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EXCAVATIONS IN THE PLAIN OF ANTIOCH

II

THE STRUCTURAL REMAINS OF THE LATER PHASES

CHATAL HÜYÜK, TELL AL-JUDAIDAH, AND TELL TA'YINAT

by

RICHARD C. HAINES



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PREFACE

JUST as the present volume continues the publication of the excavations in the Plain of Antioch, so is this an addendum to Robert and Linda Braidwood's very able Preface to Volume I. I regret that there was so much time between the two publications and, too, that there was so much more time between the excavations and their published results.

I wish to add that the first excavation was started on Chatal Hüyük in March, 1933, under the directorship of Claude Prost. His staff for 1932/33 consisted of Neilson C. Debevoise, archeologist, Maurice Bardin, assistant to the director, and Arthur L. Stampa, photographer, as well as M. and Mme A. Walter and myself.

The present volume is concerned only with the structural remains of the later phases at Chatal Hüyük, Tell al-Judaidah, and Tell Ta'ayinat. The reports on the sculpture, the objects, and the pottery are in preparation and their presentation will not likely be too long delayed. In the preparation of the present volume, I acknowledge my debt to Harold D. Hill for the preliminary work he did and the many excellent finished drawings he made of the excavations at Tell Ta'ayinat. His sad death prevented his completion of the Ta'ayinat report. I am grateful to Ann W. Epstein for the isometric views of Tell Ta'ayinat and the many detail drawings she made. It is a pleasure to see my own hand so ably reflected in her work. I also wish to express my appreciation of Jean Eckenfels, who has painstakingly guided this effort to fulfillment.

RICHARD C. HAINES

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GENERAL INTRODUCTION

THE Syrian-Hittite Expedition of the Oriental Institute was primarily occupied with the excavation of three large mounds in the Plain of Antioch: Chatal Hüyük, Tell al-Judaidah, and Tell Ta'ayinat. In addition, an archeological survey was made of the plain,¹ and soundings were made in several of the smaller mounds. The report of the earlier assemblages, Phases A–J have already been published.² The present report deals with the structural remains of the later assemblages, Phases K–S; the report of the artifacts and burials associated with the structures published here will be dealt with in a later volume in this series.

In the excavation of the later cultural phases, the structures and their contents were recorded by levels which corresponded to the major buildings and rebuildings of the area. Especially in an area of private houses, where the rebuilding of structures often resembled a spiral rather than a series of successive constructions, the division into levels was arbitrary and had to be decided by the excavator, sometimes not too wisely, even while the area was being dug. Wherever the buildings of one occupation had been destroyed and a new complex of buildings constructed upon it, the decision was not difficult. Where minor alterations were made within the framework of the major structural walls, the level was divided into *a*, *b*, etc.

Then, using the structural levels as the containers of the artifactual material, the excavator could group levels into their cultural phases. The allocation of the structural levels to cultural phases was based primarily on the pottery and, in this volume, follows the determinations made in the field. The sequence of cultural phases found in the Plain of Antioch, published by Dr. Wilton M. Krogman, is given below.³

SEQUENCE OF CULTURAL PHASES IN THE PLAIN OF ANTIOCH, WITH APPROXIMATE DATES*

Phase	Description	Approximate Date	Tell al-Judaidah	Chatal Hüyük	Tell Ta'ayinat
V	Modern Arab		?	x	x
U	Medieval Arab			I	
T	Byzantine			I	
S	Early Christian		I	?	
R	Roman		II	II	
Q	Hellenistic	300–64 B.C.	III	II	?
P	Syro-Hellenic	500–300 B.C.	III	II	?

* In this table x = "present"; the Roman numbers denote those which had been originally assigned to Periods at the individual sites.

¹ Robert J. Braidwood, *Mounds in the Plain of Antioch: An Archeological Survey* ("Oriental Institute Publication" XLVIII [Chicago, 1937]).

² Robert J. Braidwood and Linda S. Braidwood, *Excavations in the Plain of Antioch I* ("Oriental Institute Publication" LXI [Chicago, 1960]).

³ "Ancient cranial types at Chatal Hüyük and Tell al-Judaidah . . .," Türk Tarih Kurumu, *Belleten* XIII (1949), following p. 478.

GENERAL INTRODUCTION

SEQUENCE OF CULTURAL PHASES IN THE PLAIN OF ANTIOCH, WITH APPROXIMATE DATES (*cont.*)

Phase	Description	Approximate Date	Tell al-Judaïdah	Chatal Hüyük	Tell Layinat
O	Syro-Hittite	1000-500 B.C.	IV	III	I
N	Levanto-Helladic IV (Sub-Mycenaean)	1200-1000 B.C.	V	IV	II
M	Levanto-Mycenaean	1600-1200 B.C.	VI	V	
L	Qatna affinities (<i>ca.</i> 17th-18th B.C.)	1800-1600 B.C.	VII	x	
K	Hama, etc., affinities (<i>ca.</i> 18th-20th B.C.)	2000-1800 B.C.	VIII	x	
J	Chalciform pot series	2400-2000 B.C.	IX	x	x
I	Smear-d-wash pot series	2600-2400 B.C.	X	x	x
H	Red-black burnished pots (Early Dynastic affinities)	3100-2400 B.C.	XI	x	x
G	Jemdet Nasr affinities	3500-3100 B.C.	XII		x
F	Uruk affinities	4000-3500 B.C.	XIII	x	
E	Obeid affinities	4500-4000 B.C.	?		
D	Derived Halaf and earliest Obeid affinities, etc.	± 4500 B.C.	?		
C	Developed primitive and true Halaf affinities	5000-4500 B.C.	XIV		
B	Developed primitive and first painted wares, etc.	± pre-5000 B.C.	XIV		
A	Primitive burnished ware	?	XIV		

I

CHATAL HÜYÜK

CHATAL HÜYÜK¹ is a large, oval mound on the west bank of the 'Afrin River about 4 kilometers north of the town of Rihaniyyah (Pls. 1, 2). The surface of the mound is somewhat irregular, probably in great part as a result of surface erosion (Pls. 3 A, 18). Two washes or gullies have shaped the northeast end of the mound into a spur somewhat separated from the main portion of the mound. Gentle washes on the west and south have formed a knoll on the southwest and ridges along the northwest and southeast sides. In 1931/32 a topographic map was made, and a grid of 20-meter squares was laid over the entire mound. Concrete posts were set at the corners of the squares and leveled. The mound is approximately 430 m. long and 265 m. wide. The elevation of the plain at the base of the mound is *ca.* 75.00 m. The highest point on the main part of the mound, on the southeast ridge, is *ca.* el. 101.90 m., and the top of the northeast spur is *ca.* el. 100.40 m. Supposedly, these are elevations above sea level, but apparently an error was made by the expedition surveyors, for the Service Géographique de l'Armée map of the Levant shows an elevation of 129 m. on the summit of the mound.²

For convenience, the mound has been divided into six areas, one of which has been subdivided into four parts (Pl. 18). The levels within an area were numbered in the order in which they were excavated so that level 1 in one area was not necessarily occupied at the same time as level 1 in another area. Although the trenching in the main part of the mound was usually connected, it was impossible to bridge the gaps where there were no structural remains and a definite stratification was either uncertain or nonexistent.

Although the structural levels comprising one structural phase could not be accurately correlated over the entire mound, the digging did penetrate the Phase O stratum in all six of the areas so that there was a base, so to speak, on which to build up the great bulk of Phase O material. The variation in the surface level at the end of Phase N, between 5.50 and 6 m., was almost the same as the variation in the surface of the northeast spur, the southwest knoll, and the northwest and southeast ridges at the beginning of excavation. However, the deep wash on the west side of the mound greatly increased the present range of surface elevations.

The excavations were begun in the early spring of 1933 and were continued through the spring of 1936. The northeast spur was the first area to be dug, and the bulk of the stratified material was found there. Later the investigations were expanded to include the fortification along the northwest edge and a series of exploratory trenches in the main part of the mound (Pls. 18-21).

¹ See Robert J. Braidwood, *Mounds in the Plain of Antioch: An Archeological Survey* ("Oriental Institute Publication" XLVIII [Chicago, 1937]), Mound No. 167.

² For further explanation, see Robert J. Braidwood and Linda S. Braidwood, *Excavations in the Plain of Antioch I* ("Oriental Institute Publication" LXI [Chicago, 1960]) 4, n. 5.

CHATAL HÜYÜK

THE FORTIFICATIONS

The existence of a fortification wall in Phase N was first discovered during the excavation of squares P-Q 3-4 in the winter of 1934/35. The Phase O fortification wall had been uncovered in squares W 13-14 during the excavation of the northeast spur in the winter of 1933/34.³ The walls were followed along the northwest edge of the mound for their preserved extent. Unfortunately there were no traces of either wall in the other excavations although the fortifications must have encircled the mound. In all probability the walls had been destroyed by the erosion of the mound.

PHASE N

The Phase N fortification wall was 3.10 m. thick and built of unbaked brick founded on a single layer of stone. At intervals varying from 21.30 to 31.70 m., rectangular towers 6.80 m. long and 5.80 m. wide straddled the wall. The average projection of the towers from the exterior face of the wall was 1.70 m. and from the interior face, 1.00 m. Usually there was a saw-tooth break in the run of the wall between towers, and each of the segments of straight wall stood at a slightly different orientation. The saw-tooth projections were approximately 1.00 m. in depth on the exterior face of the wall. In two cases the run between towers was in a straight, unbroken line (Pl. 19).

The foundation layer of stone sloped slightly upward (*ca.* .10 m. in 3.00 m.) to the outside face of the wall. Where the change in elevation in the run of the wall was slight, the foundation sloped with the ground. But where there was a decided slope, the foundation course was stepped. For instance, to rise from el. 87.60 to 88.95 m. in a run of 14 m., five steps were used; to rise from el. 87.10 to 88.60 m. in a run of 9.00 m., again five steps were used; but to rise from el. 90.90 to 91.55 m. in a run of 22 m., the foundation was only sloped.

At the southwest end of the fortification wall, in square P 3, the top of the foundation layer of stones was at el. 87.60 m. The base of the wall rose to el. 90.80 m. in Q 4 and continued at approximately that level to square V 9. From there it dropped to el. 87.00 m. in the wash in square W 10 and then rose to el. 93.00 m. at its easternmost point on the northeast spur. In most places, the preserved height of the wall was determined by the present slope of the mound. The preserved height varied from 15 cm. to 1.45 m. at the exterior face and at the interior face, where it has been excavated to its foundations, from 1.30 to 2.00 m.

PHASE O

The Phase O fortification wall roughly followed and was partly superimposed upon the inner part of the Phase N fortification wall. The wall was made of unbaked brick laid directly on the ground. It was 3.00 m. thick and was built in a ribbon-like fashion without breaks or suggestion of towers except at its extreme eastern end. There, in square W 14, the exterior face of the wall turned north for a distance of about 4 m. and died out near the edge of the mound. The inner face at this place continued in an easterly direction. Apparently there had been a tower projecting beyond the exterior face of the wall at the northeast corner of the mound. Unfortunately, neither dimension of the tower was preserved (Pls. 20, 23, 37 *E*).

The inside face of the fortification wall was traced from square Q 4 into square T 7; the exterior face was traced from square R 5 into T 7. The base of the wall varied in elevation: it was at 91.20 m. in Q 4, at 92.75 m. in R 5, and at 91.65 m. in T 7. The exterior face was preserved at heights of 95 cm. to 1.35 m. and the interior face at 65 cm. to 3.55 m. Farther eastward the interior face of the wall was traced from square V 9 to the eastern edge of the

³ A late fortification wall on the northeast spur protected the village on its west side, where the spur is connected with the rest of the mound. It is described under Phases T-U, level 1.

mound in W 15, and the exterior face from square W 11 to X 14. Portions of the wall faces were not preserved, and in square W 10 a small part of the wall was destroyed in excavation. The base of this part of the wall also varied in elevation: it was at 90.20 m. in V 9, at 88.70 m. in W 10, at 93.00 m. in W 13, and at 94.24 m. at its extreme end in square W 15. The preserved height varied from 20 cm. to 2.00 m.

AREA I

Area I is primarily the northeast spur of the mound (Pl. 18). This was the site of a modern Arab cemetery which was relocated during the winter of 1931/32. In the spring of 1935 and of 1936 the earlier phases were investigated in squares V 16-17 and W 16, far down the eastern slope near the base of the mound. The results of these operations have been published in the first volume of *Excavations in the Plain of Antioch*. In the excavations on top of the spur, Phase N was uncovered in only a few places in levels 7-10. To Phase O, which comprised the bulk of the material found in Area I, were attributed levels 6-3 (Pl. 3 B). Level 2 was attributed to Phases Q-R; level 1 to Phases T-U; and post-level 1, which cannot be dated with any certainty, probably followed soon after level 1 and may be included in Phase U (see Pl. 40 for sections a-a to e-e).

PHASE N

LEVEL 10

Level 10 was reached only in a test pit in square W 15 (Pl. 22). The area was small, less than 45 sq. m., and was divided by unbaked-brick walls into four partially excavated rooms. The floors were of packed earth and varied from el. 89.90 to 90.05 m. The northernmost circular pottery oven in the north central part of the area belonged to this level and strengthened the impression that the structural remains were part of a complex of private houses.

LEVELS 9 AND 8

In square W 15 the walls of levels 9 and 8 were built upon the walls of the level below (Pl. 22). It is probable that the building layouts were similar in all three levels. The floors of level 9 were at elevations of 90.25 to 90.45 m., and of level 8 at 90.90 to 91.05 m.

In square V 13 levels 9 and 8 indicated two occupations of a well-built private house. The unbaked-brick walls were 80-100 cm. thick, and the two doorways had unbaked-brick sills raised 10-15 cm. above the floor of level 9. The floor of level 9 was at el. 90.15 m. and that of level 8, to which the fragments of stone paving belonged, was at el. 90.90 m.

LEVEL 7

In square W 15 level 7 was represented only by a large patch of packed-earth floor at el. 91.45 m. (Pl. 22). In square V 13 the building remains consisted of a few stone walls, one fragment of an unbaked-brick wall, and a piece of stone paving. The paving and the bottom of the walls varied in elevation from 92.05 to 92.25 m.

PHASE O

There seems to have been a great deal of building activity during the span of this phase; the houses were remodeled and rebuilt many times. The four structural levels (levels 6-3) correspond to the major rebuildings of the area, but alterations and partial rebuildings occurred between the numbered levels (see section d-d on Pl. 40). This was especially true in the north central part of the excavation. No attempt was made to reconstruct fully the plan

CHATAL HÜYÜK

of the area; the broken lines on the plans (Pls. 23-26) merely indicate the logical connections or extensions of the existing wall fragments. The circled numbers in the various squares are loci given for architectural or artifactual reasons.

The walls were built of unbaked brick laid in mud mortar. Generally, the bricks were of two sizes: $36.5 \times 36.5 \times 10.5$ cm. and $36.5 \times 48 \times 10.5$ cm. The bricks were made of a buff-brown mud to which chopped straw or other binding material had been added. In a few instances the bricks were made of a yellow sand with no apparent binding material. Walls made of these bricks were easily recognizable by the difference in the color between the bricks and the buff-brown mud mortar. In only a few cases the walls bordering the streets had stone foundations; otherwise the unbaked bricks were laid directly on the ground. The width of the doorways varied, but the majority were between 70 and 80 cm. wide. Usually the two or three lower brick courses continued under the doorway and formed an unbaked-brick sill (Pl. 38 A). At some doorways small socket stones were found *in situ*, but at a great many other doorways no socket stones were found at all.

The floors were mostly packed earth, identifiable in many cases by the heavy layers of ash and debris. Only a few of the rooms were paved with uncut, flat stones. Often the streets were paved with small pebbles probably brought up from the river bed; otherwise they were built up in layers of hard-packed dirt and debris.

LEVEL 6

Except in the test pits in squares V 13 and W 15 the level 6 structural remains were only found in the various places where the digging was continued below the level 5 floors (Pl. 23). In most places the excavations were stopped before the level 6 floors were reached. However, where the floors were found, the elevation varied between 92.75 and 93.40 m.

LEVEL 5

Most of the northeast spur was uncovered at this level (Pls. 4 A, 24). Building continuity from the level below was evidenced by the superposition of some of the walls and two north-south streets which were only partly uncovered in level 6. (Both streets are clearly discernible in Pl. 20, one near the center, the other at the eastern tip of the spur.) In fact, much of the layout of the area remained more or less constant during this entire phase. The circulation was tortuous and seemingly haphazard. It consisted of the two north-south streets and an open way inside the fortification wall, although even that was blocked in places. From these main arteries, cul-de-sacs, sometimes ending in larger open spaces, provided ways to individual houses.

The floors in the north central part of the excavation were at approximately el. 94.00 m. but fell away to the west, south, and east to about el. 93.60 m.

In square W 13 a pottery bath tub was found *in situ* (Pl. 4 B). The tub was oval in shape, 95 cm. wide, 1.35 m. long, and 73 cm. high. It had a flange rim about 12 cm. wide and an inside step or seat at one end. The bottom of the tub, at el. 93.56 m., was approximately on the floor level.

In the south central part of square U 13, there was a room with several groups of flat stones at the floor level. The stones might have been part of a paving but, since they were in line and parallel to and about 2.20 m. from the north wall of the room, it is possible that they were base stones for three wood posts which supported the roof construction. The room was 5.15 m. wide, greater than the average roof span in this level.

In the west part of square V 12 there was a rather elaborate two-room house (Pl. 38 D), which was entered from a passage leading in from the west part of the spur. There were two

floor levels in the house, and only one change had been made in the plan at the upper floor level: another entrance doorway had been built just outside the original one. The wall adjoining the original doorway was preserved above the later floor, however, so that it was at least in evidence during the later occupation even though it is doubtful that double entrance doors were used. The entrance doorway led into a trapezoidal vestibule with the northeast corner walled off to form a storeroom (or toilet?) 1.25×1.90 m. A doorway in the north wall of the vestibule opened into the main room, 4.25 m. wide and 5.45 m. long. North of the main room there were, in tandem, a small hall 1.50×1.90 m. and a second room 2.40×5.40 m. In back of the second room but not connected with it, there was a very small room, 80 cm. \times 2.95 m., which opened on a clear space north of the building.

LEVEL 4

At this level the entire northeast spur was covered with crowded irregular complexes of private houses (Pl. 25). On the north side of the spur there was a rather extensive rebuilding of the houses bordering the central north-south street. The houses on the east side of the street were rebuilt somewhat on the plan of the buildings in level 5, while those on the west side of the street were built on a new plan which was little influenced by the buildings of the earlier level. At a higher floor the plan of the houses on the east side was greatly changed but those on the west side remained about the same. The lower floors were at *ca.* el. 94.60 m. and the upper floors at *ca.* el. 95.00 m. At the southern edge of the mound the floors were around el. 94.40 m. In a very few rooms fragments of stone paving were found; in the rest the floors were of packed earth often covered with heavy layers of black ash. There were several dwelling units fairly well defined in this level. Many were composed of only two rooms, but others had four or five rooms. The best examples were in the central part of the excavated area.

In squares V 12-13 there was a dwelling unit of at least five rooms (Pl. 38 G). The approach to the house was by a passage leading in from the west part of the spur. The entrance doorway opened into a small room 2.30×3.85 m. Doorways gave access to another small room, 2.10×4.00 m., on the north and a long narrow room on the east. This second room, 2.90 m. wide and 8.50 m. long, was filled with a more than ordinary amount of black ash and floor dirt, which contained a cache of pottery and many sherds. Apparently this room was the main living room of the house. A doorway in the north wall opened into a room 3.40×5.80 m., but the rear of the room was cut off by a wall of a lower level which rose above the floor. A doorway in the south wall opened into a large room or, more probably, a courtyard 6.00×9.50 m. Considering the other buildings of this level, six meters would be an unusually long roof span. The walls of the house were built of unbaked brick, and all the rooms had packed-earth floors. The floors varied from el. 94.40 to 94.60 m.

Just east of the house mentioned above, there was another well-defined dwelling unit (Pl. 38 E). A passageway which branched off the central north-south street led to a small courtyard 3.00×3.50 m. and the entrance of the house. In the northwest corner of the courtyard there was the bottom part of a circular pottery oven. It was 65 cm. in diameter and the sides, approximately 3 cm. thick, were standing 20 cm. high. In the south wall of the courtyard a doorway opened into the central and main room of the house, 3.00×5.40 m. There were two small rooms south of the central room and one small room on the north. No doorway was found connecting the southeast room with the central room although a doorway probably had existed at one time. The southeast room was small, 1.80×2.50 m., and the floor was covered with flat paving stones. A doorway, 75 cm. wide, led from the main room into the one on the southwest, and a stone door socket was still *in situ* on the south side of the west jamb. The room was 1.80×2.30 m., and two large storage jars were still standing in the northeast and southeast corners of the room (Pl. 4 D). A doorway also connected the main room with the

small room on the north, which measured 2.30×2.40 m. All three of the small rooms contained many pot fragments and much black ash and floor debris. The house walls were built of unbaked brick and the packed-earth floors varied from el. 94.40 to 94.65 m. Sometime during its occupation, the main room of the house was partitioned into five small cubicles (Pl. 25) and the building was probably used as a storehouse, for many kernels of grain were found in the dirt against the walls. The grain was especially concentrated in room V 13 2.

Also in square V 13 there was a series of two-room dwellings built of unbaked-brick walls 50–55 cm. in width (Pl. 38 F). A narrow pebble-paved passage led to the rooms from the central north-south street. Three storage bins had been built against the south wall of the passage. The central bin measured 85×95 cm. and the other two 85 cm. \times 1.80 m. The outer wall of the bins measured 28 cm. in thickness, and the partitions, about 10 cm. thick, were built of unbaked bricks standing on edge. The maximum preserved height of the walls was 60 cm. A doorway at the end of the passage opened into one of the dwellings. The main room was 2.80 m. wide and 5.85 m. long. A doorway 62 cm. wide, with a socket stone *in situ*, gave access to a small room on the north. The small room, 2.10×2.80 m., contained many potsherds of kitchen ware, and the earth floor was covered deep with black ash and debris (Pl. 4 C). The second of the dwellings was on the north side of the passage with a doorway 80 cm. wide opening into the main room, which measured 2.95×3.10 m. The small room in the rear was 1.90×2.95 m. The third dwelling was similar to the second. The main room was 2.85×3.00 m., and the second room was 1.75×3.00 m. The earth floors in these three dwelling units varied from el. 94.40 to 94.75 m. North of these dwelling units but apparently not connected with them was an enclosed yard 5.10 m. wide and 11.00 m. long. The walls were built partly of rubble stone and partly of unbaked brick. The walls averaged 55 cm. in thickness and were preserved to a height of 55 cm. A row of large stones bordered the north wall on the exterior or street side.

In squares U–V 13 there was a curious two-room structure completely freestanding and surrounded by a narrow passage 45–95 cm. wide. The doorway into the passage was uncertain, although the passage probably was entered from the courtyard in the northeast part of square U 13 at the place where one jamb of an opening was preserved and a door socket stone was found in level 3. The structure, which measured about 5.00×5.50 m. on the outside, was built of unbaked-brick walls 45 cm. thick. A doorway on the east side of the building opened into a rectangular room about 1.80×4.60 m., and a second room was approximately the same size. No doorway was found connecting the two rooms. The earth floor during this occupation was at el. 94.55 m. This structure was one of the few which seemed to remain the same throughout all the building levels of this cultural phase. The walls were preserved to el. 96.10 m.; the western room was excavated to el. 93.15 m., and the bases of the walls had not been reached at that depth.

The largest building on the northeast spur, and the only one that could be considered a public building, was in squares V–W 14, just east of the central north-south street. The walls, built of unbaked brick, were 65–100 cm. thick. Part of the structure was destroyed and, since no doorways were found, the plan of the building was difficult to comprehend. The entrance to the building was either from the courtyard in square V 14 or from the small open place in square W 15. There were at least five rooms: two long, narrow rooms, a room on the north (locus W 14 2), one in the northwest corner of the building, and another one on the west. There may have been still more rooms on the south and west. The two long, narrow rooms were about the same size, 3.00×10.90 m. The northern room measured 2.60×6.50 m., the northwest room, 2.50×2.90 m., and the west one, 3.20×5.50 m. In all the rooms except the north one, which had an earth floor, fragments of stone pavings were found. The floors varied from el. 94.45 to 94.65 m.

AREA I

9

LEVEL 3

In level 3 the majority of the building remains were found in the central area and along the north edge of the spur (Pl. 26). The building complexes followed closely the pattern which had been established in earlier levels. Several doorways were found, but there was not sufficient evidence to divide the complexes into individual dwelling units. There were only a few fragments of stone paving; the rest of the floors were packed earth. The floors varied from el. 95.10 to 95.60 m.

In the southwest part of locus W 13 1, an odd-shaped mass of unbaked brick was found (Pl. 38 B). It was 75 cm. wide, 1.15 m. long, and 15 cm. high. One end was semicircular, and the other end had two semicircular protuberances. In the center there was a roughly rectangular flat stone 45×50 cm. The long axis was oriented approximately east-west.

The sausage-jar burials in the western part of the excavated area (Pl. 5 D) were not related to any structural remains. Included in this burial place was a stone cist 60 cm. wide and 1.60 m. long. Each side was formed by two upright stone slabs about 40 cm. high. The western end of the cist was also closed by a stone slab.

A few structural changes which belonged to a still higher occupation have been included in the plan of level 3. Walls had been rebuilt and several doorways relocated. Most of the changes occurred in the north block of buildings in squares W 13-14 and in a central complex in squares U-V 13. The remodelings occurred at elevations varying from 95.70 to 96.10 m.

PHASES Q-R

LEVEL 2

The structural remains in this level were very fragmentary and only hinted at the buildings that had once been there (Pl. 27). Undoubtedly there were parts of at least two successive occupations, but they could not be separated into two structural levels with any certainty.

What seemed to be an earlier occupation was primarily represented by large areas of pebble paving which partially outlined the position of walls that no longer existed (Pl. 5 A, B). The pebble paving was bordered on the north and south by fragmentary two-meter bands of baked brick one course high. Since a similar band of baked brick ran diagonally (northeast-southwest) across the pebble-paved area, the north and south bands may have been baked-brick walks around a large courtyard with pebble paving in the center. If so, the large flat stone in squares W 13-14 may have been a stone paving block which interrupted the baked-brick band in front of a doorway on the north, and the patch of baked bricks in the southeast corner of square V 13 may have been part of a baked-brick door sill. Even if this interpretation is only partially correct, the structure which occupied the northeast spur at that time was the largest and most pretentious that was found on Chatal Hüyük.

Most of the baked-brick bands were laid with bricks measuring $28 \times 28 \times 8$ cm., except in the eastern part of the south band, where bricks measuring $40 \times 40 \times 9$ cm. were used. The paved area sloped from el. 97.60 m. on the north to el. 96.50 m. on the south. From the southern part of the paved area, a drain ran southward, under the band of baked bricks, for a total preserved length of about 20 m. The bottom of the drain was made of baked bricks $40 \times 40 \times 9$ cm.; the sides were formed of small uncut stones; and the top was roofed with medium-sized flat stones. A short branch drain on the east was built entirely of baked bricks. The floor of the drain sloped from el. 95.80 m. at its north end to el. 94.90 m. at its south end.

The mass of unbaked brick in square V 15 was not comprehensible; the wall faces were not recognized (if they existed) so that the original shape of the mass was uncertain. The base of the bricks varied from el. 94.60 to 95.95 m., their preserved height from 80 cm. to 1.50 m., and in size they averaged $42 \times 42 \times 12$ cm. It is quite possible that these unbaked bricks

were part of a foundation or platform for a large structure, probably associated with the baked-brick and pebble paving.

The small wall fragments (shown in black on the plan) were probably foundation walls for later individual buildings. In places the walls had cut through and were founded below the pebble paving; the slight change in orientation indicated that the two were not contemporary. The wall fragments in the north part of squares W 13-14 were 1.20 m. thick and seemed as though they might have been part of an encircling wall. They were founded at el. 96.35 m. and were only one course high. In squares V 13-14 there were the remains of a building 9 m. square. The exterior walls were 1.00 m. thick and the interior partition walls, which divided the building into three rooms, were 60 cm. thick. The sizes of the rooms were 2.90×7.00 m., 3.50×4.20 m., and 2.20×3.50 m. In only a few places were the walls preserved above the pebble paving, and nothing was found that could be identified as the floor of the building. In the northwest part of square V 13 there was a room 3.30×3.60 m. which was paved with stones at el. 97.35 m.

The circular basin in squares V 14-15 (Pl. 5 C) was not associated with the other structural remains, but, since the orientation of a wall face was approximately the same as that of the central three-room building, it may have been contemporary with that construction. The basin was 2.90 m. in diameter with a circular depression 52 cm. in diameter and 42 cm. deep in the center. The bottom of the basin sloped slightly toward this central depression. One step, 29 cm. wide and 45 cm. deep, was preserved. The step was 36 cm. above the bottom of the basin so that the basin may have been 72 cm. deep (or a multiple of 36 cm.). The maximum height of the preserved sides was 45 cm. The basin was constructed by putting a layer of small stones over the entire basin area with a large sunken stone, approximately $60 \times 60 \times 43$ cm., in the center. The large stone was cut to form the depression in the center of the basin. Upon the layer of stones, there was a layer of plaster concrete about 8 cm. thick; next a layer of pebbles was pressed into the concrete and over that there was a rough plaster coat about 2 cm. thick. On the sides the rough coat was 2-3 cm. thick and, apparently, was put against a form of uncut stones, although most of the stones have disappeared. A finish plaster coat about 1 cm. thick covered the sides and bottom of the basin including the depression in the center stone.

PHASES T-U

LEVEL 1

At this level the structural remains seemed to be limited to the northeast spur of the mound, and the settlement there was a complete village within itself (Pls. 21, 28). No definite fortification wall was found on the north, east, or southeast sides of the village. It is possible that, on those sides, the exterior walls of the buildings were considered sufficient, since the very steep slope of the mound afforded additional protection. The west side, where the spur was connected to the main area of the mound, was fortified by a heavy wall with one entrance doorway. Inside the wall the plan of the village was a simple one. A short street connected the entrance doorway with a north-south street which paralleled the fortification wall and then turned to follow the contour of the mound. That is, the street took a roughly triangular course with buildings between it and the fortification wall on the west and between it and the edge of the mound on the other sides. The central block of buildings was divided into two parts by a second north-south street (Pl. 7 A). The buildings had a domestic character, and any public buildings that might have been needed in a village of this size were unrecognizable.

The walls were built of unbaked brick made of light-brown to buff-colored mud with chopped straw or other binding material added. Most of the walls averaged 50-55 cm. thick, the length

of one brick. The walls were poorly preserved and had been cut in many places by the graves of the modern cemetery above. All of the exterior walls and many of the interior partition walls as well were placed on a base course 20-30 cm. high of dry-laid rubble stone. They were well laid with squared stones at the exterior corners of the buildings. In some places the buildings were further protected by rows of stones placed in the streets at the bases of the exterior walls (Pl. 7 A). Many of the doorways had roughly dressed jamb stones standing on end. Although the tops of these stones were well above the stone base course there was no indication that the rest of the jamb was not completed in unbaked brick. The sills of the doorways were either of earth or flat unshaped stones. Nowhere in this level were socket stones found. The floors of the houses were either of packed earth or of unshaped paving stones laid on an earth bed. The streets were paved with small stones and pebbles. In some places several layers of these pebble pavings had brought the level of the street well above the level of the rooms in the houses.

On the north side of the spur, in squares W-X 12, there were the remains of a stone stairway which provided direct access to the village from the plain below (Pl. 6 A). Probably the upper part of the stairway turned south southwest and arrived at the north end of the street west of the fortification wall.

The fortification wall on the west side of the village was 1.60 m. thick and in some places was preserved for a height of 1.30 m. Neither end of the wall was preserved, and only traces of the north part of the wall existed. The bottom of the wall sloped from el. 97.95 m. on the north to 94.90 m. on the south. There was one doorway leading into the village (Pls. 7 B, 38 C). The opening was 1.35 m. wide and had stone jambs set about midway in the wall thickness and a stone sill. The jamb stone on the north was 60 cm. wide, 25 cm. thick, and 55 cm. high. The stone on the south had approximately the same width and thickness and was 80 cm. high. The door apparently opened into the village, and both jambs and sill were rabbeted to form a door stop. The sill, at el. 98.30 m., was one large stone with a rectangular depression, apparently for a vertical bar, on the south side of the opening. North of the doorway a fragment of a column shaft had been set in the exterior face of the wall. It is probable that the column fragments and cut-stone jambs found in this level had been brought from a nearby site and here reused.

West of the fortification wall, that is, outside the village, fragments of walls were also found. Rooms had been built against the fortification wall on either side of the entrance doorway, but, although they seemed to form towers flanking the doorway, it is doubtful that they were part of the fortification wall. Farther south, against the fortification wall, there was a block of unbaked brick 1.90×2.30 m. The north side, preserved to a height of 60 cm., was faced with rough stones. A doorway 50 cm. wide opened into a circular space 1.05 m. in diameter. The door jambs were of uncut stone, and the inside of the circular space was lined with unburned mud bricks standing on edge. Four rooms were built against the south end of the fortification wall. Only the northernmost room had a doorway, 75 cm. wide, with stone jambs and a sill of small unshaped stones. The size of the rooms varied from 2.80×3.00 m. to 1.90×3.10 m.; none of the rooms was paved.

West of these rooms there was a street, paved with small stones and pebbles (Pl. 6 C), which sloped from el. 98.05 m. at its north end to 95.55 m. at its south end. West of the street, there were fragments of more walls. Those on the north were part of a building which had several rooms.

Inside the fortification wall the short street sloped upward from el. 98.15 m. at the entrance doorway to 98.45 m. at its junction with the north-south street. The entire village was built on a slight downward slope from north to south. At the north angle of the triangular plan the street was at el. 98.55 m.; at its north end, the north-south connecting street was at el.

98.75 m.; at the eastern angle of the triangle the street was at el. 97.55 m.; and at the southern angle it was at el. 95.90 m. The street varied greatly in width; at places it narrowed to 1.00 m. and at other places was more than 3.00 m. wide. At its south angle (in square U 14) the street opened up into a partially paved area about 5.50×8.50 m. In the south part of the area (Pl. 6 B) there was a well 80 cm. square. Its top, as preserved, was at el. 95.75 m., and it went down to ground water, a depth of over 22 m. The entire well shaft was lined with roughly dressed rectangular stones. Near the well there stood a roughly cut stone watering trough (60 cm. \times 2.00 m. \times 20 cm.) and a stone feed box (40 \times 70 \times 20 cm.).

The buildings were all domestic in character and were built in blocks containing several dwelling units. The dwelling units seemed to vary from two to four rooms. Many of the rooms were entirely paved or contained fragments of flat stone paving.

Some of the rooms were definitely stables. In squares U 13-14, just west of the south angle of the street, a long narrow room built against the inside of the fortification wall was divided into two parts by two stone troughs separated by a short stone partition wall (Pl. 6 B). The front or stable part was approximately 3.00 m. wide and 4.30 m. long. The tops of the feed boxes were 66 cm. above the floor. One box was 58 cm. wide, 1.30 m. long, and 39 cm. high. The other box was 58 cm. wide, 1.05 m. long, and 43 cm. high. The inside depth of both boxes was 20 cm. The division wall was 1.55 m. long and was built of blocks of stone; one of the stones was a reused rabbeted door jamb. The rear of the stable was probably used for storing fodder; it measured about 3.40×3.70 m. The room at the northern corner of the street, on the east side (squares V-W 13), was also possibly used as a stable. The room was entered from the street on the west and was 5.50 m. wide and 6.50 m. long. It was divided by a well-set row of stones level with the floor. Standing on the stones, three upright dressed stones divided the length into four bays. The upright stones were approximately 55 cm. square and 45 cm. high.

At the northeast corner of the west central block of buildings, in squares V-W 14, there was an example of a two-room dwelling unit (Pl. 38 I). The walls were built of unbaked brick on a stone base course and varied from 55 to 65 cm. in thickness. The main room, 3.50×5.20 m., was entered from the street on the north. The doorway was 70 cm. wide and had uncut stone jambs preserved to a height of 45 cm. The floor, partially paved with stones, was about 12 cm. lower than the street—a situation, often found in villages, due to the accumulation of debris in the streets. Only one jamb was preserved of the doorway which led into the second room, 2.75×5.40 m. The floor was packed earth, and there was a refuse pit 1.00 m. in diameter and 1.70 m. deep in the southwest corner of the room.

Of the larger dwelling units, a reconstructable example existed in the eastern part of the northern block of buildings, in squares W 14-15 (Pl. 38 H). The walls were built of unbaked brick on a stone base course and were 55-65 cm. thick. In several places the walls had entirely disappeared, and in others only the stone base course remained. Little of the wall bordering the street remained, but the entrance doorway probably opened into the partially paved rectangular room facing the street. The room was 3.20×5.30 m. and a line of stones formed a platform 15 cm. high against the north wall of the room. The east wall of the room was partly destroyed, but probably the fragment of stone column drum formed one side of a doorway leading into a narrow room, about 7.00 m. long and 2.10 m. wide. The south and most of the east walls had been destroyed, and only a few paving stones remained on the floor. From the main room of the house a doorway with two roughly cut jamb stones led into a small room on the north. The room was 2.10×4.50 m. and had a packed-earth floor. The adjoining room on the west, 3.30×5.10 m., also had a packed-earth floor. In the center of the room stood a fragment of a stone column drum 45 cm. in diameter and 61 cm. high. Since the roof span was so short, it seems unlikely that the column was needed to support the roof.

At the south end of the north-south connecting street, there was the beginning of a stone stairway which probably led to the roof of the east central block of buildings. Four treads of the stairway, 58 cm. wide, were preserved.

POST-LEVEL 1

One large rectangular building was found above the ruins of the level 1 houses (Pls. 7 *B*, 29 *A*). Apparently it was the only structure on the northeast spur after the occupation of level 1. The outside dimensions of the building were 11.40 × 13.30 m. The walls, 1.60 m. thick, were made of unbaked brick on a stone foundation. Inside, the building was divided into two long, narrow rooms, each approximately 3.60 × 10.10 m. The stone-faced division wall, 1.00 m. thick, had an unbaked-brick fill. A two-meter opening at the eastern end of the wall provided access between the rooms. An exterior doorway was not found. Although there was no discernible floor in the building, the preserved heights of the level 1 walls below indicated that the floor was not lower than el. 99.00 m. In many places the walls of this rectangular building were not preserved above that height.

AREA II

In addition to the excavation of the northeast spur in Area I, an investigation was made at the southeast ridge of the mound in Area II (Pl. 18). In 1933/34 the excavation was limited to squares M-N 13. At that time the digging was stopped in M 13 at level 5 but continued in N 13 to level 10. In 1934/35 the excavation was enlarged by digging a 10-meter strip on the north and west of the earlier excavation and a 5-meter trench westward through squares N 12-9. Later, it was again enlarged by digging the remainder of squares M-N 12 and P 12-13. Digging was discontinued in M 12 at level 3, in N-P 12 at level 4, and in P 13 at level 5. In 1936 a small spot in N 13-14 was excavated to level 13 (for sections f-f, g-g, and h-h, see Pl. 40).

Except for the fragment of a thick wall in level 8 and, possibly, the partially preserved building in level 1, the structural remains seemed to be part of a complex of private houses. Unbaked brick was the usual building material. Stone was sometimes used for door sills and, on only rare occasions, for foundations or base courses. Patches of stone and pebble paving were found, especially in open areas, but most of the rooms had earth floors.

Phase M materials were found in levels 13 and 12, and Phase N materials in levels 11, 10, and 9. All the higher levels were attributed to Phase O.

PHASE M

LEVEL 13

Only skeletons b S 62-67 were found in level 13 and, presumably, were buried from the level above (Pl. 29 *B*). The excavation was discontinued at el. 91.80 m.

LEVEL 12

Although no floor was recorded at this level, it may have followed the base of the walls which sloped downward from el. 92.75 m. in the southwest to el. 92.40 m. in the northeast (Pl. 29 *B*). The skeletons b S 59 and 60 were found at this level.

PHASE N

LEVEL 11

Fragmentary walls and unconnected patches of paving were the only structural remains found at level 11 (Pl. 29 *C*). A series of pebble pavings in the south part of the plot indicated a

succession of floors from the paving in the central part of the plot at el. 93.35 m. to the paving in the southwest corner at el. 93.75 m. The curved wall associated with this latter paving was founded at el. 93.60 m. The four circular pits varied in diameter from 1.50 m. to 2.40 m. and in depth from 30 to 80 cm. Whether the pits belonged to this level or originated in the level above was not certain. Three of the pits were lined with unbaked brick, and one of them was floored with a pebble paving. It is possible that the pits were for storage rather than refuse.

LEVEL 10

Parts of two buildings were found in the west part of the plot and only wall fragments and patches of pavings in the rest of the square (Pl. 29 *D*). Two occupational floors were recognized, one at *ca.* el. 94.35 m. and the other at *ca.* el. 94.65 m. Most of the structural features were built at the lower floor and were used during both occupations. The three wells were associated only with the lower floor. (See Pl. 8 *A*. In the photograph, the well at the right was lined with unbaked brick and the one at the left was not. A dirt curb was left around the second well to preserve the elevation at which it was found. Likewise, the column of dirt at the left of the picture preserved the elevation of a small patch of paving at the higher level.)

LEVEL 9

The house in the central part of the plot was so poorly preserved that little is known about its floor plan (Pl. 29 *E*). The doorway on the west opened from a pebble-paved space into a rectangular room with two small rooms on the north and a larger room with a rectangular bin on the east. Farther east, there were parts of two other rooms and a circular bin built of unbaked bricks placed on edge. The door socket and the fragments of stone paving indicated that the floor of the house was at el. 95.00 m. Apparently part of the original house was destroyed when the three rooms on the south were built. The walls of these rooms were not founded as deep as those on the north, and the floors were some 40 cm. higher. The wall fragment near the east edge of the mound and the pebble paving associated with it belong to this later occupation.

PHASE O

LEVEL 8

The only construction at this level was a thick (*ca.* 2.10 m.) unbaked-brick wall lying almost at right angles to the edge of the mound (Pl. 30 *A*). The wall was founded much deeper at the west border of the plot (el. 95.60 m.) than it was at the place where it was destroyed in the southeast (el. 96.30 m.). The three fragments of paving also varied in elevation from 95.75 m. in the west to 96.15 m. in the east. The apparent slope of the ground at this time may have been caused by the ruins of the building in level 9.

LEVEL 7

Beginning in level 7 a complex of buildings was repaired, replanned, and rebuilt throughout the following five levels of occupation (Pls. 8 *B*, 30 *B*). Some old walls were used as foundations in a new rebuilding, while adjoining old walls were disregarded. The plan was never static for any length of time, but some elements remained unchanged from one level to another. Although Areas I and II were inhabited contemporaneously, the proneness to change was more evident in Area II than it was in the more restricted space on the northeast spur of the mound.

Apparently the ruins of the large wall in level 8 were still to be seen in the west part of the plot when the two buildings were constructed in level 7. The building in the south overrode

the older wall, and its floors, at el. 96.80 m., were some 35 cm. higher than those in the building in the north. The rooms on the northwest of the south building were unusually small (ca. 90–150 cm. wide and ca. 2.00 m. long) and may have been storerooms built against the wall of the main building.

LEVEL 6

At level 6 the walls were somewhat sturdier, and the plot was more densely built upon so that the delineation between the two buildings recognized in level 7 was lost (Pls. 9 *A* and *B*, 30 *C*). The walls of locus N 13 1, one of the two small rooms linking the two buildings, were covered with a thick mud plaster containing many pebbles. The floors at this level varied from el. 97.45 m. in the north to el. 97.60 m. in the south.

LEVEL 5

At level 5 the excavated region included squares M and P 13 as well as N 13 (Pls. 9 *C* and *D*, 30 *D*). In square N 13 the rebuilt houses were laid out with little relation to those in the level below, but the street in the northeast corner of the square did continue at this level. Farther southwest there seemed to be another access from the northwest that was blocked by wall construction near the edge of the mound. Little could be learned about the houses and their living units: the walls were too fragmentary, and it was apparent that not all the doorways were found during the excavation. The floors ranged from el. 98.20 to 98.45 m.

LEVEL 4

Except for square M 12, almost all the excavated area was dug down to level 4 (Pl. 31). The street in the northeast part of squares N–P 13 in level 5 became a large pebble-paved rectangular space at this level (Pl. 10 *A*). Farther southwest, two other streets provided circulation in the building complex. Perhaps none of the streets continued to the edge of the mound, which seems to have been bordered by a continuous row of buildings constructed against the fortification wall that undoubtedly once stood there. The general ground slope in this vicinity was from el. 98.40 m. in the northwest upward to the edge of the mound.

Many of the walls were fragmentary, and the buildings could not be divided into house units with any certainty. The most understandable one, in square N 12, consisted of a rectangular central room with two small rooms on either side. The continuation of one exterior wall may have been part of an enclosed courtyard on the southeast. In the small room in the north corner of the house, locus N 12 1, the floor and at least the lower part of one wall were covered with lime plaster (Pl. 11 *A*). In three rooms, storage jars were buried so that their rims were just above the floor.

LEVEL 3

In level 3 two occupational floors (labeled 3*b* and 3*a* on the sections) were found (Pl. 32). A few of the walls were rebuilt at the higher floor, but the plan remained essentially the same. The 3*b* floors varied from el. 98.80 m. in the northwest to el. 99.25 m. in the southeast, and the 3*a* floors from el. 99.30 m. in the northwest to el. 99.70 m. in the southeast. In square M 12 the excavations uncovered level 3 walls but were not continued down to the level 3*a* floors.

The building in squares P 12–13, which partially covered the open space in level 4, was the only preserved structure in the north part of the excavation. The heavy northwest wall was faced on the exterior with a row of large stones in level 3*b* (Pl. 10 *B*) and was rebuilt entirely in unbaked brick in level 3*a*. At the time of this rebuilding, the interior wall on the southeast was relocated farther northwest. Except for this building, the north part contained only frag-

ments of stone paving and three circular pottery ovens. The other two streets in level 4 were still in use in level 3.

The substantial walls, 90–120 cm. thick, in square M 12 suggested a building of some importance, but, unfortunately, they were too fragmentary to give a comprehensible plan. Whether the building had survived into level 2 was uncertain, since the walls were eroded below the elevation of the level 2 floors. However, the remains of a building similar in character were found in this part of the excavation at level 1.

LEVEL 2

Very little remained of the buildings constructed in level 2 (Pl. 33). In square M 12 most of the preserved walls were a continuation or rebuilding of those that existed in level 3. The other wall fragments, founded at level 2, added nothing to suggest that the plan of the settlement had materially changed. The bits of floors and pavings varied from el. 99.95 to 100.45 m.

It seemed that the fifteen burials in square P 12 were placed in a burial ground established after this part of the mound had been abandoned.

LEVEL 1

The very scanty remains of what must have been an important structure were uncovered in level 1 (Pls. 10 C, 34). The walls were from 90 to 125 cm. thick, and the one room that could be measured, locus M 12 1, was 4.50 × 5.80 m. A patch of lime plaster floor and a single baked brick were preserved in the northwest of the room. A doorway in the northeast wall was 1.80 m. wide and had a stone base in the center of the opening. The base consisted of a rectangular plinth 38 × 44 × 10 cm., topped by a circular member 34 cm. in diameter at the bottom and decreasing to 27 cm. in diameter in a height of 15 cm. (Pl. 11 B; the two pots in the background were found in locus M 12 3, level 3). The doorway in the southeast wall was 1.25 m. wide and had a baked-brick sill. It led into an open space, probably a courtyard (locus M 12 2), paved with pebbles and small stones. The two stone bases on the southwest side may have been part of an open porch. These bases varied so little in measurement from the one mentioned above that it is probable that all three were in their primary use. The drain from the courtyard toward the northwest was approximately 20 cm. wide and 25 cm. deep. The bottom and sides were built of stone, and a few capping stones were still in place. Both the paving in the courtyard and the stone drains had been repaired and rebuilt several times. The original floors were at el. 100.85 m. and the highest repaving was at el. 101.25 m.

TRENCH IN SQUARES N 9–11

A trench 5 meters wide was dug in squares N 9–11 to connect the excavation at the edge of the mound with the "8-line" (Pl. 11 C). In square N 11 occupational floors could not be followed with any certainty, and the structural remains were allocated to various levels by their absolute elevations and reasonable associations. In squares N 9 and 10 it was impossible to do more than record the isolated bits of walls and pavings. Three burials were found in square N 10 and four more in square N 9.

AREA III

The 5-meter trenches dug in the central part of the mound (Area III) in 1934/35 were laid out primarily to connect the exploratory trenches made through the northwest ridge (Area VI), the southeast ridge (Area II), and the southwest knoll (Area IV) of the mound (Pl.

AREA IV

17

18). The main trench, K-Q 8 or the "8-line," as it was called (Pl. 12 A), was at right angles to the general slope from the high ridge on the east to the wash that cut through the perimeter of the mound on the west.

As might have been expected, the structural remains were of little, if any, importance. In squares K-M 8 enough walls were preserved to give various elements of a plan, but, in the rest of the trench, only isolated fragments of walls and pebble pavings were found. Because the extent of the structural material uncovered was meager and the narrowness of the trenches fragmented the plans of the buildings which were preserved, it seemed unnecessary to publish detailed plans of the structural remains in the area (Pl. 20). Section j-j (Pl. 40) shows that the dependable stratification of the debris found in squares K-M 8 was lost in the north half of the "8-line."

PHASE N

Phase N material was found only in square Q 8. There, the excavation (5×5 m.) was continued down to el. 87.35 m. as a pit below the general depth of the trenches. Although no structural remains or floors were recorded, the excavation proceeded by "levels." "Levels" 10 and 9 were attributed to Phase N.

PHASE O

Phase O material was found in "levels" 8 to 5 in the pit in square Q 8 and throughout the rest of the trenches at their excavated depth.

LEVEL 4

Included in the "level" 4 designation were the unrelated fragments of walls and pebble pavings in squares N-Q 8. They were too widely scattered to attempt to restore a floor line; in fact, it is doubtful that they were all contemporary. The paving elevations varied from 93.25 to 93.95 m.

LEVEL 3

The structural remains in level 3 were undoubtedly parts of private-house construction. In squares L-M 8 enough earth floors and stone pavings were preserved to establish a floor line, which varied from el. 94.30 to 94.55 m.

LEVEL 2

In many places the walls of level 2 were built upon those of level 3. The floors, which could be followed only in squares K-M 8, varied in elevation from 94.65 to 95.00 m.

LEVEL 1

The walls of level 1 were built of rubble-stone construction, averaged 50 cm. in thickness and in one place were preserved to a height of 90 cm. (Pl. 12 B). They may have been built entirely of stone or only with stone base courses and unbaked brick above. The floors varied from el. 95.35 to 95.80 m.

AREA IV

In 1934/35 and again in the spring of 1936, the southwest part of the mound, Area IV (Pl. 18), was investigated by a series of trenches in which the structural remains seemed to belong to private houses. In two seemingly promising spots the trenches were enlarged. Nothing of interest developed in one, but in the other there was a house larger and better built than those found in the rest of the mound. Many of the streets and open areas were paved with pebbles

and could, therefore, be followed with certainty. The floors were either level or sloped slightly. The scarcity of building remains or well-stratified debris in squares L 4-5 and H 6-8 probably was due to the washes on the west and south sides of the mound rather than to separate settlements on the southwest knoll and the southeast ridge. The edges of the apparent settlement complexes were eroded and did not form well-defined limits to the open spaces. In only three places were the excavations carried deep enough to uncover Phase N material, in levels 6 and 5; Phase O material, in levels 4 to 1, was found in all the trenches (see sections j-j to q-q, Pls. 40 and 41).

AREA IVa

The first excavations in this area consisted of two 5-meter trenches in squares H 8-10 and J 8. The structural remains found there seemed to warrant further investigation, so all of square J 9 and an additional 10 meters of J 8 were excavated (Pl. 18).

PHASE N

LEVEL 5

Level 5 was cleared in a small area approximately 6.50×10 m. in square J 9 (Pl. 35 A). In the northwest part of the clearing unbaked-brick walls formed parts of three rooms; the rest of the clearing was mostly covered with a pebble paving at el. 91.30 m.

PHASE O

LEVEL 4

This level was uncovered in squares J 9 and H 8 (Pl. 35 B). In J 9, the lowest construction was an unbaked-brick wall in the northwest part of an irregular plot approximately 9×17 m. The wall was founded at el. 91.85 m. The walls in the center of square J 9 were founded somewhat higher, at el. 92.50 m., and may have been contemporaneous with the still higher stone and pebble pavings. In square H 8 the earth floor, recognized in only one room, was at el. 92.50 m.

LEVEL 3

The fragmentary earth floors and stone pavings attributed to level 3 were found at such varying elevations that they were subdivided into *3b* and *3a* (Pl. 35 C). Even so, it is probable that the building activity was more or less continuous and not limited to two distinct times. Much of the excavated area was cut by the deep penetration of the foundation walls of a house built in level *2d*.

At level *3b* the excavation in square J 9 was limited to the irregular area excavated at level 4. The narrow walls in the east part of the excavation were the only structural remains found. The pebble paving associated with these walls was at el. 93.25 m. In square J 8 the pebble paving beneath the two narrow rooms of the level *2d* house was at el. 92.70 m. and may belong to level 4 rather than *3b*. In square H 8 no floor was recognized, but it has been restored at el. 93.05 m., just above the preserved heights of the level 4 walls (sections j-j and m-m, Pls. 40, 41).

Level *3a* was represented by fragments of walls and pebble pavings. In general the pavings indicated a slight slope downward from the northeast (el. 93.65 m.) to the southwest (el. 93.50 m.). The doorway in the partially excavated room in the northwest part of square J 9 and the paved open space southwest of the room suggested that a passage or lane ran from the northeast to the southwest. Eventually the pebble paving of the passage rose above the

paving adjoining it and was contained on either side by a row of stones standing on end. This build-up of the street also raised the threshold of the doorway, and a row of stones was placed along the southeast side of the room so that there was a step down from the higher threshold to the original paving of the room. Any connection between this room and the other walls northwest of the passage was not apparent. Southeast of the passage the foundations of the level 2*d* house destroyed all but isolated areas at this level. A circular pottery oven, cut in half by the later foundation wall, and a square, unbaked-brick base (?) were found below the north room; an earth floor and a bit of pebble paving were found below the east and south rooms.

LEVEL 2*d*

At level 2*d* the area contained a well-built, deep-founded house and various wall and pavement fragments (Pls. 12 *C*, 36 *A*). The disposition of the wall and pavement fragments suggested that the house was introduced into an area that already contained structures of some sort. In square J 8 the open space in the northwest corner of the excavation was paved with pebbles at el. 94.40 m., and the partially excavated room in square H 9 was paved with stones at el. 94.05 m.

The house was approached from the southwest through a gateway with its pivot stone in place (el. 93.85 m.). A passageway and a small courtyard separated the house from the fragmentary and poorly built structures on the northwest. The courtyard was partially paved with large stones at el. 94.20 m. The plan of the house consisted of three principal rooms built around a central porch facing the courtyard. The similarity of the plan to that of the *bît hilani* at Tell Ta'ayinat cannot be overlooked. The porch was probably roofed and the distance, no more than 5.40 m., could be spanned without intermediate column supports. The principal rooms were similar in their placement to those of the *bît hilani* and, if it can be used as a guide, the two narrow rooms in the west ell were part of a stair construction to the roof. Only a range of small rooms along the rear wall of the Tell Ta'ayinat building has been omitted here. It is this comparison that suggests a somewhat public character to the house; it may have been the residence of one of the officials of the town.

The foundation walls, approximately 1.10 m. thick, were built of well-preserved unbaked bricks 35 × 70 × 10 cm. A great many of the bricks had a mason's distinguishing mark on the short face, consisting of two vertical ridges 1.5 cm. wide and spaced 2 cm. apart (Pl. 12 *D*). The foundation wall was stepped from the south up to the north (probably because of the slope of the site at that time) so that there was a variation of more than a meter in the elevations of the bases of the southwest and northeast walls. It was apparent that the house had been destroyed by fire, and the layer of ashes and burned material at el. 94.45 m. over the entire house must have been the floor level, although the actual floors were not found. What little masonry was preserved above the floor level was so damaged and eroded that the location of some of the doorways was not certain. Where the walls did not exist above the level of the floor, openings have been restored after the plan of the *bît hilani* at Tell Ta'ayinat.

LEVEL 2*c*

Level 2*c*, which in many respects was a continuation of the level below, contained only fragments of stone pavings and floors (Pl. 36 *A*). At places the walls of the house in level 2*d* were preserved above the general elevation of this level, but the building probably was in ruins, for there was no indication that it had been restored. In the open space in the north part of square J 8, two patches of pebble paving were found at els. 94.55 and 94.75 m. Ap-

parently, this region was covered with a series of pebble pavings throughout level 2. The bit of stone paving at the east boundary of square J 9 was at el. 94.90 m. In the partially excavated room in square H 9, a small bin was built in the north corner of the room and a new floor was established at el. 94.50 m., the same elevation as that of the stone paving in the room on the east. Level 2c was not uncovered in square H 10 except for a small area near the edge of the mound. There, we found a wall fragment associated with a stone paving at el. 94.70 m.

LEVEL 2b

At level 2b the tops of a few lower walls were to be seen in squares J 8-9. Otherwise, the structural remains of this level were found in squares H 9-10 (Pl. 36 B). Most of the walls were rebuilt at this level, probably following a layout already established in earlier levels. In addition to the packed-earth floors, the stone paving in the easternmost room and in the passage at the edge of the mound belonged to this level. They were at an average elevation of 94.85 m. The burials found in squares J 8-9 and H 10 were intrusive from a later time.

LEVEL 2a

Level 2a was found only in squares J 8 and H 10 (Pl. 36 B). The buildings were a continuation of those at level 2b. The floors, including the door socket and stone paving in the room near the west boundary of H 10, had an average elevation of 95.20 m.

LEVEL 1

The structural remains of level 1 were found only in square H 10 and consisted of a patch of pebble paving at el. 95.80 m. (Pl. 36 B).

AREA IVb

The excavation in this area consisted of a continuation, in squares H 4-7, of the 5-meter east-west trench already mentioned for Area IVa and a north-south trench in squares F-G 6 (Pl. 18). The east-west trench cut through the southwest knoll; the north-south trench exposed the upper part of the south slope of the mound, but contained little more than isolated wall fragments and bits of stone pavings, all attributed to Phase O (Pl. 14 A). The east-west trench (Pl. 13 A, B) contributed sufficient structural material to be listed separately.

PHASE N

LEVELS 6 AND 5

In square H 4, at the west edge of the mound, Phase N material was found in an area approximately 5×7 m. (Pl. 19). Two levels were found: level 6 at el. 92.15 m. and level 5 at el. 92.80 m. Both levels contained fragmentary unbaked-brick walls, and, since the walls of level 5 were not superimposed on those of level 6, dissimilar building layouts were indicated.

PHASE O

LEVEL 4

The earliest level of Phase O, level 4, was uncovered in two places in the east-west trench. At the west edge of the mound, in square H 4, level 4 was represented by a small fragment of unbaked-brick wall founded at el. 93.30 m. and in squares H 6-7 by several walls associated with an earth floor at el. 92.50 m.

AREA IVc

21

LEVEL 3

Here, as in Area IVa, level 3 has been subdivided into 3b and 3a. Although parts of the trench in squares H 4-5 were not excavated to level 3b, it was apparent that there was a downward slope from the west (el. 93.65 m.) to the east (el. 93.15 m.). The unbaked-brick walls uncovered in H 5-6 were, with minor exceptions, continued in the level above.

At level 3a the entire east-west trench through the southwest knoll was excavated. In squares H 4-5 a narrow street or passage (1.20 m. wide) ran in an almost east-west direction (Pls. 13 A, 20). It was paved and repaved many times with small stones and pebbles. At its west end the street turned north northwest and continued beyond the boundary of the excavated area. Socket stones were usually found at the doorways of the buildings bordering either side of the street. The partially excavated rooms had packed-earth floors, and the pottery jars found *in situ* as well as the baking ovens indicated their domestic character. At this time the street generally sloped from el. 94.20 m. at the west to el. 93.60 m. at the east.

LEVEL 2

The complex uncovered at level 3a continued with some variation through the main floors of level 2. Whereas four subdivisions of level 2 were recorded in Area IVa, only two main periods of building activity, labeled 2b and 2a, were recognized in Area IVb. The many repavings of the street and the build-up of ash layers in the rooms, however, indicated an uninterrupted occupation.

In level 2b the street sloped from el. 94.60 m. at the west to el. 94.50 m. at the east. In level 2a the west end of the street was at el. 94.95 m. but its run eastward was not preserved.

LEVEL 1

No buildings were preserved at level 1; the only remains consisted of a pebble paving at el. 95.50 m. Since the paving was laid beyond the limits of the street below, the street had been widened at this level or the settlement layout had been changed.

AREA IVc

The excavation in this area was limited to a 5-meter north-south trench in squares J-L 6 and the adjoining east-west trench in square L 5 (Pl. 18). Only Phase O material was found (Pl. 20).

PHASE O

LEVEL 3b

This level was uncovered only in squares L 5-6 and the north half of K 6. In three well-preserved rooms in K 6, the floors stepped down from el. 92.10 m. in the south room to el. 91.85 m. in the north room. Although there were no floors continuing into square L 5, a wall fragment which was founded at el. 91.45 m. has been included in this level.

LEVEL 3a

The downward slope from south to north, already noticed at level 3b, was more pronounced at this level. A wide (3.50 m.) pebble-paved street which crossed the trench in J 6 was at el. 93.15 m., and the packed-earth floors of the intervening rooms stepped down to an approximately parallel street at el. 92.40 m. at the northern boundary of K 6 (Pl. 14 B).

CHATAL HÜYÜK

LEVEL 2

An occupational level corresponding to level 2*b* in the H-line trench was not found. It may be represented in square J 6 by a stone wall fragment at el. 93.75 m. and in square L 6 by a stone paving at el. 92.80 m.

In level 2*a* a pebble paving which crossed the trench diagonally in the south part of J 6 dropped from el. 94.90 to 94.15 m. in a distance of 2.50 m. This is another indication that the buildings on this part of the mound were adjusted to the contours of a knoll which existed prior to the Phase O settlement.

LEVEL 1

Only fragmentary unbaked-brick walls and stone pavings were found at level 1. The pavings were laid at an average elevation of 95.10 m.

AREA IV*d*

In this area the L-line trench was continued to the west edge of the mound. Later, the trench was enlarged by digging additional 10-meter strips in square L 4 and in the north half of square K 4 (Pl. 18). Little was learned. Since the debris in square L 5 was practically unstratified, floor layers could not be traced from square H 5, at the top of the knoll, down the slope in the 6-line trench and connected with the succession of floors found in squares K-L 4. Although the numbering of the levels was arbitrary, an attempt was made to follow the downward slope of the 6-line trench. At the west edge of the mound the trench was deepened to record the change from Phase N to Phase O.

PHASE N

LEVEL 6

In square L 3, at the edge of the mound, only a wall across the trench and a bit of an associated earth floor was uncovered at level 6. The floor was at el. 88.05 m.

LEVEL 5

At this level an area approximately 5 × 14 m. was loosely filled with a complex of unbaked-brick walls. The packed-earth floors varied from el. 88.80 to 88.95 m.

PHASE O

LEVEL 4

The walls of this earliest level of Phase O were in no way related to those of the level below, although the general orientation was the same. The floors were at an average elevation of 90.30 m., and rather extensive alterations had been made at el. 90.85 m.

LEVELS 3*b*-1

Throughout these levels the layout of the complex in squares K-L 4 was not changed substantially (Pl. 14 *C*). In square L 4 only the two floors of level 3 were preserved; in square K 4 the eroded edges of the upper levels appeared. From the center of the south boundary of the excavation, a street sloped downward to the north northwest. It had a packed-earth floor in levels 3 and 2*b* but was paved with pebbles in level 2*a*. The structural remains in level 1 were too fragmentary to identify the street, but it probably existed at that time. The street

was bordered on either side by blocks of buildings. In some places three ranges of rooms were uncovered within the limits of the excavated area.

In square L 4, level 3*b* was established at el. 91.15 m. and level 3*a* at el. 91.70 m. In square K 4, level 2*b* was established at el. 92.25 m., level 2*a* at el. 92.65 m., and level 1 at el. 93.20 m.

AREA V

In Area V a small triangular plot was excavated in 1934/35 just north of the wash that cuts through the western edge of the mound. Most of the excavation was included in squares Q 4 and P 3-4 (Pl. 18). A trench into square N 4 was started but soon discontinued and, since it contained no architectural features, was not included in the plans on Plate 37. Three structural levels were recognized; the second and partially excavated third had some walls in common so they were labeled levels 2*a* and 2*b* (Pl. 15 *B*). In 1936 a small 5 × 5 m. pit was dug in square P 4. There we uncovered levels 3-5, and in places the excavation was continued through the floor of level 5 but not down to the floor of level 6 (see sections r-r and s-s, Pl. 41).

PHASE M

LEVEL 6

The pit was only partially excavated at this level and, in those places, not down to the floor (Pl. 37 *A*). There were no structural remains, but one burial, b S 61, was recorded. The excavation was discontinued at approximately el. 86.25 m.

LEVEL 5

The bit of pebble paving and the associated stone-founded unbaked-brick walls established the floor at el. 86.50 m. (Pls. 15 *A*, 37 *A*). A stone wall at the south edge of the pit (and almost parallel with it) was founded some 40 cm. higher and must represent a later occupation, although no floor layers were found. To this later occupation we can probably attribute the wall stubs in the northeast part of the pit. The heavily burned debris found between the wall stubs suggested that they were part of a kiln construction, although the form of the walls did not indicate anything of that nature.

PHASE N

LEVEL 4

The only construction here was an unbaked-brick wall 90 cm. thick founded at el. 87.65 m. (Pl. 37 *B*). The partially preserved face at the northeast end of the wall was probably one jamb of an opening.

LEVEL 3

The walls, built of unbaked brick, were founded at el. 88.30 m. (Pl. 37 *C*). The circular pit in the northeast corner was dug down to el. 87.25 m.

LEVEL 2*b*

At this level the excavated area lay almost entirely in square P 4 (Pl. 37 *D*). Some of the unbaked-brick walls were founded on a single course of stone, some directly on the ground. The fragments of stone paving varied in elevation from 89.25 to 89.50 m.

CHATAL HÜYÜK

LEVEL 2a

It was probably at the time of, or just prior to, level 2a that a fortification wall was built along the edge of the mound (Pl. 37 *D* and see p. 4). In two places domestic walls abutted the fortification wall. The house walls, averaging no more than 50 cm. thick, were made of unbaked brick and were founded at or just a few centimeters below the floors. The floors sloped down slightly from el. 90.30 m. in the northeast to el. 90.00 m. in the southwest. At the extreme northeast corner of the excavation a layer of ash and debris at el. 90.65 m. indicated a later occupation of this level. Above the ash layer, additional walls were built in the north part of the plot, and a floor, represented by a fragment of stone paving, was established at el. 90.75 m.

PHASE O

LEVEL 1

Only the interior face of the fortification wall (see pp. 4-5) and a part of a domestic building were found (Pl. 37 *E*). The walls of the building were made of unbaked brick, and the earth floors sloped from el. 91.45 m. in the northeast to el. 90.75 m. in the southwest. The fragment of pebble paving south of the building was lower still, at el. 90.45 m.

AREA VI

In Area VI, the ridge at the northwest edge of the mound was investigated in 1934/35 through trenches 5 m. wide in squares T 6-10, Q-V 9, and R 6. The structural remains had the character of private houses, with some walls continuing through several levels and others used in one level only. Because of the narrowness of the trenches, most of the rooms were only partially cleared and nowhere was a dwelling unit completely excavated (Pls. 16 *A*, 17 *A*, *B*). The detailed plans of the structural remains are not published, but their disposition is shown on Plates 19, 20, and sections t-t, u-u, and v-v on Plate 41. All of the material belonged to Phase O except for the fortification wall and the lowest level in a test pit in square T 8, which belonged to Phase N. Unless otherwise noted, the walls were built entirely of unbaked brick and the floors were of tamped earth.

PHASE N

LEVEL 8

Within the east-west trench only a portion of square T 8 (4.40 × 7.60 m.) was excavated at this level. The structural remains consisted of unconnected fragments of thin walls which measured no more than 35 cm. in thickness. In the east part of the pit a good tamped-earth floor was found at el. 90.15 m. In square T 6 the fortification wall was founded at el. 91.00 m. and in square V 9 at el. 88.75 m.

PHASE O

LEVEL 7

At this level there was only a narrow wall at the east end of the pit in square T 8. No recognizable floor was found, and the floor line suggested on the section corresponds to the base of the wall. The wall was founded at el. 91.30 m. The Phase O fortification wall was founded at el. 92.05 m. in square T 6 and at el. 89.80 m. in square V 9.

LEVEL 6

Part of a poorly preserved complex of rooms was found at this level. The walls, two with doorways, were founded approximately 35 cm. below the floor, which was at el. 91.95 m.

AREA VI

25

LEVEL 5

Structural remains attributed to level 5 were reached in several places in the trenches. (Since these places were isolated, all the walls designated as level 5 may not be contemporary, but they were found immediately under level 4, which was traced throughout the trench.) In square T 8 a rather extensive rebuilding necessitated dividing the level into 5*b* and 5*a*. The two floors were at el. 93.25 (Pl. 16 *B*) and 93.80 m. In square T 6 the level 5 walls formed parts of several rooms. A doorway in the northwest wall of one of them opened onto the narrow space between the building and the fortification wall. The floors were at el. 94.75 m. In square R 9 several walls of level 5 were traced, but the floor, at el. 94.30 m., was reached in only one place, near the south border of the square. In squares U-V 9 parts of four rooms of a building complex were found. The floors were at el. 93.75 m. These few readings show that the floors in level 5 (5*a* in T 8) varied from el. 93.75 to 94.30 m. throughout the area and rose somewhat higher, to el. 94.75 m., at the edge of the settlement next to the fortification wall.

LEVEL 4

All trenches in Area VI were dug at least to level 4. The building remains were similar to those found in Area I. At the intersection of the two long trenches in squares T 9-10, there was a narrow street (approximately 1.60 m. wide) partially paved with pebbles, the only recognizable public way in the excavated area. At the north end of square U 9 two parallel walls only 60 cm. apart were built of unshaped stones. Also, in square S 9 one doorway had a stone sill. Otherwise stone was not used as a building material and was rarely used for paving. Throughout the area the floors ranged from el. 94.90 to 95.30 m. In the north part of square U 9 an easily recognized floor at el. 94.75 m. was assigned to this level.

LEVEL 3

Level 3 was an upward continuation of the settlement that had existed in level 4. Some walls of the older level were still in use, some were rebuilt although not always aligned, and some were newly constructed. The plan of the settlement had not materially changed. The floors of level 3 ranged from el. 95.40 to 95.80 m. In the north part of square U 9 it appeared that the floor had dropped to el. 95.00 m.

In some places a secondary level was found between levels 3 and 2 at el. 96.10 m. This indication of continued building activity could not be traced throughout the trenches and was not given a level number. It was at this intermediate level that a series of rooms in square S 9 were narrowed so that a passage, no more than 90 cm. wide, could be constructed.

LEVEL 2

The compact plan in squares T 7 and S 9 continued from level 3, but much of the rest of the area was open, and the parts of buildings which were preserved were loosely planned. The floors varied from el. 96.35 to 96.55 m.

LEVEL 1

Level 1 material was found only in squares S-U 9. The structural remains consisted of stone walls and patches of stone paving. Since the walls were only one stone high, they may have been base courses for unbaked-brick walls which had disintegrated. The stone pavings ranged from el. 97.20 to 97.45 m.

II

TELL AL-JUDAIDAH

TELL AL-JUDAIDAH¹ is an oval mound about 1.5 km. southeast of the town of Rihaniyyah (Pls. 1, 2). It lies on the north bank of a pond and east of a stream, the Nahr al-Judaidah, which flows from the pond. The mound is slightly bulbous at its eastern end and has indications of washes on the south and west. The sides are steep, and the top is comparatively flat, sloping only slightly from the northeast down to the southwest (Pl. 42 A). In 1931/32 a topographic map was made, and a grid of 20-meter squares was laid over the entire mound (Pl. 53). Concrete posts were set at the corners of the squares and leveled. The mound is approximately 370 m. long and 250 m. wide. The elevation of the plain at the base of the mound is *ca.* 130 m. above sea level and the highest point of the mound is *ca.* el. 160.50 m.

In each excavated area the levels were numbered in the order in which they were found, so that level 1 in one area was not necessarily contemporaneous with level 1 in another area. The excavations were started in the spring of 1934 and continued through the spring of 1936. The earlier phases (A-J) were investigated in the lower part of TT 20, squares J-K 3, and the adjoining trenches TT 1-11.² The later phases were excavated in a north-south trench across the west part of the mound, two intersecting trenches at the east end of the mound, in three isolated plots, and in TT 20 as well.³

SQUARES D-F 7-10

In the spring of 1934 a north-south trench was laid out across the west part of the mound. The southern half, squares D-F 7, was dug much deeper than the northern half and later was broadened to an area about 40 × 70 m. Squares D-F 8 were excavated in the fall of 1934; the western half of squares E-F 9 was dug in the spring and the eastern half in the fall of 1935. Work was started in squares E-F 10 but was soon discontinued. Also in the fall of 1935, digging was continued in square F 7 in a 5 × 5 m. test pit for an additional 6.50 m. below the excavated depth of the general area. In all, sixteen structural levels were recognized, and they have been assigned to the following historical phases: level 16 to Phase L, levels 15-12 to Phase M, levels 11-9 to Phase N, levels 8-5 to Phase O, levels 4-2 to Phases P-R, and level 1 to Phase S. The sections through this area are to be found on Plates 54 B, 61, and 63 A.

PHASE L

LEVEL 16

In one small area the digging penetrated level 17, to el. 147.00 m., but no floors were reached at that level (Pl. 54 B).

¹ See Robert J. Braidwood, *Mounds in the Plain of Antioch: An Archeological Survey* ("Oriental Institute Publication" XLVIII [Chicago, 1937]), Mound No. 176.

² See Robert J. Braidwood and Linda S. Braidwood, *Excavations in the Plain of Antioch I* ("Oriental Institute Publication" LXI [Chicago, 1960]) 5-11.

³ The nature of the excavation method used in digging the step trench TT 20 precluded the recording of any structural remains. It was thought that the narrow trench (4 m.) might be bridged in the subsequent horizontal digging of an adjacent area.

At level 16 most of the south part of the plot was occupied by a large refuse or storage pit lined with unbaked brick. The top of the pit was found at el. 147.90 m. and was cleared to a depth of 50 cm. The north part of the plot contained fragmentary unbaked-brick and stone walls founded at el. 147.30 m.

PHASE M

LEVELS 15 AND 14

At level 15 the plot contained walls built of small stones and boulders (Pl. 54 B). The bottom of the walls varied from el. 148.65 to 148.95 m. The skeleton x S 10 was at the floor level.

At level 14, *ca.* el. 149.35 m., the stone walls were rebuilt in the same manner; the boulder at the exterior corner was especially large, $45 \times 115 \times 57$ cm. In the north part of the plot was the lower part of a circular baking oven 70 cm. in diameter. The skeleton x S 6, although found in level 13, has been shown on the plan of level 14.

LEVELS 13 AND 12

Although no structural remains were found at these levels, earth floors covered with ashes were found at els. 149.90 m. and 150.40 m. (see section, Pl. 54 B).

PHASE N

Level 11, the earliest of the three levels assigned to Phase N, was dug only in the test pit in F 7. Levels 10 and 9 were also excavated in the north part of squares F 8-9. There was a fairly steep upward slope from the south and west at this time; the highest floor of Phase N varied from el. 152.60 m. in F 7 to el. 154.20 m. in the northeast part of F 9.

LEVEL 11

At level 11 a paving of small stones and pebbles, the lowest floor of Phase N, covered the southwest half of the area at el. 151.00 m. (Pl. 54 B).

LEVEL 10

In the test pit in F 7 a stone wall lay diagonally across the plot, and southwest of that the area was partially paved with small stones at el. 151.77 m. (Pls. 54 B, 55).

In squares F 8-9 (Pls. 42 B, 43 A), walls of private houses were found immediately below the foundations of a large rectangular building belonging to a later level. The house walls were built of unbaked brick often placed on a stone foundation course. Patches of small stone pavings were found in some of the rooms; otherwise the floors were of packed earth. The large stone used as a door sill and the bit of stone paving under the west part of the large building were at el. 153.55 m. Near the north border of F 8 was a small room, 1.65×1.85 m., which must have been either a bath or a sort of press. The walls of the room were covered with white plaster, and the floor, paved with flat stones, also had traces of a plaster coating. At the floor level a small horizontal drain in the east wall emptied into a basin about 60 cm. square and 45 cm. deep. The sides of the basin were formed of upright stones covered with plaster; the floor of the basin was also plastered, but the central part was broken, and the hole below the basin was partially filled with potsherds. The floors of the bath, the basin, and the bottom of the hole as found were at els. 153.90 m., 153.33 m., and 153.05 m., respectively.

LEVEL 9

In the test pit in F 7 two rubble walls one course high were founded at el. 152.40 m. (Pls. 54 B, 55). The patch of stone paving level with the top of the eastern wall was at el. 152.60 m. In the south of the plot the large stones and fragment of unbaked-brick wall were founded

at el. 152.60 m. The faces of the wall were destroyed, and it was not clear whether the stones belonged to the wall or were part of a paving.

In the northeast part of F 9 within the foundations of the large rectangular structure, an area of hard-packed earth floor was found at el. 154.20 m. In F 8 north of the foundation wall (Pl. 43 A), there were two partially excavated rooms of a house. An exterior doorway in the south wall of the larger room was 1.40 m. wide and had a sill of large flat stones with a socket stone on the north side of the east jamb. The door sill and the pebble paving in the room were at el. 154.20 m. A wall fragment of unbaked brick in F 8 and two partially excavated rooms in F 9 were the only other structural remains at level 9.

PHASE O

Levels 8-5 were arbitrary divisions of the building activity within one cultural phase. The structures were restored, remodeled, and added to many times.

Most of the walls were built of reddish-brown unbaked brick, the natural color of the soil at the base of the mound. The bricks were of poor quality, and very little straw or other binding material had been added to the mud. It was difficult to dig to a wall face, and the bricks dried out and crumbled quickly. Only in exceptionally well-built walls were individual bricks measurable with any degree of accuracy. Many of the unbaked-brick walls, especially the exterior ones, were built upon a rubble-stone foundation which varied in height from a single course to more than 60 cm.

Most of the floors were of packed earth, but some areas were paved with medium-sized flat stones. The street, which existed throughout this cultural phase, was built up with many layers of pebble paving separated by hard-packed street debris.

LEVEL 8

Only the north half of the area and two rooms in square D 7 were excavated at this level (Pls. 42 B, 43 A, 56). The northeast part of the excavation was disturbed by the foundations of the later rectangular building mentioned with level 10. South of the foundations a pebble-paved street sloped from el. 153.60 m. at the west limit of the excavated area to el. 154.05 m. at the east edge of square F 8. Although the floors could not be traced to the northeast corner of F 9, they probably rose over the remains of level 9 to the two stone wall fragments which were founded at el. 154.55 m.

South of the street only single rooms were found. At el. 153.15 m. the bottoms of the walls of E 7 1 were not reached and no Phase N material was found. The walls were built of light-yellow unbaked brick in contrast to the reddish-brown brick used in the other walls in the area. The bricks were of two sizes: rectangular ones averaging $39.50 \times 57.50 \times 13.50$ cm. and square ones averaging 38.50 cm. on each side and 13.50 cm. thick (Pls. 47 A, 66 B). The bricks were laid with the horizontal joints practically dry, except where mud mortar was added to level up the courses. The walls were bonded by reversing the position of the rectangular and square bricks in alternating courses.

The stone wall with a patch of associated paving in E 8 was partially on top of the pebble paving of the street and probably belonged to a slightly higher intermediate level.

The building at the east end of the street consisted of one room with walls of rather poorly preserved unbaked brick. The bottoms of the walls were at el. 154.25 m., but since no recognizable floors were found the building cannot be assigned to any particular level.

In square D 7 two rooms were dug below the level 7 floors. A circular bread oven was in the northeast corner of room D 7 2, and the floor (el. 153.50 m.) was covered with a heavy layer of debris and black ash. The excavation of the other room in D 7 was discontinued at el. 153.75 m. without reaching a floor level.

LEVEL 7

The east-west street which divided the excavation was better defined at level 7 than in the level below (Pl. 57). The west end of the street seemed to lead into an open place in square F 8; the eastward run was blocked by the wall of a room in E 9, and the street probably turned south at that place. The paving sloped from el. 154.10 m. at the west to el. 154.45 m. at the east.

North of the street there was a large rectangular structure 26.25 m. long and 9.50 m. wide (Pl. 42 B). Only the foundation walls were preserved. They were 1.80 m. thick and were built of well-preserved unbaked brick placed on a single course of stone at elevations varying from 153.65 to 154.10 m. Although there was a greater variation than usual in the size of the bricks, the majority were either $38.50 \times 56 \times 9.50$ cm. or $38.50 \times 38.50 \times 9.50$ cm. They were laid on a dry bed, and the bonding seemed to be haphazard. The interior of the building was divided into two rooms by a partition wall 1.70 m. thick which was not founded on a stone course nor preserved as high as the exterior walls. The rooms measured 17.65×5.90 m. and 3.30×5.90 m. The pebble paving on the south wall near the west end of the building may have belonged to an entrance, 1.85 m. wide, into the larger room, although no corresponding floor was found in the building itself. The paving was bounded on the west by a row of medium-sized stones and was limited on the east by a stone door socket placed some 25 cm. in from the exterior face of the building. The paving was at el. 154.70 m., about 30 cm. above the street. This was the only evidence of an opening into the building. It seemed to belong, however, to an alteration of the building, since the upper part of the southwest corner was destroyed and some of the street paving at level 7 was laid on top of it. It is possible that an earlier doorway and floor had been destroyed by a rebuilding which was not noticed during the excavation. Whether this building was originally built in level 8 or early in level 7 is not certain.

At the same general elevation as the opening mentioned above, walls were added to the northeast exterior corner of the building. The unbaked-brick wall was founded at el. 154.70 m. on a one-course stone foundation and the patch of stone paving was at el. 154.90 m.

The structures in the area south of the street (Pls. 43 B, 45 A), although poorly preserved, seemed to consist of three blocks of buildings: one bordering the paved length of the street and containing room E 7 1, another south of the rather evident division wall and containing room E 8 2, and a third in the southwest part of the excavation.

The stone walls on the west end and the north side of the building bordering the street were constructed with unusually large boulders on the exterior face. The floors of the building were at el. 153.95 m. on the west and at el. 154.40 m. on the east.

In the fragmentary west wall of the complex south of the division wall, a door sill with a socket stone at its northeast corner showed the position of a doorway leading from the open space on the west to a large partially paved room or courtyard. The sill was at el. 154.20 m. and the paving at el. 153.95 m. Room E 8 2 and the room east of that contained circular ovens of lightly baked pottery. The floors in this part of the complex averaged 154.35 m. in elevation. The room in the southwest corner of square E 8 had a doorway with a stone sill in its south wall. The sill was at el. 154.40 m. and the earth floor of the room at el. 154.25 m. Along part of the east wall of the room, there was an unbaked-brick ledge with three depressions hollowed out of its surface (Pl. 46 B). At the north end of the ledge there were fragments of a large jar.

Square D 7 contained part of a group of what seemed to be small single-room dwellings with unbaked-brick walls rarely more than one brick thick. In the largest room, D 7 2, the north wall had a stone foundation course placed directly on a lower unbaked-brick wall. The other walls were built in level 8 and reused at this level. In the east wall, a large flat stone formed

the exterior part of a door sill and a socket stone was found *in situ* at the southwest corner of the opening. The door stone was at el. 154.05 m., and the floor, black packed earth mixed with ash, was at about the same elevation. The west and south walls of the room east of D 7 2 were founded in a lower level and reused at this level; the other two walls were rebuilt. The large stone outside the opening in the south wall was at el. 154.15 m., and the floor of the room was 10 cm. lower. The unbaked-brick wall of still another room of this complex was constructed with a single row of stones on the exterior face. This method of construction, although not common, did provide some protection from erosion at the base of the mud-brick wall. Apparently it was a compromise between a wall founded on stone and one in which the unbaked bricks rested directly on the ground.

LEVEL 6

Only patches of the street paving were found at level 6 (Pl. 58). On the west side, the elevation was 154.25 m., and on the east, 154.80 m. (Pl. 44 A).

The plan of the structures north of the street was not clear. Most of the walls seemed to be secondary additions to the large rectangular building founded at a lower level. The walls of a room in the northeast corner of square F 9 were built on a stone foundation one course high. Except in a few instances, the floors were of packed earth and not easily recognizable. The pebble paving in F 8 was at el. 155.10 m. and that in F 9 at el. 155.35 m.

The plan of the structure bordering the south side of the street showed only minor changes from that in the level below. Some of the walls were reused, and others were only slightly shifted when they were rebuilt. The exterior walls were built on stone foundations, but most of the interior ones were not. On the exterior face of the west wall in square F 7, three unshaped orthostats were standing on the stone foundation (Pl. 45 B). The southernmost orthostat was 73 cm. high, 50 cm. wide, and 35 cm. thick; the central one was 85 cm. high, 57 cm. wide, and 22 cm. thick; the northernmost one was 40 cm. high, 55 cm. wide, and 28 cm. thick. Originally, orthostats probably lined the west and north faces of the building. The packed-earth floor in the west part of the building was at el. 154.40 m. and approximately level with the bases of the orthostats on the exterior face of the west wall. In the center of the north exterior wall, square F 8, there seemed to be a passage leading in from the street, but the connection of this passage with the rooms around it was not clear. The passage was 1.40 m. wide, and each side was lined with rather large unshaped stones. The floor, at el. 155.20 m., was covered with flat paving stones. Except for a bit of paving at el. 155.15 m. the floor in the eastern room of the building was not recognizable.

South of the east-west division wall between rooms E 7 1 and E 8 1, the area seemed to be occupied by fragmentary private houses. The two paved areas on the west were at el. 154.60 m. The floor of room E 8 1, at el. 154.85 m., was covered with a heavy black ash and the walls were burned. A bin, with sides 10 cm. thick and 30 cm. high, stood in the northeast corner of the room. The narrower east-west passage in the east part of the complex was paved with pebbles at el. 154.85 m.

In square D 7 some of the walls were an upward continuation of those uncovered in level 7, but others were founded at this level. The floors were of packed earth. One patch of stone paving, at el. 154.50 m., seemed to be an outdoor area.

LEVEL 5

The structural remains of this level were riddled with refuse pits (Pl. 59). The wall fragments were almost meaningless (Pl. 44 B), although it was evident that an east-west street still divided the area into two parts. The street, partially preserved with small stones and pebbles, sloped upward from el. 155.20 m. on the west to el. 155.50 m. on the east.

Stone-founded walls outlined the north side of the street. In the east part of the area there were also fragments of rather wide unbaked-brick walls, one of which belonged to the large building founded in level 7.

The wall bordering the south side of the street and the walls of the room on the east were built of unshaped stones with only one fragment of an unbaked-brick superstructure still preserved. Many of the other walls were built directly on the walls founded in the lower levels. The stone paving in square E 7 was at el. 154.90 m.

The skeletons indicated on the plan of this level were intrusive.

PHASES P-R

LEVELS 4 AND 3

Although the deposits in these two levels were approximately 1.50 m. deep, the structural remains were so fragmentary that they have been combined on one plan (Pls. 46 A, 60).

The walls, at many different elevations, were built of unshaped stones laid on an earth bed. Although practically no unbaked bricks were found, it is probable that many of the stone walls served as the base course for an unbaked-brick superstructure. The thickness of walls varied from one stone to 1.10 m. and the height from one stone to 75 cm. Small patches of stone paving were found at various elevations. Some were made of small smooth stones and pebbles, others of larger flat stones. Most of the floors, however, were of packed earth.

The only distinguishing feature of these levels was the refuse pits. A great many were found, especially in the central part of the excavated area. They were of various depths and were filled with loose dirt containing more ash and debris than the surrounding soil. Many of the pits were cut deep into the structures below.

The few isolated fragments of walls and pavings assigned to level 4 were found at elevations varying from 156.00 to 156.75 m.

The largest structure of these levels was found at level 3 in squares F 8-9. Two rooms of the building were cleared, and any other rooms the building may have had lay north of the excavated area. The walls were of well-built rubble construction, and the floor associated with the building was at el. 157.10 m., some 60 to 70 cm. above the base of the walls. This suggested that only the foundations were preserved and would account for the absence of doorways in the building. The floor was represented by a layer of black ash and, about 5 cm. above that, by a pebble paving in the larger of the two rooms.

In F 9, level 3, a one-room structure was uncovered. The bottoms of the walls varied from el. 156.45 to 157.05 m.; a floor was not recognizable. The single sausage jar found beneath this room was at el. 156.55 m. and belonged to level 4.

In E 8, level 3, part of a small room was found. The bottoms of the walls were from 15 to 60 cm. below the floor, which was represented by a fragmentary stone paving at el. 157.35 m.

LEVEL 2

There were no structural remains that could be attributed to level 2.

PHASE S

LEVEL 1

The structural remains at level 1 were found in the northwest part of the excavation and consisted of a small church, a house of several rooms, and subsidiary buildings (Pl. 62). The entire group was surrounded by a wall (Pl. 47 B), and a division wall also separated the churchyard from the area around the house.

The walls were all of rubble-stone construction, laid dry or in a mud mortar. The depth

of the foundations varied. The bottoms of the church walls were *ca.* 60 cm. below the floor of the nave, which was approximately at ground level, but were some 20 cm. higher around the sanctuary. The house walls were found *ca.* 50–60 cm. below the floor, which was raised about 40 cm. above ground level, and the enclosure wall was placed 10–15 cm. below the courtyard paving. The pavings and floors were not far below the surface of the mound, and the stone walls, nowhere preserved more than 50 cm. above the floor levels, may have been the base course for an unbaked-brick superstructure, although no traces of it were found.

In the west enclosure wall a gateway 1.30 m. wide opened into the churchyard. Fragmentary pavings of small stones and pebbles were found around the gateway (el. 156.40 m.), in front of the church (el. 156.70 m.), and along the east wall of the churchyard (el. 157.50 to 157.80 m.). Undoubtedly, the entire churchyard was paved at one time. In the east enclosure wall there remained one jamb of a gateway which opened into the yard around the house. Much of the enclosure wall around the house was missing, so that other entrances which may have existed were lost. In a reconstructed plan of the complex (Pl. 63 *B*), it is assumed that there was a gateway connecting the churchyard and the area around the house at the place where the division wall is missing. The area along the outside of the east enclosure wall of the house yard was paved (el. 157.85 m.), but there was no evidence of paving in the yard itself. The different elevations of the base of the yard wall, however, indicate a ground slope upward from the northwest (*ca.* 157.30 m.) to the southeast (*ca.* 157.95 m.).

There were two doorways into the church (Pl. 48 *A*), one in the west and one in the south wall. The doorways were 1.30 m. wide and had rough-cut stone sills. The raised outer part must have acted as a door stop and the doors must have been hinged, for there were no pivot holes at either doorway (Pl. 67 *E*). The nave of the church was 5.20 m. wide, 8.20 m. long, and entirely floored with light-red baked bricks, 31.50 × 31.50 × 3 cm., laid dry on a foundation of small stones. The floor sloped from el. 156.70 m. at the west doorway to el. 156.85 m. at the sanctuary steps.

Two stone ossuaries with lids and a fragment of another were found at the east end of the church. The lid of the larger ossuary (Pl. 67 *A*) was gabled, had crude acroteria at the corners, and was pierced by two circular holes. There was a horizontal drain at the bottom of the box, and above that an iron rod 1 cm. in diameter also pierced the side of the box for no apparent reason. Two dowel holes near the top of the box and two more in the side of the lid suggested the method by which the lid had been attached. The outside surface of the box still showed traces of red paint. The smaller ossuary (Pl. 67 *B*) was similar to the larger one but more finely executed. There was only one hole in the lid, and an iron drain pipe was still in place at the bottom of the box. The pipe had an inside diameter of 1 cm., an outside diameter of 1.50 cm., and its length was the same as the thickness of the box wall. There were two dowel holes near the top of the box, and two more in the side of the lid, one of which was still filled with lead. On the outside of the box there were traces of red paint covered with a thin coating of plaster which was also painted red. The box fragment (Pl. 67 *C*) had a horizontal drain hole at the bottom and two dowel holes near the top. There were traces of a thin coating of white plaster on the sides of the box, and the dowel holes were also filled with white plaster. A small stone ossuary lid (Pl. 67 *D*) was found in the debris in square H 7. It, too, was gabled and had crude acroteria at the corners, but it was not pierced, and there were no dowel holes.

The steps to the sanctuary were built of rough, unshaped stones and consisted of three treads and three risers. The stair was 1.20 m. wide, and its run was contained in the very thick wall (1.40 m.) between the nave and the sanctuary. The sanctuary was 4.00 m. wide and 3.05 m. deep. Its floor, which was 50 cm. above that of the nave, was made of a plaster concrete laid on a foundation of small stones. On the axis with the steps a flat stone was set into the

floor near the east wall. It was 65 cm. wide, 90 cm. long, and its top was 8 cm. above the sanctuary floor (Pl. 48 A).

The small room, 1.90 m. wide and 3.10 m. long, built against the south wall of the church was probably a later addition. The walls were not bonded with the church wall, nor were they as well constructed. There may have been a doorway where the west wall abuts the church, for at that place the wall was partially destroyed and only the lowest course of stones was preserved (Pl. 48 A). Toward the center of the room there was a low tomb-like structure, 70 cm. wide, 1.35 m. long, and 60 cm. high (Pl. 48 B). The sides were corbeled so that a single row of stones could cover the top. Small fragments of a white plaster coating still remained on the outside of the stones. Nothing at all was found inside. A low partition wall, one stone wide and flush with the east end of the tomb(?), divided the room into two parts.

The house was fragmentary (Pl. 49 A), but enough remained to indicate how the plan could be reconstructed (Pl. 63 B). Apparently, the main entrance was on the west side where one jamb and a part of the sill of rough-dressed stones still remained. The doorway opened into a long room $2.90 \times 5.70(?)$ m. At the north end of the room one remaining stone suggested that a cross wall formed a small room on the north. At the south end of the room a wall fragment and a baked-brick sill(?) indicated that there was a small room on the south also. In the east wall a doorway 1.35 m. wide led into a long central room. The opening had a dressed stone sill similar to those in the church except that there was a rectangular dowel hole 4×8 cm. at each end of the sill. The floor of the entrance room, at el. 158.15 m., was partially paved with baked bricks, $31.50 \times 31.50 \times 3$ cm.

The central room, $3.20 \times 5.70(?)$ m., extended the entire width of the house. All of the south and most of the north walls were destroyed. The large boulder at the south end of the east wall indicated an opening into the southeast room of the building. The floor of the central room, at el. 158.20 m., was partially paved with baked bricks. The paving had been laid over a small square of mosaic against the east wall. The mosaic, 1.40×1.40 m., was made of red and black tesserae laid in a simple geometric pattern on a field of white (Pl. 49 C).

There were three small rooms on the east side of the building. The southeast one, 2.50×3.35 m., did not have a doorway into the east central room but, since almost half of the wall was destroyed, an opening may have existed. The floor, at el. 158.25 m., was partially covered with broken potsherds. The east central room, 2.50×3.20 m., could be entered by an exterior doorway 90 cm. wide in the east wall. The north wall of the room was represented by a single row of stones through which a somewhat doubtful doorway could be reconstructed, and this was the only apparent place for a doorway into the northeast room. The floor, at el. 158.25 m., was packed earth. Just south of the east doorway a pot, 50 cm. in diameter, had been sunk into the floor so that its rim was just above the floor level. The pot was surrounded by six roof tiles and the space between the pot and tiles was filled with plaster. The northeast room, 2.50×3.65 m., had a floor of packed earth.

Between the house and the division wall on the north, there were two stone sarcophagi (Pl. 49 B). One was probably in its original position along the division wall, and the other one, found tilted, apparently had been placed along the east-west wall connecting the division wall with the house. The sarcophagi were made of limestone and were not well cut. The outside dimensions of the sarcophagus along the division wall were 1.15 m. wide, 2.48 m. long, and 56 cm. high; the inside dimensions were 75 cm. wide, 2.08 m. long, and 28 cm. deep (Pl. 66 D). The other sarcophagus was 1.05 m. wide, 2.30 m. long, and 43 cm. high outside, and 65 cm. wide, 1.90 m. long, and 30 cm. deep inside. Each had a sloping headrest at one end. Perhaps these sarcophagi had been sheltered in a small room built between the division wall and the north side of the house. Although there was no evidence of a west wall, the division wall and the walls of the house were destroyed at that place. Since the bottoms of the sar-

cophagi were at the general ground level in this area, access to them was probably from the outside rather than from the house proper.

Near the west end of the house yard, there was a basin 1.90×2.10 m. with sides one stone thick and preserved 60 cm. high. There were traces of a plaster coating which had lined the bottom and sides of the basin. The parallel walls at the west end of the house yard suggested a long narrow outbuilding, but they were too fragmentary to give more than an indication of the plan.

Except for burials z S 2 and z S 13, the many skeletons shown on the plan of level 1 belonged to earlier cultures (P and/or Q) and had no connection with the buildings in level 1.

In square D 8 there was a cistern (D 8 1) which probably belonged to this level (Pl. 66 A). It was about 2 m. square and was constructed of baked brick and rubble masonry. Both the brick and the stone were laid in a gray mortar containing much ash. The walls were built of bands of rubble separated by bands of baked brick three courses high. The lowest layer of stone and the lowest brick course covered the entire area and provided a foundation for the bottom of the cistern. Various finger designs had been made to decorate the top surface of the bricks, and they were fired to a light red. Generally, two sizes of bricks were used: $29 \times 29 \times 3.50$ cm. and $28 \times 46 \times 3$ cm. The bricks in the lowest course, however, measured $36 \times 36 \times 3.50$ cm. The square and rectangular bricks were laid in alternating rows with thick horizontal joints which varied in height from 4 to 6.50 cm. The bands of masonry varied in height from 41 to 62 cm. The bottom and sides of the cistern were covered with a rough coat of white plaster, approximately 1 cm. thick, and two finish coats of white plaster, each 0.50 cm. thick. Although smooth plaster surfaces were found in several places at the present height of the walls, they may have been the bed of a course of bricks now destroyed. The cistern was 4.13 m. deep and the floor was at el. 152.28 m. In the debris at the bottom of the cistern, a broken stone wellhead was found (Pl. 66 C). The stone was $83 \times 105 \times 20$ cm. with a circular opening 46 cm. in diameter. If this stone was used as a wellhead, the top of the cistern must have been decreased in size so that the wellhead could span the opening. As excavated, the cistern walls were vertical and gave no indication of how the narrowing was done.

SQUARES G-J 7

The north half of the trench across the west end of the mound in squares G-J 7 (Pl. 53) was excavated in the spring of 1934 but was discontinued at level 3. As in the south half of the trench, levels 3 and 2 have been assigned to Phases P-R, and level 1 to Phase S.

In levels 3 and 2 (Pl. 63 C) all the walls were faced with medium-sized, unshaped stones and filled with rubble. There were some fragments of stone paving, but other floors were not discernible at this depth. In level 3 the stone paving near the center of H 7 was at el. 156.40 m.; the other paving fragment was at el. 156.15 m. The higher walls in H 7, level 2, near the east side of the trench were founded at el. 157.10 m. Level 1 (Pl. 62) was found only in the south part of square G 7 (see Phase S).

SQUARE J 9

In the southwest corner of square J 9 (Pl. 53) the tops of a few stones were showing above the surface of the ground. A 10×10 m. plot was dug there in the fall of 1935 (Pl. 65 C) and, in all, four structural levels were excavated. Levels 4-2 were assigned to Phase O and level 1 to Phases P-R.

At level 4 (Pl. 52 A) most of the plot was filled with refuse pits that varied from 30 cm. to 1.45 m. below the average floor level. A few wall fragments were founded at *ca.* el. 158.00 m.

Since level 2 seemed to be a rebuilding of the level 3 structures, both levels are shown on one plan. The walls were built mostly of unbaked brick, although a few fragments of stone

walls were found (Pl. 52 B). The walls of level 3 were at el. 158.35 m., and the wall fragments and additions of level 2 were at el. 158.90 m.

The wall immediately below the surface was built of reused, squared, dressed stones 55 cm. wide, 65–110 cm. long, and 35–45 cm. high. In some places, they had been turned so that the dressed faces were at right angles to the run of the wall. The bottoms of the stones varied in elevation from 159.40 to 159.55 m.

SQUARE G 12

The northwest quarter of square G 12 was dug in the fall of 1935. Seven levels were recorded; levels 7–4 were assigned to Phase O and levels 3–1 to Phases P–R. The stone walls were well laid with unshaped face stones and rubble fill. Most of the unbaked-brick walls were poorly preserved. Some stone and pebble pavings were found, but other floors were made of packed earth and were usually discernible only by the ash layers and debris.

In the west central part of the plot one room was excavated to a level 7 floor. The east wall of the room was lined with broken potsherds, and the floor was partially paved with small stones at el. 153.15 m.

At level 6 the excavated area was filled with fragments of stone and unbaked-brick walls and small bits of stone paving (Pls. 50 A, 54 A). In the north central part there was an apparently freestanding bin or basin, 1.50 × 1.70 m. Its walls were built of unbaked brick, but small stones were set at the exterior corners—an unusual detail. The floor, at el. 153.50 m., was made of lime plaster. East of the bin there was a segment of a tile drain which sloped from el. 153.53 m. at its south end to el. 153.46 m. at its north end. The tiles measured 12 cm. in diameter and 38 cm. in length.

At level 5 the stone-founded unbaked-brick wall in the southwest part of the plot belonged to two partially excavated rooms with earth floors at el. 154.05 m. The stone paving north of the rooms was at el. 154.25 m.

At level 4 the plot contained a large patch of pebble paving at el. 155.00 m. At the eastern edge of the plot an unbaked-brick wall fragment at el. 154.65 m. was partially excavated.

At level 3 stone walls formed one corner of a room in the northeast corner of the area (Pl. 50 B). The earth floor of the room was at el. 156.35 m.

At level 2 the walls were built entirely of stone except for the east-west wall in the northwest part of the area, which was built with a stone facing and a mud-brick filling. Along the northern boundary of the plot there were two partially excavated rooms connected by a doorway with one jamb stone and a socket stone. In the northwest room an open stone-lined drain ran across the floor, continued beneath the south wall (where it was 27 cm. wide), and apparently emptied into the room on the south. In the northeast room there were two pottery bread ovens; the larger one was 70 cm. in diameter and preserved to a height of 55 cm. The west center room contained part of a bin with one preserved unbaked-brick wall 17 cm. thick. The inside of the bin was coated with lime plaster. The plaster floor of the bin was 5 cm. above the earth floor of the room which was at el. 157.20 m. The bit of stone paving in the southwest corner of the plot was at el. 157.45 m.

The stone walls of level 1 were well built and measured 1.10 to 1.25 m. thick. The wall bases varied from el. 158.15 m. on the south to el. 158.60 m. on the north. There were no recognizable floors at this level.

There was a stone wall fragment and a piece of stone paving directly under the surface, somewhat above the walls of level 1. The wall fragment was founded at el. 158.70 m., and the top of the paving was at el. 158.90 m. The four large boulders near the center of the plot were also at this level.

TELL AL-JUDAIDAH

SQUARES J-K 14-15

In the northeast part of the mound two connecting trenches were dug in squares J-K 14-15 in the spring of 1934 (Pl. 53). Two levels were excavated and both have been assigned to Phase O. The area was filled with a compact grouping of structures with the characteristics of a private house. The walls were built of unbaked brick, many on a foundation course of rough stone. Patches of stone paving were found in some of the rooms; elsewhere the floors were of packed earth recognizable mainly by the accumulation of floor debris.

LEVEL 2

Only the east-west trench in squares J 14-15 was excavated to level 2 (Pls. 51 *A*, 64 *A*). The general floor level varied between el. 156.55 and 156.85 m. In square J 15 there were three troughlike structures at different elevations. All of them were open at one end and all of them were burned. The one against the north boundary of the trench was 55 cm. wide and 1.60 m. long and was founded at el. 157.05 m. The one near the middle of the trench was 65 cm. wide and 1.90 m. long and founded at el. 156.45 m. The one near the south side was 80 cm. wide and 1.85 m. long and was founded at el. 155.92 m. The structures may have been stoves, but, since they appeared to be in an open area, they may have been successively used kilns.

LEVEL 1

The main floors of level 1 varied from el. 157.95 to 158.20 m. (Pl. 64 *B*). The rooms were small and the dwelling units were not clearly outlined (Pl. 51 *B*). The largest room excavated at this level was 3.00 m. wide and 5.80 m. long.

During the late part of level 1, or at least after the floors had risen somewhat, there was a period of building activity when several changes were made in the general plan. This was especially noticeable in square J 15, where the east and west walls of a room had been shifted, and in square K 14, where the upper rebuildings did not coincide with the walls below. Most of these remodelings were done at *ca.* el. 158.50 m.

A few structural fragments belonging to a still higher level have been included on the plan of level 1. The patch of pebble paving in square J 15 was at el. 159.50 m. In square K 14 the small fragment of stone wall jutting out from the west boundary of the trench was founded at el. 159.60 m.

SQUARE F 15

Digging was started in the northeast quarter of square F 15 in the fall of 1935 (Pl. 53). Of the three levels excavated (Pl. 65 *D*) level 3 has been assigned to Phase O and levels 2 and 1 to Phases P-R.

At level 3 only the remains of one room were found in the excavation. Unbaked-brick walls formed the north and part of the west sides of a room, but only mud plaster was preserved to outline the east and south sides. The plaster was backed by disintegrated brick debris, but all indications of a laid wall had disappeared. The bases of the walls were at *ca.* el. 155.15 m. A small area of packed-earth floor just east of the room was at el. 155.25 m., and the bottom of the refuse pit was 1.10 m. below the floor level.

Ash layers at *ca.* el. 156.30 m. were the only indication of level 2 in the excavated area.

A few fragments of stone walls and a small piece of pebble paving at el. 156.90 m. were found at level 1.

III

TELL TA'YINAT

TELL TA'YINAT¹ is a large, low mound, somewhat irregular in shape, located about 1.5 km. east of Jisr al-Hadid, on the Orontes River, some 17.5 km. west of the town of Rihaniyyah, and just north of the Antioch-Aleppo road (Pls. 1, 68 A). The shape of the mound results from the drainage of its surface by several gentle valleys. Before it was excavated, the entire mound except for the village and the cemetery at the south end was under cultivation.

Three basalt column bases were known before the excavations were begun. One large base had been found by local men digging in the highest part of the mound (Pls. 68 D, 116 B), and two bases flanking the doorway of a village house (Pls. 68 C, 177 A) came from somewhere on the mound.

The excavations were begun in the spring of 1935 and continued through the summer of 1938 (Pl. 92). Work was concentrated in a large area on the west central part of the mound, and several unrelated areas on the south and east parts of the mound were also investigated. In addition to these excavations, trenches were dug on Tell Ta'yinat al-Saghir, a small conical mound just south of the Antioch-Aleppo road (Pl. 68 B).

A mound survey made in November, 1935, established a north-south base line located by six concrete bench marks and three east-west lines located by eight additional bench marks. These bench marks were set and leveled with reference to a Service de Cadastre triangulation point (No. 400, el. 101.21 m.) located on the mound. The contours shown on Plate 93 are an enlargement of the contours defining the mound on a cadastral map of the plain of Antioch;² they were modified to agree with the elevations of the bench marks and the surface elevations recorded during the excavations.

The mound is approximately 620 m. long and 500 m. wide. The elevation of the plain is ca. 86 m. above sea level, and the highest point on the mound was ca. 101 m. The grid of 20-meter squares shown on the contour map was not laid out on the mound itself. All the surveying was done from the established bench marks or from secondary points located by triangulation. The various structures were given Roman numerals as they were excavated, and the loci were designated by capital letters. The test pits, which were essentially exploratory, were given Arabic numbers preceded by the letter "T." When such exploratory digging resulted in an expanded excavation, the T-number was abandoned in favor of a newly assigned building number.³

¹ See Robert J. Braidwood, *Mounds in the Plain of Antioch: An Archeological Survey* ("Oriental Institute Publication" XLVIII [Chicago, 1937]), Mound No. 126.

² Travaux du Cadastre et d'Amélioration Agricole des États de Syrie, du Liban, et des Alaouites, Sandjak Autonome d'Alexandrette, *Plaine de l'Amouk (1925-27)*, Sheet 10, Scale 1:10,000.

³ In some instances, Roman numerals were given to areas that were not carried beyond the exploratory stage, and test pits were numbered although they did not yield any archeological material. In order to give a logical and consecutive

THE WEST CENTRAL AREA

The rather large excavated area in the west central part of the mound, squares F-L 15-21 (see Pl. 93), contained several buildings whose relationship in time was not beyond doubt. In order not to state concretely which stages of the buildings were contemporaneous, the terms "level 1" and "level 2" were not used. Instead, the building activities within each structure were designated "floor 1," "floor 2," and so on, the floors being numbered in the order in which they were excavated. In this way, no contemporaneity between floor 1 in one building and floor 1 in another was suggested. Later, with all the available material at hand, an attempt was made to correlate the floors of the various buildings and place them in chronological order.

As the excavation of the area proceeded, it became clear that it was occupied by a U-shaped complex of buildings around a large courtyard. The discovery of a gateway suggested that the area was set apart from the rest of the city. In fact, the city may have been compartmented in much the same way that the citadel at Zinjirli was.⁴ Many of the buildings were in use for only a short time during Phase O, and none lasted for the entire period of occupation. The buildings and areas in the west central part of the mound are I, II, IV-VI, VIII, XII-XV, and T 1, T 5, and T 9.

BUILDING XIII

In an investigation of the north side of the courtyard, Buildings IV and XIII were discovered. Building XIII, which was uncovered in the preliminary digging in trench T 2, was the earlier of the two (Pls. 69 B, 94). It was excavated in the summer of 1937. Except for a few fragments of wall on the east side of the building, no part of the structure was preserved above the foundation walls. The plan of the building was recognizable, however, as that of a North Syrian *bît hilani*.⁵ The entrance was on the south side of the building through a porch facing the courtyard. The porch was flanked by a guardroom(?) on one side and a stairway on the other. At the rear there must have been access through the narrow anteroom to the principal room of the building. From there one probably entered the small rooms on either side of the anteroom and the rooms at the rear. Only the projecting construction on the west side of the building (marked K on Pl. 94) seemed out of place in a *bît hilani* plan.

In digging trenches for the foundation walls, the builders cut down through at least one earlier occupation that could be recognized principally by the remains of stone pavings. With-

numbering to the structures and test pits, the designations given to areas which did not yield any archeological material were discarded and other areas were renumbered. This was done in Chicago in 1952. The following changes were made:

FINAL	ORIGINAL	FINAL	ORIGINAL
Building IV	XIV	Platform XV	XXV floors 1 and 3
Building VI	XV, XXV floor 2	T 1	TP
Gateway VII	XVII	T 8	test pit below V
Courtyard VIII	XVIII	T 9	XVIII A
Building IX	IX, XIII	T 10	IV
Building X	XX	T 11	VI
Gateway XI	XIX	T 12	XVI
Gateway XII	T 8	T 13	XXVII
Building XIII	T 2, XXIII	T 14	T-S
Building XIV	XXVI		

For the report of T 1 floors 4-6, T 4, T 5 floors III 2-3 and II 2, T 8 floors 3-8, and T 13, see Robert J. Braidwood and Linda S. Braidwood, *Excavations in the Plain of Antioch I* ("Oriental Institute Publication" LXI [Chicago, 1960] 13-14.

⁴ *Ausgrabungen in Sendschirli II* (Königliche Museen zu Berlin, "Mittheilungen aus den orientalischen Sammlungen" XII [Berlin, 1898], Pl. XXX.

⁵ See note 11 below.

in the foundations of rooms G and J, paving remains were at el. 93.90 m.; below room F a bit of paving and a pivot stone were found at el. 94.30–94.35 m.; below room D bits of paving and a storage jar were found at el. 94.45–94.50 m. Other bits of stone paving below room F, at el. 94.70 m., and below porch A, at el. 95.10–95.15 m., may belong to a somewhat later occupation. Since these fragmentary pavings were not associated with any structure, they have not been shown on the plan of Building XIII but have been represented on section A–A' (Pl. 105) by a line within the Building XIII foundation walls.

The unbaked-brick foundation walls were deep founded. In only one place, the central part of the east wall, did the excavations reach the bottom of the foundation, at el. 91.00 m., more than 5 m. below the lowest floor that could have existed in the building. As Professor Braidwood has already suggested, "The builders of these structures apparently dug deep, straight, vertical-faced trenches which they filled like forms with courses of the mud-brick foundations of their buildings."⁶ This may account for the variance in thickness and direction of the foundation walls. They ranged from 2.50 to 4.25 m. thick, and wedge-shaped walls were not uncommon. The walls were not well laid to an even face and were not plastered. On the east side of the building, preserved above the substructure, were parts of some walls, 2.30 m. thick, which were well aligned with parallel faces. The thickness of these walls indicated that the principal room measured *ca.* 7.50 m. wide and *ca.* 27.80 m. long. Also, the porch may be assumed to have been the same width as the tread of the stair to the courtyard, or *ca.* 10.70 m. The porch opening could be spanned by a lintel with the support of a single central post. The large basalt base (diameter *ca.* 1.40 m.) found in front of the porch (see Pl. 99 in red) may have originally been positioned there.

Across the front of the porch there were stone blocks which formed one tread of a stairway from the courtyard to the porch. The patch of stone pavement in front of the step sloped from el. 95.93 m. at the west to el. 96.03 m. at the east. Two layers of gravel were found on the pavement at its eastern end. The stone tread varied from el. 96.25 m. at the west end to el. 96.35 m. at the east end, but the riser was uniformly 32 cm. from the pavement to the top. If the other risers were about the same height, three risers would place the floor of the porch at *ca.* el. 96.90–97.00 m. The only known floor in the building was a small patch in the north-west corner of room E, at el. 97.05 m.

BUILDING XIV

The walls of Building XIV were first found in 1936, when tests were made below floor 3 of Building I, and later in 1937, when the area below Building VI was also investigated (Pls. 69 A, 95). The excavated areas were small, and only parts, often isolated parts, of the unbaked brick were uncovered. The excavated building was so incomplete that no definite comments about its plan are possible. From the wall fragments that were found and the free reconstruction of their extensions, it seems that the building did provide the east side for a possible courtyard on the west and that its plan was not recognizably related to any other found at Tell Ta'yinat.

The wall found in squares K 16–21 apparently was the exterior wall of the building on the east; the wall in squares H–K 21 was the exterior wall of the building on the south. If the southwest corner was in square H 21, as it has been reconstructed, the building was rectangular, 49 m. wide and 95 m. long, with a projecting room on the east and a single buttress on the south.

The depth of the walls was tested in two places. At the northeast corner of the projecting room in square K 18 the wall was founded at el. 94.35 m. and along the south wall at el.

⁶ Braidwood and Braidwood, *Excavations in the Plain of Antioch* I 13.

92.85-92.90 m. In both instances the unbaked-brick walls were founded on a single course of stone. The rooms were dug to various depths, mainly because no distinct floor layers were found. The small room in square J 20 was excavated to el. 93.90 m., but what seemed to be a possible earth floor within the east wall projection was found at el. 95.00-95.30 m. (see section C-C' on Pl. 105).

COURTYARD VIII

A paved courtyard was the central feature of the west central building complex (Pls. 70 A, 72 B, 99; see also Pl. 106). Except for the work done in connection with Building I in the spring of 1935, excavation of the courtyard was begun in square G 18 in the spring of 1936. In the fall of 1936 and the summer of 1937 the excavation was expanded, although no attempt was made to clear the courtyard completely.⁷ It was defined on the north by Building IV, on the east by Building VI and later by Platform XV, on the south by Building I and Gateway XII, which seems to have been replaced by the building in Area V. The very wide walls found in T 5 bounded the courtyard on the west. The courtyard measured *ca.* 55-75 m. in a north-south direction and *ca.* 85 m. east-west.

When the courtyard was first laid out and when it was first paved are questionable. A bit of stone pavement was found at the bottom of the steps leading up to Building XIII at el. 95.93-96.03 m., but in no other place was a paving found that could be assigned to Building XIII or XIV.

Small patches of a pebble paving were found in several parts of the excavation. In front of Building IV, in squares H-J 17, the pebble and shell paving was at el. 97.35 m., at the base of the limestone and basalt blocks which bordered it on the north and east and which seemingly belonged to the regular paving. In front of the steps to Platform XV, in square J 18, a small patch of pebbles was at el. 96.77 m., at the bottom of stone blocks which were part of the lowest tread of the stairway rising to the platform. Pebbles were also found at two places in square G 18 at el. 94.05 m., at the base of blocks of stone which were part of the road paving. In these places the pebbles seemed to belong to a foundation layer for the squared paving blocks rather than a lower pavement.

In only one area, in the southeast corner of the courtyard, could two definite stone pavings be distinguished. A paving of small stones, actually a continuation of floor 3 of the porch of Building I, continued northward into the courtyard at el. 97.12 m. A later paving some 25 cm. higher was associated with floors 2-1 of Building I. Elsewhere, only one layer of paving was observed, although it had been patched and repaired in many places.

Many of the squared, fitted, and well-laid stone blocks of the roadway were missing. Of those that remained, most were limestone and only a few were basalt. The roadway apparently swung from Platform XV and Building I in an arc of 180° to Gateway XII. It was preserved no farther westward than square G 18, where its direction was west southwest.

The pavement dished from the north, east, and south sides to a low (el. 94.45 m.) at about the center. Along the north side of the court, the paving rose from el. 96.45 m. on the west to el. 97.58 m. at the northeast corner. Along the east side the paving fell to el. 97.18 m. near the stairway and then rose to el. 97.40 m. at the southeast corner. Along the south side the paving sloped downward to el. 96.90 m. at the midpoint of the stair tower of Building I and to el. 93.40 m. along the north side of the building in Area V. From its center the courtyard presumably continued a downward slope under the unexcavated area to the stone paving at el. 91.80 m. in the southeast corner of T 5 and to the stone paving at el. 90.05-89.75 m. in Gateway XII.

⁷ The large irregular unpaved areas of the courtyard shown on Pl. 99 were due more to non-excavation than to non-preservation. Exceptions were where the squared stone blocks of the roadway had probably been "mined" for later constructions and where the many pits in the area had been dug.

The many repairs and alterations within the courtyard probably covered a considerable length of time (see Pl. 99). The wall foundations and associated pavings in square G 18 must have been among the earlier alterations. The walls were 70–80 cm. thick and were preserved 15–33 cm. above the courtyard paving; the baked-brick and stone paving north of the structure was about 10–15 cm. above it. Later, a wall 1.60 m. thick was built across the courtyard and, from the evidence of the steps and paving along the face of Building I, it seemed that a south terrace was created (Pl. 73 B). The sandstone blocks at the foot of the stairs were at el. 96.97 m. The steps were built of cut limestone blocks with treads *ca.* 45 cm. wide and risers that averaged 11 cm. The top tread and the small stone and baked-brick paving were at el. 97.50–97.60 m. The layer of stones and potsherds on the west side of Building I, at el. 97.28 m., may be a continuation of a paving of the south terrace (see p. 56, Pl. 104).

There was no indication that the level of the walled-in area of the courtyard rose significantly during the later building periods. The basalt drum (Pl. 113 D) found on the paving and the basalt throne fragment (Pl. 118) found in the debris of this part of Courtyard VIII can only be regarded as general finds belonging somewhere within the time range of the structures in the west central area. The architectural details of the throne are important in that they show half of a twelve-sided column shaft topped by a capital somewhat different from the known examples of column bases.

T 1

A small area, *ca.* 2.00 × 4.00 m., was dug below the courtyard paving in square G 18 (see Pl. 93). Five occupational floors were found but no structural remains. The courtyard paving (floor 1) at that place was at el. 94.50 m., floor 2 was at el. 90.45 m., floor 3 at el. 89.60 m. The materials from both floors 2 and 3 were pre-Phase O.⁸

T 9

In squares H–J 17–18 an area *ca.* 4.70 × 20.00 m. was dug below the level of the courtyard paving where two basalt column bases could be seen (Pl. 98 B). They were in pits that had been dug through the courtyard paving and by happenstance the north one had landed on top of a wall of Building XIV (Pl. 95). The north base (Pl. 89 A) was 1.30 m. in diameter and 69 cm. high. The south one, similar to the bases in the porch of Building I, floor 3, was 1.08 m. in diameter, and only about one-third of its original height was preserved. The courtyard paving in T 9 ranged from el. 96.15 m. at the south to el. 97.00 m. at the north. The two walls of Building XIV found in the excavation had cut through two earlier floors. The structural remains associated with these floors were domestic in character, but too little was cleared to form a comprehensible plan. The upper floor varied from *ca.* el. 96.00 m. in the south to el. 96.50 m. in the north, the lower floor from el. 95.75 to 96.05 m. Both floors have been assigned to Phase O.

BUILDING IV

The east end of the uppermost paving of Building IV was found immediately below the surface of the mound in the spring of 1936. After the rest of the paving had been cleared, work at this place was temporarily discontinued. The paving was part of an upper or later version (floor 1) of a building that was built partially above Buildings XIII and XIV. Work was resumed in the summer of 1937, and the original version (floor 2) of the building was excavated to the bottom of its foundations. Although little of the upper building remained, enough was preserved to show that it was not a repetition of the original building.

⁸ For floors 4–6 see Braidwood and Braidwood, *Excavations in the Plain of Antioch I 14*.

FLOOR 2

Only the foundations of the original walls were preserved, and the openings between the rooms were lost (Pls. 70 B, 96). Nevertheless, the plan of the building was recognizable as that of a North Syrian *bît hilani*. A porch on the south side faced the courtyard and was flanked on the east by a small room and on the west by a two-run stairway. Beyond the porch the main room extended the length of the building. The only unusual feature of the plan was the double range of rooms at the rear of the building.

The unbaked-brick foundation walls were set well below the floor level upon a single course of rubble stone. The bottoms of the foundations varied in elevation from 97.00 m. at the rear of the porch to 94.95 m. at the north side of the building, and from 97.35 m. at the west end of the main room to 96.25 m. at the east end. The walls varied in thickness from 2.30 m. to 3.10 m. and probably were about the same in the superstructure. The porch was *ca.* 14.40 m. wide and 9.50 m. deep, about the same size as the porch of Building I. Although they have now disappeared, two column bases were restored on the plan, since they would be sufficient to carry the roof span. There may have been three, however, placed as those in Building I were. The main room measured *ca.* 33.70 m. long and *ca.* 9.00 m. wide, the largest room in any *bît hilani* excavated at Tell Ta'ayinat. The width of the room also indicated an exceptional roof span.

Only meager evidence of the floor remains. Three treads of the stairway rising from the courtyard to the porch were preserved (Pl. 70 A). They were made of dressed blocks of limestone, many of them well worn. The steps sloped slightly downward to the west, but on an average the lowest tread was at el. 97.58 m., not very much higher than the stone paving in the courtyard. The second tread was at el. 97.70 m. and the third tread at el. 97.86 m. The few baked bricks of a porch paving were found at el. 98.00–98.05 m. The paving stones nearer the rear wall were at el. 98.35 m. The floor of the porch has been reconstructed as rising from el. 97.85 m. at the top of the stairway to el. 98.35 m. at the rear wall (section D–D', Pl. 105). The floors in the other rooms of the building have also been restored at this level. Except for these stones and baked bricks, the only evidence of a floor was found in room G, where a small square of baked bricks was placed above a vertical drain at el. 98.10 m.

FLOOR 1

The only structural remains found at floor 1 were fragments of a stone foundation, a stone drain, and the stone paving of one room (Pls. 71 A, 97). The northeast corner of the building and the position of the central room were sufficient, however, to indicate a change in the plan layout even though the length of the building remained the same as it had been at floor 2. The main room was narrower and set more to the rear than it had been in the earlier building, and it was necessary to reconstruct an anteroom between the porch and the main room of the building. Such an anteroom was present in Building XIII (Pl. 94). The preserved northeast corner showed that the building itself was narrower and that the second range of rooms on the north had been omitted.

A small part of the wall construction was preserved on the east side of the building. It consisted of a stone foundation layer which defined the east and north limits of the building. A large, squared stone was used as a corner stone and a reused, lion-headed orthostat was found in the north wall (Pls. 71 B, 97). A wall projected at right angles from the east side of the east wall. Only a meter of the run of the wall was excavated; it continued eastward into an unexcavated part of Platform XV. The foundation layer was 2.70–3.00 m. thick and 40 cm. high and was founded at el. 97.40–97.70 m. On top of the foundation some mud mixed with straw debris was all that remained of the unbaked-brick walls.

The main room of the building was about 5.50 m. wide and 34.00 m. long. The floor was a rubble paving bordered with baked bricks standing on edge. Since breaks in the border occurred at regular intervals, especially on the south side of the room, they did with some certainty indicate the location of the door openings. As a rule the bricks were either 39 or 42 cm. square and 8-9 cm. thick. The stone paving was at el. 98.62-98.75 m., and the few baked bricks above the paving were all that remained of what may have been an upper floor, at el. 98.80 m. The few paving bricks in the anteroom were at els. 98.30 (east) and 98.72 m. (west).⁹

A rubble-stone drain in the west end of the main room went below the west wall and continued across a stone-paved area on the west side of the building. The drain was about 40 cm. wide and in its run increased from 40 to 65 cm. in depth. The bottom of the drain was at el. 98.30 m. at its beginning, 1.75 m. east of the west wall, and fell to el. 97.45 m. at the west end of its run. The stone paving sloped down to the west from el. 98.55 to 98.13 m. (see Pl. 105, section A-A').

BUILDING VI

Building VI, excavated in the summer of 1937, was found above the walls of Building XIV and, since a doorway connected it with Building I, may be considered a north wing of that building (Pls. 72 A, B, 103). Its plan was somewhat similar to the plan of the east section of Building I, except that it was not as regularly laid out and its axis had been turned 90°. Since the west exterior wall was missing, apparently destroyed in the construction of Platform XV, an entrance from the west courtyard into an anteroom and an offset opening into one of the central rooms of the building have been restored.

The walls varied from 1.15 m. to about 4.00 m. in thickness. They were built of unbaked brick and were founded just below the floor level. Above the floor the walls were covered with a thick well-preserved coating of mud plaster. The floors were of earth, and two layers of accumulation were recorded (see Pl. 105, section B-B'). The lower one was found at el. 97.40-97.55 m. and the upper one at el. 97.70-97.85 m. The baked-brick sill of the doorway into Building I was at el. 97.80 m., and the bottom of the blocking which closed the opening was at el. 98.08 m.

The one-course stone wall or paving fragment beside the north wall of room G of Building I does not belong to the plan of Building VI (see section E-E' on Pl. 105). It may have been the foundation layer of an unbaked-brick wall which was either part of the later platform construction or a building on the platform, although this was not apparent at the time of excavation. The stones about the revetment of Building I and, at its eastern end, the revetment steps down in a similar way. The lowest stone course was at el. 97.30 m., and the top course was at el. 98.42 m.

PLATFORM XV

Platform XV, which incorporates preliminary trench T 3 in square L 17, excavated in the summer of 1937, was built above Building VI and the area to the north and east (Pl. 101). The platform was rectangular in plan and measured about 46 m. east-west and 87 m. north-south. It adjoined Buildings IV and I, and provided an eastern terminus for the central courtyard. On the court side the face of the platform was buttressed, and towers flanked a stairway rising from the courtyard to the top of the platform. No other approach was found, and in all probability there was none. The top of the platform was not far below the surface of the mound, and almost nothing remained of the structures that once stood there.¹⁰

⁹ The west elevation was used as a basis for restoring a floor in section D-D', Pl. 105.

¹⁰ On Pls. 107 and 108 no attempt has been made to suggest the structures which must have towered above the other buildings and been the dominant feature of the building complex.

The platform area was outlined by a stone foundation wall 2.40–3.15 m. thick. On the west, or courtyard side, the wall was founded at *ca.* 97.20 m. and consisted of a single course of stone. On the other three sides, the walls were founded much lower, and the height of the stonework varied from 1.00 to 1.50 m. At the northeast corner the bottom of the stone foundation was at el. 94.30 m. and rose to el. 95.33 m. where it abutted the foundation of Building IV. At the southeast corner the bottom of the stone foundation was at el. 94.67 m. and rose to el. 95.00 m. at Building I (see Pl. 105, sections B–B' and E–E'). Above the stone foundation a platform of unbaked brick was laid over the entire area, covering Building VI and any other structures which may have existed within the boundary of the foundation walls.

The original constructions on the platform are represented by the two stone foundations in J–K 16–17 at *ca.* el. 98.90–99.00 m. and another in K–L 19 at *ca.* el. 98.90 m. with an associated stone paving. To this original occupation may be assigned the stone drain in J–K 18 and the nearby baked-brick paving at el. 98.90 m. A slope down to the west from this paving to the baked bricks at the top of the steps to the courtyard seems probable (see Pl. 73 A, section B–B' on Pl. 105). Dressed stones, similar to those of the topmost tread, may also have been used as a finish course above the rough rubble treads (see Pls. 72 B, 99).

An upper floor was represented by an unbaked-brick construction adjoining the north side of Building I (Pl. 102). The wall along Building I was founded at el. 99.15 m. on a single course of stone, but the other three walls were built on the ground at el. 99.25 m. The walls were 2.70 m. thick and covered with mud plaster. A fragmentary stone paving at el. 99.33 m. established the floor level. A rebuilt wall at el. 99.75 m. and a replastering of the other walls starting at the same height suggested the floor elevation of a still later occupation. This floor may also be contemporary with the fragmentary baked-brick paving in square K 19 at el. 99.70–99.80 m.

BUILDING I

The excavations at Tell Ta'ayinat were begun in March, 1935, at the highest part of the mound, in squares J–K 20. There, a difference in the growth and color of the vegetation indicated the width and direction of the walls which were found immediately below the topsoil. The area was called Building I. Digging was continued through the spring and fall of 1935 and concluded in the spring of 1936.

Building I formed the southeast corner of the buildings grouped around Courtyard VIII. The approach was from the courtyard on the north into an open, columned porch. On the west a doorway led to stairs which rose either to a second floor or to the roof. On the south the large main room, with its major axis parallel to the entrance façade, was bordered on the south and west by four subsidiary rooms. On the east a tripartite grouping consisted of a central room flanked on either side by two smaller rooms. The plan was essentially that of a North Syrian palace, a type of building which the Assyrians called a *bit hilani*.¹¹

Building VI, somewhat similar in plan to the east section of Building I, may have been the north wing of the palace, since they were connected by a doorway. Later, however, this connection between the two buildings was blocked.

The palace, as excavated, measured approximately 29 × 58 m. and contained three occupational floors and indications of a fourth. They were designated 1a, 1, 2, and 3 in the order of their excavation. At floor 1 the building was completely rebuilt; at floor 2 the entrance porch was repaired or rebuilt, although there were no indications of any work done in the rest of the building. It was apparent that at all three levels there had been fires which probably had necessitated the two rebuildings we found.

¹¹ For a discussion of the North Syrian *bit hilani*, see Henri Frankfort, *The Art and Architecture of the Ancient Orient* (Harmondsworth, 1956), pp. 167 ff.

Just when the stone revetments and glacis were built against the exterior face of the east wall and part of the south wall could not be determined (Pls. 74 A, 103). The glacis and revetment against the south wall were probably built soon after Building I was constructed and certainly after Building II had been built. At the north end of the steps in front of Building II the glacis was changed into a vertical revetment which continued parallel to the north wall of Building II but was not carried beyond its rear wall. On the east of Building I the glacis had a slope of about 1 in 3 and on the south almost 1 in 1. The revetment against the east wall appeared to be a later repair, as if the glacis had been torn out and the stepped-in revetment had been built in its place. This was the only part of the stone construction that rose above the elevation of the original floor of Building I.

In an attempt to uncover the extent of the paved area east of Building I, a narrow trench was dug some 16 m. east of the southeast corner (Pl. 103). The stone paving continued beyond the excavation. Within the trench, there was a square of stone orthostats 1.90×1.90 m. that appeared to be the foundation course of a small solid structure (Pl. 74 B). The two additional stones on the west suggested a partially preserved second unit or an appendage.

The foundations of the building were investigated only in a few places. The southwest corner was founded on a layer of stone at el. 95.75 m. The stone and unbaked-brick wall below the porch columns was founded at el. 96.05 m.; the bottom of the south wall of the porch was at el. 95.45 m., and the east end of the north wall of room K was at el. 95.85 m. The variation in the bottom elevations of these walls may be due to the fact that in this same area Building XIV had already been built and razed (Pl. 105, section D-D').

MATERIALS AND CONSTRUCTION

The palace was constructed with unbaked-brick walls which averaged 2.60 m. in thickness. The bricks varied greatly in size: $30 \times 30 \times 12$ cm. and $30 \times 43 \times 11$ cm.; $35 \times 35 \times 10$ cm. and $34 \times 53 \times 10$ cm.; $38 \times 38 \times 10$ cm. and $38 \times 55 \times 10$ cm. Several of the bricks used in the rebuilding at floor 1 bore makers' marks which seemed to have been made with the finger on the brick before it dried (Pl. 117 D). Although the bonding was somewhat irregular, it was achieved by using square and rectangular face bricks in alternating courses. Also, in every fourth course reeds were laid across the walls in the mud-plaster joints. As far as could be determined, all the walls were covered with mud plaster. The best evidence came from the rooms that had been heavily burned. In one, room A, three plaster coats were recorded. The first one was of mud plaster 1.0–1.5 cm. thick; over that there was a second coat, also of mud plaster, 1 cm. thick; and lastly a third coat of white plaster 1 cm. thick. Bits of blue-painted plaster were found in the debris in some of the rooms but not enough to suggest how or where it was used.

All the interior walls were built in the same manner, entirely of unbaked brick, but from two registers of fragmentary wood impressions in the horizontal grooves in the rear or southern exterior wall, it appeared that longitudinal beams *ca.* 16 cm. wide and 26–28 cm. high were laid flush with the exterior wall faces. Although the evidence is slight, it appears that the lowest beam was positioned after four courses of brickwork had been laid. The beam itself was the height of three brick courses, and above it there were eight more courses of brickwork before the beam in the second register was positioned. How many rows of beams were placed in the exterior walls is not known, but they probably occurred only in the lower part of the walls. In addition to the normal mud plaster, there were traces of a thick coating of white plaster on the exterior wall faces.

Wood was used extensively around the open porch, where the wall faces were built up in a wood-crib construction. Horizontal wood beams placed flush with the face of the wall alternated with regularly placed beams which penetrated the wall from 75 to 100 cm. In this

method of building, the faces of the walls around the porch were structurally formed with wood beams and the unbaked brick was used as a filling. The inner half of the walls were built exclusively of unbaked brick.¹²

FLOORS 3 AND 2

Floor 3, the lowest floor of Building I, was established immediately above the destroyed walls of Building XIV. Since this lower structure did not, however, extend under the porch and the stair block, the floors in those areas dropped away toward the north. There were indications that the porch had been burned and that during the rebuilding it was partially closed in; it is doubtful that there was a central support in this opening. The rebuilding of the porch was called floor 2. In the rest of the building the line of floor 2 (Pl. 105, sections D-D', E-E') was the highest earth floor in an accumulation of floors and ash layers above floor 3. It was covered with a heavy layer of black ash in most of the rooms. The depth of the deposit between floors 3 and 2 in the building ranged from 7 cm. in room N to 45 cm. in room F. From 30 to 55 cm. above floor 2, pieces of charred wood and some evidences of roofing material were found throughout the building. There was almost no stratified floor debris associated with these finds, but they must represent the level of occupation at which the building burned and the roof fell in.

Since the floors found in the porch cannot easily be traced throughout the building, our description will first deal with floor 3 in the porch, then floors 3 and 2 combined in the rooms, and finally with floor 2 in the porch.

The Porch, Floor 3

At floor 3 the entrance porch had three decorated basalt column bases *in situ* (Pl. 75 A). They were placed on foundations of rough stone which, in turn, were resting on a stone-founded unbaked-brick wall. The bases consisted of a highly ornamented upper register and a more severe lower register, both of which turned inward to a central torus decorated with a running guilloche (Pls. 75 B, 116 A).¹³ The bases were 111 cm. in diameter, 70 cm. high, and the depression in the top of the stone would accommodate a shaft about 75 cm. in diameter. The shafts and capitals had entirely disappeared and must have been made of wood.

The floor of the porch, as well as the area in front of the columns, was paved with pebbles and small stones. The small area of pebble paving uncovered in front of the porch was at el. 97.12 m. At the column bases the floor paving was at the same elevation and rose to el. 97.42 m. at the south wall of the porch. Later, an unbaked-brick fill was laid above the pebble floor, and on top of the fill there was a mud-plaster floor covered with a coating of white plaster. The elevation of this secondary floor was the same as the pebble floor at the column bases (el. 97.12 m.) but it rose to 97.68 m. at the south wall of the porch.

The elevation of floor 3 in the main room south of the porch, room J, was 97.70-97.75 m., and the sill of a doorway connecting the two could not have been lower than el. 97.75 m. This would have been 33 cm. above the original floor of the porch and 7 cm. above the secondary floor. No doorways were found, but if we assume that the four courses of brickwork which contained the longitudinal and transverse beams (*ca.* el. 97.55-97.98 m.) belonged to repairs made to the south porch wall during the floor 2 occupation, the doorways at floor 3 would

¹² Although this type of construction can almost be called normal in North Syria at this time, the longitudinal beams were usually placed along both the inner and outer faces and the transverse beams they supported extended through the wall. See C. L. Woolley, "Excavations at Tell Atchana, 1937," *Antiquaries Journal* XVIII (1938) 25 and Pl. XV:1; E. Fugmann, *Hama Fouilles et Recherches, 1931-38* II, Part 1 (Copenhagen, 1958), 160 and Figs. 187, 199; Rudolf Naumann, *Tell Halaf II* (Berlin, 1950) 81 and Figs. 38-41; *Ausgrabungen in Sendschirli II* 160 and Fig. 70.

¹³ Identical column bases were found in the porch of Building K at Zinjirli; see *Ausgrabungen in Sendschirli IV* (Königliche Museen zu Berlin, "Mittheilungen aus den orientalischen Sammlungen" XIV [Berlin, 1911]) 293, Pl. LIII.

have been destroyed. This division in the brickwork was not apparent at the time of excavation but, if it were not so, the door sills of floor 3 would have been at least 65 cm. above the original floor of the porch and 33 cm. above the floor in room J. In the plans and the section of the porch (Pl. 114 *B*), we have shown four courses of floor 2 brickwork above the original wall construction.

In porch E the face of the brick wall was set in 20 cm. at el. 97.33 m. in the south wall (see section on Pl. 114 *B*). In the east and west walls the ledge sloped down about 5 cm. to the north corners of the porch. From the amount of wood ashes and charcoal in the channel between the brick face of the wall and the fill below the porch floor, it was evident that the ledge was the base of the lowest horizontal beam in the wall. Samples of charcoal taken from the debris in the channel and from the thin layer adhering to the vertical face of the fill proved to be Aleppo pine, and it could not, therefore, be assumed that the wall construction had been covered with a wood paneling. In fact, an examination of the channel left by the burning of the wood beams below the floor level seemed to indicate that the wood and brick construction had had a mud-plaster coating which must have been applied before the floor fill was put in. If the wall construction at floor 3 was similar to that at floor 1, the longitudinal wood beam equaled four brick courses in height; and if our division of the wall into floor 3 and floor 2 constructions is correct, the floor 3 wall was cut down below the top of the wood beam and any evidence of transverse beams, as well as door openings, would have been destroyed.

On the plan of the palace at floor 3 (Pl. 103) three doorways have been reconstructed in the wall separating porch E and room J. The spacing of the doorways was taken from the suggested reconstructed doorways shown on the partial plan of the porch at floor 2 (Pl. 114 *B*). It is also possible that there had been two doorways in the east wall of the porch, but they were not evident when the building was excavated and were not reconstructed on the plan since they were not needed.

The Stair Block, Floors 3 and 2

The only exterior opening preserved at floor 3 was the one in the west wall of the porch leading into locus D, a small square vestibule at the foot of a stairway which rose to a second story or the roof (Pl. 76 *A*). The sill of the door opening was made of wood laid on a thick bed of mud plaster. The area had been heavily burned, and impressions of the wood grain were preserved in the plaster. The planks in the sill ranged from 36 to 45 cm. in width and should have been *ca.* 17 cm. in thickness. Mud plaster 2 to 5 cm. thick separated the planks. The thickness of the vertical plaster may have remained constant for the height of the sill, or the planks may have been beveled so that the top of the sill showed only neat narrow joints. We could not tell which method was used, but beveling was used on the sandstone paving laid in the porch of Building II and other places. No pivot stones were found at the sides of the opening, and, since it seems likely that the opening could have been closed, a hinged door may have hung from a wood frame. The beam impressions were at el. 97.27 m., and the top of the wood sill would have been at *ca.* el. 97.45 m. The mud-plaster floor of the room was leveled at el. 97.45 m. Whereas earth floors were usual in the rest of the building, the floors in the stair area (loci A-D) were underlaid with unbaked bricks.

The first four steps of the stairs were built of unbaked bricks, now well burned to an orange-red color. Sufficient mud plaster was preserved to show that treads made of wood planks had been set upon the preserved brick steps. On the lowest step the wood impression indicated a tread 54 cm. wide. The next two steps could be accurately measured and were 44 cm. wide, which indicated that the wood planks were laid with a 10-cm. overlap. The four risers measured 17 cm. each (Pl. 115 *D*). Beyond the four unbaked-brick steps there was a narrow L-shaped room, loci A-B, and the remaining runs of the stairway must have been constructed over it

in wood. The complete stairway probably rose in three runs around locus C. This would have allowed 5 risers, 18 risers, and 10 risers, for a total of 33 risers; if each riser measured 17 cm., a second floor or roof would have been *ca.* 5.61 m. above the vestibule but only 5.33 m. above the floor of room J. If, however, the stairs turned again and continued over locus C, there would have been 13 more risers, and the stairs would have been *ca.* 7.82 m. above the floor of vestibule D.

Loci A and B must have been a utilization of the space under the upper runs of the stairs. A doorway in the north wall of room H provided access to the area. The mud plaster beneath the destroyed wood sill was at el. 97.48 m., with a probable elevation of 97.65 m. for the wood sill itself. The floor of room B sloped down from el. 97.65 m. at the south to el. 97.12 m. at the north, and the floor in its west-east run (locus A) continued downward to el. 95.07 m. at the east end of the room. Practically no build-up of floor debris occurred in these loci, and a single floor's accumulation seemed to correspond with that of floors 3 and 2 in the other rooms. The rooms were filled with fallen ash and heavily burned debris, especially in the east end of room A, where it was almost vitrified.

No doorway was found into locus C. The area was badly cut by previous digging, and only the east wall face and the north and south corners were certain. It is possible that the locus was filled in and was, in fact, a solid pier around which the stairs mounted.

The Main Part of the Building, Floors 3 and 2

South of the porch was the main room of the palace, room J, with its major axis parallel to the front of the building (Pl. 77 A). The entrance from the porch to room J was not preserved (see p. 46). The room measured *ca.* 7.10 m. wide and *ca.* 25.10 m. long and was the largest room in the palace. This must have been the reception room or the audience hall, although nothing was found in it to indicate its use. The room was also the focal point of the building's circulation. Room H on the west and rooms L-N on the south each opened into it, and a single doorway in the east wall provided access to room K in the east section of the building.

Room K, with its major axis also parallel to the façade of the building, somewhat echoed room J on the west. Room K measured 6.90 m. wide and 18.90 m. long and provided access to rooms P and Q on the south and rooms F and G on the north. A doorway in the north wall of room G connected Buildings I and VI.

The doorways were similar to the one from the porch to the stairs, although some details of construction can be added. In the opening between rooms J and M, the wood planks of the door sill were about 4.00 m. long and, since the doorways were 1.60 m. wide, extended about 1.20 m. into the wall on either side of the opening. A vertical wood fragment was preserved at the northwest corner. It was *ca.* 11 cm. thick and stood *ca.* 0.50 cm. away from the wall.

In the opening between rooms J and N some pieces of the burned sill planks were still *in situ*. There was evidence that the door jambs were given a thin coating of mud plaster before the transverse wood planks were laid upon the wood sill and against the unbaked-brick jambs. On top of the transverse planks, wood frames were placed at the sides of the jamb, flush with the wall faces, and a third frame at the center of the jamb. After the wood frames were in place, a second coat of mud plaster was given to the intervening wall panels. The definite edge of the plaster panels showed that the wood frames were 36 cm. wide. The bottom of the wall plaster, as preserved, was about 31 cm. above the bed of the sill planks (Pls. 76 B, 155 C).

In the doorway between rooms K and P, fragments of the wood sill planks were preserved on the east and west sides of the opening. One fragment measured 7.50 cm. in thickness. Above it there was a fragment of a transverse wood plank lying against the jamb face. Its greatest dimensions were 11 cm. high and 9 cm. thick. The door jamb was plastered down to this transverse plank, and the total distance from the bottom of the plaster to the bed of

the sill planks was 18.50 cm. At the northeast corner of the opening a vertical wood fragment measured 5 cm. in thickness (see Pl. 115 *B* for a suggested restoration of the door construction). Since no pivot stones were found in the building, any doors there may have been must have been hinged to the door frames.

All of the floors were made of tamped earth and were covered with layers of ash. Often a series of ash layers was topped with a second or third layer of tamped earth. The total build-up varied greatly and indicated to some degree the intensity of a room's use. In the west section of the building the floor accumulation in the eastern end of room J rose from el. 97.75 to 98.05 m., a total of 30 cm. In the west end of the room it was much less. In the surrounding rooms (H, L, M, and N) the average floor rose from el. 97.75 to 97.82 m., a total of 7 cm. In the east section of the building the floor accumulation in room K rose from el. 97.75 to 98.03 m., and that in rooms P, Q, and G was only a few centimeters less. The greatest build-up was found in room F, from el. 97.73 to 98.18 m., a total of 45 cm.

In room J the four baked bricks in the southwest corner of the room were set upon the topmost floor (el. 97.83 m.) and probably represented a base of some sort rather than a part of a baked-brick paving. The bricks were *ca.* 8 cm. thick and ranged from 38 to 42 cm. square. In room F the sandstone roof roller (Pl. 113 *E*) and the stone mortar (Pl. 113 *C*) were found in the floor 3-2 debris. In room G the row of baked bricks on the sill of the doorway in the north wall was at el. 97.80 m. (floor 3). At el. 98.08 m. (floor 2) the opening was blocked, and the connection between Buildings I and VI no longer existed. It should be noted here that a number of "bronze cups," one of which contained decayed wood, are included in the list of objects found in rooms P and Q. Undoubtedly they were the bronze shoes of standards or legs of furniture. Associated with them was a quantity of short, large-headed nails, often in connection with bone ornaments.

Above floor 2 there were traces of a higher floor that could not be followed throughout the building. It was clearest in porch E (see p. 50) and was recognized in other rooms mainly by pieces of charred wood, presumably fallen roof beams. In room J charred wood was found at el. 98.55 m., in room N at el. 98.40 m., and in room K at el. 98.35 m. In room G pots and a baked brick apparently *in situ* at el. 98.35 m. indicated a higher floor in that room.

The Porch, Floor 2

A distinct and separate floor 2 was found only in the porch of the building. A curtain wall with a single opening was built on top of the floor 3 column bases, and probably the other three walls of the porch were rebuilt at the same time. A new, higher floor was established, and the column bases were completely covered. On the north the floor was contained by a row of stone orthostats placed outside the curtain wall, and two steps were necessary to reach a newly laid stone paving in the courtyard (Pls. 78 *A* and *D*, 100 *A*, 101).

At the entrance to the building the paving of the courtyard was raised about 25 cm. above that at floor 3. It was at el. 97.40 m. on the east and 97.00 m. on the west and consisted of pebbles, rubble stones, well-cut squares of gray sandstone, and dressed blocks of basalt. The steps were built of reused blocks of basalt, one of which looked as if a bas-relief had been chipped off its face. In the courtyard the steps were laid directly on the sandstone and basalt block paving. The lower tread was at el. 97.45 m. and the upper one at el. 97.65 m. The top of the row of orthostats was at el. 97.72 m. in front of the entrance. The basalt orthostats were also in secondary use. The faces and all four sides were dressed; only the backs of the stones were left rough. They varied in width from 45 to 142 cm., in height from 84 to 103 cm., and in thickness from 20 to 40 cm. All the stones were undecorated, and apparently their only function was to contain the rising floor of the porch (Pl. 78 *B*).

The curtain wall was built of unbaked brick founded on reused blocks of stone (Pl. 78 C). Many of the stone blocks showed above the floor of the porch, and in places mud plaster still adhered to the stone blocks as well as the unbaked bricks. The wall was 1.32 m. thick, and there was evidence that horizontal beams had been placed flush with the exterior and interior wall faces. The mud plaster bedding of the beams had been thoroughly burned and was well preserved. The plastering indicated that the beams had been *ca.* 24 cm. high and 22 cm. thick. Although the tops and bottoms of the beams had been flattened, the backs had been left unworked. The entrance opening was 4.85 m. wide, with basalt jambs at the base of the unbaked-brick wall. The jamb stones, each 65.50 cm. wide, 73 cm. high, and 28–32 cm. thick, were set so that only 47 cm. of the stone showed above the floor in the opening. Heavy ash and charred wood indicated that the exterior and interior face beams had been joined by cross beams resting on the jamb stones. No other cross beams were found, and there was no evidence that the wall was built in a crib construction. Only three courses of brick were preserved above the face beams so that a second row of beams, if it had existed, was not preserved.

The east and west walls of the porch were only observed below the floor 1 walls, and it is not now possible to attempt to divide those walls into floor 3 and floor 2 constructions. The south wall, however, was dismantled course by course, and a sequence of construction can be suggested (see p. 47 and below). The four courses of brickwork which contained longitudinal and transverse beams (Pl. 114 B) probably belonged to a foundation construction. The impressions left in the burned mud plaster indicated small beams, *ca.* 17 cm. wide and 11 cm. thick, that were not well squared and in some cases appeared not to have been worked at all. The lowest of the four courses contained a longitudinal beam 22 cm. wide and one brick course high, placed 1.55 m. in from the normal north face of the wall. The next higher brick course contained two cross beams, one 1.65 m. in from the southeast corner of the porch and the other 1.80 m. in from the southwest corner. They penetrated the wall only as far as the longitudinal beam in the course below. The position of the beams in the third and fourth courses are shown on Plate 114 B. This wood-crib construction can best be placed in the construction scheme of the building as the foundation courses of a wall built at floor 2. The wall, destroyed by the deep founding of the floor 1 wall (Pl. 77 B), was preserved to el. 97.98 m. Floor 2 in the porch was at el. 98.05 m., in room J also at el. 98.05 m., and in room F at el. 98.17 m. Any openings from the porch into these rooms would have been destroyed when the floor 1 wall was built.

Floor 2 in the porch was established on a fairly clean clay fill and was covered by a thin layer of black ash but very little accumulation of floor debris. At the entrance the floor was at el. 97.85 m. and rose to el. 98.05 m. at the south wall. In the northeast quadrant of the porch, a limestone column base was found on the floor. It was remarkably level, but the sides of the base were not oriented with the axes of the building, and there seemed to be no reason for a column base at that place (Pl. 78 C). The base was made up of a plinth 73.50 cm. wide, 81+ cm. long, and 15 cm. high surmounted by a decorated torus 68.50 cm. in diameter and 32 cm. high. The depression in the top of the base could take a column *ca.* 49 cm. in diameter (Pl. 117 B).¹⁴ Later, another clay fill was laid down, and a new floor was established. At the entrance, it was level with the top of the jamb stones (el. 98.20 m.) and rose to *ca.* el. 98.40 m. at the south wall. This corresponds to the meager traces of an intermediate floor found throughout the interior of the building (see p. 49). The heavy layer of black ash on the floor and the several fragments of large wood beams indicated that it was the floor in use when this stage of the building was burned (Pl. 78 C).

¹⁴ Similar, although undecorated, bases were found in the Upper Palace at Zinjirli; see *Ausgrabungen in Sendschirtli* II 142, 146.

FLOOR 1

At floor 1 the palace was entirely rebuilt. In those parts of the building which were preserved, the arrangement of the rooms remained the same (Pl. 102). The walls around the porch were deep founded; the others were rebuilt from the newly established floor level. The wood and brick construction in the porch was particularly well preserved and suggested the building methods used in the earlier constructions. Again the opening into the porch was changed; it was much wider than it had been at floor 2, and there was probably a single central column to support the lintel spanning the opening. Within the building the noticeable difference concerned the doorways leading into the five small rooms along the south wall of the building: all of them had been shifted from the west end to the east end of the rooms at that time.

The Porch

Floor 1 of the porch was far above the level of the courtyard, where the paving remained unchanged throughout the occupation of the complex. Just how the two were connected is not known, but a stairway has been reconstructed (section D-D' on Pl. 105).

The new curtain wall, 1.30 m. thick, was built above and not quite in line with the one belonging to floor 2. The east wing wall extended 2.25 m. from the side wall and ended in a finished jamb. The west wing wall was not completely preserved, but the opening must have been approximately 10 m. wide. It would require a single column in the center of the opening; possibly one of the large undecorated basalt bases found out of place on the mound had been used there. The curtain wall was founded at el. 98.65 m. Flush longitudinal beams were used on the exterior and interior faces in the same manner as in the floor 2 curtain wall. The mud-plaster bedding was not sufficiently preserved to measure the dimensions of the beams. The indents in the brickwork, however, measured 26 cm. high and 16 cm. deep. No transverse beams were found, and six brick courses above the top of the lower face beam the indent for a second longitudinal beam was preserved on the interior face. The curtain wall was not bonded into the east and west walls of the porch (Pl. 114 B).

The side and rear walls of the porch were deep founded, at el. 97.75 m. at the northeast corner, at el. 97.98-97.67 m. at the south wall, and at el. 97.42 m. at the northwest corner. The walls were built in a wood-crib construction. Wood beams were placed longitudinally along the porch face of the wall and unbaked bricks were laid in back of them. Then transverse or cross beams were set at regular intervals (*ca.* 60 cm. center to center), usually penetrating the wall from 75 to 100 cm. The spaces were filled with bricks, and another row of longitudinal beams was placed on top. In this way the three faces of the porch were structurally built of wood with unbaked brick used as a filling. The longitudinal beams were four brick courses high, and the alternating cross beams were three courses high. Ten brick courses, including ten mortar joints, measured *ca.* 98 cm. The brick faces behind the longitudinal beams were indented *ca.* 20 cm. In measurable places the holes for the cross beams were *ca.* 20 cm. wide from brick to brick and *ca.* 16 cm. wide plaster to plaster. Since no plaster adhered to the top of the hole, the height of the cross beams could only be approximated. In all probability, the longitudinal beams measured *ca.* 18 cm. thick by *ca.* 40 cm. high and the cross beams *ca.* 16 cm. thick by *ca.* 28.50 cm. high (Pls. 79 A and B, 114 A and B).

The reason for using such large timbers must have been structural, although their structural value was not apparent at the time of excavation. Certainly, the fires which destroyed the building several times showed its weakness.¹⁵

¹⁵ Although the fire was so hot that some of the bricks were partially vitrified, we wondered about the complete burning of the cross beams in their dead end pockets. So we used whatever wood was available and duplicated a section of the wall. After placing pieces of wood and other flammable material against it, we set the wall on fire. The dried mud plaster

The construction of the doorways between porch E and rooms J and F was destroyed or greatly damaged when the building burned. The south jamb of the south doorway from the porch to room F, although in bad condition, was better preserved than the others (Pl. 79 B). It was possible to see that the wood sill beams ran the width of the doorway and continued under a transverse beam which formed the base of the jamb. The top of the sill beams must have lined up with the top of the longitudinal beam placed along the face of the wall. The longitudinal beam was backed by only two courses of brick which left about 20.50 cm. to be accounted for by the sill beams and their plaster beds. Since the plaster bed was 4 to 5 cm. thick at that place, the wood sills must have been *ca.* 16 cm. thick. In addition to the normal cross beams which only partially penetrated the wall, two transverse beams extended the thickness of the wall. One, on top of the sill beams, has already been mentioned; the other was placed about 70 cm. higher. If more existed, they were placed higher than the preserved height of the jamb. Also, no evidence remained to show that a wood trim or pilaster had framed the opening.

Floor 1 of the porch was covered with heavily burned brick debris and wood ashes. Great chunks of brick wall construction, burning timbers, and clay roof material had fallen into the fire and filled the porch as high as the walls were preserved. The earth floor, as it was cleared, was very uneven and, in places, difficult to recognize. It can be approximated at el. 98.85 m. at the curtain wall on the north and at el. 99.05 m. at the south wall of the porch. The wood sills, as nearly as it can be determined, varied from *ca.* el. 98.95 m. in the north doorway into room F to *ca.* el. 99.15 m. in the central doorway into room J.

The Main Part of the Building

Insofar as the building was preserved at floor 1, its walls were superimposed on those of the building below, and the plan and circulation remained the same. The one change was in the position of the doorways opening into rooms L-Q. They had all been shifted from the west to the east ends of these small rooms. Also, the details of the doorway construction were slightly different.

The doorways were 1.35 m. wide brick jamb to brick jamb and, since the mud plaster was about 1 cm. thick, had a net width of *ca.* 1.33 m. The door construction could best be seen in the doorway between rooms J and M, and appeared somewhat similar to that of the doorways found at floors 3 and 2. The impressions of the wood sill planks were very clear in the burned mud plaster, and enough plaster remained on one jamb to indicate the location of a vertical member of a wood frame placed near the room M side of the opening. No wood fragments were found in any of the doorways at floor 1, but the positioning of the wood was evident (see Pl. 115 A for a suggested restoration of the door construction).

In the west part of the building, an earth floor was found at el. 99.05 m. at the east end of room J and at el. 99.17 m. in room N. In the east section the floor in room K rose from el. 99.00 m. at the west to el. 99.17 m. at the east. In the side rooms the floor elevations varied from 99.00 m. to 99.10 m. In room F an undecorated stone base was found, out of place, in the debris of floor 1. It was *ca.* 59 cm. in diameter and 30 cm. high (Pls. 79 B, 113 B).

FLOOR 1a

Little is known about the building as it existed at floor 1a. The only preserved floor layers were found in room G, not far below the surface of the mound. Several doorways were blocked

had shrunk away from the wood enough to provide sufficient draft to burn the wood completely. In fact the wood burned too quickly and a smothering effect of fallen roof plasterings might have baked the bricks more thoroughly (Pl. 91).

at the time of this later occupation, and it seemed that the structure could no longer function as a unit.

The high earth floors were found in room G at el. 99.55–99.60 m. At this elevation there was no evidence of a general rebuilding of the walls, but the existing doorways between rooms J and K, K and F, and F and G were filled with unbaked bricks. The doorways were probably intentionally blocked, although a later filling to form the foundation of a still higher, now destroyed, rebuilding would produce the same condition. If the interior doorways were blocked, the great amount of burning in the east walls of rooms K and G probably indicated the position of wood constructions which may have been exterior doorways. Their locations have been dotted on the plan of Building I at floor 1 (Pl. 102).

BUILDING II

Behind Building I there was a small, simply planned temple, Building II (Pls. S1 A, 103), excavated in 1935–37. The temple was approached from the east, from a paved street or open place. Entrance was through a porch with two columns *in antis* sitting on double-lion bases. Behind, there was a long central room separated by wing walls from a shallow sanctuary with an offering table and altar at the rear. The plan of the building suggested a western origin or inspiration in that it appeared to be a *prodomus* and megaron that had been altered to accommodate a religious ritual.¹⁶ In addition the plan, in that it primarily consisted of a long-room cella with a small sanctuary at the far end, certainly resembled the temple plans of northern Mesopotamia. Indeed, since the plan of Building II showed no influence of the earlier temples in nearby Alalakh,¹⁷ it may have been devised by placing an open porch with columns *in antis* in front of an Assyrian type of cella.¹⁸

Because of the slope of the mound's surface, all of the south wall, as well as the southern double-lion base, had disappeared. The width of the pavings in the porch and cella were preserved, however, and the south wall could be restored with certainty. The building was 11.75 m. wide and 25.35 m. long.

MATERIALS AND CONSTRUCTION

The temple was constructed of the same materials and in much the same manner as the palace, Building I. The walls, *ca.* 2.05 m. thick, were built of unbaked bricks averaging $30 \times 30 \times 11$ cm. and $30 \times 42 \times 11$ cm. The walls were bonded by placing six square bricks the width of the wall in one course and three square and two long bricks in the next. The walls were covered with mud plaster with traces of a white finish coat still remaining in the cella. In the sanctuary some small fragments of plaster painted red and blue were found between the flat stones bordering the altar. How the colors were used in the building is not known.

Wood was as freely used in the temple as it was in the palace and as completely burned. A wood-crib construction was used at the northwest corner of the building and at the east end of the north wall of the porch. It is assumed that the other two corners, now gone, were treated in the same manner. Five registers of the crib were observed at the east end and four at the west. In the fifth or top register, the beam flush with the exterior face of the north wall extended the entire length of the building. In the next lower register the beam flush with the exterior face of the west wall extended the width of the building. In the next two registers, the face beams at the northwest corner were only long enough to span the three beams that

¹⁶ In the *Oriental Institute Bulletin* No. 1 (Chicago, 1937), p. 13, the building was described as a megaron.

¹⁷ C. L. Woolley, *Alalakh* (London, 1955), Figs. 30–34.

¹⁸ For a discussion of the temple at Tell Ta'ayinat, see Frankfort, *The Art and Architecture of the Ancient Orient*, p. 175. See also, Naumann, *Tell Halaf II* 349, and G. Ernest Wright, "Solomon's Temple Resurrected," *The Biblical Archaeologist* IV, No. 2 (1941), 17.

penetrated the wall. The east end of the north wall was treated in a similar manner. The lowest register was found only inside the porch (Pl. 114 *C*). Both the longitudinal beams and the cross beams were three brick courses (*ca.* 35 cm.) high and *ca.* 16 cm. wide. Whether the crib construction continued to the bottom of the walls is not known, but it probably went no lower than the level of the floor or the ground surface. The wall was founded about 95 cm. below the floor or at *ca.* el. 95.20 m.

There was only a single occupational floor in the building and it remained at its original elevation throughout the use of the building, although floor patching and repairs were evident.

THE PORCH

The entrance porch was 7.62 m. wide and 5.92 m. deep. The side wall on the north was built in a modified crib construction (Pls. 81 *A*, 114 *C*). Oddly, the lowest longitudinal beam had been placed directly on the stone paving outside the normal face of the foundation wall. Because of this weakness in the construction, the interior face of the wall leaned inward. The next register above was a row of cross beams spaced 62–65 cm. apart, and another longitudinal beam was above that. In the fourth register the cross beams were put only in the east end of the wall, and in the fifth or highest preserved register the longitudinal beam ran the length of the wall. There were at least two, and possibly three, longitudinal beams in the west wall of the porch but no cross beams between them.

The doorway was poorly preserved, and because the triple-recess construction had separated from the regular wall face, the measurements were, in some places, approximated. The door opening was *ca.* 2.80 m. wide.

The porch was raised three steps above the pavement in front of the building (Pl. 80 *A*). The pavement, at el. 95.75 m., was made of stone chips and some pebbles. The steps to the entrance porch had originally extended entirely across the front of the building and *ca.* 25 cm. beyond the north face of the wall (Pl. 100 *B*). At this place, the stone glacis on the south side of Building I was changed to a stepped and farther on a vertical revetment. The steps were made of dressed limestone blocks and were badly weathered. They were set upon a foundation layer of stone chips, mostly sandstone. Under the lowest step the layer was *ca.* 5 cm. thick, under the middle step *ca.* 15 cm., and under the top step *ca.* 22 cm. thick. The treads were 32–35 cm. wide and the risers were 12–13 cm. high. A basalt pedestal with a basin cut into the top (Pls. 81 *A*, 113 *J*) had been placed on the top step in front of the end of the north wall of the porch. The stone step was cut to receive the pedestal, and a chip of basalt was used to wedge it in place.

The porch floor, at el. 96.05–96.22 m., was paved with cut gray sandstone blocks that were of various lengths and widths (Pl. 100 *B*) and from 8 to 15 cm. in thickness. The sides of the blocks were beveled to insure a tight joint at the top of the stone. The bottoms were left rough. The paving was set upon a foundation layer of stone chips that went to a depth of 17 cm. below the top of the pavement. The pavement was similar to the one laid to the east and in front of the steps leading to floor 2 of the porch of Building I.

The double-lion column base was set in bitumen on a single large stone, 1.38 × 1.64 m. and 52 cm. thick at the front end and 39 cm. at the back. The stone was roughly dressed on top and the upper 20 cm. of the sides. Two flat basalt stones 2.50 cm. thick had been placed under the front feet (Pl. 80 *B*), and the hind legs were raised 10 cm. above the top of the base by small hard white stones. The lions measured overall 1.12 m. wide, 1.58 m. long, and 72 cm. high. The circular base to receive the column was 81 cm. in diameter, and the center depression was 74 cm. in diameter and 2 cm. deep.

THE CELLA

The cella was 7.62 m. wide and 9.60 m. long. The wall construction was somewhat simpler there than in the porch. Again the lowest longitudinal beam was placed on the floor paving outside the wall face of the foundation. The lowest register was six courses high (68–70 cm.), and probably required two longitudinal beams, one on top of the other. The second register was six courses of brickwork, and the third register was probably one longitudinal beam three courses high.

The floor was paved with cobblestones about 8 cm. thick, which had been set on an earth bed. The east part of the pavement was laid with smaller pebbles and appeared to be a later repair, although it may have been put down at the same time as the cobblestones. The elevation of the paving varied from 95.90 to 96.17 m. All the lower readings were along the south side of the room.

The wing walls separating the cella from the sanctuary were 1.32 m. thick and were founded on the cobblestone paving. They were built entirely of unbaked brick and were coated with white plaster. The bench against the north wing wall was also built on the cobblestone paving and covered with white plaster. It was 82 cm. wide, 125 cm. long, and 63 cm. high.

THE SANCTUARY

The sanctuary was the same width as the cella and was 3.25 m. deep (Pl. 81 *B*). The wall construction and the floor paving were the same as in the cella. The opening between the cella and the sanctuary was 4.52 m. wide. In the center of the opening there was an area of laid unbaked brick, 1.40 m. wide and 2.80 m. long, at el. 96.00 m., level with the adjacent paving. At some time 60 cm. on the south of the area had been lightly covered with pebbles. Also centered on the opening was an unbaked-brick stand or offering table sitting partly on the mud bricks and partly on the cobblestone paving. The offering table was plastered on the front and sides, but the back face had been destroyed. It measured 95 × 85 cm. and was 22 cm. high. The table may have been freestanding, or it may have been attached to the altar or podium.

The altar, 3.55 m. long and 2.60 m. wide, almost filled the sanctuary (Pl. 82 *A*). The front of the altar was mostly destroyed, but the northeast corner still remained. The sides were formed with large, reused, white and basalt stones. The center was filled with laid unbaked brick. The tops of the stones on the north were at *ca.* el. 96.25 m. and on the south at *ca.* el. 96.08 m. Above, the entire altar was built of unbaked brick, but its height is not known. It is probable that the two stone blocks imbedded in the brick fill were not *in situ*.

The small (58 × 148 cm.) rectangle at the north wall of the sanctuary was intentionally left unpaved, but nothing remained of the construction that may have been there.

AREA V

When Area V was first opened in the spring of 1935, the excavation was intended only to investigate a few stones showing on the surface. A basalt obelisk was uncovered along with some other dressed stones (Pls. 82 *B*, 113 *I*). Nothing suggested a design in the placement of the stones or that any of them were *in situ*. In the spring of 1936 the area was enlarged, and parts of the north and east sides of a building were exposed (Pls. 83 *A*, 104). In the summer of 1938 the excavation was continued, and the south side of the building was located. At least two floors could be recognized. Floor 1 was associated with the building; a lower floor, floor 2, was found only on the south, outside of the building. The relation of the structure in Area V to the other structures in the complex was never satisfactorily established (see section 'C-C' on Pl. 105).

FLOOR 1

Influenced, perhaps, by the proximity of Gateway XII, we have reconstructed the building in Area V as the eastern half of a gateway from the southern part of the mound into the courtyard. There appears to be nothing contradictory to this idea in the existing remains.

The building was constructed of unbaked brick set upon a stone foundation and faced on the exterior with stone orthostats. Under the west wall the foundation was built of rubble stone; under the north wall it was built of reused worked stones similar to the orthostats of the wall itself. In neither place was the bottom of the foundation reached.

The unbaked-brick walls were so poorly preserved that no reliable brick sizes were obtained; in only a few places were the faces of the walls preserved and the walls measurable. The interior walls were *ca.* 75 cm. thick and divided the area into at least three rooms. Although the walls were slightly higher than the preserved floors, no indications of door openings were found. Where the floors of these rooms were preserved, they were at el. 94.10–94.15 m. and covered with a thin coating of lime plaster. The exterior walls were *ca.* 2.40 m. thick and the entrance into the building had been destroyed. The stone orthostats lining the walls were made of dressed limestone up to 1.15 m. long, 51–55 cm. high, and 28–50 cm. thick.

On the north side the stone orthostats were placed so that the running face stones alternated with headers, or stones placed at right angles to the wall face. In some places the ends of the header stones were notched so that the headers would not be unduly wide on the face. A 32–35 cm. width seemed to be usual. On the east face two running stones alternated with a single header stone. Above the orthostats there was a second course of stones of various widths and lengths and from 35 to 45 cm. high. The running and header stones were laid in the same pattern as the first course but were not aligned vertically. The stones of the second course were leaning out from 8 to 28 cm., and some of them had fallen from place. There may have been a third course, for a number of stones were lying on the pavement at the base of the wall. The bottoms of the orthostats (and presumably the top of the stone foundation) sloped from el. 93.90 m. at the northwest corner of the building to el. 94.57 m. at the southernmost orthostat in the east wall. The small section of orthostat facing on the south side of the building was founded at el. 93.35 m. and established the width of the building at 25.20 m. The large basalt stones which formed a sill between the flanking towers on the north side of the building sloped from el. 93.40 m. at the west to el. 93.87 m. at the east. The third stone from the west had a rectangular depression cut in its top face that was filled with another fitted block of basalt.

The row of squared stones, which approximately paralleled the north face but was some 4 m. farther northward, may have been an edging for the pavement along the north side of the building. These stones were laid over a large, flat, circular stone with slightly bulbous sides, 2.45 m. in diameter and 43 cm. thick. The top was at el. 93.75 m., about the same as the small stone and pebble paving between it and the building. Gradually the paving rose to the east. It was at el. 94.05 m. at the center of the north façade, at el. 95.05 m. at the northeast corner of the building, and at el. 95.40 m. about 2 m. farther eastward at the base of a rubble-stone revetment. The edging stones on the south indicated that the paving and revetment did not continue southward. How far the revetment continued to the east and north was not investigated. Within the excavation the revetment reached an elevation of 96.35 m. and may have continued upward to the level of the layer of stones and potsherds found at el. 97.28 m. just west of Building I. (This is about the same elevation as the paving in front of the porch of Building I, floor 2.)

The intermediate walls (Pl. 104) were founded slightly lower (el. 95.30–95.72 m.) than those of Building I (see page 45) and are less likely to have been a separate building operation than

a step in the construction of Building I. Below the level of the intermediate walls there were two fragments of unbaked-brick construction which were built in a floor (el. 94.90 m.) just east of the building in Area V. A circular basalt base (Pl. 113 A) was also found in the area at about the same elevation.

FLOOR 2

Although the two recognizable constructions of floor 2 may represent a single building activity, they are considered here separately and are called *2a* and *2b*.

Floor *2a* of Area V was represented by fragments of two unbaked-brick walls. One fragment, in square G 21, was of unknown width and rose 60 cm. from a patch of lime plaster floor at el. 92.65 m. It may be related to the wall fragment found in square F 21, which was 3.10 m. wide and was faced with stone orthostats on its south side. The tops of the orthostats were at el. 91.80 m.

Floor *2b*, also in square G 21, consisted of a stone paving or top of a stone foundation layer that was cleared only in small pits put down below the generally excavated depth. If the stones were part of a pavement, its north edge was located in the southernmost pit. If the stones were part of a stone foundation, the wall was at least 5.10 m. wide. The stones either sloped or, more probably, stepped down from el. 92.50 m. in the east to el. 91.40 m. in the west.

GATEWAY XII

Gateway XII was found in the summer of 1938 in a pit dug in square E 21 (Pl. 83 B). The jamb stone and the pivot stones identified the structure as a gateway which presumably gave access to the courtyard of the west central building complex. Its plan was reconstructed on the basis of Gateway XI (Pl. 104).

The jambs, placed 3.52 m. apart, were of dressed basalt 1.44 m. long and 26 cm. thick. The top of the west jamb stone was at el. 90.91 m. and that of the east jamb stone was at el. 90.78 m. The dowel holes were 0.50 cm. square, but their depth was not recorded. The door sockets at the north end of the jamb stones were 35 cm. in diameter and 6-8 cm. deep. The well-laid stone paving sloped from el. 89.75 m. at the south edge of the excavation to el. 90.05 m. at the north edge (Pl. 100 C).

T 5

T 5 was a long, narrow step trench that contained a series of large contiguous masses of unbaked brick which seemed to be laid in a north northeast direction (Pls. 89 B, 98 A). These extremely wide walls were probably, in some way, part of the town's fortification system. At the east end of the trench the patch of stone paving could have been part of the paving in Courtyard VIII.

The easternmost or earlier wall was *ca.* 8.20 m. thick and its faces sloped inward, or were battered, at about 1 meter in 10. The bottom of this wall was not reached. On the west a second wall was laid against the inner one. Its thickness increased from 7.00 m. upward because its east face was laid against the batter of the first wall but its west face was laid vertically. At el. 83.70 m. the west face stepped out *ca.* 50 cm. as if to form a footing for the wall. If so, the bottom of the wall should be not much lower than the ground water, which appeared at el. 83.35 m. Farther westward an unbaked-brick mass about 22 m. wide was laid against the second wall. The bricks were founded on a layer of stone at el. 84.70 m. on the east and el. 83.70 m. on the west. This brickwork overlay the projecting footing of the second wall and must have been built after it. The brickwork may have been a terrace outside the fortification wall. West of the terrace there was still another wall *ca.* 3.65 m. wide aligned with the others. The intervening space 1.20 m. wide may have been a passageway.

The easternmost, battered wall seemed to have been founded deep in the debris of earlier occupations which were represented by three earth floors in the east end of the trench. The floors were at els. 88.00 m., 88.80 m., and 89.80 m. They had no connection with the wall on the west, but the bit of stone paving at el. 91.80 m. may have been part of the paving of the central courtyard.

No artifacts were associated with the wall systems which filled the trench, and the brickwork could not be assigned to any phase. The materials from the three earth floors in the east part of the trench were pre-Phase O.

THE UNRELATED AREAS

In addition to the complex of buildings excavated in the west central area, other parts of the mound were investigated (Pl. 93). In some instances the excavated areas were fairly extensive, in others no more than a wall fragment or two was uncovered, and in still others there were no building remains at all. Of the structures given Roman numerals, only Building IX was cleared to the recognizable limits of its preservation. The others, Gateways III, VII, and XI, and Building X were only partially excavated and appeared to warrant further investigation. The test pit T 10 contained a single wall fragment; the others, 6, 7, 11, and 12, contained no structural remains. The test trenches on Tell Ta'yinat al-Saghir, T 14, were more baffling than informative.

GATEWAY III

It was reported to the expedition in the fall of 1935 that a large black stone had been found in the ditch along the north side of the Antioch-Aleppo road. An investigation was made, and a gateway on the south side of the city, Gateway III, was located in squares N 33-34 (Pls. 86, 111). Since none of the unbaked-brick construction was preserved, the plan was incomplete, but the jamb stones of a recessed doorway, a stone sill, and stone pavings were found. If we may assume that the plan of this gateway was similar to those of Gateways VII and XI, the jamb stones belonged to the inner doorway of the gate structure (Pl. 111 A). The base stones of the recessed doorway together with the absence of pivot stones suggested that there was a gate chamber and an outer doorway with pivot stones under the modern highway.

The one doorway which was excavated was 2.50 m. wide and had jambs made of dressed basalt stones 1.32 m. long, 55-62 cm. thick, and standing about 1.00 m. above the sill of the opening. (The jamb stones and the flanking base stones are shown on the plan in black.) The dressed top of the east jamb was at el. 85.93 m., and the rough central part was 12.50 cm. higher. The dressed top of the west jamb was at el. 85.98 m., and the center of the stone was 9 cm. higher. There were three dowel holes in the top of each jamb stone, 4.50-5.50 cm. square and 5.00-6.50 cm. deep. The dowel holes and the dressed and rough parts of the jambs indicated that horizontal face beams were laid on top of the stones before the unbaked-brick part of the wall was constructed.¹⁹

The basalt base stones which flanked the jamb stones showed that triple recesses had framed the doorway. The tops of the stones were at el. 85.17 m. on the east and at el. 85.13 m. on the west, about 20 cm. above the paving. The dowel holes, similar in size and depth to those in the jamb stones, indicated that wood beams and unbaked-brick construction were placed upon these lower base stones. Also, their relation to the jamb stones was such that the unbaked bricks continued behind the jamb stones to form firm vertical joints between the two materials.

¹⁹ The curtain walls of the porch of Building I at floor 2 suggest the type of wall construction that may have been used here (see p. 50).

On the north or town side of the gateway, the towers(?) flanking the doorway formed a recess 5.00 m. wide and 4.10 m. deep. There, the stone corners of the towers were of limestone blocks which rose about 50 cm. above the paving. The sides of the towers which formed the recess and the front of the towers beyond the corner stones were not preserved and could only be approximated by the straight edge of the paving.

The sill of the doorway was of cut limestone slabs at el. 85.05 m., and on the north there was a shallow limestone step, only 3 cm. high. Between the towers was a paving of squared blocks of gray-yellow sandstone. They were very soft and varied greatly in size and shape (Pl. 111 *B*), but were 9–10 cm. in thickness. The paving stones were beveled inward slightly for 5 or 6 cm. to form a close joint at the top. This paving was at an average elevation of 84.95 m. At its north edge there were remains of another, slightly higher, limestone sill at el. 85.07 m. Beyond that, rubble paving sloped from el. 85.13 m. at the sill to el. 85.20 m. at its northern edge.

The sandstone paving blocks were laid in a mortar 5–7 cm. thick made of mud and straw mixed with some basalt, limestone, and sandstone chips. Below that was a 10-cm. layer of well-tamped stone chips and dirt which continued under the sill on the south and the rubble-stone paving on the north.

GATEWAY XI

Another city gate, Gateway XI, was found in the spring of 1936. It was below the plain east of the mound, in squares DD–EE 22–24 (Pls. 87 *A* and *B*, 110 *B*). The gateway consisted of an outer and inner doorway with a gate chamber between. Pivot stones (Pl. 113 *G*) were found only at the outer doorway and presumably this was the only place where Gateway XI could be closed. Both doorways were flanked by towers; the ones on the exterior projected *ca.* 5.50 m., forming a deep recess, but the ones on the interior were shallower. Only the central part of the structure was excavated—the roadway through the gate chamber, the doorways, and the areas immediately outside the structure. The plan of the rest of the gateway was learned through a minimum of trenching, and it was found to be quite similar to the southern gateway of the citadel at Zinjirli.²⁰

The jambs of the doorways and the adjoining exterior walls between the flanking towers were faced with dressed but undecorated basalt orthostats. Only a few orthostats were preserved *in situ*, and they are shown on the plan in black. They range in size from 47 × 35 × 77 cm. to 187 × 38 × 120 cm. The latter one, the south jamb stone of the inner doorway, had a circular recess in the center of its face (Pls. 87 *B*, 113 *H*). Although their width was not certain, the doorways probably measured *ca.* 3.55 m.

The orthostats were set upon dressed blocks of stone at elevations ranging from 84.15 to 84.50 m. The rest of the gate construction was founded on a single course of rubble stone. The top of the stone course ranged from el. 84.30 to 84.73 m. The cross wall at the south end of the gate chamber either was built to close off the end of the room or belonged to an earlier version of the gate. The normal walls of the gate structure measured from 2.25 to 2.40 m. wide. The fortification wall, as it was found, also measured *ca.* 2.35 m. wide. In comparison with the constructions found in T 5 and the size of the gate structures that have been excavated, the wall projecting beyond the north side of the gateway seemed inadequate and may not represent the complete fortification of the city.

Only one level of rubble-stone paving was found in the excavation. At the easternmost part of the excavation it was at el. 83.90 m., at the outer doorway at el. 84.40 m., at the inner doorway at el. 84.52 m., and at the west side of the excavation it was at el. 84.70 m.

²⁰ *Ausgrabungen in Sindschirli II*, Pl. XXIX, Gateway D.

Except for the two patches of pebble paving at els. 84.20 and 84.28 m. which continued under the roadway paving and under the stone foundation course on the south side of the gate structure, no indications of lower or earlier pavings were found.

GATEWAY VII

On the east side of the mound, in squares S-T 22-23, an inner gateway, Gateway VII, was located in the spring of 1936 (Pls. 87 *C* and *D*, 110 *A*). It seemed to be an entrance to the citadel or the upper part of the city since Gateway XI was found in the plain some 200 m. to the east (Pl. 87 *D*).

As soon as the second gateway was discovered on the east side of the city, an attempt was made to locate a road connecting the two. The first test was made in squares CC 23-24 (Pl. 93). In the southern leg of the trench, the south edge of a rubble-stone paving was found at el. 84.88 m., but the paving was destroyed about 6 m. to the north, and the width of the road was not preserved. A second test was made in square X 23. In the northern leg of the trench, the north edge of the stone paving was found at el. 86.00 m. In an additional small test the south edge was found, and the width of the paved road was established at 8.80 m.

Gateway VII consisted of an outer doorway, a rectangular gate chamber, and an inner doorway. Pivot stones (Pl. 113 *F*) at either side of the outer opening indicated that it could be closed by double doors. There were no pivot stones at the inner opening. The excavations did little more than trace the stone road through the gate structure; the towered front, the central chamber, and the city side of the gate were only partially cleared. Apparently the inner doorway was not flanked by towers as those of Gateways III and XI had been; it probably resembled the gateways in the inner city wall at Zinjirli.²¹

The jambs of the doorways were faced with undecorated basalt orthostats, only four of which were upright and *in situ*. They were in the south jamb of the inner doorway and are shown on the plan in black. The orthostats measured 65-95 cm. wide and 107-16 cm. high. The actual widths of the door openings no longer remained, but the foundations indicated that they were *ca.* 3.75 m. for the outer doorway and *ca.* 4.00 m. for the inner one.

The orthostats were founded on dressed blocks of stone which ranged in elevation from 88.63 m. at the south jamb of the outer doorway to 89.26 m. at the north jamb of the inner one. In the rest of the gate construction, unbaked-brick walls were founded on a single course of rubble stone. The top of the stone layer ranged from el. 88.85 m. in the southeast to el. 89.52 m. in the northwest and, since it overlay the foundation under the jamb orthostats, it may represent a later rebuilding of the gate structure.

It is not improbable that the gate structure was rebuilt, since three levels of stone paving were found in the excavation. The lowest, which was cleared only in the outer doorway, was at el. 88.53 m. At this same place the middle paving was at el. 88.78 m. and rose to el. 89.02 m. at the inner doorway, and to el. 89.82 m. at the west end of the excavation. The highest paving extended from the inner doorway at el. 90.13 m. to the west end of the excavation at el. 90.27 m. The paving continued into the excavation of Building X and, at the corner of that building, was at el. 90.35 m. This was 70 cm. below the lowest stones of the Building X construction.

It was at the level of the highest paving that the carved limestone orthostats T 1253-58 were reused. Only one orthostat could be considered to be in an undisturbed part of the paving.

Investigations below the pavings of the gateway made in the summer of 1937 showed that

²¹ *Ausgrabungen in Sindschirli II*, Pl. XXIX, Gateways A, B, and C.

the gate construction associated with the pavings was built upon unbaked-brick walls which may have been a foundation for this or an earlier gateway. The unbaked-brick wall under the outer doorway was founded at el. 85.00 m. and under the inner doorway at el. 87.50 m.

BUILDING X

The area immediately west and south of Gateway VII, squares S-T 23-24, was examined in the spring of 1936. The structural remains, called Building X, consisted of retaining walls on the north and east sides of an untested area (Pls. 88, 110 A). It was evident that the walls were laid with only an exterior face, and no traces of a floor were found on the inner sides of the trenches. In fact, the bottom of the east retaining wall, at its present and incomplete south limit, was so near the surface that the floor inside the structure may have been just below or above the surface of the mound in this area.

The retaining walls were built of dressed limestone blocks that were laid dry and ranged in size from $50 \times 60 \times 25$ cm. to $110 \times 60 \times 30$ cm. The lower part of the wall face was left rough and originally must have been below the ground level. The line of the ground level was plainly visible on the exterior face of the trench for the north wall but less distinct in the trench for the east wall (see dotted line on the sections on Pl. 110 A). The ground level rose from ca. el. 91.10 m. at the northeast corner of the retaining wall to ca. el. 92.55 m. at 12.50 m. to the west and to ca. el. 92.60 m. at 9 m. to the south. In the north wall the top of the lowest course of stones was at el. 91.32 m. and the top of the highest course at el. 92.80 m. In the east wall the top of the lowest course of stones was at el. 91.63 m. and the top of the highest course at el. 93.16 m.

BUILDING IX

The investigation of the knoll at the south end of the mound was first begun in the spring of 1936 and then continued in the summer of 1937. The area was located in squares L-N 27-29. At the top of the knoll the floors of the building were no more than a meter below the surface. Most, if not all, of the existing remains were probably uncovered, but it was evident that they included only part of the original structure. Not enough of the plan was preserved to reveal the layout of the rooms. The building was so near the surface that almost no unbaked bricks were recognizable, and the plan was cleared by following the baked-brick and stone pavings. Since the heavy unbaked-brick walls had settled, the outer rows of the brick pavings tilted downward toward the wall faces and, in most cases, clearly defined the limits of the rooms and courtyards. An added difficulty in the excavation was a modern cemetery which overlay most of the area.

The plan of Building IX in no way resembled the North Syrian *bît hîlani*, such as Building I. The openness of the plan, with its two courtyards and several adjoining rooms, was wholly Mesopotamian in character and was probably introduced into North Syria by the Assyrian conquerors (Pls. 84 A, 109). The parts of the general plan and the details that have been preserved compared favorably with the Assyrian palaces at Til Barsip and Arslan Tash.²²

Only one floor was found in the palace, although there was evidence that the palace had been repaired or rebuilt and the floors had been raised. Above the present paving of room Q in the northeast part of the excavation, there was a drain which had been below its contemporary floor; and the south wall of room H was rebuilt or repaired above the present floor of the room. Two small test pits were also made below the paving of courtyard G. They contained private-house material that could be divided into two floors of occupation.

²² F. Thureau-Dangin, "Un Specimen des peintures assyrienne de Til Barsip," *Syria* XI (1930), Fig. 1; and F. Thureau-Dangin, A. Barrois, J. Dossin, and M. Dunand, *Arslan Tash* ("Bibliothèque archéologique et historique" XVI [Paris, 1931]), Fig. 10.

The most interesting room of the palace, room C, in the southwest part of the excavation, had no direct connection with any of the other rooms, and how it was related to them is problematical. The room was large, 8.05 m. wide and 26.30 m. long, and was entirely paved with pebbles laid on edge in lime plaster. This paving was at el. 96.85 m. at the east end, el. 97.00 m. at the center, and el. 96.60 m. at the west end. The walls were built of unbaked bricks which were too poorly preserved to be measured. A few centimeters below the floor paving, the brick face was set back *ca.* 20 cm. and showed the impressions of wood beams that had once occupied the channel between the wall face and the pebble paving. The channel was filled with soft, burned earth, much charcoal, and several pieces of blue-painted plaster. Certainly, the construction of the wall faces was similar to that of the lower courses of the porch in Building I. Unfortunately, the wall was preserved for only two courses above the floor paving, and no evidence of transverse beams remained.

The north wall of room C had been rebuilt, and originally there may have been a doorway through the wall where the adjoining floor paving was destroyed. If room H was a later alteration, the doorway may have led from the courtyard J-M into room C and the paving may have been destroyed when the door sill and pivot stones were later removed. Otherwise, the westward extension of the floor paving at the southwest corner of the room was probably the entrance to the room. The position of the sill and pivot stones at locus A (Pls. 84 C, 117 C) clearly indicates a door which opened from room C into a room on the south. The door sill was at el. 97.05 m.

The limestone slab partially recessed in the south wall of room C was 1.20 m. wide and 2.80 m. long and was set at floor level, at el. 96.80 m. (Pl. 84 B). The slightly raised border and the gentle slope down to a central hole 20 cm. in diameter indicated an ablution place of some sort. This slab almost duplicates one found in the main room of the palace at Arslan Tash.²³ Another detail common to both palaces is the pair of parallel rows of grooved stones set in the floor of the main room. In Building IX they were set in the pebble paving at the west end of the room (Pl. 84 B). The north row was 5.30 m. long, but the south row, partially destroyed by a later burial, was incomplete. The stones were at el. 96.87-97.00 m. The grooves in the stones were parallel and 1.35 m. apart.

The largest excavated unit of Building IX was the courtyard J-M in the northwest part of the excavation (Pl. 84 A). It measured *ca.* 27.75 m. east-west and *ca.* 23.80 m. north-south and seemed to be a central point of the palace's circulation. The baked-brick sill of a doorway led to a stone- and brick-paved area on the north (locus S); brick sills of two doorways, one with a pivot stone *in situ*, indicated at least two rooms on the west (loci T, V); the brick sill of a doorway with two pivot stones provided access to a room on the east (locus N); and a doorway with a stone sill and two pivot stones led to room H. In addition to these doorways an alcove on the south provided a link with rooms and another courtyard in the southeast part of the excavation.

The floor of the courtyard was paved with baked bricks laid on a foundation layer of tamped earth mixed with some broken bricks, potsherds, and small stones. The pavement had been patched many times and repaved where the original floor had sunk as much as 45 cm. in one place. The pavement ranged from el. 96.85 m. in the southeast to el. 95.70 m. in the northwest. In the northeast and southwest the elevation of the pavement was *ca.* 96.55 m., indicating that the downward slope to the northwest may have been intentional.

There were two drains under the floor paving of the courtyard. The drain to the circular cistern in locus J was made of limestone blocks of various lengths with a rough-cut trough in them. The trough was 25-30 cm. wide and 15-18 cm. deep. The bottom of the trough sloped

²³ Thureau-Dangin, Barrois, Dossin, and Dunand, *Arslan Tash*, pp. 24-25, Fig. 10.

from el. 96.25 m. at the west end to el. 95.82 m. at the cistern. The other drain, in locus K, carried water from the northwest part of the courtyard westward, apparently beyond the limits of the building (Pl. 85 A). The west end of the drain was missing, but its preserved length was 29.60 m. At the floor level, el. 95.95 m., there was a capstone 1.05 m. square and 20 cm. thick with a circular hole 18 cm. in diameter which emptied into the drain below. The drain was made of limestone blocks 70–75 cm. wide, 28–30 cm. thick, and of various lengths. The trough cut into the stone was 40 cm. wide and 12 cm. deep. The depth of the drain was increased to 30 cm. by building up the sides with baked bricks. Under the capstone the bottom of the trough was at el. 95.55 m. and at the westernmost limestone block, it was at el. 93.58 m. It is interesting to note that the settling of the west wall of the courtyard had interrupted the general downward slope of the drain (Pl. 109, section G–G').

Room H was defined on three sides by unbaked-brick walls which were preserved 10–45 cm. above the floor and were blackened in places by fire. Although charred wood was found in the debris along the walls, no wood impressions were recognizable in the wall plaster. The walls were 1.60–1.80 m. wide and had a baked-brick revetment against their exterior faces (Pl. 114 D). The revetment against the south wall was set in from and not aligned with the room C wall face. It appeared to belong to a rebuilding of that wall, and that in turn suggested that the other two revetted walls also may have been contemporary with the rebuilding—that room H may have been built later within the limits of the original courtyard. Room H was 5.30 m. wide and *ca.* 18.50 m. long. A doorway and a niche at floor level were in the preserved part of the north wall. The bottom of the niche, 1.80 m. wide and 50 cm. deep, was paved with two flat stones partly covered with a red-painted lime plaster which continued up the sides and still adhered to the lower part of the rear wall. Four stones in the south wall, also at the floor level, located another niche, 2.00 m. wide and 50 cm. deep. The tamped-earth floor varied from el. 96.67 m. in the east to el. 96.45 m. in the center of the room.

The second courtyard, locus G, measured *ca.* 13 × 19 m. It was covered with a pavement of baked bricks 33–35 cm. square and 7–9 cm. thick which had been patched with bricks 40 cm. square and 7 cm. thick. The floor varied from el. 96.87 m. at the east end to el. 97.45 m. at the west end. In addition to the doorway to room F, there were two openings in the east wall and possibly another in the north wall above the drain running northward from the courtyard. The drain appeared to be a double one but probably the better preserved western one superseded an abandoned eastern one. Both were made of baked brick and rubble stone. If the two basalt pivot stones north of the north wall were *in situ*, and this is not certain, they would indicate a wall width of 3.00 m. and a door width of 1.40 m.

The baked-brick paving of room Q, at el. 96.60 m., was apparently coated entirely with 0.50 cm. of bitumen (Pl. 85 B). Upon the paving was a drain which crossed the room diagonally and belonged to a later, higher floor. The channel, 20 cm. wide and 25 cm. deep, was entirely built of baked bricks set in mud mortar. In its preserved run, the drain sloped downward 63 cm. to the northeast.

T 6, 7, 10, 11, AND 12

T 6 was a small test pit, 5 × 6.50 m., dug in square F 26. No building remains were found.

T 7 was a trench 2.50 m. wide and *ca.* 20 m. long in square Q 13. No building remains were found.

T 10 was a trench 3.50 m. wide, mainly in square M 24. It followed an L-shaped rubble-stone wall 1.70 m. wide, which was preserved *ca.* 8.00 m. north-south and *ca.* 9.50 m. east-west. The wall was founded at el. 93.50 m. and preserved to el. 94.30 m., which was about 1.10 m. below the surface.

T 11 was a long trench 4 m. wide which continued northward from Building IX through squares L 27-23. No significant building remains were found in the excavation.

T 12, where the foundations were dug for an expedition house on the mound, contained no building remains.

T 14, TELL TA'YINAT AL-SAGHIR

In the summer of 1937 an examination was made of the small mound, Ta'ayinat al-Saghir, south of the Antioch-Aleppo road (Pls. 68 *B*, 112 *A*). A narrow step trench was laid out on the north slope. This was expanded, and other trenches opened up (Pls. 90, 112 *B*). In all of these trenches there were sloping, alternating layers of river sand and fallen unbaked brick and brick debris of a reddish clay (Pls. 89 *C*, 112 *C*). In the trench on the south at the base of the mound an unbaked-brick wall was uncovered which seemed to follow the contour of the mound (Pl. 90 *B*). The bricks were in very poor condition, and no wall faces were certain. Ground water was found in several places at *ca.* el. 84.50 m.

THE CORRELATION OF FLOORS

In the west central area the correlation of floors of the various buildings was based primarily on the sequence of floors found in Buildings XIV and I. Five distinct periods of building activity could be recognized. There was no real basis for assigning the structures in the unrelated areas to specific building periods established for the west central area, but tentative allocations have been suggested.

FIRST BUILDING PERIOD

Building XIV was below Buildings I, VI, and a small part of Building IV. The eastern part of Building XIII also underlay Building IV. Since Buildings XIII and XIV were the earliest known buildings in the complex, they were placed in the first building period. With these two buildings we may include the stone paving, or stone-foundation layer, found in Area V, floor 2*b*. Even though the plan of Building XIV was fragmentary and its circulation can only be guessed at, it may already have been part of a complex, along with Building XIII, facing a central courtyard.

The floors were fragmentary and in many places not preserved at all. In Building XIII a small area of floor in one of the rooms was at el. 97.05 m. (p. 39).²⁴ In Building XIV the floor was at el. 95.00-95.30 m. (p. 40). The stone paving at floor 2*b* in Area V varied from el. 91.40 to 92.50 m. (p. 57).

In the unrelated areas, the unbaked-brick walls below Gateway VII (pp. 60-61) may belong to this building period.

SECOND BUILDING PERIOD

Buildings XIII and XIV were razed to free the area for the structures of the second building period. Courtyard VIII probably was paved at this time, and Gateway XII was the major access to the area. A city wall formed the west side of the courtyard and secondary walls may have completed the enclosure between the various buildings, although the only indication of such a wall was in Area V, floor 2*a*. Building IV was constructed on the north of the courtyard, Building VI on the east, and Building I on the south. Building II, situated immediately south of Building I, was approached from the east and was not one of the structures grouped around the courtyard (Pl. 106).

²⁴ Although there were traces of stone pavings within the foundation walls of Building XIII at el. 93.90-95.15 m. (p. 39), no other structural features were found with them and no attempt has been made to relate them to any other excavated areas. The fragmentary pavings have not been shown on the plan of Building XIII but are represented on section A-A', Pl. 105, by a line within the Building XIII foundation walls.

Already there was a great variation in the elevations of the different structures. The courtyard was at el. 90.05 m. at Gateway XII and rose to el. 94.45 m. at the middle of the courtyard, and from there to el. 97.55 m. at Building IV, el. 97.18 m. at Building VI, and el. 97.12 m. in front of Building I (p. 40). The wall fragments in Area V, floor 2*a*, were at el. 91.80–92.65 m. (p. 57). To this period were assigned floor 2 of Building IV at el. 98.10–98.35 m. (p. 42), the lower floor of Building VI at el. 97.40–97.55 m. (p. 43), and floor 3 of Building I at el. 97.12–97.75 m. (p. 46). The floor of Building II was at el. 95.90–96.17 m. (p. 55). Apparently there was no construction north of the courtyard and west of Building IV. The ruins of Building XIII were preserved as high as el. 97.12 m. and, if there had been a building above that, no traces of it remained.

In the unrelated areas, Gateways III, XI, and VII (pp. 58–60) also may be assigned to this building period.

THIRD BUILDING PERIOD

Relatively minor changes took place at the beginning of the third building period in the west central area. In Building I the porch was rebuilt, and a row of orthostats was placed across the front of the porch (floor 2) so that its floor could be raised above the level of the courtyard. No other changes were made in the building. Buildings IV and VI were probably still in use. Apparently it was a little later that the doorway between Buildings I and VI was closed and Platform XV was constructed. This also may have been the time that the original Building IV was razed and rebuilt with a wing that extended over the platform area, and Gateway XII was replaced by the building in Area V. Building II was undoubtedly in use throughout the building period (Pl. 107).

There was no floor in Building IV that could be equated with the upper floor at el. 97.70–97.85 m. in Building VI (p. 43) and floor 2 at el. 97.82–98.18 m. (p. 49) in Building I. The brick sill in the doorway between Buildings I and VI was at el. 97.80 m. and the bottom of the blocking in the doorway was at el. 98.08 m. (p. 49). Then Building IV was rebuilt and floor 1 was established at el. 98.62–98.75 m. (p. 43); Platform XV was built and a baked-brick paving at el. 98.90 m. (p. 44) indicated the original floor level. A later floor in Building I was at el. 98.40 m. in the porch (p. 50) and at el. 98.35–98.55 m. (p. 49) in the building. The floor in Area V was much lower, at el. 94.10–94.15 m. (p. 56).

In the unrelated areas, Building IX (p. 61) also may be assigned to this building period.

FOURTH BUILDING PERIOD

The fourth building period was determined by the complete rebuilding of Building I at floor 1. The floor of the porch was high above the paving of the courtyard, and it is supposed that a stairway connected the two. It seemed that the courtyard paving in front of Buildings IV, VI, and I was about at its original elevation, but a north-south wall was built across the courtyard. At its southern end a stairway alongside the north face of Building I led to a raised terrace at the northwestern corner of the building. Fragments of the pavings and constructions in Building IV and Platform XV can also be attributed to this building period. It is probable that the building in Area V continued in use but that Building II was abandoned (Pl. 108).

The paving at the base of the stairway to the terrace in Courtyard VIII was at el. 96.97 m. and the terrace paving was at el. 97.60–97.50 m. (p. 41). Floor 1 of the Building I porch was at el. 98.85–99.05 m. (p. 52) and the floors of the other rooms in the building were at el. 99.00–99.17 m. (p. 52). It is possible to include in this period the room on Platform XV

which was built along the north wall of Building I at el. 99.33 m. (p. 44) and a few paving bricks in Building IV at el. 98.80 m. (p. 43).

In the unrelated areas, the highest paving in Gateway VII (p. 60) may be assigned to this building period.

FIFTH BUILDING PERIOD

The structural remains of a fifth building period were preserved only on the highest part of the mound. In room G of Building I, floor 1a was at el. 99.55–99.60 m. (p. 53). The only other comparable remains were fragments of a baked-brick paving on Platform XV at el. 99.70–99.80 m. (p. 44).

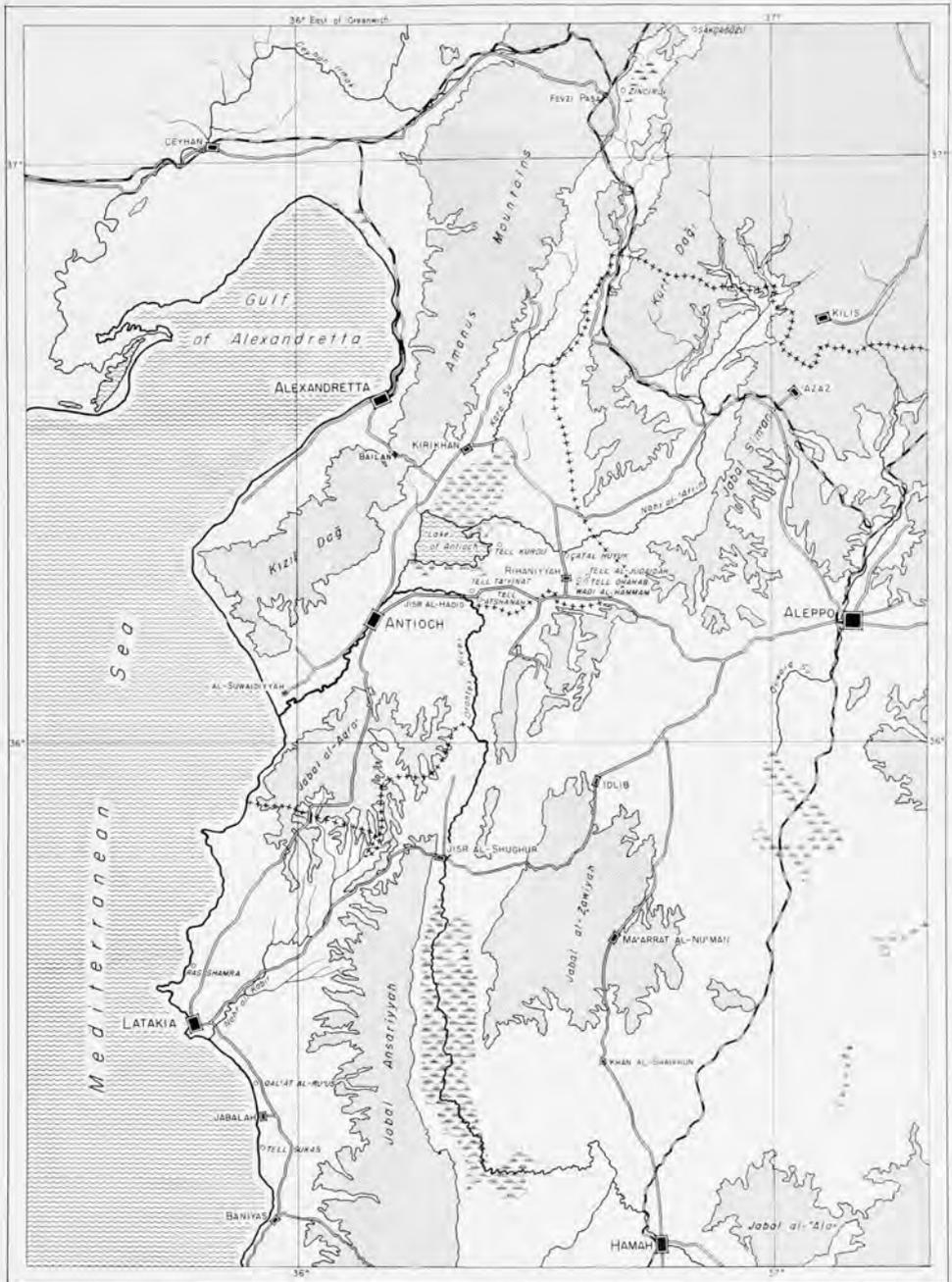
In the unrelated areas, Building X (p. 61) may be assigned to this building period.

THE DATING

All structural remains described in this section on Tell Ta'yinat, unless otherwise mentioned (pp. 41, 58), can be assigned to Phase O, or the Syro-Hittite period (see p. 2). From Hittite glyphs, some of which were found under the floor of Building II and the glacis on the east side of Building I, it appears that the first building period dated to *ca.* 875–825 B.C.²⁵ The other datable evidence was an inscribed Aramaic sherd found in Building I, floor 2. It placed the third building period at *ca.* 720–680 B.C. This would indicate that the second building period was about at the beginning of the eighth century and the fourth and fifth building periods were in the seventh and sixth centuries B.C.

²⁵ I. J. Gelb, *Hittite Hieroglyphic Monuments* ("Oriental Institute Publication" XLV [Chicago, 1939]), p. 39.

PLATES



- MODERN TOWNS
- EXCAVATED SITES
- MAIN ROADS
- RAILROADS
- ++++ TURKISH BORDER
- ▨ SWAMP
- ELEVATION ABOVE 500 METERS

MAP OF NORTHWEST SYRIA AND HATAY



GENERAL VIEW OF THE PLAIN OF ANTIOCH, LOOKING NORTH. EXPEDITION HOUSE AT LEFT, TELL AL-JUDAIDAH AT RIGHT,
AND CHATAL HÜYÜK IN CENTRAL BACKGROUND



A



B

CHATAL HÜYÜK. A. VIEW OF MOUND, LOOKING NORTHWEST.
B. NORTHEAST SPUR AT LEVELS 4-3, LOOKING WEST



A



B



C



D

CHATAL HÜYÜK. AREA I. A. NORTHEAST SPUR AT LEVEL 5, LOOKING NORTHEAST. B. POTTERY BATH TUB, W 13, LEVEL 5. C. SOUTHWEST CORNER OF ROOM V 13 3, LEVEL 4. D. ROOM V 13 2, LEVEL 4, LOOKING EAST



A



B



C



D

CHATAL HÜYÜK. AREA I. *A.* NORTHEAST SPUR AT LEVEL 2, LOOKING EAST. *B.* PEBBLE PAVING IN V 14, LEVEL 2, LOOKING SOUTHWEST. *C.* BASIN IN V 14-15, LEVEL 2. *D.* SAUSAGE-JAR BURIAL IN V 12, LEVEL 3



A



B



C

CHATAL HÜYÜK. AREA I. *A.* STAIRWAY IN W-X 12, LEVEL 1, LOOKING NORTHEAST. *B.* TROUGH AND STABLE IN U 13-14, LEVEL 1, LOOKING SOUTHWEST. *C.* STREET IN U-T 13, LEVEL 1, LOOKING SOUTHEAST.



A



B



C

CHATAL HÜYÜK. AREA I. A. STREET IN V 14, LEVEL 1, LOOKING NORTHWEST. B. DOORWAY IN FORTIFICATION WALL IN V 13, LEVEL 1, LOOKING EAST (FOUNDATION STONES OF POST-LEVEL 1 BUILDING SHOW IN OPENING ABOVE SILL). C' NORTHEAST SPUR BETWEEN LEVELS 2 AND 1, LOOKING NORTHEAST



A



B

CHATAL HÜYÜK, AREA II. A. N 13 AT LEVEL 10, LOOKING WEST.
B. N 13 AT LEVEL 7, LOOKING NORTHEAST



A



B



C



D

CHATAL HÜYÜK. AREA II. *A, B.* N 13 AT LEVEL 6, LOOKING SOUTHWEST. *C, D.* N-M 13 AT LEVEL 5, LOOKING SOUTHWEST

PLATE 10



A



B



C

CHATAL HÜYÜK. AREA II. *A.* P 12-13 AT LEVEL 4, LOOKING EAST. *B.* P-M 12 AT LEVEL 3, LOOKING SOUTH. *C.* M 12 AT LEVEL 1, LOOKING NORTH



A



B



C

CHATAL HÜYÜK. AREA II. A. ROOM N 12 1, LEVEL 4, LOOKING WEST. B. DOORWAY IN M 12 1, LEVEL 1, LOOKING EAST (ROOM M 12 3 WITH POTS IN BACKGROUND). C. TRENCH IN N 10-9, LOOKING WEST



A



C



B



D

CHATAL HÜYÜK. AREAS III AND IV. A. TRENCH IN K-Q 8 AT LEVEL 2, LOOKING NORTH. B. STONE WALLS IN L 8, LEVEL 1, LOOKING EAST.
C. J 9 AT LEVELS 3-2*d*, LOOKING EAST. D. DETAIL OF WALL IN J 9, LEVEL 2*d*



A



B

CHATAL HÜYÜK. AREA IV. A. TRENCH IN H 4-10 AT LEVELS 4-3, LOOKING EAST. B. TRENCH IN H 10-4 AT LEVELS 4-1, LOOKING WEST

PLATE 14



A



B



C

CHATAL HÜYÜK, AREA IV. *A.* TRENCH IN G-F AT LEVELS 3-2, LOOKING SOUTH. *B.* J-K 6 AT LEVEL 3, LOOKING NORTH. *C.* L-K 4 AT LEVELS 3-2, LOOKING SOUTH



A



B

CHATAL HÜYÜK. AREA V. A. P 4 AT LEVEL 5, LOOKING EAST.
B. P-Q 4 AT LEVELS 2-1, LOOKING NORTHEAST



A



B

CHATAL HÜYÜK. AREA VI. A. TRENCH IN R 6 AT LEVELS 4-3, LOOKING NORTH. B. ROOM T 8 1, LEVEL 5*b*, LOOKING NORTHWEST

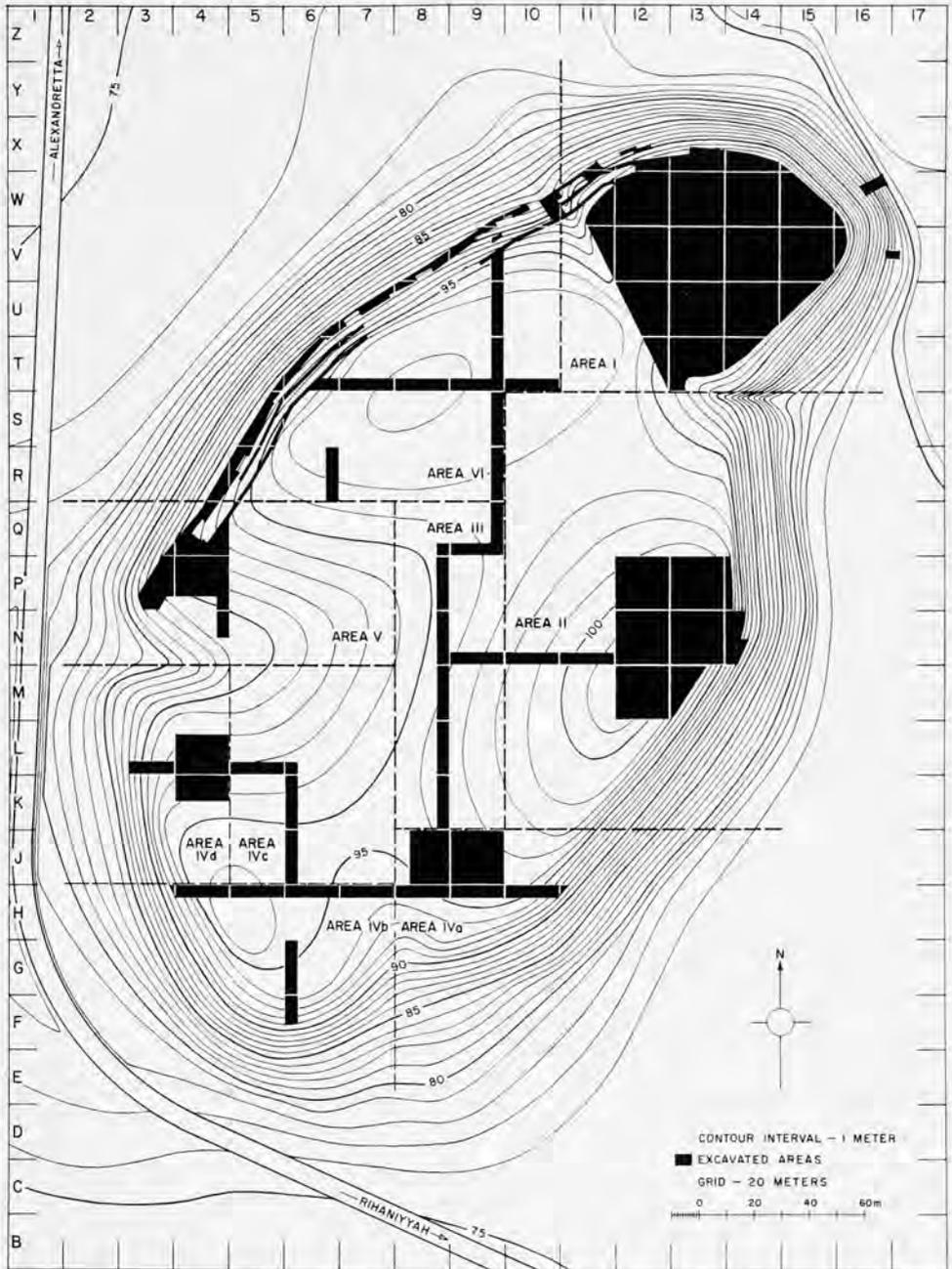


A

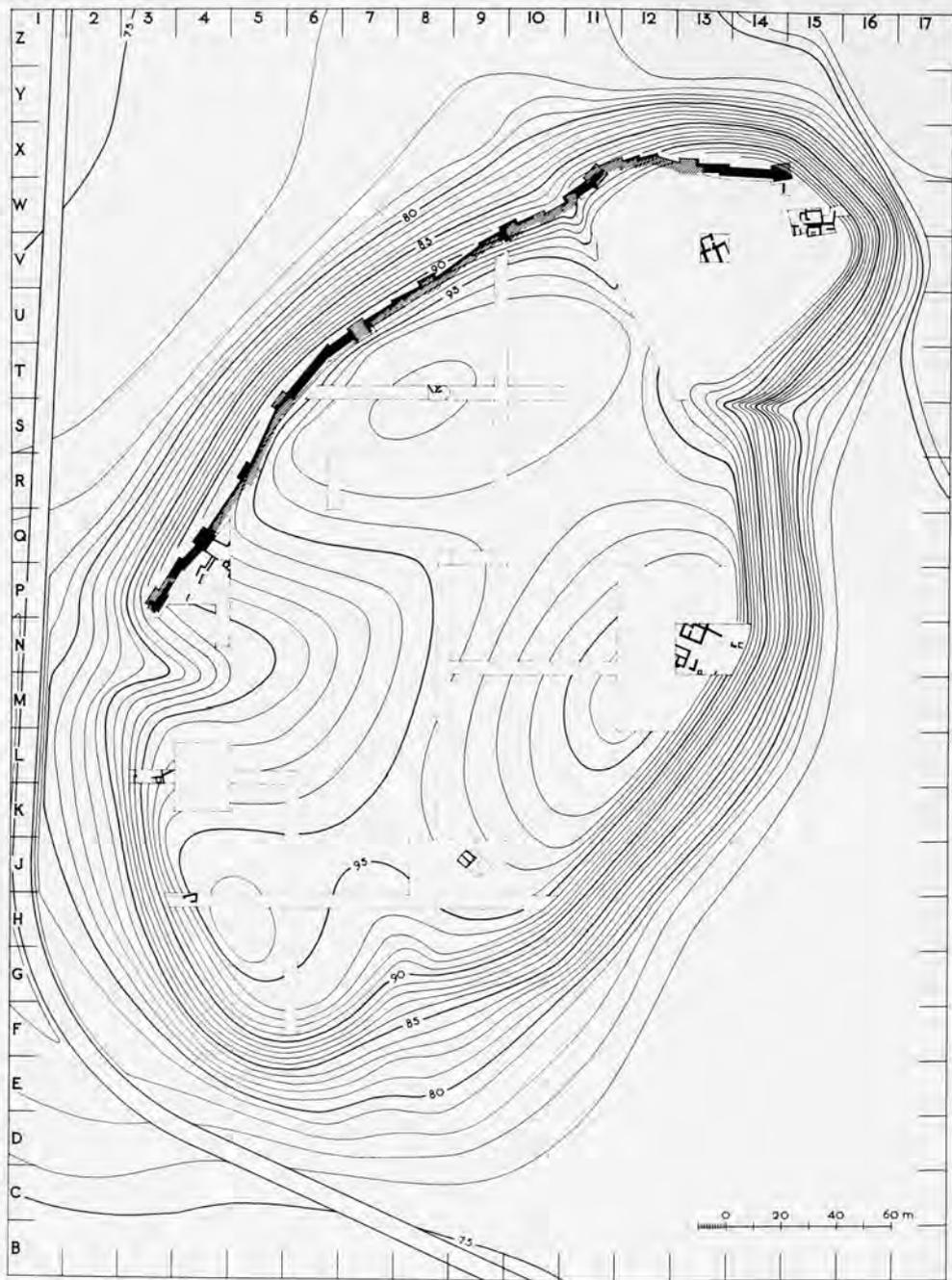


B

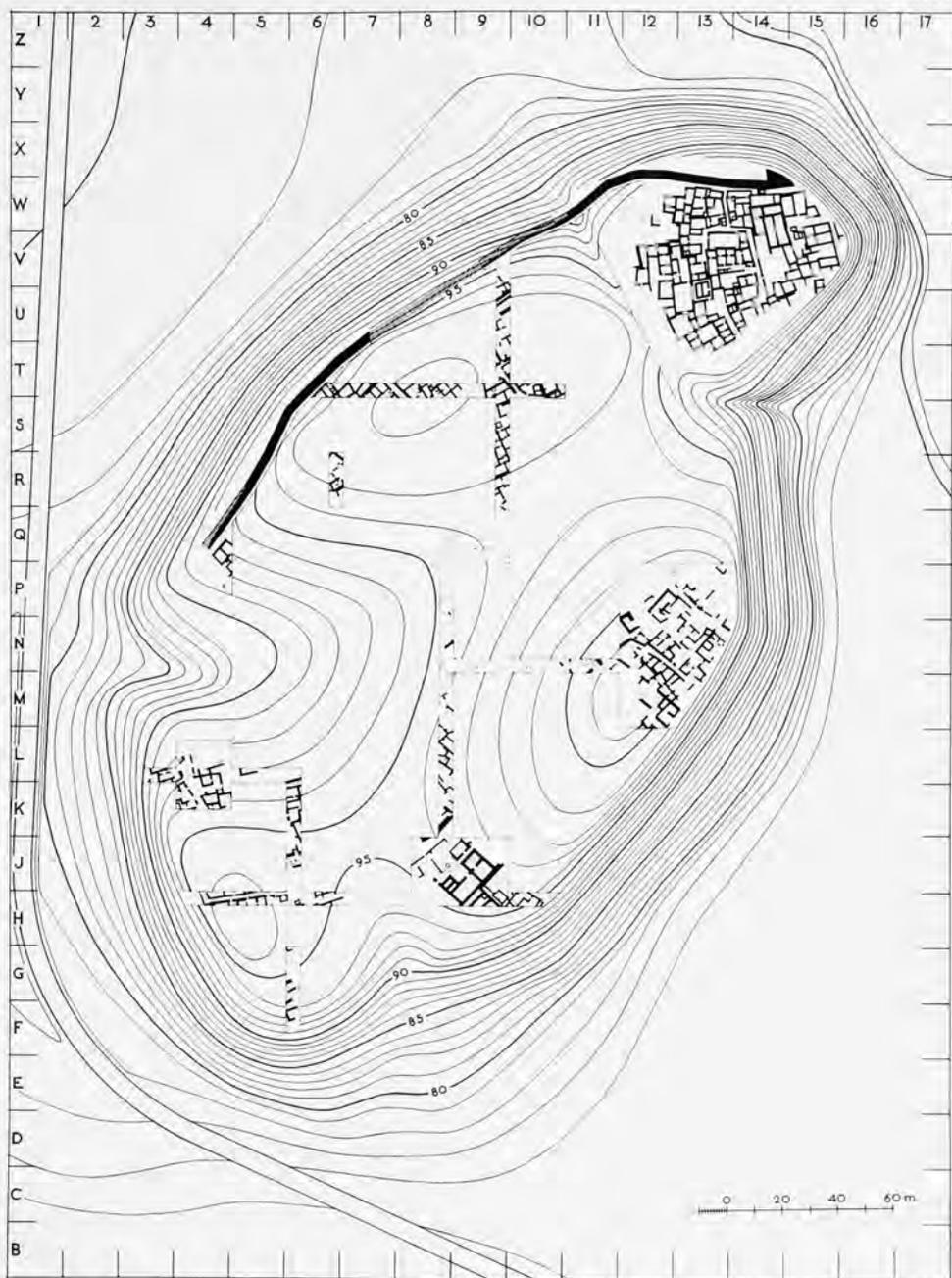
CHATAL HÜYÜK. AREA VI. A. TRENCH IN T 6-10 AT LEVELS 4-3, LOOKING EAST. B. TRENCH IN R-U 9 AT LEVELS 4-3, LOOKING NORTH



CHATAL HÜYÜK. PLOT PLAN SHOWING EXCAVATED AREAS



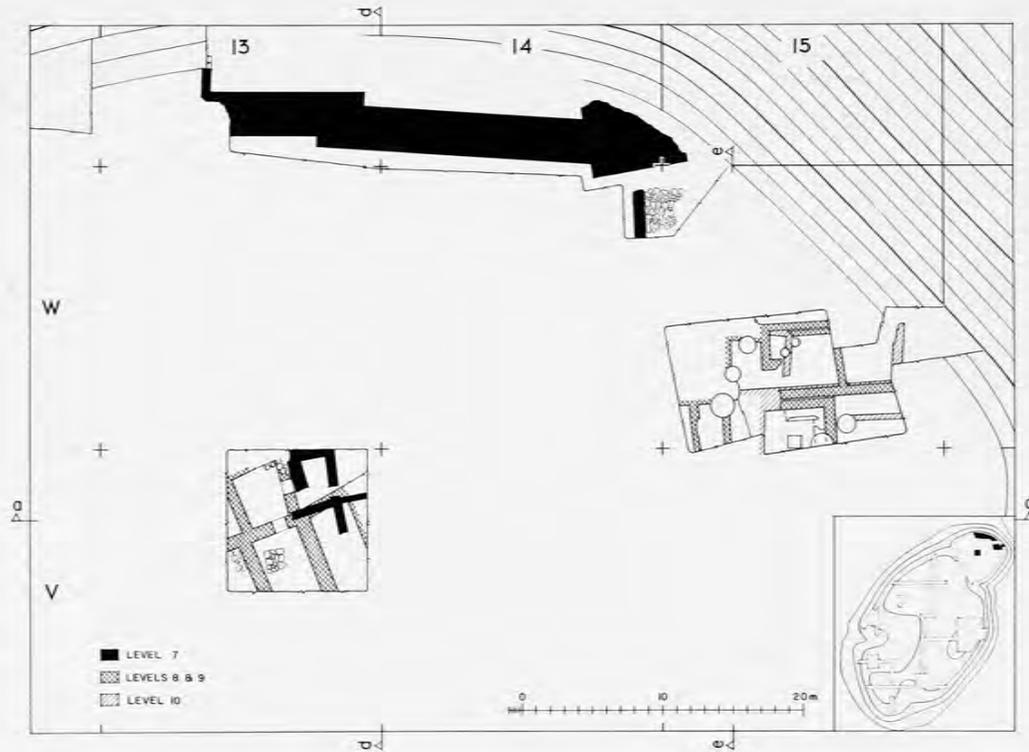
ÇATAL HÜYÜK. PLOT PLAN SHOWING DISTRIBUTION OF PHASE N



CHATAL HÜYÜK. PLOT PLAN SHOWING DISTRIBUTION OF PHASE O



CHATAL HÜYÜK. PLOT PLAN SHOWING DISTRIBUTION OF PHASES T-U



CHATAL HÜYÜK. PLAN OF AREA I, LEVELS 10-7



CHATAL HÜYÜK. PLAN OF AREA I, LEVEL 6



CHATAL HÜYÜK. PLAN OF AREA I, LEVEL 5



CHATAL HÜYÜK. PLAN OF AREA I, LEVEL 4



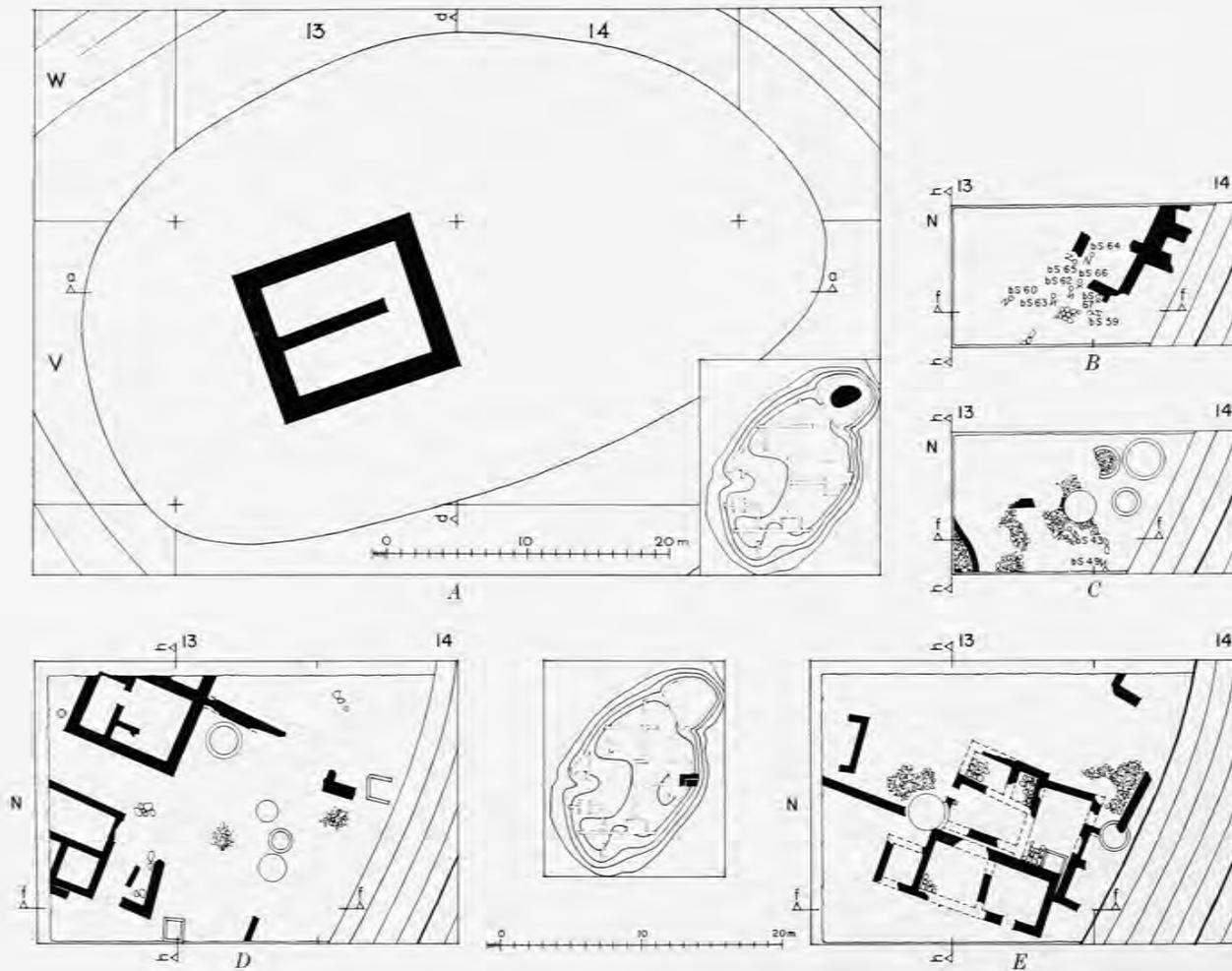
CHATAL HÜYÜK. PLAN OF AREA I, LEVEL 3



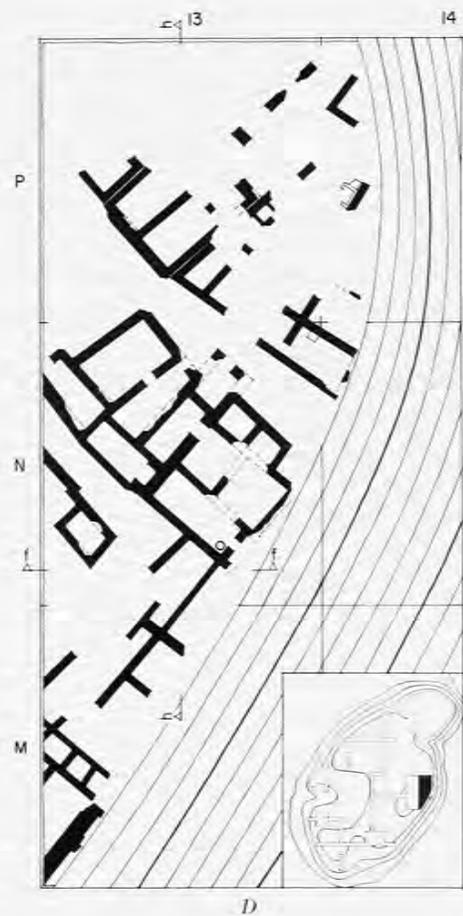
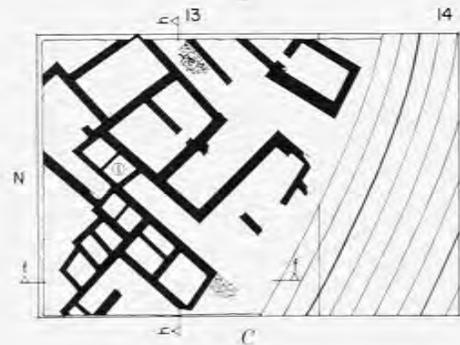
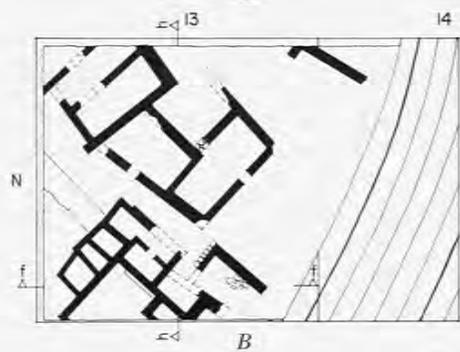
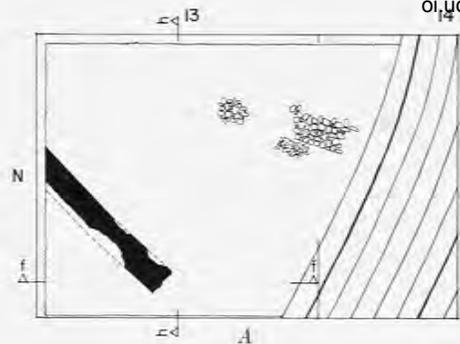
CHATAL HÜYÜK. PLAN OF AREA I, LEVEL 2



CHATAL HÜYÜK. PLAN OF AREA I, LEVEL I



CHATAL HÜYÜK. A. PLAN OF AREA I, POST-LEVEL 1. B-E. PLANS OF AREA II. B. LEVELS 13-12. C. LEVEL 11. D. LEVEL 10. E. LEVEL 9



CHATAL HÜYÜK. PLANS OF AREA II. A. LEVEL 8. B. LEVEL 7. C. LEVEL 6. D. LEVEL 5



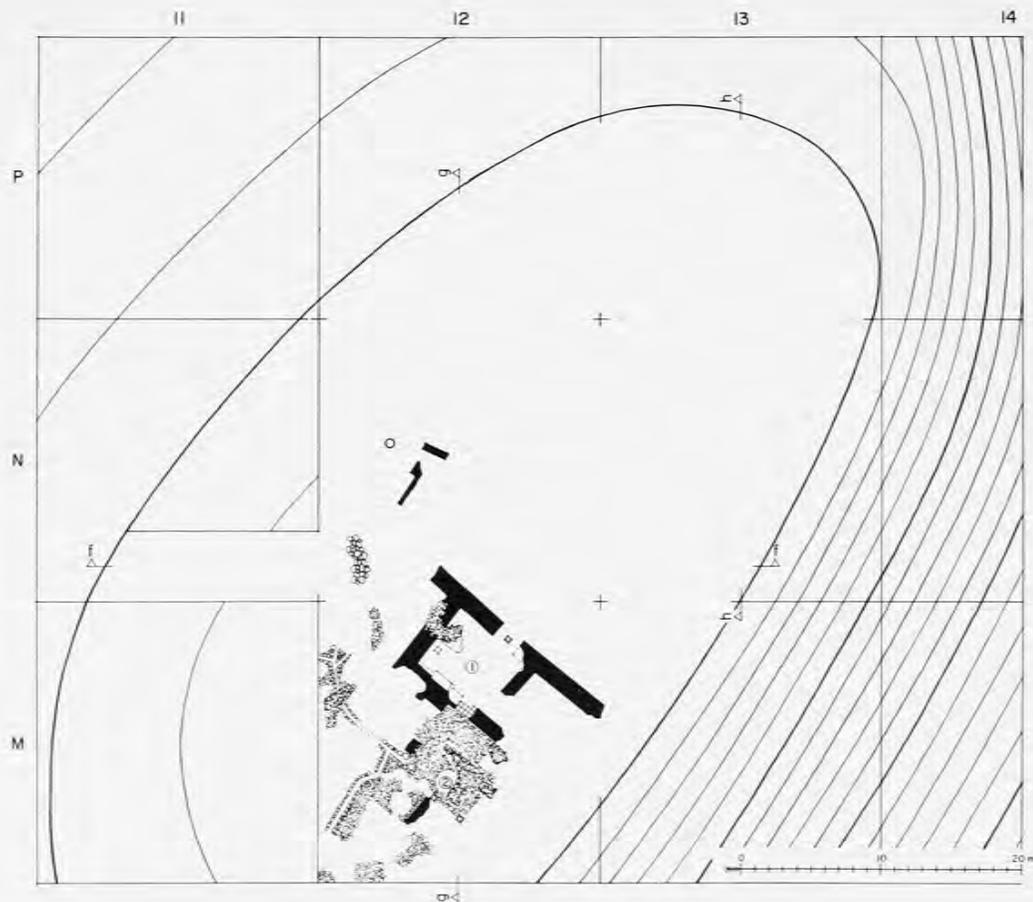
CHATAL HÜYÜK. PLAN OF AREA II, LEVEL 4



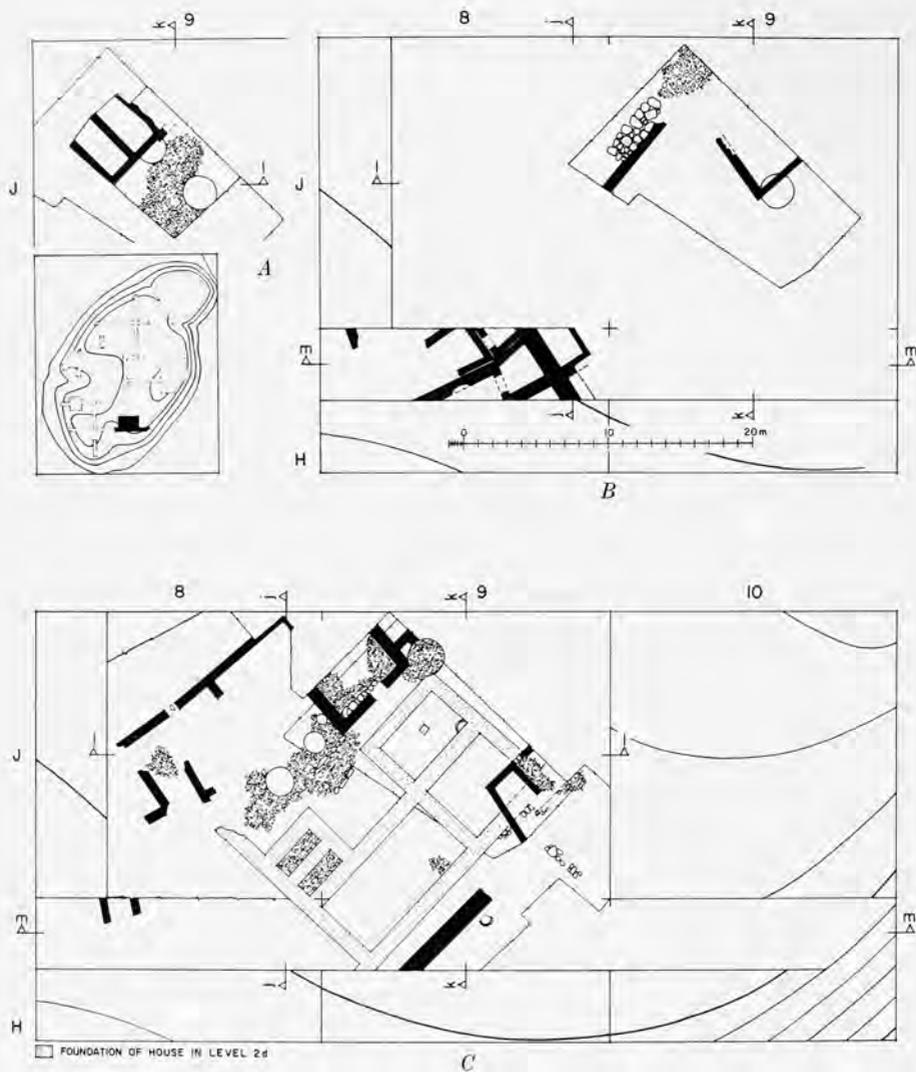
ÇATAL HÜYÜK. PLAN OF AREA II, LEVEL 3



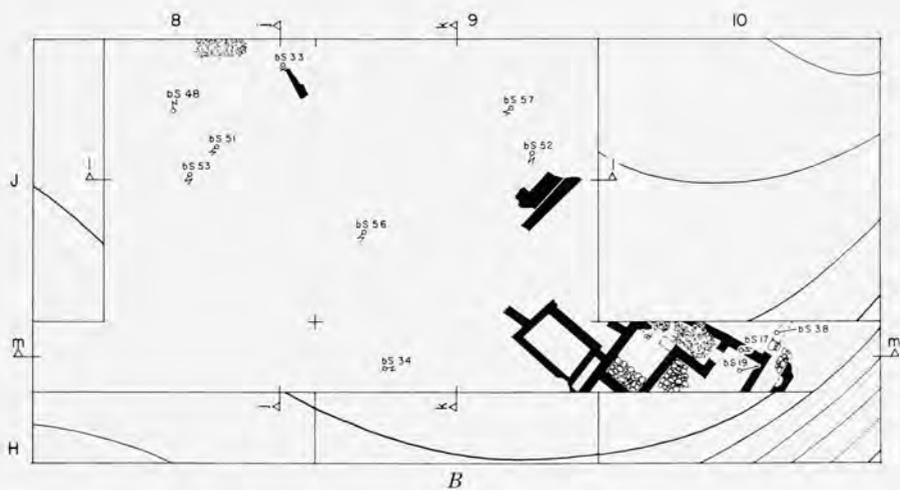
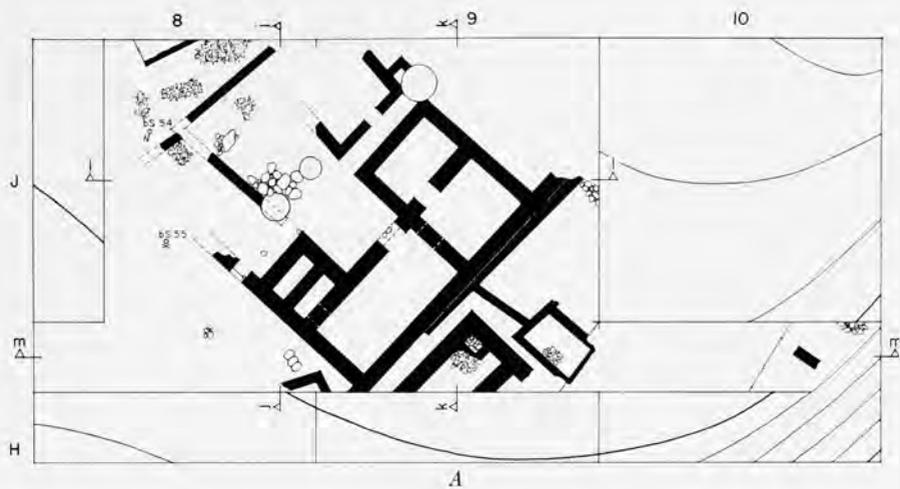
CHATAL HÜYÜK. PLAN OF AREA II, LEVEL 2



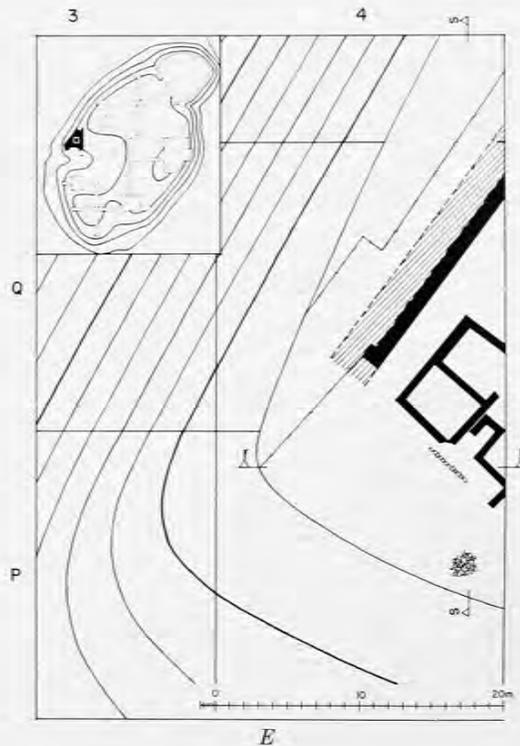
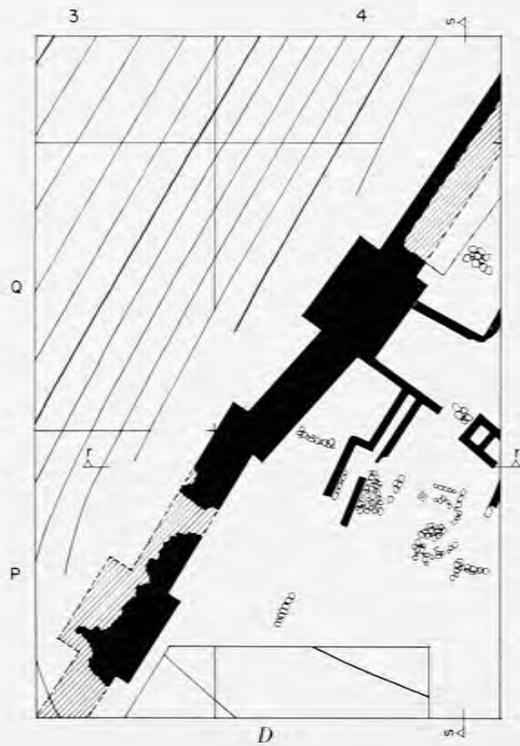
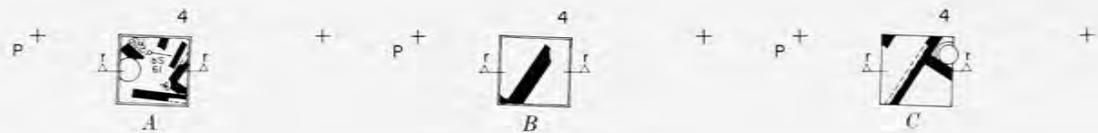
CHATAL HÜYÜK. PLAN OF AREA II, LEVEL I



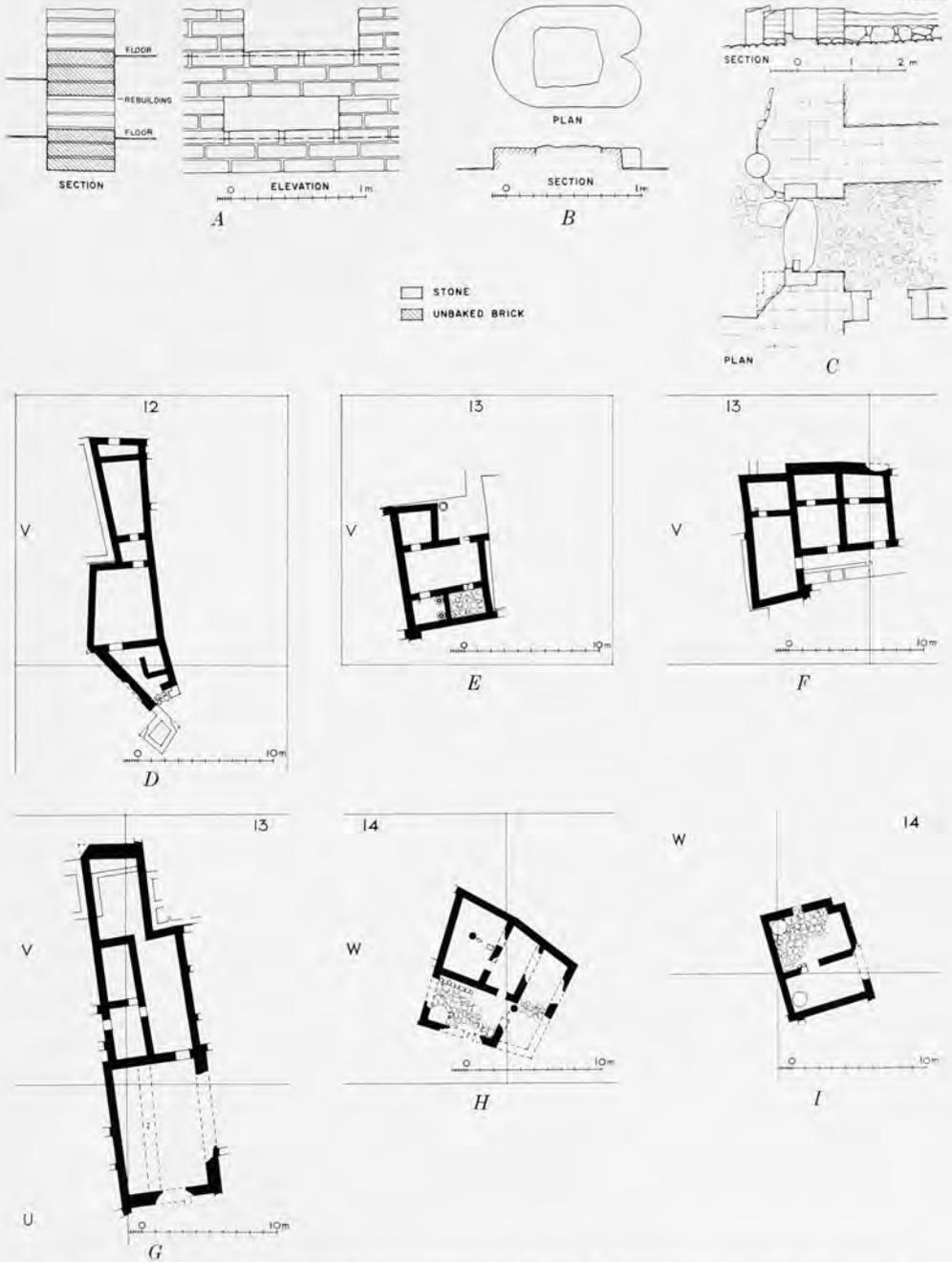
CHATAL HÜYÜK. PLANS OF AREA IVa. A. LEVEL 5. B. LEVEL 4. C. LEVEL 3



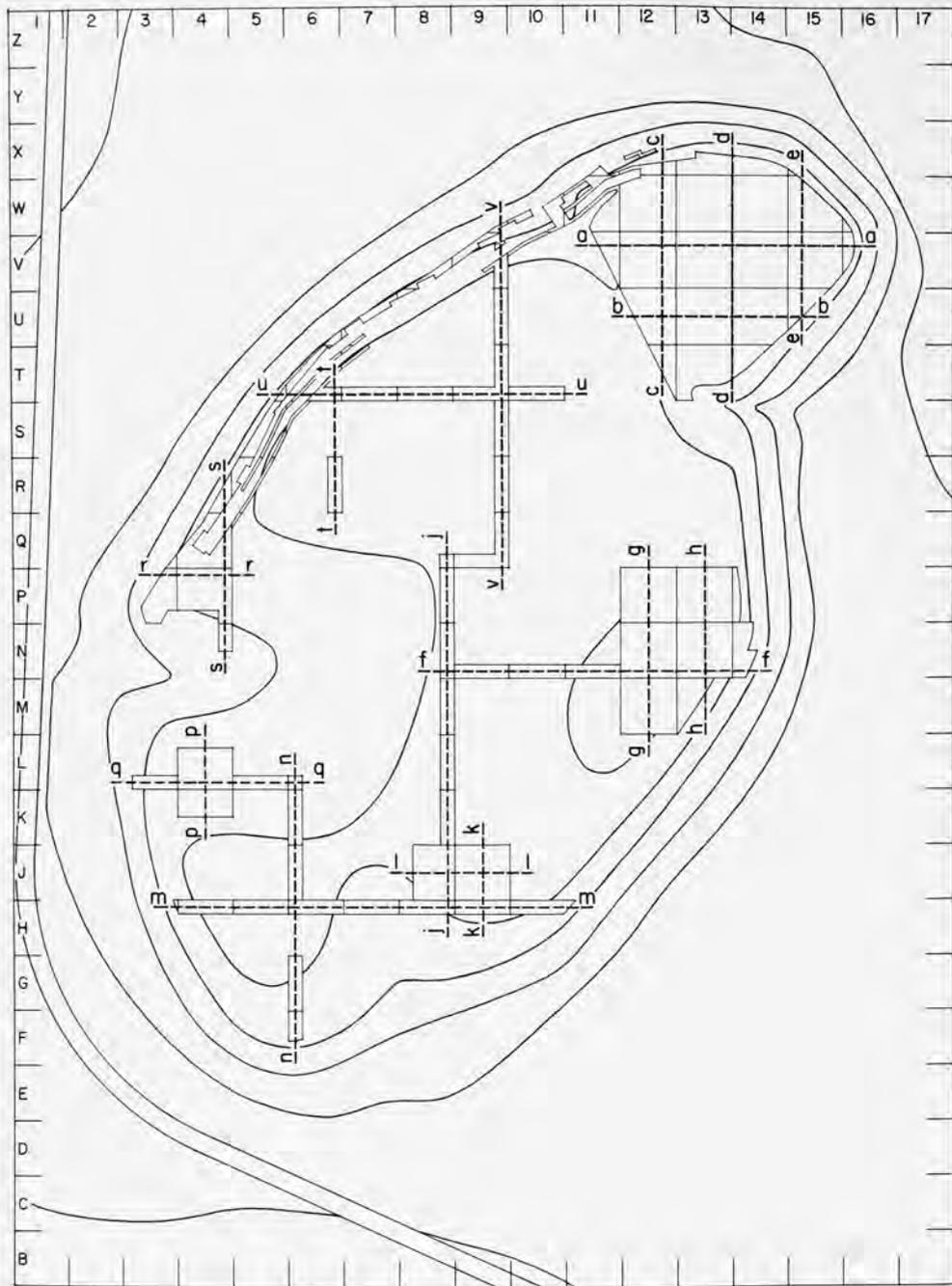
CHATAL HÜYÜK. PLANS OF AREA IVa. A. LEVELS 2d-c. B. LEVELS 2b-a AND 1



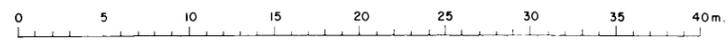
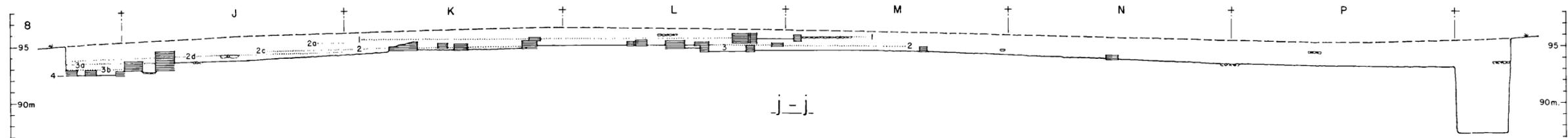
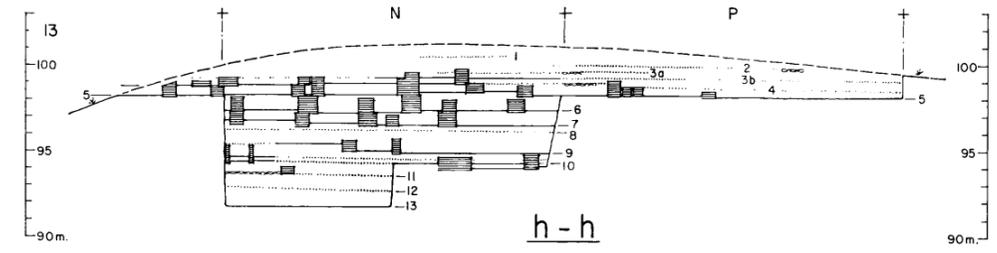
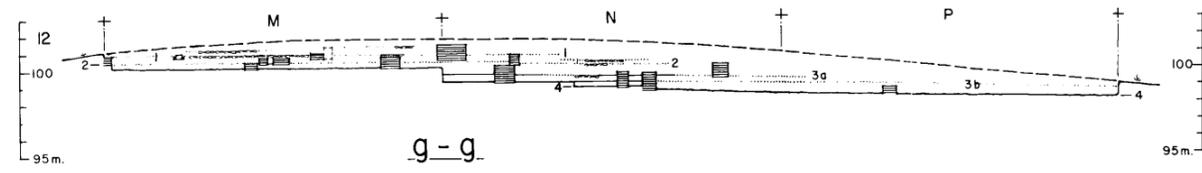
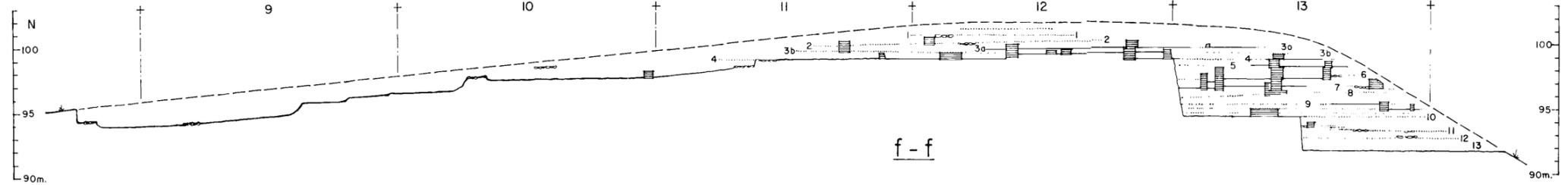
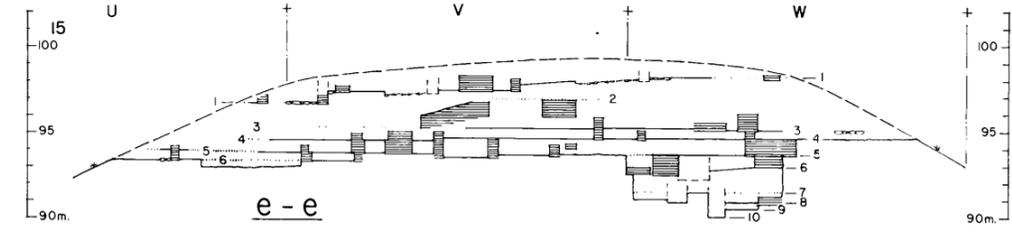
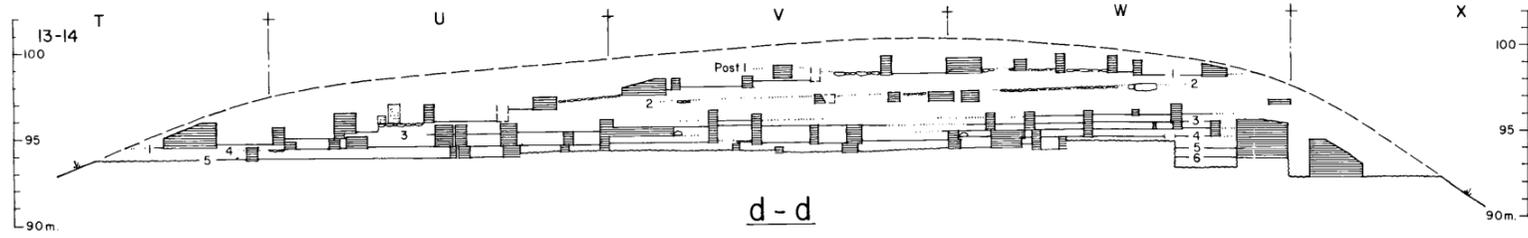
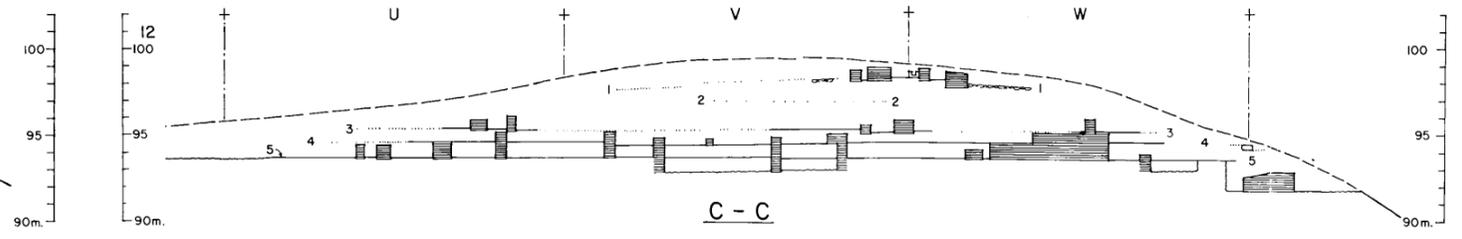
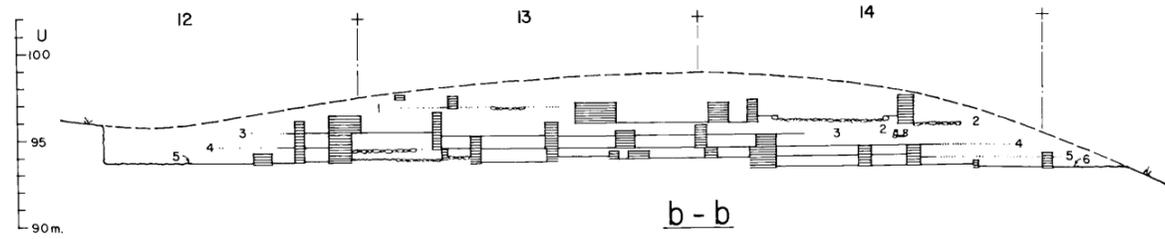
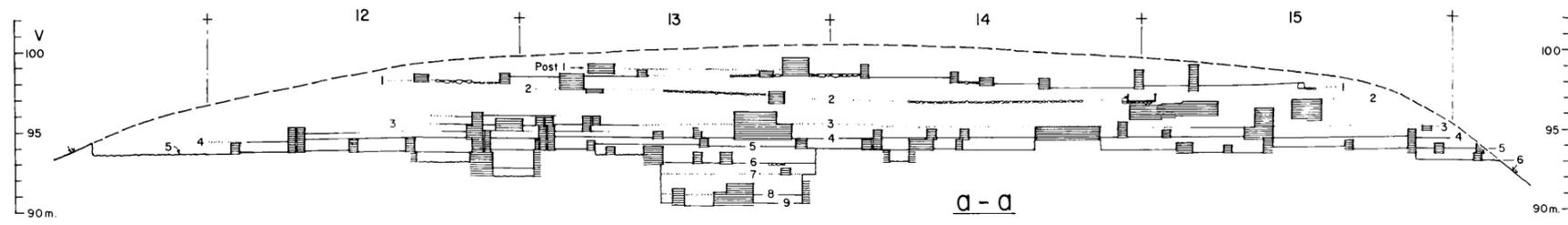
CHATAL HÜYÜK. PLANS OF AREA V. A. LEVEL 5. B. LEVEL 4. C. LEVEL 3. D. LEVEL 2. E. LEVEL 1



CHATAL HÜYÜK. DETAILS AND PLANS OF DWELLING UNITS. A. SUPERPOSITION OF DOORWAYS IN REBUILDING. B. UNBAKED-BRICK OBJECT IN W 13 I, LEVEL 3. C. DOORWAY IN FORTIFICATION WALL AT LEVEL 1. D-I. PLANS OF DWELLING UNITS IN AREA I AT LEVELS 5, 4, AND 1



CHATRAL HÜYÜK. PLOT PLAN SHOWING SECTION LINES



CHATAL HÜYÜK. SECTIONS a-a TO j-j



CHATAL HÜYÜK. SECTIONS k-k TO v-v



A



B

TELL AL-JUDAIDAH. A. VIEW OF MOUND, LOOKING NORTHWEST.
B. SQUARES F 9-7 AT LEVELS 10-8, LOOKING WEST



A



B

TELL AL-JUDAIAH. A. SQUARES E-F 7-9 AT LEVEL 8 ON RIGHT OF STREET AND LEVELS 10-7 ON LEFT OF STREET, LOOKING EAST. B. SQUARES D-F 7-9 AT LEVEL 7, LOOKING EAST



A



B

TELL AL-JUDAIDAH. SQUARES E-F 8. *A.* LEVEL 6, LOOKING SOUTH. *B.* LEVEL 5, LOOKING SOUTH



A



B

TELL AL-JUDAIAH. SQUARES E-F 7. A. LEVEL 7, LOOKING SOUTH. B. LARGE BUILDING WITH
STONE ORTHOSTATS ON WEST WALL, LEVELS 7 AND 6, LOOKING EAST



A



B

TELL AL-JUDAIDAH. A. SQUARES F-E 8 AT LEVELS 4-3, LOOKING SOUTH.
B. BINS ALONG EAST WALL OF ROOM IN E 8, LEVEL 7



A



B

TELL AL-JUDAIAH. A. BRICK BONDING IN NORTH AND WEST WALLS OF ROOM E 71, LEVEL 8. B. ENCLOSURE WALL OF CHURCH IN F 7, LEVEL 1, LOOKING EAST

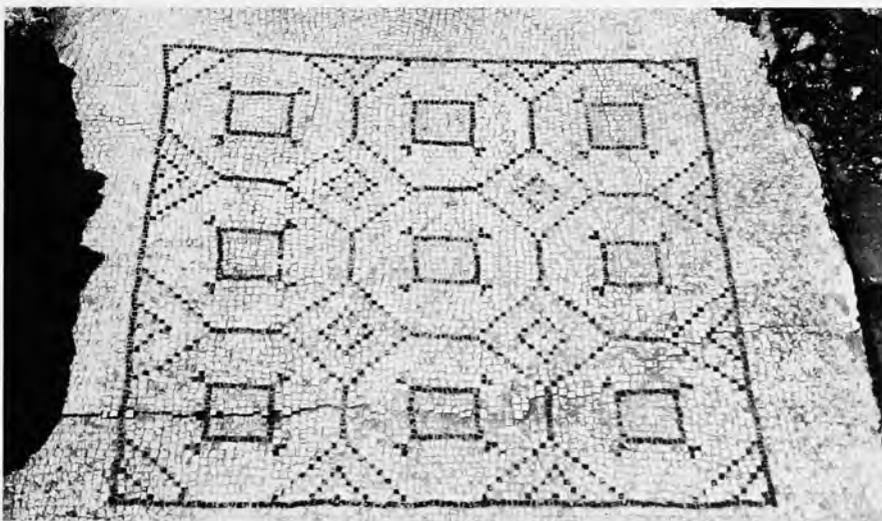


A



B

TELL AL-JUDAIDAH, CHURCH IN F 7, LEVEL 1. *A.* VIEW OF NAVE AND SANCTUARY, LOOKING EAST. *B.* TOMB ON SOUTH SIDE OF CHURCH, LOOKING NORTH

*A**B**C*

TELL AL-JUDAIDAH. BUILDING IN E-F 7 ADJACENT TO CHURCH, LEVEL 1. *A.* VIEW OF BUILDING, LOOKING NORTHEAST. *B.* STONE SARCOPHAGI NORTH OF BUILDING. *C.* MOSAIC IN CENTRAL ROOM



A



B

TELL AL-JUDAIDAH. PLOT IN G 12. A. LEVEL 6, LOOKING NORTH.
B. LEVEL 3, LOOKING NORTHWEST



A



B

TELL AL-JUDAIDAH. TRENCHES IN J-K 14-15. A. EAST-WEST TRENCH, LEVEL 2, LOOKING EAST. B. NORTH-SOUTH TRENCH, LEVEL 1, LOOKING NORTH

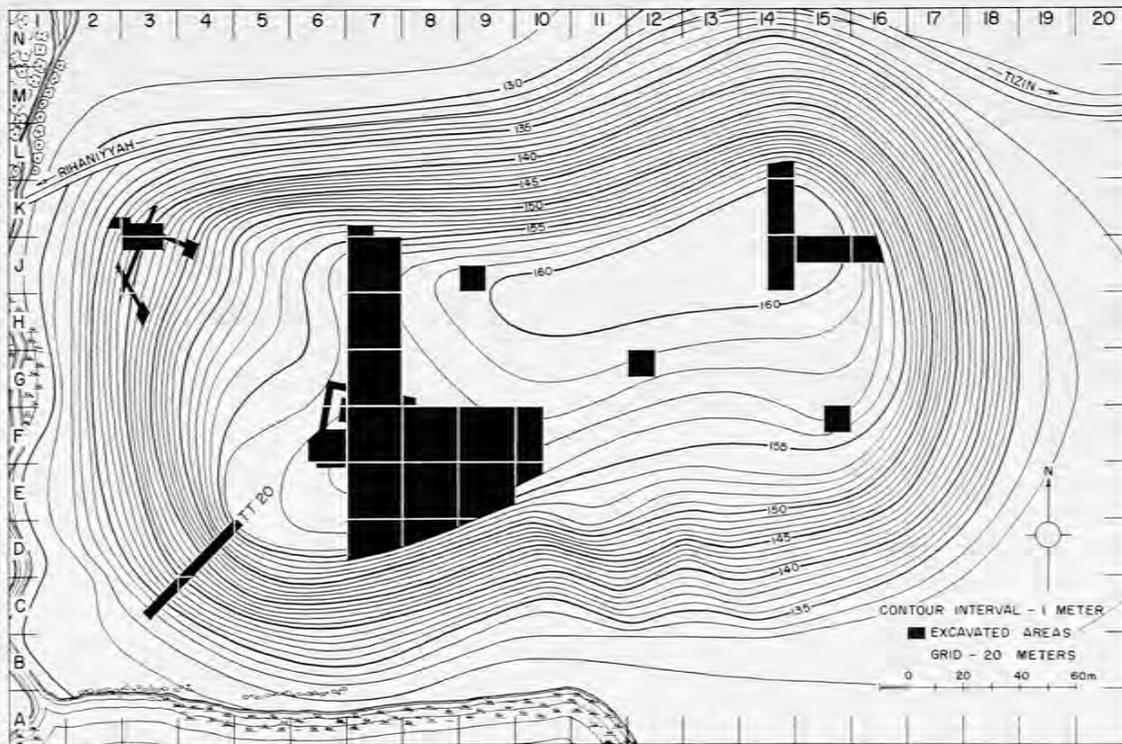


A

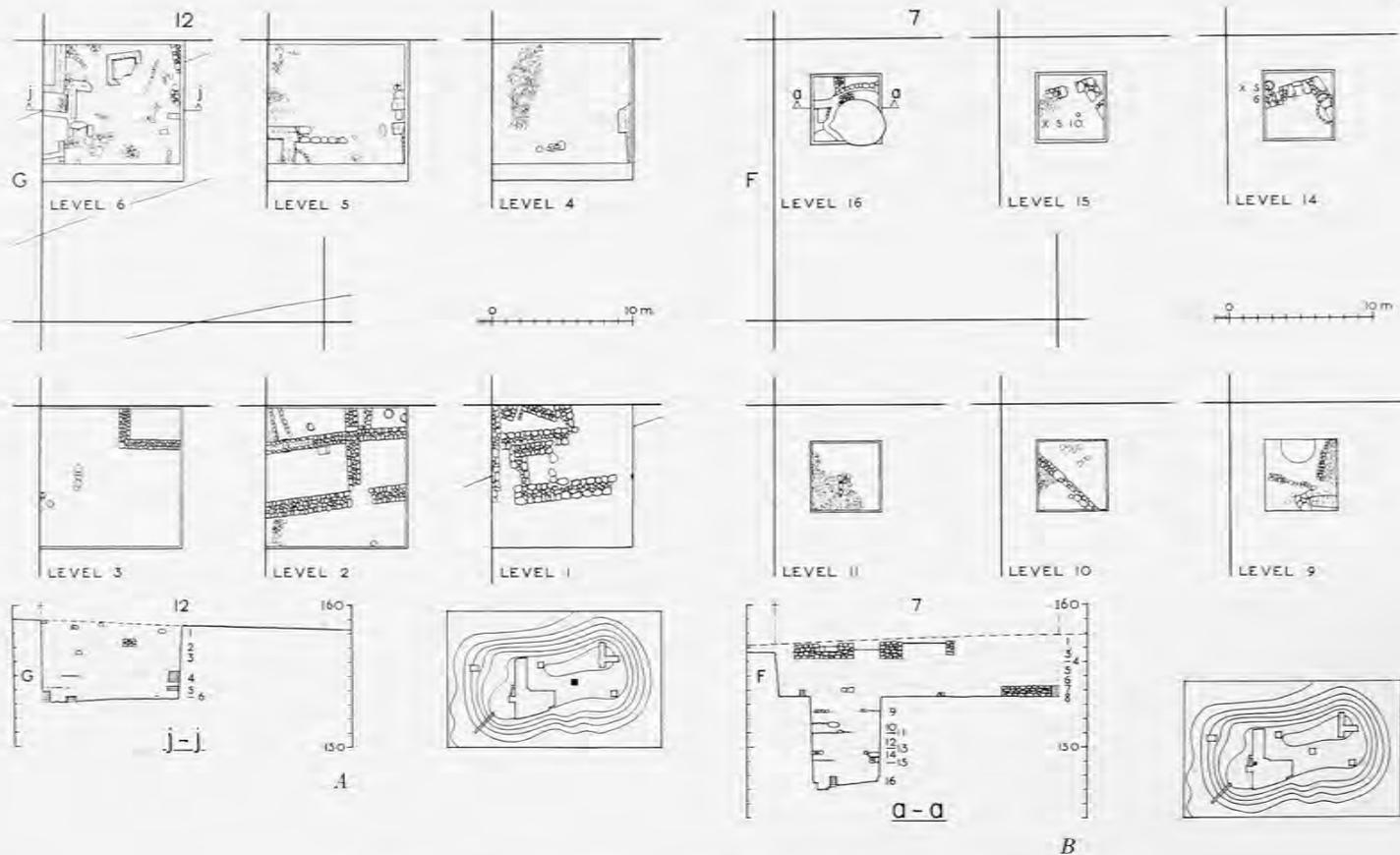


B

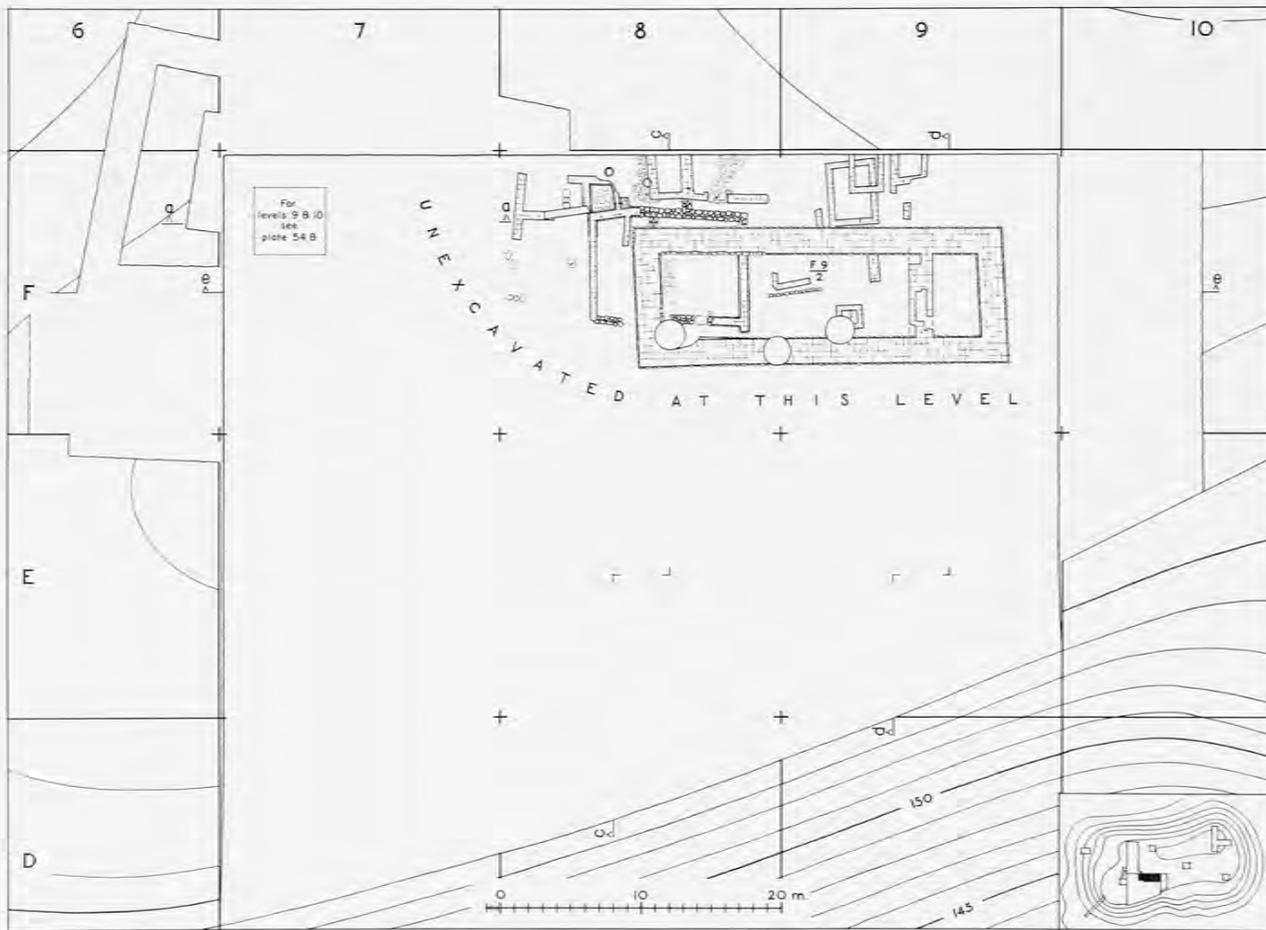
TELL AL-JUDAIDAH. PLOT IN J 9. A. LEVEL 4, LOOKING WEST. B. LEVELS 3-2, LOOKING NORTH



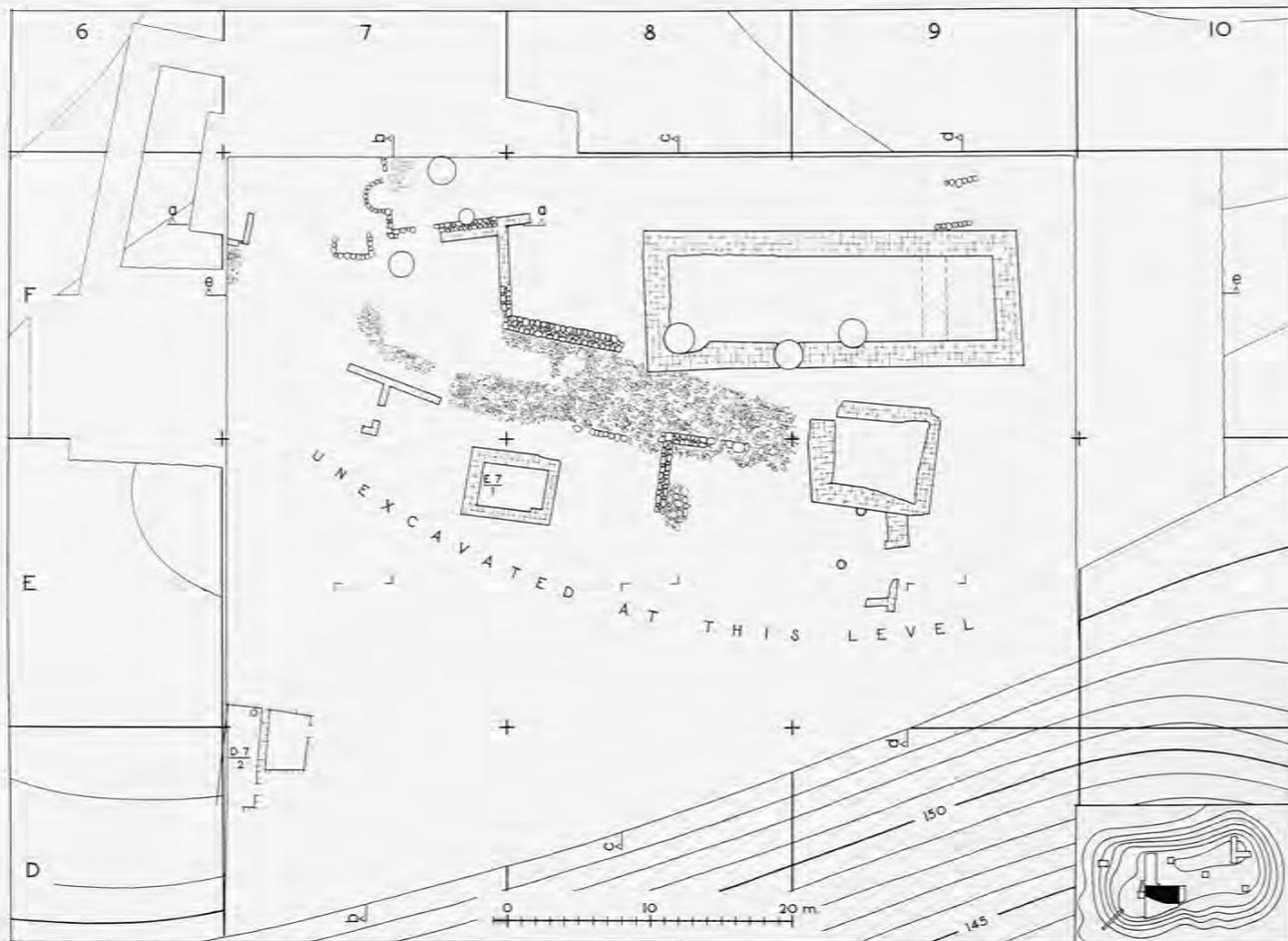
TELL AL-JUDAIAH. PLOT PLAN SHOWING EXCAVATED AREAS



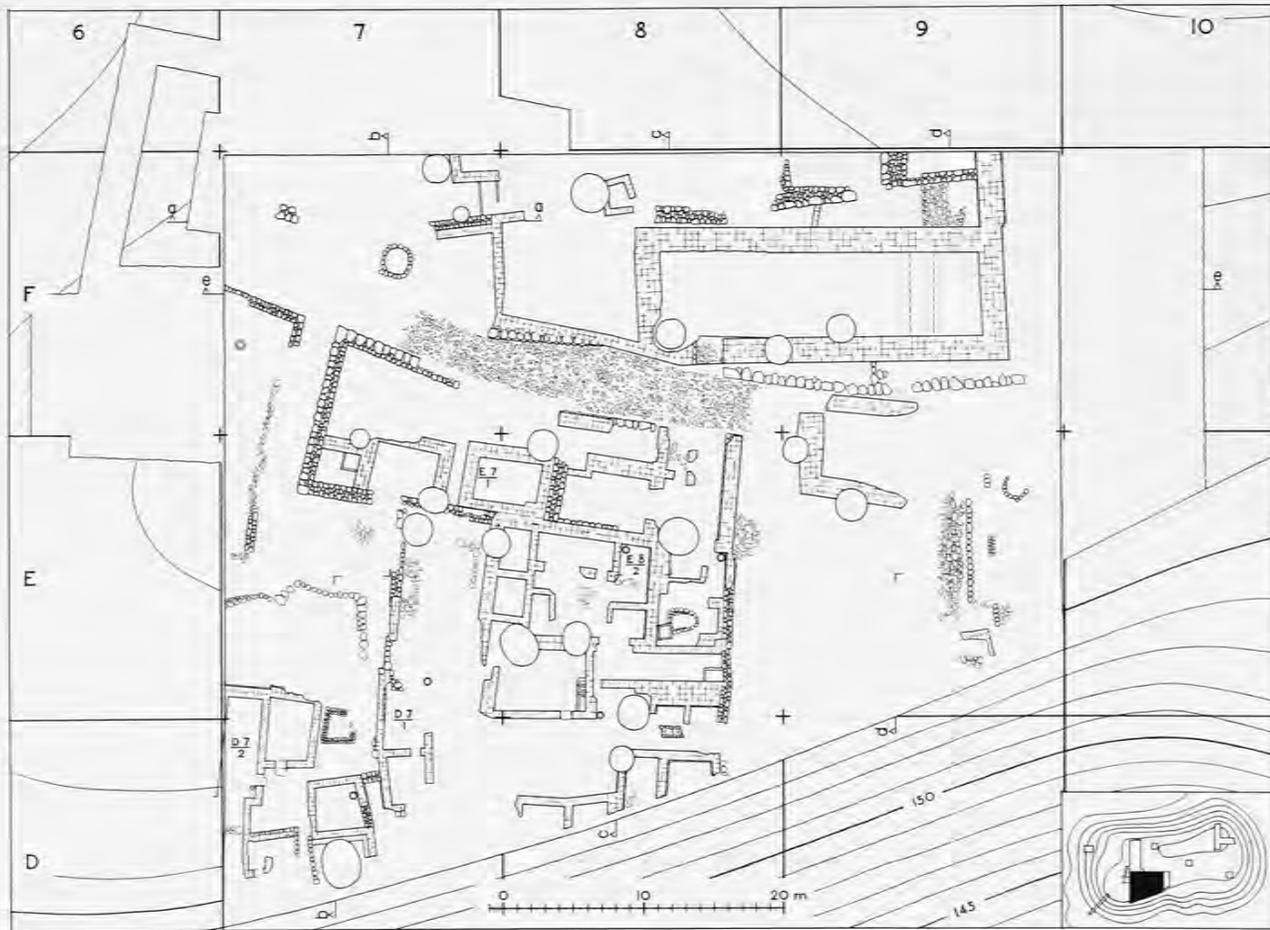
TELL AL-JUDAIAH. A. PLANS AND SECTION OF PLOT IN G 12, LEVELS 6-1. B. PLANS AND SECTION OF TEST PIT IN F 7, LEVELS 16-9



TELL AL-JUDAIDAH. PLAN OF E-F 7-9, LEVELS 10-9



TELL AL-JUDAIAH. PLAN OF E-F 7-9, LEVEL 8



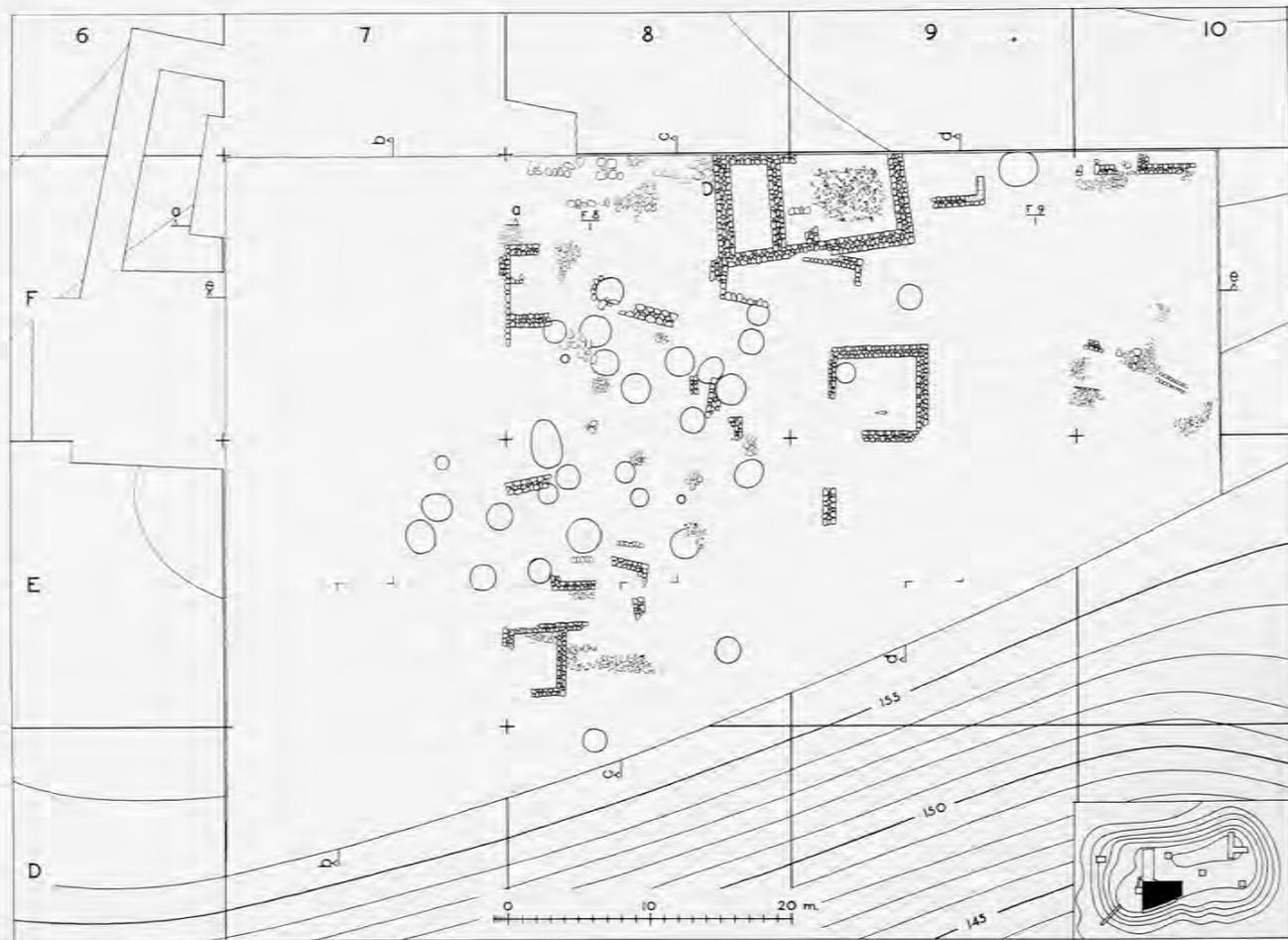
TELL AL-JUDAIAH. PLAN OF E-F 7-9, LEVEL 7



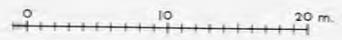
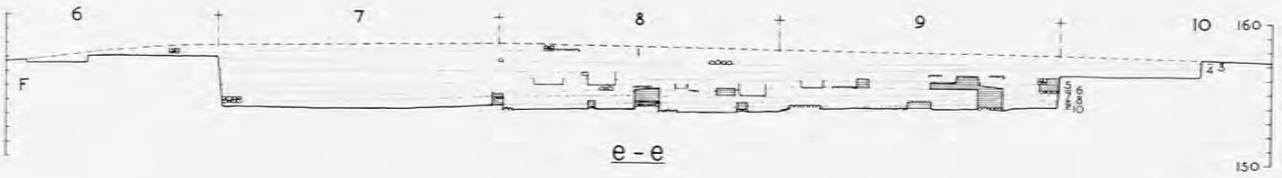
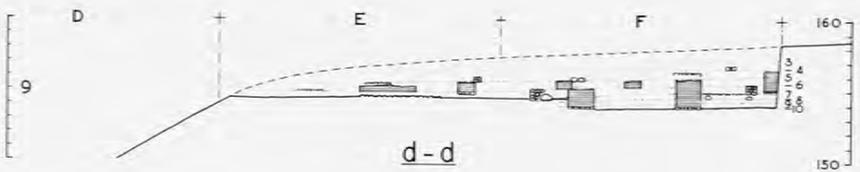
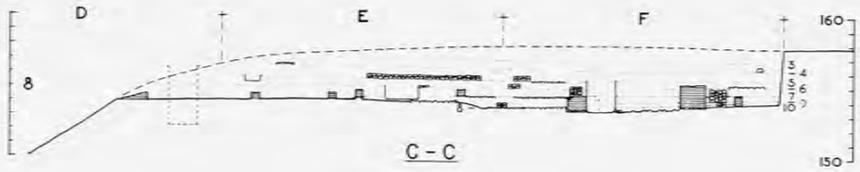
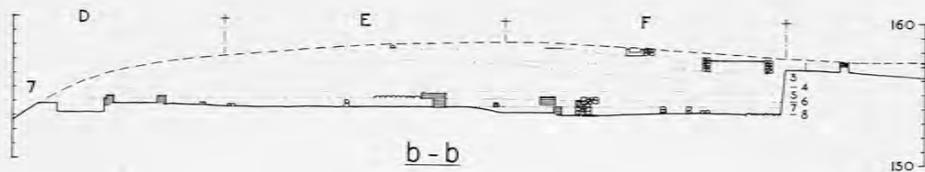
TELL AL-JUDAIAH. PLAN OF E-F 7-9, LEVEL 6



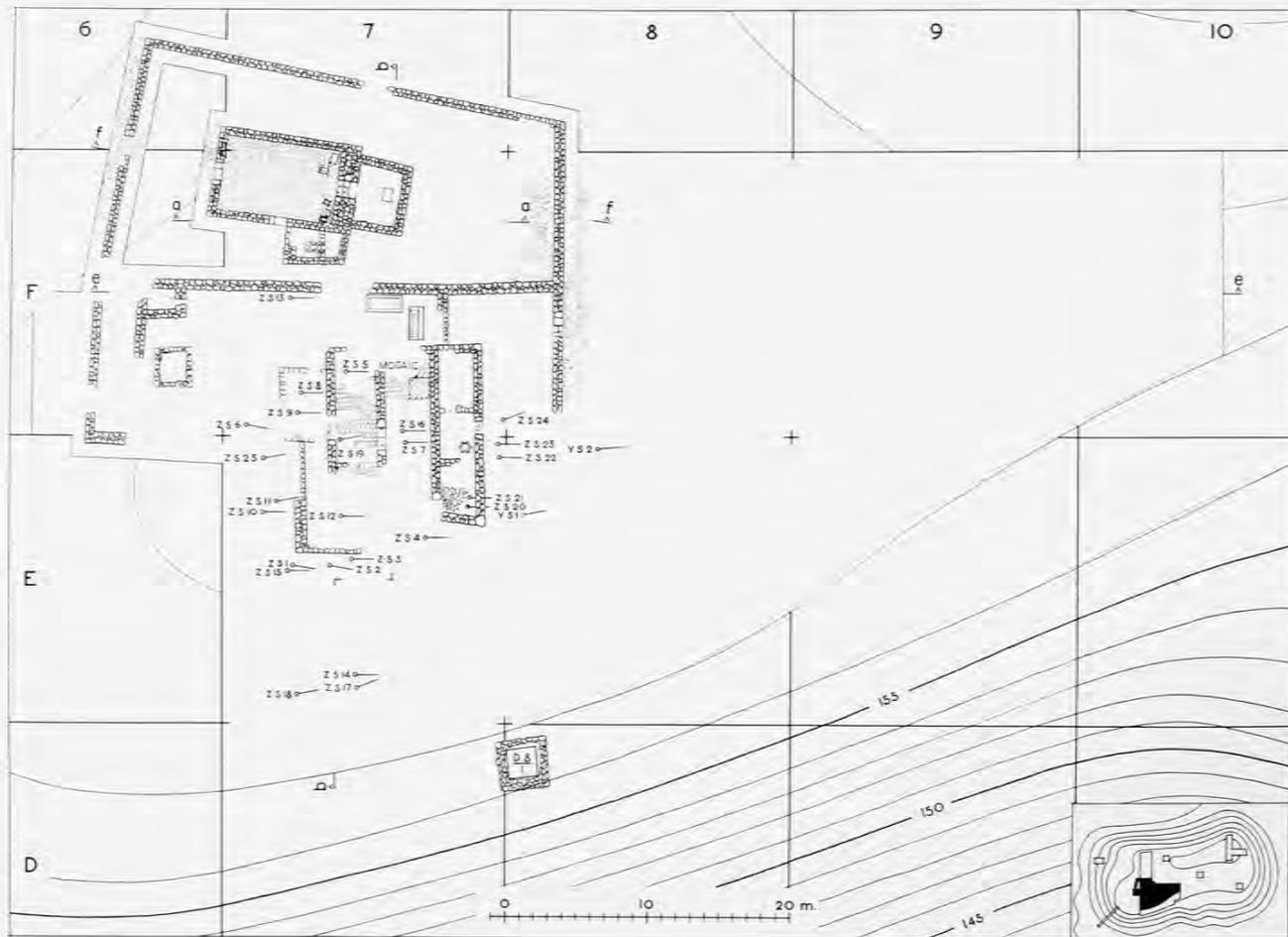
TELL AL-JUDAIDAR. PLAN OF E-F 7-9. LEVEL 5



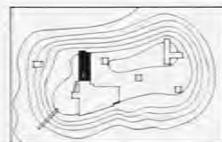
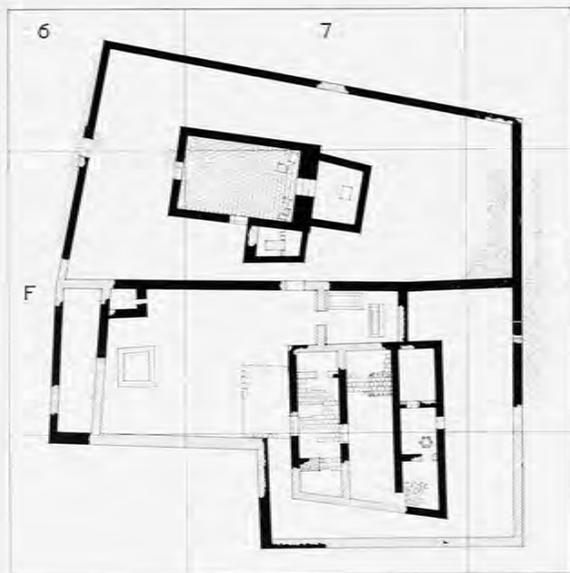
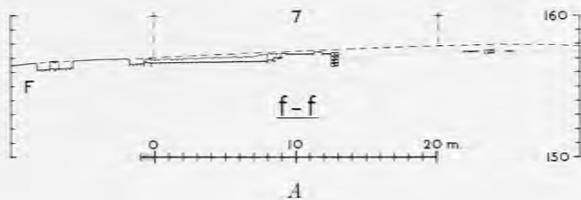
TELL AL-JUDAIAH. PLAN OF E-F 7-9, LEVELS 4-3



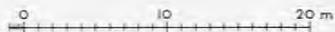
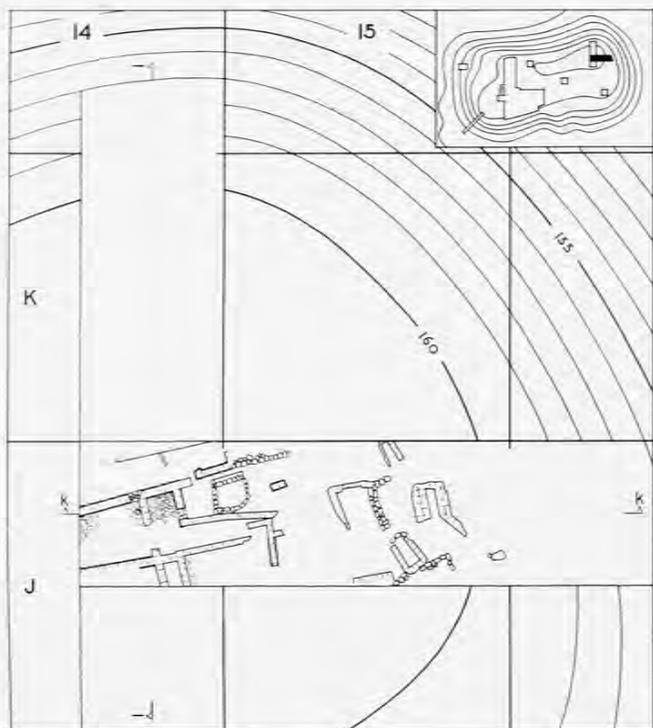
TELL AL-JUDAIAH. SECTIONS b-b TO e-e



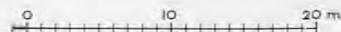
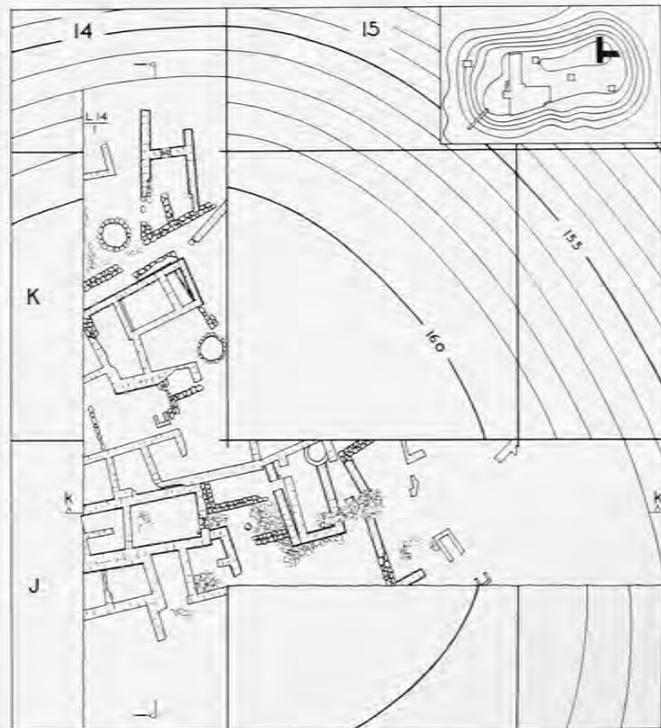
TELL AL-JUDAIAH. PLAN OF E-F 7-9, LEVEL I



TELL AL-JUDAIDAH. A. SECTION f-f. B. RECONSTRUCTED PLAN OF CHURCH AND ADJACENT BUILDING. C. PLAN AND SECTION OF H-J 7, LEVELS 3-2

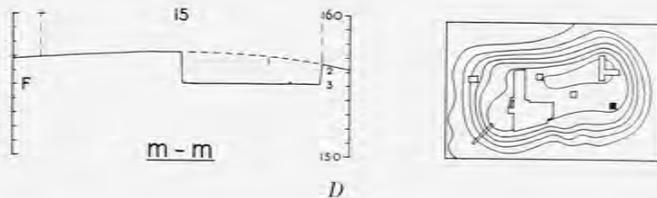
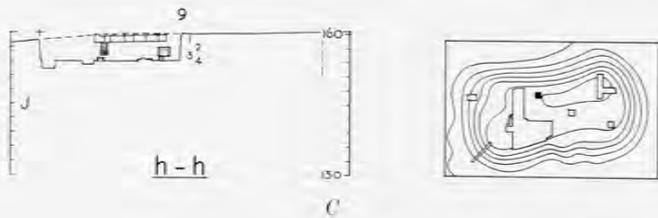
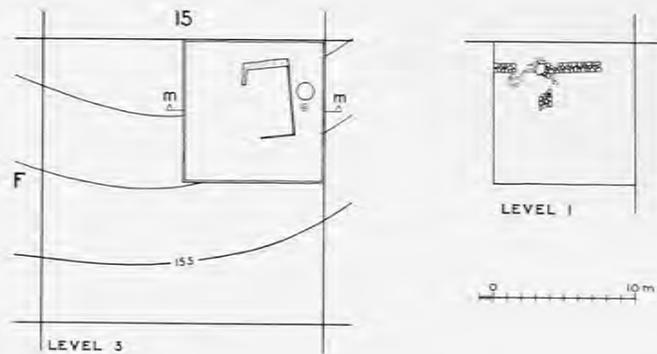
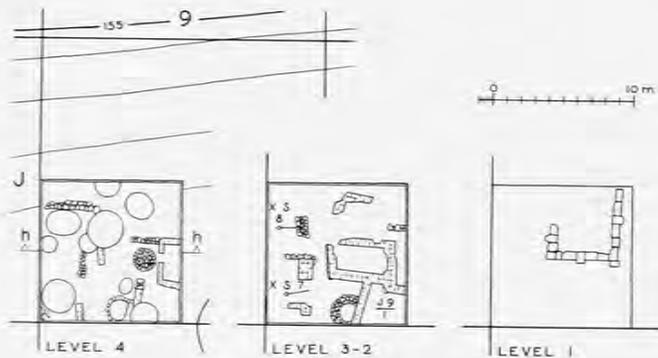
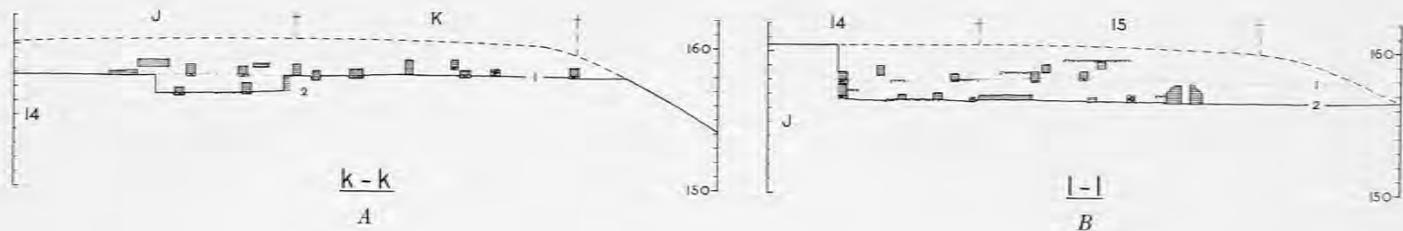


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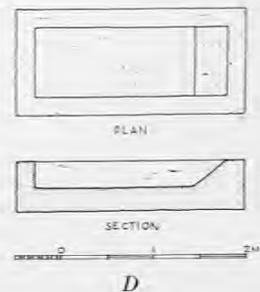
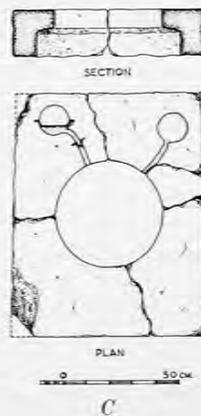
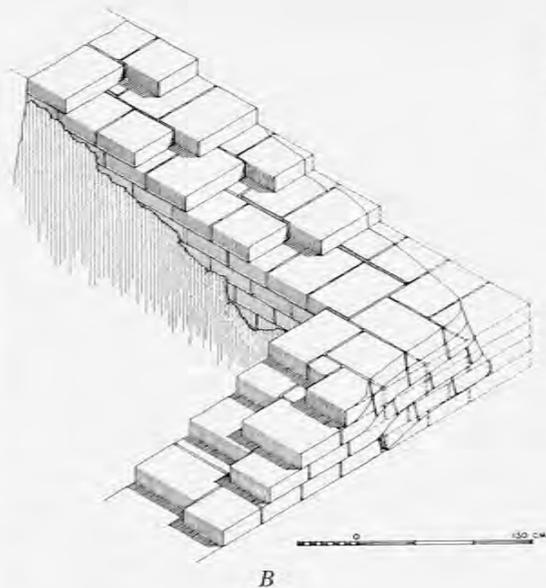
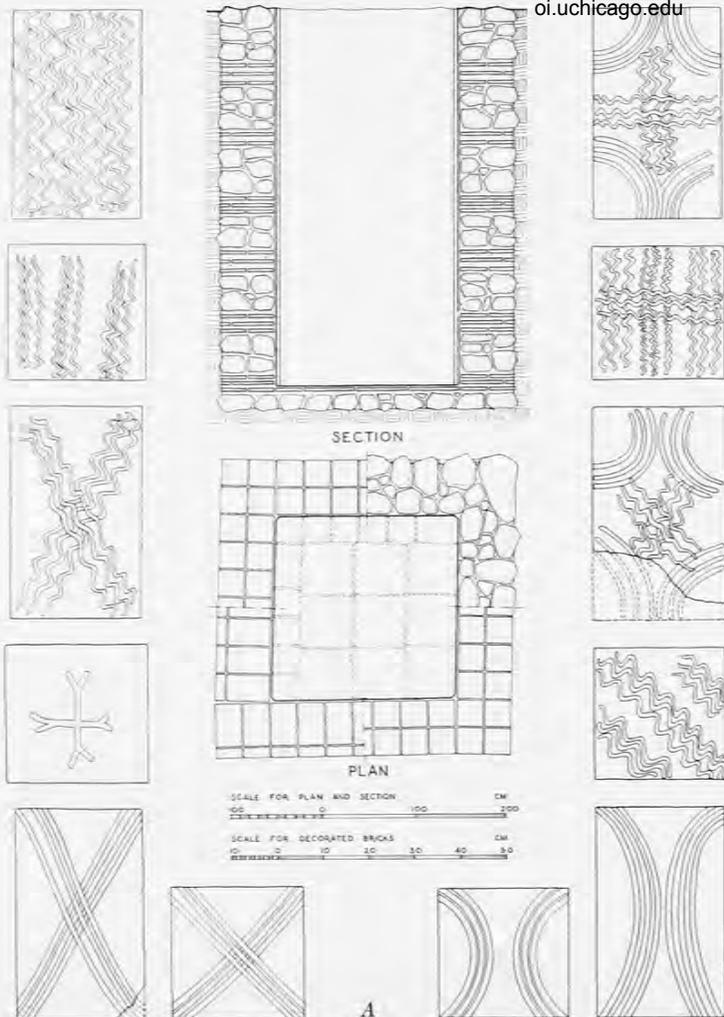


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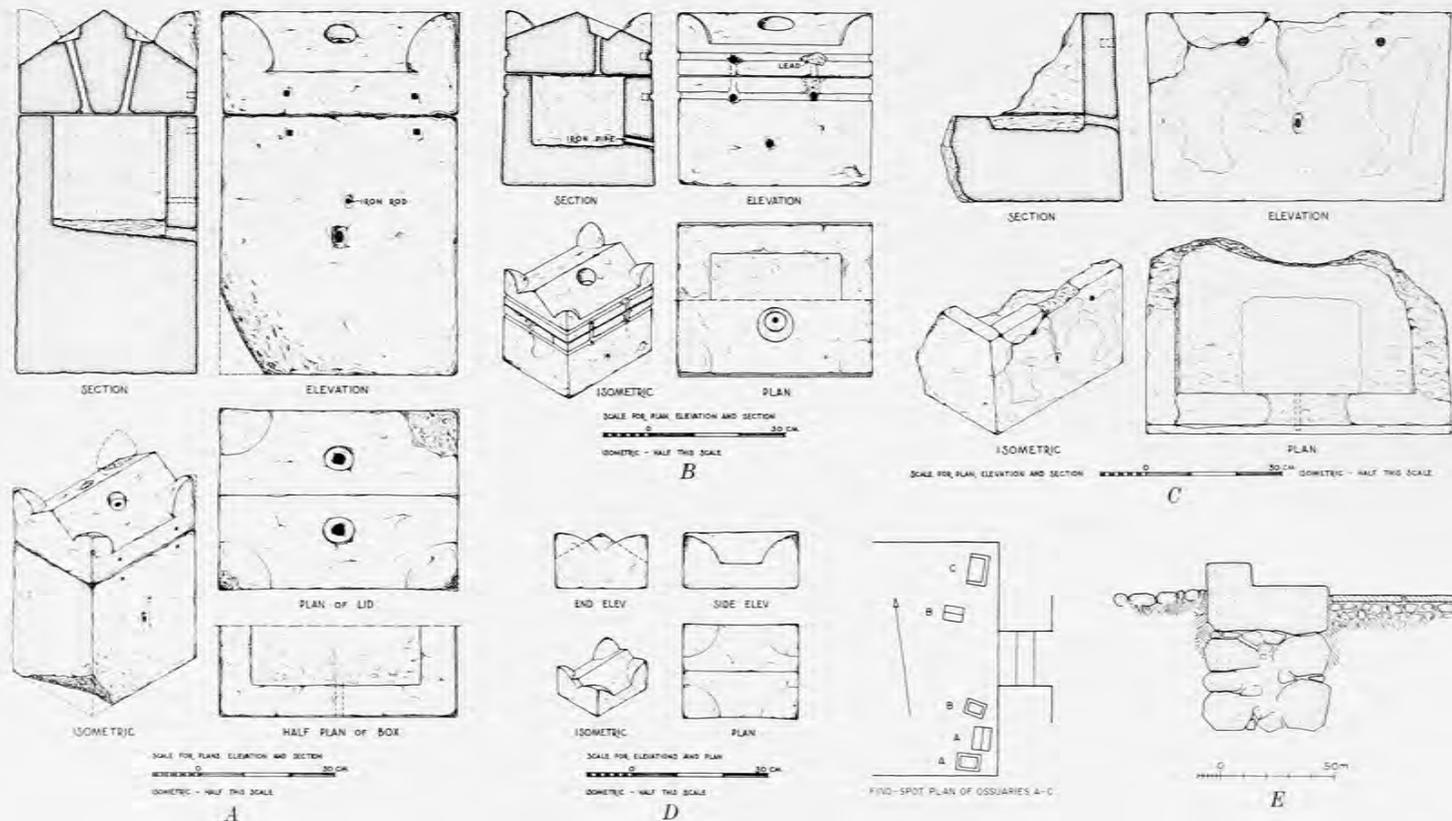
TELL AL-JUDAIDAH. PLANS OF TRENCHES IN J-K 14-15. A. LEVEL 2. B. LEVEL 1



TELL AL-JUDAIDAH. A, B. SECTIONS k-k and l-l. C. PLAN AND SECTION OF PLOT IN J 9. D. PLAN AND SECTION OF PLOT IN F 15



TELL AL-JUDAIDAH. A. DETAILS OF CISTERN D 8 1, LEVEL 1. B. ISOMETRIC OF BRICK BONDING IN NORTH AND WEST WALLS OF ROOM E 7 1, LEVEL 8. C. STONE WELLHEAD FROM CISTERN D 8 1, LEVEL 1. D. STONE SARCOPHAGUS ALONG EAST-WEST WALL IN F 7, LEVEL 1



TELL AL-JUDAIAH. A-C. OSSUARIES IN CHURCH, F 7, LEVEL 1. D. OSSUARY LID IN H 7, LEVEL 1. E. SECTION OF WEST DOOR SILL OF CHURCH, F 7, LEVEL 1



A



B



C



D

TELL TA'AYINAT. A. VIEW OF MOUND, LOOKING WEST. B. VIEW OF TELL TA'AYINAT AL-SAGHIR, LOOKING SOUTH. C. COLUMN BASES FLANKING DOORWAY OF VILLAGE HOUSE. D. COLUMN BASE ON SURFACE OF MOUND



A



B

TELL TAYINAT. *A.* FOUNDATIONS OF BUILDING I AND WALLS OF LOWER BUILDING XIV, LOOKING WEST. *B.* BUILDING XIII, LOOKING SOUTH



A



B

TELL TA-YINAT. *A.* VIEW OF COURTYARD VIII AND STONE STEPS TO ENTRANCE PORCH OF BUILDING IV, LOOKING NORTHEAST. *B.* FOUNDATION WALLS OF BUILDING IV, FLOOR 2, LOOKING SOUTHEAST



A



B

TELL TAYYINAT. *A.* STONE PAVING IN MAIN ROOM OF BUILDING IV, FLOOR I, LOOKING EAST.
B. ORTHOSTAT WITH SCULPTURED LION'S HEAD REUSED IN FOUNDATION OF
BUILDING IV, FLOOR I, LOOKING EAST



A



B

TELL TAYINAT. A. BUILDING VI, LOOKING WEST. B. COURTYARD VIII, LOOKING EAST. ROADWAY OF CUT STONE AT LOWER RIGHT, FOUNDATION FOR STONE STEPS TO PLATFORM XV AT UPPER RIGHT



A



B

TELL TAYINAT. *A.* STONE STEPS AND BAKED-BRICK PAVING OF PLATFORM XV, LOOKING EAST.
B. COURTYARD VIII SHOWING LATER STONE PAVING AND STEPS ALONG
NORTH FAÇADE OF BUILDING I, LOOKING SOUTHWEST



A



B

TELL TA'YINAT. SOUTHEAST CORNER OF BUILDING I, FLOOR 3. A. STONE GLACIS, LOOKING NORTH. B. CONSTRUCTION WITH STONE ORTHOSTATS, LOOKING WEST



A



B

TELL TA'AYINAT, BUILDING I, FLOOR 3. A. PORCH E, LOOKING SOUTH.
B. DETAIL OF CENTER COLUMN BASE



A



B

TELL TA'YINAT. BUILDING I, FLOOR 3. A. DOOR SILL AND BEGINNING OF STAIRWAY IN ROOM D, LOOKING NORTHWEST. B. JAMB AND SILL OF DOORWAY BETWEEN ROOMS J AND N, LOOKING SOUTH



A



B

TELL TASIYAT. BUILDING I. A. VIEW LOOKING SOUTHWEST, FLOORS 3-2.
B. DETAIL OF SOUTH WALL OF PORCH E, SHOWING BOTTOM OF FLOOR 1
FOUNDATION AND TOP COURSES OF FLOOR 2 WALL



A



B



C



D

TELL TA'YINAT. BUILDING I, PORCH E, FLOOR 2. A. VIEW OF PORCH, LOOKING SOUTH. B. STEPS FROM COURTYARD TO PORCH. C. COLUMN BASE AND WOOD FRAGMENTS ON FLOOR IN NORTHEAST CORNER. D. PROFESSOR BREASTED AND MCEWAN IN ENTRANCE TO PORCH



A



B

TELL TA'YINAT, BUILDING I, FLOOR I. A. DETAIL OF WALL AT SOUTHEAST CORNER OF PORCH. B. SOUTH DOORWAY BETWEEN PORCH AND ROOM F



A



B

TELL TAYINAT. BUILDING II. A. STONE GLACIS AT SOUTHEAST CORNER OF BUILDING I, AND NORTH-EAST PART OF TEMPLE PORCH, LOOKING NORTHWEST. B. DOUBLE-LION COLUMN BASE



A



B

TELL TAYINAT, BUILDING II. A. VIEW OF TEMPLE, LOOKING WEST.
B. VIEW OF SANCTUARY, LOOKING NORTHWEST



A



B

TELL TAYINAT. *A.* BUILDING II, DETAIL OF ALTAR IN SANCTUARY, LOOKING WEST.
B. BASALT OBELISK AND OTHER DRESSED STONES IN AREA V, LOOKING EAST



A



B

TELL TASYINAT. A. VIEW OF AREA V, LOOKING SOUTHWEST.
B. VIEW OF GATEWAY XII, LOOKING SOUTH



A



B



C

TELL TAYINAT. BUILDING IX. *A.* VIEW OF PALACE, LOOKING NORTH NORTHWEST. *B.* FLOOR OF ROOM C, LOOKING SOUTH. *C.* SILL AND PIVOT STONES AT DOORWAY A



A



B

TELL TA'YINAT. BUILDING IX. A. DRAIN AT LOCUS U. LOOKING WEST. B. LATER
DRAIN ABOVE PAVING OF ROOM Q, LOOKING NORTH



A



B

TELL TAINAT. GATEWAY III. A. VIEW OF GATEWAY, LOOKING SOUTH SOUTHEAST.
B. DETAIL OF WEST JAMB OF GATEWAY



A



B



C



D

TELL TA'YINAT. GATEWAYS XI AND VII. A. GATEWAY XI, LOOKING EAST SOUTHEAST. B. GATEWAY XI, LOOKING SOUTHWEST. C. GATEWAY VII, LOOKING WEST. D. GATEWAY VII, LOOKING EAST, WITH GATEWAY XI IN THE DISTANCE



A



B

TELL TA'AYINAT. BUILDING X. *A.* VIEW OF BUILDING, LOOKING SOUTH. *B.* VIEW OF BUILDING, LOOKING WEST



A



B



C

TELL TA'YINAT. A. VIEW OF T 9, LOOKING SOUTH. B. VIEW OF T 5, LOOKING WEST. C. T 14, DETAIL OF STRATA IN TELL TA'YINAT AL-SAGHIR



A



B



C

TELL TA'YINAT. VIEWS OF T 14, TELL TA'YINAT AL-SAGHIR



A



B



C



D

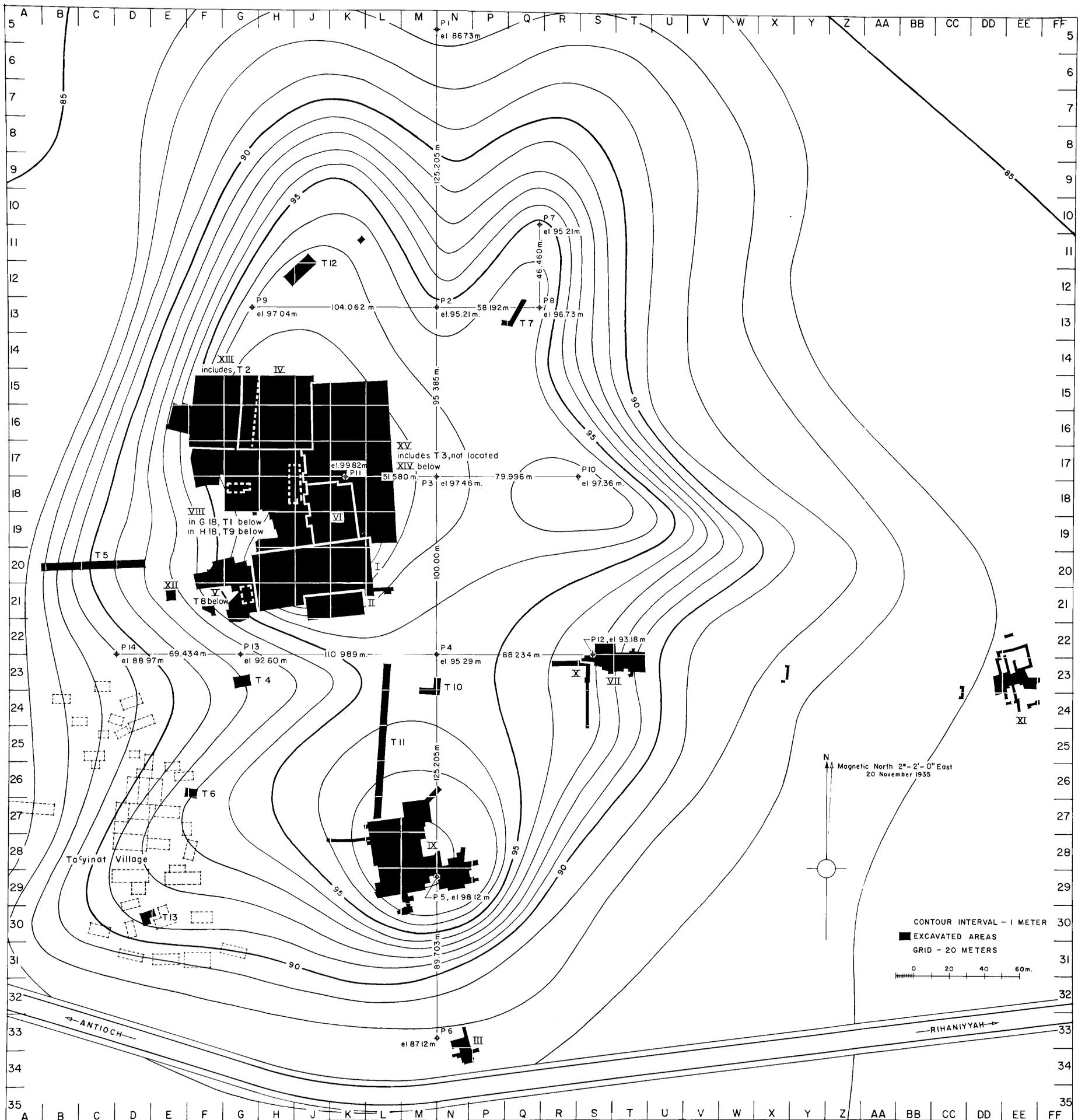


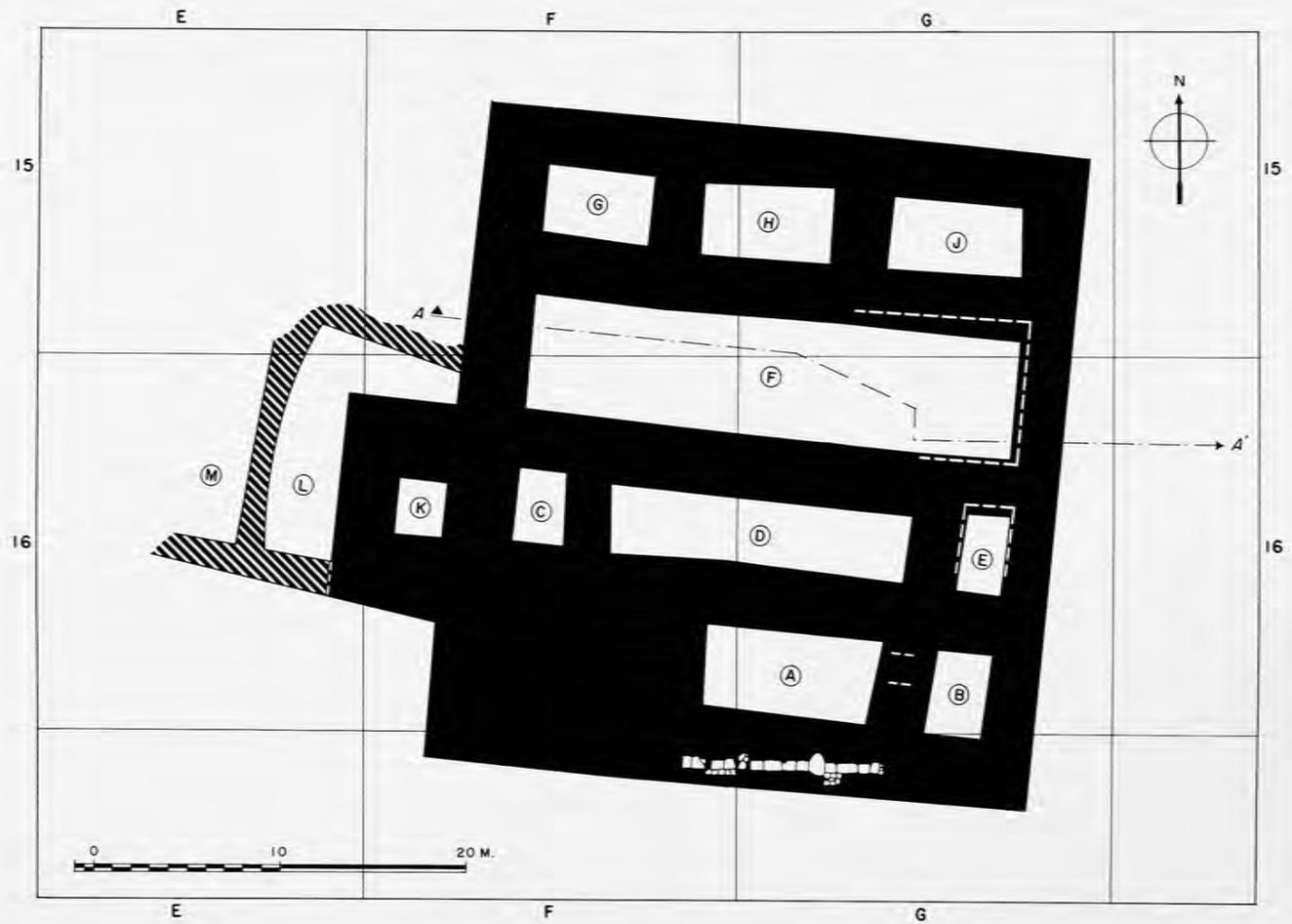
E

TELL TA-YINAT. A DUPLICATE OF THE WOOD-CRIB CONSTRUCTION USED IN BUILDING I. *A, B, C.* BUILDING THE WALL. *D.* BEFORE BURNING. *E.* AFTER BURNING



TELL TA'YINAT. AERIAL VIEW OF THE EXCAVATIONS AT THE END OF THE 1937 SEASON

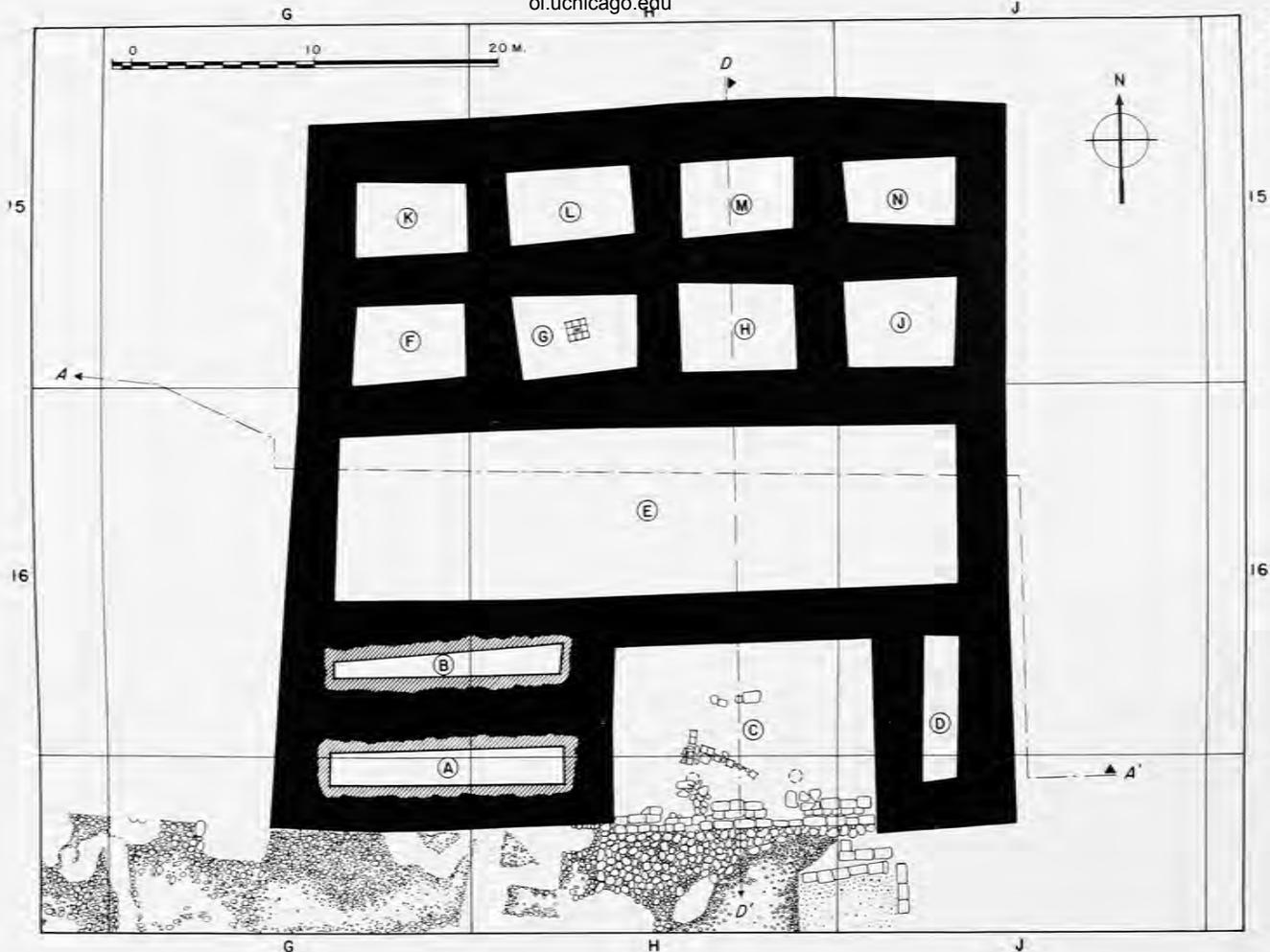




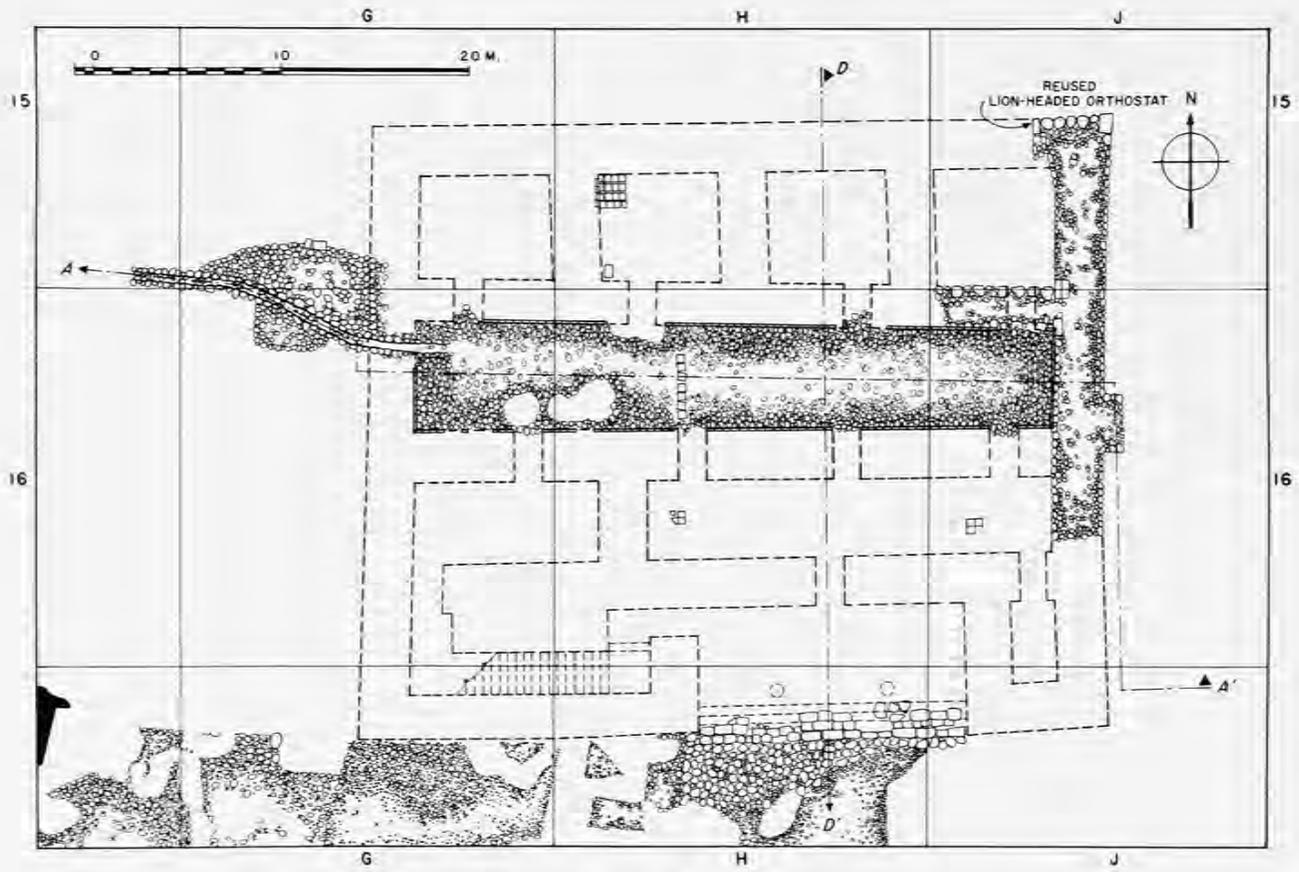
TELL TA'YINAT. PLAN OF BUILDING XIII



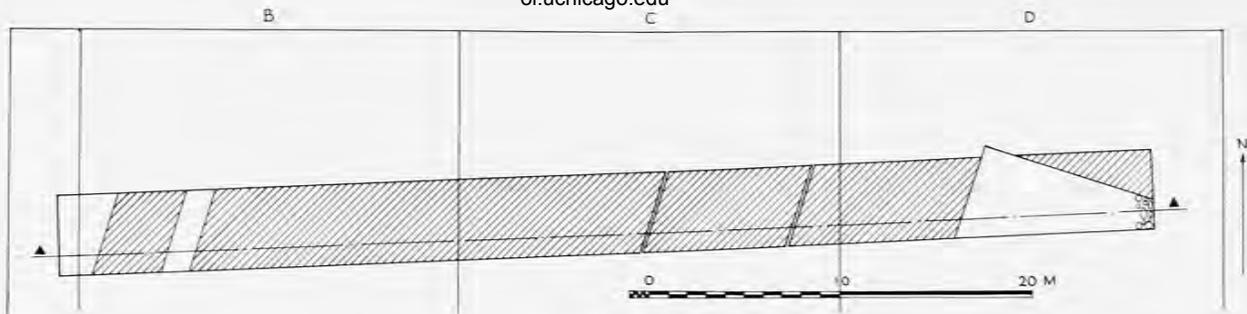
TELL TA'YINAT. PLAN OF BUILDING XIV



TELL TA'YINAT. PLAN OF BUILDING IV, FLOOR 2



TELL TAYINAT. PLAN OF BUILDING IV, FLOOR I



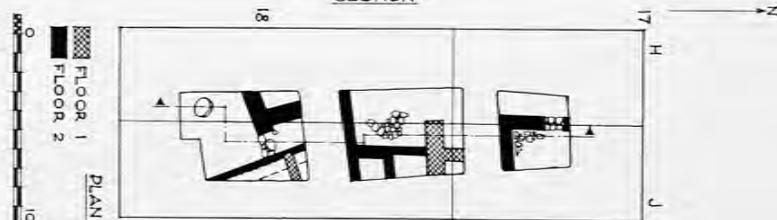
PLAN



SECTION



SECTION

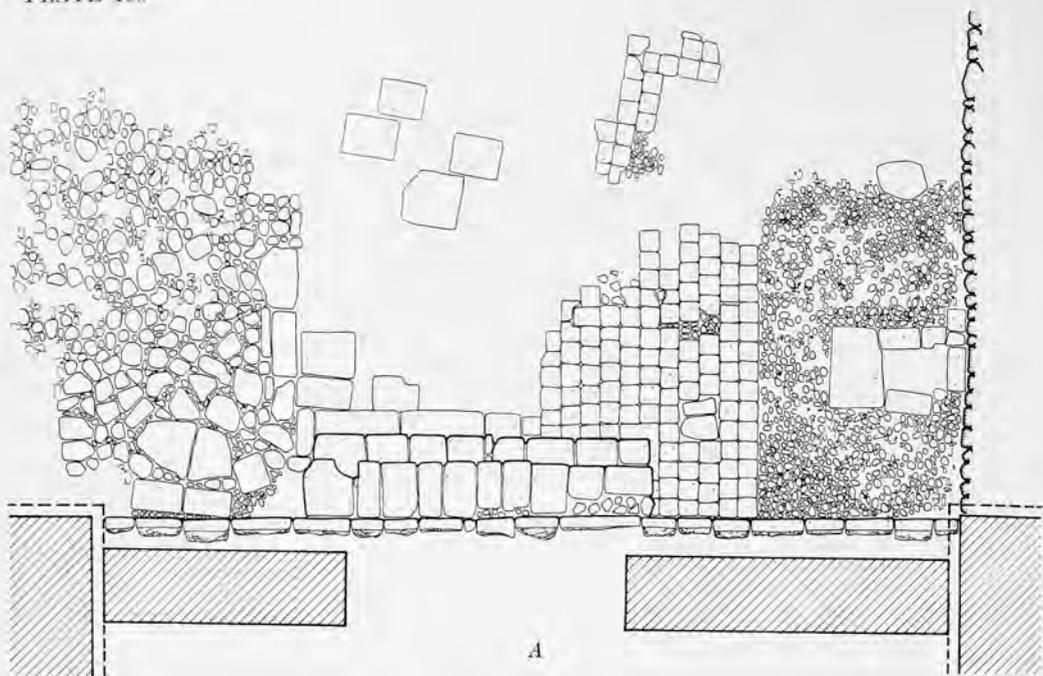


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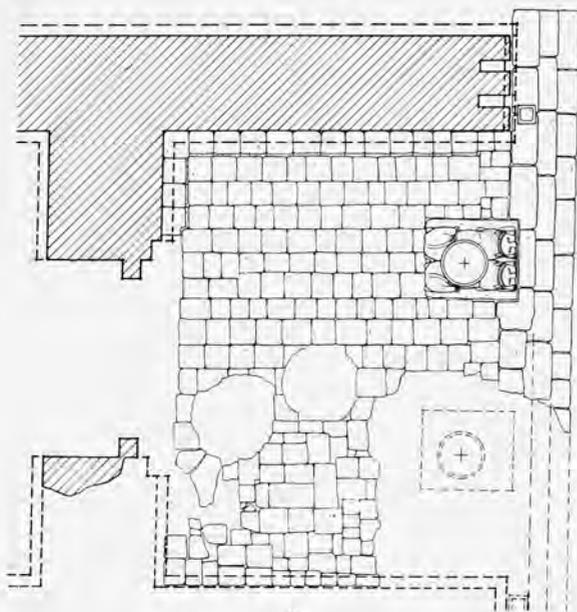
TELL TAYINAT. PLANS AND SECTIONS. A. T 5. B. T 9



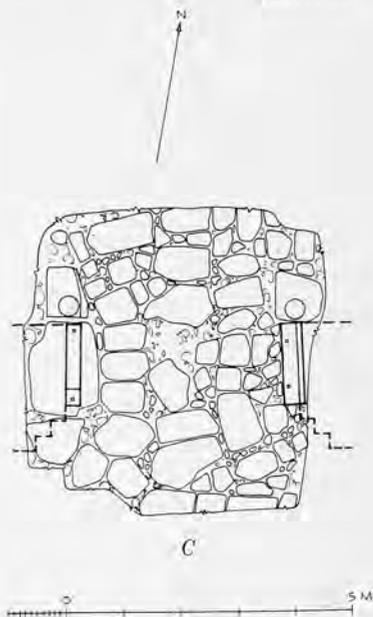
TELL TA'AYINAT. PLAN OF COURTYARD VIII



A

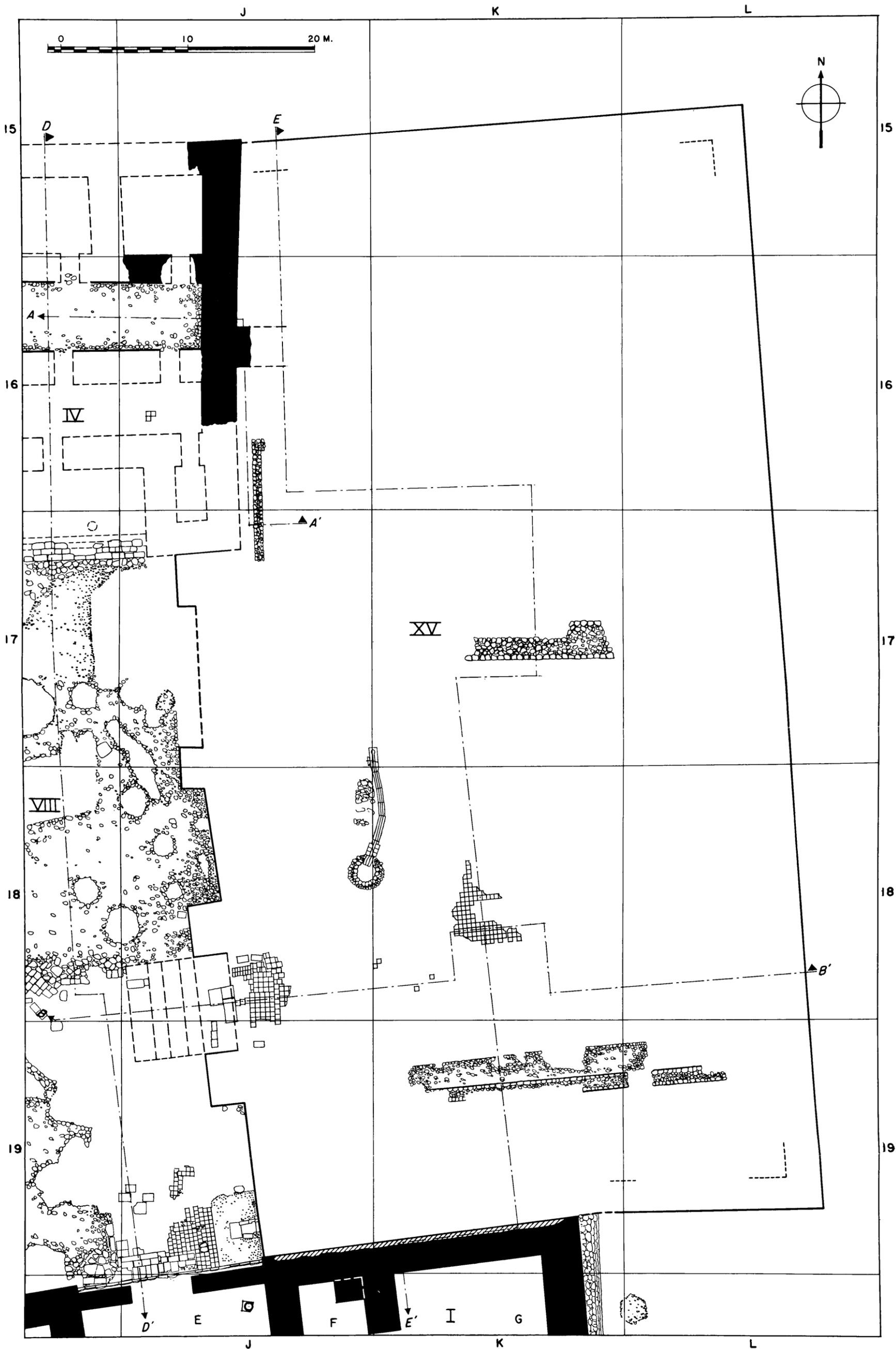


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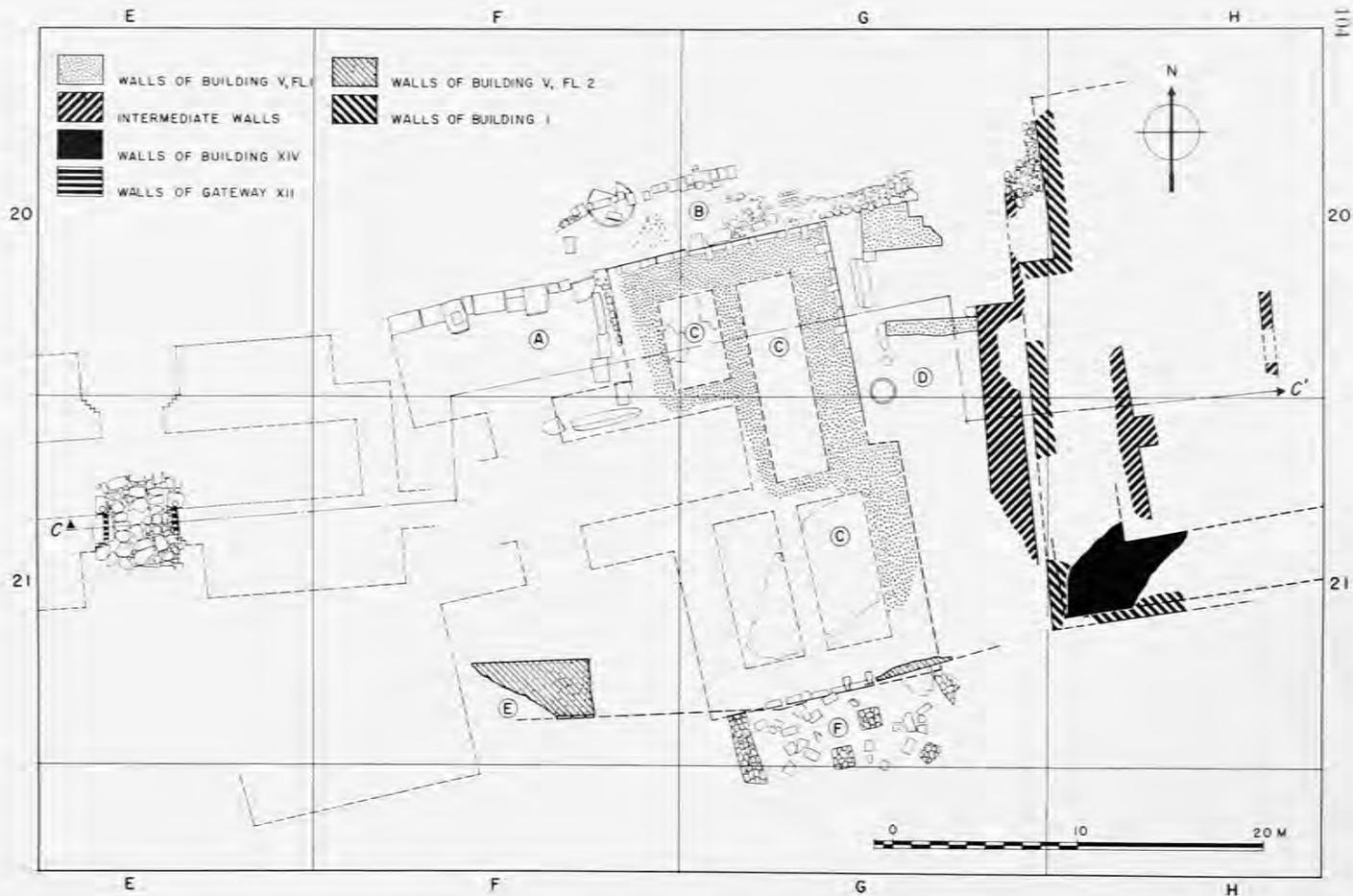


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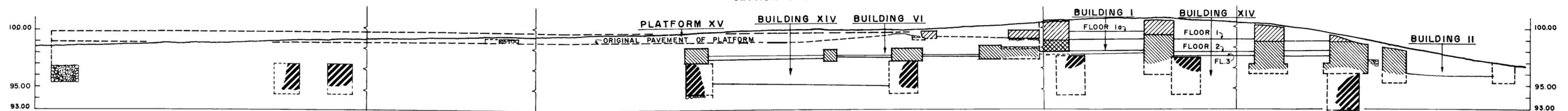
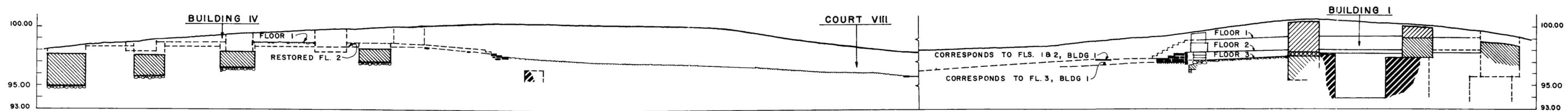
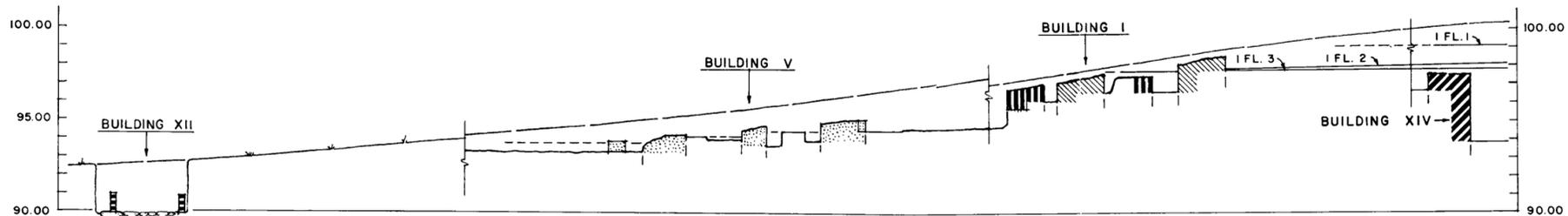
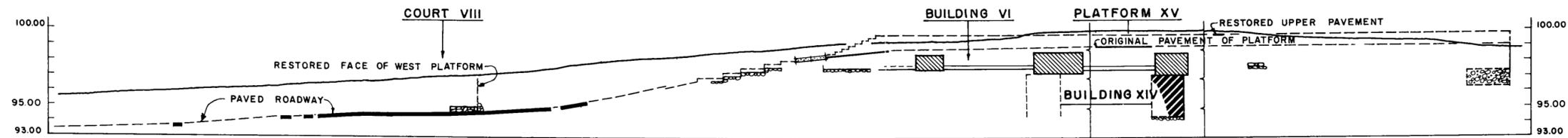
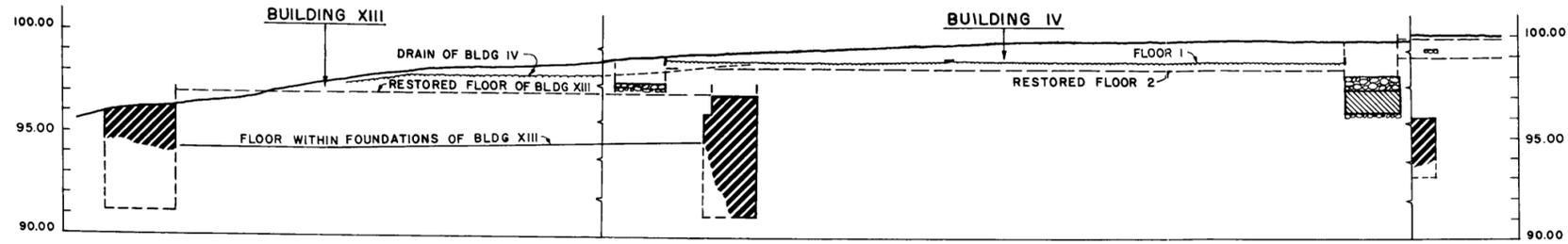
TELL TAYINAT. DETAIL PLANS OF PAVINGS. A. IN FRONT OF BUILDING I.
B. PORCH OF BUILDING II. C. GATEWAY XII



TELL TA'AYINAT. PLAN OF PLATFORM XV



TELL TAYINAT. PLANS OF AREA V AND GATEWAY XII



WALLS OF BUILDINGS XIII & XIV

WALLS OF BUILDING I, FL. 3 & CONTEMPORARY BUILDINGS

WALLS OF BUILDING I, FL. 2

WALLS OF BUILDING I, FL. 1 & CONTEMPORARY CONSTRUCTION

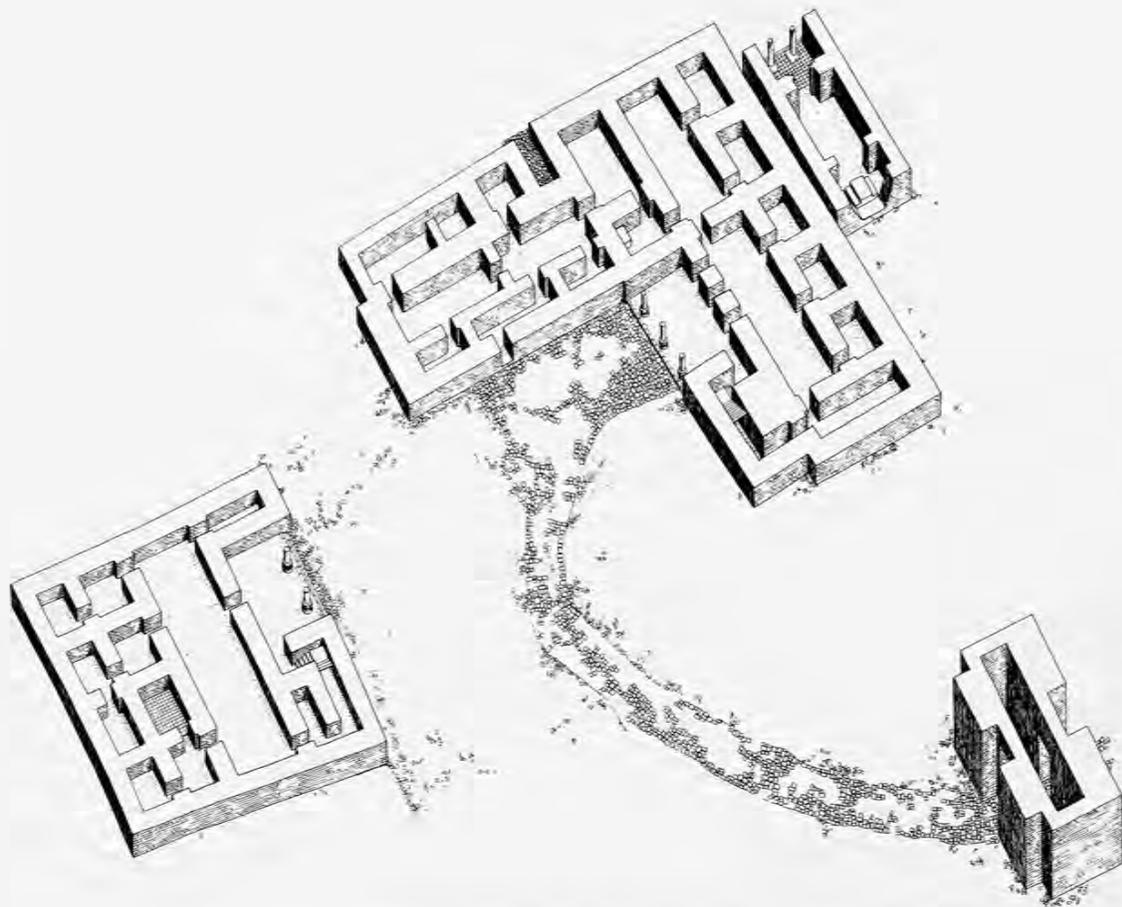
INTERMEDIATE WALLS BETWEEN BUILDINGS XIV & I

WALLS OF BUILDING V

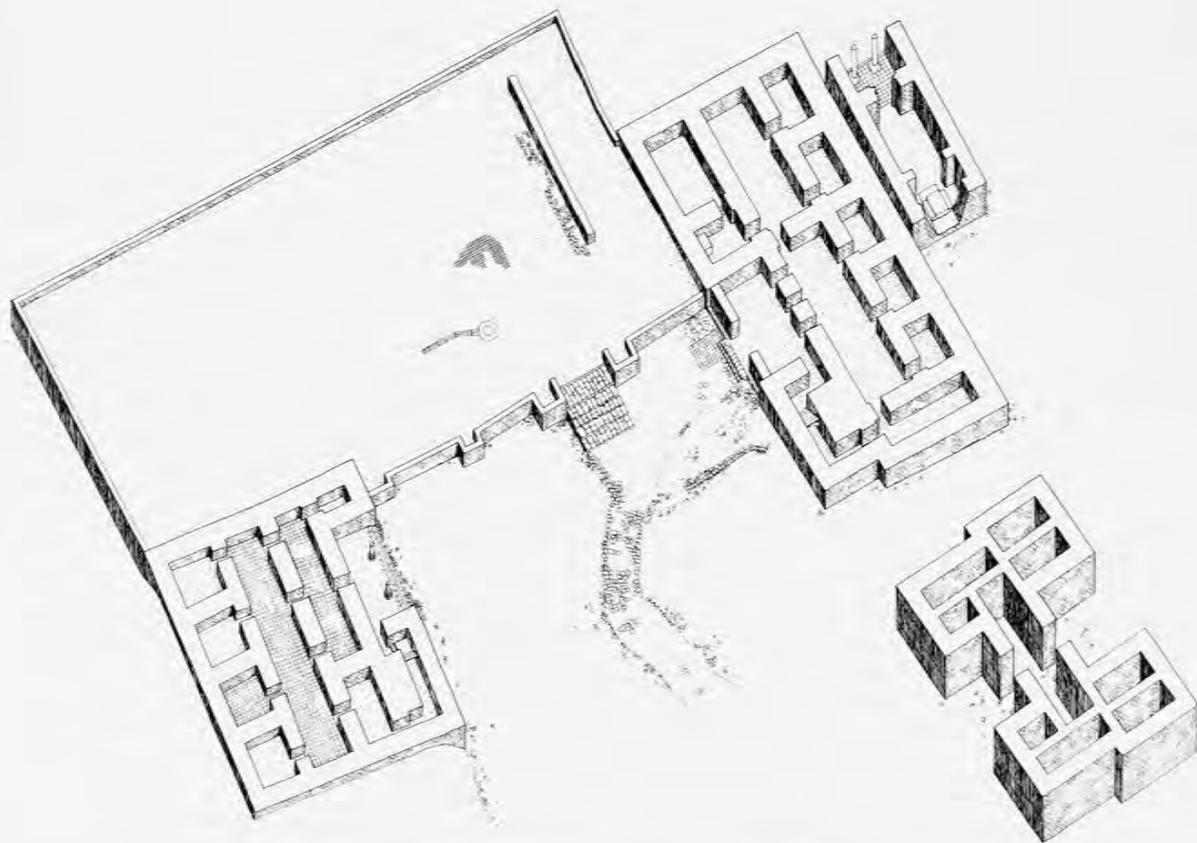
WALLS OF GATEWAY XII

STONE FOUNDATIONS

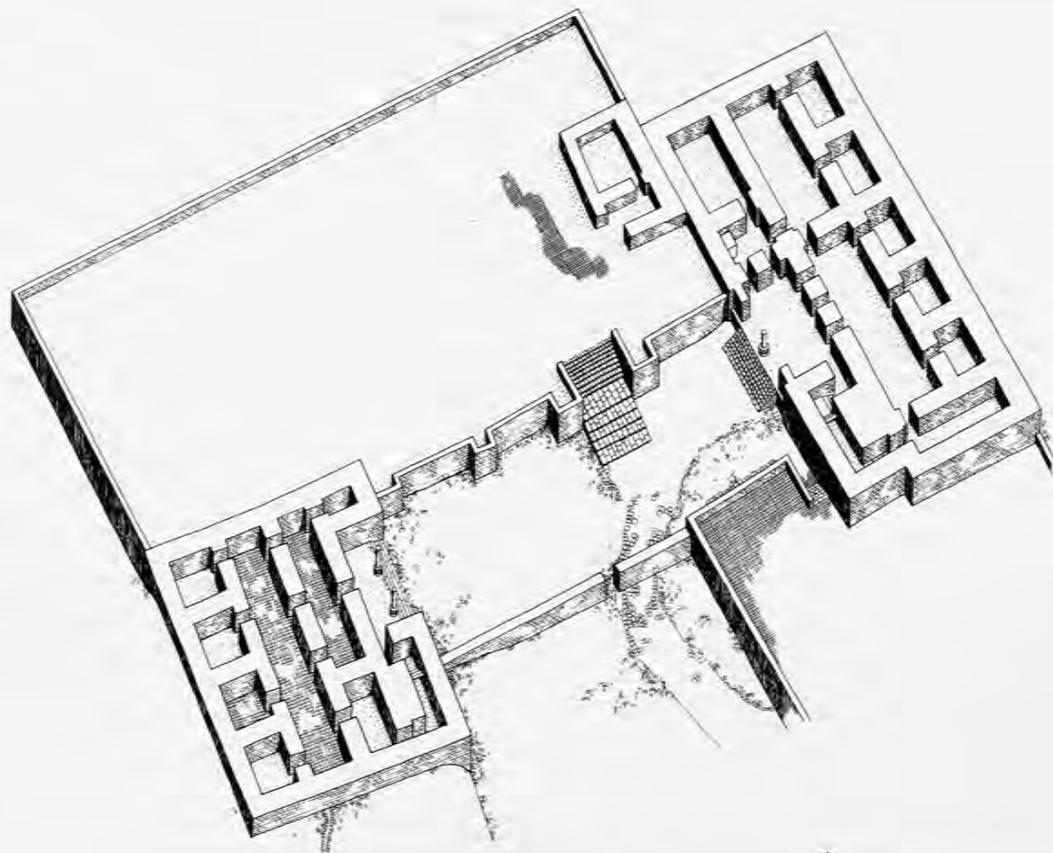
TELL TAYINAT. SECTIONS OF WEST CENTRAL AREA, A-A' TO E-E'



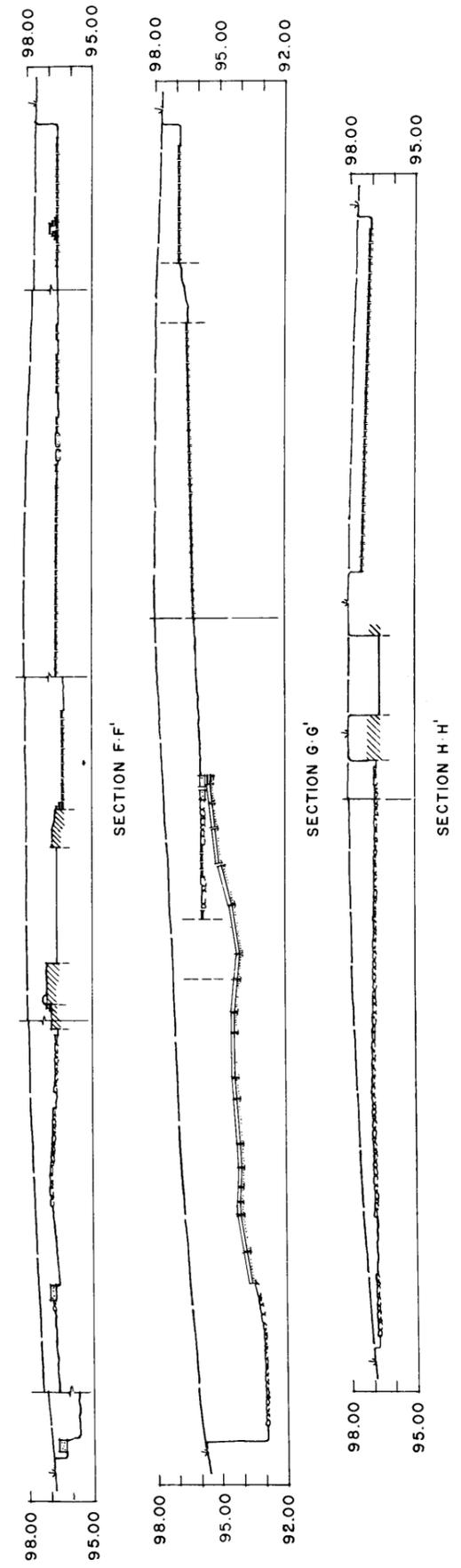
TELL TA'AYINAT. ISOMETRIC VIEW OF WEST CENTRAL AREA, SECOND BUILDING PERIOD



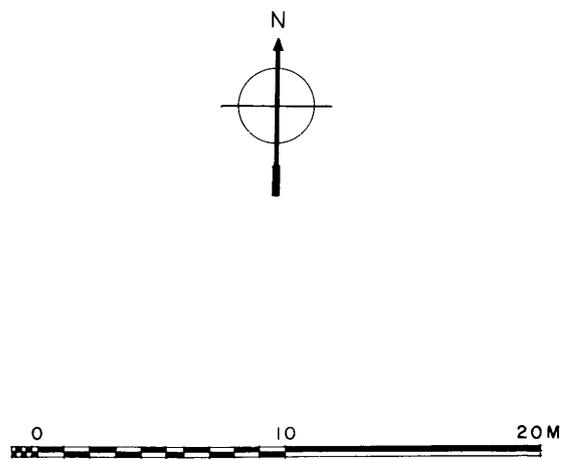
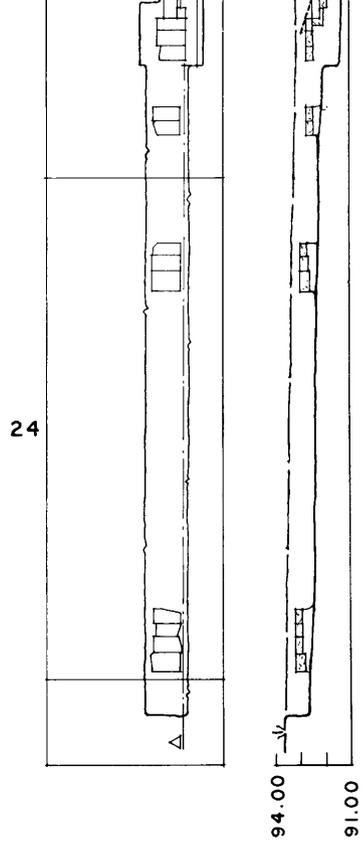
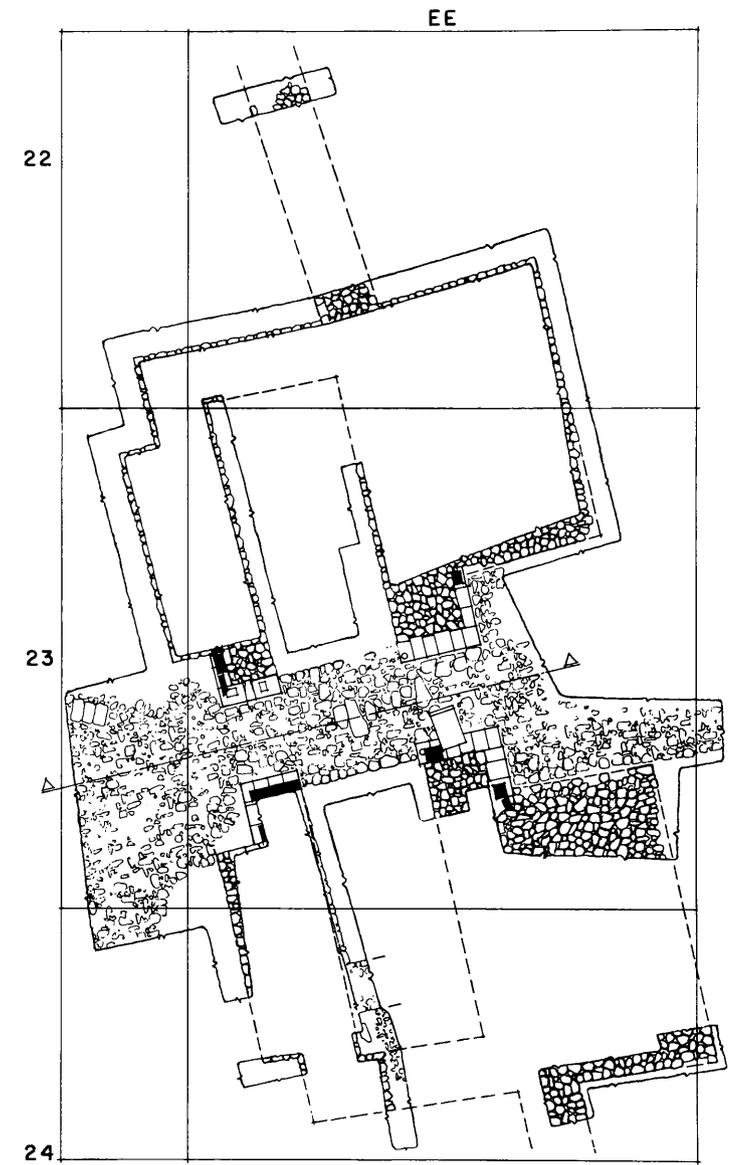
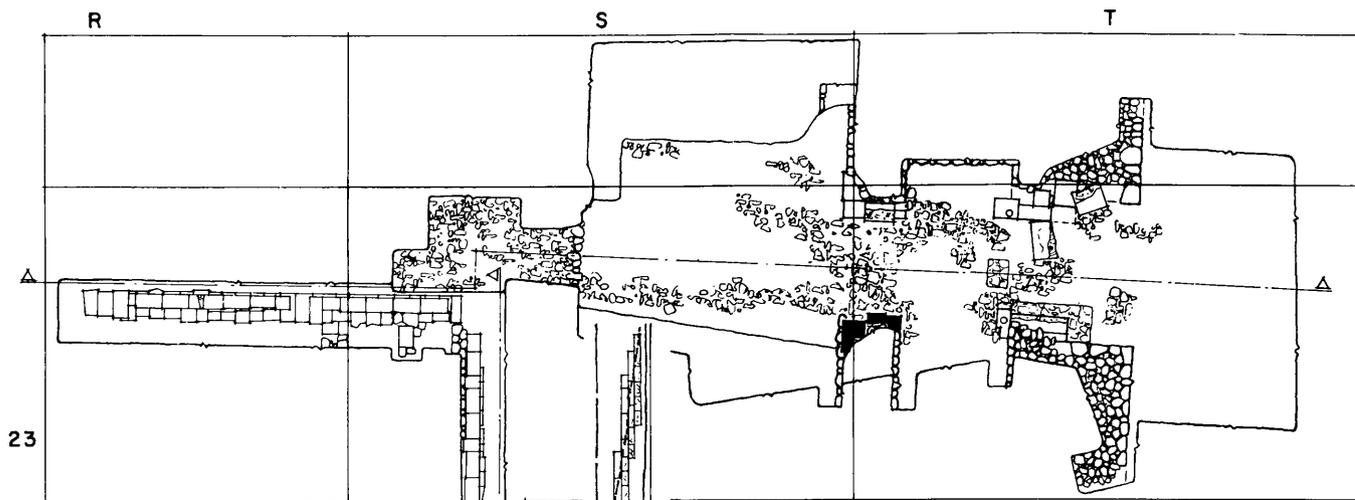
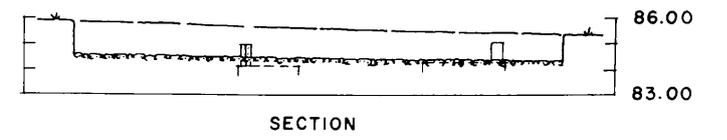
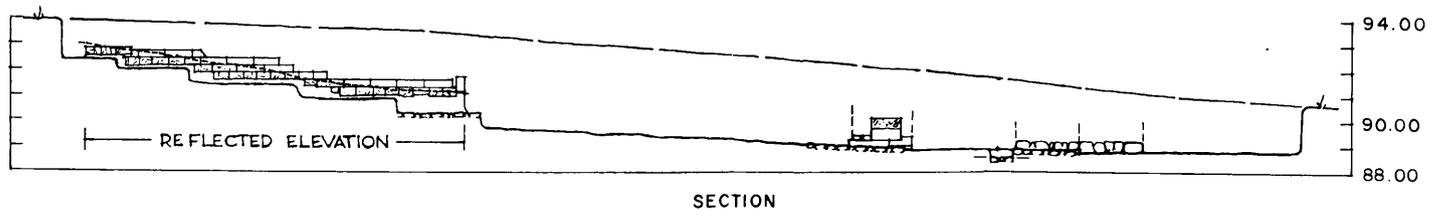
TELL TAYINAT. ISOMETRIC VIEW OF WEST CENTRAL AREA, THIRD BUILDING PERIOD



TELL TA'YINAT. ISOMETRIC VIEW OF WEST CENTRAL AREA, FOURTH BUILDING PERIOD



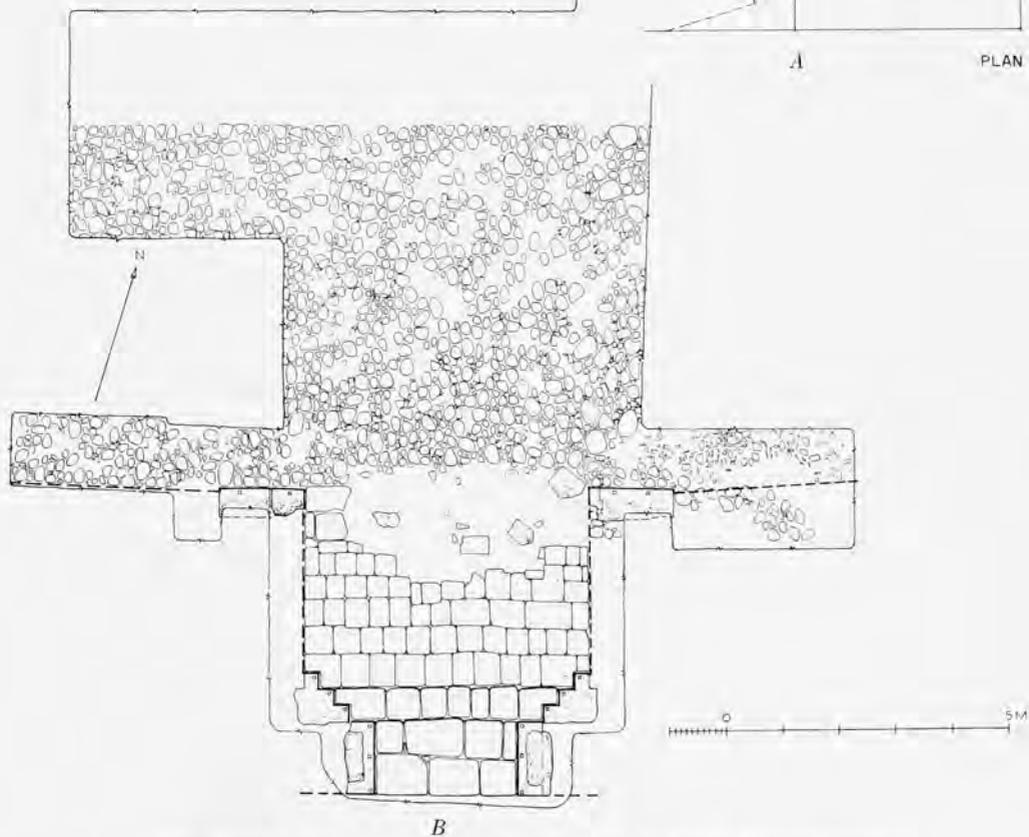
TELL TĀSINAT. PLAAND SECTIONS OF BUILDING IX



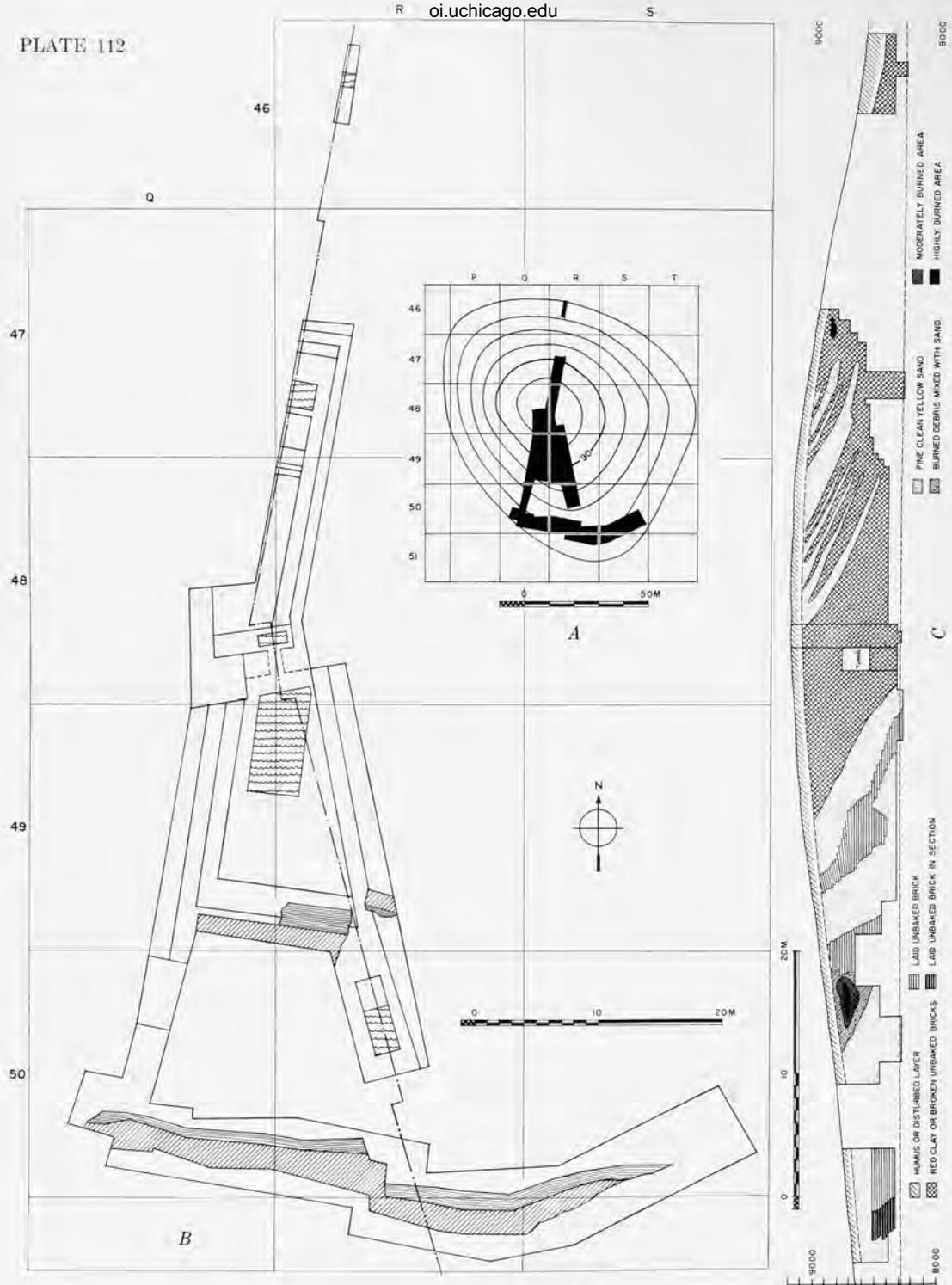
A

B

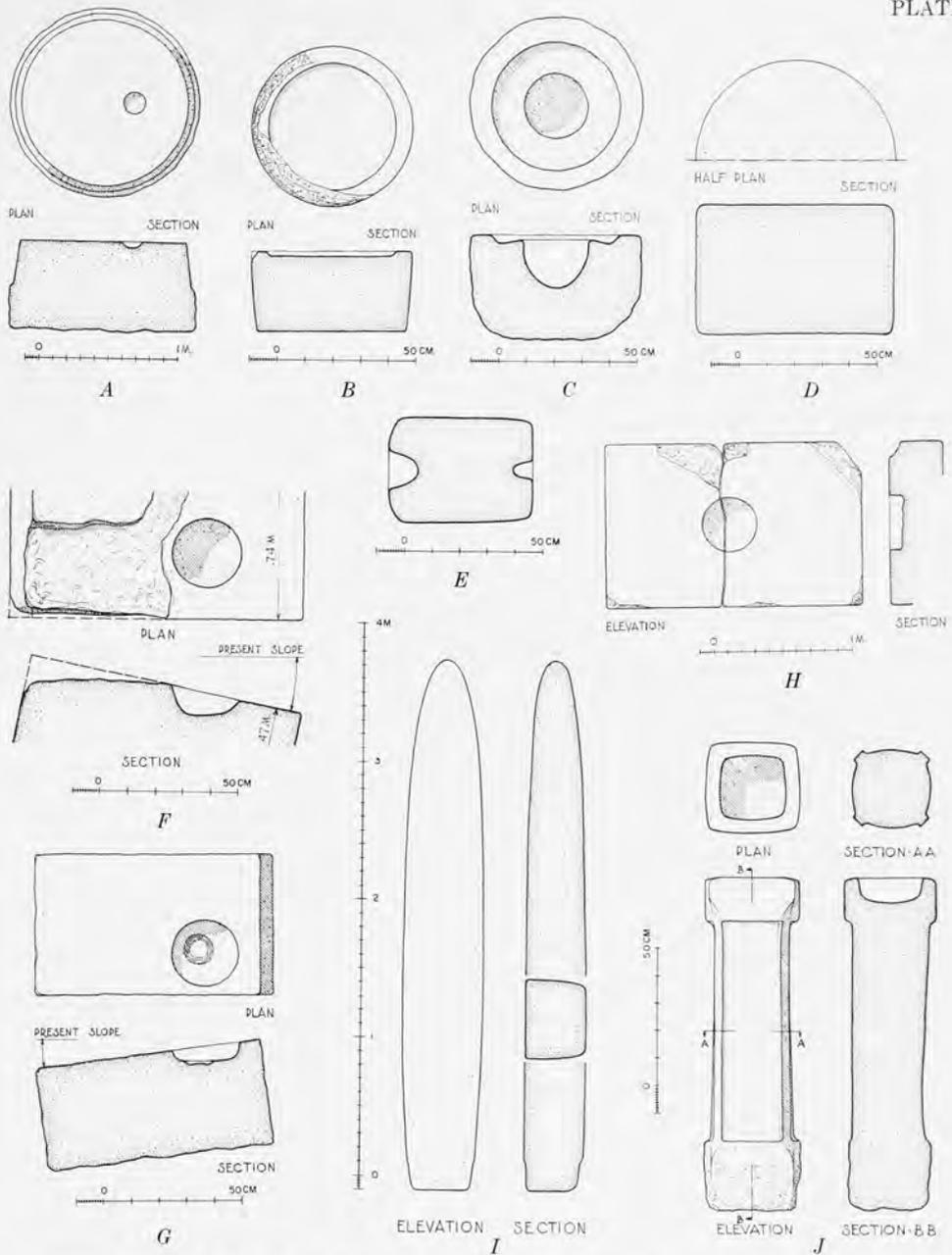
TELL TA'YINAT. PLANS AND SECTIONS A. GATEWAY VII AND BUILDING X. B. GATEWAY XI



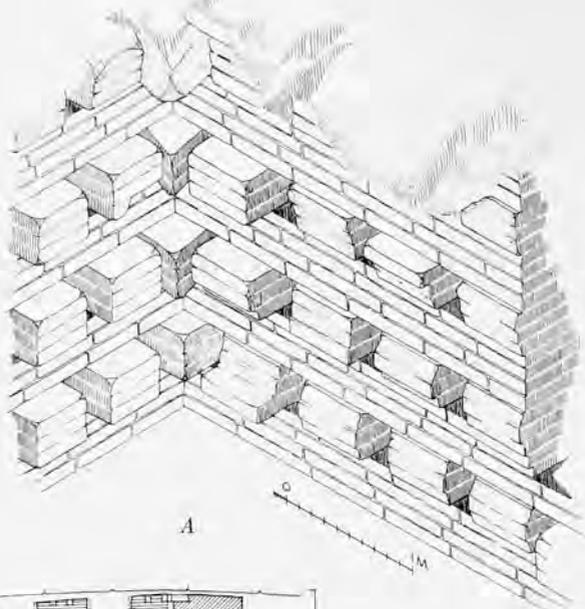
TELL TA'YINAT. GATEWAY III. A. PLAN AND SECTION. B. DETAIL PLAN OF PAVING



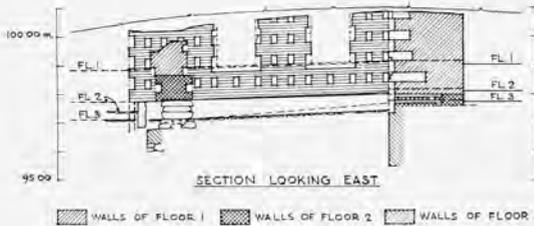
TELL TAYINAT. T 14, TELL TAYINAT AL-SAGHIR. A. PLOT PLAN. B. PLAN OF EXCAVATED AREA. C. SECTION



TELL TA'YINAT. A. BASALT BASE, AREA V, LOCUS D. B. BASALT BASE, BUILDING I, ROOM F AT FLOOR 1. C. BASALT MORTAR, BUILDING I, ROOM F AT FLOOR 2. D. BASALT BASE, COURTYARD VIII. E. SANDSTONE ROOF ROLLER, BUILDING I, ROOM F AT FLOOR 1. F. BASALT PIVOT STONE, NORTH JAMB OF EAST DOOR, GATEWAY VII. G. BASALT PIVOT STONE, NORTH JAMB OF EAST DOOR, GATEWAY XI. H. BASALT JAMB STONE, SOUTH SIDE OF WEST DOOR, GATEWAY XI. I. BASALT OBELISK, AREA V, LOCUS A. J. BASALT PEDESTAL WITH BASIN, BUILDING II, LOCUS A

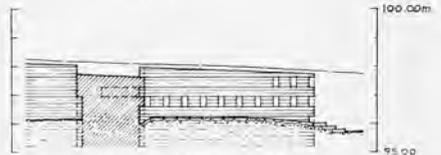


A

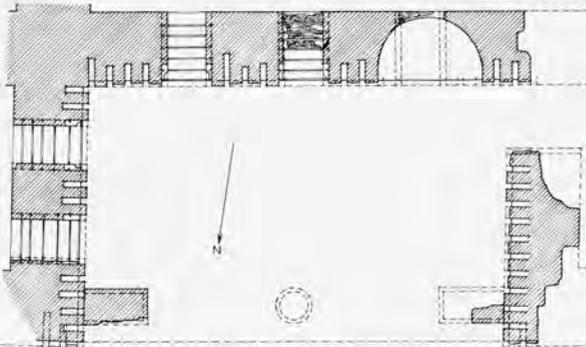


SECTION LOOKING EAST

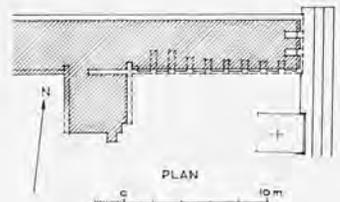
WALLS OF FLOOR 1 WALLS OF FLOOR 2 WALLS OF FLOOR 3



SECTION LOOKING NORTH



PLAN AT FLOOR 1



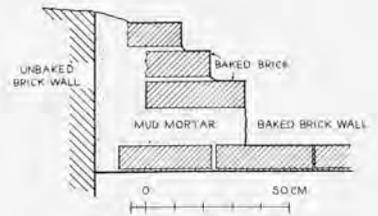
PLAN

C



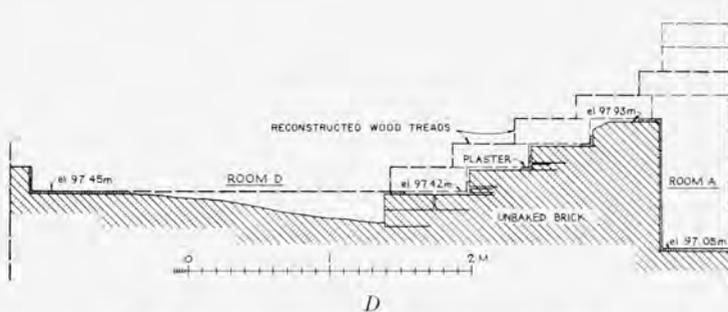
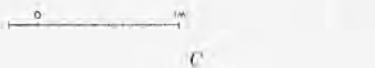
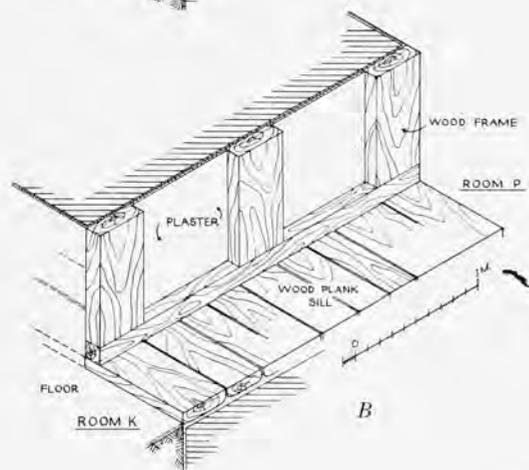
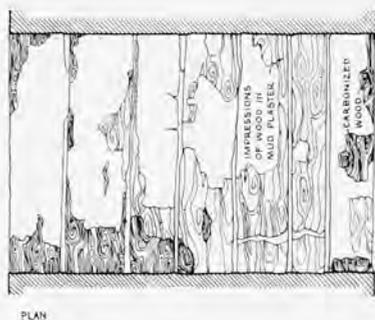
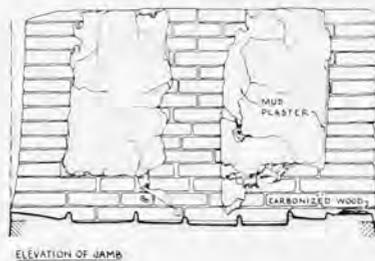
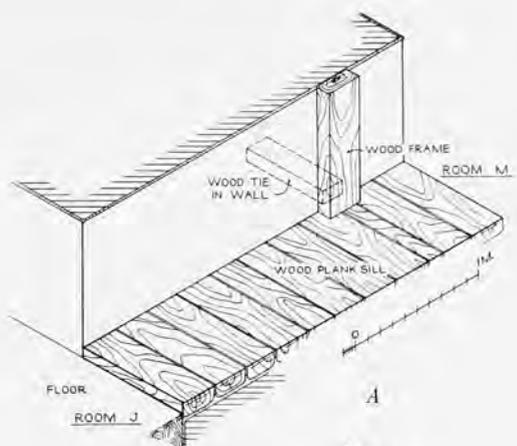
PARTIAL PLAN AT FLOOR 2

B

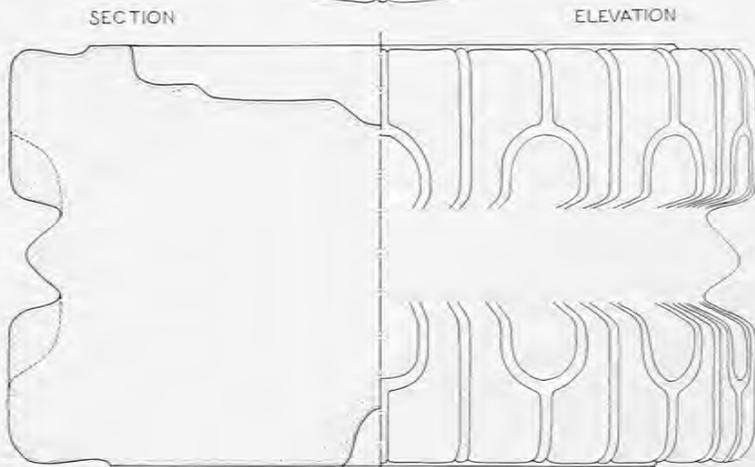
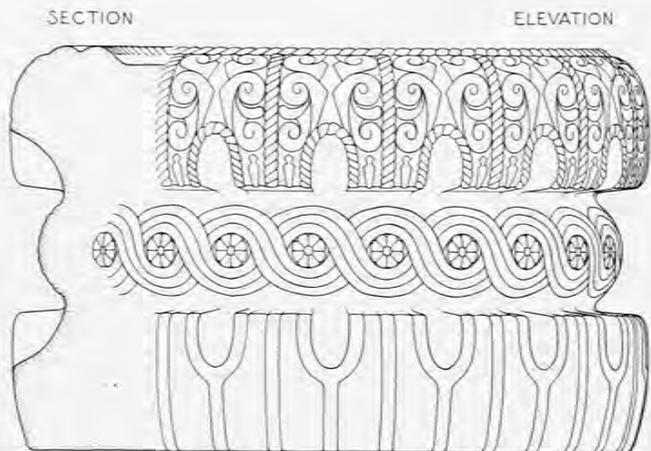
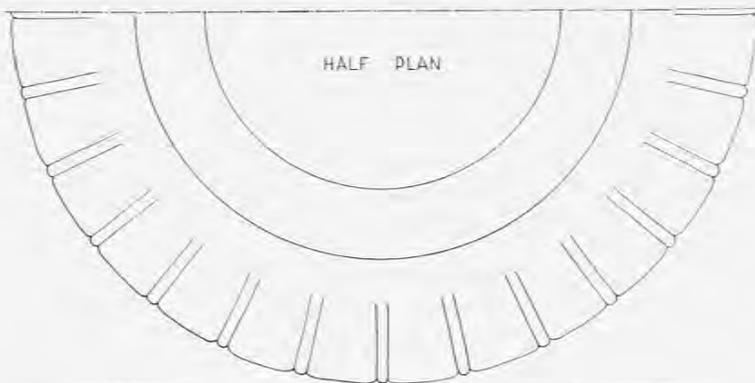
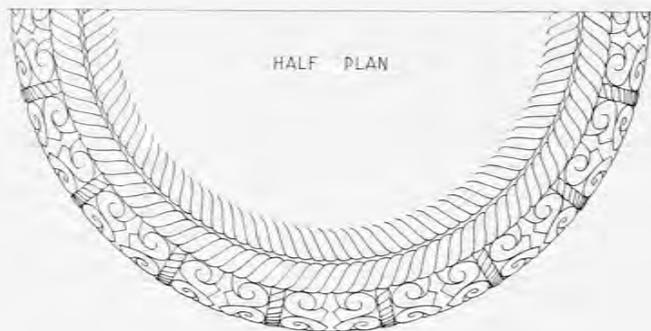


D

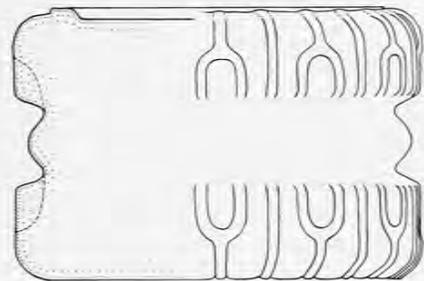
TELL TAYINAT. A. SKETCH OF SOUTHEAST CORNER OF PORCH, BUILDING I, FLOOR 1. B. DETAILS OF PORCH WALL CONSTRUCTION, BUILDING I. C. DETAIL OF PORCH WALL CONSTRUCTION, BUILDING II. D. DETAIL OF BRICK WALL REVETMENT, BUILDING IX, LOCUS E



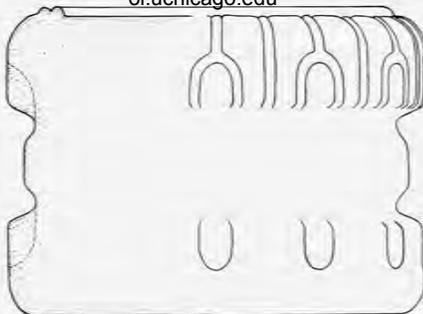
TELL TAYINAT. BUILDING I. *A.* ISOMETRIC SKETCH OF RESTORED DOORWAY BETWEEN ROOMS J AND M, FLOOR 1. *B.* ISOMETRIC SKETCH OF RESTORED DOORWAY BETWEEN ROOMS K AND P, FLOOR 3. *C.* PLAN AND ELEVATION OF DOORWAY BETWEEN ROOMS J AND N, FLOOR 3. *D.* SECTION OF ROOM D AND BRICK STAIR CONSTRUCTION, FLOOR 3



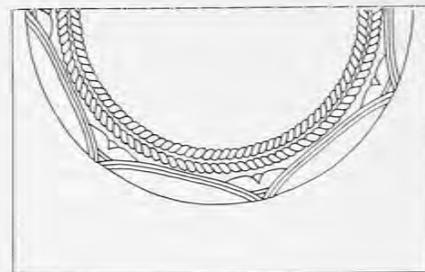
TELL TA'YINAT. BASALT COLUMN BASES. A. FROM PORCH E OF BUILDING I, FLOOR 3. B. FROM SURFACE OF MOUND



SECTION AND ELEVATION

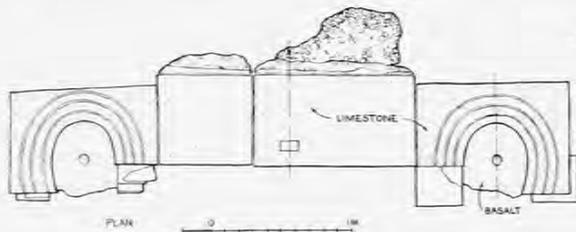


SECTION AND ELEVATION



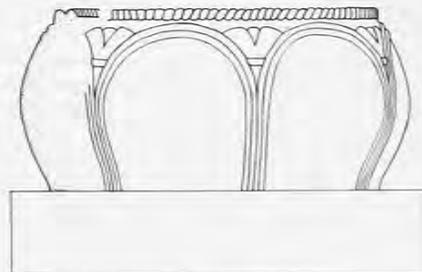
PLAN

A



PLAN

BASALT

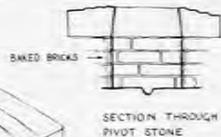


SECTION AND ELEVATION

B

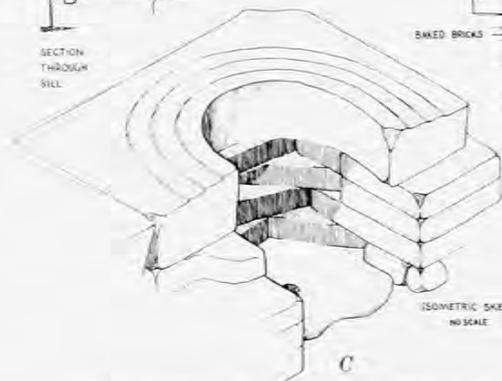
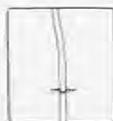


SECTION THROUGH SILL



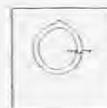
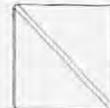
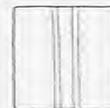
BAKED BRICKS

SECTION THROUGH PIVOT STONE



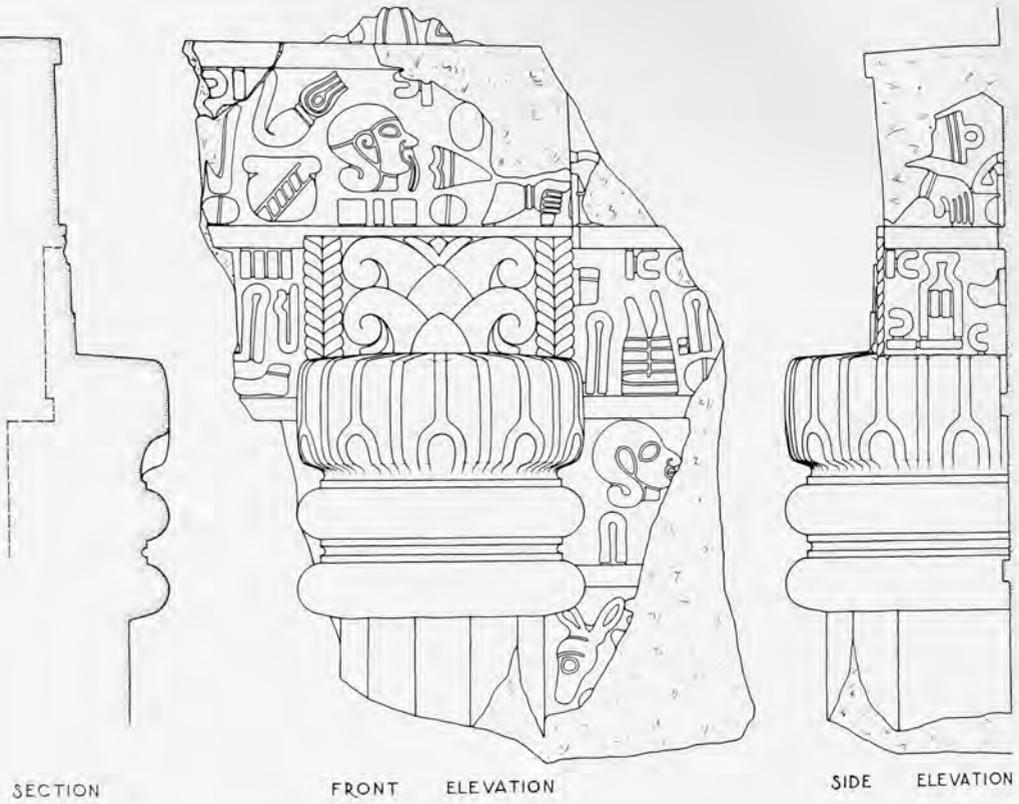
ISOMETRIC SKETCH
NO SCALE

C

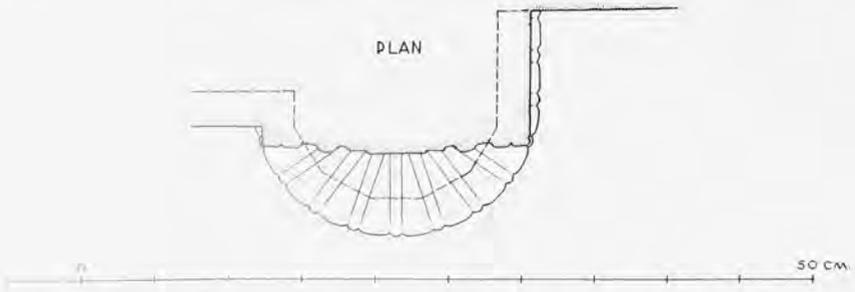


D

TELL TA'YINAT. A. SECTION-ELEVATION OF BASALT COLUMN BASES FROM LEFT AND RIGHT OF DOORWAY IN VILLAGE. B. LIMESTONE COLUMN BASE IN PORCH OF BUILDING I, FLOOR 2. C. DETAILS OF STONE SILL AND DOOR SOCKETS IN BUILDING IX, LOCUS A. D. MAKERS' MARKS ON UNBAKED BRICKS FROM WALLS OF BUILDING I, FLOOR 1



PLAN



TIDE TAVINAT, DETAILS OF BASALT THRONE FRAGMENT FROM COURTYARD VIII