humedi). The rest of the labor force fluctuated between fifty and sixty men. Handpushed railroad cars were used in Areas WA and WB, wheelbarrows in Areas WC-1 and WC-2. Screens were used only selectively, in some areas of undisturbed debris, in some storage pits, etc. Animal bones and sherds were collected uniformly during both the thirteenth and the fourteenth seasons. Human bones, from burials, were saved when in good condition and are in storage at Nippur, awaiting analysis.

During the thirteenth season, most of the work was still concentrated on the high part of the West Mound in Areas WA and WB, when we initiated the first excavations ever made in the lower reaches of the mound at its southern tip (Areas WC-I and WC-2). Both these operations began as meter-wide trenches in search of the city wall. WC-1 was expanded to examine part of a substantial private house of the Kassite period. During this season, Lintner, with one or two workmen, put in geomorphological pits to water level around the
5. E.g., Gibson, ed. 1990: 109ff.
6. Lintner joined us for the first time in this season to carry on environmental studies begun by Peter Mehringer in the eleventh season.
southern corner of the site, sectioned a large canal west of that comer (pl. 2, Trench 1), and sank a very deep pit in the northern end of the Shatt an-Nil. He also made collections of fauna and flora, measured vegetation cover in the surrounding area, and recorded climatic information.

In the fourteenth season (September 29-December 16, 1976), the expedition staff was composed of:

McGuire Gibson, Director Sayyid Muhammad Yahya, Representative of the Directorate General of Antiquities<br>Richard L. Zettler, Assistant Director and Supervisor of Area WC-1<br>John C. Sanders, Architect<br>Robert D. Biggs, Epigrapher<br>James A. Armstrong, Supervisor of Area WC-2<br>Stephen Lintner, Environmental Specialist<br>John Mooney, General Assistant and Accountant<br>Patricia Deres, Photographer<br>Jill Maher, Conservator<br>Elizabeth B. Tieken, Pottery Specialist

Abda Sadeh Abid was again the foreman, overseeing three Shergati pickmen (Saleh Hussayn Hameda, Saleh al-Jar, and Atiya Ali), and five Nippur pickmen (Na'im Jerayuwid, Su'adi Ghanim, Mehdi Shakir, Hassan Wennas, and Latif Hussayn). The change from the previous season in local pickmen's names, reflecting the loss of more experienced men, was the result of a quickened pace of economic development in Iraq that offered alternative employment opportunities in the region. Labor fluctuated between thirty-five and forty men throughout the season. During this campaign, the railroad and wheelbarrows were used in WC-1, WC-2, and WC-3. Screens were again used selectively.

During the fourteenth season, McGuire Gibson supervised the excavations along the Ur III city wall (Area WC-3), Richard L. Zettler expanded Area WC-1 to expose two major levels of Kassite buildings, and James A. Armstrong opened a group of buildings of the early first millennium in Area WC-2. Stephen Lintner continued his environmental observations and collection of specimens. He also oversaw the machine-cutting of a long, deep trench (pl. 2, Trench 2) beyond the northwestern edge of the site. The excavating machine, an International Harvester Jumbo, was rented from the Irrigation Authority in Diwaniyah at the request of Dr. Isa Salman and Sayyid Fuad Safar of the Directorate General of Antiquities. We would like to acknowledge the gracious assistance of officials in the Ministry of Agriculture and the Directorate General of Irrigation both in Baghdad and Diwaniyah.

In the thirteenth and fourteenth seasons, as in previous campaigns, we benefited from the continuing aid and encouragement of Dr. Isa Salman, the Director of Antiquities, especially in allowing us to carry out a range of geomorphological and other environmental field investigations unprecedented in projects concerned with historical periods in Iraq. At about the same time, the Belgian expedition at Tell ed-Dēr was initiating geomorphological investigations. In subsequent years, the Nippur and Dēr expeditions formed a close working relationship for environmental reconstruction and other matters, which continues as a valuable collaboration.

We wish to express our gratitude for the help given us in the thirteenth and fourteenth seasons by Sayyid Fuad Safar, Dr. Behnam Abou as-Soof, Dr. Subhi Anwar Rashid, Dr. Abdul Hadi al-Fouadi, Sayyid Muhammad Ali Mustafa, and numerous other officials of the Directorate General of Antiquities. We also owe thanks to the Qaimaqam of Afak for extending technical aid such as the supply of water and roadgrading.

We owe a special debt of thanks to the many lay people who have given support to the Nippur Expedition through contributions to the Oriental Institute. Our ability to hire up to fifty workmen, in a time of steeply rising costs, is due to the generosity of donors, especially the Friends of Nippur.

I wish to thank Donald M. Matthews, who drew all Kassite seals and seal impressions found by us at Nippur and has made available his illustrations for this volume. Some of the seal illustrations are the work of Richard L. Zettler or Augusta McMahon rather than Matthews. Illustrations of other objects, when not by Ms. McMahon, are the work of Peggy May Sanders. All architectural illustrations have been computer-generated by John C. Sanders and/or Peggy May Sanders, utilizing Autocad programs on a variety of IBM or IBMcompatible computers. The preparing of the catalogue and text for this volume was greatly facilitated by the transfer of field records (Lot record, Catalogue) to a DBase program by John Sanders. In the mid-1970s, when the field work for this report was done, we did not have the equipment, nor Iraqi permission, to make use of computers in the field, although we could do so in Chicago. In subsequent years, beginning in 1981, we gained the Department of Antiquities' permission to pioneer in the use of computers for archaeological research in Iraq.

In all stages in the preparation of this book, Augusta McMahon has been invaluable. She had a major hand in editing and formatting the text, locating photographs, making and inking illustrations, preparing plates, and making corrections and additions to the catalogue. Even the faunal reports, entered into a computer by Margaret Schroeder, were proofread and reformatted by Ms. McMahon.

McGuire Gibson
August, 1992

## INTRODUCTION

## MCGUIRE GIBSON

Upon assuming the directorship of the Nippur Expedition in 1972, I set as one of the objectives of the current program the investigation of the low-lying areas at the margins of the site (pls. 1-2). It was expected that, although these areas might not have been as important as the high mounds, we would gain essential information on the early history of the city, its overall plan, and changes in the function of specific locations through time. Here, it was thought, we would also gather information on the city's defenses.

We have been aware since at least 1964, when the expedition began to live on the site, that the low, southern end of Nippur was a particularly favorable area for extensive work (pl. 3). Casual inspection of the surface sherds made it clear that relatively early historical levels might be uncovered without the necessity of removing an overburden of later periods. Also, the dunes that overlay almost all parts of the high mounds were, by 1972, no longer present on most of the southern corner of the mound. It became increasingly clear that economic constraints-especially the rising cost of labor-would force us to seek alternatives to excavating on the high mounds. We began to prepare for the shift to the southern corner of Nippur by making an intensive collection of sherds in 1973. From this collection, we were able to conclude that the area had not been occupied later than the mid-first millennium B.C. and that there should be significant remains of Kassite and Ur III dates; and we hoped that there might be levels as early as Akkadian and even Early Dynastic times. Sherds interpreted at that time as indicative of the Akkadian period were later found to be more representative of the Ur III period. We know from work done during the seventeenth season that the Ur III occupation rests on virgin soil in WC. Any Early Dynastic sherds found in the area must be seen as strays from the high mound.

The presence of Kassite and first millennium sherds on the surface in Area WC was of special interest to us. At that time, we, like the rest of the field of Mesopotamian archaeology, depended on the ceramic chronology derived from work on Tablet Hill at Nippur (McCown and Haines 1967: 77-79 and table II). From the initiation of our present program in 1972, we began gathering data in all of our excavations to establish a new, independent sequence that would confirm, correct, or complement those worked out for Tablet Hill and the Inanna Temple (Hansen 1965: 201-12, table II). In the past twenty years, excavation and analysis of finds in several areas have allowed us to correct and expand the entire sequence of pottery from the late Early Dynastic through the early Abbasid period, when the city ceased to exist.

In 1972, we were especially interested in expanding our knowledge of the archaeology of the Kassite period, the second Isin period, and the Dark Age that followed. At that time, excavated evidence of the Kassite period was very slight. The main bodies of data were from Nippur and 'Aqar Qüf (Baqir 1944; 1945). The Nippur sequence from TA furnished the most extensive sample of Kassite ceramics (McCown and Haines 1967: 68-71 and 78). A single photograph of the pottery from the palace sequence at 'Aqar Qūf (Baqir 1945, pl. 23) gave an indication of temporal variations in basic Kassite forms that could not be seen in the Nippur material as published.

Already in the early 1970 s, I was convinced that there were fundamental problems with the Nippur TA-TB sequence. The chart of pottery types for that sequence shows a dramatic break in almost all forms between the Old Babylonian and Kassite periods (McCown and Haines 1967, table II). It was obvious that either the pottery from some strata had been lost and had not entered into the analysis, or there was a gap in occupation at Tablet Hill. The dated cuneiform tablets found in these trenches implied a break (McCown and Haines 1967: 74-76). In parallel with excavations at Nippur, I began to explore in seminars the problem of the gap. It became progressively more certain that there had been an abandonment of all or most of the city from some time in the reign of Samsuiluna of Babylon (eighteenth century B.C.) until at least as late as 1400 B.C. This abandonment, although evidenced through a cessation of written records not only at Nippur but at most other major sites in the central part of Babylonia, had not been recognized. It was first suggested that the abandonment had been a general phenomenon in my presentation at the Rencontre Assyriologique in Rome, 1974.' This view gradually gained acceptance from other excavators. ${ }^{2}$

Judith A. Franke played a major role in reorganizing our thinking about the pottery sequence. She took on the Old Babylonian-Kassite range of pottery and made an initial presentation of the material excavated in Area WB (Gibson et al., 1978: 79-87). She also completed a doctoral dissertation on the Old Babylonian remains and is preparing a monograph based on all the periods represented in Area WB (Franke 1987). At about the same time, my search for someone to re-analyze the Isin-Larsa/Old Babylonian pottery in relation to the architecture and tablets in the TA-TB trenches resulted in a commitment by Elizabeth Stone to take on the project. Stone's study has resulted in a dissertation (Stone 1979), revised for publication (Stone 1987), and a set of articles (Stone 1977: 267-89; idem 1981: 19-34; idem 1982: 50-70). Even after the completion of her ingenious analyses, however, it was obvious that difficulties in the TA and TB trenches could be resolved only through renewed excavation.

1. Dramatic evidence of sudden abandonment had been encountered in Area WB in 1972 (Gibson 1975: 205-06). The notion that the abandonment was true for the entire city, and probably for other cities, first appeared in print (other than Oriental Institute newsletters) as a personal communication to E. Stone (1977: 270). Stone dated the abandonment in Year 30 of Samsuiluna, 1720 B.C.
2. See, especially, Gasche 1989: 109-43, for a masterful summation.

In the sixteenth season, 1985, we returned to Tablet Hill to sink Trench TC at the southern end of TA. This work was done specifically to re-examine the Kassite through Neo-Babylonian levels, but it also confirmed the gap between the Old Babylonian and Kassite levels. Difficulties with the TA-TB sequence in the Kassite through NeoBabylonian range of time had been brought into sharp focus by our findings at WA, WB, and WC. As a result of the TC operation, James A. Armstrong has been able to produce not just a stratigraphic and ceramic reinterpretation, but also an important historico-geographic synthesis of the Kassite and later periods. ${ }^{3}$ Central to his study is a correction of the stratigraphy in TA, necessitating important changes in the sequence as previously published (McCown and Haines 1967). It is clear now that not only was there an Old Babylonian-Kassite gap at Nippur, but there also was a second break in occupation between approximately 1225 and 750 B.C.; the original excavators' misunderstanding of the sloping strata in TA caused a mixing of pottery dated to the second and first millennia and an illusion of continuity in occupation. The published sequence has, in turn, created tremendous problems in the dating of levels not only at Nippur but also at all other sites of the late second-early first millennia across Babylonia and into the Persian Gulf. The erroneous dating of stump-based cups (McCown and Haines 1967, pl. 100: 21-22, Type 56) to the second millennium, although they did not appear until the first millennium, has had especially grave consequences for the regional surveys. ${ }^{4}$ The data base in this temporal range is so greatly compromised that any attempt to use this information to outline processes in the post-Kassite Dark Age, or to derive from it demographic and settlement shifts from the late second millennium to the early first millennium, must be a questionable exercise.

A few written records indicate some activity at Nippur after 1225 b.C. During the second Isin Dynasty, there was royal building activity and a continuation of economic and religious life. ${ }^{5}$ In the reign of Simbar-Šipak of the second dynasty of the Sealands (ca. 1000 B.C.), the Enlil temple was restored. This is the last bit of written evidence at the site until the eighth century B.C. Given the fact that in all Nippur excavations since 1948 there has been little or no archaeological evidence of the two centuries after the Kassite, we must assume that the city was greatly reduced in size and that by 1000 B.C. occupation must have been limited to the ziggurat area, with a very small population. It is possible that the
3. Armstrong 1989 (currently under revision for publication by the Oriental Institute). While Armstrong worked on the archaeological data of the post-Kassite periods, Steven Cole was conducting an important parallel study of a group of cuneiform texts that had been found around a burial in Area WB (Gibson et al., 1978: 72-73). From these texts Cole derived ground-breaking insights into the cultural, social, economic, and geographic systems of early first millennium Babylonia. His dissertation (Cole 1990) is being revised for publication.
4. Adams 1965; idem 1972: 182-208; idem 1981; Adams and Nissen 1972; Wright 1981: 295-345; Gibson 1972.
5. See, for example, Brinkman, 1968: 326-26, 332, and 335-36.
ziggurat complex was kept in repair, even during the tenth and ninth centuries, through occasional work sponsored by various kings, although the lack of written records implies a complete abandonment. There may have been a very small, permanent staff of temple personnel surrounded by a landscape that can only have been a desert. A small group could have been sustained with food supplied from elsewhere and with water derived from wells sunk in the dry bed of the river. I presume that the gradual abandonment of the city in the late second millennium, like that in the Old Babylonian period, must have been related to a shift of water from the Euphrates branch at Nippur into channels farther to the west.

When we decided to direct our focus from the high West Mound to the southern end of the city, we were not fully a ware of these gaps of occupation and assumed that the surface indications of pottery (Ur III, Kassite, seventh century) in Area WC were giving us only part of the occupation history of that part of the site. Excavation soon proved that these were the only periods of occupation in Area WC.

In planning our shift of focus, we were guided by an air photograph of Nippur furnished to the expedition by the Iraqi Air Force in 1952 (pl. 4). In an enlargement of the southern corner of the mound (pl. 5), one can see very clearly a set of lines, one dark and one light, running from north to south along the western edge of the site, then turning a comer and continuing to the northeast. This set of lines coincides with a low ridge at the edge of the mound, which here rises less than two meters above plain level. By comparing the ridge and the dark and light lines on the air photograph with an ancient map of Nippur (pl. 6), we concluded that there was a close fit between the evidence on the photograph and the corner enclosed by a wall and marked "Gardens in the City" on the map. This conclusion meant that we were in agreement with an orientation of the ancient map first proposed by Edmund Gordon and S. N. Kramer (Kramer 1956: 271-75).

Miguel Civil, the epigrapher at Nippur in 1972-73, re-analyzed the ancient Nippur map in detail and reaffirmed the interpretation of Gordon and Kramer, i.e., that the map was meant to represent the entire city, not just the eastern part, as had previously been thought. ${ }^{6}$ Civil's re-examination of the document showed that the measurements given along each section of the wall were too great to fit unless the plan were turned so as to represent the entire city. By superimposing a transparency of the ancient map over the air photograph
6. Fisher 1905: 10, fig. 2, and pp. 12-15. But note H. V. Hilprecht's correct orientation and his statement that " ... it represented a section of the ground plan of the environments of Nippur ... ." (Hilprecht 1903: 518-19). It should be noted, in passing, that this tablet was said by Hilprecht to have been found in 1900 in a jar deposited by an ancient "owner, or curator, of the little museum of Babylonian originals ... ." (Hilprecht 1903: 576-77). But this tablet was found in the fall of 1899 , several weeks before Hilprecht arrived at the site, and it was not found in the famous jar (see Fisher 1905: 7). On dating, Fisher citing Ranke and Clay states that the tablet "... belongs either to the end of the Hammurabi dynasty or to the beginning of the Cassite period." Although generally referred to as "the Kassite map of Nippur," the tablet is not yet securely dated on paleographic grounds. But the fit between the plan and our findings in excavation along the city wall and other details, such as the adjacent Kassite water course, argue for the correctness of a Kassite date.
and then over a newly completed site plan (pl. 7), he could show that if the measurements were taken into account, the ancient map fit observed features of the site; only a few of the angles in the ancient map were not accurate, causing the "Canal in the Heart of the City" not to fit exactly over its equivalent feature, the present-day Shatt an-Nil. ${ }^{7}$ I have discussed the problem of the orientation of the map elsewhere but will reiterate the main arguments here (Gibson 1977: 21-37; idem 1978: 119-20).

The reason the map was oriented incorrectly by Fisher and others (McCown and Haines 1967, pl. 4) was evidence found by the Pennsylvania Expedition (Hilprecht 1903: 478-79) and reaffirmed by R. C. Haines ${ }^{8}$ for a forecourt to the southeast of the main court of the ziggurat, where a small shrine was partially excavated. This outer court was thought to correspond with the outer enclosure marked Ekiur on the ancient map, and the plan was oriented by Fisher so as to conform with that assumption. Richard L. Zettler has written an essay on the small shrine, identifying it and cautioning on its linkage to the location of Ekiur (Zettler 1984a: 231-38).

The evidence for a forecourt in front of the ziggurat's main court is, thus far, restricted to two walls that have been exposed for a couple of meters (McCown and Haines 1967, pl. 5). Certainly there is some major Ur III construction in this area, and I would agree that there is probably a court in this direction, connected to the main court of the ziggurat by a gateway in front of the ziggurat stairs. In Ur III temple complexes, it would be normal for there to be a courtyard with subsidiary rooms in this location, but it might not be the only one connected to the main enclosure. Richard C. Haines looked for evidence of a courtyard to the northeast of Ekur, where the Gordon-Kramer orientation would locate Ekiur. Haines was hampered by massive constructions of later brickwork, so he used short tunnels. He was unable to find any evidence of walls of a court in this direction or of a gateway to it from the ziggurat court. ${ }^{9}$ He therefore rejected the Gordon-Kramer reconstruction.

I would suggest that the presentation of the ziggurat complex on the ancient map is either an ancient error, being a fourteenth century B.C. attempt at guessing the location of structures in a landscape of ruins, mainly of mudbrick, which had last been occupied in the eighteenth century B.C.; or it is a projected plan for the Kassite renewal of the city. The walls and gates of the city, the then-dry watercourse through the middle of the site (labeled on the Kassite plan as "Canal in the Middle of the City") as well as the newly cut Euphrates channel to the west of the city, would have been easy to see and plan. The location of famous, but lost, temples would have been more difficult to determine. But walls of major buildings in addition to the ziggurat complex might have been visible even
7. Not "Shatt al-Arab," as inadvertently given by Margaret Brandt (1990: 69, n. 9) in an otherwise excellent essay on the ecological system of southern Iraq.
8. Richard C. Haines, personal communication. See also Haines' published plans (Crawford 1959: 74; McCown and Haines 1967, pl. 5).
9. Richard C. Haines, personal communication.
after several hundred years. ${ }^{10}$ With the shift of water from the eastern branches of the Euphrates in the eighteenth century B.C., the resultant desert would have had a much lower water table. As a result, salt would have been much less actively destructive, and the decay of mudbrick architecture would have been greatly retarded. It is possible, therefore, that at least the basic outlines of larger buildings at Nippur would have been visible after centuries of abandonment. I must assume that the Kassites did a kind of archaeology, exposing long-abandoned buildings, making identifications, and then erecting new versions upon them. Only this procedure could explain the fact that the Kassite Inanna Temple rests over the earlier ones, that the unidentified North Temple rests on earlier versions, and that the Kassite Gula Temple rests on the Old Babylonian one.

Without further excavation around the ziggurat, we must leave unresolved the problem of the location of Ekiur. But the ancient map and the information from our excavations argue overwhelmingly for the orientation proposed by Kramer and Gordon. The "Canal in the Middle of the City" corresponds to the ancient water course (the Shatt al-Nil, probably the Euphrates in the city's early periods) that divides the site. In the Fisher orientation of the map, in order to have a location for the "Canal in the Middle of the City," one must create to the northeast of the ziggurat a canal for which there is no evidence. Even if one suggests that the break through the northeastern city wall (Area EA on pl. 2) is evidence for this canal, one must still account for the lack of a matching gap through the higher part of the East Mound, near the North Temple. In addition, one must face the fact that there is no evidence for a second millennium B.C. canal in the break in the northeastern city wall; excavation in the gap (Area EA) during the seventeenth season showed that the break was the result of a canal of the Ilkhanid/Post-Ilkhanid period, about A.D. 1400.

With the Kramer-Gordon orientation of the Kassite map, the "Uruk Gate" and the "Urfacing Gate" are on either side of the Canal in the Middle of the city, facing downstream toward those cities. The "Nergal Gate" faces upstream, toward Kutha, Nergal's city. It is intriguing to note that with this orientation the GU.LA gate, usually translated as the "Great Gate," faces to the southwest, where the city of Isin, sacred to the goddess Gula, is located. GU.LA on this map is not usually related to the goddess because there is no divine determinative here. The area marked "One Fifth Enclosure" lies about where the expedition house is now located. We know from observations made when that spot was graded for construction of the expedition house in 1964 that there is a niched-andbuttressed building (of unknown date) under the surface here. A meter or so to the east of the expedition house, we found an inscribed duck weight inscribed by Napsamenni, chief of the seers and high priest of Enlil, who lived in the time of the second Isin king Marduk-šapik-zeri, 1081-1069 B.C. (Buccellati and Biggs 1969: 16; Brinkman, 1968: 335). The "Gardens in the city" in the lower left corner on the map would be located in Area WC, the

[^0]southern corner of the mound. This area would have been low enough in the second millennium to have been irrigable. Of great importance in the argument regarding the orientation of the map is the fact that the large canal visible to the west of WC-1 runs in the place where the "Euphrates" is indicated on the map. Trench 1, cut in 1975, revealed that the canal could be dated by sherds to the Kassite period. It should be noted that to the northwest we discovered a branch taking off from the canal and running toward the southeast, approximately where the Birdu Canal is shown on the Kassite map (compare pls. 2, 6-7). In a geomorphological operation (Trench 2 on pl. 2), we found thousands of Kassite vessels and fragments in water-logged sediments, four meters below the present plain level. This trench is located in an area labeled hirtum, usually translated as "moat" or "ditch," on the ancient map.

In a forthcoming volume on the city's fortifications, we will publish excavated evidence for a Kassite city wall in Area WC, following the general lines of the Ur III city wall, but above and inside it. The relative position of these two defensive walls may explain what appear to be double walls on the Kassite map. But we have no information on why the thicker and thinner walls on the map cross over one another at the southern and western comers. Further excavation may elucidate this problem.

In excavating both WC-1 and WC-3, we have found evidence of a Kassite moat and have determined that it is the dark line visible in the air photographs (e.g., pls. 4-5), while the fortification wall of the Ur III period shows up as the light line.

With all this evidence, we think we can safely say that Area WC, at the southern corner of Nippur, corresponds to the corner marked "Gardens" on the ancient map.

In kite photographs (pl. 8a), differential water-retention properties of mudbrick walls and surrounding debris make visible a number of large dwellings just under the surface. In WC-1, we found very fragmentary remains of a first millennium house that rests on better preserved houses of the Kassite period. The relationship of the Kassite houses to the city walls is shown in the section (pl. 8b). ${ }^{11}$ Above the massive city wall of the Ur III period (Unit 3), built of mudbrick on a baked brick substructure, are sloping layers, partially consisting of eroded mudbrick fragments. The latest sherds found in these sloping strata were Old Babylonian in date. But evidence in this and other trenches along the city wall in Area WC indicates that there was no city wall here during the Isin-Larsa and Old Babylonian periods, just as there were no buildings (only burials) here during these periods. By that time, the eroded Ur III wall would have had the appearance of a rampart, similar to the Old Babylonian ones at Tell ed-Dēr and Sippar, where they are argued to be more a defense against flood than siege (De Meyer, ed. 1978: 1-35). Even if designed for flood-control, in war the engineered ramparts at Tell ed-Dēr and Sippar, as well as the de facto one at Nippur, would still have been used for defense.
11. We present here only part of the profile through the city wall. Full details will appear in the forthcoming volume on the city's defenses.

The Kassite city wall (Unit 2), preserved here only as mudbrick rubble and sloping debris but present elsewhere as laid courses of mudbricks, rests on a surface whose slope downward would take it below the earliest Kassite house thus far exposed (pl. 8b, Wall E). Given that slope, it is likely that even the next lower Kassite structure (Level IV), not reached in the area of the profile shown, would have postdated the construction of the Kassite city wall. Rising ground water prevented us from excavating lower during the fourteenth season. In subsequent years, plans to excavate farther around and below the Level III building were canceled because the water table was less than a meter below the present plain. In fact, our old trenches had reeds growing in standing water as late as 1988, and the entire WC area was white with salt. Further investigation must await a lowering of the water table.

At the top of the section (pl. 8b) is the latest city wall in Area WC. This structure (Unit 1) is later than the Kassite house of Level II (pl. 8b, Wall B), and can be assigned to the seventh century B.C. on evidence from other trenches in Area WC. The salt line marked on the section and a few isolated pavements appear to be the only remains that might be datable to the same time as this latest city wall.

The earliest Kassite sherds found on the lowest floors within the Level III house were not much different from those found in Areas WA and WB, which we can date by inscriptions to the mid-thirteenth century. As mentioned above, there is no evidence of occupation in this southern corner of the city between the Ur III and Kassite periods and irrigation from the newly-dug "Euphrates" would have been possible even within the walls. Thus, Area WC may well have been given over to gardens at the beginning of the Kassite reoccupation of the city, only later being used for large houses. The size of the houses alone indicates that the occupants of $\mathrm{WC}-1$ were prosperous individuals. It is reasonable to propose that members of the elite would have built in a pleasant area of orchards near the river, away from the discomforts and inconvenience of the main town on the high mounds. It is also reasonable to propose that merchants would have lived near the Euphrates, the transport link for Babylonia. But the tablets are mostly in poor condition and do not lend themselves to firm conclusions (see Chapter 5).

The size and contents of the succession of houses in WC-1 give an indication of the wealth of the city in the thirteenth century B.C. Prosperity is indicated even better by major restoration work on the ziggurat and other parts of that complex (McCown and Haines 1967: 12-17 and 19-20); by new versions of the Inanna Temple (Zettler 1984b: 71-79; 1992), the Gula Temple at WA (Gibson, forthcoming), and the North Temple (McCown, Haines, and Biggs: 1978: 37-38); by a large, new, administrative building (governor's palace?) at WB (Gibson et al. 1978: 66-70); and by a new city wall at least around part of the West Mound. Evidence from dated tablets shows that there was some restoration of sacred structures at the site as early as the reign of Kurigalzu I, ca 1400 B.C. (Brinkman 1976, Q.2.115.168). Activity increased markedly in the latter half of the fourteenth century, with Burna-Buriaš, Kurigalzu II, and Nazi-Maruttaš carrying out work at Nippur as well as
other previously abandoned cities such as Larsa, Ur, Uruk, Adab, and Isin. But, despite the inscriptional evidence of considerable work during the fourteenth century, most of the Kassite reconstruction at Nippur and at the other cities was carried out during the thirteenth century. The real renaissance and explosive growth of Nippur and other Babylonian centers occurred especially under the patronage of Kudur-Enlil and Šagarakti-Šuriaš (1254-1233 B.C.) (Brinkman 1976: 36-38 and 41-44).

The areal extent of thirteenth century Kassite occupation at Nippur very nearly matched that of the Ur III period. Only in another period of revival, the seventh century B.C., did the city once again approach such proportions. The remnants of a city wall and the house of Level I, above the Kassite levels, are evidence of that last revival.

In the following chapters, Richard L. Zettler reports and analyzes the architectural, stratigraphic, and artifactual findings from WC-1, and presents an important essay on the seals and sealings. As he shows, the alterations to the Level III house and the construction technique of the builders of the Level II structure have resulted in relatively little occupational debris left on floors, denying him the opportunity to find patterns of differential function within the structures. Most of the inscribed items and some of the other important objects were found in secondary context, in pits cut down from Level I. His skill in excavating and in analyzing dig records, reflected in the detailed review of loci, allowed him to avoid mixing artifacts. It is important to note that there was enough material in primary context to allow a secure ceramic assessment.

The ceramic assemblages from WC-1 have been analyzed by James A. Armstrong. He presents the Kassite and first millennium pottery, building upon and revising the earlier work by Judith A. Franke. It should be emphasized once again that our Kassite pottery represents, thus far, nothing much earlier than 1300 B.C. because of the break in occupation that began at Nippur about 1720 B.C. That break can be demonstrated graphically by comparing the Old Babylonian (Franke 1978:77-79) and Kassite pottery of Nippur (this volume, Chapter 3) with that from Tell ed-Dēr (De Meyer, ed. 1971, 1978, 1980, 1984), where the abandonment did not occur until the end of the Old Babylonian period, about 1600 b.C. In contrast, Tell ed-Dēr's Kassite pottery is very similar to ours, since that site also was resettled about the same time as Nippur.

This volume, especially when combined with publications of the Belgian expedition at Tell ed-Dēr and the German expeditions at Isin (Hrouda, ed. 1977, 1981, 1984) and Imlihiye and Zubeidi (Boehmer and Dämmer 1985), allows the first substantial assessment of the Kassite assemblage. For now, this assessment must be limited to the later part of the period. A complete appreciation of this extremely important era must await renewed major excavations at 'Aqar Qūf and at those western sites, such as Babylon, Borsippa, and Dilbat, that did not experience either of the abandonments that affected the central alluvium in the second millennium.

## CHAPTER 1

## AREA WC-1: STRATIGRAPHY, GENERAL DESCRIPTION, AND CHRONOLOGY

RICHARD L. ZETTLER

In the thirteenth season of excavation at Nippur (1975), a slit trench, Trench WC-1 (pls. 3, 10), was dug to determine if a low ridge at the southern end of the site was an indication of the city wall. Divided into four segments ( $2 \times 10 \mathrm{~m}$ each), this trench not only located a 14 m wide wall of Ur III date but also encountered Kassite buildings alongside its inner face. In late October and early November two trench segments, Loci 3 and $8,{ }^{1}$ inside the city wall were expanded (pls. 9-10, 20) to the northwest to create two $10 \times 10$ meter squares, designated $\mathrm{N}-37$ and $\mathrm{O}-37$ in a grid of 10 -meter squares that was laid upon all of

1. According to the recording practice used at Nippur, a locus is any three-dimensional space designated as a basic excavation unit by the site supervisor. A locus may be bounded by the walls of a room in a building, a part of that room, an arbitrarily designated square, etc. Often, a locus is bounded by walls and a baulk or baulks. In a locus, the vertical dimension is usually denoted by the word "floors" or "fill above floors." A "floor" is an ancient surface, tamped, plastered, or paved. By "fill above floor" we mean the gradual buildup of debris, usually in minute striations, that is characteristic of occupational use. Because this term is easily confused with "deliberate fill" we are abandoning it in current seasons but must maintain it here. In this volume, deliberate filling operations are designated as "deliberate fill" or occasionally are signaled by the use of a phrase such as "fill was laid in" or "deposited."

In excavating, when a new wall is encountered, it acts as a divider of one locus from another or of a larger, upper, locus into smaller, lower, loci. The same locus number is kept until the bottom of any wall of that locus is reached, then a new locus number is assigned. Occasionally, a locus number is kept too long, resulting in the necessity to correct records or keep the number because too many objects have entered the official object catalogue to allow easy correction. The locus numbers are given out as the excavation proceeds, resulting in a scattering of numbers across one level of an operation. Thus, Locus 58 can occur next to Locus 6 . This practice makes it somewhat difficult to follow a description of a building, but renumbering loci would entail many changes in the records.

A "level" in the terminology employed at Nippur is a three dimensional unit made up, usually, of all loci in one major architectural layer and all associated debris. Levels can be divided into smaller phases of several floors but usually are described by individual floors from the lowest to the highest within each level. Levels are usually apparent in the period of excavation, but are sometimes adjusted later, upon analysis of all data.

A "feature" in our terminology is any constructed entity-e.g., a bench, a pit, or a hearth-within a locus.

Area WC. ${ }^{2}$ Excavations in those squares revealed the remains of a large Kassite building with a major rebuilding above it. A preliminary report on the excavations was published by Gibson (1978: 118-21).

In the fourteenth season, 1976, excavation was resumed in Squares N-37 and O-37. Backfill was removed and the walls that had been exposed in the thirteenth season were recleaned. In early October the area under excavation was expanded to include the two 10 $\times 10$ meter squares ( $\mathrm{N}-36$ and $\mathrm{O}-36$ ) to the northwest. Later, the two $10 \times 10$ meter squares ( $\mathrm{N}-38$ and $\mathrm{O}-38$ ) to the southeast were opened; and at the end of October the clearance of parts of two squares (P-37 and P-38) to the northeast was begun. In all, more than five hundred square meters were opened in 1976, allowing the almost complete exposure of the Kassite structures encountered in 1975. During the first few weeks of excavation, the baulks between squares were maintained. After studying the sections afforded by them, we decided that the stratigraphy was so uniform throughout that we could remove the baulks to allow easier access. Since the baulks often ran directly over and even enclosed walls (pl. 9), we found that recording more than a few of them in section drawings (e.g., pl. 8b) was less useful than having the architect use his numerous elevations and plans to create master sections running northwest-southeast (pl. 14a) and northeast-southwest (pl. 14b). ${ }^{3}$

Though a number of questions, mostly involving construction details and the phasing of the architectural remains, were left unanswered at the end of the fourteenth season, work in Area WC-I could not be resumed subsequently due to a drastic rise in groundwater.

A substantial preliminary report on the fourteenth season has been published (Gibson, Zettler, and Armstrong 1983: 177-84). ${ }^{4}$ The outline of stratigraphy and chronology of Area WC-1 given in that report is essentially correct, but the present account is definitive. This
2. When the excavation space was expanded, the locus numbers 3 and 8 were also extended to include the surface debris of the two 10 m squares, N-37 and O-37. Please note that this grid of 10 m squares, oriented northwest-southeast, is not keyed into the 100 m square north-south grid shown on the general Nippur plan, pl. 2. In 1975 and 1976, we had not yet completed the contour map of the entire site. We imposed a temporary grid over the southern end of Nippur, Area WC, knowing that the area needed major horizontal exposures. The final grid of 100 m squares was imposed subsequently over the whole site, as seen on pl. 2. Area WC-1 now falls within squares G 28 and G 29 of the final grid, but those referents are not used in this publication.
3. It was this experience in WC-1, where we had laid out a grid aligned with the city wall that resulted in baulks running through or very close and parallel to house walls, that led the expedition to adopt for the entire site of Nippur the more traditional north-south grid. North-south orientation almost always gives the best results, since ancient buildings are usually oriented with their corners to the cardinal points of the compass. It should be noted that numbers on the plans in this volume give elevations of specific floors, tops and bottoms of walls and features, bottoms of graves, etc. The notation 2-84.85, for instance, indicates that Floor 2 has an elevation of 84.85 m in relation to datum. Datum at Nippur is a point that was established by R. C. Haines on Tablet Hill and assigned the arbitrary elevation of 100.00 meters. The sea level correction of all elevations is -65.24 . Thus, for example, the datum is 34.76 m above sea level.
4. Note that the captions for figures 13 and 18 were switched in the publication. Figure 13 is the plan of WC-1, Level II and figure 18 is the plan of WC-1, Level III.
chapter presents a general outline of the stratigraphy and the dating of levels. In following chapters, details of loci, architectural changes, objects, and so forth are given.

In the fourteenth season preliminary report, we indicated that Area WC-1 had four major levels, Levels IV-I. As a result of full analysis, all but Level IV can be divided into phases. There is also evidence of some activity that took place stratigraphically intermediate between Level III and Level II.

## LEVEL IV

Level IV, the lowest level, was encountered only in a small probe below Locus 7 of Level III (pl. 11). One wall (Wall BG) was associated with the level.

## LEVEL III

Level III consisted of a building that was both impressive in size and unusual at Nippur for its relatively good state of preservation (pls. 11, 12a). The building measured at least 25 meters northeast to southwest and more than 22 m northwest to southeast; it extended beyond the limits of excavation on the northeast and in part on the southeast. The thickly plastered mudbrick ${ }^{5}$ walls of the building were preserved in some areas, for example Loci 6 and 7, more than a meter and a half high.

Most stretches of Level III walls were built directly on the surface that existed at the time (Floor 5), but in places they were set in shallow foundation trenches cut down from that surface. The foundation trenches were necessitated by the unevenness of the ground in the area and the desire of the builders to provide a level footing for the structure. The situation can be illustrated most clearly in Locus 15 . The surface existing at the southeastern and southwestern portions of that room at the time the walls were built was roughly level. The ground sloped up markedly, however, at the center and northwestern side of the locus. The southeastern and southwestern walls (Walls I and H , respectively) of Locus 15 were built directly on the existing ground surface. The central portion of the northwestern wall (Wall R) was set in a shallow trench, the bottom of which was at roughly the same absolute elevation as the bottoms of Walls I and H .

In addition to being uneven, the construction floor of the Level III building differed markedly in character from room to room. In Loci 15,30 , and 52 , for example, it was dark black in color and contained large amounts of charcoal and ash (and in Locus 15 large numbers of sherds). By contrast, in Loci 59 and 60 , it was a hard, clean, red clay floor, and below Locus 58 a fallen mudbrick surface. The only artifacts recovered from the Level III construction surface were bone lots. ${ }^{6}$
5. In this volume "mudbrick" and "brick" indicate unbaked, sun-dried brick. Where baked brick is meant, it is so designated.
6. All artifacts were assigned lot numbers as they were found. A lot can be a basket of sherds from one floor, or from a floor and the debris above it, or from within a feature. A collection of animal bones from one floor also has an individual lot number, as does a sample, e.g., charcoal for ${ }^{14} \mathrm{C}$ analysis. A lot can also be one object, such as a statue, a cylinder seal, or a cuneiform tablet. The lot number is retained

## STRATIFICATION OF LEVEL III

The stratification of the Level III building was consistent from locus to locus (pl. 14ab). Four occupation floors were found in the building, and the floors were correlated by tracing them from room to room. The floors can be associated with three construction phases, the lowest phase consisting of Floors 4 and 3, the middle phase of Floor 2, and the upper phase of Floor 1.

## Phase I

The lowest occupation floor, Floor 4 (pl. 11), was hard packed and grayish-black in color in most rooms in the building, though in a number of rooms, e.g., Loci 7 and 58, it was a red plaster or reddish clay surface laid on top of a grayish-black foundation fill. Such differences in the character of the floor from room to room may, perhaps, be indicative of differing functions.

Floor 4 was roughly at the level of the tops of the walls' foundations and the plaster on the walls began at that floor. At Floor 4, a doorway in the northwestern wall of the building (Wall BD) provided access into and out of the building through Locus 59. The room the southwestern corner, Locus 58, was not part of the structure as initially laid out but was added during (or possibly subsequent to) the occupation of Floor 4. Prior to the construction of Walls $\mathrm{T}^{\prime}$ and $\mathrm{AZ}^{\prime}$, the doorway in Wall E must also have provided access into the building or from the building to the outside. But neither of these doorways was probably the main entrance to the house. The overall plan of the building is discussed below.

Floor 3 was the top of a thick layer of clean reddish clay in most rooms. It was roughly $10-20 \mathrm{~cm}$ above the level of Floor 4 ( $\mathrm{pl} .14 \mathrm{a}-\mathrm{b}$ ). A number of modifications in the pattern of circulation through the building was introduced at the time Floor 3 was laid down. The exterior doorway in Wall BD, for example, was closed off, as was the doorway between Locus 15 and Locus 30 (Wall R).

## Phase II

In the course of the occupation of Floor 3, structural problems apparently developed and substantial repairs were made to the walls in various loci, for example, to Wall H in Locus 6, Walls H and K/P in Locus 12, and the corner of Walls BF and H in Locus 63. When the repairs were made, the floor level of the building was raised an average of 60
until a decision is made either to catalogue it (in which case it receives a catalogue number, e.g., 14 N 125, and the lot number is retired) or to draw and/or photograph it and then discard it, or merely to note the find in the locus book and then discard it. The latter two procedures make up the majority of cases, since most lots are sherd or bone collections. Usually, sherds are sorted, all are analyzed at least by type and ware, some are drawn, and then are discarded on site. Bone lots almost never receive catalogue numbers and are published only by their lot numbers. In this publication, lot numbers (e.g., C-125, D-345) are sometimes given for discarded but illustrated items in order to make it possible to find reference to them in excavation records. Otherwise only catalogue numbers (i.e., 13 N and 14 N are given). The lot numbers in each season are preceded by a letter prefix. Thus, $\mathrm{A}=$ eleventh season, $\mathrm{B}=$ twelfth, $\mathrm{C}=$ thirteenth, $\mathrm{D}=$ fourteenth, etc.
centimeters The doorways to several rooms were first blocked, and then a deliberate red clayey fill was put down in all of the rooms of the building. In at least one room (Locus 58) a layer of clean sand was spread on top of Floor 3 before the clayey fill was laid down. The fill was, with few exceptions, very clean; little pottery was recovered from it, and the sherds that were recovered were small. Floor 2 was the top of the clay fill. Changes in circulation patterns and in the layout of various loci were associated with the change in floor level (pl. 16). The doorway between Locus 15 and Locus 30 (Wall R) that had been blocked at Floor 3, for example, was reinstalled, but as a much narrower passage. In the main courtyard, Locus 54, a mudbrick bench was constructed against all walls (pl. 16).

Probably during the Floor 2 occupation or subsequent to it but prior to the time Floor 1 was laid down, several infant burials were deposited in the clay fill. Two burials were found in Locus 58, two in Locus 15, one in Locus 30, and one in Locus 59.7

## Phase III

The third and latest construction phase of the building involved, as had the second, a deliberate and marked raising of the level of the floor. A packing of unmortared mudbricks ( $30-31 \times 30-31 \times 11 \mathrm{~cm}$ ) was laid in all rooms of the building, and a new clay floor (Floor 1) was laid on top of it (pls. 12b, 14). Where completely preserved, for example, in Locus 6 and Locus 54, the mudbrick packing was five courses deep. In at least four of the rooms a thin layer of sand was spread on Floor 2 before the brick packing was put in place. The sand was, in all likelihood, to provide a firm bedding for the mudbrick but may also have served another function-to retard moisture. The laying in of the packing and the raising of the floor level of the building probably were designed to combat problems caused by high ground water related to the Euphrates River located a short distance to the west. There was another more localized water problem, however-runoff from the city wall. At the time of Floor 1, the first floor above the packing, a mudbrick socle was constructed along the southwestern wall of the building, probably to protect it from that runoff (pl. 17). In this phase of the building, the raising of the floor must have required that the roof be removed, the walls be extended upward, and a new roof be put on. But evidence of such alterations was not available due to the poor preservation at this phase. Where intact, Floor 1 was at the preserved tops of the walls, but in most of the rooms that floor and the upper course(s) of the packing were not preserved. As with Floor 2, minor changes in the layout of some of the rooms in the building were associated with the change in floor level (pl. 17). For example, Locus 54, the outer court that had a clay floor and a bench around the walls at Floor 2, had a baked brick paving at Floor 1. Infant burials, probably cut from Floor 1 into the fill below, were encountered in Loci 15 and 30 (pl. 17, Burial 29 and a destroyed, unnumbered one) and three alongside a wall of Locus 56 (Burials 66-68).
7. Burials inside houses were normal in most periods of ancient Mesopotamia. The restriction to infants in Level III of WC-1 may be significant.

On the basis of the preceding discussion, the paradigmatic stratigraphic column of Level III can be summed up as follows:

| Phase III | Floor 1 of red clay <br> Mudbrick packing, 5 courses (ca. 65 cm ) on sand bed |
| :--- | :--- |
| Phase II | Floor 2 <br> Clay fill, 65 cm in depth |
| Phase I | Floor 3 <br> Clay fill, 15-25 cm in depth <br> Floor 4, first living floor <br> Floor 5, construction floor with deliberate fill above it |

## PLAN OF THE LEVEL III BUILDING

With each reconstruction, the Level III building was apparently cleaned out, so few artifacts or ecofactual remains were found in situ. Because of the relatively clean state of the Level III building and the consequent lack of objects to aid in the analysis of function, a spatial analysis of the structure has to be based largely on room arrangements and circulation patterns (fig. 1). Since several of the rooms of the building, e.g., Loci 54 and $56-57$, were cleared only to the level of Floor 2, such a functional description has to begin with the building as it existed at that floor. In terms of its architecture, the excavated portion of the Level III building at Floor 2 appears to have consisted of two distinct sections: a more public one to the southeast, centered on Locus 54 , and a more private one in the north corner, around Locus 30 (fig. 1, pl. 17). We concluded from their size, location, installations, and the nature of their debris that Loci 54 and 30 were unroofed spaces, i.e., courtyards. The three rooms in the western corner of the building, Loci 12, 25 and 63, served as dependencies of both sectors.

Although we did not succeed in determining the location of the front entrance of the building, we must assume that it lay either to the southeast, beyond Locus 56 , or to the northeast, through Locus 53.

Centered on the larger courtyard (Locus 54, pl. 13a-b) was a suite of rooms (Loci 6, 7, 58 ) and Locus 53. A bench ran around all four walls of Locus 54 , indicating that the courtyard served as a public or semi-public gathering place. The size of Locus 6 and the width of the doorway in its northeastern wall (Wall H), leading from and into Locus 54, suggests that it served as the principal reception room of the building. ${ }^{8}$ From the
8. The arrangement of this group of rooms is similar to the so-called principal reception suite seen in palaces of the Late Assyrian period. (Turner 1970: 181-94). John C. Sanders (1979: 387-91) has discussed variations on suites in public and private buildings and would classify the main reception suite of WC-1, Level III as an example of "multiple-indirect dual access." Sanders elsewhere (1981) discusses the development of suites and other spatial patterning.


Figure 1. Reconstructed Plan of the Level III Building
northwestern end of Locus 6, access into Loci 12 and 25 and through them into Locus 63 was unrestricted. The long and narrow plan of Loci 12 and 25 suggests that those rooms (and, given its isolated character, probably also Locus 63) functioned as magazines or stores. ${ }^{9}$ The small square room, Locus 7, connected Locus 6 to the room in the southern corner of the building, Locus 58. The two rooms perhaps functioned as retiring rooms off the reception room.

The relationship of Locus 56 (and Locus 57) to Locus 54 and the southeastern sector of the building is not certain. At least from the level of Floor 2 upward the stratigraphy in Locus 56 was identical with that of other rooms, and so it is assumed that it was part of the building, not an exterior space. The size of the excavated portion of Locus 56 (and the drain that ran through it at least at the level of Floor 2) suggests that it was a courtyard, and the baked brick pathway at Floor 1 would support such a reconstruction. However, no parallels for such a "back to back" arrangement of courtyards exist. It is more likely that Locus 56 was a large rectangular (reception?) room like Locus 6 and that the drain carried run-off into Locus 54 from a court farther to the southeast in the same way that a covered drain through Locus 53 took water from an intake in Locus 54 toward the exterior of the building on the northeast.

The rooms associated with the inner courtyard (Locus 30) in the northern sector of the building included Loci 59 and 60 as well as Loci 15 and 52. The general configuration of rooms around Locus 30 has certain parallels with room arrangement patterns in Old Babylonian private houses at Tell ed-Dēr, Nippur, and Ur. ${ }^{10}$ The parallels suggests that part of the building functioned as a residence.

From the courtyard (Locus 30), access could be had into Locus 25 and the storage rooms in the western corner of the building. Locus 15 , the long rectangular room to the southeast of the courtyard, could have served as a reception room for the northern unit with Locus 52 as a retiring room off it. The attribution of Locus 15 (and Locus 52) to the private, northern, section of the building rather than to the public one, with which it communicated by a doorway in its southern corner, is not without nuances. In fact, it was an interface between the public and private parts of the house and as such seems to have been more
9. The Sumerian term for storeroom or magazine is é-uš-gid-da, literally, "long room." The word probably denoted isolated rooms or complexes of long, narrow rooms such as are found, for example, in second millennium B.C. palaces ( see CAD, vol. 1, pt. 2, sub ašlukkatu). In the Mari palace, Room 116, which opened off Courtyard 106, contained eleven large jars and was clearly a magazine, as were Rooms 122 and 124-26, located in the southeastern sector of the building (Parrot 1958: 94-96 and 285-87). Rooms 2b-5 in the Sinkašid palace at Uruk were probably storerooms (Lenzen 1962: 25).

For long, narrow storerooms in a Kassite period building, compare the palace at 'Aqar Qūf/DurKurigalzu, Level I, Rooms 12-14 (Baqir 1945: 5-6, fig. 7).
10. Note, for example, the parallelism with Rooms $1-3$ and 5 in the "Batiment Central" in Sondage A, Ensemble I at Tell ed-Dēr (De Meyer 1978: 57-131). At Nippur, in Area WB, note the two courtyards and compare the arrangement of rooms around the inner courtyard, Locus 16, in the northwestern end of the large house (Gibson et al. 1978: 54-61). For Ur, note, among others, AH, No. 5 Church Lane, the arrangement of spaces around the courtyard numbered 2 (Woolley and Mallowan 1976: 130).
private at some floors than at others. At Floor 4, Locus 15 seems to have been focused on the private aspect since the doorway that connected it with the inner courtyard, Locus 30 , was the widest ( 1.80 m ) in the building. Note that at this floor, the doorway at the back of the house, in Wall BD, was open and private visitors may have entered here to be received in Locus 15. It is probable that Locus 15 served not only as a reception room but also as the main dining and sleeping room, judging by analogy to pre-modern houses in villages and even some towns in Iraq. But from the same analogy we also assume that much of the daily activity took place in the courtyard.

At Floor 3, Locus 15 had a more public function. The doorway between Locus 30 and Locus 15 was blocked, a bin was built against the blocking in Locus 15, and the room was made a dependency only of the outer courtyard (Locus 54). At Floor 2 the doorway between Locus 30 and Locus 15 was once again opened, but as a narrower ( 90 cm wide) passage, and it remained open at Floor 1. I assume that the reopening of the blocked doorway at Floor 2 was intended to return Locus 15 to the function it had at Floor 4, that is, a room primarily associated with Locus 30 but connecting the northern and southeastern sectors of the building.

Architectural evidence bearing on the functioning of the Level III building in its initial phase (Floors 4-3) and in its latest phase (Floor 1) indicate that the structure remained relatively stable throughout its history. With the exception of alterations to Locus 15 , the only major changes affected access into or out of the building, for example, the blocking of the exterior doorway in Locus 59 subsequent to the occupation at Floor 4 and, perhaps at the same time, the addition of Locus 58 onto the southern corner of the structure. The other changes that can be noted between Floors 4-3 and Floor 2 or between Floors 2 and 1 were minor ones that involved the control of access from one room or sector of the building to another, for example, the use (or non-use) of doors in the doorways between Loci 30 and 25 and Loci 30 and 59, or differences in the internal features of individual courtyards or rooms.

In summary, then, the Level III building in Area WC-1 probably served a dual purpose throughout its history. The building combined the sort of public and private spaces that might be required of a high functionary such as a royal official, or of a public operative, for example, a merchant, or even the leader of a large corporate kin-group. In all probability, the southeastern part of the building with its public or semi-public gathering space and its large reception room served the more public functions of the structure, while the rooms in the northern corner operated in a relatively more isolated context and served as a residence. The magazines in the western corner would have provided storage space for sufficient commodities or goods to supply both the public and private functions of the building and were-not surprisingly-equally accessible to both sectors of the building. ${ }^{11} \mathrm{~A}$

[^1]more explicit characterization of the functioning of the Level III building, though desirable, cannot be attempted because of the general lack of artifacts on floors.

## DATING OF LEVEL III

Evidence for dating the Level III building, other than by ceramics, is slim. Two Mitanni common-style cylinder seals ( 13 N 488 and 14 N 6 , pl. $89 \mathrm{e}-\mathrm{h}$ ), found in fill above Floor 2, can provide a rough terminus post quem for the later phases of the building's occupation. The seals are, unfortunately, of a particularly long-lived type, and parallels span the period from the fifteenth through the thirteenth centuries B.C. (see Chapter 4). The dating of the Level III building can be narrowed on the basis of inscriptions found in Level II which place that level in the latter half of the thirteenth century. Thus, Level III might date to the earlier part of the thirteenth century or the last quarter of the fourteenth. The pottery of Level III is not appreciably different from that of Level II and thus tends to support a date in the early thirteenth century (see Chapter 3).

## BETWEEN LEVELS III AND II

Subsequent to Level III, but before the construction of Level II, Pit O demolished much of Locus 12 (pl. 17). This activity between building levels does not imply much passage of time.

## LEVEL II

The Level II structure was so close to the surface that floors were not preserved in all of the rooms (pls. 18-19). In rooms where living floors were preserved, it is apparent that substantial changes were made in the layout of the building between its foundation (fig. 2) and occupation phases (fig. 3). In the southern corner of the building, for example, there was a rectangular space at foundation level (Locus 84), but two small rooms (Loci 41, 48) were created at floor level by building a partition wall (Wall AP). Similarly, two spaces at foundation level (Loci 13-14) lay under a single, long room (Locus 5). In the center of the building, what was apparently planned to be a courtyard (Locus 82 ) with two adjacent spaces (Loci 17-18) was enlarged at floor level by eliminating the two small rooms. In the northern sector of the building, the foundation-level space (Locus 81) was made a smaller room at floor level by the shifting of a partition wall. A long foundation-level space (Locus 38) was subdivided at floor level into three small rooms (Loci 27, 29, 35).

Level II was a substantial building, larger in total area than that of Level III. Its overall plan was similar to the layout of that structure (cf. figs. 1-3). A courtyard in the center of the building and the long room to the southwest of it (Loci 11, 42), for example, parallel the outer courtyard and the reception room (Loci 54, 6) in the Level III building. Loci 11
as needed. An older, more prestigious couple may have occupied the more public half, while a son or a younger brother occupied the more private section with his family. But evidence in hand does not allow us to go beyond speculation here.


Figure 2. Reconstructed Plan of the Level II Building's Foundations


Figure 3. Reconstructed Plan of the Level II Building
and 42 were connected by a doorway, indicated by a pivot stone alongside Wall G (pl. 18). The rooms to the southwest of Locus 42 (Loci $5,41,48$ ) were probably reached by a doorway through the southwestern wall. A doorway in the northwestern wall of the courtyard (Locus 11) led into a series of small rooms (Loci 27, 29, 35) and into other rooms (Loci 36, 31, 33) that bordered an inner courtyard, Locus 32. In short, Level II was presumably a more elaborate rebuilding of Level III, and it probably functioned in much the same way, with public areas to the southeast and a residence to the northwest. It was, however, not nearly so well preserved.

## DATING OF LEVEL II

As in Level III, few artifacts were found in situ in the Level II building, and most of the artifacts recovered were from rooms in its northern sector. The few sealings and tablets in the building date it to the second half of the thirteenth century B.C. Two fragmentary clay sealings, for example, were found on the floor in Locus 31. As discussed in Chapter 4, one of the sealings ( $14 \mathrm{~N} 81, \mathrm{pl} .91 \mathrm{~h}-\mathrm{i}$ ) carries an impression of a seal with close parallels to a seal of the so-called Second Kassite Group and to thirteenth century B.C. Middle Assyrian seals; the other sealing ( 14 N 330 , pl. 91d) has multiple impressions of a Pseudo-Kassite seal, a style in use in the thirteenth and twelfth centuries b.C. (Matthews 1992). A fragmentary clay sealing ( 14 N 117 , pl. $91 \mathrm{j}-\mathrm{k}$ ), from occupational debris immediately above the floor in Locus 31, has a good parallel in an impression on a Middle Assyrian tablet dated to the time of Adad-nirari I (1305-1274 B.C.) (Moortgat 1942, Abb. 53), while a fragmentary tablet ( 14 N 228 ) from the same findspot is dated to Šagarakti-Šuriaš, year 4 (ca. 1242 b.C.). Moreover, we assume that the tablets found in Level I pits, dug in the first millennium probably to get material for mudbricks, mortar, or plaster, were from the Level II building (see, however, Brinkman's cautionary remarks, Chapter 5, pp. 94-95, below). As is the practice in traditional Iraqi mudbrick construction, the material from such pits, once excavated, would be sorted out and redeposited. If so, the written records from the building would have spanned the period from Nazi-Maruttaš to at least the time of Kadašman-Harbe II (see Chapter 5, p. 93). The Level II building, then, would have to have been contemporary with the Kassite palace in Area WB (Gibson et al. 1978: 66-70).

## LEVEL I

Level I is composed of patches of stratigraphy and building remains, as well as pits and graves that were cut down into Levels II and III from surfaces that have eroded away completely.

The earliest remains of Level I are isolated areas of occupation floors, lying upon walls of Level $11 .{ }^{12}$ The pottery found on these floors suggests a date in the seventh and early sixth centuries B.C. (Chapter 3). There were remnants of a baked brick pavement and a
12. At the time the preliminary report on the fourteenth season was written the surfaces were assumed to have been the latest floors of the Level II building, but a more thorough analysis of the field plans and notes showed that was not the case.
vertical drain (pl. 20) in grid square N-37 (above Locus 5 of Level II), and a baked brick pavement in the northern corner of O-37. A tamped earth floor in N -37 and a vertical drain in N-38 (cutting Loci 48, 84, and 58 of Levels II-III) were probably from the same building as the other fragments.

All of the Level I pits intruded into the Kassite buildings of Levels II and III. Certain of the pits were regular in form (e.g., Pits A, D, E, I, L, M, N) and probably were made for specific functions (storage, drains, latrines) related to the house(s) that were represented by the architectural remnants. For example, Pit L (pl. 20, lower right, cutting into Level II, Locus 53 and Pit K) was ca. 1.50 m in width. It was filled with a distinctly green-colored soil that can be identified as organic waste, thus implying that Pit L was a latrine; many bones, including those of wild ass and cattle, were recovered from it. Also found in the pit was a tablet ( 14 N 269 , pl. 105c), a collection of omens written in "Neo-Babylonian script." ${ }^{13}$ This item could provide a terminus ante quem for the cutting of Pit L, but the pottery, dated no later than the late seventh-early sixth century B.C., probably gives more precision.

Other pits (Pits B, C, G, K) were large, ragged cuts, perhaps created originally in the process of making mudbricks or mud mortar/plaster and later used as refuse pits. Pit B, occupying nearly the whole of grid square $\mathrm{N}-36$ and the northwestern portion of $\mathrm{N}-37$, was filled with all sorts of debris, including mud bricks, ash, a pottery incense burner ( 14 N 292 , pl. $7 \mathrm{lc}-\mathrm{d}$ ), and a worn basalt cylinder seal ( 14 N 19 , pl. $92 \mathrm{f}-\mathrm{h}$ ). Because of the powdery nature of the upper 20 cm of debris in Area WC-1, it was impossible to demonstrate the stratigraphic relationship between this pit and the architectural remnants of Level I. It is also impossible to tell from stratigraphy whether or not Pit B was earlier than a group of first millennium B.C. jar burials, but it is certain that it was earlier than a group of simple interments (e.g., Burials $14,17,34,40,43,46-47$ ) that can be dated to the Parthian period (ca. A.D. 100). Nothing found in Pit B demands that it be dated later than the architectural remains of Level I.

In contrast, we are confident that we can date Pit $K$ to sometime after Level II and earlier than Pit L and Burial 71, a first millennium B.C. jar burial, which were cut into it. James Armstrong dates the burial to the late seventh, perhaps early sixth, century B.C., placing Pit K some time earlier. We presume that both this burial and Pit L were associated with the architectural remnants of Level I.
13. As used here, this is an epigraphic term, not an archaeological one. By "Neo-Babylonian" epigraphers mean the stage of the Babylonian language and script after 1000 B.C. At Nippur, in past archaeological publications, the early centuries of the millennium have been termed "the period of Assyrian domination" or "the Assyrian period," while Neo-Babylonian has been restricted to the period of the Chaldean Dynasty. Some archaeologists have begun to refer to the early first millennium as the "early Neo-Babylonian," as distinguished from Neo-Babylonian (i.e., Chaldean Dynasty) proper. We are endeavoring, however, to replace such terms with century designations.

We suspect that Pits C and G were also cut in the time between Levels II and the architectural remnants of Level I but cannot prove this with present evidence. Nothing found in them demands a date later than the early sixth century b.C.

In summary, the evidence allows for a suggestion that the larger, more irregular pits ( C , G, K, and perhaps even B) were cut prior to the building of the house(s) evidenced by the architectural remnants of Level I. The smaller, more regular pits (A, D, E, L, M, N) most probably were cut for use in the house(s).

Fifty or so tablets and fragments were found in pits in squares $\mathrm{N}-36, \mathrm{~N}-37$, and $\mathrm{O}-36$ (see Chapter 5). The tablets were, as we have suggested above, probably dug out of the Level II building and discarded. The dated documents fall in the reigns of the Kassite kings Nazi-Maruttaš, Kudur-Enlil, Šagarakti-Šuriaš, Kaštiliašu (IV), and Kadašman-Harbe II and thus cover the period 1307 to 1223 B.C. Most of the documents, including 14 N 235 (pl. 99e) that records ration distributions (?) mainly to women, are receipts or accounts concerning grain, but others are accounts concerning goats and hides, sheep and goats, and oil. A number of the documents are legal texts. One tablet ( 14 N 247 , pl. 102a), for example, records the repayments of a loan, and another ( $14 \mathrm{~N} 250, \mathrm{pl} .102 \mathrm{c}$ ) is probably a record of the settlement of a dispute. The few fragments of lexical texts including a list of gods (Chapter 5), typical components of the curriculum in scribal training, would not be out of place in a private household because Mesopotamian scribes were educated "on the job" as well as in schools.

## EARLY FIRST MILLENNIUM B.C. BURIALS

Two chronologically separate groups of burials were found to originate in Level 1 of WC-1 (pl. 20). One group was made-up of jar burials that often contained many objects. One grave (Burial 28) was in a single jar; the others were double jar burials, and, at least to judge by the pottery from them, are datable to the early first millennium B.C. (Chapter 3). Though we recovered no evidence of architecture that could be associated directly with them, the jar burials were, in all likelihood, intramural. They were probably originally below rooms of the building or buildings represented by the surface remnants found in Level I.

## PARTHIAN BURIALS

The second and larger group of burials (pl. 20) consisted of simple inhumations, the bodies commonly resting on their backs, with faces up and arms at the sides. Objects were found with only five of the burials (Burials 6, 14, 24, 40, 42). A coin lying under the body of Burial 6 was important for placing the burials chronologically. The coin ( 13 N 213 , pl. $66 \mathrm{~d}-\mathrm{e}$ ) was an issue of the Parthian King Osroes (A.D. 109-128), in whose time there was major building activity at Nippur (Keall 1975: 620-32). Coins are typical inclusions in burials of the Parthian period (Negro Ponzi 1968/1969: 304-05). Earrings (e.g., 13 N 61 , 64 ; pl. $58 \mathrm{a}-\mathrm{b}$ ) found in some graves are of a type that has a range from Parthian to Sasanian. But a blue glass bottle ( 13 N 377, pl. 67a) found in Burial 24 is virtually identical
to a bottle ( 6 N 11 ) from a burial sealed below the floor of the original Parthian version of the Inanna temple (SB, Level II), and confirms a late first or early second century A.D. date for the WC-1 burials. It is significant that these were simple inhumations, without the "slipper coffins" that we regularly associate with Parthians, and were several hundred meters away from the nearest Parthian buildings. Perhaps the variation in burial methods implies class or ethnic differences.

## CHAPTER 2

## DESCRIPTION OF EXCAVATED LOCI

## RICHARD L. ZETTLER

The loci defined and excavated in Area WC-1 are described in this chapter level by level. In general, the Level III and Level 11 locus descriptions are arranged by room groupings. Since the stratigraphy in the Level III building was so consistent from locus to locus (see Chapter 1), an exhaustive description only of Locus 6 , the principal reception room, and one or two other loci, is given. The other Level III loci are described in a more summary fashion. Finds are noted in the loci descriptions, but for full details one should refer to the Catalogue of Registered Objects.

LEVEL IV
Locus 66 (pl. 11) was the area below the southeastern portion of Locus 7. A wall, BG, was encountered and a sounding was made against its face, down to 40 cm below the preserved top of the wall, where the water table was reached and excavation had to be suspended. Several Kassite goblet bases (e.g., pl. 79a) were found in the fill alongside the wall, indicating that Level IV, if ever excavated, will prove to be Kassite.

## LEVEL III

## RECEPTION SUITE

Locus 6, main room (pl. 11), was a large, rectangular room in the southern sector of the building. It was nearly 10 m long and 3.5 m wide. Wall $\mathrm{K} / \mathrm{P}$, at the northwest, was built in a shallow foundation trench cut from a construction surface we called Floor 5. The two lowest courses of the wall were set in the trench. The bricks of the lowest course, carried across the doorway in Wall K/P appeared to be "humped up" due to the weight of the walls and consequent settling on both sides of the doorway.

Floor 4, roughly 10 cm above Floor 5, was reached only in the northwestern portion of Locus 6. The floor was grayish-black in color along Walls D and H ; it was more brownish in color and had a plaster-like consistency along Wall K/P. A mudbrick sill in the doorway of Wall K/P (pl. 21a) consisted of a single course of three bricks, each roughly 31 cm long, laid end to end.

Floor 3 (pl. 15), sloping down markedly from the southeast to the northwest, was the top of a 15 to 25 cm thick layer of reddish-brown clay laid directly on Floor 4. At Floor 3 the
face of Wall K/P projected over the face of the courses below by $3-5 \mathrm{~cm}$, probably the result of a repair. Along Wall D in the southeastern portion of the locus were two shallow cuts into Floor 3: the southeasternmost of the two was an irregular cut measuring ca. 85 cm across; the second cut was small and roughly circular in shape. The fill of the cuts was clean. The cuts may have been used to hold water jars or other movable fixtures. A clay pendant, 14 N 374 (pl. 57i), was embedded in the clay that formed Floor 3. An Indus Valley stamp seal, 13 N 506 (pl. 89a-d), was found on the floor.

During the course of the Floor 3 occupation, Wall H apparently developed structural problems and had to be repaired (pl. 21b). The southeasternmost section of the wall was cut down to the level of that floor and rebuilt. First, a foundation or substructure of grayishblack mudbricks, was laid on top of the cut-down wall and across the doorway (pls. 16, 22a). The substructure, abutting the plastered face of Wall AZ, was six courses high (ca. 65 cm ) and had two buttresses that projected $15-40 \mathrm{~cm}$ into Locus 6 . The room was then filled to the top of the foundation with red clay. The top of the fill was Floor 2, at which the wall's superstructure was rebuilt.

The superstructure, in contrast to the foundation, was made of brown mudbricks, some whole and some fragmentary, laid on a 6 to 8 cm thick bed of sand spread on top of the substructure. The Wall H rebuilding was not bonded into Wall AZ, but was cut slightly into that wall (pl. 22b), presumably in order to anchor it. The corner formed by the two walls was covered with a single mud plaster. The doorway in Wall H that had existed at Floor 3 was recreated at the level of Floor 2. The top of the Wall H substructure served as a sill for this doorway, so that the floor sloped up from there into the room.

The clayey fill put down in association with the Wall H rebuilding was, for the most part, very clean, but near and in the doorway of Wall $\mathrm{K} / \mathrm{P}$ it contained large numbers of sherds. Several beads ( 13 N 477 , pl. 59r, $13 \mathrm{~N} 497 \mathrm{a}-\mathrm{b}, \mathrm{pl} .59 \mathrm{~s}, \mathrm{t}$ ), and a fragment of a clay figurine ( 14 N 368 , pl. 56 m ), were found in the room; a Mitanni-style cylinder seal ( 13 N 488 , pl. $89 \mathrm{e}-\mathrm{f}$ ), was found in the doorway of Wall K/P. One of the beads, a faience lentoid with radial fluting ( 13 N 477 , pl. 59 r ) is of a type that may be a sensitive indicator of the second millennium. Found to be fairly common in Levels III and II, this type apparently did not last into the first millennium; among the dozens of faience beads recovered from Level I burials (see first millennium bead types, pl. 60 and below), there is not one example of this type.

Following the occupation at Floor 2, Locus 6 was again raised by a considerable height. The doorway in Wall K/P was blocked with rubble behind a veneer of bricks (pls. 17, 23a) and the face of the blocking was lightly mudplastered. A bed of sand was put down on Floor 2 , and then the room was packed with five courses of unmortared mudbrick, reddish in color and clayey in consistency. Floor 1 , of red clay, ran across the top of the packing. A bead ( 13 N 428 , pl. 59p), was found atop the packing and a whole bowl (unregistered, pl. 72n) was recovered in the occupational accumulation just above Floor 1.
Locus 7, subsidiary room (pl. 11), was cleared to Floor 4 over its whole extent; the construction floor, 5 , was investigated only in the probe in the southeastern portion of the room. Wall E was built above Wall BG of Level IV. Floor 4 was a thin red plaster on top of
deliberately laid grayish foundation fill. Floor 3 was a second thin red plaster laid on top of a dark gray soil that was occupation buildup upon Floor 4. Floor 2 was the top of a 60 cm thick clay-rich deliberate fill. A Mitanni-style cylinder seal ( $14 \mathrm{~N} 6, \mathrm{pl} .89 \mathrm{~g}-\mathrm{h}$ ), was found in the fill, as was a clay sealing with an indistinct impression ( 14 N 329 , pl. 92d). Five courses (ca. 60 cm ) of mudbrick packing were preserved above Floor 2, but no trace of a laid floor was noted, so the top of the packing was called Floor 1. On this surface, two bowls (one unregistered and 13 N 74 , pls. 68a, 76d) were discovered.
Locus 58, inner subsidiary room (pl. 11), was apparently not part of the building as initially laid out, since it was created by building walls $\mathrm{T}^{\prime}$ and $\mathrm{AZ}^{\prime}$ against Walls D and E . Originally at Floor 4, this had been an outside space, with access to the building through Wall E. The whole of Locus 58 was excavated to the level of Floor 3, except for a section left standing in the southern corner around an intrusive drain. Floor 4 and the bottoms of walls were reached only in the northwestern end of the locus. In checking the bottom of Wall E, we exposed a hard surface (Floor 5) on fallen mudbricks, into which had been cut a wide, shallow foundation trench. On its northwestern side Wall E rested on top of a Level IV wall, and there was no foundation cut there.

Floor 4 was a hard, red clay surface ca. 15 cm above the construction floor. A mudbrick sill in the doorway of Wall E (pl. 23b) was two courses (ca. 22 cm ) high, except at the southwestern jamb, where an extra brick had been added. The lowest course of the sill was laid roughly at the level of Floor 5 (between the first and second courses of Wall E). Floor 4 , at the bottom of the second (upper) course of the sill, sloped up sharply from the center of the doorway toward the southwest, perhaps accounting for the extra course of mudbrick at the southwest jamb of the doorway.

Floor 4 must have existed as an extramural surface for a short period of time, but Wall $T^{\prime}$ (and presumably Wall $A Z^{\prime}$, although the bottom of Wall $A Z^{\prime}$ was not reached in the course of the excavations) was built at that floor and the space incorporated into the building. Wall $\mathrm{T}^{\prime}$ was not bonded to Wall E (pl. 24a), but the corner formed by the two walls was covered by a single plaster. Wall $\mathrm{AZ}^{\prime}$, as observed at the level of Floor 3, was not bonded to Wall D, but the corner formed by the two also carried a single mudplaster. On top of Floor 4 were about 17 cm of gray occupation debris. Floor 3 (pl. 15) was the top of a 3 to 5 cm thick red clay layer on top of that debris. In the doorway of Wall E, Floor 3 ran just above the Floor 4 sill. The floor was ca. 3 cm thick in the center of the doorway and ca .8 cm thick at its northeastern jamb. In the eastern corner of the room on the floor (pl. 24b) was a single baked brick and scattered around it a number of whole pottery vessels 14 N 336 (pls. $69 \mathrm{~b}, 79 \mathrm{~m}$ ), 14 N 337 ( $69 \mathrm{c}, 80 \mathrm{j}$ ), and 14 N 338 (pls. 68k, 78 h ) and 14 N 370 (pls. 68g, 72d) and 14 N 371 (pls. 68j, 78g). There were also pottery sherds and the bones of cattle, sheep, sheep or goat, dog, and human (Appendix B). A faience bead ( 14 N 393, pl. 59ff), was also found on Floor 3.

A layer of sand, up to 6 cm thick, was spread on Floor 3, and then a clay fill was deliberately laid in the room to a depth of about 61 cm . Floor 2, of red clay, was put on top of that fill. Two beads ( $14 \mathrm{~N} 362 \mathrm{a}-\mathrm{b}$, pl. 59dd, ee), a clay figurine of an animal ( 14 N 363 ,
pl. 57h), and a Mediterranean shell (Murex, Lot D-714)' were recovered from the fill. Two infant graves (Burials 74-75) were encountered in the fill at the southeastern end of the room ( pl .25 a ). Whether the two burials were made at the time the fill was deposited in the locus or cut from Floor 2 could not be determined with certainty, but we assume that the graves were cut from the floor. The burials were definitely sealed by the mudbrick packing that preceded Floor 1. Burial 74 was in a pottery jar located alongside Wall AZ' ca. 1.20 m from the eastern corner. The neck and rim of the jar had been removed prior to the interment. The skeleton was almost completely decayed. Burial 75 (pl. 25b), in the eastern comer of the room, was in an unbaked clay container that disintegrated as we excavated it. A pottery bowl ( 14 N 305 , pls. 68b, 75e) rested on this infant. The skeleton, in bad condition, had its head to the west. On Floor 2 , not associated with the burials, were a faience bead ( $14 \mathrm{~N} 318, \mathrm{pl} .59 \mathrm{cc}$ ) and a pottery bowl ( 14 N 357 , pls. $68 \mathrm{~h}, 72 \mathrm{j}$ ).

Five courses of packing were preserved in the doorway of Wall E, but only two and one-half to three courses in the room itself. Floor 1 above the packing was not preserved.

## STORAGE

Locus 12 (pls. 11, 15, 26a), a long, narrow room adjacent to the reception suite, was cut by at least two pits. Pit O, stratigraphically intermediate between Levels III and II, was probably made in connection with the construction of the Level II building (see below). Pit B, was a large one cut from Level I (see below). Only some remains attributable to the construction and lower floors of the building were preserved in Locus 12 . Walls $\mathrm{H}, \mathrm{K} / \mathrm{P}$, and $T$ were fairly intact, but Wall $A B$ was almost completely destroyed.

The bottoms of the walls of the room were reached in the southwestern portion of the locus (pl. 11). At least in that area those walls were set in shallow foundation trenches cut into a series of alternating clay and sand surfaces. Floor 4 was grayish to black in color in the southwestern portion of the locus; it was a reddish-brown plaster layer ( $8-10 \mathrm{~cm}$ thick) in the doorway in Wall K/P, where it was laid directly on top of the brick sill (see Locus 6 ). A bowl ( 14 N 299 , pl. 75b), turned upside down on the floor in the doorway, is reminiscent of bowls found in similar situations in other contexts at Nippur; for example, in an Old Babylonian house in Area WB. It has been suggested that bowls found near doors or under floors had magico-religious significance (Gibson et al. 1978: 56-57).

Floor 3 (pl. 15) was the top of a reddish-brown clay layer, put down on Floor 4. Two bowls ( $13 \mathrm{~N} 522-23$, pls. 68d, $72 \mathrm{f}, 75 \mathrm{~d}$ ) were found on Floor 3; a blue faience bead ( 14 N 3 , pl. 59 u ), and three pottery goblets (Lot D-555, unregistered, pl. 791) were found on the floor along Wall H, as were a few animal bones. A pile of sherds and a whetstone ( 14 N 34 , pl. 56f) were found on the floor at the southwestern jamb of the doorway in Wall K/P.

Probably at the end of the Floor 3 occupation, extensive repairs were made to the walls of the room. The face of Wall K was cut back and the wall refaced (pl. 26b). The cut-back face of the wall, cleaned in the fourteenth season, had bricks sloping down from each end

1. The identifications of shells in this volume, by David Reese, are preliminary. He is preparing a report on shells from Nippur.
toward the center, suggesting that the wall had slumped and bowed. The face of the wall was cut back ca. 10 cm at the level of the floor and ca. 30 cm at a level one meter above it. The wall refacing consisted of a veneer of mudbricks retaining a fill of sand and sherds. That face projected ca. 6 cm over the original face of the wall below. Though it was not investigated in detail, Wall H was apparently repaired at the same time as Wall K. Above Floor 3, the face of Wall H overhung the original face by ca. 10 cm . The repair faces of both walls were covered by a single thick red mud plaster.

When the repairs were made to Walls $K$ and $H$, the northeastern section of Wall $P$ was also repaired (pl. 27a). The collapsing brick of the face of that section of the wall was cut away, and a trash fill that included pieces of mudbricks and sherds was sealed with a veneer of mudbricks laid directly on top of the sherds and whetstone mentioned above. The repair formed a substantial buttress, sloping out from the preserved top of the wall down to the floor (pl. 27a).

The repairs to the walls of Locus 12 were made, in all probability, in connection with the raising of the level of the floor. Prior to the raising of the floor level, the doorway in Wall AB was blocked (pls. 16, 27b), but the evidence for that blocking was almost totally destroyed by Pit O (see below).

Little trace of the later (upper) floors that were found in other rooms of the building was found in Locus 12. Two features, however, provide evidence that the room was, in fact, occupied at Floors 2 and 1. First, in connection with the latest raising of the floor (Floor 1), the doorway in Wall K/P was blocked by a skin of bricks on each side (pl. 17, and see Locus 6 , above). The skin on the Locus 12 side of the doorway was found partially intact. Second, an apparently isolated block of mudbrick, found in the locus during the thirteenth season when the stratigraphy of the building was not yet clear, was in all likelihood a remnant of the mudbrick packing under and associated with Floor 1.
Locus 25 (pls. 11, 15-16) was cut by the same large Level I pit (Pit B) as Locus 12 and badly damaged by it. Due to a lack of time, the fill of the pit was left unexcavated within the room. The walls of the room were outlined, but their bottoms were not reached, and the floors were excavated only in the northeastern end of the locus. Floor 4 was a dark gray clay surface. A mudbrick sill existed in the doorway of Wall H. At the southeastern jamb of that doorway, sunk just below the floor, was a stone door socket (pl. 11). In the doorway of Wall AB an 8 cm thick soil layer, presumably occupation debris, was noted above Floor 4. Floor 3 was the top of a red clay floor. As at Floor 4, a new mudbrick sill was laid in the doorway of Wall H.

The doorway in W all AB was blocked and the blocking was plastered over subsequent to the occupation at Floor 3, presumably in connection with the raising of the level of the floor (pl. 16). The clay fill and mudbrick packing elsewhere associated with Floors 2 and 1 had been largely cut away, but a pivot was found at the northwestern jamb of the doorway in Wall H (pl. 17). Its elevation suggests that it was associated with Floor 1.
Locus 63 was, like Loci 12 and 25, cut by Pit B from Level I (pl. 28a). Due to lack of time, we did not remove all of the fill of that pit but left a rectangular island of debris in the middle
of the room (pls. 11, 15-16). The walls of the room were traced, but their bottoms were not reached. The succession of floors, preserved only in the north corner of the locus, was recorded in section. Floor 4 was a gray layer. Floor 3 was a red clay layer laid directly on Floor 4. At Floor 3 the face of the northwestern wall of the locus (Wall BD) overhung the face of the bricks below. A 5 cm thick layer of gray soil, built-up occupational debris, was recorded above Floor 3 in the doorway leading to Locus 25 .

Subsequent to the occupation of Floor 3, the doorway in Wall BF was blocked with mudbricks (pl. 16) and a veneer of mudbricks (largely whole, but some fragmentary) was added to the face of Wall BF at its join with Wall H. The blocking and skin of bricks were largely reddish brown and were not plastered. The door blocking and repair were presumably associated with the change in the level of the floor. The red clay deliberate fill and Floor 2 were noted, but only traces of the mudbrick packing remained, and Floor 1 was not preserved at all.

## PRIVATE WING

Locus 30 was the inner court in the northern sector of the building (pls. 11, 15-17, 28b). The northwestern wall (Wall BC) was built directly on Floor 5, an ashy surface. At Floor 4, a red clay layer ca. 30 cm above the construction floor, there was a mudbrick sill in the doorway of Wall H. The sill consisted of a single course of bricks. At the doorway of Wall R, Floor 4 was just below the top of the foundation level and so the bricks of the wall's foundation, which were laid across the doorway, effectively functioned as a sill. Following the occupation of Floor 4 , a 3 cm thick layer of sand was put down over the whole of the locus, and the face of Wall BC to the southwest of the doorway between Loci 30 and 59 was repaired with fragments of baked bricks (pl. 15). A red clay layer was put down over the bed of sand and was thicker against the walls than in the center of the court. The top of the clay layer was called Floor 3. As at Floor 4, a sill was created in the doorway of Wall H (pls. 15, 29a) by laying a single course of mudbricks on top of the layer of sand and plastering it over. As will be described in detail under Locus 15 , the doorway of Wall R was blocked at Floor 3 (pls. 15, 29b). In the court, Floor 3 was laid against the top of the lowest course of the blocking. A layer of loose, dark gray occupational debris had accumulated above that floor.

The uppermost layer above Floor 3, but directly below Floor 2, was reddish brown in color and $30-40 \mathrm{~cm}$ thick. Floor 2 in this locus had a distinct thickness, varying between 5 and 10 cm , the result of continuous use as an unroofed space with occasional rain and the accumulation of mud brought into the building. The floor sloped down from the walls of the room toward its center. As at earlier floors, a sill, consisting of two courses of mudbrick, was laid in the doorway of Wall H (pls. 16, 29a). The doorway in Wall R was reopened at this time.

The mudbrick packing for Floor 1 was deposited on a layer of sand spread over Floor 2. Five courses of mudbrick were preserved along Wall BC, but only four courses in the central portion of the locus. In the doorway of Wall H no evidence of the mudbrick packing
was found because a Level Il wall, constructed through the doorway, had cut it away. No trace of Floor 1 was preserved anywhere, so this designation was given to the top of the packing.

A pottery jar (pl. 83e), containing the burial of an infant, was found in the mudbrick packing in the northwestern portion of the court (pl. 17). The skeleton was badly decayed, even orientation could not be determined, and no burial number was given in the field, but it has been designated Burial 29a for this volume. The cut for the jar was ca. 40 cm across, but the surface from which the cut was made could not be determined. It is certain that it was not from Level II since the cut was sealed by the floor of the Level II locus (Locus 33) above.
Locus 59, in the northern part of the building (pls. 11, 15-17), was cleared to foundation level, but the bottoms of the walls were investigated only in its western corner. The southwestern and northwestern walls of the room (Walls H and BD, respectively) were built directly on the clean, red clay surface designated Floor 5. The doorway in Wall BD was not indicated at foundation level; the dark gray bricks of the wall were built across that space (pl. 30a). Floor 4 was a dark, gray-black clayey floor, 15 cm above the surface on which Walls H and BD were built; it was roughly level with the top of the brickwork in the Wall BD doorway (pl. 11). At Floor 4 the face of Wall H projected over the face of the foundation below by ca. 7 cm . A lump of clay with cloth impressions ( 14 N 281 , pl. 92e), an unbaked clay jar stopper ( 14 N 358 , pl. 57 g ), a copper pin ( 14 N 304 , pl. 58 n ), beads ( 14 N 303, pl. 561), and a Persian Gulf shell (Clanculus, Lot D-701) were found on the floor near the doorway of Wall BD. In the southern corner of the locus was a baked brick, which was in the position of a doorsocket but had no marks of such use; a number of goblet bases and jar sherds were found around it. The cluster of artifacts is similar to that on Floor 3 in the east corner of Locus 58, described above. It is possible that both rooms served similar functions, for instance, food preparation, but not enough evidence is present to establish such a function. A 5 cm thick layer of occupation debris was found above Floor 4.

Subsequent to the occupation of Floor 4, the doorway in Wall BD was blocked (pls. 15, 30a). The blocking was of reddish-brown bricks (in contrast to the dark gray bricks of the walls) of uniform size ( $29 \times 29 \times 11 \mathrm{~cm}$ ), and the face of the blocking was plastered. Floor 3 was a reddish-brown clay floor, level with the top of the bottom course of the Wall BD blocking. A 10 to 15 cm thick layer of grayish occupational debris was noted above Floor 3. A Clanculus shell (Lot D-349, unregistered) was found in that debris.

The blocking of the doorway to the outside gave Locus 59 a more private character, which may be reflected in the burial of an infant (Burial 72, pls. 16, 30b) in the fill below Floor 2 alongside the southeastern wall. The surface from which the burial was made was not determined, but it was likely to be Floor 2 , since the burial cut was sealed by the mudbrick packing under Floor 1. Like Burial 75 in Locus 58 , the skeleton was in an unbaked clay jar, the head to the east. In this case, however, a bowl ( 14 N 180 , pls. 68e, 76a) was inverted over the skeleton.

A baked-brick door socket was just below Floor 2, against the northeastern jamb of the doorway in Wall BC.

As in the preceding loci, sand was laid down above Floor 2 as a bed for mudbrick packing. Only two courses of the packing were preserved in the locus and no trace of Floor 1 was found; the top of the packing was called Floor 1 in the field for ease in recording. A glazed bead ( 14 N 173 , pl. 59 bb ) was discovered in the mudbrick packing.
Locus 60 (pls. 11, 15-17) was only partially cleared; the northeastern portion of the locus was left unexcavated. The bottoms of the walls were reached in the western corner. Walls BD and BE were built on the red clay surface, Floor 5 . Floor 4 was a gray-black clayey floor $15-25 \mathrm{~cm}$ higher. Floor 3 was the top of a reddish-brown clay layer put down on top of Floor 4. Several pottery goblets (D-348, unregistered) and sherds were found on Floor 3 in an area of gray-green discoloration along the northeastern limits of excavation.

The fill below Floor 2 was 67 cm thick in the room. As expected, above Floor 2 was a layer of sand, underlying a mudbrick packing. Two or three courses of packing were preserved, but no trace of Floor 1 was found, so the preserved top of the packing was labeled Floor 1 for convenience of recording in the field.

## PRIVATE/PUBLIC INTERFACE

Locus 15 (pls. 11, 15-17) was cleared to the bottoms of its walls, except in the northeastern third of the locus. The ground surface (Floor 5), existing at the time the walls of the room were built, sloped up markedly from the southeast and southwest to the northwest, ${ }^{2}$ and the builders took steps to provide a level footing. Walls H and I were constructed directly on Floor 5, but the central section of Wall $R$ was set in a shallow foundation trench cut from that floor. The bottom of the cut was at roughly the same absolute elevation as the surface on which Walls H and I were built. ${ }^{3}$ The cut disappeared as it approached Wall H. Although the foundations of the locus were not systematically investigated, it was noted that the doorway in Wall R was not indicated by the plan of the room at foundation level. The bricks of the foundation were laid across the space later occupied by that doorway.

The first occupation floor, Floor 4 (pl. 11), was dark gray in color and ca. 23 cm above Floor 5. At that floor the doorway in Wall R was ca. 1.80 m wide. Subsequent to the occupation of Floor 4, however, the doorway in Wall R was blocked (pls. 15, 31a). The plastered face of the blocking projected $10-12 \mathrm{~cm}$ into the room beyond the wall. Floor 3 was the top of a thick layer of red clay laid directly on top of Floor 4. A mudbrick bin (definitely not a hearth) was built against the plastered face of the blocking at Floor 3. The bin was semi-circular in shape, ca. 40 cm wide and preserved ca. 30 cm high. The bin was filled with chunks of baked brick, pottery including a whole goblet ( 14 N 199 , pls. 69a, 790), and bones of cattle, sheep, sheep or goat, and pig (see Appendix B).
2. In the SE and SW the absolute elevations varied from 82.35 to 82.44 ; in the center and NW absolute elevations varied from 82.52 to 82.57 .
3. The elevation of Floor 5 along Wall I varied from 82.35 to 82.44 ; the bottom of the trench in which Wall R was built had an elevation of 82.49 .

The clay fill laid preparatory to Floor 2 was thicker in this room than elsewhere and was 80 cm in places. At Floor 2 (pls. 16, 31a) the doorway in Wall R was reopened, but, at 95 cm in width, it was a much narrower passage than it had been on Floor 4; the blocking that had existed at Floor 3 was partially cut down and a new southwestern jamb constructed. The occupation debris above Floor 2 achieved a thickness of 30 cm as it reached the doorway. A rimless jar containing a disintegrated infant burial (Burial 31, pls. 16, 32a) was found in the southern corner. Whether it was put there at the time the room was filled or (more likely) cut from Floor 2 could not be ascertained. It was, in any case, sealed by the mudbrick packing associated with Floor 1.

Five courses of the mudbrick packing above Floor 2 were preserved in the room and in the doorways of Walls R and AC. Reed matting, below the top course of the packing, was presumably intended to level the mudbrick courses and/or prevent uneven settling. No trace of Floor 1 was preserved, so the surface of the packing was called Floor 1. A jar containing a badly decayed infant burial, Burial 29 (pls. 17, 31b-c), was found in the upper courses of the packing, but once again there was no evidence of the surface from which it had been made, although we assume it came from Floor 1. Enough of the skeleton was left to determine that it had been oriented with the head to the northeast.

Locus 15 was cut by two pits from Level I. Pit C was relatively large, ca. 2.25 m across, and cut the northeastern end of the locus, damaging Wall AC, nicking Wall I (pls. 12, 15-17, 31a, 33b), and continuing down below the level of Floor 3. Pit E was roughly circular, with a projection to one side (pl. 17). It cut into the center of the locus and disturbed only the mudbrick packing.
Locus 52, to the northeast of Locus 15 (pls. 11, 15-17), was only partially excavated; a block of debris was left against the northwestern wall of the room. A black clay floor (Floor 5) below Floor 4 was probably the surface on which the walls of the room were erected, but due to a lack of time we could not relate it to the walls. Floor 4 was a gray clay floor 20 cm above Floor 5 . Floor 3 was a thin gray clay layer 15 cm above Floor 4 .

A glazed paste bead ( 14 N 118, pl. 59aa) was found in the red clay fill below Floor 2. Five courses of mudbrick packing below Floor 1 were preserved in the doorway in Wall AC , but only two or two and a half courses were preserved in the room itself.

## OUTER COURTYARD

Locus 54 (pls. 11, 15-17) was the major courtyard of the building. Floors 2 and 1 were cleared over the whole of the locus; Floor 3 was reached only in a probe we made at the doorway of Wall H in order to check the repair on that wall (see Locus 6). At the two upper floors neither the repair Wall H nor Wall AC was bonded to the southeastern wall (AZ) of the courtyard.

The usual red clay-rich deliberate fill was noted above Floor 3 in Locus 54, but in contrast to the other loci in the building, Floor 2 was not laid directly on that fill. Instead a layer of greenish-gray sand was spread on top of the fill and one course of red clayey mudbrick was laid in the sand bed over the whole of the locus, except along Wall H . There
a loose deliberate fill, perhaps connected with the repair made to the wall, was found instead. Floor 2, a 2 cm thick layer of gray clay, was put down on top of the mudbrick and the fill along Wall H. The unusual base for Floor 2 was probably a function of the fact that that locus was open to the sky. Above the course of mudbrick and Floor 2 a bench was constructed against the plastered faces of all four walls of the locus (pls. 13a, 16, 34a). The bench consisted of two rows of mudbricks laid two courses high. It should be noted that the photograph (pl. 34a) was taken after we had removed the mudbrick base under Floor 2 in a strip along the bench against Wall $A Z$ and in the corner formed by Walls $A C$ and $A Z$; so the bench appears to have been three courses deep. The bench varied from 28 to 43 cm wide. Its tops, faces, and ends were mudplastered.

The entire court, including the benches, were covered and enclosed by five courses (ca. 65 cm ) of mudbrick packing above Floor 2 (pl. 14). Atop the packing were four alternating layers of red and gray clay plaster, which we called, collectively, Floor 1. A baked-brick paving of whole and fragmentary bricks (pls. 17, 34b, 35), only partially preserved, was embedded in these clay plasters. A horizontal drain, under but associated with the paving (pl. 36), sloped down from the courtyard, through the doorway in Wall AC, across Locus 53, and out the doorway in that locus' northeastern wall (Wall AY). The drain consisted of a baked-brick channel set below the level of the floor, in the mudbrick packing of the locus. The channel was lined with bitumen and was entirely covered originally by the bricks of the courtyard paving. The intake of the drain, in the northern end of the court, consisted of a layer of potsherds and a patch of bitumen that sloped down from the level of the floor. The channel dropped roughly 33 cm from its intake to the doorway in Wall AC and so was clearly intended to drain water from Locus 54 and out through Locus 53, presumably to the outside of the building. In the drain, we discovered a clay figurine of a bird ( 14 N 170 , pl. 56 i ) and two whole bowls ( 14 N 307 , pls. $68 \mathrm{i}, 72 \mathrm{~m}$; and 14 N 308 , pls. 68c, 76 c ).
Locus 53, to the east of the courtyard, was cleared only to the level of Floor 2 (pl. 17). Earlier floors were reached in soundings made at the southeastern jamb of the doorway in Wall AY and in the east corner of the locus (pls. 11, 15-16). Neither the southwestern nor the northeastern walls (AC and AY) was bonded to the southeastern wall of the room (Wall AZ).

The soundings showed that Wall AY was set in a shallow foundation trench cut from Floor 5, a reddish surface. Floor 4 was the top of an 8 cm thick gray soil layer, and Floor 3 ran atop a red clay layer 15 to 24 cm thick, that rested on Floor 4.

The deliberate fill in the locus below Floor 2 was ca. 61 cm . A Persian Gulf shell (Dentalium, D 718, unregistered) was found in it. Sunk below, but meant to be used at the time of this floor, was a horizontal drain of baked brick directly under the one described in Locus 54, above. Two courses of bricks that formed the side walls of the earlier drain (pl. 36b, lowest 2 courses) could be seen below the later (Floor 1) drain.

Though the locus was cut by pits from Level I, the mudbrick packing for Floor 1 was preserved in its western corner and along Wall AC. No trace of Floor 1 was found, so the top of the mudbrick was given that designation. A fragmentary baked clay figurine of a
seated human ( 14 N 141 , pl. 56 g ), of an Old Babylonian type, was found redeposited in the fill above Floor 1 .
Locus 73 (pls. 16-17), to the northeast of Locus 53, was exposed only in the process of checking the width of Wall AY. This locus was presumably the south corner of another room of the building.
Locus 56 (pls. 16-17) was bounded on the northeast and southeast by the limits of excavations, so only its western corner was uncovered. The northeastern portion of the locus was destroyed by Pit N from Level I.

Only the upper or later floors were cleared in this locus. Initially thought to be an outside space, this locus had stratification that was identical to that in the rooms of the building. As stated in Chapter I, on present evidence this must be yet another large interior room. The placement of a doorsocket on the southwestern jamb of the door of Wall AZ at Floor 2 implies that Locus 56 was to be secured from entry from the courtyard, Locus 54.

Floor 2 in Locus 56 was the top of a deliberate fill of red clay. Apparently in connection with the raising of the floor level to Floor 2, the face of Wall AZ (the northwestern wall of the locus) was cut away and a repair inserted. That repair was built of dark, somewhat soft, mudbricks. Wall BA was bonded to the repair. A horizontal drain, under Floor 2 but associated with it (pls. 16, 37a), consisted of a baked-brick channel lined with bitumen and capped with baked bricks. The drain sloped from Locus 56 down into Locus 54 and had a sherd layer at its exit in the south corner of the court. Clearly, water from Locus 56 was meant to drain into the court, Locus 54 , and then out through Locus 53 by means of the earlier of the two drains there.

Loose, black occupation debris was noted above Floor 2. Upon the debris, mudbrick packing for Floor 1 was preserved $35-45 \mathrm{~cm}$ high. In connection with the change in floor level, Wall BA was repaired. The face of the upper section of that wall consisted of small bricks and pieces of bricks and projected over the earlier face. At Floor 1, a baked-brick pavement, a continuation of the Floor 1 pavement in the courtyard, Locus 54, ran through the doorway in Wall AZ, to the southeast, directly above, but not part of the Floor 2 drain (pl. 17).

Three jars with infants (Burials 66-68) had been cut into the locus to the southeast of Wall AZ. The bones of Burial 68 were better preserved than usual; the position was flexed on the left side, with head to the northeast (pl. 32b). The jar of Burial 68 was registered as 14 N 151 (pls. 681, 83f). The surface from which the burials were made could not be determined, but since these graves were aligned with Wall AZ and since other infant burials were associated with the Level III building, Burials $66-68$ were probably associated with it as well.
Locus 57, on the southeastern edge of the excavation, was cut by a number of pits from Level I (pls. 16-17). We did not have sufficient time to investigate this locus thoroughly.

Apparently in connection with Floor 2, the southeastern portion of Wall AZ was cut away, and a repair wall built. The repair wall rested on a compacted, sandy soil. The northeastern and southwestern walls of the locus (Walls BA and BB, respectively) were
bonded to the repair on Wall AZ. Floor 2, a red clay layer, was the only floor identified in Locus 57. A pottery bowl ( $14 \mathrm{~N} \mathrm{158}, \mathrm{pls}. \mathrm{68f}, \mathrm{76b)} \mathrm{was} \mathrm{found} \mathrm{on} \mathrm{this} \mathrm{floor}$. packing above Floor 2 was cut by surface pits, and no traces of Floor 1 were preserved. A very fragmentary pottery jar (Burial 69, pl. 33a) contained a few small bones and a broken pottery cup with a button base ( 14 N 153 , pls. $68 \mathrm{~m}, 80 \mathrm{f}$ ). This grave, of a small child, was found cut into the mudbrick packing near Wall BB. As with the other child burials found in WC-1, the surface from which the burial was made was not preserved, but we assume that it was Floor 1 . The cup points to a Kassite date, indicating that the burial must be related to Levels III or II.

## OUTSIDE SPACES

Locus 55 was the area outside the southeastern wall (Wall AZ') of the Level III building, extending around its southern corner (pls. 16-17). The locus was excavated only sporadically during the course of the fourteenth season. Strata and surfaces associated with the building were reached only along Wall BB, at a level ca. $40-50 \mathrm{~cm}$ below the preserved top of that wall. The southwestern face of Wall BB and part of the locus were cut by a large surface pit ( J ) that sloped down from northeast to southwest.
Locus 61 was a general designation used for spaces outside and to the northwest and southwest of the Level III building (fig. 1, pls. 11, 15-17). The individual areas excavated were given distinctive designations by appending letters to the locus number, yielding 61a, $61 \mathrm{~b}, 61 \mathrm{c}$, and 61 d .

Locus 61a was the area to the southwest of Wall T. A low, mudbrick socle was constructed along the entire length of that wall (pl. 37b). Absolute elevations indicate that the socle was associated with the later construction phases (Floors 2-1) of the building. The construction was of light brown, sandy mudbricks that contained little or no straw, laid in a grayish mud mortar. The bricks were extremely soft and were only effectively excavated by observing the color contrast between bricks and mortar. The bottom of the socle was reached at the southeastern end of Wall T, allowing a measurement of its height. It was ca. 90 cm high at that point, its top roughly level with the preserved top of Wall T. The socle was later cut by the southwest wall of the Level II building (Wall B, pls. 17-18).

Locus 6 lb was the area of the western corner outside Wall BF and Wall BH. To judge by absolute elevations, debris associated with the lower construction phase of the building was reached in the area. That debris, a brown sandy soil, contained many large sherds and pieces of baked brick. Above the sandy soil, a reddish brown mudbrick construction (3-4 courses high), a continuation of the socle, was found abutting the face of Wall BF (pl. 17).

Locus 6lc was the area of the corner outside Wall BD and Wall BH, where the socle was encountered once again. Only two courses of mudbricks were preserved.

The evidence from the areas designated Loci 6la-c suggests that at the time of Floors 4 and 3 , the area to the southwest of the Level III building was open and filled with debris. Later, at the time of Floors 2 and 1, the low mudbrick socle was built against the southwestern wall of the building to protect it from runoff from the city wall (section A, pl. 14).

Locus 61d was a sounding made to the northwest of Locus 59 in order to check the doorway in Wall BD. We defined two occupation floors, the equivalents of Floors 4 and 3 in Locus 59. The lower of the two (called Floor 2 in the field), was a hard, compact surface on which were a good number of sherds and other debris. The upper floor (Floor 1) was a hard, reddish clay surface with greenish discolorations, perhaps caused by urine or other organic waste. On this floor were many sherds. Both floors sloped down markedly from Wall BD to the northwest.

Above Floor 1 were 36 to 38 cm of dark, grayish-black soil, and above that, to an elevation roughly even with the top of Wall BD, was a brown, sandy soil. Neither the top of the dark, grayish-black soil nor the top of the brown, sandy soil were given floor designations in the field. Wall BD and the blocked doorway in that wall were covered by a single, unbroken, plaster.

## A SUMMATION OF THE LEVEL III BURIALS

As indicated in the foregoing descriptions of loci, burials in Level III were restricted to infants or small children, interred in whole or broken pottery jars (sometimes unfired), located alongside the walls of dead-end rooms (pl. 16, Loci 58, 59; pl. 17, Locus 57), and alongside walls of somewhat more accessible rooms (pls. 16-17, Loci 15,56,57) and the inner courtyard. In general, it can be said that the more public areas, such as the outer courtyard (Locus 54) and the main reception room (Locus 6), as well as the storage rooms in the western corner of the house, were not used for the burial of infants. The placement of the burials next to walls in the more private sections is clearly not random. The lack of adult burials within the house is significant. For ease of reference, a summary table of the Level III burials is included here (table 1).

Table 1. Summation of Kassite Infant Burials in WC-1, Level III

| Burial | Locus | Orientation' | Burial Jar Type | Objects | Illustration |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 29 | 15 | NE | Rim removed, ${ }^{2}$ C 1290 | - | Pls. 17, 31b-c |
| 29a | 30 | ? | Ridge-rimmed, D 309 | - | Pls. 17, 83e |
| 31 | 15 | W | Top removed ${ }^{2}$ | - | Pls. 16, 32a |
| 66 | 56 | ? | Rim lost ${ }^{3}$ | - | Pl. 17 |
| 67 | 56 | ? | Rim lost ${ }^{3}$ | - | Pl. 17 |
| 68 | 56 | NE | Ridge-rimmed, 14 N 151 | - | Pls. 17, 32b, 681, 83f |
| 69 | 57 | ? | Shattered ${ }^{4}$ | Goblet, 14 N 153 | Pls. 17, 33a, 68m, 80 f |
| 72 | 59 | ? | Unbaked | Bowl, 14 N 180 | Pls. 16, 30b, 68e |
| 74 | 58 | ? | Rim removed ${ }^{2}$ | - | Pls. 16, 25a |
| 75 | 58 | ? | Unbaked | Bowl, 14 N 305 | Pls. 16, 25a-b, 68b, 75e |

Key: ${ }^{1}$ Position of head. ${ }^{2}$ Rim and/or top were removed in antiquity, before burial. ${ }^{3}$ Rim probably destroyed after burial. ${ }^{4}$ Too destroyed to reconstruct.

## BETWEEN LEVELS III AND II

Some time subsequent to the occupation of the Level III building, but prior to the construction of the Level II structure, a cut (Pit O, pls. 16-17) was made into the northeastern end of Locus 12 . That cut was not recognized in excavating the locus during the thirteenth season, and that failure initially caused major problems in interpreting the stratigraphy.

The difficulty in Locus 12 could be resolved, however, because the northwestern and northeastern walls ( AB and H ) of the locus were not excavated until the fourteenth season. In the previous year, no trace of the red clay fill or the mudbrick packing associated with Floors 2 and 1 in other loci could be found in this locus, but an enormous quantity of pottery and bones lay piled in the northeastern end of the room (pls. 38a-b), seemingly against the southeastern wall (Wall $K$ ) of the locus and against the door blocking in Wall $\mathrm{K} / \mathrm{P}$. The pottery was assumed in the thirteenth season to be on a floor or floors of the room, though the surfaces defined in digging could not be followed readily and were not particularly convincing as floors.

In the fourteenth season, the remains of the Level II walls above Locus 12 were removed; Wall AB and Wall H were uncovered; and the definition of the locus was completed. The evidence of Wall AB proved to be critical in reconstructing the sequence of occupation in the area and the context of the mass of pottery uncovered in the thirteenth season. First, it could be seen that the jambs and a blocking of the doorway at the northeastern end of Wall AB had been cut away. The cut had to have been made prior to the construction of the Level II building, as can be proved by the fact that the northeastern portion of the doorway and its northeastern jamb were sealed by a wall (Wall G) of that structure (pl. 38a). Pit O , the cut in question, can be reconstructed in its outine and depth from the damage to the jambs and blocking (pl. 26a). Additional evidence of the pit was provided by the character of the fill below the section of Wall $G$ that ran across the northeastern end of Locus 12 . When that part of the wall was removed in the fourteenth season (pl. 39a), the debris sealed by it was found to be a loose, brown soil similar to other pit fills, not the red clay-like fill and mudbrick found in undisturbed rooms of the building. From all evidence in the locus, we have concluded that the mass of pottery, uncovered in the thirteenth season and thought at the time to have been piled in the corner of Locus 12, had in fact been deposited in Pit $O$, which was cut some time after Level III was abandoned and before the house of Level II was constructed. Why such a cut would have been made, however, remains uncertain. Most probably, the pit was created to obtain raw material for some mud-plastering or mortaring project. When the Level II builders found a large hole in the area that was to be occupied by the new structure, they filled it with pottery and other debris in order to provide solid ground.

The detection of the original cut that destroyed the jambs of the doorway and most of the blocking in Wall AB was complicated by the fact that Locus 12 and Pit $O$ were, sometime after the occupation of the Level II building, intruded upon from the northwest by the end of a huge pit (Pit B; see Level I). Pit B cut through the Level II building and well down into the

Level III structure, damaging Wall AB of Locus 12 and extending about 15 cm into that locus. It was Pit B that destroyed most of the central portion of Wall AB down to within 15 cm of Floor 3. In excavating the evidence of the damage to Locus 12 in the fourteenth season, we did not at first recognize that there were, in fact, two cuts ( $O$ and $B$ ), and initially we assigned objects found here to Pit B. Most of the finds that had been attributed to "floors" of Locus 12 in the thirteenth season (at least the finds above the level of Floor 3) were almost certainly from Pit O. But with the exception of three object lots recovered in the fourteenth season, it is not possible to separate absolutely what was found in the earlier pit (Pit O) from what may have been in the end of Pit B. These three lots, from fill sealed by walls of the Level II building and therefore certainly from Pit O , included pottery, e.g., 13 N 509-16 (pls. 69f; 73k, m; 76e-f, i; 79t, z), and a fragment of an animal statuette (lion?) in baked clay ( 13 N 491 , pl. 56b). Objects that were found in the thirteenth season, which probably were from Pit O but might have come from Pit B, are included with the finds from Pit B, the later of the two; in the Catalogue of Registered Objects it is noted that these items were intrusive into Locus 12 .

One item, a pottery bowl of first millennium type ( 13 N 483 , pls. $62 \mathrm{~d}, 86 \mathrm{~h}$ ), was originally recorded as from "Locus 12, Floor 2," a floor that did not really exist. This bowl was found directly above Burial 30 and we have concluded that its position can be explained either as a chance inclusion in the grave shaft or as part of its grave goods. In the catalogue, we have included it with the material from that grave, noting that its assignment there is not certain. We cannot put it with the material from Pit B since the position of the bowl was well clear of the intrusion by that pit. We also cannot assign it to Pit O since that pit had been created before the building of Level II, which was Kassite in date, while this bowl is centuries later in manufacture.

## LEVEL 11

The description of the house of Level II (pl. 19) begins with the courtyard and reception suite to the southwest, proceeds to the loci southeast and northeast of the court and then to the domestic wing in the northwestern end of the building, and ends with the exterior spaces. The foundation level (pl. 18) is different in a number of details from the superstructure. The fact that the foundations of Level II cut down into and sometimes abutted walls of Level III shows that no appreciable time elapsed between the demolition of Level III and the construction of Level II.

## COURTYARD

Locus 11, the outer court (pl. 19), in the center of the excavated area, was laid out in the foundation level as three smaller spaces, Loci 17, 18, and 82 (pl. 18).

## FOUNDATION

The courtyard was extensively eroded, even in the foundation level, and was cut by pits that can be attributed to Level I. Its southeastern wall (Wall AQ), evidenced only in the
foundations, was constructed directly on the mudbrick packing of the Level III building. The bricks of the wall were set in an unusually thick ( $3-5 \mathrm{~cm}$ ) mud mortar. A cylindrical bakedclay drain (pl. 39b), was laid horizontally through the lowest course of the wall.

Loci 17 and 18 were small, rectangular foundation spaces above the southeastern half of Level III, Loci 30 and 62. The northwestern wall of Loci 17 and 18 (Wall S) was built in a deep foundation trench cut into the mudbrick packing (pl. 40a) and walls below. The bottom of the trench was ca .35 cm below the preserved top of the mudbrick packing projecting up into Locus 17; ca. 22 cm below in Locus 18; and ca. 35 cm below the preserved top of the northeastern wall of Locus 30 (of Level III, Wall X). In Locus 17, ca. 10 cm of deliberate fill were put down in the trench before the bricks of Wall $S$ were laid.

Wall V, dividing Loci 17 and 18, and Wall AW, at the northeast of Locus 18 , were also built in foundation trenches that cut into the Level III building. The trench for Wall V was ca. 1.15 cm wide and stopped against the face of Wall R of Level III (pl. 17). The lower courses of Wall V (Level II) abutted the plastered face of Wall R (Level III), while the upper courses were bonded to its Level II rebuilding, Wall Z. The bottom of the Wall AW trench was ca. 60 cm below the preserved top of the mudbrick packing in Locus 62 of Level III. Like the foundation trench for Wall V, it also stopped against the face of Wall R. The lowest six courses of Wall AW abutted the plastered face of Wall R, while the upper courses were positioned out and over its top (pl. 40b).

The southeastern wall of Loci 17 and 18 (Wall Z) consisted of segments of brickwork incorporating the top of Wall $\mathbf{R}$ of Level III. Wall R, built of grayish-black mudbricks, was apparently still preserved to a considerable height when construction on the Level II building began. In Locus 17, the northwestern face of Wall R was cut down to ca. 35 cm below its preserved top and Wall Z , of light brown mudbricks, was inserted. The brickwork of Wall Z projected $15-20 \mathrm{~cm}$ beyond the plastered face of Wall $R$ below. The upper courses of Wall Z were bonded into Wall V. The southwestern end of Wall Z, abutting Wall $G$, was lower, only one brick wide, and was probably meant as a sill for a doorway.

A second section of Wall Z, at the southeast of Locus 18 (pl. 18) was built in an irregular cut down into Wall R of Level III. This section was only ca. 30 cm (one mudbrick) wide, and was oriented differently from the rest of Wall $Z$, and it is not certain which of the two openings was meant to be a doorway. Since Loci 17 and 18 were not carried out in the actual superstructure, this question is moot.

The deliberate fill in Loci 17 and 18 was a very dirty clay-like soil. A fragment of a baked clay figurine of a tambourine player (Lot C 1279, unregistered) was found in Locus 17; a broken pottery jar (Lot C 1312, unregistered) in Locus 18.

## SUPERSTRUCTURE

Locus 11 (pl. 19) designates the courtyard of the Level II building as it existed at floor level. Two floors were recognized in the course of the excavations but traced only in the less damaged, northwestern portion of the locus. In all probability, there was an even lower, earlier, floor that we did not recognize, since in Locus 27 to the north, there was a floor
(Floor 1) that was lower in elevation than the two floors in the courtyard; at that floor, a doorway connected Locus 27 with the courtyard, and an equivalent floor had to have existed in Locus 11. The lower of the two floors excavated in Locus 11 (Floor 2) was recognized as a salt-covered surface. Here, a paving of whole and fragmentary baked bricks ran from the courtyard and through the doorway of Wall S. The whole bricks were of various sizes (41$42 \times 41-42 \times 7 \mathrm{~cm} ; 35 \times 35 \times 7 \mathrm{~cm}$; and $30 \times 30 \times 7 \mathrm{~cm}$ ). A baked-brick pivot, found on the courtyard side of Wall S, to the left of the doorway and resting on top of Wall V, can be assigned to Floor 2. The pivot indicates that at Floor 2 the door to Locus 27 swung into the courtyard.

The upper floor in Locus 11 (Floor 1) was about 20 cm above Floor 2, and like that floor was recognized as a salt-covered surface. At Floor 1 a low mudbrick bench or buttress (pl. 19, Walls $\mathbf{N}$ and O ) was built against the face of Wall S. That buttress, one and a half bricks thick, may have been meant to strengthen Wall S, which may have been affected by water damage. Wall S and the buttress were cut by a double-jar burial (Level I, Burial 28). Objects in the fill above Floor 1 included four corroded pieces of copper (Lots C 465, 467, unregistered), a flint flake (unregistered), a lapis lazuli bead ( 13 N 338 , pl. 59n), and a pottery bowl (fragmentary, unregistered).

## RECEPTION ROOM

## FOUNDATION

Locus 83 (pl. 18), a long rectangular space in the southwest center of the building, lay over Level III, Loci 6 and 12. The southeastern wall of the locus (Wall AN) was built in a shallow foundation trench that cut into Wall D of Level III. From the dirty clayey deliberate fill of the locus we recovered a pottery bowl and goblet ( $13 \mathrm{~N} 403-04$, pls. 69e, 74b).

The northeastern wall of the locus (Wall G) was disturbed roughly half way along its length by a small pit, which also intruded into Locus 6 of Level III. The pit had been created to sink a pivot stone (pl. 41a) for a door in the room above, Locus 42.

## SUPERSTRUCTURE

We assume that Locus 42 (pl.19) was the chief reception room in the Level II building. Because of erosion and pits, Floors 2 and 3 could be found only along the northeastern edge of the room, while Floors 1 to 3 were preserved in the northwestern end of the room. The stone pivot found in the pit alongside wall $G$ in Locus 83 , below, must have served a nowdestroyed doorway and floor of this locus. The surface from which the pit was made was not preserved, but it was sealed by Level I floors. Even if the cut were not sealed by those floors, it is hardly possible that the pivot stone could have been associated with them since they were $60-70 \mathrm{~cm}$ higher than the pivot. Above the pivot, the pit was packed with mudbricks, apparently part of an ancient filling operation. Three cuneiform tablets ( 13 N 126-27, pl. 93a-b; 13 N 131 , pl. 94a), as well as a blank tablet (unregistered), were found among the mudbricks.

Even though limited in extent, Floor 1 yielded pottery lots.

## WITHDRAWING ROOM(?)

Locus 40 (pls. 18-19) was a small foundation space over the southeastern portion of Level III, Locus 6 (pl. 41b). It was cut by a small, roughly circular surface pit (Pit I, Level I). The southeastern wall of the locus (Wall AO) was built in a shallow trench that cut into Wall D of Level III but sat directly on Wall AZ, indicating that at the time the Level II walls were built, Wall D was preserved higher than Wall AZ. The room above this foundation space was almost entirely destroyed (pl. 13a). It would have been a withdrawing room off the reception room, Locus 42 .

## SUBSIDIARY ROOM

## Foundation

Locus 14 (pl. 18) was a foundation space for the northwestern part of Locus 5 (pl. 19). The southeastern wall of the locus (Wall M) was not bonded to the southwestern wall (Wall B). The northwestern portion of the locus was cut by Pit B from Level I. A white faience bead ( $13 \mathrm{~N} 476, \mathrm{pl} .59 \mathrm{q}$ ) and a clay spindle whorl ( 13 N 414 , pl. 57 d ) were found in the fill of the locus. A fragment of a clay figure (unregistered) was found in a brick in Wall C, when that wall was demolished.
Locus 13 (pl. 18) was a foundation space below the southeastern part of Locus 5. Wall AT was built on top of Wall E of Level III. Wall B was cut down into Wall T/T' of that level. The two lowest courses of Wall B were below the bottom of Wall AT, but the walls were bonded above.

A large amount of pottery, including a whole bowl ( 13 N 453 , pls. $69 \mathrm{~h}, 73 \mathrm{f}$ ), was recorded as from the fill of the locus. However, the context of some of the finds (pottery lots and registered objects) attributed to Locus 13 is in doubt. In excavating here early in the thirteenth season, the uppermost floor of Level III, Locus 7 and the mudbrick packing below, were exposed. It was not clear at that time that the floor and mudbrick packing were associated with a lower building, so materials from the tops of the Locus 13 walls down to and on the mudbrick packing of Level III, Locus 7 were, in some cases, collected together under the same lot numbers. Therefore, artifacts in those mixed lots, including a goblet and four pottery bowls ( $13 \mathrm{~N} 450-53$, pl. $69 \mathrm{~h} ; 13 \mathrm{~N} 482$, pl. 69d), cannot be assigned with certainty to either Level III or the Level II foundations.

## SUPERSTRUCTURE

Locus 5 (pl. 19) was a long room above two smaller foundation spaces, Loci 13 and 14. Two floors (Floor 1a and Floor 1) were noted in the southeastern portion of the locus; the floors merged and became a single floor to the northwest. The lower floor (Floor 1a) was a hard clay layer. Only pottery lots were associated with the floors. Locus 5 was cut on the northwest by Pit B (see Level I, below).

## BATHROOM

## FOUNDATION AND SUPERSTRUCTURE

In the southern corner of the building, behind the reception room, was a 2 -room bath, Loci 41 and 48 (pl. 42a). A single rectangular foundation space (Locus 84, pl. 18), deliberately filled with a dark black soil, lay beneath. The outer room, Locus 41, had a baked brick pavement in place, while Locus 48 had only remnants, including a wainscoting. The paving, Floor 1, was the equivalent of Floors la-1 of Locus 5, but it must be argued from elevations that one stepped up from Locus 5 into the bathroom complex. ${ }^{4}$ Most of the bricks of the paving measured $38 \times 38 \times 5 \mathrm{~cm}$ (variations included $31 \times 31 \times 5 \mathrm{~cm}$ ), but half bricks along Wall C were $31 \times 16 \times 5 \mathrm{~cm}$. The center and southern corner of the paving, as well as the northwestern side of Wall AP, were cut by later burials.

The wainscoting of baked bricks ( $35 \times 35 \times 6.5 \mathrm{~cm}$ ) in Locus 48 (pl. 42b) was preserved along three walls, but except for a single brick in the west corner, it was not preserved along the room's southwestern wall. The wainscoting extended, at least in part, along the northeastern jamb of the doorway in Wall AP, where there was a mudbrick sill two-courses high. A fragment of a baked brick in the west corner below the wainscoting gives evidence that originally there had been a pavement in the room. A horizontal pipe or drain must have carried water from Locus 48 through Wall AO to connect with the drain found outside the building in Locus 46 (pl. 19). However, evidence for a drain through Wall AO was destroyed by a vertical drain from Level I.

A sandy fill was found in the locus above the level of Floor 1.

## SOUTHEAST

Loci 44, 45, and 47 (pl. 18) were foundation spaces to the southeast of the courtyard for rooms that have not been preserved. Loci 45 and 47 are the equivalent of Loci 56 and 57 of Level III. The deliberate fill of Locus 45 was a brown, sandy soil, in which a yellow faience bead ( 14 N 65 , pl. 59 z ), and a copper(?) earring ( 14 N 66 , pl. 581 ) were found. Like Locus 45 , Locus 47 was only partially excavated; it was bounded to the southeast by the limit of excavation. The corner formed by Wall AO and Wall AV was cut by a later burial. The walls of Locus 47 were preserved only $20-30 \mathrm{~cm}$ high. A tablet ( 14 N 264 , pl. 105b) was found in the fill of the locus.

The walls of Locus 44 cut into the Level III building. The brown, sandy foundation fill of Locus 44 yielded a pottery bowl ( 14 N 70 , pls. 69g, 78 e ).

[^2]NORTHEAST

## FOUNDATION

Locus 51, a foundation space to the northeast of the courtyard, Locus 82, was only partially excavated. It was extensively damaged by a large surface pit (Pit K, Level I) and a double jar burial (Burial 71).

## PRIVATE WING

## FOUNDATION

Locus 38 (pl. 18), at the northeastern edge of square $0-36$, was the foundation space below Loci 27,29 , and 35 . The locus was bounded to the northeast and northwest by the limits of excavation. Both of the excavated walls that defined the locus, Walls $S$ and $Y$, were, in part, built in trenches cut into Level III below. The northwestern half of Locus 38 was cut by the large, irregular surface pit, G.

## SUPERSTRUCTURE

Loci 27, 29, and 35 were three small rooms above Locus 38 (pls. 19, 43a) formed by unbonded partitions, Walls AD and AF. The doorway from the courtyard into Locus 27 and the doorway from there into Locus 29 were intact. The doorways were not aligned, so anyone in the court could not see directly into the interior of the private wing. Not enough of Wall AF was preserved to determine the placement of its doorway. Pit G , intruding from Level I, made it impossible to decide whether or not Locus 35 had been subdivided.

Two floors, Floor 1 and Floor 0, were recognized in Locus 27, but only the lower floor, Floor 1, was recorded in Locus 29, and no attempt was made to trace floors in Locus 35. Floor 1 was the surface on which Walls AD and AF were built. In Locus 27, baked-brick pivots were embedded in that floor at the southwestern jamb of the doorway in Wall AD and at the northeastern jamb of the doorway in Wall S. In the latter doorway, a 20 cm thick layer of clay, that included broken pieces of mudbrick, was first put down on top of the wall's foundation and then a single course of mudbrick was laid on top of it to make a sill (pl. 43b). Floor 1 was roughly level with the top of the clay and mudbrick fill and the top of the sill was ca. 8 cm higher.

Above Floor 1 in Locus 27 was loose, dark brown occupational debris from which was recovered a large amount of pottery, including two whole bowls ( 14 N 64 , pls. $69 \mathrm{~m}, 74 \mathrm{~d}$; 14 N 310 , pls. $69 \mathrm{n}, 74 \mathrm{a}$ ). A cowrie shell and two small stones (unregistered) were also found in the fill. Faunal remains from Floor 1 and the accumulated occupational debris above it included the bones of cattle, sheep, and sheep or goats (see Appendix B).

In Locus 29 the fill above the floor was a loose, sandy, brown soil that contained pockets of ash; it included many sherds, and seemed very much like the fill of a cut, although no outline for a cut could be found and the pickman, an experienced Sherqati, Saleh Hussayn Hameda, insisted that it was "good fill," i.e., occupational accumulation.

The upper floor in Locus 27, Floor 0, was a tamped earth surface that was recognized only in the eastern corner of the room. We had missed this floor in excavating the rest of the
locus, hence the designation Floor 0 to mark it as above Floor 1. Floor 0 was ca. $36-38 \mathrm{~cm}$ above Floor 1. The relationship of Floor 0 to Wall AD and the doorway in that wall could not be determined, but the floor was presumably the equivalent of the baked-brick paving in the Wall S doorway and Locus 11, Floor 2. The paving in the doorway was laid on top of the mudbrick sill associated with Floor 1.

## Foundation and Superstructure

Loci 80 and 81 (pl. 18) were foundation spaces under Loci 31 and 36 (pl. 19). Only a small portion of Locus 80 was cleared and the bottoms of the walls were not reached. The deliberate fill of the locus was a dark brown, sandy soil. Locus 81 was damaged by Pit G. The walls of Locus 81 were set, in part, in shallow foundation trenches, as much as 2.30 m wide, cut into Locus 59 of Level III. At the time the foundations for the walls were built, a horizontal drain, intended to be associated with Floor 1, was laid across the northwestern end of the locus. The drain consisted of a channel of baked bricks, a single course of bricks forming the base of the channel, two courses its side walls, and a single course the cap. The drain ran through Wall AE , and its bricks were laid integrally with the bricks of the wall. The channel sloped down from Wall AE across Locus 81 and must have emptied outside the building on the northeast through Locus 38 .

Before the walls of the superstructure were built, the foundation space was deliberately filled. In places the fill was laid on the tops of the foundations, presumably as a leveling measure. For instance, the fill was noted as a distinct layer on top of the foundations of Walls Y, AH, and AE. That same fill layer between the foundations and walls was not found, however, on the northeastern side of Wall Y. There the bricks of the wall were laid directly on the bricks of the foundation. Three tablet fragments ( $14 \mathrm{~N} 216-18, \mathrm{pl} .97 \mathrm{c}-\mathrm{e}$ ), a fragment of a glazed faience cylinder seal ( 14 N 52, pl. $90 \mathrm{~h}-\mathrm{j}$ ), and a flint blade/scraper of much earlier date (Early Dynastic?) ( $14 \mathrm{~N} 398, \mathrm{pl} .56 \mathrm{n}$ ) were found in the fill of Locus 81.
Loci 31 and 36 were rooms laid out above Loci 81 and 80 . The partition of the two rooms (Wall AJ, pl. 19) was not located in the position originally laid out in the foundation (pl. 18), but a pier against Walls AE (pl. 45a) did rise above one end of the foundation wall, AK.

A single floor (Floor 1) was found in Locus 31. It was roughly level with the bottoms of the walls of the room. Elevations on the floor indicate that it was probably the equivalent of Floor 1 in Loci 27 and 29. The faces of Walls Y, AH, and AE at Floor 1 overhung the face of the foundations below. The bottom of Wall AJ, the northwestern wall of the locus, was ca. $5-10 \mathrm{~cm}$ below the level of the floor. On the northeast, Wall AJ was cut by Pit G , so it could not be determined if it and Wall Y were unbonded, as was the case with Wall AE (pl. 44a). A doorway in Wall AJ connected Locus 31 with Locus 36 (pl. 44b). A pivot stone, at the southwestern jamb of the doorway, was embedded in Floor 1, but its upper surface was ca. 6 cm above the level of the floor. A stone doorsocket was also found along Wall AH, just below the level of Floor 1. The east corner of Locus 31 and part of Wall AH, including the doorway, were cut away by a surface pit (Pit F; see Level I, below).

A number of objects were found on or in occupational fill just above the floor in Locus 31, including:

Tablet (14 N 228, pl. 98h)
Three clay sealings ( 14 N 81 , pl. $91 \mathrm{~h}-\mathrm{i}$; 14 N 117 , pl. $91 \mathrm{j}-\mathrm{k} ; 14 \mathrm{~N} 330$, pl. 91d)
Copper ring ( $14 \mathrm{~N} 42, \mathrm{pl} .58 \mathrm{k}$ )
Shell ring ( $14 \mathrm{~N} 43, \mathrm{pl} .59 \mathrm{y}$ )
Three pottery bowls ( $14 \mathrm{~N} 56-57$, pls. $69 \mathrm{i}-\mathrm{j}, 77 \mathrm{c}-\mathrm{d}$; 14 N 63 , pls. $69 \mathrm{l}, 74 \mathrm{~g}$ )
Two jars ( 14 N 36, pls. 70b, 82b; 14 N 59, pls. 70c, 82d)
Lid ( 14 N 58, pls. 70a, 78i)
The relationship of Wall AJ to the drain beside it in Locus 36 reflects the change that took place in the layout of the Level II building between its foundation and floor level. Wall AJ was built directly on the upper course of the drain's southeastern side wall. The drain was capped only from Wall AE to a point just beyond the doorway in Wall AJ. Northeast of the doorway the drain was open. The capping bricks in the doorway of Wall AJ were, doubtless, to prevent individuals going through the doorway from stepping into the drain. They also served, in effect, as a door sill.

## STOREROOM(?)

Locus 33 was a small, roughly square room over the west/northwestern portion of Level III, Locus 30. The foundations for the room were set in shallow trenches (pls. 18, 45a), and the foundation space was filled with a two-course high mudbrick packing laid directly on top of the Level III remains. The top of the mudbrick packing in Locus 33, called Floor 1, was about 15 cm higher than Locus 31, Floor 1; movement from one room to the other would have involved a step up or down. Not enough evidence existed to determine the exact function of this room. Intact occupational debris was found only alongside the walls.

In the occupational debris were found:
Two tablet fragments ( $14 \mathrm{~N} 262-63$, pls. 104r, 105a)
Copper pin ( $14 \mathrm{~N} 35, \mathrm{pl} .58 \mathrm{~m}$ )
Pottery bowl ( 14 N 37 , pls. 69k, 74 j )
Five cowrie shells (Cypraedae, from the Red Sea?, D 305, unregistered)
Locus 33 was cut by a number of pits and burials from Level I. Besides Pit $F$, a roughly circular pit, ca. 78 cm in diameter but not deep like a drain, was found alongside Wall AE. The mudbrick packing in the center of the locus was cut by a double jar burial (Burial 49) and Wall S, and the southern corner of the locus (as well as Locus 11 and Locus 17 to the southeast) by a second double jar burial (Burial 28).

As suggested above, the buttress found in Locus 11 might have been connected with supposed water damage to Wall S. That there were problems in Wall S can be shown by details. The wall was not solid mudbrick; the southeastern face was made of bricks laid directly on the four-course foundation, but the center of the wall and the northwestern face consisted of a trashy fill above which the bricks of the wall were intact. This kind of repair is
commonly found in ancient mudbrick buildings and is still carried out in modern-day Iraqi villages. The same construction method was apparently used in Walls Y, AH, and AE.

## FOUNDATION AND SUPERSTRUCTURE

Loci 28, 32, and 34 were to the southwest of Loci 31, 33, and 36 (pls. 18-19, 46a). The loci were largely destroyed by Pit B from Level I.

Locus 28 was a small room (pl. 46b), the walls of which were badly eroded or cut. Only Wall AM was traced to its bottom. That wall, bonded into Wall S, did not have a foundation like Wall S and so must not have been part of the original plan. No floors were found intact in the locus. A faience cylinder seal ( 14 N 33 , pl. 91e-f) was recorded as from the fill of the locus, but more likely it came from Pit B, the edges of which were not easy to trace here.

Locus 32 was a large space that must have functioned as an interior courtyard (pls. 26a, $46 a-b)$. The level of the foundations was reached, but they were not investigated in detail. The horizontal drain described under Locus 81 was conducted under the doorway of Wall AE. In the eastern corner of the locus, Floor 1, a light brown clay surface, could be traced for about two meters to the northwest of Wall AL. A mudbrick fireplace or oven was built on this surface against Wall AL.

In Locus 34, no floors were recognized. A tablet fragment ( 14 N 229 , pl. 98i) was found in the deliberate fill of the locus. A broken storage jar was in the corner formed by Walls AE and AI.

## OUTSIDE SPACES

Locus 46, outside and to the south of the Level II building (pls. 18-19, 47a), lay over Locus 55 of Level III. The area was cut by a large pit (J) from Level I. Discontinuous areas with several floors and occupational debris were encountered in the northwestern portion of the locus. The existence of various features, in particular the horizontal drain mentioned in relation to the bathroom (Locus 48), was the best indication of the levels of the floors.

The southeastern and southwestern walls of the building, Wall AO and Wall AS, respectively, were built in shallow trenches, as wide as 1.65 m , cut into the Level III remains below. The stub of a wall, which had been cut by Pit J, abutted Wall AO. The stub was preserved only two to three courses high ( ca .35 cm ), and its purpose is uncertain.

The horizontal drain that had carried waste water from Locus 48 had a base course and side walls of baked bricks. No trace of capping bricks remained. The channel formed by the bricks was ca. 9 cm wide, and near Wall AO its base was at the level of the bottom of the wainscoting (Floor 1) in Locus 48 . The drain, ca. 75 cm long, sloped downward to the southsoutheast, and emptied into a small area paved with sherds, presumably meant to facilitate runoff from the drain.

At roughly the same level as the base of the drain, the outer face of Wall AO was repaired with baked bricks (pl. 47a). The original mudbrick face of the wall was cut away and four courses of baked brick inserted with about 5 cm of fill behind them. This repair was
probably made because the base of the walls had decayed due to salt activated by the presence of water.
Locus 4, the exterior space running to the northwest from Locus 46 and bordering the southwestern face of the building, was not extensively excavated. Two floors, Floor 1 and 1a, were recognized. Floor 1, the earlier of the two floors, was very uneven in character; Floor 1a was a dirty gray clay. The two floors, which merged against Wall B, were tip lines from the city wall and had been tamped down due to movement through the area.

## LEVELI

A difference in the recording of surface remains in the thirteenth and fourteenth seasons should be mentioned. In the thirteenth season the surface of a square, meaning the powdery, salt-affected debris from the top of the mound down to hard dirt (about 20 cm ) was given a locus designation. The two squares cleared in 1975 ( $\mathrm{N}-37$ and O-37) were called Locus 3 and Locus 8 , respectively, when the two-meter trench segments that had originally had these designations were expanded (pl. 20). But sometimes, architectural remnants within those loci were also given separate locus designations. To avoid this ambiguity, in the fourteenth season, any architectural fragments, burials, pits, objects, etc. associated with the surface were recorded by grid square and the rubric "surface." There were some fragmentary architectural remains within this powdery matrix, and they and all cuts and burials are ordered by grid square, but reference is made, where appropriate, to the thirteenth season's locus designations.

## ARCHITECTURAL REMAINS

Fragmentary remains of an almost totally eroded building, or buildings, were found at and just below the surface of the mound.

## SQuare N-37

An isolated baked-brick pavement and vertical drain were cleared near the surface in the southeastern portion of $\mathrm{N}-37$ ( pl .20 ). The pavement (called Locus 3 , feature 1), ca. $1.40 \mathrm{~m} \times \mathrm{ca}$. 1.50 m , consisted of whole and broken bricks ( $30 \times 30 \times 7 \mathrm{~cm}, 31 \times 31 \times 8 \mathrm{~cm}$, $34 \times 34 \times 4.5 \mathrm{~cm}$ ). A cylindrical pottery drain ring under the pavement was ca. 50 cm in diameter.

Two floors were found close to the surface in the northwestern portion of N-37. The floors, given a new locus number (Locus 10, Floors 2 and 1 ), were distinct to the northeast, but merged to the southwest. The lower of the two (Floor 2) was a clean, yellow clay surface; the upper floor (Floor 1) was ashy and showed traces of burning. Pottery was collected from Floor 2. A lid and potsherds, as well as samples of charcoal and burnt reed matting were recorded from Floor 1. A single sherd lot was collected from Floors 2 and 1 as a unit. A clay sealing ( 13 N 412, pl. 91c) and sherds were found in the occupational debris just above Floor 1 .

SQuare O-37
A fragmentary baked-brick pavement (Locus 8 , feature 2 ) was found at the northern end of O-37 and occupied an area ca. $1 \times 1 \mathrm{~m}$. The pavement was made of whole and broken bricks. The whole bricks varied in size (for example, $29 \times 29 \times 6 \mathrm{~cm}, 30 \times 30 \times 6$ cm , and $33 \times 33 \times 6 \mathrm{~cm}$ ). There were no associated finds.

## Square N-38

A vertical drain of Level I was found in roughly the center of N-38 (pl. 42b). The surface with which it was associated was not preserved, but the drain passed through Level II's Wall AO and Locus 48 and its foundation space, and finally into Level III, Locus 58. The cut for the drain was ca. 1.70 m in diameter; the cylindrical pottery rings were ca .40 cm in diameter. As was usual with vertical drains, the space between the pottery rings and the edge of the cut was packed with sherds.

## MISCELLANEOUS REMAINS

Aside from the architectural fragments just described, few remains were found in clearing the surface in WC-1. A burned area ca. 1 m in diameter was found in the western corner of O-36 and the bottoms of three pottery jars were resting on a surface near the northeastern edge of the same square.

A few objects found in the surface debris or missed by the pickmen but recovered from a basket at the dump are listed in the Catalogue of Registered Objects.

## PITS

Levels II and III were cut by a large number of pits from Level I (pl. 20). The surfaces from which the pits were made cannot now be determined due to erosion. As stated in Chapter 1, we cannot demonstrate with certainty the relationship of the pits to the house remains of Level I, and in only one case (Pit L) can we determine that a pit predated one of the first millennium jar burials, which we assume to have been burials within the house(s) of Level I. The cuts have been noted, where relevant and/or appropriate, in the description of excavated loci, and are indicated on the plans of the Level II and III buildings that they affected as well as on the plan of Level I. The pits are described briefly in this section and all registered objects are listed.

In the thirteenth season the pits cutting each locus were numbered separately (e.g., Locus 1, Pit 1; Locus 2, Pit 1). That system caused some confusion in the recording and, as a result, in the fourteenth season cuts were numbered consecutively within WC-1, not by locus. For publication purposes, the pits are listed in the order in which they were initially defined and have been assigned new, consecutive letter identifications (Pits A-N).
Pit A (Square N-37) was a roughly circular pit, probably a toilet drain, with a diameter of a little more than 1 m . This pit cut Level II, Wall C and Loci 42 and 83 . The fill of the pit was a greenish soil, which we have learned to associate with organic waste. From the pit we recovered two lots of sherds and two bowls ( $13 \mathrm{~N} 283-84$, pl. 70d).

Pit B (Squares $\mathrm{N}-36$ and $\mathrm{N}-37$ ) was a large irregular cut, probably made to gain raw material for brick making or plastering. It occupied most of grid square N-36 and the northwestern portion of $\mathrm{N}-37$. The pit, delimited on the northeast and southeast but extending outside the excavated area on the northwest and southwest, cut both Levels II and III. By intruding slightly into Kassite Pit O, that had itself cut Locus 12, Pit B created difficulty in assigning findspots to some objects (see above, Level III and Intermediate Between Levels III and II). In the Catalogue of Registered Objects, artifacts that were recorded as from Pit B, but were from the specific part of the pit that intruded upon Locus 12 and Pit O , are so noted. In addition to sherd lots, objects found in Pit B included:

Cuneiform tablets ( 13 N 564, pl. 94b; 13 N 573 , pl. 94c; $14 \mathrm{~N} 201-09$, pls. $95 \mathrm{a}-96 \mathrm{c} ; 14 \mathrm{~N}$ 219-27, pls. $97 \mathrm{f}-98 \mathrm{~g}$; 14 N 232 , pl. 99b; $14 \mathrm{~N} 234-48$, pls. $99 \mathrm{~d}-102 \mathrm{~b}$; $14 \mathrm{~N} 250-51$, pls. 102c-103a; 14 N 253-61, pls. 103b-104q)
Basalt cylinder seal ( 14 N 19, pl. 92f-h)
Two clay sealings ( 13 N 556, pl. 9 lg ; 13 N 592 , pl. $90 \mathrm{a}-\mathrm{c}$ )
Fragment of a lapis lazuli bead ( 13 N 304 , pl. 591)
White glazed bead ( $14 \mathrm{~N} 20, \mathrm{pl} .59 \mathrm{x}$ )
Baked clay figurine of a camel ( 13 N 303 , pl. 57b)
Baked clay spool ( $14 \mathrm{~N} 16, \mathrm{pl} .57 \mathrm{f}$ )
Baked clay figurine of a dog? ( 14 N 17, pl. 56e)
Pottery cup with a stump base ( 13 N 315 , pls. 71a, 86j)
Pottery goblet (13 N 484, pl. 70k)
Pottery jar (13 N 485, pl. 701)
Pottery bowl ( 14 N 69, pls. 71b, 86h)
Pottery incense burner ( $14 \mathrm{~N} 292, \mathrm{pl} .7 \mathrm{lc}-\mathrm{d}$ )
The stump-based cup ( 13 N 315 ), which can be dated no earlier than the tenth century B.C., provides a terminus post quem for Pit B (Armstrong 1989: 90-91).

Pit C (Square O-37). Recorded originally as Locus 11, Pit 1, this pit cut Locus 11 of Level II and the northeastern end of Level III, Locus 15 , including Wall AC (pl. 15). The pit was ca. 2.25 m across and was filled with burnt reed mat and green clay. In addition to sherds, we recovered from this pit:

The head of a baked clay animal figurine ( $13 \mathrm{~N} 408, \mathrm{pl} .56 \mathrm{a}$ )
Pottery jar (Lot C 472, unregistered)
Corroded fragment of iron (Lot C 488, unregistered)
Cow horn (Lot C 487, Appendix A, pl. A-1)
Fishbone (Lot C 492)
Pit $\mathbf{D}$ (Square O-37). Recorded originally as Locus 11, Pit 3, this cut damaged the corner formed by Walls G and N in Level II. A badly preserved iron pin with a glass head (Lot C 484, unregistered) was found in the fill of the pit.

Pit E (Square O-37). Recorded originally as Locus 15, Pit 1, this cut was recognized only in the process of defining the walls and excavating the surface of the mudbrick packing below Level III, Locus 15, Floor 1, but the sherds indicated that it had come from Level I and had cut through Level II, Locus 11, as well. Pit E was roughly circular in shape, ca. 1.50 m in diameter, and it cut only a short distance into Locus 15 . In addition to sherds, a fragment of copper (Lot C 538, unregistered) and a pottery bowl (Lot C 537, unregistered) were found in the pit.
Pit F (Square O-36) was an irregular, shallow cut into the eastern corner of Locus 31 and Locus 33 of Level II. Tablets ( 14 N 210-15, pls. 96d-97b), pottery lots, including two bowls ( 14 N 67-68, pls. 70e-f, 86b-c), and pebbles (unregistered) were found in the pit.
Pit G (Square O-36), a substantial intrusion from Level I, was only partially exposed. It disturbed Loci 29, 31, 35, 36, and 38 of Level II. No objects were registered from it.
Pit H (Square O-36) was a round pit that cut down into the packing of Locus 33 in Level II.
Pit I (Square N-38), a small, circular (ca. 80 cm in diameter) pit, was intrusive into Locus 40 of Level II (pl. 41b) and the mudbrick packing of Level III, Locus 6. A single tablet ( 14 N 233, pl. 99c) was recovered here.
Pit J (Square N-38), was a large, ragged pit that cut Locus 46 . A clay sealing ( 14 N 116 , pl. 91a-b), found in debris carried to the dump, could be traced back to this pit.
Pit K (Squares P-37 and 38), a large, shallow cut along the northeastern edge of the excavated portions of P-37 and 38, disturbed Level II, Loci 51, 11, and 45 and Level III, Loci 62,52 , and 53 . It bottomed out roughly at the level of the top of the mudbrick packing in the Level III loci. A single lot of pot sherds and a baked clay cylinder seal blank (14 N 193, pl. 56 k ) were recovered from the pit.
Pit L (Square P-38) was a roughly circular cut in grid square P-38. It cut through Pit K into the northwestern portion of Level III, Locus 53, through the mudbrick packing and the horizontal drains running across that room. The fill of the pit consisted of a dark green soil, and it contained numerous bones (Lot D-709). A fragmentary tablet in Neo-Babylonian script ( $14 \mathrm{~N} 269, \mathrm{pl} .105 \mathrm{c}$ ), probably a list of omens, and a pottery bowl ( 14 N 133 , pls. 70 g , 86a) were recovered from the pit.
Pit M (Square P-38) was a well-defined subrectangular cut that disturbed Locus 53 of Level II.

Pit $\mathbf{N}$ (Square P-38) cut into Level III, Locus 56. The pit was noted but remained ill-defined at the end of excavations in the fourteenth season. Objects from this pit included:

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Pottery goblet (14 N 181, pls. 70i, 86g)
Ring stand (14 N 182, pls. 70h, 86k)
Button-based cup (14 N 183, pls. 70j, 86d)
Fragment of a stone bowl (unregistered)
Clay sealing (14 N 165, pl. 90d)
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BURIALS (pl. 20)
Approximately fifty burials of three periods (Kassite, ${ }^{5}$ early first millennium B.C., Parthian) were recorded in Area WC-1. In the thirteenth season the WC-1 graves were numbered consecutively, regardless of findspot, and attributed to the two surface loci, 3 and 8. The burial number sequence was continued in the fourteenth season, but burials were recorded by grid squares. ${ }^{6}$ As described in Chapter 1, the burials in Level I of Area WC-1 fall into two chronologically distinct groups, the earlier one consisting of jar burials that date to the earlier part of the first millennium B.C. and presumably related to the houses of Level I, whose remnants are discussed above. The second and larger group, simple inhumations from the late first or early second century A.D. are dealt with below.

GROUP 1: EARLY FIRST MILLENNIUM B.C. (pl. 20)
In several burials of this group, there were necklaces composed of numerous beads. Not being able, usually, to determine the original arrangement of the beads, which were normally found near the head or chest, they were strung as necklaces. Photographs illustrate the necklaces found in the grave groups (pls. 61a, 62a, 63a, 64a, c, 65a-c, 66a); in the Catalogue of Registered Objects, the beads are separated by material and type (pl. 60).
Burial 25 (pl. 47b) was a double-jar burial on the northwestern side of O-37, intrusive into Level II, Locus 11 (and Wall $S$ and the mudbrick buttress built against it). The burial jars, placed mouth to mouth, were oriented southeast by northwest. The northwestern jar had a button base with a hole through it, meaning that it had originally been a funnel-jar; the southeastern jar had a ring base. The skeleton inside the burial jars was almost totally disintegrated, flexed and on the right side, with the head to the southeast. Teeth indicated that this had been an adult, but no other information could be derived on sex and age from the skeleton itself, but the grave goods tend to indicate that this was a female. Beads ( 13 N 391, pl. 61a) were found around the skull and loose in the fill of the jar; two finger rings ( 13 N 389-90, pl. 58i-j), fragments of a copper neckband (Lot C 493, unregistered), and a small polychrome glazed jar ( 13 N 388 , pls. 61c, 87 d ) were also found inside the burial jars. Outside and alongside the burial jars were a large bag-shaped jar ( 13 N 375 , pls. $61 \mathrm{f}, 87 \mathrm{~g}$ ), in the mouth of which a bowl had been placed as a lid ( 13 N 376 , pls. $61 \mathrm{~b}, 87 \mathrm{c}$ ), and a small $j a r(13 \mathrm{~N} 373$, pls. 61d, 87 f ). The large bag-shaped jar contained a bottle ( 13 N 374 , pls. $61 \mathrm{e}, 87 \mathrm{e}$ ), as well as beads ( 13 N 372 , pl. 62a), and fragments of copper rings (unregistered).
Burial 28 (pl. 48a) was a single jar burial in grid-square O-37 intruding upon Burial 25. The body, an adult male, was flexed and on the left side, with the head and upper body
5. Note that a number of baby burials, of Kassite date, are described above in Level II.
6. In the thirteenth season burials were numbered separately in each of the areas excavated, that is, Areas WA, WB, WC-1, and WC-2. That recording procedure proved a source of confusion, especially for the Iraq Museum cataloguing procedure; therefore, in the fourteenth season a single list of burial numbers was run for all areas under excavation.
projecting toward the northeast out of the mouth of the jar. Presumably, the upper body had been covered by something, but no trace was found. The burial jar (pl. 88d) had a ring base and had been cracked and mended with bitumen in several places. A knife with a copper handle and iron blade ( $14 \mathrm{~N} \mathrm{8}$,pl .62 b ) was found in the burial jar. Outside and beside the base of the jar was a small jar ( 13 N 448 , pls. 62c, 88e).
Burial 30 (pl. 48b) was a double-jar burial on the northwestern side of $\mathrm{N}-37$, intrusive into the center of Level III, Locus 12, as well as Pit O. The burial jars (one illustrated, pl. 88a) were oriented northeast by southwest, and the skeleton was so badly disintegrated that it could be determined only that the head was to the northeast. Burial goods might imply that the person had been female. Near the head were two necklaces ( $13 \mathrm{~N} 521 \mathrm{a}, \mathrm{b}$ ), one of 124 round beads and a single date-shaped bead, all of carnelian (pl. 63a); the other of more than a hundred small blue and white ring-shaped faience beads and one date-shaped bead (not illustrated, see pl. 60: 1, 4 for types). Two copper finger rings were also found in the burial, but they were in fragile condition and disintegrated during excavation. A goblet ( 13 N 520 , pls. 63b, 88c), found outside the burial jars, is clearly Kassite and was either a chance inclusion in the burial or a secondary use of an item encountered when the grave was cut into Pit O. Alternatively, we may have misjudged the edge of the grave and expanded it to include a goblet in the debris of that pit.

A first millennium bowl ( 13 N 483 , pls. 62d, 88b), found directly above this grave and originally thought to be on a (nonexistent) floor of Locus 12 , was probably a part of the grave goods of Burial 30, but we cannot be absolutely certain. Since it was found upside down, it may have been a chance inclusion in the burial shaft.
Burial 49 was a double-jar burial in $\mathrm{O}-36$ (pl. 45 b ). The burial cut down into the mudbrick packing in Level II, Locus 33 and damaged Wall AE. Although the burial jars were in good condition, the skeleton was very poorly preserved and no information could be obtained on the position of the body. There were no grave goods. The uppermost burial jar was of the funnel type with a hole in the bottom (not illustrated, see pls. 85 j and 87 a for type).
Burial 58 (pl. 48c) was a badly broken double-jar burial in the eastern quadrant of O-38, intrusive into Level II, Locus 45. One jar on the northeast had a ring base, the southwestern one was represented by body sherds. Only a few bones were preserved and nothing could be determined of the orientation or position of the body. Copper bands ( $14 \mathrm{~N} 105, \mathrm{pl} .63 \mathrm{c}$ ) were found in the burial.
Burial 61 was a destroyed double-jar burial in the center of O-38 that was cut into Wall AO of Level II. The outline of the pit measured ca. 75 cm across. Only fragments of the burial jars (pl. 88f) and a few bones were preserved, so the orientation and position of the body could not be determined. The burial, however, had been a rich one, yielding a polychrome glazed jar ( 14 N 114 , pls. 63d, 64a, 88g) , a glazed incense burner ( 14 N 115 , pls. 64a-b, 88 h ), a palette of fine-grained sandstone ( 14 N 113 , pl. 64a, lower right), and more than five hundred beads of copper, faience, and stone, including carnelian and banded agate, in various shapes (pls. 64a, c; 65a-c). The original position of the beads could not be
determined, so we strung them as necklaces and registered them as $14 \mathrm{~N} 129-32$ (pls. 60, for types).
Burial 71 was a broken double-jar burial in the northern corner of the excavated portion of P-37, cut into Level II, Locus 51 . Only a few fragments of whitened bones were preserved. The burial goods consisted of a number of iron pins, all broken and badly corroded; eight fragments were registered ( 14 N 175 , pl. 66a, right). In addition, 695 beads of faience, carnelian, and lapis lazuli ( 14 N 174 , pl. 66a, left) were recovered.
Burial ?, at the northwestern edge of Square N-38, near Burial 53, was probably a jar burial. A body fragment of a large jar held a few small bone slivers and three copper bracelets or anklets ( $14 \mathrm{~N} 45, \mathrm{pl} .66 \mathrm{~b}$ ).

Table 2. Summation of First Millennium B.C. Burials

| Burial | Square | Burial Jar Types | Orientation | Sex/Age | Grave Goods/Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 25 | O-37 | 1 ring-based, <br> 1 funnel jar | Flexed, right, SE | Adult, female(?) | Pls. 47b, 87a-b <br> Skeleton disintegrated Inside burial jars: <br> 13 N 388, jar, pls. 61c, 87d <br> 13 N 389-90, rings, pl. 58i-j <br> 13 N 391, beads, pl. 61a <br> Outside burial jars: <br> 13 N 372, beads, inside 13 N 375, pl. $62 a$ <br> 13 N 373 , jar, pls. 61d, 87 f <br> 13 N 374 , bottle, pls. 61e, 87e <br> 13 N 375, jar, pls. 61f, 87 g <br> 13 N 376, bowl, pls. 61b, 87c <br> Copper rings, unregistered |
| 28 | 0-37 | 1 ring-based | Flexed, left, NE | Adult, male | Pls. 48a, 88d <br> Inside jar: <br> 14 N 8, iron blade, pl. 62b <br> Outside jar: <br> 13 N 448, jar, pls. 62c, 88e |
| 30 | $\mathrm{N}-37$ | 2 ring-based | $\begin{aligned} & \text { Flexed(?), } \\ & \text { NE } \end{aligned}$ | Adult(?), <br> female(?) | Pls. 48b, 88 a <br> Skeleton disintegrated <br> Inside jars: <br> 13 N $521 \mathrm{a}-\mathrm{b}$, beads, pl. 63a <br> Outside jars: <br> 13 N 520, goblet, pls. 63b, 88c (probably chance inclusion) <br> 13 N 483, bowl, pls. 62d, 88b |
| 49 | 0-36 | 1 ring-based, 1 funnel jar | ? | ? | Pl. 45 b <br> Skeleton totally decayed |
| 58 | 0-38 | 1 ring-based, 1 undetermined | ? | ? | Pl. 48c <br> Skeleton decayed Inside jar: <br> 14 N 105, copper bands, pl. 63c |

Table 2. Summation of First Millennium B.C. Burials (cont.)

| Burial | Square | Burial Jar Types | Orientation | Sex/Age | Grave Goods/Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 61 | O-38 | 2 undetermined | $?$ | ? | Sherds of large jars only (pl. 88f) <br> Bone fragments Inside jars: <br> 14 N 113, palette, pl. 64a <br> 14 N 114, jar, pls. 63d, 64a, 88g <br> 14 N 115, incense burner, pls. 64a-b, 88 h <br> 14 N 129-32, beads, pls. 64a, 65a-c |
| 71 | P-37 | 2 ring-based | $?$ | ? | Pl. 20 <br> Badly broken jars, partly in baulk, half excavated <br> Bone fragments Inside jars: 14 N 174, beads, pl. 66a (left) 14 N 175 , iron pins, pl. 66 (right) |
| ? | N-38 | Sherd | ? | ? | Pl. 20 <br> Large body sherd only <br> Bone fragments <br> In sherd: <br> 14 N 45, copper bracelets, pl. 66b |

## GROUP 2: SIMPLE INHUMATIONS (PARTHIAN)

The forty-two simple inhumations found directly under the present surface of the mound (pls. 20, 49-55) share the following characteristics. They were laid on their backs, with the heads usually to the southeast or east, so that they would have faced the setting sun. ${ }^{7}$ The shallowness of the graves, barely below the present surface, resulted in skeletons that were in extremely damaged condition. An attempt could be made to determine the age and sex of only about one third of the remains. We assume that the dating of two of the skeletons (6 and 24) to the Parthian period by goods found with them allows us to date the entire group, given the similarity of burial practice.
Burial 1 (pl. 49). Locus 2, southeastern edge of M-37. Oriented southeast by northwest, with the head to the northeast. The body was extended and on its back, with its arms at the sides, and the face up. Beads ( 13 N 4 and 6, pl. $59 \mathrm{a}-\mathrm{g}$, i ), presumably originally strung as a necklace, were found at the neck.
Burial 2 (pl. 49). Locus 2, southeastern edge of M-37. Oriented northeast by southwest, with the head to the northeast. The body was extended and on its back with the hands on the pelvis, and the face up. The foot bones were found disarticulated in the region of the stomach.
7. The orientation is the opposite of a group of Sasanian graves found at Tell Muhammad Arab in northern Iraq (Roaf 1984: 143). The difference in orientation may add weight to the dating of our graves to the Parthian period.

EXCAVATIONS AT NIPPUR: KASSITE BUILDINGS IN AREA WC-I
Burial 3 (pl. 49). Locus 3, southeastern edge of N-37, cut into Level I architectural remains (feature 1). Oriented northeast by southwest, with the head to the northeast. The body was extended and on its back, the arms at the sides, and the face up.
Burial 4 (pl. 49). Locus 3, southwestern edge of N-37. Oriented northeast by southwest, with the head to the northeast. The body was extended and on its back, the arms at the sides, and the head was turned to the right.
Burial 5 (pl. 49). Locus 3, southern corner of N-37. Badly damaged burial of an infant. Only a few bones remained.
Burial 6 (pl. 49). Locus 3, eastern corner of N-37. Burial of a child, oriented northeast to southwest, with head to the northeast. The body was extended and on its back, arms to the sides, and the face up. Copper earrings ( 13 N 61 and 64 , pl. $58 \mathrm{a}-\mathrm{b}$ ) were found on the left and right sides of the head, respectively. A bronze coin ( 13 N 213 , pl. 66d-e) of a Parthian king, Osroes (A.D. 109-128), found directly under the body, gives the most definite terminus post quem for the entire group of simple inhumations.
Burial 7 (pl. 49). Locus 8, southern corner of O-37. An adult, oriented east/southeast by west/northwest with the head to the east/southeast. The body was extended and on its back, left arm at the side and right arm on the hip, the head turned to the right.
Burial 8 (pl. 49). Locus 8, southern corner of O-37. Burial of a child, about 3 years old. Oriented southeast to northwest, with the head to the southeast. The body was extended and on its back, with its arms at the sides, and the face was up.
Burial 9 (pl. 49). Locus 8, southeastern edge of O-37. Oriented southeast by northwest, with the head to the southeast. Body was extended and on its back, the right leg crossed over the left, the arms at the sides, and the head was turned to the right.
Burial 10 (pl. 49). Locus 8, southeastern edge of O-37. Oriented southeast to northwest, with its head to the southeast. The body was extended and on its back, the arms at the side, and the face up.
Burial 11 (pl. 49). Locus 8, southern corner of O-37. Oriented upright. The body was tightly contracted, apparently in a seated position.
Burial 12 (pl. 50). Locus 3, northwestern portion of N-37. Damaged burial of an infant, with head and lower legs not preserved. Oriented northeast to southwest, with head originally to northeast. The body was extended and on its back, the arms at the sides.
Burial 13 (pl. 50). Locus 3, center southwestern portion of N-37. Burial of a child, oriented northeast to southwest, with head to the northeast. The body was extended and on its back, the arms at the sides, the face up.
Burial 14 (pl. 50). Locus 3, center northwestern portion of N-37. The body of an adult male(?), oriented south to north, with head to the south. The body was extended and on its back, the arms at the sides, the head turned to the right. On the third finger of the left hand was an iron ring ( 13 N 290 , pl. 58d). A copper ring ( 13 N 250 , pl. 58c) was found near the
right shoulder and a broken pottery ring stand ( 13 N 252 , pl. 66c), near the left shoulder. The ring stand was perhaps cut by the burial, not associated with it.
Burial 15 (pl. 50). Locus 3, eastern corner of N-37. Oriented east to west, with the head to the east. The body, an adult female, was extended and on its back, the arms at the sides, the face turned slightly to the right.
Burial 16 (pl. 50). Locus 3, southern corner of N-37. Burial of an infant, oriented northeast by southwest, with the head to the northeast. The body was extended and on its back, the legs bent slightly to the left, the arms at the sides, and the face up.
Burial 17 (pl. 50). Locus 3, center northwestern portion of N-37. Burial of an adult female, oriented roughly east to west. The body was extended and on its back, the arms were bent and the hands on the hips, and the face was up.
Burial 18 (pl. 51). Locus 3, western corner of N-37. An adult male, oriented roughly east to west, with its head to the east. The body was extended and on its back, the arms at the sides, and the face up.
Burial 19 (pl. 51 ). Locus 3, southeastern center of N-37, cutting into Level II, Locus 5. An adult, oriented roughly east to west, with its head to the east. The body was extended and on its back, the arms at the sides, and the face turned to the right.
Burial 20 (pl. 51). Locus 3, northwest center of N-37, cutting into Level II, Locus 5. An adult female, oriented east to west, with head to the east. The body was extended and on its back, the right leg crossed over the left, the left arm bent and the hand on the hip, while the right hand was under the pelvis, and the face was up.
Burial 21 (pl. 51). Locus 8, center southeastern portion of O-37. An adult male, oriented northeast to southwest, with head to northeast. The body was extended and on its back, the arms at the sides, and the face up.
Burial 22 (pl. 51). Locus 8, center O-37. Burial of a juvenile female, oriented east to west, with head to east. The body was extended and on its back, the arms at the sides, and the face up.
Burial 23 (pl. 51). Locus 8, center southeastern portion of O-37. An adult female, oriented roughly east to west, with head to east. The body was extended, the right hand under the hip and the left hand on the hip, and the face was up.
Burial 24 (pl. 52). Locus 8, northwestern portion of O-37, cutting into Level II, Locus 11, Floor 1. An adult male, oriented roughly east to west, with head to east. The body was extended and on its back, the arms at the sides, and the face was up. A glass bottle ( 13 N 377, pl. 67a), found to the left of the left knee, furnishes a very good indication of date to the Parthian period (see Catalogue of Registered Objects for references).
Burial 26 (pl. 52). Locus 8, center, southwestern portion O-37, cutting into Level II, Locus 11, Floor 2. An adult male oriented east to west, with head to east. The body was extended and on its back, the arms at the sides, and the face was up.

Burial 27 (pl. 52). Locus 8, northern corner of O-37, intrusive into Level II, Locus 11. An adult, oriented northeast to southwest, with head to northeast. The body was extended and on its back, arms at the sides, and the head was turned to the left. Pelvis too disintegrated to allow determination of sex.
Burial 32 (pl. 52). Center southeastern portion of O-36. Adult, oriented northeast to southwest, with head to northeast. The body was extended and on its back, the arms at the sides, and the face was up.
Burial 33 (pl. 20, not otherwise illustrated). Northwestern edge of O-36. Badly damaged adult burial, oriented(?). The body was covered by large sherds and pieces of baked brick.
Burial 34 (pl. 52). Center southwestern edge of O-36. An adult, oriented roughly east to west with its head to east. The trunk and head rested on the back, but the legs, slightly elevated, were flexed to the right, and the arms were bent to place the hands on the chest. The pelvis was totally destroyed.
Burial 40 (pl. 53). Southwest center of N-36. An adult, oriented east/southeast by west/northwest, with the head to the east/southeast. The body was extended and on its back, the right leg slightly bent and the right foot on top of the left, the arms were at the sides, and the head was turned just slightly to the right. The pelvis was destroyed. Copper earrings ( $14 \mathrm{~N} 12 \mathrm{a}-\mathrm{b}, \mathrm{pl} .58 \mathrm{~g}-\mathrm{h}$ ) were found on either side of the head.
Burial 41 (pl. 20, not otherwise illustrated). Southeastern edge of O-36. Burial of a child, largely destroyed. Head toward the southeast.
Burial 42 (pl. 53). Center northwestern portion of O-36. Burial of a child, oriented northeast by southwest, with head to northeast. The body was extended and on its back, the legs were bowed, and the head was turned to the right. Two types of copper fittings ( $14 \mathrm{~N} 15, \mathrm{pl} .67 \mathrm{~b}-$ c) that might have been attached to leather and several fragments of iron were found in the burial. The fittings were bent at $90^{\circ}$ angles, one half flat on the ground and the other turned upward, and were found at the top of the head, behind the head, between the legs and over the chest. One of the pieces of iron was found under the right leg. No trace of the material with which the fittings and iron were associated was preserved.
Burial 43 (pl. 20, not otherwise illustrated). Southwest center of N-36. Extremely poor condition. Adult, oriented west/northwest by east/southeast, with head to west/northwest. The body was extended and on its back, the arms at the sides, and the face was up.
Burial 44 (pl. 53). Center O-36, cut into Wall AE of Level II. Adult female(?), oriented southeast by northwest, with head to southeast. The body was extended and on its back, the arms at the sides, and the face was up, the mouth opened wide (two small bones were in the mouth).

Burial 45 (pl. 54). Southwest center of O-36, cut into Wall AE of Level II. Adult oriented northeast by southwest, with head to northeast. The body was extended and on its back, the arms bent at the elbows and hands on the hips, the face was up, the mouth opened wide. Pelvis disintegrated.

Burial 46 (pl. 54). Northwestern edge of $\mathrm{N}-36$. Adult male, oriented roughly north by south, with head to north. The body was extended and on its back, the arms at the sides, and the face was up.
Burial 47 (pl. 54). Center of $\mathrm{N}-36$. Adult male(?), oriented northeast by southwest, with head to northeast. The body was extended and on its back, the arms were at the sides, and the face was up. Pelvis badly destroyed.

Burial 48 (pl. 54). West corner of O-36, cut into Level II, Locus 32. Badly damaged burial. Adult(?), oriented northeast by southwest, with head to northeast. The body was extended and on its back, the arms at the sides(?), and the face was up.
Burial 50 (pl. 20, not otherwise illustrated). Center of O-36, cut into northern corner of Level II, Locus 31. Adult, oriented roughly east to west, with head to east. The body was extended and on its back, the arms at the sides, and the face was up.

Burial 53 (pl. 20, not otherwise illustrated). Northwestern edge of the square, above Wall C. Adult, oriented east to west, with head to east. The body was extended on its back, the arms at the sides, and the face up.

Burial 55 (pl.55). Northwestern end of O-38, intrusive into Level II, Locus 11. Adult, oriented roughly east to west, with head to east. The body was extended and on its back, the arms were bent and the hands at the waist, and the head was turned to the right. Pelvis disintegrated.

Burial 56 (pl. 55). Northwest center of N-38, cut into Level II, Locus 48. Adult female(?), oriented northeast by southwest, with head to northeast. The body was extended and on its back, the right arm at the side and the left arm at the side, but flexed, and the head was turned to the right.
Burial 57 (pl. 20, not otherwise illustrated). Southeastern portion of P-37, intrusive into Level II, Locus 11. Juvenile(?) oriented northeast by southwest, with head to northeast. The body was extended and on its back, the arms at the sides(?), the face apparently up (though the skull was largely destroyed and the position difficult to observe accurately). Pelvis largely destroyed.

Table 3. Simple Inhumation Burials in Level I, Area WC-1 (Parthian)
Burial Number is the number assigned to the particular burial during excavation; Square refers to the grid square in which it was located. Elevation given is at the bottom of the skull, relative to the Nippur datum. Body Orientation gives the direction of the long axis of the skeleton, the first direction being the location of the head.

| Burial No. | Square <br> Locus | Elevation | Body Orientation | Body Position | $\stackrel{\text { Arm }}{\text { Position }}$ | Face Position | Grave Goods, Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | M-37, SE edge, Locus 2 | 85.96 | SE-NW | Extended, on back | At sides | Upward | Adult. Beads at neck (13 N 4 and 6, pl. 59a-g, i) |
| 2 | M-37, SE edge, Locus 2 | 85.32 | NE-SW | Extended, on back | Hands on pelvis | Upward | Adult, foot bones found disarticulated in stomach region |
| 3 | $\mathrm{N}-37$, SE edge, Locus 3 | 85.01 | NE-SW | Extended, on back | At sides | Upward | Adult |
| 4 | N -37, SW edge, Locus 3 | 85.34 | NE-SW | Extended, on back | At sides | To right | Adult |
| 5 | N-37, S corner, Locus 3 | 85.44 | ? | ? | ? | ? | Infant, badly damaged |
| 6 | N-37, E corner, Locus 3 | 84.90 | NE-SW | Extended, on back | At sides | Upward | Child. Copper earring on either side of head ( 13 N 61 and 64, pl. 58a-b), Parthian bronze coin (Osroes: A.D. 109-128) under body ( 13 N 213, pl. 66d-e) |
| 7 | O-37. S corner, Locus 8 | 84.99 | ESE-WSW | Extended, on back | Left at side, right on hip | To right | Adult |
| 8 | O-37, S comer, <br> Locus 8 | 84.73 | SE-NW | Extended, on back | At sides | Upward | Child, ca. 3 years old |
| 9 | O-37. SE edge, Locus 8 | 84.77 | SE-NW | Extended, on back, right leg over left | At sides | Toright | Adult |
| 10 | O-37, SE edge, Locus 8 | 84.60 | SE-NW | Extended, on back | At sides | Upward | Adult |
| 11 | O-37, S comer, Locus 8 | 84.54 | - | Tightly contracted, sitting position | - | - | Adult |
| 12 | N-37, NW, Locus 3 | 85.08 | NE-SW | Extended, on back | At sides | ? | Infant, badly damaged, head and lower legs not preserved |
| 13 | $\begin{aligned} & \text { N-37, SW } \\ & \text { center, Locus } 3 \end{aligned}$ | 85.00 | NE-SW | Extended, on back | At sides | Upward | Child |

Table 3. Simple Inhumation Burials in Level I, Area WC-1 (Parthian) (cont.)

| $\begin{array}{l}\text { Burial } \\ \text { No. }\end{array}$ | $\begin{array}{c}\text { Square } \\ \text { Locus }\end{array}$ | Elevation | $\begin{array}{c}\text { Body } \\ \text { Orientation }\end{array}$ | $\begin{array}{c}\text { Body } \\ \text { Position }\end{array}$ | $\begin{array}{c}\text { Arm } \\ \text { Position }\end{array}$ | $\begin{array}{c}\text { Face } \\ \text { Position }\end{array}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 14 | $\begin{array}{l}\text { N-37, NW } \\ \text { center, Locus 3 }\end{array}$ | 84.98 | S-N | $\begin{array}{l}\text { Extended, on } \\ \text { back }\end{array}$ | At sides | To right | \(\left.\begin{array}{l}Male(?) adult. Iron ring (13 N <br>


290, pl. 58d) on third finger,\end{array}\right]\)| left hand; copper ring (13 N |
| :--- |

EXCAVATIONS AT NIPPUR: KASSITE BUILDINGS IN AREA WC-I
Table 3. Simple Inhumation Burials in Level I, Area WC-1 (Parthian) (cont.)

| $\begin{aligned} & \text { Burial } \\ & \text { No. } \end{aligned}$ | Square Locus | Elevation | $\begin{gathered} \text { Body } \\ \text { Orientation } \end{gathered}$ | Body Position | $\begin{aligned} & \text { Arm } \\ & \text { Position } \end{aligned}$ | Face Position | Grave Goods, Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33 | O-36, NW edge | 84.70 | ? | ? | ? | ? | Adult, badly disintegrated, skeleton covered with large sherds and baked brick fragments |
| 34 | O-36, SW edge, center | 84.64 | E-W | On back, legs slightly raised and bent to right | Hands on chest | Upward | Adult, pelvis disintegrated |
| 40 | $\mathrm{N}-36, \mathrm{SW}$ <br> center | 84.86 | ESE-WNW | Extended, on back, right leg bent, right foot on top of left | At sides | Slightly to right | Adult. Copper earring ( 14 N $12 \mathrm{a}-\mathrm{b}, \mathrm{pl} .58 \mathrm{~g}-\mathrm{h}$ ) on each side of head, pelvis disintegrated |
| 41 | O-36, SE edge | 84.80 | ? | ? | $?$ | ? | Child, largely destroyed |
| 42 | $\mathrm{O}-36, \mathrm{NW}$ <br> center | 84.61 | NE-SW | Extended, on back, legs bowed | ? | To right | Child. Two types of copper fittings ( $14 \mathrm{~N} 15 \mathrm{a}-\mathrm{c}, \mathrm{pl} .67 \mathrm{~b}-\mathrm{c}$ ) which might have been attached to leather, and several fragments of iron were found in the burial; the fittings were ben at angles of $90^{\circ}$, half flat on the ground, the other turned upward, at the top of the head, behind the head, between the legs, and over the chest; one piece of iron was below the right leg |
| 43 | $\mathrm{N}-36, \mathrm{SW}$ <br> center | 84.98 | WNW-ESE | Extended, on back | At sides | Upward | Adult, very poor condition |
| 44 | $\begin{aligned} & \mathrm{O}-36 \text {, cut into } \\ & \text { Wall AE } \end{aligned}$ | 84.52 | SE-NW | Extended, on back | At sides | Upward, mouth open | Adult female(?), two small bones in mouth |
| 45 | $0-36, \mathrm{SW}$ comer, cut into Wall AE | 84.52 | NE-SW | Extended, on back | Arms bent, hands on hips | Upward, mouth open | Adult, pelvis disintegrated |
| 46 | N-36, NW edge | 84.69 | N-S | Extended, on back | At sides | Upward | Adult, pelvis badly disintegrated |
| 47 | $\mathrm{N}-36$, center | 84.64 | NE-SW | Extended, on back | At sides | Upward | Adult male(?), pelvis badly disintegrated |
| 48 | $0-36, w$ <br> corner, cut into Locus 32 | 84.21 | NE-SW | Extended, on back | At sides(?) | Upward | Adult (?), badly disintegrated |
| 50 | O-36, cut into N comer of Locus 31 | 83.40 | E-W | Extended, on back | At sides | Upward, mouth open | Adult |

Table 3. Simple Inhumation Burials in Level I, Area WC-1 (Parthian) (cont.)

| $\begin{gathered} \overline{B u r i a l} \\ \text { No. } \end{gathered}$ | Square <br> Locus | Elevation | Body Orientation | $\begin{gathered} \text { Body } \\ \text { Position } \end{gathered}$ | $\begin{aligned} & \text { Arm } \\ & \text { Position } \end{aligned}$ | Face Position | Grave Goods, Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 53 | N-38 | ? | E-W | Extended, on back | At sides | Upward | Adult |
| 55 | O-38, NW end, cut into Locus 11 | 84.50 | E-W | Extended, on back | Hands at waist | To right | Adult, pelvis disintegrated |
| 56 | N-38, NW center, cut into Locus 48 | 84.99 | NE-SW | Extended, on back | Right arm at side, left arm at side but bent | To right | Adult female(?) |
| 57 | P-37, SE, cut into Locus 11 | 84.43 | NE-SW | Extended, on back | At sides(?) | Upward | Juvenile(?), pelvis and much of skull destroyed |

## CHAPTER 3

## POTTERY

JAMES A. ARMSTRONG

Most of the pottery excavated in Area WC-1 during the thirteenth and fourteenth seasons was from the three Kassite levels (IV, III, and II). The description of the pottery and a discussion of its chronology form the core of this chapter. After the material from Levels IV-II is discussed, the final section of this chapter provides a description of the pottery from the stratigraphically less secure contexts of Levell.

In accordance with the usual procedure at Nippur, the pottery from Area WC-1 was collected in units called lots from the various stratigraphic components-floors, fills, natural soil layers, and pits-that were encountered during excavation. The sherds in each lot were separated into diagnostic and non-diagnostic groups. Non-diagnostic, or body, sherds from Area WC-1 were not consistently described or counted during the thirteenth and fourteenth seasons. As a result only the information from the diagnostic sherds has been used in this report.

Included in the diagnostic group were those sherds-for example, rims, shoulders, bases, and decorated sherds-that could be assigned to different typological groups based on shape, ware, and, rarely in the case of the pottery from Area WC-1, surface decoration.

The diagnostics were classified according to a field typology; and examples of each type were described, measured, and drawn. The pottery types were divided differently in the field typologies for Area WC-1 used in the thirteenth and fourteenth seasons; indeed, the overall approach to field classification was different in the two seasons. In the thirteenth season relatively fewer sherds were drawn, although the diameters of rims and bases of undrawn sherds were measured, while in the fourteenth season many more sherds were drawn, but few undrawn sherds were measured.

This report represents a harmonization of the two field recording systems, whose differing approaches have been, in effect, complementary. The measurements of the thirteenth season have allowed for greater precision in determining the size ranges of the various pottery types; the more numerous fourteenth season drawings have permitted some reclassifications and temporal subdivisions within the original field typologies. The resulting synthesis has, in general, been successful, and the principal pottery types found in Area WC-1 have been clearly delineated.

## KASSITE POTTERY FROM LEVELS IV-II

The typology of Kassite pottery presented here represents a collection of somewhat more than 5,000 diagnostic sherds. The distinctions among types are based upon the traditional criteria of shape, ware, and surface decoration. The principal criterion has proved to be shape, and what is presented here is, in essence, a morphological classification. Surface decoration is virtually non-existent on Nippur pottery during the Kassite period, so it has not been a factor in the creation of this typology. However, a few general comments are appropriate here about ware, the mixture of clay and inclusions used to make a pot. The character of an individual sherd's ware was determined by visual inspection. Based on the macroscopic appearance of their cross-sections, the sherds were separated into three groups: plain, fine, and coarse.

Most examples fall into the plain group. In the sherds belonging to this group the clay appears to have been well mixed. The use of chaff as temper is attested by the presence of casts or voids in the fabric. It has been suggested that this chaff may have been introduced into the clay by means of animal dung (Van As 1989: 42).' Sand often occurs as well, but because it may have been present in the original clay source, it may not, strictly speaking, have been an added inclusion (Van As 1989: 41-42). Other tempering materials, such as grit or shell, are rare.

The vessels were thrown on a wheel. The potters' foremost consideration seems to have been the production of large amounts of pottery, and little or no care was taken to finish the vessels properly (Van As 1989: 42). Irregular or poorly-shaped examples are common.

The pottery is generally well fired, and the fabric is of a uniform color, ranging from buff (Munsell 7.5 YR $6 / 6$ to $7 / 6$ ) to pink (Munsell 2.5 YR $6 / 8$ to 5 YR $6 / 6$ ). Gray cores, indicating incomplete oxidation during firing, are rare. In many cases the outer edges of the sherds exhibit a lighter color than does the interior. This is not a true slip, but is the result of the concentration of salts in the clay on the surface of the vessel (Matson 1970:594). ${ }^{2}$ Intentionally applied slips occur rarely, if at all, on this pottery (Jacobs 1992).

In the Kassite corpus from Nippur, there are no pottery types that belong to a fine-ware group. In the fine-ware classification the clay of the fabric is very well levigated, and no inclusions are visible to the eye. The walls of the vessels are very thin, generally three millimeters or less in thickness. While no vessels belong to this group, parts of vessels may

1. This and other technical observations are based in part on technical studies by A. Van As and L. Jacobs, who have examined the Kassite and Old Babylonian pottery from Nippur as a part of their study of Babylonian ceramic technology during the second millennium B.C. Preliminary conclusions are reported in this article.
2. In my report on the pottery from the Hamrin sites of Tell Ahmed al-Mughir and Tell Ajamat, I considered this lighter surface color to be a slip. It is likely that most if not all of designations "cream[colored] slip" in the descriptions of that pottery are incorrect, and that the lighter surface color is the result of salt (Gibson, ed. 1981, pls. 111-16, passim).
be described as fine or nearly fine, especially some of the rims and necks of so-called Kassite goblets (pls. 79; 86e-g) and button-based cups (pls. 80f, j; 81a-d, 86d).

As the name implies, vessels belonging to the coarse group are characterized by clay that is less well mixed and that contains larger inclusions than pottery in the plain group. Very large vessels, including vats and burial jars, comprise the coarse group. In contrast with the wheelmade pots in the plain classification, these vessels were often constructed of coils.

To reiterate, the pottery described here is from Levels IV-II of Area WC-1. Changes over time within a particular type-group can be followed in the case of at least one type. That more such distinctions have not been recognized may be due to the contexts in which most of the pottery was found. Although a number of whole and restorable vessels were found on floors where they had apparently been abandoned (in particular, Level III, Floor 3 and Level II, Floor 1), most of the material collected in WC-I is from deliberate fills that were used to raise the levels of floors, from the slow, natural accumulation of material on those same unpaved floors, or from pits. Pottery from these kinds of contexts does not provide the best evidence with which to construct a typology of strictly contemporary pottery shapes. Although the pottery from the fills and from the build-up of floors is homogenous to a high degree, and, as it is shown, consists of the same limited repertoire of forms that is usually attributed to the late Kassite period, it may be that some chronological distinctions within pottery types have been obscured.

## TYPOLOGY

The presentation of the Kassite typology here owes much to the system devised by J. Franke (1978: 77-79, figs. 62-75). However, there are several substantial differences between my typology and Franke's.

The pottery types are described in the following order: open forms (bowls), closed forms (goblets, cups, and jars), very large vessels, and miscellaneous types. For ease of reference, the various types have been given names that refer to a relevant diagnostic feature but do not do so consistently; their purpose is only to provide a conventional designation. The types illustrated are arranged more-or-less in stratigraphical order.

## OPEN FORMS

Wavy-sided bowl (pls. 72-74). Small bowl with a simple rim and a string-cut base. A characteristic shallow concavity, sometimes pronounced enough to be called a carination, occurs some distance below the rim, often about halfway down the body. Eighty percent of the rim diameters fall in the 12 to 14 cm range. This is the typical small Kassite bowl at Nippur.
Straight-sided bowl (pls. 75-76, 77a-f). Medium-sized bowl with a simple rim and a (usually) straight side. Irregular examples are frequently found. Rim diameters range between 10 and 38 cm , but $60 \%$ of the values fall between 16 and 20 cm . The $16-20 \mathrm{~cm}$ diameter bowl is the typical medium-sized Kassite bowl at Nippur. As can be seen from the
range of rim diameters, this shape was also used for larger and smaller bowls as well. Some of the rims with diameters of 30 cm or more are beveled toward the interior of the vessel (pl. 77f). ${ }^{3}$

It is shown in table 4 that, of the bowls, only the wavy-sided and straight-sided types occur in WC-1 in large numbers. Note that in table 4 there is a type, "strait or wavy," for sherds belonging to either the wavy- or straight-sided group because sherds of the two types were not always distinguished from one another in the field typologies, and it was not always possible to assign small rim fragments to either group given the simple rim that is characteristic of both types.
Carinated bowl (pl. $77 \mathrm{~g}-\mathrm{k}$ ). Bowl with a simple out-turned rim, a sharp carination just below the rim, and a string-cut base. There is some question as to whether or not this is a genuine Kassite type at Nippur. No whole examples were recovered, and it may be that the sherds found are strays of Ur III or Isin-Larsa date (e.g., the sherd illustrated on pl. 77 g seems certainly of that date). However, examples of this rim shape are also found in Kassite levels of the Hamrin sites of Tell Ajamat, Tell Imlihiye, and Tell Zubeidi. ${ }^{4}$ In the case of two of these sites, Ajamat and Zubeidi, there is no evidence of an earlier occupation. Moreover, one whole example from Zubeidi is from a Kassite potter's workshop dated to the late thirteenth or early twelfth century. ${ }^{5}$ It was found together with examples of all the most typical Kassite forms: wavy- and straight-sided bowls, Kassite goblets, button-based cups, and Kassite jars. This rim shape, therefore, may represent at most a minor Kassite type.

Another bowl (pl. 771) is similar to the foregoing group, but with its thickened, upright rim it is an example of a different type.

Bowl with thickened rim (pl. 78a-c). Medium-to-large straight-sided bowl with an outwardly beveled rim that has been thickened to the outside. Like the carinated bowl, it seems to represent a genuine, if infrequent, Kassite form. Among the other excavation areas at Nippur, it is found in WB (Franke 1978, fig. 64: 5-7) and TA (McCown and Haines 1967, pl. 100:8). ${ }^{6}$ Examples of this type have also been found in the Hamrin and at Tell ed-Dēr in Kassite contexts. ${ }^{7}$
3. Comparable examples have been found at Tell ed-Dēr; see Minsaer 1991, pls. 7: 3, 16-20 and 9: 10-11.
4. Tell Ajamat: Gibson, ed. 1981, pl. 115: 44-48, 50; Tell Imlihiye: Boehmer and Dämmer 1985, pls. 29: 44-45, 48, 50; Tell Zubeidi: Boehmer and Dämmer 1985, pls. 115: 177-78, 181, 187, 190, and 116: 194.
5. Boehmer and Dämmer 1985, pl. 116: 194; see also pp. 28-30 and 47, and pl. 72: 1-2.
6. This example was published as being from an early first millennium context, TA Level IV, Locus 101. However, its context is really Kassite; see Armstrong 1989: 130, n. 48. For general comments about the stratigraphy of Area TA, see below under the heading Chronology.
7. Boehmer and Dämmer 1985, pls. 33: 95-102; 34: 109; 36: 113; 106: 29; and 118: 231-37; and Minsaer 1991, pl. 8: 1-11.
J. Franke originally classified this type together with a bowl from the early first millennium that also had a thickened, outwardly beveled rim. ${ }^{8}$ There are, however, differences between the second and first millennium examples that suggest that they are two different types and are not developmentally related (Armstrong 1989). The rims of the first millennium examples are always thickened toward the interior of the bowl, in some cases also being thickened to the outside. The second millennium rims, in contrast, are consistently thickened to the outside. Furthermore, the first millennium bowl typically has a diameter of $16-18 \mathrm{~cm}$, while the diameter of the second millennium bowl is usually 20 cm or larger.

There are two examples of an infrequent type, a small, straight-sided bowl with an outwardly beveled rim (pl. 78d-e).

## Closed Forms

Kassite goblet (pl. 79). Tall, closed form, apparently a drinking vessel, with a thin, tapered rim, a flaring neck set off from the shoulder, and a conical body tapering to a drawn-out foot. This is perhaps the most distinctive of the Kassite vessel forms. The very high sherd counts under this category in part reflect the fact that virtually every sherd of a Kassite goblet is diagnostic. Many rim sherds that were counted here may belong to the next type, the button-based cup.

Kassite goblets from later contexts in WC-1 tend to have a massive, filled-in base, with the interior cavity beginning from 2 to 6 cm above the bottom of the foot ( pl .79 m -dd). Earlier examples tend to have a more open interior cavity which is open all the way to the foot (pl. 79a-1). This phenomenon of more open goblets being succeeded by goblets with a filled-in base can be seen in other stratigraphic sequences at Nippur. In Area WB, for example, compare the goblets from Level III (Franke 1978, fig. 66: 1-4) with those from Level IIB (Franke 1978, fig. 66: 7-10). Additional, unpublished goblets from WB Level III also have broader, more open interiors. ${ }^{9}$ Likewise, the goblets from Area WA Level IVC, the earlier of the two Kassite levels in that excavation, clearly display the more open shape (Gibson et al. 1978, fig. 19: 1-3). This shift over time from a form with a more open interior to one with a more closed interior has also been observed in the Kassite levels of Chantier E 3 at Tell ed-Dēr (Minsaer 1991: 43 and pls. 10-11).
Button-based cup (pls. 80, 81a-d). Cup with a distinctive flaring foot, here called a button base, that is set off from the body of the vessel by either a constriction or a distinct stem. The base can be more or less well made. At one extreme, it is nothing more than a stump with a splayed end; at the other, it consists of a short stem with a broad, gracefully made foot. This cup has a tall, flaring neck set off from the body and a thin, tapered rim that appears to have been designed for drinking. There are two variations within the type as defined. The smaller version has a round or inverted piriform body ( pl . 80a-h), while the
larger has an ovoid body (pls. 80i-l, 81a-d). These two distinct shapes have been tabulated together in the frequency chart because the characteristic base the two vessel shapes have in common is the diagnostic feature that most frequently survives for the excavator to find.

Evidence for an earlier, more open interior and a later, more closed interior is not as clear in the case of the button-based cups as it is with the goblets. Nevertheless, examples from Level III, Floor 5, the floor on which the Level III building was constructed (pl. 80a, i), do seem to have rounder bodies and more open interiors than do their later counterparts. Examples from WB Level III, the earlier of two Kassite levels, display the rounder, more open shape. ${ }^{10}$
Kassite jar (pls. 81e-j, 82a-d). Small to medium-sized jar with a simple rim, generally somewhat thicker than is the case with the cups and goblets of the two preceding types, a flaring neck, an ovoid body, and a flat base. Some jars have button bases (pls. 81e, j, 82b), and it is likely that base sherds of this type have been included in the tabulation of the button-based cups.

Band-rimmed jar ( $\mathrm{pl} .82 \mathrm{e}-\mathrm{j}$ ). Standard storage jar with a band rim with a triangular crosssection. The body of complete examples, none of which were found in WC-1, is generally ovoid with a rounded base. " The typical rim diameter is between 10 and 14 cm , but larger diameters are not uncommon. A few examples seem to have cylindrical necks that have been set off from the shoulder; in most cases there is no well-defined neck, only a constriction between the shoulder and the rim.

Ridge-rimmed jar (pl. 83a-h). Standard storage jar whose band rim was indented during fabrication to form two ridges. In WC-1 this jar was also used for baby burials (pl. 83f). Typical rim diameters of between 10 and 14 cm are the same as for the band-rimmed jar. Two complete examples from WC-1 have elongated ovoid bodies (pl. 83e-f). Some published examples of the same type have similarly elongated bodies. ${ }^{12}$

Because most of the rims of the two Kassite standard jar types were not differentiated in the WC-1 field typologies, it is not possible to determine whether or not they can be distinguished chronologically. They appear to have been used simultaneously.
Very Large Vessels (pl. 84). Included in this category are very large bowls (pl. 84a, c, e), pithoi, which also serve as burial jars (pl. 84d, $f-\mathrm{j}$ ). ${ }^{13}$ and funnel jars, which are large, open vessels with a hole in the bottom (pl. 84b). For a complete example of a funnel jar from an early first millennium context, see plate 85 j .
10. Gibson 1978, fig. 15, and J. A. Franke, personal communication. This also seems to be the case at Tell ed-Dēr; compare Minsaer 1991, pl. 12: 3 with pl. 13.
11. McCown and Haines 1967, pl. 99: 3-4; Boehmer and Dämmer 1985, pls. 42: 158, 43: 170, 44: 181, and 126: 285.
12. McCown and Haines 1967, pl. 99: 7; Boehmer and Dämmer 1985, pls. 123: 258-59, and 125: 283.
13. More complete examples are illustrated in Boehmer and Dämmer, 1985, pls. 121: 254-122: 255.

## Miscellaneous Types

Lid (pl. 78f-i). The typical diameters of between 9 and 12 cm indicate that the lid was used to cover band-rimmed and ridge-rimmed jars.
Ring stand ( $\mathrm{pl} .78 \mathrm{j}-\mathrm{k}$ ). Short, open tube that has been constricted in the middle and used to hold round-bottomed band-rimmed and ridge-rimmed storage jars.
Colander (pl. 781). Small, bowl-shaped vessel with holes throughout, apparently used for draining liquids.

## CHRONOLOGY

Although the rather limited repertoire of shapes presented here has long been recognized as Kassite, it is only in recent years that the time ranges for this assemblage have begun to be established. It has become increasingly clear that these familiar Kassite types can be placed with certainty only in the last 150 to 200 years of Kassite rule. With the material presently available, we are still unable to isolate the distinctive characteristics, if any, of early Kassite pottery. ${ }^{14}$

An important resource for the study of the late Kassite pottery at Nippur has proved to be the report on the salvage excavations at Tell Imlihiye and Tell Zubeidi behind the Hamrin dam on the Diyala River (Boehmer and Dämmer 1985). These sites have provided a range of material that can be securely dated to the thirteenth century and probably to the twelfth century as well. It is symptomatic of the state of our knowledge that such peripheral and rural sites provide key evidence for comparisons. Even though Kassite pottery has been recovered from most major southern Mesopotamian sites, a combination of inadequate publication, poor excavation techniques, and the absence of dated texts or other datable material has limited its usefulness in discussions of chronology.

Late Kassite pottery from Area TA (McCown and Haines 1967) and Area WB (Franke 1978) at Nippur has already been treated substantively. Those pottery types that were identified previously and the types identified in this volume are essentially the same, a fact that suggests that the three areas represented-TA, WB, and WC-1-are at least approximately contemporary (table 5).

The pottery from Area WB came from several rooms of a palace in Level II and from the non-architectural Level III that separated the palace from the underlying Old
14. Tell Yelkhi in the Hamrin has produced examples of button-based cups and jars that because of their round, non-angular shape, may be earlier than the material from Area WC-1. They therefore may belong to an early Kassite context. They cannot, however, be firmly dated (Invernizzi 1980, figs. 7071). Similar rounded, non-angular shapes occur at Nippur in WB Level III, which is also undated but is the earlier of two Kassite levels (Gibson 1978, fig. 15).
F. Højlund (1987: 158-61) has proposed that early Kassite material is present on Failaka. In the absence of well-dated comparative material from Babylonia proper, his conclusions must be regarded as provisional. His dating of the latest Kassite phase at Failaka to the late fourteenth century has been challenged by D. T. Potts (1988: 433-34), who would shift this material down somewhat into the thirteenth-twelfth century time range.

Babylonian remains of Level IV (Franke 1978: 65-70). The dated tablets from the palace, though they were found in either disturbed or stratigraphically uncertain contexts, are all from the reigns of Kassite kings who ruled consecutively during the middle and latter parts of the thirteenth century. ${ }^{15}$ A late thirteenth century date for the end of the palace's life therefore seems likely.

In the case of Area TA, where a residential area was uncovered on the mound called Tablet Hill, the archaeological situation is complicated (McCown and Haines 1967: 6869). The stratigraphy of Area TA, as originally published (McCown and Haines 1967), is confused because of a fundamental digging error, namely, the excavators did not recognize the sloping nature of the soil layers and excavated them horizontally. As a result Levels VII-IV, as previously published (McCown and Haines 1967), are shown to contain a mixture of Kassite and early first millennium material and the time ranges of some of the Kassite and early first millennium pottery types are too long (as shown in McCown and Haines 1967, table II).

Space does not permit a recapitulation here of my study of the excavations at Area TA. However, I have been able to identify the digging errors and have corrected the stratigraphy for Area TA (Armstrong 1989: 99-174). Most important from the standpoint of the area's chronology was the information derived from Kassite business documents that were found on Floor 1 of Locus 90 in Level IV, which was assigned by the excavators to the first millennium. ${ }^{16}$ Although these tablets are not mentioned by McCown and Haines (1967), their discovery is well documented in the field records, where they are identified as Kassite. My rediscovery of the tablets and other Kassite objects in and around Locus 90 has enabled me to assign correctly the northern end of Level IV to the Kassite period. Among these hitherto overlooked texts are three with dates from the reigns of KadašmanEnlil II (1263-1255 B.C.) and Kudur-Enlil (1254-1246 B.C.). ${ }^{17}$ These mid-thirteenth century dates indicate that the end of the Kassite settlement on Tablet Hill probably came sometime during the latter half of the thirteenth century.

Proposing the same date for the end of Area WC-1 accords well with the written evidence from this operation. An account text from Locus 31 ( 14 N 228 ), occupational debris above Floor 1, the uppermost floor in WC-1 Level II, is dated to year 4 of ŠagaraktiŠuriaš (1245-1233 B.C.). As mentioned in Chapter 1, this tablet may perhaps be linked with some tablets found in Level I pits that cut down into the Level II building and apparently disturbed the records of which they all were a part. The latest dated tablets ( 14
15. Kudur-Enlil: 12 N 235 and 13 N 567; Šagarakti-Šuriaš: 12 N 242; and Kaštiliašu IV: 13 N 107.
16. For the published plan of Level IV, see McCown and Haines 1967, pl. 75A.
17. Kadašman-Enlil II: 2NT 750 (UM 55-21-153), 2NT 761 (UM 55-21-158); and Kudur-Enlil: 2NT 741 (OI A30077). A fourth text, 2NT 759 (UM 55-21-157), was dated to year 23 of an unknown king, who most likely was either Kurigalzu II or Nazi-Maruttaš. The dates on these texts were kindly provided to me by J. A. Brinkman.

The dates used for the reigns of Kassite kings mentioned in this chapter are those proposed by Brinkman (1976: 31).

N 240 and 14 N 246 ) from the pits come from early in the reign of Kaštiliašu IV (12321225 B.C.), the successor of Šagarakti-Šuriaš. The accession year of Kadašman-Enlil II, 1223 b.C., is mentioned on tablet 14 N 211 . These documents provide a terminus post quem for the end of the apparently short-lived Level II building.

If the latest pottery from WC-1 Level II is to be dated to the time of the building's abandonment in the latter part of the thirteenth century, perhaps sometime in the 1220 s , then the Level III material should belong to the earlier part of the thirteenth century and perhaps the latter years of the fourteenth, as R. L. Zettler proposed above in Chapter 1. It should be stressed, however, that in the absence of well-dated comparative material there is no conclusive evidence for a fourteenth century date for any of the WC-1 pottery.

Having obtained this late fourteenth/early thirteenth century date by a process akin to dead reckoning, we can develop a rudimentary chronology for late Kassite pottery. As has already been pointed out, changes through time have been observed in the case of at least two of the Kassite pottery types, the Kassite goblet and the button-based cup, whose interior cavities became smaller with the passage of time. The presence of the earlier version of the goblet with a more open interior cavity in WC-1 Level IV and on the early floors of Level III, as well as in Level III of Area WB and in the Level IVC pits of Area WA, suggests that these levels are approximately contemporary, and they may all date as early as the latter part of the fourteenth century.

At the Hamrin sites of Tell Imlihiye and Tell Zubeidi, goblets with consistently more open interiors are absent (Boehmer and Dämmer 1985, pls. 48-49: 203-12, 109: 75-78, 128-29: 340-56). The excavators of these sites have proposed that the material from Zubeidi and Imlihiye spans a range of time from sometime in the thirteenth century to perhaps the middle of the twelfth century and the early years of the Isin II period (Boehmer and Dämmer 1985: 19, 79-80). On the strength of the differences between the early Nippur goblets and those from the Hamrin, I suggest that the earliest Kassite levels thus far excavated at Nippur (WC-1 Levels IV-III, WB Level III, and WA Level IVC), all of which contain the broader, more open goblets, are earlier than the earliest remains at Imlihiye and Zubeidi. According to this interpretation, then, Imlihiye and Zubeidi Level II (the earlier of the site's two levels) would be approximately contemporary with WC-1 Level II, WB Level II (the palace), and WA Level IVB (the Kassite Gula Temple). ${ }^{18}$

Zubeidi Level I, which seems to postdate the reign of Enlil-nadin-šumi ( 1224 b.C.) (Boehmer and Dämmer 1985: 80), continues later than do the levels from Areas WC-1 and WB at Nippur, ${ }^{19}$ perhaps as late as the middle of the twelfth century. It is not possible, however, definitively to distinguish the pottery of Zubeidi Level 1 from the material from
18. Pottery from the building in WA Level IVB, now identified as the Kassite version of the Gula Temple, has not yet been published. The collection contains the typical Kassite shapes, including narrower goblets with filled-in bases.
19. We do not have the evidence necessary to date the end of WA Level IVB. Unlike the Kassite levels in Areas WC-1 and WB it may have lasted beyond the end of the thirteenth century. Typical post-Kassite shapes, however, are not found among its ceramics.
the later Kassite levels at Nippur. There are a few pottery types which may appear for the first time in Zubeidi Level I, including small, sinuous-sided jars or cups with nipple bases (Boehmer and Dämmer 1985: 48, pl. 132: 433) and small round-bottomed bottles (Boehmer and Dämmer 1985: 48, pl. 132: 436, 438). Both types are absent from the thirteenth century corpus at Nippur and seem to serve as indicators for at least the early part of the post-Kassite period. ${ }^{20}$

Unfortunately, the stratigraphic evidence for the appearance of these earliest examples of the new pottery types in Zubeidi Level I is ambiguous, and they may actually be from post-Level I contexts. Some examples of these new types, sinuous-sided cups (Boehmer and Dämmer 1985: 48, pl. 132: 434) and round-bottomed bottles (Boehmer and Dämmer 1985: 48, pl. 132: 437, 439, 440), definitely post-date Level I and, therefore, are probably to be dated to the beginning of the Isin II period (Boehmer and Dämmer 1985: 80). Roundbottomed bottles (Boehmer and Dämmer 1985, pl. 53: 277, 279) and sherds of nipple-based vessels (Boehmer and Dämmer 1985, pl. 51: 249-50) from Imlihiye may indicate a twelfth century date for at least part of that settement.

We thus have the beginnings of a ceramic chronology for the latter part of the Kassite period. With further study we should be able to identify more chronological distinctions within what appears to have been a remarkably conservative and uniform pottery tradition.

## POTTERY FROM LEVEL I

Level I as presented in this report represents a concatenation of poorly preserved materials whose stratigraphical relationships can no longer be determined in many cases because they are at or just below the eroded, salt-destroyed surface of the mound. In line with the discussion of this level in Chapter 2, the ceramics have been divided according to their archaeological contexts for presentation here: architectural remains, pits, and single and double-jar burials. ${ }^{21}$
20. There is an example of a post-Kassite sinuous-sided cup with nipple base from Nippur (McCown and Haines 1967, pl. 28: 10). Its findspot, Enlil Temple, Level III, Locus 14, was called Kassite in the publication, but this cup is demonstrably from a context that must post-date the reign of the Isin II King Nebuchadnezzar I (Armstrong 1989: 195-96).

Other post-Kassite examples of sinuous-sided cups and round-bottomed bottles are found in burials at Isin. For the cups, see Hrouda 1977, pl. 28: IB 624 and IB 405 and Hrouda 1981, pls. 33: Grab 39 and 35: Grab 91. For the bottles, see Hrouda 1977. pls. 28: IB 407. IB 600d and 37: IB 600a-c and Hrouda 1981, pls. 34: Grab 49 and 35: Grab 87.

These burials are not, as the excavators have called them, neubabylonisch (Hrouda 1981: 40-48, passim). The grave goods have nothing in common with the eighth-to-sixth-century pottery of nearby Nippur (Armstrong 1989: 87-95). Although precise dating is impossible, they are probably to be date to sometime around 1000 B.C., that is, just after the eleventh century level into which they were cut (Hrouda 1977: 29-34).
21. The single pottery object registered from the simple inhumation burials was a ringstand, 13 N 252 . from Burial 14 ( $\mathbf{p l} .66 \mathrm{c}$ ). This stand may not have been from inside the burial cut, but from the earlier material into which the burial was dug.

## ARCHITECTURAL REMAINS

A sample of the small amount of pottery that was associated with the isolated architectural remains of Level $I$ is illustrated on plate $85 a-k$. The same pottery types were found in the large collection of ceramics from the seventh-early sixth century levels of Area WC-2. 22

Typical bowls of this period include those with an outwardly beveled rim that has been thickened toward the interior of the vessel (pl. 85a-c). This type, referred to as a clubrimmed bowl, occurs here both with and without a horizontal groove below the rim. Also found were several body sherds of gray-ware bowls. Vessels in gray ware, though rare, are diagnostic for the seventh and sixth centuries.

Among the closed forms represented in the collection is the usual drinking vessel, a cylindrical cup with a stump base (pl. 85d). ${ }^{23}$ The standard storage jar most often has a rounded rim ( $\mathrm{pl} .85 \mathrm{e}-\mathrm{g}$ ), but the band rim typical of the Kassite period also occurs (pl. 85 h ). Among the very large forms is a large bowl (pl. 85i) and a funnel jar, an open vessel with a hole in the bottom. This funnel jar (pl. 85j) was incorporated into a drain, but this type also was often used as a burial jar, particularly in double-jar burials (pl. 48c). The storage jar lid ( pl .85 k ) was commonly used in the early first millennium but is virtually identical to its Kassite counterpart.

The limited nature of this material does not permit detailed analysis; however, since the pottery is similar to that of Area WC-2, it is likely that the eroded architectural features of Level I are the remains of houses belonging to the same seventh and early sixth century settlement at the southern end of the city that was more fully exposed in WC-2.

## PITS

Large pits that cut down into the remains of the Kassite buildings in Levels II and III have been assigned to Level I, but their stratigraphical relationship to the Level I architectural remains cannot be established. Not unexpectedly, these pits contained chronologically mixed material, including the Kassite economic texts that we conclude (see above and Chapter 1) must have been dislodged from the Level II building. The latest material from these pits, however, consists of pottery belonging to the same group of types as those from the architectural remains of Level I and the early first millennium houses in WC-2.
22. This pottery is described in Armstrong 1989: 62-72.
23. Both McCown and Haines (1967, pl. 100: 22, table II) and Franke (1978, fig. 72: 1-2, table 4) indicate that the cylindrical cup with a stump base began to be made in the Kassite period. This is due to the confused stratigraphy of Area TA as first published by McCown and Haines (1967). In the corrected stratigraphy, the cup occurs only in early first millennium contexts. The rim sherds from Area WB published by Franke (1978) that are supposed to belong to this type are too large. Their diameters of 8 and 10 cm do not fall within the usual range for this cup, which is consistently between 5 and 6 cm . In WC-1 stump-based cups were not found in the Kassite levels.

Whole or nearly whole vessels recovered from the pits are used to illustrate the range of pottery types found in them. Among the Kassite types are wavy-sided bowls ( 14 N 133 , pls. $70 \mathrm{~g}, 86 \mathrm{a} ; 14 \mathrm{~N} 67$, pls. $70 \mathrm{f}, 86 \mathrm{~b}$; and 14 N 68 , pls. $70 \mathrm{e}, 86 \mathrm{c}$ ), straight-sided bowls, button-based cups ( 14 N 183 ; pls. 70j, 86d), and Kassite goblets ( 14 N 484 , pls. 70k, 86e; 14 N 486 , pls. 701,86 ; and 14 N 181 , pls. $70 \mathrm{i}, 86 \mathrm{~g}$ ). The early first millennium types include club-rimmed bowls ( 14 N 69 ; pls. $71 \mathrm{~b}, 86 \mathrm{~h}$ ), small jars with nipple bases ( pl .86 i ), stump-based cups ( 13 N 315 ; pls. 71a, 86 j ), and fragments of an incense burner ( 14 N 292 , pl. $71 \mathrm{c}-\mathrm{d}$ ). Ring stands ( 14 N 182 ; pls. $70 \mathrm{~h}, 86 \mathrm{k}$ ) are found in both Kassite and early first millennium contexts. The deep bowl ( pl .861 ) may also belong to either period.

## SINGLE- AND DOUBLE-JAR BURIALS

Pottery was found in four of the single- and double-jar burials, $25,28,30$, and 61 . Of these, Burial 30 (pl. 48b) was initially thought to be earlier than the others, because a Kassite goblet ( 13 N 520 ; pls. 63b, 88c) was found next to the burial. It must be remembered, however, that this burial was cut down into Pit O, which was full of Kassite vessels. The goblet that was thought to belong to the burial must have been either in the pit fill next to the burial and we misjudged the edge of the burial cut or it was encountered by the grave diggers and they overlooked it. A second pottery vessel, a bowl with an inturned rim ( 13 N 483 ; pls. 62d, 88b), was found directly above Burial 30 and was recorded as from Floor 2 of Locus 12, a non-existent floor. This is a first millennium type and, as set forth in Chapter 2, we have concluded that its position can be explained either as a chance inclusion in the grave shaft or as part of the grave goods. The burial jars (e.g., pls. 48b, 88 a ) and the glazed beads ( 13 N 521 a, pl. 63a), though not diagnostic, are consistent with the other jar burials, which we can date to the early first millennium.

The remaining three burials belong to the early first millennium, based on the pottery found in them. Included in Burial 25 (pl. 47b; burial jars, pl. 87a-b) were a club-rimmed bowl with a groove below the rim ( $13 \mathrm{~N} \mathrm{376;}$ pls. 61b, 87c), and several small jars or bottles ( 13 N 388 , pls. $61 \mathrm{c}, 87 \mathrm{~d}$; 13 N 374 , pls. 61e, 87 e ; and 13 N 373 , pls. 61d, 87 f ). The surface of one of these ( 13 N 388 ) was decorated with a geometric pattern of lines and circles in yellow and white glaze. A second ( 13 N 374 ) had two horizontally-pierced lug handles on its shoulders; it was found inside a larger bag-shaped jar ( 13 N 375 ; pls. 61f, $87 \mathrm{~g})$.

Burial 28 (burial jar, pl. 88d) yielded a small jar (13 N 448; pls. 62c, 88e). In Burial 61, preserved only as a large sherd of a badly destroyed jar (pl. 88f), were found a small polychrome glazed jar ( $13 \mathrm{~N} \mathrm{114;} \mathrm{pls}. \mathrm{63d}, \mathrm{64a}$,88 g ) and an elaborate, yellow-glazed incense burner with a knobbed or spiked surface and a fenestrated pyramidal lid ( 14 N 115; pls. 64a-b, 88 h ). ${ }^{24}$
24. A similar incense burner was recovered from a burial together with small glazed jars during the nineteenth century Pennsylvania excavations at Nippur (Peters 1897, opp. p. 186), and dated to the Kassite period. An identical lid was found at Ur (U.17734 = UM 32-40-4). Its findspot is given in the field catalogue as Ziggurat 31 NW .

Since intramural burial was customary during the early first millennium in Babylonia, it is probable that Burials $25,28,30$, and 61 were sunk from the living floors of the nowvanished houses of Level I.

Table 4. Sherd Counts of Kassite Pottery from Area WC-1

| Type | Level IV | Level III | Level IIIIII | Level II | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bowl |  |  |  |  |  |
| Straight-sided | - | 204 | 117 | 82 | 403 |
| Wavy-sided | - | 479 | 167 | 331 | 977 |
| Straight or wavy | - | 198 | - | 76 | 274 |
| Carinated | - | 28 | 1 | 31 | 60 |
| Thickened-rim | - | 9 | - | 13 | 22 |
| Miscellaneous or untyped | - | 16 | 16 | 6 | 38 |
| Kassite goblet | 4 | 1232 | 1379 | 286 | 2901 |
| Button-based cup | - | 23 | 5 | 20 | 48 |
| Kassite jar | - | 28 | 8 | 18 | 54 |
| Standard jar |  |  |  |  |  |
| Band-rimmed | - | 20 | - | 19 | 39 |
| Ridged-rimmed | $\cdots$ | 11 | - | 22 | 33 |
| Undifferentiated | - | 78 | 17 | 73 | 168 |
| Very large vessels | 1 | 7 | 5 | 5 | 18 |
| Lid | - | 3 | 1 | 2 | 6 |
| Stand | - | 20 | 8 | 1 | 29 |
| Colander | - | - | - | 1 | 1 |
| Totals | 5 | 2356 | 1724 | 986 | 5071 |

Table 5. Concordance of Nippur Kassite Pottery Typologies

| Area WC-I | Area WB (Franke 1978) | TA (McCown and Haines 1967) |
| :--- | :--- | :--- |
| Wavy-sided bowl | IA-1 | Type 43 B |
| Straight-sided bowl | IA-2 | Type 43 A, C |
| Carinated bowl | IB | No examples |
| Bowl with thickened rim | IE (fig. 64: 5-7) | Type 50 (pl. 100: 8) |
| Kassite goblet | IIA | Type 47 |
| Button-based cup | IIC | Type 46 A-B |
| Kassite jar | IIC | Type 45 A, C |
| Band-rimmed jar | IIB | (pl. 99:3-4) |
| Ridge-rimmed jar | IIB | (pl. 99:7) |
| Very large vessels | III | (pl. 99:9-10) |
| Lid | VA | (pl. 99: 8) |
| Ring stand | VB | No examples |
| Colander | No examples | No examples |

## CHAPTER 4

## SEALS AND SEALINGS

## RICHARD L. ZETTLER

Both cylinder seals and their impressions on tablets and clay sealings were recovered in the course of excavations in Area WC-1. Seals and clay sealings were found in all but the lowest level (Level IV); sealed tablets were found in the Level II building and in Level I pits. With the exception of an Indus Valley stamp seal and one problematic basalt cylinder seal of a later date, the seals and their impressions all date roughly to the mid-to-late second millennium B.C. They include examples of several stylistic groups, Mitanni, First Kassite, Pseudo-Kassite, ${ }^{1}$ and Second Kassite. Mitanni and Pseudo-Kassite cylinder seals were found in the excavations. Impressions of First and Second Kassite seals, including ring-stamps in Second Kassite style, occur on both tablets and clay sealings; impressions of Pseudo-Kassite seals occur only on sealings. The reverses of the WC-1 sealings were not recorded and, therefore, it is not possible to determine if the various styles documented were used in different sealing contexts. Two of the tablets ( 13 N 126 , pl. $93 \mathrm{a} ; 14 \mathrm{~N} 241$, pl. 100 c ) have fingernail impressions on the left edge, and a superscription on the second identifies them as such; another tablet ( 14 N 245 , pl. 101c) may have fingernail impressions. ${ }^{2}$

## INDUS VALLEY SEAL

The Indus Valley seal ( 13 N 506 , pl. 89a-d), from Level lil, Locus 6, Floor 3, is a square faience stamp with a suspension ring on the back. Its dimensions ( $2.0 \times 2.0 \mathrm{~cm}$ ) are consistent with the dimensions of the seals from sites such as Mohenjo-Daro. ${ }^{3}$ The seal shows a bearded, humped bull. Above the bull is an inscription in the Indus script (cf. Marshall 1973b, pl. 111: 327-40). The Indus Valley civilization is generally dated 25001800 B.C., so 13 N 506 was almost certainly not in its original context. Any attempt to explain how the seal came to be in the Level III building would be little more than speculation. As impressions of Jemdet Nasr, Early Dynastic I, and Akkadian seals on Nuzi tablets attest, however, it was not uncommon for seals to be held as heirlooms for long periods or for long-buried seals to be found in digging wells, pits for brick-making, etc. and

1. On Pseudo-Kassite as a stylistic group, see Matthews 1990: 66-69; idem 1992.
2. On the use of fingemail marks in place of seals, see Clay 1906: 12-14; see also Brinkman 1989: 43-44.
3. See, for example, the size frequency table in Marshall 1973a: 372.
kept as jewelry, or curiosities, or even used in day-to-day sealing activities (Porada 1947: 90-91, nos. 953-55).

Only two Indus Valley stamp seals of the same type as 13 N 506 , both from Kish, have been found in excavations in southern Mesopotamia (Langdon 1931: 593-96; Mackay 1925: 697-701). ${ }^{4}$ An impression of such an Indus Valley seal, however, was acquired on the antiquities market and was said to have come from Djokha (ancient Umma) (Scheil 1925: 55-56). The two seals from Kish and that impressed on the sealing supposedly from Umma are, in contrast to the Nippur seal, all of the so-called unicorn type.

## MITANNI SEALS

Two of the three seals found in the Level III building are Mitanni common-style seals. Both are made of faience and have simple designs. The seal 13 N 488 (pl. 89e-f) shows three superimposed winged disks and a recumbent horned animal perpendicular to the field. The scene is framed above and below by horizontal lines. The seal 14 N 6 (pl. 89gh) shows two horned animals, posed breast to breast with their heads turned back, and two inscription cases, each with three six-pointed stars in place of cuneiform signs.

Parallels for the two WC-1 Mitanni-style seals have a wide geographical distribution and chronological range. The individual design elements (superimposed winged disks and recumbent horned animals at right angles to the field) on 13 N 488 occur, for example, on seals or impressions from Nippur, Nuzi, sites in Syria-Palestine (Alalakh, Ras Shamra, Beth Shan, Lachish, Megiddo, Hazor, and Tell Abu Hawam) and Greece. ${ }^{5}$ With the exception of a Nippur seal that is from an early context, the seals range in date from the fifteenth to the thirteenth century. ${ }^{6}$ Winged disks and an animal are combined in an impression on a tablet from Assur, dated to the reign of Eriba-Adad I (1390-1364 B.C.), and on a seal from Hazor, Area H, Stratum 1A, generally dated to the thirteenth century (Beran 1957a, fig. 92; Yadin 1961, pl. 321: 3). Neither the Assur sealing nor the Hazor seal duplicates 13 N 488, however. The Assur impression combines three superimposed winged disks with a striding animal and the Hazor seal has winged disks with a standing horned animal, its head turned back. A seal of unknown provenience in the Ashmolean combines winged disks and recumbent horned animals set perpendicular to the field, but in an arrangement different from that of 13 N 488 . The Ashmolean seal has two winged disks in a row along the base line and two recumbent horned animals above them (Buchanan 1966, no. 942).
4. For the findspots of the two seals, see Moorey 1978: 26-27 and fiche 2 C 03 . For Indus Valley seals supposedly found at Tello, see Ratnagar 1981: 191.
5. For superimposed winged disks, see Legrain 1925, no. 636; Schaeffer-Forrer 1983, R.S. 17.265. For recumbent animals perpendicular to the field, see the discussion in Collon 1982: 71-72; see also Pini 1983: 125 ( N 23 ).
6. The Nippur seal ( 3 N 144 ) is listed as from TA X, 1 and is attributed by the excavators to the Old Babylonian period (McCown and Haines 1967, pl. 113: 3). Elizabeth Stone (1987: 117-21) suggests that TA X, 1 should be dated to the end of the reign of Samsuiluna, i.e., the late eighteenth century.

Animals posed breast to breast such as those on 14 N 6 are common on Mitanni-style seals. They occur, alone or in combination with other elements, including human figures and stylized trees, on seals from sites as widespread as Nuzi, Marlik, and Beth Shan. Most of those seals date from the fifteenth to the thirteenth century, though a seal from Tell Zubeidi in the Hamrin basin was found in a twelfth century burial, and a seal from Megiddo, Level V, dated to the eleventh century. ${ }^{7}$

The closest parallels for 14 N 6 occur at western sites such as Ras Shamra, Beth Shan, and Tell Fara. Seals from those sites show breast to breast animals and a single inscription case with three six-pointed stars. ${ }^{8}$ Seals with breast to breast animals and one or two inscription cases containing opposed oblique hatching were uncovered at Nuzi and Ras Shamra. ${ }^{9}$ A seal impression from Nippur combines animals posed breast to breast, a case with opposed oblique hatching, and three animals(?) arranged one over the other. ${ }^{10}$ The parallels range in date from apparently very early to very late. The Nippur sealing was found in TB D, a level dated to the late Old Babylonian period. ${ }^{11}$ The archaeological context or its dating is perhaps problematic. The Nuzi impression-on a tablet in the Silwatešup archive-dates to the fifteenth-fourteenth century, as do the seals from Ras Shamra and Beth Shan. The seals from Ras Shamra are attributed by the excavator to the so-called Ugarit récent 1 (1550-1450 B.C.) or the beginning of Ugarit récent 2 (1450-1350 B.C.), while the Beth Shan example is from Level IX (LB IIA or the late fourteenth century). The Tell Fara seal was found in a late context, a tomb (Tomb 539) attributed to the time of the Egyptian Twentieth Dynasty ( $1200-1090$ B.C.).

The archaeological context of the two WC-1 Mitanni-style seals-in deliberate fill associated with a change in floor level-would suggest that they were older than the Level III building, and the parallels do not contradict that supposition. The seal 13 N 488 belongs to the fourteenth-thirteenth century, and 14 N 6 probably dates to the fifteenth-fourteenth century, though it might be somewhat later. The Level III building, as indicated, probably dates to the late fourteenth or early thirteenth century. The parallels cited raise a more interesting question, however, and that concerns the origin of the WC-1 seals. Similar seals are known from Nippur and other Mesopotamian sites, but the closest parallels are with seals from sites in the west, Ras Shamra, Beth Shan, Hazor, etc. Were the WC-1 seals imports? Or were the seals locally manufactured products? Only a systematic study of their materials is likely to yield an answer.
7. See, for example, Porada 1947, nos. 53 and 164; Boehmer 1981, no. 27; Parker 1975, no. 36; Negahban 1979, figs. 1-2; Collon 1982, nos. 39, 49; Parker 1949, nos. 79, 114 (Beth Shan), 101 (Tell Abu Hawam), no. 125 (Megiddo).
8. Schaeffer-Forrer 1983, R.S. 9.150; Parker 1949, nos. 44 (Beth Shan), 127 (Tell Fara).
9. Schaeffer-Forrer 1983, R.S. 22.37; Stein 1989, no. 416.
10. McCown and Haines 1967, pl. 120: 6. The sealing 2 D 168 is not an impression of a stamp, but a cylinder seal.
11. Elizabeth Stone (1987: 117-21) dates TB D to late in the reign of Samsuiluna.

## FIRST KASSITE SEALS

Six seal impressions from WC-1, four on tablets ( 14 N 222 , pl. 98b; $14 \mathrm{~N} 246-47$, pls. 101d, $90 \mathrm{~g}, 102 \mathrm{a}$; 14 N 250 , pl. 102c) and two on sealings ( $13 \mathrm{~N} 592,14 \mathrm{~N} 165$ ), belong to the First Kassite Group, a group characterized by multi-column inscriptions, one or two figures, and signs or symbols in the field (Beran 1957b: 256-66). The four tablets and one of the sealings ( 14 N 165 ) were found in first millennium pits of Level I and are, we have argued, from disturbed Kassite contexts. The findspot of the other sealing ( 13 N 592 ) is less certain. It was in either Pit B or Pit O, that is either from Level I or a pit stratigraphically intermediate between Level III and Level II.

The seal on 13 N 592 (pl. 90a-c) shows an inscription, four columns of which are preserved, a standing human figure and traces of a seated human figure. The standing figure, facing right, raises his right hand and holds the left at his waist; the seated figure, facing left, raises one hand. ${ }^{12}$ The sealing 14 N 165 (pl. 90d) shows a multi-column inscription and to its right traces of the back of a standing human figure. In the middle of the inscription the outline of part of a seated figure is visible. The lines that form the inscription casing overcut the figure, indicating, in all probability, that the figure is a remnant of an earlier scene that had been recut. ${ }^{13}$ The tablet 14 N 250 (pls. 90e, 102c), whose date is broken, has faint traces of a seal with two figures. It shows an eight-column inscription, alongside of which are a seated and a standing figure. The seated figure faces left and raises his right hand. The standing figure, his left arm extended, faces him. ${ }^{14}$ The tablet 14 N 222 (pls. 90f, 98b), dated year 21 of Nazi-Maruttaš (1307-1282 B.C.), preserves traces of only the upper torso of a standing or seated figure; 14 N 246 (pl. 101d), dated in the reign of Kaštiliašu (IV) (1232-1225 B.C.), has traces of only a multi-column inscription.

The seal on 14 N 247 , according to a line on the left edge of the tablet, is that of Hunnubu (for this name, see Chapter 5, pp. 94 and 108). The impression on 14 N 247 (pls. $90 \mathrm{~g}, 102 \mathrm{a}$ ) varies somewhat from those described above. The tablet preserves traces of the upper portion of a seal with a ten column inscription. The field to the right of the inscription, less than a centimeter wide, is divided into registers. In the upper register is a human figure, standing and facing left. The right arm is raised and the left arm is positioned at the
12. Donald Matthews provided the description of the scene (letter dated February 8, 1990) after studying a cast of the sealing in Chicago. This is his catalogue no. 64 (Matthews 1992: 87). For a similar seal, see Legrain 1925, no. 554.
13. Donald Matthews kindly examined the photos of 14 N 165 . He was not convinced that the traces to the right of the inscription represented the back of a standing human figure (he suggested a locust), and he indicated that the seated figure in the middle of the inscription was probably the result of impressions of one and the same seal having been made over the top of each other. I am not convinced that 14 N 165 has multiple impressions of a single seal-the impression appears to be a unified whole-and I maintain my original interpretation of the sealing.
14. As an example of a Kassite seal with a seated and a standing human figure, see McCown and Haines 1967, pl. 121: 10.
waist. Kassite seals that have a lengthy inscription and the field divided into two registers are not uncommon. A seal from Babylon, for example, has a standing human figure in the upper register (and a dog, lozenge, and cross) and a tree in the lower one (Moortgat 1940, no. 556). The seal of an official of Kurigalzu (1 [?]) has, like 14 N 247 , a narrow field divided into registers. In both the upper and lower registers is a standing human figure (photograph in Collon 1987, no. 237). A seal published by Ward (1910, no. 529) has an inscription and a field divided into two registers. The upper register shows two human figures with their right arms raised and the left at their sides; the lower register depicts two figures carrying scimitars in their right hands.

## PSEUDO-KASSITE SEALS

Two cylinder seals and impressions on three clay sealings are Pseudo-Kassite, a Babylonian style derived in large part from First Kassite or, perhaps in the case of specific subgroups, for example, one represented by 14 N 33 (pl. 91e-f), showing the influence of Second Kassite or Middle Assyrian seals, and to which the Chogha Zanbil Pseudo-Kassite and Elaborate Elamite seals ought to be attributed. Seals in Pseudo-Kassite style are commonly made of soft materials such as faience and glass (Matthews 1990: 66-69; idem 1992: 45, 10-20).

A fragmentary faience seal ( $14 \mathrm{~N} 52, \mathrm{pl} .90 \mathrm{~h}$ ), found below Wall AJ in the Level II foundation fill, shows two bearded deities, standing and facing right. Both wear conical caps. The fields between the two are divided by cross-hatched horizontal bands. Above the band in one field are a "dot in a circle" and three birds; above it in the other field are three stylized vessels. A horizontal line forms an upper border to the scene.

Seals with a composition identical to that of 14 N 52 , that is, deities occupying the full height of the seal with the fields between divided by cross-hatched bands, have been found at Nippur and Assur (Legrain 1925, no. 548 and CBS 10167; Moortgat 1940, no. 555). The composition is also characteristic of the Chogha Zanbil "Elamite elaborate" seals (Porada 1970: 21). The motives in the fields of 14 N 52 , the "dot in a circle," which Porada has suggested was used commonly at Chogha Zanbil to render the heads of glazed nails, and the birds with hatched wings, are also typical of the "Elamite elaborate" style (Porada 1970: 25). The other field motif, composed of a central circle with a single dot pendant from the base and three protruding from the top, occurs on seals from Nippur and on a seal in the Iraq Museum (Legrain 1925, nos. 549, 558; Amiet 1986: 3, pl. 3a-b, IM 10992) but apparently not on seals from Susa or Chogha Zanbil. Amiet suggests that it represents a type of fruit, but Legrain's description of the motif as a vessel is more convincing. It is, perhaps, a stylized version of vessels common on the Chogha Zanbil seals.

A sealing ( 14 N 116 , pl. 91a-b), originally from the excavation and recovered from the dump, has a three-column inscription. The seal has been rolled so as to show a standing man to the right of the inscription. He holds a scimitar in his right hand and has his left arm at his waist. He wears a long garment whose edges are represented by two vertical lines down its front. The field to the figure's right is divided into four registers. In the top register
is a fly and in the second two detached human heads. The objects in the lower two registers are only partially preserved. The horizontal lines that form the top and bottom of the inscription casing are extended above and below the seal scene and provide a frame for it. 14 N 116 is similar in composition and detail to a seal found at Nippur during the University of Pennsylvania's Fourth Expedition (Legrain 1925, no. 568). The two seals share another peculiarity in their inscriptions-a crossed line or " $x$ " tacked onto the front of the DINGIR-sign. 14 N 116 is also paralleled by the Chogha Zanbil "Pseudo-Kassite" seals, a seal from Tell Zubeidi in the upper Diyala River basin and a seal from Failaka (Porada 1970, nos. 3, 7; Boehmer 1981, nos. 31-32, 42; Kjaerum 1983, no. 419). The WC-1 seal is also similar to Kassite-influenced seals on tablets from Nuzi (Porada 1947: 54-56). To the left of and facing a four-column inscription on one Nuzi seal, for example, is a standing human figure, wearing, in contrast to the figure on $14 \mathrm{~N} \mathrm{116}$, kilt and holding a scimitar. In the undivided field to the figure's right are a recumbent animal, a fly, a second recumbent animal, and a bird arranged in a column (Porada 1947, no. 708). 14 N 116 also shares an important iconographic detail with Nuzi seals, in which detached human heads are common. ${ }^{15}$ Detached heads occur infrequently, if at all, on Kassite, Pseudo-Kassite, or Middle Elamite seals.

A clay sealing ( $13 \mathrm{~N} 412, \mathrm{pl}$. 91c), found just above a Level I floor, and, therefore, at least in terms of the stratigraphy, one of the latest of the WC-1 seal impressions, has two partial imprints of a single seal that was probably similar in composition to 14 N 116 . The seal shows three figures arranged in registers. The figure in the top register is a bird; those in the lower registers are indistinct. To the right is an inscription, two columns of which are preserved. The seal has an upper border of cross-hatched triangles. The general composition and style of 13 N 412 is reminiscent of a seal from Tell Zubeidi. ${ }^{16}$

Three impressions of one or perhaps two seals occur on a sealing ( 14 N 330 , pl. 91d) found on a Level II floor. All three impressions are faint and fragmentary. Two of the rollings (a-b), the orientation of which is uncertain, show a panel composed of a horizontal (or vertical) line, a cross-hatched band, and two horizontal (or vertical) lines. A vertical (or horizontal) line extends down (or out) from the panel. To the left of (or below) the vertical line are indistinct traces. The third rolling (c) shows two convergent lines, the space between which is cross-hatched. To the left are a pendant circle and a pendant volute; some distance to the right are two vertical lines.

The traces of the seal or seals on 14 N 330 , however faint, are distinctive and easily recognizable. The partial impressions (labeled a-b) probably show the characteristic hatched panels and lines that encase inscriptions or subsidiary motives on Nippur seals and Chogha Zanbil "Elamite elaborate" seals. A similar elaborate inscription casing also occurs on a seal in the British Museum (Collon 1987, no. 293). The elements visible in the rolling (labeled c) are likely part of a tree with hatched trunk and pendant circles and volutes. Such trees occur on impressions from Nippur and are common on "Elamite elaborate" seals
15. See, for example, Porada 1947, nos. 141, 188, 265.
16. Boehmer 1981 , no. 30, p. 76 (for a discussion of its comparisons).
from both Chogha Zanbil and Susa. ${ }^{17}$ The vertical lines to the right of the tree are probably part of the panels that encase inscriptions.

The cylinder seal ( 14 N 33 , pl. 9le-f) attributed to Level II and an impression on a clay sealing ( 13 N 556 , pl. 91g) from either a pit stratigraphically intermediate between Level III and Level II (Pit O) or a pit cut from the Level I (Pit B) are examples of distinct subgroups within the Pseudo-Kassite style. The seal, 14 N 33 , is made of white faience. The upper portion of the seal is broken, and it is cracked and disintegrating. The scene, although barely visible, can be discerned: a kneeling archer, wearing a conical cap, behind a horned animal, possibly a gazelle. The archer's lower body is shown in profile, his upper body in three-quarters view. He holds the bow with his left hand and draws the arrow back with his right.

The WC-1 seal is paralleled by impressions of a seal from Nippur that show a kneeling archer and a number of animals occupying the whole of the field (Matthews 1992, nos. 132-33). Impressions of a seal from Area WB show a nearly identical archer, but the scene is divided into two registers ( $13 \mathrm{~N} 471 \mathrm{~A}-\mathrm{B}$, now in Matthews 1992, no. 134). The hunting archer is a theme that occurs on Mitanni-style seals (Stein 1989, pl. 4c, no. 413). It occurs on Middle Assyrian seals as early as the fourteenth century and continued to be depicted on thirteenth century seals, as attested at both Assur and Tell al-Rimah. ${ }^{18}$ The hunting archer, set in rectangular panels, occurs on seals from Chogha Zanbil, Susa, and Marlik, as well as on a number of seals of unknown provenience. ${ }^{19}$ In contrast to the archers on the Nippur seals, archers on Mitanni and Middle Assyrian seals are commonly depicted in a half-kneeling position with the right knee and left foot planted on the ground. The archers on the Chogha Zanbil seals are in the same position, while those on the Susa, Marlik, and seals of unknown provenience are identical to the archers on the Nippur examples, fully kneeling.

The partial impression on 13 N 556 ( pl . 91g) shows two registers, the upper one having a row of lozenges or criss-crossed lines with inset lozenges, the lower one a row of crudely rendered animals. Similar seals are evidenced on clay sealings from Nippur and several Elamite common-style seals from Chogha Zanbil. One sealing from the University of Pennsylvania's nineteenth century excavations at Nippur shows a seal divided into two registers, the upper containing lozenges and the lower perhaps locusts and birds (Legrain 1925, no. 559). A sealing from Area WA (Gibson et al. 1978, fig. 21: 2) shows a seal divided into two registers, framed above and below by herringbone bands and impressions of triangular, granulated caps. Both registers contain foxes. The upper register contains stars, lozenges, a stag's head, and a rosette as filling motives; the lower register, rhombs
17. For examples from Nippur, see Matthews 1992, nos. 118-19. For examples from Chogha Zanbil and Susa, see Porada 1970, nos. 15-16, 20; Amiet 1972, pl. 182, no. 2083.
18. Beran 1957a, fig. 37; Moortgat 1944, Abb. 12, 14; Moortgat-Correns 1964, fig. 10; Parker 1977, nos. 2b, 42b, 43.
19. Porada 1970, nos. 19-20, 33-36, 38; Amiet 1972, pl. 182, 2082, 2084 (see also Amiet 1966, figs. 277, 279); Negahban 1979: 118, figs. 11-12; Moortgat-Correns 1969: 295-98; Amiet 1986, pl. 3a-b.
and a stag's head. The foxes on the WA sealing are similar to the animals on $13 \mathrm{~N} 556 .{ }^{20} \mathrm{~A}$ seal in Porada's Group VIII is divided into three registers (Porada 1970, no. 91). The top register contains two lozenges and a "dot in a circle"; the second register recumbent antelopes and "dots in circles"; the bottom register shows three foxes. The form of the foxes is nearly identical to the foxes in the lower register of 13 N 556 . Seals with a top register containing lozenges or criss-crossed lines also occur at Chogha Zanbil (Porada's Groups VII-IX) (Porada 1970, nos. 86, 96, 102).

## SECOND KASSITE SEALS

Four of the WC-1 seal impressions, two on clay sealings ( $14 \mathrm{~N} 81,14 \mathrm{~N} 117$ ) and two on tablets ( $14 \mathrm{~N} 244,14 \mathrm{~N} 248$ ), belong to the so-called Second Kassite Group, a group of seals whose earliest attested exemplars date to the time of Burna-Buriaš II (1359-1333 B.C.). ${ }^{21}$ The two impressions on tablets are apparently of ring-seals. The sealing 14 N 81 , found on a Level II floor, carries a partial impression of a seal showing a bull rearing up toward a bush (pl. 91h-i). ${ }^{22}$ On top of the bush may be a large bird with its head turned back. The lower portion of a crescent or disk may be visible in the field above the bush. The bull, with its powerfully rendered chest muscles and a single horn shown in profile, jutting forward from the front of the head, as well as the positioning of the bull in relation to the bush, find close parallels in a Kassite seal in the British Museum seal, Southesk Qc $10 .{ }^{23}$ Birds are not infrequently depicted sitting in the branches of bushes and trees on Kassite seals. ${ }^{24}$ Birds with their heads turned back appear on the ground below the bulls in the British Museum seal just noted.

The sealing 14 N 117 (pl. 91j-k), found in fill just above a Level II floor, shows a human figure, facing left, with his right arm raised and the left presumably at his waist. The figure faces a pair of animals, probably goats, rampant on each side of a bush. A nearly identical scene occurs on an Assur tablet dated to the reign of Adad-nirari I (1305-1274 B.C.) (Moortgat 1942, Abb. 53). Despite the parallel, certain stylistic features of 14 N 117 suggest that it is not Middle Assyrian, but Second Kassite. The bush, for example, closely resembles bushes on Southesk Qc 10 and seals in the Morgan Library and the Bibliothèque Nationale (Collon 1987, no. 284; Porada 1948, no. 587; Delaporte 1909, no. 301). The positioning of the animals in relation to the bush is likewise more typical of Kassite than
20. For another Nippur parallel to the animals on 13 N 556, see McCown and Haines 1967, pl. 121: 5.
21. Beran (1957b: 266-74) stated that the earliest examples of the Second Kassite Group were from the time of Kurigalzu II and Nazi-Maruttaš, that is, 1332-1308 B.C. and 1307-1282 B.C., respectively. See now the seal of a high official of Burna-Buriaš II (1359-1333 B.C.). Kidin-Marduk (Porada 1981, no. 26). For the seals of Kidin-Marduk, see Collon 1987, nos. 239-41.
22. Gibson, Zettler, and Armstrong 1983, fig. 20. Now in Matthews 1992, no. 171.
23. Beran 1957b, fig. 16. See the somewhat better photograph in Collon 1987, no. 284. Note that Collon has mistakenly described the seal as Middle Assyrian.
24. See, for example, Beran 1957b, fig. 10; Ward 1910, no. 526; Delaporte 1909, no. 299; and Matthews 1992, nos. 173-78.

Middle Assyrian seals. The flat carving of 14 N 117-instead of the modeling which characterizes Middle Assyrian seals-reinforces its classification as Kassite.

The tablet 14 N 244 (pls. 101b, 92a [sealing]), dated to the accession year of ŠagaraktiŠuriaš ( $1245-1233$ B.C.), was sealed on both the right and left edges by a ring stamp. The impression on the left edge is indistinct, but that on the right edge shows the upper portion of what appears to be an ellipsoidal bezel. No trace of the ring's band is visible. The impression shows a quadruped, carved in modeled style, striding to the right. The animal is on the left half of the bezel, but no other design element is preserved.

An undated tablet, 14 N 248 (pls. 102b, 92b [sealing]), has a partial impression of a similar ring-seal on its upper edge. The seal shows a quadruped, probably a bull, striding to the right toward a plant, probably a low palm. The plant has a central frond, two drooping fronds on each side, and clusters of dates(?) hanging below. It resembles the plant on a Second Kassite seal from Ur and the upper portions of palm trees on several other seals of the Second Kassite Group (Legrain 1951, no. 577; Beran 1957b, figs. 15, 19, 21 ).

Tablet 14 N 244 provides the earliest evidence to date for the use of rings in sealing. Ring-seal impressions occur on early twelfth century tablets from Meskene/Emar and Ur. ${ }^{25}$ Probably contemporary impressions of ring-seals occur on clay sealings from Nippur (Legrain 1925, no. 744; Mathews 1992, no. 182). The impressions on the Meskene/Emar, Ur, and Nippur tablets and sealings show rampant winged animals on either side of plants as well as recumbent animals and plants. The so-called Luristan band rings, many of which show two animals striding from the right and left toward a central plant and have an affinity with the Third Kassite Group are somewhat later in date than the WC-1 seals. ${ }^{26}$

Two small fragments of envelopes ( $14 \mathrm{~N} 249 \mathrm{a}-\mathrm{b}, \mathrm{pl} .92 \mathrm{c}$ ) were found, after baking, in the same clod of soil as tablet 14 N 248 (see Chapter 5). The two fragments have faint impressions of a seal with palm fronds. Porada described the palm fronds in her study of the cylinder seals found at Thebes and used the WC-1 impressions to date one of those seals. The drooping fronds, as she noted, are marked on one side by oblique hatchings indicating the leaves and thus appear in strict profile (Porada 1981: 55-56).

Two pieces of unbaked clay have impressions that are not from seals; 14 N 281 (pl. 92e) has the impression of cloth or basketwork, while 14 N 329 (pl. 92d) was pressed against an unidentified substance.

[^3]26. On the Luristan rings, see Porada 1964: 9-31. See also the comments in Muscarella 1981: 344 (nos. 20-21).

## BASALT SEAL

MCGUIRE GIBSON
A seal found in Pit B has presented some difficulty in dating, partly due to its condition. The seal ( $14 \mathrm{~N} 19, \mathrm{pl} .92 \mathrm{f}$ ) is made of basalt and is worn, cracked, and chipped. The indistinct scene ( $\mathrm{pl} .92 \mathrm{~g}-\mathrm{h}$ ) shows a combat between a winged quadruped and a human figure wearing a long, open robe over a kilt; his waist is cinched by a belt. The human figure stands with both feet on the ground; his left arm is lost to a large chip, but it is probably grasping the head, horn/mane/ears, or foreleg of the animal; ${ }^{27}$ his right arm is positioned down and back, presumably to hold a scimitar downwards. The animal's head is lost in the chip, but one front leg projects out and down in front of it; its ribs are indicated; one back leg is clearly visible, but the other is not visible or may be lost in the crack that runs through the body or could be indicated by the slightly angled line projecting back and up from the rear of the animal. ${ }^{28}$ The angled line seems too slight to be a leg. On the other hand, it is somewhat difficult to see it as a tail, given its angle. Lions' and griffins' tails are normally shown curving up over the body or forming an S (e.g., Moortgat 1942, Abb. 10, 13 , passim). Bulls and horses sometimes have tails slightly raised, or even highly raised, ${ }^{29}$ but usually in a graceful curve. In the field is a tree, with asymmetrically curving limbs and drilled leaves, clearly to be paralleled in Middle Assyrian glyptic (Moortgat 1944, Abb. 16, $18,29,32-33,45-46,52$ ). A crescent is located off-center over the tree. There is a subsidiary motif, perhaps a recumbent quadruped, on the ground between the two combatants.

Placing this seal in time is made difficult by the fact that one or two details seem out of place in Middle Assyrian glyptic. From what is preserved, the cutting seems more linear than the thirteenth and twelfth century Middle Assyrian seals. Also the downward position of the hero's arm, presumably grasping a scimitar, is discordant. Usually, in Middle Assyrian combat scenes, the weapon is held up to the rear or above the head of the hero. ${ }^{30}$ The position of the scimitar held back and down while the hero is in combat seems more a feature of seals that have been dated to the early first millennium (e.g., Buchanan 1966, pl. 39 , nos. $580-82$ ). But the hero in those seals most usually has wings, indicating that he is a genii, while the hero in our seal has no wings. Although genii do appear in combat with animals and winged mixed beings in Middle Assyrian seals, human heroes are much more
27. In a manner similar to Middle Assyrian seals in Moortgat 1942: 23ff., esp. Abb. 5-79-10; Moortgat 1944, Abb. 10, 19.
28. Middle Assyrian animals are often shown with one back leg in the air, e.g., Moortgat 1944, Abb. 27-28, 30. Note, especially, the winged horse and the human-headed bull, in Moortgat 1942, Abb. 20, 22-23.
29. Moortgat 1944, Abb. 65, 68, 22a. See also Buchanan 1966, pl. 38: 568, 570. In the last example, both a leg and the tail are raised, and the tail is angular.
30. Note, especially Moortgat 1944, Abb. 10, in which a hero controls a horse by holding its ears and threatens it with a raised scimitar.
common. ${ }^{31}$ It may also be temporally significant that in our seal one of the legs of the hero is covered by a robe. In combat, Middle Assyrian heroes and genii wear a kilt, usually with dangling tassels (Moortgat 1942; idem 1944, passim), while in seals dated to the early first millennium, one leg is often shown covered by a long robe (e.g., Buchanan 1966, pl. 39, nos. 581-82).

In light of the preceding discussion, I would suggest that our seal is of Assyrian origin and may be dated at the end of the second millennium, perhaps the eleventh century, but may be as late as the earliest part of the first millennium.
31. See Moortgat 1942; idem 1944, passim. Genii seem to increase in the twelfth century.

## CHAPTER 5

## CATALOGUE OF TABLETS

## J. A. BRINKMAN

The eighty-two tablets and fragments' catalogued in this chapter were found in Area WC-1 at Nippur during the thirteenth and fourteenth seasons of excavation. They came from Squares $\mathrm{N}-36, \mathrm{~N}-37, \mathrm{~N}-38, \mathrm{O}-36, \mathrm{O}-37, \mathrm{O}-38, \mathrm{P}-37$, and $\mathrm{P}-38$ and were assigned by the excavators to Levels II (eleven items, possibly twelve) or I (seventy items). Items attributed to Level II were from a relatively small group of loci: $31,33,34,42,47$, and 81 ; eight of these eleven items came from a context classified as "fill" by the excavators. ${ }^{2}$ All items assigned to Level I (about eighty-five percent of the total) were found in pits dug down into earlier levels.

The overwhelming majority of the texts whose date can be determined are Middle Babylonian. ${ }^{3}$ Only two can definitely be assigned to other periods: 13 N 564 (either Old Babylonian or Ur III) and 14 N 269 (Neo-Babylonian). ${ }^{4}$ About a dozen tablets are dated in specific reigns, ranging from Nazi-Maruttaš (1307-1282) to Kaštiliašu IV (1232-1225); ${ }^{5}$ and another text, mentioning the accession year of Kadašman-Harbe II (1223), ${ }^{6}$ is dated in the first year of an unnamed king, who would have to be either Kadašman-Harbe II himself or a later ruler.

1. The number is computed by counting each entry in the catalogue as one, except for 14 N 260 (which has sixteen fragments, each counted separately) and 14 N 249 (fragments of what may be a tablet envelope, here excluded from the count because it contains no detectable cuneiform inscription). Note that a blank tablet, unregistered by the expedition and so included neither in its excavation catalogue nor in the catalogue below, was also found in Level II, Locus 42 (see Chapter 2 above); it has been excluded from statistics here.
2. The other three items came from a cut made for a door socket in Locus 42. In addition, 14 N 231 , an item classified as possibly coming from Level II by the excavators, was recovered from a basket at the expedition dump and assigned to Locus 43 or 44 . For the excavators' classification of varieties of fill, see page 95 , note 17 , below.
3. The classification of texts as "Middle Babylonian" is understood, with the CAD, as texts written during the time of the Kassite dynasty ( $1595-1155$ B.C.).
4. Neo-Babylonian is here taken in the broad chronological sense used by the $C A D$ as referring to the script or language used in Babylonia after the Kassite dynasty, including non-economic texts from the Achaemenid and Seleucid periods.
5. See the List of Dated Texts with Royal Names Preserved at the end of this chapter.
6. 14 N 211 .

Most texts that are sufficiently well preserved for content analysis are either legal documents or accounts (thirty-seven items, with another five perhaps belonging to this category). There are also a lexical text ${ }^{7}$ and an omen text. ${ }^{8}$ The contents of more than thirty-five fragments, most of them very small or heavily damaged, have not yet been determined.

The accounts and legal texts deal for the most part with small amounts of grain, bread, oil, wood, wool, textiles, animals, and hides. Grain is the most commonly occurring item. Other than reference to gold as a standard of value ( 13 N 126 ), ${ }^{9}$ only one text records gold and precious stones, in damaged context ( 14 N 221 ).

In addition to the six kings cited in date formulae, at least fifty different persons have been identified by name in these texts. If we also count use as patronyms, only six nonroyal names occur in more than one text: Bēlānu (four texts), Hunnubu (six texts), Huzālu (two texts), Meli-Šuqamuna (two texts), Nusku-rā'im-zēri (two texts), and Taqīšu (two texts)..$^{10}$ Bēlānu occurs as a patronym for different persons in two texts ${ }^{11}$ and possibly as a patronym also in another two. ${ }^{12}$ Hunnubu serves as a patronym twice; ${ }^{13}$ and the half dozen texts referring to a Hunnubu (or to more than one Hunnubu) are spread over several decades and from at least two levels and three loci (including two pits). ${ }^{14}$ Bēlānu, Hunnubu, Huzālu, and Taqīšu are common names in Kassite texts; ${ }^{15}$ and, because in texts of this period persons are often not further identified by father's names, ${ }^{16}$ it is sometimes uncertain whether we are dealing with one or more persons bearing the same name. In the case of the texts catalogued here, since even the most frequent of the non-royal personal
7. 14 N 259 , a list of divine names.
8. 14 N 269 , Neo-Babylonian. This text was found in Square P-38 in Pit L, which has been identified as a latrine-thus raising an interesting question about ancient appreciation of omen texts.
9. And possibly in 14 N 247 (though here gold may actually be a commodity to be paid out); the text is damaged and unclear.
10. The references are listed below in the Index of Selected Personal Names.
11. $14 \mathrm{~N} 222: 7,14 \mathrm{~N} 247: 4$.
12. $14 \mathrm{~N} 201: 7,14 \mathrm{~N} 228$ rev. 2.
13. $13 \mathrm{~N} 126: 3$, $14 \mathrm{~N} 247: 3$.
14. Level II, Locus 42; Level I, Pits B and F. It is unclear whether the references to Hunnubu are all to a single individual, since a son of a Hunnubu is cited in 14 N 247 , a text mentioning Kadašman-Enlil II (1263-1255), while a Hunnubu occurs in 14 N 211 , a text dated in the reign of Kadašman-Harbe II (1223) or later. Traces of what is labeled in the text as the seal of a Hunnubu are found on 14 N 247 , which mentions a son of a Hunnubu as an active participant.
15. Thus Bēlānu is attested as a PN in more than forty texts from the Kassite period ranging from at least the time of Burna-Buriaš II (1359-1333) down to at least the time of Adad-šuma-ușur (1216-1187). Hunnubu occurs in more than twenty texts from the time of Kurigalzu Il (1332-1308) down to the time of Kadašman-Harbe II (1223) or later. Huzālu is in more than twenty texts ranging from the time of Burna-Buriaš II (1359-1333) to the time of Šagarakti-Šuriaš (1245-1233). Taqíšu occurs in more than forty texts from the time of Burna-Buriaš II (1359-1333) to the time of Kaštiliašu IV (1232-1225).
16. Patronyms are frequently omitted in non-legal Kassite documents.
names occur in fewer than ten percent of the texts and since the texts themselves are not a homogeneous lot and the overwhelming majority of them come from secondary context ${ }^{17}$ over a broad area, it would be difficult to assume-in default of other evidence-that this group of texts is to be regarded as an archive or archives. ${ }^{18}$

In compiling this catalogue, I have been able to consult casts or photographs of most of the tablets ${ }^{19}$ and some excavation records of the Nippur expedition. ${ }^{20}$ I have not had an opportunity to see the tablets themselves; so statements below must be regarded as preliminary. Information about numbers of lines, tablet dimensions, and missing or uninscribed portions of tablets is derived in most instances from object cards prepared by the staff of the expedition.

In the following entries, months are indicated by upper-case roman numerals. Measurements of tablets are given in the following sequence: length, width, thickness. Provenience is usually given in terms of level and locus (this part of the entry was prepared by Richard L. Zettler or by other staff members of the expedition). Iraq Museum registration numbers, where known, are listed.

The catalogue concludes with an Index of Selected Personal Names, a chronological List of Dated Texts with Royal Names Preserved, and a List of Tablets by Provenience.

## DESCRIPTION OF TABLETS

13 N 126 (IM 78575) Almost complete tablet. Thirteen lines preserved on obverse; reverse heavily damaged (portions of at least three lines preserved). Five fingernail impressions on left edge. ${ }^{21}$ Middle Babylonian. Legal text. Exchange of a jenny (SAL.ANŠE) for a cow. Part of a damaged date may be preserved near the bottom of the reverse. $7.2 \times 5.0 \times 2.3 \mathrm{~cm}$. Level II; Locus 42 , cut for door socket. Photographs on plate 93 . Transliteration of the obverse:
17. From pits (seventy items, plus the possible envelope fragments and uninscribed tablet referred to in note 1 above), fill (eight items), and the expedition dump (one item) according to provenience data furnished for this catalogue. Note that the only three items not so described in the catalogue below (13 N 126-127, 131) are reported in Chapter 2 to have been found as part of a packing of mudbricks above a pivot stone for a door in Level II, Locus 42; thus they come from similar secondary context. McGuire Gibson (p. 11, note 1, above) distinguishes different types of "fill"; and he interprets 14 N 228 , 14 N 262 , and 14 N 263 as coming from occupational fill, which he views as primary context.
18. This is in marked contrast to the archives of the temple brewers from thirteenth- and twelfth-century Ur (Gurney 1974, 1983), which has roughly the same number of texts as the group catalogued here but shows much closer prosopographical and internal connections.
19. Frequently, especially for tablets found in the fourteenth season, the text can be read better from the photographs than from the casts.
20. Principally the object cards.
21. Identified as the fingernail marks of Nūr-Marduk by the last two lines of the text.

13 N 126 (cont.)
(1) 1 SAL.ANŠE ki-i 3 GÍN KÙ.GI (x) (x)
(2) KI mZÁLAG-dAMAR l.UTU DUMU md 30 -APIN- $i s ̌$
(3) $\mathrm{m}_{t a-q i ́-s ̌ u m ~ D U M U ~}$ mhhu-un-nu-bi
(4) IN.ŠI.ŠÁM
(5) 「ŠÁMI.TIL.LA.BI.IŠÈ I
(6) [x] TÚG.HI.A 4 GUR ŠE.BAR id-din
(7) [m ZÁLAG]-dAMAR.UTU a-na ${ }^{\mathrm{m}}$ ta-qí-ši ki-a-am iq-b[i]
(8) [SA]L.ANŠE bi-la-ma a-na be-li-ša
(9) lu-te-er a-na ka-ša ÁB lu-ud-di-na-Ikul
(10) 1 ÁB ki-i 3 GíN KÙ.GI
(11) ki-mu SAL.ANŠE id-din-ma
(12) SAL.ANŠE ú-še-ṣi
(13) $\mathrm{U}_{4}$.ME.DA U. U.DA.BI.ŠE

Translation (lines 1-13): Taqišu, son of Hunnubu, bought one jenny worth three shekels of gold ${ }^{22}$ from Nūr-Marduk, son of Sîn-ēriš. As its full price, he paid [x] textiles (and) four kurru of wheat. [Nūr]-Marduk said to Taqišu: "Bring me the jenny, and I will return (it) to its owner. I will give you a cow (instead)." In place of the jenny, he ${ }^{23}$ gave a cow worth three shekels of gold; and he ${ }^{24}$ released the jenny permanently. ${ }^{25}$

13 N 127 (IM 78576) Damaged tablet. Eight lines on obverse; one line on reverse. Middle Babylonian. Account dealing with barley. Date partially preserved: [III(day and year broken)-[( ) ku]-Idur I-dEN.LÍL. ${ }^{26} 5.3 \times 4.2 \times 2.3 \mathrm{~cm}$. Level II; Locus 42, cut for door socket. Photographs on plate 93.

13 N 131 (IM 78578) Tablet lacking top and bottom. Obverse almost completely effaced. Traces of at least three lines on reverse. Middle Babylonian. Contents
22. Note that, while the value of the animals in this text are cited in gold (as is customary at this time, see inter alia, Edzard 1960), the actual payment is made in textiles and wheat (line 6).
23. I.e., Nūr-Marduk.
24. I.e., Taqišu.
25. In Middle Babylonian legal texts, the U.ME.DA phrase may go with the following clause (as apparently in Petschow 1974: no. 1:14, no. 2:14); but here a horizontal dividing line after line 13 suggests that the $\mathrm{U}_{4}$-phrases be taken with the preceding verb.
26. Kudur-Enlil reigned 1254-1246 B.C. There are possible traces of a sign ([LU][GAL] ?) after the royal name.
undetermined, though possibly an account. ${ }^{27} 6.2 \times 4.3 \times 2.1 \mathrm{~cm}$. Level II; Locus 42, cut for door socket. Photographs on plate 94.
13 N 564 (IM 78613) Lower portion of tablet. Five lines preserved on each of two sides, and one on bottom edge. Late third or early second millennium. ${ }^{28}$ Account. $2.6 \times$ $4.1 \times 1.8 \mathrm{~cm}$. Level I; Pit B, intrusive into Locus 12 . Photographs on plate 94.

13 N 573 (IM Study) Tablet fragment. Traces of cuneiform signs on both obverse and reverse. Heavily damaged. Date and contents undetermined. $4.8 \times 2.4 \times 2.7 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 94.
14 N 201 (IM 80106) Tablet lacking its lower left corner. Five lines preserved on obverse and two on lower edge; surface of reverse (originally with at least five lines) mostly effaced. Middle Babylonian. Account dealing with animal hides. Date broken, but the royal name may end in $-l i-i a_{4}-\stackrel{s}{ } .^{29} 2.8 \times 2.6 \times 1.6 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 95.
14 N 202 (IM Study) Upper portion of tablet. Obverse partially effaced; reverse destroyed. ${ }^{30}$ Middle Babylonian. Account dealing with textiles. Line 2 may mention month VI of year $\left[13(+)!{ }^{31} 3.6 \times 6.2 \times 2.2 \mathrm{~cm}\right.$. Level I; Pit B. Photograph on plate 95.
14 N 203 (IM 80107) Upper portion of tablet; six lines on obverse, reverse uninscribed. ${ }^{32}$ Middle Babylonian(?). Account. $5.5 \times 5.1 \times 1.6 \mathrm{~cm}$. Level I; Pit B. Photograph on plate 95.
14 N 204 (IM 80108) Complete tablet. Seven very worn lines on obverse, traces of a single line on lower edge, two lines on reverse. Middle Babylonian. Receipt. 4.1 $\times 4.6 \times 1.8 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 95 .
14 N 205 (IM 80109) Almost complete tablet. Six lines preserved on obverse; two mostly effaced lines on reverse. Middle Babylonian. Receipt. Dated in year 5 of a king whose name ends in -Enlil; therefore, because of the script, ${ }^{33}$ the two most likely
27. U4.13.KAM ("thirteenth day") mentioned on the reverse.
28. Possibly Ur III (atypical?) or even Old Babylonian (?). A better determination requires closer study.
29. Pointing to Kaštiliašu (IV). But the reading of the royal name is uncertain.
30. According to the excavation records.
31. Heavily damaged; reading uncertain and based on photograph only.
32. Description of tablet derived from the excavation records.
33. Which seems to be thirteenth-century rather than early fourteenth-century (which would be required for Kadašman-Enlil I). Note too that the earliest known Middle Babylonian date using ordinal numbers for regnal years seems to be year 15 of Kadašman-Enlil I (Brinkman 1976: 402, n. 22).
candidates are Kadašman-Enlil $I^{34}$ and Kudur-Enlil. ${ }^{35} 3.3 \times 4.2 \times 2.0 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 95.
14 N 206 (IM 80110) Tablet lacking its lower left corner. Thirteen lines on obverse, one on lower edge, six on reverse (heavily damaged). Middle Babylonian. Account dealing with wheat, barley, and "beer-bread" (BÁPPIR). Badly damaged date, king's name undetermined. ${ }^{36} 6.1 \times 4.3 \times 2.0 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 95.

14 N 207 (IM 80111) Whole small tablet with heavy surface damage to reverse. Middle Babylonian. Account dealing with wheat (ŠE.BAR) according to the large sütumeasure. Partially effaced date (at least month and year) on the reverse. $2.6 \times$ $2.7 \times 1.8 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 96.

14 N 208 (IM Study) Tablet fragment, preserving part of the lower left edge. Middle Babylonian. Legal text. Part of witness list preserved on reverse. $4.5 \times 5.7 \times 2.4$ cm . Level I; Pit B. Photographs on plate 96.
14 N 209 (IM 80112) Heavily damaged and worn incomplete tablet; reverse uninscribed. ${ }^{37}$ Middle Babylonian. Contents undetermined. $5.2 \times 6.8 \times 2.2 \mathrm{~cm}$. Level I; Pit B. Photograph on plate 96.

14 N 210 (IM 80113) Whole tablet, with surface of obverse almost completely effaced. Middle Babylonian. Contents undetermined. Date: year 7, Kudur-Enlil. ${ }^{38} 4.0 \times$ $5.0 \times 1.9 \mathrm{~cm}$. Level I; Square O-36, Pit F. Photographs on plate 96.
14 N 211 (IM 80114) Almost whole tablet, with some sections missing at the left edge. Reverse almost illegible. Ten lines on obverse, ten on reverse, one on the edge following the reverse. Middle Babylonian. Receipt. Lines 9-10 mention the accession year of Kadašman-Harbe (II): (9) [M]U.SAG.INA [M.L]UGAL-rí (10) ${ }^{\text {} d} \mid$ $k a-d a ́ s ̌-m[a n-h a r-b] e . ~ D a t e ~(o n ~ e d g e ~ f o l l o w i n g ~ r e v e r s e): ~ I I I-15-y e a r ~ 1 ~$ (not followed by a royal name). ${ }^{39} 4.7 \times 3.6 \times 1.6 \mathrm{~cm}$. Level I; Square O-36, Pit F. Photographs on plate 96.

14 N 212 (IM 80115) Whole tablet. Middle Babylonian. Receipt for oil. Date: year 6, Kudur-Enlil. ${ }^{40} 2.2 \times 2.9 \times 1.8 \mathrm{~cm}$. Level I; Square O-36, Pit F. Photographs on plate 96. Text:
34. Year $5=1259$ B.C.
35. Year $5=1250$ B.C.
36. The date might be readable from the tablet itself, but the traces visible on the photographs and casts are inconclusive.
37. According to excavation records.
38. 1248 B.C.
39. [IT]II.SIG4 $\mathrm{U}_{4} .15<$ KAM> MU.1.KAM. Kadašman-Harbe II ruled ca. 1223 B.C.
40. I.e., 1249 B.C.

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obv. (1) ma-la ka-ni-ki
    (2) Ì.GIŠ i-na ŠU
    (3) fla-mas-su-ti
    (4) NIN.É
edge (5) U. U.16.'KÁM।
    (6) šá ITI.ZÍZ.'ÀM'
    rev. (7) mah-rat
    (8) MU.6.KÁM
    (9) ku-dur-dEN.LÍL [( )]
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14 N 213 (IM 80116) Badly damaged tablet with obverse almost totally effaced; reverse uninscribed. ${ }^{41}$ Contents and date undetermined. $5.3 \times 7.7 \times 2.7 \mathrm{~cm}$. Level I; Square O-36, Pit F. Photograph on plate 96.
14 N 214 (IM 80117) Almost complete tablet with damage to the left corners and side. Eight lines on obverse, one on lower edge, and two on reverse. ${ }^{42}$ Middle Babylonian. Account dealing with textiles, hides, and wool. Dated in the reign of Šagarakti-Šuriaš (year number damaged both in the heading and in line 10 ). $4.3 \times 5.7 \times 1.9 \mathrm{~cm}$. Level I; Square O-36, Pit F. Photographs on plate 97 .
14 N 215 (IM 80118) Tablet with reverse destroyed; ${ }^{43}$ six lines on obverse, at least one on lower edge. Middle Babylonian. Account dealing with wood received by Uzannūa, a carpenter (LÚ.NAGAR). No date preserved. $4.2 \times 5.5 \times 2.4 \mathrm{~cm}$. Level I; Square O-36, Pit F. Photographs on plate 97.
14 N 216 (IM 80119) Tablet with obverse destroyed and reverse heavily damaged. Middle Babylonian. Contents undetermined. Dated VII-29-year 7 (no royal name). $6.8 \times 4.4 \times 2.1 \mathrm{~cm}$. Level II; Locus 81 , foundation fill. Photograph on plate 97.

14 N 217 (IM Study) Small fragment of a tablet consisting of part of one side with part of an adjacent edge; only a few signs preserved. Middle Babylonian. Contents undetermined; no date preserved. $2.5 \times 4.0 \times 1.9 \mathrm{~cm}$. Level II; Locus 81, foundation fill. Photograph on plate 97.
14 N 218 (IM 80120) Right portion of tablet. Some legible signs on seven lines of obverse(?); only traces of writing on reverse(?). Middle Babylonian. Contents undetermined; no date preserved. $4.6 \times 3.4 \times 1.8 \mathrm{~cm}$. Level II; Locus 81 , foundation fill. Photographs on plate 97.
41. According to the excavation records.
42. The object cards indicate ten lines on the obverse and two on the reverse, which seems to be contradicted by the photographs and casts.
43. Condition (and designation) of the reverse according to the excavation records.

14 N 219 (IM Study) Upper right corner of tablet. Five lines partially preserved on obverse; parts of at least four lines on reverse. Middle Babylonian. Grain receipt. Line 1 refers to year $21[(+x)]$, no king's name preserved. ${ }^{44} 3.4 \times 3.0 \times$ 2.0 cm . Level I; Pit B. Photographs on plate 97.

14 N 220 (IM Study) Lower right corner of tablet. Parts of five lines preserved on obverse, one on lower edge, at least six on reverse. ${ }^{45}$ Middle Babylonian. Account. ${ }^{46}$ No date preserved. $3.3 \times 3.8 \times 2.1 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 97.

14 N 221 (IM Study) Tablet with no edges preserved. Parts of five lines visible on one side. Middle Babylonian. Contents undetermined, but precious stone(s) and gold mentioned. ${ }^{47} 7.3 \times 4.7 \times 2.0 \mathrm{~cm}$. Level I; Pit B. Photograph on plate 98 .

14 N 222 (IM 80121) Almost complete tablet lacking its upper right corner. Five lines on obverse, six on reverse. Seal impression on right edge; possible traces on other edges. ${ }^{48}$ Middle Babylonian. Legal text recording a grain receipt(?); ${ }^{49}$ two witnesses. Date: V-7-year 21, Nazi-Maruttaš. ${ }^{50} 4.3 \times 5.0 \times 2.2 \mathrm{~cm}$. Level I; Pit B. Photographs of tablet on plate 98 ; illustrations of the seal impression on plate 90 .

14 N 223 (IM Study) Small fragment of a tablet with only a few signs preserved. Middle Babylonian. Contents undetermined. ${ }^{51} 2.0 \times 2.7 \times 2.1 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 98.

14 N 224 (IM Study) Upper left corner of a tablet, with reverse uninscribed. ${ }^{52}$ Middle Babylonian. Account. No date preserved. $4.6 \times 2.8 \times 1.9 \mathrm{~cm}$. Level I; Pit B. Photograph on plate 98.
44. During the time period represented by the tablets in this group (i.e., from Nazi-Maruttaš to KadašmanHarbe II), only Nazi-Maruttaš (1307-1282) ruled for twenty-one years or more.
45. Designation of obverse and reverse should be checked against the original tablet. The second line on the reverse is written in very small script and was probably inserted after lines 1 and 3 were already inscribed.
46. Most of what is legible consists of fragmentary personal names.
47. KÙ.GI in line $3^{\prime}$, NA $_{4}$.BABBAR.DIL $a b-z u$ KÙ.G[1] in line $4^{\prime}$.
48. According to the excavation records. The seal impression on the right edge is described as depicting a "man with arm raised in greeting." See Chapter 4 and plate 90.
49. The main verb of the transaction is missing.
50. I.e., 1287 B.C.
51. There may be traces of a date, according to the photographs: [IT]I.NE.N[E.GAR] and $\left[M U / U_{4}(x+)\right] 5 . K A M$. This should be checked against the original.
52. Designation of comer and reverse according to the excavation records.

14 N 225 (IM 80122) Tablet fragment, with obverse heavily damaged and parts of four lines preserved on reverse. Middle Babylonian, perhaps fourteenth century. ${ }^{53}$ Probably a legal text. ${ }^{54}$ Date: I-[x]-year 3(+), with royal name not preserved. 2.7 $\times 5.6 \times 2.3 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 98 .

14 N 226 (IM Study) Right corner of a tablet. Seven lines preserved on one side; the other side is destroyed. ${ }^{55}$ Middle Babylonian. Contents undetermined. Date MU.2.KÁM mentioned in line $3^{\prime} .{ }^{56} 4.1 \times 2.6 \times 1.5 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 98.

14 N 227 (IM Study) Tablet fragment with portions of four lines preserved at bottom of reverse. Middle Babylonian. Contents undetermined. Line 3' may contain a date: [M]U?.3.KÁM. $2.9 \times 4.1 \times 1.2 \mathrm{~cm}$. Level I; Pit B. Photograph on plate 98 .

14 N 228 (IM 80123) Tablet with two large segments missing. Parts of at least eight lines preserved on obverse (lines 6-7 mostly erased); ${ }^{57}$ four lines on reverse. Middle Babylonian. Receipt? Date: XII-year 4, Šagarakti-Šuriǎ̌. ${ }^{58} 4.6 \times 5.6 \times 2.3 \mathrm{~cm}$. Level II; Locus 31, fill above Floor 1. Photographs on plate 98.

14 N 229 (IM 80124) Damaged tablet preserving on one side traces of two columns of an inscription. Date and contents undetermined. $6.3 \times 4.5 \times 2.5 \mathrm{~cm}$. Level II; Locus 34, foundation fill. Photograph on plate 98.

14 N 231 (IM 80125) Lower left section of tablet with reverse uninscribed. Middle Babylonian. Account. ${ }^{59} 5.8 \times 3.2 \times 2.2 \mathrm{~cm}$. Recovered from a basket at the expedition dump and assigned to Locus 43 or 44 in Level II. Photograph on plate 99.

14 N 232 (IM 80126) Complete tablet with extensive surface damage. Middle Babylonian. Account dealing with wheat (most individual entries consist of an amount cited in capacity measure plus the name of either a person or an occupation); the relatively infrequent occupation mubirr $\hat{u}^{60}$ occurs in rev. line 3. $4.3 \times 4.6 \times 2.0 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 99 .
53. To judge from the script.
54. The name of a witness is preserved directly before the date: IGI ${ }^{m} T a-q i-s{ }^{-} u$ DUMU $^{\mathrm{m}_{\mathrm{X}}}[\quad]$.
55. According to the excavation records.
56. Reading not entirely certain.
57. There may be one erased line on the lower edge.
58. I.e., 1242 B.C.
59. Most of the readable lines consist of a statement of capacity measure in the left column and the beginning of a female personal name in the right column; the last readable line is a total.
60. Written mu-bi-ir-ru-ú. This occupation has sometimes been identified with the mubarru, a member of the temple staff; but the identification is uncertain (CAD M/2 158b).

14 N 233 (IM 80127) Whole tablet, but top half of surface of obverse effaced; reverse uninscribed. ${ }^{61}$ Middle Babylonian. Legible section: "PAB 2 (GUR) 2(?) (PI) 4 (BÁN)"; and "ITI.NE. ${ }^{\text {NE }} 1 . G A R " .3 .7 \times 3.7 \times 1.8 \mathrm{~cm}$. Level I; Square N-38, Pit I. Photograph on plate 99.

14 N 234 (IM 80128) Almost complete small tablet with five lines on obverse (badly damaged), three on reverse. Middle Babylonian. Contents undetermined. Date:「VIIl-16-year 6 (without royal name). $3.3 \times 3.0 \times 1.8 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 99.

14 N 235 (IM 80129) Upper portion of tablet (upper left corner broken away) preserving sections of eight lines of obverse; reverse destroyed. ${ }^{62}$ Middle Babylonian. Account listing capacity measures and personal names, mostly female; most entries have a check mark (puncture) before the personal name. $4.3 \times 5.1 \times 2.2$ cm. Level I; Pit B. Photograph on plate 99.

14 N 236 (IM 80131) Complete tablet, heavily worn, with only a few signs legible. Middle Babylonian. Contents undetermined. Date: year 5, Šagarakti-Šuriaš. ${ }^{63}$ $5.2 \times 5.2 \times 2.4 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 99 .
14 N 237 (IM 80130) Tablet with heavy surface damage. Five lines on obverse, at least three on reverse. Middle Babylonian. Receipt for wheat. Date: damaged month name, year 8 (the king's name, if it was present, is now almost entirely destroyed, to judge from the cast and the photograph). $3.5 \times 3.3 \times 1.7 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 99.

14 N 238 (IM Study) Fragment of tablet with only a few signs legible. Date and contents undetermined. $3.8 \times 2.4 \times 2.1 \mathrm{~cm}$. Level I; Pit B. Photograph on plate 99 .

14 N 239 (IM 80132) Tablet missing its lower right section and parts of edges. Six partially preserved lines on obverse; at least five lines on reverse. Middle Babylonian. Receipt. Mostly personal names on obverse; total (in measures of capacity) and date on reverse. Date, heavily damaged: [ITI.ŠE.K] IN.KUDl/ fx 6?! [.KÁM (...) n]a-zi-dmuru ${ }_{4}$-taš / LUGAL.E. $4.4 \times 6.3 \times 2.5 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 100.
14 N 240 (IM 80133) Tablet lacking its right corners and with much of the surface of the obverse worn away. Middle Babylonian. Account dealing with wheat. Date: X-3-year 2, Kaštiliašu (IV). ${ }^{64} 5.6 \times 3.7 \times 1.7 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 100.
61. According to the excavation records.
62. According to the excavation records.
63. I.e., 1241 B.C. The royal name is written ${ }^{d} s a d-g a r a k-t i-I s u r l_{-i} a_{4}-a \check{s}$.
64. I.e., 1231 B.C. The royal name, read from the photograph, seems to be written ${ }^{1 d} k a s r_{-}$-til 1 -ia $a_{4}$-šu.

14 N 241 (IM Study) Tablet with most of its right portion missing and with heavy surface damage. Middle Babylonian. Legal text. Date not preserved. ${ }^{65}$ Five fingernail impressions on left edge with the superscription "fingernail of Šamaš-gāmil" (ṣú-Ipurl mdUTU-ga-mil). $6.4 \times 3.7 \times 2.1 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 100.

14 N 242 (IM Study) Fragmentary tablet. Middle Babylonian. Account. No date preserved. ${ }^{66} 5.6 \times 4.4 \times 2.1 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 100 .

14 N 243 (IM 80134) Tablet lacking its upper right corner. Part of surface of obverse worn away; most of reverse apparently uninscribed. Middle Babylonian. Account. $6.9 \times 4.5 \times 2.1 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 101 .

14 N 244 (IM 80135) Tablet fragment; obverse mostly effaced and five lines partially preserved on reverse. ${ }^{67}$ Middle Babylonian. Account. ${ }^{68}$ Date: V?-20-accession year of Šagarakti-Šuriaš. ${ }^{69} 3.3 \times 4.5 \times 1.9 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 100 .

14 N 245 (IM 80136) Whole tablet, with surface wear and damage. Indistinct seal impressions on right edge and probably on other edges. ${ }^{70}$ Eight lines on obverse, eight lines on reverse. Middle Babylonian. Account tablet dealing with sheep and goats. Date: III-12?-year 12, Šagarakti-Šuriaš. ${ }^{71} 4.4 \times 3.6 \times 1.6 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 101.

14 N 246 (IM Study) Upper right corner of tablet. Surface of obverse mostly destroyed; parts of four lines preserved on reverse. Traces of seal impression (with inscription) on top and right edges; ${ }^{72}$ see Chapter 4. Middle Babylonian. Contents undetermined. Traces of date on reverse: ( $1^{\prime}$ ) [...] $\times x .3$. KA $^{1}[(\ldots)]$ (2') $[(\ldots)] \times k a \check{s}$ - til -ia $a_{4}-$ šu LUGAL. $3.4 \times 3.3 \times 1.9 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 101.

14 N 247 (IM 80138) Almost complete tablet except for slight gap on right edge and minor trowel damage; surface of reverse badly damaged. Ten lines on obverse,
65. But the name $K u-d u r-\mathrm{d} E[N . L I L]$ occurs at the beginning of line $3^{\prime}$; because it lacks a masculine personal determinative, this may refer to the Kassite king, who reigned 1254-1246 B.C.
66. I.e., for the whole document; dates such as "MU.5.KAM" occur in the body of the text.
67. According to the staff of the excavation, the left edge of this tablet bears the impression of a ring seal showing an equid; see Chapter 4 and plate 92.
68. Perhaps dealing with sheep, if the end of the final line on the obverse is to be read ' $\mathrm{U}_{8}$.UDU.HI.1.A.
69. 1.e., 1246 B.C.
70. According to the excavation records, which mention that there may also be fingernail impressions (see Chapter 4).
71. I.e., 1234 B.C.
72. According to the excavation records.
ten on reverse, two on lower edge, two on upper edge, one on left edge. Impressions of inscribed seal on all surfaces; line on left edge reads NA ${ }_{4}$.KIŠIB ${ }^{m} h u-u n-n u-b i$ "seal of Hunnubu." ${ }^{13}$ Middle Babylonian. Legal text dealing with ten kurru of grain (ŠE) ${ }^{74}$ to be repaid(?) in gold. ${ }^{75}$ Kadašman-Enlil (presumably II) is mentioned on the upper edge, perhaps in a date (preceding section heavily damaged). ${ }^{66} 5.5 \times 4.3 \times 1.9 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 102.

14 N 248 (IM 80137) Tablet reconstructed from small fragments (some perhaps not belonging to the main text). Heavy surface damage. Seal impression on top edge. ${ }^{77}$ Middle Babylonian. Account. $6.6 \times 5.0 \times 2.1 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 102.
14 N 249 (IM Study) According to the excavation records, this number designates two fragments of a sealed tablet envelope ${ }^{78}$ found in the same lump of earth as 14 N 248; there is no distinguishable cuneiform. ${ }^{79}$ (a) $4.1 \times 2.7 \times$ ca. 0.6 cm ; (b) $1.9 \times$ $1.7 \times \mathrm{ca} .0 .7 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 92.
14 N 250 (IM Study) Part of the left side of a tablet, including the lower left corner. The obverse has at least thirteen partially preserved lines, the reverse seven. Traces of seal impressions (including an inscription at least eight lines long) on left edge and reverse. ${ }^{80}$ Middle Babylonian. Legal text. ${ }^{81}$ Date heavily damaged, but "year 4 " is relatively clear; ${ }^{82}$ the royal name and the name of the seal's owner have been broken away. $5.8 \times 2.5 \times 1.9 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 102.

14 N 251 (IM 80139) Badly damaged, incomplete tablet consisting of several fragments rejoined. Parts of at least eleven lines are visible on the obverse; the surface of the reverse is almost completely destroyed. There is one line on the lower edge, two on the upper edge, and two on the left edge. Middle Babylonian. Contents
73. For the seal impression, see Chapter 4 and plate 90 .
74. Line 1 reads 110 GUR1 <ŠE $>$ GIŠ.BÁN GAL; that ŠE should be supplied here may be seen from line 8: 10 IGUR 1 ŠE GIŠ.IBANI GAL.

76. This may not be the date for the whole inscription. The end of the last line of the reverse (including a runover on the right side of the tablet) and the two lines of the upper edge read: IMU?l.( $x+$ )4.KAM / $k a-d a ́ s ̌-m a n-$ dEN.LÍL LU[GAL(.E)] / ka-ni-ku ša-ifi-ir (text read from photographs).
77. For the seal impression, see Chapter 4 and plate 92.
78. For the seal impression, see Chapter 4 and plate 92.
79. To judge from the casts.
80. For the seal impression, see Chapter 4 and plate 90.
81. The reverse records a formal dialogue, indicating a dispute.
82. 「MU1.4.KAM is relatively clear at the beginning of rev. 6 .
undetermined. ${ }^{83}$ Date: XII-20-year 11 (royal name not preserved). $5.6 \times 4.0 \times$ 2.0 cm . Level I; Pit B. Photographs on plate 103.

14 N 253 (IM Study) Lower(?) right corner of tablet. Parts of five lines on obverse(?), parts of three lines on reverse(?). Middle Babylonian. Contents undetermined. $2.6 \times 4.2 \times 2.0 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 103 .

14 N 254 (IM Study) Fragment of left section of tablet. Parts of nine lines of obverse preserved; reverse destroyed. ${ }^{84}$ Middle Babylonian. Account: entries consist of the number " 2 " 8 s plus a personal name (one masculine, eight feminine; only the beginning of each name survives). $3.5 \times 3.0 \times 1.6 \mathrm{~cm}$. Level I; Pit B. Photograph on plate 103.

14 N 255 (IM Study) Fragment of the lower left corner of a tablet; reverse uninscribed. ${ }^{86}$ Middle Babylonian. Three partial lines of an inscription survive, giving:
(a) A total: 4 (GUR) 4 (PI) 3 (BÁN);
(b) A date: year 7, with part of the beginning of a royal name (perhaps Kudur-Enlil, ${ }^{87}$ but impossible to verify).
$3.4 \times 3.0 \times 2.1 \mathrm{~cm}$. Level I; Pit B. Photograph on plate 103.
14 N 256 (IM Study) Small fragment of a tablet containing parts of five lines of the beginning of the obverse. Middle Babylonian. Grain account (heading: [(. . .)]「ŠEl GIŠ.BÁN KIN.SIG MU.N[E]); "year 3" mentioned in line 4. $2.6 \times 5.7 \times$ 0.9 cm . Level I; Pit B. Photograph on plate 103.

14 N 257 (IM Study) Small fragment of tablet; reverse destroyed. ${ }^{88}$ Parts of at least five lines preserved on obverse. Middle Babylonian. Contents undetermined. $2.7 \times$ $4.1 \times 1.6 \mathrm{~cm}$. Level I; Pit B. Photograph on plate 103.

14 N 258 (IM Study) Upper right corner of tablet, with surface extensively damaged. Middle Babylonian. Contents undetermined. The reverse mentions i-na MU.1.'KAM1 "in year 1" (with the name of the king almost completely broken away, but the title LUGAL.E preserved). $1.8 \times 3.0 \times 1.8 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 103.
83. Possibly a legal text containing a dialogue; bi-lam-Imil iq-b[i] is visible in line $9^{\prime}$. Also ṣú-pur ${ }^{m}[\ldots]$ occurs at the beginning of line 2 on the left edge.
84. According to the excavation records.
85. Or perhaps MIN, "ditto."
86. According to the excavation records. The designation here of the obverse and reverse is based solely on the excavation records" indication that the reverse is "uninscribed." This should be verified from the original.
87. Perhaps $\left.{ }^{d} k u-d\right\rceil[u r-]$, to judge from the photograph.
88. Information from the excavation records.
(IM Study) Three tablet fragments. Fragments of a lexical list of divine names, with pronunciation and Akkadian translation; ${ }^{89}$ date undetermined. Level I; Pit B. Photographs on plate 103 .

259 a. $6.9 \times 6.2 \times 2.3 \mathrm{~cm}$.
259b. $3.7 \times 4.4 \times 1.7 \mathrm{~cm}$.
259 c. $2.9 \times 3.2 \times 2.0 \mathrm{~cm}$.
14 N 260 (IM Study) Sixteen tablet fragments, mostly small. ${ }^{90}$ Level I; Pit B. Photographs on plate 104 .

260 a. $4.5 \times 2.8 \times 1.8 \mathrm{~cm}$.
260 b. $3.1 \times 2.8 \times 1.3 \mathrm{~cm}$.
260 c . $3.0 \times 3.8 \times 1.7 \mathrm{~cm}$.
260 d . $2.3 \times 3.8 \times 1.2 \mathrm{~cm}$.
260 e . $3.6 \times 1.9 \times 1.1 \mathrm{~cm}$.
260f. $2.0 \times 2.0 \times 1.2 \mathrm{~cm}$.
$260 \mathrm{~g} . \quad 1.3 \times 3.3 \times 1.5 \mathrm{~cm}$.
$260 \mathrm{~h} . \quad 2.6 \times 1.5 \times 0.8 \mathrm{~cm}$.
260 i. $\quad 1.8 \times 3.8 \times 1.5 \mathrm{~cm}$. Traces of what may be a date are visible (month-day-possibly year 1 ).
260 j . $1.8 \times 2.9 \times 1.6 \mathrm{~cm}$. The PNN mhu-za-l[um(?)] and mhu-un-nu-[bu] can be read.
260 k . $4.1 \times 2.8 \times 1.5 \mathrm{~cm}$.
2601. $2.6 \times 1.5 \times 1.3 \mathrm{~cm}$.
$260 \mathrm{~m} .1 .3 \times 1.7 \times 1.2 \mathrm{~cm}$.
$260 \mathrm{n} .2 .5 \times 1.7 \times 0.7 \mathrm{~cm}$.
260 o. $1.8 \times 2.5 \times 1.3 \mathrm{~cm}$.
260p. Account concerning the cereal šeguššu. First line: [Š]E.MUŠs GIŠ.BAN 10 SilLA. Broken date: $[M] N$, day 16 , [year $(x+)] 1$, and the royal name Nazi-Maruttaš ${ }^{91}$ are legible. $1.8 \times 3.3 \times 1.8 \mathrm{~cm}$.

14 N 261 (IM Study) Incomplete tablet with extensive surface damage. Middle Babylonian. Contents undetermined. $5.1 \times 3.8 \times 2.4 \mathrm{~cm}$. Level I; Pit B. Photographs on plate 104.
89. Description courtesy of M. Civil.
90. Casts are unavailable for these fragments, except 14 N 260 p .
91. Written ${ }^{[d} n a-z i l-$ d $m$ úru-taš, followed by the title [L]JUGAL.El.

14 N 262 (IM Study) Heavily damaged incomplete tablet with part of the left edge preserved and the reverse destroyed; small piece joined on the left side. ${ }^{92}$ Middle Babylonian. Columned account giving amounts and dates. $6.7 \times 5.1 \times$ 1.4 cm . Level II; Locus 33, fill above Floor 1. Photograph on plate 104.

14 N 263 (IM Study) Fragment of a right corner of a tablet. Middle Babylonian. Contents undetermined. $1.7 \times 4.1 \times 1.8 \mathrm{~cm}$. Level II; Locus 33, fill above Floor 1 . Photographs on plate 105 .

14 N 264 (IM 80141) Large tablet preserving part of surface of obverse and with reverse destroyed. ${ }^{93}$ Middle Babylonian. Account with at least ten columns, some of which list units of capacity (GUR/PI/BAN); the heavily damaged right column may contain personal names. $15.0 \times 10.9 \times 2.0 \mathrm{~cm}$. Level II; Locus 47 , deliberate fill. Photograph on plate 105.

14 N 269 (IM Study) Lower right portion of tablet. Neo-Babylonian. Omens. ${ }^{94} 3.6 \times 4.0 \times$ 2.3 cm . Level I; Square P-38, Pit L. Photographs on plate 105.

# INDEX OF SELECTED PERSONAL NAMES ${ }^{95}$ (INCLUDING MONARCHS) 

Abi-enši-Marduk: 14 N 222:6
Aha-iddin(a)-IDNI: 14 N 228:2
Amīl-Marduk: $13 \mathrm{~N} 131 \mathrm{rev} .2^{\prime}$
Amurrû-ibni:96 14 N 246 rev. $3^{\prime}$
mAN.GAL-še-mi: 14 N 245:11
Arad-bëlti (in Bīt-PN, possibly a geographical name ${ }^{97}$ ): $14 \mathrm{~N} 206: 4$
Arad(?)-Kubi: 14 N 201:5
Arad-U4.19.KÁM: 14 N 243:12
${ }^{\text {f Babūa: }} 14 \mathrm{~N}$ 235:6
92. According to the excavation records. The designation of the obverse and reverse is taken from the excavation records; but this should be checked against the original, since the preserved columns on the lower left of what is here called the obverse are uninscribed.
93. According to the excavation records.
94. Identification courtesy of Robert D. Biggs.
95. In general, names that are only partially preserved or badly damaged are not listed here. I wish to thank Leonhard Sassmannshausen, who provided several additional names for inclusion in this index.
96. Written [m]dDINGIR.MAR.TU-ib-ni and perhaps to be read Ilu-amurrá-ibni. A fully preserved, identical writing for the name occurs in Ni. $6905: 5$, dated in year 26 of Burna-Buriaš II.
97. Nashef 1982: 34 (including a discussion of the writing with the masculine personal determinative).

Bēlānu: 14 N 201:7; 14 N 222:7; 14 N 228 rev. 2; 14 N 247:4; cf. 14 N 220 lower edge 2 ( ${ }^{m} b e-l a-x$ )
Bēl-iddin: $14 \mathrm{~N} 241: 5^{\prime}$ and $13^{\prime}$ (reading and interpretation of signs uncertain in both cases) ${ }^{98}$
Burra-Sah: 14 N 232 rev. 2
mDINGIR-da-mu-tum (reading uncertain): 14 N 204 rev. 1
Dipār-ilī: 14 N 244 rev. 1
Ēmidu: 14 N 228 rev. 1
Enlil-mukin-apli, son of Hunnubu: 14 N 247:3, 10
Erïba-Šamaš: 14 N 251:1
Hunnubu: 13 N 126:3 (father of Taqīšu), 14 N 211:3 and rev. 10; 14 N 243:3; 14 N 245:10;
14 N 247:3 (father of Enlil-mukīn-apli), lower edge 1 (as patronym) ${ }^{99}$ and 2, left edge ${ }^{100}$; $14 \mathrm{~N} 260 \mathrm{j}:\left[2^{\prime}\right.$; possibly in $14 \mathrm{~N} 237: 4$

Huzälu: 14 N 208 rev. $4^{\prime}, 14 \mathrm{~N} 260 \mathrm{j}:\left[1^{\prime} \mathrm{l}\right.$
Ibni-Ešdar: $14 \mathrm{~N} 247: 5$
Iddin-Marduk: $14 \mathrm{~N} 211: 8$
Innānu: 14 N 239:3
Innibu: $14 \mathrm{~N} 218: 3$ (in genitive)
Izkur-Marduk ${ }^{101}$ (?): $14 \mathrm{~N} 222: 4$
Izkur-Ninurta: 14 N 211:4
Ja-: see Ya-
Kadašman-Enlil (II) (RN): 14 N 247 upper edge 1
Kadašman-Harbe (II) (RN): $14 \mathrm{~N} 211: 10$
Kaštiliašu (IV) (RN): $14 \mathrm{~N} 201: 12$ (uncertain); 14 N 240 rev. 2'-3'; 14 N 246 rev. $2^{\prime}$
Kiltu: 14 N 211:7
${ }^{[m} K i$ ? ${ }^{-i n}$-nu 13 N 127:5
Kudur-Enlil (RN): 13 N 127 rev. 1; 14 N 210 rev. 2; 14 N 212:9; 14 N 241:[3'1; possibly 14 N 255:3'
famassūtu: 14 N 212:3
Mandûtu (LÚ.Ì.SUR): $14 \mathrm{~N} 211: 2$
mārat Meli-Šuqamuna: 14 N 235:2
98. Possibly also in line $15^{\prime}$, to judge from the photograph (though here a divine determinative seems to be prefixed to EN, which is not the case in line $5^{\prime}$ ).
99. Name of son destroyed.
100. As label for a seal impression found on this tablet.
101. Reading uncertain. The signs may be ${ }^{m}[i z-k u r l-d A M A R . U T U$.

Marduk-dipār-ilī 14 N 251:4', 7', $10^{\prime}$
Meli-Šuqamuna: 14 N 205:3; $14 \mathrm{~N} 235: 2$ (mārat PN)
Minâ-e-RI ${ }^{102}-a$-na-DINGIR[( )]: 14 N 239:2
Nazi-Maruttaš (RN): 14 N 222:9; 14 N 239:10; 14 N 260p rev. $3^{\prime}$
Nūr-Marduk, son of Sîn-ēriš: 13 N 126:2, 「71, reverse (second-last line)
Nūr-Šuqamuna: 14 N 205:4
Nusku-x[ ]: $14 \mathrm{~N} 228: 4$
Nusku-bēla-uṣur: 13 N 127:4
Nusku-ibni: 14 N 247:9
Nusku-rā’im-zēri: $14 \mathrm{~N} 205: 5$ (reading uncertain); $14 \mathrm{~N} 219: 4$; cf. following entry
Nusku-rā ${ }^{\text {'im-x: }} 14 \mathrm{~N} 222: 3$; cf. preceding entry
Nusku-taqīš-bulliṭ: $14 \mathrm{~N} 214: 3$ (reading uncertain)
Sîn-aba-ēriš: 14 N 214:2, 8
Sîn-ēriš, father of Nūr-Marduk: $13 \mathrm{~N} 126: 3$
Sîn-napšira: 14 N 239:4, I8I
Šagarakti-Šuriaš (RN): 14 N 214:1, rev. 2; 14 N 228 rev. 4; 14 N 236 rev. 3; 14 N 244 rev. 4; 14 N 245: 151
Šamaš-gāmil: $14 \mathrm{~N} 241: 6^{\prime},{ }^{1} 14^{\prime} 1(?)$, left edge ${ }^{103}$
Šamaš-nādin-šumil ${ }^{104}$ (naggāru) : 14 N 220 rev. 4
Širiktu: $14 \mathrm{~N} 248: 4$
Šummub̧u: $14 \mathrm{~N} 211: 5$
Taqiisu: 13 N 126:3, 7 (son of Hunnubu); 14 N 225 rev. 2'
Tukultī-Nusku: 14 N 220 rev. 3
Ulamdidi (for Ulam-gadidi?) ${ }^{105}$ : $14 \mathrm{~N} 222: 5$
Uzannūa (naggāru): 14 N 215:2
Uzannūtu: 14 N 211:6
${ }^{\text {f Yayatum }}{ }^{106}$ (fia-a-a-tum ): $14 \mathrm{~N} 235: 3$
102. Sic; for -gi-? Names such as Minâ-ègulēgi-ana-ili are attested (see CAD E under egá v.).
103. Possibly also in line 17 ', to judge from the photograph.
104. The reading of the non-theophoric elements of the PN, written -MU-MU, is uncertain.
105. Ulamdidi is otherwise unattested. Ulam-gadidi is known as a patronym in other Middle Babylonian texts from Nippur: Clay 1906, 25:18, 112:10; idem 1912a, 125:13; and the name in $14 \mathrm{~N} 222: 5$ is used as a
 Kurigalzu II).
106. Transcription uncertain.

## LIST OF DATED TEXTS WITH ROYAL NAMES PRESERVED

## Nazi-Maruttaš (1307-1282 B.C.)

Year 6?: 14 N 239
Year 21: 14 N 222
Cf. 14 N 260p

## Kadašman-Enlil (II) (1263-1255)

RN mentioned: 14 N 247
Cf. 14 N 205

## Kudur-Enlil (1254-1246)

Year 6: 14 N 212
Year 7: 14 N 210
Year number broken away: 13 N 127
Cf. 14 N 205, 14 N 255

## Sagarakti-Šuriaš (1245-1233)

Accession year: 14 N 244
Year 4: 14 N 228
Year 5: 14 N 236
Year 12: 14 N 245
Year undetermined: 14 N 214
Kaštiliašu (IV) (1232-1225)
Year 2: 14 N 240
Year undetermined: 14 N 246
Cf. 14 N 201
Kadašman-Harbe (II) (ca. 1223)
Accession year: mentioned in 14 N 211

## LIST OF TABLETS BY PROVENIENCE

## Level II

Locus 31: 14 N 228
Locus 33: 14 N 262-263
Locus 34: 14 N 229
Locus 42: 13 N 126-127, 13 N 131, plus an unregistered blank tablet
Locus 47: 14 N 264
Locus 81: 14 N 216-218

## Level II (?)

Locus 43 or 44: 14 N 231

## Level I

Pit B: 13 N 564, 13 N 573, 14 N 201-209, 14 N 219-227, 14 N 232, 14 N 234-251, 14 N 253-261
Pit F: $14 \mathrm{~N} 210-215$
Pit I: 14 N 233
Pit L: 14 N 269

# CATALOGUE OF REGISTERED OBJECTS ${ }^{1}$ 

RICHARD L. ZETTLER,<br>JAMES A. ARMSTRONG, AND AUGUSTA MCMAHON

## LEVEL III

## LOCUS 6

Floor 3
14 N 374 Disk, unbaked clay (baked 12/76), chipped. Small hole through center $3.3 \mathrm{dm} ., 1.3 \mathrm{th}$.
Pl. 57 i
13 N 506 Stamp seal, white faience, whole. Indus Valley seal with suspension ring on back. The seal shows a bearded, humped bull, facing right. Over the back of the bull is an inscription in the Indus script
$2.01 ., 2.0 \mathrm{w} ., 1.0 \mathrm{th}$.
IM 78230
Pl. 89a-d
Floor 3, deliberate fill above

| 14 N 368 | Figurine, baked clay, fragment. Female. Applied hair on shoulder; incisions representing hair on back of head <br> 3.8 h., $3.4 \mathrm{w} ., 2.1$ th. <br> See McCown and Haines 1967, pls. 122: 2 and 10; 123: 2; also Legrain 1930, nos. 16-18, 20-21, 26 <br> PI. 56 m |
| :---: | :---: |
| $13 \times 477$ | Bead, yellow faience, whole. Lentoid with radial fluting. For parallels, see McCown and Haines 1967, pl. 150: 44; Reuther 1926, pl. 47, 11d9 1.7 max. dm., 0.7 th. Pl. 59r |

1. Measurements are in centimeters. Since no material analyses were carried out on the metal artifacts from Area WC-1, "copper" is used to describe artifacts that may be either copper or bronze. With regard to the condition of objects, the terms "whole" and "complete" have specific meanings in the Nippur registration system. Whole is used to describe artifacts found intact; complete to describe artifacts that were broken when found, but reassembled. In descriptions, $\mathrm{h} .=$ height, . $=$ width, $\mathrm{l}=$ length, th. $=$ thickness, dm. = diameter. All registered objects were delivered to the Iraq Museum, which gave certain items an IM number, but designated the rest for "study." In this catalogue, where the word "fill" is not specifically qualified as "deliberate," it signifies the gradual accumulation of occupational debris above a floor.

## LEVEL III, Locus 6 (cont.)

Floor 3, deliberate fill above, in doorway of Wall K/P
13 N 488 Cylinder seal, faience, whole. Mitanni-style seal showing three superimposed winged disks and a recumbent horned animal perpendicular to the field. Horizontal lines frame the scene above and below
3.0 h., 1.8 dm . See Chapter 4

IM 78225
PI. 89e-f
13 N 497a-b Beads, two. Date-shaped stone and ball-shaped faience, whole Stone: 1.6 1., 6 dm . Faience: 0.6 dm .
Pl. 59s, t
Floor 3, top of mudbrick
13 N 428 Bead, faience, whole. Lentoid with oblique radial fluting 1.2 max. dm., 0.7 th.

Pl. 59p

## LOCUS 7

Floor 3, deliberate fill above
14 N 6 Cylinder seal, white faience (5Y7/1). Worn and chipped. Mitanni-style seal showing two horned animals, their heads turned back, posed chest to chest. The seal has a two-columned casing for an inscription. Each of the columns has three stars in place of cuneiform characters
2.7 h., 1.1 dm. See Chapter 4

IM 81002
Pl. 89 g -h
14 N 329 Sealing, unbaked clay (baked 10/76), fragment. Indistinct impression, hatched bands
$2.0 \mathrm{~h}, 4.0 \mathrm{w} ., 2.5 \mathrm{th}$.
Pl. 92d
Floor 1
13 N $74 \quad$ Bowl, straight-sided, pottery, complete
$7.0 \mathrm{~h} ., 17.3 \mathrm{rim} \mathrm{dm} ., 6.5$ base dm.
Pls. 68a, 76d

## LOCUS 12

Floor 4, in doorway of Wall K/P
14 N 299 Bowl, straight-sided, pottery, rim sherd missing $7.5 \mathrm{~h} ., 18.4 \mathrm{rim} \mathrm{dm} ., 7.5$ base dm.
Pl. 75 b
Floor 3, near Wall H
14 N 3 Bead, pale-blue faience, weathered and chipped. Hub-shaped. Cf. Boehmer and Dämmer 1985, pl. 151: 682; Reuther 1926, pl. 48, 25: 4
$1.5 \mathrm{dm} ., 1.2 \mathrm{~h}$.
PI. 59u

Floor 3, in S. corner
14 N 34 Whetstone, calcareous mudstone. Roughly rectangular in shape. Oblique grooves made by sharpening points
$6.41 ., 2.8$ w., 1.6 th.
Pl. 56f
Floor 3
13 N 522 Bowl, wavy-sided, pottery, whole
4.5 h., $11.5 \mathrm{rim} \mathrm{dm} ., 5.8$ base dm. Pls. 68d, 72f

Floor 3
13 N 523 Bowl, wavy-sided, pottery, complete $7.0 \mathrm{~h} ., 17-18 \mathrm{rim} \mathrm{dm} ., 5-6.5$ base dm. Pls. 68d, 75d

## LOCUS 15

Floor 3, feature 1
14 N 199 Goblet, pottery, rim chipped
29.1 h ., 7.5 rim dm .11 .1 dm . shoulder, 5.8 base dm. Pls. 69a, 79o

## LOCUS 52

Floor 3, deliberate fill above
14 N 118 Bead, glazed (pale-yellow, 2.5Y 8/4) faience, glaze largely disintegrated Spherical. 2.1 dm .
PI. 59aa

## LOCUS 53

Floor 1, fill above
14 N 141 Figurine, baked clay, fragment. Lower portion of a seated figure, probably a goddess, wearing a pleated garment. Old Babylonian type. Cf. McCown and Haines 1967, pl. 133: 6-7; Legrain 1930, no. 213; and Woolley and Mallowan 1976, pl. 79: 140
3.9 h., 2.0 w., 3.3 th.

Pl. 56 g
LOCUS 54
Floor 1, drain
14 N 170 Figurine, baked clay, hollow, damaged. Bird (chicken?) with speckles punched in the back. Tail broken and breast chipped. For a similar figurine on a base, see Woolley and Mallowan 1976, pl. 90: 237
$4.0 \mathrm{~h} ., 7.4$ 1., 4.45 w .
Pl. 56i
14 N 307 Bowl, wavy-sided, pottery, complete except rim chipped
4.4 h., 11.9 rim dm., 5.4 base dm.

Pls. 68i, 72m

## LEVEL III, LOCUS 54 (cont.)

Floor 1, drain (cont.)
14 N 308 Bowl, straight-sided, pottery, complete except chipped 6.65 h , 18.0 rim dm., 5.7 base dm.

Pl. 68c, 76c

## LOCUS 56

Floor 1 (?), Burial 68
14 N 151 Ridge-rimmed jar, pottery, sherds missing, used as coffin 44.1 h., 10.5 rim dm., 24.2 max. dm.

Pls. 681, 83f
LOCUS 57
Floor 2
14 N 158 Bowl, straight-sided, pottery, complete $6.1 \mathrm{~h} ., 18.5 \mathrm{rim}$ dm., 6.3 base dm. Pls. 68f, 76b
Floor 1 (?), Burial 69
14 N 153 Cup, button-based, pottery, complete except for chips $12.8 \mathrm{~h} ., 5.7 \mathrm{rim} \mathrm{dm}$., 2.6 base dm. IM 81041
Pls. 68 m , 80 f

## LOCUS 58

Floor 3
14 N 336 Goblet, pottery, complete except for chips 27.4 h., 7.4 rim dm., 10.2 max. dm. Pls. $69 \mathrm{~b}, 79 \mathrm{~m}$
14 N 337 Cup, button-based, pottery, sherds missing $20.5 \mathrm{~h} ., 7.5 \mathrm{rim} \mathrm{dm}$., 5.2 base dm., $8.1 \mathrm{max} . \mathrm{dm}$. Pls. 69c, 80j
14 N 338 Lid, pottery, whole except for chips 5.0 h ., 11.5 rim dm., 3.0 dm . knob handle Pls. 68k, 78h
14 N 370 Bowl, wavy-sided, pottery, whole except rim chipped $5.0 \mathrm{~h} ., 12.0 \mathrm{rim} \mathrm{dm} ., 5.3$ base dm., 5.0 h . Pls. 68g, 72d
14 N 371 Lid, pottery, whole except for chips 3.5 h., 11.2 dm . Pls. $68 \mathrm{j}, 78 \mathrm{~g}$
14 N 393 Bead, yellow faience (2.5Y8/6), disintegrating. Lentoid with radial fluting. Cf. Reuther 1926, pl. 58, 51 s
$2.0 \mathrm{dm} ., 1.0 \mathrm{th}$.
Pl. 59ff

Floor 3, deliberate fill above
14 N 362a-b Beads, two, pale yellow faience (2.5Y 8/4), disintegrating. Lentoid with radial fluting
(a) $2.1 \mathrm{dm} ., 1.0 \mathrm{th}$.; (b) $1.35 \mathrm{dm} ., 0.95 \mathrm{th}$.

Pl. 59dd-ee
14 N 363 Figurine, baked clay, fragment. Body of an animal, dog? Tail curls above the back; vertical incisions on the body. Cf. McCown and Haines 1967, pl. 139: 5; Legrain 1930, no. 289
3.3 h., $3.91 ., 0.8$ w.

Pl. 57h
Floor 2 (?), cutting Floor 3 fill, Burial 75
14 N 305 Bowl, straight-sided, pottery, whole 6.75 h., 16.0 rim dm., 5.6 base dm. Pls. 68b, 75e
Floor 2

14 N 318

14 N 357 Bowl, wavy-sided, pottery, rim chipped $4.35 \mathrm{~h} ., 11.0 \mathrm{rim}$ dm., 5.2 base dm. Pls. 68h, 72j

## LOCUS 59

Floor 4
14 N 281 Lump, unbaked clay. Faint cloth impressions
$7.21 ., 5.5$ w., 3.0 th.
Pl. 92e
14 N 303 Beads, nine, stone (limestone with quartz streaks), faience, and shell, faience disintegrating. The faience include four lentoids with radial fluting (pale yellow ( $2.5 \mathrm{Y} 8 / 4$ ) and one ring-shaped (white). Stone bead is a verticallypierced hemisphere. The shells include one tubular shell (Dentalium) and two brown and white striped shells (Engina)
Smallest bead (faience ring), $0.6 \mathrm{dm} ., 0.25$ th.; largest (stone), 3.1 dm , 0.4 max. th.
Pl. 561
14 N 304 Needle, copper, broken and corroded. Round in cross-section. Eye of needle broken; pointed end slightly bent
$5.71 ., 0.35$ th.
Pl. 58n
14 N 358 Jar stopper, unbaked clay (baked 12/76), edges chipped. Mushroom-shaped $2.2 \mathrm{~h} ., 3.75 \mathrm{dm}$. Pl. 57 g

LEVEL III, LOCUS 59 (cont.)
Floor 2 (?), Burial 72
14 N 180 Bowl, straight-sided, pottery, whole except for chips $5.9 \mathrm{~h} ., 16.0 \mathrm{rim} \mathrm{dm}$., 5.5 base dm. Pls. 68e, 76a

Floor 2 (?), Mudbrick packing
14 N 173 Bead, glazed faience, disintegrating. Date-shaped spacer with two horizontal holes. Groove on top, perhaps in imitation of date pit. The glaze is whitish with pale yellow (5Y 8/4) in the groove. Cf. Reuther 1926, pl. 58, 51q
2.5 I., O. 7 th.

IM 81043
Pl. 59bb
In Wall D

14 N $55 \quad$| Figurine, baked clay, fragment. Upper portion of female. Applied eyes, hair and |
| ---: |
| breasts. Hair incised. Hatched band at shoulders, perhaps necklace. Y-shaped |
| grooves down back probably represent counterweight for necklace. Pubic |
| triangle hatched. Cf. McCown and Haines 1967, pl. 124: 1, 3. Ur III type |
| $7.1 \mathrm{~h} ., 5.6 \mathrm{w} ., 1.7 \mathrm{th}$. |
| IM 81013 |
| Pl. 56 j |

## BETWEEN LEVEL III AND LEVEL II

PIT 0
Locus 12, cut into

| 13 N 491 | Statuette, baked clay, fragment. Forepaw of lion with claws indicated $\begin{aligned} & 7.0 \mathrm{~h} ., 12.01 . \\ & \text { Pl. } 56 \mathrm{~b} \end{aligned}$ |
| :---: | :---: |
| 13 N 509 | Goblet, pottery, broken $29.0 \mathrm{~h}, 6.8 \mathrm{rim} \mathrm{dm}$., 10.2 max. dm., 6.0 base dm. Pls. 69f, 79z |
| 13 N 510 | Goblet, pottery, chipped at rim 22.0 h., 6.3 rim dm ., 6.9 max. dm., 4.4 base dm. Pls. 69f, 79t |
| 13 N 511 | Goblet, button-based, pottery, broken 12.0 h., 4.6 max. dm., 3.3 base Pl. 69f, cf. pl. 80a-b for type |
| 13 N 512 | Bowl, wavy-sided, pottery, whole 5.0 h ., 13.8 rim dm ., 5.5 base dm. Pls. 69f, 73m |
| 13 N 513 | Bowl, wavy-sided, pottery, whole 5.0 h ., $12.0 \mathrm{rim} \mathrm{dm} ., 6.5$ base dm. Pls. 69f, 76i |

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    13 N 514 Bowl, wavy-sided, pottery, whole
        5.0 h., 11.5 rim dm., 4.5 base dm.
        Pls. 69f, 73k
        13 N 515 Bowl, straight-sided, pottery, whole
        4.5 h., 11.5 rim dm., 5.0 base dm.
        Pls. 69f, 76f
        13 N 516 Bowl, wavy-sided, pottery, whole
        5.0 h., 11.5 rim dm., 5.0 base dm.
        Pls. 69f, 76e
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## LEVEL III, OR LEVEL II FOUNDATIONS

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LOCUS 7, FLOOR 1 OR LOCUS 13, FOUNDATION FILL
13 N 450 Goblet, pottery, broken
21.5 h ., 5.2 rim dm., 7.7 max. dm., 5.0 base dm.
Pl. 69h, cf. pl. 79 for type
13 N 451 Bowl, wavy-sided, pottery, broken
3.6 h ., 10.2 rim dm., 4.8 base dm.
Pl. 69h, cf. pls. 72-74 for type
13 N 452 Bowl, straight-sided, pottery, complete
7.0 h ., 18.0 rim dm ., 6.5 base dm.
Pl. 69h, cf. pls. 75-76 for type
13 N 482 Bowl, wavy-sided, pottery, broken
4.0 h ., 11.0 rim dm ., 5.0 base dm.
Pl. 69d, cf. pls. 72-74 for type
```


## LEVEL II FOUNDATIONS

## LOCUS 13

Deliberate fill
13 N 453 Bowl, wavy-sided, pottery, complete $4.5 \mathrm{~h} ., 11.5 \mathrm{rim} \mathrm{dm}$., 5.5 base dm. Pls. 69h, 73f

## LOCUS 14

Deliberate fill
13 N 414 Spindle whorl, baked clay, whole 4.7 dm .

Pl. 57d
13 N 476 Bead, white faience, whole, ring-shaped with radial fluting 1.8 max. dm., 0.7 th.

Pl. 59q

## LEVEL II FOUNDATIONS (cont.)

## LOCUS 28

Deliberate fill
14 N 33 Cylinder seal, white faience (10YR 8/2), broken and disintegrating. PseudoKassite seal showing a kneeling archer behind a horned animal, possibly a gazelle
$4.05 \mathrm{~h} ., 1.7 \mathrm{dm}$.
Pl. 91e-f
LOCUS 34
Deliberate fill
14 N 229 Tablet, unbaked clay (baked 11/76). For description. See Chapter 5 IM 80124
Pl. 98 i

## LOCUS 44

Deliberate fill
14 N $70 \quad$ Bowl, straight-sided, pottery, whole $5.6 \mathrm{~h} ., 10.3 \mathrm{rim} \mathrm{dm} ., 3.8$ base dm. Pls. 69g, 78e

## LOCUS 45

Deliberate fill
14 N 65 Bead, yellow faience, whole, lentoid with radial fluting $1.05 \mathrm{dm} ., 1.0 \mathrm{th}$.
Pl. 59 z
14 N 66 Earring, copper, whole except corroded, lunate-shaped 1.8 dm .

Pl. 581

## LOCUS 47

Deliberate fill
14 N 264 Tablet, unbaked clay (baked 11/76). Middle Babylonian account. See Chapter 5 IM 80141
Pl. 105b

## LOCUS 81

Deliberate fill under Wall AJ
14 N 52 Cylinder seal, glazed white (10YR 8/2) faience, fragment. Upper portion of a Pseudo-Kassite seal showing two bearded deities, standing and facing right. The fields between the figures are divided by cross-hatched bands. In one of the fields are a "dot in a circle" and three birds; in the other field are three stylized vesseis. A horizontal line forms the upper border to the scene
$1.9 \mathrm{~h}, 1.75 \mathrm{dm}$.
Pl. $90 \mathrm{~h}-\mathrm{j}$

Deliberate fill

| 14 N 216 | Tablet, unbaked clay (baked 11/76). Middle Babylonian text. See Chapter 5 IM 80119 <br> Pl. 97c |
| :---: | :---: |
| 14 N 217 | Tablet, unbaked clay (baked 11/76). Middle Babylonian text. See Chapter 5 Pl. 97d |
| 14 N 218 | Tablet, unbaked clay (baked 11/76). Middle Babylonian text. See Chapter 5 IM 80120 <br> PI. 97e |
| 14 N 398 | Blade, flint 10.5 l., 3.8 w., 2.8 th. Pl. 56 n |

## LOCUS 83

Deliberate fill
13 N 403 Bowl, wavy-sided, pottery, whole except rim chipped 4.5 h ., 10.7 rim dm ., 5.0 base dm.

Pls. 69e, 74b
13 N 404 Goblet, pottery, complete
$30.0 \mathrm{~h} ., 7.5 \mathrm{rim}$ dm., 10.6 max. dm., 6.5 base dm.
Pl. 69e, cf. pl. $79 \mathrm{w}-\mathrm{x}$ for type

## LEVEL II SUPERSTRUCTURE

## LOCUS 11

Floor 1
13 N 338 Bead, lapis lazuli, whole. Lentoid, horizontally pierced
0.6 dm .

Pl. 59n

## LOCUS 27

Floor 1 and fill above
14 N 310 Bowl, wavy-sided, pottery, whole except chipped $4.3 \mathrm{~h} ., 11.0 \mathrm{rim} \mathrm{dm} ., 4.2$ base dm. Pls. 69n, 74a

14 N 64 Bowl, wavy-sided, pottery, whole except rim chipped $4.5 \mathrm{~h} ., 12.1 \mathrm{rim} \mathrm{dm} ., 5.4$ base dm.

Pls. $69 \mathrm{~m}, 74 \mathrm{~d}$

## LOCUS 31

Floor 1
$14 \mathrm{~N} 36 \quad$ Jar, pottery, whole except chipped $\quad$ 10.8 h., $6.4 \mathrm{rim} \mathrm{dm} ., 8.8$ max. dm., 3.35 base dm.

## LEVEL II SUPERSTRUCTURE, LOCUS 31 (cont.)

Floor 1 (cont.)

| 14 N 42 | Ring, copper, whole except corroded, single wire loop $2.45 \mathrm{dm} ., 0.45 \mathrm{th}$. <br> Pl. 58k |
| :---: | :---: |
| 14 N 63 | Bowl, wavy-sided, pottery, whole 4.9 h., 13.0 rim dm., 5.0 base dm. Pls. 691, 74g |
| 14 N 81 | Sealing, unbaked clay (baked 10/76), fragment. Partial impression of a Second Kassite seal showing a bull rampant against a bush. A bird is depicted atop the bush. In field above is a disk or crescent. See Chapter 4 $\begin{aligned} & 2.3 \mathrm{~h}, 2.2 \mathrm{w} . \\ & \text { Pl. } 9 \mathrm{lh}-\mathrm{i} \end{aligned}$ |
| 14 N 330 | Sealing, unbaked clay (baked 10/76), fragment. At least three partial impressions of one or more Pseudo-Kassite seals. Two impressions, whose orientation is uncertain, show a panel composed of a horizontal (vertical?) line, a cross-hatched band, and two horizontal (vertical?) lines; a vertical (horizontal?) line extends down (out?) from the panel. To the left of (below?) the line are indistinct traces. The third rolling shows a stylized tree with a hatched trunk and pendant circles and volutes. See Chapter 4 8.0 h., 5.0 w., 2.2 th. <br> Pl. 91d |

Floor 1, fill above
14 N 43 Ring, shell, worn. Cf. Boehmer and Dämmer 1985, pl. 21
2.4 dm ., 0.6 th.

Pl. 59y
14 N 56 Bowl, straight-sided, pottery, whole
5.3 h ., 16.9 rim dm ., 5.2 base dm.

Pls. 69i, 77c
14 N 57 Bowl, straight-sided, pottery, whole except chipped rim 6.5 h., 16.4 rim dm., 5.5 base dm. Pls. 69j, 77d

14 N 58 Lid, pottery, whole. Burned along one edge
$2.6 \mathrm{~h} ., 7.3 \mathrm{dm}$.
Pls. 70a, 78i
14 N 59 Jar, pottery, whole, dented before firing, when clay in leather-hard state 13.5 h ., 6.4 rim dm., 9.2 max. dm., 3.3 base dm.

IM 81013
Pls. 70c, 82d
14 N 117 Sealing, unbaked clay (baked 11/76), fragment. Two, or possibly three, impressions of a Second Kassite seal, showing a robed figure, facing left, with one or both arms raised. To the left of the figure is a pair of animals rampant on either side of a bush. See Chapter 4
3.5 h., 3.7 w., 0.7 th.

Pl. 91j-k

14 N 228 Tablet, unbaked clay (baked 10/76). Middle Babylonian text, dated ŠagaraktiŠuriaš year 4. See Chapter 5
IM 80123
Pl. 98 h

## LOCUS 33

Floor 1, fill above

| 14 N 35 | Pin, copper, whole, round in cross-section, bent at the point 6.0 I., 0.55 dm . <br> Pl. 58m |
| :---: | :---: |
| 14 N 37 | Bowl, wavy-sided, pottery, whole 5.7 h ., 14.8 rim dm ., 5.6 base dm. Pls. 69k, 74j |
| 14 N 262 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account. See Chapter 5 Pl. 104r |
| 14 N 263 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 Pl. 105a |

## LOCUS 42

Doorsocket cut
13 N 126 Tablet, unbaked clay (baked 11/75). Middle Babylonian legal text. See Chapter 5
IM 78575
PI. 93a
13 N 127 Tablet, unbaked clay (baked 11/75). Middle Babylonian account, barley. Cf. Chapter 5
IM 58576
PI. 93b
13 N 131 Tablet, unbaked clay (baked 11/75). Middle Babylonian, possibly an account. Cf. Chapter 5
IM 78578
PI. 94a

## LEVEL I, ARCHITECTURAL REMAINS

## LOCUS 10

Floor, fill above
13 N 412 Sealing, unbaked clay, fragment. Two partial impressions of a single PseudoKassite seal showing figures arranged in registers. The figure in the top register is a bird; the figures in the lower two registers are indistinct. To the right of the registers is an inscription, portions of two columns of which are preserved. The impressions show an upper border of cross-hatched triangles. Cf. Chapter 4
$4.3 .5 \mathrm{~h} ., 2.3 \mathrm{w} ., 1.7 \mathrm{th}$.
PI. 91c

## LEVEL I PITS

## PIT A (SQUARE N-37)

13 N 283 Bowl, wavy-sided, pottery, sherds missing 4.4 h., 11.2 rim dm., 5.0 base dm. Pl. 70d, cf. pls. 72-74 for type
13 N 284 Bowl, wavy-sided, pottery, complete $5.0 \mathrm{~h} ., 11.8$ rim dm., 5.2 base dm. Pl. 70d, cf. pls. 281-83 for type

## PIT B (SQUARES N-36-37)

13 N 303 Figurine, baked clay, fragment. Animal figurine, camel (?). Head and legs broken. Cf. McCown and Haines 1967, pl. 141: 8
5.5 h., 10.0 l., 1.0 th.

PI. 57b
13 N 304 Bead, lapis lazuli, broken, hexagonal, vertically pierced 0.6 l., 0.2 th Pl. 591

13 N 315 Cup, stump-based, pottery, broken at rim $14.0 \mathrm{~h} ., 6.5 \mathrm{rim} \mathrm{dm}$. Pls. 71a, 86 j
13 N 484 Goblet, pottery, whole
(Cutting Locus 12) $23.5 \mathrm{~h} ., 6.0 \mathrm{rim}$ dm., 8.0 max. dm., 5.0 base dm.
Pls. 70k, 86e
13 N 485 Jar, pottery, broken at rim
(Cutting Locus 12) $17.0 \mathrm{~h} ., 7.5 \mathrm{rim} \mathrm{dm} ., 11.0$ max. dm., 4.5 base dm. PI. 701, cf. pl. 81 g for type

13 N 486 Goblet, pottery, broken at rim
(Cutting Locus 12) $29.0 \mathrm{~h} ., 7.4 \mathrm{rim} \mathrm{dm}$., 10.4 max. dm., 6.7 base dm.
Pls. 701, $86 f$
13 N 556 Sealing, unbaked clay, fragment. Partial impression of a Pseudo-Kassite seal
(Cuting Locus 12) divided into two registers. In the upper register is a row of lozenges; in the lower is a file of animals. See Chapter 4
3.5 h., 4.5 w., 1.5 th.

Pl. 91g
13 N 564 Tablet, unbaked clay (baked 12/75). Account. late third/early second millennium
(Cutting Locus 12) date. See Chapter 5
IM 78613
PI. 94b
13 N 573 Tablet, unbaked clay (baked 11/75). Date and subject indeterminable. See Chapter 5
Pl. 94c
13 N 592 Sealing, unbaked clay (baked 12/75). Two partial rollings of a First Kassite seal
(Cutting Locus 12) with a multi-column inscription, a single standing figure, facing right, and trace of a seated figure. The standing figure raises his right arm and holds his left hand at his waist. Four columns of the inscription are preserved. See Chapter 4
6.0 h., 5.7 w., 2.0 th.

Pl. 90a-c
14 N 16 Spool, baked clay, whole, possibly a gaming piece, with $X$ incised on convex end $4.8 \mathrm{~h} ., 3.3$ end dm.
Pl. 57f
14 N 17 Figurine, baked clay, fragment, head and upper body of dog(?) 8.95h., 11.55 I.

Pl. 56e
14 N 19 Cylinder seal, basalt, chipped and worn. Damaged and indistinct Late Babylonian seal. Combat between a human, wearing a long garment over a kilt, and a winged quadruped. Recumbent animal between the two combatants (?). Tree and crescent (?) to one side of the scene
2.35 h .1 .3 dm .

Pl. 92f-h
14 N 20 Bead, glazed clay, white, worn., tubular
1.4 h ., 0.6 dm .

Pl. 59x
14 N 69 Bowl, pottery, club-rimmed, rim chipped $7.0 \mathrm{~h} ., 17.2$ rim dm., 6.5 base dm.
Pls. 71b, 86h
14 N 201 Tablet, unbaked clay (baked 10/76). Middle Babylonian account about animal hides. See Chapter 5
IM 80106
Pl. 95a
14 N 202 Tablet, unbaked clay (baked 10/76). Middle Babylonian account about textiles. See Chapter 5
Pl. 95b
14 N 203 Tablet, unbaked clay (baked 10/76). Middle Babylonian (?) account. See Chapter 5
IM 80107
Pl. 95c
14 N 204 Tablet, unbaked clay (baked 10/76). Middle Babylonian. See Chapter 5 IM 80108
Pl. 95d
14 N 205 Tablet, unbaked clay (baked 10/76). Middle Babylonian receipt. See Chapter 5 IM 80109
Pl. 95e
14 N 206 Tablet, unbaked clay (baked 10/76). Middle Babylonian account about wheat, barley, and beer-bread (BAPPIR). See Chapter 5
IM 80110
Pl. 95 f
14 N 207 Tablet, unbaked clay (baked 10/76). Middle Babylonian account about wheat. See Chapter 5
IM 80111
Pl. 96a

## LEVEL I, PIT B (cont.)

| 14 N 208 | Tablet, unbaked clay (baked 10/76). Middle Babylonian legal text. See Chapter 5 <br> Pl. 96b |
| :---: | :---: |
| 14 N 209 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 IM 80112 <br> Pl. 96c |
| 14 N 219 | Tablet, unbaked clay (baked 10/76). Middle Babylonian grain receipt. See Chapter 5 <br> Pl. 97 f |
| 14 N 220 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account. See Chapter 5 Pl. 97 g |
| 14 N 221 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 PI. 98a |
| 14 N 222 | Tablet, sealed, unbaked clay (baked 10/76). Middle Babylonian legal text, Nazi- <br> Maruttaš date. See Chapter 5; for seal, see Chapter 4 <br> IM 80121 <br> Pls. 90f, 98b |
| 14 N 223 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 Pl. 98c |
| 14 N 224 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account. See Chapter 5 PI. 98d |
| 14 N 225 | Tablet, unbaked clay (baked 10/76). Middle Babylonian legal (?) text. See Chapter 5 <br> IM 80122 <br> Pl. 98e |
| 14 N 226 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 Pl. 98 f |
| 14 N 227 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 Pl. 98g |
| 14 N 232 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account about wheat. <br> See Chapter 5 <br> IM 80126 <br> Pl. 99b |
| 14 N 234 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 IM 80128 <br> PI. 99d |
| 14 N 235 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account. See Chapter 5 IM 80129 <br> Pl. 99e |
| 14 N 236 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text, Šagarakti-Šuriaš date. See Chapter 5 <br> IM 80131 <br> Pl. $99 f$ |


| 14 N 237 | Tablet, unbaked clay (baked 10/76). Middle Babylonian receipt, wheat. See Chapter 5 <br> IM 80130 <br> PI. 99g |
| :---: | :---: |
| 14 N 238 | Tablet, unbaked clay (baked 10/76). Date? See Chapter 5 Pl. 99h |
| 14 N 239 | Tablet, unbaked clay (baked 10/76). Middle Babylonian receipt, Nazi-Maruttaš date. See Chapter 5 <br> IM 80132 <br> PI. 100a |
| 14 N 240 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account, wheat, Kaštiliašu IV date. See Chapter 5 <br> IM 80133 <br> Pl. 100b |
| 14 N 241 | Tablet, with fingernail impressions, unbaked clay (baked 10/76). Middle Babylonian legal text. See Chapter 5; on fingernail impressions, see Chapter 4 PI. 100c |
| 14 N 242 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account. See Chapter 5 Pl. 100d |
| 14 N 243 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account. See Chapter 5 IM 80134 <br> Pl. 101a |
| 14 N 244 | Tablet, sealed, unbaked clay (baked 10/76). Middle Babylonian account, Šagarakti-Šuriaš date (1246 B.C.). See Chapter 5; for seal, see Chapter 4 IM 80135 <br> Pls. 92a, 101b |
| 14 N 245 | Tablet, sealed with fingernail impressions, unbaked clay (baked 10/76). <br> Fingernail impressions and indistinct traces of a seal on the edges. Middle Babylonian account, sheep, goats. Šagarakti-Šuriaš date (1234 B.C.). See Chapter 5 <br> IM 80136 <br> Pl. 101c |
| 14 N 246 | Tablet, sealed, unbaked clay (baked 10/76). Middle Babylonian text, Kaštiliašu date. See Chapter 5; for seal, see Chapter 4 <br> Pl. 101d |
| 14 N 247 | Tablet, sealed, unbaked clay (baked 10/76). Middle Babylonian legal text, Kadašman-Enlil (II) mentioned. See Chapter 5; for seal, see Chapter 4 IM 80138 $\text { Pls. } 90 \mathrm{~g}, 102 \mathrm{a}$ |
| 14 N 248 | Tablet, sealed, unbaked clay (baked 10/76). Middle Babylonian account. See Chapter 5; for seal, see Chapter 4 <br> IM 80137 <br> Pls. 92b, 102b |

## LEVEL I, PIT B (cont.)

| 14 N 249a-b | Tablet, sealed envelope, unbaked clay (baked 10/76). Seal: palm trees. See Chapter 5; for seal, see Chapter 4 Pl. 92c |
| :---: | :---: |
| 14 N 250 | Tablet, sealed, unbaked clay (baked 10/76). Middle Babylonian legal text. See Chapter 5; for seal, Chapter 4 <br> Pls. 90e, 102c |
| 14 N 251 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text, possibly legal. See Chapter 5 <br> IM 80139 <br> Pl. 103a |
| 14 N 253 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 Pl. 103b |
| 14 N 254 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account. See Chapter 5 Pl. 103c |
| 14 N 255 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 Pl. 103d |
| 14 N 256 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account, grain. See Chapter 5 <br> PI. 103e |
| 14 N 257 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text. See Chapter 5 PI. 103 f |
| 14 N 258 | Tablet, unbaked clay (baked 10/76). Middle Babylonian text, dated. See Chapter 5 <br> Pl. 103g |
| 14 N 259a-c | Tablet fragments, unbaked clay (baked 10/76). Lexical list of divine names. See Chapter 5 <br> Pl. $103 \mathrm{~h}-\mathrm{j}$ |
| 14 N 260a-p | Tablet fragments, unbaked clay (baked 10/76). One fragment with NaziMaruttaš date. See Chapter 5 <br> Pl. 104a-p |
| 14 N 261 | Tablet, unbaked clay (baked 10/76). Middle Babylonian account. See Chapter 5 <br> Pl. 104q |
| 14 N 292 | Incense burner, baked clay, fragmentary. Square four-legged incense burner with incised and punctate decoration on sides and top edge. The decoration consists of a framework of parallel incised lines along the edges of all sides of the incense burner. The frame lines are filled with punctate decoration. The four faces of the incense burner are divided horizontally into three rectangles, each of which is further divided by diagonal lines. The upper and lower triangles in each rectangle are filled with punctate decoration. For parallel, published as Kassite, see Peters 1897, opp. p. 186. Similar decoration, Legrain 1930, no. 363. On cuboid incense burners, see Shea 1983: 76-109 $6.71 ., 7.9 \text { w., } 6.0 \mathrm{~h} .$ <br> Pl. $71 \mathrm{c}-\mathrm{d}$ |

PIT C (SQUARE O-37)
13 N 408 Figurine, baked clay, fragment. Head of a sheep
4.0 h., 3.3 max. w.

IM 78499
Pl. 56a
PIT F (SQUARE O-36)
14 N 67 Bowl, wavy-sided, pottery, whole 4.9 h., 13.2 rim dm., 4.8 base dm. Pls. 70f, 86b
14 N 68 Bowl, wavy-sided, pottery, whole except rim chipped 5.5 h ., $15.5 \mathrm{rim} \mathrm{dm} ., 6.2$ base dm.

Pls. 70e, 86c
14 N 210 Tablet, unbaked clay (baked 10/76). Middle Babylonian text. Contents? KudurEnlil date, 1248 B.C. See Chapter 5
IM 80113
Pl. 96d
14 N 211 Tablet, unbaked clay (baked 10/76). Middle Babylonian text. Mentions Kadašman-Harbe (ca 1223). See Chapter 5
IM 80114
Pl. 96e
14 N 212 Tablet, unbaked clay (baked 10/76). Middle Babylonian receipt for oil. Kudur-
Enlil date, 1249 B.C. See Chapter 5
IM 80115
PI. 96 f
14 N 213 Tablet, unbaked clay (baked 10/76). See Chapter 5
IM 80116
Pl. 96 g
14 N 214 Tablet, unbaked clay (baked 10/76). Middle Babylonian account of textiles, hides, wool. Šagarakti-Šuriaš date (1245-1233 B.C.) See Chapter 5
IM 80117
PI. 97a
14 N 215 Tablet, unbaked clay (baked 10/76). Middle Babylonian account of wood received. See Chapter 5
IM 80118
PI. 97b
PIT I (SQUARE N-38)
14 N 233 Tablet, unbaked clay (baked 11/76). Contents undetermined. See Chapter 5
IM 80127
Pl. 99c
PIT K (SQUARES P-37, 38)
14 N 193 Cylinder seal blank, baked clay. chipped
$2.3 \mathrm{~h} ., 1.35 \mathrm{dm}$.
IM 81051
Pl. 56k

14 N 269 Tablet, unbaked clay (baked 12/76). Neo-Babylonian text, omens. See Chapter 5 Pl. 105c

## PIT N (SQUARES O/P-38)

14 N 165 Sealing, unbaked clay (baked $12 / 76$ ). Single rolling of a First Kassite seal with a eight-column inscription. To the right of the inscription is a standing figure. Traces of an earlier, recut, scene are visible. See Chapter 4
3.2 h., 3.2 w., 1.5 th.

Pl. 90d
14 N 181 Goblet, pottery, whole except chipped
$17.2 \mathrm{~h} ., 7.0$ rim dm., 10.9 max. dm., 6.6 base dm.
Pls. 70i, 86 g
14 N 182 Ring stand, pottery, whole except chipped
8.6 h., 16.1 dm .

Pls. 70h, 86k
14 N 183 Cup, button-based, pottery, whole except chipped 13.6 h., 5.7 rim dm., 6.8 max. dm., 2.6 base dm.

Pls. 70j, 86d

## LEVEL I, JAR BURIALS, EARLY FIRST MILLENNIUM

## BURIAL 25

13 N 372 Beads, 56 in all, carnelian, gray and white stone, glazed faience and iron, whole. Necklace and/or bracelet. Found inside jar 13 N 375 . Glazed yellow faience: 39 discoid. Carnelian: 5 ring-shaped, 2 date-shaped, 2 biconoid, 2 cylindrical, 2 plumb bob-shaped (cf. Reuther 1926, pls. 48, 16:14; 58, 50:20) and 1 spherical. Gray and white stone: 1 fly-shaped (cf. Reuther 1926, pl. 48, 16:7)
IM 78488
Pl. 62a, see pl. 60 for types
13 N 373 Jar, pottery, whole
16.5 h . $6.3 \mathrm{rim} \mathrm{dm} ., 10.2$ max. dm., 3.4 base dm.

Pls. 61d, 87 f
13 N 374 Bottle, pottery, broken at rim. Two horizontally-pierced triangular lugs on shoulder
8.1 h ., 2.3 rim dm., 7.0 max. dm.

Pls. 61e, 87e
13 N 375 Jar, bag-shaped, pottery, broken. Two lugs (one broken) on the shoulder. Incised row of small triangles at the base of the neck
38.0 h ., 20.0 rim dm ., 30.0 max. dm.

Pls. 6If, 87 g

13 N 376 Bowl, club-rimmed, with groove below, pottery, complete
$8.5 \mathrm{~h} ., 16.0$ rim dm., 5.5 base dm.
Pls. 61b, 87 c
13 N 388 Jar, glazed, polychrome, pottery, small, whole. The design, in yellow and white, consists of horizontal bands at the shoulder, "bull's-eyes" around the belly, and vertical bands on the lower body
9.8 h ., 6.6 rim dm ., 9.4 max. dm., 3.6 base dm.

IM 78493
Pls. 61c, 87d
13 N 389 Ring, copper, whole. Single wire loop with overlapping ends
1.8 dm .

Pl. 58 i
13 N 390 Ring, copper, whole. Single open wire loop 2.0 dm .

Pl. 58j
13 N 391 Beads, 37 in all, carnelian, faience, whole. Carnelian: 4 biconoid, 2 ring-shaped, 2 cylindrical, 1 tubular, 1 spherical. Faience: 12 cylindrical, 8 spherical, 2 grooved cylindrical, 2 grooved tubular, 1 ring-shaped, 1 tubular, 1 fluted cylindrical). No measurements available
Pl. 61a, see pl. 60 for types
BURIAL 28
14 N 8a-d Knife, copper and iron, broken. and heavily corroded. (a-c) Three pieces of copper handle, round in section, with a tubular socket for hafting the blade. Iron blade ( d ) in two pieces
(a-c) $24.61 ., 2.8 \mathrm{dm}$. (butt end), (d) $25.71 ., 1.8 \mathrm{w}$.
Pl. 62b
13 N 448 Jar, pottery, complete
16.9 h., 6.8 rim dm., 11.2 max. dm.

Pls. 62c, 88 e
BURIAL 30
13 N 483 Bowl, inturned rim. pottery, whole
10.0 h ., 22.0 rim dm., 8.0 base dm.

Inclusion of this bowl in burial is not certain. When excavated, this bowl was recorded as from Level III, Locus 12, Floor 2. Since that locus designation is impossible (see Chapter 2), and we can determine that this bowl was found directly above Burial 30, we assume that it was part of the grave goods or at least a chance inclusion in the burial shaft
Pls. 62d, 88b
13 N $520 \quad$ Goblet, pottery, whole. Presumably a chance inclusion (see Chapter 2)
32.5 h ., 7.6 rim dm ., 10.5 max. dm., 6.4 base dm.

IM 78236
Pls. 63b, 88c

## LEVEL I, JAR BURIALS, EARLY FIRST MILLENNIUM ( cont.) BURIAL 30 (cont.)

13 N 521a-b Beads, carnelian and faience, whole. (a) 124 ring-shaped camelian and a single faceted date-shaped carnelian bead. (b) 100 blue and white faience ringshaped, 1 date-shaped. Too small and fragile to string
(a) 34.0 I . as necklace, 1.0 cm . dm. largest bead, (b) 0.3 dm . largest bead (not illustrated)
IM 78237
Pl. 63a, see pl. 60 for types
BURIAL 58

14 N 105

## BURIAL 61

## N

Bands, copper, fragmentary. 13 fragments of curved copper bands 1.5 w.

Pl. 63c

Palette, pinkish-gray (5YR 7/2) sandstone, whole. Roughly circular in shape $10.4 \mathrm{dm} ., 1.75 \mathrm{th}$.
IM 81021
Pl. 64a, lower right
Jar, glazed, polychrome, small, whole. The design consists of a row of white circles within a yellow band on the belly and a series of yellow vertical lines on plain surface of the shoulder. The neck is glazed yellow
8.9 h., 6.1 rim dm., 8.3 max. dm.

IM 81022
Pls. 63d, 64a (lower left), 88g
Incense burner and lid, glazed, pottery, nearly complete. The body of the incense burner is a square box on four short, square legs. The interior has a ledge just below rim on which the lid sits. The lid is a truncated pyramid with a single triangle cut out of each of the 4 faces and a hole in the top. Body and lid are decorated with horizontal rows of applied clay "spikes." The corners of the tops of body and lid are decorated with vertical "spikes." The vessel is covered in a light green glaze (5G 6/4, green when found, fading to 5GY 7/1, light greenish gray when dry)
15.8 h . including lid, 10.1 w .

IM 81023
Pls. 64a (upper center), b; 88h
Beads, 148 in all, stone (lapis lazuli, azurite, turquoise), copper, faience; some broken. Stone. Cylindrical: 1 lapis lazuli, 1 turquoise; Spacer bead, rect. with 3 holes: 1 azurite. Copper: Grooved cylinder: 1; spherical: 1; ring-shaped, 1. Faience: Tubular: 21 white, [10YR 8/1], 19 white to yellow [2.5Y 8/2-8/6], 3 red [2.5YR 5/6], 2 blue [not on available Munsell Color Chart]; 7 reddish-black [5R 2.5/I]). Grooved cylinder: 11 white, 14 pale yellow [2.5Y 7/4], 2 graygreen [5G 5/2]); Triple cylinder: 1 pale yellow (cf. McCown and Haines 1967, pl. 150: 22). Date-shaped: 3 white, 25 white to yellow, 1 red, 2 striped white with very dark grayish-brown [10YR 3/2] (cf. Reuther 1926, pl. 48: 24h).

Tubular: 1 white, 1 pale yellow. Ring-shaped: 2 white, 3 pale yellow, 1 reddish-black). Discoid: 6 white, 5 pale yellow. Grooved discoid: 1 pale yellow. Biconvex: 1 white, 1 pale yellow. Diamond: 1 white, 1 yellow. Hubshaped: 1 white. Foot-shaped: 1 white. Animal-shaped: 3 flies, 1 duck, 1 indeterminate animal head, all pale yellow (cf. Reuther 1926, pl. 48, 16:8). Ax-shaped: 1 very pale brown [10YR 8/3] (cf. e.g., Reuther 1926, pls. 47, $15: 8 ; 48,16: 11,58$ )
Sizes: smallest, $0.5 \mathrm{dm} ., 0.2 \mathrm{th}$.; largest, $1.61 ., 1.3 \mathrm{w} ., 0.7 \mathrm{th}$.
IM 81029
Pl. 64 a (lower center), c ; see pl. 60 for types

Beads, 41 in all, faience, some broken. Buttons with cross-hatched faces: 2 white. Date-shaped: 3 pale yellow, 3 white, I very dark grayish-brown, 1 blue. Grooved date-shaped: 11 blue, 2 yellow (cf. Reuther 1926, pl. 58, 51m, o). Cylindrical: 1 blue, 1 white, 1 yellow. Grooved half-cylinder: 4 white. Reuther 1926, pl. 58, 51t. Discoid: 6 white and 3 yellow. Spherical: 1 blue. Diamond: 1 yellow. Hub-shaped: 1 yellow
Sizes: smallest (hub-shaped bead), $0.5 \mathrm{dm} ., 0.51$. largest (button), $1.6, \mathrm{dm}$., 1.4 th.

IM 81030. Stolen from Dohuk Museum, March, 1991. See Gibson and McMahon 1992: 11
Pls. 64a (lower left), 65b, see pl. 60 for types
Beads, 172 in all , stone (azurite and turquoise) and faience, some broken. Strung by us as necklace. Stone: Rectangular spacers, 3 holes: 2, azurite. Dateshaped: 3 azurite, 2 turquoise. Ring-shaped: 2, azurite. Faience: Tubular: 10 white, 5 blue, 4 pale yellow. Grooved tubular: 6 white, 6 pale yellow, I blue, 1 reddish-brown [2.5YR $5 / 4$ ]). Date-shaped: 5 white, 16 pale yellow, 9 blue, 7 white and very dark grayish-brown, 1 reddish brown, 1 dark greenish-gray [5GY4/1]). Grooved date-shaped: 7 blue, 6 pale yellow, 1 white, 1 very dark grayish brown [10YR 3/2]). Discoid: 18 white, 8 pale yellow. Diamond: 1 white, 12 pale yellow. Ring-shaped: 2 white, 3 pale yellow, 2 blue. Hubshaped: 3 white, 1 pale yellow, 2 blue, 1 dark greenish-gray. Grooved halfcylinder: 4 white, 10 pale yellow, 5 blue. Spacer bead, rect. with 3 holes: 1 white (cf. McCown and Haines 1967, pl. 150: 23; Reuther 1926, pl. 47, 13f). Button with cross-hatched face: 1 white. Biconvex: 3 white, 1 pale yellow Sizes: smallest (hub-shaped), $0.7 \mathrm{dm} ., 0.5 \mathrm{th}$.; largest (button), $1.6 \mathrm{dm} ., 1.0 \mathrm{th}$. IM 81031
Pls. 64 a (upper left), 65 a , see pl. 60 for types
Beads, 245 in all, stone (carnelian, banded agate and azurite), some broken. Strung by us. Biconoid: 3, azurite. Date-shaped: 8, banded agate.
Hemispherical: 1 black -and-white stone. Spherical: 89 carnelian. Ringshaped, 123 carnelian. Cylindrical, 5 carnelian. Date-shaped, 3 carnelian. Double conoid: 11 carnelian. Biconvex, 1 carnelian
Sizes: smallest (carnelian ring), $0.3 \mathrm{dm} ., 0.2$ th.; largest (banded agate dateshaped bead), $3.21 ., 0.8 \mathrm{max} . \mathrm{dm}$.
IM 81037
Pls. 64a (upper right), 65c, see pl. 60 for types

## LEVEL I, JAR BURIALS, EARLY FIRST MILLENNIUM (cont.)

14 N 174

14 N 175

Beads, 695 in all, stone (carnelian and lapis lazuli) and faience, some disintegrating. Strung by us. Stone: Cylindrical, 1 lapis lazuli; Ax shaped, 1 camelian; 1 irregular. Faience: Ring-shaped, 619 white; 3 pale yellow; 1 blue. Grooved ring-shaped: 1 pale yellow. Cylindrical: 2 very pale brown. Cylindrical, grooved: 7 white. Cylindrical, cross-hatched: 1 pale brown. Biconvex: 3 white, 1 pale yellow, 1 blue. Grooved biconvex: 7 white. Dateshaped: 2 very dark grayish brown. Date-shaped: 2 irregular, white. Dateshaped, grooved: 1 white; 1 very pale brown. Hub-shaped: 2 very pale brown; 1 pale yellow; 1 white. Butterfly-shaped: 24 white (cf. McCown and Haines 1967, pl. 150: 17; Reuther 1926, pls. 47:13d; 48:16. 24h). Fly-shaped: blue. Foot-shaped: I white. Boot-shaped: 1 white. Ax-shaped: 1 white. Jarshaped: white
Sizes: smallest (ring-shaped), $0.2 \mathrm{dm} ., 0.1$ th.; largest (jar-shaped), 3.0 1., 2.1 max. dm.
Pl. 66 (left), see pl. 60 for types
Pins, iron, broken and heavily corroded, square in section. Eight fragments, the largest example nearly complete
6.8 1., 0.8 th., largest example

Pl. 66a (right)

## JAR BURIAL?

(Square $\mathrm{N}-38$ )
14 N 45a-c Anklets, copper, whole except corroded. Identical single open loop. Found with a few fragments of bones in a large jar sherd, cutting into Wall C of Level II, near Burial 53. For the shape of the anklets, cf. Boehmer and Dämmer 1985, pl. 150: 659-60
$6.5 \mathrm{dm} ., 0.75$ th.
Pl. 66b

## LEVEL I, SIMPLE INHUMATION BURIALS (PARTHIAN)

## BURIAL 1

Near neck
$13 \mathrm{~N} 4 \mathrm{a}-\mathrm{g} \quad$ Beads, necklace (?). (a) date shaped, lapis lazuli, whole, $1.21 ., 0.4 \mathrm{dm}$. (b) ringshaped, faience, $0.51 ., 0.4 \mathrm{dm}$. (c) spherical, glass, green, whole. 0.5 dm . (d) spherical, black stone, whole, 0.5 dm . (e) ring-shaped, pink stone, whole, $0.5 \mathrm{I} ., 0.2 \mathrm{dm}$. (f) cylindrical, pink stone, whole, $1.11 ., 0.3 \mathrm{dm}$. (g) cylindrical, black stone, broken, $1.21 ., 0.5 \mathrm{dm}$.
Pl. 59a-g
13 N 6 Bead, pink stone, cylindrical. 1.2 1., 0.3 dm .
Pl. 59i

## BURIAL 6

13 N 61 Earring, copper, whole (?). Ring with looped ends, from which a shaft depends. At present, only copper wrapping is to be found on either end of the shaft, but originally, probably had a faience bead (see 13 N 64). Cf. Whitcomb 1985: 176, fig. 66a-f, with refs. to other parallels in Parthian and Sasanian contexts 2.2 dm., 3.21.

Pl. 58a
13 N 64 Earring, copper and faience, broken (?). Ring with looped ends, from which a shaft depends. A piece of copper is wrapped around the shaft at its join with the ring. The shaft supports a faience bead, but the bottom of shaft is broken. Duplicate of 13 N 61
2.0 dm., 3.21.

Pl. 58b
13 N 213 Coin, bronze, worm. Obv. Bust of king, facing left (back of head only preserved).
Rev. Tyche facing right. Issue of Osroes, A.D. 109-128. 1.2 dm . Wroth 1903,
pl. 30: 11; Sellwood 1980: 259, no. 30: 19-23
IM 20734
Pl. 66d-e

## BURIAL 14

13 N 250 Earring, copper, broken. Open ring with looped ends. Pendant shaft broken away. See 13 N 61, 64 for type
2.0 dm .

Pl. 58c
13 N 252 Ring stand, pottery, broken
$15.0 \mathrm{dm} ., 9.4 \mathrm{~h}$.
Pl. 66c, cf. pl. 86k
13 N 290 Ring, iron, heavily corroded. Oval bezel
1.7 dm .

Pl. 58d

## BURIAL 24

13 N 377 Bottle, blue glass, fragmentary. Ovoid body, high, narrow, cylindrical neck flaring somewhat toward the rim. No accurate measurements possible. Unpublished parallels from Parthian context at Nippur include 6 N 48 (A 30510), from Sounding B (SB), Level II; and 6 N 11 (A 30952) from SB, Level II, Locus 37, Burial 1
Pl. 67a

## BURIAL 40

14 N 12a-b Earrings, copper, whole. Two open rings, each with a single attached spherical bead
(a) $2.0 \mathrm{dm} . ;$ (b) 1.4 dm .

Pl. 58 g -h

LEVEL I, SIMPLE INHUMATION BURIALS (PARTHIAN) (cont.) BURIAL 42

14 N 15a-c Fittings, copper and iron, fragmentary and corroded. (a) Two nearly whole and more than 25 fragments of thin, flat copper plates. The shape of each plate is an elongated diamond with circles attached to the ends; the circles are each pierced in the center by a small hole; (b) one nearly complete example and 3 fragments of a grommet consisting of two thin, oblong copper plates riveted together at the ends by pins. The plates, with their rivets, must have served to affix leather or another material; (c) two pieces of badly corroded iron.
(a) $7.71 ., 1.3 \mathrm{~cm} \max . w$. (b) 3.7 cm 1.1 .0 cm w . (c) larger piece, $5.61 ., 1.4 \mathrm{w}$. Pl. $67 \mathrm{b-c}$

## SURFACE DEBRIS

## SQUARE O-36

14 N 4 Button, shell, whole. Discoid with a small central hole 1.05 dm ., 0.5 th .

Pl. 59 v
14 N 5 Spinning toy (?), baked clay, chipped. Ovoid disk made from a potsherd, with two holes through the center. Identical to string-powered noise-making spinners used by children in southern Iraq today
3.4 1., 2.9 w., 0.8 th.

Pl. 57e
SQUARE P-36
14 N 10 Bead, spherical, glass, green (5G 4/2) with red (10R 4/6) dots, cracked.
Somewhat flattened on the ends. Islamic
1.9 dm .

IM 81003
Pl. 59w
SQUARE N-37
Locus 2
13 N 2 Disk, stone, white, pierced, fragmentary
$3.0 \mathrm{dm} ., 0.8 \mathrm{th}$.
Pl. 57a
13 N 5 Ring, stone (?, shell?), fragment
2.0 orig. dm.

PI. 59h
13 N 40 Bead, double conoid, pierced longitudinally, stone
$0.91 ., 0.5$ w.
PI. 59k
Locus 3
$\begin{array}{ll}13 \mathrm{~N} 39 & \begin{array}{l}\text { Ring, shell, whole } \\ 1.3 \mathrm{dm} . \\ \\ \\ \text { Pl. } 59 \mathrm{j}\end{array}\end{array}$

13 N 97 Pin, copper, fragmentary
1.81.

Pl. 58e
13 N 308 Ring, copper, whole. Single loop with overlapping ends
1.5 dm .

Pl. 58 f
13 N 314 Bead, faience, whole. Ring-shaped with radial fluting 0.8 max. dm., 0.6 h .

Pl. 59 m
13 N 342 Bead, date-shaped, copper, whole. Flattened on one side $1.31 ., 0.8 \mathrm{~h}$.

Pl. 590
13 N 343 Bowl, stone (greenish-gray olivine basalt [5GY 5/1]), fragment. Flattened rim with ledge below on outside. Cf. Woolley 1965, pl. 35, U. 6763
20.0 dm ., 3.0 h .

Pl. 57c

RECOVERED AT DUMP
14 N 1 Figurine, baked clay, fragment. Upper portion of female. Applied eyes, breasts, hair and headdress. Hair incised. Hatched band at shoulders, perhaps indicating necklace. Ur III type. Cf. McCown and Haines 1967, pl. 122: 4 5.4 h., 5.0 w

Pl. 56c
14 N 2 Figurine, baked clay, fragment. Head, torso and upper legs of female. Hatched band at shoulders, perhaps necklace. Pubic triangle incised. Ur III type. Cf. McCown and Haines 1967, pl. 122: 4.
7.8 h., 5.2 w.

Pl. 56d
Probably from Pit J
14 N 116 Sealing, unbaked clay (baked 11/76), fragment. Impression of a Pseudo-Kassite seal. Three column inscription; standing human figure, holding a scimitar in his right hand and with his left arm at his waist; field divided into four registers with a fly in the top register and detached human heads in the second (the lower two registers are only partially preserved). See Chapter 4
5.0 h., 5.0 w., 2.1 th.

Pl. 91a-b
14 N 159 Figurine, female, baked clay, fragment. Upper portion of a female, Applied eyes, breasts, hair and headdress. Hair incised. Hatched band at neck, perhaps necklace. Pubic triangle incised. Ur III type. Cf. McCown and Haines 1967, pl. 122: 4, 10
$7.4 \mathrm{~h}, 5.0 \mathrm{w} ., 1.9 \mathrm{th}$.
IM 81035
Pl. 56h

## RECOVERED AT DUMP (cont.)

Locus 43 or 44 ?
14 N 231 Tablet, unbaked clay (baked 11/76). Middle Babylonian account. See Chapter 5 Pl. 99a

## CONCORDANCE OF LOCI, SQUARES, AND LEVELS

| Locus Number | Square | Level |
| :---: | :---: | :---: |
| 1 | M-37 | City Wall section |
| 2 | M/N-37 | I-III |
| 3 | N-37 | I |
| 4 | N-36/38 | II, foundation/superstructure |
| 5 | N-36/37 | II, superstructure |
| 6 | N/O-37/38 | III |
| 7 | N-37 | III |
| 8 | O-37 | I |
| 9 | N-36 | I, entire square at surface |
| 10 | N-37 | I, entire square at surface |
| 11 | O/P-37/38 | II, superstructure |
| 12 | N/O-37 | III |
| 13 | N-37 | II, foundation |
| 14 | N-36/37 | II, foundation |
| 15 | O/P-37 | III |
| 17 | O/P-37 | II, foundation |
| 18 | O/P-37 | II, foundation |
| 19 | Not assigned | - |
| 20 | Not assigned | - |
| 21 | Not assigned | - |
| 22 | Not assigned | - |
| 23 | Not assigned | - |
| 24 | Not assigned | - |
| 25 | N/O-37 | III |
| 26 | Not assigned | - |
| 27 | $0.36$ | II, superstructure |
| 28 | O-36/37 | II, superstructure |
| 29 | O-36 | II, superstructure |
| 30 | O-36/37 | III |
| 31 | O-36 | II, superstructure |
| 32 | O-36 | II, superstructure |
| 33 | O-36/37 | II, superstructure |
| 34 | O-36 | II, superstructure |
| 35 | O-36 | II, superstructure |
| 36 | O-36 | II, superstructure |
| 37 | Not assigned | - |
| 38 | O-36/37 | II, foundation |
| 39 | Not assigned | - |

CONCORDANCE OF LOCI, SQUARES, AND LEVELS (cont.)

| Locus Number | Square | Level |
| :---: | :---: | :---: |
| 40 | N/O-38 | II, foundation |
| 41 | N -38 | II, foundation |
| 42 | N/O-37/38 | II, superstructure |
| 43 | Incorporated into Locus 11 | - |
| 44 | O-38 | II, foundation |
| 45 | O/P-38 | II, foundation |
| 46 | N-38 | II, foundation/superstructure |
| 47 | O-38 | II, foundation |
| 48 | N-38 | II, superstructure |
| 49 | Dropped | - |
| 50 | Dropped | - |
| 51 | P-37 | II, foundation |
| 52 | P-37 | III |
| 53 | P-37/38 | III |
| 54 | O/P-37/38 | III |
| 55 | N-38 | III |
| 56 | O/P-38 | III |
| 57 | O-38 | III |
| 58 | N-38 | III |
| 59 | O-36 | III |
| 60 | O-36 | III |
| 61a-d | N/O-36/37 | III |
| 62 | P-37 | III |
| 63 | N/O-36 | III |
| 64 | Not assigned | - |
| 65 | Not assigned | - |
| 66 | N-37 | IV |
| 67 | Not assigned | - |
| 68 | Not assigned | - |
| 69 | Not assigned | - |
| 70 | Not assigned | - |
| 71 | Not assigned | - |
| 72 | Not assigned | - |
| 73 | P-38 | III |
| 74 | Not assigned | - |
| 75 | Not assigned | - |
| 76 | Not assigned | - |
| 77 | Not assigned | - |
| 78 | Not assigned | - |
| 79 | Not assigned | - |
| 80 | O-36 | II, foundation |
| 81 | O-36 | II, foundation |
| 82 | O/P-37/38 | II, foundation |
| 83 | N/O-37/38 | II, foundation |
| 84 | N-38 | II, foundation |

## CONCORDANCE OF CATALOGUE NUMBERS, LEVELS, AND LOCI

| Catalogue Number | Object | Level | Findspot | Plate | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13 N 2 | Disk | Surface | Square N-37 | 57a | 136 |
| 13 N 4a-g | Beads | I, Burials | Burial 1 | 59a-g | 134 |
| 13 N 5 | Ring | Surface | Square N-37 | 59h | 136 |
| 13 N 6 | Bead | I, Burials | Burial 1 | 59i | 134 |
| 13 N 39 | Ring | Surface | Square N-37 | 59j | 136 |
| 13 N 40 | Bead | I | Locus 2, Floor 1 | 59k | 136 |
| 13 N 61 | Earring | I, Burials | Burial 6 | 58a | 135 |
| 13 N 64 | Earring | I, Burials | Burial 6 | 58 b | 135 |
| 13 N 74 | Bowl | III | Locus 7, Floor 1 | 68a, 76d | 114 |
| 13 N 97 | Pin | Surface | Square 0-37 | 58 e | 137 |
| 13 N 126 | Tablet | II | Locus 42, cut for doorsocket | 93a | 123 |
| 13 N 127 | Tablet | II | Locus 42, cut for doorsocket | 93b | 123 |
| 13 N 131 | Tablet | II | Locus 42, cut for doorsocket | 94a | 123 |
| 13 N 213 | Coin | I, Burials | Burial 6 | 66d-e | 135 |
| 13 N 250 | Earring | I, Burials | Burial 14 | 58c | 135 |
| 13 N 252 | Ring stand | I, Burials | Burial 14 | 66 c | 135 |
| 13 N 283 | Bowl | I, Pits | Pit A | 70d | 124 |
| 13 N 284 | Bowl | I, Pits | Pit A | 70d | 124 |
| 13 N 290 | Ring | I, Burials | Burial 14 | 58d | 135 |
| 13 N 303 | Animal figurine | I, Pits | Pit B | 57b | 124 |
| 13 N 304 | Bead | I, Pits | Pit B | 591 | 124 |
| 13 N 308 | Ring | Surface | Square 0-37 | 58f | 137 |
| 13 N 314 | Bead | Surface | Square 0-37 | 59m | 137 |
| 13 N 315 | Stump-based cup | I, Pits | Pit B | 71a, 86j | 124 |
| 13 N 338 | Bead | II | Locus 11, Floor 1 | 59 n | 121 |
| 13 N 342 | Bead | Surface | Square 0-37 | 590 | 137 |
| 13 N 343 | Stone bowl | Surface | Square 0-37 | 57c | 137 |
| 13 N 372 | Beads | I, Burials | Burial 25 | 62a | 130 |
| 13 N 373 | Jar | I, Burials | Burial 25 | 61d, 87f | 130 |
| 13 N 374 | Bottle | I, Burials | Burial 25 | 61e, 87e | 130 |
| 13 N 375 | Jar | I, Burials | Burial 25 | 61f, 87g | 130 |
| 13 N 376 | Bowl | I, Burials | Burial 25 | 61b, 87c | 131 |
| 13 N 377 | Glass bottle | I, Burials | Burial 24 | 67a | 135 |

EXCAVATIONS AT NIPPUR: KASSITE BUILDINGS IN AREA WC-I
Concordance of Catalogue Numbers, Levels, and Loci (cont.)

| Catalogue <br> Number | Object | Level | Findspot | Plate | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13 N 388 | Jar | I, Burials | Burial 25 | 61c, 87d | 131 |
| 13 N 389 | Ring | I, Burials | Burial 25 | 58 i | 131 |
| 13 N 390 | Ring | I, Burials | Burial 25 | 58j | 131 |
| 13 N 391 | Beads | I, Burials | Burial 25 | 61 a | 131 |
| 13 N 403 | Bowl | II, Foundation | Locus 83, fill | 69e, 74b | 121 |
| 13 N 404 | Goblet | II, Foundation | Locus 83, fill | 69 e | 121 |
| 13 N 408 | Animal figurine | I, Pits | Pit C | 56a | 129 |
| 13 N 412 | Seal impression | 1, Architectural remains | Locus 10, above Floor 1 | 91c | 123 |
| 13 N 414 | Spindle whorl | II, Foundation | Locus 14, fill | 57d | 119 |
| 13 N 428 | Bead | III | Locus 6, top of mudbrick | 59p | 114 |
| 13 N 448 | Jar | I, Burials | Burial 28 | 62c, 88e | 131 |
| 13 N 450 | Goblet | III/II, Foundation | Locus 7, Floor 1/Locus 13, fill | 69 h | 119 |
| 13 N 451 | Bowl | III/II, Foundation | Locus 7, Floor 1/Locus 13, fill | 69h | 119 |
| 13 N 452 | Bowl | III/II, Foundation | Locus 7, Floor 1/Locus 13, fill | 69h | 119 |
| 13 N 453 | Bowl | II, Foundation | Locus 13, fill | 69h, 73f | 119 |
| 13 N 476 | Bead | II, Foundation | Locus 14, fill | 59 q | 119 |
| 13 N 477 | Bead | III | Locus 6, above Floor 3 | 59 r | 113 |
| 13 N 482 | Bowl | III/II, Foundation | Locus 7, Floor 1/Locus 13, fill | 69d | 119 |
| 13 N 483 | Bowl | I | Burial 30 | 62d, 88b | 131 |
| 13 N 484 | Goblet | I | Pit B | 70k, 86e | 124 |
| 13 N 485 | Jar | I | Pit B | 701 | 124 |
| 13 N 486 | Goblet | I | Pit B | 701, 86f | 124 |
| 13 N 488 | Cylinder seal | III | Locus 6, above Floor 3, in K/P doorway | $89 \mathrm{e}-\mathrm{f}$ | 114 |
| 13 N 491 | Statuette | III/II | Pit O | 56 b | 118 |
| 13 N 497a-b | Beads | III | Locus 6, above Floor 3, in K/P doorway | 59s-t | 114 |
| 13 N 506 | Indus seal | III | Locus 6, Floor 3 | 89a-d | 113 |
| 13 N 509 | Goblet | III/II | Pit O | 69f, 79z | 118 |
| 13 N 510 | Goblet | III/II | Pit 0 | 69f, 79 t | 118 |
| 13 N 511 | Goblet | III/II | Pit 0 | 69f | 118 |
| 13 N 512 | Bowl | III/II | Pit 0 | 69f, 73m | 118 |
| 13 N 513 | Bowl | III/II | Pit O | 69f, 76i | 118 |
| 13 N 514 | Bowl | III/II | Pit O | 69f, 73k | 119 |
| 13 N 515 | Bowl | III/II | Pit 0 | 69f, 76f | 119 |
| 13 N 516 | Bowl | III/II | Pit 0 | 69f, 76 e | 119 |
| 13 N 520 | Goblet | I, Burials | Burial 30 | 63b, 88c | 131 |
| 13 N 521a-b | Beads | I, Burials | Burial 30 | 63a | 132 |
| 13 N 522 | Bowl | III | Locus 12, Floor 3 | 68d, 72 f | 115 |
| 13 N 523 | Bowl | III | Locus 12, Floor 3 | 68d, 75d | 115 |
| 13 N 556 | Seal impression | I | Pit B | 91 g | 124 |

Concordance of Catalogue Numbers, Levels, and Loci (cont.)

| Catalogue Number | Object | Level | Findspot | Plate | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13 N 564 | Tablet | I | Pit B | 94b | 124 |
| 13 N 573 | Tablet | I, Pits | Pit B | 94 c | 124 |
| 13 N 592 | Seal impression | III/II or I | Pit O or B | $90 \mathrm{a}-\mathrm{c}$ | 124 |
| 14 N 1 | Female figurine | Dump | - | 56 c | 137 |
| 14 N 2 | Female figurine | Dump | - | 56d | 137 |
| 14 N 3 | Bead | III | Locus 12, Floor 3, near Wall H | 59u | 114 |
| 14 N 4 | Button | Surface | Square O-36 | 59v | 136 |
| 14 N 5 | Spinner | Surface | Square O-36 | 57e | 136 |
| 14 N 6 | Cylinder seal | III | Locus 7, above Floor 3 | 89g-h | 114 |
| 14 N 8a-d | Knife | I, Burials | Burial 28 | 62b | 131 |
| 14 N 10 | Bead | Surface | Square P-36 | 59w | 136 |
| 14 N 12a-b | Earrings | I, Burials | Burial 40 | 58g-h | 135 |
| 14 N 15a-c | Fittings | I, Burials | Burial 42 | 67b-c | 136 |
| 14 N 16 | Spool | I, Pits | Pit B | 57 f | 125 |
| 14 N 17 | Animal figurine | I, Pits | Pit B | 56e | 125 |
| 14 N 19 | Cylinder seal | I, Pits | Pit B | 92f-h | 125 |
| 14 N 20 | Bead | I, Pits | Pit B | 59x | 125 |
| 14 N 33 | Cylinder seal | II, Foundation | Locus 28, fill | 91e-f | 120 |
| 14 N 34 | Whetstone | III | Locus 12, above Floor 3 in corner of K/P and T | $56 f$ | 115 |
| 14 N 35 | Pin | II | Locus 33, above Floor 1 | 58m | 123 |
| 14 N 36 | Jar | II | Locus 31, Floor 1 | 70b, 82b | 121 |
| 14 N 37 | Bowl | II | Locus 33, above Floor 1 | 69k, 74 j | 123 |
| 14 N 42 | Ring | II | Locus 31, Floor 1 | 58k | 122 |
| 14 N 43 | Ring | II | Locus 31, above Floor 1 | 59y | 122 |
| 14 N 45a-c | Bracelets | I, Burials | Burial ? Square N-38 | 66b | 134 |
| 14 N 52 | Cylinder seal | II, Foundation | Locus 81, fill under Wall AJ | 90h-j | 120 |
| 14 N 55 | Female figurine | III | Wall D | 56j | 118 |
| 14 N 56 | Bowl | II | Locus 31, above Floor 1 | 69i, 77c | 122 |
| 14 N 57 | Bowl | II | Locus 31, above Floor 1 | 69j, 77d | 122 |
| 14 N 58 | Lid | II | Locus 31, above Floor 1 | $70 \mathrm{a}, 78 \mathrm{i}$ | 122 |
| 14 N 59 | Jar | II | Locus 31, above Floor 1 | 70c, 82d | 122 |
| 14 N 63 | Bowl | II | Locus 31, Floor 1 | 691, 74 g | 122 |
| 14 N 64 | Bowl | II | Locus 27, on and above Floor 1 | 69m, 74d | 121 |
| 14 N 65 | Bead | II, Foundation | Locus 45, fill | 59 z | 120 |
| 14 N 66 | Earring | II, Foundation | Locus 45, fill | 581 | 120 |
| 14 N 67 | Bowl | I, Pits | Pit F | 70f, 86b | 129 |
| 14 N 68 | Bowl | 1, Pits | Pit F | 70e, 86c | 129 |
| 14 N 69 | Bowl | 1, Pits | Pit B | 71b, 86h | 125 |
| 14 N 70 | Bowl | II, Foundation | Locus 44, fill above Wall H | 69g, 78e | 120 |

Concordance of Catalogue Numbers, Levels, and Loci (cont.)

| Catalogue Number | Object | Level | Findspot | Plate | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 14 N 81 | Seal impression | II | Locus 31, Floor 1 | 91h-i | 122 |
| 14 N 105 | Copper bands | I, Burials | Burial 58 | 63 c | 132 |
| 14 N 113 | Palette | I, Burials | Burial 61 | 64a | 132 |
| 14 N 114 | Jar | I, Burials | Burial 61 | 63d, 64a, 88g | 132 |
| 14 N 115 | Incense burner | I, Burials | Burial 61 | 64a-b, 88h | 132 |
| 14 N 116 | Seal impression | Dump | Pit J (?) | $91 \mathrm{a}-\mathrm{b}$ | 137 |
| 14 N 117 | Seal impression | II | Locus 31, above Floor 1 | $91 \mathrm{j}-\mathrm{k}$ | 122 |
| 14 N 118 | Bead | III | Locus 52, above Floor 3 | 59aa | 115 |
| 14 N 129 | Beads | I, Burials | Burial 61 | 64a, c | 132 |
| 14 N 130 | Beads | I, Burials | Burial 61 | 64a, 65b | 133 |
| 14 N 131 | Beads | I, Burials | Burial 61 | 64a, 65a | 133 |
| 14 N 132 | Beads | I, Burials | Burial 61 | 64a, 65c | 133 |
| 14 N 133 | Bowl | I, Pits | Pit L | $70 \mathrm{~g}, 86 \mathrm{a}$ | 130 |
| 14 N 141 | Female figurine | III | Locus 53, above Floor 1 | 56 g | 115 |
| 14 N 151 | Jar | III | Locus 56, Burial 68, probably cut from Floor 1 | 681, 83f | 116 |
| 14 N 153 | Button-based cup | III | Locus 57, Burial 69, probably cut from Floor 1 | 68m, 80f | 116 |
| 14 N 158 | Bowl | III | Locus 57, Floor 2 | 68f, 76b | 116 |
| 14 N 159 | Female figurine | Dump | Pit J (?) | 56h | 137 |
| 14 N 165 | Seal impression | I, Pits | Pit N | 90 d | 130 |
| 14 N 170 | Bird figurine | III | Locus 54, Floor 1, in drain | 56 i | 115 |
| 14 N 173 | Bead | III | Locus 59, in mudbrick packing | 59bb | 118 |
| 14 N 174 | Beads | I, Burials | Burial 71 | 66a (left) | 134 |
| 14 N 175 | Iron pins | I, Burials | Burial 71 | 66a (right) | 134 |
| 14 N 180 | Bowl | III | Locus 59, Burial 72, above Floor 3, probably cut from Floor 2 | 68e, 76a | 118 |
| 14 N 181 | Goblet | 1, Pits | Pit $N$ | 70i, 86g | 130 |
| 14 N 182 | Ring stand | I, Pits | Pit N | 70h, 86k | 130 |
| 14 N 183 | Stump-based cup | 1, Pits | Pit N | 70j, 86d | 130 |
| 14 N 193 | Cylinder | I, Pits | Pit K | 56k | 129 |
| 14 N 199 | Goblet | III | Locus 15, Floor 3, feature 1 | 69a, 790 | 115 |
| 14 N 201 | Tablet | 1, Pits | Pit B | 95a | 125 |
| 14 N 202 | Tablet | 1, Pits | Pit B | 95 b | 125 |
| 14 N 203 | Tablet | 1, Pits | Pit B | 95c | 125 |
| 14 N 204 | Tablet | I, Pits | Pit B | 95d | 125 |
| 14 N 205 | Tablet | I, Pits | Pit B | 95 e | 125 |
| 14 N 206 | Tablet | I, Pits | Pit B | 958 | 125 |
| 14 N 207 | Tablet | I, Pits | Pit B | 96 a | 125 |
| 14 N 208 | Tablet | 1, Pits | Pit B | 96 b | 126 |
| 14 N 209 | Tablet | 1, Pits | Pit B | 96 c | 126 |
| 14 N 210 | Tablet | 1, Pits | Pit F | 96 d | 129 |

Concordance of Catalogue Numbers, Levels, and Loci (cont.)

| Catalogue Number | Object | Level | Findspot | Plate | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 14 N 211 | Tablet | I, Pits | Pit F | 96 e | 129 |
| 14 N 212 | Tablet | I, Pits | Pit F | 96 f | 129 |
| 14 N 213 | Tablet | I, Pits | Pit F | 96 g | 129 |
| 14 N 214 | Tablet | I, Pits | Pit F | 97a | 129 |
| 14 N 215 | Tablet | I, Pits | Pit F | 97 b | 129 |
| 14 N 216 | Tablet | II, Foundation | Locus 81, fill | 97 c | 121 |
| 14 N 217 | Tablet | II, Foundation | Locus 81, fill | 97 d | 121 |
| 14 N 218 | Tablet | II, Foundation | Locus 81, fill | 97e | 121 |
| 14 N 219 | Tablet | I, Pits | Pit B | 97f | 126 |
| 14 N 220 | Tablet | I, Pits | Pit B | 97g | 126 |
| 14 N 221 | Tablet | I, Pits | Pit B | 98a | 126 |
| 14 N 222 | Tablet | I, Pits | Pit B | 90f, 98b | 126 |
| 14 N 223 | Tablet | I, Pits | Pit B | 98c | 126 |
| 14 N 224 | Tablet | I, Pits | Pit B | 98 d | 126 |
| 14 N 225 | Tablet | I, Pits | Pit B | 98 e | 126 |
| 14 N 226 | Tablet | I, Pits | Pit B | 98 f | 126 |
| 14 N 227 | Tablet | I, Pits | Pit B | 98g | 126 |
| 14 N 228 | Tablet | II | Locus 31, above Floor 1 | 98h | 123 |
| 14 N 229 | Tablet | II, Foundation | Locus 34, fill | 98i | 120 |
| 14 N 231 | Tablet | Dump | Locus 43 or 44 (?) | 99a | 138 |
| 14 N 232 | Tablet | 1, Pits | Pit B | 99b | 126 |
| 14 N 233 | Tablet | I, Pits | Pit I | 99c | 129 |
| 14 N 234 | Tablet | 1, Pits | Pit B | 99d | 126 |
| 14 N 235 | Tablet | I, Pits | Pit B | 99 e | 126 |
| 14 N 236 | Tablet | I, Pits | Pit B | 99 f | 126 |
| 14 N 237 | Tablet | I, Pits | Pit B | 99g | 127 |
| 14 N 238 | Tablet | I, Pits | Pit B | 99h | 127 |
| 14 N 239 | Tablet | I, Pits | Pit B | 100a | 127 |
| 14 N 240 | Tablet | I, Pits | Pit B | 100b | 127 |
| 14 N 241 | Tablet | I, Pits | Pit B | 100c | 127 |
| 14 N 242 | Tablet | I, Pits | Pit B | 100d | 127 |
| 14 N 243 | Tablet | I, Pits | Pit B | 101a | 127 |
| 14 N 244 | Tablet | I, Pits | Pit B | 92a, 101b | 127 |
| 14 N 245 | Tablet | I, Pits | Pit B | 101c | 127 |
| 14 N 246 | Tablet | I, Pits | Pit B | 101d | 127 |
| 14 N 247 | Tablet | 1, Pits | Pit B | 90g, 102a | 127 |
| 14 N 248 | Tablet | 1, Pits | Pit B | 92b, 102b | 127 |
| 14 N 249a-b | Tablet | 1, Pits | Pit B | 92c | 128 |
| 14 N 250 | Tablet | I, Pits | Pit B | 90e, 102c | 128 |
| 14 N 251 | Tablet | 1, Pits | Pit B | 103a | 128 |
| 14 N 253 | Tablet | I, Pits | Pit B | 103b | 128 |

Concordance of Catalogue Numbers, Levels, and Loci (cont.)

| Catalogue Number | Object | Level | Findspot | Plate | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 14 N 254 | Tablet | I, Pits | Pit B | 103c | 128 |
| 14 N 255 | Tablet | I, Pits | Pit B | 103d | 128 |
| 14 N 256 | Tablet | I, Pits | Pit B | 103 e | 128 |
| 14 N 257 | Tablet | I, Pits | Pit B | 103f | 128 |
| 14 N 258 | Tablet | I, Pits | Pit B | 103 g | 128 |
| 14 N 259a-c | Tablet | I, Pits | Pit B | 103h-j | 128 |
| 14 N 260a-p | Tablet | I, Pits | Pit B | 104a-p | 128 |
| 14 N 261 | Tablet | I, Pits | Pit B | 104q | 128 |
| 14 N 262 | Tablet | II | Locus 33, above Floor 1 | 104r | 123 |
| 14 N 263 | Tablet | II | Locus 33, above Floor 1 | 105a | 123 |
| 14 N 264 | Tablet | II, Foundation | Locus 47, fill | 105b | 120 |
| 14 N 269 | Tablet | I, Pits | Pit L | 105c | 130 |
| 14 N 281 | Cloth impression | III | Locus 59, Floor 4 | 92 e | 117 |
| 14 N 292 | Incense burner | I, Pits | Pit B | $71 \mathrm{c}-\mathrm{d}$ | 128 |
| 14 N 299 | Bowl | III | Locus 12, Floor 4, in K/P doorway | 75 b | 114 |
| 14 N 303 | Beads | III | Locus 59, Floor 4 | 561 | 117 |
| 14 N 304 | Pin | III | Locus 59, Floor 4 | 58 n | 117 |
| 14 N 305 | Bowl | III | Locus 58, Burial 75, above Floor 3, probably cut from Floor 2 | 68b, 75e | 117 |
| 14 N 307 | Bowl | III | Locus 54, Floor 1, in drain | 68i, 72 m | 115 |
| 14 N 308 | Bowl | III | Locus 54, Floor 1, in drain | 68c, 76c | 116 |
| 14 N 310 | Bowl | II | Locus 27, on and above Floor 1 | 69n, 74a | 121 |
| 14 N 318 | Bead | III | Locus 58, Floor 2 | 59 cc | 117 |
| 14 N 329 | Seal impression | III | Locus 7, above Floor 3 | 92d | 114 |
| 14 N 330 | Seal impression | II | Locus 31, Floor 1 | 91d | 122 |
| 14 N 336 | Goblet | III | Locus 58, Floor 3 | 69b, 79m | 116 |
| 14 N 337 | Button-based cup | III | Locus 58, Floor 3 | 69c, 80j | 116 |
| 14 N 338 | Lid | III | Locus 58, Floor 3 | 68k, 78h | 116 |
| 14 N 357 | Bowl | III | Locus 58, Floor 2 | 68h, 72 j | 117 |
| 14 N 358 | Stopper | III | Locus 59, Floor 4 | 57 g | 117 |
| 14 N 362a-b | Beads | III | Locus 58, above Floor 3 | 59dd-ee | 117 |
| 14 N 363 | Animal figurine | III | Locus 58, above Floor 3 | 57h | 117 |
| 14 N 368 | Female figurine | III | Locus 6, above Floor 3 | 56 m | 113 |
| 14 N 370 | Bowl | III | Locus 58, Floor 3 | 68g, 72d | 116 |
| 14 N 371 | Lid | III | Locus 58, Floor 3 | 68j, 78 g | 116 |
| 14 N 374 | Disk | III | Locus 6, Floor 3 | 57i | 113 |
| 14 N 393 | Bead | III | Locus 58, Floor 3 | 59ff | 116 |
| 14 N 398 | Flint blade | II, Foundation | Locus 81, fill | 56 n | 121 |

Plate 1


Map of Mesopotamia Showing Position of Nippur

Plate 2


Topographic Map of Nippur with Area WC Outlined

Plate 3




Enlargement of Aerial Photograph of Nippur, Showing Area WC (Oriented to the North)

## Plate 6



Ancient City Plan of Nippur Drawn on Clay Tablet
(Courtesy of Hilprecht Sammlung, Jena, Germany)

Plate 7


Ancient City Plan of Nippur Superimposed on Modern Topographic Map of the Site (Drawing by John C. Sanders)

## Plate 8


(a) Kite Photograph of Area WC

(b) Southeastern Section of Trench Through City Wall, Showing Its Relationship to the Kassite Houses in Area WC-1

Plate 9


Plan of WC-1, Showing Relationship of Level III Building to Baulks, and Stippling to Indicate Areas Actually Excavated

## Plate 10



Aerial Photograph of Area WC-1 at the End of the Thirteenth (1975) Season of Excavations

Plate 11


Plan of Level III at Floors 5-4, with Level IV (Locus 66)

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Plate 12

(a) General View of Area WC-1 from Northwest, Locus 6 in Center, Most Walls Are of Level III

(b) View of Vertical Exposure Through Locus 6 Seen from North, with Wall D on the Right, Deliberate Clay Fill at Bottom, Mudbrick Packing and Level II Walls Above

(a) WC-1, Locus 54 from Southwest, Courtyard with Benches Around Walls

(b) General View of WC-1 from North, with Floor 2 of Level III Exposed in Locus 54

SECTION A


SECTION B


Reconstructed Sections Through Kassite Buildings in Area WC-1


Plan of Level III at Floor 3

Plate 16


Plan of Level III at Floor 2

Plate 17


Plan of Level III at Floor 1

Plate 18


Plan of Level II, Foundations


Plan of Level II, Superstructure

Plate 20


Plan of Level I

(a) Locus 66 and Wall BG of Level IV, Above Wall BG Is Wall E and Doorway Connecting Locus 7 and Locus 58 (Level III)

(b) Level III, Locus 6, Repair on Wall H

Plate 22

(a) Locus 6, Detail of Repair on Wall H, Northwestern Buttress Cut Back to Show the Filling in the Floor 3 Doorway

(b) Locus 6, East Corner, Wall H and Wall AZ, the Foundation of Wall H Abuts the

Plastered Face of Wall AZ; Its Rebuilt Superstructure Cuts into Wall AZ

(a) Locus 6, Floor 1, Blocked Doorway in Wall K/P

(b) Level III, Locus 58, Doorway in Wall E, Showing Floor 4 (Bottom), Floor 3 (Top of Sill), the Clayey Deliberate Fill, Floor 2 (Tag), and Mudbrick Packing (at Top)

Plate 24

(a) Locus 58, West Corner, Showing that Wall T' (Left) Was Built Subsequent to and Not Bonded into Wall E (Right)

(b) Locus 58, East Corner, with Objects in Situ

Plate 25

(a) Locus 58, Southeast End, Burials 74 (Right) and 75 (Left)

(b) Locus 58, Burial 75, with Bowl Covering Skeleton

Plate 26

(a) Locus 12, Center Foreground, from Southwest, Showing the Effect of Cuts B and O on Wall AB (Left), Extreme Left, Locus 25 with Its Unexcavated Block of Ancient Material

(b) Locus 12 from West, Wall K with "Windows" Cut into Repair to Reveal Original Cut-Back Wall; in Background, Locus 6

(a) Locus 12, Detail of Repair to Wall P, from Northeast

(b) Locus 12, Doorway in Wall AB Damaged by Pit O; North-Arrow on Floor 3, Remains of Blocking Behind Meter-Stick, Locus 25 in Background; on Right, Walls AB and H, Showing Original Bonding (Below); at Floor 3 Wall H Has Been Cut Back and Its New Repair Face Abuts Wall AB

Plate 28

(a) Level III, Locus 63, Corner of Wall H (Right) and BD (Left), Showing Damage Caused to Wall AB by Pit B

(b) Level III, Locus 30, General View from West/Southwest, with Columns of Stratigraphy Left Against Walls BC and X

Plate 29

(a) Locus 30, West Corner; on Right, Doorway in Wall BC to Locus 59; on Left, Doorway in Wall H to Locus 25

(b) Locus 30, Doorway in Wall R, Showing Original Width at Floors 4-3 and Blocking and the Narrowed Doorway at Floor 2, Top Tag

Plate 30

(a) Level III, Locus 59, General View from South

(b) Locus 59, Burial 72, Infant

(a) Level III, Locus 15, Doorway in Wall R, Mudbrick Bin on Floor 3

(b) Locus 15, Burial 29, Before Opening

(c) Locus 15, Burial 29, Opened

Plate 32

(a) Locus 15, Burial 31, Infant

(b) Level III, Locus 56, Burial 68, Infant

(a) Locus 57, Burial 69, Child

(b) Locus 15, Northeast End of Room, Intrusive Pit C Visible at End of Room

Plate 34

(a) Level III, Locus 54, East Corner, Bench Associated with Floor 2; to Left, Floor 2 and Its Mudbrick Base Are Intact; on the Right, Both Have Been Removed

(b) Level III, Locus 54, from Northwest, Floor 1 Baked Brick Pavement, Level III Walls Were Not Yet Exposed When the Photograph Was Taken (cf. pl. 17); the Visible Walls Are

Walls AQ (Right) and AR (Rear) of Level II


Level III, Locus 54, South Corner, and Locus 56, West Side, Floor 1 Baked Brick Pavement; Walls AQ (Rear) and AR (Left) from Level II

(a) Locus 54, North Corner, Drain Associated with Floor 1; Intake of the Drain Consisted of a Bed of Sherds and Bitumen

Sloping Down from the Level of the Floor

(b) Level III, Locus 53, North Corner, Drains in Wall AY Doorway; the Two Lowest Courses of Baked Brick Are the Side Walls of the Drain Associated with Floor 2; the Upper Courses Are of the Drain Associated with Floor 1

(a) Locus 56, Horizontal Drain Associated with Floor 2; Baked Bricks in Baulk at Rear Are Part of the Pavement that Ran through the Doorway of Wall AZ and Along the Southwestern Edge of Locus 56 at Floor 1; the North-Arrow Inaccurately Points North/Northwest

(b) Level III, Locus 61a, Mudbrick Socle Built Along the Southwestern Face of Wall T; Wall B of Level II, on Right,

Cutting Down into the Socle

## Plate 38


(a) Pottery Fill in Pit O, Intermediate Between Levels III and II, Cutting Locus 12;

Wall H on Left and Wall K/P at Rear

(b) Close-Up of Pottery Fill in Pit O, Intrusive into Level III, Locus 12

Plate 39

(a) Locus 12, Level III; Wall G of Level II (Top Tag) Above Jamb of Doorway in Wall AB, Damaged by Pit O, to Right, Wall H

(b) Level II Foundation Wall, AQ, Dividing Loci 45 and 82, from Southeast

(a) Level II, Locus 18, Wall V at Rear and Wall S on Right; Bricks in Center Are Part of the Mudbrick Packing of Level III, Locus 30; the Foundation Trench for Wall S Cuts the Mudbrick Packing

(b) Locus 18, East Corner, Detail Showing the Lowest Six Courses of Wall AW (Level II) Abutting the Face of Wall R (Level III) and the Upper Courses Stepping Out and Over the Top of the Earlier Wall

(a) Level II, Locus 83, Wall G, at Left, with Pivot Stone for Door of Locus 42 in Pit Cutting Level III, Locus 6 Mudbrick Packing; the Cut and Pivot Stone Are Related to a Doorway Above in Wall G

(b) Level II, Locus 40 from Northeast, with Wall AN, Right, Wall C, Rear, and Wall AO, Left; Wall D and the Mudbrick Packing of Locus 6, Level III, in Center; Foundation Trench for Wall AO on Left;

Pit I, from Level I, at Center Right

Plate 42

(a) Level II, Loci 41 and 48, Bath Suite, from West; Intrusive Level I

Vertical Drain in Upper Right-Hand Corner

(b) Level II, Locus 48, from Northwest, Wainscoting Around Walls of Room; Wall AP and the Sill of Doorway in Foreground

(a) Level II, Loci 27 (Rear), 29 (Center), and 35 (Foreground), from Northwest

(b) Locus 27, Doorway in Wall S, from Northwest

(a) Loci 31 (Center) and 32 (Foreground), from Southwest; Wall Y in Rear, Wall AE in Foreground, Wall AK at Left, Wall AJ and Horizontal Drain in Left Center

(b) Loci 31 and 36 (from the Southeast), Divided by Wall AJ, with an Associated Door Pivot in Rear, Wall AK; Pit G from Level I at Right Rear (Tag)

Plate 45

(a) Locus 33, from South/Southwest, with Foundation Trenches

(b) Locus 33, General View from Northeast at Floor 1; Intrusions from Level I Include Pit F, Right Foreground; Burial 49 in Center Rear; Cut for Burial 28, Upper Left Corner of Room; and Pit H Cutting the Center of the Packing

## Plate 46


(a) Loci 28, 32, and 34, General View from West/Northwest

(b) Locus 28 and the Southeastern End of Locus 32, with Oven

Plate 47

(a) General View of WC-1, from Southwest, with Level II, Locus 46 in Foreground; on Left, Wall AO with Its Baked Brick Refacing and Associated Horizontal Drain

(b) Burial 25, First Millennium B.C. Double-Jar Burial from Level I

Plate 48

(a) Burial 28, First Millennium B.C. Single-Jar Burial from Level I

(b) Burial 30, First Millennium(?) Double-Jar Burial from Level I, Cutting into Pit O; Note the Kassite Goblet to the Northwest of the Two Burial Jars,

Probably a Chance Inclusion

(c) Burial 58, First Millennium Double-Jar Burial from Level I

Plate 49


Burials 1-11, Parthian

Plate 50


Burial 12


Burial 13


Burial 15


Burial 16


Burial 14


Burial 17

Plate 51


Burial 18


Burial 21

Burial 19

Burial 22


Burial 20


Burial 23

## Plate 52



Burial 24


Burial 27


Burial 32


Burial 26


Burial 34

Plate 53



Burial 42

Burial 40


Burial 44

Burials 40, 42, 44, Parthian

Plate 54


Burial 45


Burial 46


Burial 47


Burial 48

Burials 45-48, Parthian


Burial 55


Burial 56

Burials 55-56, Parthian

Plate 56


Baked Clay and Stone Objects from Various Loci in WC-1. Scale 2:3


Baked Clay and Stone Objects from Various Loci in WC-1. Scale 2:3


Plate 59


Stone, Faience, and Shell Beads from WC-1. Scale 1:1

Plate 60


Type Sheet, Early First Millennium Beads from WC-1. Scale 1:1

1. From $14 \times 129$
2. From 14 N 174
3. From 13 N 391
4. From 14 N 129
5. From 14 N 174
6. From 13 N 521
7. From 14 N 130
8. From 14 N 131
9. From 13 N 391
10. From 13 N 391
11. From 13 N 391
12. From 14 N 130
13. From 14 N 129
14. From 13 N 391
15. From 13 N 391 16. From 14 N 129 17. From 14 N 174 18. From 14 N 129 19. From 14 N 132 20. From 13 N 372 21. From 14 N 30

## 22. From 14 N 129

23. From 14 N 174 24. From 14 N 174
24. From 14 N 130 26. From 14 N 174 27. From 14 N 131 28. From 13 N 372
25. From $14 \times 129$ 30. From 14 N 174 31. From 14 N 174 32. From 14 N 129 33. From 14 N 129 34. From 14 N 174
26. From 14 N 174
27. From 14 N 174
28. From 14 N 129 38. From 14 N 174 39. From 14 N 130 40. From 14 N 132 41. From 14 N 174


Bottle

Plate 62


Burial 25


Grave Goods, Early First Millennium: Burials 25, 28, and 30


Grave Goods, Early First Millennium: Burials 30, 58, and 61

Plate 64


b Incense Burner 14 N 115
a Grave Goods Burial 61

Grave Goods, Early First Millennium: Burial 61

Plate 65

a Beads 14 N 131

b Beads 14 N 130

Burial 61

c Beads 14 N 132

Grave Goods, Early First Millennium: Burial 61

Plate 66



c Copper Grommets 14 N 15 b

Plate 68


$(a-c)$ Registered Pottery from Level III, Kassite; ( $d-h$ ) Registered Pottery from between Levels III and II and Level II Foundations, Kassite; (i-n) Registered Pottery from Level II, Kassite

Plate 70

( $a-c$ ) Registered Pottery from Level II, Kassite; ( $d-l$ ) Registered Pottery from Level I,
Kassite Holdovers in First Millennium or Later Context


13 N 315
a


14 N 69
b


14 N 292
c


14 N 292
d

Plate 72. Pottery Profiles, Kassite, Levels III and III/II: Wavy-Sided Bowls*

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :---: | :---: | :---: | :---: |
| 72a | D 343 | III | Locus 15, fill above Floor 5 |
| 72b | D 343 | III | Locus 15, fill above Floor 5 |
| 72c | D 68 | III | Locus 7, between Floors 2 and 4 |
| $72 \mathrm{~d}(68 \mathrm{~g}=$ photograph $)$ | 14 N 370 | III | Locus 58, Floor 3 |
| 72 e | D 706 | III | Locus 58, Floor 3 |
| 72 f (68d $=$ photograph ) | 13 N 522 | III | Locus 12, Floor 3 |
| 72 g | D57 | III | Locus 12, fill above Floor3 |
| 72h | D 716 | III | Locus 58, above and on Floor 3 |
| 72 i | D 314 | III | Locus 15, Floor 3 |
| $72 \mathrm{j}(68 \mathrm{~h}=$ photograph $)$ | 14 N 357 | III | Locus 58, Floor 2 |
| 72k | C 532 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 721 | C 400 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| $72 \mathrm{~m}(68 \mathrm{i}=$ photograph $)$ | 14 N 307 | 1II/II | Locus 54, Floor 1, drain in Wall AC door |
| 72 n | C 515 | III/II | Locus 6, above Floor 1 |
| 720 | C 515 | III/II | Locus 6, above Floor 1 |
| 72p | C 390 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |

*Two kinds of numbers appear under the heading "Catalogue/Lot Number." For registered vessels, only their catalogue numbers (e.g., 13 N 315 ) are used. Unregistered vessels, generally incomplete or unrestorable, are identified by the numbers of the pottery lots in which they were collected (e.g., D 343). The prefixes of the lot numbers, $C$ and $D$, refer to the thirteenth and fourteenth seasons respectively.


Pottery Profiles, Kassite, Levels III and III/II: ( $a-p$ ) Wavy-Sided Bowls. Scale 2:5

Plate 73. Pottery Profiles, Kassite, Levels III and III/II: Wavy-Sided Bowls

| Plate Number | Cataloguel Lot Number | Level | Findspot |
| :---: | :---: | :---: | :---: |
| 73a | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 73b | C 1302 | III/II | Pit 0 |
| 73c | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 73d | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 73 e | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 73f ( $69 \mathrm{~h}=$ photograph ) | 13 N 453 | II | Locus 13, foundation fill |
| 73 g | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 73h | C 1302 | III/II | Pit O |
| 73 i | C 1302 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 73j | C 1302 | III/II | Pit O |
| 73k (69f = photograph $)$ | 13 N 514 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 731 | C 508/531 | III/II | Pit O |
| 73m (69f = photograph ) | 13 N 512 | III/II | Pit 0 |
| 73n | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 730 | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |


m

n


Pottery Profiles, Kassite, Levels III and III/II: (a-o) Wavy-Sided Bowls. Scale 2:5

Plate 74. Pottery Profiles, Kassite, Level II: Wavy-Sided Bowls

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| $74 \mathrm{a}(69 \mathrm{n}=$ photograph $)$ | 14 N 310 | II | Locus 27, above Floor 1 |
| $74 \mathrm{~b}(69 \mathrm{e}=$ photograph $)$ | 13 N 403 | II | Locus 83, foundation fill |
| 74 c | C 540 | II | Locus 4, foundation fill |
| $74 \mathrm{~d}(69 \mathrm{~m}=$ photograph $)$ | 14 N 64 | II | Locus 27, above Floor 1 |
| 74 e | D 345 | II | Locus 27, above and on Floor 1 |
| 74 f | C 399 | II | Locus 5, above and on Floor 1 |
| $74 \mathrm{~g}(691=$ photograph $)$ | 14 N 63 | II | Locus 31, Floor 1 |
| 74 h | D 92 | II | Locus 31, Floor 1 |
| 74 i | D 78 | II | Locus 27/29, above Floor 1 |
| $74 \mathrm{j}(69 \mathrm{k}=$ photograph $)$ | 14 N 37 | II | Locus 33, above Floor 1 |
| 74 k | C 510 | II | Locus 13, foundation fill |

Plate 74

b

d

g



Pottery Profiles, Kassite, Level II: ( $a-k$ ) Wavy-Sided Bowls. Scale 2:5

Plate 75. Pottery Profiles, Kassite, Level III: Straight-Sided Bowls

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 75 a | D 343 | III | Locus 15, above Floor 5 |
| 75 b | 14 N 299 | III | Locus 12, Floor 4 |
| 75 c | D 58 | III | Locus 12, above Floor 3 |
| 75 d (68d = photograph) | 13 N 523 | III | Locus 12, Floor 3 |
| 75 e (68b = photograph) | 14 N 305 | III | Locus 58, above Floor 2 (Burial 75) |
| 75 f | D 68 | III | Locus 7, between Floors 2 and 4 |
| 75 g | D 716 | III | Locus 58, above and on Floor 3 |
| 75 h | D 58 | III | Locus 12, above Floor 3 |



Pottery Profiles, Kassite, Level III: ( $a-h$ ) Straight-Sided Bowls. Scale 2:5

Plate 76. Pottery Profiles, Kassite, Levels III and III/II: Straight-Sided Bowls

| Plate Number | Cataloguet Lot Number | Level | Findspot |
| :---: | :---: | :---: | :---: |
| 76a (68e $=$ photograph ) | 14 N 180 | III | Locus 59, cut into fill above, Floor 3; Burial 72 |
| 76 b (68f = photograph) | 14 N 158 | III | Locus 57, Floor 2 |
| 76 c (68c = photograph $)$ | 14 N 308 | III | Locus 54, Floor 1, drain in Wall AC door |
| 76d (68a $=$ photograph $)$ | 13 N 74 | III | Locus 7, Floor 1 |
| 76 e (69f = photograph) | 13 N 516 | 11I/II | Pit O |
| 76 f (69f $=$ photograph ) | 13 N 515 | III/II | Pit O |
| 76 g | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 76h | C 1302 | III/II | Pit 0 |
| $76 \mathrm{i}(69 \mathrm{f}=$ photograph $)$ | 13 N 513 | 1IL/I | Pit O |
| 76 j | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 76k | C 508/531 | IIL/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 761 | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 76 m | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| $76 n$ | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |

Plate 76


Pottery Profiles, Kassite, Levels III and III/II: (a-n) Straight-Sided Bowls. Scale 2:5

## Plate 77. Pottery Profiles, Level II, Kassite: Straight-Sided Bowls; Kassite? or Earlier Holdovers?: Carinated Bowls

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 77 a | D 78 | II | Locus 27/29, above Floor 1 |
| 77 b | D 86 | II | Locus 31, above Floor 1 |
| $77 \mathrm{c}(69 \mathrm{i}=$ photograph $)$ | 14 N 56 | II | Locus 31, above Floor 1 |
| $77 \mathrm{~d}(69 \mathrm{j}=$ photograph $)$ | 14 N 57 | II | Locus 31, above Floor 1 |
| 77 e | D 345 | II | Locus 27, above and on Floor 1 |
| 77 f | D 86 | II | Locus 31, above Floor 1 |
| 77 g | C 1299 | III | Locus 64, Floor 1 |
| 77 h | C 1299 | III | Locus 64, Floor 1 |
| 77 i | D 58 | III | Locus 12, above Floor 3 |
| 77 j | C 390 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 77 k | C 420 | II | Locus 11, above Floor 1 |
| 771 | D 345 | II | Locus 27, above and on Floor 1 |

Plate 77


Pottery Profiles, Kassite, Level II: ( $a-f$ ) Straight-Sided Bowls;
Kassite? or Earlier Holdovers?, Level II: (8-l) Carinated Bowls. Scale 2:5

Plate 78. Pottery Profiles, Kassite, Levels III-II: Thickened-Rim Bowls, Beveled-Rim Bowls, Lids, Jar Stands, and Colander

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 78 a | C 390 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 78 b | C 420 | II | Locus 11, above Floor 1 |
| 78 c | C 503 | II | Locus 42 fill |
| 78 d | D 78 | II | Locus 27/29, above Floor 1 |
| $78 \mathrm{e}(69 \mathrm{~g}=$ photograph $)$ | 14 N 70 | II | Locus 44, deliberate fill |
| 78 f | D 343 | III | Locus 15, above Floor 5 |
| $78 \mathrm{~g}(68 \mathrm{j}=$ photograph $)$ | 14 N 371 | III | Locus 58, Floor 3 |
| $78 \mathrm{~h}(68 \mathrm{k}=$ photograph $)$ | 14 N 338 | III | Locus 58, Floor 3 |
| $78 \mathrm{i}(70 \mathrm{a}=$ photograph $)$ | 14 N 58 | II | Locus 31, above Floor 1 |
| 78 j | D 343 | III | Locus 15, above Floor 5 |
| 78 k | D 350 | III | Locus 60, above and on Floor 4 |
| 78 l | C 503 | II | Locus 42 fill |



Pottery Profiles, Kassite, Levels III-II: ( $a-c$ ) Thickened-Rim Bowls, ( $d-e$ ) Beveled-Rim Bowls, ( $f-i$ ) Lids, ( $j-k$ ) Jar Stands, ( $l$ ) Colander. Scale 2:5

Plate 79. Pottery Profiles, Kassite, Levels IV-II: Goblets

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :---: | :---: | :---: | :---: |
| 79a | D 723 | IV | Locus 66, fill along Wall BG |
| 79b | D 343 | III | Locus 15, fill above Floor 5 |
| 79c | D 343 | III | Locus 15, fill above Floor 5 |
| 79 d | C 1277 | III | Locus 6, fill in foundation trench below Floor 5 |
| 79 e | D 343 | III | Locus 15, fill above Floor 5 |
| 79 f | D 343 | III | Locus 15, fill above Floor 5 |
| 79 g | D 343 | III | Locus 15, fill above Floor 5 |
| 79h | D 324 | III | Locus 15, above Floor 4 |
| 79 i | D 350 | III | Locus 60, above and on Floor 4 |
| 79j | D 348 | III | Locus 60, Floor 3 |
| 79k | D 58 | III | Locus 12, above Floor 3 |
| 791 | D 55 | III | Locus 12, Floor 3 |
| 79 m ( $69 \mathrm{~b}=$ photograph ) | 14 N 336 | III | Locus 58, Floor 3 |
| 79n | D 68 | III | Locus 7, between Floors 2 and 4 |
| 790 (69a $=$ photograph $)$ | 14 N 199 | III | Locus 15, Floor 3 |
| 79p | C 1309 | III | Locus 12, Floor 3 |
| 79q | C 508/531 | 111/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 79r | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 79 s | C 1302 | III/II | Pit O |
| 79 t ( $69 \mathrm{f}=$ photograph ) | 13 N 510 | III/II | Pit O |
| 79 u | C 1302 | III/II | Pit 0 |
| 79v | C 1302 | III/II | Pit O |
| 79w | C 1302 | III/II | Pit O |
| 79x | C 1302 | 1II/II | Pit O |
| 79y | C 1302 | III/II | Pit 0 |
| 79 z (69f $=$ photograph $)$ | 13 N 509 | III/II | Pit O |
| 79aa | C 1302 | 111/II | Pit O |
| 79bb | D78 | II | Locus 27/29, above Floor 1 |
| 79 cc | D 86 | III | Locus 31, above Floor 1 |
| 79dd | D 92 | II | Locus 31, Floor 1 |



Pottery Profiles, Kassite, Levels IV-II: ( $a-d d$ ) Goblets. Scale ca. 1:8

Plate 80. Pottery Profiles, Kassite, Levels III-II: Button-Based Cups

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 80a | D 343 | III | Locus 15, above Floor 5 |
| 80b | D 324 | III | Locus 15, above Floor 4 |
| 80c | C 1294 | III | Locus 6, above Floor 4 |
| 80d | C 1294 | III | Locus 6, above Floor 4 |
| 80 e | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| $80 \mathrm{f}(68 \mathrm{~m}=$ photograph $)$ | 14 N 153 | III | Locus 57 in mudbrick packing, Burial 69 |
| 80 g | C 1302 | III/II | Pit O |
| 80 h | D 78 | II | Locus 27/29, above Floor 1 |
| 80 i | D 343 | III | Locus 15, above Floor 5 |
| $80 \mathrm{j}(69 \mathrm{c}=$ photograph $)$ | 14 N 337 | III | Locus 58, Floor 3 |
| 80 k | D 57 | III | Locus 12, above Floor 3 |
| 801 | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |



Pottery Profiles, Kassite, Levels III-II: ( $a-1$ ) Button-Based Cups. Scale 2:5

Plate 81. Pottery Profiles, Kassite, Level II: Button-Based Cups; Levels III-III/II: Jars

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 81a | D 78 | II | Locus 27/29, above Floor 1 |
| 81b | C 1280 | II | Locus 17 fill |
| 81c | D 345 | II | Locus 27, above and on Floor 1 |
| 81d | D 86 | II | Locus 31, above Floor 1 |
| 81e | D 343 | III | Locus 15, above Floor 5 |
| 81f | D 343 | III | Locus 15, above Floor 5 |
| 81g | C 1283 | III | Locus 6, above Floor 3 |
| 81h | D 720 | III | Locus 56, Floor 1 |
| 81i | C 400 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 81j | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |

Plate 81


Pottery Profiles, Kassite, Level II: ( $a-d$ ) Button-Based Cups; Levels III-III/II: ( $e-j$ ) Jars. Scale 2:5

Plate 82. Pottery Profiles, Kassite, Levels III/II-II: Jars; Levels III-II: Band-Rimmed Jars

| Plate Number | Catalogue! <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 82a | D 334 | III/II | Locus 57, cut in packing |
| $82 \mathrm{~b}(70 \mathrm{~b}=$ photograph $)$ | 14 N 36 | II | Locus 31, Floor 1 |
| 82 c | C 1312 | II | Locus 18 fill |
| $82 \mathrm{~d}(70 \mathrm{c}=$ photograph $)$ | 14 N 59 | II | Locus 31, above Floor 1 |
| 82 e | D 343 | III | Locus 15, above Floor 5 |
| 82 f | D 343 | III | Locus 15, above Floor 5 |
| 82 g | D 58 | III | Locus 12, above Floor 3 |
| 82 h | C 515 | III | Locus 6, above Floor 1 |
| 82 i | D 92 | II | Locus 31, Floor 1 |
| 82 j | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |

Plate 82


Pottery Profiles, Kassite, Levels III/II-II: ( $a-d$ ) Jars; Levels III-II: ( $e-j$ ) Band-Rimmed Jars. Scale 2:5

Plate 83. Pottery Profiles, Kassite, Levels III-II: Ridge-Rimmed Jars

| Plate Number | Catalogue! <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 83 a | D 350 | III | Locus 60, above and on Floor 4 |
| 83 b | D 705 | III | Locus 58, fill below Floor 2 |
| 83 c | C 515 | III | Locus 6, above Floor 1 |
| 83 d | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 83 e | D 309 | III/II | Locus 30, cut into mudbrick packing |
| $83 \mathrm{f}(681=$ photograph $)$ | 14 N 151 | III | Locus 56, Burial 68 |
| 83 g | D 92 | II | Locus 31, Floor 1 |
| 83 h | D 86 | II | Locus 31, above Floor 1 |

Plate 83


Pottery Profiles, Kassite, Levels III-II: ( $a-h$ ) Ridge-Rimmed Jars. Scales 2:5, except e-f 1:5

Plate 84. Pottery Profiles, Kassite, Levels III-II: Very Large Vessels

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 84 a | C 1277 | III | Locus 6, fill in foundation trench from Floor 5 |
| 84 b | D 343 | III | Locus 15, above Floor 5 |
| 84 c | D 58 | III | Locus 12, above Floor 3 |
| 84 d | C 1305 | III | Locus 6, Floor 3 |
| 84 e | C 1302 | III/II | Pit O |
| 84 f | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 84 g | C 508/531 | III/II | Locus 13 fill/ Locus 7, above and on Floor 1 |
| 84 h | C 1268 | II | Locus 11, above Floor 2 |
| 84 i | C 1268 | II | Locus 11, above Floor 2 |
| 84 j | D 86 | II | Locus 31, above Floor 1 |

Plate 84

a

c

e

b


h

i


Pottery Profiles, Kassite, Levels III-II: ( $a-j$ ) Very Large Vessels. Scale 1:10

Plate 85. Pottery Profiles, Early First Millennium, Level I: Club-Rimmed Bowls; StumpBased Cup; Storage Jars; Large Bowl; Vat with Drain Hole [Funnel Jar]; Lid

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 85 a | C 462 | I | Locus 10, Floor 1 |
| 85 b | C 462 | I | Locus 10, Floor 1 |
| 85 c | C 447 | I | Locus 10, Floor 2 |
| 85 d | C 440 | 1 | Locus 10, Floor 1 |
| 85 e | C 440 | I | Locus 10, Floor 1 |
| 85 f | C 462 | I | Locus 10, Floor 1 |
| 85 g | C 462 | I | Locus 10, Floor 1 |
| 85 h | C 440 | I | Locus 10, Floor 1 |
| 85 i | C 462 | I | Locus 10, Floor 1 |
| 85 j | C 396 | I | Locus 3, feature 1 |
| 85 k | C 461 | I | Locus 10, Floor 1 |



Pottery Profiles, Early First Millennium, Level I: (a-c) Club-Rimmed Bowls; (d) Stump-Based Cup; (e-h) Storage Jars; (i) Large Bowl; ( $j$ ) Vat with Drain Hole [Funnel Jar]; (k) Lid. Scales 2:5, except i-j 1:10

Plate 86. Pottery Profiles, Level I, Pits, Kassite: Wavy-Sided Bowls, Button-Based Cup, Goblets, Early First Millennium: Club-Rimmed Bowl, Small Jar with Nipple Base, Stump-Based Cup; Kassite or Early First Millennium: Ring Stand, Deep Bowl

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| $86 \mathrm{a}(70 \mathrm{~g}=$ photograph $)$ | 14 N 133 | I | Pit L |
| $86 \mathrm{~b}(70 \mathrm{f}=$ photograph $)$ | 14 N 67 | I | Pit F |
| $86 \mathrm{c}(70 \mathrm{e}=$ photograph $)$ | 14 N 68 | I | Pit F |
| $86 \mathrm{~d}(70 \mathrm{j}=$ photograph $)$ | 14 N 183 | I | Pit N |
| $86 \mathrm{e}(70 \mathrm{k}=$ photograph $)$ | 13 N 484 | I | Pit B or O |
| $86 \mathrm{f}(70 \mathrm{l}=$ photograph $)$ | 13 N 486 | I | Pit B or O |
| $86 \mathrm{~g}(70 \mathrm{i}=$ photograph $)$ | 14 N 181 | I | Pit N |
| $86 \mathrm{~h}(71 \mathrm{~b}=$ photograph $)$ | 14 N 69 | I | Pit B |
| 86 i | C 472 | I | Pit C |
| $86 \mathrm{j}(71 \mathrm{a}=$ photograph $)$ | 13 N 315 | I | Pit B |
| $86 \mathrm{k}(70 \mathrm{~h}=$ photograph $)$ | 14 N 182 | I | Pit N |
| 861 | C 445 | I | Pit A |



Pottery Profiles, Level I, Pits, Kassite: (a-c) Wavy-Sided Bowls, (d) Button-Based Cup, (e-f) Goblets; Early First Millennium: (h) Club-Rimmed Bowl, (i) Small Jar with Nipple Base, ( $j$ ) Stump-Based Cup; Kassite or

Early First Millennium: (k) Ring Stand, ( $l$ ) Deep Bowl. Scales 2:5, except e-g and $l 1: 5$

Plate 87. Pottery Profiles, Early First Millennium, Burial 25: Burial Jars, Grave Goods

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| 87 a | No number | I | Burial 25 |
| 87 b | No number | I | Burial 25 |
| $87 \mathrm{c}(61 \mathrm{~b}=$ photograph $)$ | 13 N 376 | I | Burial 25 |
| $87 \mathrm{~d}(61 \mathrm{c}=$ photograph $)$ | 13 N 388 | I | Burial 25 |
| $87 \mathrm{e}(61 \mathrm{e}=$ photograph $)$ | 13 N 374 | I | Burial 25 |
| $87 \mathrm{f}(61 \mathrm{~d}=$ photograph $)$ | 13 N 373 | I | Burial 25 |
| $87 \mathrm{~g}(61 \mathrm{f}=$ photograph $)$ | 13 N 375 | I | Burial 25 |



Pottery Profiles, Early First Millennium, Burial 25: ( $a-b$ ) Burial Jars, ( $c-g$ ) Grave Goods. Scales 2:5, except $a-b$ and $g 1: 5$

Plate 88. Pottery Profiles, Early First Millennium, Burials 28, 30, and 61

| Plate Number | Cataloguel <br> Lot Number | Level | Findspot |
| :--- | :--- | :--- | :--- |
| $88 \mathrm{a}(63 \mathrm{~b}=$ photograph $)$ | No number | I | Burial 30 |
| $88 \mathrm{~b}(62 \mathrm{~d}=$ photograph $)$ | 13 N 483 | I | Burial 30 |
| 88 c | 13 N 520 | I | Burial 30 |
| 88 d | No number | I | Burial 28 |
| $88 \mathrm{e}(62 \mathrm{c}=$ photograph $)$ | 13 N 448 | I | Burial 28 |
| 88 f | No number | I | Burial 61 |
| $88 \mathrm{~g}(63 \mathrm{~d}, 64 \mathrm{a}=$ photographs $)$ | 14 N 114 | I | Burial 61 |
| $88 \mathrm{~h}(64 \mathrm{a}-\mathrm{b}=$ photograph $)$ | 14 N 115 | I | Burial 61 |



Pottery Profiles, Early First Millennium, Burials 28, 30, and 61: (a-c) Burial 30; ( $d-e$ ) Burial 28; ( $f-h$ ) Burial 61. Scale 2:5


13 N 506

e

c

f

13 N 488

h
g
14 N 6

Seal and Sealings: $(a-d)$ Indus Valley Stamp Seal and $(e-h)$ Mitanni Sealings. Scale 1:1


Sealings and Seal: $(a-g)$ First Kassite and $(h-j)$ Pseudo-Kassite. Scales 1:1, except $d-g$ 2:1

## Plate 91



Plate 92



14 N 244
a


14 N 248
b


14 N 249a-b


14 N 329
14 N 281
e

g
14 N 19

h
Sealings and Seal: $(a-f)$ Second Kassite and ( $f-h$ ) Assyrian. Scales $a-e 2: 1, f-h 1: 1$


Left Edge


Obverse


Right Edge

13 N 126
a


Obverse


Right Edge


Reverse

13 N 127
b


Obverse


Reverse


Right Edge

13 N 131
a


Obverse


Reverse


Lower Edge
13 N 564
b


Cuneiform Tablets. Scale 1:1

Plate 95


Cuneiform Tablets. Scale 1:1

Plate 96


Cuneiform Tablets. Scale 1:1

Plate 97


Cuneiform Tablets. Scale 1:1

Plate 98


Cuneiform Tablets. Scale 1:1

Plate 99



Plate 101


Cuneiform Tablets. Scale 1:1


Left Edge


Obverse


Lower Edge


Reverse

4 N 247
a


Right Edge

Obverse
Obvers


Obverse
14 N 248
b

-


Reverse


Reverse
c $\quad 14 \mathrm{~N} 250$

Cuneiform Tablets. Scale 1:1


Cuneiform Tablets. Scale 1:1


Plate 105


Aus dem Institut für Palaeoanatomie, Domestikationsforschung und Geschichte der Tiermedezin der Universität München

# APPENDIX A <br> TIERKNOCHENFUNDE AUS NIPPUR: 13. SEASON JOACHIM BOESSNECK $\dagger$ 

## EINLEITUNG

Nach der Untersuchung der Tierknochenfunde aus der 12. Season der vom Oriental Institute der University of Chicago, Illinois, durchgeführten Excavations at Nippur (s. Gibson et al. 1978) wird nunmehr das Ergebnis der Auswertung der Tierknochenfunde aus der 13. Season vorgelegt. Zur Lage der Fundbereiche WA und WB im West Mound s. Gibson 1974 (S. 23) und Gibson et al. 1978 (fig. 1). WC, der dritte Fundbereich, aus dem uns Knochenfunde übersandt wurden, liegt "in the plain south of the expedition house near the city wall" (Franke, brieflich*; Gibson 1980: 201).

## VERTEILUNG DER FUNDE AUF DIE FUNDSTELLEN

## FUNDE AUS AREA WA

Das Fundgut aus WA umfaßt zwar nur eine geringe Menge an Knochen, ohne daß eine genauere Zahl genannt werden kann, weil zerbröckelte Skelette die Summe verfälschen, ist aber vielfältig. Außer Haussäugetieren belegt es Kleinsäuger, Vögel und Fische. Als Datierung der 3 Fundeinheiten wird die Zeit der Seleukiden angegeben. Zumindest bei den Resten der Kleinsäuger ist dieser Ansatz aber in Frage gestellt.

Locus 4
Cut 5, Lot C 949**
Rind: Halswirbel, verbrannt; Rippe', verbrannt; Rippe'.***
Schaf oder Ziege: Oberkieferzahn; Unterkiefer', M3 geringgradig abgerieben; Unterkiefer, M3 noch nicht durchgebrochen; 2 Unterkiefer"; Unterkieferbackzahn; Zungenbein'; Halswirbel'; 3 Brustwirbel"; 10 Rippen"; Scapula'; 2 Humerus"; 8 Radius"; 2 Becken"; 7 Femur"; 8 Tibia"; Metacarpus, Epiphysenfuge offen; Metacarpus'; Metatarsus'.
Schaf: 2 Humerus"; 2 Metacarpus"; Metatarsus, Epiphysenfuge offen; 2 Metatarsus"; Phalanx 1, Epiphysenfuge offen.
*Der Verfasser dieses Beitrags dankt Dr. J. A. Franke für die Zusendung des Fundgutes und für die Informationen zu den Funden.
**[Editor's note: Lot numbers for each season are preceded by the following letter prefixes: $\mathbf{C}=$ thirteenth season and $D=$ fourteenth season; see pp. 13-14, fn. 6, above.]
***Das Zeichen (') hinter der Knochenbezeichnung bedeutet "Bruchstück", zum Beispiel: Rippe' = Rippenbruchstück.

## FUNDE AUS AREA WA, Locus 4 (Fortsetzung)

Cut 5, Lot C 949 (Fortsetzung)
Ziege: Scapula'; Humerus'; Darmbein $甲$; Phalanx 1, $甲$ (s. Tab. A-6n); Phalanx 3 MIZ,* Schaf: 1 adult, 1 juvenil; Ziege: 1 adult $\$$
Schwein: Acetabulum, Naht offen.
Hund: Phalanx 2.
Unbestimmte Säugerknochen": 20.
Stock-(oder Haus-) ente: Tibiakörper'.
Haushuhn: Femur.
Bläßhuhn: Scapula.
Unbestimmter mittelgroßer Vogel: Radius'.
Barbe: Os pharyngeum inferius; Schwanzwirbel.
Unbest. Cyprinide: Rückenflossenstachel'; Rippe'.

## Locus 33

Fill above Floor 3, Lot C 1092
Rind: Tibia'.
Schaf oder Ziege: Oberkiefer', $\mathbf{M}^{1}$ in Reibung, $M^{2}$ noch nicht durchgebrochen; $\mathbf{M}^{3}$, geringgradig abgerieben; 4 Oberkieferzähne; Unterkiefer', links und rechts, $M_{3}$ geringgradig abgerieben; Unterkiefer, $\mathrm{M}_{2}$ in Reibung, $\mathrm{M}_{3}$ noch nicht durchgebrochen; 2 Unterkieferzähne; 17 Brustwirbel"; 8 Lendenwirbel"; 18 Rippen"; Carpale; Femur'; Tibia, Corpus', infantil; Tibia', distale Epiphysenfuge verwachsen; Metatarsus Corpus'.
Schaf: Hirnschädel, ${ }^{\circ}$, mit schlankem Horn; Hirnschädel'; Epistropheus; Scapula'; Humerus (Tab. A-6d); 4 Humeri, Distalenden (Tab. A-6d); 2 Radien, Proximalenden (Tab. A-6e); 2 Radien, distale Epiphysenfuge offen; 2 Ulnae, juvenil; Carpale; 2 Becken"; Becken', Acetabulumnähte offen; Tibia, Distalende (Tab. A-6h); Talus'; Calcaneus, Epiphysenfuge offen; 2 Phalangen 1, Epiphysenfuge offen; Phalanx 2 (Tab. A-6o); Phalanx 3.
Ziege: Hornzapfen, $9 ; 2$ Phalangen 1 (Tab. A-6n); Phalanx 2 (Tab. A-60); Phalanx 3.
MIZ, Schaf: 4 in etwa adult, 3 infantil-juvenil; Ziege: 2 adult.
Schwein: Hirnschädel'; Rippe, infantil; 4 Rippen"; Scapula, infantil-juvenil; Humeruskörper; Femur'; Fibula'; Phalanx 1, Epiphysenfuge offen.

MIZ: 3.
Hund: Rippe'; Metacarpus II (Tab. A-7i).
Unbestimmte Säugerknochen": 3.
Grabfledermaus: Hirnschädel'; Unterkiefer, rechts und links; 8 meist unvollständige Humeri, 3 rechts, 5 links; 25 Radius"; 30 Metacarpus"; Pelvis'; Femur; 2 Tibiae.

MIZ: 8.
Hausratte: Hirnschädel'; Unterkiefer, rechts und links; 2 Lendenwirbel; Humerus; 5 Femora, 3 rechts, 2 links; 4 Tibiae, 2 rechts, 2 links; 2 Metatarsen.

MIZ: 3.
Hausmaus: Femur, Distalhälfte.
Zwergtaucher: Ulna ohne Distalende.
Fischreiher: 3 Halswirbel; Radius, Proximalende; Metatarsuskörper.
MIZ: 1.
*MIZ = Mindestzahl an Individuen.

Löffler: Carpometacarpus, Distalende.
Stockente: Tibiotarsus, Distalhälfte.
Reiherente: Furcula, beide Coracoide, beide Scapulae, beide Humeri, Becken', alle zusammengehörig.
Felsentaube: Coracoid, rechts und links; Humerus; Ulna; Carpometacarpus'; Tibia, Proximalhälfte, juvenil.

MIZ: 1 adult, 1 juvenil.
Unbestimmter Vogelknochen': 1.
Wasserschildkröte: Pleurale.
Cyprinide: Cleithrum'; Vertebra caudalis.
Unbest. Fisch: Proc. neuralis'.

## Locus 43

Animal Burial, Lot C 1034
Hund: In abertausende von Splittern zerfallenes Skelett.

## FUNDE AUS AREA WB

Locus 18 Kassitische Zeit
Floor 1, Area of Doorway to 58, Lot C 133
Pferd: Radius und Ulna, Proximalteile".
Hausgans: Humeruskörper'.
Floor 1, E. Corner below CF Wall, Lot C 159
Schaf: Calcaneus (Tab. A-6k).
Floors 1-2, Lot C 165
Rind: Atlas; Lendenwirbel'; Lendenwirbel, infantil; Radiuskörper', distale Epiphysenfuge offen; Carpale; Becken'; Femur, Proximalteil, Epihpysenfuge offen; Femur, Distalteil, Epiphysenfuge offen; Tibia, Proximalteil, Epiphysenfuge offen; Tibia, Distalteil, Epiphysenfuge verwachsen; Talus (Tab. A-4b) und Calcaneus, Epiphysenfuge offen, zusammengehörig.

MIZ: 1 Kalb, 1 Jungrind.
Schaf oder Ziege: Unterkiefer', M3 noch nicht durchgebrochen; Femurkopf, lose; Femur'.
Schaf: Humerus, Distalende (Tab. A-6d).
Hausgans: Ulnakörper'.
Floors 2-3, Fill, Lot C 1445
Rind: Os carpi radiale; Tibia, Distalende (Tab. A-4a).

## Locus 21 Kassitische Zeit

Fill above Floor 1, Lots C 140, 141
Rind: Unterkiefer', 2 zusammengehörige Stücke.
Locus 28 Altbabylonische Zeit
"Room 28 of the Old Babylonian House", das bereits in der 12. Season weitgehend ausgegraben wurde (Franke 1978, fig. 39f.).

Floors 1-2, SE End, Lot C 173
Schaf oder Ziege: Femurkörper, juvenil.

FUNDE AUS AREA WB, Locus 28 Altbabylonische Zeit (Fortsetzung)
Floors 5-6, Lot C 178
Schwein: Oberkiefer, ©ै, Gebiß geringgradig abgerieben.

## Floors 7-8, Lot C 1472

Unbestimmter Säugerknochen': 1.
Floors 8-9, Lot C 1473
Schwein: Lendenwirbel' und Sacrum', zusammengehörig, juvenil; Femur, Distalende, Epiphysenfuge offen.

Locus 37 Mit Ausnahme von Lot 202, Seleukidische Zeit

## Test Pit, Foundation Fill, Lot C 6

Rind: Unterkiefer', adult; 3 Rippen"; Metatarsus', juvenil.
Schaf oder Ziege: Unterkiefer, $\mathrm{M}_{2}$ in Reibung, $\mathrm{M}_{3}$ noch nicht durchgebrochen; 2 Unterkiefer"; Humeruskörper'; 3 Radius"; Becken'; Tibia'; Metatarsus'.
Schaf: Humerus, Distalende (Tab. A-6d); Radius, Proximalende, $q$ (Tab. A-6e).
Ziege: Phalanx 1, Epiphysenfuge offen.
MIZ: 1 Schaf, adult; 1 Ziege, juvenil; Schaf oder Ziege, zusätzlich: 1 juvenil, 1 adult.
Schwein: Oberkiefer, $\mathrm{M}^{2}$ in Reibung, $\mathrm{M}^{3}$ noch nicht durchgebrochen.
Hund: Unterkiefer'; Halswirbel; letzter Lendenwirbel und Sacrum (Tab. A-7e); Ulna, Epiphysenfuge offen.

MIZ: 1 kleinerer Hund.
Unbestimmte Säugerknochen": 3 .
Unbestimmter großer Voget: Humerus'.
Pit, $0,66-1,20 \mathrm{~m}$, Lot C 12
Rind: Tibia'.
Schaf oder Ziege: Oberkiefer, $\mathbf{M}^{1}$ frisch in Reibung, $\mathbf{M}_{2}$ noch nicht durchgebrochen; Unterkiefer, M2 in Reibung, $\mathrm{M}_{3}$ noch nicht durchgebrochen; Unterkieferast'; Rippe'; Radiuskörper mit verheilter Fraktur; Femur'; 2 Tibiakörper".
Schaf: Scapula, ${ }^{\text {T}}$ (Tab. A-6c); Talus, juvenil.
MIZ: Schaf: 1 adult, $\delta, 1$ juvenil; Schaf oder Ziege, zusäzlich:1 adult, 1 juvenil.
Schwein: Unterkiefer'.
Hund: 2 Lendenwirbel, juvenil, Rippe', Femur, rechts, und Tibia, links, beide juvenil. Wohl alle zusammengehörig.

## Foundation Fill, Lot C 24

Mensch: Humerus', adult.
Equide: Allas'; Brustwirbel'.
Rind: Unterkiefer'; Incisivus'; Scapula'; Becken'; Femur'.
MIZ: 1.
Schaf oder Ziege: 2 Oberkiefer", $\mathbf{M}^{3}$ mittelgradig abgerieben; 2 Unterkiefer", $\mathbf{M}_{3}$ mittelrgradig abgerieben; Unterkiefermolar; 2 Brustwirbel'; 6 Rippen"; 3 Radius"; Metacarpus', 8 ; Becken'; 4 Femur"; 4 Tibia".
Schaf: Radius'; Distalende (Tab. A-6e); Femurkopf, adult.
MIZ: 1 Schaf; Schaf oder Ziege, zusätalich: 2.
Schwein: Phalanx 1, juvenil.

Hund: 2 Lendenwirbel, juvenil: Rippe', juvenil; Humerus, rechts und links, zusammengehörig, juvenil; Ulna', infantil; Tibia, links, juvenil; Metacarpus II (Tab. A-7i).

MIZ: 1 infantil, 2 juvenil.
Unbestimmte Säugerknochen": 22.
Large Trash Pit, Lots C 55, 56
Rind: Unterkiefermolar'.
Schaf oder Ziege: Hirnschädel'; 2 Unterkiefer rechts, $M_{1}$ in Reibung, $M_{2}$ noch nicht durchgebrochen, $\mathrm{M}_{3}$, vorderes Joch in Reibung; Halswirbel'; 3 Rippen"; 2 Humerus"; Radiuskörper, infantil; Radius, Proximalteil'; Ulna'; Metacarpus'; Schambein', 9 ; Becken'; 6 Femur"; Tibiakörper, infantil; 4 Tibia"; Metatarsus'.
Schaf: Hornzapfen'; Scapula, Tuber angewachsen, aber juvenil; Scapula'; Humerus, Distalende (Tab. A-6d); Radiuskörper, Distalteil, Epiphysenfuge offen; Metacarpus, Proximalteil; Calcaneus, Tuber angewachsen; Phalanx 3.

MIZ: Schaf: 1 juvenil, 1 adult; Schaf oder Ziege; zusätzlich:1 juvenil, 1 adult.
Gazelle: Tibiakörper'.
Schwein: Scapula, verbrannt, infantil; Metacarpus IV, infantil.
Unbestimmte Säugerknochen": 10.
Fill in Cut NE End of BM Wall, Lot C 202
Rind: Metatarsus'.
Schaf oder Ziege: Unterkiefer, $\mathrm{Pd}_{4}$ in Reibung, $\mathrm{M}_{1}$ noch nicht durchgebrochen; 2 Rippen".
Schaf: Metacarpuskörper'; Calcaneus (Tab. A-6k).
Schwein: 2 Femurkörper".
Spießente (?): Tibiotarsus ohne Proximalende.
Wels. Cleithrum'.
Barbe: Rückenflossenstachelbasis.
Locus 38 Seleukidische Zeit
Top 50 cm , Lot C 32
Esel: Rippe.
Schaf oder Ziege: Unterkiefer'; 2 Tibia".
Schaf: Radius, Proximalende (Tab. A-6e).
Schwein: Hirnschädel'; Unterkiefer'; Ulna'.
Locus 40 Seleukidische Zeit?
Below Pavement to above Floor 1, Lot C 87
Schaf: Scapula, Tuber noch nicht angewachsen.

## Locus 42 Seleukidische Zeit

Fill above Floor 1, Lot C 39
Esel: Radius und Ulna, zerbröckelt, schlankwüschsig.
Schaf oder Ziege: Unterkiefer' mit Milchgebiß; Humerus'; Radius'; 2 Tibia".
Schaf: Hirnschädel'; Schambein', 9 .
Unbestimmte Säugerknochen: 2.

## FUNDE AUS AREA WB (Fortsetzung)

Locus 43 Seleukidische Zeit oder älter
Fill below Seleucid Floor, Lot C 191
Gazelle: großer Hornzapfen, Basis abgeschlagen (Taf. A-1:2).
Fill below Top of BO Wall, Lot C 211
Mensch: Ulna', Femurkopf, beide adult.
Rind: Metatarsus'.
Schaf oder Ziege: Gesichtsschädel'; 3 Rippen"; Radius'; Metacarpus', verbrants; Femur', verbrannt.
Schaf: Humerus'; Radius, Proximalende (Tab. A-6e); Radius, Distalende, ${ }^{\circ}$ (Täb. A-6e); Ulna'; Tibiakörper'.
Ziege: Tibia, Distalende (Tab. A-6h); Phalanx $1^{\prime}$, adult $\delta^{\boldsymbol{*}}$.
Schwein: Scapula'.
Unbestimmter Säugerknochen: 1.
Unbestimmter großer Vogel: Ulina'.
Fill below Wall BC, Lot C 215
Schaf oder Ziege: Unterkiefer', $\mathrm{Pd}_{4}$ in Reibung.
Hund: zerbröckelter Schädel mit Unterkiefer, 1. bis 7. Halswirbel, Wirbelscheiben noch nicht angewachsen; Humerus, Proximalende, Epiphysenfuge offen.
Locus 46 Achämenidische Zeit?
Pit in Floor 4, Lot C 80
Schaf: Allashälfte.
Floor 2 and below, Lot C 201
Rind: Tibia, Distalende, adult, groß, $\delta$, längs gespalten.
Schaf oder Ziege: Unterkieferbackzahn; Brustwirbel'; 2 Rippen"; Femur'.
Schaf: Darmbein, $\delta$.
Ziege: Humerus, Distalende (Tab. A-6d).
Locus 53 Kassitische Zeit
Floors 1-2, Lot C 96
Rind: Humerus'; Femur', distale Epiphysenfuge offen.
Schaf: Hurnerus, Distalende (Tab. A-6d).
Floors 2-3, Lot C 99
Rind: Lendenwirbel'.
Locus 54 Post-Kassitische Zeit
All Low Floors above Fill, Lot C 106
Rind: Himschädel'; Tibia'.
Schaf oder Ziege: Unterkiefer', jungadult.
Floors above Curb, Lot C 115
Esel: Rippe'; Femur'.
Rind: Tibia'.
Schaf: Talus'.
Schwein: Scapula.
Unbestimmter Säugerknochen': 1.

## FUNDE AUS AREA WB (Fortsetzung)

Locus 56 Mit Ausnahme von Lot C 144, Post-Kassitische Zeit
Fill in Doorway, Lot C 78
Schaf oder Ziege: Femur'.
Schaf: Humerus, infantil.
Unbestimmte Säugerknochen": 2.
Hausgans(?): Humerus'.
Fill above Floor 1, Lot C 121
Mensch: Femurkopf, adult.
Rind: Lendenwirbel.
Schaf oder Ziege: Halswirbel, adult; 2 Lendenwirbel mit Hackspuren, längs gespalten.
Schaf: Radius, Distalende, ס (Tab. A-6e).
Schwein: Humerus, Proximalteil, Epiphysenfuge offen.
Fill above Floor (or cut in Floor), Lot C 126, Bones of One Animal
Schaf: Zerbröckeltes Skelett, $\delta: M_{1}$ in Reibung, $M_{2}$ noch nicht durchgebrochen, Scapula, Tuber frisch verwachsen, Humerus, Epicondylen im Verwachsen, Radius, proximal verwachsen, Acetabulum, Nähte im Verwachsen, Calcaneus, Tuber noch nicht angewachsen, Metapodien und Phalangen 1, Epiphysenfugen offen, Phalangen 2 im Verwachsen oder offen. Alter etwa 1 Jahr.
Floors 1-2, Lot C 144, Kassitische Zeit
Esel: Unterkiefer', $\mathrm{M}_{3}$ mittelgradig abgerieben (Taf. A-1:4).
Rind: $\mathrm{M}_{3}$, mittelgradig abgerieben.
Schaf oder Ziege: Oberkiefermolar; Radius'; 2 Tibia".
Locus 57 Post-Kassitische Zeit
Lower Debris, Lot C 100
Rind: Halswirbel'; Rippe'.
Schaf: Humerus, Distalende, $\delta$ (Tab. A-6d).
Center Section, Top 40 cm , Lot C 107
Kamel: Phalanx 1 anterior, proximales Ende angebrannt (Taf. A-1:3).
Rind: Becken'.
Schaf oder Ziege: $\mathbf{M}^{3}$, geringgradig abgerieben; Oberkieferzahn; 3 Oberkiefer"; Unterkiefer'; 4 Rippen"; Femur'; Tibia'.
Schaf: Hornlose Kalotte'; Sacrum'; Darmbein', ס; Radius, Distalende (Tab. A-6e); Metacarpus'.
Ziege: Scapula, $\delta$ (Tab. A-6c).
Unbestimmte Säugerknochen": 6 .
Gazelle: 6. Halswirbel.
Center section below Mudbrick, Lot C 112
Schaf: Metatarsus, lose Gelenkrolle.
Locus 58 Kassitische Zeit
Floor 1, Lot C 130
Rind: Hirnschädel'; Becken'.
Schaf oder Ziege: Brustwirbel'; 2 Lendenwirbel; Femur'; Tibia, Proximalende, Epiphysenfuge offen.
Schaf: Calcaneus', etwa adult.

## Floors 2-3, Lot C 152

Rind: Rippe'; Phalanx 2 (Tab. A-4c).
Schaf oder Ziege: Rippe'; Sitzbein'.
Schaf: Epistropheus und 3. Halswirbel, subadult; Radius, Distalende, Epiphysenfuge offen.
Schwein: Unterkiefer, $\delta$, $M_{2}$ in Reibung, $M_{3}$ noch nicht durchgebrochen.
Unbestimmte Säugerrippe.

Locus 60 Kassitische Zeit<br>Floors 2-3, Lot C 132<br>Schaf oder Ziege: Unterkiefer, $M_{1}$ in Reibung, $M_{2}$ noch nicht durchgebrochen; 3 Brustwirbel"; Sternum'.<br>Schaf: Scapula', $\delta$.<br>Unbestimmte Säugerknochen": 2.

## Locus 63 Kassitische Zeit

Floors 1-2, Lot C 172
Schwein: Rippe'.
Floors 2-3, Lot C 1447
Esel oder Halbesel: Metatarsus, Proximalende (Taf. A-1: 5).
Rind: Hornzapfenbasis, zerstückelt; Halswirbel'; Rippe'.
Schaf oder Ziege: Brustwirbel'; Rippe'; Radius'.
Schaf: 2 Hirnschädel"; Atlas und Epistropheus, ठ (Tab. A-6a-b); Epistropheus, i; 3. Halswirbel; Scapula, adult; Scapula, juvenil; Becken', ©
Schwein: Atlas' und Epistropheus'; Humerus'; Radius, Distalteil, Epiphysenfuge offen, und Ulna, Epiphysenfugen offen.
Unbestimmter Säugerknochen': 1 .

## FUNDE AUS AREA WC-1

Level III, Locus 6 Früh-Kassitische Zeit*
Floor 3, Fill above, Lot C 1283
Esel: Femurkopf.
Rind: Humerus'; Femur'.


#### Abstract

* [Editor's note: The terms "EK = Frühkassitisch" and "LK = Spätkassitisch" as used here should not be considered historical terms. EK refers only to Level III of Area WC, i.e., the earlier of two levels of Kassite date, while LK refers to Level II. Both these levels must be dated to the thirteenth century B.C., with perhaps Level III beginning late in the fourteenth century. In short, both levels are in what we would term the later part of the Kassite period. At Nippur, we have no certain evidence of the earlier Kassite, i.e., the time from 1600-1400 B.C. Note that in Appendix B on the fauna from the fourteenth season, only the term "Kassitisch" is used, and that is preferable. The term "Post-Kassite," used in all areas of excavation during the thirteenth season, was one which the Nippur Expedition adopted to cover material that was known to be later than Kassite but could not then be placed precisely in time, see Gibson et al. 1978: 15, n. 7. The accumulation of evidence showed that what we had termed "Post-Kassite" was, in fact, pottery that had to be dated to the time after 1,000 B.C., and mostly between about 750 B.C. and 600 B.C. For ease of reference, we are currently using the term "early first millennium," but we expect to be able to abandon that term and use century designations instead.]


Schaf oder Ziege: 7 Rippen"; Femur'; Tibia'.
Schaf: Radius, Proximalende (Tab. A-6e); 3 Radius"; Metacarpus, Proximalende (Tab. A-6f); Patella; Talus (Tab. A-6i); Metatarsus, Proximalende (Tab. A-6m); Metatarsus, Distalende (Tab. A-6m).
Schwein: Metatarsus IV'.
Unbestimmte Säugerknochen": 2.
Level I Post-Kassitische Zeit (= Early First Millennium)
Pit C, Cutting Locus 11, Lot C 487
Rind: Hornzapfen (Taf. A-1:1).
Between Levels III-II, cutting Locus 12 Spätkassitische Zeit
Pit O, Lot C 1302
Equide: Metacarpus'; Phalanx 2 anterior (Taf. A-1: 6).
Rind: Rippe'; 2 Carpalia, zusammengehörig; Femur'; Talus (Tab. A-4b).
MIZ: 1.
Schaf oder Ziege: Oberkiefer', $M^{2}$ im Durchbruch; Oberkiefer', $M^{2}$ in Reibung, $M^{3}$ noch nicht durchgebrochen; 2 Oberkieferzähne; Unterkiefer, $\mathbf{M}_{1}$ in Reibung, $\mathbf{M}_{2}$ noch nicht durchgebrochen; Unterkiefer'; Unterkieferbackzahn; Halswirbel'; 4 Brustwirbel"; 50 Rippen"; 5 Becken"; 7 Femur"; Tibia'; 2 Metatarsus".
Schaf: 4 Halswirbel; Scapula, ${ }^{\circ}$ (Tab. A-6c); 2 Humeri, Distalenden, $\delta$, (Tab. A-6d); Radius, Proximalende (Tab. A-6e); Ulna'; Metacarpus, Proximalende (Tab. A-6f); 8 Becken"; Patella; 3 Tibiae, Distalenden (Tab. A-6h); Talus (Tab. A-6i); Calcaneus, Epiphysenfuge offen; Calcaneus, Epiphysenfuge verwachsen; 2 Centrotarsalia (Tab. A-61); 3 Metatarsus"; Phalanx 2, verkohlt, 9 ; Phalanx $2 \delta$ (Tab. A-6o); Phalanx 3.

MIZ: Schaf: 2ठ, 1 ; Schaf oder Ziege: zusätzlich 3 juvenil.
Gazelle: Femur'.
Schwein: Lendenwirbel'; 2 Rippen"; Ulna'; Becken, Acetabulum, Naht offen; Talus'.
Hund: 2 Rippen".
Unbestimmte Säugerknochen": 20.
Locus 12, Floor 3, Lot C 1309
Equide: Radius'; Becken'; Femur'; Tibia'; Calcaneus und Talus, zusammengehörig (Taf. A-1: 7). MIZ: 1.
Rind: Brustwirbel'; Lendenwirbel'.
Schaf oder Ziege: Unterkiefer, M3 geringgradig abgerieben; 2 Unterkieferzähne; 3 Halswirbel; 3 Brustwirbel; Lendenwirbel', Sacrum'.
Schaf: Atlas', $\delta^{\circ}$; Lendenwirbel; Scapula'; Humerus, Distalteil, $\delta^{*}$; Radius, Proximalteil, $\delta^{*}$; Carpale; Becken, $\delta$ (Tab. A-6g); 2 Femur"; Patella'; 3 Tibiae, Distalenden, 2 ( (Tab. A-6h), 1 ¢; Talus (Tab. A-6i); Metatarsus, Distalende (Tab. A-6m). MIZ: Schaf: $2 \delta, 1$ \&
Schwein: Rippe'; $\mathrm{T}_{4}$.
Unbestimmte Säugerknochen": 5 .

## FUNDE AUS AREA WC-1 (Fortsetzung)

## Level I, Locus 8 Parthische Zeit*

Burial 10, Fill, Lot C 1306
Esel: Sacrum'; Humerus'; Radius'; Femur'.
MIZ: 1.
Rind: Becken'; Femur'; Os malleolare; Talus (Tab. A-4b).
Schaf oder Ziege: Unterkiefer'; Halswirbel; Brustwirbel'; 2 Lendenwirbel"; Sacrum'; 6 Rippen"; Carpale; Metacarpus'; 5 Femur"; 5 Tibia"; Phalanx 1, Epiphysenfuge verwachsen.
Schaf: Epistropheus'; 5 Scapulae" (Tab. A-6c); Humerus, Distalende, $\delta$ (Tab. A-6d); Radius, Proximalende (Tab. A-6e); 2 Radien, Distalteile, Epiphysenfugen offen; 2 Radius"; 2 Ulna"; Becken', 9 (Tab. A-6g); Becken'; 2 Femur"; Tibia'; Talus (Tab. A-6i); Metatarsus, Epiphysenfuge offen; Metatarsus, Epiphysenfuge verwachsen; 2 Metatarsus"; Phalanx $1 \delta$ (Tab. A-6n); 3 Phalanx 1 , adult (Tab. A-6n).
Ziege: Phalanx 1, $\delta$ (Tab. A-6n).
MIZ: Schaf: 3 ¢, 1 ठ, 1 juvenil; Ziege: $1 \delta^{\top}$.
Gazelle: Tibia, Proximalhälfte.
Hund: Rippe'.
Unbestimmte Säugerknochen": 10 .

## FUNDE AUS AREA WC-2

Locus 1 Post-Kassitische Zeit (= Early First Millennium)
Below Clay Lens, Lot C 722
Schaf oder Ziege: Tibia', ${ }^{\circ}$.
Schwein: Tibia'; Metatarsus IV, Epiphysenfuge offen.
Locus 2 Post-Kassitische Zeit (= Early First Millennium)
Floor 4, Fill, SE of Pit 1, Lot C 738
Schaf oder Ziege: Unterkiefer', M3 im Durchbruch.
Locus 3 Post-Kassitische Zeit (= Early First Millennium)
Floor 1, Lot C 754
Schaf oder Ziege: Rippe', verkohlt.
Floor 1, Lower Part, Lot C 742
Schaf oder Ziege: $\mathbf{M}^{3}$, geringgradig abgerieben.
Unbestimmter Säugerknochen: Femur'.
Floor 2, Fill above, Lots C 766, 768
Esel: Humerus-Trochlea.
Schaf oder Ziege: Atlas'; 2 Femur".
Unbestimmter Säugerknochen: 1 .
*[Editor's note: Although the burial is datable to the Parthian period, the animal bones found in the fill of the grave are not offerings, but chance inclusions.]

## OHNE ANGABE DER AREA (GEOMORPHOLOGICAL PITS OUTSIDE CITY WALLS)*

Pit L-3

| Lot C 547: | Schaf: Radius, Distalende (Tab. A-6e). |
| :--- | :--- |
| Lot C 550: | Rind: Unterkieferwinkel'. |
| Lot C 551: | Halbesel(?): Femur, Distalteil'. |
|  | Schwein: Lendenwirbel'; Metacarpus'. |
| Lot C 551A: | Rind: Brustwirbel', Lendenwirbel'. |
| Lot C 551B: | Pferd oder Halbesel: Becken', angebrannt. |
|  | Schwein: Unterkiefer', angenbrannt. |
|  | Unbestimmter Säugerknochen: 1. |
| Lot C 551C: | Rind: Brustwirbel'. |
|  | Schaf: Becken', .. |
|  | Barbe: Rückenflossenstachel'. |

Pit L-4

```
Lot C 553: Schaf: Phalanx 2 (Tab. A-60).
```

Schwein: Humerus'.

## Pit L-5

| Lot C 561: | Schaf: Metacarpus, Distalteil, adult. |
| :--- | :--- |
| Lot C 562: | Rind: T $2+3$. |
|  | Schaf oder Ziege: $M^{2}$. |
| Lot C 563: | Schaf: Scapula'. |
|  | Rind: Tibia, Distalteil, Epiphsyenfuge verwachsen. <br>  <br>  <br> Schaf oder Ziege: M ${ }^{3}$ mittelgradig abgerieben; Femur, Distalteil, Epiphysenfuge <br>  <br>  <br>  <br>  <br> verwachsen. |
| Schaf: Metarsus, Distalende (Tab. A-6m). |  |
| Schwein: Unterkieferzahn'. |  |

Pit L-6
Lot C 565: Schaf: Phalanx 1', Epiphysenfuge verwachsen.
Lot C 566: Rind: Petrosum.
Schaf oder Ziege: Humerus'.
Trench IC-1
Lot C 589: $\quad$ Rind: Talus, verbrannt (Tab. A-4b).
Pit L-8
Lot C 595: Schwein: $\mathrm{M}_{3}$, begann zu reiben, angebrannt.
*[Editor's note: These samples, from S. Lintner's geomorphological pits and trenches outside the city walls will be discussed in detail with other material in a forthcoming volume.]

## ALLGEMEINES

In den Tabellen A-1-3 werden die Säugetierknochen (ohne die Kleinsäuger) der Fundgebiete WA, WB und WC jeweils zusammengefaßt. Verglichen mit der Verteilung der Säugerknochen aus der altbabylonischen Zeit, die in der "12. Season" in Nippur geborgen wurden (Boessneck 1978, Tab. 8) fäll der Anteil der Schafknochen im Vergleich zu Rind, Schwein und Ziege noch weitaus höher aus. Wenn die Zahlen nicht trügen, müßte nach der altbabylonischen Zeit der Verzehr an Rind-, Ziegen- und Schweinefleisch zugunsten von Schaffleisch zurückgegangen sein. Auch bei Berücksichtigung der Tiergröße nimmt das Rind mit Abstand erst den zweiten Rang hinter dem Schaf ein. Auf den Vergleich der Mindestzahlen an Individuen (MIZ) und der Knochengewichte wird wegen der stark variierenden Datierung der Funde verzichtet. Schon die Zusammenfassung der Fundzahlen war an sich unzulässig, gibt aber den schnellsten Einblick in die Grundzüge der Verteilung.

Bei den vermessenen und den im einzelnen besprochenen Knochen wird die Datierung in Form der folgenden Abkürzungen angegeben:

| $\mathrm{OB}=$ Altbabylonisch | PK $=$ Postkassitisch |
| :--- | :--- |
| $\mathrm{K}=$ Kassitisch | $\mathrm{A}=$ Achämenidisch |
| EK $=$ Frükassitisch | $\mathrm{S}=$ Seleukidisch |
| LK $=$ Spätkassitisch | $\mathrm{P}=$ Parthisch |

Die Meßstrecken werden wie in von den Driesch (1976) abgenommen und abgekürzt.

## RIND, BOS TAURUS

Ebenso wie in dem früheren Fundgut aus Nippur sind die meisten Rinderknochen von erwachsenen Tieren. Eine Ansammlung von Jungrind- und einem Kalbsknochen aus kassitischer Zeit fand sich in WB Locus 18 (Lot C 165), ein Metatarsusrest von einem Jungrind in WB Locus 37 (Lot C 6).

Auffallend kurz ist ein adulter Hornzapfen aus WC-1 Locus 11 (Lot C 487; PK; Taf. A-1: 1). Die GL am Hinterrand mißt 140 mm , der Umfang an der Basis 160, der große und der kleine Durchmesser an der Basis (54) und (45) mm.

Die wenigen meßbaren Rinderknochen (Tab. A-4) sind wie die meisten anderen mittelgroß. Mit den früheren Funden aus Nippur können vor allem die Tali verglichen werden (Boessneck 1978, Tab. 10a). Gemessen an den großen Tali der ersten Serie mit einer GL von 73 mm gehören die Tali in Tabelle A-4 möglicherweise alle zu Kühen, ebenso die beiden anderen meßbaren Knochen. Von einem Stier hingegen ist das sagittal gespaltene distale Ende einer starken Tibia (WB, Locus 46, Lot C 201, Achämenidisch?).

Tabelle A-1. Zusammenstellung der Säugetierknochen aus WA (ohne die Kleinsäuger)-Seleukidenzeit

|  | Rind | Schaf | Schaf/Ziege | Ziege | Schwein | Hund* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hornzapfen | - | - | - | 1 | - | - |
| Neurocranium | - | 2 | - | - | 1 | - |
| Viscerocranium | - | - | 1 | - | - | - |
| Dentes sup. | - | - | 6 | - | - | - |
| Mandibula | - | - | 7 | - | - | - |
| Dentes inf. | - | - | 3 | - | - | - |
| Hyoid | - | - | 1 | - | - | - |
| Epistropheus | - | 1 | - | - | - | - |
| and. Vert. cerv. | 1 | - | 1 | - | - | - |
| Vert. thor. | - | - | 20 | - | - | - |
| Vert. lumb. | - | - | 8 | - | - | - |
| Costae | 2 | - | 28 | - | 5 | 1 |
| Scapula | - | 1 | 1 | 1 | 1 | - |
| Humerus | - | 7 | 2 | 1 | 1 | - |
| Radius | - | 4 | 8 | - | - | - |
| Ulna | - | 2 | - | - | - | - |
| Carpalia | - | 1 | 1 | - | - | - |
| Metacarpus | - | 2 | 2 | - | - | 1 |
| Pelvis | - | 3 | 2 | 1 | 1 | - |
| Femur | - | - | 8 | - | 1 | - |
| Tibia | 1 | 1 | 10 | - | - | - |
| Fibula | - | - | - | - | 1 | - |
| Talus | - | 1 | - | - | - | - |
| Calcaneus | - | 1 | - | - | - | - |
| Metatarsus | - | 3 | 2 | - | - | - |
| Phalanx 1 | - | 3 | - | 3 | 1 | - |
| Phalanx 2 | - | 1 | - | 1 | - | 1 |
| Phalanx 3 | - | 1 | - | 2 | - | - |
| Insgesamt | 4 | 34** | 111** | 10** | 12 | 3 |

Unbestimmt 23.
*Locus 43: 1 Skelett.
$* *$ Gesamtzahl Schafe + Ziegen $=155$.

Tabelle A-2. Zusammenstellung der Säugetierknochen aus WB ohne Berücksichtigung der Datierung

|  | Equiden* | Rind | Schaf** | Schaf/Ziege | Ziege | Gazelle | Schwein | Hund | Kamel |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hornzapfen | - | 1 | 1 | - | - | 1 | - | - | - |
| Neurocranium | - | 2 | 4 | 1 | - | - | 1 | 1 | - |
| Viscerocranium | - | - | - | 7 | - | - | 2 | - | - |
| Dentes sup. | - | - | - | 4 | - | - | - | - | - |
| Mandibula | 1 | 3 | - | 17 | - | - | 3 | 2 | - |
| Dentes inf. | - | 3 | - | 4 | - | - | - | - | - |
| Atlas | 1 | 1 | 2 | - | - | - | 1 | 1 | - |
| Epistropheus | - | - | 3 | - | - | - | 1 | 1 | - |
| and. Vert. cerv. | - | 2 | 2 | 2 | - | 1 | - | 6 | - |
| Vert. thor. | 1 | - | - | 8 | - | - | - | - | - |
| Vert. lumb. | - | 4 | - | 4 | - | - | 1 | 5 | - |
| Sacrum | - | - | 1 | - | - | - | 1 | 1 | - |
| Costae | 2E | 6 | - | 23 | - | - | 1 | 2 | - |
| Sternum | - | - | - | 1 | - | - | - | - | - |
| Scapula | - | 1 | 7 | - | 1 | - | 3 | - | - |
| Humerus | - | 1 | 7 | 4 | 1 | - | 2 | 3 | - |
| Radius | 1P, 1E | 1 | 9 | 13 | - | - | 1 | - | - |
| Ulna | 1P, 1E | - | 1 | 1 | - | - | 2 | 2 | - |
| Carpalia | - | 2 | - | - | - | - | - | - | - |
| Metacarpus | - | - | 3 | 3 | - | - | 1 | 1 | - |
| Pelvis | - | 4 | 4 | 5 | - | - | - | - | - |
| Femur | 1E | 4 | 1 | 19 | - | - | 3 | 1 | - |
| Tibia | - | 7 | 1 | 20 | 1 | 1 | - | 2 | - |
| Talus | - | 1 | 2 | - | - | - | - | - | - |
| Calcaneus | - | 1 | 4 | - | - | - | - | - | - |
| Metatarsus | 1 | 3 | 1 | 2 | - | - | - | - | - |
| Phalanx 1 | - | - | - | - | 2 | - | 1 | - | 1 |
| Phalanx 2 | - | 1 | - | - | - | - | - | - | - |
| Phalanx 3 | - | - | 1 | - | - | - | - | - | - |
| Insgesamt | 11 | 48 | 54*** | 138*** | 5*** | 3 | 24 | 28 | 1 |

Unbestimmt 52.
*E = Esel, P = Pferd.
**Locus 56: Skelett.
$* * *$ Gesamtzahl Schafe + Ziegen $=197$.

Tabelle A-3. Zusammenstellung der Säugetierknochen aus WC ohne Berücksichtigung der Datierung

|  | Equide* | Rind | Schaf | Schaf/Ziege | Ziege | Gazelle | Schwein | Hund |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hornzapfen | - | 1 | - | - | - | - | - | - |
| Viscerocranium | - | - | - | 2 | - | - | - | - |
| Dentes sup. | - | - | - | 2 | - | - | - | - |
| Mandibula | - | - | - | 5 | - | - | - | - |
| Dentes inf. | - | - | - | 4 | - | - | - | - |
| Atlas | - | - | 1 | 1 | - | - | - | - |
| Epistropheus | - | - | 1 | - | - | - | - | - |
| and. Vert. cerv. | - | - | 4 | 5 | - | - | - | - |
| Vert. thor. | - | 1 | - | 8 | - | - | - | - |
| Vert. lumb. | - | 1 | 1 | 3 | - | - | 1 | - |
| Sacrum | 1E | - | - | 2 | - | - | - | - |
| Costae | - | 1 | - | 64 | - | - | 3 | 3 |
| Scapula | - | - | 7 | - | - | - | - | - |
| Humerus | 2E | 1 | 4 | - | - | - | - | - |
| Radius | 1E, 1 | - | 11 | - | - | - | - | - |
| Ulna | - | - | 3 | - | - | - | 1 | - |
| Carpalia | - | 2 | 1 | 1 | - | - | - | - |
| Metacarpus | 1 | - | 2 | 1 | - | - | - | - |
| Pelvis | 1 | 1 | 11 | 5 | - | - | 1 | - |
| Femur | 2E, 1 | 3 | 4 | 15 | - | 1 | - | - |
| Patella | - | - | 3 | - | - | - | - | - |
| Tibia | 1 | - | 7 | 8 | - | 1 | 1 | - |
| Malleolare | - | 1 | - | - | - | - | - | - |
| Talus | 1 | 2 | 4 | - | - | - | 1 | - |
| Calcaneus | 1 | - | 2 | - | - | - | - | - |
| Centrotarsale | - | - | 2 | - | - | - | - | - |
| and. Tarsalia | - | - | - | - | - | - | 1 | - |
| Metatarsus | - | - | 10 | 2 | - | - | 2 | - |
| Phalanx 1 | - | - | 4 | 1 | 1 | - | - | - |
| Phalanx 2 | 1 | - | 2 | - | - | - | - | - |
| Phalanx 3 | - | - | 1 | - | - | - | - | - |
| Insgesamt | 14 | 14 | 85** | 129** | 1** | 2 | 11 | 3 |

Unbestimmt 39.
*E = Esel.
**Gesamtzahl Schafe + Ziegen $=215$.

## SCHAF, OVIS ARIES UND ZIEGE, CAPRA HIRCUS

Das Dominieren der Schafknochen im Fundgut gegenüber allen anderen Arten, vor allem aber gegenüber der Ziege, wurde bereits erwähnt. Ob die Ziegenhaltung allerdings von derart untergeordneter Bedeutung war, wie es nach den Funden scheint, läßt sich aus dem Befund kaum schließen, denn die Abfälle können auf einer Vorauslese beruhen. Der hohe Anteil an Jungtierknochen, der sich nicht nur anhand der Kiefer (Tab. A-5) sondern auch an den übrigen Knochen ablesen läßt, sowie der Vorrang der männlichen Tiere unter den nachgewiesenen Schafen bestätigen die Auswahl unter Gesichtspunkten des Fleischgenusses. Die Beckenfunde vom Schaf ergeben ein Geschlechtsverhältnis $\delta: \%$ wie 2:1. Unter der männlichen Tieren verstehen sich Widder und Hammel. Von den in Tabelle A-6 in ihrer Geschlechtszugehörigkeit nicht bestimmten Knochen dürften die meisten ihrer Größe nach von Hammeln sein.

In Größe und Typ passen die Knochen der kleinen Wiederkäuer zu den früheren Funden aus Nippur und zu denen aus Isin (Boessneck 1977a: 121ff.; idem 1978: 155f., Tab. 12; Boessneck und Kokabi 1981b; Boessneck und von den Driesch 1992). Unter den Schafknochen war wieder der Rest einer hornlosen Kalotte, unter den Ziegenknochen der Nachweis für eine schraubenhörnige Geiß. Ein in ganzer Länge erhaltener Humerus (Tab. A-6d) unbekannter Geschlechtszugehörigkeit ergibt mit dem von Teichert (1975, Tab. 4) ermittelten Faktor für vor- und frühgeschichtliche Schafe gerechnet eine ungefähre Widerristhöhe von 65 cm .

Tabelle A-4. Maße an Rinderknochen (mm)
a) Tibia, WB Locus 18 (Lot C 1445), K, Bd 57
b) Talus

|  | WB* | WC-1 | WC-1 | IC-1** |
| :--- | :---: | :---: | :---: | :---: |
| Locus | 18 | Pit O | 8 | - |
| Lot | C 165 | C 1302 | C 1306 | C 589 |
| Zeitstufe | K | LK | P | - |
| GL 1 | $(60)$ | 67 | 64 | $(64)$ |
| GLm | 57,2 | 63 | 58,5 | - |
| T 1 | 33 | 36,5 | 33,5 | 34 |
| Bd | 36 | 43 | 42 | - |

*An dem dazugehörigen Calcaneus ist das Tuber noch nicht angewachsen.
**Verbrannt.
c) Phalanx 2 posterior, WB Locus 58 (Lot C 152), K GL 38, Bp (25), KD 18,5, Bd 20

Tabelle A-5. Altersverteilung der Unterkiefer von Schaf oder Ziege

| $P_{4}$ in Reibung, $M_{1}$ fehlt noch | 1 |
| :--- | :--- |
| $M_{1}$ in Reibung, $M_{2}$ fehlt noch | 6 |
| $M_{2}$ in Reibung, $M_{3}$ fehlt noch | 5 |
| $M_{3}$ im Durchbruch | 2 |
| $M_{3}$ geringgradig abgerieben | 5 |
| $M_{3}$ mittelgradig abgerieben | 3 |

Tabelle A-6. Maße an Knochen von Schaf (S) und Ziege (Z) (mm)
a) Atlas, S §, WB Locus 63 (Lot C 1447), K GLF 51; BFcd 50
b) Epistropheus, zu a) gehörig: BFcr 48,5; KBW 25,5
c) Scapula

|  | S | Z | S | S | S | S | S |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Area | WB | WB | WC-1 | WC-1 | WC-1 | WC-1 | WC-1 |
| Locus | 37 | 57 | Pit O | 8 | 8 | 8 | 12 |
| Lot | C 12 | C 107 | C 1302 | C 1306 | C 1306 | C 1306 | C 1306 |
| Zeitstufe | S | PK | LK | P | P | P | P |
| KLC | 22 | 22,5 | - | 23,8 | 21,5 | 21,5 | 20,7 |
| GLP | 34,3 | 36,5 | 36 | 36 | - | - | - |
| LG | 27,5 | 31 | 28,5 | 31,5 | - | - | - |
| BG | 23 | 24 | 24 | 23 | 22,5 | - | - |
| Geschlecht | $\delta$ | $\delta$ | $\delta$ | $\delta$ | $?$ | $?$ | $?$ |

d) Humerus

|  | S | S | S | S | S | S | S | S |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Area | WA | WA | WA | WA | WA | WB | WB | WB |
| Locus | 33 | 33 | 33 | 33 | 33 | 18 | 37 | 37 |
| Lot | C 1092 | C 1092 | C 1092 | C 1092 | C 1092 | C 165 | C 6 | C 55 |
| Zeitstufe | S | S | S | S | S | K | S | S |
| BT | $31^{*}$ | 32 | 30,7 | 29,5 | 26 | 31 | 32 | 29 |
| Geschlecht | $?$ | $?$ | $?$ | 9 | 9 | $?$ | $?$ | 9 |

*GL (151), KD 14,5.

Tabelle A-6. Maße an Knochen von Schaf (S) und Ziege (Z) (mm) (Fortsetzung)
d) Humerus (Fortsetzung)

|  | Z | S | S | S | S | S |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Area | WB | WB | WB | WC-1 | WC-1 | WC-1 |
| Locus | 46 | 53 | 57 | Pit O | Pit O | 8 |
| Lot | C 201 | C 96 | C 100 | C 1302 | C 1302 | C 1306 |
| Zeitstufe | A? | K | PK | LK | LK | P |
| BT | 34 | 29,3 | $(33)$ | 34 | 32,5 | 34 |
| Geschlecht | $\delta ?$ | $\Phi$ | $\delta$ | $\delta$ | $\delta$ | $\delta$ |

e) Radius, $S$

|  | WA | WA | WB | WB | WB | WC-1 | WC-1 | WC-1 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Locus | 33 | 33 | 37 | 38 | 43 | 6 | Pit O | 8 |
| Lot | C 1092 | C 1092 | C 6 | C 32 | C 211 | C 1283 | C 1302 | C 1306 |
| Zeitstufe | S | S | S | S | S? | EK | LK | P |
| Bp | 34 | 33,5 | 31,7 | 34 | 32,5 | 34 | 39 | 35,5 |
| BFp | 32 | 30,5 | 28 | 31 | 30 | 31,5 | 35 | 32,5 |
| Geschlecht | $?$ | $?$ | 9 | $?$ | 9 | $?$ | $\delta$ | $\delta$ adult? |

e) Radius, $S$ (Fortsetzung)

|  | WB | WB | WB | WB | L-3 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Locus | 37 | 43 | 56 | 57 | - |
| Lot | C 24 | C 211 | C 121 | C 107 | C 547 |
| Zeitstufe | S | S? | PK | PK | - |
| BD | 29,5 | 34 | 34,5 | 31 | 30 |
| Geschlecht | $\%$ | $\delta$ | $\delta$ | $?$ | $?$ |

## f) Metacarpus, $\mathbf{S}$

|  | WC-1 | WC-1 |
| :--- | :---: | :---: |
| Locus | 6 | Pit O |
| Lot | C 1283 | C 1302 |
| Zeitstufe | EK? | LK |
| Bp | 27,8 | 24 |
| Geschlecht | $\delta$ | 9 |

Tabelle A-6. Maße an Knochen von Schaf (S) und Ziege (Z) (mm) (Fortsetzung)
g) Acetabulum, $S$

|  | WC-1 | WC-1 |
| :--- | :---: | :---: |
| Locus | 8 | 12 |
| Lot | C 1306 | C 1309 |
| Zeitstufe | PP | LK |
| LA | 27,5 | 34 |
| Geschlecht | 9 | $\delta$ |

h) Tibia

|  | S | Z | S | S | S | S | S |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Area | WA | WB | WC-1 | WC-1 | WC-1 | WC-1 | WC-1 |
| Locus | 33 | 43 | Pit O | Pit O | Pit O | 12 | 12 |
| Lot | C 1092 | C 211 | C 1302 | C 1302 | C 1302 | C 1309 | C 1309 |
| Zeitstufe | S | S? | LK | LK | LK | LK | LK |
| Bd | 28,5 | 28 | 30,5 | 30 | 28 | 31 | 30 |
| Geschlecht | $?$ | $?$ | $\delta$ | $\delta$ | $?$ | $\delta$ | $\delta$ |

i) Talus, $\mathbf{S}$

|  | WC-1 | WC-1 | WC-1 | WC-1 |
| :--- | :---: | :---: | :---: | :---: |
| Locus | 6 | Pit O | 8 | 12 |
| Lot | C 1283 | C 1302 | C 1306 | C 1309 |
| Zeitstufe | EK? | LK | P | LK |
| GL1 | 31,7 | 29 | 31,7 | 31,2 |
| GLm | 29,3 | 27 | 29,2 | 28,7 |
| Tl | 17 | 15,5 | 17,5 | 17 |
| Bd | 20,7 | 18,5 | 20 | 20,8 |
| Geschlecht | $\delta$ | $9 ?$ | $\delta$ | $\delta$ |

k) Calcaneus, $\mathbf{S}$

|  | WB | WB |
| :--- | :---: | :---: |
| Locus | 18 | 37 |
| Lot | C 159 | C 202 |
| Zeitstufe | K | A? |
| GL | 59 | 63,3 |
| GB | $(20)$ | 22 |
| Geschlecht | 9 | $\delta$ |

Tabelle A-6. Maße an Knochen von Schaf (S) und Ziege (Z) (mm) (Fortsetzung)

1) Centrotarsale, S, WC-1, Pit O (Lot C 1302), LK GB 25,5 und 25
m) Metatarsus, $\mathbf{S}$

|  | WC-1 | WC-1 | L-5 |
| :--- | :---: | :---: | :---: |
| Locus | 6 | 12 | - |
| Lot | C 1283 | C 1309 | C 563 |
| Zeitstufe | EK? | LK | - |
| Bp | 22 | - | - |
| KD | - | 12,7 | - |
| Bd | 27,5 | 23,3 | 25,5 |
| Geschlecht | $\varnothing$ | 9 | $?$ |

n) Phalanx 1

|  | Z | Z | Z | Z | S | S |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Area | WA | WA | WA | WC-1 | WC-1 | WC-1 |
| Locus | 4 | 33 | 33 | 8 | 8 | 8 |
| Lot | C 949 | C 1092 | C 1092 | C 1306 | C 1306 | C 1306 |
| Zeitstufe | S | S | S | P | P | P |
| ant./post | ant. | ant. | post. | ant. | post. | post. |
| GLpe | 34 | 38 | 43,5 | 41 | 43 | 35,5 |
| Bp | 12,5 | 15 | 15 | 14,5 | 13,8 | 11,8 |
| KD | 9 | 13 | 12 | - | 10,5 | 8,8 |
| Bd | 11,2 | 14,5 | 14,7 | - | 12,3 | 11 |
| Geschlecht | 9 | $?$ | $\delta$ | $\delta$ | $\delta$ | 9 |

o) Phalanx 2

|  | Z | S | S | S |
| :--- | :---: | :---: | :---: | :---: |
| Area | WA | WA | WC-1 | L-4 |
| Locus | 33 | 33 | Pit O | - |
| Lot | C 1092 | C 1092 | C 1302 | C 553 |
| Zeitstufe | S | S | LK | - |
| ant./post. | ant. | post. | post. | post. |
| GL | 25,5 | 24,5 | 27 | 24 |
| Bp | 15 | 12 | 14 | 11,7 |
| KD | 11,5 | 9 | 10,5 | 8,7 |
| Bd | 12 | 10,5 | 11 | 9,5 |
| Geschlecht | 9 | 9 | $\delta$ | 9 |

## PERSISCHE KROPFGAZELLE, GAZELLA SUBGUTTUROSA

Unter den 5 Belegen für Gazellen (Tab. A-2-3) ist ein distal der Basis abgesetzter Hornzapfen (Taf. A-1: 2; WB, Locus 43, S oder früher), der formal mit den Funden aus Isin (Boessneck 1977a, S. 115; Boessneck und Kokabi 1981b: 141f., Taf. 48, Abb. 14a-b) und vom Tell Asmar (Hilzheimer 1941: 22ff.) übereinstimmt und demnach von einem Bock der Persischen Kropfgazelle sein dürfte. Obwohl die Basis nicht erhalten ist, mißt die Länge der Vorderkante noch ca. 200 mm . Der Zapfen ist damit länger als die wenigen ganz erhaltenen Zapfen aus Isin und vom Tell Asmar und für Gazella subgutturosa sehr groß. Die Basismaße sind nicht erhalten.

Groß ist auch die Proximalhälfte einer Tibia (WC-1, Locus 8, Lot C 1306, P) mit einer Bp von ca. $36,5 \mathrm{~mm}$, der einzige meßbare Gazellenknochen des postkranialen Skeletts.

## KAMEL, CAMELUS

Zum ersten mal befindet sich unter den Knochen aus Nippur ein Kamelknochen, die Phalanx 1 anterior aus WB Locus 57 (Lot C 107, Taf. A-1: 3) mit den folgenden Maßen: GL 108, KD $21,7 \mathrm{~mm}$. Der in die postkassitische Zeit eingestufte Fund paßt besser zum Dromedar, Camelus dromedarius, als zum Trampeltier, Camelus bactrianus (Weiler 1981, Diagr. 11). Die Zugehörigkeit zu der arabischen Kamelart, dem Dromedar, lag auch von vorn herein näher, als die Herkunft von einem Trampeltier, der ursprünglich zentralasiatischen Kamelart. Im alten Mesopotamien werden aber beide Kamelarten dargestellt (vgl. Walz 1954; idem 1956; Schauenburg 1955/56; idem 1962; Brentjes 1960; Epstein 1971: 567ff.), weshalb bei der Zuordnung Vorsicht geboten war.

## SCHWEIN, SUS DOMESTICUS

Die nicht zahlreichen Schweineknochen (Tab. A-1-3) sind, wie nicht anders zu erwarten, ganz überwiegend von Jungtieren. Nur wenige Werte erweitern die früheren Meßangaben für Schweineknochen aus Nippur (vgl. Boessneck 1978, Tab. 14):

Oberkeifer $\delta$, geringgradig abgerieben (WB Locus 28, Lot C 178, OB): LP ${ }^{1}-\mathrm{M}^{3}$ 104,5, LMR
63, LPR $43,5, \mathrm{LM}^{3} 31, \mathrm{BM}^{3} 17,7 \mathrm{~mm}$
$\mathrm{M}_{3}$, im Beginn zu reiben (Lot C 595): L/B 31,5/14 mm
Scapula (WB Locus 54, Lot C 115, PK): KLC 19,7, GLP 30,7, LG 27, BG (20) mm
Auch die nicht meßbaren Knochen lassen den schlanken Wuchs erkennen.

## EQUIDEN

Equidenknochen kommen in WB und WC vor (Tab. A-2-3). Im Erhaltungszustand unterscheiden sie sich nicht von den Knochen der gewöhnlichen Wirtschaftstiere, könnten also durchaus Küchenabfall sein. Aus dem Areal WC liegen mit 14 Stücken ebensoviele Equiden- wie Rinderknochen vor und mehr als vom Schwein (Tab. A-3).

Die Equidenknochen in ihrer Artzugehörigkeit zu bestimmen, bereitet größte Schwierigkeiten, wenn es sich um unscheinbare Bruchstücke handelt, die die Größe und
den Wuchs des Tieres nicht beurteilen lassen, und wenn für die Knochen ihrer Größe nach mehrere Equiden in Betracht kommen.

Nur 2 Knochen, die zusammengehörigen Proximalteile von Radius und Ulna (WB Locus 18, Lot C 133, K), konnten ihrer Form und Stärke nach dem Pferd, Equus caballus, zugeordnet werden. Mit dem Pferd ist in kassitischer Zeit ohne weiteres zu rechnen. In den Funden aus Isin ist es schon aus altbabylonischer Zeit nachgewiesen (Boessneck und Kokabi 1981: 134). Inwieweit es in kassitischer Zeit dem Volk bereits als Wirtschaftstier zur Verfügung stand oder allein als Zugtier des leichten "Streitwagens" den Herrschenden diente, wie zur Zeit Hammurabis, bleibt noch zu klären. Der Größe nach gut zu einem Pferd paßt auch die Acetabulumregion mit Brandspuren aus Lot C 551 B, während das distale Femurende mit einer Bd von ca. 80 mm aus C 551 eher einem Onager, Equus hemionus, gehörte.

Der Equide, der dem Volke als Lasttier diente, war schon damals der Esel, Equus asinus. Bei frühen Eselnachweisen aus dem Vorderen Orient fiel mehrfach die stattliche Größe der Tiere auf (z. B. von den Driesch und Amberger 1981; Boessneck und Kokabi 1981a; Boessneck und von den Driesch 1986; Boessneck 1987), die es zunächst abzuklären galt, um Verwechslungen und Fehlbestimmungen zu vermeiden. Der Vergleich mit den Maßen dieser großen Hausesel erhärtete den Verdacht, daß die meisten der Equidenknochen aus Nippur von Eseln stammen. Eine Trochlea humeri mit einer BT von 56 mm (WC-2 Locus 2, Lot C 766, PK) unterscheidet sich durch ihre geringe Höhe eindeutig von Humerusrollen des Onagers. Größere Eselhumeri entsprechen in der Breite (vgl. Kolb 1972, Tab. 8 und 9h; von den Driesch und Amberger 1981, Tab. 1d; Boessneck und Kokabi 1981a, Tab. 5f). An einem mittelgradig abgeriebenen $M_{3}$ (WB Locus 56, Lot C $144, K)$ von 28 mm Länge und 13 mm Breite an der Kaufläche paßt die Zahnzeichnung vollkommen zu Eselzähnen (Taf. A-1: 4). Die Maße entsprechen anderen dem Esel zugeordneten $\mathrm{M}_{3}$ (Krauß 1975, Tab. 29c, S. 99f.). Gleichfalls zu einem größeren Hausesel gehören möglicherweise die zusammengehörigen Talus und Calcaneus aus WC-1, Locus 12 (Lot C 1309, LK; Taf. A-1:7) und die anderen Equidenknochen dieser Fundstelle, die alle vom gleichen Tier sein können. Die Maße des Sprung- und des Fersenbeins zum Vergleich (z. B. von den Driesch und Amberger 1981, Tab. 1i, k; Boessneck und Kokabi 1981a, Tab. 5p, q; Boessneck 1987):

Talus: GH 50, GB 49, LmT 47, BFd 41 mm
Calcaneus: GL 89,5, GB 39 mm
Weitere dem Esel zuzuordnende Knochen (Tab. A-2-3) waren nicht meßbar.
An einem schlankwüchsigen Metatarsus (Taf. A-1: 5; WB Locus 63, Lot C 1447, K) $\mathrm{mi} ß \mathrm{die} \mathrm{Bp}$ ca. 39 mm . Da nur das proximale Ende erhalten ist, läßt sich nicht entscheiden, ob der Knochen von einem Hemippus, Equus hemionus hemippus, der syrischen Unterart des Onagers, stammt, oder von einem Esel. Der Größe nach wäre beides möglich.

Bei einer Phalanx 2 anterior mit den Maßen GL 42,5, Bp 40,3, KD 33,5 und Bd 38 mm (WC-1 Locus 12, Lot 1302, LK; Taf. A-1: 6) kommt neben der Zugehörigkeit zu einem Onager (vgl. Krauß 1975: 107) wohl auch das Muli in Frage. Mit diesem

Kreuzungsprodukt zwischen Pferd und Esel darf in der spätkassitischen Zeit ohne weiteres gerechnet werden.

## HUND, CANIS FAMILIARIS

Aus WA liegen 3 vereinzelte Hundeknochen (Tab. A-1) und die Reste eines begrabenen Hundes vor (Locus 43). Mehrere Ansammlungen von Hundeknochen in WB Locus 37 und der Schädel mit Halswirbelsäule aus WB Locus 43 stammen vielleicht von sekundär auseinandergeratenen Skeletten eingegangener Hunde. In WC fanden sich vom Hund nur 3 Rippenstücke.

Das zerbröckelte Skelett aus WA Locus 43 stammt von einem adulten, über mittelgroßen, schlankwüchsigen Hund. Im Vergleich mit Hundeskeletten ähnlicher Größe aus Isin (Boessneck 1977b, Skelette Nr. 8 und 21; Boessneck und Kokabi 1981b: 144f.), deren besserer Erhaltungszustand eine genauere Vorstellung über ihre Schulterhöhe vermittelt, läßt sich die Widderristhöhe des Hundes aus WA Locus 43 auf um die 55 cm einschätzen. Von den wenigen abzunehmenden Maßen (Tab. A-7) am wichtigsten für diese Vergleiche sind die Metapodienlängen (Tab. A-7i, k). Ein Metacarpus II aus WA Locus 33 weist demnach auf einen noch größeren Hund hin, während der subadulte Hund aus WB Locus 37 deutlich kleiner war, vielleicht um die 45 cm hoch. Aus diesem Locus liegen aber vor allem Knochen mehrerer Junghunde vor. Der Hund aus WB Locus 43 stand in der Größe zwischen dem kleineren, subadulten Hund aus WB Locus 37 und dem Hund aus WA Locus 43. Alle aus Nippur nachgewiesenen Hunde fallen in den Größenrahmen, in dem die Masse der Hunde auch sonst zu finden ist.

Tabelle A-7. Maße an Hundeknochen (mm)
a) Oberkiefer

|  | WA Locus 43 | WB Locus 43 |
| :--- | :---: | :---: |
| $\mathrm{LP}^{4}$ ohne Fortsatz | 19 | 18 |
| $\mathrm{BP}^{4}$ mit Fortsatz | - | 11 |
| $\mathrm{BP}^{4}$ ohne Fortsatz | 8 | 9 |
| $\mathrm{LM}^{1}$ | 12,7 | 12,5 |
| $\mathrm{BM}^{1}$ | 15 | 15,3 |

b) Unterkiefer

|  | $\mathrm{r}+1$ | 1 |
| :--- | :---: | :---: |
| $\mathrm{LM}_{1}$ | 22 | 21 |
| $\mathrm{BM}_{1}$ | 8,5 | 8,7 |
| $\mathrm{LP}_{1}-\mathrm{P}_{4}$ | 38 | - |

c) Atlas WA Loc. 43 GB (82,5), BFcr 38, GLF (30)

Tabelle A-7. Maße an Hundeknochen (mm) (Fortsetzung)
d) Epistropheus

|  | WA Locus 43 | WB Locus 43 |
| :--- | :---: | :---: |
| BFcr | 28,7 | 27,8 |
| KBW | - | 20 |
| LAPa | 54,5 | 42 |

e) Sacrum WB Loc. 37 PL 28,5, GB 32, BFcr 20, HFcr 9 *Wirbelscheiben frisch verwachsen.
f) Humerus WA Loc. 43 Tp (39), Bd (32)
g) Radius WA Loc. 43 Bp 16,5, KD 14
h) Talus WA Loc. 43 GL 24,5
i) Metacarpus

|  | WA Locus 43 |  |  |  |  |  |  | WA <br> Locus 33 | $\begin{gathered} \text { WB } \\ \text { Locus } 37 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | rechts |  |  |  | links |  |  |  |  |
| Strahl | II | III | IV | V | II | III | V | II | II |
| GL | 58,3 | 67 | 66,5 | 54,7 | 58,8 | 67,7 | 55 | 60 | 46,7 |
| Bd | 9 | 9 | 8,5 | 9,3 | 9 | 8,7 | 9 | 9,5 | 8 |

k) Metatarsus

|  | WA Locus 43 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Strahl | II | III | IV | V | II |  |
| GL | 67 | 75 | 76,3 | 68,7 | 66,8 |  |
| Bd | - | 8,8 | 8,2 | 8,5 | 8,5 |  |

## KLEINSÄUGER

Bei den Resten von Kleinsäugern, die in WA Locus 33 (Lot C 1092) gefunden wurden, handelt es sich um natürliche Einmischungen in das Kulturgut. Grabfledermäuse, Hausratten und Hausmäuse lebten als Kommensalen auf dem Stadthügel. Ob sich die Skelettreste bereits in der Seleukidenzeit angesammelt haben oder später, ist von uns aus nicht zu entscheiden.

Von der Grabfledermaus, Taphozous nudiventris magnus, liegen 73 Knochen von mindestens 8 Individuen vor. Die Artbestimmung ermöglichte uns der Vergleich mit einem

Fund aus Isin (Boessneck 1977a: 126). Soweit MaBe abgenommen werden konnten, sind sie nachstehend zusammengestellt (mm):

Unterkiefer, C-M3 13,5 (vgl. Harrison 1964: 68)
Humerus

| GL | 51 | 49,2 | - | - | - |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Bp | - | 7 | 7,4 | 7,3 | - |
| KC | 1,9 | 1,8 | 2 | 1,9 | 1,8 |
| Bd | 4,5 | 4,3 | 4,4 | 4,3 | 4,2 |

Radius, GL 77
Femur, GL $(31,2)$
Tibia, GL 28,1
Die 17 Knochen von der Hausratte, Rattus rattus gehören zu mindestens 3 Tieren. Vergleichsmaße zu den Maßangaben (mm) finden sich in Boessneck und Kokabi (1981b, Tab. 13).

Unterkiefer, L der Backzahnreihe, Alveolenmaß 7,2 L der Backzahnreihe, Kauflächenmaß 6,5
Humerus, GL 24,2 KD 1,9
Femur, der größte und einzige ganz meßbare: GL 34,2, LC 32,8, Bp 7,5, KD 3,5, Bd 5,8
Tibia, GL ohne die proximale Epiphyse 36,5 (vgl. auch Boessneck 1977a: 126)
Von der Hausmaus, Mus musculus, die in Isin die Reste mehrerer Skelette nachweisen (Boessneck 1977a: 126; Boessneck und Kokabi 1981b: 147) liegt nur ein unvollständiger Femurknochen vor.

## VÖGEL

Vogelknochen liegen aus WA (Loci 4 und 33) und WB (Loci 18, 37, 43 und 56) vor. Wie in der 12. Serie aus Nippur (Boessneck 1978: 160ff.) handelt es sich um Belege für Wasservögel, außerdem einige Tauben- und einen Hühnerknochen. Die Besprechung der vorkommenden Arten erfolgt in zoologisch-systemischer Reihenfolge in Anlehnung an Heinzel, Fitter und Parslow (1972).

Eine Ulna ohne Distalende-Bp 3,6 mm-weist den als Jahresvogel in Mespotamien anzutreffenden Zwergtaucher, Tachybaptus ruficollis, nach (WA Locus 33).

Vom Fischreiher, Ardea cinerea, kommen aus der gleichen Fundstelle (WA Locus 33) 5 Knochen. An dem Radiusfund mißt die $\mathrm{Bp} 8,7 \mathrm{~mm}$.

Ebenso wie Fischreiher und Zwergtaucher kommt der Löffler, Platalea leucorodia, das ganze Jahr über an den Seen des unteren Zweistromlandes vor. Von ihm liegt das Distalende eines Carpometacarpus vor (WA Locus 33).

Bei den Gänseknochen (WB Locus 18, Lots C 133 und 165, Locus 56, Lot C 78) aus kassitischer und postkassitischer Zeit handelt es sich anscheinend um die Reste von Hausgänsen, Anser anser domesticus. Ihre Wildform, die Graugans, Anser anser, die im Euphrat-Tigris-Becken noch heute nistet, kann aber morphologisch nicht ausgeschlossen
werden. Die Größe und der regelmäßige Nachweis von Knochen dieser Gänseart in den Funden aus Isin (Boessneck und Kokabi 1981b: 148) und Nippur (Boessneck 1978: 161) legen ihre Auslegung als Hausgansreste nahe.

Dasselbe Problem ergibt sich bei den Knochen der Stockente, Anas platyrhynchos, der Vorfahrin der Hausente. Bei ihr ist aber ungewiß, ob sie früher im Unterland von Mesopotamien brütete und hier domestiziert werden konnte. Heute nistet sie erst weiter nördlich. Ein Fund von der Stockente liegt bereits aus der früheren Serie aus Nippur vor (Boessneck 1978: 161). In den neuen Funden gibt es ein Tibiakörperstück (WA Locus 4) und die Distalhälfte eines Tibiotarsus (WA Locus 33)-Bd 9,1, KC 3,7 mm (vgl. Woelfle 1967: 175).

Gleichfalls ein häufiger Wintervogel in Mesopotamien ist die Spießente, Anas acuta, von der ein Tibiotarsus ohne das Proximalende vorliegt (WB Locus 37, Lot C 202)—Bd (7,5), KC $3,2 \mathrm{~mm}$. Die Maße allein hätten zur Bestimmung nicht ausgereicht (Woelfle 1967: 176f.), aber die erhaltene Länge hilft im unmittelbaren Vergleich die Bestimmung abzusichern. Allerdings ist die Schnatterente, Anas strepera, nicht ganz und gar auszuschließen, ein Problem, das sich auch bei früheren Funden aus Nippur und Isin ergab (Boessneck 1977a: 127; idem 1978: 161).

Von einem Tauchentenskelett liegen 8 Knochen vor. Diese Ansammlung mehrerer Teile eines Tieres erleichtert die Bestimmung. An der Zugehörigkeit zur Reiherente, Aythya fuligula, einem Wintergast in Mesopotamien, besteht kein Zweifel. Folgende Maße konnten genommen werden (vgl. Woelfle 1967; Boessneck und von den Driesch 1979, Diagr. 36):

Coracoid, rechts, GL 46,3, Lm 42,8, BF $18,5 \mathrm{~mm}$
Coracoid, links, Lm 43 mm
Scapula, Dc 10,5 und $10,3 \mathrm{~mm}$
Humerus, rechts, GL 79,5, Bp 17, KC 5, Bd 11,3 mm
Humerus, links, GL, 79,5, Bp 17, KC 5,2, Bd $11,3 \mathrm{~mm}$
In die seleukidische Zeit datiert (WA Locus 4) und damit ohne weiteres glaubhaft (Lindner 1979) ist das Femur eines Haushuhns, Gallus gallus domesticus, von dem das proximale und das distale Ende vorliegen-Bp 14,8, Tp 9, KC 6,2, Bd 14,3 mm.

Vom Bläßhuhn, Fulica atra, einem häufigen Jahresvogel in Mesopotamien, der auch in den früheren Funden aus Nippur und im Material von Isin nachgewiesen wurde, liegt eine annähernd vollständig erhaltene Scapula vor (WA Locus 4).

5 Taubenknochen von einem adulten Tier und die Proximalhälfte von einer Jungtiertibia (WA Locus 33) passen zur Felsentaube, Columba livia, die sicherlich in den Gebäuden von Nippur nistete, ohne daß sie damit domestiziert gewesen sein muß. Für Haustauben wären die Knochen klein, wenn man an die gewöhnlichen Feldflüchter denkt. Die MaBe (mm):

Coracoid, Lm (34)
Humerus, GL 45, KC 5,2
Ulna, GL (52), KC 3, Dd (7)

Die Arbeit von Fick (1974) orientiert über die Maße von Columba livia, bedauerlicherweise aber nicht detailliert über die Größe der sogenannten Feldflüchter.

## WASSERSCHILDKRÖTE

Wie die frühere Serie enthält das Fundgut wieder einen einzigen Knochen von der in der Gegend häufigen Wasserschildkröte, Mauremys caspica (WA Locus 33). Bei diesem Pleurale handelt es sich wohl eher um eine natürliche Einmischung als um einen in kultureller Beziehung stehenden Fund.

## FISCHE

In der Zeit seit der Untersuchung der Funde aus der 12. Season konnten wir am Institut eine Vergleichssamlung von Fischskeletten aus dem Euphrat-Tigris-Gebiet aufbauen. Frau Prof. Dr. A. von den Driesch bestimmte daran dankenswerterweise die Fischknochen der neuen Serie für uns. Mit einer Ausnahme handelt es sich um Cyprinidenknochen.

Die Ausnahme bildet der Gelenkteil des rechten Cleithrum eines ca. 50 cm langen Welses, Parasilurus triostegus (WB Locus 37, Lot C 202).

Aus der gleichen Fundstelle liegt die Basis eines 3. Rückenflossenstachels von einer gut 55 cm langen, nicht weiter bestimmbaren, Barbe vor.

Von besonderem Interesse ist ein Fischskelett, das sich in WB "Burial 29" auf einer Schale liegend fand und dadurch als Grabbeigabe ausgewiesen ist. Vor der Ablage der Speisebeigabe hat man bedauerlicherweise den in dieser Hinsicht wertlosen Kopf entfernt, nicht voraussehend, daß damit für den Osteoarchäologen die Artbestimmung aussichtslos wird. Es handelt sich um ein Barbenskelett, von dem 30 praecaudale und caudale Wirbel, das Schwanzenskelett, mindestens 4 Rippen, der 3. Rückenflossenstachel, einige Flossenstrahlträger, zahlreiche zum Teil zusammenklebende Lepidotrichen und die beiden Basipterygoidea erhalten blieben. Der 3. Rückenflossenstachel ist ungezackt, glatt, was die Zugehörigkeit auf folgende Barbusarten einengt: B. sharpeyi, B. grypus und B. luteus. Die Form der Basipterygoidea stimmt am besten bei Barbus (Puntius) sharpeyi überein. Die Totallänge des Fisches betrug ca. 30 cm .

Aus WA Locus 4 liegen 4 Cyprinidenknochen vor. Ein Os pharyngeum inferius mit einer größten Sehnenlänge von $20,8 \mathrm{~mm}$ gehörte einer $25-30 \mathrm{~cm}$ langen Barbus (Puntius) sharpeyi. Ein letzter Schwanzwirbel von einer kleinen Barbe paßt in der Größe dazu und ist möglicherweise vom gleichen Fisch. In Stücke zerfallen ist ein unvollständiger, gezähnelter 3. Rückenflossenstachel von einem mindestens 50 cm langen Fisch (Barbus spec.?). Auch der ventrale Abschnitt einer Rippe stammt von einem großen, unbestimmten Cypriniden.

Ein unbestimmbares Fragment von einem Processus neuralis sowie 2 nicht weiter bestimmbare Cyprinidenknochen kommen aus WA Locus 33. Der eine dieser Knochen, eine Vertebra caudalis, weist auf eine Totallänge des Fisches von ca. 40 cm hin. Der andere ist ein unscheinbares Fragment von einem Cleithrum.

Von einer sehr großen Barbe (B. esocinus?) stammt ein Fragment eines gezähnelten 3. Rückenflossenstachels aus Lot C 551c.

## ZUSAMMENFASSUNG

Bei den Ausgrabungen des Oriental Institutes der Universität von Chicago in Nippur wurden in der 13. Season in den Arealen WA, WB und WC über tausend Tierknochenfunde sowie die Reste mehrerer zerfallener Tierskelette geborgen. Die Funde stammen überwiegend aus der kassitischen, postkassitischen und der seleukidischen Zeit. Wie nicht anders zu erwarten, gehören die Knochen im großen und ganzen zu den schon in den Funden der 12. Season nachgewiesenen Wirtschaftstierarten (Boessneck 1978). Unter der Annahme, daß sich die nicht weiter bestimmten Schaf/Ziegeknochen in etwa ebenso auf die beiden Arten verteilen wie die bestimmbaren, rückt der Anteil des Schafes gegenüber Rind, Schwein und Ziege aber noch weiter in den Vordergrund als in der früheren Fundserie, die aus der Area WB kam und meist Knochen aus der altbabylonischen Zeit enthielt (Tab. A-8). Aus dem Vorrang des Hammelfleisches darf jedoch nur mit Vorsicht auf einen ähnlich hohen Vorrang des Schafes in den Tierbeständen von Nippur geschlossen werden, denn es ist nicht gesagt, daß die Fundstellen einen in dieser Hinsicht voll und ganz repräsentativen Querschnitt vermitteln.

Unter den wenigen Gazellenknochen fällt ein besonders langer Hornzapfen auf.
Zahlreicher als in der ersten Serie kommen diesmal Equiden- und Hundeknochen im Fundgut vor, die Skelettfunde nicht gerechnet. Die Mehrzahl der Equidenknochen ist vom Esel, in einem Fall aus der kassitischen Zeit sind zwei zusammengehörige Pferdeknochen zu erkennen. Der Verdacht auf Belege für Halbesel besteht mehrfach, ist aber schwer zu erhärten, zumal auch mit dem Vorkommen des Mulis zu rechnen ist.

Ein zerbröckeltes Hundeskelett läßt auf ein schlankwüchsiges Tier mit um die 55 cm Schulterhöhe schließen. Andere durch die Funde repräsentierte Hunde waren etwa gleichgroß, größer und etwa 10 cm kleiner. Hervorzuheben sind die Ansammlungen von Junghundknochen mehrerer Exemplare in WB Locus 37.

Neu nachgewiesen für Nippur werden u. a. Kamel und Haushuhn. Das in die postkassitische Zeit datierte Fesselbein vom Kamel paßt besser zum Dromedar als zum Trampeltier, mit dem auch von vorn herein weniger gerechnet werden muß. Der Hühnerfemur ist in die seleukidische Zeit eingestuft und damit durchaus zu erwarten.

Im übrigen stammen die Geflügelknochen wieder von Arten, die am Wasser leben, wenn man von der Felsentaube absieht (Tab. A-9).

Auffallend gering ist wieder der Anteil an Fischknochen in dem Fundgut. In einem der Menschengräber (Area WB, Burial 29) lagen auf einer Schale die Reste von einer Barbe ohne Kopf, die dem Bestatteten als Speisebeigabe mitgegeben worden war.

Nicht in kulturellem Zusammenhang zu sehen sind die in WA Locus 33 angesammelten Knochen von mindestens 8 Grabfledermäusen, 3 Hausratten und einer Hausmaus. Diese Arten lebten als Kommensalen auf dem Stadthügel.

Tabelle A-8. Vergleich der Fundzahlen zwischen den Wirstchaftstieren im engeren Sinne

| Area | $\begin{aligned} & \text { 12. Season } \\ & \text { WB } \end{aligned}$ |  | $\begin{aligned} & \text { 13. Season } \\ & \text { WB } \end{aligned}$ |  | 13. Season WA |  | 13. Season WC |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | abs. | \% | abs. | \% | abs. | \% | abs. | \% |
| Rind | 67 | 22 | 48 | 17,8 | 4 | 2,3 | 14 | 5,8 |
| Schaf/Ziege | 167 | 55 | 197 | 73,3 | 155 | 90,5 | 215 | 89,6 |
| Schaf* | 65 | - | 54 | - | 34 | - | 85 | - |
| Ziege* | 11 | - | 5 | - | 10 | - | 1 | - |
| Schwein | 70 | 23 | 24 | 8,9 | 12 | 7,2 | 11 | 4,6 |
|  |  | 100 |  | 100 |  | 100 |  | 100 |

*erkennbar.

Tabelle A-9. Aus Nippur nachgewiesene Vogelarten

| Season | 12. | 13. | 14. | Summe |
| :--- | :---: | :---: | :---: | :---: |
| Zwergtaucher, Tachybaptus ruficollis | - | 1 | - | 1 |
| Kormoran, Phalacrocorax carbo | 1 | - | - | 1 |
| Fischreiher, Ardea cinerea | - | 5 | - | 5 |
| Löffler, Platalea leucorodia | - | 1 | - | 1 |
| Schlangenhalsvogel, Anhinga rufa | 1 | - | - | 1 |
| Grau-/Hausgans, Anser anser (domesticus) | 1 | 3 | 2 | 6 |
| Stockente, Anas platyrhynchos | 1 | 2 | - | 3 |
| Spießente, Anas acuta | Teilskelett | 1 | - | Teilsk, + 1 |
| Löffelente, Anas clypeata | 1 | - | 1 | 2 |
| Reiherente, Aythya fuligula | - | Teilskelett | - | Teilskelett |
| Tafelente, Aythya ferina | 1 | - | 1 | 2 |
| Zwergsäger, Mergus albellus | 1 | - | - | 1 |
| Haushuhn, Gallus gallus domesticus | - | 1 | 1 | 2 |
| Bläßhuhn, Fulica atra | 2 | 1 | - | 3 |
| Kampfläufer, Philomachus pugnax | - | - | 1 | 1 |
| Felsentaube, Columba livia | - | 6 | - | 6 |
| Schleiereule, Tyto alba | - | - | 1 | 1 |
| Summe | $9+$ Teilskel. | $21+$ Teilskel. | 7 | $37+2$ Teilskel. |

Tafel A-1


Tierknochenfunde aus Nippur: 13. Season

1. Rind. Kurzer adulter Hornzapfen (WC-1, Level I, Pit C, cutting Locus 11, Lot C 487)
2. Gazelle. $(a-b)$ Distal der Basis abgesetzter Hornzapfen (WB Locus 43)
3. Kamel. Phalanx 1 anterior (WB Locus 57, Lot C 107)
4. Equide, Hausesel oder Hemippus. Mittelgradig abgeriebener $M_{3}$ (WB Locus 56, Lot C 144)
5. Equide, Hausesel oder Hemippus. Proximale Metatarsushälfte (WB Locus 63, Lot C 1447)
6. Equide. Phalanx 2 anterior (WC-1, Between Levels III and II, Pit O, Lot C 1302)
7. Equide, Hausesel oder Hemippus. Talus und Calcaneus (WC-1 Locus 12, Floor 3, Lot C 1309)

## APPENDIX B

## TIERKNOCHENFUNDE AUS NIPPUR: 14. SEASON

## JOACHIM BOESSNECK $\dagger$ UND MOSTEFA KOKABI

## EINLEITUNG

In dieser Studie wird die dritte Aufsammlung von Tierknochen aus Nippur untersucht. Diese Funde der 14. Season stammen aus dem Areal WC und sind nach brieflicher Mitteilung des Grabungsleiters, Prof. McGuire Gibson, drei Besiedlungsphasen zuzuordnen: Ur III, kassitische und neuassyrische Zeit (vgl. auch Gibson 1980).

Zusätzlich liegen Funde aus einem "geomorphological trench" vor, zu denen der Ausgräber uns folgende Angaben macht: "A set of numbers, Lots D 451-57, D 487-94, D 498, D 801a and so on to D 849a, are from the trench (Trench 2) cut by Stephen Lintner for geomorphological and enviromental study. These include, I think, many well-preserved specimens including a rather large skeleton (Bos ?). The dating on these is not as clear as in the excavated (houses, city wall) samples from Area WC ... . These samples are certainly ancient and are surely Kassite or later (not earlier) since we had Kassite at the bottom of this trench." Diese Funde führen wir, gegebenenfalls mit Maßangaben, in den detaillierten Fundlisten mit auf. Wegen der unsicheren Datierung gehen wir aber nur ausnahmsweise bei der Besprechung der Funde auf sie ein.

In den Maßtabellen werden die Zeitstufen wie folgt abgekürzt: $\mathrm{U}=\mathrm{Ur}$ III, $\mathrm{K}=$ Kassitisch, $\mathrm{N}=$ Neuassyrisch.

Die Knochenmaße nehmen wir gemäß der Meßmethodik von $A$. von den Driesch (1976) ab. Diese Arbeit entschlüsselt auch die Abkürzungen der Meßstrecken.

## BESPRECHUNG DER VORKOMMENDEN TIERARTEN

## ALLGEMEINES

Die Knochenfunde aus der 14. Season der Grabungen in Nippur sind zwar nicht zahlreich- 1285 Funde, darunter 60 unbestimmbare Bruchstücke von Säugertierknochenlassen aber doch eine markante Verschiebung im Anteil der Fleischwirtschaftstiere ablesen (Tab. B-1-3, Diagr. B-1), die schwerlich rein zufällig ist. In der Zeit von Ur III macht Schweinefleisch die Hälfte aus, in der altbabylonischen Zeit geht sein Anteil auf etwa ein Vierteil zurück und von der kassitischen Zeit an spielt das Hausschwein als Fleischlieferant nur mehr eine ganz untergeordnete Rolle. An seiner Stelle gewinnt das Schaf die überragende Bedeutung. Diese Verschiebung geht am klarsten aus der
graphischen Gegenüberstellung der Gewichtsanteile der Knochen der Wirstschaftstiere im engeren Sinne hervor (Diagr. B-1b). Es wurden nicht nur mehr Schafe geschlachtet, sie waren in der neuassyrischen Zeit auch größer (Diagr. B-2), allerdings möglicherweise nur durch das Überwiegen männlicher Tiere bedingt.

Tabelle B-1. Verteilung der Funde auf die Zeitstufen und Trench 2

|  |  |  |  | isch | Neu | risch |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{FZ}^{\text {a }}$ | $G^{\text {b }}$ | FZ | G | FZ | G | FZ | G |
| Equiden | 7 | 200 | 3 | 79 | 46 | 1490 | 9 | 325 |
| Rind | 66 | 1265 | 25 | 810 | 53 | 1960 | 38 | 2525 |
| Schaf | 65 |  | 25 |  | 70 |  | 12 |  |
| Schaf/Ziege | $162^{\text {c }}$ | 1805 | $88{ }^{\text {d }}$ | 530 | $159{ }^{\text {e }}$ | 1970 | $35^{\text {f }}$ |  |
| Ziege | 13 |  | 8 |  | 9 |  | - |  |
| Schwein | 262 | 3390 | 7 | 19 | 7 | 73 | 11 | 250 |
| Damhirsch | - | - | - | - | 2 | 78 | - | - |
| Gazelle | - | - | 2 | 14 | 2 | 6 | - | - |
| Hund | - | - | 1 | 4 | - | - | 2 | 60 |
| Manguste | - | - | - | - | (7) | - | - | - |
| Haushuhn | - | - | - | - | 1 | - | - | - |
| Haus-/Graugans | 2 | - | - | - | - | - | - | - |
| Löffelente | 1 | - | - | - | - | - | - | - |
| Tafelente | 1 | - | - | - | - | - | - | - |
| Kampfläufer | 1 | - | - | - | - | - | - | - |
| Schleiereule | - | - | - | - | 1 | - | - | - |
| Fische | 13 | - | - | - | - | - | - | - |
| Wasserschildkröte | 3 | - | - | - | - | - | - | - |
| Unio-Muschelg | 1 | - | - | - | - | - | - | - |
| Mensch | - | - | 1 | - | 4 | - | 1 | - |
| Summe | 597 | 6660 | 160 | 1456 | 361 | 5577 | 108 | 3610 |
| Unbest. | 28 | 32 | 16 | 49 | 11 | 33 | 5 | 20 |
| Insgesamt | 625 | 6692 | 176 | 1505 | 372 | 5610 | 113 | 3630 |
| ${ }^{\mathbf{a}} \mathrm{FZ}$ (Fundzahl). |  |  |  |  | ${ }^{\text {e }}$ Gesamtzahl Schafe + Ziegen $=238$. |  |  |  |
| ${ }^{\mathbf{b}} \mathbf{G}$ (Gewicht in Gramm). |  |  |  |  | $\mathrm{f}_{\text {Gesamtzahl Schafe }+ \text { Ziegen }=47 .}$ |  |  |  |
| c Gesamtzahl Schafe + Ziegen $=240$.d $_{\text {Gesamtzahl }}$ Schafe + Ziegen $=121$. |  |  |  |  | $\mathrm{g}_{\text {s. }}$ G. Falkner in diesem Band. |  |  |  |
|  |  |  |  |  | ${ }^{\text {d }}$ Gesamtzahl Schafe + Ziegen $=121$. |  |  |  |

Tabelle B-2. Verteilung der Knochenfunde auf die Tierarten und über das Skelett
a) Ur III

|  | Equiden | Rind | Schaf | Schaf/ Ziege | Ziege | Schwein | Haus-/ Graugans | Löffelente | Tafelente | Kampfläufer |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hornzapfen | - | - | 1 | - | 1 | - | - | - | - | - |
| Neurocranium | - | 1 | 11 | 1 | - | 20 | - | - | - | - |
| Viscerocranium | - | - | - | 5 | - | 161 | - | - | - | - |
| Dentes sup. | 4 | 3 | - | 28 | - | 2 | - | - | - | - |
| Mandibula | - | 3 | 1 | 15 | 1 | 37 | - | - | - | - |
| Dentes inf. | - | 2 | - | 11 | - | 6 | - | - | - | - |
| Atlas | - | - | - | 3 | - | 9 | - | - | - | - |
| Epistropheus | - | - | 2 | 4 | - | 4 | - | - | - | - |
| and. Vert. cerv. | - | 1 | - | 7 | - | 7 | - | - | - | - |
| Vert. thor. | - | 2 | - | 8 | - | 7 | - | - | - | - |
| Vert. lumb. | - | 2 | - | 6 | - | 9 | - | - | - | - |
| Costae | - | 6 | - | 11 | - | 20 | - | - | - | - |
| Scapula | - | 3 | 5 | 4 | - | 3 | - | - | - | - |
| Humerus | - | 4 | 4 | 6 | 1 | 21 | - | - | 1 | - |
| Radius | 2 | 2 | 2 | 12 | - | 5 | - | - | - | - |
| Ulna | - | - | 1 | - | - | 9 | - | 1 | - | - |
| Carpalia | - | 4 | 1 | 1 | - | 3 | - | - | - | - |
| Metacarpus | - | 4 | 3 | 1 | - | 9+2* | 1 | - | - | - |
| Pelvis | - | 1 | 8 | 8 | 2 | 8 | - | - | - | - |
| Femur | 1 | 1 | 4 | 6 | - | 16 | - | - | - | - |
| Patella | - | 2 | - | - | - | - | - | - | - | - |
| Tibia | - | 6 | 4 | 17 | 1 | 15 | 1 | - | - | - |
| Fibula | - | - | - | - | - | 5 | - | - | - | - |
| Talus | - | 1 | 14 | - | 3 | 2 | - | - | - | - |
| Calcaneus | - | 1 | 3 | 1 | 2 | 6 | - | - | - | - |
| Centrotarsale | - | 2 | 1 | 1 | - | - | - | - | - | - |
| and. Tarsalia | - | - | - | - | - | 3 | - | - | - | - |
| Metatarsus | - | 3 | 7 | 4 | 2 | 11 | - | - | - | 1 |
| Phalanx 1 | - | 3 | 2 | 2 | - | 6 | - | - | - | - |
| Phalanx 2 | - | 6 | - | - | - | - | - | - | - | - |
| Phalanx 3 | - | 3 | - | - | - | - | - | - | - | - |
| Summe | 7 | 66 | 65** | 162** | 13** | 262 | 2 | 1 | 1 | 1 |

Fischknochen 13.
Wasserschildkröte 3 Bauchpanzer".
Muschel 1.
Unbestimmbare Knochen 28.
Ingesamt 625.
${ }^{*}$ Metapodien.
**Gesamtzahl Schafe + Ziegen $=240$.

Tabelle B-2. Verteilung der Knochenfunde auf die Tierarten und über das Skelett (Fortsetzung)
b) Kassitische Zeit

|  | Halbesel | Rind | Schaf | Schaf/Ziege | Ziege | Schwein | Hund | Gazelle | Mensch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Neurocranium | - | 1 | - | 1 | - | - | - | - | - |
| Viscerocranium | - | - | - | 3 | - | - | - | - | - |
| Dentes sup. | - | 1 | - | 3 | - | - | - | - | - |
| Mandibula | - | 3 | - | 6 | - | - | - | - | - |
| Dentes inf. | - | - | - | 3 | - | 1 | - | - | - |
| Atlas | - | 1 | - | - | - | - | - | - | - |
| Epistropheus | - | - | 1 | - | - | - | - | 1 | - |
| and. Vert. cerv. | - | - | - | 1 | - | - | - | - | - |
| Vert. thor. | - | 2 | - | 3 | - | - | - | - | - |
| Vert. lumb. | - | - | - | 7 | - | 1 | - | - | - |
| Costae | - | 4 | - | 17 | - | - | - | - | - |
| Scapula | - | - | 2 | 2 | - | - | 1 | - | - |
| Humerus | - | 2 | 6 | 10 | - | - | - | 1 | - |
| Radius | - | - | 4 | 7 | - | - | - | - | - |
| Ulna | - | - | 1 | 3 | - | - | - | - | - |
| Carpalia | - | 3 | - | - | - | - | - | - | - |
| Metacarpus | 1* | - | 1 | 4 | 2 | - | - | - | - |
| Pelvis | - | - | 1 | 6 | - | 1 | - | - | 1 |
| Fernur | - | 2 | - | 3 | - | - | - | - | - |
| Tibia | - | 4 | - | 5 | - | - | - | - | - |
| Malleolare | - | 1 | - | - | - | - | - | - | - |
| Talus | - | - | 1 | 1 | - | - | - | - | - |
| Centrotarsale | - | - | 1 | - | - | - | - | - | - |
| Metatarsus | - | - | 2 | 3 | 1 | 1+2** | - | - | - |
| Phalanx 1 | 1* | - | 2 | - | 4 | 1 | - | - | - |
| Phalanx 2 | 1* | 1 | 3 | - | 1 | - | - | - | - |
| Summe | 3 | 25 | 25*** | * 88*** | 8*** | 7 | 1 | 2 | 1 |

Unbestimmbare Knochen 16.
Ingesamt 176.
*Zusammengehörig.
**Metapodien.
***Gesamtzahl Schafe + Ziegen $=121$.

Tabelle B-2. Verteilung der Knochenfunde auf die Tierarten und über das Skelett (Fortsetzung)
c) Neuassyrischen Zeit

|  | Equiden | Rind | Schaf | $\begin{aligned} & \text { Schaf/ } \\ & \text { Ziege } \end{aligned}$ | Ziege | Schwein | Dam- hirsch | Gazelle | Goldstaub -manguste | Haushuhn | Schleiereule | Mensch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hornzapfen, Geweih | - | - | 1 | - | - | - | 1 | - | - | - | - | - |
| Neurocranium | - | 1 | 2 | - | - | 1 | - | - | - | - | - | - |
| Viscerocranium | - | 2 | - | 5 | - | - | - | - | 1 | - | - | - |
| Dentes sup. | 6 | - | - | 9 | - | - | - | - | - | - | - | - |
| Mandibula | 1 | 6 | - | 5 | - | - | - | - | 2 | - | - | - |
| Dentes inf. | 7 | - | - | 3 | - | - | - | - | - | - | - | - |
| Atlas | - | 2 | - | 1 | - | - | - | - | - | - | - | - |
| Epistropheus | - | 1 | 2 | 2 | - | - | - | - | - | - | - | - |
| and. Vert. cerv. | 2 | 2 | - | 7 | - | - | - | - | 1 | - | - | - |
| Vert. thor. | 1 | 2 | - | 14 | - | - | - | - | - | - | - | - |
| Vert. lumb. | 2 | 1 | - | 8 | - | - | - | - | - | - | - | - |
| Sacrum | 1 | - | - | - | - | - | - | - | - | - | - | - |
| Vert. caud. | - | - | - | - | - | - | - | - | 1 | - | - | - |
| Costae | 7 | 11 | - | 19 | - | 1 | - | - | - | - | - | - |
| Scapula | - | 5 | 4 | 5 | 1 | 1 | - | - | 1 | 1 | - | - |
| Humerus | 1 | 1 | 7 | 19 | 2 | - | - | - | 1 | - | - | - |
| Radius | 2 | 2 | 4 | 11 | 1 | 1 | - | - | - | - | 1 | - |
| Ulna | 1 | - | - | - | - | - | - | - | - | - | - | - |
| Carpalia | 1 | - | - | - | - | - | - | - | - | - | - | - |
| Metacarpus | 1 | - | 4 | 3 | - | - | - | 1 | - | - | - | - |
| Pelvis | - | 1 | 7 | 2 | 1 | - | - | - | - | - | - | - |
| Femur | 3 | - | 6 | 19 | - | 1 | - | - | - | - | - | 1 |
| Patella | - | - | 1 | - | 1 | 1 | - | - | - | - | - | - |
| Tibia | 3 | 3 | 2 | 17 | - | - | - | - | - | - | - | 2 |
| Talus | 1 | 7 | 16 | 2 | 1 | - | 1 | - | - | - | - | 1 |
| Calcaneus | - | 7 | 4 | 1 | - | - | - | 1 | - | - | - | - |
| Centrotarsale | - | - | 1 | - | - | - | - | - | - | - | - | - |
| and. Tarsalia | 1 | - | - | - | - | - | - | - | - | - | - | - |
| Metatarsus | 4 | - | 2 | 6 | - | 1 | - | - | - | - | - | - |
| Phalanx 1 | 1 | 1 | 6 | 1 | 2 | - | - | - | - | - | - | - |
| Phalanx 2 | - | - | 1 | - | - | - | - | - | - | - | - | - |
| Phalanx 3 | - | 1 | - | - | - | - | - | - | - | - | - | - |
| Sesambeine | - | 3 | - | - | - | - | - | - | - | - | - | - |
| Summe | 46 | 53 | 70* | 159* | 9* | 7 | 2 | 2 | 7** | 1 | 1 | 4 |

Unbestimmbare Knochen 11.
Ingesamt 372.
*Gesamtzahl Schafe + Ziegen $=238$.
**Ein Individuum.

Tabelle B-2. Verteilung der Knochenfunde auf die Tierarten und über das Skelett (Fortsetzung)
d) "Specimens from geomorphological Trench 2"

|  | Equiden | Rind | Schaf | Schaf/Ziege | Schwein | Hund | Mensch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Neurocranium | - | 1 | 1 | - | - | - | - |
| Viscerocranium | - | - | - | 1 | 2 | - | - |
| Dentes sup. | 2 | - | - | 9 | - | - | - |
| Mandibula | - | 2 | - | 5 | 1 | 1 | - |
| Dentes inf. | - | 2 | - | 3 | - | - | - |
| Atlas | - | 1 | - | - | - | - | - |
| and. Vert. cerv. | 1 | 1 | - | 1 | - | - | - |
| Vert. thor | - | - | - | 1 | - | - | - |
| Vert. lumb. | 1 | 1 | - | 1 | - | - | - |
| Sacrum | - | - | 1 | - | - | - | - |
| Costae | - | 2 | - | 5 | 1 | - | - |
| Scapula | - | 1 | - | - | - | - | - |
| Humerus | 1 | 3 | 2 | - | 2 | - | - |
| Radius | 1 | 1 | 1 | 1 | - | - | - |
| Ulna | - | 1 | - | - | 1 | - | - |
| Carpalia | 1 | 5 | - | - | - | - | - |
| Metacarpus | - | - | - | 1 | - | - | - |
| Pelvis | 1 | 2 | 2 | - | 1 | 1 | - |
| Femur | - | $1^{*}$ | - | 2 | - | - | - |
| Tibia | - | $1^{*}$ | 2 | 5 | 3 | - | - |
| Fibula | - | - | - | - | - | - | 1 |
| Talus | 1 | - | - | - | - | - | - |
| Metatarsus | - | 3+1* | 3 | - | - | - | - |
| Phalanx 1 | - | 1+2* | - | - | - | - | - |
| Phalanx 2 | - | 1+2* | - | - | - | - | - |
| Phalanx 3 | - | 2* | - | - | - | - | - |
| Sesambein | - | $1^{*}$ | - | - | - | - | - |
| Summe | 9 | 38 | 12** | 35** | 11 | 2 | 1 |

Unbestimmbare Knochen 5.
Ingesamt 113.
*Zusammengehörig.
${ }^{* *}$ Gesamtzahl Schafe + Ziegen $=47$.

Tabelle B-3. Verteilung der Knochenfunde der Wirtschaftstiere auf der einzelnen Zeitstufen
a) Fundzahl (FZ)

| Tierart | Ur III |  | Altbabylonisch* |  | Kassitisch |  | Neuassyrisch |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FZ | $\%$ | FZ | $\%$ | FZ | $\%$ | FZ | $\%$ |
| Rind | 66 | 11,6 | 67 | 22,0 | 25 | 16,3 | 53 | 17,8 |
| Schaf | $65^{\mathrm{a}}$ |  | $65^{\mathrm{b}}$ |  | $25^{\mathrm{c}}$ |  | $70^{\mathrm{d}}$ |  |
| Schaf/Ziege | $162^{\mathrm{a}}$ | 42,3 | $91^{\mathrm{b}}$ | 55,0 | $88^{\mathrm{c}}$ | 79,1 | $159^{\mathrm{d}}$ | 79,9 |
| Ziege | $13^{\mathrm{a}}$ |  | $11^{\mathrm{b}}$ |  | $8^{\mathrm{c}}$ |  | $9^{\text {d }}$ |  |
| Schwein | 262 | 46,1 | 70 | 23,0 | 7 | 4,6 | 7 | 2,3 |
| Summe | 568 | 100 | 304 | 100 | 153 | 100 | 298 | 100 |

${ }^{\text {a }}$ Gesamtzahl Schafe + Ziegen $=240 . \quad \quad{ }^{\text {b Gesamtzanl Schafe }}+$ Ziegen $=121$.
${ }^{\mathrm{b}}$ Gesamtzahl Schafe + Ziegen $=167 . \quad{ }^{\mathrm{d}}$ Gesamtzahl Schafe + Ziegen $=238$.
b) Fundgewicht in Gramm (G)

| Tierart | Ur III |  | Altbabylonisch* |  | Kassitisch <br> $\mathbf{G}$ <br>  |  | $\mathbf{G}$ | $\%$ |
| :--- | :---: | ---: | :---: | :---: | :---: | ---: | ---: | ---: |

*s. Boessneck 1978.
Den aufgezeigten Trend vom Schweinfleisch zum Hammelfleisch bestätigen die Funde aus der 13. Season von Nippur.

Bemerkenswert ist der hohe Anteil der Equidenknochen in den Funden aus der neuassyrischen Zeit (Tab. B-1, B-2c), darunter vor allem Esel-, aber auch Onager- und nicht zuletzt Pferdeknochen.

Alle Knochenfunde von am Wasser lebenden Vögeln, die 3 Belege für die Wasserschildkröte sowie alle nachgewiesenen Fischknochen stammen aus der Ur III-Zeit.

RIND, BOS TAURUS
Im Material von Nippur 14 hatte nach der Zeitstufe Ur III, als das Schwein seinen Vorrang als Fleischlieferant verlor, das Rind neben dem Schaf die größte Bedeutung in dieser Hinsicht (Tab. B-3b und Diagr. B-1b).

Die Funde aus Ur III repräsentieren mindestens 5 Individuen: 1 Kalb (Humerus und Metacarpus, distale Epiphysenfugen offen), 1 etwa $21 / 2$ Jahre altes Rind (Tibia, distale Epiphysenfuge frisch verwachsen), 1 Kuh (Becken) und 2 männliche Tiere (2 Metacarpen).


[^4]

Diagramm B-1b. Verteilung der Knochenfunde der Wirtschaftstiere auf die einzelnen Zeitstufen bezüglich des Fundgewichts in Gramm (G)

*Kalziniert

Diagramm B-2. Schaf, Talusfunde aus Nippur

Aus kassitischer Zeit sind als Mindestmengen 1 Kalb (Femur) und 1 über $21 / 2$ jähriges Rind (M3 inferior geringgradig abgekaut) nachgewiesen.

Die sieben Talusfunde aus neuassyrischer Zeit vertreten je ein Individuum. Nach Größe und Konsistenz der Knochen zu urteilen, sind 3 von männlichen, 1 von einer Kuh und die restlichen drei allem Anschein nach von jüngeren Tieren.

Unter den Funden aus dem Trench 2 (Lot D 453) befindet sich die Hintergliedmaße eines hochwüchsigen, männlichen Tieres mit einer Schulterhöhe von annähernd $1,40 \mathrm{~m}$. Seinen Längen-Breitenmaßen nach handelt es sich um einen großen Ochsen.

Die Rinder passen in der Größe (Tab. B-4) zu denen aus den früheren Serien aus Nippur (Boessneck 1978, Tab. 10; oben, Appendix A, Tab. A-4) und aus Isin (Boessneck 1977a, Tab. 6; Boessneck und Kokabi 1981b, Tab. 5). Eine Entwicklung in bezug auf die Größe der Tiere ist nicht zu beobachten. Größenunterschiede sind durch den Geschlechtsdimorphismus bedingt.

Bruchstücke vom Proximalende eines Metatarsus (Lot D 59, kassitisch) weisen auf der Dorsalseite eine mehr als 7 cm lange, über die ganze Breite ausgreifende Knochenverdickung auf, die sicherlich durch ein Trauma verursacht wurde. An dem Fund finden sich nahe dem Tarsalgelenk auf der dorsalen und der lateralen Seite mehrere feine Schnittspuren.

Tabelle B-4. Maße an Rinderknochen
a) Unterkiefer

| Zeitstufe | K | $?$ |
| :--- | ---: | ---: |
| Lot | D 709 | D 489 |
| Länge: Gonion caudale Foramen mentale | 294 | - |
| Länge der Backzahnreihe | 142 | - |
| Länge der Molarreihe | 87,5 | - |
| Länge der Prämolarreihe | 56 | - |
| Länge/Breite des $M_{3}$ | $35 / 14$ | $36 / 13$ |
| Höhe des Kiefers hinter $\mathrm{M}_{3}$ | 80 | - |
| Höhe des Kiefers vor $\mathrm{M}_{1}$ | 51 | - |
| Höhe des Kiefers vor $\mathrm{P}_{2}$ | 35,5 | - |
| Abkauung | + | + |

b) Atlas (K)

| Lot | D 129 |
| :--- | ---: |
| BFcr | 88 |

c) Humerus (U)

| Lot | D 508 |
| :--- | ---: |
| BT | 70 |

Tabelle B-4. Maße an Rinderknochen (Fortsetzung)
d) Metacarpus (U)
e) Femur ( $N$ )
f) Tibia

| Lot | D 786 |
| :--- | ---: |
| Bd | 62 |


| Lot | D 453* |
| :--- | ---: |
| GL | $(380)$ |
| GLC | 353 |
| Bp | 122,5 |
| Tp | 56,5 |
| KD | 35 |
| Bd | 53 |


| Zeitstufe | $N^{*}$ | U | U | K |
| :--- | ---: | ---: | ---: | ---: |
| Lot | D 453 | D 550 | D 408 | D 380 |
| Bp | 93 | - | - | - |
| Bd | - | 62 | 58 | 57,5 |

g) Talus (K)

| Lot | D 379 | D 205 | D 108 | D 367 |
| :--- | ---: | ---: | ---: | ---: |
| GL1 | 77 | 74,5 | 73,5 | 60,5 |
| GLm | 70,5 | 68 | - | 56 |
| T1 | 42 | 40 | 42 | - |
| Bd | 48 | 45,5 | 49 | - |
| Geschlecht | $\delta$ | $\delta$ | $\delta$ | $\%$ |

h) Os centrotarsale (U)

i) Metatarsus

| Zeitstufe | N | U |
| :--- | :---: | ---: |
| Lot | D453* | D 788 |
| GL | $(255)$ | - |
| Bp | 45 | - |
| KD | 26 | - |
| Bd | 53 | 45,5 |

k) Phalanx 1

| Zeitstufe | K | N $^{*}$ | N | U | $?$ | U |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Lot | D 367 | D 453 | D 454 | D 799 | D 833a | D 44 |
| GLpe | 69 | 62 | 59,5 | 58,5 | $(57)$ | 52,5 |
| Bp | 28,5 | 28 | 27,5 | 32,5 | 26,5 | 24 |
| KD | 25 | 23 | 23,5 | 28 | - | 21 |
| Bd | 27 | 25 | 26,5 | 30,5 | 26 | 23,5 |
| v./h.; a./i.** | h.a. | h.a. | h.i. | v.a. | v.i. | h.a. |

1) Phalanx 2

| Zeitstufe | U | U | K | $\mathrm{N}^{*}$ | N* | ? | U | U | U | U |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lot | D 764 | D 511 | D 63 | D453 | D453 | D 488 | D 764 | D777 | D 44 | D 44 |
| GL | 42 | - | 41,5 | 40 | 39,5 | (37) | 36 | 34,5 | 34,5 | 33,5 |
| Bp | 30,5 | - | 28 | 27,5 | 27 | - | 24 | 24,5 | 23,5 | 24 |
| KD | 27,5 | (26) | 22,5 | 22 | 21,5 | (23) | 19 | 19,5 | 19,5 | 19,5 |
| Bd | 28,5 | 27,5 | 24,5 | 22,5 | 22 | 24,5 | 20 | 20,5 | 20,5 | 20,5 |
| v./h.; a./i. ${ }^{* *}$ | v. | v. | h. | h.i. | h.a. | h. | h. | h. | h. | h. |

*Zusammengehörig.
**v./h.; a./i. = vorne/hinten; auBen/innen.

Wie schon erwähnt, standen die Schafe im Laufe der Zeit in der Fleischversorgung mehr und mehr im Vordergrund (Tab. B-3b und Diagr. B-1b). Die Zunahme an Schaf- und Ziegenresten führt soweit, daß in der neuassyrischen Zeit ihr Knochengewichtsanteil noch über dem des Rindes liegt. Die Ziege spielte in dem behandelten Fundgut nur eine untergeordnete Rolle.

Anhand der Talusfunde sieht es so aus, als seien die Schafe in der neuassyrischen Zeit größer gewesen als in der Ur III-Zeit (Diagr. B-2). Da diese Beobachtung aber durch die anderen meßbaren Schafknochen nicht ohne weiteres bestätigt wird, muß der Befund vorsichtig ausgelegt werden. Wenn die Funde aus neuassyrischer Zeit vor allem von Widdern und Hammeln stammen, die Tali aus Ur III aber meist von Mutterschafen, erklärt das den Unterschied bereits zumindest annähernd. Hinzukommt das auffällig häufige Vorliegen von Astragali, von denen manche Abschleifspuren aufweisen (Taf. B-1: 4b). Sie wurden als Spielwürfel benutzt, und möglicherweise bevorzugte man zu diesem Zweck die größeren Tali von männlichen Tieren.

Für Ur III ergeben die Astragali die höchste Mindestindividuenzahl (MIZ) für Schafe-12-und Ziegen-3. Zwei Schaftali sind auf der Dorsalseite abgeschliffen (Taf. B-1: 4b). Zwei nicht artbestimmte Radien, deren proximale Epiphysenfuge noch nicht verwachsen waren, erhöhen die Gesamt-MIZ für Schaf und Ziege auf 17 Tiere.

Die Schafknochen aus Ur III weisen erkennbar 2 Mutterschafe (Becken) und 2 männliche Tiere (Hirnschädel und Horzapfen) nach, die Ziegenknochen 2 Geißen und einen Ziegenbock (Talus und Calcaneus).

Nach den Kieferfunden zu schließen, wurden die Schafe und Ziegen nach Vollendung des zweiten Lebensjahres geschlachtet. Die beiden erwähnten Radien weisen darüberhinaus 2 Lämmer nach.

Ein einziger, nicht ganz erhaltener Hornzapfen eines Schafbocks vermittelt eine ungefähre Vorstellung von der Gestalt des Gehörns. Er weist eine in weitem Bogen nach auBen verlaufende Drehung auf und ist nach hinten gebogen. Der Zapfen einer Ziegengeiß hat eine enge, nach innen verlaufende Drehung.

Die Funde aus kassitischer Zeit repräsentieren mindestens 7 Individuen: 5 Schafe (Humerus) und 2 Ziegen (Fesselbein). Ein Schafhumerus dürfte aufgrund seiner Größe von einem männlichen Tier sein. Von den beiden Ziegen war eine zum Zeitpunkt der Schlachtung noch nicht $3 / 4$ jährig, denn eines der Fesselbeine hat eine offene proximale Epiphysenfuge (vgl. Zietzschmann und Krölling 1955: 363). Ebenso wie die Funde aus der Zeit von Ur III stammen auch diese Knochen zumeist von ausgewachsenen Tieren.

Für die neuassyrische Zeit ergibt sich aus den Talusfunden für das Schaf die Mindestindividuenzahl von 12. Zusätzlich belegt ein Metatarsus ein wenige Tage altes Lamm. Eine Ziegengeiß und einen Bock weisen Humerusfunde nach. Hierzu kommen noch 2 Femora nicht artbestimmter Lämmer. Insgesamt beträgt die MIZ an Kleinen Wiederkäuern für die neuassyrische Zeit 16. Die Geschlechtsbestimmung ergibt für das Schaf aufgrund der Beckenfunde 4 weibliche gegenüber 1 männlichen Tier. Die Tali sind
aber anscheinend zu einem weitaus höheren Teil von männlichen Tieren (s.o. und Diagr. B-2). Wieder stammt der überwiegende Teil der Funde von ausgewachsenen Tieren. Eine Schädelkalotte weist ein unbehorntes Mutterschaf nach.

Der hohe Anteil adulter Tiere in allen Kulturphasen von Nippur 14 (s. aber Boessneck 1978, Tab. 11 und oben, Appendix A) läßt darauf schließen, daß die Schafe nicht nur als Fleisch- und Fellieferanten fungierten-auch nicht bei abnehmendem Schweine-fleischkonsum-sondern in stärkerem Maße zu Lebzeiten Wolle und wohl auch Milch lieferten. Als Lämmer wurden wohl vorwiegend Ziegenböcke geschlachtet.

Zwei Schafmetacarpen sind in ihrer ganzen Länge erhalten, einer aus Ur III, der andere aus neuassyrischer Zeit. Anhand ihrer größten Länge von $141 \mathrm{bzw} .142,5 \mathrm{~mm}$ und dem von Teichert (1975) errechneten Faktor 4, 89 ergeben sich Widerristhöhen von ca. 69 und 70 cm . Für ein Mutterschaf aus der altbabylonischen Zeit von Nippur (Boessneck 1978: 156) errechnete Boessneck 62-63 cm und für ein männliches Tier 73-74 cm als Widderisthöhe. Die beiden Mittelhandknochen aus Nippur 14 sind anscheinend von männlichen Tieren, einem Widder und einem Hammel. An einem Schafhumerus unbekannter Geschlechtzugehörigkeit aus Nippur 13, Seleukidenzeit, errechnen sich als Widderristhöhe 65 cm .

Eine Unterkieferhälfte von Schaf oder Ziege ist in der Gegend des $\mathbf{M}_{2}$ aufgetrieben. Auf der lateralen Seite weist sie etwa $1,5 \mathrm{~cm}$ unterhalb des Alveolarrandes eine ca. 3 mm große Fistelöffnung auf (Taf. B-2: 7). Der Befund läßt auf eine eitrige Zahnfachentzündung (Alveolarperiostitis) schließen, wie sie infolge von Verletzung der Alveole etwa durch harte, spitze Futterteile (Grannen) verursacht werden. Eine andere derart veränderte Unterkieferhälfte aus der altbabylonischen Zeit von Nippur beschrieb Boessneck (1978: 156).

Tabelle B-5. Maße an Schaf- und Ziegenknochen
a) Hornzapfen $S$ oi (U)
b) Oberkiefer $\mathrm{S} / \mathrm{Z}$ (N)

| Lot | D 640a |
| :--- | ---: |
| UB | 118 |
| GD | 40 |
| KD | 28,5 |


| Lot | D 134 |
| :--- | ---: |
| LMR | $(47)$ |
| Abkauung | +++ |

c) Unterkiefer

| Zeitstufe | N | U | N | U | U | N | K | U | U | U | U | K | U |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lot | D 380 | D 610 | D 566 | D 764 | D 764 | D 562 | D 345 | D 644b | D 446 | D 694 | D 430 | D 59 | D 792 |
| LBZR | 77 | 76,5 | - | - | - | - | - | - | - | - | - | - | - |
| LMR | 53.5 | 51 | 52 | 48 | 48 | - | - | - | - | - | - | - | - |
| LPMR | 23 | 23,5 | - | - | - | - | - | - | - | - | - | - | - |
| $\mathrm{LM}_{3}$ | - | 23 | 24 | 23 | 22.5 | 26,5 | 24.5 | 24.5 | 23.5 | 23,5 | 23.5 | 22.5 | 21 |
| $\mathrm{BM}_{3}$ | - | 8 | 10,5 | 8 | 9 | 10 | 9.5 | 9 | 9 | 9 | 8,5 | 8 | 8.5 |
| Abkauung | +++ | + | +++ | +++ | ++ | ++ | +++ | ++ | ++ | +++ | + | + | + |
| Art | ? | S | ? | ? | S? | ? | ? | z | ? | ? | ? | ? | ? |

Tabelle B-5. MaBe an Schaf- und Ziegenknochen (Fortsetzung)
d) Epistropheus S (N)

|  |  |
| :--- | ---: |
| Lot | D 367 |
| LCDe | 61,5 |
| BFcr | 46,5 |
| BFcd | 24 |

e) Scapula

| Zeitstufe | U | N | N | K | K | N | N | N |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Lot | D 694 | D 380 | D 595 | D 59 | D 59 | D 380 | D 380 | D 380 |
| KLC | 23,5 | 23,5 | 23 | - | 22 | 20 | 18 | 16,5 |
| GLP | 39,5 | - | - | 36,5 | - | 36 | 37 | - |
| LG | 30,5 | - | - | 29,5 | 28 | - | $(28,5)$ | - |
| BG | 23 | 24,5 | - | $(23)$ | 25 | 23 | 26,5 | - |
| Art | S | S | S | S | S | Z | S | $?$ |

## f) Humerus

| Zeitstuf | fe U | K | N | ? | N | U | K | K | $?$ | K | U | N | N | U |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lot | D 788 | D 312 | D 129 | D 491 | D 362 | D 602 | D 59 | D 312 | D 489 | D 59 | D 788 | D 380 | D 566 | D 699 |
| Bd | - | - | - | - | - | - | 34 | - | - | 33.5 | - | 30 | 29.5 | 29 |
| BT | 33 | 33 | 33 | 33 | 32,5 | 32 | 32 | 31.5 | 31.5 | 30,5 | 30 | Z | Z | S |
| Art | S | S | S | S | S | S | S | S | S | S | S | z | Z | S |

g) Radius

| Zeitstufe | N | K | $?$ | U | N |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Lot | D 380 | D 59 | D 493 | D 23 | D 562 |
| Bp | 33 | $(35)$ | 32,5 | 30,5 | - |
| BFp | 30 | $(32)$ | 28,5 | 27,5 | - |
| Bd | 32 | - | - | - | 33 |
| Art | S | S | S | S | Z |

## i) Becken (U)

| Lot | D 640a | D 532 | D 424 |
| :--- | ---: | ---: | ---: |
| LA | 31 | 30 | 28 |
| Art | S | S | S |
| Geschl. | $?$ | 9 | 9 |

h) Metacarpus

| Zeitstufe | N | U | K | K | N |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Lot | D 380 | D 614 | D 312 | D 345 | D 379 |
| GL | 142,5 | 141 | - | - | - |
| Bp | 24 | 26 | 28 | 25 | - |
| KD | 14 | 16 | - | 15 | - |
| Bd | - | 28 | - | - | 28 |
| Art | S | S | S | Z | S |

k) Femur (U)

| Lot | D 696 | D 640a |
| :--- | ---: | ---: |
| Bp | 42,5 | - |
| Bd | - | 34,5 |
| Art | S | S |

Tabelle B-5. Maße an Schaf- und Ziegenknochen (Fortsetzung)

1) Tibia

| Zeitstufe | ? | U | U | U | N | N | ? | U | U |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lot | D 493 | D 614 | D 532 | D 665 | D 212 | D 380 | D 489 | D 44 | D 644a |
| Bd | 32 | 30 | $(28,5)$ | 28 | 28 | 27,5 | 27,5 | 26 | (28) |
| Art | S ${ }^{\text {o }}$ | S | S | S | S | S | S | S | Z |

m) Talus

| Zeitstufe | N | N | N | N | N | N | N | N | U | N | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lot | D 379 | D 205 | D 380 | D 205 | D 380 | D 205 | D 379 | D 380 | D 665 | D 667 | D 205 |
| GL1 | 34 | 33 | 33 | 33 | 32,5 | 32,5 | 32,5 | 32 | 31,5 | 31,5 | 31 |
| GLm | 32,5 | 31 | 30,5 | 30,5 | 31 | 30,5 | 30 | 30,5 | 29,5 | 29,5 | 28 |
| T 1 | 18,5 | 17,5 | 18,5 | 18,5 | 18 | 18,5 | 18,5 | 18 | 17,5 | 17,5 | 17,5 |
| Bd | 22,5 | 20 | 20,5 | 20 | 20,5 | 21 | 20,5 | 20 | 21 | 19,5 | 19,5 |
| Art | S | S | S | S | S | S | S | S | S | S | S |

m) Talus (Fortsetzung)

| Zeitstufe | N | U | N | U | U | N | U | N | K | U | $\mathrm{U}^{*}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Lot | D 380 | D 425a | D 379 | D 665 | D 425a | D 205 | D 36 | D 380 | D 59 | D 425a | D18 |
| GL1 | 31 | 31 | 30,5 | 30,5 | 30,5 | $(30,5)$ | 30,5 | 30 | 30 | 30 | 30 |
| Glm | 29 | 28,5 | 29,5 | 29,5 | 29,5 | 29 | 28,5 | 29 | 29 | 28,5 | 28,5 |
| Tl | - | 16 | 17 | 17 | 17 | 16,5 | 15,5 | 16,5 | $(16)$ | 17,5 | 16 |
| Bd | - | 20,5 | 20 | 20,5 | - | 20,5 | 19,5 | 19,5 | 19,5 | 20 | 18,5 |
| Art | S | Z $\delta$ | S | S | S | S | S | S | S | S | S |

*Kalziniert.
m) Talus (Fortsetzung)

| Zeitstufe | U | U | N | U | U | N | N | U | U |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lot | D 425a | D 425a | D 379 | D 656 | D 696 | D 562 | D 379 | D 425a | D 510 |
| GLI | 29,5 | 29 | 28,5 | 28.5 | 27,5 | - | - | 26,5 | 26,5 |
| GLm | 28 | 28 | 27 | 27 | 27 | 32 | 31 | 25 | 25 |
| Tl | 16,5 | 16,5 | 16 | 15.5 | 15.5 | - | - | 14 | 14 |
| Bd | 20 | 19 | 18,5 | 17 | 18 | - | - | 17 | 16,5 |
| Art | S | S | S | S | S | Z ${ }^{\text {o }}$ | S | 2 9 | Z 9 |

Tabelle B-5. Maße an Schaf- und Ziegenknochen (Fortsetzung)
n) Calcaneus

| Zeitstufe | N | U | U | N | N | U |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Lot | D 367 | D 640a | D 792 | D 212 | D 367 | D 764 |
| GL | 65 | 64,5 | 64,5 | 64 | 63,5 | 63 |
| GB | 23 | 22,5 | 21,5 | 22 | 21,5 | 20,5 |
| Art | S | S | Z $\delta$ | S | S | S |

o) Os centrotarsale

| Zeitstufe | K | N | U |
| :--- | ---: | ---: | ---: |
| Lot | D 312 | D 233 | D 412 |
| GB | 26,5 | 22,5 | 20,5 |
| Art | S | S | S |

p) Metatarsus

| Zeitstufe | U | U | U | K | U | $?$ | U |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Lot | D 621 | D 604 | D 764 | D 312 | D 418 | D 453 | D 424 |
| Bp | 21 | 20,5 | 20,5 | - | - | - | - |
| KD | - | - | 12 | - | 12,5 | - | 12 |
| Bd | - | - | - | 28 | 27 | 26,5 | 26 |
| Art | Z | S | Z | S | S | S | S |

q) Phalanx 1

| Zeitstufe | N | N | N | N | K | U | U | K | K | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lot | D 233 | D 379 | D 383 | D 233 | D 345 | D 764 | D 601 | D 312 | D 312 | D 383 |
| GLpe | 46,5 | 42,5 | 41 | 39 | 38,5 | 36,5 | 34,5 | - | - | - |
| Bp | 14,5 | 13,5 | 13,5 | 13 | 12 | 12 | 12,5 | - | - | - |
| KD | 11 | 11 | 10,5 | 10,5 | 11 | 9 | 9,5 | - | - | - |
| Bd | 14,5 | 13 | - | 13 | 11,5 | 11 | 11,5 | (14) | 12,5 | 12,5 |
| Art | Z ${ }^{\text {\% }}$ | S | S | S | Z 9 | S | S | S | S | S |

r) Phalanx 2 (K)

| Lot | D 59 |
| :--- | ---: |
| GL | 25 |
| Bp | 11,5 |
| KD | 8 |
| Bd | 9,5 |
| Art | $\mathbf{S}$ |

## PERSISCHE KROPFGAZELLE, GAZELLA SUBGUTTUROSA

Wie schon in den Funden aus Nippur 12 und 13 (Boessneck 1978: 156f., und oben) konnten auch in der neuen Aufsammlung Gazellenknochen nachgewiesen werden, 2 aus kassitischer und 2 aus neuassyrischer Zeit (Tab. B-1 und B-2b-c). Morphologisch ist die Artbestimmung bei diesen Knochen nicht durchführbar, aber unter tiergeographischen Gesichtspunkten sollten die Funde zur Kropfgazelle gehören (vgl. oben Appendix A;

Hilzheimer 1941; Harrison 1968; Boessneck 1977a: 124; idem 1978: 157; Boessneck und Kokabi 1981b: 141f.).

Zwei Funde kommen aus der gleichen Fundstelle (Lot D 59, kassitisch): 1 Epistropheus mit einer größten Länge im Bereich des Körpers einschließlich des Dens von 59 mm, einer Breite der Facies articularis cranialis von $34,5 \mathrm{~mm}$, einer Breite über die Processus articulares caudales von $23,7 \mathrm{~mm}$ und einer kleinsten Breite des Wirbels von $17,3 \mathrm{~mm}$ sowie ein etwa $4,5 \mathrm{~cm}$ langes Humeruscorpusstück.

In Lot D 108 (neuassyrisch) fand sich ein etwa $5,2 \mathrm{~cm}$ langer Proximalteil eines Metacarpus mit einer größten Breite proximal von 19 mm . Ein bruchstückhafter Calcaneus mit verwachsenem Tuber stammt aus Lot D 134 (neuassyrisch).

Weder der Epistropheus noch der Metacarpus erreichen die Größe vergleichbarer vermessener Funde aus Bastam/Nordwestiran (vgl. Krauß 1975, Tab. 41). Der zierliche Bau des Epistropheus spricht dafür, daß es sich um den Knochen eines weiblichen Tieres handelt und auch der Metacarpus könnte von einem weiblichen Tier sein.

## MESOPOTAMISCHER DAMHIRSCH, DAMA MESOPOTAMICA

Vom Mesopotamischen Damhirsch, der früher von Zypern und Palästina ostwärts durch das Zweistromland bis Luristan vorkam, und von dem nur mehr ein minimaler Restbestand erhalten geblieben ist, liegen 2 Funde vor: eine zerbröckelte, so weit wie möglich wieder zusammengesetzte Geweihschaufelpartie (Lot D 108) und ein angeschliffener Talus (Lot D 379), beide aus neuassyrischem Fundzusammenhang.

An der ausgebrochenen, etwa auf $13,5 \mathrm{~cm}$ Länge erhaltenen und bis zu 10 cm breiten Geweihschaufelpartie von einem starken Hirsch ist noch zu erkennen, daß die unterste Rücksprosse unmittelbar oberhalb der Ansatzstelle abgesägt wurde.

Der Talus (Taf. B-1: 4a) ist auf der Dorsal- und auf der Lateralseite abgeschliffen, aber nicht in dem Ausmaß, wie es bei Talusfunden aus dem Kabirenheiligtum bei Theben/Böotien zu beobachten war (Boessneck 1973a, Taf. If). Außerdem weist er feine, schräg verlaufende Schnittspuren auf, beginnend an der Entwicklung des proximoplantaren Vorsprungs des medialen Rollkammes auf der Medialseite. Seine größte Länge der Lateralhälfte mißt $43,7 \mathrm{~mm}$, seine GLm $42,5 \mathrm{~mm}$. Die GLl fält um $0,5 \mathrm{~mm}$ über den Mittelwert der Tali Mesopotamischer Damhirsche aus Ain-Mallaha (Ducos 1968: 163). Boessneck und von den Driesch (1977: 52) geben für einen in Hesbon/Jordanien gefundenen Talus entsprechende Längen von (47) und 45 mm an und ordnen den Fund einem männlichen Tier zu. Erst wenn sich die Funde vom Mesopotamischen Damhirsch gemehrt haben werden, ergibt sich vielleicht auch die Möglichkeit, den Fund aus Nippur in seiner Geschlechtszugehörigkeit zu bestimmen.*

[^5]
## HAUSSCHWEIN, SUS DOMESTICUS

In der Ur III-Zeit hatte das Schwein als Fleischlieferant die gleiche Bedeutung wie die übrigen Haustiere zusammen (Diagr. B-1b und Tab. B-3b); in der nachfolgenden Zeit wurde es durch Rind und Schaf verdrängt. Parallel zu dieser Entwicklung muß auch der Schweinebestand rückläufig gewesen sein, denn das Hausschwein gehört nicht zu den Tieren, die schon zu Lebzeiten dem Menschen Nutzen bringen. In dem Rangverlust spiegelt sich wohl bereits die Ablehnung gegen das Schwein wider, die sich dann auch religiös manifestiert.

Die Unterkieferfunde aus der Zeit von Ur III repräsentieren mindestens 23 Individuen (Tab. B-6). Hinzuzurechnen sind noch zwei ältere Tiere ( $\mathrm{M}^{3}$ hochgradig abgekaut) und ein Neugeborenes (Metacarpus III). Somit ergibt sich für diese Zeit eine MIZ von 26 Tieren.

Tabelle B-6. Schwein, Altersverteilung und Mindestindividuenzahl anhand der Unterkieferfunde (Ur III)

|  | links | rechts | MIZ |
| :--- | :---: | :---: | :---: |
| $M_{1}+/-$ | - | 1 | 1 |
| $M_{1}+/ M_{2-}$ | 4 | 1 | 4 |
| $M_{2}+/-$ | 1 | 1 | $2!$ |
| $M_{2}+/ M_{3-}$ | 4 | 3 | $6!$ |
| $M_{3}+/-$ | 2 | - | 2 |
| $M_{3}+$ | 6 | 3 | $8!$ |
| Summe | 17 | 9 | 23 |

2 von 3 der geschlachteten Schweine waren jünger als $11 / 2$ Jahre. Aufgrund von Kiefer- und losen Caninusfunden sind 4 weibliche und 6 männliche Tiere nachzuweisen.

Die Funde aus der kassitischen Zeit belegen nur ein Jungtier.
Aus neuassyrischer Zeit liegen die Funde von mindestens 3 Individuen vor: 1 Ferkel (Femur), 1 Jungtier (Schädelfragment, Radius und Metatarsus) und 1 wahrscheinlich ausgewachsenes Tier (Scapula und Patella).

Unter den Funden ist kein Wildschweinknochen. Die Wildschweine Mesopotamiens waren und sind derart groß, daß sich Wildschweinknochen durch ihre Größe von Hausschweinknochen abheben müßten.

Die vorliegenden Schweineknochen sind alle von kleinen und schlankwüchsigen Tieren (Tab. B-7), wie sie schon in den anderen Fundserien aus Nippur und auch aus Isin nachgewiesen wurden.

Eine Hirnschädelpartie (Lot D 408, Ur III), deren Sutura frontoparietalis sich im Verwachsen befand, hat auf dem Schädeldach eine Narbe mit davorliegender Eindellung. Schweinekalotten mit ähnlichen Erscheinungen kennt man bereits aus den Funden vom Zendan-i Suleiman sowie aus Nippur (Boessneck 1973b, 1978) und aus anderen Stationen. Wahrscheinlich handelt es sich um vernarbte Wunden, die sich die Schweine mit den Hauern gegenseitig beibringen.

Tabelle B-7. MaBe an Schweineknochen
a) Oberkiefer

| Zeitstufe | U $^{*}$ | $?$ | U |
| :--- | ---: | ---: | ---: |
| Lot | D 545 | D 487 | D 614 |
| LBZR | 95 | - | - |
| LMR | 60,5 | 60 | $(58,5)$ |
| LPMR | 35 | - | - |
| LM $^{3}$ | 27,5 | 27,5 | 26,5 |
| BM $^{3}$ | 16,5 | 17,5 | 14,5 |
| Abkauung | +++ | + | +++ |
| Geschlecht | 9 | $?$ | $q$ |

* ${ }^{1}$ reduzient.
b) Unterkiefer (U)

| Lot | D 656 | D 656 | D 606 | D 545 |
| :--- | ---: | ---: | ---: | ---: |
| LMR | 56 | - | - | - |
| LM3 | 25 | 30 | 29,5 | 28 |
| BM3 | 13,5 | 13 | 14 | 12,5 |
| Abkauung | + | + | + | + |

c) Atlas (U)

| Lot | D 644b | D 614 |
| :--- | ---: | ---: |
| BFcr | 49 | 47,5 |
| BFcd | 46,5 | - |
| H | 37,5 | 36 |

d) Scapula (U)

|  |  |  |
| :--- | ---: | ---: |
| Lot | D 696 | d 511 |
| KLC | 19 | 16 |
| GLP | 30,5 | 26,5 |
| LG | 26 | 22,5 |
| BG | 21 | - |

e) Humerus

| Zeitstufe | $?$ | U | U | U | U |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Lot | D 489 | D 545 | D 764 | D 614 | D 44 |
| KD | - | 14,5 | - | - | 10,5 |
| BT | 29 | 28,5 | 28,5 | 26,5 | 26,5 |

f) Radius

| Zeitstufe | U | U | K |
| :--- | ---: | ---: | ---: |
| Lot | D 784 | D 604a | D 554 |
| Bp | 26 | 25,5 | 22 |

Tabelle B-7. Maße an Schweineknochen (Fortsetzung)
g) Becken (U)

| Lot | D 604 |
| :--- | :--- |
| LAR | $(26,5)$ |

h) Tibia (U)

| Lot | D 532 | D 784 |
| :--- | ---: | ---: |
| Bd | 27 | 24 |

i) Talus (U)

| Lot | D 532 | D 665 |
| :--- | ---: | ---: |
| GLl | 39 | 37,5 |
| GLm | 35 | 34 |
| Bd | 21 | 21,5 |

k) Calcaneus (U)

| Lot | D 516* |
| :--- | :---: |
| GL | 71 |
| GB | 20,5 |

*Tuber im Verwachsen.

1) Metatarsus IV (U)

| Lot | D 20 |
| :--- | :--- |
| GL | 77,5 |
| Bd | 15,5 |

## EQUIDEN

Auf die besonderen Schwierigkeiten der Artbestimmung von Equidenknochen aus dem Vorderen Orient wurde in der Literatur zur Genüge hingewiesen (vgl. z. B. oben Appendix A; Boessneck 1978: 158f.; Boessneck und Kokabi 1981a; idem 1981b; Davis 1980; von den Driesch und Amberger 1981). Im Südiraq ist bis zur Ur III-Zeit allerdings kaum mit Pferdeknochen zu rechnen, womit sich die Schwierigkeiten auf die Unterscheidung von Zahn- und Knochenfunden von Hauseseln und Halbeseln, Equus asinus, und Equus hemionus, einschränken würden. Aber gerade die Zähne und fragmentäre Knochen größerer Hausesel und kleinerer Halbesel, wie Equus hemionus hemippus, sind kaum zu unterscheiden, Pferdezähne hingegen leichter.

Zu unserer Überraschung fand sich tatsächlich ein $\mathrm{P}_{3}$ oder $\mathrm{P}_{4}$, der in seiner Zahnezeichnung am besten zu einem Pferd, Equus caballus, paßt (Taf. B-1: 3f; Lot 619) und in die Ur III-Zeit eingestuft ist. Wenn das Pferd, wie vielfach angenommen, als Haustier erst um 2000 v. Chr. über den Vorderen Orient verbreitet wurde, bedeutete dieser Zahnfund einen frühen Beleg im Rahmen dieser Lehrmeinung, vorausgesetzt die Datierung des Fundes läßt keine Zweifel offen. Der mittelgradig abgeriebene Zahn weist eine Länge von 26,5 und eine Breite von 17 mm auf.

2 geringgradig abgekaute linke $\mathrm{M}_{3}$ (Lot D14) sind demgegenüber aufgrund ihrer geringen Größe und Breite (Tab. B-8b) sowie ihrer Zahnzeichnung (Taf. B-1:3g-h) allem Anschein nach von Hauseseln.

Ein Unterkieferschneidezahn (Lot D 511) gehörte seiner Größe nach eher einem Onager als einem Hausesel, und der mediale Teil des Proximalendes von einem Radius (Lot D 414) läßt sich morphologisch, vor allem an der in Dorsovolarrichtung tiefen Gelenkfläche, als Halbeselknochen ansprechen (vgl. Boessneck und Kokabi 1981a). Die proximale Epiphysenfuge dieser Speiche war noch nicht verwachsen.

Als einzige Equidenknochen aus der kassitischen Zeit liegen das distale Ende eines Metacarpus mit den dazu passenden Phalangen 1 und 2 vor (Lot D 709). Der lange und schlanke Bau des Fesselbeins (Taf. B-1: 6a) kennzeichnet die Funde als Onagerknochen. Die Maße (Tab. B-8i) ordnen das Fesselbein unter die schlankwüchsigsten Halbesel ein (vgl. von den Driesch 1972, Diagr. 2b; Krauß 1975, Diagr. 1). Gemessen an den vorderen Phalangen 1 der wenigen bekannt gewordenen Skelette des Syrischen Onagers, Equus hemionus hemippus, ist der Fund aus Nippur länger und schlankwüchsiger (Boessneck 1976: 22). Die vorderen Fesselbeine eines großen Eselhengstes aus Halawa sind zwar etwa gleich lang, aber deutlich breiter (vgl. Boessneck und Kokabi 1981a, Tab. 5).

Hätte nur das distale Ende des Metacarpus oder das Kronbein (Taf. B-1: 6b) vorgelegen, wäre die Bestimmung problematisch oder unmöglich geworden. Hausesel wären kaum auszuschließen gewesen (vgl. Tab. B-8e, k mit Boessneck und Kokabi 1981a, Tab. 5).

Die Masse der Equidenknochen kommt aus der neuassyrischen Zeit und zwar aus drei Fundstellen in WC-2: Locus 120, Fl. 2: Lot D 367, Locus 123, Fl. 3: Lot D 380, Locus 130, Fl. 2: Lot D 595. In diesen Ansammlungen gibt es Knochen von Hauseseln, Onagern und Pferden. Ob darüberhinaus auch Reste des Kreuzungsprodukts zwischen Esel und Pferd, dem Muli, im Fundgut vorkommen, war nicht abzuklären, wie überhaupt zahlreiche unscheinbare Fragmente unbestimmt bleiben mußten.

Alle Equidenzähne aus dieser Zeitstufe kommen aus Lot D 367. Während 3 Milchprämolaren aus dem Unterkiefer und 3 Oberkieferbackzähne von einem Jungtier stammen, gehören die 7 weiteren Zähne zu erwachsenen Individuen. Drei von ihnen, nämlich $\mathrm{P}_{4}$ und $\mathrm{M}_{1}$ der rechten und ein P 4 der linken Seite gehören wiederum zusammen. Ihrer Größe und Zahnzeichnung gemäß sind sie am ehesten von einem Onager (Taf. B-1: 3d-e und Tab. B-8b). Bei zwei Incisivi und zwei Oberkieferbackzähnen (Taf. B-1: 3a, c und Tab. B-8a) ist ebensogut an den Esel zu denken.

Dem Pferd sind der Größe nach ein Os carpi accessorium (Lot D 367) und ein Tibiakörperfragment (Lot D 380) zuzuordnen.

Ein in seiner vollen Länge erhaltener Humerus (Lot D 595) weist eine hohe und kurze Trochlea auf (Taf. B-1: 1), wie es an sich für Halbesel charakteristisch ist (Krauß 1975: 88, Boessneck und Kokabi 1981b; Boessneck 1987), aber die Tuberositas deltoidea springt nicht in der auffallenden Weise lateral vor wie bei Onagern, sondern stimmt besser bei Eselhumeri überein. Aus diesem Grunde müssen wir die Artbestimmung Esel oder Hemippus offen lassen. Der Größe nach kann es sich ebensogut um einen Esel- wie um einen Hemippusknochen handeln (vgl. Tab. B-8c mit von den Driesch und Amberger 1981: 72; Boessneck und Kokabi 1981a, Tab. 5; Boessneck und von den Driesch 1989).

Auf morphologischem Wege ließ sich ein Radius (Lot D 380), dessen Bruchstücke zur vollen Länge des Knochens zusammengefügt werden konnten (Taf. B-1: 2), als Eselknochen bestimmen. Seiner Länge nach würde er auch zu den wenigen bekannten rezenten Syrischen Onagern passen (vgl. Tab. B-8d mit Boessneck 1976: 22). Er weist jedoch die für den Esel typische, in dorsovolarer Richtung niedrige und lateromedial
langgezogene proximale Gelenkfläche auf. Außerdem kennzeichnet ihn die im distalen Drittel der volaren Seite des Corpus radii als markante Beule ausgebildete "Ursprungsstelle für die Verstärkungssehne der oberflächlichen Beugesehne" (Ellenberger und Baum 1943: 136, Abb. 271 m), die weiter achsial liegt als beim Halbesel. Schließlich ist an dem Radius aus Nippur auf der Dorsalseite im Übergang auf das Distalende keine markante Strecksehnenrinne ausgeprägt, wie sie an Halbeselradien auffält.

Aus der gleichen Fundstelle (Lot D 380) kommt ein gleichseitiger und wiederum zur vollen Länge zusammgeleimter Metacarpus, dessen geringe Länge und kräftiger Wuchs-Längen-Breiten-Index 14,8-(Tab. B-8) an seiner Zuordnung zum Hausesel keine Zweifel offen lassen. Vermutlich handelt es sich um den zu dem besprochenen Radius gehörenden Metacarpus.

Als Knochen von Hauseseln konnten weiterhin bestimmt werden:
1 verbrannter Talus (Lot D 554; Tab. B-8g)
1 Os tarsale 4 (Lot D 380)
1 distale Metatarsushälfte (Lot D 367; Tab. B-8h)
1 Phalanx 1 posterior (Lot D 595; Tab. B-8i; Taf. B-1: 5)
Ein Metatarsus, von dem nur die Enden vorliegen (Lot D 595, Tab. B-8h), ist von einem Esel oder einem Halbesel, ebenso das Distalende eines Femur (Lot D 380, Tab. B$8 f)$.

Tabelle B-8. Maße an Equidenknochen
a) Oberkieferzähne (N)

| Lot | D 367* | D 367* |
| :--- | :---: | :---: |
| Länge | 29 | 20,5 |
| Breite | 21 | 21,5 |
|  | $\mathrm{P}^{2}$ | $\mathrm{M}^{3}$ |
| Abkauung | ++ | ++ |

*Taf. B-1: 1-3.
c) Humerus (Esel od. Onager, N)

| Lot | D 595* |
| :--- | ---: |
| GL | 240 |
| GLl | 239 |
| GLC | 228 |
| KD | 27,5 |
| Bd | 62 |
| BT | 57,5 |

*Taf. B-1: 1-3.
b) Unterkieferzähne

| Zeitstufe | N | N | N | $\mathrm{U}^{*}$ | $\mathrm{U}^{*}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Lot | D 367 | D 367 | D 367 | D 14 | D 14 |
| Länge | 24,5 | 24,5 | 23 | 25 | 23,5 |
| Breite | 15,5 | 16 | 14,5 | 11,5 | 10,7 |
|  | $\mathrm{P}_{4}$ | $\mathrm{P}_{4}$ | $\mathrm{M}_{1}$ | $\mathrm{M}_{3}$ | $\mathrm{M}_{3}$ |
| Abkaung | ++ | ++ | ++ | + | + |

*Taf. B-1: 1-3.

| d) Radius (Esel, N) |
| :--- | ---: |
| $l$  <br> Lot D $380^{*}$ <br> GL 266 <br> PL 257 <br> Ll 255 <br> Bp 62,5 <br> BFp 55,5 <br> KD 29 <br> BFd 47${ }^{2}$ |

*Taf. B-1: 1-3.

Tabelle B-8. MaBe an Equidenknochen (Fortsetzung)
e) Metacarpus

| Zeitstufe | N | $\mathrm{K} *$ |
| :--- | ---: | ---: |
| Lot | D 380 | D 709 |
| GL | $(169)$ | - |
| GLl | 166,5 | - |
| Ll | 163 | - |
| Bp | 38 | - |
| KD | $(25)$ | - |
| Bd | 35 | 35,5 |
| Td | - | 29,5 |
| Tierart | Esel | Onager |

*Zusammengehörig.
h) Metatarsus (N)

| Lot | D 595 | D 367 |
| :--- | ---: | ---: |
| Bp | 37,5 | - |
| Tp | 32,5 | - |
| KD | - | 21 |
| Bd | 35 | 31 |
| Td | 26 | 24,5 |
| Tierart |  | Esel |

f) Femur (N)

| Lot | D 380 |
| :--- | ---: |
| Bd | $(74)$ |

i) Phalanx 1

| Zeitstufe | $\mathrm{K}^{*} \dagger$ | $\mathrm{~N} *$ |
| :--- | ---: | ---: |
| Lot | D 709 | D 595 |
| GL | $(80)$ | $(66)$ |
| Bp | - | 35 |
| Tp | $(28)$ | 26,5 |
| KD | 23 | 20,5 |
| Bd | 36 | - |
| Bfd | 33 | - |
|  | ant. | post. |
| Tierart | Onager | Esel |

*Taf. B-1: 5-6.
${ }^{\dagger}$ Zusammengehörig.
g) Talus (Esel, N)

| Lot | D 554 |
| :--- | ---: |
| GH | 43,5 |
| GB | 42,5 |
| BFd | 34 |

k) Phalanx 2 (Onager, K)

| Lot | D 709* $\dagger$ |
| :--- | ---: |
| GL | 38 |
| Bp | 37 |
| BFp | 34,5 |
| Tp | 25,5 |
| KD | 32,5 |
| Bd | 36 |
|  | ant. |
| Taf. B-1: $5-6$. |  |
| †Zusammengehörig. |  |

$\dagger$ Zusammengehörig.

## HUND, CANIS FAMILIARIS

Den einzigen zeitlich genauer eingestuften Hundeknochen in dem Fundgut aus Nippur 14 bildet ein unscheinbares Bruchstück aus der Platte einer Scapula (Lot 707, kassitisch), das keine Aussage über Größe und Alter des Tieres ermöglicht. Demgegenüber lassen 2 Funde aus Trench 2 auf große Hunde schließen, etwa vergleichbar dem größten und kräftigsten Hund aus Isin aus der Zeit um 1000 v. Chr. (Boessneck 1977b; Hund Nr. 25):

Lot D 827a, Unterkiefer', LP $\mathbf{P}_{1}-\mathrm{P}_{4} 42, \mathrm{LM}_{1} 23,5$ und $\mathrm{BM}_{1} 19,2 \mathrm{~mm}$
Lot D 489, Pelvis', LAR 23 mm

## GOLDSTAUBMANGUSTE, HERPESTES AUROPUNCTATUS

Der Schädel (Taf. B-2: 8) mit beiden Unterkieferhälften und einigen anderen Skeletteilen (Tab. B-2c) von einem kleinen Mungo fand sich "in Area WC-2, on a floor in a doorway between [Loci] 110 and 111" in dem ausgegrabenen neuassyrischen Haus (Lot

D 388). Die Ausgräber vermuteten anfänglich zwar, daß es sich um einen Fund aus der neuassyrischen Zeit handelt, aber "this locus is only about $50-70 \mathrm{~cm}$. below present mound surface", weshalb McGuire Gibson in einem Brief an uns bereits Zweifel an der Zugehörigkeit des Fundes in diese alte Zeit anmeldet. Wie dem auch sei, der Fund bleibt von zoologischem Interesse, denn von der Goldstaubmanguste sind bisher nur wenige Schädel vermessen worden. Der Größe nach stammen die Skeletteile von einem o (vgl. Harrison 1968: 261):

| Oberschädel |  | Unterkiefer |  |
| :--- | ---: | :--- | ---: |
| GL oder Totallänge (= GtL) | 62,5 | L vom Proc. angularis-Infradentale | 39,5 |
| Condylobasallänge (= CBL) | 62,2 | L vom Proc. conyloideus-Infradentale | 38 |
| Basallänge | 58,7 | M $_{2}$-Hinterrand-C-Vorderrand | 24 |
| Größte Schädelbreite oder GB $(=\mathrm{ZB})$ | $(32)$ |  |  |
| Euryon-Euryon (= BB) | 22,5 |  |  |
| Stirnenge (=IC) | 10,5 |  |  |
| $\mathrm{M}^{2}$-Hinterrand-Prosthion | 25,5 |  |  |
| $\mathrm{M}^{2}$-Hinterrand-C-Vorderrand | 23 |  |  |

Die Goldstaubmanguste kommt im Südiraq im Kulturland häufig vor und wurde auch in den Funden aus Isin mehrfach nachgewiesen (Boessneck 1977a: 126; Boessneck und Kokabi 1981b: 146f.).

VÖGEL
Verglichen mit den früheren Serien aus Nippur (oben, Appendix A, Tab. A-9) sind in Nippur 14 nur wenige Vogelknochen gefunden worden (Tab. B-1 und B-2a, c).

Von einem Haushuhn, Gallus gallus domesticus, liegt aus neuassyrischer Zeit die kraniale Hälfte einer Scapula vor (Lot D 562), die in der Größe zu gewöhnlichen Hühnerknochen aus vor- und frühgeschichtlicher Zeit paßt.

Die beiden Gänseknochen aus Ur III können der Größe nach von der Graugans, Anser anser, aber auch von der Hausgans, der domestizierten Nachfahrin der Graugans, sein. Die Graugans ist noch heute Brutvogel an den schilfdurchsetzten Seen Untermesopotamiens. Bei den Funden handelt es sich um den Hauptstrahl eines Metacarpus (Lot D 786) und die distalen zwei Drittel eines Tibiotarsus (Lot D 424)-KC 8,3, Bd (17) mm.

Nur zwei Entenknochen wurden in der 14. Kampagne geborgen, der Ulnakörper einer Löffelente, Anas clypeata (Lot D 619), und die distalen Zweidrittel eines Humerus von einer Tafelente, Aythya ferina (Lot D 425a). Beide Arten waren auch schon in den Funden aus der " 12 . Season" vertreten.

Ein Wintergast im Gebiet von Nippur-ebenso wie die beiden Entenarten-war der Kampfläufer, Philomachus pugnax, von dem ein Metatarsus ohne die beiden Knochenenden vorliegt (Lot D 430). Der markante Größenunterschied zwischen der ${ }^{\top}$ © ${ }^{\star}$ und den $q 9$ dieser Watvögel, macht es ohne weiteres möglich, den Knochen als Rest eines $\delta \mathrm{zu}$ erkennen.

Von einer kaum flügge gewordenen Schleiereule, Tyto alba, liegt eine Ulna vor (Lot D 380). Ihre GL beträgt $95,5 \mathrm{~mm}$. Sie war aber noch nicht voll ausgewachsen (Taf. B-2: 13).

## WASSERSCHILDKRÖTE

Ob die 3 Bauchpanzerstücke (Lot D 44, D 604a), die von der Wasserschildkröte, Mauremys caspica, gefunden wurden, in kulturellem Zusammenhang stehen, bleibt ungewiß. Eindeutige Schnitt- oder Schlagspuren sind nicht zu erkennen. Die beiden Stücke aus 604a gehören anscheinend zusammen und stammen von einem großen Exemplar dieser um Nippur häufigen Schildkrötenart.

## FISCHE

Wie schon bei den Funden aus der 13. Kampagne verdanken wir die Bestimmung der Fischknochen Frau Prof. Dr. A. von den Driesch. Die Knochen stammen von Welsen und Barben.

Von dem im unteren Euphrat-Tigrisgebiet häufigen nahen Verwandten unseres europäischen Welses, einer Art, die mit Exemplaren von bis über 2 m Länge z. B. aus der neolithischen Siedlung auf dem Fikirtepe am Marmarameer nachgewiesen werden konnte (Boessneck und von den Driesch 1979a: 59ff., Tab. 25), von dessen kleinerem Verwandten in Mesopotamien, Parasilurus triostegus also, fanden sich die folgenden 3 Knochen:

```
ein Praemaxillare von einem ca. }60\textrm{cm}\mathrm{ langen Fisch (Taf. B-2: 11; Lot D 778)
ein Keratohyale von einem ca. }70\textrm{cm}\mathrm{ langen Fisch (Lot D 786)
eine halbe Vertebra praecaudalis von einem 60-70 cm langen Fisch (Lot D 656)
```

Zu einem Langstirn-Maulbrüterwels, Tachysurus thalassinus, von höchstens 50 cm Länge gehört das zu einer Einheit verwachsene Epi- und Keratohyale aus Lot D 644a (Taf. B-2: 12). Diese Welsart steigt von der See aus in das Brackwasser auf. Sie hat im Fundgut aus Isin eine Parallele mit dem Nachweis von Acanthopagrus berda (vgl. von den Driesch 1981).

Eine einseitig gezähnte Pinna pectoralis (= Brustflossenstachel) mit einer GL von 26,6 mm (Taf. B-2: 9; Lot D 508) gehört zu einem Stachelwels der Art Mystus halepensis von ca. 20 cm Totallänge.

Bei den Barbennachweisen handelt es sich jeweils um den 2. Rückenflossenstachel. Alle drei gefundenen Stachel sind gezähnt (Taf. B-2: 10). Die beiden Stachelfragmente aus den Lots D 23 und D 25 stammen von ein oder zwei sehr großen, nämlich über 1 m langen Barben und aufgrund dieser besonderen Größe am ehesten von Barbus esocinus. Auf eine Länge des Fisches von gut 50 cm läßt der 3. Fund schließen (Taf. B-2: 10, Lot D 786). Barbus kersin, B. esocinus und B. xanthopterus stehen in engster Wahl.

Nicht weiter zu bestimmen sind die Fischknochensplitter aus Lot D 682.

## ZUSAMMENFASSUNG

Die Tierknochenfunde aus der 14. Grabungskampagne in Nippur lassen die Abnahme des Schweinefleischkonsums vom ersten Rang in der Ur III-Zeit bis zur Bedeutungslosigkeit in der neuassyrischen Zeit verfolgen (Diagr. B-1). An seine Stelle treten Rind und Schaf. In der neuassyrischen Phase stellen die Equiden, Esel, Onager und Pferd, einen bemerkenswert hohen Fundanteil (Tab. B-2c). Im übrigen seien als Besonderheiten ein abgeschliffener Astragalus von einem Mesopotamischen Damhirsch (Taf. B-1: 4a) und der Schädel einer Goldstaubmanguste erwähnt (Taf. B-2: 8), der aber wohl nicht in kulturellem Zusammenhang steht.

Ingesamt wurden 1285 Knochenfunde gezählt, darunter 7 Vogel-, 3 Schildkröten- und 13 Fischknochen.

## VERTEILUNG DER FUNDE AUF DIE FUNDSTELLEN

## 1. UR III

## AREA WC-3

Locus 208
Under Floor 1, Lot D 408
Rind: Tibia, Distalteil; Tibiakörper'.
Schwein: 3 Kalotten" von 3 Individuen; Oberkiefer, $\mathrm{M}^{2}+\mathrm{M}^{3}-, \delta$.
Locus 210
Floor 1, Lot D 12
Schaf oder Ziege: 2 Halswirbel"; Tibia, Proximalteil, Epiphysenfuge offen.
Floor 2, Lot D 23
Schaf: Radius, Proximalteil mit Ulna'.
Schwein: Unterkieferzahn; Epistropheus'; 3 Humerus"; Ulnakörper'.
Barbe, Barbus spec.: 2. Rückenflossenstachel'.
Locus 211
Floor 1, Lots D14, 20
Esel: 2 linke M3, geringgradig abgekaut (Taf. B-1: 3g-h); Femurkörper'.
Schaf: 2 Scapula", links und rechts.
Schaf oder Ziege: M inferior; Brustwirbel'; 2 Lendenwirbel"; Scapula'; Humeruskörper'; Metatarsuskörper'.
Schwein: Hirnschädel'; Atlas'; Humeruskörper'; 2 Ulnae, rechts, Tuber lose; Calcaneus, Tuber im Verwachsen; 3 Tarsalknochen; Metatarsus IV; Phalanx 1, Nebenstrahl.
Floor 2, Lot D 25
Schaf: Sitzbein'.
Schwein: 2 Femora, Distalteile, Epiphysenfuge offen.
Barbe, Barbus spec.: 2. Rückenflossenstachel'.

## 1. UR III, AREA WC-3 (Fortsetzung)

Locus 212
Floor 1, Lot D 18
Schaf: Talus, links; Talus, rechts und 2 Tali, links, verkohlt, dorsal abgeschliffen.
Locus 213

## Floor 2, Lot D 36

Rind: Lendenwirbelsplitter, verkohlt.
Schaf: Hornzapfen', ${ }^{\mathbf{o}}$; Talus.
Ziege: Calcaneus', ${ }^{\text {ㅇ. }}$.
Schaf oder Ziege: Radiuskörper.
Locus 216
Floor 1, Lots D 45, 417
Esel: Radiuskörper.
Rind: Metacarpus, Distalteil, $\delta$.
Schaf oder Ziege: Fermurkörper'.
Schwein: Unterkieferhälfte, $\mathrm{M}_{1}+\mathrm{M}_{2} ;$; Rippe'; Femurkörper'.
Locus 217
Drain under Floor 1, Lot D 426
Rind: Humerus, lose distale Epiphyse.
Locus 218
Floor 1, Lots D 44, 412
Rind: M inferior; Phalanx 1, hinten innen; Phalanx 1, hinten außen; 2 Phalanx 2, hinten; 2 Phalanx 3, alle von einem Individuum.
Schaf: Epistropheus', $\%$; Metacarpuskörper'; Tibia, Distalteil, verbrannt; Talus; Centrotarsale.
Schaf oder Ziege: $\mathbf{M}^{3}$, geringgradig abgekaut; Oberkieferzahn; Oberkiefer'; Unterkiefersplitter; Humerus, distales Ende', Epiphysenfuge verwachsen; Tibiakörper'.
Schwein: Hirnschädel'; Gesichtsschädel'; 2 Oberkiefer, links $\mathbf{M}^{2}+/ \mathbf{M}^{3}$-; Unterkiefer, $\mathbf{M}_{2}+/$-; Halswirbel'; Brustwirbel'; Lendenwirbel'; Humerus, Distalteil, Epiphysenfuge offen; Humerus, Distalteil, Epiphysenfuge verwachsen; Radius, Proximalteil, Epiphysenfuge verwachsen; Ulna, Tuber lose; Sitzbein; Darmbein; Fernurkörper'; Femur, Distalteil, Epiphysenfuge offen; Tibia, Distalteil'; Fibula'; Metacarpus III; Metatarsus III, distale Epiphysenfuge offen.
Wasserschildkröte: Bauchpanzer'.
Locus 220
Floor 1, Lots D 613-614
Rind: Hirnschädel'; Lendenwirbel'; Patella'; Calcaneus', verkohlt.
Schaf: Metacarpus; Tibia, Distalteil; Metatarsuskörper.
Schaf oder Ziege: Hirnschädelsplitter; Unterkiefer', M3 mittelgradig abgekaut; Atlas, ${ }^{\circ}$; Halswirbel'; Tibiakörper'.
Schwein: Oberkieferhälfte, $\%, \mathrm{M} 3$ mittelgradig abgekaut; Unterkiefer, $\%$, rechts, $\mathrm{M}_{2}$ +/M3-; 2 Unterkiefer", rechts; Unterkiefer, links, M2 +/M3-; Unterkiefer, links; Unterkiefercaninus, ס; 2 Atlas"; Brustwirbel; Lendenwirbel'; Humerus, Distalteil; Humerus, distales Ende; Humerus, Proximalteil, Epiphysenfuge offen; 2 Humeruskörper"; Femurkörper. Sie stammen von mindestens 4 Individuen.

Floor 1, Lot D 532
Rind: Brustwirbel'.
Schaf: Becken, 9 ; Tibia, Distalteil.
Schaf oder Ziege: Epistropheus', ${ }^{\delta}$.
Schwein: Kalotte'; Gesichtsschädel'; Oberkiefer', $\delta^{\prime}$; Unterkiefer, $\mathrm{M}_{2}+/ \mathrm{M}_{3}$-; Unterkieferhälfte', 우; Atlas; Epistropheus'; Brustwirbel'; Lendenwirbel'; Radiuskörper'; Femurkörper'; Tibia, Distalteil; Talus; Metacarpus III, distale Epiphysenfuge offen; Metacarpus IV, Proximalteil; Metatarsus III, distale Epiphysenfuge offen; Metatarsus IV, distale Epiphysenfuge offen; Phalanx 1, proximale Epiphysenfuge im Verwachsen.

Locus 221
Floor 1, Lot D 411
Schwein: Unterkieferbackzahn.
Locus 222
Floor 1, Lots D 418, 422
Rind: Metatarsuskörper'.
Schaf: Metatarsus, Proximalteil'; Metatarsus, Distalteil.
Schaf oder Ziege: Oberkiefer, $\mathbf{M}^{3}$ im Durchbruch; Unterkiefer, $\mathbf{M}^{3}$ hochgradig abgekaut; Sitzbein'; Tibiakörper'; Centrotarsale.
Schwein: Kalotte'; Unterkiefer, $\mathrm{M}_{2}+/ \mathrm{M}_{3}-$; Unterkiefer $\mathrm{M}_{1}+/ \mathrm{M}_{2}$-; 4 Unterkiefer"; Epistropheus, Wirbelscheibe lose; 4 Rippen"; Humerus, Proximalteil, Epiphysenfuge offen; Ulnakörper, verbrannt; Carpalknochen; Metacarpus III, Proximalteil; Metacarpus IV, distale Epiphysenfuge offen; Metacarpus II, Proximalteil; Tibia, Proximalteil, Epiphysenfuge offen; Metatarsus III, Epiphysenfuge offen; Metatarsus V, Epiphysenfuge offen; Metapodium'; Phalanx 1.

Locus 223
Floor 1, Lot D 424
Schaf: Radius, Distalende, Epiphysenfuge offen; Darm- und Sitzbein,, 7 Metatarsus, Distalteil.
Schaf oder Ziege: Rippe'; Scapula'; Tibiakörper'.
Schwein: Unterkiefer, $\%, M_{2}+/ M_{3}-$; Metacarpus III, distale Epiphysenfuge im Verwachsen; Metacarpus IV, distale Epiphysenfuge offen; Phalanx 1, proximale Epiphysenfuge im Verwachsen.

Haus- oder Graugans: Tibiotarsus, distale Zweidrittel.
Locus 224
Floor 1, Lot D 414
Halbesel: Radius, Proximalteil, Epiphysenfuge offen, verbrannt.
Schwein: Himschädel'; Ulna', Tuber lose; Femur, Proximalteil, Epiphysenfuge offen.
Under Floor 1, Lot D 442
Rind: Rippe'.
Schwein: Brustwirbel, juvenil.
Locus 225
Floor 1, Lot D 425a
Schaf: 4 Tali, 3 links, 1 rechts.

## 1. UR III, AREA WC-3, Locus 225, Floor 1, Lot D 425a (Fortsetzung)

Ziege: 2 Tali, 1 links, 9 , und 1 rechts, $\delta$.
Schaf oder Ziege: Lendenwirbel'; Radius, Proximalteil, Epiphysenfuge offen; Metatarsuskörper'.
Tafelente, Aythya ferina: Humerus, distale Zweidrittel.
Locus 227
Floor 1, Lot D 430
Schaf oder Ziege: 2 Oberkieferzähne; Unterkiefer, M3 geringgradig abgekaut; Rippe'.
Schwein: Gesichtsschädel'; Oberkiefer', $ㅇ$; Brustwirbel'; Humeruskörper, distale Epiphysenfuge offen; Phalanx 1, proximale Epiphysenfuge offen.
Kampfläufer, Philomachus pugnax: Tarsometatarsus, Corpus, ס .
Locus 232
Floor 1, Lot D 510
Ziege: Talus, 9 .
Schaf oder Ziege: Brustwirbel'; Femur, Distalteil, Epiphysenfuge verwachsen.
Schwein: Unterkiefer, $\mathrm{M}_{2}+/ \mathrm{M}_{3}-$; Femurkörper'; Calcaneus', verkohlt.
Locus 233
Lot D 508
Rind: Humerus, Distalteil; Femurkörper'; Patella.
Schaf oder Ziege: Unterkieferbackzahn; 2 Rippensplitter.
Schwein: Hirnschädelkalotte; Oberkiefer'; Unterkieferbackzahn; Brustwirbel'; Darmbein'.
Stachelwels, Mystus halepensis: Brustflossenstachel (Taf. B-2: 9).
Lot D 516
Rind: $\mathbf{M}^{1}$ oder $\mathrm{M}^{2}$; Talus'.
Schaf oder Ziege: Oberkieferzahn; Femur, loses Caput.
Schwein: Lendenwirbel', verbrannt; Calcaneus; Tibiakörper.
Locus 234
Floor 1, Lot D 511
Equide: Unterkieferschneidezahn.
Rind: Phalanx 2.
Schaf: Ulna'.
Schaf oder Ziege: $\mathbf{M}^{3}$, mittelgradig abgekaut; Rippe'; Radius', distale Epiphysenfuge verwachsen.
Schwein: Gesichtsschädel'; Atlas'; Rippe'; Scapula, Tuber verwachsen; Calcaneus, Proximalteil, Tuber verwachsen; Metacarpus III, Proximalteil, verbrannt; Metapodium, Distalteil, Epiphysenfuge offen.

## Floor 1, Lot D 518

Schaf oder Ziege: 2 Lendenwirbel"; Rippe'.
Schwein: Hirnschädel'; Oberkieferschneidezahn; M3, geringgradig abgekaut; Halswirbel'; Metatarsus III, distale Epiphysenfuge offen.

Locus 238
Under Footing, Lot D 545
Rind: Scapula'.

Schaf oder Ziege: Unterkiefer'; Sitzbein'; Metarsuskörper'; Phalanx 1, Proximalteil.
Schwein: Hirnschädel'; Oberkiefer, $\%$, hochgradig abgekaut; M3, geringgradig abgekaut; Unterkieferbackzahn; Brustwirbel'; Humerus, Distalteil; Ulna', infantil; Tibiakörper; Metatarsus V, distale Epiphysenfuge offen.

Locus 241
Burial 654, Inside Bowl (Isin-Larsa), Lot D 543
Schaf oder Ziege: Brustwirbel', angekohlt; Radiuskörper'; Femurkörper'.
Schwein: Phalanx 1.
Locus 242
Floor 2, Lot D 610
Schaf oder Ziege: Unterkieferhälfte, M3 geringgradig abgekaut; Unterkiefer'.
Schwein: Unterkiefer', $9, M_{1}+/-$ Humerus, Distalteil.
Floor 3, Lot D 621
Rind: Rippe'.
Ziege: Metatarsus', Proximalteil, ㅇ.
Schwein: Schädel'.
Locus 247
Floor 3, Lot D 790
Schaf: Scapula', juvenil.
Schaf oder Ziege: Oberkieferzahn; Unterkieferbackzahn'; 2 Tibiakörper".
Floor 5. Lot D 799
Rind: Unterkiefer'; 2 Tibiakörper"; Phalanx 1.
Schaf: Scapula'; Metacarpus, Distalteil'; Sitzbein'.
Schaf oder Ziege: Lendenwirbel'; Radius, proximales Ende'; Becken'.
Locus 248
Floor 1, Lots D 644a-b, 766
Rind: Unterkieferbackzahn; Radius, distales Ende; Os carpi ulnare.
Schaf: Epistropheus'; Femur, proximales Ende.
Ziege: Tibia, Distalteil, ${ }^{\circ}$.
Schaf oder Ziege: 3 Oberkieferzähne; Unterkieferhälfte, M3 geringgradig abgekaut; Atlas', $\uparrow$; Atlas'; Brustwirbel'; Scapula'; 4 Tibiakörper.
Schwein: Hirnschädelkalotte'; Oberkiefer, $\mathrm{M}^{3}+/-; 2$ Atlas"; 2 Rippen"; Humeruskörper, juvenil; Humerus, Distalteil; Darmbein'; Femurkörper'; Tibia, lose proximale Epiphyse; Calcaneus', Tuber nicht angewachsen; Metatarsus II, Proximalteil.
Wels, Tachysurus thalassinus: Kerato- und Epihyale (Taf. B-2: 12).
Floor 2, Lots D 656, 784
Schaf: Os carpi intermedium; Darmbein, $\uparrow$; Talus.
Schaf oder Ziege: $\mathbf{M}^{\mathbf{3}}$, geringgradig abgekaut; M superior; Unterkiefer'; Rippe'.
Schwein: Gesichtsschädel'; 2 Unterkieferhälften, M3 geringgradig abgekaut; Unterkieferhälfte, M3 mittelgradig abgekaut; Rippe'; Humerus, Distalteil; Radius, Proximalteil; Femur'; Femur, lose distale Epiphyse; Tibia, Distalteil.
Wels, Parasilurus triostegus: Vertebra praecaudalis'.

## 1. UR III, AREA WC-3, Locus 248 (Fortsetzung)

Floor 3, Lots D 607, 629, 696, 788
Rind: Unterkiefer'; Humeruskörper'; Metatarsus, Distalteil, 9.
Schaf: 2 Humeri, Distalteile; Femur, Proximalteil; Femur, loses Caput; Talus; Metatarsuskörper.
Schaf oder Ziege: $\mathbf{M}^{3}$, geringgradig abgekaut; $\mathbf{M}^{3}$ mittelgradig abgekaut; 5 Oberkieferzähne; Unterkieferhälfte, $\mathrm{M}_{2}+/ \mathrm{M}_{3}-; 5$ Unterkieferzähne; 2 Epistropheus", verbrannt; 2 Halswirbel"; 2 Rippen"; Humeruskörper'; Radiuskörper'; Radiuskörper, infantil; Becken'; Femur'; Tibia'.
Schwein: Kalotte'; Oberkiefer'; I superior; Unterkiefer', $\mathbf{M}_{1}+/ \mathbf{M}_{2}-$; Unterkieferhälfte, $\mathbf{M}_{2}+/-$; Unterkiefer', $\mathrm{M}_{2}+/ \mathrm{M}_{3}-$; Unterkieferhälfte, $\mathrm{M}_{3}$ geringgradig abgekaut; Atlas'; Halswirbel'; 5 Rippen"; Scapula; Os carpi radiale; 2 Sitzbein"; Femur, Distalteil, Epiphysenfuge offen; Tibia, distale Epiphysenfuge offen; 3 Tibiakörper"; 2 Fibula".
Floor 4, Lots D 764, 792
Rind: $2 \mathrm{M}^{3}$, mittelgradig abgekaut; Scapula'; Humerus'; Radius, Distalteil, 9 ; 3 zusammengehörige Carpalknochen; Metacarpus, Trochlea; Darmbein, 9 ; Tibia'; Centrotarsale; Phalanx 2, $\delta$; Phalanx 2, $\%$.
Schaf: Kalotte, ${ }^{\circ}$, in Stücken; Darmbein'; Calcaneus, © ; Metatarsuskörper'; Phalanx 1'.
Ziege: Humerus, Distalende, $\delta$; Calcaneus; Metatarsus, Proximalteil, 9.
Schaf oder Ziege: 6 Oberkieferzähne; $M^{3}$, geringgradig abgekaut; 3 Unterkieferhälften, $\mathrm{M}_{3}$ mittelgradig abgekaut; 2 Unterkiefer"; Unterkieferbackzahn; Epistropheus, ${ }^{\circ}$; 2 Halswirbel"; 2 Brustwirbel"; Lendenwirbel'; Scapula; Humerus, Distalende, adult; Humerus, infantil; 3 Radiuskörper"; Metacarpus'; Becken, 9 ; Sitzbein'; Tibiakörper, Epiphysenfugen offen; Phalanx 1'.
Schwein: 2 Hirnschädel"; Unterkiefer, $\mathrm{M}_{1}+\mathrm{M}_{2}-;$ Unterkiefer'; Brustwirbel'; Rippe'; Humerus, Distalteil, adult; Radiuskörper, infantil; Tibiakörper, infantil, Calcaneus, Tuber lose.

Locus 249
Floor 1, Lot D 550
Rind: Tibia, Distalteil.
Schaf oder Ziege: Carpale, Tibiakörper'.
Schwein: Lendenwirbel, juvenil; Humerus, distale Epiphysenfuge offen.
Floors 1-2, Lot D 601
Schaf: Phalanx 1.
Schaf oder Ziege: Unterkieferzahn'.
Floor 3, Lot D 602
Schaf: Humerus, Distalteil.
Schwein: Unterkiefer'; Rippe'; Scapula, infantil; Metacarpus III, Foetus; Tibia, Distalteil, Epiphysenfuge offen.
Floor 4, Lot D 604
Rind: 4 Rippen, davon 1 mit verheilter Fraktur.
Schaf: Metatarsus, Proximalteil.
Ziege: Darmbein', 9 .
Schaf oder Ziege: Gesichtsschädel'; Unterkiefer'; Rippe'; Radiuskörper'; Becken', $\%$; Femurkörper'.
Schwein: Unterkiefer, Schnauzenteil, \&; Epistropheus'; Rippe'; Ulna', Tuber nicht angewachsen; Becken'; Tibiakörper'.

Floor 4, Lot D 604a
Rind: Unterkiefer'; Centrotarsale; Metatarsuskörper'; Phalanx 3.
Schaf: Schädelkalotte', $\delta$, mit Hornzapfen; Becken, $\ddagger$; Femur, distales Ende; Calcaneus.
Schaf oder Ziege: Gesichtsschädel'; Darmbein'.
Schwein: 6 Hirnschädel"; 2 Unterkiefer, links, $\mathrm{M}_{1}+/ \mathrm{M}_{2}-;$ Unterkiefer, rechts, $\mathrm{M}_{1}+/-$; Unterkiefer';
Humeruskörper'; Radius, Proximalteil; Tibia', distale Epiphysenfuge offen.
Wasserschildkröte: Mauremys caspica: 2 Bauchpanzer".
$\mathrm{MIZ}=1$.
Floor 5, Lot D 807
Rind: Halswirbel'; Brustwirbel'.
Schwein: Atlas'; Lendenwirbel'; 2 Rippen".
Locus 250
Floor 4, Lots D 619, 665
Pferd: $P_{3}$ oder $P_{4}$, mittelgradig abgekaut (Taf. B-1: 3f).
Schaf: Humerus, Distalteil; Darmbein', 9 ; Tibia, Distalteil; 2 Tali.
Ziege: Becken, 9 ; Darmbein'.
Schaf oder Ziege: 2 Brustwirbel"; Tibiakörper'; Metatarsus', verbrannt.
Schwein: Hirnschädel'; 3 Halswirbel"; 2 Rippensplitter; Fibula'; Talus; Metatarsus IV, Proximalteil.
Löffelente, Anas clypeata: Ulnakörper'.
Locus 252
In Jar Inserted into Floor 1, Lot D 682
Unbest. Fisch: 1 Knochensplitter; 4 Rippen".
Locus 253
Burial 78, Lot D 694, Bones under Bowl, 14 N 376
Schaf: Scapula.
Schaf oder Ziege: 2 Oberkieferzähne; Unterkiefer', M3 hochgradig abgekaut.
Schwein: Femur, lose distale Epiphyse.
Locus 254
Floor 1, Lot D 786
Rind: Metacarpus, Distalteil, $\delta$.
Schaf oder Ziege: Humeruskörper'.
Schwein: Becken'.
Haus- oder Graugans: Carpometacarpus'.
Barbe, Barbus spec.: 2. Rückenflossenstachel (Taf. B-2: 10).
Wels, Parasilurus triostegus: Keratohyale.
Locus 255
Floors 1-2, Lots D 777, 778
Rind: Metacarpus, Distalende; Phalanx 2.
Schaf oder Ziege: Tibiakörper'; Calcaneus, Proximalteil.
Schwein: Femurkörper', distale Epiphysenfuge offen.
Wels, Parasilurus triostegus: 1 Praemaxillare (Taf. B-2: 11).

## 1. UR III, AREA WC-3 (Fortsetzung)

Locus 259
Floor 1, Lot D 828
Rind: Scapula.
Ziege: Hornzapfen', $\uparrow$, eng gedreht.
Schaf oder Ziege: Hirnschädel'; Halswirbel'; Radiuskörper'.
Schwein: 2 Lendenwirbel".

## 2. KASSITISCH

## AREA WC-1

Locus 12
Fill above Floor 3, Lot D 59
Rind: 2 Unterkiefer"; Humerus, lose proximale Epiphyse; Humeruskörper'; Os carpi radiale, Os carpi intermedium, Os carpi ulnare, alle zusammengehörig; Femur, Distalende; Tibia', proximale Epiphysenfuge offen; 2 Tibiakörper"; 2 Metatarsus"; Phalanx 2.
Schaf: 2 Scapulae, Distalteile; 2 Humeri, Distalenden; Humerus, Körperabschnitt, ©; 2 Radien, Proximalenden; Ulna', Tuber lose; Darmbein, ó; Talus'; Metatarsus'; 3 Phalangen 2.
Schaf oder Ziege: $\mathbf{M}_{3}$, geringgradig abgekaut; Halswirbel'; 2 Brustwirbel"; 5 Lendenwirbel"; 3 Rippen"; Scapula'; Humerus, Distalende; 2 Humeri, Proximalteile; 5 Humeruskörper"; 4 Radiuskörper"; Metacarpus'; Femurkörper'; 2 Tibiae, Distalenden; Tibiakörper'.
Schwein: Lendenwirbel'; Phalanx 1, Hauptstrahl.
Gazelle: Epistropheus'; Humeruskörper'.

## Locus 15

Bin on Floor 3, Lot D 312
Rind: Brustwirbel'; Rippe'.
Schaf: 3 Humeri, Distalteile, 2 rechts und 1 links; 2 Radien, lose distale Epiphysen; Ulna'; Metacarpus, Proximalteil; Centrotarsale; Metatarsus, Distalteil; 2 Phalanx 1".
Schaf oder Ziege: Hirnschädel'; 4 Unterkiefer"; 2 Unterkıeferzähne, 1 davon M3, hochgradig abgekaut; 15 Rippen"; 2 Humerus"; Ulna', Tuber lose; 3 Metacarpus"; Sitzbein'; Femur, lose distale Epiphyse; Tibiakörper; Metatarsuskörper'.
Schwein: Metatarsus IV'.
Locus 27
Floor 1 and Fill above, Lot D 345
Rind: Hirnschädel'; Oberkieferzahn; Atlas'; Tibia, in mehreren"; Os malleolare.
Ziege: Metacarpus, Proximalteil, wahrscheinlich adult; Phalanx 1.
Schaf oder Ziege: Unterkieferzahn; Brustwirbel, Proc. spinalis; 2 Rippen"; 3 Radiuskörper"; 3 Becken"; Femur'; Tibia, Körperabschnitt; Metatarsus, Proximalteil, wahrscheinlich juvenil; Metatarsus, Körperabschnitt; Talus, mediale Seite abgeschliffen; Centrotarsale.

Locus 53
Possibly Contaminated by Pit L, Lot D 709
Halbesel: Metacarpus, Distalteil, Phalanx 1, Phalanx 2, alle zusammengehörig (Taf. B-1: 6a-b).
Rind: Unterkiefer, $\mathrm{M}_{3}$ geringgradig abgekaut; Rippe'; Femur, Proximalteil, Epiphysenfuge offen.
Locus 56
Floor 1, Lot D 720
Schaf: Calcaneus'.
Schaf oder Ziege: Tibia, lose proximale Epiphyse.
Schwein: 2 Metapodien".

## Locus 57

In Jar Cut into Mudbrick Packing, Lot D 332
Ziege: Metacarpus, Körperabschnitt; Metatarsus, distale Epiphysenfuge offen; 2 Phalangen 1, davon 1 proximale Epiphysenfuge offen; 2 Phalangen 2, davon 1 proximale Epiphysenfuge offen.
Schaf oder Ziege: 3 Gesichtsschädel"; 2 Oberkieferzähne; 2 Unterkieferhälften, M1 frisch durchgebrochen, zusammengehörig.

Locus 58
Floor 3, Lot D 707
Rind: 2 Rippen".
Schaf: Epistropheus, Kranialteil.
Schaf oder Ziege: 2 Lendenwirbel", Scapula'.
Hund: Scapula'.
Mensch: Darmbein, infantil.

## 3. NEUASSYRISCH

## AREA WC-2

Locus 108
Floor 1, Lot D 108
Rind: 3 Talus", davon $1 \delta, 19$ und 1 wahrscheinlich juvenil, alle versintert und ausgelaugt.
Schaf oder Ziege: Brustwirbelkörper; Femur, Distalteil.
Damhirsch: Geweih'.
Gazelle: Metacarpus, Proximalteil.
Locus 110
Oven, Lot D 383
Rind: Unterkiefer'; 4 Rippen"; Scapula', distales Ende; Becken'.
Schaf: Humeruskörper'; Metacarpus, Körperteil und lose Gelenkrolle; 4 Phalangen 1; Phalanx 2. Alle Funde sind ausgelaugt.
Schaf oder Ziege: 2 Oberkieferzähne; 2 Rippen"; Radiuskörper; Metacarpus, Körperabschnitt; 3 Tibia", davon 1 Distalteil.
Schwein: Scapula'; Metatarsus IV, distale Epiphysenfuge offen.

Doorway between Loci 110 and 111

## Lot D 388

Goldstaubmanguste, Herpestes auropunctatus: Skeletteile eines of Tieres (Taf. B-2: 8a-b).

## Locus 111

Floor 1, Lot D134
Rind: Brustwirbel'; Rippe'.
Schaf: Metacarpus, Proximalteil.
Schaf oder Ziege: Oberkiefer, $\mathbf{M}^{3}$ mittelgradig abgekaut; Unterkiefer, M3 im Durchbruch; Halswirbel'; Brustwirbel'; 2 Lendenwirbel"; Radius, Proximalteil'; 2 Radiuskörper"; Acetabulum', wahrscheinlich 9 ; Femur, distales Ende', Epiphysenfuge offen; Tibia, Körperabschnitt.
Schwein: Patella'.
Gazelle: Calcaneus, Proximalteil (abgesägt).
Floor 2, Lot D 233
Rind: Calcaneus, Distalteil.
Schaf: Calcaneus, Tuber nicht angewachsen; Phalanx 1.
Ziege: Phalanx 1.
Schaf oder Ziege: Oberkieferzahn'; Rippe'; 2 Halswirbel"; 5 Brustwirbel"; 2 Humeruskörper"; Darmbein'; 4 Femur", 2 davon infantil; 6 Tibia", davon 1 distales Ende; Centrotarsale.

Locus 113
Floor 2, Lot D 129
Rind: Atlas, in mehrere Teile zerfallen.
Schaf: Humerus, Distalteil'.
Locus 115
Floor 1, Lot D 205
Rind: Talus.
Schaf: 5 Tali, davon 3 rechts und 2 links (Taf. B-1: 4b).
Locus 116
Floor 1, Lot D 212
Rind: Talus, infantil.
Schaf: Tibia, Distalteil; Calcaneus.
Ziege: Patella.
Schaf oder Ziege: Scapula, Tuber lose; Humerus, lose proximale Epiphyse; Humerus, Körperabschnitt; 2 Femora, infantil.

Locus 117
Floor 1, Lot D 566
Rind: Radius, Körperabschnitt.
Ziege: Humeruskörper; Humerus, Distalteil; Becken, $\delta$.

Schaf oder Ziege: Unterkiefer, $\mathbf{M}_{3}$ mittelgradig abgekaut; Rippe'; Scapula'; Humerus', Distalteil; Radiuskörper; 2 Femurkörperabschnitte; 2 Tibiakörper; Calcaneus'; Metatarsuskörper.
Schwein: Hirnschädel'; Femurkörper, infantil.
Locus 120
Floor 2, Lot D 367
Equide: 7 Oberkieferzähne (Taf. B-1: 3a, c); Unterkiefer', infantil; 6 Unterkieferzähne (Taf. B-1: 3d-e); Brustwirbel'; Lendenwirbel'; Rippe'; Os carpi accessorium; Tibia, Körper'; Metatarsus, Körper'; Metatarsus, Distalteil.
Rind: Unterkiefer'; 2 Rippen"; Scapula'; Humerus, Körperabschnitt; Tibia, Proximalteil; Tibiakörper'; Talus; Phalanx 1; Phalanx 3'; Sesambein.
Schaf: Epistropheus', $\delta$, adult; Radius, Proximalteil; 3 Darmbeine, davon 2 ㅇ, 1 juvenil; 2 Femora, Proximalteile; 2 Calcanei; Talus; Metatarsus, Körperabschnitt.
Schaf oder Ziege: 4 Oberkieferzähne; Halswirbel'; 3 Rippen"; 3 Humeruskörper"; Femurkörper'; 3 Tibiakörper".
Mensch: Femur, in mehreren"; Tibia, Proximalteil, Epiphysenfuge offen; Tibia, Körperabschnitt; Talus.

Locus 123
Floor 1, Lot D 379
Rind: Oberkiefer'; Unterkiefer'; Scapula, in mehreren Bruchstücken; Talus, groß, wahrscheinlich ot. $^{\text {. }}$.
Schaf: Metacarpus, Distalteil; Darmbein, $\wp ; 5$ Tali, 3 rechts und 2 links, davon 1 rechter mit tiefem Loch auf der dorsalen Seite oberhalb des Caput; Phalanx 1.
Schaf oder Ziege: Rippe'; Lendenwirbel'; 3 Femurkörperteile, davon 1 infantil; Talus, lateral und medial abgeschliffen (wahrscheinlich Schaf); Metatarsus, Proximalteil.
Damhirsch: Talus, dorsal abgeschliffen (Taf. B-1: 4a).

## Floor 2, Lot D 380

Equide: Halswirbel', Lendenwirbel', bei beiden die kaudale Wirbelscheibe offen; Kreuzbein'; 3 Rippen"; Radius, in der Länge ganz erhalten (Taf. B-1: 2e) und dazugehörige Ulna'; Metacarpus'; 3 Femur", davon 1 Distalteil; Tibiakörper; Os tarsale quartum.
Rind: Hirnschädel, in mehreren kleinen"; Epistropheus'; 2 Halswirbel'; Brustwirbel, Proc. spinalis; Lendenwirbel', kaudale Wirbelscheibe offen; 4 Rippen"; 2 Scapula", davon 1 Distalteil, Tuber im Verwachsen; Tibia, Distalteil; 2 Sesambeine.

$$
M I Z=2 .
$$

Schaf: Hornzapfen, $\delta$, etwa 4 cm lange Spitze mit deutlicher Drehung; Kalotte, 9 , hornlos; Epistropheus, wahrscheinlich $9 ; 3$ Scapuladistalteile, 2 links und 1 rechts; Humerus, Distalteil, Epikondylenfugen im Verwachsen; Radius, Proximalteil; Radius, Distalteil; Metacarpus'; 2 Darmbeine, davon 1 juvenil und $1 \%$ adult; Femurcaput; Patella'; 5 Tali, davon 1 juvenil, 2 links und 2 rechts; Metatarsuskörper, infantil.

MIZ $=4$ : 1 infantil, 1 juvenil und 2 adult.
Ziege: Scapula, Distalteil; Fesselbein'.
Schaf oder Ziege: 2 Gesichtsschädel"; Unterkiefer', $\mathrm{M}_{3}$ hochgradig abgekaut (Taf. B-2: 7); 2 Unterkieferzähne; Atlas'; 2 Epistrophei; 3 Halswirbel"; 4 Brustwirbel"; 7 Rippen"; Scapula'; 2 Humeruskörper und 1 Distalteil; Radius, Proximalteil; Radiuskörper; Metacarpuskörper; Femur, distale Epiphysenfuge offen; 2 Tibiakörper; Tibia, Distalteil; Fesselbein'.
Schwein: Rippe'.
Schleiereule, Tyto alba: Ulna, Jungtier (Taf. B-2: 13).
Unbest.: 7 Splitter.

## 3. NEUASSYRISCH, AREA WC-2 (Fortsetzung)

Locus 127
Floor 1, Lot D 375
Rind: Atlas'.
Schaf: Humerus, Distalteil; Femur, Caput'.
Schaf oder Ziege: Brustwirbelkörper.
Locus 130
Floor 2, Lot D 595
Equide: Halswirbel'; 3 Rippen"; Humerus, in der Länge ganz erhalten (Taf. B-1: 1); Radiuskörper; Tibiakörper, proximale und distale Epiphysenfuge offen; Metatarsus, proximales und distales Ende (wahrscheinlich zusammengehörig); Phalanx 1 (Taf. B-1: 5).
Rind: Unterkiefer, Gelenkteil.
Schaf: Scapula, Distalteil.

## Locus 131

Floor 2, Lot D 554
Esel: Talus, verbrannt.
Schaf: 2 Femurproximalteile, links.
Schaf oder Ziege: Brustwirbelkörper'; 2 Femurdistalenden; Femur, Körperabschnitt; Talus'.
Schwein: Radius, Proximalteil.
Locus 134
Pit, Lots D 562, 565
Rind: Gesichtsschädel; 2 Unterkiefer"; Radius, Proximalteil.
Schaf: Kalotte $\delta$, juvenil, Hornzapfen abgeschlagen; Humerus, proximale Epiphysenfuge offen; Humerus, proximale Epiphysenfuge angewachsen; Humeruskörper'; Sitzbein'.
Ziege: Radius, Distalteil; Talus.
Schaf oder Ziege: Oberkiefer $\mathbf{M}_{2}+/ \mathbf{M}_{3}-$; Oberkiefer'; 2 Oberkieferzähne; Unterkiefer, $\mathbf{M}_{1}+/ \mathbf{M}_{2}-;$ Unterkiefer, M3 mittelgradig abgekaut; Humerus, distales Ende; Humeruskörper'.
Haushuhn: Scapula, Kranialhälfte.

## 4. KASSITISCH ODER SPÄTER

## Specimens from Geomorphological Trench 2

Lot D 451
Esel od. Onager: $\mathrm{M}^{1}$ oder $\mathrm{M}^{2}$, Länge $=24 \mathrm{~mm}$, Breite $=23 \mathrm{~mm}$, geringgradig abgekaut (Taf. B-1: 3b).
Lot D 452
Rind: 5 Carpalia, alle zusammengehörig.
Lot D 453
Equide: Talus, in zwei ".
Rind: Humerus, in Teilen; Radius, in Teilen, distale Epiphysenfuge verwachsen; Ulna', Tuber verwachsen; Darmbein', ㅇ, verbrannt; Femur, in Teilen (zusammengeleimt), Tibia, Proximalteil, Metatarsus, Phalanx 1, hinten innen, Phalanx 1, hinten auBen, Phalanx 2, hinten
innen, Phalanx 2, hinten außen, 2 Klauenbeine, Sesambein. Alle Knochen der hinteren Extremität zusammengehörig, wahrscheinlich von einem Ochsen.
Schaf: Metatarsus, distale Hälfte.
Schaf oder Ziege: Unterkiefer', M3 geringgradig abgekaut; Rippe'; Tibia'.
Mensch: Fibula, Schaftstück, adult?

## Lot D 454

Rind: Humerus, Proximalteil, Epiphysenfuge nicht verwachsen.

## Lot D 455

Esel: Radius, etwa 15 cm langer Körperabschnitt, schlankwüchsig.

## Lot D 456

Esel: Humerus, etwa 12 cm langer Körperabschnitt, klein und schlankwüchsig.

## Lot D 457

Schaf oder Ziege: Unterkiefer', geringgradig abgekaut; Femur, Körper'.
Lot D 487
Schaf: Darmbein', $\delta$.
Schwein: Oberkiefer, geringgradig abgekaut; Humeruskörper'.

## Lot D 488

Rind: Phalanx 2'.
Schaf: Humerus, distale Gelenkrolle.
Schwein: Tibia'.
Lot D 489
Rind: $M_{2}$ und $M_{3}$, geringgradig abgekaut.
Schaf: Hirnschädel'; Tibia, Distalende.
Schaf oder Ziege: $\mathbf{M}^{3}$, geringgradig abgekaut; Unterkiefer', geringgradig abgekaut; Lendenwirbelkörper'; 2 Rippen"; Radiuskörper'; Femur, Körperabschnitt; Tibiakörper, kalziniert.
Schwein: Oberkiefer'; Humerus, Distalteil; Darmbein'; Tibia, Distalteil, Epiphysenfuge offen.
Hund: Becken'.
Lot D 490
Rind: Atlas'; Halswirbel', nur die kraniale Wirbelscheibe angewachsen; Lendenwirbel, Wirbelscheiben offen; Metatarsus, infantil.
Lot D 491
Schaf: Humerus, distales Ende; Metatarsus, Körperabschnitt.
Schaf oder Ziege: Tibiakörper'.
Schwein: Ulnakörper'.

## Lot D 492

Rind: Unterkiefer'.
Schaf: Kreuzbein'.
Schwein: Unterkiefer, $\mathrm{M}_{2}+\mathrm{M}_{3}$ -

## Lot D 493

Rind: Unterkiefer, in Teilen, mittelgradig abgekaut; 2 Rippen".
Schaf: Radius, Proximalteil; Tibia, Distalende, $\delta$.
Schaf oder Ziege: 4 Oberkieferzähne, $\mathrm{P}^{4}-\mathrm{M}^{3}$, mittelgradig abgekaut; $\mathrm{M}_{1}$; Metacarpus'; Tibia, Körperabschnitt.
4. KASSITISCH ODER SPÄTER, Specimens from Geomorphological Trench 2
(Fortsetzung)
Lot D 494
Rind: Darmbein'.
Lot D 498
Equide: Halswirbel'; Darmbein ${ }^{\prime}$.
Lot D 801a
Schaf oder Ziege: 3 Oberkieferzähne, davon $1 \mathrm{M}^{3}$, hochgradig abgekaut; $\mathrm{M}_{1}$ oder $\mathrm{M}_{2}$, mittelgradig abgekaut.
Lot D 823a
Equide: Lendenwirbel'.
Lot D 827a
Hund: Unterkiefer'.
Lot D 833a
Rind: Humeruskörper'; Phalanx 1.
Schaf oder Ziege: $\mathbf{M}^{3}$, hochgradig abgekaut; Rippe'.
Lot D 834a
Schaf oder Ziege: Oberkiefer'; Brustwirbel, Proc. spinalis, kalziniert.
Lot D 835a
Schaf: Darmbein', ${ }^{*}$.
Schaf oder Ziege: Unterkiefer'; Tibiakörper'.
Schwein: Rippe'; Tibia, proximaler Körperteil.
Lot D 838a
Schaf oder Ziege: Scapula'.
Lot D 840a
Rind: Scapula, Distalteil; Metatarsuskörper, juvenil.
Schaf oder Ziege: Unterkiefer'.
Lot D 847a
Equide: Oberkieferbackzahn, in Teilen.
Lot D 848a
Rind: Metatarsus, Körperabschnitt, juvenil.
Schaf oder Ziege: Halswirbel'; Rippe'.
Lot D 849a
Pferd: Os carpale 3.
Rind: Petrosum.
Schaf: Metatarsus, Distalteil, 8 ?.
Schaf oder Ziege: $\mathbf{M}_{1}$ oder $\mathbf{M}_{2}$.

Tafel B-1


Tierknochenfunde aus Nippur: 14. Season

1. Hausesel oder Halbesel. Humerus (Lot D 595), GL 240 mm
2. Hausesel. Radius (Lot D 380), GL 266 mm
3. Equidenzähne. (a) P2 (Lot D 367), (b) M1 oder M2 (Lot D 451), (c) $\mathrm{M}_{3}$ (Lot D 367), (d-e) $\mathrm{P}_{4}$ und $\mathrm{M}_{1}$, zusammengehörig (Lot D 367), alle Hausesel oder Halbesel; ( $f$ ) $P_{3}$ oder $P_{4}$ (Lot D 619), Pferd, $(g-h) \mathrm{M}_{3}$ (Lot D 14), Esel?
4. Abgeschliffene Tali. (a) Mesopotamischer Damhirsch (Lot D 379), (b) Hausschaf (Lot D 205)
5. Hausesel. Phalanx 1 posterior (Lot D 595), GL (66) mm
6. Halbesel. (a-b) Phalanx 1 und 2 anterior (Lot D 709), Gl (80) und 38 mm

Tafel B-2


Tierknochenfunde aus Nippur: 14. Season
7. Schaf oder Ziege. Unterkieferhälfte mit Zahnfistel (Lot D 380)
8. Goldstaubmanguste, ( $a-b$ ) Herpestes auropunctatus. Oberschädel (Lot D 388), GL 62,5 mm
9. Stachelwels, Mystus halepensis. Brustflossenstachel (Lot D 508), GL $26,6 \mathrm{~mm}$
10. Barbe, Barbus spec. 2. Rückenflossenstachel (Lot D 786)
11. Wels, Parasilurus triostegus. Praemaxillare (Lot D 778)
12. Langstirn-Maulbrüterwels, Tachysurus thalassinus. Epi- und Keratohyale (Lot D 644 a)
13. Schleiereule, Tyto alba. Ulna (Lot D 380), GL $95,5 \mathrm{~mm}$

## APPENDIX C

## MOLLUSCA

## UNIO (U.) TIGRIDIS BOURGUIGNAT 1852.

## GERHARD FALKNER

Der vorstehend behandelte Fundkomplex enthielt leider nur einen einzigen Molluskenrest, nämlich unter der Nummer D 412 das Bruchstück der Vorderendes einer linken Klappe der Tigris-Flußmuschel mit alten Brüchen und ohne Bearbeitungsspuren (Taf. C-1: 1).

Nach Größe und Gestalt läßt das Fragment auf eine etwa $6,5 \mathrm{~cm}$ lange Muschel schließen. Die größte Höhe beträgt $3,0 \mathrm{~cm}$ und die Wirbelhöhe $2,6 \mathrm{~cm}$; die Länge des sehr kurzen Vorderteils mißt nur $0,85 \mathrm{~cm}$. Die Dicke läßt sich auf $2,3 \mathrm{~cm}$ rekonstruieren und die Schalenstärke am Unterrand beträgt zwischen 2,8 und $3,0 \mathrm{~mm}$. Die aus 4 unmittelbar am Wirbel gelegenen spitzen Höckerchen bestehende kennzeichnende Wirbelskulptur ist für das Alter der Muschel noch recht gut erhalten (Taf. C-1: 1a). Die Kardinalzähne sind kurz, niedrig und ziemlich dick; der rechte Kardinalzahn dürfte nach der Form der Lücke zu schließen ebenfalls kurz, massiv und deutlich dreispitzig gewesen sein.

Zum Vergleich konnte das gleichzeitig zur Bearbeitung vorliegende Flußmuschelmaterial aus Isin herangezogen werden (rund 30 Fundstücke). Mit diesem morphologisch und ökologisch recht einheitlichen Material stimmt das Stück aus Nippur ausgezeichnet überein. Es handelt sich um starkschalige Formen mit extrem kurzem Vorderende, parallelem oder spitz zulaufendem Hinterende und mit sehr kräftigen Kardinalzähnen sowie langen, schmalen, scharf schneidenden Lateralzähnen. Um eine Vorstellung vom Aussehen der vollständigen Muschel zu vermitteln sind zwei etwa gleichgroße rechte Klappen aus Isin abgebildet (Taf. C-1: 2-3). Diese Lesefunde durch Boessneck im Jahre 1974 aus der Umgebung des Tells (vgl. Boessneck 1977a: 129) zeigen die nebeneinander vorkommende unterschiedliche Ausbildung des Hinterendes. Das Stück aus Nippur dürfte dabei der Tafel C-1: 2 entsprochen haben. Bei beiden Fundstellen handelt es sich um eine ökologische Modifikation, wie sie in größeren, bewegten, pflanzenarmen Gewässern mit sandig-kiesigem Grund auftritt.

Während das extrem kurze abgestutzte Vorderende bei einem Einzelfund, wie dem aus Nippur, noch als individuelle Variation hätte gedeutet werden können, ist das durchgängige Auftreten dieses Merkmals bei den Muscheln aus Isin auffällig. Damit nähern sie sich nämlich der aus dem Tiberias-See beschriebenen "Unterart" teminalis Bourguignat 1852 (von Modell 1951: 357 als selbständige Art aufgefaßt), die bisher nur aus Syrien und

Palästina, nicht aber aus dem Euphrat-Tigris-System bekannt ist. Leider ist es nicht möglich, sich nach der Literatur und dem bei uns zugänglichen Museumsmaterial ein klares Bild von der Verbreitung der Flußmuschelarten und -rassen des Vorderen Orients zu machen. Unter dieser Unsicherheit muß auch die Beurteilung des Fundes aus Nippur leiden, der vor allem aufgrund der Wirbelskulptur zu $U$. tigridis gestellt wurde.

Hier sei allgemein darauf hingewiesen, daß die Najaden des Vorderen Orients sehr ungenügend bekannt sind und insbesondere bei den Flußmuscheln (Gattung Unio) mit archäologischem Fundgut immer wieder Stücke zur Bearbeitung kommen, die absolut nicht in das übereinstimmend von Haas und Modell vertretene Schema passen wollen, wonach für das gesamte Euphrat- und Tigris-Gebiet nur die beiden Arten Unio crassus Philipsson 1788 und U. tigridis zugelassen werden (jeweils mit besonderen Rassen). Da auch dort die Flußmuschelfaunen durch Gewässerbau und Gewässer-verschmutzung aufs äußerste bedroht sind, ist leider $z u$ befürchten, daß heute ein ausreichendes rezentes Studienmaterial nicht mehr zusammengetragen werden kann. In dieser Situation wäre esnachdem die wesentlichen Art- und Rassenmerkmale bei der Gattung Unio in der Schale liegen-sehr erwünscht, daß einmal größere archäologische Fundkomplexe aus dieser Region geschlossen zur Bearbeitung gelangten.


Mollusca aus Nippur: 14. Season

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[^0]:    10. I know that such survivals of mudbrick walls are possible under dry conditions because I have walked through rooms of an eleventh century A.D. palace at Lashkari Bazaar, Afghanistan, where 800 -year-old mudbrick walls remained standing to a height of almost three meters.
[^1]:    11. The public/private nature of the building, with two courtyards, recalls the "bakers' house" found in Area WB (Gibson et al. 1978: 54ff.). But M. Gibson (personal communication) suggests that in WC-1 the layout of the building and changes in access may reflect intra-familial developments. Two related nuclear families might have occupied the building and engaged in business together, altering the house
[^2]:    4. Locus 5 was excavated in the thirteenth season and Locus 41 in the fourteenth season. Consequently, it was not possible to follow the floors from one room to the other, and so they can be correlated only on the basis of elevations taken on them. The top of the baked brick paving in Locus 41 varied from 84.95 to 85.07 in the west corner; it was at 85.02 in the east corner. The top of the paving in the doorway in Wall AT was at 84.98. The elevations taken on floors $1 \mathrm{a}-1$ of Locus 5 near Wall AT in the thirteenth season put the lower floor at 84.77 and the upper at 84.85 , that is, 22 and 13 cm lower, respectively, than the top of the baked brick paving.
[^3]:    25. Beyer 1982: 177-79. Note that one of the Meskene/Emar tablets (Msk. 73.273) is dated to year 2 of Meli-Šipak (1186-1172 B.C.). One of the Ur tablets is dated to year 5 of Meli-Šipak's successor, Marduk-apla-iddina (Gumey 1974, no. 26 [U.7788a]).
[^4]:    Diagramm B-1a. Verteilung der Knochenfunde der Wirtschaftstiere auf die einzelnen Zeitstufen bezüglich der Fundzahl (FZ)

[^5]:    *Bei dem Fund muß es sich um den Rest eines $\delta$ handeln, wie neuere Meßserien an Tali des Mesopotamischen Damhirsches aus Syrien zu erkennen geben (vgl. Boessneck und von den Driesch 1989, Diagr. 7).

