

UCH TEPE

I

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Ministry of Culture and Information

Republic of Iraq

THE CHICAGO-COPENHAGEN EXPEDITION TO THE HAMRIN

UCH TEPE

I

Tell Razuk
Tell Ahmed al-Mughir
Tell Ajamat

By

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The University of Chicago
THE ORIENTAL INSTITUTE

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University of Copenhagen
THE INSTITUTE OF ASSYRIOLOGY

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University of Copenhagen
INSTITUTE OF CLASSICAL AND NEAR EASTERN ARCHAEOLOGY

UCH TEPE I

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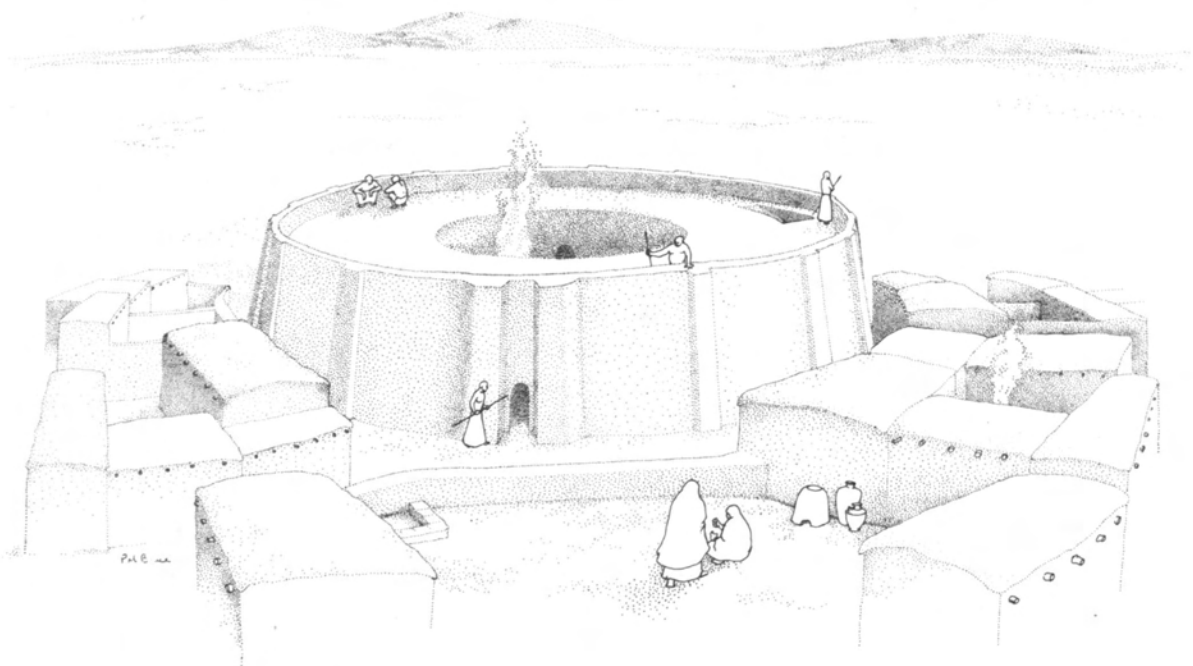
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Mogens Trolle Larsen

McGuire Gibson

Carl Nylander

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Chapter I

INTRODUCTION

McGuire Gibson

When the Iraqi State Organization of Antiquities announced the beginning of the Hamrin Salvage Project (Pls. 1-2), there was a great deal of interest at the Oriental Institute in Chicago and in Copenhagen. The Hamrin area is just north of the Diyala Basin, where the Institute sponsored major excavations in the 1930's, and a survey by Thorkild Jacobsen and Robert McC. Adams in the late 1950's. It was thought that work in the Hamrin would yield information to complement both those research projects. Further, it was expected that the Hamrin Basin, at the assumed frontier between Babylonia and Assyria and astride the main route to Iran, would give much information on international relations and trade. Recent work at Nippur, concentrating on the Isin-Larsa, Old Babylonian, Kassite and first millennium, B.C., should find comparative material in the Hamrin.

In conversations with Mogens Trolle Larsen, it became obvious that there would be considerable advantage in making the Hamrin operation a joint Chicago-Copenhagen effort. Copenhagen had not fielded an expedition in Mesopotamia since the Shimshara excavations of the late 1950's, and thus had limited resources in personnel for an independent expedition. There were a number of eager Danish students, with experience in prehistory or in historical excavations outside Iraq, but little or no acquaintance with mudbrick architecture and deep stratification. The Hamrin would present an opportunity to train a new generation of Danish Mesopotamian archaeologists. From Chicago's point of view, taking Danish students funded by Copenhagen was advantageous because it would allow an increase in the number of staff members without the usual burden of transatlantic air fares.

From the beginning, it was agreed that the staff should be combined, so that the Copenhagen contingent would work with the Chicago staff, who had more experience in mudbrick. It was an aim of the expedition to prepare the Danish members for separate operations as soon as feasible.

In the fall of 1977, Larsen and Carl Nylander visited Iraq and during their stay, we made a tour of the Hamrin Basin. We had been told by Dr. Behnam Abu Soof to examine a number of sites, especially Uch Tepe (Üç Tepe, 'Three Mounds', Turkish) in the northern end of

the valley. We inspected these mounds and found very little pottery on any of them. It was clear that Ahmed al-Mughir had some Kassite material, that Tepe al-Atiqeh had a few sherds that might be third millennium B.C., but Tell Razuk yielded no diagnostic pieces. In general, we were not very much impressed with Uch Tepe, although the neighboring Abu Shi'afch, with its Sasanian sherds, was attractive to Nylander and me, because our interests include the late periods. Uch Tepe did have the advantage of providing more than one tell, allowing separate Danish and American operations if we wished. Also, the tells were relatively small and might be excavated to a significant extent with our resources.

In September, 1978, arriving to begin work in the Hamrin, we had still no definite commitment to a site. Once again, Larsen and I went with the assembled staff to the Hamrin and inspected a few tells, and made a more thorough collection of the Uch Tepe sites. This time, we found definite evidence of Akkadian occupation on Tepe al-Atiqeh. Because we know far too little of the Akkadian period, and because there were few sites of this period in the Hamrin, we decided to take Uch Tepe. Razuk still remained a mystery as to date, although the fabric of a few body sherds appeared to be late, probably Islamic. But, a number of flints on the site hinted at earlier occupations. We also were able to determine from surface collection that Ahmed al-Mughir would yield not only Kassite, but Isin-Larsa material. The possibility of finding tablets datable to the ascendancy of Eshnunna supported our decision to take Uch Tepe.

The staff for the first season was comprised of myself as Director; Sayyid Hussayn Ali Hamza as our Iraqi colleague; Mogens Trolle Larsen as epigrapher; Richard L. Zettler, Ingolf Thuesen, James A. Armstrong, Perry L. Gnivecki and Jesper Eidem as site supervisors. John Sanders was the architect. Peggy May Bruce was photographer and draftsman. Mette Mortensen was registrar and site supervisor. James Armstrong was obliged to leave after the first month due to family illness. At Christmas, Mette Mortensen returned to Denmark, and was succeeded by Olof Pedersén as registrar. Bodil Mortensen came at this time to serve as a site supervisor. Jill A. Maher spent the month of November as conservator and general assistant. James R. Mesplay, a ceramicist, came to make experiments with local clays and to observe local people making pottery, but the late start of the season restricted his time at Uch Tepe to a few days. For the first week of the season, Dr. Robert Eidt, a soil chemist from the University of Wisconsin at Milwaukee, took surface samples from the tells and from the fields around them. He has been working for some years on a method to determine the nature of sub-surface material from the chemical composition of surface soil. In past years, we have taken samples for him from graves, living floors, pits and other contexts at Nippur. Marco Nielsen, Ramzi Wahba, Marnie Akins and Audrey Tajeddin gave volunteer help at the site for varying periods.

The better part of three weeks was spent in preliminary preparations in Baghdad and in obtaining a house in Uch Tepe village, 500 meters east of Tell Razuk. We arrived in the village on September 27, and began to make necessary modifications on the house we had been given. It was in a bad state of repair, and much work was necessary to make it habitable. All roofs had to be repaired and all rooms needed doors. We were lucky enough after ten days to

be able to move into an adjacent house which was larger and in good repair. Once again, however, much effort was expended to modify this house to allow more light, to put in more doors, partitions, and make other changes. We also repaired the roofs because we were to stay through the winter, which was reported to be severe.

While using most of the men to alter the house, we laid out a grid of ten-meter squares over the three main mounds (Pl. 3). Our first season's excavation actually began on October 2, 1978 and lasted until March 14, 1979, with a break from December 21 to January 2. During the first season, we excavated on Tepe al-Atiqeh, Tell Razuk and Tell Ahmed al-Mughir. We also put in a small sounding on Tell Afwan and collected sherds from the surface of Tell Akram, Tell X, Tell Beni Zeid, Tell Ajamat and Tell Tannura. The sounding on Tell Afwan was undertaken to determine whether or not it was an Early Dynastic cemetery, such as the ones at neighboring Ahmed al-Hattu and Kheit Qasim. It proved to be a disturbed mixture of Isin-Larsa, Kassite (?), and Islamic material. The sherds on Tell X and Beni Zeid were not numerous and were not diagnostic. Tell Ajamat clearly had Kassite occupation and one or two sherds we thought might indicate early first millennium B.C. levels. Tell Tannura also had Kassite material.

Prior to the onset of bad weather, we carried out a small investigation at a site west of the Narin River. During the *īd* holiday (early November), Richard Zettler, Ingolf Thuesen and I had made a reconnaissance in the western part of the valley. We found about a dozen sites, most of which had already been located and mapped by the State Organization of Antiquities. One, however, a very small surface scatter of sherds and flints on a gravel ridge just above the alluvium, had not been noticed before and had sherds of the Samarra period (c. 5,000 B.C.). At the time, no sites of this period had been recognized in the Hamrin. We asked for and received permission to make soundings in the site, Tell Rihan. On November 26, John Sanders, Peggy Bruce, three local men and I put three pits into the site. Subsequent high water in the Narin made it impossible to reach the site from Uch Tepe. Shortly thereafter, it became apparent that the Japanese expedition also had a Samarra occupation at Tell Sungur. When it later became clear that we had more than enough to do at Uch Tepe, we turned over Tell Rihan to Sebastiano Tusa, of the Italian expedition.

Upon our arrival in September, the Uch Tepe area had been very dry and dusty, and the mounds covered with camel thorn. The surface of Razuk and Ahmed al-Mughir were both very hard and the ground around the sites was cracked. Excavating was initially very difficult. The top ten centimeters had to be broken with big picks. The small picks that are our usual tool became dull very quickly, partly from the hardness of the soil, but mostly from the great number of pebbles throughout the sites. The pebbles were derived to a small degree from recent wells sunk into the gravel, but were mostly from disintegrated mudbrick. As in present-day Uch Tepe village, pebbles were routinely added to ancient mudbricks and mud plaster. The ancient bricks also included, very often, ash, charcoal and other debris.

The hardness of the soil made it difficult to define mudbrick walls, even for experienced staff. Working with five Sherqatis, who were far from the excellent pickmen we have had the luxury of using in the past, and with staff members who were inexperienced in mudbrick, our

progress was slow. We decided, at first, to subdivide one or two of the ten-meter squares into quarters. This decision resulted in closer control over a very badly disturbed stratification and allowed the staff to adjust to our system of recording. But, the subdivision also limited our comprehension because we encountered pits and walls of so large a size that the nature of the main building we were exposing was not realized as soon as it should have been.

In the southwestern quarter of P 58, for example, we encountered modern graves, cutting Ottoman pits, which in turn cut Medieval Islamic pits and graves. There was, in addition, an ancient pit that proved to be an Isin-Larsa burial. Left standing among the cuts were fragments of ancient walls and floors. In the southeastern quarter of P 59, in contrast, we encountered what appeared to be a solid mass of fallen mudbricks, later recognized as a stair from the roof down to the entry room of a large structure. Not until we expanded into the full ten-meter squares did it become apparent that there were curving walls, indicating an oval or round building (Pl. 6:1-2).

Even when we had defined the mudbrick walls, it was difficult to articulate the bricks. With a small pick, one could feel the horizontal joints, but this method of articulating, without the aid of sight, tends to produce errors, and cannot give vertical joints. We were able to buy a number of agricultural hand sprayers, with which we wet down the walls. Combining the sprayers with trowelling, we were then able to see the joints. Once the rains had begun, and the ground water had risen enough to affect even the upper parts of the mounds by capillary action, the articulation became much easier. We would still use the sprayers for detailed work, however, and to help in seeing sections for drawing. The use of sprayers subsequently became routine for other expeditions in the Hamrin.

Our work on Atiqeh, Razuk and Ahmed al-Mughir was complicated by the existence of modern, or at least fairly recent, burials. The workmen said that until about ten years ago, the villagers of Uch Tepe buried their adults on Tepe al-Atiqeh, while the infants and mothers who died in childbirth were interred on Razuk. (Today, adults are buried on a tell near Keshkul and the infants in a new burial ground a hundred meters south of the village.) Whenever we exposed one of the burials on Razuk there was a great deal of uneasiness among the workers. We, therefore, removed them as fast as possible. We encountered more than a hundred infant graves, mostly on the eastern side of the mound. The plan of the surface loci (Pl. 44) shows only a small percentage of the recent graves, those mapped at the beginning of the first season and any, in the following campaign, that directly cut into ancient walls or features. Ancient burials, having cuts that were different from the long, round-ended shape of recent burials, were fairly easily distinguished and were excavated in normal fashion. The abundance of pits in the mound, however, made it difficult to recognize some of the ancient graves, when disturbed.

From January through March, 1979, we were assigned Dawla Angoud, one of the best Sherqatis, who acted as foreman, spending most of his time on Tepe al-Atiqeh. Razuk and Ahmed al-Mughir continued with local Hamrin men as pickmen, and some became better than average. At the same time, Abda Sadeh Abid, a Nippur pickman, joined us and took on many of the more difficult excavating tasks at Razuk. It was at this time, also, that the State

Organization of Antiquities delivered to us six conveyor belts that made the disposal of dirt much less of a problem. The conveyors were all used at Tell Razuk, because it was here that we had the greatest problems in removing debris from the deep rooms whose walls we did not want to cut.

Although the conveyor belts made dirt removal easier, the general lack of labor in the valley, affecting all the expeditions, prevented us from continuing to excavate all three major mounds. Regretfully, we closed down Ahmed al-Mughir in February, 1979, and transferred the men to Atiqh and Razuk. Jesper Eidem, who had been in charge of this tell, joined Perry Gnivecki on Tepe al-Atiqh.

By the end of our season, we had exposed a major portion of Tepe al-Atiqh, proving that all strata were of the Akkadian period. At Tell Razuk, we had come to realize that some of the 'pits' were actually holes in the mudbrick corbelled roof of a Round Building, and that the top part of the debris in the rooms was trash that had been thrown down through the holes. Below the trash there were intact floors. We first came to this realization in late November, 1978, in Locus 68, when we found smoke-blackened mud plaster on the ceiling. We had been thinking about the importance of the roof on the Round Building, after having seen the central round building at Tell Gubba, where we thought that, since there was not room enough inside that building for any sort of activity, the roof must have been of primary importance.

Having found evidence of corbelled ceiling in Locus 68, we began to articulate bricks over rooms and found intact spans over Locus 421 and the Entry Room (Pls. 8:1-2, 13:1-2). In the Entry Room, much more detail on construction of the building could be ascertained because a large Early Dynastic pit had cut down into it, leaving a section through half the room (Pls. 8, 12:1-2). It seemed, here, that the roof had slumped somewhat, but we were unable to determine the amount of slump until the second season. The width of the Entry Room, approaching four meters at the limit of our excavation in the first season, seemed impossible to span with mudbrick corbels, but we had enough evidence to indicate that this was the case. The Round Building at Razuk, dating as it did from late in the Early Dynastic I period, and related to the earlier but more formative round building at Tell Gubba and to other sites such as Qasim and Madhhur (Pl. 2), clearly required further investigation. The fact that our Round Building was surrounded by a town, with a possible town wall, made it different from these other Early Dynastic I sites in the Hamrin. Therefore, we planned a second season.

In the Fall of 1979, with a larger staff intended to complete more than a normal season's work in the three months available, we returned to Uch Tepe. We were told that the waters of the new reservoir would begin to rise before another possible season, so it was decided to concentrate on Razuk, taking some time and labor to make only a stratigraphic sounding in Tell Ajamat, north of Ahmed al-Mughir. At Tell Ajamat, we had found sherds that might give evidence of Neo-Assyrian occupation in the Hamrin. James A. Armstrong spent two weeks on the sounding, finding evidence only of late Kassite, post-Kassite, and fairly recent (late Ottoman?) settlement.

On Tell Razuk, the excavation was supervised more directly by me than it had been in the first season. Ingolf Thuesen, James Armstrong, Dennis Collins, Bodil Mortensen and Marianne Hirche did the detailed excavating and record keeping. Elisabeth Petersen was the registrar. Peggy May Bruce was photographer and draftsman. John Sanders was the architect, assisted by Brian von den Driesch. Jill Maher was once again with us for a month as conservator and general assistant and Evelyn Oldenburg joined us for two weeks. Sayyid Abdul Razzak, our Iraqi colleague, carried out the usual record keeping and administrative duties, but also did detailed pickwork.

This season, we had no Sherqatis. Abda Sadeh Abid, the Nippur pickman could not join us, and the four or five good local pickmen we had had the year before were already working for other expeditions. The labor shortage was even more acute than in the previous campaign, because the men in the village were tearing down their mudbrick houses and constructing new ones on a site about one kilometer to the east, on the Jebel Nasaz.

We had arrived in Baghdad on September 8th and 9th, but were again delayed in starting excavation. The major problem was housing. Our house in Uch Tepe had been returned to its owner, the alternative compound offered was not sufficient for so large a staff, and the negotiations for a replacement were intricate and time-consuming. We slept in the open for two nights, surrounded by our equipment, and then moved into a substantial house that needed the same kinds of improvements, doors, and so forth that had gone into the house of the previous season. The repairs on the house went slowly because so few men were available for work. We were able to use the time to do preliminary mapping and layout of squares, and to articulate bricks exposed in the previous season. One requirement, unnecessary in southern Mesopotamian sites, was to cut down the camel thorn that had grown back from roots cut off in the excavation the year before.

Real excavation began on September 29, with fewer than ten men. On October 1, the State Organization of Antiquities sent us thirty-five men from Jalawla, who were industrious and eager to work, but had little experience in excavations. Almost none of them could be turned into a pickman, leaving the staff to do the detailed excavating. Men with some skill could take out fill and occasionally follow a floor, but the supervisors were the actual pickmen. This meant that the work went slower than anticipated because the supervisor had to pick as well as take notes.

A much-felt lack in the second season was the conveyor belts. None was available. This caused a drastic shift in tactics since the entire operation had been planned with the conveyors as an essential part. We had intended laying a line of conveyors from the north into Square Q 57, where an ancient pit had removed part of the Round Building for much of its height. From Q 57, we were then going to run a conveyor into the courtyard (Locus 455) through the doorway from the Entry. First, the courtyard was to be taken down by quadrants; then, the surrounding rooms were to be emptied by running other conveyors through their doors and out to the main line of conveyors. Since this plan was impossible to implement, we had to devise substitutes. First, we cut the meter-wide baulks between P 57 and P 58, and between P 57 and Q 57 to form ramps leading down into the excavation.

These ramps, although steep, allowed access for wheelbarrows. In the courtyard, we initially had the dirt thrown up by shovel into wheelbarrows running along baulks. Later, when we removed the baulks completely, the wheelbarrows ran along the tops of walls. As we got deeper, we used relays of shovelmen, but finally were forced to construct two *shaduf*-like cranes (Pl. 8:2) to bring baskets full of dirt to the wheelbarrows. Brian von den Driesch designed and built these cranes from poles, rope, and chain. When it became obvious that we had no chance of exposing all the rooms in the Round Building in the remaining time, Dr. Behnam Abu Soof ordered that four conveyors be found for us and they were delivered three weeks before the finish of our season. They made a great difference in the removal of the debris, allowing us to ascertain the base level of the Round Building in the courtyard, in the East and West Rooms, and in the Entry. We were also sent fifteen additional workmen for a few days after the German expedition at Ahmed al-Hattu closed.

Excavating the Round Building presented unique problems. The overhang of the roof, increasing as we went deeper into the rooms, presented a danger not normally faced. In Locus 421, for instance, the roof where not completely intact was lacking only the crown of the arch, leaving a gap of about 50 centimeters along the middle of the room. In order to excavate the room, we had either to support the roof, a major engineering job, or cut it back. Cutting was the only solution, given our time and resources, but even that became problematic due to the great effort it took to cut away the overhangs and the tremendous amount of debris we would have to carry away. We finally adopted the practice of cutting away the roof over much of a room, but leaving part of the floors and fill against the walls except in places where we wanted to map a corner, check the wall face, and so forth (Pl. 21:1).

During the second season, we were able to reach low levels relatively quickly in the western part of the building because we had removed portions of the upper levels in the previous campaign. We had the advantage, in October and November, 1979, of a lower water table than we had had most of the previous season. By the time we finished the second campaign, however, the water was again rising and the lowest floors in the courtyard and elsewhere were very damp when excavated and covered by water two days later.

Working under the limitations of time and manpower, we made digging decisions that were difficult and would not be made under normal conditions. We chose some loci, such as 421, 456, and the Entry Room (loci 449, 443, etc.), to excavate slowly, floor by floor. In the courtyard, Locus 455, a quadrant was cut down, floor by floor, allowing a view of the sections of two adjacent quadrants. Then, these would be taken down, usually by following what appeared to be the most important floors, and grouping material from minor floors with the major one below. We knew that we were missing sherds and other objects, but the floors that we took down more slowly were relatively unproductive. Late in the season, as we reached the bottom floors of the court, we began to cut lead tranches, rather than whole quadrants, to determine the most important floors. We then drew sections, traced floors into adjoining rooms, and took down the quadrants in blocks of floors. The relative lack of finds from the lower floors of the courtyard must be explained in part by the method we adopted. We resorted to using the big pick, which would be unacceptable in other circumstances. With

the knowledge that the site would be under water in a few months, we thought it was justifiable to lose some information in order to gain knowledge on the basic construction of the Round Building. It was hoped that the more detailed, slower work done in the surrounding rooms, and in the houses outside the Round Building, would give adequate samples to do detailed analysis on pottery, flints and other objects. We did take down parts of the courtyard slowly enough to indicate that it was not rich in finds at any floor. In fact, the entire Round Building seemed surprisingly unproductive. One or two rooms in the houses outside yielded far more, relatively, than the Round Building did.

In concentrating on the Round Building, we were forced to curtail our investigations of the town. We knew that we were losing a great opportunity to elucidate the relationship of a town to its citadel, and the relationship of parts of the town to one another. The town plan, the access lanes, and the town wall would have been of great interest, but lack of labor and equipment left no choice. The Round Building was unquestionably of primary importance in the site. If circumstances allow, we may be able to return to continue the investigation on Razuk sometime in the future.

In the following sections of this monograph, we will present our findings on Tell Razuk, Tell Ahmed al-Mughir and Tell Ajamat. The report on Tepe al-Atiqeh is not included here for a number of reasons. There was almost as much information derived from Atiqeh as from Razuk, and Mr. Gnivecki, who has the main responsibility for Atiqeh, is attempting to do some analyses that are very time-consuming. Rather than rush the Atiqeh material into print, we have decided to present it in a separate, later monograph.

Some technical reports, such as soil analyses; assessments of structural potential for Razuk mudbrick done with figures derived from X-ray diffraction tests, chemical tests and physical tests by Dr. Richard Scholl of the Portland Cement Association; reports on animal bones; Carbon 14 results; neutron activation analysis, and so forth, appear here as appendices or will appear in subsequent publications.

In the following sections, after a brief sketch of the geographical area of the Hamrin, Tell Razuk is described by level, from the bottom up, indicating the find spots of all registered objects. A discussion of flints by Ingolf Thuesen then appears, followed by a typology of Early Dynastic pottery. The Ahmed al-Mughir operation by Jesper Eidem, and Tell Ajamat by James A. Armstrong complete the descriptive chapters.

In order to make clear the use of terms in the reports, some explanation should be given of the recording methods. The Uch Tepe excavations were carried out and recorded in the manner worked out by the Nippur Expedition over the past few years. The basic unit of recording is the locus, which is sometimes a room, but often part of a room or any space that the supervisor defines as a unit for observation. In theory, a locus is assigned at any point when a horizontal space has been delimited, either by baulks, by walls, or some other barrier. A locus should be changed when the space being recorded is divided, for example, by the appearance of a wall at a lower level, or by reaching the bottoms of walls used as locus boundaries. In practice, however, the supervisor may not be sure the locus should be changed, and may record material from a lower level, or sublevel, with material from above.

In this case, the supervisor's notes and the architect's plans make it possible to correct the locus numbers and correlate material. Working with staff new to the system, one tends to have far too many loci, or too few, but this situation can be dealt with in analyzing and putting in order the architectural levels. We are presenting here the Entry Room of the Round Building under nine locus numbers, although it probably could have been done with three or four. The reason we do not combine some of these loci is that much pottery and some registered objects were recorded according to these numbers and it would entail a great deal of change in basic records, with the possibility of introducing error, to reduce the number of loci.

Because we were carrying out an operation that included three mounds at the same time, using one architect, the same photographer, and the same catalogue, one sequence of locus numbers was used. Razuk was assigned all the locus numbers from 1 to 99, while Tepe al-Atiqeh received the numbers 100 to 199. Tell Ahmed al-Mughir was assigned numbers 300 to 399. When it was found necessary to give more loci to Razuk, it received the 400 series. Thus, as will be seen, number 421 occurs next to 47. The reader should not be disturbed by gaps in the locus number sequence. Many loci were combined with others in the field, or were assigned to specific staff members for potential use, but were not utilized. A concordance of loci, squares, and levels is appended to the report.

Tell Ajamat, north of our grid system, was recorded independently, but its finds were catalogued along with those from the other tells.

The reader should be cautioned not to confuse locus numbers with lot numbers. Lots are individual collections of artifacts, soil specimens, bone specimens, and any other material that may be collected and recorded. A lot number is given to an object or a group of objects from one floor of a locus, or from a feature on a floor of a locus, or from a pit that cuts several floors. Every object found is given a lot number and this number is recorded in the locus book. The object is taken to the expedition house, where it may be cleaned, repaired, given a catalogue number, photographed, drawn, and eventually turned over to the Iraq Museum. In most cases, however, lots are sherds that will be washed, recorded on diagnostic sheets, drawn, and in most instances discarded. In the field, each supervisor has a lot book with two parts on each sheet, one to be retained, the other to be included with any object collected. At the end of the day, the registrar takes all lot books and transfers the information to a Lot Record, that gives provenience, date, and a short description of the object. If an object is registered in the catalogue, the catalogue number (Uc 1, 2, etc.) will be noted on the Lot Record and in the locus books. In the description of sherds in this report, it will be noted that the lot number of sherds is given. The reason for including lot numbers, which may be of no value to most readers, is to facilitate locating any sherd in the original records if such a need ever arises. Lot numbers, however, are essentially part of an internal mechanism designed to keep track of items from the time they are found until they are registered, drawn and discarded, analyzed, or whatever. A lot number should not be confused with a catalogue number, but should be assumed to refer to uncatalogued sherds, various samples, and objects too fragmentary to register. The lot numbers from the second season, Fall 1979, are suffixed by an asterisk, e.g. lot 459*.

Certain classes of material, such as animal bones, flints, soil samples, carbon samples, and the like, were routinely collected and are in process of analysis. Even when such samples are not mentioned as being collected in specific loci of this report, it should be assumed that they were. An analysis of the flints is included in this publication. If they are received in time, reports on bones and other samples will be included here as appendixes.

Note: In this report, we are using the Diyala sequence as a basic reference. We are fully aware of the fact that a number of scholars would like to subdivide the Early Dynastic period differently and would prefer that we present our material in like manner. However, since the Diyala sequence is the only currently available system, and our material has close affinities with the Diyala, we have chosen to adhere to the sequence. Any reassessment of the Early Dynastic period will be able to shift the Razuk pottery along with that of the Diyala. Only in dealing with some grave pottery we have suggested a redating of some types and even levels in the Diyala. But even in this section, we have used the Diyala as a standard.

Chapter II

GEOGRAPHICAL AND HISTORICAL BACKGROUND

McGuire Gibson

The Hamrin Basin is a lozenge-shaped area, approximately 40 kilometers long and 15 kilometers wide, between the Jebel Hamrin and the Jebel Jubbah in east-central Iraq (Pls. 1-2). The Jebel Hamrin, the westernmost ripple of the Zagros Mountains, is cut by the Diyala River at the Hamrin Gorge. A new dam in the Gorge, almost completed, will create a lake over much of the basin, reaching to about the 108 meters-above-sealevel contour (Pl. 2).

The two mountain ridges have up to now determined access routes in the region. Although not very high, the jebels are rugged, and transport usually has been restricted to a few passes. By far the most important route is the Baghdad-Kermanshah Highway, historically called the Great Khorasan Road, that connects Iraq to Iran and the east. From Muqdadiya (formerly Shahraban), the highway crosses the Hamrin through the Kurdaruz Pass and drops into the Basin, reaching the town of Sa'adiya (formerly Qizil Rabat). From here, the road leads to Khanaqin and the border. From Khanaqin, there are tracks that allow access to Sulaymaniya and further north without entering the Hamrin Basin. Likewise, from Khanaqin, one can reach Mandali, southeast of Sa'adiya, without entering the Basin.

At times, in past centuries, a track from Baghdad to Deli Abbas, across the Hamrin through the Sakaltutan Pass and down to Qara Tepe in the northern end of the Basin was the main route to Kirkuk and Mosul. Today, as in other times, there is a more direct route through Baquba, Khalis, and Tuz Khurmatlu to Kirkuk, passing northwest of the valley.

Modern travelers who wish to visit Sulaymaniya often come up the Baghdad-Kermanshah Highway to Sa'adiya, turn off to Jalawla, cross the railroad bridge and go north to Sulaymaniya, rather than use the road from Baghdad through Kirkuk. Even these travelers, although cutting across the Basin, are in effect ignoring it.

A road across the northern edge of the Basin, marked by a line of large tells near to and paralleling the present graveled road from Jalawla through Bahizeh, Jumaileh and Keshkul, has played an important role in international traffic. At present, this road is the main artery from which numerous internal tracks of the Basin feed.

In the 19th Century, both Sa'adiya and Qara Tepe benefited from caravan trade. Now,

only Sa'adiya profits from the rest-stops of travelers, and these are not usually lengthy. Kha-naqin and Muqdadiya are larger, more pleasant towns and Baghdad is only a few hours distant.

The internal routes of the Basin are determined by physical features and by the desire to reach the main roads. In the south end of the Basin, there is desert. The Baghdad-Kerman-shah Highway marks the limit of cultivation. The numerous tells between the Highway and the Diyala indicate the line of the Great Khorasan Road and its pre-Islamic antecedents. On the northwestern side of the Diyala, routes are especially subject to irrigation needs. Often, points that are very close cannot be reached by wheeled vehicles without long detours.

In the northern part of the valley, the major feature affecting internal routes is the low, gravelly ridge marked on older maps as the Jebel Nasaz, that runs from the Diyala to Uch Tepe (Pl. 2:2 and Pl. 3). On its northeastern side, there runs the main gravel road mentioned above. A new paved road, now under construction a kilometer or so to the northeast along the foot of the Jebel Jubbah, will replace this road. At present, a number of tracks lead south from this road across the Nasaz to villages such as Uyun Kheshalat and Uch Tepe.

A variety of tracks run from the Jalawla Bridge south of the Nasaz into the alluvial plain. Several tracks follow wadis, semi-permanent streams, and canals to the Diyala, where the irrigation is most intensive. Salt is a problem here, and any rain makes parts of this area inaccessible for days to wheeled vehicles. One important route tends toward the northwest, at the base of the Nasaz, sending off minor tracks to villages south of it. This track, leading through Uyun Kheshalat to Uch Tepe, is problematic much of the winter. Its extension, from Uch Tepe to Qara Tepe is questionable at any time, due to irrigation, although this track was marked on British Army maps (Pl. 1:2) as the main access route from Sa'adiya to Qara Tepe in 1918.¹

In the winter, when the main tracks in the low areas on either side of the Nasaz are out of use, or cannot be reached from the villages in the valley, the tracks on the Nasaz become the primary connection to Jalawla and Sa'adiya. The gravel of the ridge allows all-weather travel, with some difficulty only in ravines.

On the western side of the valley, the Narin River blocks access to the passes over the Hamrin, but fords and bridges, such as the brick-built Narin Kopru north of Khalawiyah (Pl. 5:1), that served the area from about 1800 until recently, would solve the problem. The true hindrance to communication is not the river itself, but the extensive marshes that stretch from near Qara Tepe to the Narin, with smaller marshes to the south. Although most of the year the marshes are dry, allowing pasturage for the animals of the villages on all sides, once the rains begin in the mountains, runoff comes down the wadis and the marshes begin to fill, until the entire plain between Uch Tepe and the Narin is a sheet of water. There are ridges in the marshes that allow passage on horseback, thus making the Narin villages somewhat accessible to the rest of the valley, but the trip is a difficult one and unhealthy for the horses, which must wade in water to their bellies. The villagers on the Narin look to Qara Tepe for supplies, but in winter the approach along the Narin may be unusable. When dry, the plain between Qara Tepe and the Narin is barren and covered with salt. When wet, it is the worst type of *sabkha*, greasy, treacherous mud.

The Narin has a very different character than the Diyala in the Basin. Whereas the Diyala meanders and splits into a number of channels, the Narin is a deep-cutting stream, lying as much as nine meters below the plain. The river has often flooded over its banks. Most of the year, it is shallow, barely 10 meters wide, and can be forded at a number of places. There is a low, concrete, bridge at Sa'u al-Kabir, but this is under water in winter. The lack of boats prevents the villagers from crossing in high water, thus eliminating the alternative of going to Muqdadiya for supplies.

Vegetation in the Basin is varied. Along the Diyala, there are many trees, including pomegranate and orange trees, as well as palms. The area near the Gorge is one of the most beautiful places in Iraq,² with tall grasses, reeds, shrubs and trees. The great marsh in the northern end of the valley has abundant grasses, which are a mainstay for the hundreds of cows and thousands of sheep, the main source of income for the local villagers. It is also the home of wild pigs and a variety of birds, including seasonal ones such as cranes. Storks nest in the villages during the early part of the year. Also living in and around the marshes are several types of snakes, all said to be poisonous. In the 19th Century, gazelles and lions were reported in the Basin.³

In the spring, the landscape, even the gravel ridge we have referred to as the Nasaz, becomes green, but by April the grass begins to burn off from the sun, and by summer the entire plain takes on the earth tones of the jebels. Only irrigated plots and the river banks remain green.

The aridity of summer emphasizes the fact that the Hamrin is not within the zone of rainfall agriculture, even though great rainstorms do occur in winter. During December, 1978, when we experienced thirty-four hours of continuous rain, Uch Tepe was surrounded by water, and the lanes of the village were 20 to 30 centimeters deep in rapidly moving torrents. Walls of houses were undermined and collapsed. Even after the rain stopped, the water continued to pour off the Jebel Jubbah. The plain from Qara Tepe and Keshkul to Khalawiyah and Uyun Kheshalat was a lake, with only tells rising above it. For several days thereafter, water kept pouring past Uch Tepe in a southwesterly direction. After the main flow had diminished, the Uch Tepe tells were still surrounded by water, except for Tepe al-Atiqeh, which could be approached from the southeast side. For all of January and part of February, we were obliged to wade to Tell Razuk and Ahmed al-Mughir.

The most unusual feature of the weather in the Hamrin is the quick change of wind direction. On any given day, the wind may blow from the northeast, then south, then west, then back to south. Storms would usually appear in the southeast, seemingly headed toward us, but would often shift south along the Diyala and onto the Jebel Hamrin. The jebels form a bowl around which the winds turn.

Immediately after the big rain, the farmers of Uch Tepe went to the top of the Nasaz to plow and harrow fields for the sowing of wheat. We were told that this was the first time in five years that enough rain had fallen to justify the expense of seeding the gravelly plateau. Normally, farming at Uch Tepe is restricted to small plots irrigated from wells. These wells are large pits, five meters or so wide by seven or eight meters long and four meters deep,

cutting through the gravel. Diesel pumps draw up the water which flows into a simple system of ditches. The crops consist of vegetables, such as broad beans, cucumbers, marrows, tomatoes, and eggplant, along with cotton, and the main cash crop, sesame. Sesame is so profitable that the farmers of Uch Tepe seriously contemplated paying several hundred dinars in 1979 to have a machine cut a flow canal from the Qara Tepe Canal in order to plant one crop. They knew, when they were discussing it, that the area was due to be flooded by the new reservoir after the projected harvest. In the end, the canal was not cut.

Well irrigation, practiced in the northern end of the valley, where river-fed irrigation is impractical, is small-scale and short-term. The flow is not abundant enough to water more than a hectare or two and even then the wells become brackish in a few years. Around Uch Tepe, Uyun Kheshalat, and other villages one can see abandoned wells in addition to one or two operating ones. Some wells in the area have a reputation for being especially sweet and long-lived. The one at Uyun Kheshalat is said to be the best, and the unusual size of trees around the main well, plus the imposing compound walls that surround it, would support this claim. It may be that such walled wells are a remnant of an earlier social and economic system, in which a tribal *shaykh* would take possession of a well, guarding it permanently even if he and his group were nomadic most of the year.⁴ It would be instructive to know if, in the Ottoman Period, garrisons were ever stationed at such wells, or if the distances between the major towns, such as Sa'adiya and Qara Tepe, were too small to require controlled points along the roads.

Much of what we have thus far described is, by now, rendered untrue by the rising of the new reservoir and the shifting of the local people to higher ground, or to locations outside the Basin. The people of Uch Tepe spent most of the Fall, 1979, tearing down their houses and carrying the mudbricks and roof beams to a new site a kilometer east on the Nasaz. The reuse of mudbricks is a feature of local architecture that we have not seen in southern Iraq. The composition of the local mudbrick, that makes reuse possible, may be a very important factor in the history of architecture.

Whether the Uch Tepe farmers will be able to continue living in the Basin for long is doubtful. Even with water for irrigation from the reservoir, crops may not do well in the gravel and clay of the ridge and pasturage will be in short supply. At present, there is an attitude of disregard for fishing and fishermen. Once the reservoir fills and the new village is on its shore, that attitude may change. But the surprising rarity of fishermen even along the Diyala would seem to make this subsistence activity an unlikely alternative. Some of the villagers have already taken the government's offer of new land outside the Basin. Some have moved into Jalawla and Khanaqin, where they have opened shops or work as day laborers. Some have been hired for constructing the new asphalt road along the side of the Jebel Jubbah that will replace the low road through Bahizeh and Keshkul. Other development work around the reservoir will draw on the labor pool, which should decrease in the villages as younger people leave for education and jobs in the cities. In any event, the new reservoir has ended a pattern of life that can be traced back several centuries and may have existed in the Basin from the earliest times.

There is a tradition at Uch Tepe that before 1918, the villagers were semi-nomadic, moving with herds of sheep, goats, and a few cows, west and north of the Basin, and sometimes into the Zagros, but returning to Uch Tepe for the winter. At that time, the village was located on Tepe al-Atiqeh, next to the main road from Sa'adiya to Qara Tepe (Pl. 1:2), and was not moved to its position a half kilometer east until some time during the British Mandate. At what point most of the people became predominantly settled is not certain. It is clear that there is still a predominant reliance on herds, and that some percentage of the present-day villagers was nomadic until fifteen years ago. Even with the planting of a high-cash-yield crop like sesame, Uch Tepe must be classed as pastoral rather than agricultural.

In excavating Tepe al-Atiqeh, we encountered dozens of irregular cuts, wells, and bell-shaped grain storage pits, as well as graves datable to Ottoman or recent times. We encountered only a few recent mudbrick walls, leading us to question the assertion of the older men that there had been fifty 'houses' on the tell until 1918. The lack of evidence was explained by the fact that most of the 'houses' had been tents.

We have been unable to find records on the sedentarization of the Arab groups who make up the majority of people in the valley. It is likely that the population at the time we were in the Basin was as large as, or larger than, at any time in the past, and this may be due to governmental encouragement to settle for a variety of reasons. Population in the Basin is limited by the available agricultural land, which is in turn limited by the capacity of the inhabitants to tap the Diyala for flow irrigation. In effect, irrigation cannot be done in the Basin except fairly close to the Diyala, and from a small branch of the river that enters the Basin near Qara Tepe and is on most maps called the Qara Tepe Canal. Any attempt to bring other parts of the Basin under cultivation would entail considerable investments of money and labor, which would seem unjustifiable given the potential of the soil.⁵

There is not a great deal of information on the Basin in past records. The available data on the early historical periods is presented in an appendix to this volume by Piotr Steinkeller. A brief outline of the later cuneiform evidence has already been published by J.N. Postgate⁶ and will be drawn upon in a later section of this chapter. Evidence for the Seleucid, Parthian, and Sasanian periods in the Hamrin is very limited and very general, affording little detail.

In Islamic texts of pre-Ottoman times, the Hamrin Basin had a very minor role. Arab geographers, discussing routes and regions, make it clear that in the Abbasid Period and later, the main routes to the north were along the Tigris,⁷ giving scant attention to the route through the Hamrin to Kirkuk. There is a great deal of information on the Great Khorasan Road, with stations in the lower Diyala Plain leading to Nahrawan Town or the nearby Shahraban (Muqdadiya), then over the Hamrin to Jalula', a small, pleasant place where a famous battle was fought in A.D. 637, as Islam conquered Iraq. Little else is available on Jalula', which has been identified with Sa'adiya.⁸ The next big station, Khanaqin, was much more important.

Europeans began giving accounts of travel through the Hamrin Basin in the 16th Century. In 1598, Sir Anthony Sherley, on his way to Iran, passed along the Baghdad-Kerman-shah road. One of his companions, a Frenchman named Abel Pinçon, has left the best account of the journey.⁹ Having attached themselves to a large group of Persian pilgrims for

protection, the group was obliged to detour from the main route and visit Samarra. From here, rather than return to the main road and cross the Hamrin at the Kurdaruz, the caravan went through another pass, probably the Sakaltutan, and arrived at a '... large market-town built of earth near a small river. The place is called Seirp ...', which has been identified tentatively as Qara Tepe.¹⁰ The following section of the account tells of walking for most of the night through '... very pleasant country where there are many ditches and streams' until they reached another spot which '... is charming on account of the bushes and date-palms which grow there and because it is surrounded on nearly all sides by low hills.'¹¹ This second town, called Steroban, might be identified as Qizil Rabat (Sa'adiya), but the description more closely fits Khanaqin.¹² The next leg of the journey was clearly in the mountains beyond Khanaqin, so it seems that the caravan passed through the Basin without stopping, except in Qara Tepe.

Pietro della Valle in 1617 passed from Shahraban to Khanaqin, but gave little on the Hamrin except to say that 'Chizil Rabat' was the last town in Turkish-held territory.¹³

A map of 1724¹⁴ has surprising detail on Iraq, although some distortion is evident. The main road from Baghdad to Iran was prominent and in the Hamrin valley, there was a town called Chisitrabad (Qizil Rabat) located on the road. But to the west, on the Diyala, there was a place called Galula (Jalula'). On this map, the main road to Mosul was on the west bank of the Tigris, and the alternate through Qara Tepe was not indicated. In Carsten Niebuhr's 1766 map, however, the main route north was through the Hamrin Ridge, by a pass north of Qara Tepe to Kirkuk. An alternate was the route from Deli Abbas through the Sakaltutan to Qara Tepe. Niebuhr stressed the safety of the Kirkuk route, in contrast to the Tigris road.¹⁵

Throughout the 19th Century, the main route to the north was through Qara Tepe. The Tigris route was very unsafe, and robberies could occur even to those travelers who chose to come down the Tigris on rafts. J.S. Buckingham, stating that the desert routes were disturbed by warring tribes in the summer of 1816, passed through Qara Tepe on his way to Baghdad. He described the town as having a new mosque and a population of a thousand people. He was travelling at night, to avoid the heat, and thus noted few details, but did say that the plain south of Qara Tepe was barren. He mentioned an abandoned enclosure and a '... deep ditch with bitter and brackish water,'¹⁶ crossed by a bridge of a few planks not ten yards wide. This must have been the Narin.

After a stay in Baghdad, he went on to Persia, by way of Shahraban (Muqdadiya), Kesrabad (Qizil Rabat) and Khanaqin. He described Kesrabad as being surrounded by fields and canals, with maize, cotton, melons, gourds, palm trees and pomegranates. At that time, the town had two mosques and a mixed population of Arabs and Turks. While there, he visited some ruins northeast of the town (Gauri, No. 27 on Pl. 2).¹⁷

A visitor in March, 1817, William Heude, going north over the Hamrin crossed the '... Shat ul-Narin' by a six-arch brick bridge, '... the country being an entire desert and without a single village on either flank.'¹⁸ Qara Tepe he described as a small village.

A year later, in October 1818, Robert Ker Porter passed through Kizzil Robot (Qizil Rabat, Sa'adiya), and described it as surrounded by bushy thickets and palms. He mentioned

cultivation, but stressed the thousands of sheep and goats 'feeding on apparently desert land.'¹⁹ While in the town, he heard reports of lions attacking the flocks.

In December, 1818, Porter left Baghdad heading north. He described the pass through the Hamrin and the descent into the valley to the Narine (*sic*). He crossed the river over '... a fine brick bridge of six arches, built by Ali Pashe about twelve years ago. Our road lay due north across this low ground, which, for the most part, was arid, but at intervals swampy, and often saline to so great a degree as to appear surfaced with snow. A couple of hours brought us to a very respectable village called Kara Tuppa, where we were received with every mark of civility.'²⁰

J.C. Rich, one of the most reliable observers in Mesopotamia, made a circuit from Baghdad to the Persian border and back in March, 1820. From Shahraban, he crossed the Hamrin and descended into the Basin, which he called the Deshteh Plain. He said that here were huts of Suremeni Kurds, who '... come here at this season to cultivate tobacco. The Khezerj, Beni Rebiaa, and Beni Weiss Arabs were formerly established hereabouts as cultivators, but they have been lately dispersed.'²¹ He remarked that even the 'nitrous' and miry nature of the road '... notwithstanding, there was much cultivation on either hand.'²² He recorded some tells, especially mentioning Baradan, the most prominent feature in the area. In Kizzelrebat (Qizil Rabat), where he lodged for the night, he noted that 'the people here speak Turkish and Koordish and Persian is also commonly understood, but no Arabic.'²³

Outside the town in the morning, he noticed large flocks of sheep and goats, as he proceeded to Khanaqin. From that town, Rich went to Kifri via Qasr i-Shireen and then turned south toward Karatepe (Qara Tepe), where he saw gazelles. The town had a big burying ground with domed tombs and a population of Turkoman speaking only Turkish. The chief crops were cotton and maize, with some rice. South of the town, there was 'an empty, white nitre plain' leading to the 'bridge of the Nareen', built by '... Suliman, Pasha of Baghdad.' Rich is apparently correct in identifying the builder of the bridge as Suleiman rather than Ali Pasha, as was done by Porter and others.²⁴ In the pass through the Hamrin, he noted an inscription that some Turkish pasha had left, recording the cutting of the road through the ridge.²⁵

George Keppel passed through the Hamrin on the way to Persia in April, 1824, stayed for the night in Khizil Rabaut (Qizil Rabat), examined Baradan and noted that Kurds had sacked the small village northeast of it.²⁶

Robert Mignan, a later traveller (1827), seems to have crossed the Narin somewhere south of the Narin Bridge after coming over the Sakaltutan Pass, because he described the area as '... a kind of island surrounded by ditches which only contain water after rain or at the season of increase ...' and the bridge which he ascribed to Ali Pasha was to his left. The plain leading to Qara Tepe, which he called Kara Uppa, was swampy.²⁷

On New Year's Day, 1837, the Reverend Horatio Southgate came into the Hamrin Basin from Iran, but did so by night, his caravan being afraid of robbers by day. He noted that villages on the Turkish side of the border were much more prosperous than those in Iran,²⁸ but said little else. He emphasized only the dangerous aspect of travel, and was, in fact, taken advantage of more than once.

At the end of January 1837, W.F. Ainsworth crossed the Hamrin, and was favorably impressed with the Basin. He called it '... a fertile plain with beds of narcissus, flocks of sheep, some cultivation and an Arab encampment.' He made use of the Narin Bridge to reach Qaratepe.²⁹

A.H. Layard traversed the Baghdad-Kermanshah road in June, 1841, but gave us little of his usual detailed description, because he was travelling at night. He did mention crossing the Hamrin and halting for the day at the '... large village of Kizilrobat in a vast caravanse-rai.'³⁰

J.H. Petermann's trip from the north to Baghdad in December, 1853, was by raft on the Tigris. In October, 1854, returning from Iran to Baghdad through the Hamrin, he gave almost no attention to Qasrabad (Qizil Rabat), other than to say that the caravanserai was dirty and the road to Shahraban was dusty.³¹

As we have indicated above, during the 19th Century the Qara Tepe route was standard as the way from Baghdad to Mosul. However, Gratton Geary, in 1878, reported that even this road was not safe and was subject to attack by 'Arabs' and he felt it necessary to request a troop of soldiers to accompany him from Deli Abbas to Kifri.³² Eduard Nolde took the Qara Tepe road in 1892 and found the situation to be so disrupted that he investigated the causes in depth and devoted a major part of his account to a description of the war between the Turkish government and the Hamawand Kurds (1886-87, 1890-91).³³

The situation may have changed somewhat by the turn of the century. F. Sarre and E. Herzfeld, in a discussion of the Great Khorasan Road, produced a map with the Hamrin Basin on it.³⁴ Here the main route to 'Nineve' by way of Kifri was shown as running from Qizil Rabat, past Baradan, then through the middle of the valley, presumably by way of Qara Tepe, which was not given by name. There was no indication of the Deli Abbas-Qara Tepe road, nor of the more northerly route through Tuz Kurmatlu. The apparent predominance of the Qizil Rabat-Kifri route may be the result of incomplete information, since the authors seem not to have travelled throughout the entire region.

The next significant mentions of the Hamrin area were connected with the First World War.³⁵ The British army campaign for the Hamrin Ridge and Basin was, perhaps, a typical example of military action in the region. The British were certainly interested in gaining control of the Baghdad-Kermanshah road, but another strategic aim was to push the Turks out of positions on the Ridge, where they could dominate the main canal offtakes from the Diyala south of the Gorge as well as threaten the British drive north along the Tigris. They also wished to cut off as many as possible of the men in the Turkish garrisons of Mandali and Khanaqin. The attack on the Hamrin Ridge was coordinated with a thrust to Mandali, which turned north to take Qizil Rabat and menace Khanaqin. After a few months' pause, in early December, 1917, the British crossed the Diyala at Qizil Rabat and Zawiya, as part of a multi-faceted plan.

The plan entailed not only an attack from these points toward Turkish emplacements on and around Baradan, but a movement by a Russian Cavalry unit from Mirjanah (the site of modern-day Jalawla) across the northern end of the Basin. More important, two columns of

British troops were to cross the Hamrin, mainly at the Sakaltutan Pass. One column was to ford the Narin, since the Turks had blown away the eastern end of the Narin Bridge (Pl. 5:1), and link up with the units from Qizil Rabat and Zawiya, while the other column was to follow the western side of the Narin and cross near or above Qara Tepe. The plan was ineffectual in trapping Turkish troops because the Turks had flooded the fields near Baradan, slowing down the British while the defenders withdrew to positions above Qara Tepe. The column that had forded the Narin passed by Uch Tepe and took up positions on the Nasaz. From there, the joint British units, concurrently with the column that had followed the western side of the Narin, attacked the Turkish positions and forced a withdrawal. The action at Qara Tepe is very much a part of local lore. The many shell craters – round, green depressions – and shrapnel on the Nasaz, attest to the artillery duels that took place. Had the Turks decided to hold the jebels instead of retreating, the fighting would have been very intense. However, other British moves to the northwest, which created threats to the Turkish line of retreat and supply through Kifri, were more important to counter than the trust into the Hamrin. The Basin was not a valuable prize in itself. It was difficult to maneuver in, and was yielded because of external developments. The major points at issue were the passes, the heights, and the main routes, with the two towns, Qizil Rabat and Qara Tepe, of minor concern.

The Mandate Period seems to have witnessed the stabilization of the Basin. No small amount of this stabilization must be credited to the halting of the border warfare that had been a regular feature of Turkish-Persian relations. With the paving of the Baghdad-Kerman-shah highway and the laying of a railroad through the Hamrin Gorge to Sa'adiya and from there to Kirkuk (via a bridge at present-day Jalawla) with a spur to Khanaqin, the Basin came much more into contact with the wider world. There is no readily available documentation on the changes in the area during the Mandate, the Kingdom and the Republic, but during the past sixty years, a valley that had been predominantly Kurdish and/or Turkoman became Arab. It is significant that most of the present-day villagers claim to be members of the Jubur tribe, a group known as occasional occupants of the valley in the 19th Century. A group of three brothers and their families, who have lived at Uch Tepe for five to ten years, say they are members of the Azza, another tribe reported by European travellers in the area in the last century. There are occasional groups of nomads in the area for specific times of the year, but these are not camel-owning nomads, nor even very well-off donkey-owning nomads. One small family travels with a tractor and cart, herding a hundred sheep. Another, obviously very poor, arrived on a bus. These two remnants of beduin life were also of the Azza tribe. It is likely that they will soon settle in some village, using their relationship with already settled Azza to ease the transition.

Although modern communications may be transforming the Basin in significantly different ways than has been done previously, the valley as we saw it first in 1978 was, in some ways, not much different than it was in Ottoman times, and even earlier. The juxtaposition of rich fields and salt marshes, flowers and wild animals alongside arid plains, international communications skirting internal isolation, described by 19th Century travellers, could be seen during our stay. There was an insular quality in the people of the valley, making

them appear less sophisticated than the inhabitants of the Nippur area or other localities where we have worked. The lack of electricity in many parts of the Basin, the relative scarcity of 'modern' features, such as battery-operated radios and tape recorders, which have been in widespread use elsewhere for years, make one describe the Basin as a backwater. However, there were signs of unusual wealth, such as tractors, pickup trucks, many sheep, goats and cows. The Hamrin Valley in general was notable for the good repair and the substantial quality of its mudbrick houses, some of which were said to be fifty years old. A part of the wealth was the result of payments by the government of compensation for the loss of houses, and this would explain the cash in the hands of low-status individuals in the group, but clearly there was some affluence in the villages before the compensation. But with this wealth, there were still attitudes that one more readily ascribes to poverty. Even the wealthiest and highest-ranked people would do without basic commodities for months at a time, rather than make unusual efforts to obtain them. Such an attitude may date from years ago when poor nomadic people, settling down in a marginal area of the Basin (such as Uch Tepe is), had no choice but to do without. Perhaps only the last few years, in which the current development boom has given new sources for employment and a general rise in returns from sesame or from animals, have brought wealth into the area.

The foregoing recitation of chance remarks by past writers on the Hamrin, and some description of the valley in the late 1970's, have been meant to show the nature of the valley and the insecurity of settlement in it. We would argue that, from the evidence of archaeological work, life in the Basin was not significantly different in ancient times. Although no overall, exhaustive attempt can be made to outline settlement on the plain, enough has been excavated or noted by surface reconnaissance to allow some tentative conclusions. Using one published source on the 1977-78 excavations in the Basin³⁶ and personal observations on newer work, the following account can be given, subject to change as new finds are published.

There is one known pre-ceramic site, perhaps older than Jarmo, dug by Sebastiano Tusa of the Italian Expedition. This site, part of Tell Rihan, is west of the Narin. Two Samarra sites have been excavated, Tell Rihan³⁷ and Sangur A (No. 42), near Tell Gubba. Halaf occupations have been noted at Tell ar-Rubeidheh (No. 69), Tell Hasan (No. 67), and Tell Sungur (No. 42), while Halaf sherds were collected by our team on two small, unmapped sites west of the Narin — one north of Tell Rihan, one south of Rubeidheh. We also noted Halaf mixed with Ubaid west of the Narin, at Tell Habbayeh (No. 43), and an unnamed tell about two kilometers west.

Ubaid has been excavated on at least twelve sites in the Basin.³⁸ In addition, we noted the two previously mentioned sites west of the Narin, and a third one, which we called Shaykh Khalid after a man whose abandoned house was next to the mound, half a kilometer south of Tell Rihan. On this tell, the painted pottery was very late Ubaid.

Given the evidence from the excavated sites, which seemed to be village occupations, it can be said that the Halaf-Ubaid range was a fairly stable time in the Basin.

The Late Uruk has been excavated at Ahmed al-Hattu (No. 57), Tell Madhhur (No. 64), and Tell ar-Rubeidheh (No. 69).

The Early Dynastic is evidenced only in its earlier phases, but it is one of the most important periods in the valley. At Tell Gubba (No. 31), the Japanese Expedition reports a Jemdet Nasr phase as the base for a massive complex, which we take to be a fortress-administrative center. Kheit Qasim (No. 65), Tell Razuk (No. 53), and Tell Madhhur (No. 64), all have defensive aspects. Kheit Qasim and Ahmed al-Hattu (No. 57) have Early Dynastic I cemeteries. Tell as-Suleimeh (No. 12), Tell Sabra (No. 66), probably Tell Yelkhi (No. 36), and al-Abga' (No. 58) have material of this time. The Early Dynastic occupation, marked as it is by fortifications rather than by residential sites (with the exception of the town around the citadel at Razuk), must be seen as an important period, but the permanent population involved may have been small. The valley was perhaps being used by semi-nomadic herder-farmers, or by a number of groups deriving a livelihood from different aspects of the valley (fishermen, herders, cultivators) entailing various degrees of sedentism. The fortresses seem best explained either as the strongholds of local, petty kings or as border outposts of strong kingdoms to the south, established to keep communications open, to bar any northern and eastern enemies from access to the vital irrigation offtakes just south of the Hamrin Gorge, and to keep the local population under control. The ambitiousness in architectural design, the expenditure in labor and materials to construct the fortresses, plus the continuing cost of supplying the garrisons who lived in them over considerable spans of time, must be seen as beyond the resources of tribal groups. The great moated complex at Tell Gubba, lasting from the Jemdet Nasr through four major phases, must have been maintained for at least two hundred years. The evidence of storage facilities at Gubba, and to a lesser extent at the other fortress sites, may imply not only a garrisoning role, but a collecting of local produce, a form of tax. The possible use of the fortifications as protection (and locales) for trading networks must not be forgotten. That the Early Dynastic situation was not unique will be seen in the recurrence of fortifications in later periods.

The Akkadian period is known from excavations at Tepe al-Atiqeh, Tell al-Abga', Yelkhi, and primarily at Suleimeh (No. 12). The last-named site has produced, in what must be seen as administrative context, cuneiform tablets. Tell Khallaweh (No. 52) has sherds on the surface that look to us Akkadian, and Tell Sabra (No. 66) has yielded some material of this period. In most of these sites, there appears to be some indication of administrative function, or at least of an occupation on fairly high, small mounds that would not allow the existence of significant residential areas. Tepe al-Atiqeh may have been a large manor house rather than an administrative center. Its artifacts were predominantly agricultural.

In addition to the buildings discovered in the mounds just mentioned, there were large early Akkadian graves with equids discovered at Razuk (No. 53) and Tell Madhhur (No. 64).

After the Akkadian period, there seems to have been a gap in occupation, although some of the larger mounds such as Suleimeh and Yelkhi may have produced material of the Ur III period. We have not seen all the pottery from these sites, which are perhaps the most important early historical settlements in the Basin.

The Isin-Larsa period, by contrast, is well represented. Unfortunately, in some of the excavations the Assyriological use of the term 'Old Babylonian' has been adopted to cover

this archaeological period. It is therefore difficult to present an assessment of the Isin-Larsa, as separate from the Old Babylonian, meaning the time from Hammurabi to the end of his dynasty. Although there are good arguments for combining at least the latter half of the Isin-Larsa period with the Old Babylonian archaeologically, we must first link the Hamrin with its nearest excavated sequence, the Diyala. In the Diyala, the distinction was made between the Isin-Larsa and the Old Babylonian. Our experience at Nippur in the past few years has shown that the distinction is a viable one, and holding to the principle that we should split the ceramic sequence as finely as possible, we continue to maintain it. As far as the Hamrin Basin is concerned, we have not seen much pottery that we would date specifically to the Old Babylonian. There were at least twelve excavated sites of the Isin-Larsa range. The most important ones are Tell as-Suleimeh (No. 12), Tell as-Sib (near Baradan, No. 29), Tell Khallaweh (No. 52), and Tell Yelkhi (No. 36). Suleimeh, Yelkhi, and Khallaweh have sizable administrative buildings, while Tell as-Sib seems to be somewhat like Tall Harmal in Baghdad, incorporating administrative and other functions in one walled complex. Khallaweh and Suleimeh both have religious shrines within what appear to us to be palaces. It is not surprising that the Basin should have a number of important Isin-Larsa sites and to yield the greatest number of its tablets from this time when Eshnunna, just to the south, was at its height. The relationship of the Hamrin sites to Eshnunna may be one of the most interesting areas of research made possible by the Hamrin Project. Probably the active interest of Eshnunna in the Hamrin, even if it was the site of a small autonomous kingdom or a number of petty kingdoms, may have brought about a larger measure of stability than usual, allowing economic improvement and even stimulation for permanent settlement in villages and towns. However, it should be noted that the major administrative sites were located on the main routes, Suleimeh dominating the road to Iran, Tell as-Sib, Yelkhi, and Khallaweh on the road from the Sa'adiya area to Qara Tepe. It would be very surprising not to find a contemporary large administrative site on the other main road, north of the Nasaz, at or near Abga'.

The Kassite period is evidenced by what we take as an unrepresentatively small number of excavated sites. These include Tell az-Zawiya (No. 23) where we observed Kassite pottery; Tell Yelkhi (No. 36), with an administrative building; Tell Imleihyeh (No. 32) which yielded tablets of the 13th Century B.C., a nearby tell, Zubaydi, where the German Expedition under R. Boehmer subsequently recovered Kassite tablets; Tell Ahmed al-Mughir (No. 55), and Tell Ajamat (north of No. 55) which have late Kassite and post-Kassite remains. We also identified Kassite sherds on Tell Tannura, a site half a kilometer west of Tell Razuk, and have been told by Iraqi colleagues that there are one or two other Kassite tells near Khallaweh, indicating a concentration of settlement at this time in the northern part of the valley. If we may judge by the modern situation, the fact that there were settlements in the northern, more marginal, end of the valley would indicate that there should be a greater number in the better-watered areas. There should have been major sites around Suleimeh and Abga' to control the main roads.

It should be noted that the pottery at the Kassite sites, as far as we have seen it, corresponds to the Nippur types that we date to about the 13th Century, B.C. If this dating holds

for all the sites, it would imply a break of some duration in occupation of the Basin, even if the pottery being termed Old Babylonian proves to be as late as 1600 B.C. The relatively small village occupations, with a scarcity of fortresses, may indicate that the Hamrin Basin was, during the late Kassite, in a state of peace and not the actual frontier between Babylonia and Assyria, or Elam. Much larger, higher tells north of the Basin, on the roads to Kirkuk and Sulaymaniyah, and in the Khanaqin area, have surface sherds of the late Kassite and seem more suited to being border forts. The tablets thus far found, mentioning Kassite rulers, indicate that the area was under direct influence or control of the Babylonian central government. Some Kassite occupations may lie unexposed or unreported under later sites, but even without these, it is possible on the basis of the known sites to suggest that in the late Kassite period, the Hamrin may have been fairly prosperous, with a population spread out in villages somewhat like the situation we first saw in the Basin in 1978.

The scarcity of settlements datable to the Neo-Assyrian period was one of the disappointments of the Hamrin Project. Until 1980, the only evidence for an Assyrian presence in a region that is supposed to include Gannanate and Me-Turnat was a fragmentary stele discovered in disturbed context near Tell Sabra (No. 66). However, recently, the Iraqi team in the Tell Baradan complex of sites (No. 29) has reportedly uncovered remains of a temple and tablets of the Neo-Assyrian period, proving that Tell Haddad is Me-Turnat.

The next range of material is from the Achaemenid-Seleucid-Parthian time. Although it is possible to distinguish the pottery of these different periods, it cannot be done in the Hamrin on the basis of material reported thus far. There are significant Parthian fortifications at Abu Gubab (No. 62), Tell Baradan (No. 29), and perhaps Abga' (No. 58). There seem to have been a number of small village sites as well as forts.

Sasanian sites are relatively numerous and sizable in the valley. Besides Tell Gauri (No. 27), the large, rectangular site so far unexcavated just outside Sa'adiya, we have inspected a high, fortified site on the Nasaz, near the modern town of Bahizeh, outside the area to be flooded. The large fortress on the top of Abga', previously mentioned as perhaps Parthian, may be Sasanian. The best example of a fort, however, is the one at Abu Shi'afeh (No. 39). The finding of hundreds of Sasanian sealings in the building supports the designation 'administrative center'. Tulul al-Humeidiyat (No. 30), near the juncture of the Narin with the Diyala, has one large tell that is possibly Sasanian. Across the Narin, almost opposite Humeidiyat, is a small, low Sasanian site, not on the map. We have noted Sasanian material on the surface of four other unmapped, small (village?) sites, one of which was west of the Narin, the rest near Tell Abga'. An estimate of the number of Sasanian sites would be twelve or more.

Islamic occupation in the valley seems relatively dense, with some large, imposing structures such as the high fortress at Baradan (No. 29), and two or more large, well-laid-out structures in a line along the ancient northern route paralleling the track from Jalawla to Bahizeh (outside the reservoir area). There is also a major building (No. 61, as-Saray), badly plundered for baked bricks, near Qeshkul. Many smaller occupations are evidenced, at least by pottery, on earlier tells, such as Razuk (No. 53), and there are hundreds of Medieval Islamic graves cut into tells all over the Basin. The number of Islamic settlements may be in the range of forty

or so, but the division by period within the Islamic era would result in a much less dense pattern.

The Ottoman material should be divided from that of earlier Islamic eras. A careful study of the earlier material would indicate peak periods, and we could be fairly certain that the sample of sites was a good one, since alluviation and later settlement would cause less distortion than they would for earlier periods. This is not to say that modern villages are not resting on Islamic mounds; this is in fact the case, but sherds even from occupied tells would give a good indication of the Islamic periods. Taking only the excavated sites, there would be enough of a sample to create a sound sequence of Islamic pottery and gauge the importance of specific subdivisions. Even lacking a sequence, it is clear that large, fortified sites, such as Baradan (No. 29), Tell as-Saray (No. 61), and Tell as-Simad (No. 70) near the Narin Bridge, would not have been redundant, but complementary, in a given period. Each dominated a major route and could supply protection to travellers, extract tolls, and deter the advance of enemies.

We have only impressions to draw on, at present, but it seems probable that it was in or soon after the 14th Century, A.D., that the Hamrin Basin slipped into the characteristic settlement and land-use pattern described by foreign travellers from as early as 1598 until 1918. The seemingly contradictory descriptions given by these travellers — some mentioning irrigation ditches, others stressing barrenness, with a shifting population of antagonistic ethnic groups and the two towns serving as the only outposts of civilization — actually may signify a very ingenious adaptation of small groups to a relatively marginal environment under changing conditions brought about by big-power decisions and conflicts that had their focus elsewhere. The gaps in the archaeological record may indicate previous periods when conditions were similar.

The oral tradition of Uch Tepe, relating the basically nomadic lifestyle of the villagers, must be seen as part of the last phase of unstable conditions in the area during the Ottoman period.³⁹ The situation seems to fit into a pattern with the Uruk, Early Dynastic, Akkadian and Isin-Larsa periods of the Basin, when there were at most one or two towns and a number of fortresses on strategic routes. The situation we encountered on first entering the valley, with a population of about 3,000 persons, excluding those in Sa'adiya, Qara Tepe and Jalawla, scattered in farming villages, may be comparable to the Halaf-Ubaid, late Kassite and Medieval Islamic periods. In the late Kassite, Medieval Islamic and current situations, the possibility of occupying settlements outside major towns can be attributed to the ability of a strong central government to secure and maintain borders beyond the Basin. The similarity we see in the Halaf-Ubaid settlement may indicate some kind of stable social and economic relations linking the lowlands with the mountains to the north and east.

In general, the main features of Hamrin settlement through time seem to be a relatively low level of population, even in peak-periods, and a recurrence of fortified sites. The long gaps in occupation are decidedly marked. Taking into account the fact that there is a great deal of alluviation in the Basin, and that early and small sites would tend to be lost, there are still enough sites to indicate the presence or absence of occupation in any given period. If

pre-ceramic, Samarran and Ubaid sites can be found, then early Uruk, Ur III, Old Babylonian, and early Kassite occupations should have been discovered. Not only was there no evidence, as far as we could ascertain, of early Kassite remains, but there was very little if any evidence of the Mitannian and Middle Assyrian material that we expected to find in the Hamrin. The gaps in the record are, in a way, as important as the observed periods in that they must force a reassessment of big-power relations and concepts of geography. The publication of the tablets from the various excavations will help clarify the picture, and the detailed analysis of pottery and other artifacts will bring into focus the relationship of the Hamrin with other regions, especially the Diyala. Connections with Elam and Luristan will be extremely important, if we can judge from preliminary presentations of material.

Our report will give evidence that may relate to some of the broader questions touched upon thus far. As will be seen, our findings are perhaps of importance for a reassessment of the Early Dynastic and Akkadian periods.

FOOTNOTES:

- 1 E.g., T.C. 124 (A), dated 18-8-18, Khanaqin.
- 2 A.J. Barker, *The Bastard War, The Mesopotamian Campaign of 1914-1918* (New York: Dial Press, 1967), p. 371, says '... the rocky gorge of the Diyala and the sandstone rocks of the Jebel Hamrin were a pleasant break. There were plenty of game – partridge, snipe and duck – for those who had the means and ability to shoot. Fishing was easier; there was plenty of fish in the river and in the absence of rods, grenades would always ensure a good haul. The countryside was delightful and for a few brief weeks it was almost an idyllic existence, described by a Scotsman as 'a bit of the auld country', by a South African as 'like somewhere on the Basuto frontier', and by a New Zealander simply as 'home'. There was even wild pig ...'
- 3 Gazelles reported by several travellers, among them, W.F. Ainsworth, *A Personal Narrative of the Euphrates Expedition* (London: Kegan Paul, 1888), p. 288. Lions at Qizil Rabat reported by R. Ker Porter, *Travels in Georgia, Persia, Armenia, Ancient Babylonia ... during the Years 1817, 1818, 1819, and 1820* (London: Longman, Hurst, Rees, Orme and Brown, 1821-22), Vol. 2, p. 235.
- 4 In the Eastern Province of Saudi Arabia, a similar system is in operation today. Recently abandoned forts surround wells even in the vicinity of major towns, such as Hofuf, while the 'home' oasis of Jabrin, with a number of permanent buildings in several locations, is guarded by Murra tribesmen even when the tribe and the main *shaykh* are not present. Personal observation.
- 5 See C.W. Mitchell and P.E. Naylor, 'Investigations into the Soils and Agriculture of the Middle Diyala Region of Eastern Iraq', *The Geographical Journal* 126 (1960), pp. 469-75, for a discussion of soils, water availability, and problems of salinity in an area including the Hamrin Basin. The marginality of the Basin without an assured, stable water supply, unattainable without modern reservoirs, argues against any sizable population in the Basin at any period. Supposing that the figures given in this article may be depressed by the inclusion of upstream regions the Hamrin Basin must still be seen as yielding a very low return. *Per capita* income as of 1960 was placed at half the national average. We noted considerable variation from these figures in the Uch Tepe area during our stay. Admittedly, our observations were very superficial, but it seemed that much less land was being cultivated with canal irrigation. Rice fields around Tell Razuk, which had been watered by a canal from the Qara Tepe Canal, were said to have been abandoned five to ten years ago. In addition, the Uch Tepe villagers seemed to be consuming a far greater percentage of vegetables than they were selling, and appeared to depend to a far greater degree on their animals than the average given in this article.
- 6 'The Historical Geography of the Hamrin Basin', *Sumer* 35 (1979), pp. 591-94.

- 7 See G. Le Strange, *The Lands of the Eastern Caliphate* (Cambridge: Cambridge University Press, 1905) for summary of routes, especially pp. 62-63.
- 8 *Encyclopedia of Islam* (Leiden: Brill, 1965), Vol. 2, p. 406a, *sub* Djalula'. Mustawfi, in A.D. 1340, reported that the Seljuk sultan, Malikshah, built a watch tower here and called it Ribat Jalula'. From this evolved the Ottoman name, Qizil Rabat. F. Sarre and E. Herzfeld, *Archäologische Reise im Euphrat- und Tigris-Gebiet*, 2 (Berlin: D. Reimer, 1920), pp. 82 ff., quote Hamdalla as making the identification and give the text of an inscription of A.D. 1359 over the doorway of the Khan Ortman, now generally called the Khan Mirjan, in Baghdad, that gives the equation of the two names.
- 9 'The Relation of a Journey taken to Persia in the years 1598-1599 by a Gentleman in the suite of Sir Anthony Sherley, Ambassador from the Queen of England', in E. Denison Ross, *Sir Anthony Sherley and his Persian Adventure, Including some contemporary Narratives relating thereto*. The Broadway Travelers, edited by E.D. Ross and Eileen Power (London: George Routledge and Sons, 1933), pp. 137-74.
- 10 Identification by E.D. Ross, *Sir Anthony Sherley*, p. 146, n. 3.
- 11 *Ibid.*, p. 147.
- 12 *Ibid.*, p. 147, n. 1, suggests Shahraban (modern Muqadiyah) as the identity for Steroban, but since this would entail recrossing the Hamrin from Qara Tepe, the identification is not sound.
- 13 Petri della Valle, *Reiss-beschreibung in unterschiedliche theile der Welt/nemlich in Tūrckey, Egypten, Palestina, Persien, Ost-Indien ...* (Genff: J.H. Widerhold, 1674), Vol. 1, Part 2, p. 3.
- 14 Guy de L'Isle, 'Carte de Perse', in E.D. Ross, *Sir Anthony Sherley*, facing p. 146. *The Diary of William Hedges*, Hakluyt Society, 3rd Series, Vol. 74 (London: Hakluyt, 1887-89), pp. 220-22, detailing a trip from India to England in 1681, has the Baghdad-Mosul route running along the Tigris.
- 15 C. Niebuhr, *Reisebeschreibung nach Arabien und den umgebenden Ländern* (Graz: Akademische Druck, 1968), Vol. 2, pp. 334f.
- 16 J.S. Buckingham, *Travels in Mesopotamia ... with Researches on the Ruins of Babylon, Nineveh, Arbela, Ctesiphon, and Seleucia* (London: John Colburn, 1827), pp. 354-55.
- 17 *Travels in Assyria, Media and Persia ...* (London: Henry Colburn, 1829), pp. 11-29, esp. p. 18.
- 18 William Heude, *A Voyage up the Persian Gulf and a Journey overland from India to England in 1817* (London: Longman, Hurst, Rees, Orme and Brown, 1819), p. 192.
- 19 *Travels in Georgia, Persia, Armenia ...*, Vol. 2, pp. 227-28.
- 20 *Ibid.*, pp. 429-31.
- 21 C.J. Rich, *Narrative of a Residence in Koordestan ...* (London: James Duncan, 1836), Vol. 2, pp. 257-58.
- 22 *Ibid.*
- 23 *Ibid.*, p. 259.
- 24 Rich, *Narrative*, pp. 283-86. See S. Longrigg, *Four Centuries of Modern Iraq* (Oxford, 1925), p. 220.
- 25 Rich, *Narrative*, pp. 283-86.
- 26 George Keppel, 6th Lord of Albemarle, *Personal Narrative of a Journey from India to England ... in the year 1824* (London: Henry Colburn, 1827), pp. 151-55.
- 27 Robert Mignan, *Travels in Chaldaeia ... in 1827 ...* (London: Henry Colburn and Richard Bentley, 1829), p. 329.
- 28 Rev. Horatio Southgate, *Narrative of a Tour through Armenia, Kurdistan, Persia and Mesopotamia* (New York: D. Appleton, 1840), Vol. 1, pp. 157-60.
- 29 W.F. Ainsworth, *A Personal Narrative of the Euphrates Expedition*, pp. 288-89.
- 30 A.H. Layard, *Early Adventures in Persia, Susiana, and Babylonia ...* (London: J. Murray, 1857), Vol. 1, p. 209.
- 31 J.H. Petermann, *Reisen im Orient* (Leipzig: Viet and Co., 1865), pp. 265-76.
- 32 Gratton Geary, *Through Asiatic Turkey* (London: Sampson, Low, Marston, Searle and Rivington, 1878), Vol. 1, pp. 308-9.
- 33 E. Nolde, *Reise nach Innerarabien, Kurdistan und Armenien, 1892* (Braunschweig: Friedrich Vieweg und Sohn, 1905), pp. 145-57.

- 34 F. Sarre and E. Herzfeld, *Archäologische Reise*, Vol. 2, opp. p. 80.
- 35 Published sources on the Hamrin campaign are not numerous. The official history, Brig.Gen. F.J. Moberly, *The Campaign in Mesopotamia, 1914-1918* (London: His Majesty's Stationery Office, 1925), Vol. 3, pp. 272-321, covers the initial phase, in which the British failed to take the Hamrin, and Vol. 4, pp. 66-70, details the taking of the Jebel and Qizil Rabat, while pp. 89-95 relate the actual battle in the Basin. A.J. Barker, *The Bastard War*, pp. 381-83, gives further details on the battle, including a map of the action.
- 36 J.N. Postgate and P.J. Watson, eds., 'Excavations in Iraq, 1977-78', *Iraq* 41 (1979), pp. 141-81. For a report on one site, see D. Sürenhagen, 'Ahmad al-Ḥattu, 1978', *Mitteilungen der Deutschen Orientalgesellschaft* 111 (1979), pp. 35-50. See also S. Schirmer, 'Landschaftsgeschichte um den Tell Imlehiye, Hamrin, Irak', *Baghdader Mitteilungen* 11 (1980), pp. 9-32, for some geological work in the valley.
- 37 For a short note on our sounding at Tell Rihan, see M. Gibson, 'Chicago-Copenhagen Excavations at Uch Tepe, Hamrin', *Sumer* 35 (1979), pp. 466-67.
- 38 The most important Ubaid site was Abbadeh (No. 7), excavated for the Organization of Antiquities by Mr. Sabah Aboud. This site, in the southern end of the valley, had unusual architecture and pottery. See S. Aboud, 'Tell 'Abada', *Sumer* 35 (1979), pp. 528-29, and Figs. 1-5 on pp. 534-37.
- 39 Admiralty War Staff, Intelligence Division, *A Handbook of Mesopotamia*, Vol. I (London, 1916), Map 2 shows the 'racial divisions' of Mesopotamia at the end of the Ottoman period. The Hamrin Basin is between the Kurdish area and the Arab area in a white band that is called 'debateable'. Clearly, this map reflects the insecurity of the area under the Ottomans.

Chapter III

TELL RAZUK: STRATIGRAPHY, ARCHITECTURE, FINDS

McGuire Gibson, John C. Sanders, and Bodil Mortensen

General remarks

Tell Razuk is a triangular mound 170 meters long on the southwest side, 140 meters long on the northeast and 120 meters long on the southeast (Pl. 4). Its highest point is four meters above the plain on the east corner. Along the southwest side, there is a ridge with a trench-like depression on its inner face, leading toward a low rise at the southern corner of the mound.

In a number of pits, we established that the mound was formed on a stratum of gravelly red clay two meters below the present plain. This gravelly clay was a natural ridge perhaps somewhat above the surrounding alluvium at the time Razuk was founded, but without detailed geomorphological work, this cannot be proven.

Around the tell are clear indications of fairly recent irrigation farming. The abandoned fields extend westward more than 300 meters into what is now marsh. The local people say that these fields were worked five or ten years ago, but salinity made them unproductive. The fields, planted with rice, were said to have belonged, at least in part, to the man after whom the tell is named. It might be noted that the name was pronounced 'Arzuk, rather than Razuk, according to our informants.

The mound is covered with camel thorn, which sends down large, long roots to water. In the spring, the surface is green with a short, dense grass that burns off or is grazed off by late March. The tell, when dry, is very hard, as is the ground around it.

Tell Razuk was included under a ten-meter grid laid down over the mounds that we initially took as our responsibility. Razuk falls within squares marked F to T and 50 to 70 (Pl. 4). Our major excavations took place in Squares O to S and 57 to 60, where we exposed a Round Building and some nearby houses. A sounding to the west, in Squares I-J, 60, and a small pit in Square I 54 were made to determine whether or not there was a town wall, while a pit in Square O 63 was meant to investigate the nature of the rise at that part of the mound.

Having set the grid, we began digging in Squares P 58 and 59, subdividing them into five-meter squares. We came down into a series of pits and some fragments of walls. We very soon

had evidence not only of late Islamic activity at the site, but of the Early Dynastic character of the major occupation. It took some time before we had expanded into ten-meter squares and could appreciate the curving walls as part of a large building. We kept one-meter-wide baulks between our squares, resulting in nine-meter exposures (Pl. 5:2).

The strata of Tell Razuk can be divided into six levels. All but the topmost can be dated to the later part of Early Dynastic I and Early Dynastic II. On virgin soil, a massive fortress, the Round Building, was constructed and apparently surrounded by houses (Level VI). After a gradual build-up of debris inside and outside the Round Building, accompanied by a number of architectural changes (Level V), the structure was almost completely abandoned (Level IV), then given up entirely. Subsequently, the site was extensively quarried, apparently for material to make mudbricks, and the pits were filled with refuse (Level III). Thereafter, still within Early Dynastic II, a large rectangular building was constructed (Level II). Above this was a surface stratum (Level I) that had been extensively cut with pits and graves, showing evidence of early Akkadian, Isin-Larsa, Sasanian, Medieval Islamic and fairly recent activity.

In order to make the following detailed account of levels more comprehensible, we will give a general description of the Round Building, including information on the method of construction.

The building, of unbaked bricks, was 27 meters in diameter and was preserved about four meters high in some parts (Pls. 6-12). We would reconstruct at least an additional meter above the preserved height.

In contrast to the usual type of wood beam, reed, and mud roof known from ancient Mesopotamia, this building's roof was constructed as corbelled arches, spanning spaces almost five meters wide with unbaked bricks. Most architects who have seen our building have been politely incredulous of the arches. We, ourselves, found the facts hard to believe. It was only in the discovery of intact roof sections over Loci 54, 416, 421, and 449 (Pls. 8, 11-13, 21:1), plus the finding of intact, smoke-blackened mud plaster on the walls and ceiling of every room, that forced us to conclude that at Tell Razuk the ancient builders had achieved a feat that is supposed to be impossible with unbaked bricks. A glance at our main sections (Pls. 11-12) and photos of rooms (Pls. 8, 13) will show that there is a regularity in the form of the arches over the rooms that cannot be accounted for merely as the result of fallen (vertical) walls. The contrast between the interior arches and the more or less vertical face of Wall DR in the Court, which had floors running uninterrupted against them, is the best argument against the possibility that we had fallen walls. If the walls had fallen, both faces should have had a similar lean and there should have been rubble on the floors deep down in the rooms. We found rubble only on the uppermost floor of several rooms, considerably above the point where the arch began its curve. Some observers have wondered how there could be floors high up in the rooms, such as those in Loci 456 and 47. We will present evidence in the following detailed sections to show that the rooms were in use even after the floor debris had built up to the point where there was little more than a meter's height left in them. However, in at least one room, the roof was cut away in the last phase of the building to create a usable space with more conventional, vertical, walls and apparently flat roofing.

We have submitted brick samples to the Portland Cement Association for a variety of tests. From these tests, we expect to find that the unbaked bricks of Tell Razuk were of a special composition that made it possible to employ them in ways that normal mudbricks could not be. A structural engineer is preparing a report on the findings from these tests as they relate to the plan of the building. His report will be included as an appendix to this volume or to the companion work on Tepe al-Atiqeh.

There are a number of remarks that can be made on the construction of the Round Building even without the technical reports. An examination of the plan (Pl. 10) shows that the structure had only one entrance flanked by buttresses. The entire outer wall, which curved in as it rose (Pl. 20:2), had smaller buttresses at five-meter intervals. From the Entry Room, one had access to the Court and from there into the other four rooms. It should be noted that there was no direct communication between rooms; there were no doorways through the five partition walls. The Entry Room did, however, give access through an arched doorway, 2.07 meters high (Pl. 22:1), to the Stair (Locus 54), the treads of which were intact up to the roof. The Stair had been formed by filling in the space between Walls N and B with a solid mass of mudbricks that did not bond into the walls. Each of the treads (Pl. 21:2) was composed of a course of mudbricks (30 x 17-18 x 7-8 cm.).

We found the roof over the Stair intact in two places, at the foot and in the middle of its run, where the East-West Section cuts the building (Pls. 7:2, 11, 21:1). At the bottom of the Stair, the ceiling was about 2.12 meters high, while at the middle of the run, it was only 1.83 meters above the tread. Thus, the Stair was rising at a somewhat steeper angle than the ceiling. Projecting the ceiling height and tread angle to the top of the building, it seems probable that the exit onto the roof would have been about 1.5 meters high, if the entire Stair had been covered. We had no evidence on which to reconstruct the roof detail at the top of the Stair, but it seems unlikely that the Stair would have been left open to the rain, as we present it in our perspective drawing (Frontispiece). It is more probable that at least part of the roof rose above the general height of the building, if the entire roof or parapet was not carried to the height necessary to shield and enclose the Stair exit. The roof over the Stair was constructed by carrying the outer wall, N, up and on to Wall B, where it was bonded in. This construction can be classed as a rampant arch (Pl. 11, Locus 26; Pl. 7:2).

We did not have the necessary time and labor to disassemble the building in all the requisite places to ascertain all the construction details. But, the massive cuts made in the building during antiquity allowed us to examine it in critical places.

Although the Round Building was ingeniously planned and constructed, there was a surprising variety in brick sizes. Walls DR, N and B were composed of unbaked, flat, rectangular bricks ranging from 30-36 x 18-20 x 7-8 centimeters. Most partition walls were constructed with bricks of similar dimensions, but Wall FC had bricks 40 x 19-20 x 7 centimeters.

We have come to the conclusion that the ancient builders laid out the entire plan of the Round Building on the ground, without foundation trenches. Wall GQ, in Locus 48 (Pl. 10), may have been part of an earlier structure. The plan is, essentially, two ring walls joined by five partitions. In the first few courses, the entire structure was bonded. As the building rose,

however, the partitions must have been built at a somewhat faster rate, because the corbelling over the rooms was laid up against the partitions, not bonded into them. Although there was mudplaster between the corbelled overhangs and the partition walls, it was clear that the partitions did not bear the weight of the corbels. The thrust was carried by the arching walls vertically to the ground, rather than horizontally to the partitions.

In order to construct the corbelling, each succeeding course of mudbricks was extended out over the one below by some ten or twelve centimeters (Pl. 13). The corbelling could not have sustained its own weight during construction, so some type of support must have been employed. Given the lack of wood in the area, we would propose that sand or earth was poured in gradually as the building rose. After the building was complete, the sand or earth would have been removed and internal finishing would have been done. Included in such finishing work was the insertion of fragments of bricks to fill in the ends of each course to give a smooth line to the ceiling before plastering.

The courses of the arch brought up and in from both Wall DR and Wall N, tended to slope toward the center of the room until they met at the crown. In a few places, we found what appeared to be a primitive key-stone, a brick or two laid on edge at the crown of the arch. This feature was not essential, and had been resorted to in order to fill in places where flat-laid bricks would not fit into the space left at the crown of the arch.

After the corbelling was complete, the roof was laid over it. We presume that at some height above the ceiling the roof was bonded fully into the partition walls. We found evidence of only four courses of roofing over the arch in Locus 421, but in Locus 449, where the roof had slumped about half a meter during the life of the building, there were at least ten courses of roof (Pl. 8:2). We would reconstruct about a meter and a half of roof over the arches. In Locus 421 (Pl. 13) the highest part of the ceiling was 3.5 meters above the lowest floor. A reconstruction of the arch in Locus 456 (Pl. 11) would result in about the same height for the ceiling. In these loci, and in other rooms where the roof was substantially intact (Locus 423), it was obvious that the arch did not rise in one curve, but in a sinuous line, with two bulges in each wall, creating something akin to an ogee arch, but with a rounded top. The plaster on the arch was intact in a number of locations. It was clear that there had been no cracking of the plaster, as would be expected if the two bulges on either side of the arch had been the result of slumping from failure in the building. The fact that the bulges occurred at approximately the same heights in a number of rooms argued that the shape of the arch was an original design feature. There is, however, another possible explanation for the sinuosity of the arch. We have evidence, to be presented below, that the doorways of the Round Building were originally low and arched, and that as the debris in the building accumulated, it became necessary for the ancient inhabitants to raise the doorways by cutting away the lintels. It could be argued that as the floors in the rooms rose, the ceilings were cut back and up to give more space. However, after the ceilings were cut, new plaster would have been applied and we found no evidence for new plastering. We are assuming, therefore, that the shape of the arch at Razuk was original. That the arch was strong is attested to by the fact that, even at the end of the excavation, workmen would sometimes walk across the fragment of roof left over Locus 421, despite warnings that it might fall.

The following description of findings at Tell Razuk is organized by level, from the bottom up. Some of the levels have been divided into sublevels, A and B. The correlation of floors in various rooms of the Round Building and the houses outside has been done by following floors from rooms, to the Court, then through the Entry Room to the house area. Since rooms were being dug at different rates, and floors that would appear as major ones in the Court might not be so noted in surrounding rooms, there are more floors shown in the Court than in specific rooms and exact correlation at every floor may not be possible. However, the use of sections through doorways, linked to the main East-West and North-South sections (Pls. 11-12:1), made it possible to establish critical correspondences. In some cases, where deep pits (e.g., Locus 418) were isolated, the similarity in pattern of successive layers of debris and the comparison of absolute elevations made tentative correlations possible. It should be noted here that the elevations given on the plans are only a small proportion of elevations recorded. The datum for these elevations was an arbitrary point established on the top of Razuk and given the value 100. All elevations in our plans are in terms of measurements below that datum. Thus, a floor at 96.50 should be understood to be higher than one at 96.00.

LEVEL/LOCUS SUMMARY 1

LEVEL VI B (Pls. 10, 14)

Court	East Room	West Room	Entry	Stair	Outside NW	W	NE	E
455,10a	456,6	47,10/421,8						418,11 (?)
11	7	11	449,1					
12	8	12						12 (?)
13	9	13	1a		479,2	48,3		
14		14 9	2-3			4		13
15	10	15	4	26/54, steps	3	5	447	14

Level VI B (Pls. 10-15)

The gravelly, reddish brown clay stratum, on which the Round Building rested, was designated as Floor 15 in Loci 455 and 47. In the Court, we found mudbrick pavements near the doorway to Locus 47. In the same doorway, and in the doorway to the Entry Room (Locus 449), there was a small, mudbrick pier set against each doorjamb (Pls. 10, 19:1, 40). We assume that there were similar low piers in all the doorways of the Round Building at this floor, even in the Outer Door. Outside the building, projecting from the two buttresses that flanked the Outer Door, there were two low benches (Pl. 10).

Resting on the red stratum, in every locus excavated deep enough, we found a layer of greenish gray clay which yielded a few sherds. The top surface of the greenish gray layer, an ashy living floor (Locus 455, Fl. 14, Pl. 14), was the earliest, well-marked occupation of the building. In a number of places in the exposed Court, there were fire-reddened areas and ash. Ashy debris occurred on equivalent floors elsewhere. A fragmentary mudbrick oven, set against the wall in the southwest quadrant of the Court (Pl. 15), was the earliest of a series of ovens discovered in this location. The ashes from this series of ovens accounted in great part for the quick build-up of the Court relative to surrounding rooms. Even at this early floor, there was a slope of forty centimeters from the Court down into the West Room (Locus 47). The complete lack of any drains in the building, coupled with the rise of floors alongside the walls, leaving low areas in the middle of the Court, must have made conditions in winter very unpleasant. The mudbrick pavements found near the wall faces may have been attempts to gain some dry pathways. These pavements, however, were so slippery when we excavated them after a rain that they probably added to the drainage problem and at the same time gave treacherous footing.

Close examination of the doorway into Locus 47 (Pls. 19:1, 40) gave us details on construction changes that may have occurred at all the doorways in the Round Building at this time. Originally, rather wide, low, arched doorways with low piers against either side were narrowed, at Floor 14, by applying blocks of mudbrick against both jambs and over both piers. Evidence of similar narrowing was observed in the doorways to the Northeast Room (Locus 416), the East Room (Locus 456), and the Entry. The doorway to the South Room had probably had similar treatment, but could not be examined in detail before the end of the season. We ascertained that the Outer Doorway of the Round Building had been narrowed in the same way (Pl. 22:2). In addition to the narrowing of the doorways, a new skin of mudbrick at least three meters high was placed over the face of Wall DR in the Court, from the south jamb of the Locus 47 doorway as far as the south jamb of the doorway to Locus 456 (Pl. 14). The new veneer was readily visible since it was not laid in strictly horizontal courses (Pl. 7:1).

On the next floor up, Locus 455, Fl. 13, a pair of ovens was constructed of mudbrick in the southwest quadrant (Pl. 15). On Floor 1a of Locus 449, the Entry Room (Pl. 14), a bin of mudbricks was found against the north wall. In the West Room (Locus 47, Pl. 11), a bench of mudbrick was set against the west wall. A similar construction was laid against the west wall of the East Room (Locus 456, Pl. 11). The low bench in Locus 456, exposed in only

a small area, may have extended for some distance along the length of the rooms, as benches in Locus 47 did.

Another major architectural renovation took place at Floor 12 of Locus 455. A veneer of mudbricks was applied to the face of Wall DR from the north jamb of the Locus 47 doorway around to the north jamb of the doorway to Locus 456, completing the refacing of the Court begun at Floor 14. A bench approximately 75 centimeters wide and 13 centimeters high, built of green and brown mudbricks laid as headers and stretchers, was constructed west of the doorway to the South Room. Another bench of mudbricks was laid on the same floor south of the doorway to Locus 47, while a one-brick-high bin was found north of it (Pl. 14). Inside Locus 47, an irregular bin of mudbricks was constructed against the east wall. This bin, preserved only one course high had originally been at least forty centimeters tall, as evidenced by a remnant attached to the wall. In the bin was found a sherd of Scarlet Ware, without diagnostic features. On the floor, against the west wall, a low mudbrick bench was set upon the one found on Floor 13 (Pl. 11). In like manner, a construction of mudbrick at Floor 9 of the East Room (Locus 456) was set on a lower bench (Pl. 11). In this case, however, the construction was clearly intended not as a bench, but as a support for the wall. This early construction of a support wall and a major renovation of the South Room in Level V A that employed similar supporting walls, probably indicate some structural trouble with the building.

Floor 11 of Locus 455, and its equivalents in other loci produced little change in architecture or features. The floors in the doorway to the West Room (Locus 47) showed signs of having been cut to form a ramp (Pl. 11), as the Court accumulated debris faster than the rooms. On Floor 7 of Locus 456, the East Room, we recovered two flint blades (Uc 343, 346, Pl. 56:6, 7). On a tread of the Stair (Locus 54), we found an animal figurine (Uc 276, Pl. 52:3).

At Floor 10a, Locus 455, there was an important feature, a large, mudbrick bin in the southeast quadrant (Pl. 7:1, 14). This bin, built of mudbricks (30-34 x 15-17 x 7-8.5 cm.), appeared solid, the hole in the front that might be an air shaft being perhaps only damage to the structure. The construction, 2.6 x 1.6 meters, and 40 to 50 centimeters high, had a raised parapet around the edge, rising as much as 39 centimeters above the rest of the bin. The entire outer surface of the construction was plastered with mud, the top having as much as eight centimeters.

The slope of the bin, which might be thought a disadvantage in the storing of commodities, was intentional. The parapet walls were most probably a good deal higher than preserved. These would have acted to hold in grain, and would have provided support for a roof of some sort. The grain, having a tendency to slide downslope toward the northwest, could be reached through an easily-plugged hole in the parapet. Somewhat analogous bins being used in Uch Tepe village today are breached at one end to obtain grain or straw, then replastered. Constructions very similar to our bin and others found at Razuk are paralleled at all the other Early Dynastic sites in the Hamrin, usually in close association with ovens.

The oven against the wall in the southwest quadrant on Floor 10a (Pls. 14-15) is one of

the better-preserved examples at Razuk. We have only the fire box, consisting of a chamber separated into units by piers. Above these piers would have been a floor with flues between the piers. The opening of the oven was to the northwest, where remnants of another construction, possibly a second oven, were found (Pl. 15:3). The entire area nearby was strewn with ash and heavily burned. Beside the doorway to the South Room, a bench of one brick's thickness was constructed above an earlier one of Floor 12. The doorway to the South Room had a mudbrick sill at this time.

Outside the Round Building, at Level VI B, we were able to expose only small areas in front of the Outer Door (Loci 479, 447), and at the east-west section line (Loci 418 and 48). The area outside the Outer Door in this low level was composed predominantly of greenish clay layers, with gravel present in quantity. In higher strata, gravel was also present at a number of floors (Pl. 12:2). The gravel seems to have been laid at the entrance as a measure to offset muddy conditions.

LEVEL/LOCUS SUMMARY 2

LEVEL VI A (Pls. 16-18)

Court	East Room	West Room	Entry Room	Stair	Outside NW	W	NE	E
455,6	456,3	47,7/421,4	443,1a/444,1a			48,1 475,1-2 34,5	447	418,6?
7			1b					7?
8	4		2	2	26/54,2	473,1 /476		
8a	5		2a		2-3			8?
9		8	5	3	3	479,1		9?
10	5a	9	6	4	4	2		10?

Level VI A (Pls. 16-18)

We decided to divide the lowest level of the excavation into sublevels on the basis of changes in the Entry Room, which called for the creation of two new loci, 443 and 444. The bin, built on Floor 10a of Locus 455, could as easily have been considered significant enough to make a division on that floor, but it was only a feature, probably not the first of its kind in the Court. In the unexcavated debris under that bin there is probably at least one earlier version. Even though we did not use that bin as the signal to divide the level, it did remain in use throughout Level VI A, of which it was essentially a part.

In the Court, Locus 455, on Floors 10 to 6, while the bin continued to dominate the space, an oven was constructed on almost every floor (Pl. 15:4-5). The mudbricks of the ovens and the surrounding surfaces were scorched and strewn with ashes.

The West Room, Loci 47 and 421, had in this sublevel a series of benches built along the western wall (Pls. 11, 13:2, 16-18). The structures had intact mud plaster on them in places, and floors ran over each of the benches, proving that they were not constructed to support the wall, but had some other function, perhaps storage. On Floor 6 of Locus 421 and Floor 9 of Locus 47, there was a single string of mudbricks (32 x 16 x 10 cm.), laid end to end. In Locus 421, on Floor 5, a succeeding bench of reddish brown mudbricks, partly set in green mortar and plaster, was two courses high, and constructed so as to leave a channel running down the middle of the bench (Pl. 16). It might be suggested that storage vessels, with rounded or pointed bases, had been set in this channel, but we have no evidence to support the suggestion. In Locus 47 (Floor 8) the other end of the West Room, one bench was somewhat more substantial, being a six-course high construction, visible in the main East-West section (Pl. 11). A three-course dividing wall, preserved only in the section, abutted the eastern wall of the room. The next highest occupation, Locus 421, Floor 4, which ran up against the bench that was built on Floor 5, was brown and ashy. A shell bead (Uc 286, Pl. 55:7), a jar base recut for use as a small dish (Uc 288, Pl. 73:4), and a pottery jar, with its neck and rim broken off (Uc 295, Pl. 80:16) were found here along with numerous sherds and animal bones.

The most important changes in this sublevel were found in the Entry Room. Here Wall FE was constructed, dividing the room into two loci, 443 and 444 (Pl. 16). Although there were two doors in this wall, only the northern one had a mudbrick sill. The wall, preserved up to seven courses high, was constructed of reddish brown mudbricks (30-31, 35 x 15-17 x 7-8 cm.), laid as headers and stretchers with gray and grayish green mortar. All the floors of Locus 443 showed signs of fire and much ash. The entire locus could not be exposed before the end of our work, but it is possible that hearths or ovens existed at all floors. From Floor 2 (Pl. 18) up, in the northwest corner, there was a bin, made of brown and reddish brown bricks (30 x 15 x 10 cm.), set in red and green mortar. The eastern end of the room had a bench with a hearth against Wall HK. It seems likely that this locus was a kitchen. The finding of two unregistered basalt grindstones on Floor 4 reinforces that designation. The location of fireplaces and hearths would indicate the probability of vent-holes in the roof.

On the other side of Wall FE, Locus 444, Floor 4, there was a pavement of light green mudbricks (36 x 18 x 8 cm.) running through the door to the outside (Pl. 16). Only part of

this pavement was articulated by us, as shown (Pl. 22:2), but the entire pavement through the doorway was laid in similar fashion. At Floor 3, the pavement was completely covered by debris. A line of mudbricks running perpendicular to Wall FE and parallel to Wall N formed a bin. At Floor 2a (Pl. 17), which was the equivalent of Locus 455, Floor 8a, there was a major change in Locus 444. On both sides of the Outer Door were low, red mudbrick constructions that narrowed the access. At the same time, the building of Walls HI and HJ created a new set of jambs. In previous levels, the door post may have been placed in the doorway itself, since we found no evidence of pivots in the room below this floor. The corbelled ceilings of the building created a difficulty in closing the door. The upper parts of the walls projected out into the room (Pl. 23:1-2), making it impossible to use the post-and-socket door that was normal in ancient Iraq, without adjustments. The new jambs, with the doorpost on the east side, about a meter out from the base of Wall N, must have risen to the ceiling, allowing a complete closure. On Floor 2 (Pl. 18), the jambs were rebuilt (Walls HF, HH), giving a somewhat sturdier construction and an angled side to the west jamb that allowed better access to the Stair (Locus 54.).

It should be mentioned that the debris in the Entry Room was piling up rather drastically toward the walls. In fact, there were indications that the main pathways across the room to the Court, Locus 455, had to be cut down occasionally. We found great difficulty in following floors across the Entry because of the cuts. Floors sloped up to the west corner of the room, by fifty centimeters, reducing the height of the doorway to the Stair to a meter at Floor 2. The corresponding floor of the Stair (Locus 54, Floor 2) was one meter above the actual tread in the bottom of the Stair. The gradual buildup of debris had been much greater at the bottom of the Stair than at the top (Locus 26), but the slope of the floor indicates that no part of the tread, even at the top of the Stair, had less than thirty centimeters of debris above it.

Although a larger than usual number of animal bones and sherds was found in the Entry Room and the Stair at this sublevel, only one catalogued object can be assigned to these rooms in VI A. This is a bone awl (Uc 310, Pl. 51:14), from Locus 444, Floor 2.

The East Room, Locus 456, underwent a notable change in this sublevel (Pl. 11). At Floor 5, equivalent to Floor 8 of Locus 455, a two-course-thick paving of mudbrick was laid in the room, perhaps over its entire extent, but we cannot be certain since we exposed only a small part of the room at this level. Floor 4, directly on the pavement, yielded two flint blades, one from the doorway (Uc 341, Pl. 56:4), the other from fill (Uc 342, Pl. 56:5).

Outside the Round Building, Level VI A was marked by the appearance of a low wall, GP (Pls. 17, 24:1), that enclosed Locus 476. The wall was built at a floor (Locus 473, Floor 3) that was identical with Floor 2a of Locus 444, and sloped forty-five centimeters down from the Outer Door of the Round Building to the base of GP. The mudbricks of Wall GP (32 x 16 x 7 cm.) were grayish brown and laid in light gray mortar. There were six intact courses, laid as follows from the bottom up: stretchers, headers, soldier headers, stretchers, headers, soldier headers.

Above Floor 3 of Locus 473 there was a greenish gray layer of clay, about ten centimeters thick, on which rested the lowest of a series of pavements (Floor 2). This pavement

was composed of mudbricks of various sizes and colors, including red, green, red with green inclusions, gray with ash inclusions. Many had stones in them.

In Locus 476 (Pl. 24:1) ovens were surrounded by ash and some fragments of fired bricks, probably the result of high temperatures on the mudbricks of the ovens themselves. Three floors in the locus were of hard, greenish, tamped earth. Further details on the locus could not be obtained because of Wall GZ resting above it.

West of the Round Building, in Locus 48 (Pls. 11, 16, 25:1) there were a number of floors, probably of this level, sloping sharply down from Wall N. A low, curving wall, GR, was built against Wall N on Floor 2. From Floors 1 or 2 of this locus we recovered a conical baked clay jar stopper (Uc 278, Pl. 79:5), and from Floor 1, a whole jar (Uc 271, Pl. 74:5).

Immediately west of Locus 48, we exposed a small part of what were apparently houses. In Locus 475 (Pl. 18), below Floor 1, we encountered part of a wall, HN, with a rectangular oven next to it. Floor 1, running directly over Wall HN, was limited on the south by a one-brick-thick wall, HM, against which had been constructed a hearth (Pl. 24:2). This hearth, bounded by a thin wall on its west side, was created by placing the upper part of a large jar upside down. Numerous examples of this type of hearth were found in the loci outside and within the Round Building in later levels, to be described below. At the eastern edge of the locus, directly over Wall HN, was a bin composed of mudbricks placed on edge and plastered. In the bin were mudbricks, numerous bones, including those of birds, and brown fill. On Floor 1, we found a ribbed tubular shell bead (Uc 339, Pl. 55:1), and a red stone bead (Uc 340, Pl. 55:3).

We were unable to reach the bottoms of Walls O, P, and DE, but must conclude from the position of floors in the section (Pl. 11) that they were built at about the same time as Wall HM, or even before. In Locus 34, north of these walls, we exposed Floor 5, which was hard and strewn with black ash. On it, we found a Scarlet Ware sherd depicting an equid, a bird and a fish (Uc 319, Pl. 89:3).

East of the Round Building, in Locus 418, Level VI A may be represented by Floors 6 to 10, but no proof can be given for the correlation. Likewise, although we reached the bottom of Wall N north of the Round Building, ancient cuts made it impossible to tie Locus 447 to the other loci thus far exposed.

LEVEL/LOCUS SUMMARY 3

LEVEL V B (Pls. 26-27)

Court	E. Room	W. Room	S. Room	Entry	Stair	Outside NW	W	NE	E
455,3c		47,4/421,1	423,1	438,1		76 487,2c 488,2c 474 490	5,3 8,5 49,4 34,1-2 23,1-4 40 41	99,1 446,2	418,2?
3d	456,1c			2	Blocking	3 3	4 5 3 5	3	3?
							6		
3e				3			7 4a		4?
3f									
4	2	5 2		4		76,1			
5		6 3		443-444,1	26/54,1	472,1	5 6 8 4b 46	447	5?

Level V B (Pls. 26-27).

Level V B was marked by the construction of a curving, buttressed wall, GZ, outside the Round Building, northwest of the Outer Door (Pls. 24:1, 26). The floor that this wall was built on, Locus 472, Floor 1, could be traced up through the Outer Door into the Entry Room (Locus 443-444, Fl. 1), and from there to the Court, Locus 455, Floor 5. This floor, in the Court, was extremely easy to expose, being a deliberately laid, clay-plastered surface (Pl. 11). Other than the top of the bin built on Floor 10a, there was on this floor only a string of mudbricks, the purpose of which was obscure. On Floor 4 however, there was constructed a large bin (Pls. 27, 28:1) to replace the bin of Floor 10a. Although not as well preserved as the lower bin, this example furnished a good deal of information on its construction. Intact only four courses high, and built of fragments of mudbricks as well as whole ones, the bin was somewhat irregular. The walls on the long sides were 40 centimeters thick, while the end wall was only 18 centimeters and had an opening to allow air to pass through the structure. The northeastern part of the bin was cut away in antiquity and its top may also have been destroyed at that time. Bricks (35 x 15 x 8-10 cm.) laid on half the floor of the bin, had originally been covered with mudplaster. The brown, compact fill of the bin was found to be very free of ash, sherds and other inclusions.

The bin was set on a slope toward the center of the Court, dropping as much as 36 centimeters along its three-meter length. The grain storage function of this and similar bins may be emphasized by the finding of a grindstone on Floor 4, against the southeastern end of the structure. Low, curving mudbrick walls, abutting the bin and Wall DR, probably had some subsidiary function, but the exact nature cannot be ascertained. The bin continued in use through Floor 3c, the end of the phase.

In the West Room, Locus 47, significant changes were made at the beginning of this sub-level. At Floor 6, or slightly above, Wall B was cut to put in a short flight of steps leading to the Stair, Locus 54 (Pl. 26). This alteration of the building was necessitated by the rise of debris in the Entry and at the bottom of the Stair to such a height that it was no longer easy to pass from the Entry to the roof. Floor 1 of Locus 54 (= Locus 444, Floor 1) was less than a meter below the ceiling at the foot of the Stair, although the amount of debris diminished considerably as it rose up the Stair.

Perhaps, for a time, although the main access to the roof was through the new steps in Locus 47, the old passage from the Entry could still be used as a cramped alternate. Clearly, however, the basic traffic pattern in the Round Building was redirected at Floor 6 of Locus 47. The two lines of mudbricks, laid one course high, on either side of the doorway to the Court, served to channel the traffic to the new steps as well as prevent water from flowing from the doorway into the room. It is no coincidence that at Floor 6, and its equivalent, Locus 421, Floor 3, we found more evidence of use than on earlier floors. We exposed two hearths at the north end of the room. In the southern part we found not only many sherds and bones, but also a well-preserved mudbrick bin (45 x 70 cm.) that had originally stood more than forty centimeters high. This bin was in use for some time, being present up through Floor 1 of Locus 421. At this last floor (Pl. 27), a low wall, FK-FL, with a narrow doorway was built to separate Locus 421 from 47. Against Wall FK there was another

bin. From this bin and the floor around it we recovered several pieces of Scarlet Ware, animal bones, a basalt quern and a flint sickle blade. Although not catalogued, these objects were recorded, saved for analysis and are presented in the analytical tables of flints, sherds, and bones (in progress). The catalogued objects from this unusually productive locus numbered ten. From the fill above Floor 3 came a bead (Uc 279, Pl. 55:6). On Floor 2 was found a fragmentary pottery flask (Uc 277, Pl. 74:8), and the base of a pottery jar cut for reuse as a small dish (Uc 281, Pl. 73:6). On Floor 1, or in the fill above it, were found a pottery bowl (Uc 199, Pl. 61:5), a fragment of a flint sickle set in bitumen (Uc 204, Pl. 51:11), a pottery jar (Uc 222, Pl. 73:8), a pottery lid (Uc 223, Pl. 79:7), a baked clay toy wheel (Uc 228, Pl. 52:8), the upper part of a pot support for use over a fire (Uc 229, Pl. 54:4), a Scarlet Ware sherd (Uc 320, Pl. 89:8), and an animal figurine (Uc 236, Pl. 54:1). The finds were rather utilitarian and unmilitary. The presence of a jar-hearth (Pl. 82:1) in the northeastern edge of Locus 47, at Floor 4, may also indicate a non-military function for the room at this time.

At this sublevel, we were able to expose part of the original South Room, Locus 423 (Pl. 27). We reached Floor 1 of the locus in small areas under later Loci 42, 68 and 75. The correlation of this floor with Floor 3c of the Court could be made despite some pits in the doorway out of the room.

The East Room (Locus 456) at this level was essentially fully exposed by us. At the beginning of Level V B, the doorway from the Court had a high sill made of four courses of mudbricks. At the southern end of the room, on Floor 2 (Pl. 27), a bin was constructed of fragmentary and whole mudbricks against Wall FO. This bin, mortared and plastered with gray clay, had some mudbricks measuring 35 x 17 x 7 centimeters. In fill above Floor 2, near the doorway, we recovered a long copper needle (Uc 309, Pl. 50:7) and a very unusual cylinder seal (Uc 308, Pl. 49:4). This seal, in a flat, linear style, depicts a hero controlling two animals that are shown in plan. Rather than the lions or bulls that would be expected, the animals seem to be lizards. The style, with the heads indicated by empty outlines, would probably be placed in Early Dynastic II in the Diyala. The clothing of the hero, leaving one leg exposed, is somewhat unusual before Early Dynastic III, but examples do exist.¹

In Level V B, the Entry Room underwent some changes (Pl. 26). Initially, the room was still split (Loci 443 and 444, Floor 1). Wall FE dividing the room, however, now had a doorway in only its southern end. A round hearth or bread oven (*tannur*) was placed near the doorway and the bin and bench in the north and east ends of the room were still in use.

The jambs of the Outer Doorway were reconstructed at this time, Walls HG and FF being applied, but we found no evidence of a pivot stone. Wall HG was constructed of reddish brown mudbricks (30-32 x 16 x 8 cm.) with gravel inclusions, laid in red mortar, while Wall FF had reddish brown mudbricks (32-34 x 16 x 8 cm.) in gray mortar. These two walls show the kind of variation in materials that was usual at Razuk, even in one small building operation.

The next phase in the Entry Room, having no dividing wall, was recorded under a new, single locus, 43c (Pl. 27). The lowest occupation, Floor 4, witnessed the construction of a mudbrick pivot box made of mudbrick filled with stones. It was also at this floor that

the last possible use could have been made of the doorway to the Stair, Locus 54, but the access would have been only fifty centimeters high. Just above this floor, a blocking of mud-brick sealed the doorway.

Finds in the Entry Room at Level V B consisted of a Scarlet Ware sherd (Uc 321, Pl. 89:4), depicting birds and fish, from Locus 443, Floor 1; a fragmentary toy wheel (Uc 282) from Locus 444, Floor 1; and a small pottery jar lid (Uc 283, Pl. 79:6) from Locus 438, Floor 3. In the southern end of the Stair, Locus 26, we found a copper goad (Uc 20, Pl. 50:4), and a Scarlet Ware sherd (Uc 322, Pl. 87:1)

Outside the Round Building the curving, buttressed Wall GZ which furnished a key for the beginning of Level V B, had a doorway in it across from the Outer Door of the Round Building. This doorway, about seventy centimeters wide (Pl. 26), was preserved more than 22 courses on its southern jamb, but only three on the northern. The difference in preservation is related to a later Wall GY, which will be discussed below. The mudbricks of Wall GZ, light brown with gray mortar and laid in headers and stretchers, measured 30-32 x 17-18 x 6-8 centimeters. The exact nature of the structure of which Wall GZ was a part could not be determined since we did not excavate low enough northeast of the wall. However, succeeding floors behind Wall GY had ovens, hearths, and other food-preparation facilities. There is reason, therefore, to expect that any building associated with Wall GZ served a similar function.

In the area southeast of Wall GZ (Locus 472), Floor 1, on which the wall was constructed, was a hard, black surface resting directly on top of Locus 476. Sunk slightly into the floor near the doorway of Wall GZ was the upside-down top of a Type 8 jar (cf. Pls. 71:11-22, 72:1-10), reused to form a small hearth. Above this floor was a series of greenish floors with red clay between them. It may be that here, as elsewhere in the excavation, we had some evidence of the change of seasons. In Uch Tepe village, during the winter of 1978-79, we noticed that after rain the refuse pits and the ground surface took on a light green color. The tell did the same, even the vertical faces of baulks. When the earth dried, however, it once again returned to a light red color. It may be that the greenish striations in the excavation, which were harder and more compact than the reddish bands, were the result of winter weathering, while the red bands, which were thicker, marked the other eight or nine months of the year. Even after the excavated areas had dried out, we could still see the same red and green alternations by spraying sections. Careful recording of these strata, accompanied by analysis of soil samples, might result in a method of dating part of the site or other sites in the area, but we lacked the geomorphologist who might have done the study. Some information may be derived from samples taken for Dr. Eidt in specific loci.

Regardless of whether or not we have evidence of the passage of a few years in the soils against Wall GZ, it is clear that not long after it was built, the wall was replaced in part by Wall GY. This new wall was not buttressed and ran to the southern jamb of the old doorway in Wall GZ (Pl. 27). To replace that doorway, a new one was constructed a meter north. The new doorway was arched and stood 1.3 meters high (Pl. 28:2), with a two-course sill rising some twenty centimeters above the founding floor, Locus 76, Floor 1. When the debris had

risen to about the top of this sill, the doorway was blocked with mudbricks and a new doorway cut in Wall GZ about 6.5 meters to the south. After some time, a sill was placed in this new doorway, but we did not reach the floors to the northwest that went with this sill. Our earliest floor behind the combined GZ-GY wall was Floor 3 of Locus 487 (Pl. 27) where we discovered the remains of an oven with a fire box divided by piers. The floor of the fire box was of clay, burned reddish brown, over which were fine striations of whitish gray ash. Above the whitish gray ash was a thick layer of black ash with fragments of burned brick. The preserved walls of the oven, curving in, implied that the oven was domed or at least vaulted. The piers in the fire box were faced with two centimeters of mudplaster in two coats, yellow over red.

Against Wall GZ was an L-shaped course of mudbrick that showed no sign of burning. This structure was probably part of a bin rather than an oven or hearth. The area southwest of this structure was recorded under Locus 488, but was in fact a continuation of Locus 487. Both these loci seem to have been part of an open area, with Walls GY and GZ as enclosure walls. The corner of a massive mudbrick wall, GW, only partially exposed at the western baulk, was, apparently, part of a building within the enclosure. The enclosure and the building were most likely service areas for the Round Building.

On the next floor up, Locus 487, Floor 2c, the large oven in the northeast corner was rebuilt. In front of this oven, we found a large pile of bones and sherds, including Scarlet Ware (Uc 333, Pl. 90:8). A new rectangular oven or enclosed hearth was constructed of mudbrick against Wall GY. The structure, 65 x 35 centimeters, was built of light brown mudbricks and plastered with thick clay, burnt black on the inside of the walls. The chamber was filled with greenish gray ashes and with fragments of burned plaster and fragments of a spouted jar of Type 5a (Pl. 67, No. 5).

South of Locus 488, a new wall, DG, was constructed at this time. A doorway at the northern end of the wall gave access from Locus 5, Floor 4, to the area west of the wall (Locus 490).

While the northwest part of the excavated area was undergoing the developments just described, the area to the west of the Round Building continued as the location for private houses. In this area, the beginning of Level V B was marked by the construction of Wall C, which was preserved to an unusual height, almost two meters, about 20 courses (Pls. 26, 27, 29). The mudbricks of this wall, and Walls L, M, N, O, P and DE were plano-convex in shape and measured 28-34 x 14-16 x 7-8 centimeters. Although only slightly convex, they were undoubtedly of the type of bricks that one expects to find in the Early Dynastic period, but were universally thought to be absent in the Hamrin until we began to demolish some of our walls. The bricks of earlier levels, however, and reportedly all the other bricks in Early Dynastic sites in the Hamrin, seem to have been flat. It is probably significant that neither these nor other plano-convex bricks found at Razuk were laid in a herringbone pattern.

Wall C was constructed on a slope, stepping down forty centimeters from the south to the north (Pl. 29:1). The slope was the result of the buildup of debris outside the Round Building. Although the Outer Door seems to have been kept relatively free of debris, the

more southerly part of the corridor around the building was allowed to rise. Locus 8, Floor 6, was more than a meter higher than the same surface, Locus 472, Floor 1, at the main door to the Round Building. The transverse slope down from Wall N of the Round Building to Wall C (Pl. 11) made it difficult for us to work in the space and would have made an attacker's approach along the corridor equally difficult, but at the same time the general rise along the length of the corridor must be viewed as destructive of the defensive character of the fortress. It should be pointed out that the rise continued farther south than Locus 8, meaning that the defenses were even more impaired at the southern part of the building. At Locus 8, the preserved height of the Round Building was only 2.4 meters higher than Floor 6. The original top of the Round Building may have been a meter or so higher, but an enemy gaining access to the houses of which Wall C formed a part would have been able to threaten any defenders very effectively.

West of Wall C, we exposed three loci that belonged to Level V B (Pl. 27). Locus 49, bounded by Walls C, Q, L and a north baulk, had floors that sloped down toward Wall C. The lowest, Floor 8 that ran at the bottoms of the walls, yielded a crude pottery bowl (Uc 78, Pl. 76:6), sherds and bones. Floors 7 to 4 provided much more information. On Floor 7, which was well marked by ash and burning, we discovered the remains of a hearth composed of a jar (Type 8, Pl. 71:11) set upside down against a brick. About half a meter south of the hearth was a small bowl (Uc 77, Pl. 73:5) and two baked bricks set on edge. Against Wall L was an infant burial, No. 6, which had been sunk from Floor 4 or 5. With this infant was a long bead made from the core of a conch shell (Uc 92, Pl. 50:1).

Floor 6, above, had much the same character as Floor 7, utilizing the same jar-hearth. Around the hearth were a number of finds. To the south, near Wall Q, was a spouted jar (Uc 114, Pl. 67:10) with a fragmentary conical bowl (Type 1a, cf. Pl. 61) sealing its mouth. To the west were a bead (Uc 85), a spindle whorl (Uc 87, Pl. 51:8) made from a sherd of a stone bowl, a spindle whorl (Uc 89) made from a potsherd, and a fragmentary pot support or 'fire-dog' (Uc 113, Pl. 54:5), used originally in combination with one or more similar supports to hold pots over the fire.

Floor 5 (Pl. 31:2) presented much the same aspect as the earlier floors. It was gray-brown, reddened with fire around a hearth, and had on it a scatter of objects. In the southwest corner was a flat basalt quern (not catalogued), and in the southeastern corner was a copper object, too corroded to identify. Immediately south of the hearth was a Scarlet Ware sherd and a shell bead (Uc 74, see Pl. 55:1-2 for type).

About ten centimeters above was Floor 4, marked by a hearth made of a jar (Pl. 80:1) set upside down, and a floor colored by ash and burning. Against Wall L was a spouted jar (Type 6a, Pl. 69:1), upside down, but without signs of fire. Near Wall C was found a miniature pottery vessel (Uc 68, Pl. 73:14), a basalt quern and grinder (Uc 104, Pl. 51:12), a whetstone (Uc 88, Pl. 51:7) and a fragmentary shell bead (not catalogued).

While Locus 49 had the general aspects of an enclosed kitchen, Locus 34 seemed to present evidence of being an open space. The buildup of debris was much greater. As we have seen already, in Level VI A, the walls that help define this locus, Walls O, P, and DE, existed

before Level V B. We could not excavate low enough to prove it, but we think that Wall M (Pl. 27), applied to the south side of these walls, was probably constructed at the same time as Walls C, Q, and L.

Floor 4b of Locus 34 could be followed only in the northern baulk, where it was an ashy surface. Floor 4a above it had an oven built of mudbrick in the southeast corner of the locus. There were considerable amounts of sherds, flints and bones collected from this floor.

At or just above Floor 4a, the accumulation of debris had grown so disproportionate between this locus and the one south of it, Locus 23, that a ramp was cut down through earlier floors in the doorway between the two areas (Pl. 30:2). A series of floors and mudbrick pavings was laid in the ramp up to Floor 3.

About a meter north of the door, where the ramp began its slope down, a ridge was constructed on Floor 3a of clay and broken bricks. This ridge, and a pair of low, narrow retaining walls running alongside the ramp at Floor 3, kept water from going down into Locus 23.

The oven in the southwest corner of Locus 34 went out of use before Floor 3. This is not to say that the area was not being used for cooking, especially given the continual build-up of ashy debris in the locus. An oven may have existed beyond the limit of our excavation. Floors 2 and 1 were badly damaged by two large, circular, bell-shaped pits that came down from the top of the mound. These probably were grain silos cut into the mound in the last hundred years or so. We could trace floors over most of the locus, and recovered a long copper needle (Uc 59, Pl. 50:8) on Floor 2 and a shell (Uc 54) on Floor 1.

Tracing Floor 3 of Locus 34 down the ramp (Pl. 30), we could correlate it with Floor 5 of Locus 23, where we found the remains of a hearth or oven composed of a jar turned upside down and enclosed by mudbricks (Pls. 31:1, 64:2). This hearth was set against a small room (Feature 1) composed of two walls with a door in the southwest corner, where we found two flint tools (Pls. 57:9, 58:4). The floor of the locus was white with ash and very hard.

The hearth of Floor 5 in Locus 23 appears to have remained in use through Floor 2, even though the supporting wall behind it would have been covered by debris. On Floor 2, a whetstone (Uc 51, Pl. 51:6) was found.

We have concluded that Locus 34 was a court or open area, while Loci 23 and 49 were enclosed rooms with access to it. The hearths in these two rooms would have been used in winter or in rainy weather, or for preparing only certain types of food, while the large oven in Locus 34 would have been for good weather, and probably for large meals or major bread-making.

South of Locus 49, in the southwest corner of Square P 59, we exposed parts of three loci, 46, 40 and 41, which belonged to Level V B. Locus 46 (Pl. 26), reached in a small pit, had a hard, gray floor with white sand strewn on it. At the south edge of the floor was Wall S, built of gray bricks (34 x 16 x 7 cm.), laid with red mortar, in alternating headers and stretchers. On the north face of the wall were about two centimeters of red clay plaster.

Directly above Locus 46 was Locus 40, separated by Wall DS from Locus 41 to the east.

Wall DS abutted Wall K. The bricks of Wall DS (30 x 16 x 8 cm.), laid in gray mortar as headers, were composed of a mixture of red and gray clay, with charcoal inclusions. On Floor 1 of the locus was a badly broken spouted jar, set upside down to form a hearth (Type 6a, Pl. 68:15).

Across Wall DS was part of another room, Locus 41, with Walls E, J and K forming boundaries. Floor 1, a grayish brown surface, with charcoal and a number of sherds, ran up to the face of the walls.

In the upper part of Level V B, we can begin to show buildings to the northeast of the Round Building (Pl. 27). This was as low as we were able to excavate in this part of the operation. At the same time as Locus 487, Floor 3, Walls HY and HZ were constructed at Floor 3 of Locus 446. A large bin (Pls. 27, 30:1) was set down in an open space, Locus 99, below Floor 1. (We reached the bottom of the bin inside, but not on the outside). The bin is associated with Wall FU, for which we did not establish a bottom, and Wall FI.

The bin should be compared with the bins in Locus 455, on Floors 10a and 4 (Pls. 7:1, 26-27). The mudbricks of which it was built were reddish brown (32 x 15-16 x 8 cm.) and were mortared and plastered with reddish brown clay. The top surface had gray plaster. A raised perimeter wall was composed of five to seven courses of reddish brown mudbricks; they differed from those in the rest of the bin by being sandier in texture with many pebbles included.

Approximately 2.7 meters long and 1.5 meters wide by as much as a meter high, the feature sloped down to the northwest, following the floor on which it rested. The top of the structure, however, was virtually level. The bin was constructed as follows. Two walls, about 50 centimeters wide were laid down so as to leave a 50-centimeter space between them. Each of the walls was composed of alternating courses of stretchers abutted by headers (Pl. 30:1). On the inner sides of both walls, at the top, instead of the bricks being flat, they were laid on their edges, leaning slightly toward the southeast. These soldier headers were cantilevered over the space between the two walls. The more northerly row of mudbricks projected their entire length from the face of their wall, but the abutting bricks were bonded into the southwest wall and projected only half their length. It is somewhat surprising, therefore, that when the bin collapsed some time in antiquity, it was the bricks which projected less that were worse damaged. Over the cantilevered bricks there was laid a flat course of bricks, almost completely lost except along the edges of the bin. The bin shows a technique of construction somewhat similar to that in which some barrel vaults are made, by leaning edge-laid bricks against an end wall. Had the flat-laid bricks on top been several courses thicker, the cantilever probably would not have collapsed.

The parapet around the perimeter of the bin shows that the top of the bin was its most important feature. In the corners of the parapet, we found holes that we thought initially had been intentional, but later came to realize were merely animal holes. Another hole approximately in the middle of the northeast parapet and one on the western end of the opposite wall could be seen to be part of one burrow.

Inside the perimeter wall we found some ash and sherds, but this is to be connected with a later use of the feature at Floor 2 of Locus 92 (see below).

The air shaft under the structure was partially blocked with mudbricks. We would suggest that the blocking was to keep water from entering, while allowing air to circulate. This bin, like the others, was designed to retard spoilage of stored items through moisture, especially ground water. The fill at the bottom of the air shaft was hard, very compact, gray earth, with some traces of charcoal, but no signs of extensive ash lenses or burning. It might have been a practice to build small, smouldering fires under the bins in extremely damp conditions, but it seems not to have been a routine practice, since there was so little ash.

It should be noted that in the present day villages of the Basin, very similar constructions are used in houses to keep blankets, rugs and other goods from damage through mildew. We were told that foodstuffs may be kept in similar fashion. The storage chambers for grain, however, seem today to be outdoor room-like enclosures, with walls a meter or so high and without doorways. When filled with grain, the enclosures are covered with mats or straw and mud plastered roofs are laid on.

Above Floor 2, Floor 1 ran to the top of Wall FU and over to the face of the bin. A new wall, FT, resting partly on Wall FU, was found in the eastern baulk, but nowhere else in the locus.

LEVEL/LOCUS SUMMARY 4

LEVEL V A (Pls. 32-34)

Court	East Room	South Room	West Room	NE Room	Entry
455,1	456,1				
1a					97,1/90,1-2
2 454	1a				96,1/93,1
3		42,0	47,3/421		2 2
3a		1/68,1/75,0			3 3
		2 2		416,0-1	
3b	1b	3 3 1		2-3	4 4

Outside

NW	W										NE	E				
76 474 487,1-2a 488 490	5,1a-b	8,3	22,3	45	49,2	16,4	27, above 1	446, above 1	440	92,1	94,1	95,1	439,1	418?		

5

6

76	2b	488 490	2	4	4 45	3	7	1	1	440	2	2	2	2	418?
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Level V A (Pls. 32-34)

Judging from a number of changes in the Round Building, Level V A must be viewed as a time of disintegration, not only of the building, but of the organizing principle behind it.

The lowest floors, Locus 455, Floor 3b and its equivalents, seemed to be variations on older practice. The large bin in the Court (Pl. 27) continued to be used, but a shallow bin with two compartments was constructed to the northwest of it (Pl. 32). Ashes and scattered mudbricks in the southwest quadrant indicated that there was an oven at this floor, as there had been on previous floors. Low mudbrick stoops were placed at the doorways to Loci 456 and 416 above Floor 3b.

At Floor 3a the large bin was completely covered with debris, and a set of small mudbrick bins took its place. One of these, rectangular in shape, was approximately 1.5 meters long. The other two, approximately square and round, and barely one course of mudbrick high, were joined by a patch of mud-plastered floor. In the southwest quadrant was an oven surrounded by ash and scorched mudbricks. In the northeast quadrant, there were fragments of walls (HA) one course high, probably forming a small enclosure in front of the doorway to Locus 416, which was sealed with mudbricks at this floor.

At Floor 3 (Pls. 33, 35:1), a large enclosure was constructed (Walls GX, DZ) with a doorway in the western end. Nowhere preserved more than about 25 centimeters high, Wall DZ was made primarily of green bricks (30 x 15 x 6.5 cm.) with brown mortar and brown plaster applied up to five centimeters thick. Wall GX, of brown mudbricks with brown mortar, abutted Wall DZ. The doorway in Wall DZ may have been wider originally, then made narrow. Wall GA sheltered the doorway. The round oven (*tannur*), enclosed by mudbricks in the eastern corner of the enclosure, indicates that the installation was for the preparation of food, rather than the holding of animals. Wall GW, running north from Wall GX, was only partially preserved, but it may have run much closer to Wall DR, giving a second chamber to the enclosure. On the floor east of Wall GW was an unusually large number of bones. In the southwest quadrant of the Court were ashes and the remains of a two-course bench (see N-S section, Pl. 11).

Locus 455, Floor 2, saw virtually no change in the Court except an irregular pit of unknown purpose and a substantial wall, GC, which isolated the southwestern portion of the Court. Against the wall was a storage jar (Pl. 74:9) sunk below floor level. Behind this wall, in Locus 454, was the bench already mentioned as a feature of Floor 3, and bricky fill over ashy striations (minor floors). In removing Wall GC, we discovered that its reddish mudbricks were slightly plano-convex (31-33 x 16-17 x 7.5-8.5 cm.), with raked finger marks on the convex surface.

The enclosure on the eastern side of the Court underwent some renovations at Floor 1a (Pl. 34). Wall DZ was rebuilt using reddish brown mudbricks (30-31 x 16-16.5 x 6.5-7 cm.). A new wall, DY, of reddish brown mudbricks (30 x 17 x 6-6.7 cm.) in gray mortar, was set over Wall GX. The doorway to the enclosure was moved farther north, and a rectangular bin with no signs of ash was built against the south wall (DZ). Wall GU, to the north, seems to have formed a second chamber, while Wall GB performed the screening function that Wall GA had on the lower floor.

At Floor 1 of Locus 455, the enclosure was rebuilt with slightly thinner walls, irregular coursing, the use of some soldier headers, much green mortar, and trash. The mudbricks, where whole, measured 28 x 12.5-13 x 6.5 centimeters. Wall DY, also rebuilt at this time, had bricks somewhat better laid (27 x 16.5 x 6.5-7 cm.). The rebuilding of the walls was clearly marked by a thin lens of ash running through Wall DZ, as well as the difference in brick sizes between this phase and the lower one. The space between the end of Wall DY and Wall DR was probably a doorway. Against Wall DZ were the remains of an oven, preserved as a fire box with piers separating flues.

South of the enclosure (Pl. 34) was the lower part of a bin composed of two parallel walls of mudbrick, like those on Floors 10a and 4 below, but considerably smaller (2.0 x 1.0 m.). It was preserved 37 centimeters high. In the southwestern quadrant, Wall DT was laid over Wall GC. Wall GD, perpendicular to Wall DT, enclosed the space (Locus 454) behind Wall DT, but allowed a doorway. At the northwestern end of Wall DT, a large oven was built by first cutting a hole down from Floor 1, then lining it with mudbricks, and running mudbricks around its edge at floor level (Pl. 11). The oven may have been domed. A pit cut the northern end of the feature.

Finds from this level of the Court included, on Floor 2 of Locus 455, a gray stone cylinder seal of Jamdat Nasr style (Uc 274, Pl. 49:3), and from behind Wall GC (Locus 454) on the same floor, two pottery jars (Uc 284, 285, Pl. 74:6,1), and a fragment of a gray stone bowl (Uc 289, Pl. 51.3). Within the mortar of Wall DZ, at Floor 1, were found five spindle whorls made from potsherds (Uc 301-5, Pl. 53:3-7).

In the South Room, at Level V A, drastic changes were being made (Pls. 32-33). Above Floor 1 of Locus 423 (Level V B), a pavement of mudbricks was laid across the eastern and central parts, leaving only the western end unpaved. On this pavement (Locus 42, Floor 3), two partition walls, FQ and FR, were constructed to divide the space into three small rooms, Loci 42, 75, and 68 (Pls. 32, 36). Subsequent repairs on these two walls made the articulation of the bricks and the blocked doorways of these walls very difficult, but we have enough evidence to outline the sequence of events here. Wall FQ was constructed of red mudbricks, mortared and plastered with red clay. The doorway at the southern end of the wall was a skewed or rampant arch, with the northern jamb more vertical. It was at least one meter wide at the bottom and 1.20 meters high. In Wall FR, dividing Loci 68 and 75, the doorway was located slightly south of the center of the wall, with relatively vertical jambs.

Along the southern edge of Locus 42, a bench-like structure of red mudbricks (Wall FZ) was constructed against Walls N, FQ, and presumably Wall FO at or above Floor 3. Floors 2 and 1 ran up to it.

Floor 2, a tamped earth surface, of Locus 42 was very uneven; near the door to the Court and in the eastern half of the room, it was only two or three centimeters above Floor 3, but in the western half, against Wall FQ, it was from 20 to 30 centimeters higher. On Floor 2, a pavement of mudbricks (30-31 x 14-15 x 7-8 cm.) was laid down and on top of this pavement, Floor 1, a new face, Wall HE, was set against Wall FO. Wall HE (Pl. 36:2) with soldier headers separating every five courses of alternating headers and stretchers, was composed of

a mixture of green and reddish mudbricks (32-33 x 15-17 x 9-9.5 cm.). When articulated and separated for examination, these bricks proved to be plano-convex.

On the west side of the room, a new face was applied to Wall FQ. This new face was composed of green bricks, with a few red ones, laid in the same manner as in Wall HE, soldier headers separating five courses of headers and stretchers. These bricks had a wider range of sizes (24-30 x 17 x 5.5-9 centimeters) and some were plano-convex, but others were flat.

At the same time, in Locus 75 (Pl. 33), a new pavement was presumably laid, but the pickman here was not able to distinguish laid brick from brickly fill and the debris was recorded as the latter. A new face (FY) applied to Wall N, was readily visible because the courses were laid so as to slope slightly down toward the wall.

In Locus 68, on Floor 2, a pavement of red mudbricks (27-34 x 23 x 9 cm.) was the base for a new face of Walls FR and N. This new face, Wall FN (Pl. 12), about thirty centimeters thick, although applied directly to Wall FR, was set some thirty centimeters out from Wall N. Being vertical, the face left a space between it and Wall N, which diminished until the arched ceiling was reached a meter above the floor.

Resting immediately upon the pavement in Locus 68 was a lightly marked ashy surface, Floor 1, with fifty centimeters of fallen red bricks above it. The red brick debris, from the collapse of the roof, had over it more than a meter of black, ashy trash, thrown in from above. Some time before the roof collapsed, however, the room had gone out of use; the doorway in Wall FR had been blocked with red mudbricks.

At the same time, or soon after, in Locus 75, a solid block of masonry (Wall FP) was set in the middle of the room and the doorway in Wall FQ was sealed. Wall FP, of black mudbricks (31-32 x 18-19 x 7 cm.) in green mortar, was laid in alternating courses of headers, stretchers and soldier headers and seems to have been designed to support the roof. In the southeast corner, the top of the masonry was directly under the ceiling. That the support was probably insufficient could be seen in the fallen red mudbricks around Wall FP, and the black, ashy, sherd-filled trash dumped over and around it.

Even when Loci 68 and 75 were abandoned, Locus 42 continued to be used. How long the room was usable is not certain. Locus 42, Floor 1 is roughly equivalent to Locus 455, Floor 3a. A few centimeters above this surface was found a floor (Floor 0) that ran up to the face of Wall HE and could be traced up through the doorway where it was seen to be Floor 3 of Locus 455. The floor above this (Locus 455, Floor 2) was not found in Locus 42 because by the time of this floor, the doorway had been sealed with mudbricks. In Locus 42, above Floor 0, there was more than a meter of mudbrick rubble, apparently from the failure of the roof. It is possible that the roofs of Loci 42, 68, and 75 were all deliberately broken so the spaces could be used as refuse dumps. The ashy, sherd-and-bone-filled debris above the mudbrick rubble in these and other rooms of the Round Building was clearly poured in from above. It was this refuse that served to hold up the remnants of the roof so that we found them as we did. The refuse could be distinguished clearly from the floor material below by its being less compact and laid in strata that sloped down from the holes through which it had been dumped (Pls. 11-12).

While the South Room was being partitioned into three rooms, the East Room (Locus 456) was being changed in a different way. At Floor 1b, a large block of masonry, Wall FA, was inserted under the ceiling on the west side of the room (Pl. 32). Resting directly on this support wall was a more massive block of mudbrick, Wall HX, inserted into Wall DR. At the southern end of Wall HX, we found a portion of roof abutting its vertical eastern face (Pl. 41). We have concluded that the ceiling in this room had already failed in part, or was in danger of failing, and in order to keep at least a portion of the room usable, the ancient inhabitants had first supported what they could of the western side of the ceiling, then began to work from the roof. We conclude that the roof would have been removed in sections and Wall HX laid in so as to rest on Wall FA and rise to meet and carry the eastern half of the arch. Although the room was reduced in size, it was still functional. It should be noted that the fill above Floors 1b and 1a was composed of well-compacted, ashy, striated debris, that is, a series of occupation floors, undisturbed and relatively free of mudbrick fragments. The removal of the roof was a deliberate operation and any rubble from the work was apparently cleaned up. Above Floor 1, however, there was a difference in the debris. Immediately over the floor was striated ashy material, not well compacted, that is, material that was deposited not under conditions of heavy use, but by natural forces, such as wind, or only occasional human activity. It was probably not coincidental that this debris rose up against the walls in irregular fashion (Pl. 11). We have concluded that at this point the roof collapsed. Above the ashy striations there was a layer of dark brown fill with green and brown mudbrick fragments, some from Wall HX. Above the mudbricks, there were multiple, slanting, layers of ashy debris filled with bones and sherds, the same kind of trash met in the other ruined rooms of the Round Building. As in the other loci, this trash may be assignable to the last part of this level, but we have placed it in Level IV. That the deposition of the trash occurred soon after the abandonment of the rooms is indicated by the fact that the roof was still in great part intact when the trash was dumped into the rooms. Some of the trash must be assigned to later periods, however, since we found an Isin-Larsa potsherd in debris above Locus 456. In addition, it must be remembered that all the rooms were cut by Islamic pits and recent burials, causing a displacement and redeposit of objects.

We have little information on the doorway from the East Room to the Court at this level because an ancient pit and a recent burial removed part of the doorjambs and the doorway. There was enough intact floor material, however, to say that the doorway was in use in Level V A, but that it was sealed with mudbricks at approximately Floor 1 of Locus 455.

We had an important find in Locus 456, on Floor 1 – the top half of a geometrically decorated Scarlet Ware jar, with an upright handle (Uc 314, Pl. 84:1).

The West Room, Loci 47 and 421, during this phase could not have had more than a meter's height. The steps in the west wall were now sealed with mudbricks, the Stair being out of use entirely. Locus 47, Floor 3 (Pl. 33), was well marked by ashes. On the floor was a mudbrick bin, a large fragment of a storage jar (Type 12b), and a hearth made by setting the upper part of a Type 5 (cf. Pl. 64-68) jar upside down. Another jar (Type 6a, cf. Pl. 69) sitting upright against the western wall had been coated with a half-centimeter of clay

plaster. Resting against the side of the jar was a complete bowl (Uc 201, Pl. 61:6). On the floor we found a small tubular shell bead (Uc 76, cf. Pl. 55:1-2).

In the southeastern corner of Locus 47, a few centimeters above Floor 3 and clearly dug in from above, was an infant grave (Burial 13), containing a broken bone ring (Uc 60, Pl. 50:2) and a lapis lazuli bead (Uc 64, Pl. 50:3). Floor 2, in Level IV, ran over the grave cut.

Above Floor 3, in parts of the locus, we encountered some blocks of fallen mudbrick. These, we concluded, were part of the roof, perhaps deliberately cut to prepare the space for reuse in Level IV. The infant burial must date from the time, after Floor 3, when the room may have been in ruins before its renovation in the next level.

Across the Court, in Locus 416 (Pl. 32), new mudbrick facings were applied to the western jamb of the doorway and against the original face of Wall DR. This locus, the North-east Room, yielded a number of small, whole pottery vessels (Uc 345, 347-350, Pls. 72:19, 73:10, 20, 74:3, 7), a clay wheel (Uc 337, Pl. 53:2), and a copper spear point (Uc 338, Pl. 97:12). Its doorway was sealed below Floor 2 of Locus 455 with a blocking of red mudbricks and fragments of a baked brick that was plano-convex with two finger indentations (Uc 330, Pl. 54:3).

The Entry Room in Level V A (Pl. 32) saw the building of a new partition wall, FD, of greenish gray mudbricks with ash and gravel inclusions resulting in two new loci, 93 and 96. A large, deep pit, cut down from Level III, destroyed part of these loci and damaged Wall N, so details are lacking on the eastern side of the Outer Door. At the lowest Floor, 4, Wall HG, the left jamb of the Outer Door of Level V B, was cut and a new wall, GN, was inserted above it. A matching wall, GM, in reddish mudbricks with green mortar (32 x 16 x 8 cm.), was laid at the same floor, but its abutment with Wall N was cut away by the late pit. A space between Walls GM and FD, partially damaged by the pit, may have been used as a doorway; the narrow opening in Wall FD itself certainly was. The basic layout of the two loci remained unchanged up through Floor 1 (Pl. 33) where a shallow bin was constructed behind Wall GN. The floor was difficult to follow, since it sloped as much as fifty centimeters down from the south corner to the Outer Door. In the Outer Doorway, the floor was cut by a trench ten to twenty centimeters deep, filled in with gravel and reddish brown clay. This cut was a measure to gain better access from the exterior, which must have been rising at a faster rate than the room. The gravel was meant to make the doorway less muddy.

Above Locus 96, there was a change in the partition wall, FD, that signalled a slight shift in function of the room. For this reason, two new loci were introduced, 90 and 97 (Pl. 34). The new version of Wall FD, of reddish brown bricks with green mortar, reached to the ceiling. A bin in the western part of the locus had a base course of red mudbricks with three courses of green bricks above it. The mortar and plaster were reddish brown. On the north-eastern face, there was a plaster three to five centimeters thick.

The only registered object from the Entry Room in Level V A was a Scarlet Ware sherd (Uc 318, Pl. 90:6).

Outside the Round Building, the space immediately in front of the Outer Door was disturbed by later pits. It is certain that the upper part of Locus 76 must be placed in Level V A.

The compound behind Wall GY-GZ (Pl. 32) continued in its basic plan from Level V B. The oven or kiln in the northern end of Locus 487 continued in use on Floor 2b as did the rectangular hearth south of it. At Floors 2a and 1, however (Pls. 33-34), the hearth was almost covered by debris and a new rectangular oven was constructed alongside the older one. The preserved fire box of this new oven was built of square, yellowish brown mudbricks (20 x 20 x 7 cm.), and plastered with two centimeters of brown clay, which was burned by the fire. The bottom of the fire box had a floor of brown bricks of the same size, and on the eastern end, there were the remains of two flues plastered with clay, scorched and reddened by fire. The ash in this fire box was black, while the ash of the older oven had been greenish white. On the plan (Pls. 33-34), we have shown the remnants of the older oven's chamber floor, above the fire box, although at this level it was surely out of use.

On Floor 1 of Locus 487 we found a sherd of Scarlet Ware (Uc 312, Pl. 89:9) and in fill above it, about a meter south of the oven, a well-preserved copper spear head (Uc 275, Pl. 50:12). This weapon was square in section in both the blade and the haft.

The south end of Wall GZ was cut to put a new end on Wall DG (Pl. 32). On Floor 2 of Locus 5, north of the doorway to Locus 490, there was a low bench about 20 centimeters high, whose purpose we could not determine. A later wall, DF (Pls. 33-34), projecting from the end of DG, was equally undefinable unless it was to prevent water coming down the slope of Locus 5, Floors 1b and 1a, from washing into the doorway to Locus 488. The cut in the doorway to Locus 490 may have been intended to ease access down from Locus 5. Wall DG underwent a renovation at Floor 1a of Locus 5 (Pl. 33-34) resulting in a much wider wall than had been there previously.

Finds in this area were a whetstone (Uc 49, Pl. 51:5), and a group of three shells (Uc 66, Pl. 55:27-29) from Locus 5, Floor 1.

Farther south, Walls C and J continued to be used. The division between Levels V B and V A was clear — a stratum of ashes that ran from the outer wall of the Round Building down to Wall C, and across Loci 49 and 34 (Pl. 11). Below the ash in Locus 49 there was up to half a meter of relatively clean brown fill. Above the ash layer, an apparent destruction marker, was a thick layer of green, soft debris, again relatively clean. On this layer was Floor 3, the first real occupation floor of Level V A (Pl. 32). Here a bin of mudbricks (30 x 8-11 x ? cm.) was visible in the East-West Section (Pl. 11), but a later pit had cut it in the actual locus. The interior of the bin, apparently constructed like the one in Locus 99, was filled with hard, green striations. At the southern end of the locus, on Floor 2, there were remnants of low walls, probably of a bin, badly cut by later pits (Pl. 34).

Across the partially damaged Wall L, a new Locus, 16, could be defined (Pl. 32). This was an L-shaped space, apparently an open area, around the corner of a building (Walls R, T). Wall DE, from the level below, continued to exist at this level, but it may have been merely a ruin. Again, late cuts had destroyed much of this area, but some good information could be derived from the locus. Above the ash line that marked the beginning of the level, Floors 7 to 4 could be traced to an original face of Wall R. At the northeastern corner of the wall, on Floor 4, there were two unbaked clay vessels (Pl. 37:2), side by side. The vessels were seven

centimeters thick and composed of pebble-filled clay. The bases, approximately flat, had diameters of ten centimeters. The preserved height was ten centimeters and the diameter at the broken-off top was fifteen centimeters. In both vessels there were ashes, but neither showed evidence of the intense heat one would expect in smelting, so their use as crucibles seemed ruled out.

Behind Walls R and T we defined a Locus 45, but little was preserved of it because of a late pit.

South of Locus 49, Walls D and J enclosed a new locus, 27 (Pl. 32), also badly disturbed by late pits. About a meter below the top of Wall J we found a living surface, Floor 1, with Wall K on it. This wall, with a good face at the south and a rubble fill of mudbricks, stones, fragmentary mudbricks, trash and mud mortar on the north, seems to have had a doorway at the eastern end. The floor south of Wall K was blackened with ashes and yielded a number of bones, a fragment of a storage jar (Type 12a), a piece of bitumen and a very thin basalt quern (5 x 5 x 1.5 cm.). Just above this floor, the doorway between Wall K and Wall J was blocked and the entire space north of it was filled with rubble (Pl. 34).

North and northeast of the Round Building, Level V A was a time of minor change. The large bin built in Locus 99 continued to be used (Pl. 32). With the founding of Walls DQ and DV (reddish brown mudbricks, 32 x 16 x 8 cm.) north of the bin, however, a new locus was defined. Locus 92, Floor 2, ran from the bottom of Wall DQ (mudbricks, 24 x 16 x 9 cm.) to Wall FT, found only in the west baulk, and up to the side of the bin. On this floor, we found a fragment of a copper pin (Uc 210), but no other objects. A short time later, Walls DU and GL were built, further restricting access to the bin. Wall DU, in fact, was laid against and partly over the bin and abutted Wall FI, forming a barrier or protection for the bin, which by this floor had only part of its perimeter wall above the surface. Inside the bin there were ashes, which seemed to point to a change in function from a storage facility to a hearth.

West of the bin, Locus 95 had been formed by Walls GL, DV, and DO. In the northern corner of the locus, on Floor 2, was a bench of mudbricks (Pl. 32). On Floor 1 (Pl. 33-34), a rectangular hearth or oven occupied the northeast corner. On the other side of Wall DV, Locus 94, Floor 2 had a platform of mudbricks in its southern corner. Above the floor in fill was found a baked clay wheel (Uc 192, Pl. 52:14). On Floor 1 (Pl. 34), in the southern corner, there was a set of objects that seemed to form a functional assemblage. The upper part of a jar (Pl. 67:6), set upside down, showed signs of fire. Nearby were two thin, rectangular basalt querns, a fragmentary stone bowl (Uc 203, Pl. 51:2), and a sherd from a large storage jar. The locus may have been devoted to the preparation of bread. We have already seen a number of similar jar-hearths, and in some loci (such as 49) associated querns. It must, therefore, be suggested that the installations we have thus far called 'jar-hearths', and the like, were *tannurs*, bread ovens. In using a *tannur*, the person attaches thin cakes of bread to the smooth interior of a conical oven that has a fire built inside. Usually, there is a draft hole at the bottom of a *tannur*, and it may be that the jar-hearths we have found made from spouted jars were deliberately placed so that the spout could be used as a draft hole. The jar found in Locus 23, Floor 5 (Level V B), built into a brick-and-clay enclosing skin, could easily have

been used as a *tannur*. Unfortunately, most of our 'jar-hearths' were not found in as good a state of preservation as this last-mentioned one (Pl. 31:1).

Northwest of Locus 95, a doorway led to Locus 439. We did not excavate deep enough here to give even a brief characterization to the locus. The other loci in the area, 446 and 440, cannot be linked with certainty to any particular set of floors in the Round Building due to late cuts.

LEVEL/LOCUS SUMMARY 5

LEVEL IV (Pl. 38)

Court	S. Room	W. Room	Entry	Outside NW	W								S				NE						
404,1 406 408	Ashy fill	47,1		57,1	481,1	482,1	485,1	8,1	16,2	22,1b	27	49,1a-b	66	67	70	427	72	80	85,2	86	91	440	
																						3	
																							4
2	405 (75)	2	421,0	79,1	2	489	2	2	2	2	3	2											5

Level IV (Pl. 38)

Level IV was the last phase in the life of the Round Building. Although none of the rooms was intact, two were still being used by making changes in them.

In the Court (Pl. 38), there was a continuation of patterns of use already seen in Level V A. We have a new set of locus numbers, 404, 405, 406, and 408, however, because most of this level was excavated in the first season under these numbers. When we resumed work in the second season, we started with new designations, 454 and 455, for the lower levels.

The large enclosure, Locus 406, on the east side of the Court continued in use in Level IV, but the doorway that had existed in the west wall was given up and the doorway is assumed to have been in the eastern end of Wall DY (Pl. 39:1). This change was necessitated by the installation of a rectangular oven along the inner side of the wall. This oven was preserved to about thirty centimeters height (Pl. 39:2). On tamped earth, a row of clay plastered flues was set along each wall. The plaster was 2.5 centimeters thick and had been burned to an almost baked consistency. The flues were not uniform in size, measuring 23 x 14 centimeters, 20 x 23 centimeters, and 17 x 17 centimeters. The portions of the flues that faced the interior of the fire box would have been open, allowing the flame to rise through them into the chamber.

Inside the fire box at the bottom there were fourteen centimeters of whitish gray ash with black ash above. On the black ash were fragments of mudbrick, some showing signs of fire, which must have been part of the collapsed chamber floor or roof. The mudbricks (28-29 x 16-18 x 7-9 cm.) of the oven wall were reddish with brown mortar and plaster.

Where the oven and Wall DZ abutted, there was an oval bread oven (*tannur*) of unusual size (58 x 37 x 18 cm. high). This oven had been constructed by digging a hole, lining it with mudbricks, and plastering both faces with clay four centimeters thick. The plaster was burned to a baked consistency, and the oven was full of black ashes, bitumen fragments, and bits of clay from the upper parts of the feature. Between the oven and its adjacent walls was a plastered mudbrick pavement.

Animal bones found in the debris above Floor 1 of Locus 406 pointed to the food-preparation function of both these ovens, as with all other ovens we discovered.

On the floor we recovered a Scarlet Ware sherd with an upright handle (Uc 317, Pl. 85:1).

In the western part of the Court, Walls DT and GD built at Level V A, would have been visible at this floor, but whether they were in use or were merely ruined walls is not clear. The same can be said for the oven built against the northeast side of Wall DT in the lower level. Although the top of the oven would have been visible at Floor 2, it was probably not in use at this time. Southeast of this oven we found a copper tool with indications of a wooden handle (Uc 233, Pl. 50:10), a shell cylinder seal (Uc 252, Pl. 49:2) of Jemdet Nasr style, and a cowrie shell bead (Uc 259, Pl. 55:4).

To the north of the large enclosure, a new version of Wall GU (only three courses high) demarcated Locus 408. At Floor 1 of Locus 404, this wall was partly destroyed by a cut that

sloped down into the doorway to the Entry Room (Locus 79), apparently to allow better access. We can say nothing more about Locus 404, Floor 1, since it was preserved in only the northwestern quadrant. Extensive pits of Level III removed the rest of the evidence.

Of the rooms around the Court, it is certain that none was in use as originally planned. The South, West, and Northeast Rooms at this level had sealed doorways and were being used as refuse pits. We have listed a miniature cup (Uc 149, Pl. 73:1) as from Level IV because of its findspot in Locus 75 between Walls FR and FP, in the bottom part of the trash. An ash-blackened unbaked clay seal impression (Uc 237, Pl. 49:1), which we would date to Early Dynastic I, came from the ashy debris above the fallen roof in Locus 68 and has also been listed as from Level IV.

The West Room (Locus 47) was certainly being occupied, but in a drastically altered form. At a point above Floor 3, the entire northern part of the roof was cut and a roughly rectangular room about 2.3 meters wide was created by carving back the roof to form vertical faces (Pl. 11). The new room ran from the north wall of Locus 47 to almost exactly our East-West section line. At the section, the old roof was apparently in good enough condition to leave, and the southern end of the room continued to be used, probably only for storage or for animal shelter, since in Locus 421 there was at this point only about 50 centimeters height above the ash line (Floor 0) that corresponded to Locus 47, Floor 2.

After the cutting in of the new room, a roof composed of beams, reeds or mats, and mud plaster was presumably put over it. The earliest floor in the room, 2, was a very irregular one, running above the ledge-like edges of the cut-back original walls, and slumping down into the space over the old room (Pl. 11). This floor ran over large fallen blocks of the old roof that lay on Floor 3. In the southeast corner of the locus there was a hearth (Pl. 11) cut down from Floor 2.

At the time of the reconstruction, the doorway to the Court underwent a major change (Pl. 40). Although it had been, at the beginning of the Round Building, wide and low, this doorway through most of its history had been relatively narrow. At Floor 2, however, it was once more widened and took on an aspect similar to its earliest form or to the blocked doorway in Wall GY (Pl. 28:2). At Floor 2, the doorway had a sill of mudbricks, and another at Floor 1. Above Floor 1 at the section line (Pl. 11) and on an equivalent ashline in Locus 421, we found large masses of still-mortared-together bricks from a final collapse or deliberate breaking down of the roof. Above the fallen mudbricks were ashy, bone-and-sherd-filled layers of debris dumped into the locus from above.

We have attributed these ash layers to the end of Level IV, but realize that some of the debris may post-date this level. With Floor 1, this locus came to an end. Above it, and cutting into it, were a number of Level III pits and later graves.

The West Room produced several catalogued objects in Level IV. We found a very well-preserved copper axe blade (Uc 234, Pl. 50:11) on Floor 2. In the fill above Floor 1 was a baked clay wheel from a toy (Uc 55) and a fragment of crushed, folded copper (Uc 61, Pl. 50:13).

The Entry Room (Locus 79), the only other Round Building locus still in use in Level

IV, was very poorly preserved. A very large pit of Level III cut away about half of the locus, including much of Wall N and the upper part of the Outer Door. There was some evidence for one floor and we could determine that Wall FD still existed in the locus. Most of the evidence for this locus was found as debris directly under the ceiling in the southeastern and southwestern ends of the room, and the material was not very greatly compacted. It was a bit difficult to separate the fill above the floor from the ashy, sherd-and-bone-filled debris poured into the space after its abandonment, but this latter deposition was considerably less compact than the occupation debris, and contained many more sherds. We could find no evidence for a cutting back of the roof in this room as had occurred in Locus 47. In fact, here we found the corbelling intact across the entire eastern end of the room. The ceiling had, however, slumped at least 50 centimeters from its original height (Pl. 12:1-2), and it may be this slump that caused the complete abandonment of the Round Building. Even without the slump, the space was so low it could have been used in only the most troglodyte manner. The room may, in fact, have served as little more than a passage from the outside into the Court at this time. The cutting of a trench into the floors of the doorway to the Court indicates that access was a problem. It may be that the entire doorway was completely open to the sky. We found no sign of the lintel, nor of the spring of the arch over the doorway although the wall was preserved high enough to have had these features intact. If the lintel of the doorway had been cut through, the roof over part of Locus 79 might also have been demolished to allow easier access to the outside. Any evidence of such an operation was lost, however, in the large green pit from Level III.

On Floor 1 of Locus 79, near the doorway to the Court, we found a copper goad (Uc 266, Pl. 50:5), and a fragmentary animal figurine (Uc 260, Pl. 52:4). In the westernmost corner, under the roof, was a long bead (Uc 258, Pl. 55:5).

With the just-described loci, the Round Building came to an end. We would suggest that at Level IV, if not already at Level V A, the Round Building had ceased to function as a citadel, but may have been taken over by townspeople for housing. The burying of an infant under Floor 2 of Locus 47 is much more in keeping with a residential use than a military or administrative one. Outside, the accumulation of debris around its southern portion was so extreme that the building would have had little defensive capability at this time. The encroaching of houses on the Round Building, as we will see below, further enhances the suggestion of a change in role. That the building may still have had a centralizing function, being used for communal baking and storage, is a possibility, but that it would have been a high-status residence is much to be doubted. The ruins were being used as a dump, and most of the remaining spaces were low and cave-like or makeshift.

The areas outside the Round Building were somewhat changed from the previous level. Just outside the Outer Door, a new locus, 57, was created with the building of Wall GH on top of Walls GY and GZ. The floors in this locus, preserved in only small patches due to disturbance by later cuts, sloped less drastically from the Round Building than earlier floors had done, dropping by about ten centimeters. At the southern end of the locus there was a large storage jar (Type 12a, Pl. 74:10) set into a base of mudbricks. This jar had been cut

almost in half by an Islamic pit. The jar would have been in the corridor that had previously remained free of obstacles outside the Round Building.

In the fill above Floor 1 of this locus we found a broken, grooved clay object, perhaps a handle or a spout (Uc 273, Pl. 52:2).

Northeast of Locus 57, the area was recorded as Locus 489. This locus was defined by Wall HP on the east, the northern baulk, and Wall GJ at the west. Wall GJ and its associated wall, GO, were somewhat higher than Wall GH, but all were essentially contemporary. The bricks in these walls were red with reddish brown mortar and were plano-convex (6-7 cm. thick at the edges, 8-11 cm. thick in the middle of the brick, 28-30 cm. long and 14-15 cm. wide, Pls. 6:2, 37:1). The space enclosed by Walls GJ and GO, Locus 481, was at Floor 2 not accessible from Locus 485. In the juncture of Walls GJ and GO on this floor there was part of a roughly rectangular hearth or oven, made of whole and fragmentary mudbricks, plastered on the inner face. The feature was completely filled with ashes.

On Floor 1, at a time when the rectangular oven was probably still in use, there was a hearth or *tannur* made of a spouted jar (Type 6a, Pl. 68:17) set upside down into the floor, about thirty centimeters to the north. A whole pottery jar (Uc 253, Pl. 72:13) was found sitting in the ash above the rectangular oven.

The area south of Locus 481, Locus 485, was bordered at the southwest by Wall GI, which was cut at the western end by a large, round pit with a curving bottom. This pit, full of hard, gray soil, was 70 centimeters in diameter, and was like a number of others encountered on Tell Razuk, especially in Loci 16 and 27 to the south. A much greater number of these pits was found on Tepe al-Atiqeh. They date from the time when the village of Uch Tepe was on Tepe al-Atiqeh (pre-1918) and were used as underground grain silos.

Locus 485 was disturbed at its eastern end by Burial 10 from Level III. However, part of Floor 1 was preserved under this burial. Here there was another hearth or *tannur* made from an upside-down spouted jar (Type 6a, Pl. 68:16). In fill above Floor 2, we found a grooved, baked clay object (Uc 272, Pl. 52:1), similar to Uc 273 found in Locus 57.

Locus 482, on the south side of Wall GI, was badly disturbed by later cuts, but part of a door sill at Floor 2 was intact in Wall GH. In the southern corner of the locus at Floor 1, there was a feature composed of three courses of red mudbricks set in green mortar. The feature, utilizing only one row of stretchers, had a doorway near its abutment with Wall GH. The feature may have been a bin, but it may also have been a shelter for animals.

The southern end of Wall GH was cut away by the Islamic pit that had also damaged the large storage jar of Locus 57.

We had no evidence of a wall between Walls GH and C, though there may have been one farther west. The corridor between Walls C, J and the Round Building (Loci 8, 22) still sloped down to the north, but not as much as in earlier levels. From Locus 8, Floor 2, to Locus 57, Floor 2, approximately the same surface, there was a drop of about a meter. The preserved height of the Round Building at Locus 8 (Pl. 11) was less than a meter above this floor, and even the supposed original top of the fortress would have been less than 2.5 meters above. Clearly, the building was no longer defensible.

On Floor 2 of Locus 8 we found an obsidian core retouched for use as a tool (Uc 21, Pl. 51:9).

West of Wall C, Locus 49 continued in use. Here, on Floor 1d, there was a fragmentary oven or hearth, composed of five stretcher courses of mudbrick (30-33 x 16 x 8 cm.). Twenty centimeters above the floor, there was a hole in the corner of the oven, which had been plugged with pebbles set in mud. This may have been originally a vent, made obsolete by the buildup of floors around the oven. On the floor of the oven we found a bead (Uc 63).

Above Floor 1d, there were three badly disturbed occupation surfaces, Floors 1a-1c. On only the uppermost, Floor 1a, did we recover any significant information. In the southeast corner of the locus, against Wall C and above the oven of Floor 1d, there was the ring base of a large storage jar next to a hearth or *tannur* made of a jar turned upside down (Type 6a, Pl. 69:2).

In Locus 16, the area west of Locus 49, the basic situation was the same as in Level V A, except that Wall R was much thinner than it had been. Against the east face of this wall, near the north corner, was a jar base set in mud plaster, as a hearth.

Locus 45, behind Walls R and T, was completely destroyed by a later pit. The same can be said for Locus 27, south of Locus 49.

At the south edge of the Round Building, there were badly damaged loci subdivided by Wall DC (Pl. 38). This wall rested on what had been the sloping corridor around the fortress. Wall DC, of reddish brown mudbricks in gray mortar, was constructed on Floor 2 (Locus 67) as a two-brick-thick wall, which was widened at Floor 1. On the upper floor there were patches of greenish clay, ash, and charcoal, especially toward the southern end of the wall.

East of Wall DC, on an ash- and charcoal-strewn surface above Floor 1, was one course of brown mudbricks (32 x 17 x 7 cm.).

To the west of Wall DC, Locus 70 was cut by very large surface pits making it impossible to correlate the floors of Locus 67 with any in Locus 22.

The corner of a mudbrick building, Wall DD, at the southeast of the locus, must have been part of a house.

The fact that Wall DC abutted Wall N, completely blocking access to the corridor around the citadel, adds weight to the notion that the Round Building did not serve a defensive function at this level.

To the north and northeast of the Round Building, Level IV was characterized by the building of a set of walls upon the top of Wall HZ. The main wall, DJ, running east and west, enclosed Loci 80 and 86. The area was damaged to a great extent by pits, especially in Locus 80. Here, however, an irregular surface, Floor 2, was reached at the bottom of Wall DJ. Although on the southern face the wall had only alternating courses of headers and stretchers, on the Locus 80 side there were headers and stretchers at the bottom, with a course of soldier headers above, then a course of stretchers, then another course of soldier headers. These bricks (30 x 12 x 8 cm.) were probably plano-convex in shape, but we did not disengage them to make certain. Other bricks in the wall measured 30 x 15-16 x 7 centimeters. There were a number of repairs in the wall, including three mudbricks laid on end against the side of DJ in

Locus 80, in just the way that modern-day villagers place bricks to repair damage caused to the lower part of walls by salt action.

Locus 86, across Wall DP, was almost completely destroyed by later pits and recent graves. One floor was identified at the bottom of Walls DJ, DO and DP. On this floor, sitting upright against Wall DP, was a spouted jar (Uc 153, Pl. 64:5).

The northeastern corner of the excavated area was now divided into two loci, 91 and 72, by a badly preserved wall, HV, that ran partly over Wall DQ of Level V. South of Wall DJ the corridor around the citadel, Locus 85, was very narrow. Most of Locus 85 was destroyed by recent graves, and especially a great pit (Locus 89) from Level III. On the west bank of Square Q 57, we were able to define five floors associated with this locus, the bottom four of which are to be assigned to Level IV (Pl. 12:2). In fill above Floor 5, we found a baked clay toy wheel with a serrated edge, simulating the studs on ancient wagon wheels (Uc 161, Pl. 52:13).

The general picture of Level IV, both inside and outside the Round Building was one of decay, although there were some signs of fairly large-scale construction such as the renovation of Locus 47 and the building of Wall DJ and related walls. The deterioration of the Round Building may have been accompanied by the construction of an alternate central building on another part of the site. Had we been able to open a larger area, we might have found evidence of such a shift, or signs of a change in status within existing structures that would have signalled a major reorganization of the social-political-economic system in the town. However, the seeming significance of the construction of the buildings associated with Wall DJ may be merely the result of our failure to excavate below Level IV in the northern part of the area. There may well be more impressive structures below DJ, which would make the Level IV building seem as much a deterioration as the Round Building appears in the same level. It seems obvious, from the evidence we have, that a settlement that had been dominated by a fortress, surrounded by a sharply sloping corridor, reachable through only a few doorways in the enclosing house walls, was no longer using the central building as it had. The finding of a grave in Locus 47, more than its transformation into a space with vertical walls and the rather utilitarian artifacts found in it, point to a change of the Round Building from a defensive structure to, at least in part, a residence. The building of walls against the outside of the Round Building, the blocking of the circuit corridor with storage vessels, and the encroaching of Walls DC and DJ on that space, indicate a change in the way the building was viewed.

LEVEL/LOCUS SUMMARY 6

LEVEL III (Pl. 42)

Over Round Building

10 11 20 55 73 89 402 403 420

NW

483

NE

72 80 85 86 91 440

Level III (Pl. 42)

The end of the useful life of the Round Building was easily discernable because of a group of large pits, with light green fill (Level III) that cut deep into the earlier levels. The concentration of the pits on the Round Building may have been a result of our focusing on the structure, but it is unlikely that chance would have given us evidence of only one small pit belonging to this level in the house areas. The Round Building was, at this time, an abandoned mass of fine-quality mudbricks and the location of the deeper pits primarily in walls, with shallower ones bottoming out at about the ceiling level over rooms (Pls. 41-42), points to the deliberate quarrying of material for the making of new mudbricks.

The largest and deepest pit was the one we recorded as Loci 73, 89 and 402, cutting down through the edge of Wall DR and removing a large part of Wall N on the east side of the Outer Door. The pit above the Stair and the West Room, recorded as Loci 10, 11, and 20, could be seen to be an extension of Locus 89. Locus 420, a relatively small pit cutting Wall DR and the roof over Locus 421 in the south end of the West Room, and the large pit in the center of the Round Building, Locus 403, were relatively shallow, but shared with the other pits the characteristic light green, densely compacted, debris that was thrown into them. In all these pits, there were numerous sherds, bones, and other items. The green debris had occasional thin layers of rusty red color, especially at the bottoms of the pits. The green color and the rusty red can be related to urine and other organic wastes, as well as charcoal and ash. The phenomenon of green debris and a spreading of the color to adjacent stratified floors and intact walls is commonly noticed at Nippur around latrine drains. It is apparent that the inhabitants of the town at this level were first quarrying for bricks, then using the pits as refuse dumps, a pattern still being repeated in living villages.

The top meter or so of debris in the largest of the pits, the one over the Entry Room (Loci 73, 89, 402) was not green, but red and brown with ash lenses, a more usual kind of fill. An examination of the section through the Entry Room (Pl. 12:2) will show that this red material was laid down relatively flat. The presence of Level II walls on these layers seems to indicate a deliberate filling in order to bring up the level of the pit to the height of the preserved Round Building roof, preparatory to construction.

The only evidence for pits in the house areas was in the northwest, where Locus 483, a roughly circular pit originated below Locus 60 (Level II) and cut into Locus 482 (Level IV) and the underlying Locus 488 (Level V). This pit was filled with light green clay and many pebbles. A grave, Burial 10, found in this area, has been associated with Level III. The skeleton was badly damaged and only fragments of pottery were found. Since the grave lay under a large pit from the surface, it is possible that this burial was from Level I.

Although the houses in the northwest seem to have been abandoned at Level III, the houses to the northeast continued in use since their walls were also utilized in Level II.

In the green pits, we recovered a number of objects which we catalogued. From Locus 10 came a baked clay toy wheel (Uc 8, Pl. 53:1) and a fragment of Scarlet Ware showing a bull's head (Uc 315, Pl. 90:15). A stone bowl fragment (Uc 50, Pl. 51:1) and a copper pin

(Uc 58, Pl. 50:9) were found in Locus 11. A tubular shell bead (Uc 267, Pl. 55:2) and a Scarlet Ware sherd (Uc 316, Pl. 89:5) were found in Locus 20, while another baked clay wheel (Uc 193, Pl. 52:7) and the tang of a copper dagger (Uc 211, Pl. 50:15) came from Locus 420. An almost complete jar (Uc 202, Pl. 64:3) was recovered from Locus 55, a cut that penetrated the roof of the Entry Room. Locus 403 yielded a bone awl (Uc 205, Pl. 51:13).

LEVEL/LOCUS SUMMARY 7

LEVEL II (Pl. 43)

Over Round Building

NW

W

NE

E

44 88 400 401 410 412 413 441 442

58 59 60 62 63

1 2 4 6 15

51 69 80 85 86 87

83 84 98

Level II (Pl. 43)

Above the pits that cut into the Round Building we discovered fragments of buildings that were on so great a scale that we would propose that the highest part of the tell was once again being used for a centralizing, probably administrative function (Pl. 43). There is, however, not enough architecture extant to reconstruct a unified plan. Only the walls of Loci 80 and 86 continued in use from the level before the pits. The walls over the Round Building (with Loci 44, 88, 400, 401, 410, 412, 413, 441, 442) and the set of rooms on the western side of the excavation (Loci 4, 59, 60, 62, 63), along with the rooms to the east (Loci 83-84, 98), appear to have been constructed on a rectilinear plan. The spaces over the Round Building (Loci 400, 401, etc.) seem to be on a larger scale than those in the other areas, giving an indication of a greater importance for the central building. Locus 410, with an oven that contained ashes and bones, had against the face of Wall GE a collection of large stones. Similar large stones were embedded in a pavement of mudbricks (30 x 16 x 7 cm.) alongside the face of Wall DN in Locus 400. The oven perhaps indicates that Locus 410 had been an open space, and that the stones were repairs of water damage at the base of the walls. It seems unlikely that Locus 400 would have been an open space also. Its pavement rested on Floor 2 that ran directly up over the top of Wall DR.

Locus 401, north of the Wall DN, was badly destroyed by later pits and graves. The face of Wall DN had three mud plasters, the original in red, followed by green and a final red. The opposite face, in Locus 400, had only a red plaster.

Walls DN and GE were composed of ashy, gray mudbricks (30-32 x 16 x 6-8 cm.). Walls DH and DI, to the north, were of very similar bricks (32 x 18 x 8 cm.). Walls DH and DI rested directly on Wall DR, but they sloped down to the north over the green pits of Level III. A baked brick doorsocket, found at the northwest end of Wall DH in Locus 88, indicates that there had been a doorway here. This doorway would have been in approximately the same location as the Outer Door of the Round Building, perhaps signifying a general orientation for this upper level similar to that in earlier levels.

The building in the northwest of the excavated area was originally constructed of gray, ashy mudbricks (35 x 17 x 8 cm.) with red mortar. Entrance to the set of rooms in the northwest was through a doorway from Locus 58 to Locus 60. Very little floor material was intact, however, because of large cuts from the surface. We found some floors undisturbed in the south end of Locus 60.

An upper phase of the buildings in the northwest (Pl. 43, dashed lines) was constructed of reddish brown mudbricks (32-34 x 16 x 7 cm.) in gray, soft, ashy mortar. We would correlate the upper rebuilding of Wall Y with the fragmentary walls A, D, G and the upper version of Wall F at the southwestern end of the excavation.

Although at the time of excavation we did not realize the significance, the mudbricks of this level were slightly convex on the top. This was most apparent in the pavement of Locus 400, but the rounding was thought to have been the result of ancient weathering. Wall DH, however, also had the slightly convex bricks. The plano-convex bricks recorded in lower levels continued in use through Level II.

In the northeast, the upper part of Wall DJ was abutted by a new wall, GK, to help form Locus 87. Walls HW and GK were of red mudbricks (32-34 x 16 x 8 cm.) with grayish green mortar that had gravel in it. Loci 80 and 86 were used in this level, but surface pits had removed almost all evidence of floors. The area to the east of Locus 86 was now, as far as we can ascertain, one space, Locus 69. The upper part of Level II saw the abandonment of Locus 87 and the construction of a bench against the west end of Wall DJ.

To the east there were remains of thick walls, preserved only one course high. On a floor at the bottom of the wall in Locus 83, there were standing a spouted jar (Uc 152, Pl. 64:4), and a small jar with four holes for suspension or tying down a lid (Uc 183, Pl. 73:13). On the same floor in Locus 84 there was a miniature pottery bowl (Uc 148, Pl. 73:2). Other finds in Level II included a fragmentary toy wagon (Uc 75, Pl. 52:6) from Locus 44, a bead (Uc 230) and a baked clay toy wheel (Uc 191, Pl. 52:12) from Locus 410, and a copper goad (Uc 212, Pl. 50:6) from Locus 441.

We can make very few definite statements on the nature of Level II, other than the estimate that the central structure may have been an administrative building. The pottery from the bits of intact floors point to a dating no later than Early Dynastic II in Diyala sequence terms, continuing the tradition from the lower levels.

LEVEL/LOCUS SUMMARY 8

LEVEL I Surface Loci, pits, graves (Pl. 44)

Central Area, Over Round Building	NW	W	S	NE	E
Squares P 58-59, Q 57-59, R 58-59	O-P 57-58	O-P 58-59	P-R 60	Q-R 57	S 58
3 18 30 32 35 36 43 50 56 71 74 415	39 52	6 25 53	31 64 65 417	28 56 445 448	82
Burials: 1, 3, 4, 5, 12, 14, 15, 16, 17	Burials: 7, 11	Burial 2	Burial 18		

Level I (Pl. 44)

Level I was badly preserved, difficult to untangle, with traces of activity that included burials, pits, a well, and fragmentary walls. There is not much point in showing these by period, although we could do so in most cases. The entire surface of the mound seems to have been used for graves, storage pits, and mudbrick quarrying after the Early Dynastic period. The phases of activity can be divided as follows: 1) Early Akkadian burials and a well; 2) Ur III/Isin-Larsa burial; 3) Sasanian burial; 4) Medieval Islamic occupation, quarrying and burials; 5) late Ottoman (?) occupation; 6) recent burials and quarrying.

Early Akkadian Burials

During the course of two seasons, we recovered two large, fairly intact graves (Pl. 44), Burial 12 (Locus 415) and Burial 11 (Locus 52, cutting Locus 62 of Level II). A third reconstructable burial, No. 16, was cut from Locus 50 through Loci 401 and 404 in the center of the Round Building. The pottery in these graves was of similar types and was dated by us to the early Akkadian period. Related pottery recovered in pits, usually without bones present and badly disturbed by later activity, was arguably from the remains of other burials. These probable graves we have called Burial 17, found in the baulk between Q 58 and R 58, and a shallow pit, Burial 18, on the eroded slope of Square R 59 (Locus 417). Other pottery, from isolated cuts and from a well in the Baulk between P 57 and Q 57 seem best placed in the early Akkadian period and will be discussed after these burials.

Burial 12

Burial 12 (Locus 415, Pls. 45:1-2, 46:1, 93:1), was cut down into Wall N, the outer wall of the Round Building, just east of Locus 416. The burial consisted of a large chamber, 4 x 2.5 meters in size, containing the skeletons of two equids, a group of pottery vessels that seemed to form a functional unit, and a number of copper objects. The southern end of the chamber was cut deeper and was extended to the east by means of a tunnel that left a small portion of Wall N over it. Outside the Round Building, the tunnel turned north, creating a second, smaller chamber, removing a buttress from Wall N in the process. Recent pits had destroyed the upper part of this small side chamber, but we recovered at its northern end some fragments of human skull; farther south were a rib bone, and a few broken leg or arm bones. Near the skull were two lapis lazuli beads (Uc 328, Pl. 97:13).

In the larger chamber, the pottery was found mostly in the northeastern part, beside the equids (Pls. 45-46). Dominating the entire group was a large vat (Pl. 97:2) that was recorded but not catalogued. Inside it, standing upright, was an object (Uc 335, Pl. 97:4) that would normally be classed as a drain pipe, but was clearly used as a strainer in this context, we think for preparation of a beverage. Found lying on its side in the bottom of the strainer was a spouted jar, Uc 311 (Pl. 96:8). Just west of the vat was a jar with a ridge at the carination (Uc 331, Pl. 96:1), lying on its side. Below this jar was Uc 326 (Pl. 96:9), a hand-made cooking pot. To the south was a ring-based jar (Pl. 96:7), too fragmentary to register. Another unregistered fragmentary jar with a ridged shoulder (Pl. 96:2) was found directly over the skull

of the westernmost equid. Near the base of this jar, there was a drain hole. To the southeast of the large vat was a plain-shouldered jar (Uc 325, Pl. 96:5). Next to it was a trough-spouted, high-footed stand (Uc 336, Pl. 97:3), with its spout pointing southeast. The upper, spouted portion of this vessel had a floor onto which, originally, three wide strap-like supports from the rim had attached. Resting on these supports was a plain-shouldered jar (Uc 323, Pl. 96:6), which had a drain hole piercing its lower body. This hole was positioned directly over the spout of the stand on which the vessel rested. South of the stand was another plain-shouldered jar (Uc 324, Pl. 96:3), against which lay a ribbed bowl (Uc 334, Pl. 97:1), on its side. Another plain-shouldered jar (Uc 332, Pl. 96:4) was south of the equids.

In the fill above and to the south of the equids, a number of copper objects was found. A spear point (Uc 207, Pl. 97:10), a thin copper blade (Uc 208, Pl. 97:11), a tanged fragmentary dagger or axe blade (Uc 290, Pl. 97:8), and a badly corroded chisel (Uc 291, Pl. 97:9) were above and near Uc 332, the jar farthest south. Somewhat closer to the main body of vessels, and nearer the bottom of the burial cut, were a broad-bladed chisel, with indications of horizontal hafting thongs (Uc 299, Pl. 97:5), and a narrow chisel with remnants of its wooden haft still retained in the corrosion (Uc 300, Pl. 97:6). Under the rear legs of the westernmost equid, there was a spear point (Uc 307, Pl. 97:7).

A spindle whorl, made from a potsherd (Uc 329, Pl. 97:14), although found in the fill above the equids may not have been intended for the grave, but was a chance inclusion.

The pottery and other objects found in this burial point to a few conclusions about the occupant. Although only fragments of the skeleton were found, this was presumably the grave of a man. The equids, the tools, and weapons would seem to indicate a status as a warrior. The lapis lazuli beads found with the human bones need not be taken as signs of a female since men in ancient Mesopotamia were often buried with beads and other adornments.

The pottery seems to form a functional group. It cannot be ruled out that other vessels had been, originally, placed in the small side chamber with the body, but even if they had been, this would not diminish the singularity of the assemblage in the upper chamber. We have indicated, above, that we think that the group of pottery was used in the making of a beverage. The drain hole in the jar found resting on the spouted stand, and in another fragmentary jar found at the northwest corner of the chamber, point to a process in which, at some point, liquid was drained off. The large vat and the strainer found upright in it, with a spouted jar inside, also indicate a process in which liquid was separated from some solid, probably vegetable, matter. It is difficult to envision a vegetable material that is so gross that it would not pass through the rather large holes in the strainer. Perhaps, the substance was placed in cloth and put in the strainer, leaving the area of the vat clear for liquid. The rest of the pottery in the group, predominantly large jars, with one utilitarian 'cooking' pot, and a ribbed bowl, but no plates, nor open bowls, nor small bowls that would indicate a variety of foodstuffs, supports the notion that the entire group was related to one activity. We would suggest that some of the jars contained raw materials, while others held the finished product, perhaps beer. No grains were found in any of the jars, however, and the entire assemblage was free of any residue that might be analyzed. We did take scrapings from some vessels (Uc 323,

325), but there was so much damage to the entire group in antiquity that any liquids may have leaked out without leaving a trace. These scrapings are among samples in Baghdad awaiting export.

The detailed discussion of the pottery in Burial 12 will be combined with a consideration of all the pottery from associated graves at the end of this section.

Burial 11

The second-best-preserved grave was one with a similar layout to Burial 12, but on a smaller scale. This grave, Burial 11 (Pls. 44, 47, 98), was cut from the surface of the mound down into Loci 62 and 481 as a rectangular pit. The northern end of the pit was outside the area of excavation, and thus its extent could not be determined exactly. An Islamic pit came down into its eastern half. The bottom part of the pit was divided into two chambers, the eastern one lower than the western. In the lower chamber, under a layer of gray clay, was the skeleton of an adult, flexed, with the head to the north. Under the left hand, in front of the face, was a stone bowl (Uc 268, Pl. 98:4). At the back of the skeleton was a whole pottery bowl (Uc 270, Pl. 98:5), and north of the head were a jar with a ridged shoulder (Uc 292, Pl. 98:2) and a spouted jar (Uc 280, Pl. 98:1). Ten centimeters north of the stone bowl was a copper pin (Uc 269, Pl. 98:8).

In the upper chamber, we found parts of a large jar (Pl. 98:3), a large jar (Uc 107, Pl. 98:7) with a comb-incised wave motif on the shoulder, above a ridge. Inside this jar was a vessel (Uc 137, Pl. 98:6) with a hole in the bottom. This and similar vessels may have functioned as funnels or as strainers, possibly attached in some fashion to drinking tubes.

In the fill near these two vessels we found a spout from a large jar (Pl. 98:below 3).

Burial 16

Cut into the center of the Round Building from the surface was another rectangular, two-chambered grave, Burial 16 (Pls. 44, 46:2, 99). Parts of the burial were badly disturbed by later pits and the relationship of the chambers was not realized until this report was being prepared. In fact, because no bones were found in the upper chamber, it was not thought originally to be a burial, but merely some sort of storage pit with pottery in it. The lower chamber, which had a few human bones, scattered by animals, was recognized in the field as a grave, but its relationship to the upper chamber was not apparent until the notes were studied and the positions of the two pits compared. In digging the upper chamber, recorded as Pit 2 in Locus 50, it was noted that the lower portion of the eastern side of the pit was composed of dark brown, compact, water-laid fill, while the rest of the fill was dark brown and black, less compact, material with green and reddish clay inclusions. The eastern side later proved to be the lower burial chamber. The finding of water-laid fill in the lower chamber may indicate that the burial was originally roofed and that water entered and ran down, carrying debris into the lower chamber for some time before the tomb collapsed and was filled. The hard, gray clay above the skeleton in Burial 11 may indicate the same process. Water does not seem to have entered Burial 12, however, since the debris in the lower chamber of that burial was finer, and softer, than the fill of mudbrick fragments and trash over the main chamber.

In the upper chamber of Burial 16, we discovered a whole, hand-made, bag-shaped jar (Uc 156, Pls. 94:1, 99:7), a large plain-shouldered jar (Uc 154, Pl. 99:4), and another similar jar that was too damaged to reconstruct. In the lower chamber, near the disturbed bones, were a spouted jar (Uc 189, Pl. 99:5), a small jar (Uc 190, Pl. 99:8), and some fragments of a second small jar too badly destroyed to reconstruct. To the north of the bones, about ten centimeters deeper, was a jar with an incised decoration over a ridged shoulder (Uc 241, Pl. 99:6) similar to Uc 107 from Burial 11 and Uc 327 from Burial 17.

Burial 17

When we removed the baulk between Q 58 and R 58 (Pl. 44), we found two vessels in the remnant of a pit that had been cut by at least three recent burials. We assume that these vessels were the remains of another burial, and have included it here with the early Akkadian graves even though the shape and painted decoration of one of the jars might be thought to be earlier. We think we can make a case for placing this jar (Uc 344, Pls. 95:2, 98:10) in the early Akkadian period. The best argument is the companion vessel (Uc 327, Pls. 95:1, 98:9), a jar with incised decoration similar to Uc 107, 241, and others to be discussed below as early Akkadian in date.

Burial 18

At the southeastern edge of the excavation (Pl. 44, Locus 417), workmen cutting down the surface to make a wheelbarrow track struck a large pot. This proved to be one of three in a pit that must have been cut into the mound from a higher elevation, now eroded away. The jar that was hit (Uc 293, Pl. 99:2), had a plain shoulder and a band rim. Another large jar (Uc 294, Pl. 99:3) was not preserved in its upper part, but there was a drain hole near the ring base, similar to Uc 323 and an unregistered fragmentary jar from Burial 12. The third vessel was a large open bowl (Uc 298, Pls. 93:2, 99:1). No bones were discovered with the jars, and no second chamber was sought since, at the time of discovery, we had not realized the possibility of such a tomb arrangement.

Related pottery

Some vessels found in surface debris, in the fill of recent graves, and in the bottom of a well seem to fit best into the Akkadian range. Most of these items had been, probably, in graves that were disturbed by late activity. One of the vessels, a jar with a high neck and a sharply carinated shoulder (Uc 65, Pl. 99:10) was in the fill of a recent infant burial, in the southwestern corner of Square Q 58. Another vessel, a cup with part of the base missing (Uc 159, Pl. 99:9), was discovered in the surface debris of Locus 28, Square R 57. A two-handled, hand-made, cooking ware jar (Uc 245, Pl. 104:11), from the well in the baulk between P 57 and Q 57 (Pls. 12:2, 44), and a somewhat related ring-based jar (Uc 112, Pl. 104:10) from surface debris in Locus 53, Square O 59, were both thought, when found, to be fairly recent. However, the discovery of a similar round-bottomed jar (Uc 100) in an Akkadian context at Tepe al-Atiqeh forces us to suggest that at least Uc 245 may be of that date. The other jar (Uc 112) may also be Akkadian, but since crude jars with a similar ring base are still made in the local village, we cannot rule out the possibility that it is late.

Dating of the Burials and related pottery

The dating of the burials would be difficult if we had to rely entirely on published sources. We have in addition, however, our own excavated material from Tepe al-Atiqeh, which is fixed in time by Akkadian-style cylinder seals. The pottery can also be paralleled in definitely Akkadian contexts at Umm al-Hafriyat and Nippur in recently excavated, unpublished, trenches. Using the newer evidence from operations at and around Nippur, we have been able to reassess published and unpublished pottery from the Inanna Temple, Tablet Hill and the North Temple at Nippur.² We have also analyzed once again the pottery from Kish and the Diyala and expect to publish in the next year or two a revised sequence for the later part of the Early Dynastic through the Isin-Larsa period. In the following discussion, although we cannot give all the arguments for our datings, we will use the published types from the Diyala³ for parallels, with mentions of unpublished material where appropriate. The companion volume on Tepe al-Atiqeh, in preparation, will allow direct comparisons between the pottery from that site and Tell Razuk.

An examination of the pottery (Pls. 93-99) will show that although we have labelled these burials 'Akkadian' there are in them few, if any, of the types that are usually given as diagnostic for the period.⁴ There are, for instance, no jars with multiple ridges on the shoulders (Delougaz, C.466.450, D.465.360, D.466.360), nor large bowls with wide spouts (Delougaz, C.053.312), nor jars with pointed bottoms and ridged rims (Delougaz, B.556.540). Whole vessels and sherds of these types did occur at Tepe al-Atiqeh.

We do have at Razuk a cup with a flat rim (Uc 159, Pl. 99:9; Delougaz, B.084.210a-c) that is given a range from Early Dynastic III to Akkadian in the Diyala. We also have jars with sharply carinated shoulders (Uc 190, 65, Pls. 99:8, 10; Delougaz, B.515.470), which were dated to Early Dynastic III in the Diyala. Both these types were found at Tepe al-Atiqeh.

A large jar with a ridge at the carination and an overhanging band rim (Uc 331, Pl. 96:1), although not exactly paralleled in the Diyala, does have close affinities with items dated there to Early Dynastic III and Protoimperial (Delougaz, D.526.370a, D.526.371?). At Tepe al-Atiqeh, this type of jar was common. At Umm al-Hafriyat, near Nippur, we found this vessel to be the most characteristic jar in late Akkadian levels.

A large jar with an overhanging band rim or rippled rim, but without a ridge on the shoulder carination, was the dominant type in the Razuk burials (Uc 293, 323, 324, 325, 332; Pl. 99:2, 96:6,3,5,4). This type was rare in the Diyala (Delougaz, D.565.310), where it was assigned a date of Early Dynastic III.⁵ Sherds of this type of jar were found at Tepe al-Atiqeh.

The spouted jars (Uc 189, 280, 311; Pls. 99:5, 98:1, 96:8) are not very different from Early Dynastic I and II types found in the Round Building and associated houses. However, spouted vessels with ring bases are known as late as the Akkadian period in the Diyala (Delougaz, C.556.322). The dating of such vessels must depend on the pottery found with them.

One of the crude, hand-made cooking-ware jars (Uc 326, Pl. 96:9) can be paralleled exactly in the Diyala (Delougaz, C.653.520, C.654.520), where it is given a date of Early Dynastic III or Protoimperial. Another, much cruder, jar (Uc 156, Pl. 99:7) cannot with certainty be compared to any shape in the Diyala. The two-handled jar found in the well (Uc 245,

Pl. 104:11) is of a type that was fairly common in the Diyala (Delougaz, C.754.521), where it was dated Early Dynastic III. At Tepe al-Atiqeh, another vessel (Uc 100) of this type was found. The cooking-ware jars are characterized by grit temper, a feature that may prove important in establishing links with Iranian wares. Two-handled jars of very similar shape are common in Luristan graves,⁶ where they are accompanied by pointed-based jars with double- and triple-ridged rims, analogous to Akkadian and Ur III shapes in Mesopotamia (e.g., Delougaz, B.556.540, B.645.540a).

The bottle-shaped funnel or strainer (Uc 137, Pl. 98:6) is similar in a general way to vessels in the Diyala (Delougaz, B.545.640a-b), but has no direct parallel. We found two very similar vessels (Uc 111, 146) at Tepe al-Atiqeh.

The large bowl found in Burial 18 (Uc 298, Pl. 99:1) was of a type that was rare in the Diyala (Delougaz, C.082.310) where it was dated to Early Dynastic III. We found several fragmentary examples and one whole vessel (Uc 200) of this type at Tepe al-Atiqeh. This kind of bowl was common in the 'A' Cemetery at Kish.⁷

For the large, bell-shaped bowl with ridges (Uc 334, Pl. 97:1), we can find similar Diyala types (Delougaz, B.123.210, C.213.200, C.213.210, C.245.300) which were given dates from the Early Dynastic III through Akkadian. Our bowl was, in fabric and manufacture, different from the other Uch Tepe pottery. It had been made of finer, denser clay, turned on a fast wheel and the inside had been scraped out with a spatula or similar tool to make it thinner before firing.

The large ribbed vat (Pl. 97:2), which may be seen as a larger version of the ribbed bowl, has no parallel in the Diyala, probably because large pottery types were rarely found whole there and therefore were not recorded systematically. There were in the Diyala taller, narrower types (Delougaz, E.223.010) from later levels. Large, ribbed vat sherds were numerous at Tepe al-Atiqeh.

The tall, perforated cylinder found inside the vat (Uc 335, Pl. 97:4) has published parallels (Delougaz, E.235.010) as drain pipes. This item may have been intended for use in a drain, but that it had another purpose is indicated not only by its place in Burial 12, but by evidence we will give below from graves at Kish.

The extraordinary trough-spouted pot support or stand (Uc 336, Pl. 97:3) has no parallel in the Diyala, although shallow, three-strapped supports published as braziers (Delougaz, C.201.201, C.201.203) and dated to the Early Dynastic III and later periods must be seen as related. As far as we have been able to ascertain, a similar vessel of this size has not been published, but there are numerous examples of the type in smaller sizes at other sites. At Kish, in the 'A' Cemetery, there were several, usually without the straps, but with the addition of bits of clay, or the inturning of the rim, to serve the same purpose.⁸ Two Kish graves, Burials 87 and 106, are of great importance for comparison with our Burial 12. These burials, which were from the latest group in the 'A' Cemetery, have been argued to date to the early Akkadian period on the basis of Diyala parallels.⁹ The material from Kish Burial 87 has been published in great part,¹⁰ but only one or two published items of Burial 106 are illustrated. The rest are given in Moorey's check list.¹¹ The two graves contained spouted pot supports,¹² jars with drain holes near the bottoms,¹³ a ribbed bowl similar to Uc 334 (Pl. 97:

1),¹⁴ cylindrical sieves similar to Uc 335 (Pl. 97:4) but on a smaller scale,¹⁵ bowl-shaped sieves,¹⁶ fruit-stands,¹⁷ goddess-handled jars,¹⁸ and a number of other vessels.

The combination of the spouted pot supports, jars with drain holes, ribbed bowls, and cylindrical sieves in both Kish and Razuk graves must be seen not only as functionally related, but as chronologically significant. A homogeneous group of Khafajah graves, cut from the surface of that mound and into levels given a designation Early Dynastic III or Protoimperial, can be related through a number of vessel types with our material and with the Kish burials. One of these Khafajah graves contained a cylinder seal of Akkadian date,¹⁹ indicating that a number of 'Early Dynastic' types, including fruit-stands, upright-handled jars, and goddess-handled jars, continued in use into the Akkadian period. If we had only the one Akkadian cylinder seal in one Diyala burial to give a dating to the assemblage of pottery associated with it, we could say only that this group of pottery, although lasting into the Akkadian period, was primarily of Early Dynastic III date. We are confident, however, that we can demonstrate from internal evidence in the Diyala that not only the group of graves, but also houses and public buildings listed as 'Protoimperial', such as the main level of the Northern Palace and Houses Va at Tell Asmar, were really Akkadian in time.²⁰ Moreover, even levels that were published as 'Early Dynastic III', such as the Earlier Northern Palace, contemporary houses at Tell Asmar, and Houses 1 at Khafajah, were also at least in part early Akkadian.²¹ Our evidence is inscribed material, seals and sealings that are without question Akkadian. One or two Akkadian finds in contexts called Early Dynastic might be dismissed as intrusive or as errors in recording. The occurrence of more than ten Akkadian items in such levels, taken in conjunction with a reevaluation of published Diyala sections, argues for a conclusion that, although much of the material in these contexts is to be viewed as a continuation of Early Dynastic types, the presence of Akkadian inscriptions and glyptic must be used to date the levels.

For some time, it has been assumed by us that the designation Akkadian has included only the material from the middle and end of that period, while the earlier part of the era was disguised under the labels Protoimperial and Early Dynastic III. Excavations at Nippur and Umm al-Hafriyat showed that the pottery types thought to be diagnostic for the Akkadian period (large jar with multiple-ridged shoulder; spouted bowl; pointed-based jar with ridged rim) were, in fact, markers of only the latter part of the era and were as characteristic, if not more characteristic, of the early part of the Ur III period.²² Excavations at Razuk and Tepe al-Atiqeh have given support to our earlier conclusions. Tepe al-Atiqeh seems to have both earlier and later Akkadian material, while the Razuk graves are best placed in the earlier part of the period. The Diyala parallels listed for our types in preceding sections were all from contexts that we would now redate to the early Akkadian period. Even the upright-handled jar with black-painted decoration (Uc 344, Pl. 98:10), which may have originally had red paint, might also possibly be placed in the early Akkadian. Although this item does not have a neck as tall as most of the late upright-handled jars in the Diyala and the 'A' Cemetery at Kish, its handle is brought very close to the rim, a feature of late examples. It is possible that this vessel was an heirloom, held over well past its date of manufacture, but its creation

must be placed after the Scarlet Ware of our Levels VI through II, which we see going no later than Early Dynastic II. A comparison of this vessel with our Scarlet Ware types (Pls. 84-92) will show not only differences in rim shape, but in painted motif. None of our other well-stratified painted pottery has the same type of rim with the cross-hatched band high on the neck,²³ nor the chevron motif on the body. The discovery of this vessel in a pit alongside an incised jar (Uc 327, Pl. 98:9) should indicate that it was deposited in the early Akkadian period. There were a number of jars similar to our Uc 327 found in the Diyala (Delougaz, C.503.470, C.504.370, C.404.350), but the versions with incised decoration were restricted to the group of graves associated with an Akkadian seal (see above).

Given the fact that we have indicated a carrying over of types from the Early Dynastic into the early Akkadian period, it might be thought wiser to assign our Razuk graves a dating 'Early Dynastic IIIb/Early Akkadian'. We may find that for the lowest level at Tepe al-Atiqeh it is safest to use such a designation, just as we are finding it best to deal with other pottery assemblages in general as 'Late Akkadian/Early Ur III', 'Late Ur III/Early Isin-Larsa'. However, since the Razuk graves are closest associated with the latest group of Khafajah graves which cut into one or more structural levels that we are certain must be dated to early Akkadian, we feel safe in designating our graves as solidly within the early part of the Akkadian period.

Ur III/Isin-Larsa Burial

To the west of the Round Building, cutting from the surface of the mound into Early Dynastic levels, there was one large pit (Locus 39, Pl. 44) containing an assortment of human and animal bones, with no articulation. This pit, itself damaged by Islamic cuts, was given the designation Burial 7. The presence of animal bones along with the human bones would seem to indicate that the person buried secondarily here, had been found in a decomposed state, along with the skeletons of animals, and the group of bones was gathered up and interred to ensure that the entire human skeleton received proper burial. Among the bones, near the skull, was found a copper dagger with one rivet in the tang and traces of a wooden handle (Uc 135, Pl. 100:5). A folded piece of bitumen and three beads were also found with bones (Uc 143, 132-34, Pl. 100:6, 2-4). Some fifteen centimeters above the skull, was a whole jar with horizontal incised grooves on the shoulder (Uc 131, Pl. 100:1). This jar, with a round bottom, is of a type that may be as early as Ur III, but is probably Isin-Larsa in date.²⁴ At Nippur and Umm al-Hafriyat, recent work has shown that the Ur III examples of this type, although having a rounded bottom, tend to have a much more everted rim than our jar, while Isin-Larsa examples have a rim like ours, but tend to have a ring base. Given the fact that we have an Isin-Larsa occupation at neighboring Ahmed al-Mughir, and no Ur III settlement is known yet in the valley, a dating to Isin-Larsa seems reasonable.

Other evidence of Isin-Larsa activity on Tell Razuk is shown by some sherds (e.g., Pl. 100:8) and one gray-ware cup with two pairs of holes in the rim for suspension or the securing of a lid (Uc 184, Pl. 100:7). This vessel is a variation on a Diyala type (Delougaz, B.236.200a-b).

Sasanian Burial

A pit in Square P 58 contained the skeleton of an adult (Pl. 101), flexed on its left side, with the head to the west (Burial 1). At the pelvis was a stamp seal, with geometric decoration (Uc 15, Pl. 101:1), a prehistoric type reused as an ornament. Behind the skull there was a very well-made copper boat-shaped bowl (Uc 17, Pl. 101:2), and a bottle of light-green glass, coated with a grayish (silver?) wash (Uc 16, Pl. 101:3). The dating of this burial is made on the basis of the copper bowl, which has a very close parallel at the Iranian site of Qasr-i Abu Nasr.²⁵ The proximity of Tell Abu Shi'afeh, the Sasanian fortress south of our sites, provides a possible source for this burial.

One sherd (Pl. 101:4) with triangular indentations (Achaemenid) indicates other later activity in the vicinity.

Medieval Islamic to Recent

The surface of the mound is too badly eroded and pitted to determine whether or not there had been an Islamic settlement here, but the fair abundance of sherds would seem to indicate an occupation of some sort. In a pit dug from the surface of Square Q 60 (Locus 65), we found two large jars. The first, a whole vessel (Uc 182, Pl. 103:2), had a rounded bottom, three strap handles connecting the shoulder with the neck, and thirteen stamp impressions around the body. The second jar, too badly broken to catalogue, but recorded by a profile drawing (Pl. 103:3) had a ridged and incised neck, two handles, a multiple-wave incised pattern between multiple incised horizontal lines on the shoulder, and a ring base. Nearby, we found an almost whole jar with a grooved shoulder and a high ring base (Uc 138, Pl. 103:1). Lacking its rim, this jar is difficult to place in time, and might be as early as Isin-Larsa, but has been included here because it is much better made than such early pottery and has parallels in the Islamic range.

In a surface pit in the northwestern end of Square P 59 (Locus 2), we found a damaged barbotine-ware single-handled jar (Uc 26, Pl. 103:4). In Square Q 56 (Locus 445) we encountered another damaged jar with a handle (Uc 265, Pl. 104:3).

All of these complete or partial vessels would fit within the Medieval Islamic period, as would most of the unglazed sherds found in surface debris and pits (Pl. 102:14-20). Some glazed sherds (Pl. 102:1-13) seem best placed as late as the 14th Century A.D.

A group of objects found in Square P 57 cannot easily be dated. Two pottery vessels (Uc 110, Pl. 104:1; Uc 306, Pl. 104:2) could conceivably be fairly recent. We have no parallels for them. A small, white faience bead (Uc 287, Pl. 55:19), a blue glazed bead (Uc 296, Pl. 55:22), and a clay bead (Uc 297, Pl. 55:21) were from Pit 2, as was Uc 306.

Three fragments of glass bracelets from Loci 6, 31, and 36 are of a type that is well known in late Islamic contexts (Uc 43-45, Pl. 55:24-26).

Two mold-made clay pipes from Loci 1 and 56 (Uc 1, 257, Pl. 104:4) and an iron horse-shoe from Locus 2 (Uc 7, Pl. 104:9) are datable to late Ottoman or even later.

Several infant burials, of recent date, contained beads. One, Burial 2 (Locus 2), had a mixture of stone and shell beads (Uc 5, Pl. 55:8-15), probably ancient beads that had been

found on a tell and reused. Infant Burial 3, cutting Locus 20, had a bracelet of beads including shells, glass, faience, and silver (Uc 10). Another infant grave, Burial 4 (Locus 56) contained a string of beads (Uc 180, Pl. 104:5-6) including a pierced Ottoman silver coin dated to 1325 A.H. = A.D. 1907-1908 (Pl. 104:6). The beads were of shell, bone, red stone, white stone and blue plastic. There were also in the grave four small plastic bracelets (Pl. 104:7).

Burial 5, in Locus 50, an infant grave, contained twenty-one beads of clear glass (Uc 181, Pl. 104:8).

A number of individual beads (Uc 6, 39; Pl. 55:16, 20) found in surface debris were probably ancient in origin, but may have come from recent infant burials. Likewise some pottery toy wheels (Uc 160, 169, 170; Pl. 52:10, 9, 11) were probably of Early Dynastic manufacture. In Level I, we also found an unusual Scarlet Ware sherd with human figures (Uc 313, Pls. 91:7, 92:2). A gray stone bowl, found in Locus 455 (Uc 250, Pl. 51:4), a copper chisel (Uc 19, Pl. 50:14), an animal figurine (Uc 11, Pl. 54:2) and a flint blade embedded in bitumen (Uc 14, Pl. 51:10) were also probably ancient. A glass bead (Uc 40, Pl. 55:18) and three small glass rings (Uc 86) were probably from recent infant burials.

A fragmentary copper object, perhaps the end of a key (Uc 109, Pl. 50:16), was found in an Islamic pit that cut Burial 11 in Locus 52. We assume that this item is Medieval Islamic or later.

Town Wall (Squares I-J 60. Loci 480, 471, 450, 452, 33, 29, 13; Pls. 4, 48).

Because we did not connect our westernmost trench (Pl. 49) with the main area of excavation, we cannot precisely correlate the levels and structures found there with the basic stratification. However, the pottery makes it fairly clear that the main occupation must be related to the Early Dynastic period, and most probably to our Levels VI. Rising ground water and lack of time prevented us from much investigation low down. We did reach virgin soil in a small pit sunk below the general level of excavation at the west corner of Wall GG.

The reason for conducting this operation was that there was a readily visible ridge running across the western edge of the mound at this point. We thought that, this being near the edge of the mound, it might be the site of a town wall. When we began to clear the surface area, in October of 1978, the hardness of the top meter of soil made it almost impossible to make any progress. We were, at this point on the mound, fairly close to plain level and, as we were to observe in December, the water rose to within a meter of the mound surface in the trench. The yearly saturation of the soil at this low an elevation seems to have made it much harder than the surface on the top of the mound. The top meter of the trench appeared undifferentiated and uniformly buff colored, with little indication of human occupation. The section (Pl. 49:2), however, when the ground became moist, showed faint traces of strata and ash levels, as well as surface pits, even in this material. In the western part of the trench we fairly soon encountered a massive, very hard mudbrick wall that was at first impossible to articulate. It seemed to be more than ten meters wide, and had faces along its southern and eastern sides (Walls GG, GH). It seemed at the time that there were no internal spaces, that the mass of mudbrick was one wall. Later, when it became easier to articulate bricks, we could define an internal face against Wall GF in the western part of the mass, and in the eastern part against Wall GH, but for only a little depth and for only short stretches of wall. It is certain that inside the space (Loci 452, 453) there was a solid surface of laid mudbrick. If Walls GF and GH were, in fact, with Wall GG the boundaries of an internal room or rooms, there must have been either a solid foundation under the entire construction, or the room(s) had been packed with mudbricks laid in mortar. We assumed that we were dealing with a casemate wall at the time. The western edge of the construction was never established due to a cut at this part of the excavation. We found the bottom of the construction in Loci 450 and 471 a meter below the preserved top of the walls.

Giving some support to the assignment of the construction to Level VI was the nature of deposit in a pit sunk at the eastern end of Wall GC (Locus 480). Here, we found a red, sterile layer almost a meter lower than the red gravelly bed on which the Round Building had been set. Although this red layer had few pebbles, we assumed that it was essentially the same as the gravelly clay layer under the Round Building. We concluded that this locus was at the edge of a natural ridge on which the town was located and that the deposit here would have been the result of runoff, therefore would be freer of pebbles. Above this red layer was a twenty-centimeter-thick green stratum that yielded sherds and bones. We assumed that this green stratum was the same as the green clay layer with sherds and bones deposited against the lowest part of the walls of the Round Building. The green layer rose sharply as it went

west, its top running just under the bottom of Wall GH. Although we were prevented by rising ground water from determining whether there was a wall under Wall GH, to which this fill was rising, it is likely that there was, since fill must rise to or over something. Above the green layer, there was a series of alternating red and ashy strata (Locus 471), sloping up to the face of Wall GH. It should be noted that these layers also sloped up to the face of Wall GG (Locus 450), and that as they approached the southern baulk, they rose again. In other words, Locus 450 seems to have been a space between two walls. We thought it might have been a gateway, but did not have the time, men, or equipment to move the top meter of hard soil from the areas south of our exposure. We cannot prove that what we had was a gateway, nor even that we had the remains of a town wall, but the position of the structure on a ridge along the edge of the mound would argue for such a designation. As can be seen on the section (Pl. 49:2), the lowest ashy surface of Locus 33 ran over the top of the wall. Thereafter, the space, apparently a wide, open area, continued to accumulate ashes.

As we said above, we do not know how many of the levels of the Round Building are evidenced here. It can be argued that the lower strata must be contemporary with Level VI. Locus 33, with layers of ash and fill that ran over Wall GH, may date as late as Level II, since the pottery includes types that we would relate to Early Dynastic II as well as I. In the section (Pl. 49:2), a large accumulation of ash seems to have been a pile, similar to those made in the modern village in relatively few weeks from one or two bread ovens.

That the strata above the walls were still Early Dynastic can be shown by the finding of a spouted jar (Type 5a, Pl. 66:15), sunk upside-down, to form a hearth, on a floor almost a meter down in the east end of the surface locus, 29. The condition of the soil and the intervention of late pits made it impossible to relate this floor to any found above Walls GH and GG, but the general slope of the strata clearly indicated that it was formed after the walls were out of use.

Finds from this area were limited to a miniature jar (Uc 37, Pl. 73:19), found near the spouted jar just described, on a floor at the bottom of the surface debris of Locus 29, and a crude clay figurine (Uc 251, Pl. 52:5), from debris that had fallen out of the north baulk between seasons, and an agate bead, Uc 24 (Pl. 55:17).

We also carried out two other exploratory operations on or near the ridge along the western side of the mound (Pl. 5). One, Locus 37, in Square I 54, was a 2 x 2 meter pit that was located on the northern extension of the ridge thought to be the Town Wall. The soil here proved to be extremely hard and yielded almost no information and the pit was halted at 80 centimeters depth.

Virtually the same result was derived from a larger pit, Locus 12, put in on a knoll southwest of the main excavation in Square O 63. This operation resulted in the finding of an ash level, and a mixed sample of sherds, including some of Isin-Larsa types as well as Early Dynastic ones. We halted the digging at 80 centimeters' depth, intending to expand and deepen the pit, but were never able to return to it.

FOOTNOTES:

- 1 See, e.g. H. Frankfort, *Stratified Seals from the Diyala Region*, Oriental Institute Publications 72 (Chicago: University of Chicago Press, 1955), No. 471.
- 2 For the published material from Nippur, see D.E. McCown and Richard C. Haines, *Nippur I*, Oriental Institute Publications 78 (Chicago: University of Chicago Press, 1967); D.E. McCown, Richard C. Haines and R.D. Biggs, *Nippur II*, Oriental Institute Publications 97 (Chicago: Oriental Institute, 1978); more recent excavations relating to the Akkadian period are reported in M. Gibson, 'Umm el-Jr, A Town in Akkad', *Journal of Near Eastern Studies* 31 (1972), pp. 237-94; and M. Gibson, *Excavations at Nippur, Eleventh Season*, Oriental Institute Communications 22 (Chicago: University of Chicago Press, 1975), especially the section on Area WA 50c.
- 3 In the following pages, parallels will be given in terms of the system in P. Delougaz, *Pottery from the Diyala Region*, Oriental Institute Publications 63 (Chicago: University of Chicago Press, 1952), e.g., Delougaz C.466.450.
- 4 In, e.g., R.McC. Adams, *Land Behind Baghdad* (Chicago and London: University of Chicago Press, 1965), p. 128 and Fig. 12; M. Gibson, *The City and Area of Kish* (Coconut Grove: Field Research Projects, 1972), pp. 162-63 and Fig. 34.
- 5 In Delougaz, *Pottery*, a jar of this type is listed as having been found in Temple Oval I (Early Dynastic II) at Khafajah. Examination of a photograph of the jar in P. Delougaz, *The Temple Oval at Khafajah*, Oriental Institute Publications 53 (Chicago: University of Chicago Press, 1940), p. 32, Fig. 26, shows this vessel to have a different rim than the later example.
- 6 See Louis Vanden Berghe, 'Le Luristan de l'Age du Bronze', *Archaeologia* 63 (1973), pp. 24-36, esp. figures on pp. 31 and 34.
- 7 E. Mackay, *A Sumerian Palace and the 'A' Cemetery at Kish, Mesopotamia*, Part II. Field Museum of Natural History, Anthropology Memoirs I (2) (Chicago: Field Museum, 1929), Pl. LII, Figs. 13, 15, 17. Hereafter, this work will be referred to as *AM 1 (2)*.
- 8 *AM 1 (2)*, Pl. XLIV, Fig. 11, Nos. 2242 E, Q; see also Pl. LIV, Figs. 29-32, misunderstood and turned upside down.
- 9 See P.R.S. Moorey, *Kish Excavations 1923-1933* (Oxford: Clarendon, 1978), pp. 65-89, for fullest statement on the dating.
- 10 *AM 1 (2)*, by category of object, not by grave group. See Moorey, *Kish Excavations*, Fiche 1 for check list. See also B. Hrouda and K. Karstens, 'Zur inneren Chronologie des Friedhofes 'A' in Ingharra/Chursagkalama bei Kish', *Zeitschrift für Assyriologie* 58 (1967), Pl. 5. where the two spouted supports are upside down.
- 11 Moorey, *Kish Excavations*, Fiche 1.
- 12 See *AM 1 (2)*, Pl. LIV, Figs. 29-30, upside down; Pl. XLIV, Fig. 11, Kish 2242 Q, 2242 E, from Burial 87. For Burial 106, Kish 2391 H and K, unpublished. In this and following notes, items in Burial 106 are taken from field notes in the Field Museum.
- 13 Kish 2242 R = FM. 157463 or 156229 from Burial 87. Kish 2391 P, S from Burial 106. See *AM 1 (2)*, Pl. LIV, Fig. 5.
- 14 Kish 2242 C = FM. 156261. See *AM 1 (2)*, Pls. LIV, Fig. 28; XLIV, Fig. 11 from Burial 87. Burial 106 may not have had one of these bowls.
- 15 Kish 2242 D = FM. 156283?, *AM 1 (2)*, Pls. XLIV, Fig. 11; LIV, Fig. 38 from Burial 87. Burial 106 had Kish 2391 U.
- 16 Kish 2242 H, *AM 1 (2)*, Pl. LIV, Fig. 34, from Burial 87. From Burial 106 came Kish 2391 T = Ash. 1925.341.
- 17 Kish 2242 A from Burial 87, discarded in field. Burial 106 had Kish 2391 M, apparently also discarded.
- 18 Kish 2242 G, apparently discarded in the field.

- 19 See P. Delougaz, H.D. Hill and Seton Lloyd, *Private Houses and Graves in the Diyala Region*, Oriental Institute Publications 88 (Chicago: University of Chicago Press, 1967), pp. 129 ff., Graves 159-168. The seal in question, No. 377 from Grave 162 (see H. Frankfort, *Stratified Seals from the Diyala Region*, Oriental Institute Publications 72 [Chicago: University of Chicago Press, 1955], Pl. 36) is clearly Akkadian.
- 20 Cylinder Seal No. 505 from the Northern Palace is certainly Akkadian. Sealings found in houses Va at Tell Asmar, e.g., As.32:1313 (Delougaz, Hill and Lloyd, *Private Houses*, p. 212) are not only Akkadian, but are of a type that would be termed 'classic' that is, Naram Sin or later. A cuneiform tablet (MAD 1, No. 182) found in houses contemporary with the main level of the Northern Palace is not only Akkadian, but has the upright wedge of the $\check{y}u$ sign with its head up. This would indicate a dating late in the Akkadian, rather than early, according to I.J. Gelb.
- 21 The most important dating evidence is an unpublished seal impression, As.32:1045, from the Earlier Northern Palace. This sealing, a battle of gods, is Akkadian. In Houses Vb at Tell Asmar, a seal impression, As.32:1204, is also without question Akkadian. A perusal of the inscribed finds from the last version of the Temple Oval at Khafajah, Delougaz, *The Temple Oval*, pp. 146 ff., shows that not only were two inscriptions of Rimush found in Oval III, but there was also one of Naram Sin and at least one other mentioning Agade. The pottery found in Oval III, and in the associated level, Houses 1, has types we have been discussing as parallels for our burial groups.
- 22 The problem of diagnostic pottery types for the Akkadian period was first presented in Gibson, *The City and Area of Kish*, pp. 48-50. A general restatement of the problem for all periods was Gibson, 'Coins as a Tool in Archaeological Surface Survey', in D.K. Kouymjian, ed., *Near Eastern Numismatics, Iconography, Epigraphy, and History: Studies in Honor of George C. Miles* (Beirut: American University of Beirut, 1974), pp. 9-14. R.L. Zettler, 'On the Chronological Range of Neo-Babylonian and Achaemenid Seals', *Journal of Near Eastern Studies* 38 (1979), pp. 257-70, deals with one specific example of the continuation of older style into a new historical era. It should be noted that R. Killick and M. Roaf, 'Excavations at Tell Madhhur', *Sumer* 35 (1979), p. 540, discuss an equid burial with similar pottery to ours, and give first an Early Dynastic III date, then an Early Dynastic III or early Akkadian date on the basis of similar pottery from Tell Sabra and Tell Abga. We examined the Madhhur burial pottery and, at the time, expressed an opinion that it was early Akkadian because although it was somewhat similar to Early Dynastic III types it was also similar to late Akkadian pottery. We had not yet found our equid burial.
- 23 There was one sherd, Pl. 85:5, found in disturbed context, that had a beveled, ledge rim, but also had some remnants of black painted decoration, perhaps cross-hatching, on the neck. This sherd, placed among the Early Dynastic Scarlet Ware, was different from the rest of that material. A somewhat similar vessel, from Iran, has painted decoration on its neck; see W. Nagel, *Djamdat Nasr-Kulturen und Früh-dynastische Buntkeramiker*, Berliner Beiträge zur Vor- und Frühgeschichte, 8 (Berlin: Hessling, 1964), Tf. 29:2. Delougaz, *Pottery*, p. 72, discusses a very unusual Scarlet Ware vessel in the British Museum, that is fairly similar to our vessel in shape. Some design elements (pinnate motif, cross-hatched triangles forming hour-glass), and a ridge at the shoulder carination relate it to another Scarlet Ware vessel with an upright handle. These two vessels were different from the rest of the Diyala Scarlet Ware, and Delougaz dated them both to Early Dynastic II. He would place the British Museum example at the end of that phase. His feeling that Scarlet Ware might continue must surely be corroborated in our example, with its late-looking upright handle. The triangular rim on our specimen does not appear in our other painted pottery, nor in the Diyala. The rim type is similar to band rims on jars (Pls 98:2, 99:2) from the Razuk graves we have called early Akkadian, and from stratified context at Tepe al-Atiqeh. Whether or not we can date this jar to early Akkadian, or should view it as an Early Dynastic III survival, must be left open to question.
- 24 See McCown and Haines, *Nippur I*, Pl. 87, No. 4, and other examples of Type 19B.
- 25 Richard N. Frye, ed., *Sasanian Remains from Qasr-i Abu Nasr: Seals, Sealings, and Coins* (Cambridge:

Harvard University, 1973), p. 21, Fig. 22. See also Prudence O. Harper, *The Royal Hunter, Art of the Sasanian Empire* (New York: The Asia Society, 1978), p. 93, No. 33 A, a bowl of the same type. We have, thus far, found no exact parallel for the glass bottle (Uc 16). We found a rim fragment from a similar jar (Uc 120) in surface debris at Tell Ahmed al-Mughir.

Chapter IV

THE CHIPPED-STONE INDUSTRY OF TELL RAZUK¹*Ingolf Thuesen*

In general, very little is known about chipped-stone industries of historical periods in Mesopotamia and the Near East. The absence of evidence could be misinterpreted as the result of an almost total domination by a tool industry made of metal. However, one should be careful in drawing conclusions from negative evidence. Tell Razuk has contributed information concerning this problem.

During the nine months of excavation at Razuk, 336 pieces of chipped stone were collected from the tell. That number allows us to make a preliminary quantitative interpretation about the relative importance of this industry, while it gives a picture of the qualitative dimension. Surface sampling prior to the excavation indicated the presence of a chipped-stone industry, but the concentration was less than one item per 100 square meters. During the excavation the pickmen were instructed to collect all 'flints',² 'nice' or not. Of course some selection might occur as soon as the attention of the supervisor was diverted. Undoubtedly, we lost some flints when tools heavier than the small pick were used to remove fill at high speed. However, the total assemblage, especially the relatively high representation of *débitage*, indicates a reasonable reliability.

The flints were brought to the camp with the sherds and separated according to loci, floor, etc. Some were entered in the object catalogue. With permission of Dr. Moayyad Damirchi, the uncatalogued flints were later taken to Copenhagen for closer examination and drawing. In agreement with the Iraqi authorities all items will be returned to the Baghdad Museum when the study has been finished. For this reason, prior to export, the entire group of unregistered flints was entered in the catalogue under the number Uc 247. In this report, each flint is referred to by its lot number, but should be understood to be a part of Uc 247.

Typology

The basis for this typological study is a technical approach. The various stages of production from the unworked flint nodule to the artifact are reconstructed primarily on the basis of the waste products. Therefore terms like sickle blades, scrapers, knives, etc., are

avoided. A functional typology will first be suggested in the interpretative part of this paper, after the technological typology has been examined distributionally, horizontally and vertically. The importance of collecting *débitage* (wasters) should be underlined, as it gives a good deal of information about the technical dimension of the industry.

1. Cores

Flint is available locally. It can be collected from the surface of the gravel plain or from the alluvial sediments containing pebbles, which are reached when a well or pit is dug. The fact that the pebbles have been washed down from the mountains and are not from one geological deposit explains the wide variation in the quality of the flint. The most common flint is gray in color, fading toward brown, pink/rose, green or black. Only a few pieces are translucent. Striation of a lighter color and black inclusions are common.

No blade cores were found in well-dated context on the tell. A dubious fragment of a blade core in a mixed sherd lot (Pl. 57:3), has the negative bulb of percussion on one side, cortex on the other. The core was apparently a piece of tabular flint. However, the shape of the blades (see Group 3) shows that the core was pyramidal or bullet-shaped with one striking platform (Pl. 56:8-9). A number of fragments of nodules have the scars from irregular chipping. In most cases it is impossible to distinguish between thick flakes and core fragments.

2. Plain flakes

This group includes all flakes which do not show any sign of chipping or retouch except for the marks caused by being chipped from the core. The most common feature is a plain striking platform. Plain flakes do not constitute a functional tool group, but are *débitage* from preparing the core. The relative representation of transversal/longitudinal flakes with or without cortex can be found in Table 1.

	Transversal (%)	Longitudinal (%)	Total
+ cortex	36 (23.3)	51 (33.1)	87
- cortex	31 (20.1)	36 (23.3)	67
Total	67 (43.4)	87 (56.4)	154

Table 1. Plain flakes.

3a-d. Plain blades (Pls. 56-57)

These groups are comprised of all blades according to the traditional definition: length more than twice the width, parallel edges, and triangular or trapezoidal cross section; it also includes blade fragments. Six pieces, which fulfill the requirements but have cortex along one of the sides, have also been placed here. Twenty-eight plain blades represent a group, 3a. In 61 percent of this group, the length is between seven and eight centimeters and never more than nine centimeters (Fig. 1). Normally the distal end is curved and the striking platform plain. This suggest a kind of pyramidal core (Pl. 56:4-9).

Twenty-four blade fragments can be grouped as follows: seven are the proximal ends of blades (Group 3b); 14 the distal ends (Group 3d); and the remaining 3 the central parts of the blade (Group 3c). Although it is a waste or unfinished product these groups will here be considered as diagnostic for the industry. In order to obtain segments for hafting into sickles, the knapper tried to produce a blade fragment without the irregularities that occur at the ends of the blade. Figure 1 shows that except for three apparently atypical examples, the fragments are 2 to 4 centimeters long. In contrast to the more useful parts of the blade, which often have truncated ends, the end fragments have hinge fracture, a sign that these are non-functional groups.

For a standard blade, 7 to 8 centimeters long, a 2 to 4 centimeter fragment at the end would leave 4 to 5 centimeters for the sickle segment. That is in agreement with the observed length for final sickle segments (see Groups 5 and 6). With a standard end fragment 3 centimeters long (Fig. 1), a double chipping (of both ends) would be impossible. The relative representation of end fragments, with a majority of distal end fragments, also gives some information about the preferred procedure in the production. In a blade industry, where the curving distal end was a much bigger irregularity than the bulb of percussion at the proximal end, the distal end was removed to produce as straight a segment as possible.

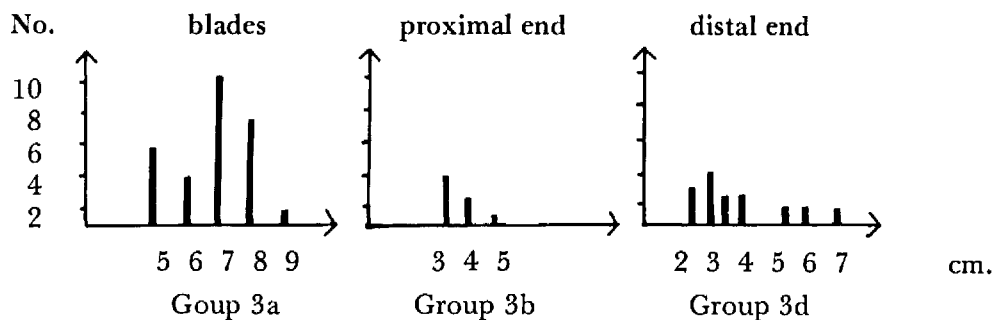


Fig. 1. Length of blades and blade fragments.

4a. Retouched flakes (Pl. 57)

This group is represented by only six pieces (Fig. 2a). The flake is intentionally retouched for functional reasons (Pls. 60:9, 57:1-2). In one instance the flake has a notch in combination with an end-scraper at the distal end (Pl. 57:1). None of the specimens has sheen along the edges.

4b. Retouched blades (Pl. 58)

This group has a much higher representation, being 41 in number. The retouch is deliberately made at the edge of the blade in a regular way. Sometimes, it appears as a fine nibble retouch. The variation in length is considerable, and we are probably dealing with a group of functional complexity. Excluding fragments, the length varies from 2.5 to 9 centimeters (Fig. 2 and Pl. 58). Fifteen have sheen along one side, and of these, six still have visible remains of bitumen from hafting. One piece has remains of bitumen, but no sheen along the edge (Pl. 58:6).

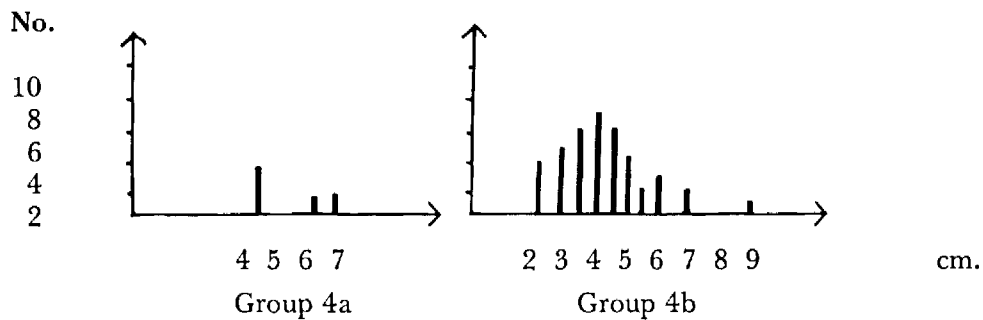


Fig. 2. Length of retouched flakes and blades.

5a. Flakes with serrated edge (Pl. 59:10)

This type is distinctive for its serrated edge, produced by an irregular retouch on the upper face of the flake along one or both sides. Only three items belong to this group (Fig. 3). All of them have sheen along one edge (Pl. 59:10).

5b. Blades with serrated edge (Pl. 59:1-9, 11-13).

The characteristics given for Group 5a hold for this group except that the serrated edge is applied to a blade. Fifty-one pieces were counted, of which 48 have sheen from use. Thirty-four of these still have visible remains of bitumen from hafting. Ten were turned and reused after a new edge had been made (Pl. 59:4, 7, 12, 13). Two of the three pieces without sheen are complete blades with an irregular retouch, in one case (Pl. 59:2) with bifacial alternating retouch. Whether or not this last blade implies a different functional group cannot be determined as yet. A backed blade with serrated edge is placed in this group, although it is unique. It comes from a questionable context (Pl. 59:1).

Group 5 is clearly a functional group. The most preferred length seems to be between 3 and 5 centimeters (Fig. 3).

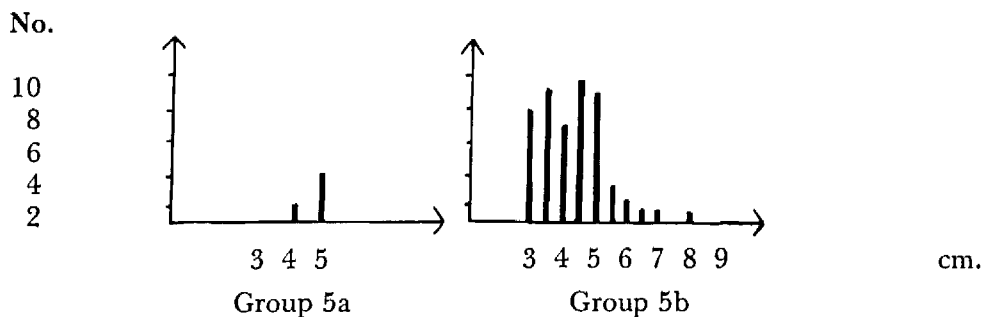


Fig. 3. Length of serrated flakes and blades.

6. Denticulated blades (Pl. 60:1-8)

This group is represented by 23 blade fragments characterized by a regular denticulation created with a unifacial flaking on the upper face along one or both sides of the blade. Five blades have double denticulated edges (e.g., Pl. 60:1), one blade has one side denticulated,

the other serrated, therefore a combination of this group with Group 5b (Pl. 60:6). Finally, two examples have one side denticulated and one side retouched (Group 4b, Pl. 59:14). All but one have sheen on the edges, and 14 still have visible remains of bitumen from hafting (Pl. 51:11). In general there seems to be a tendency to a longer tool-type compared to the other groups. The denticulated blade has normally a length between 3 and 5.5 centimeters (Fig. 4).

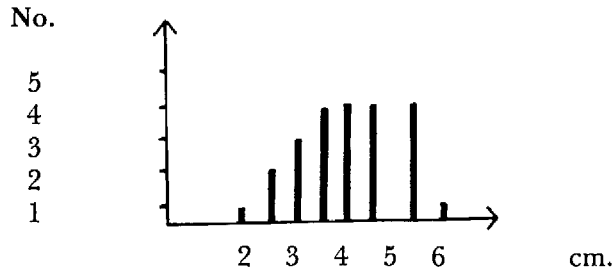


Fig. 4. Length of denticulated blades. Group 6.

Considering the regularity of the denticulation, an attempt has been made to find the average number of teeth per 50 millimeters of edge, a standard blade length. The two variables, length of denticulated edge in millimeters and number of teeth, have been plotted into a coordinate system (Fig. 5). Except for two points (O's in Fig. 5),³ the rest of the data obviously cluster in an oval field, indicating a distribution around a line. A straight line, $y = a + bx$, has been fitted to the data, except for the two points, using length as independent variable. The least square method has been applied. This leads us to a slope, $b = 12.0$ teeth/50 millimeters, and coefficient of correlation, $R = 0.82$. The straight line has an offset, $a = -0.51$

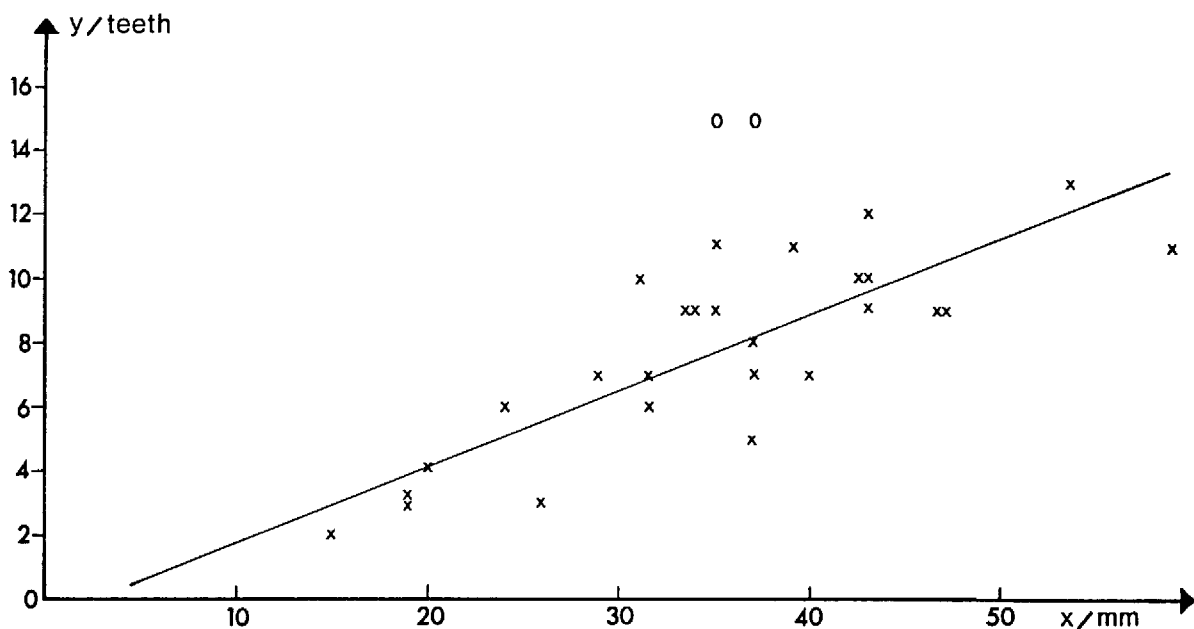


Fig. 5. Group 6 tools. Length/number of teeth relation, and fitted line $y = -0.51 + 0.24x$. [O: points not used in calculations].

teeth, which should be compared to a number around 12 teeth. This result would support a hypothesis that roughly the number of teeth is directly proportional to the length. Considering this distribution one can calculate the standard deviation and find $b = 12.0 \pm 2.7$ teeth/50 millimeters.

A Preliminary Technical and Functional Interpretation

After this specific analysis of the chipped stones and their attributes, we can make a preliminary assessment of some characteristic trends in the industry. The technical procedure is schematically outlined in Fig. 6, beginning with the flint nodule (core) and ending up with

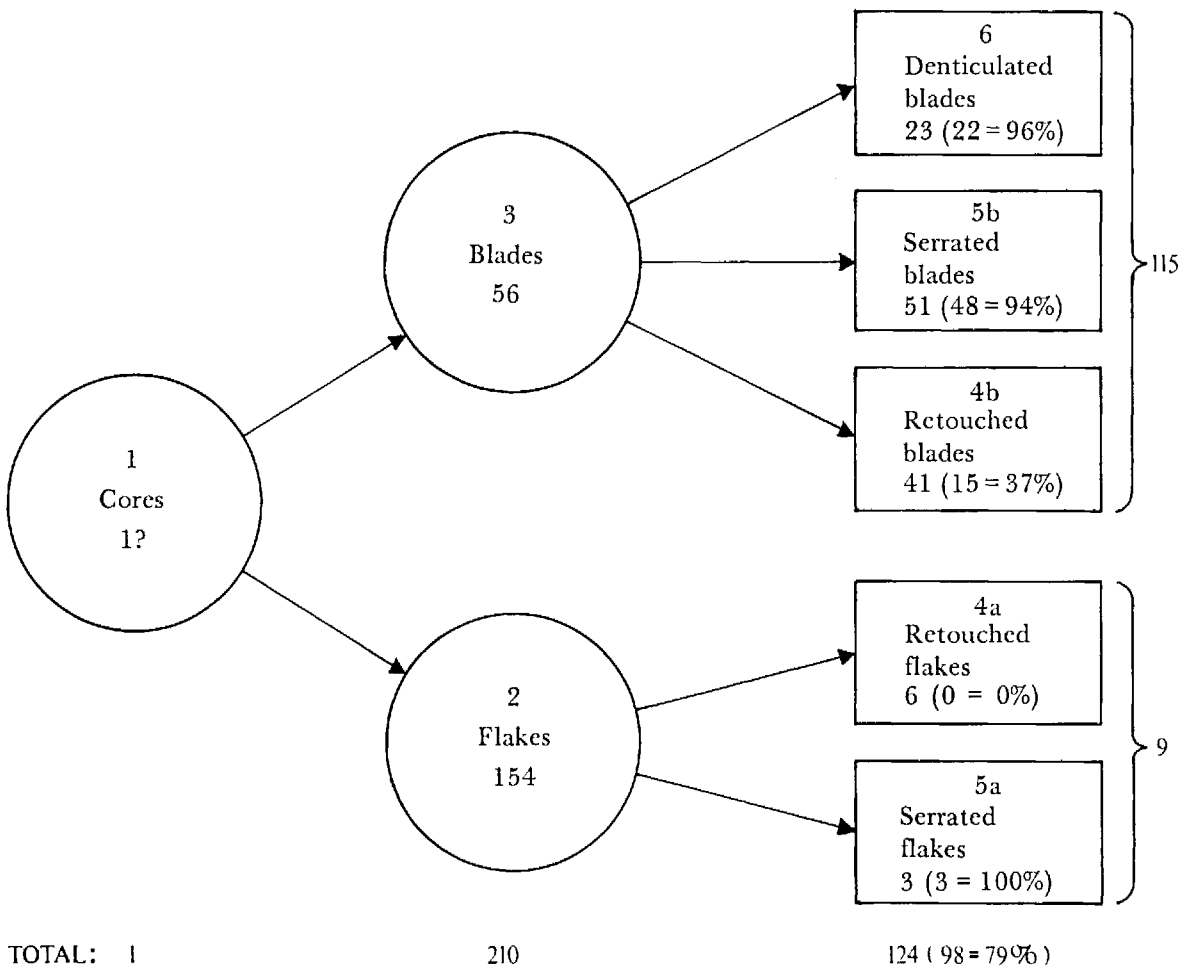


Fig. 6. Schematic outline of technical procedure. In circle: débitage groups. In rectangle: tool groups. In parentheses: absolute and relative representation of sheen.

groups of functional significance. The latter can be named ‘tools’, because their attributes are applied for functional reasons. Two processes in the manufacturing of tools are obvious: first the production of blades/flakes, and next the alteration of those into tools, applying some sort of retouch or secondary chipping. The absence of cores in the debris of the tell calls for an explanation. An obvious solution might be the sampling strategy that concentrated on the Round Building, resulting in a situation whereby we simply did not find the flint workshop;

but the relative high percentage of *débitage* (210 pieces equalling 63 percent of the total assemblage) seems to indicate that production took place in the excavated rooms. Before further theories are set up, the distribution of the *débitage* should be taken into consideration (see below).

Of a total of 163 flakes, only 9 pieces (= 6 percent) are tools. For blades the corresponding numbers are 115 tools of 171 blades (= 67 percent). Clearly we are dealing with a blade industry.

Another interesting observation is the relative representation of sheen (Fig. 6), which traditionally and also here is a characteristic of sickle blades. Only in Groups 4a and b, the retouched flakes and blades, is the appearance of sheen relatively rare. This observation supports the previously made assumption, that the groups represent tools of various function. Only contextual observations might give us hints for a more detailed interpretation. For a total of 124 tools 98 have sheen (= 79 percent). The Razuk industry was primarily intended for sickle blades.

Some traits that can be observed on the sickle blades indicate that the shape of the sickle was only slightly curving. The sheen, extending one or two millimeters from the edge of the blades, runs parallel to the edge, not at an angle. Also, the ends of the blades are almost at right angles to the longitudinal axis. Sickles were apparently similar to better-preserved Akkadian examples found at Tepe al-Atiqeh (to be illustrated in a forthcoming publication).⁴

Vertical and horizontal distribution

The distribution of the various types vertically in the six levels of the tell appears in Table 2.⁵ The relatively high number for Levels IV, V and VI, compared to Levels II and III, could be interpreted erroneously as the result of a decreasing flint industry. However, if the relative amount of flints from the levels is compared with the corresponding numbers for the pottery (Table 2, right column, and Table 26), we find that the two independent groups of artifacts show the same decrease through time, even with almost identical percentages. The explanation for this development should not be sought within an Early Dynastic cultural frame. The variations are the result of the relatively small quantity of undisturbed fill that has been excavated in connection with architectural structures in Levels II and III.

Considering the small number of flints found in the various levels and sometimes limited to one or two items (Table 2), it would be illusory to do any extensive statistical analyses on the material. The waste products, Groups 2 and 3, represent 70 percent, 58 percent, 61 percent, 68 percent, and 63 percent of the total amount of chipped flints from Levels II through VI respectively. These apparently stable percentages tend to show that a production of artifacts from flint occurred at all times during the life of the Early Dynastic settlement. The most numerous groups, 3, 4, and 5, are represented in all five levels. The absence of Groups 3 and 6 in Level II might be accidental.

For the horizontal distribution of the flints in the five occupational levels, the same limitations reduce our possibilities for any conclusive statements. In general the different groups

TABLE 2

Group Level	1	2	3a	3b	3c	3d	4a	4b	5a	5b	6	T	T(-I)	%	Pottery %
I	1	49	8	2	-	5	1	16	2	17	10	111			
II	-	7 (2)	-	-	-	-	-	1	-	2	-	10	10	4	3
III	-	6	1	-	-	-	2	1	-	-	2	12	12	5	10
IV	-	22	1	1	1	-	2	6	-	6	2	41	41	18	14
V	-	52 (5)	14 (3)	2	2	8 (1)	1	12 (1)	1	16 (1)	6	114	114	51	47
VI	-	18 (4)	8 (2)	2	-	1	-	5 (1)	-	10 (2)	4	48	48	21	21
T	1	154	32	7	3	14	6	41	3	51	24	336			
T(-I)		105	24	5	3	9	5	25	1	34	14		225	99	
%		47	11	2	1	4	2	11	0.4	15	6			99	

TABLE 3

Group location Level	2		3		4a		4b		5a		5b		6		T		T
	in	out	in	out	in	out	in	out	in	out	in	out	in	out	in	out	
IV	13	9	2	1	-	2	5	1	-	-	4	2	1	1	25	16	41
VA	9	9	3	8	-	-	2	2	-	1	4	2	-	1	18	23	41
VB	4	30	7	8	-	1	3	5	-	-	5	5	1	4	20	53	73
VI A	4	5	5	-	-	-	2	-	-	-	3	3	1	1	15	9	24
VI B	8	1	5	1	-	-	3	-	-	-	2	2	2	-	20	4	24
T	38	54	22	18	-	3	15	8	-	1	18	14	5	7	98	105	203

occurred here and there in all rooms or open areas. In Table 3 the number of flints found inside and outside the Round Building in Levels IV to VI are shown. The very small number of items from Level VI found outside the Round Building is due to the fact that only a very limited area was excavated. For the other levels it is remarkable to find that in Level V B the number of flints found outside the Round Building is more than twice as large as the number of flints found inside. Of the 53 pieces from the outside, the majority (43) came from Square O 59, Loci 23, 34 and 49. Of the 43 pieces, those of Groups 2 and 3 amount to 32. This concentration might indicate that this was one of the areas where flint chipping took place. Another noticeable variation seems to occur in the distribution of the Groups 5b and 6 in Level V. Although Group 5b occurs both inside and outside the Round Building in this level, Group 6 was found almost exclusively outside and particularly in Loci 34 and 49. This clustering in the most reliable level calls for an explanation. At least two possible solutions come to mind. First, the variation might be explained functionally, in that the Groups 5 and 6 were intended for reaping different kinds of cereals. A test of this hypothesis would involve a knowledge of the various species of grain that were exploited. A Group 6 sickle blade might have been more suitable for certain species with a tougher stem. The second explanation has its roots in the technical dimension. It is assumed and also obvious that any extensive use of a Group 6 sickle would result in wear along the edge, appearing as a sheen or as a secondary retouch. This retouch might have transformed the denticulated edge into an irregular edge, or what is here called a serrated edge, Group 5. Both explanations should be tested experimentally, as well as connected with a closer examination of the retouch patterns of the edges. Although we have not had the possibility so far of doing those experiments or observations, for us the latter of the two explanations is the more attractive. If we accept the first explanation, we would have to explain why reaping of specific species was restricted to the house in Square O 59. The most reasonable reconstruction of the situation would imply that all reaping activities were done by the inhabitants of the houses outside the Round Building. Therefore, it is in the houses that we find the qualitatively best sickle blades, Group 6, while the worn-out pieces are scattered in the debris of the mound without any pattern or association with specific loci.

Parallels and chronology

Traditional research strategies for historical periods have not tended to produce information on flint industries. There are good reasons for this situation, since flint artifacts might not contribute directly to a reconstruction of a more attractive, wider geographical or historical picture. Most older reports show flint tools in a way that allows us only to conclude that the type was present at the site in a given period. Normally there is no absolute count of tools and *débitage*, since only the tools, and of those again only the best examples, were collected. For the Diyala sites, Khafajah and Tell Asmar, the flint implements have not been published so far, although they are mentioned in the catalogue of objects from the Private Houses. Apparently the types represented include sickle blades set in bitumen, cores and arrowheads.⁶ However, the very fragmentary sequence of chipped stone tools in the Diyala does not allow any parallel dating between the sites.

Further south there are flint tools reported from Kish,⁷ but all flints from the entire Early Dynastic sequence were treated as one group and there was no attempt to divide this period. Therefore, Kish cannot be used in dating. However, it is remarkable that at Kish there was a more complex inventory including a large number of borers from so-called virgin soil, and in the Early Dynastic levels there were also arrowheads, celts, discs, knives, axes, scrapers and core tools.⁸

Among recent reports dealing with flint tools, is one on a small site excavated in the southern part of Iraq not far from Uruk.⁹ The illustrated denticulated blades, which represent 25 pieces varying in length from 1.5 centimeters to 3.5 centimeters, have from 11.1 to 13.1 teeth/5 centimeters, which is in the Razuk range.

From the ED III period at Abu Salabikh we know a flint industry, which in tradition relates to the Razuk industry. The sickle blades are between 2 and 5.6 centimeters in length and have 4 to 5 teeth per 2 centimeter edge (= 10-12 teeth/5 cm.).¹⁰

In general the lack of published or recorded material prevents us from any cross-dating or further development of a typological sequence. The dating must rely on other artifact groups, for Razuk, primarily the pottery. It might be too optimistic to believe that shape or attributes of sickle blades alone would allow any finer chronological or geographical distinctions. The number of possible variations seems to be too restricted. However, the few sites mentioned above illustrate that in Early Dynastic period there is a variation, apparently, in the composition of tool groups. Some sites seem to have a more complex inventory of flint tools than others.

Conclusion

The 225 pieces of chipped flint from definitely Early Dynastic levels at Tell Razuk have shown that during the entire occupation an industry existed. This industry was primarily intended for production of blades, which were altered into sickle blades. In addition, there also occurred a relatively small number of tools of some other functional significance. Flint tools for hunting or warfare have not been found, nor heavier tools for chopping, e.g., axes, celts, etc.

The distribution of the various types seems to indicate that flint-working was located outside the Round Building, especially in Loci 23, 34 and 49. For the same reason, we have deduced that reaping activities were connected with the people living in the houses. The archaeological methods and traditions up till now have limited the possibilities for any serious attempt to place the Razuk types in a wider context, geographically or chronologically. It is hoped that this situation might change in the future.

Obsidian

A single fragment of an obsidian core came from Level IV, Locus 8, Floor 2 (Pl. 51:9). The core seems originally to have been used to produce microblades, but was later notched on both edges at the distal end.

FOOTNOTES:

- 1 During my work on this report I have had the benefit of discussing and receiving suggestions from Peder Mortensen, Aarhus, and Linda Braidwood, The Oriental Institute, Chicago, to both of whom I am grateful. For the section involving statistical methods I have received help from Jakob Bohr, Copenhagen.
- 2 Through the report the term 'flint' will be used uncritically, although some of the items actually might more appropriately be termed chert. The lack of any suitable definition of the two terms is the primary reason for this decision.
- 3 Both pieces were found in mixed fill and cannot, therefore, be exclusively dated to the Early Dynastic settlement.
- 4 See the sickles found in a wooden box in the Temple Oval at Khafajah in an ED II context, P. Delougaz, *The Temple Oval at Khafajah*, Fig. 27.
- 5 The numbers following in parentheses in Table 2, indicates that the respective number of the total count is found in a context that might belong to more than one level. However, they are Early Dynastic and are placed in the level where they probably belong, but still they might be moved one level up or down.
- 6 P. Delougaz, H.D. Hill, and S. Lloyd, *Private Houses and Graves*. Going through the catalogue of objects, it appears that most of the flint artifacts came from levels that are associated with the Early Dynastic III period, or even later. Considering the nature of the catalogue, this may not mean that there were no flint tools in the earlier levels. The following field numbers represent the flint types found: Kh.III 414 (core); Kh.III 1189-90 (blade); Kh.IX 32 (arrowhead); As.33:192 (blade in bitumen); As.31:133 e-f (arrowhead); As.34:230 (core).
- 7 L.-Ch. Watelin 'Notes sur l'Industrie lithique de Kish (Iraq)', *L'Anthropologie* 39 (1929), pp. 65-76. A.H. Fuller, *The Stone Implements of Kish, Iraq*, American Documentation Institute Microfilm, No. 4469, pp. 96-116. Photoduplication Service, Library of Congress (1935).
- 8 Fuller, *op.cit.*
- 9 H.T. Wright, *The Administration of Rural Production in an Early Mesopotamian Town*, Anthropological Papers, Museum of Anthropology, University of Michigan, No. 38 (Ann Arbor, 1969).
- 10 J. Crawford Payne, 'An Early Dynastic III Flint Industry from Abu Salabikh', *Iraq* 42 (1980), pp.105-119.

Chapter V

EARLY DYNASTIC POTTERY FROM TELL RAZUK

*Ingolf Thuesen*Introduction¹

During the excavation of Tell Razuk, approximately 56,000 sherds were found. The sherds were collected in bags, separated by provenience, e.g., sherds from a floor or the fill above it, from a pit, from the surface and the upper fill of a square. In camp, the sherds were washed, sorted, and counted. After we had handled the first forty lots of sherds, we became convinced that time would not allow an in-depth analysis of all sherds, and even had there been enough time, the utility of an analysis of body sherds seemed questionable given the disturbed nature of many contexts. We decided to count and then discard undecorated body sherds, while giving full attention to rims, shoulders, bases, spouts, and body sherds with a particular feature or decoration that might contribute to a classification. After counting and recording these diagnostic sherds (about 9,000 in all) on descriptive sheets, the sherds were drawn.²

In this study, only sherd lots from undisturbed contexts are used to create a primary description and typological classification. In a later section, there are some examples which, although they cannot be dated by provenience, can be assigned on the basis of types to the range of the Early Dynastic with which we are concerned.

Early Dynastic Pottery from Good Contexts

The description of the pottery falls into three sections, each considered to have theoretically distinct characteristics: technical, functional and decorative. These distinctions should not be understood to be rigidly separated, since a technical trait such as the use of coarse-ware clay may also have a functional dimension. In our case, the use of coarse-ware clay is restricted almost entirely to the two functional groups included under the term, 'larger vessels'. But, on a primary level of understanding the ceramic tradition, it seems useful to make this rather simplistic division. The technical traits are closely connected to the production of the vessels, and our description will include the different wares, any surface treatment that is not purely decorative, and some observations on the procedure in manufacturing. Functional

traits are derived from the different shapes of the vessels and consequently this section will set up the basic typology for the inventory. Finally the various kinds of decorative traits are described; these are thought to indicate variations in aesthetic concept rather than in function for the producer/user of the vessels.

The description of the observed characteristics is followed by an analysis of the appearance of the various groups in horizontal and vertical contexts. The horizontal distribution might give some hints as to the function of the various rooms or areas, and the vertical distribution might give some developments in time. Then, the pottery will be compared to contemporary material in a geographically wider context, in order to establish a chronology for the respective strata in Tell Razuk.

Technical Traits

Clay sources

When the villagers today, or rather the women of the village, make clay vessels, they take the clay from a source situated right at the southern side of the village. The clay is located directly under the surface of the plain at this point, so its extraction for pottery, and more usually for bricks and mud-plaster, has left only a shallow though wide pit in the area. The clay has a reddish brown color, but changes to a greenish white after firing. In preparing the clay, dung and salt [NaCl] are mixed in, to produce a porous ware. Apparently the only major use of clay vessels in the village is for water containers, half-meter high V-shaped vessels that are set in stands of wood, so that the water can penetrate the walls and evaporate over a large surface and thereby cool the water inside the vessel. The other household vessels are store-bought plastic and metal. The handmade pots, coiled, are fired in a pile of dung put into a pit in the ground and covered with mud. The dung is set on fire and left for two days to smoulder. The covering of mud is then broken, and the pit allowed to cool for more than a day.

In the excavation, where we reached virgin soil, we encountered a layer of silty clay. Under Locus 479, outside the main entrance to the Round Building there was a deposit of green clay, which the workmen used to shape into figurines. After drying in the sun, the clay became gray. The reddish color of natural clay is normally explained by the presence of iron in a high state of oxidation.³ Therefore it should not be surprising to find the clay-source that is close to the surface (village) reddish, while the source situated under 4 to 5 meters of deposit has a gray color.

Although we cannot say where the ancient clay came from, there is no reason to doubt that it was easily available close to the site.

Ware

Ware was determined by the texture and color of the biscuit of the sherd observed on a fresh break. Only visual characteristics are described, as we did not have any possibility for more sophisticated observations in the field. There are five groups of wares; four of fine or medium texture are distinguished according to the color of the clay, and one according to

the texture. For the four color-based groups there do not seem to be any obvious observable variations in texture. An on-going project at the Risø Laboratories in Denmark,⁴ applying neutron activation analyses to the respective groups of wares, may clarify the nature of these variations in color, primarily by noting differences in the elemental composition of the groups. A preliminary result seems to indicate that all four groups are identical in composition, which would imply that the observed variation in color is not to be accounted for by the use of different clay sources. Immediately, one suspects that the firing technique was responsible for the color of the biscuit; however the analyses are only beginning, and any conclusions must remain hypothetical at present.

The general characteristics of the wares are as follows:

- Buff Ware: Munsell 7.5YR 6/6 to 7/6 for most examples. The clay seems to be well mixed, tempered with black mineral grit (volcanic lava?) and finely chopped straw. It is normally well fired, giving the biscuit a homogeneous color, although gray cores occur.
- Pink Ware: Munsell 2.5YR 6/8 to 5YR 6/6. Except for color, technical characteristics are the same as for the buff ware.
- Green Ware: Munsell 10YR 8/4 and 2.5YR 8/4. Texture like buff ware. Always fired to a homogeneously-colored core.
- Gray Ware: Munsell 10YR 5/1 and 7.5YR 5/10. The texture is like that of the wares above. Sometimes the core is black. Probably fired under a reduced oxygen atmosphere.
- Coarse Ware: Color is normally buff or pink. The tempering is much heavier than for the other wares, consisting of larger grits and straw fragments. A dark core is a usual trait.

In sorting the pottery, we could not use Munsell charts on every sherd due to lack of time. We therefore set up groupings of sherds that we considered to be 'buff', or 'pink', 'green', or 'gray'. Checking these groups, we found that the majority of each fell within a restricted range of Munsell values as given above. There were, of course, sherds that were close to two groups, e.g. buff and pink. In these cases, the sherds would be included with the more numerous group, in most cases as buff.

'Green' ware could have been called 'greenish buff' or 'yellowish green' or even 'cream'.

As shown in Table 4, the buff ware is by far the most common, making up more than 50 percent of the studied sample. Pink ware comprises about 30 percent, green ware 5 percent, gray ware 1 percent, and coarse ware 4 percent.

Manufacturing

Most of the vessels were shaped on a fast wheel. Exceptions are the large vessels made of coarse ware (Type 12) and simple cooking pots (Type 9). The latter apparently were produced by coiling. Bowls with a relatively small base were removed from the wheel by string-cutting. For other base-types another procedure was carried out. Ring bases, like plastic

decorations, ridges, and spouts were shaped independently and attached to the vessel before surface treatment.

Surface Treatment

In about 20 percent of the studied examples the surface of the vessel was coated with a light slip, often cream-colored. Wet-smoothing also occurred, but in many cases it has been impossible to distinguish between a real slip and a wet-smoothing. Therefore, any surface treatment is here placed in one category called slip. Slip was normally only applied to buff or pink ware vessels. There could be several reasons for coating a vessel with slip, for instance to give a smoother surface; but it is certainly also a basic element in giving the pot a decorative value (see reserved slip, below).

Functional Traits

The shape of the vessel is hypothesized here to have a primarily functional explanation. However, this hypothesis is hard to test. In addition to noting contents found in vessels and making experiments in which vessels would be tried for different functions, an attempt at a functional exploration requires the investigation of distribution of types in contexts that can be assigned functions on some other basis. As far as possible, these problems will be discussed in a following section.

The study of the pottery from good contexts, about 3,300 pieces, has resulted in the following typological classification. The material, except for a few complete profiles, consists of fragments of rims, body sherds and bases. Even though bases may vary significantly, and body sherds may have decoration or ware that can be used to differentiate them, the most distinctive feature, with the greatest variation, is the rim. We have, therefore, used the rim-shape as the primary criterion of classification. We are aware of the inherent disadvantage, that a rim might belong to more than one shape of vessel, but have chosen to rely on rims rather than the few whole profiles in order to derive as much information as possible from the material. In cases where there is some doubt as to which shape may have been involved with a specific rim, we have noted this under the description of the type.

The typology contains fifteen groups, of which eleven are defined according to rim shape, two according to the size of the vessel, one according to its distinctive fabric, and a final group composed of characteristic body sherds which cannot be associated with one specific rim type. In cases where we know from complete profiles that more than one vessel shape is associated with one rim, we have broken the type into subtypes. If, within a type, there is a significant variation in a rim, we have also subdivided the type. In the sherd count, these variations will be subsumed within the general type number.

Type 1. Plain-Rimmed Bowls.

Bowls with plain rims can be grouped into three subtypes, a, b, and c.

1a: Open V-shaped profile with tendency to flaring rim (Pls. 61, 62:1-10). This is by far the most abundant variation, representing 93 percent of the examined Type 1 sherds. The shape is characterized by a straight side. The rim diameter has a range from 8 to 26 centimeters, but the standard falls between 12 and 16 centimeters (Table 5a). The base is flat and

has a diameter ranging from 3 to 6 centimeters with a standard of 4 to 5 centimeters. The bowls are wheel-made and have string-cut bases. Buff, pink and green ware are all represented, and in 14 percent of the cases there is a slip. In one example, the slip is restricted to the inside of the bowl.

1b: Bowl with an incurving profile (Pl. 62:11-21). This is a well represented group (Table 5b). The rim diameters range from 8 to 22 centimeters, and a size between 12 and 18 centimeters seems to have been preferred. In the only case of a complete profile (Pl. 62:11) the bowl has a plain base, not string-cut. The bowls are wheel-made and the same wares are represented as for the 1a variation, including the use of slip.

1c: Bowls (?) with almost vertical side. This subtype includes both closed and open shapes (Pl. 63:1-4). The lack of any complete profile and the very small number of observed examples (Table 5c) makes it difficult to say anything conclusive about the shape of the vessel; theoretically some of the sherds might belong to a stand or a drain (Type 13). The reason for placing them with the bowls is their diameter, 12 to 14 centimeters, typical for bowls. The vessel is wheel-made, and buff and pink ware are represented, as is one instance of slip (Table 5c).

Type 2. Bowls with Flat Rims

Bowls with flat rims (Pl. 63:5-11) are represented by 18 pieces. There is a tendency to a thickened rim. The diameter of the rim ranges from 8 to 16 centimeters, but 10 to 12 centimeters is most usual. The profile is straight or incurving with a base diameter from 5 to 6 centimeters. The bowl is wheel-made and has a string-cut base. There is a predominance of green ware in the inventory (Table 4). Examples of buff and pink with a slip also occur.

Type 3. Carinated Bowls

Bowls with a carinated profile (Pl. 63:12-15). This is a rare type, with only four examples. The rim is flaring and plain with a diameter ranging from 8 to 16 centimeters. The carination is situated 4 to 6 centimeters below the top of the rim. The base is flat and known from one piece, where it is 4 centimeters in diameter. The bowls are wheel-made and the base is string-cut. Buff and pink ware are represented as well as slip (Table 4).

Type 4. Miscellaneous Bowls.

Miscellaneous bowls, each subtype represented by one or two sherds (Pl. 63:16-21, Table 4), have been grouped together.

4a: Bowl with incurving profile and flaring rim, wheel-made (Pl. 63:16).

4b: Bowl with incurving profile and inner bevelled rim, wheel-made (Pl. 63:17).

4c: Large bowls (?) with incurving profile and thickened, flat rim (Pl. 63:18-19). This subtype is represented by three fragments. The rim diameter ranges from 26 to 44 centimeters. Buff and pink ware and slip occur. Wheel-made.

4d: Wide bowl with inturned rim (Pl. 63:20).

4e: Wide bowl with plain rim and rounded base (Pl. 63:21).

Type 5. Jar with Plain Rim

This type (Pls. 64-67, 68:1-14) is, relatively, the best represented of all jar rims (Table 4). The few cases of a complete profile suggest that a number of shapes are represented, which will be described here as variations.

5a: Jar with a plain flaring rim, and ovoid body (Pls. 64-66, 67:1-7). The diameters of the rim range from 8 to 24 centimeters with a standard from 10 to 18 centimeters. The upper part of the body can have a spout. Both ring bases and plain bases occur, with a diameter from 8 to 14 centimeters. The jars are wheel-made, and buff, pink and green wares are represented. Slip has been applied to about 25 percent of the jars (Table 6a).

5b: Jar with a plain flaring rim and ovoid body with a ridge on the shoulder. This subtype can be isolated only in cases where a large fragment of the profile is present. Therefore we have only three examples. The rim diameter varies from 12 to 16 centimeters. The shoulder of the jar might have a spout attached to it (Pl. 67:8-9). Both buff and pink ware are represented and also slip. The jars are wheel-made.

5c: Jar with plain, vertical rim and ovoid body (Pls. 67:10-14, 68:1-14). The rim diameters range from 8 to 20 centimeters with a standard of 10 to 14 centimeters. The body may have a spout attached in the upper part, close to the rim. The only extant base is plain (Pl. 67:10). The jars are wheel-made, representing buff, pink and green ware; in about 25 percent of the studied fragments the vessel has been coated with a slip (Table 6b).

Type 6. Larger Jar with Band Rim

This type appears in two variations.

6a: Jar with flaring band rim (Pls. 68:15-17, 69:1-22). The rim diameters range from 10 to 22 centimeters with a standard from 10 to 16 centimeters (Table 7a). The body is ovoid with a ridge at the junction of the shoulder and body. Spouts occur on the shoulder close to the neck. The jars are wheel-made, and they appear in buff, pink and green ware. About 35 percent of the observed examples have a slip.

6b: Jar with a flaring band rim, offset on the inside for a lid (Pl. 70:1-11). The rim diameters range from 10 to 18 centimeters with a majority between 12 and 16 centimeters (Table 7b). The shape of the body and the base cannot be reconstructed, although it is thought to be like the 6a jar. This jar is wheel-made. Buff, pink and green wares are all represented. Approximately 42 percent of the jars, a relatively high proportion, have been coated with a slip.

Type 7. Jar with Overhanging Bevelled Rim

The few profiles (Pls. 70:12-22, 71:1-10) suggest some variation in the shape of the jar, which leads us to create three subtypes. However, the majority of the sherds do not allow us to place them under any of the three subtypes. The general characteristics are as follows: rim diameters range from 8 to 22 centimeters with a standard between 10 and 14 centimeters, and there is a ring base.

7a: Jar with carinated shoulder, wheel-made. Buff, pink and green wares are probably all represented. It is in this group that gray ware occurs. The gray ware vessels seem to be

rather small with a rim diameter from 8 to 12 centimeters, a base diameter from 6 to 12 centimeters and a ring base (Pl. 70:12).

7b: Jar with a ridge on the shoulder/body junction. The type is the most popular form for Scarlet Ware decoration, which however also occurs in connection with variations *7a* and *7c*.

7c: Jar with ridge on shoulder/body junction and an upright handle. Represented by one profile including the rim, one profile without a rim and a single isolated handle with paint (Pls. 84:1, 85:1-2).

For this type's relative representation and rim diameters, see Table 8.

Type 8. Jar with Club Rim

The type is known from a number of sherds (Pls. 71:11-22, 72:1-10), but unfortunately no complete profiles. The rim diameters range from 10 to 20 centimeters with a standard from 12 to 16 centimeters. The body and the base cannot so far be reconstructed. All the jars are wheel-made. Buff, pink and green wares are represented and in about 19 percent of the examined sherds, a slip occurs (Table 9).

Type 9. Hand-made Cooking Pots

This type, a rather crude hand-made jar (Pl. 72:13-18), is distinctive for its technical characteristics. Relatively few pieces of this type have been found, and they are here represented in one group, despite the fact that they have different rim shapes. The type has been divided into three subtypes, each characterized by its rim.

9a: Plain vertical rim. One complete profile and five sherds are represented (Pl. 72:13-16). The diameters range from 10 to 16 centimeters. Four of the five examples are of coarse buff ware, while the last is of finer buff ware.

9b: Short, flaring rim represented by one fragment of coarse ware (Pl. 72:17).

9c: Hole-mouth jar represented by one fragment of coarse ware (Pl. 72:18).

Type 10. Hole-mouth Jar

This is a relatively minor group of vessels (Pl. 72:19-21) with only seven observed examples. The rim diameters range from 6 to 8 centimeters. The body is rounded with a more or less marked carination. In the upper part near the rim may occur holes for suspension (Pl. 72:19 and 21). The base appears to have been round. The jars are wheel-made, and buff and pink wares are represented.

Type 11. Small and Miniature Vessels

The group (Pls. 73, 74:1-8) is defined as vessels with a rim diameter usually 6 centimeters or less and a height less than 12 centimeters.⁵ The group includes almost all shapes thus far discussed, but in miniature. Here the different shapes will be represented as subgroups. The number of vessels is small, but complete profiles are common.

11a: Miniature bowls and small cups (Pl. 73:1-7). Five have been found, of which two were made by cutting off the upper part of a standard bowl (Type 1a, Pl. 61). The profiles

vary from incurving (Pl. 73:2-3) through straight (Pl. 73:4-7) to flaring (Pl. 73:1). One cup has two holes for suspension near the rim (Pl. 73:7). The vessels appear to be wheel-made and the ware is buff.

11b: Small jars with plain upright or flaring rim (Pl. 73:8-19). A total of 11 pieces have been found, showing variations in shape from a traditionally proportioned jar (Pl. 73:12) to a more squat jar (Pl. 73:8). The jars are wheel-made and both buff and pink ware occur with or without a slip.

11c: Small jar with band rim (Pl. 73:20). A whole jar and a rim fragment form this subgroup. The jar has a carinated profile and a spout on the shoulder. The base is plain. The examples are wheel-made in buff and pink ware, respectively.

11d: Small jar with overhanging bevelled rim (Pl. 74:1-4). Eight pieces are known from Early Dynastic context, of which three are complete. The jar has a rounded or carinated profile, and in one case there is a triangular, upright lug handle on the shoulder (Pl. 74:1). There is a plain or ring base. The jars are wheel-made and both buff and pink ware are represented, as well as slip.

11e: Round bottomed jar/bottle (Pl. 74:5-6). Two whole vessels of this type have been found. Both have overhanging, bevelled rims and ovoid bodies. Both jars are wheel-made, and of buff and green ware, respectively. The rim fragment (Pl. 74:4) given with subtype 11d may have come from a jar of this group.

11f: Small flask with two handles at neck (Pl. 74:8). The only example is fragmentary. The flask was closed with bitumen.

11g. Double-spouted suspension jar (Pl. 74:7). The example is unique at Razuk. It is wheel-made and the ware is buff.

Type 12. Large Vessels

This type includes a number of shapes (Pls. 74:9-10; 75; 76:1-9), although the majority belong to Type 12a, a large storage jar. The group is characterized by an unusually large rim diameter (in the range from 30 to 60 centimeters), by thick walls, and the ware, which is always coarse. The different shapes are the basis for a subdivision of the Type into five subgroups.

12a: Storage jars or vats (Pls. 74:9-10; 75:1-12). The rim, ranging from 30 to 60 centimeters, is normally a club-rim that is flattened on the top. On the body, just below the rim, is normally a ridge with finger impressions. The two complete profiles show a bag-shaped vessel with its maximum diameter at the lower part of the jar (Pl. 74:9-10). The vessel has a ring base with a diameter that can range from 18 to 28 centimeters. The vessels apparently were made by coiling and were always of coarse ware.

12b: Large upright jar with plain incurving rim (Pl. 75:13-14). Only two examples and only the upper part of the jar were found. The technical traits appear to be the same as for Subtype 12a.

12c: Large jar with plain out-turned rim (Pl. 76:1-5). Represented by five fragments, the jars seem to have plastic decoration on the body and a ring base. The jars were probably produced by coiling, and all were of coarse ware.

12d: Low tray/trough (Pl. 76:6-8). The three known examples show a wide range in rim diameter, from 10 to 40 centimeters, but seem to form a group of similar vessels. The side is low and thick and the bottom flat. The vessels are hand-made in coarse ware.

12e: A single fragment makes up this subgroup (Pl. 76:9). Probably we are dealing with a large open bowl, of which unfortunately only the upper part is known. There is the possibility that the fragment belongs to a bowl from a fruitstand (Type 13a), but fruitstands are not usually made of coarse ware, as far as can be ascertained.

Type 13. Stands

Since we do not have any complete profiles, all stands (Pls. 76:10-16; 77; 78; 79:1-4) are described here under one main type. We realize that the inventory represents various shapes, which could be classified as individual types. Our treatment of the stands as subtypes is based on obvious variations in the rim, which are also observable in the pottery from the Diyala sites. Special caution should be given to the subgroups 13d-f, because the orientation of the sherd could not always be determined precisely. The general characteristics for the stands include a large rim diameter, more than 25 centimeters, and some distinct decorative traits (see below). For the proportional representation of wares, see Table 10.

13a: Rim fragments of bowls belonging to the 'fruitstand' (Pl. 76:10-14). The rim is plain and the profile normally incurving. The diameters range from 26 to 54 centimeters. The shape of the body and the base cannot be exactly reconstructed. The vessels are wheel-made, and both buff and pink wares are represented, as well as slip. One or two ridges may be applied to the outside of the bowl a few centimeters below the rim.

13b: Rim fragments of bowls from 'fruitstands'. The rim is bevelled in the three observed examples (Pl. 76:15-16). The rim diameters range from 24 to 32 centimeters. The profile of the bowl is incurving, the body and the base of the vessels cannot exactly be reconstructed. They are wheel-made and both buff and pink wares are represented, as well as slip. Up to three ridges occur below the rim.

13c: Rim fragment of a bowl with a carinated profile from a 'fruitstand' (Pl. 77:1). Only one fragment was found. Very little can be said about the vessel, except about its technical traits. It is wheel-made and of pink ware.

13d: Fragments of rims or bases of stands with overhanging bevelled rim and straight to outcurving profile (Pl. 77:2-7). The rim diameters range from 24 to 34 centimeters. The shape of the vessel cannot exactly be reconstructed. In the side of the vessel there might occur a hole, or a ridge may be applied below the rim. The vessels are wheel-made and the ware is buff or pink with slip. There is one example of coarse ware (Pl. 77:4).

13e: Rim fragment of a stand or a drain (Pl. 77:8-9). The rim is plain and the profile is slightly incurving. Only one piece has been found in an Early Dynastic context. The fragment is wheel-made and the ware is buff. Several holes pierce the body.

13f: Cylindrical stand with incised and excised decoration (Pl. 77:10; 78; 79:1-3). The one extant rim diameter is 20 centimeters (Pl. 79:2). The body appears to be cylindrical with a tendency to an outcurving rim. A definite distinction between rim and base would be difficult, since one can rely only on an understanding of the decoration. The stands are

wheel-made. Both buff and pink ware occur, as well as slip. Ridges on the body are a usual trait.

13g: Low conical stand (Pl. 79:4). One fragment.

Type 14. Lids

The three examples show very different shapes. One is spherical with a flat, thickened rim (Pl. 79:7), another is flat with a pinched handle on the top (Pl. 79:5), and a third is conical with a pinched lug (Pl. 79:6).

Type 15. Attributes Characteristic of Early Dynastic

This is a collection of characteristic body sherds or attributes, which, though not as yet assignable to specific types above, are definitely diagnostic for the Early Dynastic range at Razuk. In our pottery counts, we recorded the occurrence of these items as a separate type. Thus, spouts that may have come from a Type 5 or Type 6 jar, but could no longer be assigned to the correct category, would still be counted here. The same is true of ridges, which could not be assigned to types by rims.

15a: Ridges on jars (Pl. 80:1-14). This group can be split into two parts, i) ridge at the juncture of shoulder and body, which can be plain or finger-impressed or rope-decorated (Pl. 80:3-14) and ii) ridge on the shoulder, near the neck, apparently in combination with a ridge at the juncture of the body and shoulder (Pl. 80:1-2). This variation has been observed already in Type 7b jars. Details on color for Type 15a can be seen in Table 4.

15b: Spouts. A spout (Pl. 81:1-7) is a relatively common attribute of Types 6 and 7 jars. A measurement of length and width of the spouts has given the result shown in Figs. 7 and 8.

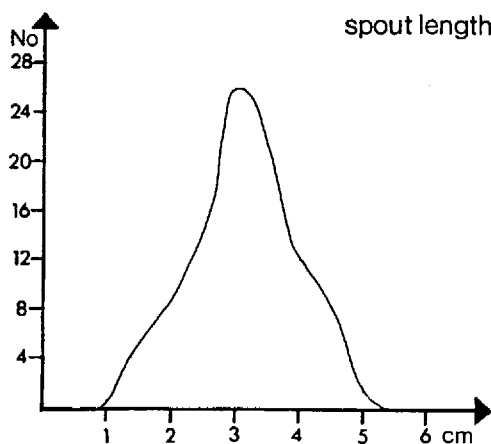


Fig. 7

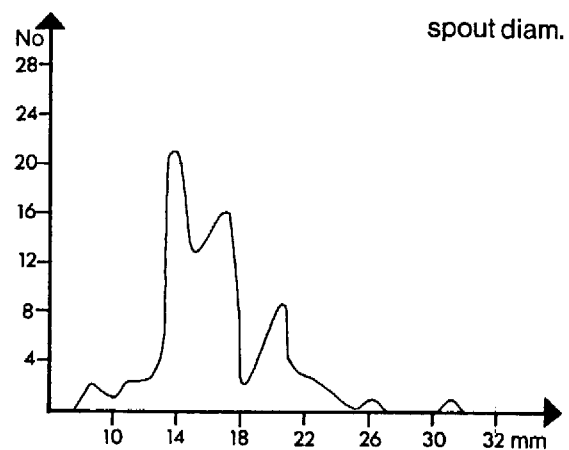


Fig. 8

For the length there is a striking grouping around 3 centimeters with a range from 1.5 to 5 centimeters. For the width there is more variation; the curve has more peaks, of which one around 1.4 centimeters and another around 2 centimeters seem to form the most important groups. The spouts are all straight and were made separately; they were attached to a protrusion made by pushing a hole through from the inside of the vessel. The representation of wares appears in Table 4.

15c: Handles. Besides the upright handle that is associated with Type 7c, three other handle types occur. The most common type is a rather large rope handle, which unfortunately has not been found on a whole vessel or a rim sherd. It appears to have been made by twisting together a number of clay coils. The diameter ranges from 3.5 to 4 centimeters. The handle ends in a tab, which was pushed through the wall of the vessel and fixed with clay (Pl. 81:10-12). Buff, pink and green wares are represented. A variation of this handle was made with a single roll of clay (Pl. 81:8). Finally there is a single example of a squarish lug handle with perforation, placed on a shoulder of a smaller jar (?), just above the carination (Pl. 81:9).

15d: Bases are represented in Tables 11a-c, giving their occurrence according to type, ware, and diameter. String-cut bases are always connected with bowls of Types 1a, 2 and 3. Plain bases are associated with bowls of Type 1b, and jars of Types 5a, 5c, and 9. Ring bases (e.g., Pl. 80:16) occur on jars of Types 5a, 5b, 7, 11d, 12a, and 12c. Round bottoms are a feature of Types 10 and 11e. One unique sherd (Pl. 80:15) may have been from a bottle.

Ware	TYPE																		TOTAL	%
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a	15b	15c	15d		
Buff	135	4	2	2	174	83	41	47	1	3	15	-	20	-	87	34	6	269	923	42.5
with slip	34	3	-	2	61	66	35	11	-	-	3	-	10	-	46	12	1	24	308	14.1
Pink	97	-	-	3	91	32	21	34	-	3	3	-	6	-	36	24	3	209	562	25.9
with slip	14	1	2	-	33	16	8	8	-	-	1	-	1	-	9	4	-	7	104	4.8
Green	24	7	-	-	23	23	2	1	-	-	1	-	-	1	13	4	1	22	122	5.6
Gray	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	14	21	1.0
Coarse	-	-	-	-	-	-	-	-	6	-	-	61	1	-	-	-	-	8	76	3.5
?	17	3	-	-	8	8	3	2	-	-	6	-	4	2	-	-	1	-	54	2.5
TOTAL	321	18	4	7	390	228	117	103	7	6	29	61	42	3	191	78	12	553	2170	99.9
%	14.8	0.8	0.2	0.3	18.0	10.5	5.4	4.7	0.3	0.3	1.3	2.8	1.9	0.1	8.8	3.6	0.6	25.5	99.9	

TABLE 4. Total count of sherds by type and ware.

Note: Percentages in this and subsequent tables may total more or less than 100 due to 'rounding off...'

DIAM (cm.)	WARE						TOTAL	%
	Buff	slip	Pink	slip	Green	?		
8	1	-	-	-	-	-	1	0.3
10	7	-	4	-	1	-	12	4.0
12	25	4	17	2	4	7	59	19.8
14	52	14	35	4	6	2	113	37.9
16	22	5	16	3	9	3	58	19.5
18	11	2	3	1	1	2	20	6.7
20	2	-	4	1	-	1	8	2.7
22	1	2	4	1	-	-	8	2.7
?	5	2	10	1	1	-	19	6.4
TOTAL	126	29	93	13	22	15	298	100.0
%	42.3	9.7	31.2	4.4	7.4	5.0	100.0	

TABLE 5a. Number of sherds of bowls, Subtype 1a.

	Buff	slip	Pink	slip	Green	?	TOTAL	%
8	-	1	-	-	-	-	1	5.6
10	-	1	-	-	1	-	2	11.1
12	1	-	1	1	-	1	4	22.2
14	1	1	-	-	1	1	4	22.2
16	1	-	-	-	-	-	1	5.6
18	2	1	1	-	-	-	4	22.2
20	1	-	-	-	-	-	1	5.6
22	-	-	1	-	-	-	1	5.6
TOTAL	6	4	3	1	2	2	18	100.1
%	33.3	22.2	16.7	5.6	11.1	11.1	100.0	

TABLE 5b. Number of sherds of bowls, Subtype 1b.

	Buff	slip	Pink	slip	Green	?	TOTAL	%
12	-	1	-	-	-	-	1	20
14	2	-	1	-	-	-	3	60
?	1	-	-	-	-	-	1	20
TOTAL	3	1	1	-	-	-	5	100
%	60	20	20	-	-	-	100	

TABLE 5c. Number of sherds of bowls, Subtype 1c.

TOTAL	135	34	97	14	24	17	321	
%	42.1	10.6	30.2	4.4	7.5	5.3	100.1	

TABLE 5d. Number of sherds of bowls, Type 1 (a+b+c).

DIAM (cm.)	WARE						TOTAL	%
	Buff	slip	Pink	slip	Green	?		
8	12	2	5	3	1	1	24	8.2
10	56	17	28	7	9	2	119	40.8
12	25	9	10	7	9	-	60	20.5
14	11	7	9	5	1	2	35	12.0
16	12	5	8	-	-	1	26	8.9
18	1	2	3	1	-	-	7	2.4
20	6	-	1	-	-	-	7	2.4
22	1	3	1	-	-	-	5	1.7
24	1	1	-	-	-	-	2	0.7
?	4	1	1	-	-	1	7	2.4
TOTAL	129	47	66	23	20	7	292	100.0
%	44.2	16.1	22.6	7.9	6.8	2.4	100.0	

TABLE 6a. Number of sherds of jars, Subtype 5a.

	Buff	slip	Pink	slip	Green	?	TOTAL	%
8	4	-	-	1	-	1	6	6.1
10	23	9	13	6	2	-	53	54.1
12	5	3	6	-	-	-	14	14.3
14	9	2	1	2	-	-	14	14.3
16	3	-	-	-	-	-	3	3.1
18	1	-	1	-	-	-	2	2.0
20	-	-	1	-	-	-	1	1.0
22	-	-	1	-	-	-	1	1.0
?	-	-	2	1	1	-	4	4.1
TOTAL	45	14	25	10	3	1	98	100.0
%	45.9	14.3	25.5	10.2	3.1	1.0	100.0	

TABLE 6b. Number of sherds of jars, Subtype 5c.

TOTAL	174	61	91	33	23	8	390
%	44.6	15.6	23.3	8.5	5.9	2.1	100.0

TABLE 6c. Number of sherds of jars, Subtype 5 (a + c).

DIAM (cm.)	WARE						TOTAL	%
	Buff	slip	Pink	slip	Green	?		
10	13	8	6	3	3	-	33	17.8
12	33	15	8	8	4	4	72	38.9
14	11	10	8	1	4	1	35	18.9
16	3	10	4	1	5	-	23	12.4
18	5	2	1	1	-	-	9	4.9
20	1	1	-	1	1	-	4	2.2
22	-	1	-	-	-	-	1	0.5
?	3	1	1	1	2	-	8	4.3
TOTAL	69	48	28	16	19	5	185	99.9
%	37.3	25.9	15.1	8.6	10.3	2.7	99.9	

TABLE 7a. Number of sherds of jars, Subtype 6a.

	Buff	slip	Pink	slip	Green	?	TOTAL	%
10	1	-	1	-	-	1	3	7.0
12	3	5	-	-	-	2	10	23.3
14	6	4	1	-	2	-	13	30.2
16	3	6	1	-	2	-	12	27.9
18	1	3	1	-	-	-	5	11.6
TOTAL	14	18	4	-	4	3	43	100.0
%	32.6	41.9	9.3	-	9.3	7.0	100.1	

TABLE 7b. Number of sherds of jars, Subtype 6b.

TOTAL	83	66	32	16	23	8	228
%	36.4	28.9	14.0	7.0	10.1	3.5	99.9

TABLE 7c. Number of sherds of jars, Type 6 (a+b).

DIAM (cm.)	WARE												TOTAL	%
	Buff				Pink				Green	Gray	?			
	- Slip		+ Slip		- Slip		+ Slip							
	- Paint	+ Paint	- Paint	+ Paint	- Paint	+ Paint	- Paint	+ Paint						
8	2	1	1	-	1	-	-	-	-	1	-	6	5.1	
10	6	4	4	1	3	1	2	2	-	4	2	29	24.8	
12	5	7	3	3	5	-	2	1	-	2	-	28	23.9	
14	4	7	4	5	3	6	1	-	2	-	1	33	28.2	
16	2	1	6	3	-	-	-	-	-	-	-	12	10.3	
18	2	-	-	-	1	-	-	-	-	-	-	3	2.6	
20	-	-	2	1	-	-	-	-	-	-	-	3	2.6	
22	-	-	2	-	1	-	-	-	-	-	-	3	2.6	
TOTAL	21	20	22	13	14	7	5	3	2	7	3	117	100.1	
%	17.9	17.1	18.8	11.1	12.0	6.0	4.3	2.6	1.7	6.0	2.6	100.1		
TOTAL	41		35		21		8							
%	35.0		29.9		17.9		6.8							

TABLE 8. Number of sherds of jars, Type 7.

DIAM (cm.)	WARE						TOTAL	%
	Buff	slip	Pink	slip	Green	?		
10	-	-	2	-	-	-	2	1.9
12	7	5	10	-	-	2	24	23.3
14	15	3	14	4	-	-	36	35.0
16	20	2	3	1	-	-	26	25.2
18	1	1	2	2	1	-	7	6.8
20	2	-	1	-	-	-	3	2.9
?	2	-	2	1	-	-	5	4.9
TOTAL	47	11	34	8	1	2	103	100.0
%	45.6	10.7	33.0	7.8	1.0	1.9	100.0	

TABLE 9. Number of sherds of jars, Type 8.

TYPE	WARE						TOTAL	%
	Buff	slip	Pink	slip	Coarse	?		
13a	6	5	1	-	-	-	12	28.6
13b	1	1	1	-	-	-	3	7.1
13c	-	-	1	-	-	-	1	2.4
13d	3	2	2	1	1	-	9	21.4
13e	1	-	-	-	-	-	1	2.4
13f	9	2	1	-	-	4	16	38.1
TOTAL	20	10	6	1	1	4	42	100.0
%	47.6	23.8	14.3	2.4	2.4	9.5	100.0	

TABLE 10. Number of sherds of stands, Type 13a-f.

DIAM (cm.)	WARE							TOTAL	%
	Buff	slip	Pink	slip	Green	Gray	Coarse		
2	1	-	-	-	-	-	-	1	0.4
3	2	-	4	-	1	-	-	7	3.0
4	59	7	84	3	2	-	-	155	66.2
5	26	2	25	-	2	-	-	55	23.5
6	8	-	6	-	1	-	-	15	6.4
8	1	-	-	-	-	-	-	1	0.4
TOTAL	97	9	119	3	6	-	-	234	99.9
%	41.5	3.8	50.9	1.3	2.6	-	-	100.1	

TABLE 11a. Number of string-cut bases, Type 15d.

116

DIAM (cm.)	WARE							TOTAL	%
	Buff	slip	Pink	slip	Green	Gray	Coarse		
6	5	1	5	-	-	-	-	11	5.9
8	12	1	10	1	-	-	-	24	12.8
10	12	1	10	-	3	-	-	26	13.8
12	34	-	9	-	-	-	-	43	22.9
14	18	-	3	-	2	-	-	23	12.2
16	12	-	4	-	1	-	-	17	9.0
18	7	-	6	1	-	-	-	14	7.4
20	7	-	5	-	2	-	-	14	7.4
22	4	-	-	-	-	-	2	6	3.2
24	3	-	2	-	-	-	-	5	2.7
26	2	-	1	-	-	-	-	3	1.6
28	-	-	2	-	-	-	-	2	1.1
TOTAL	116	3	57	2	8	-	2	188	100.0
%	61.7	1.6	30.3	1.1	4.3	-	1.1	100.1	

TABLE 11b. Number of plain bases, Type 15d (p).

	Buff	slip	Pink	slip	Green	Gray	Coarse	TOTAL	%
6	1	-	2	-	-	4	-	7	5.3
8	3	1	6	-	-	5	-	15	11.5
10	5	2	8	1	-	2	-	18	13.7
12	10	2	6	-	1	1	1	21	16.0
14	10	2	5	-	3	-	1	21	16.0
16	15	2	2	-	1	1	-	21	16.0
18	6	3	-	-	3	1	2	15	11.5
20	3	-	3	-	-	-	1	7	5.3
22	2	-	1	-	-	-	1	4	3.1
24	1	-	-	1	-	-	-	2	1.5
TOTAL	56	12	33	2	8	14	6	131	99.9
%	42.7	9.2	25.2	1.5	6.1	10.7	4.6	100.0	

TABLE 11c. Number of ring bases, Type 15d (r).

TOTAL	269	24	209	7	22	14	8	553	
%	48.6	4.3	37.8	1.3	4.0	2.5	1.4	99.9	

TABLE 11d. Number of bases, Type 15d.

Decoration

A number of different techniques were used to decorate vessels, including scraping, polishing, adding of ridges, indenting, incising and painting the surface of the vessel. Some of the effects are applied only to a specific type, which makes an identification of the type easier.

Reserved Slip

Reserved slip is produced by scraping the slipped surface of the vessel, creating a streaked design. Only in one instance has this decoration been found in association with a rim, a Type 6a jar (Pl. 69:2). However, body sherds that have been found give more information. Reserved slip occurs on one vessel in association with a rope handle (Pl. 81:12). The design runs in an oblique angle over the shoulder. This orientation of the design is known from one other shoulder/neck fragment. The oblique reserve is unusual compared to the examples with a horizontal design. In all cases the decoration is restricted to the shoulder of a jar (Pl. 82:1-4). It occurs together with a ridge (Pl. 82:3) and also with indentations at the neck (Pl. 82:4).

Burnishing

A cross-burnished design is found only on the gray-ware vessels of Type 7a. The pattern seems to have been applied to the whole surface of the jar (Pl. 82:5-6).

Plastic Decoration

Applying plastic ridges to the vessels is one of the most common decorative traits of the inventory. As already described above ridges occur on the juncture of the shoulder and body of jars (Types 5b, 6a and 7b-c). A horizontal ridge may occur on the shoulder of Type 7 jars. Ridges seem to have both functional and decorative significance, functional in the sense that the ridges might have helped to strengthen some shapes or to support larger vessels, if they were placed in a kind of stand; decorative, because of the application of indentations to the ridges. Indentations on ridges appear in different variations, from a round or oval finger impression in connection with wide ridges on coarse-ware vessels (Pl. 82:8), to a more oblong indentation made by an edged tool in an oblique angle, giving the ridge a resemblance to a rope (Pl. 82:3). Horizontal ridges are common on the stands, Type 13a-d, f, where they are combined with excised and incised decoration.

On coarse-ware vessels (storage jars?) the body occasionally has been decorated with parallel horizontal ridges (Pl. 82:8) or a combination of horizontal indented and wavy plain ridges (Pl. 83:3). There is also a unique body fragment showing a design of straight and curving ridges (Pl. 82:7).

There is one fragment of a face-like decoration, an arched ridge over two bosses, from an Early Dynastic context; another comes from the topsoil of a square (Pl. 83:1-2). Unfortunately we cannot associate this decoration with any vessel type.

Indentation

As described above, ridges are often combined with indentations. However, indentations in various shapes (pointed, fingernail-impressed, and rounded, Pl. 83:4-7) also occur on the shoulder of the Type 5a jar (Pl. 66:1, 9) close to the neck. In one case, fingernail-impressions are placed on the carination of a jar that has no ridge (Pl. 83:5).

Incision

This type of decoration occurs in only a few cases. A fork-like design is incised into the shoulder of a Type 8 jar (Pl. 72:11) and also occurs in a larger version on the shoulder of a jar that had a ridge at the carination (Pl. 83:8). These designs appear to be symbols rather than decorations. Incision is a characteristic decoration of stands of Type 13f. The design, which consists of straight lines arranged in triangles or in a crisscross pattern, covers the areas between the ridges and the excised parts (Pl. 78).

Excision

This decorative trait is limited to stands of Type 13f, where it occurs in combination with incision and plastic decoration. The excision has two variations: triangles arranged in a row (Pl. 77:10) or alternating (Pl. 79:3), and rectangles placed in the central part of the stand (Pl. 77:10). Both variations are usually combined on one stand.

Painting

Painted decoration of Type 7 jars is one of the most characteristic features of the ceramic assemblage. In total, about 435 painted sherds were found in excavated areas, including both good and disturbed contexts. We will describe all the sherds here, but if an essential distinction is based on sherds from a dubious context, it will be noted. A few statistically based observations on the appearance of the variations of shapes within Type 7 might be worth mentioning at this point. The occurrence of upright handles is limited to three examples (Subtype 7c). A similarly sparse subtype is the jar without a ridge at the carination (Subtype 7a). Of 95 shoulder fragments, only five belong to this subtype, while the remaining 90 had a ridge (Subtype 7b).

The painted decoration at Razuk must be categorized as 'Scarlet Ware', since it has very obvious parallels to motifs on jars found in the Diyala. Delougaz has already pointed out the problems of calling this group of pottery 'Scarlet Ware', discussing the variations in color. Although restricted to one jar type at Razuk, scarlet paint was not a necessary feature of the type. There are plain, buff and pink examples as well as gray fabric jars of Type 7.⁶ There is a question as to whether the jars decorated with scarlet paint were used differently than those without. Given the fact that the paint was not fixed and can be rubbed off easily,⁷ the use of jars with painted decoration for liquids would seem ruled out. A study of the horizontal distribution of the sherds may allow some determination of specific activities.

The decoration in all our Scarlet Ware is in red and black paint on a light background, either a slip or the clay body. The red color appears in two variations. The first, a plum red (Munsell 5R 4) is rare, occurring less than five times. The second, red (Munsell 10R 6/6.7; 5R 3/5 and 6/6) is by far the more common.

As with most of the other pottery from Tell Razuk, the painted jars are represented only by fragments. The most complete profile consists of a rim, neck, shoulder and a few centimeters of the upper body (Pl. 84:1). Lacking complete profiles, information that might be derived from the combinations of designs is lost except in a few instances. From the sherds, however, it is possible to obtain some understanding of the placement of designs and combinations of elements on jars.

Designs can be divided roughly into two groups of elements, geometric and naturalistic. The geometric elements will be indicated with a 'G' followed by a number, 1-14, each characterized as follows:

- G 1: Solid red paint covering large areas of the surface of the jar (e.g., Pl. 85:6).
- G 2: Red band, about 1-2 centimeters wide, bordered in most of the examples by black lines (e.g., Pl. 85:1).
- G 3: Chevrons, in alternating black and red (Pl. 85:7).
- G 4: Black parallel lines (e.g., Pl. 85:8-10).
- G 5: Black cross-hatching within
 - a : triangle (Pl. 85:11)
 - b : trapezoid (e.g., Pl. 84:1)
 - c : lozenge (e.g., Pl. 85:12)
 - d : band (Pl. 86:2)
 - e : irregular polygon (Pl. 86:10).
- G 6: Black zig-zag line (Pl. 86:4).
- G 7: Black wavy lines (Pl. 86:5-8).⁸
- G 8: Solid black triangles (Pl. 86:9-10).
- G 9: Solid black alternating triangles on a line (Pl. 87:1-2).
- G 10: Solid black lozenges (Pl. 87:2).
- G 11: Solid black hourglass (Pl. 87:4).
- G 12: Solid black butterfly (Pl. 87:3, 5).
- G 13: Fringed borders (Pl. 87:6-7).
- G 14: Hatched band (Pl. 87:8).

The naturalistic elements are indicated with a 'N' followed by a number, 1-5, characterized as follows:

- N 1: Plants, that appear in two variations:
 - a : in black curving lines (Pl. 88:3-4)
 - b : black pinnate pattern (Pl. 88:5-11).
- N 2: Fish in solid black paint (e.g., Pl. 89:1-2).
- N 3: Birds in solid black paint. Following species are tentatively suggested:
 - a : duck (Pl. 89:3-6)
 - b : stork or heron (Pl. 89:7-9)
 - c : ? (Pl. 90:1-6).

N 4: Quadrupeds. Red body bordered with black lines. Head, tail and legs painted solid black. Some species can be suggested:

- a : goat (Pls. 90:7-9; 92:3)
- b : gazelle (Pl. 90:10)
- c : ass or onager (Pls. 90:11-12; 92:4)
- d : bull (Pl. 90:13-15)
- e : ? (Pl. 91:1-6).

N 5: Human figures (Pls. 91:7-8; 92:2).

As we have no examples of whole jars with painted decoration, the composition of the above-mentioned design elements is best described under the form elements of the jar.

Rim and Neck.

Judging by the fragments we have, the neck of the jar was almost always covered by a solid red paint, G 1, which normally stopped at the rim. It might also cover the rim (Pl. 71:2), or continue down on the inner side of the neck (Pl. 85:4). There are also cases where the paint stops a few millimeters below the rim (Pl. 71:7). An exceptional rim fragment has a black line running just beneath the rim around the neck (Pl. 85:6).

There is one sherd which seems to have a cross-hatched design painted over the red on the neck (Pl. 85:5). The sherd was not found in an Early Dynastic context, but it appears to fit into the painted tradition. Compare this with the extraordinary jar from a late context (Pl. 98:10).

Shoulder

The shoulder of the jar is divided into a number of fields by vertical and horizontal red bands bordered by black lines (G 2). The fields are filled in with geometric design elements, of which cross-hatching is by far the most common, G 5 a-e (e.g., Pl. 86:1). Close to the neck of the jar might occur a narrow band with a zig-zag line, G 6 (Pl. 86:4), a line with alternating triangles, G 9 (Pl. 87:1), or the latter in combination with a row of lozenges, G 10 (Pl. 87:2). Also a row of solid black triangles is seen, G 8, at the neck, combined with cross-hatched irregular figures and a butterfly motif, G 12, enclosed by parallel vertical lines (Pl. 86:10). The butterfly motif also occurs in combination with a cross-hatched band (Pl. 86:2).

Wavy lines, G 7, running vertically down over the shoulder are placed in a panel that stops at the shoulder/body juncture (Pl. 86:5). Chevrons, G 3, in alternating black and red (Pl. 85:7) are also used to fill shoulder panels.

On shoulders, naturalistic motifs are usually restricted to plants of the pinnate variety, N 1b. The element may be placed in its own panel, oriented vertically (Pl. 88:7) or horizontally (Pl. 88:9). It may also fill the areas between cross-hatched lozenges (Pl. 88:5). There is a single example of birds, N 3c, in a similar composition (Pl. 90:5). Finally, fringed borders, G 13, occur on the shoulder (Pl. 87:6).

Upright handles, which were attached to shoulders, may be undecorated (Pls. 84:1; 85:1), or have a combination of butterfly motifs enclosed by parallel lines, with cross-hatched lozenges and triangles (Pl. 85:2).

Shoulder/body juncture

As already mentioned above, the dominant type of shoulder/body juncture is ridged. However, the existence or non-existence of a ridge has not affected the decoration, which always consists of a red band, G 2, covering the ridge or the carination and some millimeters of the body and shoulder (Pl. 86:1). There is one instance of a black line painted on the red band on the ridge (Pl. 85:3).

Body

The body of the jar was apparently covered by painted design, arranged in panels bordered by red bands. The bands seem to run both vertically and horizontally, creating small, horizontal rectangular panels below the shoulder/body juncture. This panel is normally filled by geometric designs, of which the butterfly motif and cross-hatching seem to be preferred (Pl. 84:1). However, there is also an instance of a plant design in such a panel, N 1b (Pl. 90:5). The body of the jar was, apparently, the traditional place for the painter to put all the naturalistic motifs. In general, they appear as scenes with several species involved, reflecting situations in nature, many of which the expedition could still observe in the neighboring marshes to the west of Tell Razuk, especially during the spring. Herons or storks taking off (Pl. 89:8), a duck in a pond (Pl. 89:4), birds on the back of a quadruped (picking bugs?) (Pl. 90:4), asses eating from bushes (Pl. 90:12), a bearded goat with twisted horns (Pls. 90:8; 92:1), and fish (Pl. 89:3-4, 9). All the animals are shown in a setting of reeds (Pl. 90:6) or pinnate plants (Pl. 91:1). It is worth emphasizing the attention to naturalistic details expressed, for instance in the depiction of quadrupeds. The horns are always clearly characterized, twisted or curving (Pl. 90:7-10), and the shape of the tail varies (Pl. 91:2-6), showing that the painter was quite familiar with the different species. There are two sherds showing human beings. The first depicts a fighting scene, with an archer (?) on the right opposed to someone holding a dagger (Pls. 91:7; 92:2). The archer is wearing a triangular skirt. The second example (Pl. 91:8) is less clear, but seems to show the legs of a man (?) wearing a divided kilt and holding a staff (?) in front of him. A divided kilt would not be expected in as early a context as Tell Razuk.

Base

At the base, the body is bordered by a red band (Pl. 91:4), or a black line (Pl. 88:1). There is one example of some painting in black under the bottom of the jar: but the design is too fragmentary to be described (Pl. 88:2).

Horizontal and vertical distribution

All diagnostic sherds from lots that could be assigned to one level have been counted and the result appears in Tables 12 to 27, giving the number of types represented by fragments or whole vessels from Level VI to Level II. Decorative traits are included in the counts, as they also are considered to be diagnostic for the inventory. Painted decorations in the table include all sherds of Scarlet Ware, even rim sherds that could have been counted under Type 7. The reason for removing Scarlet Ware rim sherds from Type 7 and counting them with other Scarlet Ware sherds was to gain a better idea of the significance of this group. Further,

a distinction has been made between loci from the area outside the Round Building and those from inside the Round Building.

To get an idea of a typological development through the Early Dynastic levels at Razuk the tables have first been combined into Table 25, which gives the absolute and relative numbers for the levels with the subdivision of Levels VI and V into upper and lower phases. Sherds from the excavation at the Town Wall area are listed separately, not by levels, since that area has not been stratigraphically connected with the main area as yet. From Table 25 it appears that the relative occurrence of types in sublevels A and B of Level V is so close that they might be combined. For sublevels of Level VI the same situation does not manifest itself. But, the number of sherds from Level VI is so insignificant that it seems more suitable to combine the two sublevels to get a more reliable number for our statistical observations. The final result is given in Table 26. We are now basically dealing with five Early Dynastic levels and the material from the Town Wall area, which is thought to fall within this sequence. The numbers that appear on these tables are transferred directly from the count forms done in the field. The totals for types do not always correspond to the counts of the types by ware groups given in Table 4. The latter was made on the basis of drawings and descriptions of a representative number of sherds from each lot, not the total group.⁹ The overall pattern in the relative representation of the types in all levels shows a high degree of homogeneity in the material, illustrated by cumulative curves in Fig. 9. The variation from the lowest to the uppermost levels is quite insignificant and might in most cases be explained by deviation in count or sampling procedure. But there are certain trends in the material, which we would like to call attention to, since they might be confirmed when placed in a wider geographical-chronological context.

Type 7, the rim shape that always occurs on gray ware vessels and Scarlet Ware, has a tendency to decrease in number from 4 percent of the total amount in Level VI to only 2 percent in Level III. Considering the fact that Scarlet Ware examples of Type 7 rims have not been included under Type 7, it is remarkable to find a similar development for the painted decoration (P = Scarlet Ware), which falls from 10 percent in Level VI to 2 percent in Level II. The tradition of painted decoration was diminishing during the Razuk sequence.

Although relatively slightly represented, the coarse ware vessels, Type 12, tend to increase in number from 1 percent in Level VI to 3 percent in Level IV.

Except for Level III, the pit level, the band-rim jar, Type 6, seems to gain popularity in the later levels, while the other standard jar, Type 5, has a very constant distribution through all levels.

Some of the rarer categories need special attention, as they might reflect a situation of chronological significance. The Type 2 bowl with flat rim first occurs in Level VI A, and the carinated bowl, Type 3, only occurs in Level VI A and V B.

Table 27 gives the distribution of types in the levels at which the Round Building was still in use, VI-IV, separating sherds in the Round Building itself from those found outside it. Again the similarity in the distribution is the dominant trait. The most remarkable variations occur in Type 1 rims with a higher representation outside the Round Building through all levels, a situation that does not correspond to the string-cut base, Type 15d (s), of the same

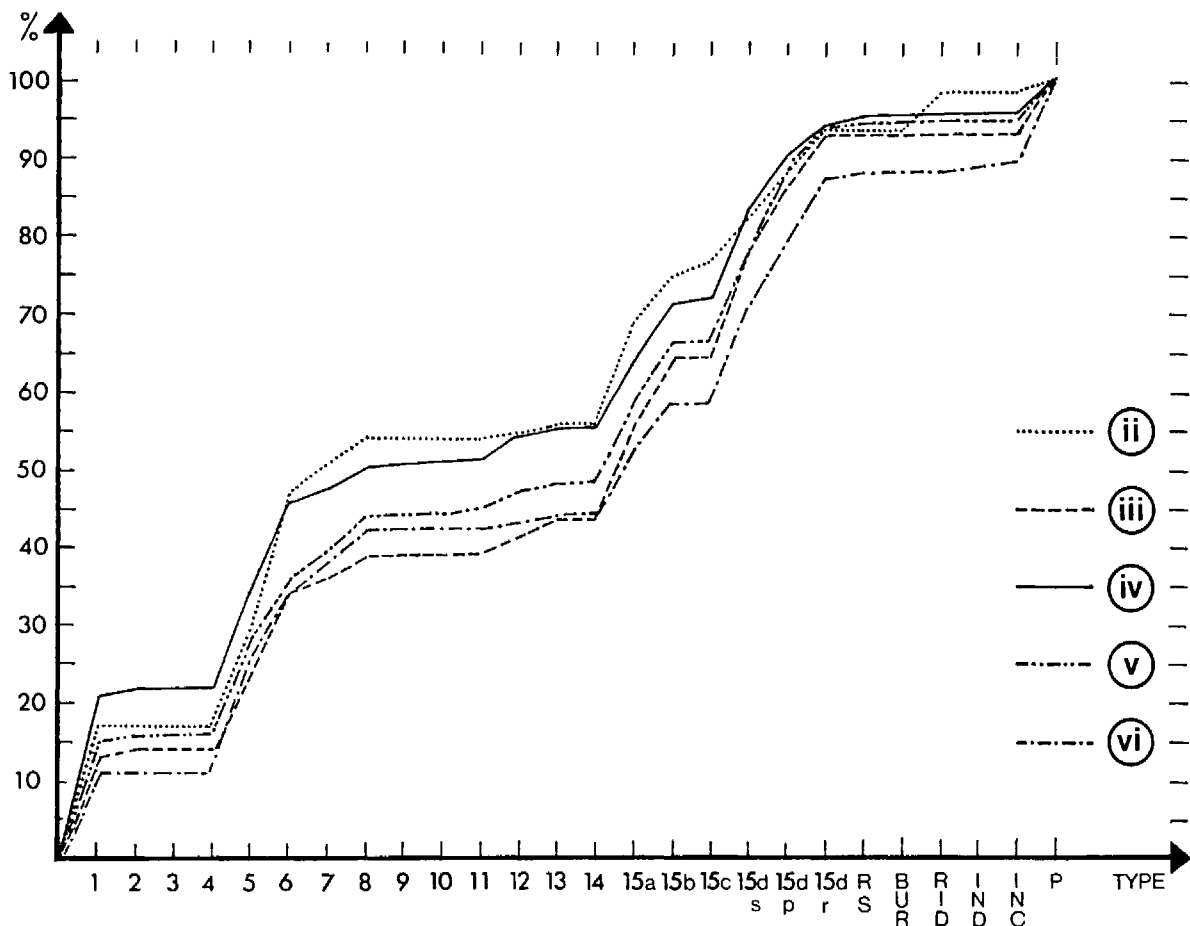


Fig. 9. Cumulative curves showing relative representation of pottery types in Levels II through VI

vessel. In other words, we found more rims of Type 1 bowls outside the Round Building and more bases inside. The carinated bowl, Type 3, seems to be a type that is connected with the Round Building, and the cooking jars, Type 9, on the contrary are associated with the outside areas. Whether or not this variation has a functional explanation should await further contextual considerations. Finally, spouts, Type 15b, seem to occur more abundantly inside the Round Building than outside it.

Sherds with painted decoration were relatively better represented outside the Round Building in Levels IV and V. In Level VI, however, the Round Building produced a relatively higher number. This situation might be due to the fact that only a very small area was actually excavated outside the Round Building in Level VI.

Some loci have a higher concentration of painted sherds than others. They are: Level VI A, Locus 48 (Fls. 1-2), Locus 444 (Fls. 1a-4), Locus 47 (Fls. 7-9); Level V B, Locus 23, Locus 487 (Fls. 2c-3), Locus 455 (Fls. 3c-5), Locus 443 (Fl. 1); Level V A, Locus 487 (Fls. 1-2b), Locus 8 (Fls. 3-4); Level IV, Locus 482; Level III, Locus 73, Locus 483.¹⁰ This preliminary distributional analysis shows only that the Scarlet Ware is not restricted to any particular area, since the loci listed above include both rooms in the Round Building, the central Courtyard, the areas between the Round Building and the adjacent houses, and the area to the northwest of the Round Building.

LOCUS															TYPE						TOTAL						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a	15b	15c	15d s	15d p	15d r		RS	BUR	RID	IND	INC	P
410	-	-	-	-	-	1	1	-	-	-	-	-	-	-	2	1	1	1	-	1	-	-	-	-	-	8	
88	4	-	-	-	5	4	1	-	-	-	-	-	-	-	4	1	-	-	2	1	-	-	1	-	-	1	24
60	-	-	-	-	1	4	-	-	-	-	-	1	-	-	1	1	-	2	-	2	-	-	2	-	-	-	14
62	2	-	-	-	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	5
69	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	2	-	-	-	-	-	-	-	5
1	5	-	-	-	2	7	1	1	-	-	-	-	-	-	5	-	1	-	2	1	-	-	1	-	-	1	27
87	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1	-	-	-	5
4	7	-	-	-	4	3	-	-	-	-	-	-	-	-	2	2	-	3	1	1	-	-	-	-	-	-	23
TOTAL	19	-	-	-	13	20	4	3	-	-	-	1	1	-	14	7	2	7	7	6	-	-	5	-	-	2	111
%	17	-	-	-	12	18	4	3	-	-	-	1	1	-	13	6	2	6	6	5	-	-	5	-	-	2	101

TABLE 12. Distribution of types in the loci of Level II

RS = Reserved slip, BUR = Burnishing, RID = Ridges, IND = Indentation, INC = Incision, P = Paint.

LOCUS	TYPE														15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14													
10	18	-	-	-	6	8	2	3	-	-	-	2	1	-	7	4	-	4	6	6	-	-	-	-	2	69	
403	-	-	-	-	5	5	-	-	-	-	-	2	2	-	1	3	-	7	2	4	-	-	-	-	1	32	
402	3	-	-	-	2	1	-	-	-	-	-	-	-	-	5	2	-	-	-	-	-	-	-	-	-	13	
89	13	3	-	-	16	8	3	3	-	-	-	2	1	-	14	12	-	20	16	11	-	-	-	-	2	124	
73	5	-	-	-	2	3	-	2	-	-	1	-	-	-	4	6	-	7	6	-	-	-	-	-	9	45	
483	3	-	-	-	6	4	-	3	-	-	-	1	2	-	9	3	-	6	-	1	-	-	-	-	8	46	
TOTAL	42	3	-	-	37	29	5	11	-	-	1	7	6	-	40	30	-	44	30	22	-	-	-	-	22	329	
%	13	1	-	-	11	9	2	3	-	-	0.3	2	2	-	12	9	-	13	9	7	-	-	-	-	7	100	

TABLE 13. Distribution of types in the loci of Level III

LOCUS	TYPE														15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14													
47 (1-2)	11	-	-	-	11	7	-	-	-	-	-	-	1	-	6	2	-	2	9	3	-	-	-	-	1	53	
404	7	-	-	-	9	15	1	1	-	-	-	2	1	-	8	12	-	6	3	2	-	-	-	-	1	68	
405	3	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	-	1	2	-	-	-	-	-	-	10	
406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	
79	9	2	-	2	11	6	1	1	-	1	-	2	2	-	5	8	2	16	6	2	-	-	-	-	3	79	
57	18	1	-	-	7	4	1	5	-	-	-	1	-	-	2	4	-	6	8	4	-	-	1	-	3	65	
75 (1)	-	-	-	-	-	-	2	-	-	-	2	2	-	-	1	1	-	3	1	1	-	-	-	-	-	13	
TOTAL	48	3	-	2	38	32	5	7	-	1	2	7	4	-	25	28	2	34	29	12	-	-	1	-	10	290	
%	17	1	-	1	13	11	2	2	-	0.3	1	2	1	-	9	10	1	12	10	4	-	-	0.3	-	3	100	

TABLE 14. Distribution of types in the loci of Level IV, inside the Round Building

LOCUS	TYPE														15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	TOTAL			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14													
86	2	-	-	-	2	1	1	-	-	-	-	-	-	-	5	2	-	1	1	-	-	-	-	1	-	16	
91	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
481	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
482	2	-	-	-	1	3	-	-	-	-	-	2	-	-	1	2	-	5	2	4	-	-	-	-	3	25	
485	4	1	-	-	2	1	-	-	-	-	-	-	-	-	5	-	-	3	-	1	-	-	-	-	-	17	
8 (1-2)	11	-	-	-	2	3	-	1	-	-	-	1	-	-	-	-	-	2	1	2	3	-	-	-	2	28	
22 (1b-2)	5	-	-	-	4	4	-	-	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-	-	17	
27 (ab. 1)	13	1	-	-	2	5	-	1	1	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	1	26	
49 (1a-d)	10	-	-	-	5	1	2	-	-	-	-	1	1	-	2	1	1	3	-	1	-	-	-	-	2	30	
67	1	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	1	1	-	-	-	-	-	-	6	
TOTAL	48	2	-	-	18	19	3	5	2	-	-	7	1	-	16	5	1	15	6	8	3	-	1	-	1	8	169
%	28	1	-	-	11	11	2	3	1	-	-	4	1	-	10	3	1	9	4	5	2	-	1	-	1	5	103

Table 15. Distribution of types in the loci of Level IV, outside the Round Building

LOCUS	TYPE														15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	TOTAL			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14													
455 (1-3b)	16	1	-	-	12	10	3	9	-	-	-	2	2	-	9	13	-	16	10	2	-	-	-	1	-	9	115
456 (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
68	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	2	1	1	-	-	-	-	-	-	7
96 (1-4)	5	-	-	-	2	2	1	-	-	-	-	2	-	-	5	1	-	4	2	4	-	-	-	-	-	-	28
90 (1-2)	1	-	-	-	4	1	-	-	-	-	-	-	-	-	4	1	-	2	2	-	-	-	1	-	-	-	16
97 (1-2)	4	-	-	-	7	6	-	2	-	-	-	-	-	-	1	3	-	7	5	2	-	-	-	-	-	-	37
47 (3)	2	-	-	-	1	-	-	-	-	-	-	1	-	-	1	-	-	-	1	-	-	-	-	-	-	-	6
416 (1-3)	-	-	-	-	-	-	-	-	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
TOTAL	29	1	-	-	27	19	5	11	-	1	4	5	2	-	20	18	-	31	21	9	-	-	-	2	-	11	216
%	13	1	-	-	13	9	2	5	-	1	2	2	1	-	9	8	-	14	10	4	-	-	-	1	-	5	100

TABLE 16. Distribution of types in the loci of Level V A, inside the Round Building

LOCUS	TYPE														15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14													
487 (1-2b)	-	-	-	-	1	2	1	-	-	-	-	1	-	16	-	-	3	4	2	1	-	-	2	1	14	48	
488 (1)	4	-	-	-	-	3	1	3	-	-	-	1	-	4	2	-	1	2	-	1	-	-	-	-	1	23	
92 (1-2)	-	-	-	-	2	5	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-	10	
94	2	2	-	-	4	2	-	2	-	-	-	1	1	-	4	7	-	5	-	4	-	-	-	-	-	34	
95	4	1	-	-	4	2	-	1	-	-	-	1	-	1	-	-	3	7	3	-	-	-	-	-	-	27	
5 (1-2)	8	1	-	-	10	11	6	3	-	-	-	1	2	-	14	5	1	8	15	11	-	-	2	-	-	9	107
8 (3-4)	11	-	-	-	5	4	2	-	1	-	-	-	-	-	6	-	-	4	1	1	2	-	-	-	-	10	47
22 (3-4)	4	-	-	-	1	1	-	1	-	-	-	1	-	-	1	-	-	-	1	-	-	-	-	-	-	-	10
49 (2-3)	13	1	-	-	14	6	1	-	-	-	-	-	-	-	5	6	-	9	6	2	-	-	-	-	-	1	64
16 (4-7)	10	-	-	-	4	3	-	1	-	-	-	1	-	-	4	-	-	2	4	1	-	-	1	-	-	2	33
TOTAL	56	5	-	-	45	39	11	11	1	-	-	7	4	-	55	20	1	35	42	24	4	-	3	2	1	37	403
%	14	1	-	-	11	10	3	3	0.2	-	-	2	1	-	14	5	0.2	9	10	6	1	-	1	1	0.2	9	101

TABLE 17. Distribution of types in the loci of Level V A, outside the Round Building

LOCUS	TYPE																									TOTAL	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID	IND	INC		P
455 (3c-5)	1	-	-	-	10	7	1	5	-	-	-	1	-	-	11	13	-	7	1	6	-	-	-	-	-	10	73
456 (2)	2	-	1	-	3	5	1	6	-	-	-	5	1	-	-	3	-	9	5	2	1	-	-	-	-	2	46
443 (1)	1	-	-	-	1	-	-	1	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	5	11
444 (1)	2	-	-	-	-	-	1	1	-	-	-	-	-	-	2	1	-	1	-	1	-	-	-	-	-	1	10
438 (1-4)	5	-	-	-	12	4	1	1	-	-	-	-	-	1	1	6	-	7	8	4	-	-	-	-	-	2	52
47 (4-6)	16	1	-	-	5	4	1	6	-	-	1	-	-	-	8	10	-	10	15	6	-	-	1	1	-	5	90
54 (1)	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
423	-	1	1	-	-	-	-	-	-	-	-	1	-	-	1	2	-	1	1	-	-	-	-	-	-	-	8
421 (1-3)	9	-	-	1	7	10	2	5	-	-	2	-	-	1	8	4	-	6	15	4	-	1	-	-	-	2	77
TOTAL	37	2	2	1	38	30	7	25	-	-	3	7	1	2	32	39	-	41	47	23	1	1	1	1	-	27	368
%	10	1	1	0.3	10	8	2	7	-	-	1	2	0.3	1	9	11	-	11	13	6	0.3	0.3	0.3	0.3	-	7	100

TABLE 18. Distribution of types in the loci of Level V B, inside the Round Building

LOCUS	TYPE														15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	TOTAL			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14													
5 (3-5)	4	-	-	-	2	2	-	1	-	-	-	-	-	-	3	-	-	5	10	6	-	-	-	-	-	-	33
8 (5-6)	6	-	-	-	6	6	1	3	-	-	-	1	-	-	8	1	-	3	8	2	1	-	-	1	-	4	51
23	23	-	-	-	20	15	10	3	-	-	-	2	-	-	15	9	1	17	13	5	-	-	-	-	-	17	150
34 (1-4)	7	-	-	-	7	3	-	6	-	-	-	1	-	-	9	4	1	4	6	2	-	-	-	-	-	4	54
49 (4-8)	54	-	-	1	19	11	3	7	-	-	4	2	1	-	8	12	1	19	26	9	-	-	-	-	-	12	189
40	1	-	-	-	2	5	-	1	-	-	-	-	-	-	1	2	-	-	-	1	-	-	-	-	-	-	13
41	3	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-	7
472	-	-	-	-	-	2	1	-	-	-	-	-	-	-	1	1	-	1	2	3	-	-	-	-	-	-	11
487 (2c-3)	3	2	-	-	3	4	2	1	-	-	-	1	-	-	8	1	-	1	3	2	-	-	-	-	-	11	42
TOTAL	101	2	-	1	59	48	17	23	-	-	4	7	1	-	54	31	3	51	68	30	1	-	-	1	-	48	550
%	18	0.4	-	0.2	11	9	3	4	-	-	1	1	0.2	-	10	6	1	9	12	6	0.2	-	-	0.2	-	8	99

TABLE 19. Distribution of types in the loci of Level V B, outside the Round Building

LOCUS	TYPE														15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14													
455 (6-10)	3	-	-	-	15	13	3	2	-	-	-	1	-	-	8	13	-	14	3	5	-	-	-	-	6	86	
421 (4-7)	4	-	1	-	3	4	1	4	-	-	-	1	1	-	4	2	-	11	9	4	1	-	-	-	2	52	
443 (2-4)	3	-	-	-	2	3	1	1	-	-	-	-	-	-	3	1	-	1	1	1	-	-	-	-	1	18	
444 (1a-4)	7	-	-	-	9	4	11	3	-	-	-	4	-	-	15	5	1	14	14	12	2	-	-	-	24	125	
47 (7-9)	5	-	-	-	4	8	1	2	-	-	-	-	2	-	1	2	-	7	6	4	1	-	-	-	10	53	
456 (3-5)	-	-	-	-	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
54 (2)	1	-	-	-	2	-	1	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	6	
TOTAL	23	-	1	-	39	33	18	13	-	-	-	6	3	-	31	23	1	47	34	26	4	-	-	-	43	345	
%	7	-	0.3	-	11	10	5	4	-	-	-	2	1	-	9	7	0.3	14	10	8	1	-	-	-	13	102	

TABLE 20. Distribution of types in the loci of Level VI A, inside the Round Building

LOCUS	TYPE														RS	BUR	RID	IND	INC	P	TOTAL						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14								15a	15b	15c	15d s	15d p	15d r
473	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	
447	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	2	
48 (1-2)	8	-	-	1	10	3	2	2	1	-	1	1	-	1	7	4	-	6	12	12	-	-	-	-	12	83	
479 (1)	1	-	-	-	7	3	1	2	-	-	1	1	-	-	-	1	-	1	1	2	-	-	-	1	-	22	
476	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	3	
475	5	1	-	-	10	2	-	5	-	-	-	-	1	-	1	-	-	1	5	1	-	-	-	-	3	35	
34 (5)	9	-	-	-	7	3	1	1	-	-	-	-	-	-	4	1	1	2	5	3	-	-	-	-	1	38	
TOTAL	24	1	-	1	34	11	4	10	1	-	2	2	1	1	12	6	3	10	23	18	-	-	-	1	1	19	185
%	13	1	-	1	18	6	2	5	1	-	1	1	1	1	7	3	2	5	12	10	-	-	-	1	1	10	102

TABLE 21. Distribution of types in the loci of Level VI A, outside the Round Building

LOCUS	TYPE																							TOTAL			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID		IND	INC	P
455 (10a-15)	4	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	9
449	3	-	-	-	3	4	-	4	-	-	-	1	-	2	1	-	8	4	2	-	-	-	-	-	-	3	35
47 (10-14)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
54 (3)	1	-	-	-	2	-	-	-	-	-	-	1	-	-	4	-	5	-	2	-	-	-	-	-	-	-	15
TOTAL	8	-	-	-	6	4	-	6	-	-	-	1	1	-	2	5	-	13	4	4	-	-	-	-	-	6	60
%	13	-	-	-	10	7	-	10	-	-	-	2	2	-	3	8	-	22	7	7	-	-	-	-	-	10	101

TABLE 22. Distribution of types in the loci of Level VI B, inside the Round Building

LOCUS	TYPE														15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14													
479 (2-3)	3	-	-	-	8	4	1	-	-	-	-	-	-	-	3	1	-	2	1	7	-	-	-	1	-	1	32
48 (3-6)	14	-	-	-	7	2	2	2	-	-	-	-	-	-	5	3	-	7	-	1	-	-	-	-	-	2	45
TOTAL	17	-	-	-	15	6	3	2	-	-	-	-	-	-	8	4	-	9	1	8	-	-	-	1	-	3	77
%	22	-	-	-	19	8	4	3	-	-	-	-	-	-	10	5	-	12	1	10	-	-	-	1	-	4	99

TABLE 23. Distribution of types in the loci of Level VI B, outside the Round Building

LOCUS	TYPE														15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14													
480	5	-	-	-	8	3	2	2	-	1	-	-	-	-	3	-	-	4	5	4	-	-	-	-	-	1	38
450	5	2	-	-	5	4	1	-	1	-	-	-	-	-	3	-	-	2	4	-	-	-	-	-	-	4	31
451	10	1	-	-	8	12	4	2	-	-	-	-	1	-	8	3	-	5	2	10	-	-	-	-	-	3	69
452	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	5
TOTAL	21	3	-	-	22	19	8	4	1	1	-	-	1	-	14	3	-	11	11	16	-	-	-	-	-	8	143
%	15	2	-	-	15	13	6	3	1	1	-	-	1	-	10	2	-	8	8	11	-	-	-	-	-	6	102

TABLE 24. Distribution of types in the loci of the Town Wall area

		TYPE																										
LEVEL		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID	IND	INC	P	T
II	T	19	-	-	-	13	20	4	3	-	-	-	1	1	-	14	7	2	7	7	6	-	-	5	-	-	2	111
	%	17	-	-	-	12	18	4	3	-	-	-	1	1	-	13	6	2	6	6	5	-	-	5	-	-	2	101
III	T	42	3	-	-	37	29	5	11	-	-	1	7	6	-	40	30	-	44	30	22	-	-	-	-	-	22	329
	%	13	1	-	-	11	9	2	3	-	-	.3	2	2	-	12	9	-	13	9	7	-	-	-	-	-	7	100
IV	T	96	5	-	2	56	51	8	12	2	1	2	14	5	-	41	33	3	49	35	20	3	-	2	-	1	18	459
	%	21	1	-	.4	12	11	2	3	.4	.2	.4	3	1	-	9	7	1	11	7	4	1	-	.4	-	.2	4	100
V A	T	85	6	-	-	72	58	16	22	1	1	4	12	6	-	75	38	1	66	63	33	4	-	3	4	1	48	619
	%	14	1	-	-	12	9	3	4	.2	.2	1	2	1	-	12	6	.2	11	10	5	1	-	1	1	.2	8	103
V B	T	138	4	2	2	97	78	24	48	-	-	7	14	2	2	86	70	3	92	115	53	2	1	1	2	-	75	918
	%	15	.4	.2	.2	11	9	3	5	-	-	1	2	.2	.2	9	8	.3	10	13	6	.2	.1	.1	.2	-	8	102
VI A	T	47	1	1	1	73	44	22	23	1	-	2	8	4	1	43	29	4	57	57	44	4	-	-	1	1	62	530
	%	9	.2	.2	.2	14	8	4	4	.2	-	.4	2	1	.2	8	6	1	11	11	8	1	-	-	.2	.2	12	102
VI B	T	25	-	-	-	21	10	3	8	-	-	-	1	1	-	10	9	-	22	5	12	-	-	-	1	-	9	137
	%	18	-	-	-	15	7	2	6	-	-	-	1	1	-	7	7	-	16	4	9	-	-	-	1	-	7	101
Town Wall	T	21	3	-	-	22	19	8	4	1	1	-	-	1	-	14	3	-	11	11	16	-	-	-	-	-	8	143
	%	15	2	-	-	15	13	6	3	1	1	-	-	1	-	10	2	-	8	8	11	-	-	-	-	-	6	102

TABLE 25. Representation of types in the levels of Early Dynastic occupation

LEVEL		TYPE																							P	T	%		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a	15b	15c	15d s	15d p	15d r	RS	BUR	RID				IND	INC
II	T	19	-	-	-	13	20	4	3	-	-	-	1	1	-	14	7	2	7	7	6	-	-	5	-	-	2	111	3
	%	17	-	-	-	12	18	4	3	-	-	-	1	1	-	13	6	2	6	6	5	-	-	5	-	-	2	101	
III	T	42	3	-	-	37	29	5	11	-	-	1	7	6	-	40	30	-	44	30	22	-	-	-	-	-	22	329	10
	%	13	1	-	-	11	9	2	3	-	-	.3	2	2	-	12	9	-	13	9	7	-	-	-	-	-	7	100	
IV	T	96	5	-	2	56	51	8	12	2	1	2	14	5	-	41	33	3	49	35	20	3	-	2	-	1	18	459	14
	%	21	1	-	.4	12	11	2	3	.4	.2	.4	3	1	-	9	7	1	11	7	4	1	-	.4	-	.2	4	100	
V	T	223	10	2	2	169	136	40	70	1	1	11	26	8	2	161	108	4	158	178	86	6	1	4	6	1	123	1537	47
	%	15	1	.1	.1	11	9	3	5	.1	.1	1	2	1	.1	11	7	.3	10	12	6	.4	.1	.3	.4	.1	8	104	
VI	T	72	1	1	1	94	54	25	31	1	-	2	9	5	1	53	38	4	79	62	56	4	-	-	2	1	71	667	21
	%	11	.1	.1	.1	14	8	4	5	.1	-	3	1	1	.1	8	6	.1	12	9	8	1	-	-	.3	.1	11	101	
Town Wall	T	21	3	-	-	22	19	8	4	1	1	-	-	1	-	14	3	-	11	11	16	-	-	-	-	-	8	143	4
	%	15	2	-	-	15	13	6	3	1	1	-	-	1	-	10	2	-	8	8	11	-	-	-	-	-	6	102	
TOTAL																									3246		99		

TABLE 26. Representation of types in the levels of Early Dynastic occupation

LEVEL	TYPE																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a	15b	15c	15d	15d	15d	RS	BUR	RID	IND	INC	P	T		
																		s	p	r									
IV	inside	T	48	3	-	2	38	32	5	7	-	1	2	7	4	-	25	28	2	34	29	12	-	-	1	-	-	10	290
		%	17	1	-	1	13	11	2	2	-	.3	1	2	1	-	9	10	1	12	10	4	-	-	.3	-	-	3	100
IV	outside	T	48	2	-	-	18	19	3	5	2	-	-	7	1	-	16	5	1	15	6	8	3	-	1	-	1	8	169
		%	28	1	-	-	11	11	2	3	1	-	-	4	1	-	10	3	1	9	4	5	2	-	1	-	1	5	103
V	inside	T	66	3	2	1	65	49	12	36	-	1	7	12	3	2	52	57	-	72	68	32	1	1	1	3	-	38	584
		%	11	1	.3	.2	11	8	2	6	-	.2	1	2	1	.3	9	10	-	12	12	5	.2	.2	.2	1	-	7	101
V	outside	T	157	7	-	1	104	87	28	34	1	-	4	14	5	-	109	51	4	86	110	54	5	-	3	3	1	85	953
		%	16	1	-	.1	11	9	3	4	.1	-	.4	1	1	-	11	5	.4	9	12	6	1	-	.3	.3	.1	9	101
VI	inside	T	31	-	1	-	45	37	18	19	-	-	-	7	4	-	33	28	1	60	38	30	4	-	-	-	-	49	405
		%	8	-	.2	-	11	9	4	5	-	-	-	2	1	-	8	7	.2	15	9	7	1	-	-	-	-	12	99
VI	outside	T	41	1	-	1	49	17	7	12	1	-	2	2	1	1	20	10	3	19	24	26	-	-	-	2	1	22	262
		%	16	.4	-	.4	19	6	3	5	.4	-	1	1	.4	.4	8	4	1	7	9	10	-	-	-	1	.4	8	101

TABLE 27. Representation of types inside and outside the Round Building in Levels IV-VI

Early Dynastic Pottery from Later Contexts

Of the material coming from disturbed or post-Early Dynastic context the majority fit into the typology which has been introduced above. However there are in that material examples that better illustrate the respective types and also in some cases show minor variations not recorded in good context. There are also some unique, small jars with incised patterns, which we have dated to the Early Dynastic period on the basis of parallels (for references see the plate descriptions).

A Type 5a jar has a spout with two plastic knobs (Pl. 66:15). This decoration has not been observed in the remaining inventory. Two small jars (Type 11b?) are decorated on the shoulder/body juncture with a row of vertical, incised lines (Pl. 73:17) and indentations (Pl. 73:18) respectively; on the shoulder, the first jar has four irregular, incised, hatched figures; the other jar has two knobs bordered by incised, fork-shaped motifs.

A fragment of a bowl from a fruitstand, Type 13a, has two ridges under the rim, each with a different set of indented decorations (Pl. 76:10). There is a stand fragment with two perforations that parallels stands from the Diyala sites (Pl. 77:8). A number of Type 13f stands, although fragmentary, have been found in later contexts. They are shown here because they give a good impression of shape and decoration (Pl. 77:10; 78). One of them shows a deviation from the tradition. Instead of incised decoration, it has thin plastic ridges, although in the same patterns (Pl. 78:1). There are two examples of a double spout, which are thought also to be Early Dynastic (Pl. 81:6-7). Another fragment with a plastic face-like decoration has been found (Pl. 83:1), and finally there is a fragment of a jar shoulder with an incised decoration, that appears to fit best into the Early Dynastic tradition (Pl. 83:9).

A registered vessel from later context can also be dated as Early Dynastic: Uc 37, a miniature jar of Type 11b (Pl. 73:19).

Chronology

The following chronological discussion is based on parallels from the Diyala sites, Khafajah, Tell Asmar and Tell Agrab,¹¹ and a preliminary representation of some characteristic shapes and traits in the Early Dynastic pottery from Ahmed al-Hattu, the nearest site with Early Dynastic remains.¹² Although other Early Dynastic sites in the Hamrin Basin have not been published yet, we were able during the excavation to visit those sites and discuss the pottery. In March, 1979, a meeting was held in the camp of the Japanese Expedition, where all expeditions at that time involved in excavations of Early Dynastic settlements or cemeteries were represented. Primarily, Scarlet Ware was discussed and compared, using actual sherds, which gave us a first-hand and very useful impression of the typological developments in the Early Dynastic sequence. The following discussion of the Razuk pottery will draw upon our examination of the material from these other sites.

Bowl Types 1-4 represent in general a set of very common household utensils, whose shapes did not change or develop much throughout the levels at Razuk. The most abundant subtype, 1a, is found in all Early Dynastic phases in the Diyala sites (Delougaz, B.002.200a), and consequently does not help us in dating the Razuk sequence. The same is the case for the

bowl, Subtype 1b, which might be compared to a decorated example from Khafajah (Delougaz, B.042.200) from an Early Dynastic I context. For Subtype 1c we are dealing with such a small, fragmentary sample that any conclusions are impossible.

Type 2 also occurs in the Diyala sites from Early Dynastic I through Early Dynastic III, although the variation with a ledge rim (Pl. 63:6, Delougaz, B.033.210) might be an Early Dynastic II invention.¹³ As mentioned above, the Type 2 bowl, including the ledge-rim variation, first occurs in Level VI A at Tell Razuk.

The only illustrated example of an Early Dynastic carinated bowl from the Diyala (Delougaz, B.123.200) was published without comment; it was dated to Early Dynastic II, and is here suggested as a parallel to our Type 3.

The various shapes under Type 4 are difficult to connect with better-preserved vessels from the Diyala. We have suggested parallels that are Early Dynastic II-III (Pl. 63:20-21).

It should be noted that among Razuk bowl types there is a total absence of the solid-footed goblet, the traditional guide-fossil for the first part of the Early Dynastic period.¹⁴ A variation on the solid-footed goblet was found at Ahmed al-Hattu.¹⁵

The jars, Types 5 and 6, are after the Type 1a bowl the most common household vessels in the inventory. They seem to be standard types with only minor variations, a fact reflected in the stability of the occurrence of the Type 5 jar in all the Early Dynastic levels. The application of a plain or indented ridge to the shoulder/body junction is a trait that occurs already in the Early Dynastic I period in the Diyala sites.¹⁶ Spouts have a long tradition from the Protoliterate period and will be discussed below. The increase in number of Type 6, band-rim jars, has not been observed in the Diyala sequence.

The Type 7 jar is relatively infrequent in the pottery inventory, but finds parallels in the Diyala sequence, dating to the Early Dynastic I-II periods (see plate descriptions for references). The Subtype 7a, which also includes all gray ware jars from Razuk, has parallels in the Diyala in shape, but not in ware. Although gray ware is considered to be typical for the Early Dynastic I period in the Diyala, it occurs there in totally different shapes.¹⁷ The variation in jar shapes may be of chronological and geographical significance. Subtypes 7b and 7c are normally connected with painted decoration and will be discussed below.

The Type 8 jars (Pl. 71:11-22) are apparently not well represented in the Diyala sequence. The only illustrated example is dated to the Early Dynastic II period (Delougaz, C.654.510).

Hand-made cooking pots, Type 9 (Pl. 72:13-18), and the few hole-mouth suspension jars, Type 10 (Pl. 72:19-21), have parallels in the Diyala dated to the Early Dynastic II period (see plate description for references).

The small vessels and the miniature vessels, Type 11 (Pl. 73; 74:1-8), represent a number of shapes of more or less importance in dating the levels. Most of the bowls have only a limited value in this respect, as they are trivial types and often are merely modified normal-sized bowls or reused bases. However, some of the jar types have good parallels in the Diyala and are quite distinct in shape. The open jar with a short vertical neck (Pl. 73:8-9, 11, 15-16) appears in the Diyala in the Early Dynastic II levels (Delougaz, B.573.220), while the more

closed type with flaring neck (Pl. 73:10, 12-13) continues into the Early Dynastic III. The band-rim jar with spout, Subtype 11c (Pl. 73:20), also has a parallel from an Early Dynastic II context in the Diyala, although the latter example has a rounded base (Delougaz, B.514.572). The bevelled-rim jar, Subtype 11d, with a wing-shaped lug is typical for the Early Dynastic I pottery in the Diyala,¹⁸ and the same date is given to the bottle with a bevelled rim, Subtype 11e, although the latter also occurs in Early Dynastic II and III.¹⁹ The double-spouted jar, Subtype 11f, is found in Khafajah in a late Early Dynastic III context,²⁰ and the flask, Subtype 11g, is considered to be introduced in the Early Dynastic II period.²¹

For the large, coarse-ware vessels of Type 12 the Diyala sequence does not give us good parallels, except for a storage jar of Type 12a from an Early Dynastic II context (Delougaz, D.743.310). There exist apparently similar storage jars at Ahmed al-Hattu, at Tell Gubba in Level V and at Madhhur, although those often have seal impressions at the top of the rim, a feature never found at Tell Razuk.²²

In the Diyala, fruitstands, such as our Subtypes 13a-c, are only found in an Early Dynastic II or later context, and therefore are taken as an invention of that period.²³ It might have some importance to note that all the fruitstands found at Tell Razuk came from Levels VI A-II.

The stands, as contrasted with fruitstands, have a longer range in time in the Diyala, but certain characteristics can have chronological significance. In the Diyala the most elaborate examples with incised and excised decorations, our Subtype 13f, are of Early Dynastic I date, while the most simple shapes and designs, our Subtypes 13d, e and g, come from later levels.²⁴

Both types of shoulder ridges, the ridge near the neck, 15a (i), and the ridge at the carination, 15a (ii), are Early Dynastic I inventions according to the Diyala sequence.²⁵ In Early Dynastic II, double ridges occur on the carination. Ridges also occur on large spouted jars in Early Dynastic II, while in Early Dynastic I, larger spouted vessels apparently had no ridges.²⁶ Except for the double ridge, these variations are represented in Razuk Types 5 and 6.

Spouts are a common feature in the Razuk inventory and they have, according to length, a standardized size and are always straight. In the Diyala, spouted vessels cover a long span of time; the Protoliterate spouts generally curve and are longer than the Early Dynastic spouts; in Early Dynastic III, spouted vessels decrease in number.²⁷

The twisted handles, Subtype 15c, from Razuk do not have exact parallels in the Diyala, although there is a variation in an Early Dynastic I context.²⁸

The various base types from Razuk, 15d, are so general in shape that they do not contribute much to a dating.

Reserved slip is a decoration that, in the Diyala, was used from the Protoliterate period into Early Dynastic II.²⁹ Both the horizontal and the oblique pattern are found at Razuk, of which the horizontal appears to be the dominant. Cross-burnishing on gray-ware vessels has a similarity to the Diyala gray-ware pottery of the Early Dynastic I period, which exhibits a stroke-burnished variation.³⁰

Application of plastic decoration to jars in a face-like motif has parallels in the Diyala, dating from the Early Dynastic I and Early Dynastic IIIa periods.³¹ The occasional occurrence of indentations around the neck of jars (Pl. 83:4, 6-7) has parallels in the Early Dynastic I pottery from the Diyala.³² The fork-like incised design on a jar shoulder has a parallel from Tell Asmar, dated to the Early Dynastic I period.³³ The other fragmentary incised designs do not allow us to make any conclusive parallel dating.

The painted jars from Tell Razuk fall into the Scarlet Ware tradition of the Diyala. However, some characteristics that are prominent at Razuk have already been suggested by Delougaz as probably of a later date than the majority of the Diyala Scarlet Ware. The two jars that Delougaz presents as later were found in dubious contexts, so the dating was primarily based on typological observations.³⁴ However, the Razuk inventory and the Hamrin Early Dynastic sequence seem to confirm Delougaz' observation that there existed a later, perhaps even more elaborate, Scarlet Ware tradition lasting to at least the end of the Early Dynastic II period.³⁵

In shape the most characteristic trait of the Razuk Scarlet Ware is the ridge on the carination. Further, there are three instances of an upright tab handle (Pls. 84; 85:1-2), which in combination with the ridge is considered to be a typical Early Dynastic II trait.³⁶ According to design, the best parallel in the Diyala is a jar from Khafajah.³⁷ The neck is painted solid red (G 1), and the shoulder covered with cross-hatched triangles (G 5a) and plant motifs (N 1b). That is also the general decorative tradition at Razuk. The body is decorated with similar motifs and compositions, plants (N 1a), wavy lines (G 7), bearded (?) goats with birds on their backs, and cross-hatched lozenges in a narrow band at the shoulder.

In general, it is best to place the Razuk Scarlet Ware in the late phase of the tradition, late Early Dynastic I and Early Dynastic II.

The single painted jar shown in a preliminary report from Ahmed al-Hattu is suggested to belong to the earlier part of the Scarlet Ware tradition.³⁸ It differs from the Razuk painted jar in not having a ridge on the shoulder, in its less-pronounced bevelled rim, and the occurrence of a triangular lug. At the meeting held at the Japanese Expedition's camp, we concluded that Tell Razuk belongs to a late phase of the Scarlet Ware tradition in the Hamrin, typified by the shoulder ridge, the red color (versus plum-red), and the combination of motifs. The Razuk inventory was best paralleled at Tell Gubba in Level IV, toward the top of that sequence.

Summing up the dating evidence, we arrive at a rather uniform date for the Early Dynastic levels at Razuk falling in the late Early Dynastic I-II range of the Diyala sites, and later than the settlement at Ahmed al-Hattu. The Scarlet Ware and the majority of other types suggest that the greater part of the settlement falls in the Early Dynastic II period. The unchanging percentages of types through all levels (Table 26) also suggests a relatively short-lived settlement. The presence of Early Dynastic I types in the inventory, e.g., Subtype 13f, and the absence of fruitstands in Level VI B might indicate that the earliest settlement was in the late Early Dynastic I period. The relatively small number of sherds from the lowest

level, however, prevents us from making a definite statement that a transition from Early Dynastic I to Early Dynastic II took place between Levels VI B and VI A. If there was such a transition, it is obvious from the Razuk inventory that it did not drastically affect the pottery tradition.

FOOTNOTES:

- 1 In the field the sorting and counting of the sherds were done by R.L. Zettler and Ingolf Thuesen in the first season, when the basic typology was invented. In the second season the counting and sorting was done by Marianne Hirche and Ingolf Thuesen.
- 2 If we consider the first 40 sherd-lots as representative for the total amount, which is reasonable because they include all kinds of proveniences, it is possible to calculate the total amount of sherds that have gone through the hands of the person doing the sorting. For the 40 counted lots, there was an average of 140 sherds per lot. About 400 sherd lots were brought to the camp during both campaigns, which gives a figure of about 56,000 sherds in total. The 40 sherd-lots that were counted contained on average 22.7 diagnostic sherds which gives a total of about 9,000 diagnostic sherds. In comparison with this figure, the sample of about 3,200 diagnostic sherds used in the analysis presented here might seem low (Table 26), but the tell was cut by an unusually large number of pits resulting in a great number of lots from mixed fill. These mixed lots were not used. It will be noted that in the tables for this chapter, there are two different totals for sherds. In Tables 4 to 11, dealing with different wares, the total (2,170) was based on only those diagnostic sherds (rims, base, decorations) which were from good context *and had been drawn*. Tables 12 to 27, using a total of 3,246 and dealing with types by level, were based on all diagnostic sherds from good contexts as recorded on count sheets. In some cases, if duplicate sherds occurred in a lot, not all would necessarily be drawn.
- 3 A.O. Shepard, *Ceramics for the Archaeologist* (Washington: Carnegie Institution, 1976), p. 16.
- 4 Neutron activation analysis of the Early Dynastic pottery from Razuk, other sites in the Hamrin, the Diyala area and Farukhabad in Iran is at present being done at the Risø Laboratories, Denmark, in collaboration with Dr. K. Heydorn. All ware-groups have been analyzed especially with attention to pottery with painted decoration (Scarlet Ware). A preliminary result seems to indicate that the variation in the clay used for the Scarlet Ware and plain Early Dynastic pottery from Razuk is so small that there do not seem to be different sources, although there is a variation between the ancient clay and the clay that the villagers of Uch Tepe, located half a kilometer from Razuk, are utilizing today. A final result of the analysis will appear in a later publication.
- 5 It has been impossible to apply this definition strictly without ending with some unreasonable divisions of certain types. As the reader might have observed, our Type 10 has relatively small vessels, while Subtype 11b contains jars with a rim diameter larger than 6 cm. The reason for making Type 10 an independent group is its unique shape, whereas Subtype 11b, like the majority of Type 11 vessels, is a smaller replica of standard-sized vessels.
- 6 We have here a terminological problem. As described above, ware is here defined by technical traits involved in manufacturing clay vessels and observed as color variations and texture variations of the biscuit of a sherd. Correctly the Scarlet Ware should be 'buff' or 'pink' ware with painted decoration. However we have preferred to keep the term invented by Delougaz in order to prevent confusion. The term 'ware' is routinely used in a number of ways by archaeologists and a standard system should be adopted for pottery description.
- 7 This gave us some problems in the field, as the workmen often would try to clean the sherds to show us how nice they were, with a fatal result. In the camp the painted sherds were separated from the rest, as soon as they were observed, after which they were carefully cleaned with a pointed tool. The surface of the pieces, which were sent to the museum, were treated with a solution of glue and acetone to fix the paint.

- 8 There is some doubt whether this design is geometric or naturalistic, as it sometimes occurs on the body of jars in connection with naturalistic elements (Pl. 89:8). It also occurs on the shoulder as an isolated geometric element (Pl. 86:5). If it is indeed a naturalistic element, it probably should be classified in group N 1, plants.
- 9 Normally a higher number is expected for the counts in Table 26 compared to Table 4. However the opposite situation also occurs as the ware table also includes sherds that cannot be associated with a single level, although they still are Early Dynastic. This situation arose because fill of some loci was removed at a high speed, resulting in the collection of sherds from a number of floors under one lot.
- 10 These loci are characterized by having more than 10% of painted sherds among ceramics on or above the floor(s).
- 11 Delougaz, *Pottery*.
- 12 D. Sürenhagen, 'Aḥmad al-Ḥattu 1978', *MDOG* 111 (1979), p. 35 ff.
- 13 Delougaz, *op. cit.*, p. 82.
- 14 Delougaz, *op. cit.*, p. 56.
- 15 Sürenhagen, *op. cit.*, Abb. 4:2.
- 16 Delougaz, *op. cit.*, p. 136.
- 17 Delougaz, *op. cit.*, p. 58 and p. 136.
- 18 Delougaz, *op. cit.*, p. 57 and p. 136.
- 19 Delougaz, *op. cit.*, p. 83.
- 20 Delougaz, *op. cit.*, p. 92.
- 21 Delougaz, *op. cit.*, p. 142.
- 22 Sürenhagen, *op. cit.*, Abb. 7; H. Fujii, 'Tell Gubba', *Sumer* 35 (1979), p. 517; J.N. Postgate and P.J. Watson, 'Excavations in Iraq', *Iraq* 41 (1979), p. 176.
- 23 Delougaz, *op. cit.*, p. 142.
- 24 Delougaz, *op. cit.*, p. 55 and p. 81.
- 25 Delougaz, *op. cit.*, p. 136.
- 26 Delougaz, *op. cit.*, p. 141.
- 27 Delougaz, *op. cit.*, p. 91.
- 28 Delougaz, *op. cit.*, Pl. 51b.
- 29 Delougaz, *op. cit.*, p. 53.
- 30 Delougaz, *op. cit.*, p. 58.
- 31 Delougaz, *op. cit.*, Pl. 51c-d.
- 32 Delougaz, *op. cit.*, C.515.362 and C.516.373.
- 33 Delougaz, *op. cit.*, Pl. 64, No. 12.
- 34 Delougaz, *op. cit.*, p. 69.
- 35 Delougaz, *op. cit.*, p. 72.
- 36 Delougaz, *op. cit.*, Pls. 60-62, are the best parallels.
- 37 Delougaz, *op. cit.*, p. 69, Pls. 15, 60-61.
- 38 Sürenhagen, *op. cit.*, p. 44.

Chapter VI

TELL AHMED AL-MUGHIR

*Jesper Eidem***Introduction**

This tell owes its modern¹ name to a man who lived on it half-a-century ago. In the northern part of the mound (Pl. 105:1) are remains of a mudbrick compound which was abandoned by its occupants in the early 1970's. During 1978 and 1979 we watched the crumbling walls slowly erode. After each rain new parts would fall, and by now there is probably very little left. A freshwater well on the northeastern slope is related to the modern occupation. In accordance with Muslim tradition Ahmed, like the other mounds around Uch Tepe, has been used as a cemetery, and a few quite recent graves were encountered in the course of excavation.

Ahmed al-Mughir, lies about 350 meters north of Tell Razuk, and is, like most other mounds in the area, of a moderate size, being about 200 meters long and 150 meters wide. It rises gradually from the surrounding plain to a height of about three meters, and forms a gentle hump in the terrain. The surface is covered with *'agul* or camel thorn. A surface collection made in 1978 showed that the comparatively few sherds on the surface were datable to the Kassite and Isin-Larsa periods. Although the Kassite layer was almost eroded away, this estimate of occupations proved to be consistent with the excavated material.²

Excavation was conducted at the site from November 18 to December 7, 1978 and again from January 14 to 31, 1979. A considerable area was cleared of surface debris (Pl. 105:1) and a 5 x 5 meter stratigraphic pit (Pl. 105:2) was dug just to the west of the summit. This pit, designated ee16b, was the northeastern quadrant of the 10 meter square ee16. We exposed five distinct levels to a depth of about 3.5 meters below the surface. Unfortunately the heavy rain in December 1978 prevented us from penetrating below Level V. In 1979 the sounding was extended horizontally to include the whole of the ten meter square ee16, of which the sounding was part. Topsoil was also cleared in Squares ee15, dd16 and dd18. The plan was to expose a larger part of the Isin-Larsa levels (V and IV) as these proved fairly well preserved and promising, but it was soon found that extensive digging on three mounds could not be conducted with the limited work force at hand, so the project was abandoned. As a result only the upper (Kassite) levels were exposed in the entire 10 meter square.

Level V

Levels V and IV were excavated only in the five meter square sounding (ee16b, Pls. 106-107). Three walls divided Level V into three separate loci. Wall CB ran parallel to the east baulk and was cut from above by Wall CC and by a firepit from Locus 305. Wall CD abutted CB, dividing the square in two. Wall CE divided the area north of CD into east (307) and west (308) loci. Locus 306 is south of Wall CD.

The fill in Locus 306 consisted of hard-packed mudbrick debris on Floor 1. This floor was made up of hard-packed green trash which had built up against the face of Wall CD. In the green layer was found a baked clay figurine of rather uncertain character (Uc 69, Pl. 110:1).

The fill above Floor 1 in Locus 307, as in Locus 306, consisted of mudbrick packing. The face of Wall CD was well-preserved here, covered by a one-to-two centimeter thick brown mud plaster. Floor 1 was composed of the same green trash as in Locus 306. Below this was Floor 2 of reddish brown sand with lumps of mudbricks and black ash. At this level a layer of pebbles ran along the face of Wall CD, which was built on Floor 2. Wall CB, however, continued down, but unfortunately the rainy season prevented any further investigation. Even in the spring of 1979, when camp was broken, there was still standing water in the pit. The incomplete state of the section (Pl. 105:2) is a result of this circumstance.

Wall CE, dividing Loci 307 and 308, was not bonded into Wall CD. It was badly cut up, and was presumably a later addition. Only a small area of Locus 308 was inside the sounding, but the layering of fill and floors was consistent with the pattern from Loci 306 and 307.

Level IV

The corner of an impressive wall, CC, bordered Locus 305 in the southeastern corner. This wall was built of reddish brown mudbricks (29 x 19-21 x 8 cm.), and had two layers of plastering each about one centimeter thick. Sloping down to the north from Wall CC was a green floor (Fl. 1). This floor was cut by a T-shaped firepit just north of Wall CC. The fill in the pit consisted of sherds, animal bones, ash and broken pieces of mudbrick all burned and blackened by fire. In addition to this was found a curved baked clay rod pierced by three holes (Uc 243, Pl. 110:2). Only three courses of Wall CC were preserved above Floor 1 in Locus 305, and on top of both the floor and wall was a compacted layer (Locus 303, Pl. 105:2) of reddish brown mudbrick debris mixed with sand, varying in thickness from about twenty centimeters to one meter.

Level III

Level III, Locus 302, had no remains of walls but only a pavement of green mudbricks laid without mortar under a floor of grayish brown clay, black ash and sand. It seems likely that the area was used as a courtyard in this period. This level was shallow, ending about 75 centimeters below the surface.

Level II

Level II was exposed in a wider area than the pit, but was extremely shallow and yielded little of interest except some clues to the overall history of the site. Architectural remains consisted of a few badly preserved mudbrick walls (Pl. 106) appearing as lines immediately below the surface and forming what was probably part of several rooms in a rather modest dwelling. In Square ee16, Level II is divided into two distinct units by two mudbrick walls, CH (which was cut by a later burial) and CJ. The area to the east and south of these (Locus 301) had a reddish brown Floor 1 about 30 centimeters below the surface, which sloped up to the north. South of Wall CJ the floor lost its red color and became grayer. Part of Wall CA, which bordered the locus in the northeastern corner of the square, had only two courses of brickwork. Two objects from this area were catalogued, an iron dagger found above Floor 1 near the doorway in Wall CH (Uc 108, Pl. 110:4; presumably intrusive), and a spindle whorl made from an incised sherd (Uc 105, Pl. 110:3). Also on Floor 1 was found a pierced stone probably used as a door socket.

Locus 309 was west of Wall CH. Floor 1 here corresponded to Floor 1 in Locus 301, and had the same reddish brown color; it sloped down to the west. Walls CG, CH and CJ of reddish brown mudbricks (26-29 x 16-17 x 6-7 cm.) laid in alternating courses of headers and stretchers were built on this floor. Walls CG and CJ seem to have had two phases divided by a line of green clay mixed with sand which ran between the second and third courses. The units of mudbrick labelled CI and CF might have been fallen brick; they could not be articulated. An almost complete 'button-based' jar, typical of the Kassite period, was found above Floor 1 (Uc 141, Pl. 114:40).

In Square dd18 on the south slope of the mound (Pl. 105:1), no remains were found in the surface clearance, but in dd16 and ee15 wall lines were noted. Those in ee15 were partially articulated. They divided the excavated area into two loci, 310 and 311 (Pl. 106). The excavation here was halted, however, before these loci could be investigated further.

Level I

Both Levels III and II were cut by more recent pits and burials of Level I (Pl. 105:2). Most of these disturbances were of very recent origin, but in disturbed soil about 60 centimeters below the surface was found the rim of a glass vessel which may be Sasanian (Uc 120).

FOOTNOTES:

- 1 Meaning 'Ahmed the jockey' according to local informants. Mughir may stem from the verb *ghara* 'to raid', which also conveys the general notion of swift action, in this case referring to Ahmed's reputation as a horseman.
- 2 A single Ubaid sherd (Pl. 112:45) and a few Akkadian sherds (Pl. 112:40, 42, 44) may indicate occupation earlier than Isin-Larsa.

Chapter VII

TELL AJAMAT

*James A. Armstrong***Introduction**

Tell Ajamat (more properly Tell al-A'jamāt, an irregular plural form of *a'jam* 'speaking incorrect Arabic, barbarian, non-Arab, foreigner, a Persian') is the northernmost of the tells (Pl. 3) investigated by the Chicago-Copenhagen Expedition. It received its name, we were told, because at one time a group of Persians had lived on it. The tell (Pl. 108:1) rises three meters above the surrounding plain and is approximately 100 meters northeast-southwest by 150 meters northwest-southeast. A half-meter high terrace extends to the east for an additional 100 meters.

A surface survey had produced few sherds that could be dated, but some of them could have been from the first millennium B.C., a period not well represented in the Hamrin Basin. We decided therefore to excavate the mound, and did so between September 25 and October 18, 1979. Tell Ajamat was not a part of the Expedition's original responsibility. Therefore, it was gridded and recorded independently of the other tells. The objects recovered, however, were registered in the single Chicago-Copenhagen catalog, and were given 'Uc' numbers. There were between three and five laborers from local villages, one of them a pickman trained by the Expedition during the previous season. After a ten-meter grid was laid over the mound, we cleared the camel thorn from Square K 15. The actual excavation area (Pl. 109) was to be a nine-meter square, allowing for one-meter baulks, but even in the top levels of the sounding the entire area was not excavated. Under the press of time, we reduced the excavation area to a five-meter square, extending from the northwest corner of K 15, to a 2.5 x 5 meter rectangle, and, finally, on the last day of digging, to a 1.25 meter square, in an attempt to reach the bottom of the mound. We did reach the level of the surrounding plain, but not virgin soil.

From the excavated pottery we can say that Ajamat is mainly a late Kassite mound. The stratigraphic column (Pl. 109) has been subdivided into four levels. Of these, all but the top-most (Level I) are of late Kassite/post-Kassite age.

In the following discussion of these levels, I shall begin with the lowest one excavated,

and continue to the top of the mound. The term 'locus' as used here, refers to a three-dimensional space, most often bounded by one or more walls. Such loci are rooms of houses, or exterior spaces adjacent to house walls, and they contain floors. Here I have also used 'locus' to indicate spaces which may or may not be the rooms of houses or immediately adjacent exterior spaces. No walls were found to define these spaces; only the baulks gave boundaries.

Level IV

Level IV (Locus 12) was exposed in a rectangular area (2.5 x 5 meters) in the northwest corner of Square K 15. A lower portion of the locus was excavated only in a 1.25 meter square at the northwest corner. No walls were found in Locus 12, and the living floors we identified were separated by bands of material which showed little evidence of human occupation (Pl. 109).

The lowest layer we reached was a very compacted brown soil, predominantly clay, in which there were sherds. Above this was a band of ashy, striated floors, 9 to 12 centimeters thick. The top of this band we called Floor 4. Compacted clay soil without striations indicative of living surfaces separated Floors 4 and 3. A small copper blade (Uc 262, Pl. 110:5) and a broken baked clay cylinder seal with incised design (Uc 261, Pl. 110:6) were found in fill above Floor 4.

Burial 2 was dug into this compacted clay from Floor 3. We were not able to excavate the entire burial since it extended into the north section of the square. The grave was a shaft, 80 centimeters deep, with the body laid approximately northwest-southeast in a niche carved out in the bottom of the west side of the shaft. Only the head and shoulders, of an adult, were excavated. The crushed skull was at the south end of the grave, lying on its right side, with the face to the northeast. Two small Kassite jars were next to the head (Uc 263 and 264, Pl. 116:8-9). No other grave goods were found.

Floor 3 was a very hard-packed floor, being the tamped-down top of the clay material below it. There was floor material for about 10 centimeters above Floor 3, but it was patchy and not well defined. Above was a layer of clay rubble, on top of which were 20 centimeters of floors, including Floors 2, 1, and 0. Floor 0, badly disturbed by animal holes, was not recognized initially; it was, however, the floor from which Pit 1 was sunk. The pit was approximately two meters wide at the north section, and one meter deep.

Above Floor 0 was more detritus including tumbled mudbricks and mudbrick fragments, evidence of fallen walls. Above were a uniform layer of uncompacted brown soil (ca. 10 centimeters thick) with many sherds and a uniform layer of well-compacted clay (ca. 10-15 centimeters thick) with almost no sherds. Although these layers lacked the striations indicative of floors, they contained sherds and other artifacts (fragments of a copper pin, not registered, and a flint tool, Uc 254, Pl. 56:1).

The sherds of Level IV were Kassite.

Level III

The 10 to 15 centimeter thick clay layer assumed to be naturally formed and taken as

the top of Level IV, might have been laid deliberately in order to prepare the area for the building of which Wall M was a part. Wall M, the only architectural feature found in the five-meter square of Level III, rested on this clay layer. The top of this layer was Floor 1 of both Loci 10 and 11, which were separated by Wall M. The wall itself was of mudbrick; it was 65 centimeters wide and one to two courses high. Cut into Locus 11, Floor 1, in the northwest corner of the excavated area was Burial 1. Its cut was 98 x 42 centimeters at the floor, but five centimeters below, its width was reduced to 17 centimeters. In the narrowed cut we found several long bones and the tarsal or carpal bones of an infant. The rest of the skeleton was missing. We noted several animal holes entering the grave from the top and sides. The grave originated in Level III; the floor of Level II above it was not cut.

There were up to five centimeters of floor buildup on Floor 1 of Locus 11. In the fill above, as well as above Locus 10, Floor 1, there were tumbled mudbricks and mudbrick fragments. As was clear from the small amount of floor buildup, this level had only a short existence. The pottery of this phase was Kassite.

Level II

Level II consisted of two loci, 8 and 9, and the sandy soil of Locus 7 which was deposited naturally on top of them when they went out of use (Pl. 109). Loci 8 and 9 were separated by Wall L, which was northwest of, and parallel to, Wall M of Level III. Wall L was built of mudbricks (38 x 38 x 8 cm.); it was about a meter wide and preserved one to two courses in height. There was a door 1.18 meters wide connecting the two rooms. Locus 8, Floor 1 and Locus 9, Floor 1 were the same floor, and the wall was built on this floor. The floor in Locus 8 was not very well packed down, but it was clearly a living surface. Its greenish color and moderate compaction separated it from the loose, brown, sandy soil of Locus 7 above. It was also marked by a heavy salt line running across its surface. A flint blade was found on the floor (Uc 256, Pl. 56:3). On top of the well-tamped earth floor of Locus 9 were 20 to 25 centimeters of mudbrick rubble. The greater degree of compaction of the floor in Locus 9, plus the rubble on it from fallen walls, contrasted with the green (weathered?) surface in Locus 8, on which was a salty deposit. These differences led us to conclude that Locus 9 was a room, while Locus 8 was an open space. We have noticed that, in modern abandoned villages, mudbrick walls tend to fall into rooms rather than outside.

Locus 7, a naturally laid, 20-centimeter-thick band of poorly compacted, sandy soil, lay atop the rubble in Locus 9, as well as on top of Wall L and Floor 1 of Locus 8. This band represented the long hiatus in the occupation of the site from Kassite times down to recent centuries. The sherds in the sandy layer as well as those in the rubble above the floor in Locus 9 were Kassite. Only a few sherds, none diagnostic, were found lying flat on the floor of this level.

Level I

Level I represented the remains of a house, probably built in the present century. The central room of the house, Locus 2, was paved (Floor 1) with mudbricks laid in regular rows.

Bricks of the same size (36-38 x 20-21 x 6.5-7 cm.) were also used in the walls, which were 60 centimeters thick and covered with mud plaster. There was a bench or shelf in the east corner of the locus (93 x 30 x 33 cm.) built of the same sized bricks. We found no door and assume that it was in the unexcavated northwest part of the room. Other, less substantial walls appeared to be the remains of lean-to's, bins, etc. A hexagonal weight, along with other pieces of iron and fragments of lightly corroded copper/bronze, were found in this level. A flint blade (Uc 255, Pl. 56:2) was found on the brick pavement of Locus 2.

Chapter VIII

POTTERY FROM TELL AHMED AL-MUGHIR AND TELL AJAMAT

James A. Armstrong

The excavation of Tell Ajamat produced some 1100 sherds, of which 246 were diagnostic. Tell Ahmed al-Mughir yielded approximately 4200 sherds; 721 of these were diagnostic. As with the Tell Razuk pottery, the sherds were collected from the various soil layers, floors, pits, etc., in units called 'lots'. The lots were washed, sorted and counted. Non-diagnostic sherds were discarded, while the diagnostics were drawn and analyzed further.

Because of the relative paucity of significant architectural material and the few small finds, we have decided to illustrate a large proportion of the sherds from these sites. Fifty-five percent of Ajamat's diagnostic sherds and 31% of Ahmed al-Mughir's have been shown on Plates 111-116. Along with the sherds have been placed the three registered pottery vessels from these excavations.

The wares have been identified by color, with occasional references to temper and coarseness of texture, in the descriptions accompanying the plates. In general the wares were of medium texture. There were no examples of very fine texture among our sherds. Sherds with a coarse texture will be noted in the following discussion. The Munsell values for our color designations follow the format used at Razuk. 'Cream' (Munsell 2.5Y 8/4, pale yellow) is somewhat lighter than 'buff'.

The discussion which follows is of necessity not a thorough-going analysis of the excavated pottery, and the conclusions drawn must be regarded as provisional. The undertaking has been handicapped by the lack of complete forms; what is presented here is fundamentally a typology of vessel rims. These rims, along with a few bases and diagnostic body sherds, have been grouped according to similarity of profile. Generally these groups have been arranged internally by diameter measurement. The typology thus produced is of the most general nature. In several cases it is clear that several very different types of vessels are grouped together because of the similarity of their rims. Such lumping together of types is unavoidable and should cause few difficulties if the situation is recognized from the outset.

No tablets were found at either site, and, in the absence of any dated material, ceramic parallels from other sites have been drawn upon to provide the time-frames for our groups of pottery.

The pottery from the early levels at Ahmed al-Mughir (Levels V and IV) will be treated first, then the later Ahmed material (Levels III and II), together with the Ajamat sherds.

Pottery from the Early Levels of Ahmed al-Mughir (Pls. 111-112:1-45)

There are several types of bowls present in Levels V and IV. Alongside the simple plain-rimmed bowl (Pl. 111:1-3), are those with everted rims (Pl. 111:4-5) and inturned rims (Pl. 111:6-8). Bowls with club rims have curved sides or are sometimes slightly carinated (Pl. 111:9-14). There is another type (Pl. 111:15-19) with an overhanging club rim; below the rim is a ridge indicating a genuine or apparent carination. All these bowls are medium-to-large in size. There are no examples less than sixteen centimeters in rim diameter.

The deep bowls appear to share their profile with a number of vats so they have been grouped together here (Pl. 111:20-41). The bowls are often decorated with parallel horizontal grooves. The larger examples regularly have ridges, rope decoration and incised wavy lines. From comparisons with the Diyala material we can surmise that these bowls and vats have ring bases, of which a number have been found (Pl. 111:43-44). One spouted sherd (Pl. 111:42) was presumably from a large bowl such as is represented by Pl. 111:15-19.

A generally poorly-fired holemouth form using a lot of sand temper seems to have served as the basic cooking-pot (Pl. 111:45-49). The ware of this hand-made group, brown in color, low-fired and brittle, serves to distinguish it from the other types. Rim diameters range from sixteen to thirty centimeters, indicating that this form came in a variety of sizes.

The standard-sized jars demonstrate a remarkable uniformity of rim-type. The preponderance of rims have a triangular profile (Pl. 112: 1-25), while a few have band rims (Pl. 112:26-28). Similar examples from other sites generally have ovoid bodies with distinct necks, and rounded, flat or ring bases (see plate description for parallels).

There are several sherds from cups (Pl. 112:32-39). These cups are cylindrical in shape, sometimes with slightly convex sides. There are also three examples of a small jar with a plain, sometimes slightly flared rim (Pl. 112:29-31).

Comparison of the early Ahmed forms with material from both published and unpublished sites leads to the conclusion that Levels V and IV of Ahmed al-Mughir are of the Isin-Larsa period and are most probably from the end of that time-range. Many useful comparisons can be made to as-yet-unpublished material from Umm al-Hafriyat, near Nippur in southern Iraq. On Mound A of that site a sounding was made to virgin soil. Although the sounding provided no dated tablets, its top and bottom levels could be firmly linked to the Old Babylonian and Ur III periods, respectively, by means of well-dated ceramic parallels from Nippur. Between these two levels were three meters of Isin-Larsa remains.

The most important of the Umm al-Hafriyat parallels are to the standard jars with triangular rims (Pl. 112:1-25). Isin-Larsa burials at Umm al-Hafriyat provided a large group of these jars, consistently having the triangular rim. This jar developed from earlier Ur III types, and went out of use during the Old Babylonian period, when the band-rim jar, of which we had several examples at Ahmed (Pl.112:26-28), came to predominate. The cylindrical cup

occurred in Isin-Larsa contexts at Umm al-Hafriyat and Nippur. Likewise, holemouth cooking-pots identical to those at Ahmed al-Mughir (Pl. 111:45-49) were found in Isin-Larsa contexts at Umm al-Hafriyat.

A number of forms can be paralleled with Old Babylonian forms at Nippur, including the deep bowls,¹ band-rim jars,² and cylindrical cups.³ Nippur also provides examples of the jar with triangular rim from Ur III and Isin-Larsa contexts.⁴

The Diyala region provides comparative material much closer geographically to the Hamrin Basin. Here we find good parallels to the cylindrical cups,⁵ deep bowls,⁶ and triangular-rim jars.⁷ All these are dated to the Late Larsa and/or Old Babylonian time-range.

It seems apparent, then, that the Ahmed al-Mughir pottery (Levels V, IV) should fall into the latter part of the Isin-Larsa period. The absence of any Old Babylonian painted pottery argues against placing this assemblage squarely in the Old Babylonian time-range. (This painted pottery, however, does not occur in the Diyala either.) More important is the absence of a number of distinctive types, which were common at Nippur during the Old Babylonian period.⁸ The only problem with an Isin-Larsa date is the puzzling absence of the small-to-medium-sized carinated or band-rim bowl. This shallow bowl is regularly used as a diagnostic indicator for both the Ur III and Isin-Larsa periods throughout Southern Mesopotamia. Delougaz called it 'the most common of household bowls of the Larsa period',⁹ in the Diyala region. Its absence in the Ahmed collection remains to be explained. There are a number of larger bowls with carinated profiles (Pl. 111:4-5, 15-19) showing that the form was known.

Several sherds appear to be completely out-of-context in Isin-Larsa. Some (Pl. 112:40-44) are most probably Akkadian, while Plate 112:45 is clearly Ubaid.

Pottery from the Late Levels of Ahmed al-Mughir and Ajamat

The late levels of Ahmed al-Mughir represent an accumulation of about sixty to eighty centimeters' depth. In contrast, the comparable ancient deposit at Tell Ajamat was more than three meters deep. The pottery of the two deposits, however, is very much alike, although there are significant differences. At the same time, there was not a great deal of change in types or in frequencies from the bottom to the top of the Ajamat sounding. Two types that did appear only in the upper part of Ajamat, a bowl and the base of a small jar, were very distinctive and appear to have chronological significance. These will be discussed below.

In the absence of a large enough number of sherds to make statistical procedures productive in establishing a ceramic sequence, we have decided to treat all the Ajamat sherds as a group, rather than by levels. The locus and level of each sherd is given, however, in the plate descriptions.

Taken as a whole, the pottery from the upper levels of Ahmed al-Mughir (III, II) and the major part of the Ajamat strata belongs to the Late Kassite/post-Kassite range. This conclusion will be elucidated following a description of the sherds from both sites.

Simple bowls were found at both sites. However, while at Ajamat they were numerous (Pl. 115:1-27), with rim diameters from fourteen to forty-two centimeters, Ahmed yielded only one (Pl. 112:46). By contrast, Ahmed had a large group of bowls with gently incurving sides (Pls. 112:52-67, 113:1-6), while Ajamat had only one comparable example (Pl. 115:31).

Another group of curved-sided bowls (Pl. 115:51-55) with a sharply inturned rim set off by a horizontal external groove and a narrow range of diameters (18-22 cm.) was found only at Ajamat, and there only from Locus 12, Floor 1 and above. This is one of the two types that may be chronologically significant.

Ajamat had a group of carinated bowls (Pl. 115:41-50), but Ahmed al-Mughir had only one (Pl. 112:51). On the other hand, Ajamat had one bowl with club rim (Pl. 115:37), while Ahmed had a good number (Pl. 113:7-16). Both sites, however, had about the same number of straight-sided bowls with overhanging, band rims (Pl. 112:47-50 and Pl. 115:32-36, 38-40). We have found no exact parallels for this last type of bowl.

Other bowl types at Ajamat had everted rims (Pl. 115:28-31) or bevelled rims (Pl. 115:59-60).

The excavation at both sites produced more than twenty bases for bowls, most of which were string-cut.

Rims of jars that were probably cooking-pots were found at both sites (Pls. 113:17-20; 115:61-65; 116:10-13). The texture of the wares is coarser than for other types, and some sherds had grit temper. These vessels seem to have been a continuation of a hand-made, grit tempered cooking-pot tradition known from Early Dynastic and early Akkadian contexts at Tell Razuk. In addition to the cooking ware sherds, Ahmed yielded evidence of well-made, wide-mouthed vessels which may have been used for cooking or storage. These had square or rectangular rims and were often decorated with ridges or grooves; they were only occasionally slipped. One can see in this group a progression of similarly-profiled vessels from small, bowl-sized pots to large vats (Pls. 113:21-50; 114:1-6). Ajamat had a good number of the vats, but the smaller vessels in the series were not represented (Pl. 116:14-24).

There were numerous fragments of a small jar type that had a simple flaring rim, an ovoid or globular body, and a button base (Pl. 114:41-50 and Pl. 116:1-8, 25-30). The three registered vessels from these two sites are of this type (Uc 141, Pl. 114:40; Uc 263, Pl. 116:8; Uc 264, Pl. 116:9). Several fragments of large, heavy goblets (the 'Kassite goblet') were found at Ajamat (Pl. 115:96-98), but there were none found at Ahmed.

Nipple bases of three small jars (Pl. 116:31-33) were found at Ajamat. This is the second type that may be chronologically significant. Two of these bases were from Locus 7 (Level II) which marks the end of the ancient occupation at Ajamat. The third was a surface find.

The principal jar rim at both sites was a band rim, vertical or nearly so, which was usually rectangular or triangular in section and often indented. The rim diameter was relatively uniform, with most examples falling between twelve and sixteen centimeters (Pls. 114:7-39; 115:66-95). The relative number of variations of the jar rim was about the same in both tells.

Miscellaneous forms from Ajamat included bowls with thickened rims (Pl. 115:55-56), a bowl with an exterior ledge (Pl. 115:58), a pot stand (Pl. 116:35), and a pointed-based jar (Pl. 116:34).

As was stated above, the Ajamat and late Ahmed al-Mughir assemblages fit best in the late Kassite/post-Kassite time-range. This period is, ceramically speaking, still largely unknown, and one is able to assign only the most approximate date. The pottery from Area WB,

Levels II-C and I-C, at Nippur provides the most useful set of published parallels. Level II-C can be dated to approximately 1250 B.C., by tablets of the reigns of Kudur-Enlil and Shagarakti-Shuriash. Level I-C is somewhat later, but cannot be fixed even to a single century. It must, however, be earlier than 700 B.C., and probably lies closer to 1100 B.C. than to 700 B.C.¹⁰

Taking the Ahmed and Ajamat pottery as a unit, one sees immediately that the simple bowl, the carinated bowl, the incurving bowl and the club-rim bowl of the Hamrin are all paralleled in Levels II-C and I-C at Nippur.¹¹ The predominance of the types that are not simple at Uch Tepe would link our sites to Level I-C rather than II-C at Nippur.

Jars with band rims, button-based jars, and large goblets occurred in both levels at Nippur. One must contrast, however, the frequent occurrence of the large goblet in Nippur II-C with its relative rarity at Ajamat and total absence at Ahmed al-Mughir. The ring-shaped pot stand, which is a standard Kassite form at Nippur, in Levels III and II, is evidenced by only one example at Ajamat (Pl. 116:35), and none at Ahmed al-Mughir.

The incurving bowl with its rim set off by a horizontal groove (Pl. 115:51-56), found above Floor 1 in Locus 12 at Ajamat, does not occur at Nippur before Level I-C, the post-Kassite level.¹² The Ajamat nipple bases (Pl. 116:31-33) have no parallels in Nippur Area WB, but two vessels from Nippur Trench TA are comparable.¹³ They are from levels which are approximately contemporary with Area WB, Level I-C.

Given the Nippur parallels, we would date Level IV of Tell Ajamat to the late Kassite period, while Levels III and II would be post-Kassite.

The age of Tell Ahmed al-Mughir relative to Tell Ajamat is somewhat problematic. If we take into consideration the fact that the bowl with an inturned rim, and the nipple-based jar occurred at Ajamat, but not at Ahmed, we would conclude that Ahmed Levels III and II came to an end before Ajamat III and II. However, the presence of a large proportion of bowls with club rims at Ahmed, and the almost total absence of the type at Ajamat, gives a seemingly contradictory conclusion. Club rims are a feature of post-Kassite Nippur.

We can only conclude that Levels III and II at Ahmed al-Mughir lie within the late Kassite/post-Kassite time-range. Features we associate with the period of Assyrian domination in Babylonia are absent from the Uch Tepe material, so it should date from earlier, rather than later, in the post-Kassite period. It is unlikely that even the latest material post-dates the beginning of the first millennium, B.C., although one sherd from the surface of Ajamat could conceivably be of Neo-Assyrian age (Pl. 116:7). This thin-walled, dimpled, sherd might be a fragment of Assyrian Palace Ware. However, since similar wares are known from as early as fifteenth century B.C. Nuzi,¹⁴ this sherd would not be out of place in the late Kassite/post-Kassite range.

Several sherds in late contexts are probably to be dated to periods earlier than the late Kassite. There are several Akkadian types (Pls. 112:40-44; 114:52-53; 116:36-38). Others are likely to be Isin-Larsa in time (Pls. 114:54-55, 116:39).

The close affinities between the pottery of the Hamrin Basin and the southern Mesopotamian heartland would seem to be suggestive of close political and cultural ties. The presence

of a Babylonian pottery tradition in the Hamrin Basin during the late second millennium, B.C., reinforces J. Reade's conclusion, based on topographical arguments, that the Hamrin was well within the region ruled by the Kassite and post-Kassite kings.¹⁵

FOOTNOTES:

- 1 McGuire Gibson *et al.*, *Excavations at Nippur: Twelfth Season*, Oriental Institute Communications, 23 (Chicago: University of Chicago, 1978), Fig. 61:2a-b (hereafter cited as *Nippur 12*).
- 2 *Ibid.*, Fig. 61:1.
- 3 *Ibid.*, Fig. 59:4a-5.
- 4 Donald E. McCown and Richard C. Haines, *Nippur I: Temple of Enlil, Scribal Quarter and Soundings*, Oriental Institute Publications, 78 (Chicago: University of Chicago Press, 1967), Pls. 86:9, 87:3, 4, 8-11; 90:17 (hereafter cited as *Nippur I*).
- 5 Pinhas Delougaz, *Pottery from the Diyala Region*, Oriental Institute Publications, 63 (Chicago: University of Chicago Press, 1952), B.236.200c, B.236.300, B.237.200, B.247.200.
- 6 *Ibid.*, C.043.310, C.044.310.
- 7 *Ibid.*, C.545.340d.
- 8 Not present, for example, are types comparable to *Nippur 12*, Fig. 59:2a-d; and Fig. 60:5, 8, all of which are distinctively Old Babylonian.
- 9 Delougaz, *Pottery*, p. 115; see also Pl. 120a and B.151.210.
- 10 For the dating evidence, see *Nippur 12*, p. 68 and p. 84.
- 11 *Ibid.*, Figs. 62-65.
- 12 *Ibid.*, Fig. 65:22-27.
- 13 *Nippur I*, Pl. 102:13, 16.
- 14 Richard F.S. Starr, *Nuzi* (Cambridge, Mass.: Harvard University Press, 1937), Pls. 77, 78, *passim*.
- 15 J.E. Reade, 'Kassites and Assyrians in Iran', *Iran* 16 (1978), pp. 137-143.

Chapter IX

SUMMATION

McGuire Gibson

In this report, we have presented an account of the stratigraphy, architecture, and finds from Tell Razuk, Tell Ahmed al-Mughir, and Tell Ajamat. Analyses are in progress on the animal bones, soil samples, carbon samples, sherds and other classes of material. The combination of results from scientific studies, such as the neutron activation analysis of the pottery, with more detailed archaeological work, such as the consideration of relationships between classes of artifacts found in specific kinds of loci, will allow us to make more definitive statements on the function of the Round Building at Razuk.

We have referred to the Round Building as a fortress, a citadel, and as housing for a garrison. We have also, however, been able to show little in the way of military equipment in the building. On the contrary, we described in Loci 47 and 421, the West Room, at Level V B, changes in architecture with a group of artifacts that seemed more in keeping with a house rather than a military establishment. In that room, at that level, a jar-hearth was built. We have seen examples of such hearths or bread ovens, in a number of houses outside the Round Building. We must consider, then, whether the Round Building might have had a non-military function. It might be suggested that the structure was a temple or a palace.

In the Round Building, there was no indication of an altar or other installation usually associated with Early Dynastic temples. The large bins found in the Court were of the same type as one found outside the building, in Locus 99. Similar structures at Tell Qasim and Tell Gubba seemed as utilitarian as ours. We also found none of the artifacts usually discovered in Early Dynastic temples. Given the close connections in pottery between our site and the Diyala, we would expect similar distributions of artifacts and rather unusual finds in a temple. The Round Building yielded only a few items that would be considered high status artifacts, namely the cylinder seals. There were many sherds of Scarlet Ware found in the Round Building, especially in the Entry Room, but the distribution, when compared to the house areas, was not indicative of a special status for the inhabitants of the Round Building.

If we had to choose a designation other than fortress or citadel we would prefer to use the term administrative building rather than palace. Although ingeniously planned and constructed, the Round Building does not seem to have been palatial, but rather to have been

a stronghold. We would see it as an outpost for a state located outside the Basin, probably in the Diyala. The town, developing to the north, west and south of the Round Building, seems to have been built so as to leave an access corridor around the citadel, the back walls of the houses acting as an enclosure with only a few doorways. The corridor, intentionally or unintentionally, began to develop a slope down from the face of the outer wall, and to present, therefore, somewhat more difficulty for anyone wishing to gain access to the Round Building. At Tell Gubba, outside the complex of ring walls, there was a moat dug to impede any attackers. We presume that the corridor at Razuk was designed to serve the same purpose.

The entrance to the Round Building, and perhaps to the Level II building that rested above it, was on the northwest. The presence of a door in the wall opposite the Outer Door in all levels clearly indicates that this area, initially enclosed with a buttressed, curving wall (GZ), must be taken as an indication of a close relationship between that area and the Round Building. We cannot say exactly, not having been able to expose much of the town area, why the Round Building and its access lane were oriented as they were. We have suggested that the town was founded on a natural gravelly ridge above the general level of the plain. The fortress seems to have been laid out so that its door looked out on the valley below. It may be that the ancient road ran on the plain just to the west and north of the site, as it did in late Ottoman times. The height of the Round Building would have made it possible to view a good part of the Basin, even the top of the Jebel Nasaz to the south. It may be, however, that the fortress also faced another major route, a line west to the Narin and over the Jebel Hamrin. There was such a track from Uch Tepe to the Narin Bridge before 1918 (Pl. 1:2).

The buildup of houses outside the Round Building would have diminished its defensive character since any enemy gaining access to the roofs of the houses would have been able to throw spears, or shoot arrows into the fortress. However, access to the roofs would have been difficult to gain if there had been, as we think there was, a town wall. Even after breaching the town wall, enemies could still have been held up in the narrow lanes of the town.

We would, then, see the Round Building as a fortress, probably with some administrative functions although such work might have been done in more usual buildings outside the citadel. The finds inside the Round Building can be accounted for as the debris from a garrison, with some signs of administrative duties (seals) perhaps relating only to the garrison itself. The presence of hearths and the signs of smoke in all the rooms can be accounted for by activities of a garrison. With Level V B, however, the changes in the artifacts of Loci 47 and 421 may denote a change in the use of the building. It may no longer have been a garrison, but may have been used for housing. In later levels, the ruin of the building must certainly be seen as functioning in a different manner than intended.

The relationship of the Round Building with other sites in the Basin cannot be detailed until they are published. The plan and section of the complex at Tell Gubba¹ allows some comparisons. Although clearly a more massive complex, the considerably earlier buildings of Tell Gubba are less sophisticated architecturally than the Round Building at Razuk. The important steps toward the Razuk design had been made, however. The section at Gubba

shows very clearly the corbelled construction, with the outer walls leaning in toward the central, solid core. Corbelling over doorways at Gubba and at Tell Qasim was a related development.

We can, perhaps, suggest some conclusions on Early Dynastic settlement in the Hamrin if we assume that routes were much the same as they were in the Ottoman Period. It will be noted that the excavated sites with Early Dynastic pottery lie, with the exception of Tell Gubba, in much the same situation as Razuk. Tell Madhhur, a considerably smaller kind of round structure, is at the junction of the major northern route (from the Qara Tepe area to Jalawla) with a road from Uch Tepe. Resting as it did on a deep deposit of earlier material, the Early Dynastic structure at Madhhur may also have been somewhat above the plain at that time.

At the large, heavily fortified site of Tell Qasim, we can see differences and similarities with Razuk. There are certain internal features, such as corbelled doorways and large bins that are similar to features of the Razuk Round Building. However, the plan and construction of that fortress and the existence of a number of internal housing units make it appear different from the Round Building. A good number of people could have been housed at Tell Qasim. There was, as far as we know at this time, no town around that fortress. Whether the internal rooms in the fortress were for the use of a garrison, or whether they were for families as well, we cannot say. The location of the site is, however, analogous to that of Razuk, just under the Jebel Nasaz, on the route from Sa'adiya to Qara Tepe and at the juncture with a major route that crosses the Narin.

The placement of Tell Gubba is different from the other three sites. It is located at or near the juncture of the Diyala and the Narin, perhaps dominating a major crossing point for both rivers. That site is also different in having evidence of a long time-span. The pottery from Tell Gubba can be used to place the other sites in chronological relation. We cannot give much detail, but have a few impressions. As has been said in Chapter V, the pottery of Tell Razuk is paralleled by the pottery of Gubba Level IV, at the end of that sequence (late ED I-II). The Scarlet Ware from the other Early Dynastic sites seems to indicate that they are from the Early Dynastic I period but earlier than Razuk. So far, we can only say that the pottery from Ahmed al-Hattu, a cemetery that must be related to a living site, is definitely much earlier than the Razuk wares. We would expect that the living site connected with the Ahmed al-Hattu cemetery, and presumably located on that tell, might be another fortified point. A settlement at this location would duplicate, more or less, the functions of Razuk, but at an earlier period.

The pottery from the cemetery at Qasim, which we assume must have been the burying place for the occupants of that fortress, is also earlier than ours and later than that of Tell Ahmed al-Hattu. Parallels can be found at Gubba, we have been told.

We attempted to find a cemetery connected with Tell Razuk, but did not do so. Our search was not exhaustive, however.

The general impression one can gain from the evidence thus far in hand is that Tell Gubba existed from perhaps 3,000 B.C. until the end of the Early Dynastic II period. Tell

Ahmed al-Hattu was occupied some time early in Early Dynastic I, while Madhhur, and Tell Qasim were occupied somewhat later. Finally, at the end of the time span, Razuk was occupied.

It would appear that the major concern of the Early Dynastic people was to control the southern part of the valley with its massive fortress at Gubba. Presumably the main route to Iran was dominated by a fort at Suleimeh or another tell in that vicinity. The northern end of the valley was controlled by the establishing of strongpoints in different places at different times. Admittedly we have only a few of the possible Early Dynastic sites, and the pattern might look quite different if we had more settlements, but the relationship of the southern part to the northern part in the alluvial plain would not be altered appreciably. There are probably Early Dynastic levels at Yelkhi, Khalawah, and Abqa' and these might have been as long-lived as the one at Gubba.

The relationship of the Early Dynastic settlements in the Hamrin to the rest of ancient Mesopotamia must await more extensive publication of results. It is our conclusion, however, that the Hamrin in this time period was closely connected with the Diyala and the areas to the south. We have no difficulty placing our pottery in a Diyala context. There is, as far as we can see, no distinctively 'Hamrin' Scarlet Ware, although the manufacture was probably local. We have indicated that a sherd and a vessel (found in a pit with a jar we would date to the early Akkadian) may have a parallel in Iran, and would propose that the tradition continued for some time in the east.

In terms of architecture, the Hamrin appears to have been developing building techniques different from that in southern Iraq. The Round Buildings at Madhhur and Razuk may have had their closest predecessor in Level XI A (Uruk) at Tepe Gawra.² The existence of a vaulted room in Level VIII A, approximately contemporary with Razuk, or somewhat earlier, at the same site,³ appears to place the building techniques vividly brought to light in the Hamrin in a 'northern' tradition. We would suggest that the salinity of the soil in alluvial, southern Iraq made it impossible to achieve the same architectural results in those areas with unbaked bricks and the lack of fuel prevented their duplication with baked brick in early periods. We suspect that, with new excavations in northern Iraq, the Hamrin architecture would not appear to be so revolutionary. With the exposure of the Round Buildings at Tell Gubba and Tell Razuk, the Temple Ovals at Khafajah, Ubaid, and Tell al-Hiba likewise appear not so isolated. It might be suggested that in the Early Dynastic I period, the Hamrin Basin was held by a city or cities in the Diyala and fortified in order to protect the vital irrigation outlets on the southern side of the Jebel Hamrin.⁴ The apparent abandonment of the area before Early Dynastic III (with perhaps the independent state of Awal holding only Suleimeh?) and the construction of large fortified structures such as the Temple Oval at Khafajah in Early Dynastic II and III may have been related developments.

It is clear that the Hamrin has furnished information that will cause a reevaluation not only of architectural and artifactual relationships, but of power relationships as well. Such reevaluations will extend to other periods. The redating of the pottery we have called early Akkadian, if accepted, will cause shifts in sequences and some reassessments of material. It

is becoming clearer that the earliest Akkadian kings, especially Sargon, were in terms of pottery and other artifacts, Early Dynastic in style. The lag of artifactual change behind period change, noted not only in the case of Early Dynastic III-early Akkadian, but all periods, must be taken into account if settlement pattern studies are to show some indication of historical events. For instance, relationships between Mesopotamian dynasties and foreign ones, such as the one at Ebla in Syria, cannot be elucidated unless a correct identification of pottery is made.

We cannot draw as many conclusions from, nor suggest possible links for, the material found at Tell Ahmed al-Mughir and Tell Ajamat. The pottery from the Isin-Larsa levels at Tell Ahmed al-Mughir fits well within the Diyala and Nippur pottery sequences, with some variations. Again, we would point out the close connections with the south. In later levels at both sites, the connections are also strong with the south, and it has been suggested that the Kassite and post-Kassite pottery, as well as the nature of sites of this range in the Hamrin, reflect the fact that the valley was well within the control of Babylonian kings at the time.

One general conclusion we have reached is that although the Diyala pottery sequence has been viewed by some scholars as provincial and not reflective of the overall development of ceramics in southern Iraq, we have found it to be comparable in most periods. There may be a need for shifts of types from some periods to others, and there may be regional variations in some categories of pottery, but on the whole, new types from other areas seem to have reached the Diyala relatively quickly. In some cases, types that appeared in the Diyala may have been passed to other areas, again relatively quickly. A firmer control over sequences and the correlation of archaeological data with textual sources might allow some estimate of the rate at which items, styles, and ideas passed from one area to another.

Analyses on a variety of samples is continuing and these studies may bring about some changes in our view of the sites reported here. Material from other sites in the Hamrin undoubtedly will change our assessment of our material. The Hamrin Project, exposing the largest number of sites in one area ever excavated in Iraq, has provided us with a unique opportunity for the understanding of a region. In many ways, the statement that the most important things in the valley are the roads that lead out of it, is true. In comparison to much more important, larger sites north and south of the Basin, the tells in the Hamrin might be thought to be unimpressive. However, the sites taken in relation to one another have an importance far outweighing the number of finds or individual buildings. It is as if we had done a surface survey in depth, and the conclusions to be derived from the material, when all or most of the sites are published, should be far more sophisticated than those normally derived from surface reconnaissance. In addition, the number of sites excavated for any given period should make it possible to identify local traditions and regional styles in classes of artifacts.

The Hamrin Project has, then, furnished us with special opportunities for study and new syntheses of ancient history and society.

⁺
FOODNOTES:

- 1 *Sumer* 35 (1979), Figs. 2, 4.
- 2 A.J. Tobler, *Excavations at Tepe Gawra*, 2 (Philadelphia: University of Pennsylvania, 1950), Pl. VI-VIII.
- 3 E.A. Speiser, *Excavations at Tepe Gawra*, 1 (Philadelphia: University of Pennsylvania, 1935), Pl. XIII, Room 846.
- 4 Ingolf Thuesen first suggested to me the role of the Hamrin fortifications as protectors for the Diyala canal offtakes. See the account, above p. 18, of the British drive to seize the Diyala offtakes in the First World War.

Appendix I

EARLY HISTORY OF THE HAMRIN BASIN IN THE LIGHT OF TEXTUAL EVIDENCE*

Piotr Steinkeller

The purpose of this note is to offer a brief discussion of the textual data pertaining to the history of the Hamrin Basin up to the end of the Old Babylonian period.¹ Later sources are not treated here, since this would only duplicate the work recently done by J.N. Postgate.²

It will be useful to begin our discussion with a few words about the cuneiform evidence for Jebel Hamrin, the 'lock of the land', as it was figuratively called by the Babylonians.³ The ancient name of Jebel Hamrin was Ebih(EN.TI) in Sumerian, and Abih (later also Ebih) in Akkadian. The earliest references to this mountain range come from the Pre-Sargonic and Sargonic personal names that invoke the deified Mount Ebih (written ^dEN.TI or EN.TI).⁴ Similar names are attested in Ur III texts, with a difference that the divine element in question is always written syllabically in them.⁵

In the Ur III material, one also finds references to the toponym EN.TI, which was interpreted by D.O. Edzard and G. Farber as 'eine Stadt in der Nähe dieses Gebirges [i.e., Jebel Hamrin]'.⁶ The available data, however, make it clear that this EN.TI was a small settlement situated in the vicinity of Girsu in Southern Babylonia. This point is demonstrated first of all by the fact that all of the attestations of this toponym come from the Girsu tablets.⁷ Another reason for choosing this localization is that most of its mentions concern the érin EN.TI^{ki}, 'soldiers/workers of EN.TI', who appear in connection with various corvée-work assignments carried out in or around Girsu.⁸ But the most convincing piece of evidence that EN.TI was located near Girsu and not in Jebel Hamrin is provided by an unpublished court document from Girsu (BM 25077, courtesy I.J. Gelb), which records a litigation involving an orchard situated šag₄ EN.TI^{ki}-ka, 'in EN.TI' (line 2).

The only connection, if any, that one could envision between the EN.TI of the Girsu region and Jebel Hamrin is that the original home of the inhabitants of EN.TI was in Jebel Hamrin, from where either they themselves or their ancestors had been deported as prisoners-of-war and resettled in Southern Babylonia.⁹ The case of the deportees from Šīmanum who were resettled near Nippur during the reign of Šu-Sin presents here an obvious analogy.¹⁰ This

analogy is further strengthened by the fact that, even after their transplantation to Mesopotamia, the latter continued to be identified as the érin si-ma-num^{ki}, 'soldiers/workers of Šimanum'.¹¹

Since all of the data cited above concern Jebel Hamrin only indirectly, the oldest source that makes a specific reference to this mountain range must be considered the inscription of an Old Assyrian king Ilušuma describing the engineering works that Ilušuma executed in Mount Ebiḥ.¹²

To my knowledge, the only mention of Jebel Hamrin in the Old Babylonian sources comes from the formula of Samsuiluna's 37th year.¹³ For the references to Jebel Hamrin in later texts, consult the literature cited in note 3.

The history of the Hamrin Basin is veiled in total darkness until the Sargonic period. Although conclusive evidence is so far lacking, our knowledge of the territorial extent of the Old Akkadian empire is sufficient to assume that this region was included among the areas directly controlled by the Sargonic kings, at least during the period from the later years of Sargon till the second half of Naram-Sin's reign. Until recently, the only textual evidence pertaining to the Hamrin Basin in the Sargonic period was random occurrences of toponyms which could conceivably belong there. It may now be hoped that the Sargonic tablets excavated in 1979 by an Iraqi expedition at the site of Tell as-Suleimeh, which is situated on the Diyala 5 km. downstream from Sa'adiya¹⁴, will prove informative enough to change this situation dramatically. An edition of the Tell as-Suleimeh tablets is presently being prepared by Dr. Fawzy Rashid, who, as I am kindly informed by Mr. Richard Zettler, will propose that the ancient name of Tell as-Suleimeh was Awal, based on the fact that Awal is the most frequently mentioned place-name in these texts. As long as the tablets remain unpublished, it would be premature to judge the correctness of this identification. Nevertheless, it seems safe to assume that Awal, even if it turns out not to be Tell as-Suleimeh itself, is to be sought in the general area of that site. And Tell as-Suleimeh is an excellent candidate for Awal, due to its impressive architecture and the strategic position on the main road.

Awal is mentioned a few times in the Sargonic material,¹⁵ but these examples offer no clue as to its location. Awal's name subsequently reappears in Ur III tablets, where it is spelled a-ba-al^{ki}.¹⁶ It was on the basis of the latter attestations, coupled with other circumstantial data, that R.M. Whiting proposed to locate Awal in the upper section of the Diyala region.¹⁷ This hypothesis is now fully confirmed by the Tell as-Suleimeh tablets.

The struggle of the Sargonic kings for the control of the Hamrin Basin may be alluded to in a Sumerian hymn called 'Inanna and Mount Ebiḥ', whose main theme is the revolt of Mount Ebiḥ against the goddess Inanna.¹⁸ If, as is commonly believed,¹⁹ the composition of this hymn is to be attributed to Enḫeduanna, the daughter of Sargon and highpriestess of the moongod Nanna/Sin,²⁰ its *topos* could very well reflect the political events of Enḫeduanna's age, e.g., the general revolt of the trans-Tigridian territories in the later half of Naram-Sin's reign.

The history of the Hamrin Basin is somewhat better documented in Ur III times. From that period, we have an important group of Drehem texts which record deliveries of the tax

which was paid by the military colonists settled in the peripheral areas of Mesopotamia.²¹ This tax was paid yearly in animals, and its amount depended on the military rank of the taxpayer. The territories which were subject to the tax formed a large belt extending eastward from the left bank of the Tigris. In the north-west, the furthest extensions of this belt, which was clearly meant to serve as a buffer zone between Mesopotamia and the Zagros, appear to have been Assur and Urbilum (modern Erbil), while in the south-east it reached as far as Sabum, Adamdun, and Susa. A key role in this system of *limes* was played by the Diyala region, and with it, the Hamrin Basin. A large number of places which paid the above tax can roughly be located in the Diyala region, but, due to our still very imperfect knowledge of the geography of the Ur III state, it is difficult to assign any of them specifically to the Hamrin Basin. The only exception here is the aforementioned city of Awal. The Drehem tax documents record the delivery of the tax from Awal in the years Šulgi 46²² and Amar-Sin 5.²³ In the latter year, the tax of Awal was paid together with that of Tašil. In both instances, the person responsible for the collection and delivery of the tax was an official called Išar-ramaš, who also paid the highest tax.²⁴ This allows us to establish that, in the years Šulgi 46–Amar-Sin 5, Išar-ramaš exercised control (either as ‘governor-general’ [šagina] or ‘governor’ [énsi]) over both Awal and Tašil, and, as a corollary, that Tašil was situated not far from Awal.²⁵

Based on the seal-inscription which appears on a tablet from Ešnunna, Whiting was able to demonstrate that, during the reign of Šu-Sin, Awal was governed by Babati, the brother of the queen Abi-simti and the uncle of Šu-Sin.²⁶ In this inscription, Babati is called the ‘governor’ of Awal and the ‘governor-general’ of Maškan-šarrum. As far as the location of Maškan-šarrum is concerned, this city is almost certainly to be sought in the place where the Tigris enters the plain, somewhere between the Fatha Gorge and Tikrit.²⁷ The territory controlled by Babati thus seems to have formed a triangle, whose three sides were delineated by the Tigris in the north-west, Jebel Hamrin in the north-east, and the Diyala in the south-east. The two focal points of this triangle – Awal and Maškan-šarrum – both were of capital strategic importance: the first over the Hamrin pass on the Diyala and the second over the Fatha gorge on the Tigris.

Awal is also mentioned in an inscription of Ilušuma, the same one which makes reference to Jebel Hamrin. In this text, whose historical import has been the object of an unending debate, Ilušuma claims to have ‘washed’ the copper of the Akkadians and to have established their ‘freedom’ from ‘the border of the marshes and Ur and Nippur, Awal and Kismar, Der of the god Ištaran, as far as the City (i.e., Assur)’. Regarding the triad of Awal, Kismar and Der, the question has often been raised as to the reason why Ilušuma singled out these particular three towns, which did not belong to Babylonia, and, with the exception of Der, were not known to have had any special significance.²⁸ Now, since Kismar was in all probability situated in the vicinity of Maškan-šarrum,²⁹ it is not coincidental that Ilušuma’s inscription mentions the same two strategic points that were earlier controlled by Babati. And it is their strategic importance that Awal and Kismar have in common with Der, the key station on the main route from Northern Babylonia to Elam. In light of this fact, Ilušuma’s enigmatic statement of having ‘freed’ the Akkadians and having ‘washed’ their copper could

be explained as an allusion to a trade agreement by which Ilušuma opened the trans-Tigridian trade routes to the Babylonian merchants and permitted the exportation of copper to Babylonia.³⁰

There are extant several other references to Awal in the sources of the Old Babylonian date.³¹ Among these we may single out the one found in a letter apparently written at Awal, in which the sender informs the addressee about his plans of travelling from there to Assur.³² Also noteworthy is the mention of Awal (written a-ma-al^{ki}) in the formula of Samsuiluna's 35th regnal year.³³ The fourteen Old Babylonian tablets which were reported at Tell as-Suleimeh,³⁴ should throw further light on the history of Awal in that period. It appears that Awal lost its importance after the Old Babylonian period, as suggested by the absence of mentions of this toponym in later texts.

With the exception of the reference to Jebel Hamrin in the formula of Samsuiluna's 37th year cited earlier, no other evidence is available at this point for the Hamrin Basin in the Old Babylonian period. The recent discovery of several hundred tablets at Tell as-Sib,³⁵ should, however, greatly expand that area of our knowledge in the near future.

FOOTNOTES:

- * The abbreviations used in this appendix are those of the *Chicago Assyrian Dictionary* with the following additions:

RGTC *Répertoire Géographique des Textes Cunéiformes* (Wiesbaden, 1974-)

TEL Charles Viroilleaud and M. Lambert, *Tablettes économiques de Lagash (époque de la III^e dynastie d'Ur)* (Paris, 1968)

- 1 The term 'Old Babylonian' is used here in its assyriological sense, to include the Isin-Larsa and Old Babylonian archaeological periods.
- 2 'The Historical Geography of the Hamrin Basin', *Sumer* 35 (1979), pp. 591-594.
- 3 For Jebel Hamrin in cuneiform sources, see E. Weidner, *AfO* 9 (1933-34), p. 46 notes 35-38; F. Thureau-Dangin, *RA* 31 (1934), pp. 84-86; E. Unger and E. Ebeling, *RLA* 2, pp. 264-265 (under Ebeḥ); I.J. Gelb, *AJSL* 55 (1938), pp. 67-68; R. Frankena, *Tākkultu*, pp. 86-87; D.O. Edzard, *Zwischenzeit*, p. 35 n. 5; E. Reiner, *JNES* 15 (1956), p. 148; *RA* 57 (1963), pp. 173-174.
- 4 See Edzard, G. Farber, and Sollberger, *RGTC* 1, p. 37; J.J.M. Roberts, *The Earliest Semitic Pantheon* (Baltimore, 1972), p. 12.
- 5 See Edzard and Farber, *RGTC* 2, p. 38.
- 6 *Ibid.*, p. 38.
- 7 See *ibid.*, p. 38. To be added to this list are the following references: engar EN.TI^{ki} (*Barton Haverford* 2 pl. 52 ii 13) and érin EN.TI^{ki}-me (*Barton Haverford* 2 pl. 67 32 iii 3; *TLB* 3 69:24). The occurrences of this toponym cover the period from Amar-Sin 1 (e.g., *Barton Haverford* 2 pl. 67 32 iii 3) to Šu-Sin 9 (*TEL* 259:5-6).
- 8 The 'soldiers/workers' of EN.TI always appear under the same 'captain/supervisor' (nu-banda), called Lu-Nina (*Barton Haverford* 2 pl. 67 32; *HSS* 4 26; *ITT* 5 8233; *Reisner Telloh* 111).
- 9 The names of several of the érin EN.TI^{ki} are recorded in *TLB* 3 69, all of which appear to be Sumerian. This point, however, cannot be taken as the evidence for their native origin, since foreign prisoners-of-war were commonly renamed after being brought to Mesopotamia.

- 10 This historical event is documented in both historical and economic sources, see M. Civil, *JCS* 21 (1967), p. 36; Gelb, *JNES* 32 (1973), pp. 76-77, 91-92.
- 11 It appears that the settlement of these Šimaneans was likewise called Šimanum, see Civil, *op. cit.*, p. 31 v 11, 22-23.
- 12 For this inscription, see most recently A.K. Grayson, *Assyrian Royal Inscriptions* 1 (Wiesbaden, 1972), pp. 7-8 no. 2, who also cites earlier literature.
- 13 See A. Ungnad, *RLA* 2, p. 185 no. 182 (dal-ba-na ebiḫ^{ki}-a, 'in the medial part of Mount Ebiḫ').
- 14 See *Iraq* 41 (1979), pp. 168-169.
- 15 See Edzard, Farber, and Sollberger, *RGTC* 1, pp. 20-21.
- 16 See Edzard and Farber, *RGTC* 2, p. 20, and Whiting, *JCS* 28 (1976), pp. 178-180. The text National Museum Washington 303276 (collated) has clear -ba- and not -wa-, as read by A. Goetze, *JCS* 17 (1963), p. 5.
- 17 *Op. cit.*, pp. 180-181.
- 18 See H. Limet, 'La poème epique 'Inanna et Ebiḫ': Une version des lignes 123 à 182', *Or. n.s.* 40 (1971), pp. 11-28, for a partial edition of this hymn. The definite edition has been promised by B.L. Eichler.
- 19 See, e.g., W.W. Hallo and J.J.A. van Dijk, *The Exaltation of Inanna* (New Haven, 1968), pp. 3-4.
- 20 Note, however, that Civil, 'Les limites de l'information textuelle', *Colloques internationaux du C.N.R.S.* no. 580 (1980), p. 229, has recently cautioned against attributing to Enḫeduanna all of the compositions that mention her name. In his opinion, the peculiarities of the language and vocabulary of the hymn in-nin šag₄-gur₄-ra, another composition traditionally ascribed to Enḫeduanna, allow a date in the early Old Babylonian period. This prompted Civil to speculate that Enḫeduanna may have been a generic term for the highpriestess of Nanna/Sin at Ur in Isin-Larsa times.
- 21 A monographic study of this and other types of taxes in the Ur III period is being prepared by the present author.
- 22 ASM 12059, unpublished, cited by Whiting, *op. cit.*, p. 180.
- 23 National Museum Washington 303276 (collated), cited by Goetze, *JCS* 17, p. 5.
- 24 Išar-ramaš supervises the delivery of this tax also in two other texts: *Or.* 18 pl. V KDD 15 (Šulgi 48), which lists the tax paid by four shepherds, and *Jean ŠA* XXVI (Šulgi 48), which mentions the tax coming from one person (presumably a 'captain' [nu-banda]). Neither of these texts, however, specifies the geographic origin of the tax. The same Išar-ramaš also appears in *Çiğ-Kızılyay-Salonen Puzriš-Dagan-Texte* 24 (Šulgi 45), A 2965 (unpublished, Šulgi 47), and *Nies UDT* 93 (Amar-Sin 2).
- 25 For the town of Tašil, see Whiting, *op. cit.*, pp. 180-181; B. Groneberg, *RGTC* 3, p. 234.
- 26 *Op. cit.*, pp. 178-179.
- 27 For Maškan-šarrum, see most recently my comments in 'The God Kakka' (to appear in *Journal of Near Eastern Studies*).
- 28 See, e.g., M.T. Larsen, *The Old Assyrian City-State and its Colonies* (Copenhagen, 1976), pp. 76-77.
- 29 This is demonstrated by two Ur III texts from Drehem, which list the animals designated as ní-ga MAŠ.EN.KAG lú ki-is-mar^{ki} u maš-gán-šar-ru-um^{ki}-ke₄-ne, 'property of the muš^{kē}num-people of the man of Kismar and Maškan-šarrum' (*Legrain TRU* 144:11; *MVN* 2 99:8-9 [omits lú]).
- 30 This interpretation basically agrees with that of Larsen, *op. cit.*, pp. 77-78, who also thought that the above passage refers to a commercial arrangement between Assyria and Babylonia. However, his suggestion that the object of this trade was Magan copper, which was transshipped to Assyria by the Babylonians, is most unlikely. Though the textual evidence pertaining to copper trade in the Old Babylonian period is lamentably scarce, it is quite certain that Mesopotamia obtained its copper both from the south and north. While Southern Babylonia relied primarily on the copper coming from Dilmun and Magan, it also imported some copper from the north. Thus Uruk under Anam is known to have obtained copper from Babylon (see A. Falkenstein, *Bagh. Mitt.* 2 [1963], p. 46), and there is one instance of copper being sent from Kiš to Larsa in that period (*YBT* 2 112). On the other hand, Northern

Babylonia seems to have obtained most of its copper supplies from Assyria, though there is some evidence which suggests that it occasionally utilized Dilmun copper as well (see Edzard, *BiOr* 19 [1962], p. 261). At any rate, there can be little doubt that none of the southern copper entered Assyria, which had an easy access to the rich copper deposits in the Zagros and central Iran. An important piece of evidence is provided here by a letter from Šušarra in southern Kurdistan, which demonstrates that Šušarra served as an Assyrian outpost through which the Iranian copper and tin were shipped to Assyria (see J. Laessøe, *Det første Assyriske Imperium* [Copenhagen, 1966], p. 102 no. 67). And finally, the assumption that Assyria imported copper from the south would totally ignore the existence of a major (if not the major) bronze industry in Luristan, which hardly obtained its copper from Southern Babylonia!

- 31 See Groneberg, *RGTC* 3, p. 27.
- 32 *TLB* 4 60 (LB 1857) = *AbB* 3 60.
- 33 See Ungnad, *RLA* 2, p. 185 no. 180.
- 34 See *Iraq* 41, p. 169.
- 35 See *ibid.*, p. 167.

Appendix II

TELL RAZUK:
Concordance of Loci, Squares, and Level Designations

Locus	Square	Level
1	P 58, SW	II, I
2	P 59, NW	II, I
3	P 58, NE	I
4	P 58	II
5	P 58	V B, V A
6	O 59, N	I
7	Dropped	
8	P 59, NW	V B, V A, IV
9	Dropped	Combined with Locus 2
10	P 58, NW	III
11	P 58, NE	III
12	O 63, SE	Trench south of Round Building
13	J 60	Town Wall Trench
14	Not used	
15	P 58, SE	II
16	O 59, N	V A, IV
17	Not used	
18	P 59, NE	I
19	P 59, NE	Later combined with Locus 26 and presented under that number
20	P 58, SE	III
21	Not used	
22	P 59, S	V A, IV
23	O 59, N	V B
24	Not used	
25	P 59, SW	I
26	P 59, W	VI B, VI A, V B (see Locus 54)

Locus	Square	Level
27	P 59, SW	IV
28	P 57	I
29	J 60	Town Wall Trench
30	Q 59, SW	I
31	P 60, NE	I
32	P 59, SE	I
33	J 60, S	Town Wall Trench
34	O 59, N	V B
35	Q 59, SE	I
36	R 59, SW	I
37	J 54, NE	Test Trench, NW
38	I 60, SE	Town Wall Trench
39	P 58	I
40	P 59, SW	V B
41	P 59, SW	V B
42	R 59, SW	V A
43	Q 59, NW	I
44	Q 59, NW	II
45	O 59, NW	V A
46	P 59, SW	V B
47	P 58, E	VI B, VI A, V B, V A, IV
48	P 59, NW	VI B, VI A
49	O-P 59	V B, V A, IV
50	Q 58	I
51	Q 57	II
52	P 57	I
53	O 59, SE	I
54	P 58-59	VI B, VI A, V B (Stair includes Loci 26 and 54)
55	Q 57	III
56	Q 57	I
57	P 58, NW	IV
58	P 57, E	II
59	P 57, SW	II
60	P 57, W	II
61	Dropped	
62	P 57, N	II
63	P 57, W	II
64	R 60, N	I
65	Q 60, N	I

Locus	Square	Level
66	R 60, N	IV
67	Q 60, N	IV
68	Q 59, S	V A
69	R 57	II
70	Q 60, N	IV
71	R 58	I
72	R 57	IV
73	P 57, E	III (part of Green Pit, with Locus 89)
74	R 59	I
75	Q 59	V A, IV
76	P 57, SE	V B, V A
77	R 58, SE	I (combined with Locus 50)
78	Dropped	
79	P-Q 57-58	IV
80	Q 57, N	IV, III
81	Dropped	Changed to Locus 28
82	S 58	I
83	S 58	II
84	S 58	II
85	Q 57	IV, III
86	R 57	IV, III
87	Q 57, NW	II
88	Q 57, S	II
89	Q 57, SW	III
90	P-Q 57-58	V A
91	R 57	IV
92	R 57	V A
93	Q 57	V A
94	R 57	V A
95	R 57	V A
96	P-Q 57-58	V A
97	P-Q 57-58	V A
98	S 58	II
99	R 57	V B
400	Q 58	II
401	Q 58	II
402	Q 58, NW	III
403	Q 58	III
404	Q 58	IV
405	Q 58	IV

Locus	Square	Level
406	Q 58	IV
407	Dropped	
408	Q 58	IV
409	Not used	
410	Q 59, N	II
411	Dropped	Combined with Locus 404
412	Q 59, N	II
413	Q 59, N	II
414	Dropped	Combined with Locus 404
415	R 58	I
416	Q-R 57-58	V A
417	R 59, SE	I
418	S 58	VI B, VI A, V B, V A, IV
419	Not used	
420	P-Q 59	III
421	P-Q 59	VI B, VI A, V B, V A, IV
422	Dropped	Combined with Locus 20
423	Q-R 59	V B
424	Dropped	Changed to Locus 473
425	Not used	
426	Not used	
427	Not used	
428	Not used	
429	Not used	
430	Not used	
431	Not used	
432	Not used	
433	Not used	
434	Not used	
435	Not used	
436	Not used	
437	Not used	
438	P-Q 57-58	V B
439	R 57, N	V A
440	R 57	V A
441	R 57	II
442	R 57	II
443	Q 57	VI A, V B
444	P-Q 57-58	VI A, V B
445	Q 56, SW	I

Locus	Square	Level
446	Q 57	V B, V A
447	Q 57	VI
448	R 56	I (wheelbarrow ramp)
449	P-Q 57-58	VI B
450	I 60	Town Wall Trench
451	I 60	Town Wall Trench
452	I 60	Town Wall Trench
453	J 60	Town Wall Trench
454	Q 59	V A
455	Q-R 58-59	VI B, VI A, V B, V A
456	R 58-59	VI B, VI A, V B, V A
457	Not used	
458	Not used	
459	Not used	
460	Not used	
461	Not used	
462	Not used	
463	Not used	
464	Not used	
465	Not used	
466	Not used	
467	Not used	
468	Not used	
469	Not used	
470	Not used	
471	J 60	Town Wall. Between Loci 33 and 480
472	P 57	V B
473	P 57	VI A
474	Q 57	V B, V A
475	O-P 59	VI A
476	P 57	VI A
477	Dropped	Changed to Locus 438
478	Dropped	Changed to Locus 472
479	P 57	VI B, VI A
480	J 60	Town Wall Trench, under Walls GH/GG
481	P 57, N	IV
482	P 57	IV
483	P 57	III
484	Not used	
485	P 57	IV

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Locus	Square	Level
486	Dropped	Combined with Locus 487
487	P 57	V B, V A
488	P 57	V A
489	P 57	IV
490	P 58	V B, V A

Appendix III

List of Razuk Burials by Locus and Date*

1. Sasanian, adult. Level I, cutting Locus 20, in Square P 58, Pls. 44, 101.
2. Recent, infant. Level I, Locus 2 in Square P 59, Pl. 44.
3. Recent, infant. Level I, cutting Locus 20, in Square P 58, Pl. 44.
4. Recent, infant. Level I, Locus 56, southeast corner, Square Q 57, Pl. 44.
5. Recent, infant. Level I, Locus 50, in Square Q 58, Pl. 44.
6. Early Dynastic, infant. Level V B, Locus 49, house in Square O 59, Pl. 50.
7. Isin-Larsa, adult. Level I, Locus 39, a large pit in Square P 58, Pls. 44, 100.
8. Recent, infant. Level I, Locus 71, in Square R 58, Pl. 44, SW of locus number.
9. Recent, infant. Level I, Locus 43, in Square Q 59, Pl. 44, in cut.
10. Early Dynastic, adult. Level III, house area NW of Round Building, see Pl. 42 for locus.
11. Early Akkadian, adult. Level I, Locus 52, northern end of Square P 57, Pls. 44, 47.
12. Early Akkadian, adult. Level I, Locus 415, a large rectangular cut in Square R 58, Pls. 44-45, 46:1.
13. Early Dynastic, infant. Level V A, Locus 47, West Room of Round Building, Pl. 34.
14. Recent, infant. Level I, Locus 56, in Square Q 57, see Pl. 44 for locus. Grave not shown.
15. Recent, infant. Level I, Locus 50, in Square Q 58, Pl. 44, NE of locus number.
16. Early Akkadian. Level I, Locus 50, rectangular cut in Square Q 58, Pls. 44, 46:2.
17. Early Akkadian. Level I, Locus 50, in baulk between Squares Q 58 and R 58, Pl. 44.
18. Early Akkadian. Level I, Locus 417, Square R 60, Pl. 44.

* Although there were more than a hundred other burials encountered at Tell Razuk, they were recent and were not recorded, except for a few which were cleaned and photographed before it was fully realized what they were.

Appendix IV

Concordance of Catalogue Numbers and Razuk Levels
or Other Findspots

Uc 1 I	Uc 28 Atiqeh	Uc 55 IV	Uc 82 Atiqeh
- 2 Atiqeh	- 29 Atiqeh	- 56 Atiqeh	- 83 Atiqeh
- 3 Atiqeh	- 30 Atiqeh	- 57 Atiqeh	- 84 Atiqeh
- 4 Atiqeh	- 31 Atiqeh	- 58 III	- 85 V B
- 5 I	- 32 Atiqeh	- 59 V B	- 86 I
- 6 I	- 33 Atiqeh	- 60 V A	- 87 V B
- 7 I	- 34 Atiqeh	- 61 IV	- 88 V B
- 8 III	- 35 Atiqeh	- 62 Atiqeh	- 89 V B
- 9 Atiqeh	- 36 Atiqeh	- 63 IV	- 90 Atiqeh
- 10 I	- 37 Town Wall	- 64 V A	- 91 Atiqeh
- 11 I	- 38 Atiqeh	- 65 I	- 92 V B
- 12 Atiqeh	- 39 I	- 66 V A	- 93 Atiqeh
- 13 Atiqeh	- 40 I	- 67 Atiqeh	- 94 Atiqeh
- 14 I	- 41 Atiqeh	- 68 V B	- 95 Atiqeh
- 15 I	- 42 Atiqeh	- 69 Ahmed	- 96 Atiqeh
- 16 I	- 43 I	- 70 Atiqeh	- 97 Atiqeh
- 17 I	- 44 I	- 71 Atiqeh	- 98 Atiqeh
- 18 Atiqeh	- 45 I	- 72 Atiqeh	- 99 Atiqeh
- 19 I	- 46 Atiqeh	- 73 Atiqeh	- 100 Atiqeh
- 20 V B	- 47 Atiqeh	- 74 V B	- 101 Atiqeh
- 21 IV	- 48 Atiqeh	- 75 II	- 102 Atiqeh
- 22 Atiqeh	- 49 V A	- 76 V A	- 103 Atiqeh
- 23 Atiqeh	- 50 III	- 77 V B	- 104 V B
- 24 Town Wall	- 51 V B	- 78 V B	- 105 Ahmed
- 25 Atiqeh	- 52 Atiqeh	- 79 Atiqeh	- 106 Atiqeh
- 26 I	- 53 Atiqeh	- 80 Atiqeh	- 107 I
- 27 Atiqeh	- 54 V B	- 81 Atiqeh	- 108 Ahmed

Uc 109 I	Uc 149 IV	Uc 190 I	Uc 231 Atiqeh
- 110 I	- 150 Atiqeh	- 191 II	- 232 Atiqeh
- 111 Atiqeh	- 151 Atiqeh	- 192 V A	- 233 IV
- 112 I	- 152 II	- 193 III	- 234 IV
- 113 V B	- 153 IV	- 194 Atiqeh	- 235 Atiqeh
- 114 V B	- 154 I	- 195 Atiqeh	- 236 V B
- 115 Atiqeh	- 155 Atiqeh	- 196 Atiqeh	- 237 IV
- 116 Atiqeh	- 156 I	- 197 Atiqeh	- 238 Atiqeh
- 117 Atiqeh	- 157 Atiqeh	- 198 Atiqeh	- 239 Atiqeh
- 118 Atiqeh	- 158 Atiqeh	- 199 V B	- 240 Atiqeh
- 119 Uch Tepe Village	- 159 I	- 200 Atiqeh	- 241 I
- 120 Ahmed	- 160 I	- 201 V A	- 242 Atiqeh
- 121 Atiqeh	- 161 IV	- 202 III	- 243 Ahmed
- 122 Atiqeh	- 162 Atiqeh	- 203 V A	- 244 Atiqeh
- 123 Atiqeh	- 163 Atiqeh	- 204 V B	- 245 I
- 124 Atiqeh	- 164 Atiqeh	- 205 III	- 246 sherds Razuk
- 125 Atiqeh	- 165 Atiqeh	- 206 Atiqeh	- 247 flints Razuk
- 126 Atiqeh	- 166 Atiqeh	- 207 I	- 248 sherds Atiqeh
- 127 Atiqeh	- 167 Atiqeh	- 208 I	- 249 flints Atiqeh
- 128 Atiqeh	- 168 Atiqeh	- 209 I	- 250 I
- 129 Atiqeh	- 169 I	- 210 V A	- 251 Town Wall
- 130 Atiqeh	- 170 I	- 211 III	- 252 IV
- 131 I	- 171 Atiqeh	- 212 II	- 253 IV
- 132 I	- 172 Atiqeh	- 213 Atiqeh	- 254 Ajamat
- 133 I	- 173 Atiqeh	- 214 Atiqeh	- 255 Ajamat
- 134 I	- 174 Atiqeh	- 215 Atiqeh	- 256 Ajamat
- 135 I	- 175 Atiqeh	- 216 Atiqeh	- 257 I
- 136 Atiqeh	- 176 Atiqeh	- 217 Atiqeh	- 258 IV
- 137 I	- 177 Atiqeh	- 218 Atiqeh	- 259 IV
- 138 I	- 178 Atiqeh	- 219 Atiqeh	- 260 IV
- 139 Atiqeh	- 179 Atiqeh	- 220 Atiqeh	- 261 Ajamat
- 140 Atiqeh	- 180 I	- 221 Atiqeh	- 262 Ajamat
- 141 Ahmed	- 181 I	- 222 V B	- 263 Ajamat
- 142 Atiqeh	- 182 I	- 223 V B	- 264 Ajamat
- 143 I	- 183 II	- 224 Atiqeh	- 265 I
- 144 Atiqeh	- 184 I	- 225 Atiqeh	- 266 IV
- 145 Atiqeh	- 185 Atiqeh	- 226 Atiqeh	- 267 III
- 146 Atiqeh	- 186 Atiqeh	- 227 Atiqeh	.
- 147 Atiqeh	- 187 Atiqeh	- 228 V B	
- 148 II	- 188 Atiqeh	- 229 V B	
	- 189 I	- 230 II	

Uc 268 I	Uc 289 V A	Uc 310 VI A	Uc 331 I
- 269 I	- 290 I	- 311 I	- 332 I
- 270 I	- 291 I	- 312 V A	- 333 V B
- 271 VI A	- 292 I	- 313 I	- 334 I
- 272 IV	- 293 I	- 314 V A	- 335 I
- 273 IV	- 294 I	- 315 III	- 336 I
- 274 V A	- 295 VI A	- 316 III	- 337 V A
- 275 V A	- 296 I	- 317 IV	- 338 V A
- 276 VI B	- 297 I	- 318 V A	- 339 VI A
- 277 V B	- 298 I	- 319 VI A	- 340 VI A
- 278 VI A	- 299 I	- 320 V B	- 341 VI A
- 279 V B	- 300 I	- 321 V B	- 342 VI A
- 280 I	- 301 V A	- 322 V B	- 343 VI B
- 281 V B	- 302 V A	- 323 I	- 344 I
- 282 V B	- 303 V A	- 324 I	- 345 V A
- 283 V B	- 304 V A	- 325 I	- 346 VI B
- 284 V A	- 305 V A	- 326 I	- 347 V A
- 285 V A	- 306 I	- 327 I	- 348 V A
- 286 VI A	- 307 I	- 328 I	- 349 V A
- 287 I	- 308 V B	- 329 I	- 350 V A
- 288 VI A	- 309 V B	- 330 V A	

CATALOGUE OF OBJECTS BY LOCUS*

Olof Pedersén

RAZUK

Level VI B (Pl. 14)			Plate
<i>Locus 54</i>	Tread, fill above	Uc 276. Animal figurine, baked clay, fragmentary. 6.0 l., 4.5 h., 2.0 th.	52:3
<i>Locus 456</i>	Fl. 7, at Wall N	Uc 343. Flint blade. 6.3 l., 1.5 w.	56:6
	(same)	Uc 346. Flint blade. 8.0 l., 1.4 w.	56:7
Level VI A (Pls. 16-18)			
<i>Locus 34</i>	Fl. 5	Uc 319. Scarlet Ware sherd. Red bands bordered by black lines separate motifs. Above, cross-hatched motif in black. Below, bird on tail of fish above an equid. Ware: pink 7.5YR 7/4. Paint: light red 10R 6/6. 10.0 h., 13 w.	89:3 92:4
<i>Locus 48</i>	Fl. 1	Uc 271. Jar, pottery, whole. Everted rim, rounded base. Buff with cream slip. Slip: 2.5Y 8/2. 9.7 h., 3.6 dm. rim.	74:5
	Fl. 1 or 2	Uc 278. Jar stopper, baked clay, fragmentary, conical, with two opposed depressions. 5.3 h., 10.5 dm.	79:5
<i>Locus 421</i>	Fl. 4, fill above	Uc 286. Bead, shell, brown. 2.4 dm.	55:7
	(same)	Uc 288. Jar base, pottery, cut for reuse as a small dish. Buff. 3.2 h., 6.7 dm.	73:4
	(same)	Uc 295. Jar, pottery, neck lost. Sharp shoulder carination, ring base. Reddish buff ware, 5YR 7/6. 10.5 h., 6.3 dm. base.	80:16

* Measurements are given in centimeters. w. = width, l. = length, h. = height, th. = thickness. Colors are given where available according to Munsell Soil Color Charts, e.g., 5YR 7/6. Plate reference after Level indicates plan on which loci of this level can be found. Plate reference on right gives illustration of the object. Whole = intact, unbroken. Complete = broken, but all parts present.

Level VI A (continued)			Plate
<i>Locus 444</i>	Fl. 2	Uc 310. Awl, bone, tip missing. 7.0 l., 1.6 dm.	51:14
<i>Locus 456</i>	Fl. 4, in door	Uc 341. Flint blade. 7.4 l., 1.4 w.	56:4
	Fl. 4, fill above	Uc 342. Flint blade. 7.1 l., 1.9 w.	56:5
<i>Locus 475</i>	Fl. 1	Uc 339. Bead, shell, ribbed tube. 1.6 l., 0.3 dm. Like Uc 85, below, Locus 49.	55:1
	(same)	Uc 340. Bead, red stone, ring-shaped. Color: 10R 4/8. 0.5 dm., 0.2 th.	55:3
Level V B (Pls. 26-27)			
<i>Locus 23</i>	Fl. 2	Uc 51. Whetstone, gray, whole. 9.7 l., 1.8 w., 1.5 th.	51:6
<i>Locus 26</i>	Fl. 1, fill above	Uc 20. Goad or pin, copper, fragmentary. 7.0 l., 0.8 w.	50:4
	(same)	Uc 322. Scarlet Ware sherd. Ridge at shoulder, geo- metric decoration in horizontal bands. Main motif, cross-hatched lozenges in black paint, bordered by black lines. Above, alternating triangles between hori- zontal lines. Sherd body, buff, 7.5YR 8/2. Paint: red 5R 6/6. 12.5 h., 16.5 w.	87:1
<i>Locus 34</i>	Fl. 2	Uc 59. Needle, copper, whole, but bent, corroded. 15.0 l., 0.2 dm.	50:8
	Fl. 1	Uc 54. Shell, possibly used as a bead, fragmentary. 3.7 h., 2.2 dm. See Pl. 55:8-9 for type.	Not Illustrated
<i>Locus 49</i>	Fl. 8	Uc 78. Bowl, pottery, crude with much straw-temper- ing, whole. Inturned rim, flat base. Pink ware. Type 12d. 5.0 h., 11.0 dm. rim, 14.5 dm. body.	76:6
	Fl. 7	Uc 77. Bowl, pottery, complete. Slightly flaring, with string-cut base. Pink ware. Type 11a. 4.0 h., 9.5 dm. rim, 4.5 dm. base.	73:5
	Fl. 6	Uc 85. Bead, shell, ribbed tube. Like Uc 339, above, Locus 475. 0.9 l., 0.3 dm. See Pl. 55:1-2 for type.	Not Illustrated
	(same)	Uc 87. Spindle whorl, white limestone, polished. Made from stone bowl. See Uc 89, 301-5 for similar whorls made from pottery jars. 4.0 dm.	51:8
	(same)	Uc 89. Spindle whorl, made from potsherd. Buff ware, grit temper. See Uc 301-5 for others of the type. 6.0 dm. See Pl. 53:3-7 for type.	Not Illustrated

Level V B (continued)		Plate
<i>Locus 49</i>	Fl. 6 50 cm. from hearth	Uc 113. Pot support, unbaked clay, fragmentary. Lower part missing. Two indentations on one face. Like Uc 229, below, Locus 421. 13.0 h., 9.0 w., 6.0 th. 54:5
	Fl. 6	Uc 114. Jar, pottery, almost complete. Plain rim, globular body, rounded bottom, spout. Type 5c. Pink ware, 7.5YR 6/4. 22.6 h., 9.6 dm. rim, 18.2 dm. body. 67:10
	Fl. 5	Uc 74. Bead, shell, ribbed tube, white. 2.1 l., 0.4 dm. Like Uc 279, 340. See Pl. 55:1-2 for type. Not Illustrated
	Fl. 5? Infant grave Burial 6	Uc 92. Bead, conch-shell core, pierced from the side to connect with natural longitudinal cavity. 9.0 l., 1.9 dm. 50:1
	Fl. 4	Uc 68. Jar, pottery, almost whole. Miniature, crude, plain rim, flat base. Buff ware. Type 11b. 5.8 h., 2.5 dm. rim, 5.7 dm. body, 2.3 dm. base. 73:14
	(same)	Uc 88. Whetstone, irregular, gray, whole. 10.4 l., 3.0 w. 51:7
	(same)	Uc 104. Quern, volcanic rock, and cube-shaped grinder of gray stone. Quern: 5.0 h., 12.0 w., 21.0 l. Grinder: 5.0 h., 7.0 w., 8.0 l. 51:12
<i>Locus 421</i>	Fl. 3, fill above	Uc 279. Tubular bead, stone; white, olive and brown bands. 3.5 l., 0.9 dm. 55:6
	Fl. 2	Uc 277. Flask, pottery, fragmentary. Neck, shoulder, and pierced lug handles only. Bitumen stopper in mouth. Type 11g. 6.0 h., 2.8 dm. neck. 74:8
	(same)	Uc 281. Base of pottery jar, cut for reuse as a small dish. Buff ware. Type 11a. 3.5 h., 7.7 dm. 73:6
	Fl. 1, SE corner	Uc 199. Bowl, pottery, almost complete. Straight-sided with string-cut base. Buff ware, 7.5YR 7/4. Type 11a. 10.3 h., 15 dm. rim. 61:5
	Fl. 1, fill above	Uc 204. Sickle, flint, set in bitumen. Serrated cutting edge. 4.6 l. 51:11
	(same)	Uc 222. Jar, pottery, whole. Short, plain neck, rounded shoulder, string-cut base. Pink ware, 5YR 7/3. Type 11b. 6.3 h., 7.4 dm. rim, 10.5 dm. body. 73:8
	(same)	Uc 223. Lid, pottery, whole. Shaped like a round-bottomed, shallow bowl with inverted flat rim. Type 14e. Cream ware, 2.5Y 8/2. 3.4 h., 10.0 dm. 79:7

Level V B (continued)

<i>Locus 421</i>	Fl. 1, fill above	Uc 228. Wheel, baked clay. Buff ware. Fragmentary. 5.9 max. radius, 5.3 th. of hub.	52:8
	(same)	Uc 229. Pot support, unbaked clay, fragmentary. Top part preserved. Two indentations on one face. 8.0 h., 10.0 w., 6.0 th. See Uc 113, above, Locus 49.	54:4
	(same)	Uc 236. Animal figurine, unbaked (?) clay, fragmen- tary. 3.9 h., 4.7 l.	54:1
	(same)	Uc 320. Scarlet Ware sherd. Black painted motifs separated by red bands. To left, irregular vertical lines. To right, flying bird. Ware: light buff, 7.5YR 8/2. Paint: red, 10R 6/6. 15.1 h., 14.3 w.	89:8
<i>Locus 438</i>	Fl. 3	Uc 283. Jar lid, pottery, whole. 2.4 h., 3.8 dm.	79:6
<i>Locus 443</i>	Fl. 1	Uc 321. Scarlet Ware sherd, from lower part of jar. Red bands bordered by black lines separate motifs. To left, irregular vertical lines. To right, birds, fish be- low vegetation. Ware: greenish buff, 10YR 8/5. Paint: red, 7.5R 6/8. 13.5 h., 19.7 w.	89:4
<i>Locus 444</i>	Fl. 1	Uc 282. Wheel, baked clay, fragmentary. Only hub preserved. 3.3 w., 2.9 th. See Pl. 52:7-8 for type.	Not Illustrated
<i>Locus 456</i>	Fl. 2, fill above	Uc 308. Cylinder seal, white translucent stone. Hero, facing left, holds two reptilian animals (lizards?). Hero wears long skirt. In field, moon and star. Color of stone: 10YR 8/2. 2.3 h., 2.0 dm.	49:4
	(same)	Uc 309. Needle, copper, corroded and slightly bent. 16.0 l., 0.2 th.	50:7
<i>Locus 487</i>	Fl. 2c	Uc 333. Scarlet Ware sherd. Bearded goat facing right. To right, red band bordered by black. Two black lines in field to left. Ware: buff. Greenish cream slip, 10YR 8/3. Paint: red, 7.5R 6/6. 8.0 h., 7.8 w.	90:8 92:1

Level V A (Pls. 32-34)

<i>Locus 5</i>	Fl. 1, fill above	Uc 49. Whetstone, triangular, yellowish brown stone. 5.7 l., 2.5 w., 0.7 th.	51:5
	(same)	Uc 66. Shells. a) fragmentary, probably used as bead, 4.2 l.; b) whole, pierced at bottom for use as bead, 4.1 l.; c) fragmentary, probably used as bead, 2.3 l.	55: 27-29
<i>Locus 47</i>	Fl. 3	Uc 76. Bead, shell, ridged tube, white. 1.7 l., 0.4 dm. See Pl. 55:1-2 for type.	Not Illustrated

Level V A (continued)			Plate
<i>Locus 47</i>	Fl. 3	Uc 201. Bowl, pottery, almost complete, straight-sided, string-cut base. Type 1a. Buff: 7.5YR 7/4. 8.2 h., 14.0 dm. rim, 5.0 dm. base.	61:6
	Fl. 3, Burial 13	Uc 60. Ring, shell, fragmentary. 1.9 dm., 0.4 th.	50:2
	(same)	Uc 64. Bead, lapis lazuli, ring-shaped. 0.6 dm.	50:3
<i>Locus 92</i>	Fl. 2	Uc 210. Pin (?), copper, corroded. 7.7 l., 0.3 dm.	Not Illustrated
<i>Locus 93</i>	Fl. 2	Uc 318. Scarlet Ware sherd. Black paint on buff ware, red painted bands bordered by black lines. Bird in vegetation. Ware: Buff. Greenish cream slip, 10YR 8/3. Paint: red, 7.5R 6/8. 10.4 h., 17.8 w.	90:6
<i>Locus 94</i>	Fl. 2, fill above	Uc 192. Wheel, baked clay, flat on one side, buff ware. Like Uc 337, below, Locus 416. 9.1 dm., 2.0 th.	52:14
	Fl. 1	Uc 203. Bowl, white stone, fragmentary. Flat, disc base, incurving sides, plain rim. 5.0 h., 8.8 dm. body, 5.0 dm. base.	51:2
<i>Locus 416</i>	Fl. 3, fill above, W corner	Uc 348. Jar, whole. Plain rim, flat base. Ware: pink 7.5YR 7/4. Type 11b. 6.8 h., 4.0 dm. rim.	73:10
	(same)	Uc 350. Jar, whole. Double-spouted mouth, pierced neck, flat base. Reddish buff, 7.5YR 7/6. Type 11f. 7.5 h., 6.8 dm. body.	74:7
	Fl. 2, fill above, S corner	Uc 345. Bowl, whole, somewhat crude, hole-mouth with two holes for suspension. Reddish buff ware, 7.5YR 7/6. Type 10. 5.8 h., 6.2 dm. rim, 8.8 dm. body.	72:19
	(same)	Uc 347. Jar, whole, everted rim, flat base. Ware: buff, 7.5YR 7/4. Type 11d. 7.5 h., 4.6 dm. rim, 8.8 dm. body.	74:3
	(same)	Uc 349. Jar, spouted, almost complete, band rim, flat base. Reddish buff, 7.5YR 7/6. Type 11c. 10.4 h., 9.1 dm. body, 5.2 dm. rim.	73:20
	Fl. 1, fill above	Uc 337. Wheel, baked clay, flat on one side. 8.5 dm. Like Uc 192, above, Locus 94.	53:2
	(same)	Uc 338. Spear point, copper, whole but corroded. 17.0 l., 2.0 w.	97:12

Level V A (continued)			Plate
<i>Locus 454</i>	Fl. 2	Uc 284. Jar, pottery, almost whole. Outturned rim, round bottom, ridge at neck-shoulder junction. Neck damaged. Buff, 10YR 7/6. Type 11e. 12.2 h., 5.0 dm. rim.	74:6
	(same)	Uc 285. Jar, pottery, whole, with upright triangular lug handle. Reddish buff ware, 5YR 7/6. Type 11d. 11.0 h., 9.4 dm. body, 4.2 dm. rim.	74:1
	(same)	Uc 289. Stone bowl, fragment. Plain rim, flat base. Color: light gray, 2.5Y 7/2. 6.0 h., 7.0 dm. base.	51:3
<i>Locus 455</i>	Fl. 3, fill above. Blocking of door to Locus 416	Uc 330. Plano-convex brick, baked, one corner missing. Two indentations and raking marks, made by fingers, on convex top. 36.0 l., 11.4 w., 5-6 h.	54:3
	Fl. 2, fill above	Uc 274. Cylinder seal, gray stone. Horned animals running to left. X's as fillers. Jemdet Nasr style. Color: 5YR 6/1. 2.1 h., 1.5 dm.	49:3
	Fl. 1, inside re- pair of DZ Wall	Uc 301. Spindle whorl, made from potsherd. 6.4 dm., 0.7 th.	53:3
	(same)	Uc 302. Spindle whorl, made from potsherd. 8.5 dm., 0.7 th.	53:4
	(same)	Uc 303. Spindle whorl, made from potsherd. 5.5 dm., 0.5 th.	53:5
	(same)	Uc 304. Spindle whorl, made from potsherd. 7.8 dm., 0.7 th.	53:6
	(same)	Uc 305. Spindle whorl, made from potsherd. 6.5 dm., 0.7 th.	53:7
<i>Locus 456</i>	Fl. 1	Uc 314. Scarlet Ware jar, fragmentary. Rim, neck, shoulder and part of body. Upright handle. Neck and shoulder ridge painted red. Geometric motifs. Vertical red bands divide the shoulder into panels filled with cross-hatching in black. Below ridge, a black line, body divided into panels of hour-glass motif. Ware: buff. Greenish cream slip, 10YR 8/6. Paint: red, 7.5R 5/8. 17.0 h., 13.0 dm. rim.	84:1

Level V A (continued)			Plate
<i>Locus 487</i>	Fl. 1	Uc 312. Scarlet Ware sherd. Animals in black paint on buff ware, red bands bordered by black lines at top and side. Bull in black outline with red body. Fish, birds. Ware: buff. Greenish cream slip, 10YR 8/4. Paint: red, 10R 6/6. 12.4 h., 14.3 w.	89:9
	Fl. 1, fill above	Uc 275. Spear head, copper, whole, square in section, 18.7 l., 1.1 th. See Woolley, <i>Ur Cemetery</i> , Pl. 227, 'Spear', Type 1a; Nissen, <i>Datierung</i> , Tf. 17, 'Speer', gives this type an ED date.	50:12
Level IV (Pl. 38)			
<i>Locus 8</i>	Fl. 2	Uc 21. Obsidian core, from which microblades have been struck. Retouched on two sides. 2.5 l.	51:9
<i>Locus 47</i>	Fl. 2	Uc 234. Blade, copper, axe or chisel, cutting edge on wider end. Corroded, chipped. 14.2 l., 4.3 w., 0.5 th.	50:11
	Fl. 1, fill	Uc 55. Wheel, baked clay, gray ware. 4.0 dm., 2.4 th. hub. See Pl. 53:1 for type.	Not Illustrated
	(same)	Uc 61. Band of copper, folded, badly corroded. Estimated length, 6.0, 0.9 w., 0.1 th.	50:13
<i>Locus 49</i>	Fl. 1d	Uc 63. Shell bead, white with brown stripes, <i>cornus hebraeus</i> . 1.5 l., 0.8 th.	Not Illustrated
<i>Locus 57</i>	Fill	Uc 273. Grooved baked clay object, perhaps a spout, fragmentary. 8.3 l., 3.5 w., 3.0 th. Compare Uc 272, Locus 485, below.	52:2
<i>Locus 68</i>	Fl. 1, ashy fill above. Re- covered from wheel- barrow	Uc 237. Impression, black, unbaked clay, of a cylinder seal rolled twice. Recumbant stag facing right, a plant (?) behind him. In front, a running lozenge below a snake (?) or animal head. Early Dynastic I style. 4.5 h., 4.1 w.; seal 1.9 h.	49:1
<i>Locus 75</i>	Fl. 1, fill against Walls FP, FR	Uc 149. Miniature bowl, pottery, flat-cut rim, vertical sides, string-cut base. Buff ware, 7.5YR 7/4. Type 11a. 3.2 h., 3.8 dm.	73:1
<i>Locus 79</i>	Fl. 1, fill above	Uc 258. Bead, tubular, gray stone, fragmentary. Hole for suspension from top to side. Color, 5Y 6/1. 3.4 l., 1.0 dm.	55:5

Level IV (continued)			Plate
<i>Locus 79</i>	Fl. 1, fill above	Uc 260. Animal figurine, unbaked clay, fragmentary. Back end of sheep (?), with curved tail. 2.3 h., 3.0 l., 3.0 w.	52:4
	(same)	Uc 266. Goad, copper, corroded. 7.2 l., 1.4 w.	50:5
<i>Locus 85</i>	Fl. 5, fill above	Uc 161. Wheel, baked clay, fragmentary, serrated edge. 5.8 dm., 1.3 th. at hub.	52:13
<i>Locus 86</i>	Fl. 1	Uc 153. Jar, pottery, almost complete. Plain, vertical neck, spout on shoulder, flattened base. Ware: buff, 7.5YR 7/4. Type 5a. 22.3 h., 10.7 dm. rim, 18.4 dm. body.	64:5
<i>Locus 404</i>	Fl. 1	Uc 233. Implement, copper, with part of wooden handle preserved in corrosion. See Woolley, <i>Ur Cemetery</i> , Pl. 229, Chisel type 1a-d; H.J. Nissen, <i>Datierung</i> , Tf. 16 'Meissel', gives an ED dating for the type. 7.5 l., 0.6 th.	50:10
	(same)	Uc 252. Cylinder seal, white shell, lower part missing. Geometric design. Jemdet Nasr type. See Frankfort, <i>Stratified Seals</i> , No. 209. 2.0 h., 1.1 dm.	49:2
	(same)	Uc 259. Cowrie shell, pierced for use as a bead. 1.3 l.	55:4
<i>Locus 406</i>	Fl. 1	Uc 317. Scarlet Ware sherd. Shoulder of jar with upright handle, ridge at carination. Shoulder painted red except for upright handle, which is plain on outer surface. Black painted lines emphasize handle. Cross-hatched, bordered motif on shoulder. Body, some lines in black. Ware: buff. Greenish cream slip, 10YR 8/3. Paint: red, 7.5R 5/8.	85:1
<i>Locus 481</i>	Fl. 1	Uc 253. Jar, pottery, almost whole, handmade, rounded bottom, traces of ash around exterior. Ware: light buff, 10YR 7/8. Type 9. 13.7 h., 9.5 dm. rim, 16.0 dm. body.	72:13
<i>Locus 485</i>	Fl. 2, fill	Uc 272. Clay object, grooved, one end broken. 4.0 l., 2.5 w., 2.0 th. Compare Uc 273, Locus 57, above.	52:1
Level III (Pl. 42)			
<i>Locus 10</i>	Pit	Uc 8. Wheel, baked clay, fragmentary. 6.0 dm., 3.0 th. at hub.	53:1
	(same)	Uc 315. Scarlet Ware sherd, from carination of ridged jar. On shoulder, cross-hatching; on body, bull head. Green, 2.5Y 8/4. 9.0 h., 11.0 w.	90:15

Level III (continued)			Plate
<i>Locus 11</i>	Pit	Uc 50. Rim fragment of large marble bowl, white. Original dm. 24 cm.	51:1
	(same)	Uc 58. Copper pin with hole through shank. 7.9 l., 0.7 dm.	50:9
<i>Locus 20</i>	Pit	Uc 267. Ribbed, tubular shell bead. 1.4 l., 0.4 dm.	55:2
	(same)	Uc 316. Scarlet Ware sherd. Two birds, one facing right standing on back of the other which faces left. Vegetation on left. Ware: buff. Greenish cream slip, 10YR 8/3. 4.3 h., 6.6 w.	89:5
<i>Locus 420</i>	Pit	Uc 193. Fragmentary baked clay wheel, gray ware. 10.4 dm., 4.2 th.	52:7
	(same)	Uc 211. Tang of a small copper dagger or lance. One rivet in blade. 3.6 l.	50:15
<i>Locus 55</i>	Pit into Locus 93	Uc 202. Pottery jar, plain neck, flattened base. Pink ware, 5YR 7/6; slip, 7.5YR 7/6. Type 5a. 17.0 h., 8.6 dm. rim, 14.4 dm. body.	64:3
<i>Locus 403</i>	Pit	Uc 205. Bone awl. 8.3 l.	51:13
Level II (Pl. 43)			
<i>Locus 44</i>	Fl. 1, fill above	Uc 75. Baked clay toy, fragmentary. Probably a wagon. Pierced axle hole in one end. 6.5 l., 6.5 w.	52:6
<i>Locus 83</i>	Fl. 1	Uc 152. Jar, pottery, vertical neck, plain rim, spout on shoulder, flattened base, whole. Pink ware, cream slip, 7.5YR 7/4. 20.0 h., 10.2 dm. rim, 17.7 dm. body. Similar to Uc 153 (Level IV, Locus 86).	64:4
	(same)	Uc 183. Jar, pottery, almost whole. Flaring plain rim, sharply carinated shoulder, ring base. Four holes in neck for suspension or tying on of a lid. Type 11b. Buff, 7.5YR 6/4. 8.2 h., 5.5 dm. rim, 8.7 dm. body, 3.0 dm. base.	73:13
<i>Locus 84</i>	Fl. 1	Uc 148. Bowl, pottery, miniature, chipped. Plain rim, rounded base. Type 11a. Buff, 7.5YR 7/4. 3.2 h., 3.2 dm. rim.	73:2
<i>Locus 410</i>	Fl. 1, fill above	Uc 191. Toy wheel, baked clay, buff ware, chipped. 7.4 dm., 3.3 th. at hub.	52:12
	(same)	Uc 230. Bead, date-shaped, yellowish translucent stone. 10YR 7/6. 1.4 l., 1.0 dm.	Not Illustrated

Level II (continued)			Plate
<i>Locus 441</i>	Fl. 1	Uc 212. Goad, copper, fragmentary. 3.1 l., 1.3 w. See Woolley, <i>Ur Cemetery</i> , Pl. 227 'String notches', for similar items.	50:6
Level I (Pl. 44)			
Early Dynastic in disturbed surface context			
<i>Locus 1</i>	Surface	Uc 6. Bead, ring-shaped, shell, 2.0 dm.	55:16
<i>Locus 3</i>	Pit	Uc 14. Flint blade embedded in bitumen. 6.0 l.	51:10
<i>Locus 6</i>	Pit cutting	Uc 19. Chisel, copper, corroded. 9.0 l.	50:14
	Locus 16		
<i>Locus 18</i>	Surface debris	Uc 11. Animal figurine, baked clay, fragmentary. Pregnant (?) cow (?). 3.0 h., 3.0 l.	54: 2a-b
	Pit	Uc 313. Scarlet Ware sherd. Battle scene. Figure on left holds dagger in hand, figure on right holds curved object (bow?) above head. Figures in black on red. Ware: 7.5YR 8/4. 5.3 h., 4.4 w.	91:7 92:2
<i>Locus 25</i>	Surface debris	Uc 39. Bead, ring-shaped, shell. 2.3 dm.	55:20
<i>Locus 43</i>	Pit	Uc 169. Toy wheel, baked clay, fragmentary. Buff ware. 9.5 dm., 4.8 th. at hub.	52:9
	(same)	Uc 170. Toy wheel, baked clay, chipped. Buff ware. 6.3 dm., 3.3 th. at hub.	52:11
<i>Locus 56</i>	Pit	Uc 160. Toy wheel, baked clay, chipped. 7.8 dm., 3.4 th. at hub.	52:10
<i>Locus 445</i>	Surface debris	Uc 250. Bowl, gray stone, straight sides, flat base, fragmentary. Color, 5Y 6/1. 8.6 h., 21.0 dm. rim, 10.0 dm. base.	51:4
Early Akkadian burials			
<i>Locus 52</i>	Burial 11	Uc 107. Jar, pottery, almost complete. Flaring plain rim, ridge at carination, ring base. Incised wave decoration on shoulder. Pink ware, 5YR 6/6. 17.8 h., 12.0 dm. rim, 18.0 dm. body. Cf. Delougaz, <i>Pottery</i> , C.404.350.	98:7
	Cut into Locus 62		
	(same)	Uc 137. Jar-strainer/funnel, pottery, whole. Plain vertical neck. Pointed base pierced. Pinkish buff, 7.5YR 7/4. 12.0 h., 3.7 dm. rim, 10.3 dm. body.	98:6

Level I (continued)		Plate	
<i>Locus 52</i>	Burial 11	Uc 268. Bowl, brown stone, straight sides, flat base, almost complete. Color: 10YR 5/3. 7.2 h., 14.5 dm.	98:4
	(same)	Uc 269. Pin, copper, corroded. 8.4 l.	98:8
	(same)	Uc 270. Bowl, pottery, whole. Flaring, plain rimmed bowl, with flat base. Green ware, 2.5Y 8/4. 7.5 h., 15.0 dm.	98:5
	(same)	Uc 280. Jar, flaring rim, spout on shoulder, ring base, whole. Buff with cream slip, 2.5Y 8/2. 20.5 h., 10.5 dm. rim. Compare Uc 311 in Burial 12.	98:1
	(same)	Uc 292. Jar, band rim, ridge at shoulder, ring base, whole. Green ware, 10YR 8/4. 28.4 h., 12.4 dm. rim, 29.6 dm. body.	98:2
<i>Locus 415</i>	Burial 12	Uc 207. Spear head, copper, middle of tang missing. 13.9 l. of surviving pieces, 1.8 w.	97:10
	(same)	Uc 208. Blade, copper, fragmentary, wide blade. Probably an axe. 9.5 l., 4.5 w., 0.4 th.	97:11
	(same)	Uc 290. Blade, copper, fragmentary. Tang and broad blade, may have been a saw. 11.3 l., 3.7 w., 2.0 length of tang.	97:8
	(same)	Uc 291. Chisel (?), copper, relatively thick for size. 5.7 l., 0.4 th.	97:9
	(same)	Uc 299. Chisel, copper, whole. At narrow end, three horizontal grooves mark leather (?) wrapping or grip. 13.0 l. See Woolley, <i>Ur Cemetery</i> , Pl. 229, U.8106.	97:5
	(same)	Uc 300. Chisel, copper, whole but very corroded. Narrow, but thick blade, remains of wood (?) handle at upper end in corrosion. 10.0 l., 0.4 w., 0.8 th. See Woolley, <i>Ur Cemetery</i> , Pl. 229, U.8696, 8783.	97:6
	(same)	Uc 307. Spear point, copper, tip of blade broken. End of tang flattened. Blade cracked and separating. 18.8 l., 2.0 w., 0.6 th.	97:7
	(same)	Uc 311. Jar, pottery, complete; plain rim, spout on shoulder, ring base. Green ware, 10YR 8/4. 20.8 h., 10.6 dm. rim. Compare Uc 280 in Burial 11.	96:8
	(same)	Uc 323. Jar, pottery, almost complete. Flaring band rim, plain shoulder, ring base, drain hole in lower body. Green ware, 10YR 8/3. 42.0 h., 17.1 dm. rim. Found resting on Uc 336.	96:6

Level I (continued)		Plate
<i>Locus 415</i>	Burial 12	Uc 324. Jar, pottery, almost complete. Flaring rim, plain body, ring base. Light buff ware, 2.5Y 8/4. 38.8 h., 20.0 dm. rim. 96:3
	(same)	Uc 325. Jar, overhanging band rim, plain shoulder, ring base, almost complete, but badly warped. Green ware, 10YR 8/3. 34.6 h., 17.1 dm. rim. 96:5
	(same)	Uc 326. Jar, handmade, almost complete. Round bottom. Large black grit temper. 17.3 h., 13.6 dm. rim. 96:9
	(same)	Uc 328. Two beads, lapis lazuli, rectangular in shape, drilled longitudinally. a: 1.5 l., 1.0 w., 0.9 th.; b: 1.5 l., 1.1 w., 0.8 th. 99:13
	(same)	Uc 329. Whorl made of gray stone bowl sherd. Pierced. Color: 5GY 4/1. 5.0 w. 97:14
	(same)	Uc 331. Jar, pottery, flaring rim, ridged carination, ring base, almost complete but warped. Green ware, 10YR 8/4. 42.3 h., 18.3 dm. rim. 96:1
	(same)	Uc 332. Jar, pottery, flaring rim, plain body, ring base, almost complete but warped. Buff ware, 5Y 8/3. 36.0 h., 18.5 dm. rim. 96:4
	(same)	Uc 334. Bowl, pottery, ridged sides, ring base, almost complete. Well levigated, dense clay, made on fast wheel. Pink ware, 5YR 7/4. 23.6 h., 31.6 dm. rim. 97:1
	(same)	Uc 335. Strainer, pottery, almost complete. One end has slightly flaring, thickened rim. Sides pierced with large holes. Traces of bitumen in places. Green ware, 2.5Y 8/4. 49.0 h., 29.9 dm. rim. 97:4
	(same)	Uc 336. Pot support, pottery, fragmentary. Trough spout, straps from rim to floor. High foot with a pair of holes on either side for lifting (?). Uc 323 found on it. Green ware, 2.5Y 8/4. 36.0 h., 35.0 dm. rim. 97:3
<i>Locus 50, cutting</i>	Burial 16	Uc 154. Jar, pottery, chipped. Low, overhanging rim, plain shoulder, ring base. Grayish green, 10YR 7/3. 29.7 h., 18.0 dm. rim, 12.0 dm. base. 99:4
<i>Locus 404</i>	(same)	Uc 156. Jar, pottery, complete. Bag-shaped, crude, handmade. Buff ware, 5YR 7/3. 16.0 h., 11.0 dm. rim, 18.0 dm. body. 94:1 99:7
	(same)	Uc 189. Jar, pottery, flaring neck, plain rim, spout on shoulder, ring base, chipped. Pink ware, 5YR 7/4. 17.5 h., 10.0 dm. rim, 15.3 dm. body, 7.5 dm. base. 94:1 99:5

Level I (continued)			Plate
<i>Locus 50</i>	Burial 16	Uc 190. Jar, pottery, flaring neck, plain rim, carinated body, ring base, slightly chipped. Buff with cream slip, 7.5YR 7/4, 2.5Y 8/2. 8.0 h., 7.2 dm. rim, 9.4 dm. body, 4.0 dm. base.	99:8
	(same)	Uc 241. Jar, pottery, slightly chipped. Flaring neck, plain rim, incised ridge at shoulder, ring base. Vertical incisions at base of neck. Pink ware, 7.5YR 7/4. 22.0 h., 15.0 dm. rim, 24.4 dm. body, 9.9 dm. base.	94:2 99:6
<i>Locus 50</i>	Burial 17	Uc 327. Jar, pottery, flaring band rim, incised ridge at carination, ring base, fragmentary. Vertical incisions on neck, wavy incisions on shoulder. Pink ware, 7.5YR 8/4. 33.5 h., 22.4 dm. rim. Delougaz, <i>Pottery</i> , C.504.370.	95:1 98:9
	(same)	Uc 344. Jar, pottery, fragmentary. Triangular rim, upright handle on shoulder, ridge at carination, ring base. Black painted decoration. Cross-hatched band high up on neck. Hour-glass decoration on shoulder. Chevron pattern on body. No sign of red paint, the black is very faded. Green ware, 10YR 8/4. 23.4 h., 10.0 dm. rim.	95:2 98:10
<i>Locus 417</i>	Burial 18	Uc 293. Jar, flaring band rim, plain shoulder, ring base, few pieces lost. Pink ware, 7.5YR 8/6. 28.6 h., 16.8 dm. rim.	99:2
	(same)	Uc 294. Jar, upper half lost. Plain shoulder, ring base, drain hole in lower body. Pink ware, 7.5YR 8/6. 31.0 surviving h., 36 dm. body, approximately.	99:3
	(same)	Uc 298. Bowl, pottery, beveled rim, straight sides, ring base, warped, almost complete. Part of rim repaired in antiquity with a gesso-like substance. Greenish buff ware, 10YR 8/3. 16.0 h., 39.0 dm. rim.	93:2 99:1
Akkadian (?) well			
<i>Locus 56</i>		Uc 245. Jar, pottery, almost complete. Handmade, grit tempered, smoke blackened. Plain rim, two handles, globular body. Grayish green ware, 10YR 7/3. 25.6 h., 15.0 dm. rim, 27.0 dm. body. Cf. Uc 112 of Locus 53, below.	104:11
Akkadian pottery, disturbed context			
<i>Locus 28</i>	Surface debris	Uc 159. Cup, pottery, flat rim, string-cut base with hole in it. Pink ware, 5YR 7/3. 8.8 h., 10.2 dm. rim, 4.0 dm. base.	99:9

Level I (continued)			Plate
<i>Locus 50</i>	Fill of recent grave	Uc 65. Jar, everted rim, high vertical neck, carinated body, ring base, half of neck lost. Buff ware, cream slip, 2.5Y 8/2. 11.0 h., 8.0 dm. rim, 13.0 dm. body, 5.5 dm. base.	99:10
<i>Locus 53</i>	Surface debris	Uc 112. Jar, pottery, almost complete. Everted rim, two handles, ring base. Green ware, 5Y 7/3. Similar to Uc 245 from a well in Locus 56. 15.2 h., 22.0 dm. rim, 23.0 dm. body, 13.0 dm. base. May be later than Akkadian.	104:10
Isin-Larsa burial and related material			
<i>Locus 39</i>	Burial 7	Uc 131. Jar, overhanging rim, high neck, grooves at base of neck, groove on body, round base, whole. Greenish buff, 2.5Y 7/4. 38.6 h., 12.4 dm. rim, 28.0 dm. body.	100:1
	(same)	Uc 132. Bead, reddish brown stone ('carnelian'), double conoid, slightly chipped. Drilled longitudinally. Color: 7.5R 3/8. 2.1 l., 1.5 dm.	100:2
	(same)	Uc 133. Bead, blue-gray translucent stone ('agate'), date-shaped, drilled longitudinally, slightly chipped. Color: 10R 4/1. 3.0 l., 1.3 dm.	100:3
	(same)	Uc 134. Bead, gray and white banded stone ('agate'), elliptical shape, drilled longitudinally. Color: 10R 4/2. 2.0 l., 1.3 w., 0.7 th.	100:4
	(same)	Uc 135. Dagger, copper, corroded. On tang, one rivet and traces of wood handle in corrosion. 14.6 l., 3.1 w. blade, 0.4 th. blade.	100:5
	(same)	Uc 143. Bitumen, folded. 6.0 l., 5.0 w., 1.0 th.	100:6
<i>Locus 43</i>	Disturbed context, pit	Uc 184. Cup, pottery, complete. Flaring sides, flattened base, 2 pairs of holes on either side at rim for suspension or securing a lid. Gray ware. 9.0 h., 10.2 dm. rim, 8.7 dm. base.	100:7
Sasanian burial			
<i>Locus 20,</i> intrusive into	Burial 1	Uc 15. Stamp seal, black stone ('steatite'), ox-hide shaped. Sealing surface divided into four hatched triangles. Back drilled latitudinally, leaving a groove in the middle. 2.4 l., 2.0 w.	101:1

Level I (continued)			Plate
<i>Locus 20</i> , intrusive into	Burial 1	Uc 16. Bottle, glass, broken, but almost complete. Flat, everted rim, high vertical neck, wide ovoid body. The glass is green, but has a silvery gray wash which may be an imitation of silver. 10.0 h., 14.5 dm. body, 0.1 th.	101:3
	(same)	Uc 17. Bowl, copper, complete but corroded. Boat-shaped, with both ends turned up slightly. 6.8 h., 23.0 l., 9.0 w.	101:2
Medieval Islamic to recent			
<i>Locus 1</i>	Surface debris	Uc 1. Tobacco pipe, pottery, fragmentary. Very fine red clay, burnished outside. Horizontal grooves around rim. 2 cm. below rim, the widest part of the pipe bowl is cut to form a septagonal section. Below, several horizontal grooves have vertical tooth indentations. 3.8 h., 4.0 dm. max.	Not Illustrated
	(same)	Uc 40. Bead, ovoid, light blue glass. 0.8 dm.	55:18
<i>Locus 2</i>	Pit	Uc 26. Pitcher, barbotine, fragmentary. Originally, a handle from shoulder to neck. Ring base. Mold made, surface decorated with curvilinear, leaf-like, designs on shoulder; horizontal lines and zig-zag near base. Yellowish buff ware, 2.5Y 8/4. 9.0 h., 11.5 dm. body, 4.3 dm. base.	103:4
	Surface	Uc 7. Horseshoe, iron, fragmentary. Nail-holes around edge. 10.0 dm., 0.7 th.	104:9
	Burial 2, recent, infant	Uc 5. Beads, 5 white stone and three shell. Three of the white stone beads are irregular, the 4th is V-shaped and cut, but not polished. Widths range from 1.5-3.5 cm.	55: 8-15
<i>Locus 6</i>	Pit	Uc 43. Bracelet, white glass, twisted-rope decoration, fragmentary. 8.0 approximately original dm., 0.5 th.	55:24
<i>Locus 20</i> , intrusive into	Burial 3	Uc 10. Beads, glass, faience, shell, silver. 5 cowrie shells (largest 1.9 l.) 1 ovoid clear glass, 1.1 dm. 1 ovoid clear glass, 1.0 dm. 1 ball-shaped clear glass, 1.2 dm. 2 rectangular white faience, corners beveled, 1.2 l. 1 ribbed, ball-shaped blue faience, 1.0 dm. 1 rectangular, clear glass, corners beveled, 1.4 l. 1 discoid white and green striped glass, 1.9 dm.	Not Illustrated

Level I (continued)			Plate
<i>Locus 20</i>	Burial 3 (continued)	1 discoid green (with white) glass, 1.9 dm. 1 rectangular blue glass, 0.9 l. 1 coiled wire, silver spiral bead, 0.7 dm.	
<i>Locus 31</i>	Pit	Uc 45. Bracelet, brownish gray glass, twisted rope, fragmentary. 2.0 l., 0.3 th.	55:26
<i>Locus 36</i>	Surface	Uc 44. Bracelet, silvery gray, twisted rope, fragmentary. 7.4 l., 0.5 th. Original dm., approximately 8.5.	55:25
<i>Locus 43</i>	Pit	Uc 209. Beads, one ovoid lapis lazuli, corroded onto a copper spiral. 0.7 dm. lapis, 0.8 w. wire.	Not Illustrated
<i>Locus 50</i>	Surface debris, infant burial?	Uc 86. Three small bracelets, blue glass, whole. 2.6 dm., 3.0 dm., 3.0 dm.	Not Illustrated
	Burial 5, recent, infant	Uc 181. 21 beads, ovoid, clear glass. 0.7-0.9 range of dm.	104:8
<i>Locus 52</i>	Pit, cutting Burial 11	Uc 109. Pin, copper, fragmentary. End of a key? 5.8 l., 1.5 w., 0.4 th.	50:16
	Surface debris	Uc 110. Sieve, pottery, fragmentary. Overhanging beveled rim, shallow bowl, holes in round bottom. Pink ware, 5YR 6/4; cream slip 10YR 7/3. Date uncertain. 28.0 dm. rim, 10.0 h.	104:1
	Pit 2	Uc 287. Bead, ring, white faience. 0.6 l., 0.5 dm.	55:19
	(same)	Uc 296. Bead, irregular discoid, pottery with blue glaze traces. 0.7 th., 2.0 dm.	55:22
	(same)	Uc 297. Bead, baked clay, discoid. 0.6 th., 2.0 dm.	55:21
	(same)	Uc 306. Lid, pottery, strap handle, whole. Around the rim, incisions. Indentations at either end of the handle. Groove and incisions on handle. Date uncertain. Baked in lower temperature than most Razuk pottery. Dark brown ware. Relatively crude. 20.0 dm., 3.8 h.	104:2
<i>Locus 56</i>	Burial 4, recent, infant	Uc 180. Beads, bracelets, coin used as bead. 1 buff, tubular, bone or shell, 1.1 l., 0.4 dm. 3 white cylindrical, shell, 0.4 l., 0.4 dm.	104: 5-7

Level I (continued)			Plate
<i>Locus 56</i>	Burial 4 (continued)	1 blue, ball-shaped, plastic, 0.5 dm. 1 white, ovoid, stone, 0.7 l., 0.6 dm. 4 plastic bracelets (3 blue, 1 green), c. 4.7 dm. 1 silver coin, Ottoman, 1.5 dm. Obv. — inscription: عز نصره ضرب في قسطنطينيه ١٢٩٣ 'His help is powerful. Struck in Constantinople. 1293'. Rev. — royal monogram and inscription: ٣٣ سنة 'Year 33' (of Abdul-Hamid II) Dating: 1325 A.H./A.D. 1907-1908. (The date on the obverse, 1293 A.H. was the first year of the reign of Abdul-Hamid II).	
	Surface debris	Uc 257. Tobacco pipe head, red baked clay, almost complete. Rope decorated ridge and plain ridge on end of stem. Bowl plain. 5.3 l., 2.4 dm. bowl, 3.0 l. of stem.	104:4
<i>Locus 65</i>	Pit	Uc 182. Jar, pottery, whole. Tall neck, three high strap handles from neck to shoulder. Ovoid body, round bottom. 13 impressed stamps around body. Found with fragmentary vessel of related type. Sur- face color: 2.5Y 7/2. 52.0 h., 8.0 dm. rim, 29.0 dm. body.	103:2
	Surface debris	Uc 138. Jar, pottery, fragmentary. High vertical neck, grooved shoulder, ring base. Grooves actually a spiral. Dating uncertain. 15.0 h., 6.7 dm. neck, 14.0 dm. body, 4.0 dm. base.	103:1
<i>Locus 445</i>	Surface	Uc 265. Jar, pottery, fragmentary. Rim and handle lost. Ovoid body, ring base. Green ware, 2.5Y 8/4. 19.0 h., 4.0 dm. neck.	104:3
Levels VI-I			
Town Wall			
<i>Locus 29</i>	Lower part of surface debris	Uc 37. Jar, pottery, miniature; plain vertical rim, in- cised vertical lines on shoulder, ring base. Crude, handmade. 3.3 h., 4.0 dm. rim, 4.7 dm. body, 2.3 dm. base.	73:19
	Upper part of surface debris	Uc 24. Bead, agate, ring-shaped. 1.2 dm.	55:17

Levels VI-I (continued)			Plate
<i>Locus 33 or 13</i>	In debris fallen out of baulk	Uc 251. Figurine, human, unbaked clay. Crude, hand- made. 6.3 h., 2.5 dm.	52:5
Various Loci			
		Uc 246. Group of sherds from Tell Razuk. Various types, decorations. See Pls. 84-91 for some of these.	
		Uc 247. Group of flint tools from Tell Razuk. Va- rious types. See Pls. 56-60 for some of these.	
AHMED AL-MUGHIR			
Level V			
<i>Locus 306</i>	Fl. 1	Uc 69. Figurine(?), baked clay, light buff, straw tempered. 10.7 l., 1.5 th.	110:1
Level IV			
<i>Locus 305</i>	Pit	Uc 243. Curved object, baked clay, three holes piercing, ends splayed as if for attachment. Perhaps a handle (?). 15.5 l., 4.8 dm.	110:2
Level II			
<i>Locus 301</i>	Fl. 1, fill above	Uc 105. Spindle whorl, made from fragment of pottery jar that had been decorated with incised grooves. 7-8 dm., 1.1 th.	110:3
	(same)	Uc 108. Dagger blade, iron, corroded. 17.0 l., 2.7 w., 1.0 th.	110:4
<i>Locus 309</i>	Fl. 1, fill above	Uc 141. Jar, pottery, button-based, buff ware, cream slip. 11.5 h., 7.0 dm. rim, 7.6 dm. body.	114:40
Level I			
<i>Locus 302</i>	Pit	Uc 120. Jar rim, glass, blue-gray turned white. 2.9 dm. Cf. Uc 16, Pl. 101:3.	Not Illustrated

TELL AJAMAT

Level IV			Plate
<i>Locus 12</i>	Fl. 4, fill above	Uc 261. Cylinder seal (?), baked clay, pierced longitudinally, incised line design, fragmentary. 3.2 h., 1.7 dm.	110: 6a-b
	(same)	Uc 262. Blade, copper, rivet hole at one end, fragmentary. 6.5 l., 1.5 w.	110:5
	Burial 2	Uc 263. Jar, pottery, button-based, buff ware, cream slip, 2.5Y 8/4. 13.0 h., 6.1 dm. rim, 7.4 dm. body.	116:8
	(same)	Uc 264. Jar, pottery, button-based, fragmentary, buff ware, cream slip, 2.5Y 8/4. 13.0 h., 6.7 dm. rim, 8.0 dm. body.	116:9
	Fl. 1	Uc 254. Flint blade. 3.5 l., 2.0 w.	56:1
Level II			
<i>Locus 8</i>	Fl. 1	Uc 256. Flint blade. 4.0 l., 2.4 w.	56:3
Level I			
<i>Locus 2</i>	Fl. 1	Uc 255. Flint blade. 4.5 l., 1.4 w.	56:2

UCH TEPE VILLAGE

<i>Low tell under east edge of village, surface</i>		Uc 119. Plaque, baked clay, upper part only, badly effaced. Female in relief, facing front. Isin-Larsa/Old Babylonian type. 4.7 h., 4.5 w., 1.7 th.	110:7
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Key to Architectural Drawings

—#— LIMIT OF EXCAVATION


—+— ANCIENT CUT

—•— RECONSTRUCTION

----- ABOVE PLAN ALIGNMENT

P, 59 GRID SQUARE IDENTIFICATION

33 LOCUS NUMBER

 SECTION IDENTIFICATION

 BAKED MUD-BRICK

 MUD-BRICK

◀ 00.72 > BOTTOM ELEVATION

◀ 00.72 • TOP ELEVATION

DR WALL DESIGNATION

 ASH LAYER

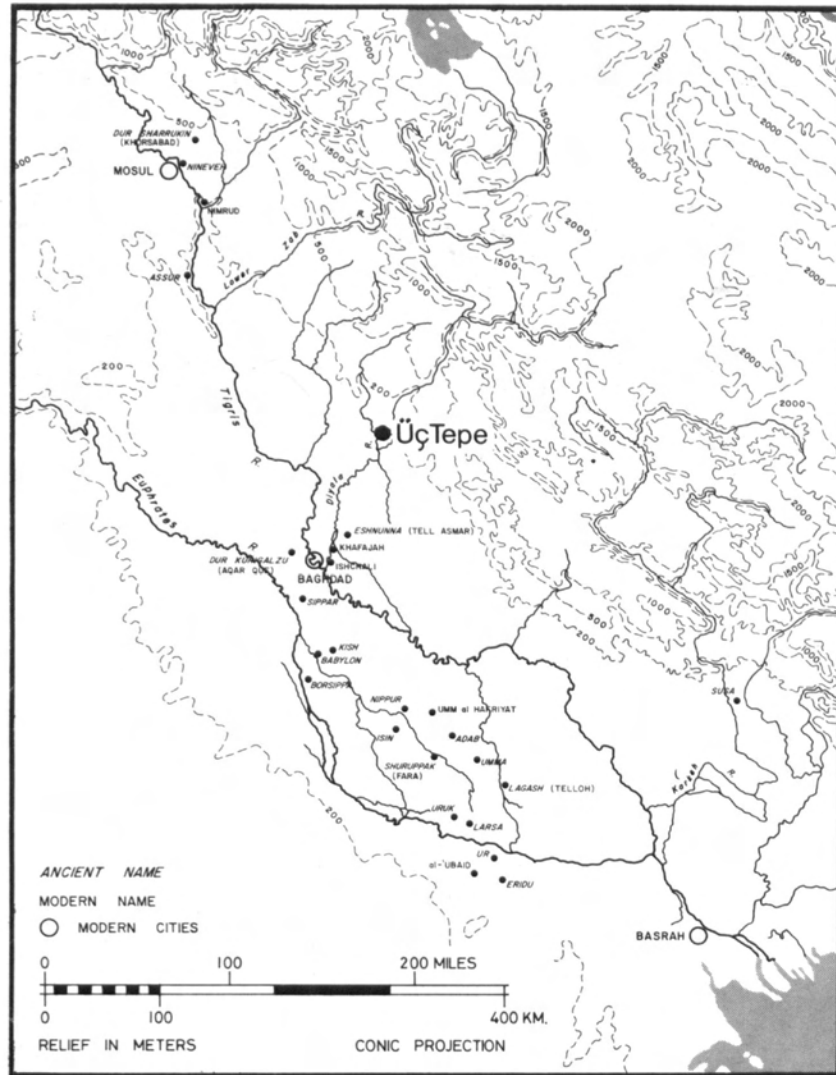
 ANIMAL HOLE

IV LEVEL IDENTIFICATION

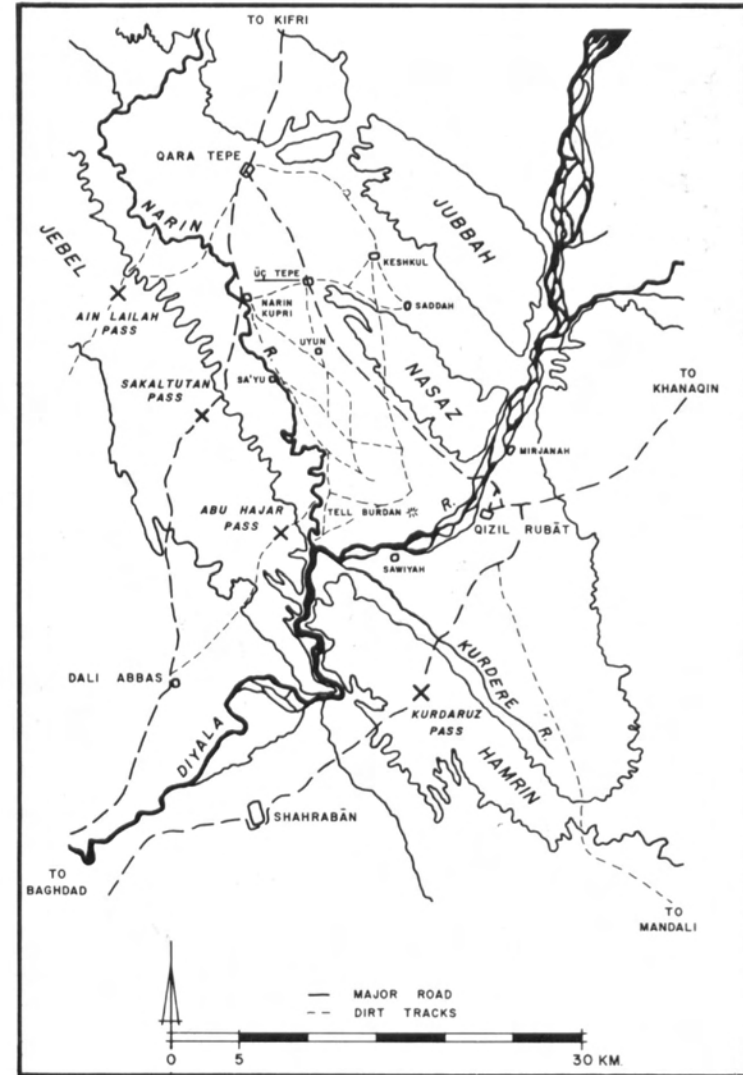
..... BELOW PLAN ALIGNMENT

[SCALE: 1:2 where nothing else is indicated]

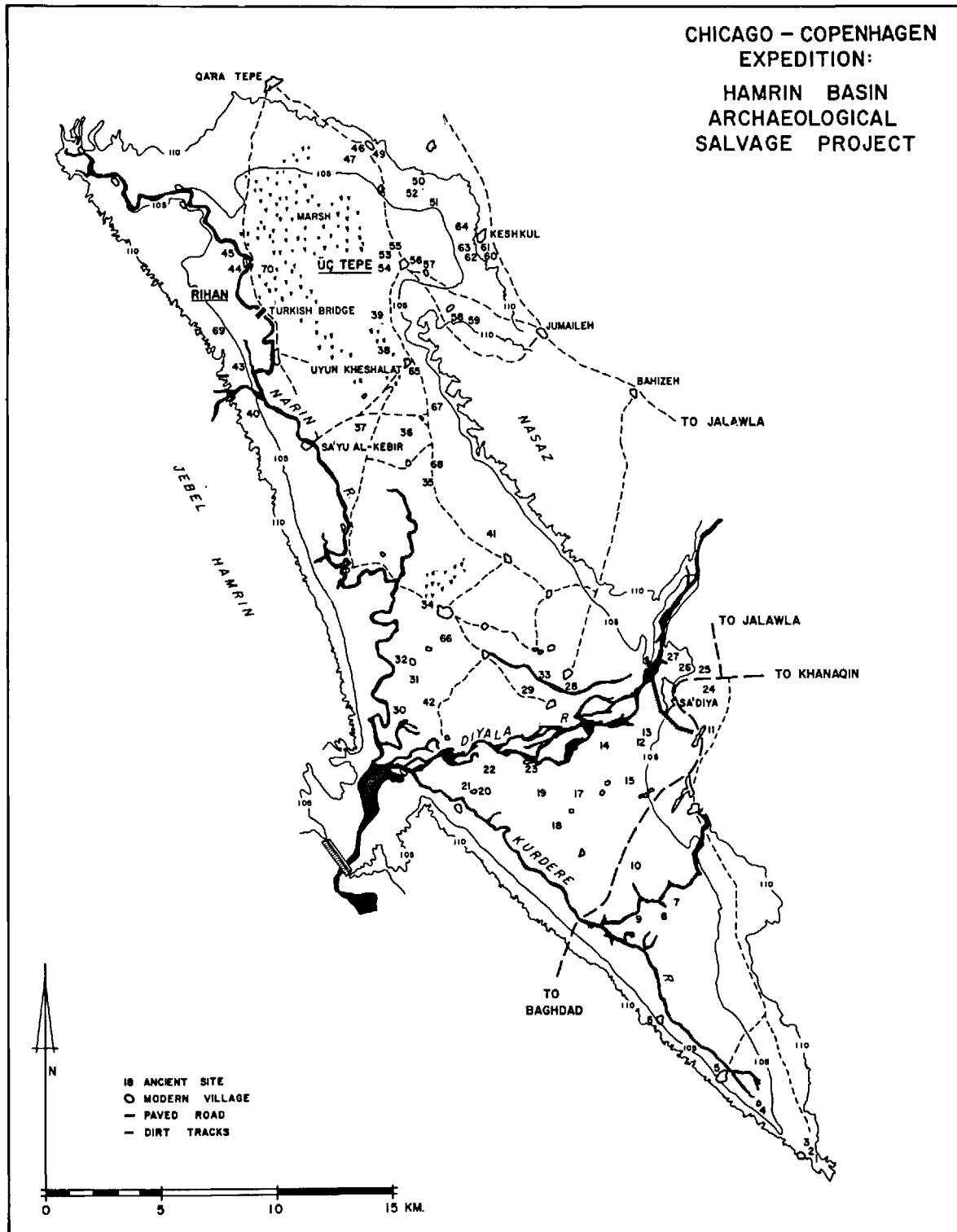
PLATES



1. Map of Iraq showing location of Uch Tepe in the Hamrin Basin.



2. Map of the Hamrin Basin from British map of 1918.

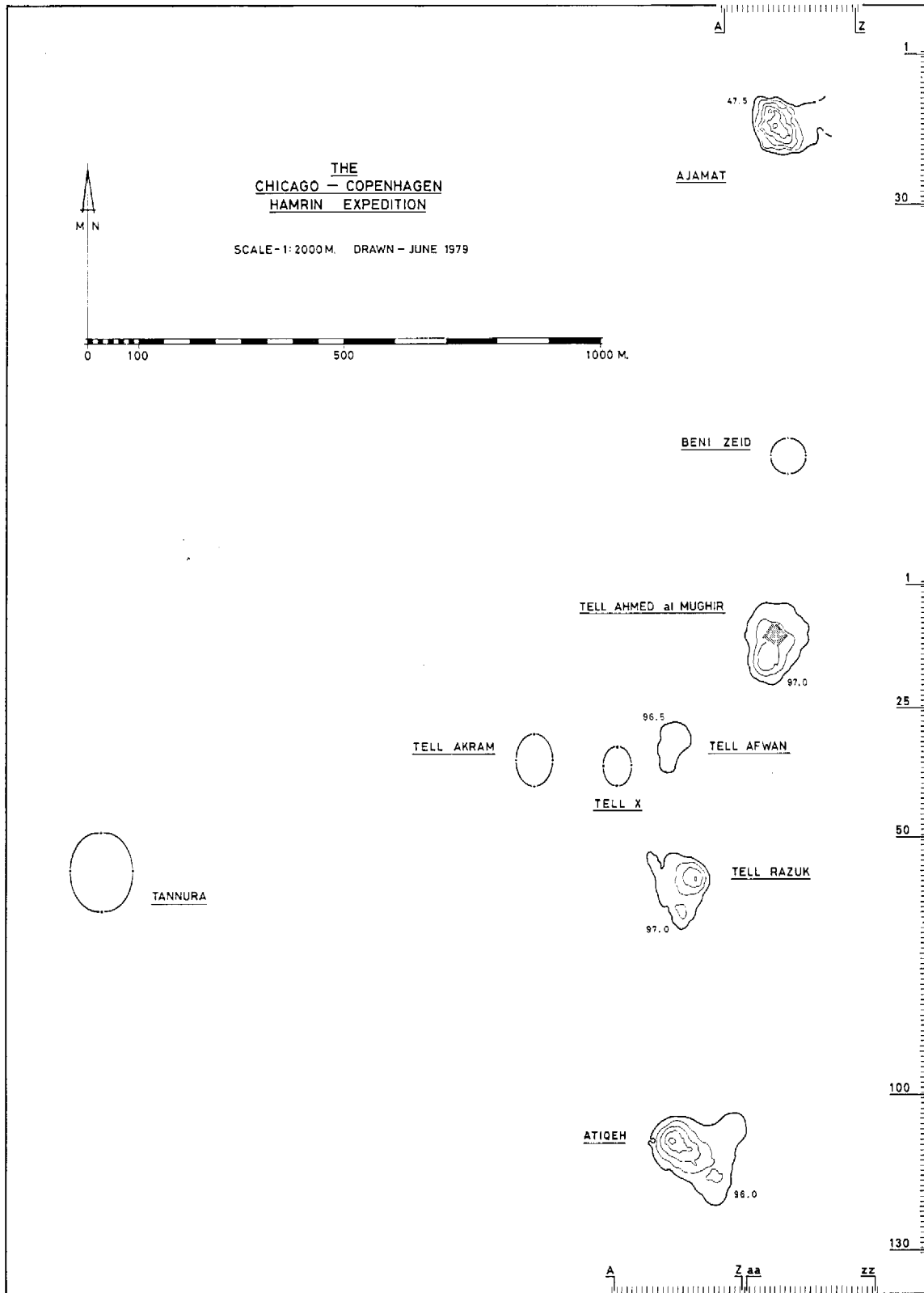


NAMES OF TELLS

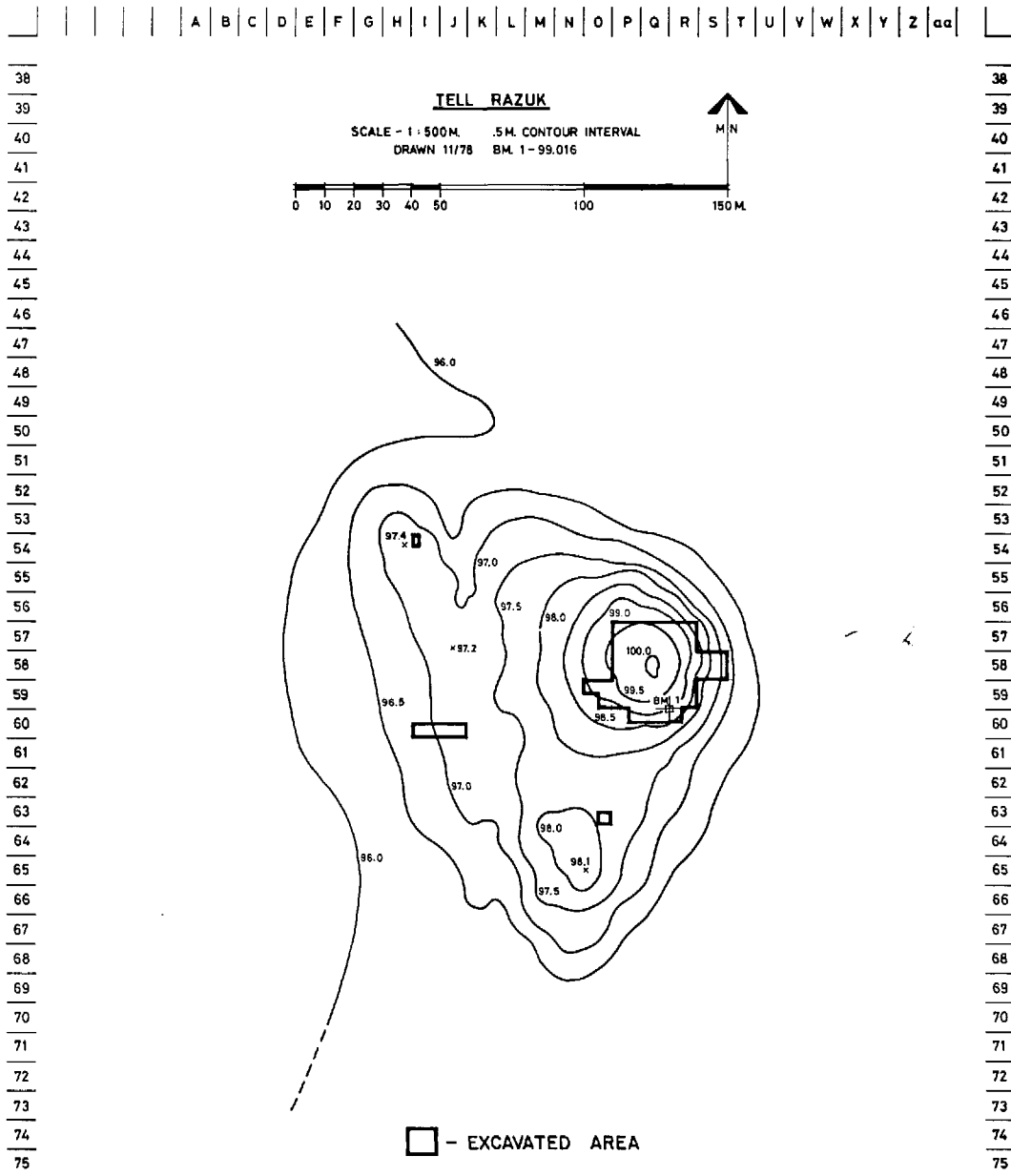
1 al-Hafayir	11 at-Turab	21 Shor Tepe	31 Gubba	41 Tunneireh	51 Greish	61 as-Saray
2 Tulul Umm Salim	12 as-Suleimeh	22 Nebi Ismail	32 Imleihieh	42 Sungur	52 Khallaweh	62 Abu Gubab
3 Rashid	13 Aq Tepe	23 az-Zawiyeh	33 al-Imam al-Bairakdar	43 Habbayeh	53 Razuk	63 ash-Shaureh
4 Tulul al-Bakhtariyeh	14 Khirbet al-Qasim	24 ar-Raha	34 Ababra	44 Rumcidheh	54 Tepe Atiqeh	64 Madhhur
5 Deshtaneh	15 Tulul al-Khubari	25 Imam Ali	35 Abu Husaini	45 Khuzeifi	55 Ahmed al-Mughir	65 Kheit Qasim
6 al-Laham	16 Tulul Beni Weis	26 al-Mahatteh	36 Yelkhi	46 Seid Alan	56 Khuzeifi	66 Sabra
7 Abbadeh	17 Ayyash	27 Gauri	37 Harmaleh	47 Tejli	57 Ahmed al-Hattu	67 Tell Hasan
8 Abu Khazaf	18 Hikmeh	28 Irsheidch	38 Kheit Genj	48 Abu Tahin	58 al-Abqa'	68 as-Sara
9 Kheit Imneithir	19 ash-Sha'ir	29 Tulul Baradan	39 Abu Shi'afeh	49 Bustan	59 Tulul al-Yarmat	69 ar-Rubeidheh
10 Kheit al-Imheidiyeh	20 Mahmud Agha	30 Tulul al-Humeidiyat	40 Jeizalun	50 Keshkul	60 Ali Pasha	70 Abu Samad

Map of the Hamrin Basin, with archaeological sites.

PLATE 3



Topographical map, Uch Tepe.



Topographical map, Tell Razuk, showing areas excavated.

PLATE 5

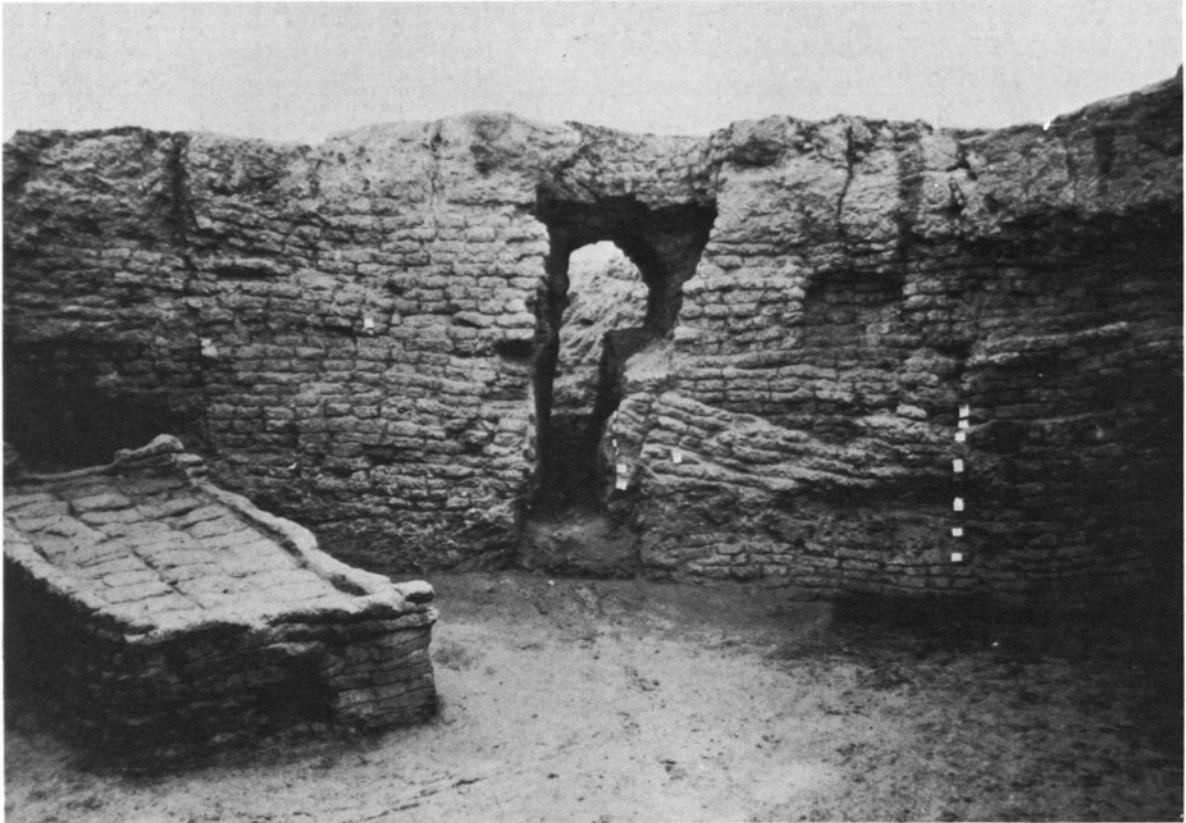


1. Ottoman bridge over the Narin. 2. Tell Razuk at the end of first season, March 1979, from southeast.

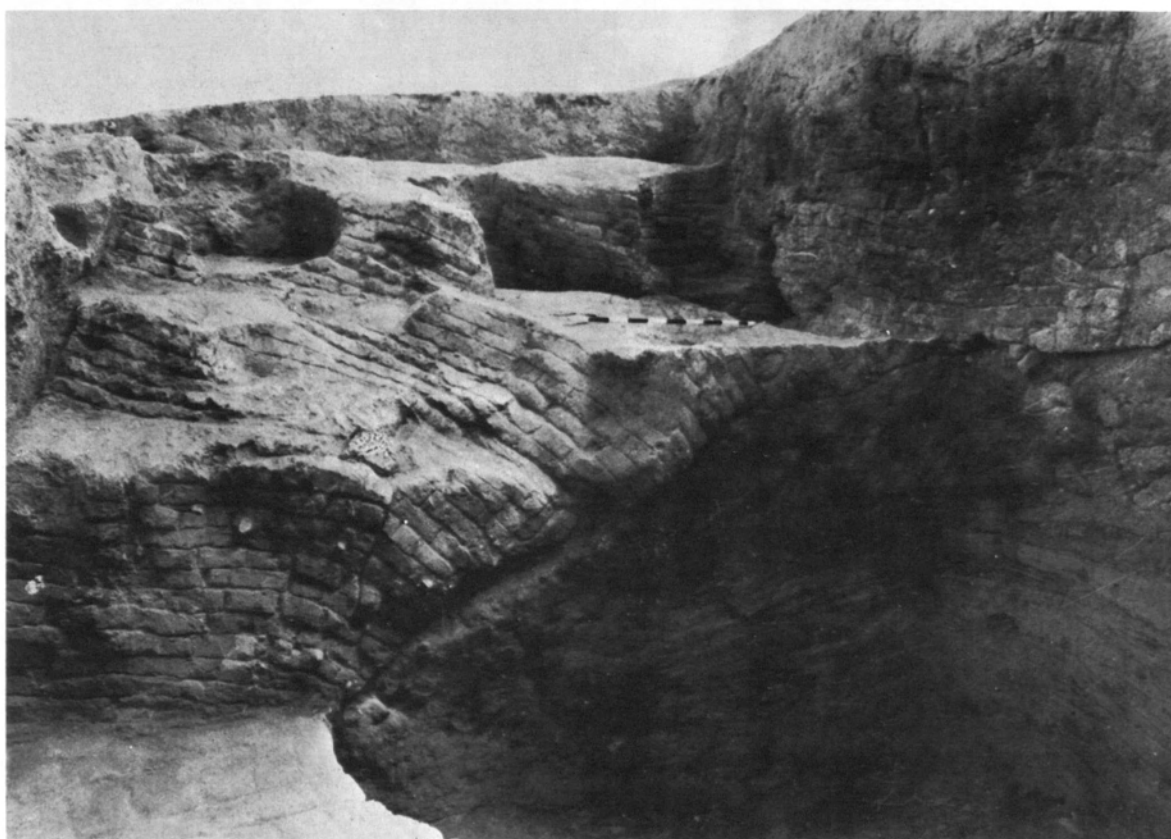


1. *Tell Razuk, Round Building, December 1979, from northwest.* 2. *Tell Razuk, Round Building, November 1979.*

PLATE 7



1. Courtyard of Round Building, Floor 10a, from north. Bin at left, doorway to Locus 42 in background. 2. Roof over stairway, from south, March 1979.

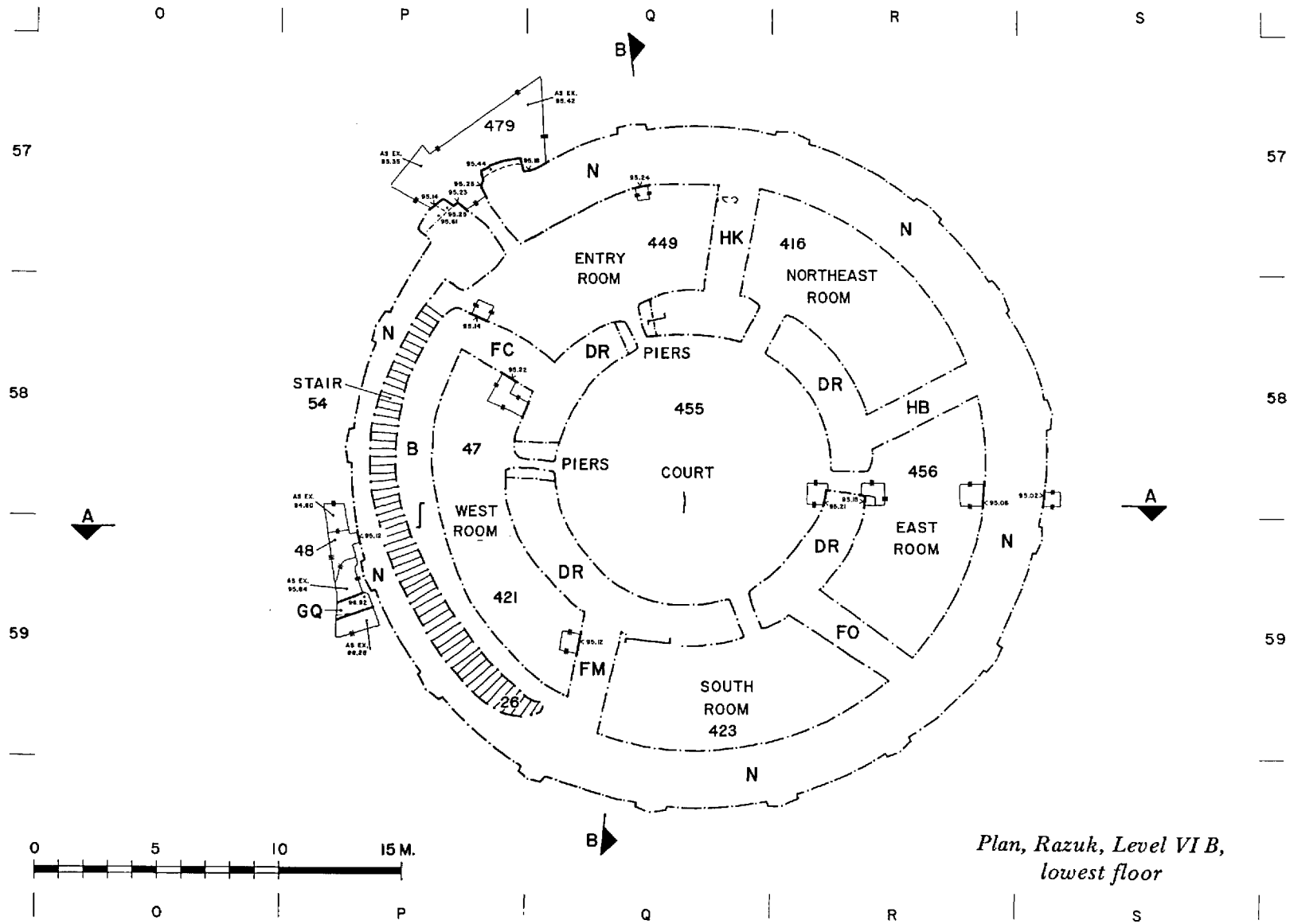


1. Northern part of Round Building, from west, showing the arch over the Entry Room with debris under it. 2. Entry Room, from west, showing arch over debris and floor material. At left, cut-away section of roof.

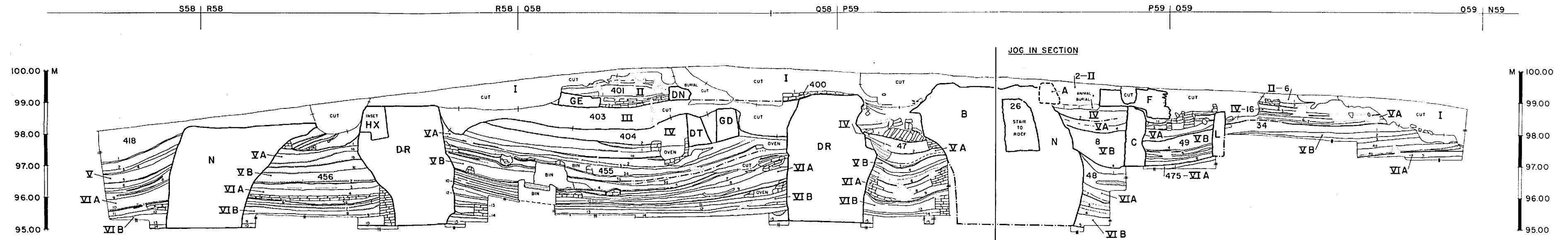
PLATE 9



Razuk from the air.



Plan, Razuk, Level VI B,
lowest floor



Locus 418

- Fill above
- Fl. 1* Loose, brown, sandy.
- 2 Brown, with red mudbrick fragments, ash lenses.
- 3 Dark gray, ashy.
- 4 Mudbrick fragments.
- 5 Striated, light olive-gray, light gray clay with charcoal and mudbrick fragments.
- 6 Brown, lenses of ash, mudbrick fragments.
- 7 Gray ashy lenses, black charcoal lenses, brown striations.
- 8 Loosely compacted brown with lense of ash. Floor is hard, light brown mudplaster, perhaps result of melting of wall face or spill from repair.
- 9 Light gray, ashy.
- 10 Striated and lensed brown and dark brown, gray and light gray. Many brown and red mudbrick fragments, charcoal, sherds on floor.
- 11 Brown, loosely compacted.
- 12 Dark gray, ashy.
- 13 Mottled brown brick fragments, ash.
- 14 Greenish yellow clay, sherds. Floor is red, gravelly clay.

* Unless otherwise specified, all floors are dark, ashy, hard, tamped down surfaces. Striations are minor floors across a locus. Lenses are thicker accumulations in limited areas. Fill includes all material above a floor, not just deliberate filling. When deliberate, this is noted.

Locus 456

- Fill above
- Fl. 1 Slanting lenses, ashy, with sherds, bones. Brown fill, many brown and green mudbricks. Striations of ash.
- 1a-c Numerous ashy striations.
- 2 Well compacted, some water-laid, striations over ash-covered green clay floor.
- 3-9 Numerous well compacted ashy striations. On Fl. 5, mudbrick paving.
- 10 Green clay, some sherds. Floor is top of red, rust-colored, gravelly clay layer.

Locus 401

- Fill above
- Fl. 1 Disturbed light brown. Fallen bricks, ashy gray.
- 2 Mudbrick paving, walls.

Locus 403

- A pit with brown, mottled soil, some ash. Green at west.

Locus 404

- Fill above
- Fl. 1 Destroyed at section.
- 2 Well compacted, ashy. Mudbrick fragments.

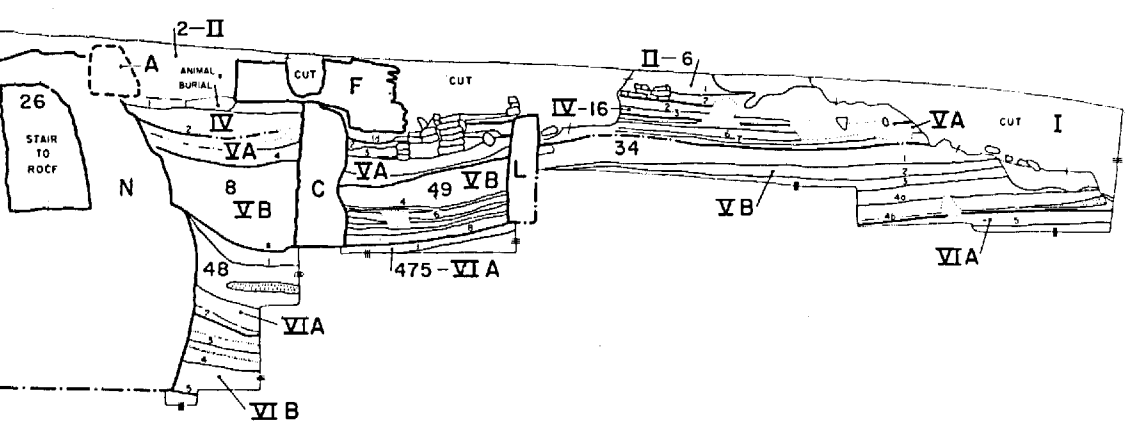
Locus 455

- Fill above
- Fls. 1-1a Ashy, green, brown striations. Some bits of charcoal. Mudbrick fragments.
- 2 Ashy striations. Brown and green clay lenses in middle of locus. Baked brick and mudbrick fragments, charcoal.
- 3 Ashy gray striations.
- 3a Dark brown mudplaster.
- 3b Ashy gray striations. East of bin, brown clay plaster. Jar-like feature with pebbles is round bin (Pl. 32).
- 4 Ash lenses, green, red and brown clay lenses. Loose brown over mudplastered floor. Floor disappears to east.
- 5 Floor is hard, waxy, brown.
- 6 Compacted ash. Hard, light brown, mud-plaster floor.
- 7-14 Striated gray, brown, red. Ash, charcoal.
- 15 Grayish green clay, sherds. Floor is top of red, gravelly clay layer.

Locus 47

- Fill above
- Fl. 1 Loose, ashy, slanting. Mudbrick fragments.
- 2 Brown striations, ash lenses.
- 3 Gray, brown, light brown striations.
- 4 Brown, well compacted, ashy lenses.
- 5 Green clay, ashy lenses, charcoal.
- 6-9 Brown, gray, ashy striations, mudbrick fragments.
- 10 Ashes, brown, well compacted.
- 11 Ashy gray, well compacted.
- 12-14 Dark brown, light brown, rust-brown striations. Grayish green mudbrick fragments.
- 15 Green clay. Floor is red, gravelly clay layer.

JOG IN SECTION



Locus 8

- Fill above
- Fl. 1 Cuts, grayish brown, loosely compacted.
- 2 Mudbrick fragments.
- 3 Mudbrick fragments, ash.
- 4 Ashy striations.
- 5-6 Numerous gray, brown, black striations over green clay Fl. 6.

Locus 48

- Fill above
- Fl. 1 Brown, compact.
- 2 Gray, green, black ashy striations.
- 3 Gray, brown, ashy striations over green clay floor.
- 4 Gray, brown, gray, ashy striations.
- 5 Green clay. Floor is red, gravelly clay layer.

Locus 49

- Fill above
- Fl. 1d Gray ash, disturbed.
- 2 Gray, brown lenses.
- 3 Compact brown, little ash.
- 4 Compact brown, little ash.
- 5 Green, soft. Brown mudbrick fragments. Floor burned red.
- 6 Loose brown. Floor burned red.
- 7 Gray, with hard brown clay under it. Green clay on ashy floor.
- 8 Gray lenses, hard brown clay, green lenses.

Locus 475

- Fill above
- Fl. 1 Green, brown, gray striations.

Locus 6

- Fill above
- Fl. 1 Brown mudbrick debris.
- 2 Brown, gray, ashy striations.

Locus 16

- Fill above
- Fls. 2-3 Brown, gray, with mudbrick fragments, pebbles.
- 4-7 Brown, gray, ashy striations, some green lenses.

Locus 34

- Fill above
- Fls. 1-5 Gray, brown, much charcoal, some thick ash lenses to west. Mudbrick fragments.

Locus 80 Disturbed brown. Hard red.
Locus 85 Disturbed brown, gray.
Locus 446-447 Gray, green, striated. Partially disturbed.

Locus 79 Loose, slanting, ashy fill, brown and gray, sherds, bones. Gray, light gray striations.

Locus 90 Gray, brown striations.

Locus 93 Gray, brown striations. Scorched mudbricks.

Locus 438 Gray, brown, green striations, charcoal on floors.

Locus 443 Gray, brown, black striations, charcoal on floors, mudbricks and fragments in fill above Fl. 2.

Locus 449 Gray, green, brown striations. Ash lenses, fill tends to be greener to north.

Locus 50, 401 Disturbed. Brown, gray. Striations near floors.

Locus 403 Pit with fill. Mudbrick fragments, ashy, brown, gray, green fill.

Locus 404 Brown, gray lenses. Mudbrick fragments.

Locus 455

Fill above

Fl. 1 Brown, ashy striations, mudbrick fragments.

1a Striations, green and gray, ashy. Stones, charcoal.

2 Striations, green and gray, ashy. Stones, charcoal, mudbrick fragments. South of Wall GA, harder green, brown clay, with brick fragments. Light gray, ashy striations on floor.

3 Brown, gray striations. Ash lenses.

3a Greenish gray ashy striations, stones.

3b Brown, gray striations, ash lenses, mudbrick fragments.

4 Gray, ashy, firmly packed.

5 Dark brown, hard, waxy. Charcoal and mudbrick fragments.

6-10 Hard packed gray ashy, brown, charcoal, mudbrick fragments.

11-12 Hard packed light gray, ashy. Charcoal.

13-14 Brown, hard, greasy, with charcoal, mudbrick fragments.

15 Green clay, one ash lense, sherds. Floor is red, gravelly clay.

Locus 68

Fill above

Fl. 1 Slanting, ashy, with sherds, bones. Red brick debris. Ashy Fl. 1 resting on mudbrick pavement.

2 Ashy floor with pavement.

3 Brown, gray striations.

Locus 423

Fl. 1 Brown, compact.

Locus 70

Disturbed. surface debris. Some brown, ashy striations on Fl. 2.

SOUTH BAULK

Locus 88
 Fill above
 Fl. 1 Brown, gray, ashy. Compact ashy striations.

Locus 79
 Fill above
 Fl. 1 Loose, slanting brown fill over gray ash. Bones and sherds. Layer of brown and green mudbricks. Compact brown fill.

Locus 90
 Fill above
 Fls. 1-2 Ashy striations, green, gray, red lenses. Green near Wall FD, ash to east. Fl. 2 is red clay.

Locus 93
 Fill above
 Fls. 1-4 Reddish brown, ashy gray striations, brown and gray mudbricks above greenish yellow fill. Charcoal.

Locus 438
 Fill above
 Fl. 1 Reddish brown, charcoal on red clay floor.
 2 Red and gray striations on red clay floor.
 3 Gray, green lenses to east, ash to west, red clay floor.
 4 Brown, compact, much salt, ashy.

Locus 443-444

Fill above

Fl. 1 Green. Brownish gray near Wall FE.

2 Grayish green, salt.

3 Brownish gray to east, green to west.

4 Green mudbrick pavement to west.

Locus 449

Fill above
 Fls. 1-3 Gray, brown, green. Mudbrick pavements to east, fragments of red brick.

WEST BAULK

Locus 51 Brown and gray, ashy. Compact brown and green striations.

Locus 89 Fill in a pit. Several red layers, much mudbrick, ash lines, brown lenses, bits of burned clay. Below red, green layers divided by rusty-red, much ash, charcoal, white salt lines, green mudbricks. Bottom part yellowish green, very hard.

Locus 87 Brown and gray, ashy.

Locus 85

Fill above

Fl. 2 Reddish brown, sandy.

3d Reddish brown, mudbrick fragments, gravel on floor.

4 Reddish brown, green lense, small bits of charcoal on floor.

5 Reddish brown clay lense, greenish clay lense, mudbrick fragments.

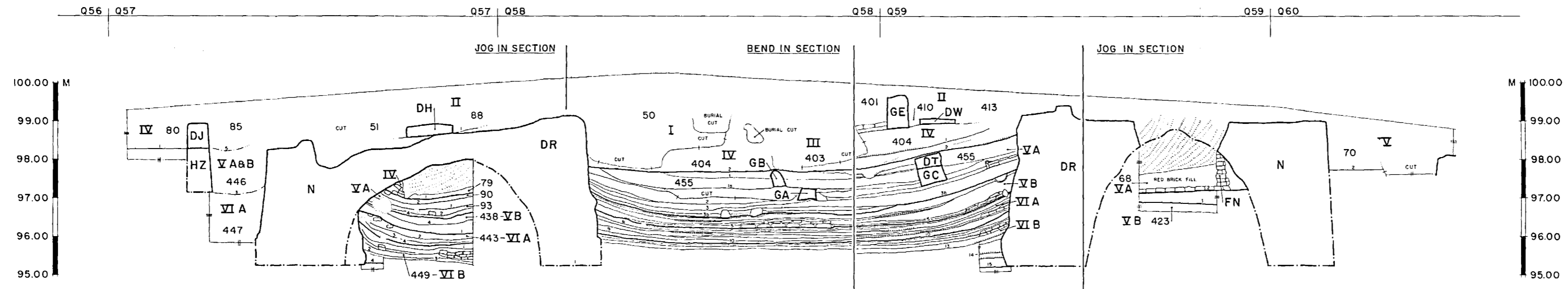
Locus 446 Green with reddish brown lenses over Floors 1 and 2. Gravel on both floors.

Locus 447 Green, two gravel lenses.

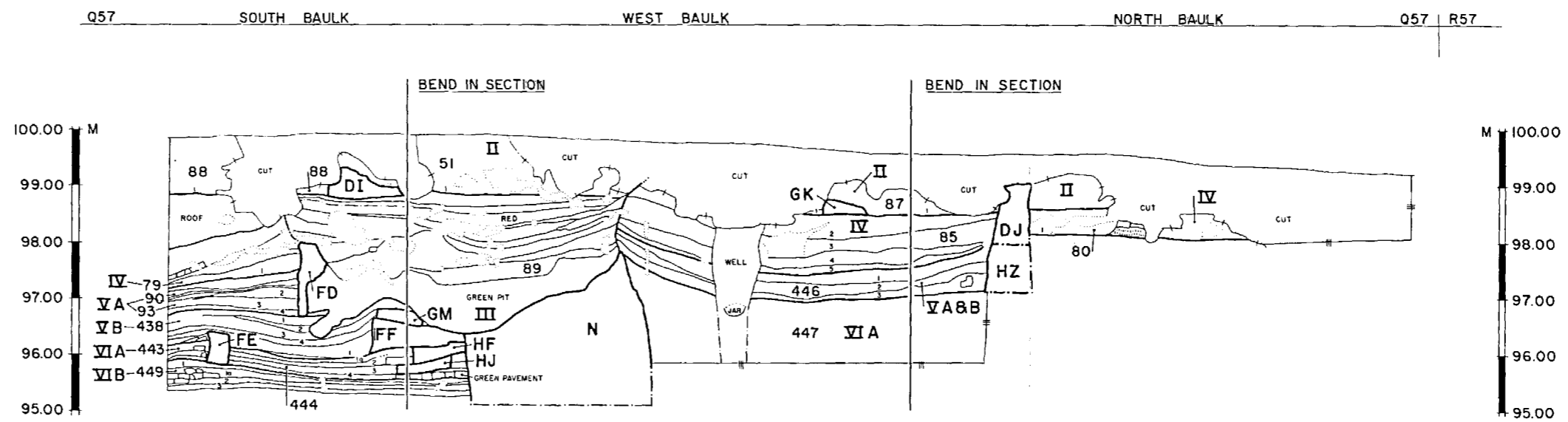
Well Gray and brown lenses, waterlaid.

NORTH BAULK

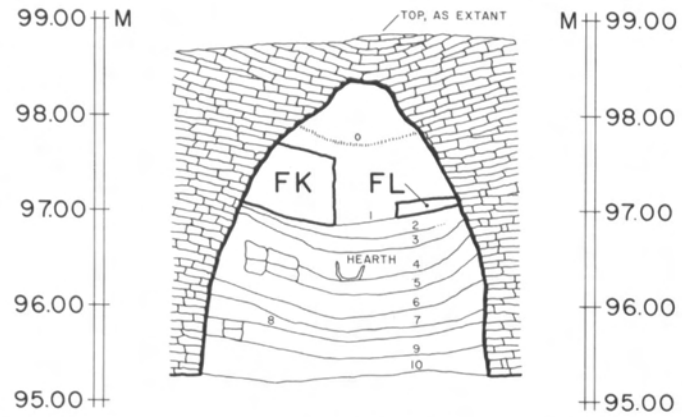
Locus 80 Disturbed brown. Hard red with some ash.



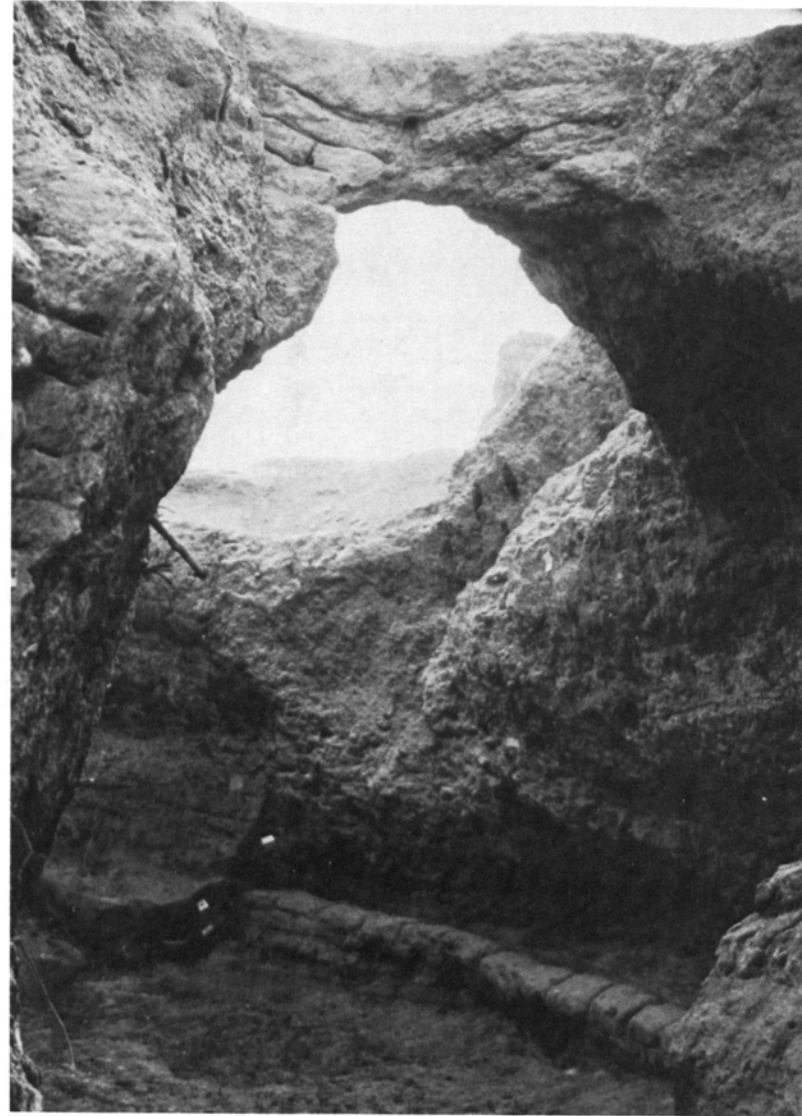
RAZUK: NORTH-SOUTH SECTION



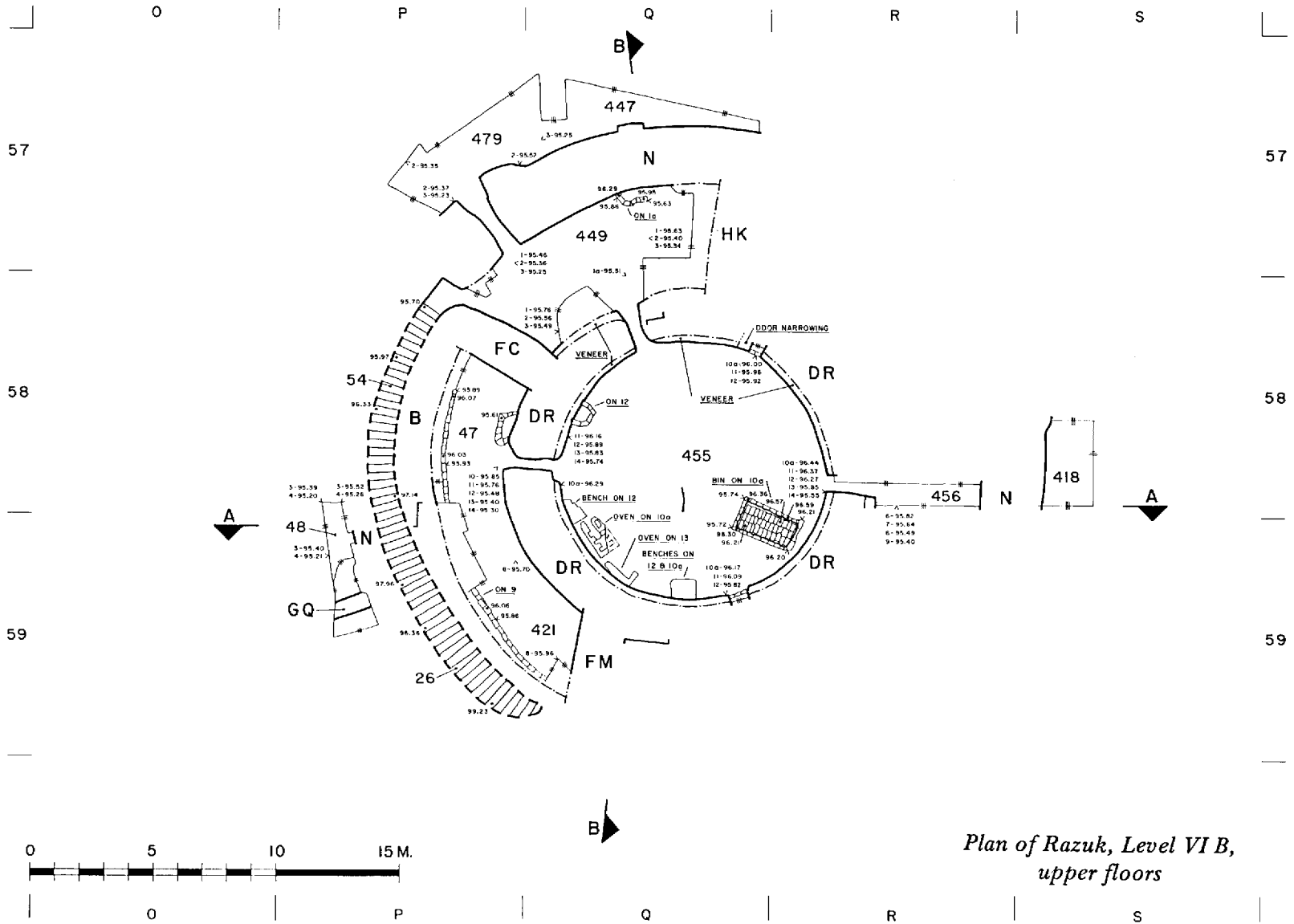
RAZUK, Q 57: SECTION OF SOUTH, WEST, NORTH BAULK



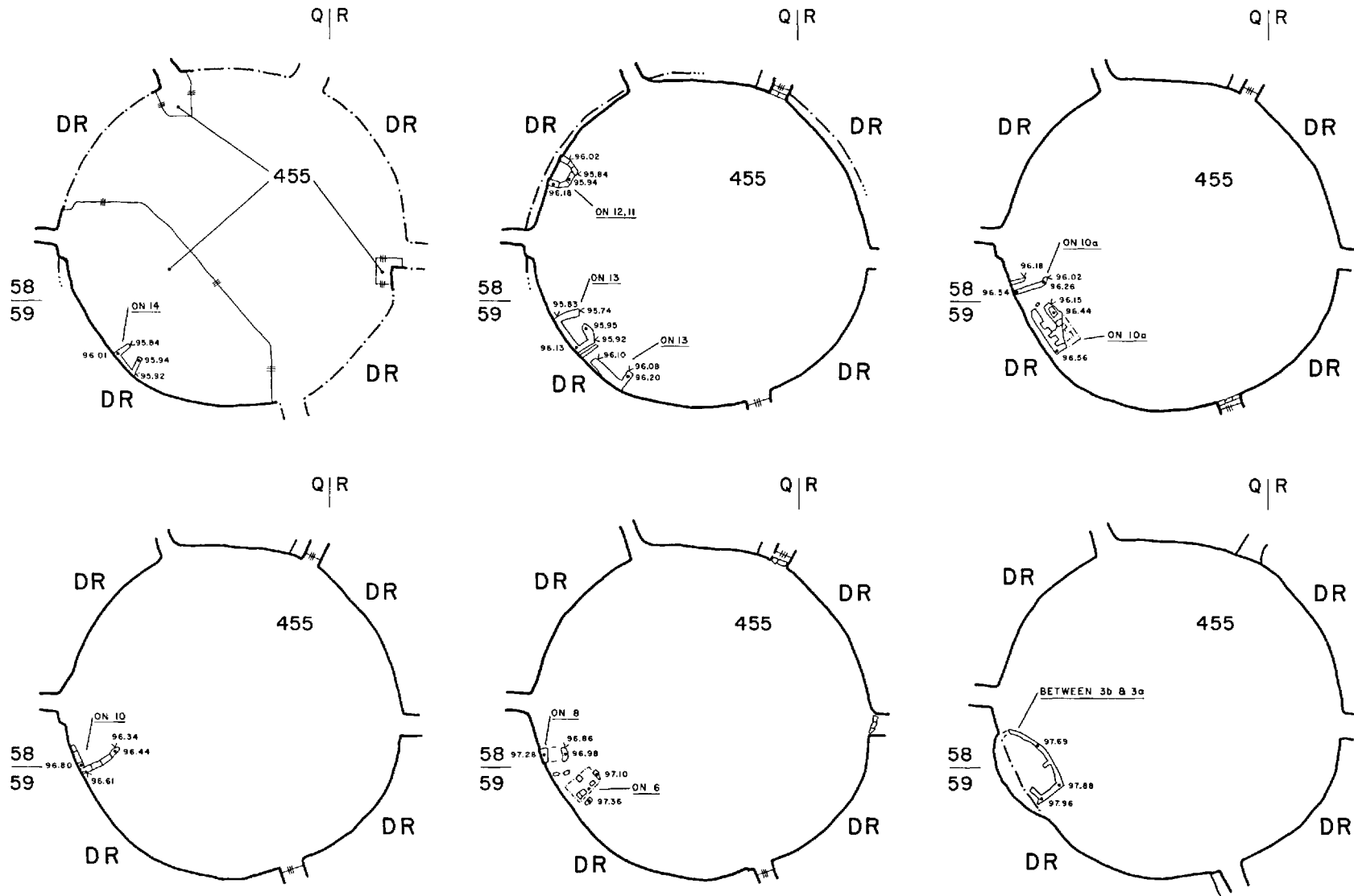
1. Arch over Locus 421 (West Room), drawing.



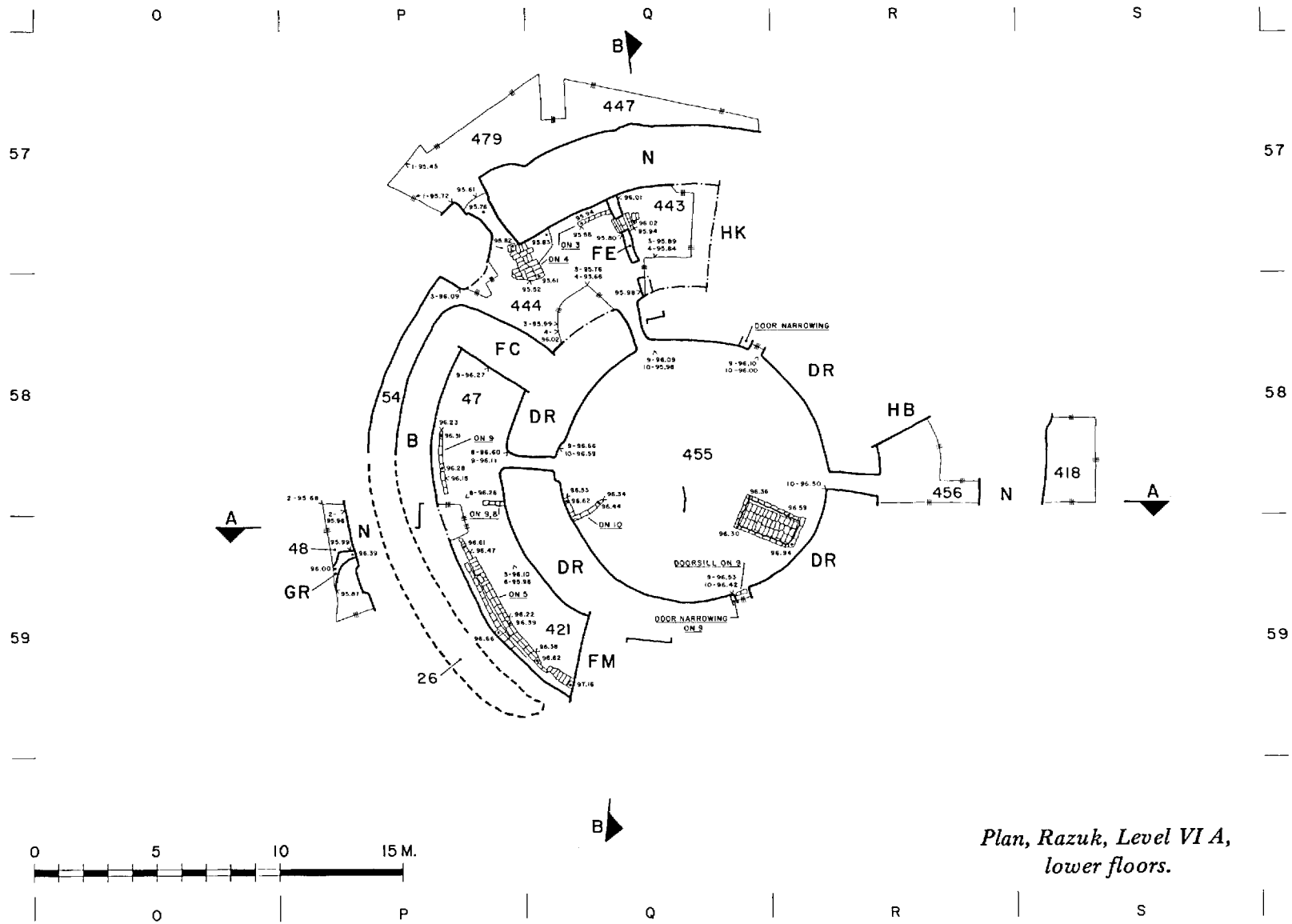
2. Arch over West Room, from north.



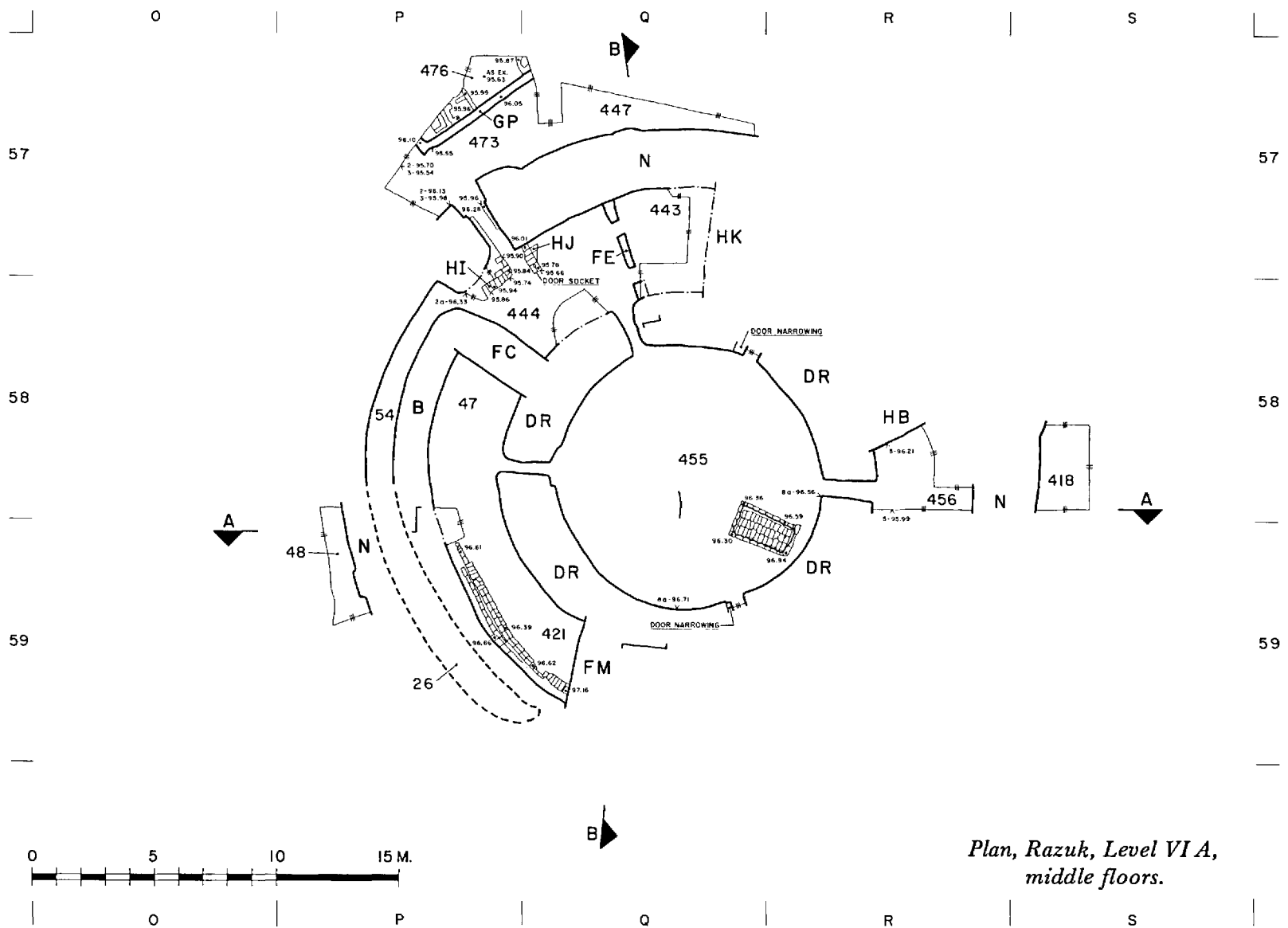
Plan of Razuk, Level VI B,
upper floors

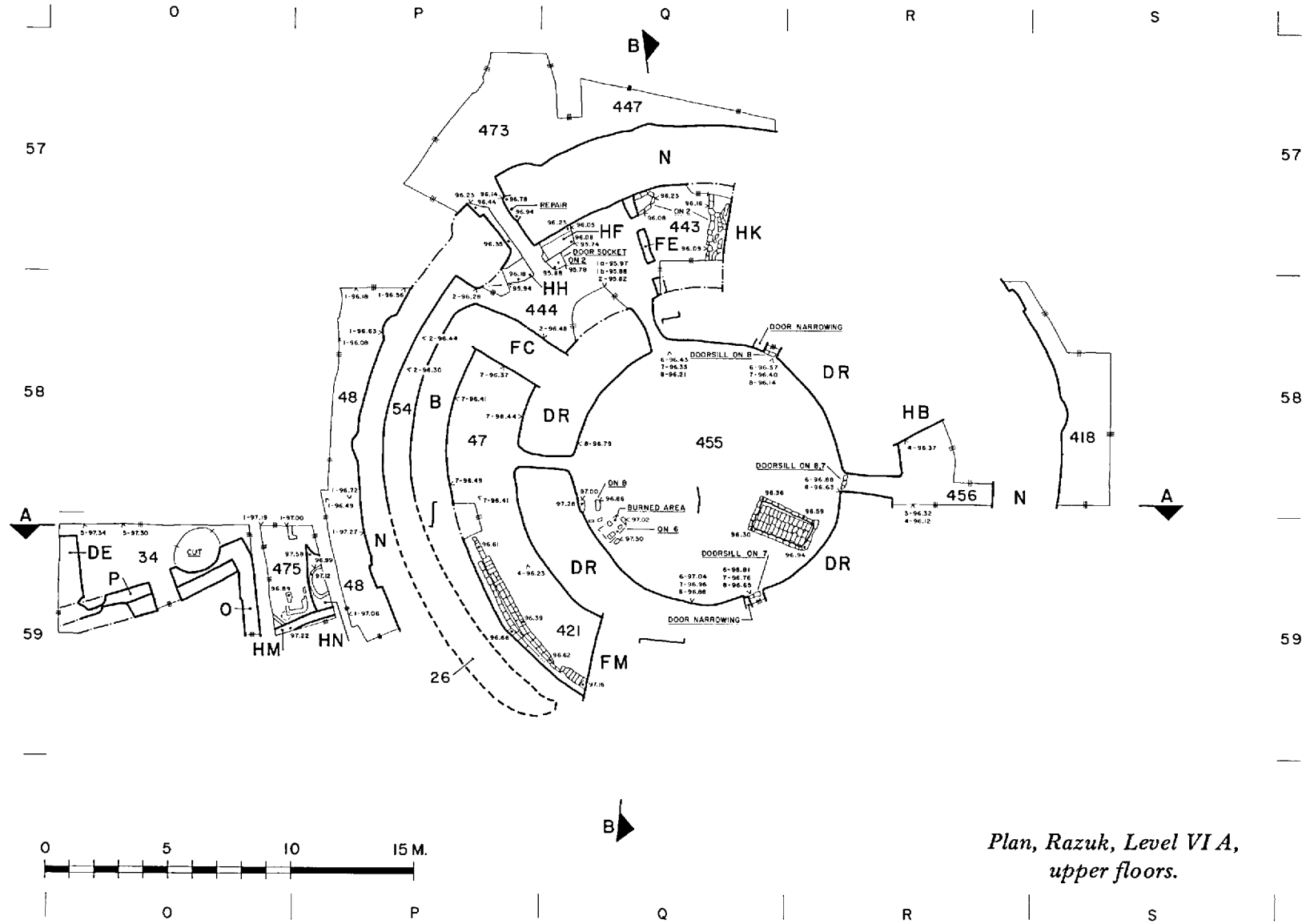


Plans, Court, ovens in southwest quadrant, Levels VI B to V A.



Plan, Razuk, Level VI A,
lower floors.



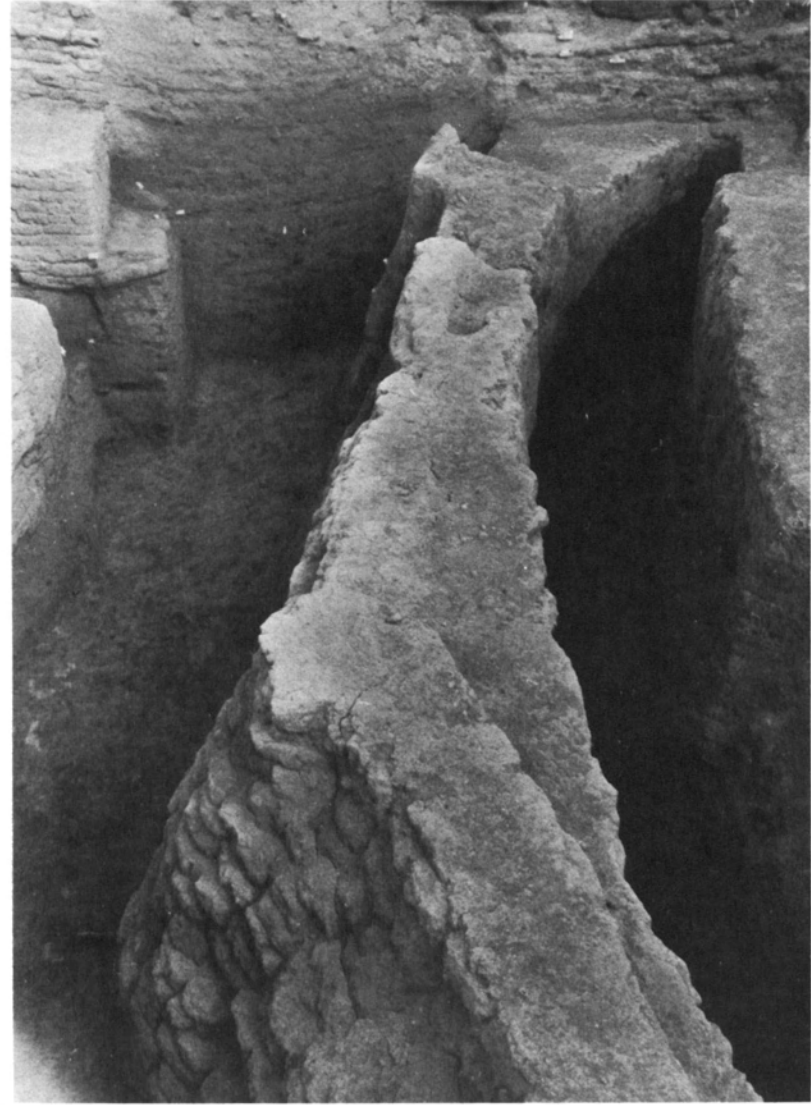


Plan, Razuk, Level VI A,
upper floors.

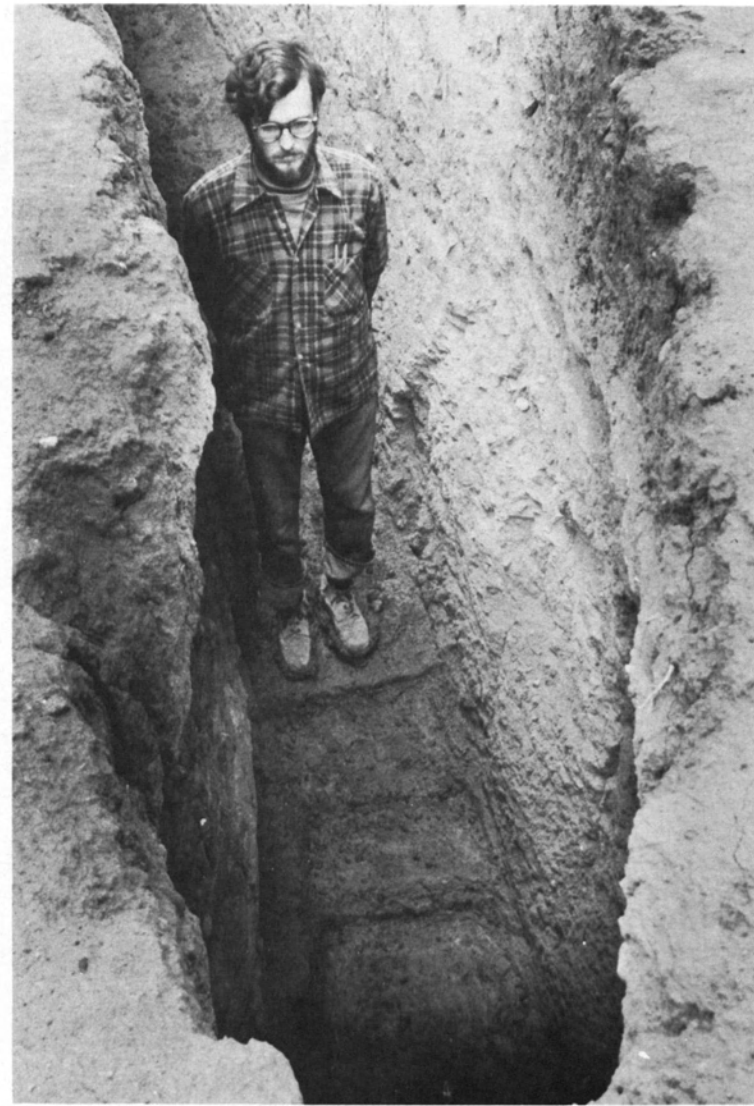
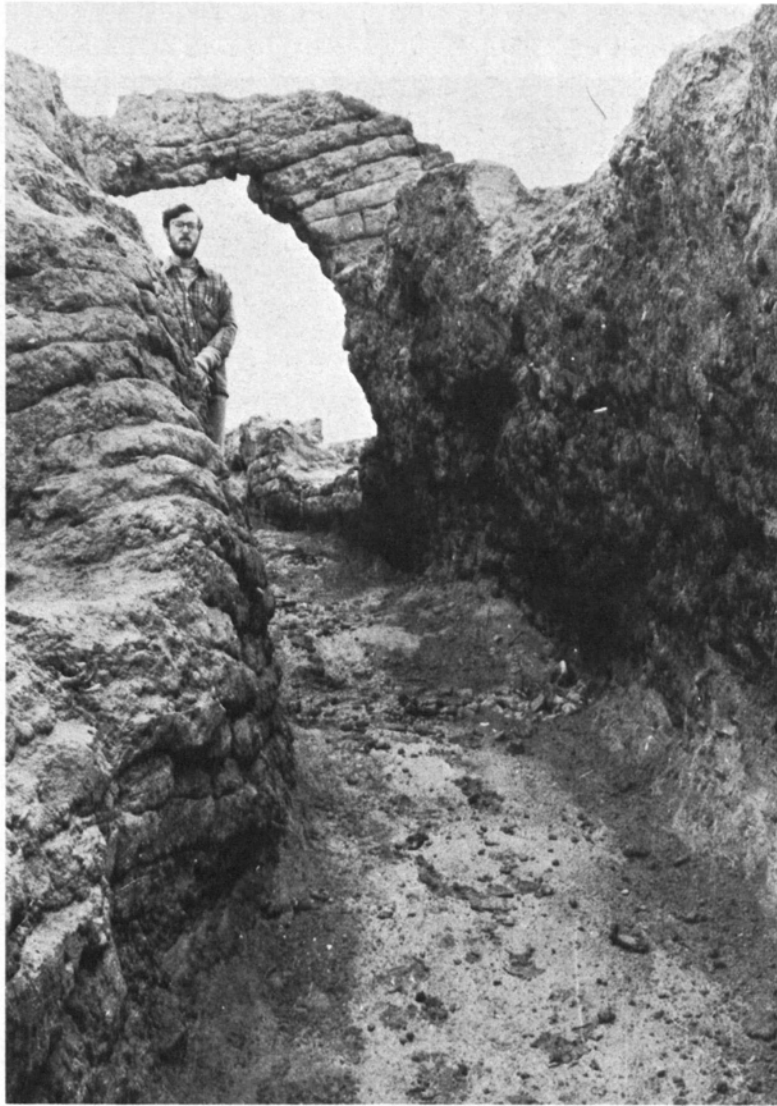
PLATE 19



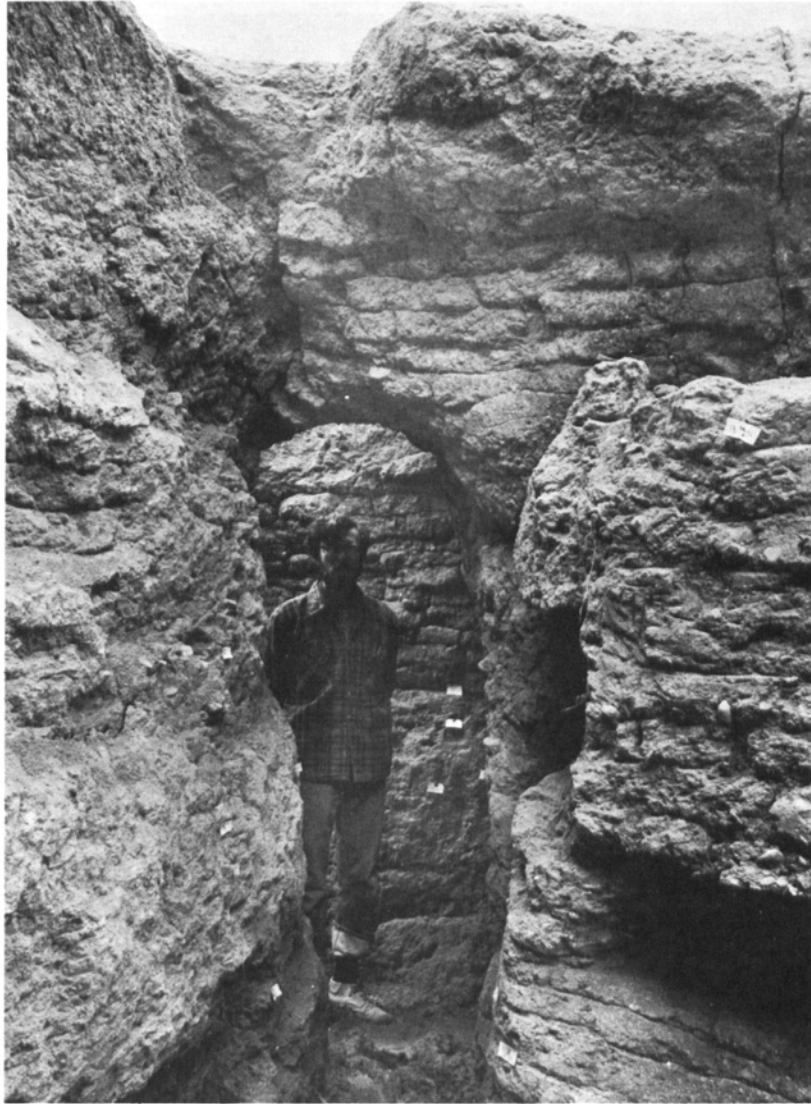
1. Doorway from Court to West Room (Locus 47), from east. Man approximately 1.8 meters tall stands in Stair at door from Locus 47. 2. Doorway from Court to Northeast Room (Locus 416), from southwest, December 1979.



1. Locus 26, upper part of Stair, showing steps of mudbrick, damaged by animal burrows. From above and north. 2. Outer Wall, buttress, and Stair (Locus 54), from above and south. Note batter of outer face and slope of corridor.



1. Stair (Locus 54), with roof fragment intact. To left, steps to Locus 47. From north, after rain, tread covered. To right, debris left to support outer wall. 2. Stair (Locus 54), showing tread at bottom. From above and north.



1. Doorway from Entry (Locus 449) to Stair (Locus 54), from east. 2. Entry Room (Locus 444), at Outer Door, with pavement, applied jambs, and a doorsocket in foreground. From northeast.

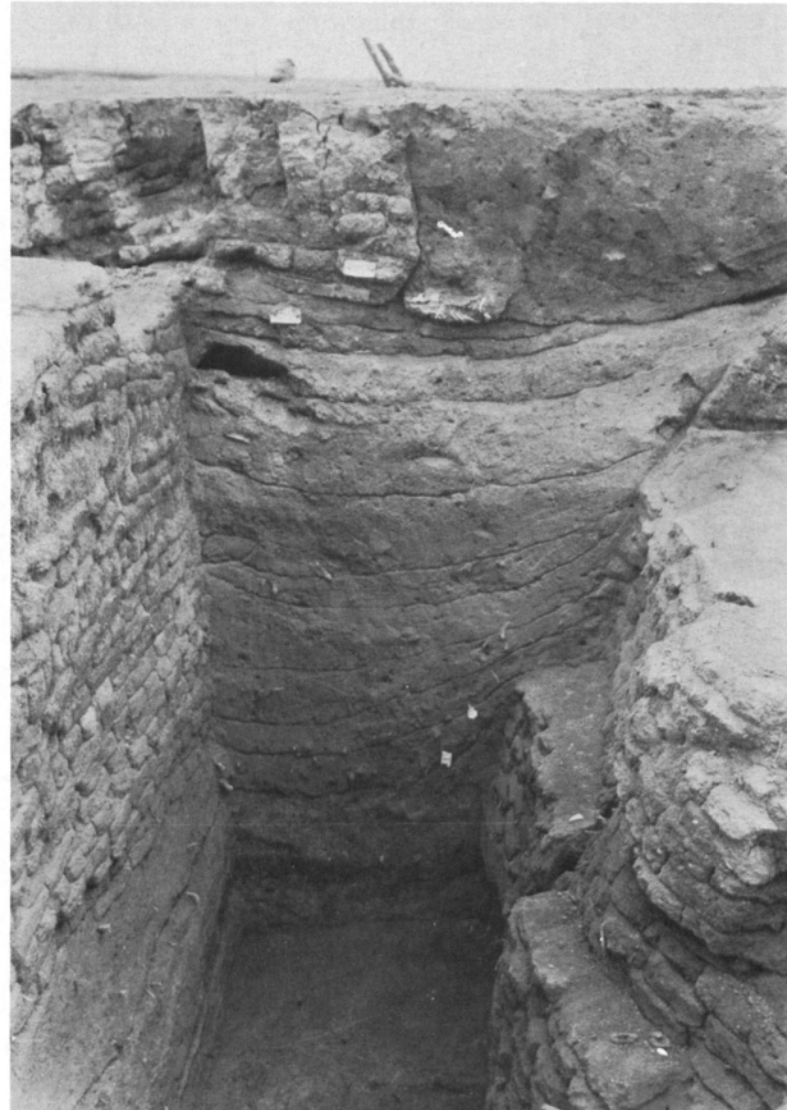
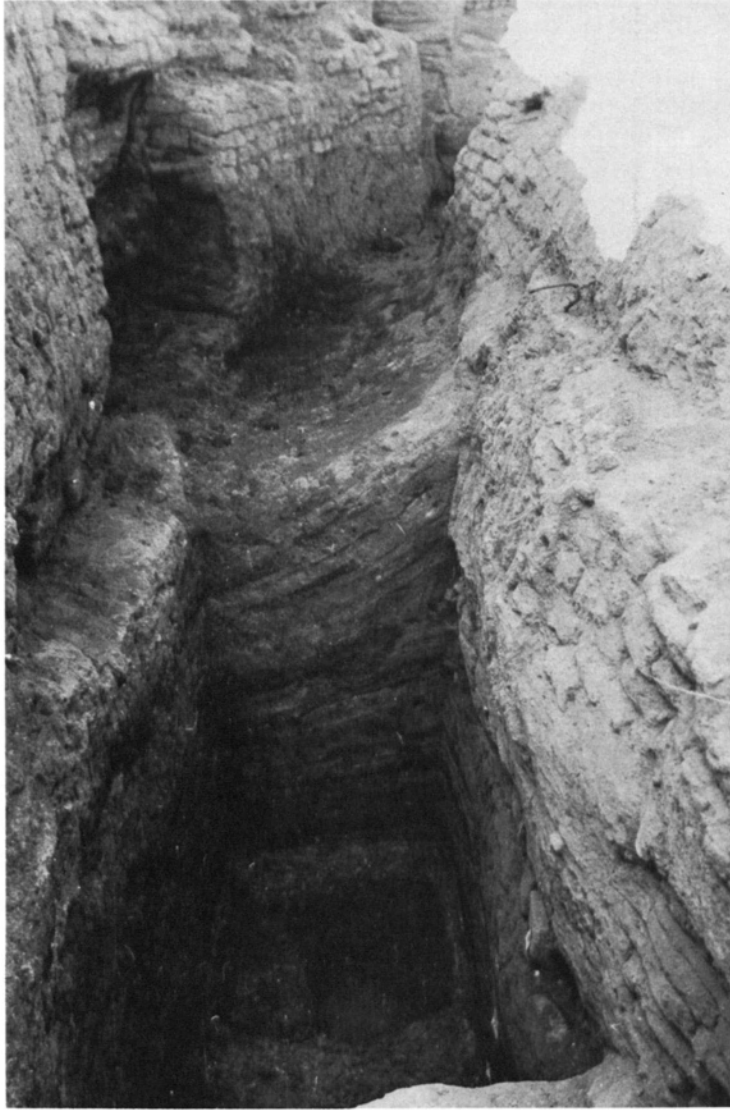
PLATE 23



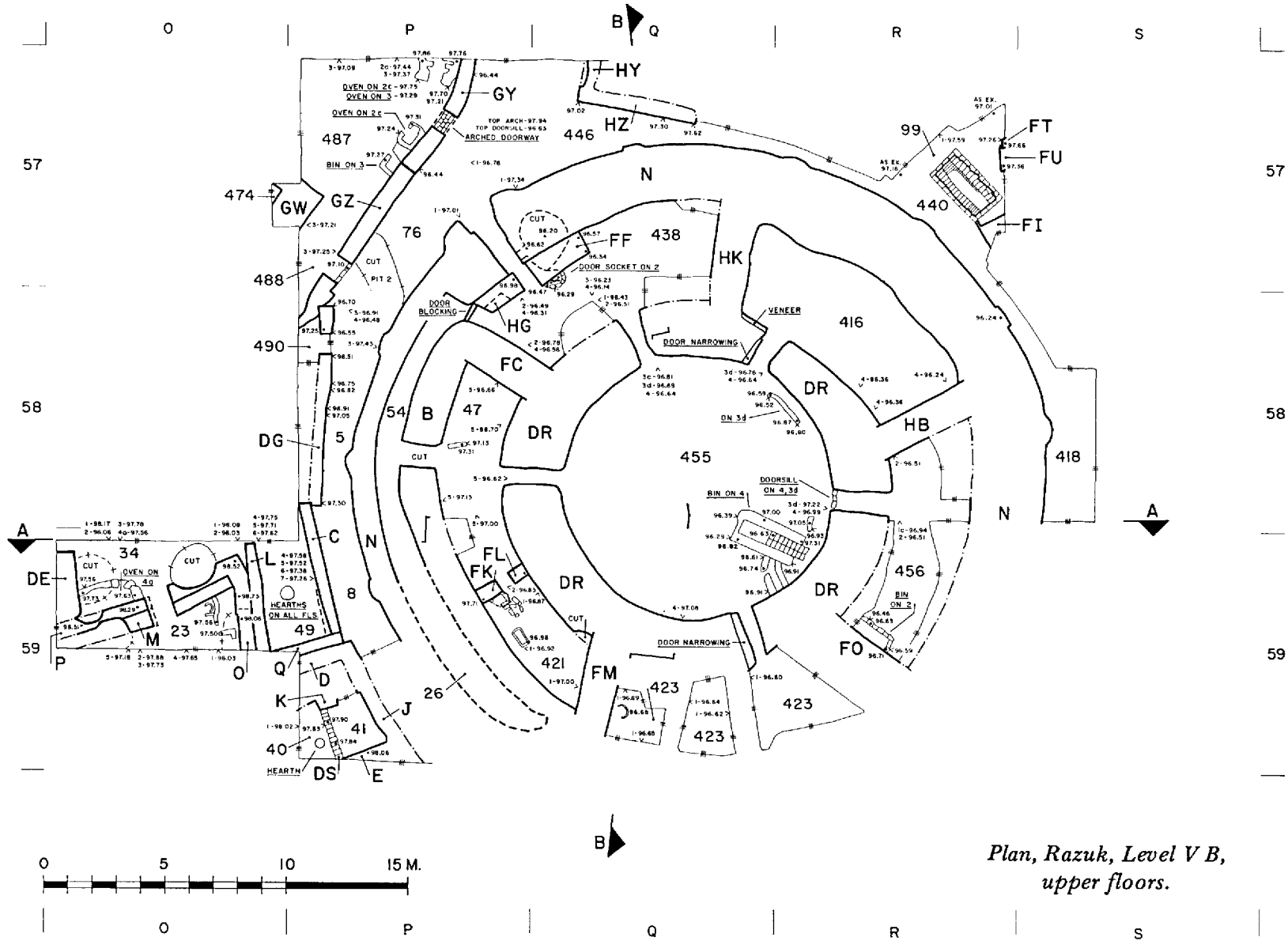
1. Entry Room with overhanging ceiling over floor debris left in place. Through doorway, to south, Court and doorway to Locus 42. 2. Artist's reconstruction of western half of Entry at approximately Level VI A. Note jambs built under curving ceiling.



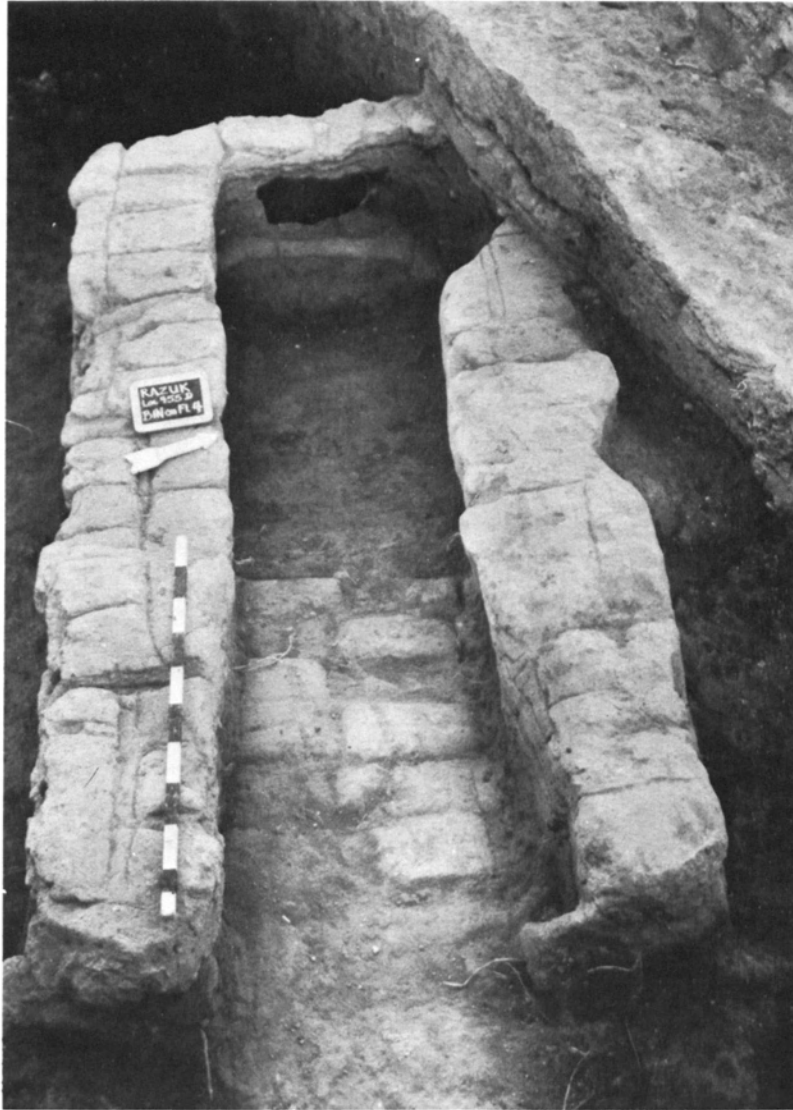
1. Locus 476, outside Round Building, from south. At left, Wall GY. Below, curving, buttressed Wall GZ. In foreground, Wall GP. 2. Locus 475, Floor 1 (Level VI A), from above and south. Bin on right, jar-hearth against Wall HM in foreground.



1. Locus 48, west of Round Building, from south. Note slope of corridor. Wall N to right. 2. Locus 8, west of Round Building and above Locus 48, from south. Wall C to left, Wall N, with stepped batter on right.

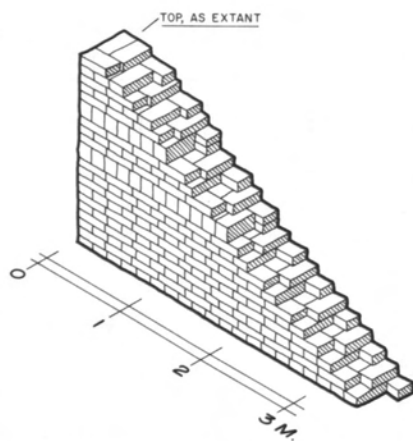


Plan, Razuk, Level V B,
upper floors.

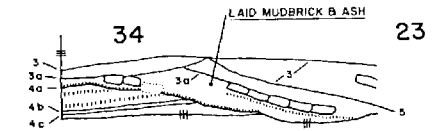
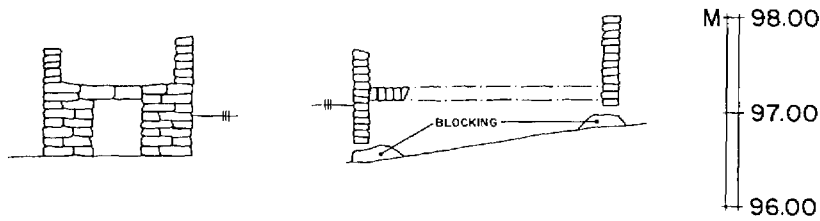
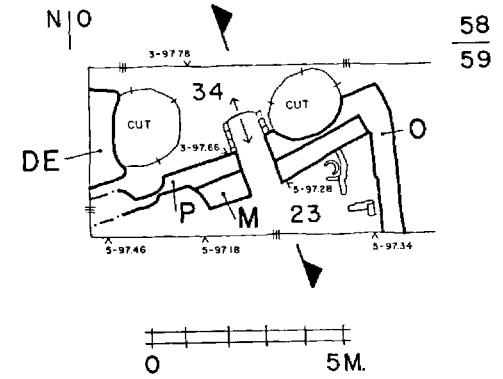
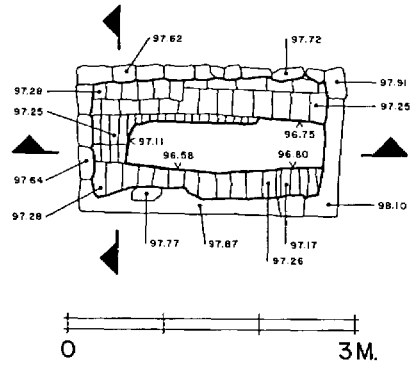


1. Bin on Floor 4, Locus 455 (Court), from southeast. 2. Blocked doorway in Wall GY, Locus 76, northwest of Outer Door, from southeast.

PLATE 29



1. Wall C and house area to west, from east. 2. Isometric drawing of Wall C, to show bonding. Note that in this rendering, the convex surface of the bricks is not indicated, stepped base omitted.

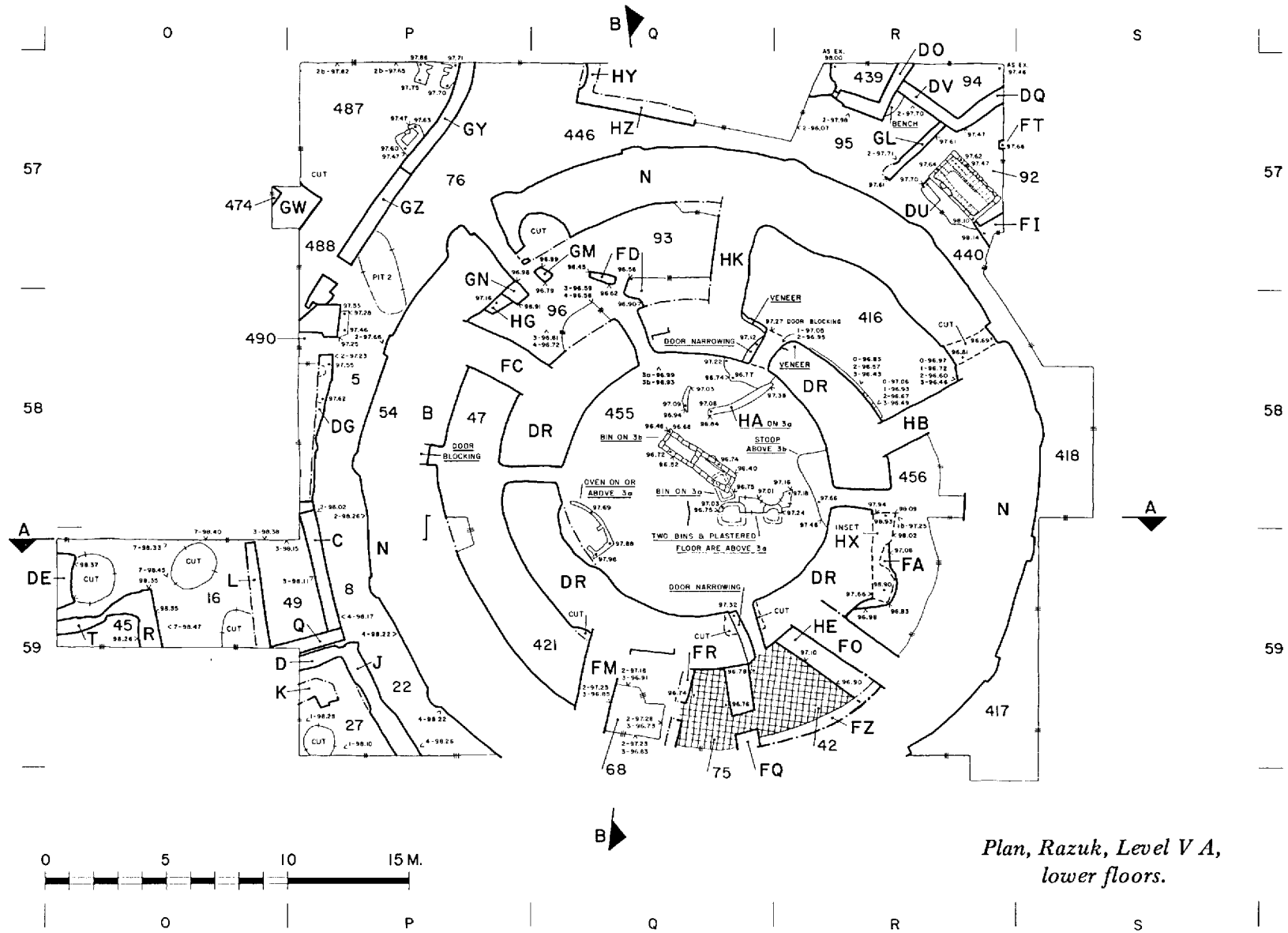


1. Bin in Locus 99, plan and section. 2. Detailed plan and section of Locus 34 and the ramp cut through the doorway to Locus 23.

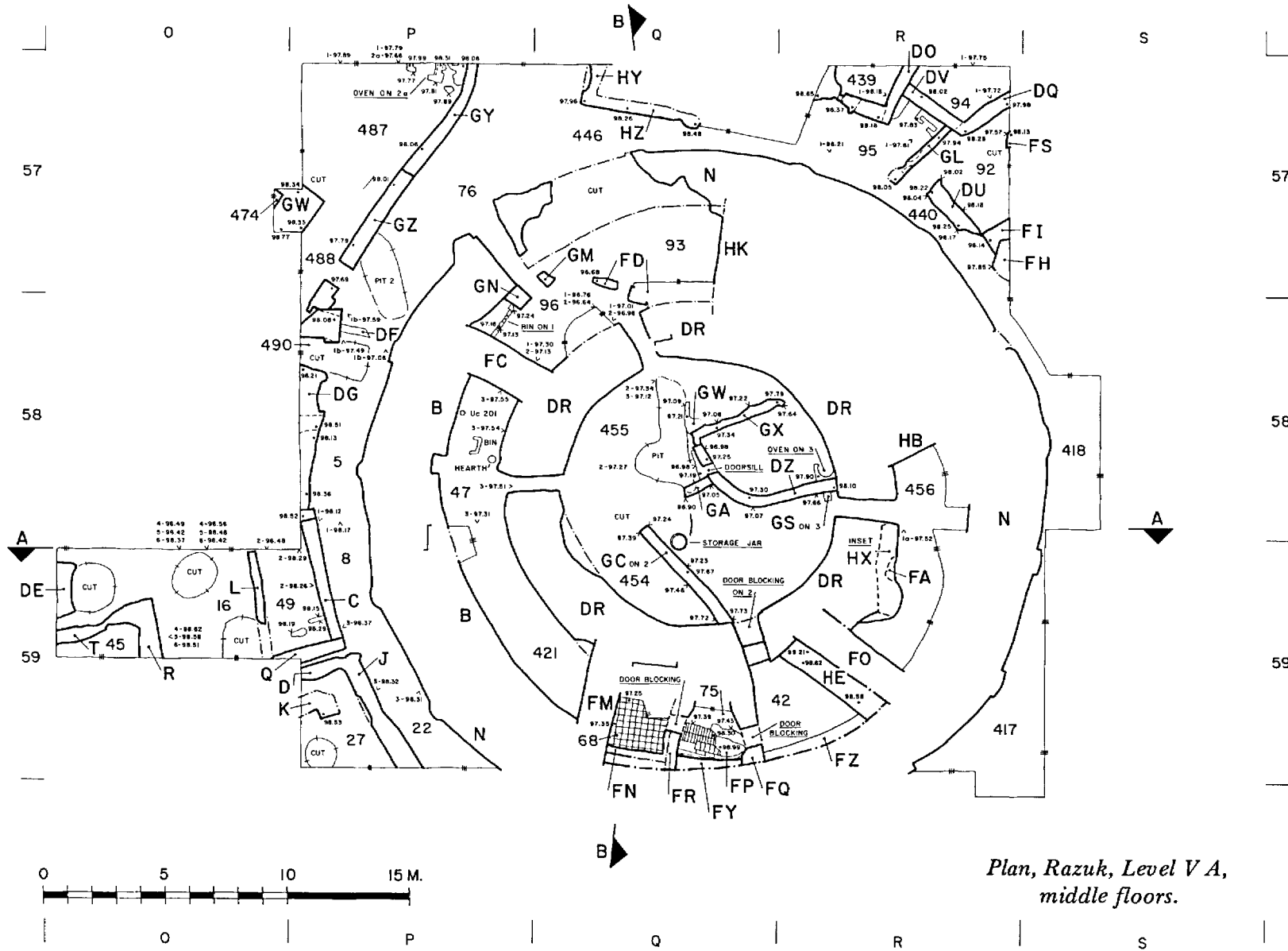
PLATE 31



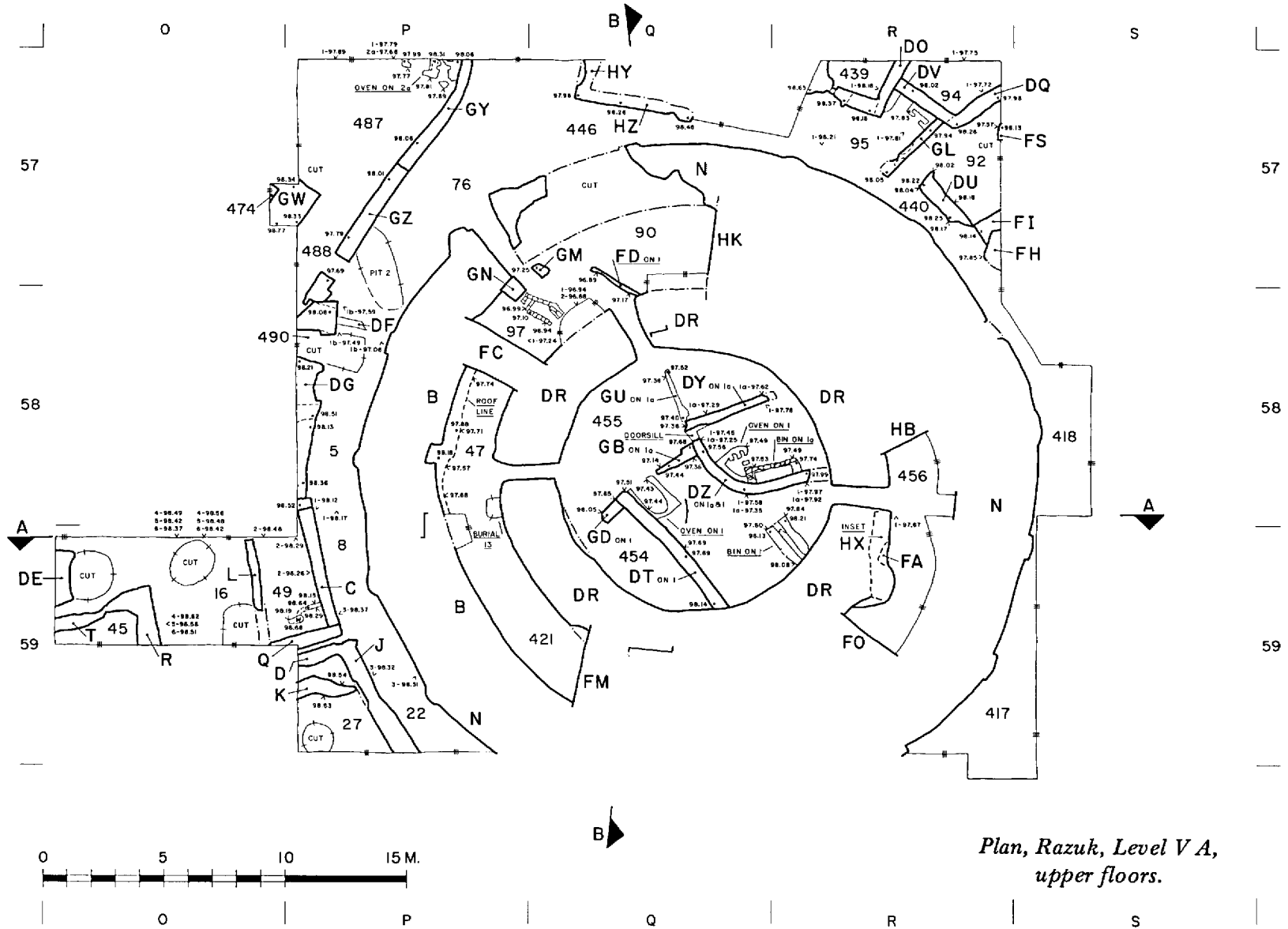
1. Locus 23, Floor 5, from south, showing jar turned upside-down and enclosed within mudbrick and plaster to form a tannur or hearth. 2. Locus 49, Floor 5, from south, with jar turned upside-down to form a tannur or hearth. Quern at right foreground.



Plan, Razuk, Level V A,
lower floors.

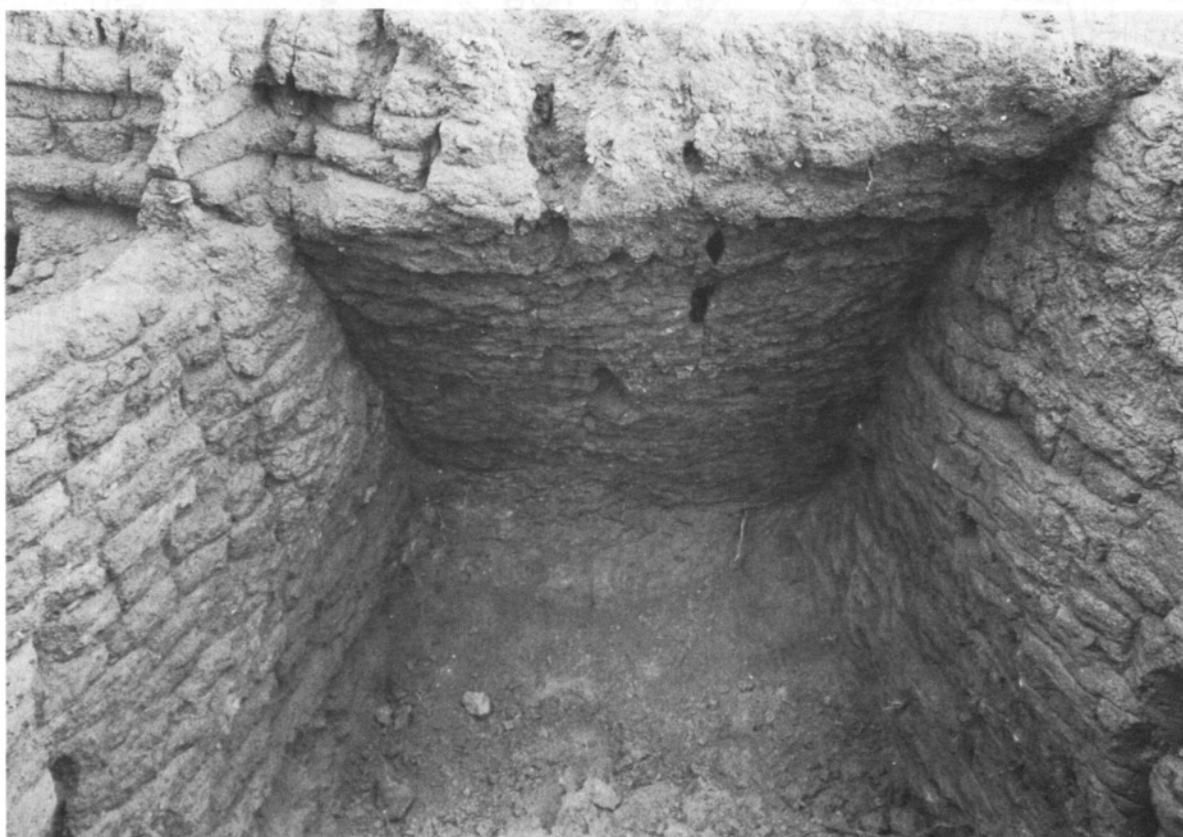
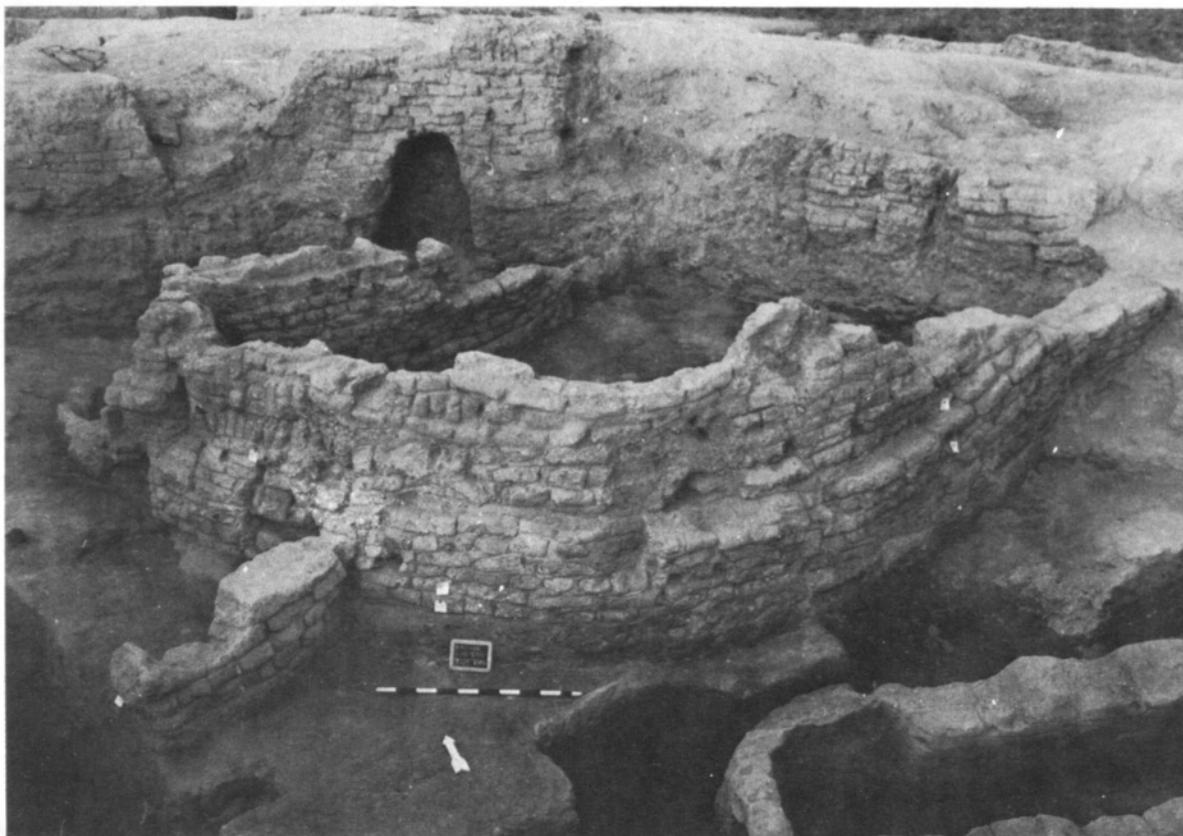


Plan, Razuk, Level V A, middle floors.



Plan, Razuk, Level V A,
upper floors.

PLATE 35

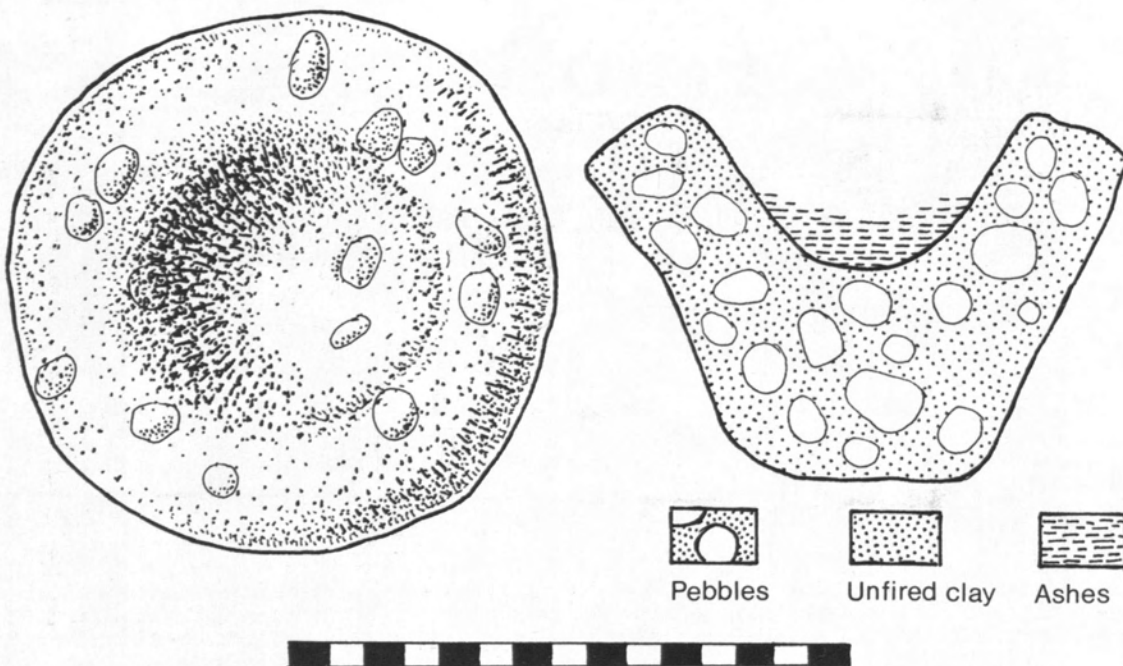
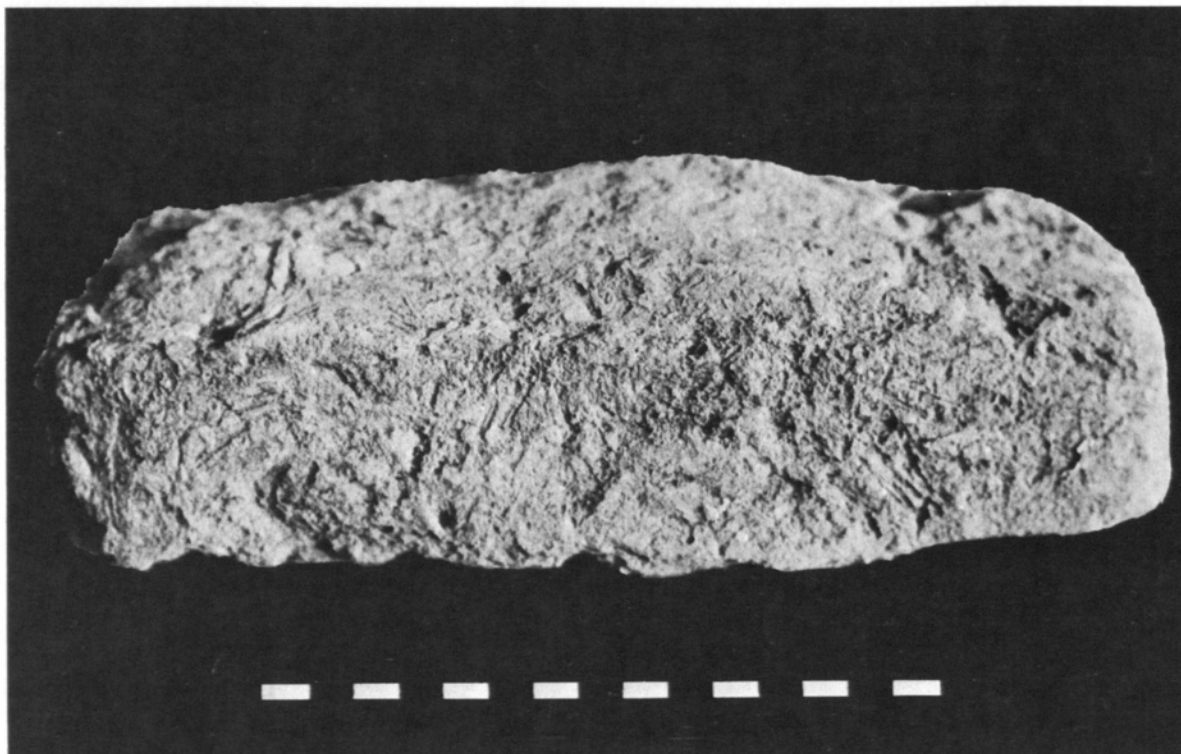


1. Enclosure in Court, Locus 455, Floor 3b, from south. Doorway to Locus 416 in background. 2. Locus 75, from south. To left, Wall FR, with sealed doorway, to right, Wall FQ. In background, ceiling and roof.



1. Locus 42, from east. To right, doorway to Court. In background, Wall FQ inserted under arched ceiling, and blocked doorway in its southern end. 2. Locus 42, from west, Wall HE.

PLATE 37

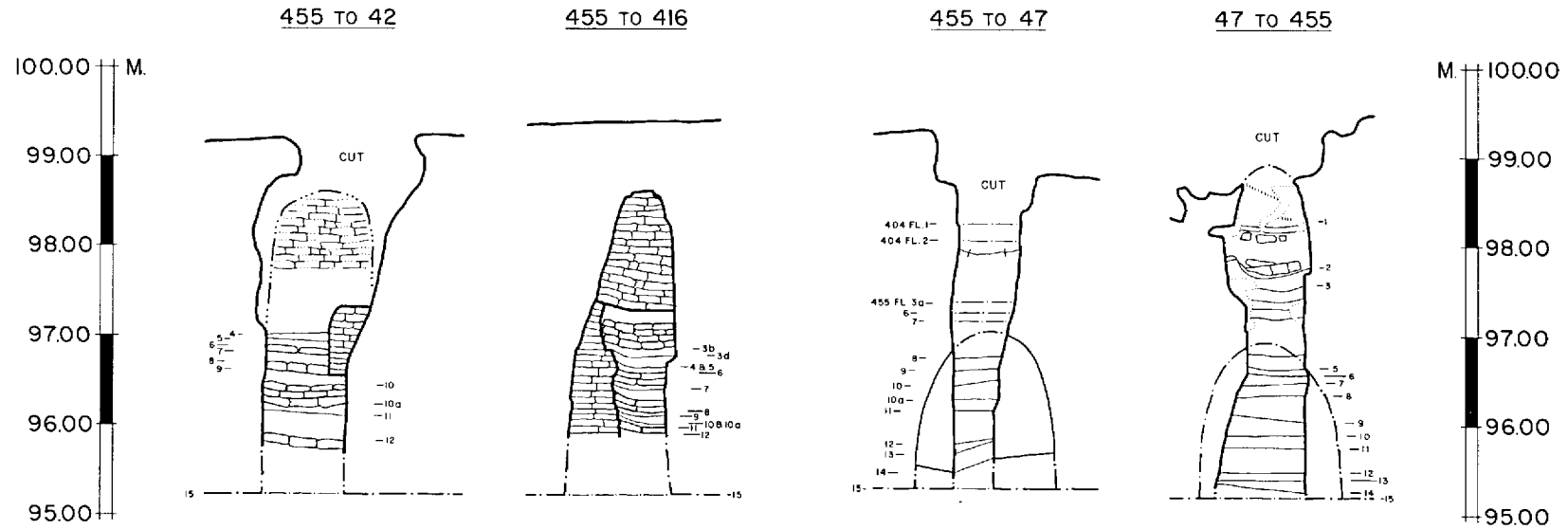


1. Plano-convex brick from Razuk. 2. Two unbaked clay, pebbly bowls from Locus 16, Floor 4.

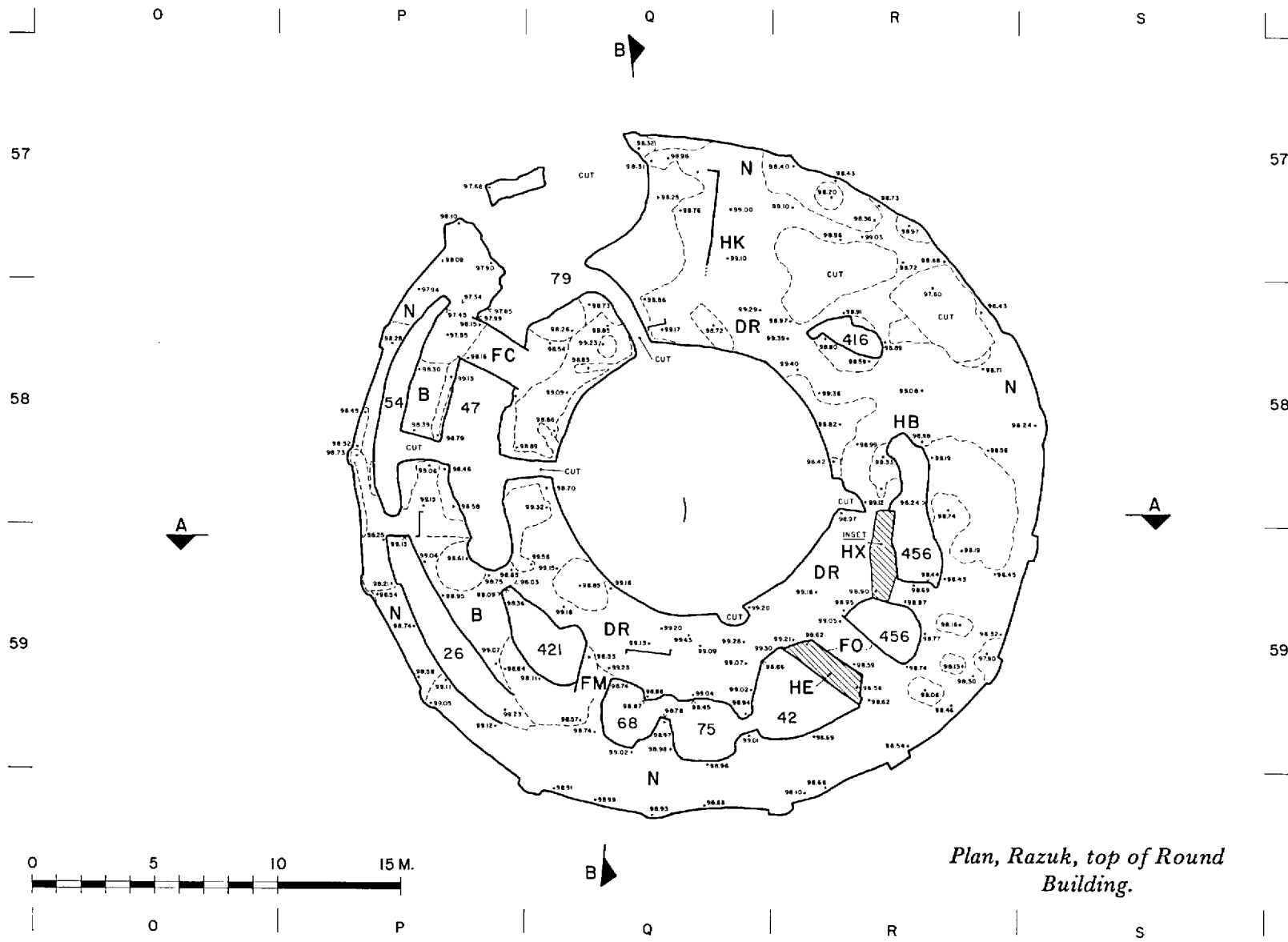
PLATE 39



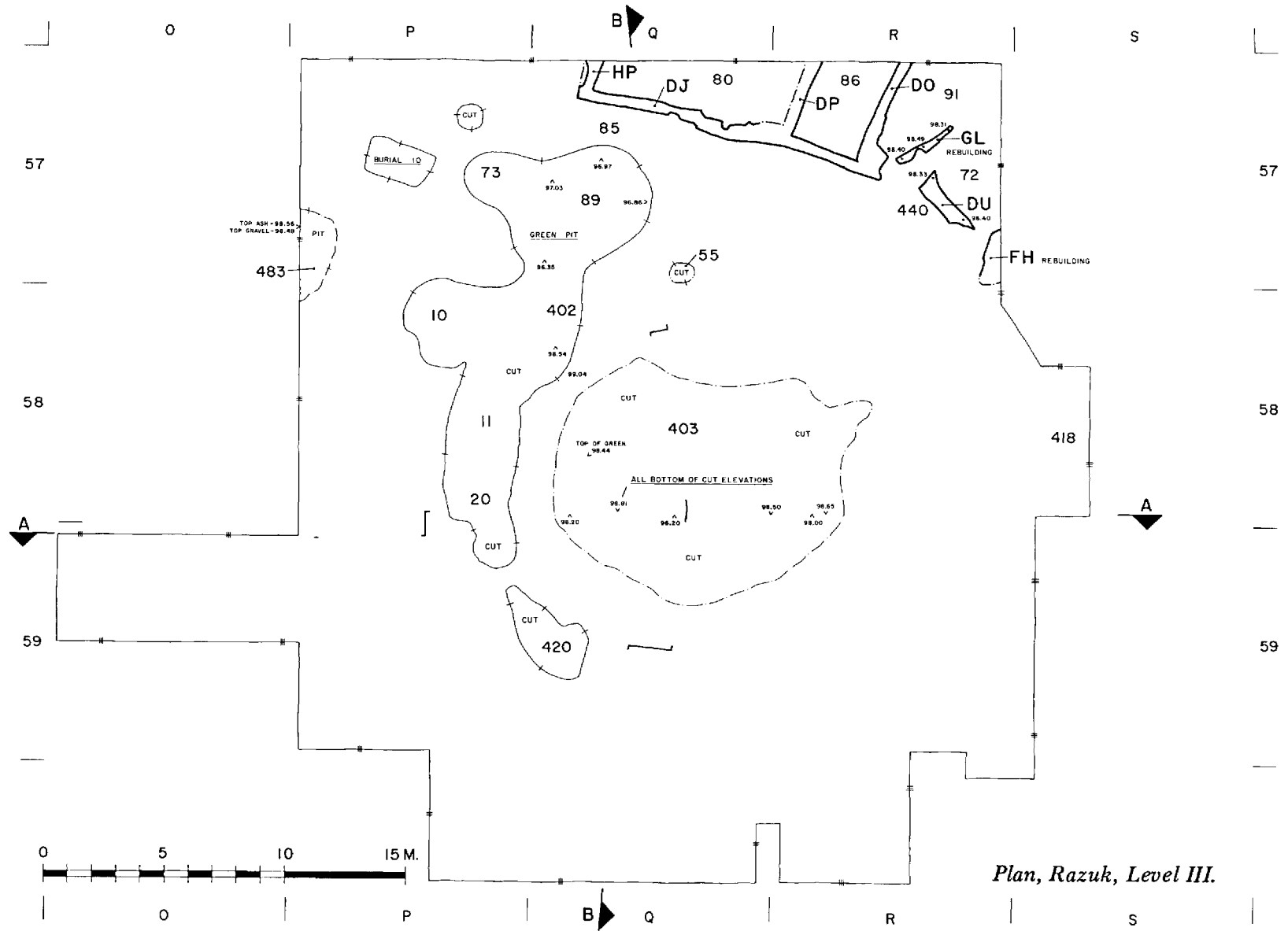
1. Enclosure and oven in Court (Loci 404, 406, 408), Level IV. Top of doorway to Locus 416 in background, at baulk. Viewed from south. 2. Locus 406, enclosure with oven in Court, Level IV, from northeast.



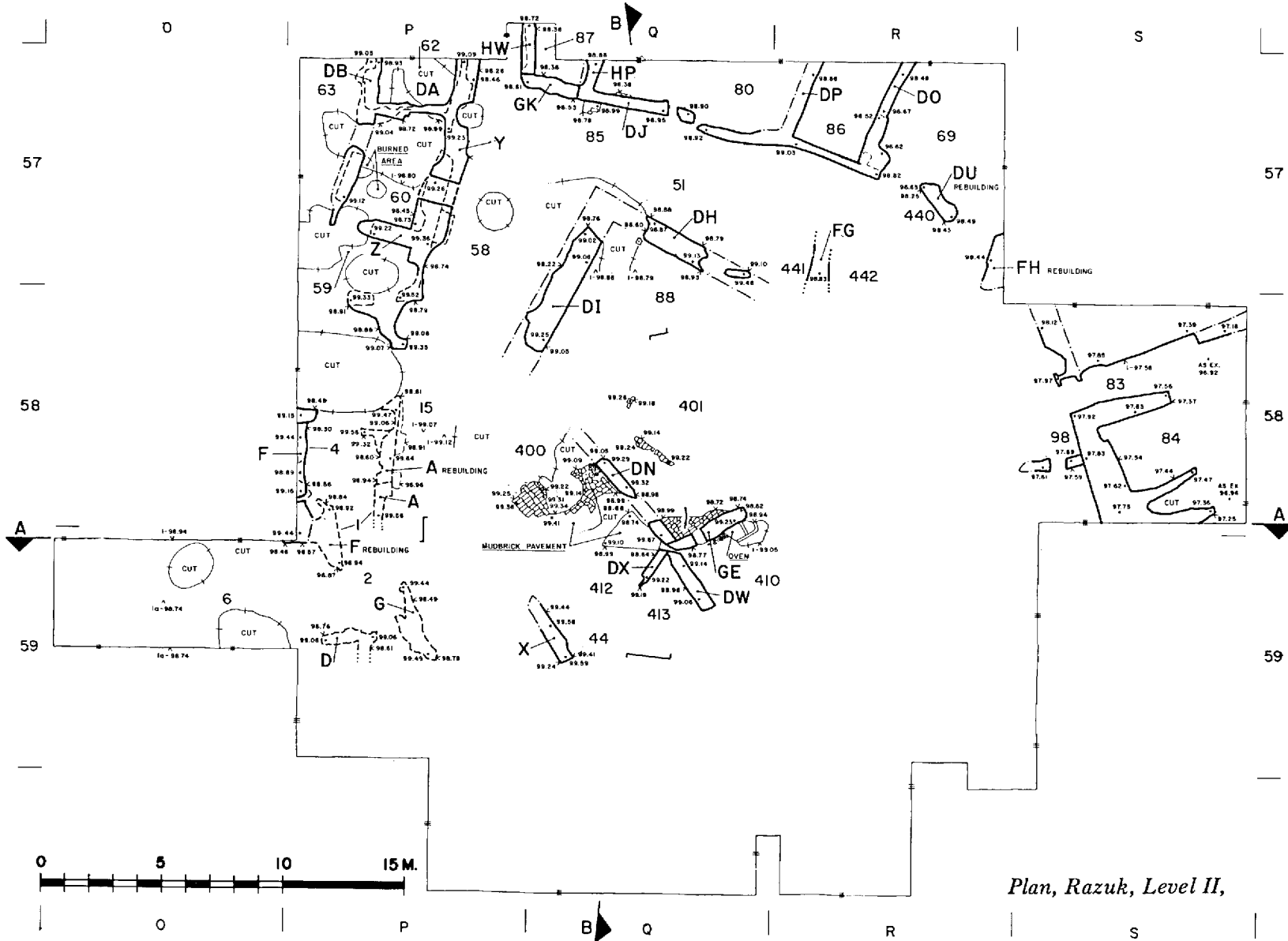
Doorways from Court to Northeast Room (Locus 416), South Room (Locus 42) and West Room (Locus 47, from both sides).



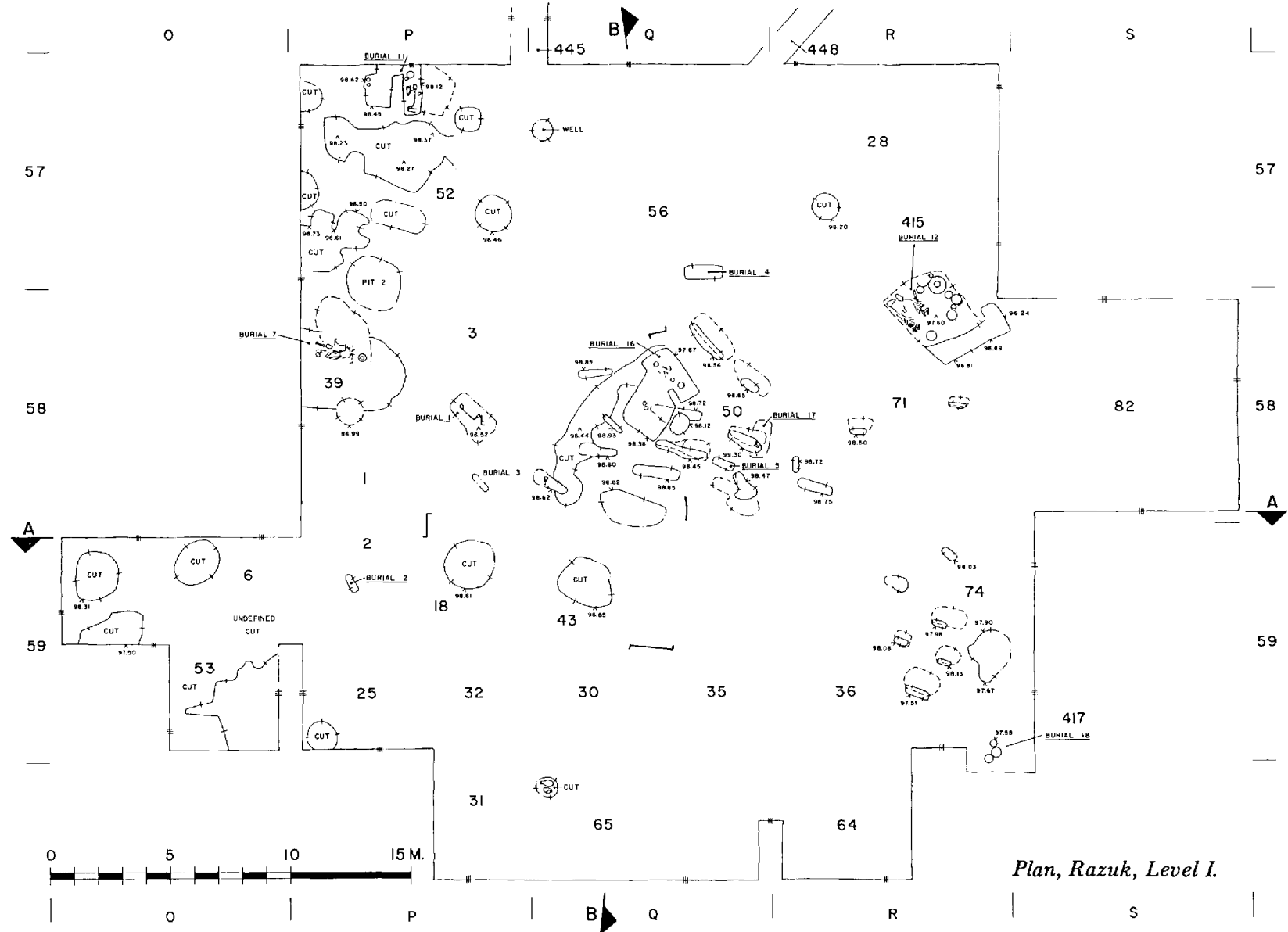
Plan, Razuk, top of Round Building.



Plan, Razuk, Level III.



Plan, Razuk, Level II,

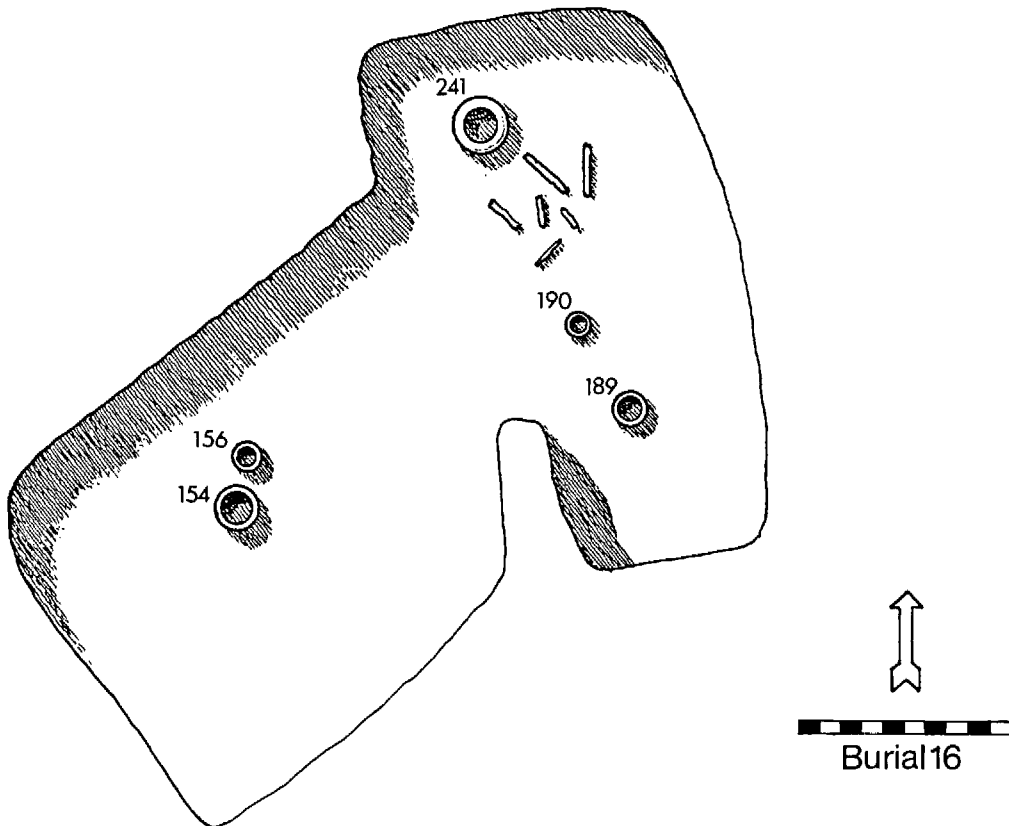
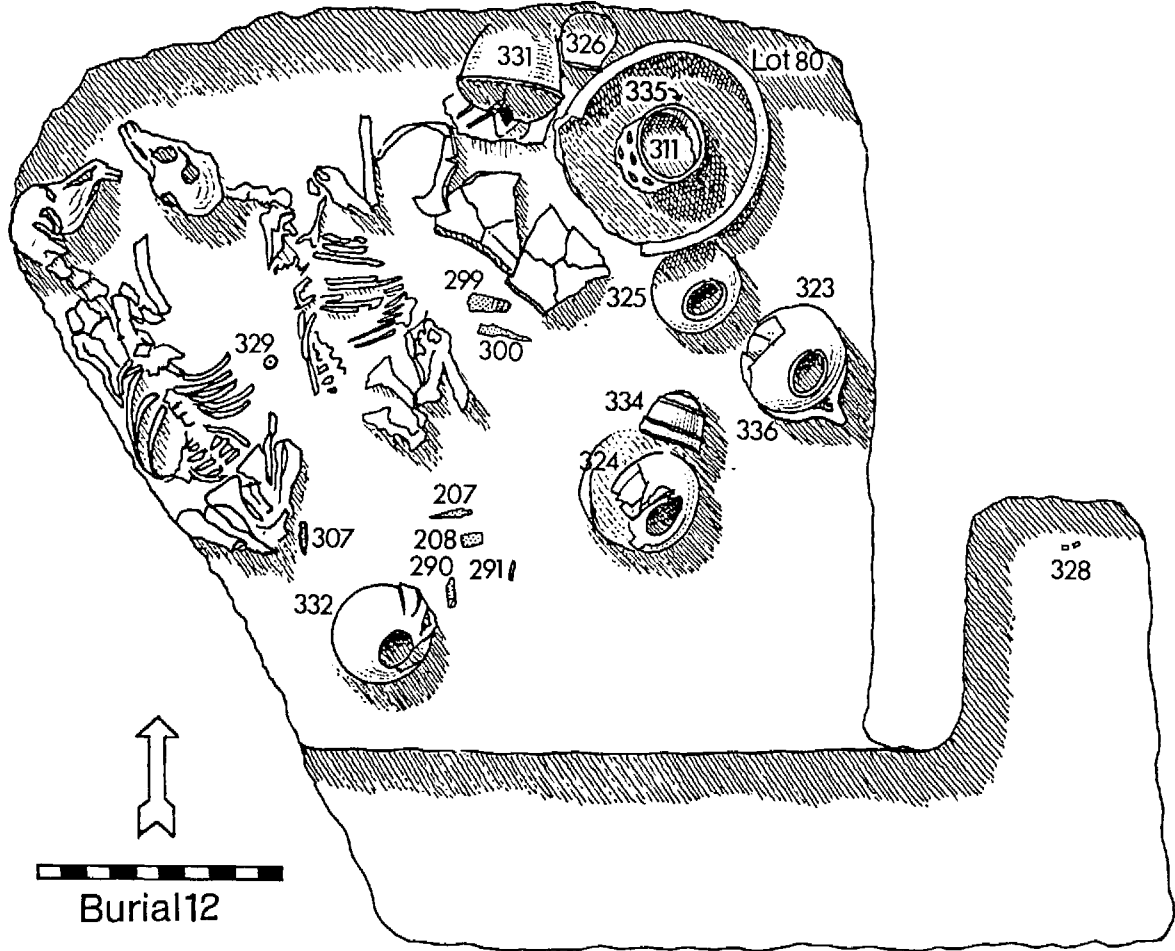


Plan, Razuk, Level I.

PLATE 45

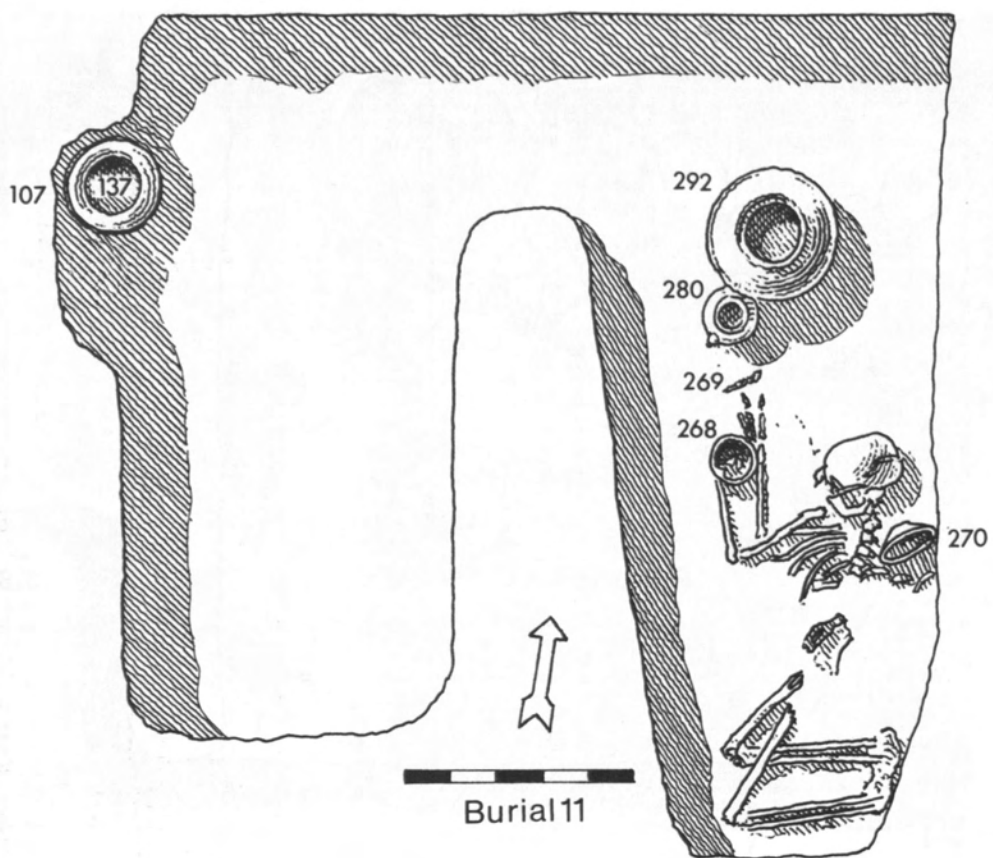


1. Razuk, Burial 12, from above and northwest. 2. Razuk, Burial 12, from southwest.

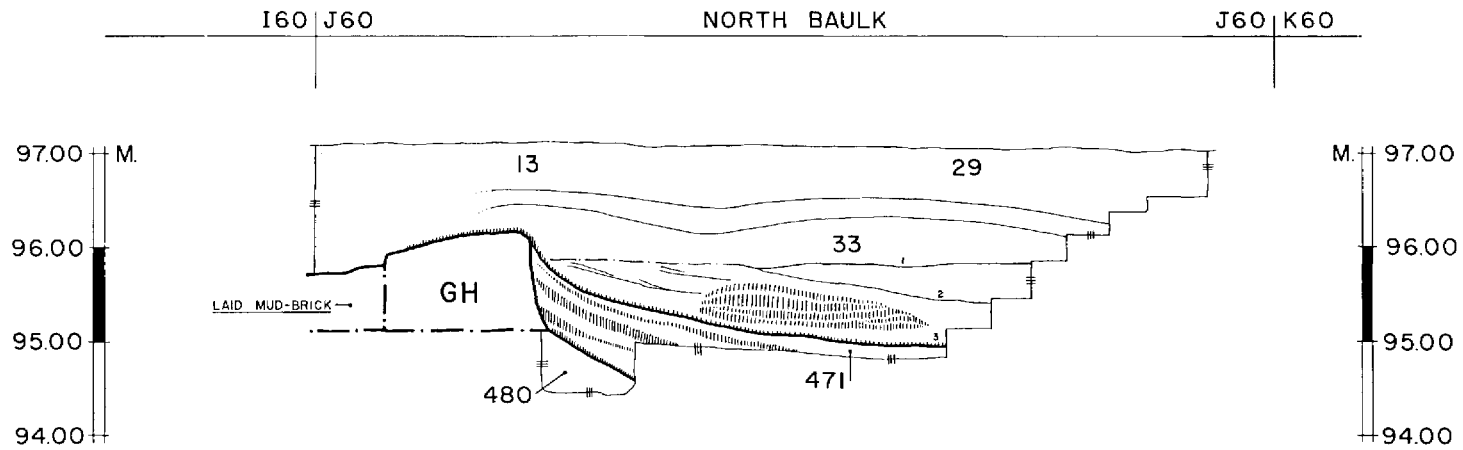
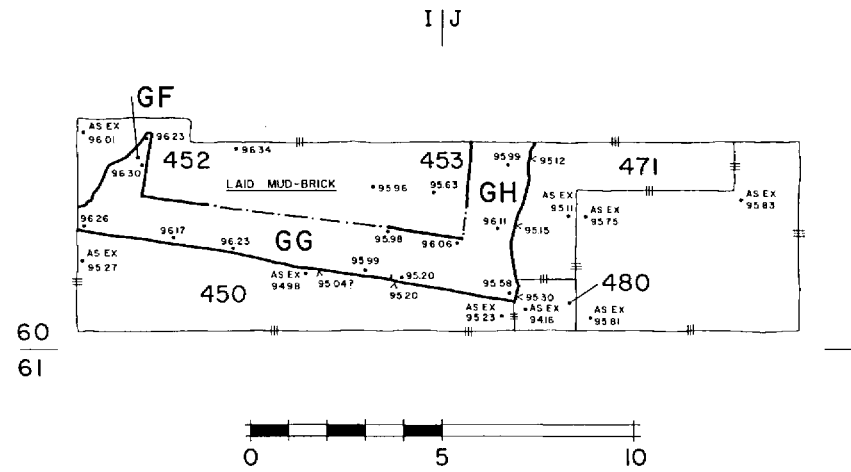


1. Plan, Razuk, Burial 12. 2. Plan, Razuk, Burial 16.

PLATE 47



1. Plan, Razuk, Burial 11. 2. Razuk, Burial 11, from above.



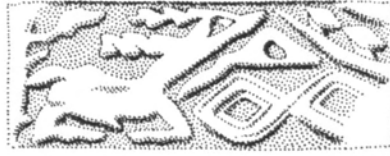
1. Plan, Razuk, Town Wall trench. 2. Section, Razuk, Town Wall trench.

PLATE 49

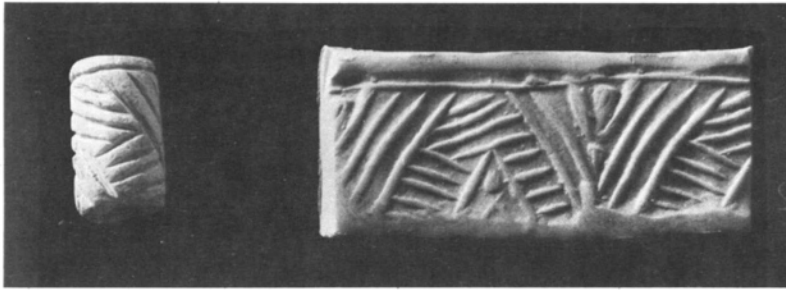
No.	Provenience	Level	Description	Reference
1 Uc 237	Loc. 68, ashy fill above Fl. 1, recovered from wheelbarrow	IV	Unbaked clay seal impression, recumbant stag, plant, snake (?), lozenges. ED I.	p. 61
2 Uc 252	Loc. 404, Fl. 1	IV	Cylinder seal, white shell, broken. JN style.	60
3 Uc 274	Loc. 455, Fl. 2, fill	V A	Cylinder seal, gray stone, horned animals. JN style.	52
4 Uc 308	Loc. 456, Fl. 2, fill	V B	Cylinder seal, white stone, hero holds two lizards (?) shown in plan.	43



1a



1b



2



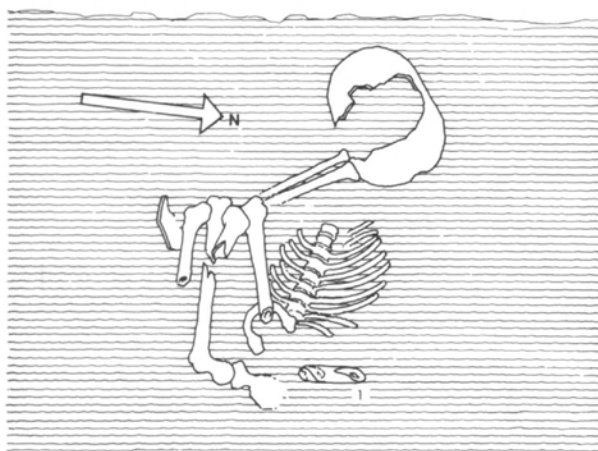
3



4

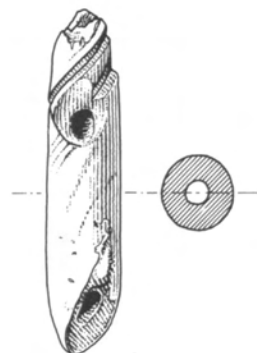
PLATE 50

No.	Provenience	Level	Description	Reference
1 Uc 92	Loc. 49, Fl. 5? (Burial 6)	V B	Bead, shell	p. 46
2 Uc 60	Loc. 47, Fl. 3 (Burial 13)	V A	Ring, shell	55
3 Uc 64	(same)	V A	Bead, lapis lazuli	55
4 Uc 20	Loc. 26, Fl. 1, fill	V B	Goad, copper	44
5 Uc 266	Loc. 79, Fl. 1, fill	IV	Goad, copper	62
6 Uc 212	Loc. 441, Fl. 1	II	Goad, copper	71
7 Uc 309	Loc. 456, Fl. 2, fill	V B	Needle, copper	43
8 Uc 59	Loc. 34, Fl. 2	V B	Needle, copper	47
9 Uc 58	Loc. 11, pit	III	Pin, copper	68
10 Uc 233	Loc. 404, Fl. 1	IV	Implement, copper	60
11 Uc 234	Loc. 47, Fl. 2	IV	Blade, copper	61
12 Uc 275	Loc. 487, Fl. 1, fill	V A	Spear head, copper	56
13 Uc 61	Loc. 47, Fl.1, fill	IV	Band, copper	61
14 Uc 19	Loc. 6, pit	I	Chisel, copper	82
15 Uc 211	Loc. 420, pit	III	Dagger, copper	68
16 Uc 109	Loc. 52, pit	I	Pin, copper	82

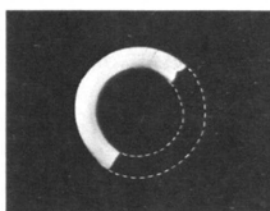


Burial No.6

1:10



1 1:2

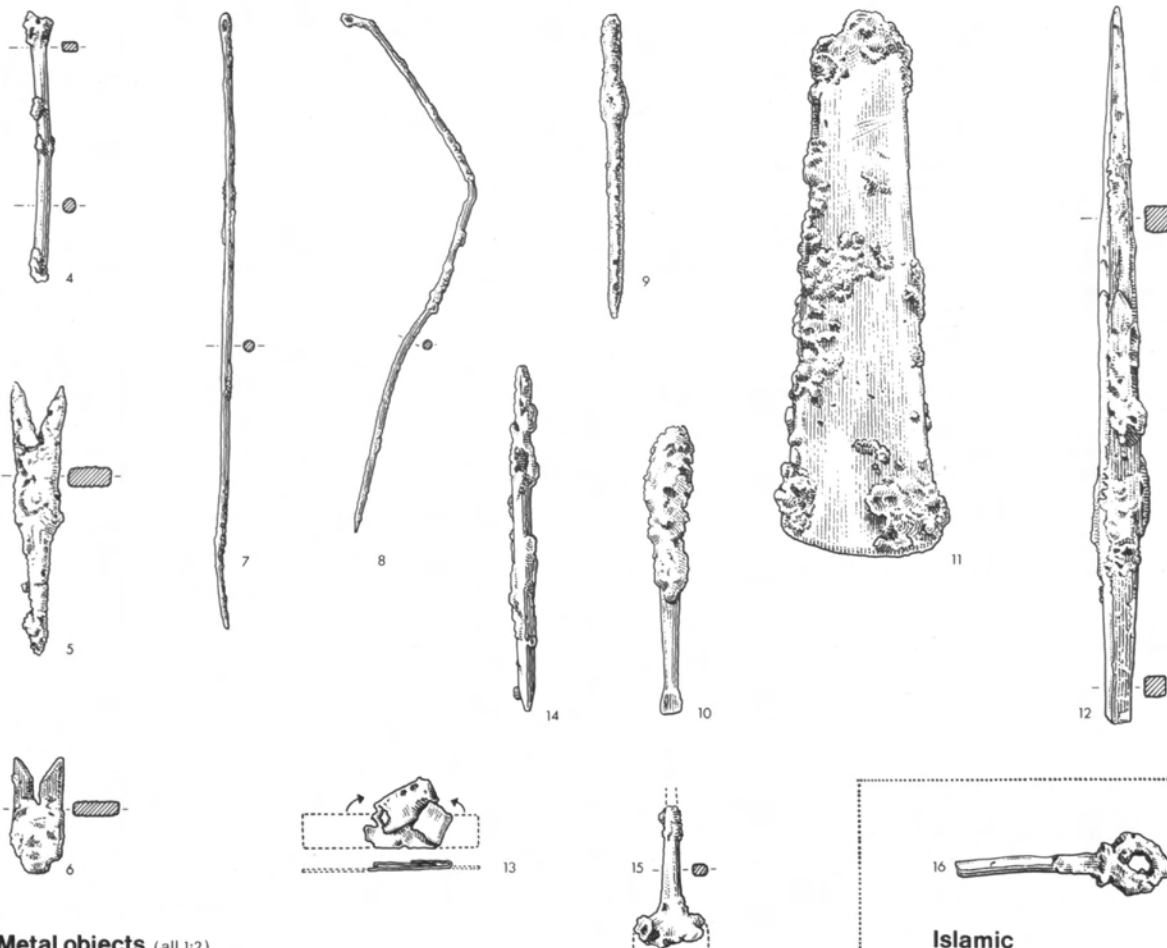


Burial No.13

2 1:1



3 1:1

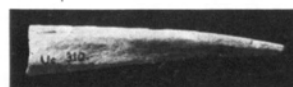
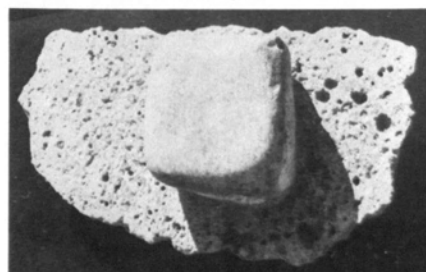
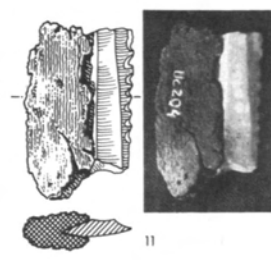
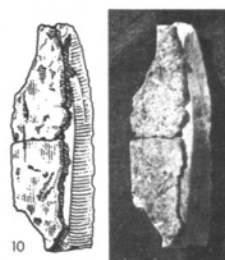
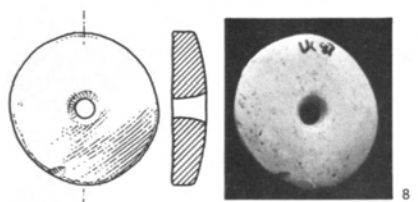
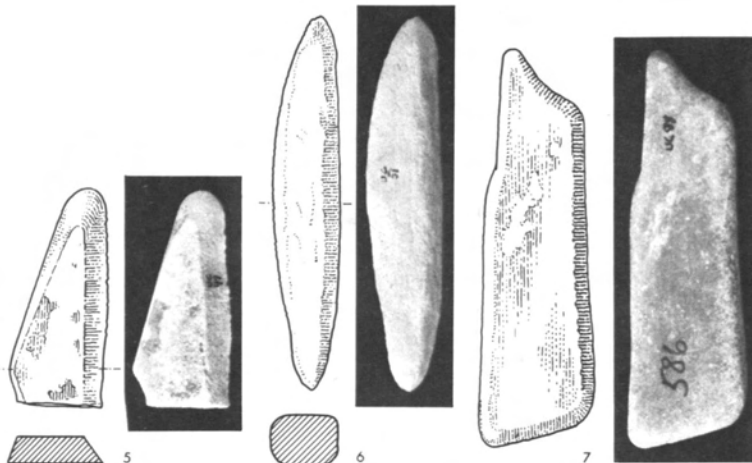
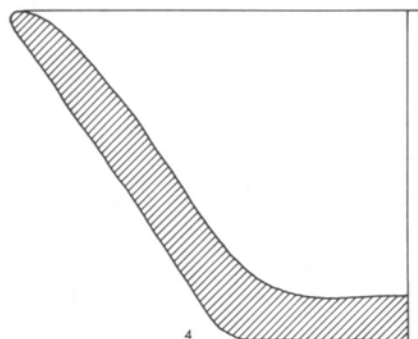
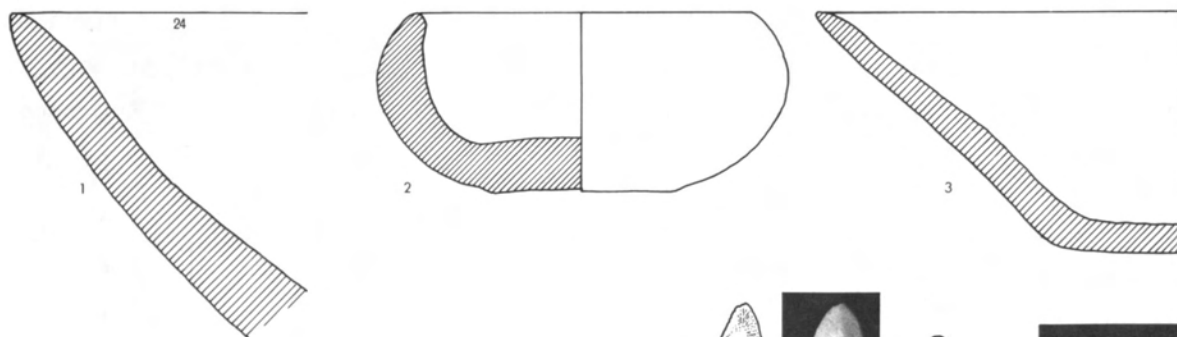


Metal objects (all 1:2)

Islamic

PLATE 51

No.	Provenience	Level	Description	Reference
1 Uc 50	Loc. 11, pit	III	Marble bowl	p. 67
2 Uc 203	Loc. 94, Fl. 1	V A	Stone bowl	57
3 Uc 289	Loc. 454, Fl. 2	V A	Stone bowl	52
4 Uc 250	Loc. 445, surface	I	Stone bowl	82
5 Uc 49	Loc. 5, Fl. 1, fill	V A	Whetstone	56
6 Uc 51	Loc. 23, Fl. 2	V B	Whetstone	43
7 Uc 88	Loc. 49, Fl. 4	V B	Whetstone	46
8 Uc 87	Loc. 49, Fl. 6	V B	Spindle whorl	46
9 Uc 21	Loc. 8, Fl. 2	IV	Obsidian core	64, 97
10 Uc 14	Loc. 3, pit	I	Flint blade in bitumen.	82
11 Uc 204	Loc. 421, Fl. 1, fill	V B	Flint blade in bitumen.	43, 92
12 Uc 104	Loc. 49, Fl. 4	V B	Quern and grinder	46
13 Uc 205	Loc. 403, pit	III	Bone awl	68
14 Uc 310	Loc. 444, Fl. 2	VI A	Bone awl	39



Objects of stone and bone (1:2, except Nr 9, 14)

PLATE 52

No.	Provenience	Level	Description	Reference
1 Uc 272	Loc. 485, Fl. 2, fill	IV	Clay object	p. 63
2 Uc 273	Loc. 57, fill	IV	Clay object	63
3 Uc 276	Loc. 54	VI B	Animal figurine	35
4 Uc 260	Loc. 79, Fl. 1, fill	IV	Animal figurine	62
5 Uc 251	Loc. 33 or 13	?	Figurine, unbaked clay	84
6 Uc 75	Loc. 44, Fl. 1	II	Baked clay toy	71
7 Uc 193	Loc. 420, pit	III	Clay wheel	68
8 Uc 228	Loc. 421, Fl. 1, fill	V B	Clay wheel	43
9 Uc 169	Loc. 43, pit	I	Clay wheel	82
10 Uc 160	Loc. 56, pit	I	Clay wheel	82
11 Uc 170	Loc. 43, pit	I	Clay wheel	82
12 Uc 191	Loc. 410, Fl. 1, fill	II	Clay wheel	71
13 Uc 161	Loc. 85, Fl. 5, fill	IV	Clay wheel	65
14 Uc 192	Loc. 94, Fl. 2, fill	V A	Clay wheel	57

Clay objects (all 1:2)

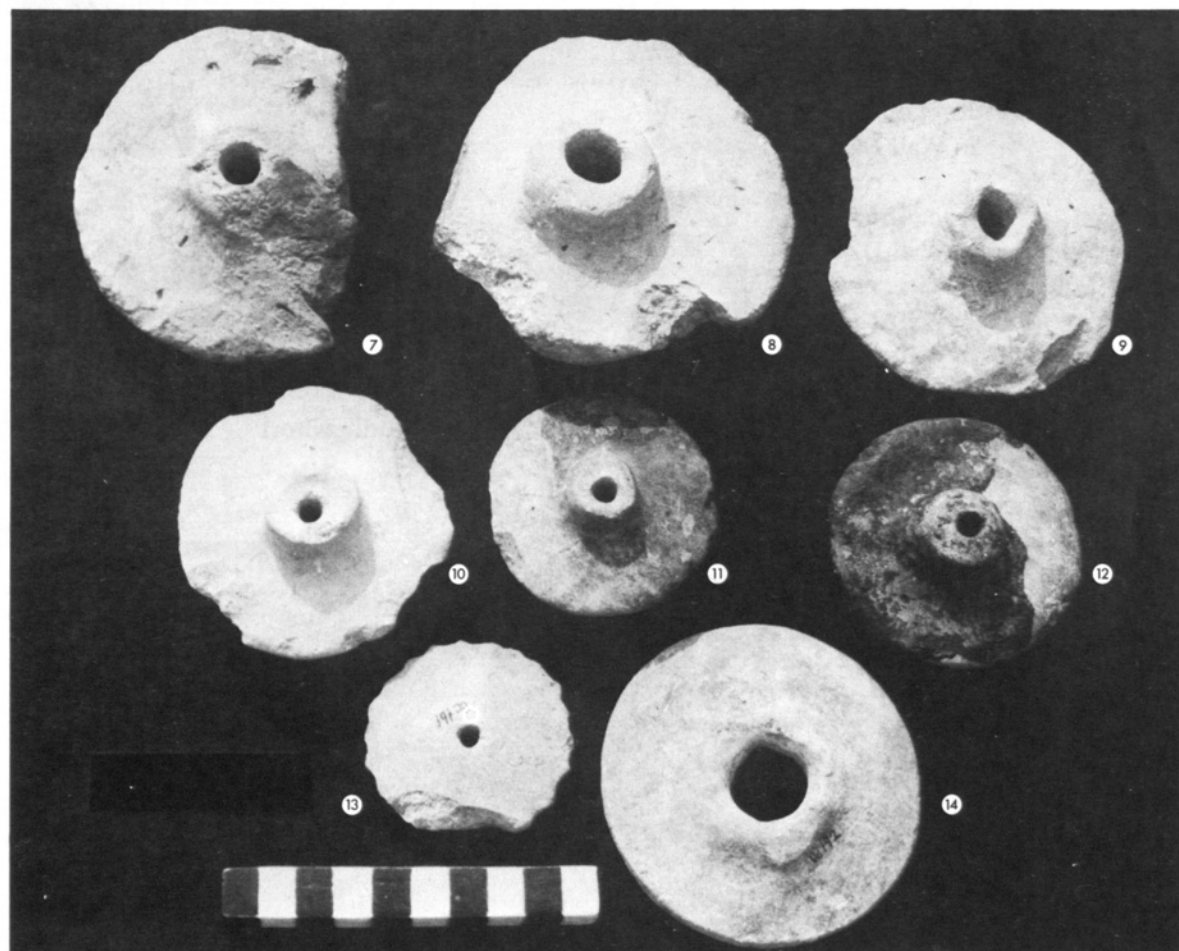
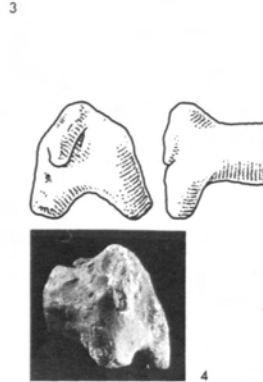
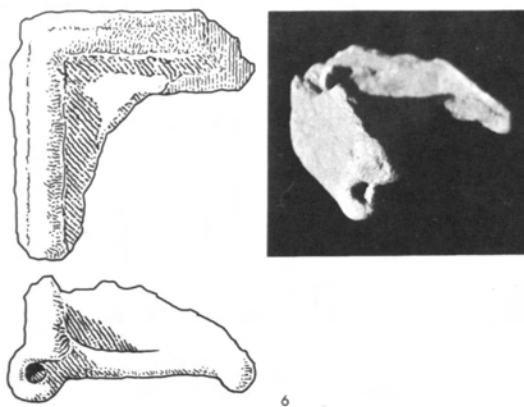
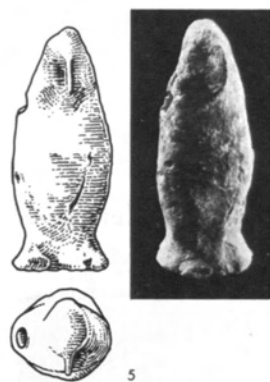
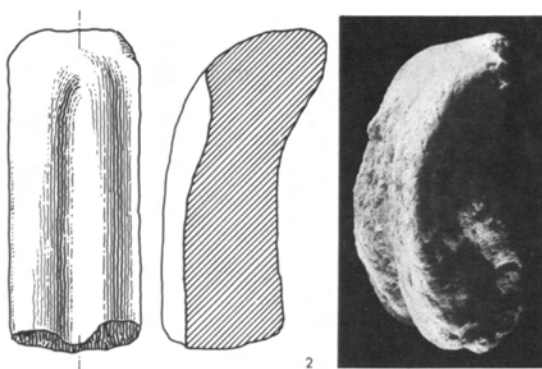
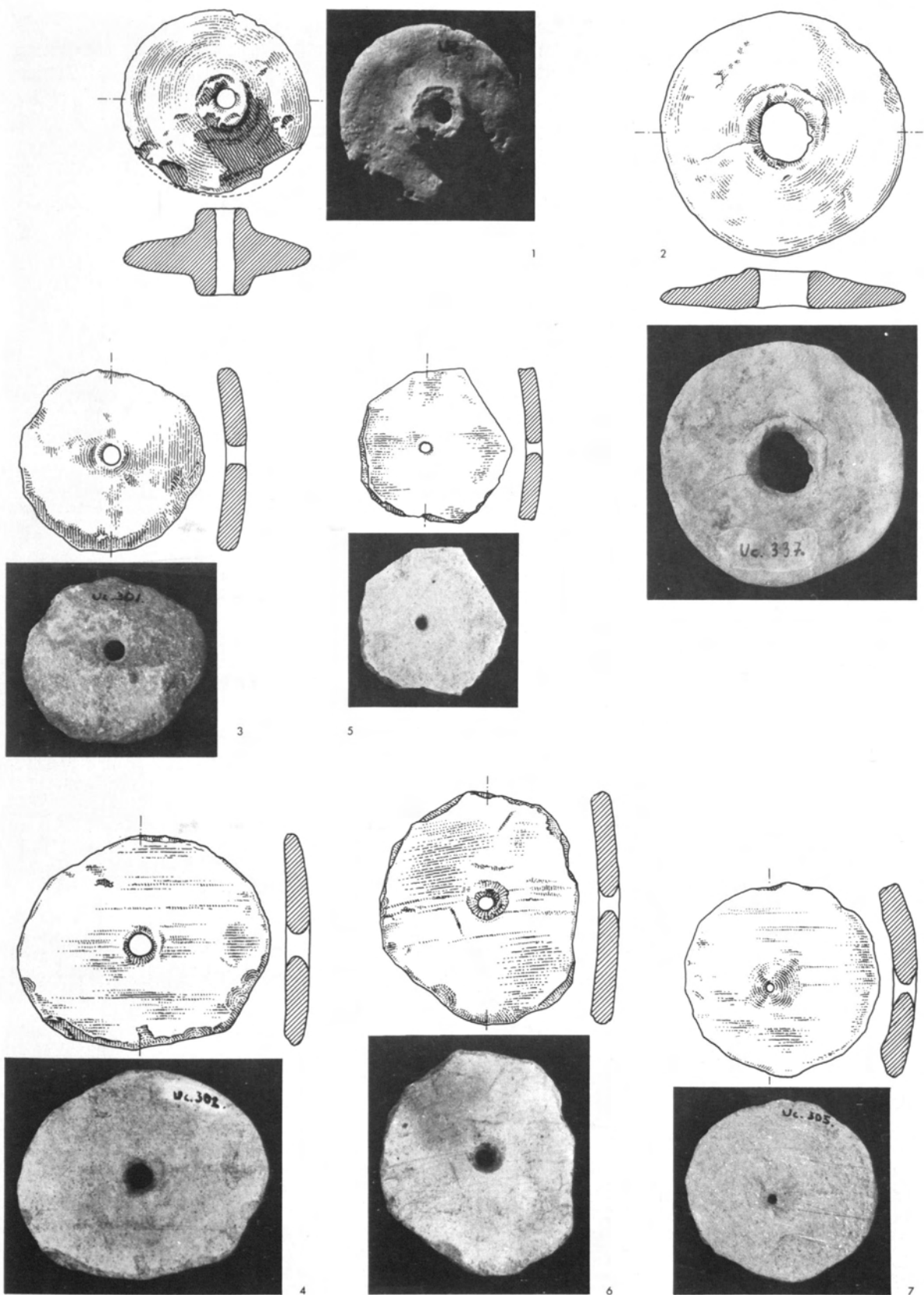


PLATE 53

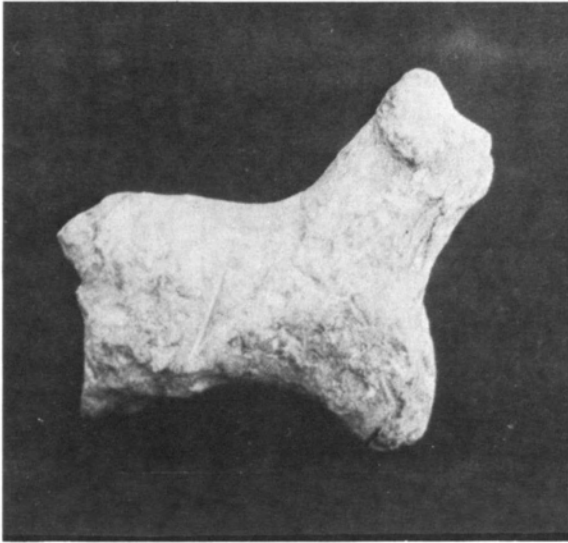
No.	Provenience	Level	Description	Reference
1 Uc 8	Loc. 10, pit	III	Clay wheel	p. 67
2 Uc 337	Loc. 416, Fl. 1, fill	V A	Clay wheel	55
3 Uc 301	Loc. 455, Fl. 1 in Wall DZ	V A	Spindle whorl	52
4 Uc 302	Loc. 455, Fl. 1, in Wall DZ	V A	Spindle whorl	52
5 Uc 303	Loc. 455, Fl. 1, in Wall DZ	V A	Spindle whorl	52
6 Uc 304	Loc. 455, Fl. 1, in Wall DZ	V A	Spindle whorl	52
7 Uc 305	Loc. 455, Fl. 1, in Wall DZ	V A	Spindle whorl	52



Clay objects (all 1:2)

PLATE 54

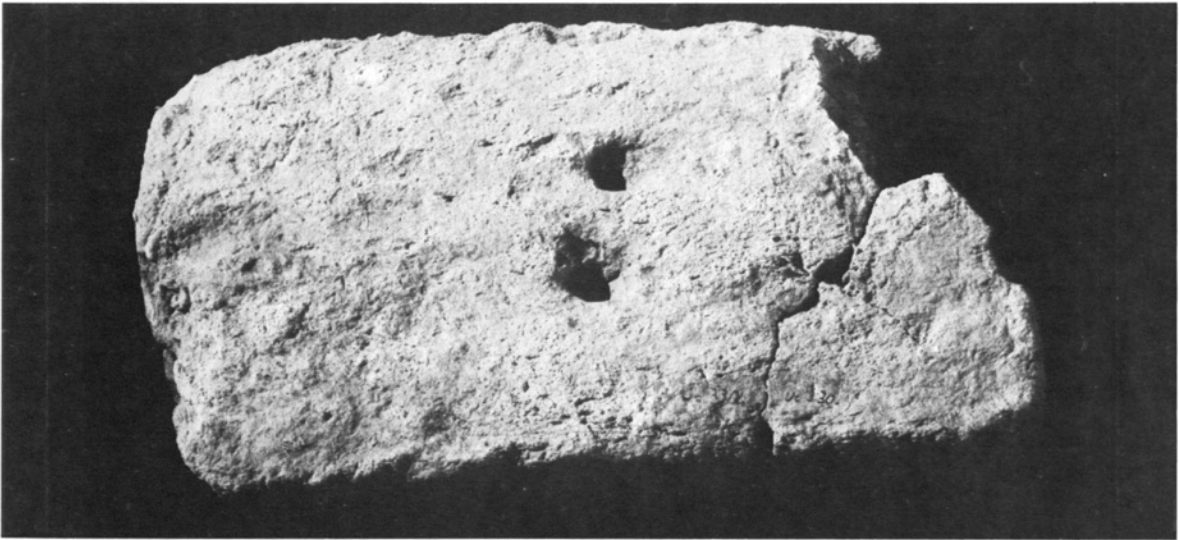
No.	Provenience	Level	Description	Reference
1 Uc 236	Loc. 421, Fl. 1, fill	V B	Animal figurine, unbaked (?) clay	p. 43
2 Uc 11	Loc. 18, surface	I	Animal figurine, baked clay	82
3 Uc 330	Loc. 455, Fl. 3, fill, doorway to Loc. 416	V A	Plano-convex baked brick	55
4 Uc 229	Loc. 421, Fl. 1, fill	V B	Pot support, unbaked clay, fragmentary	43
5 Uc 113	Loc. 49, Fl. 6	V B	Pot support, unbaked clay, fragmentary	46



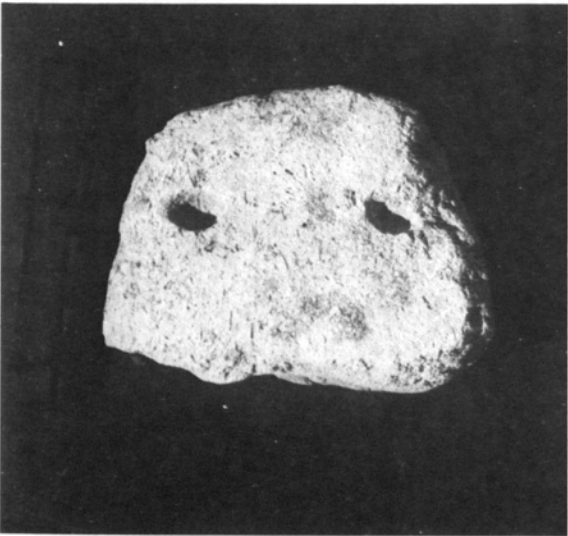
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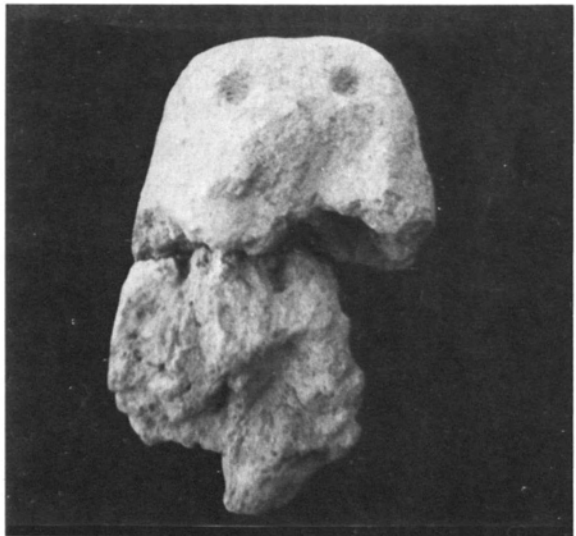
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3



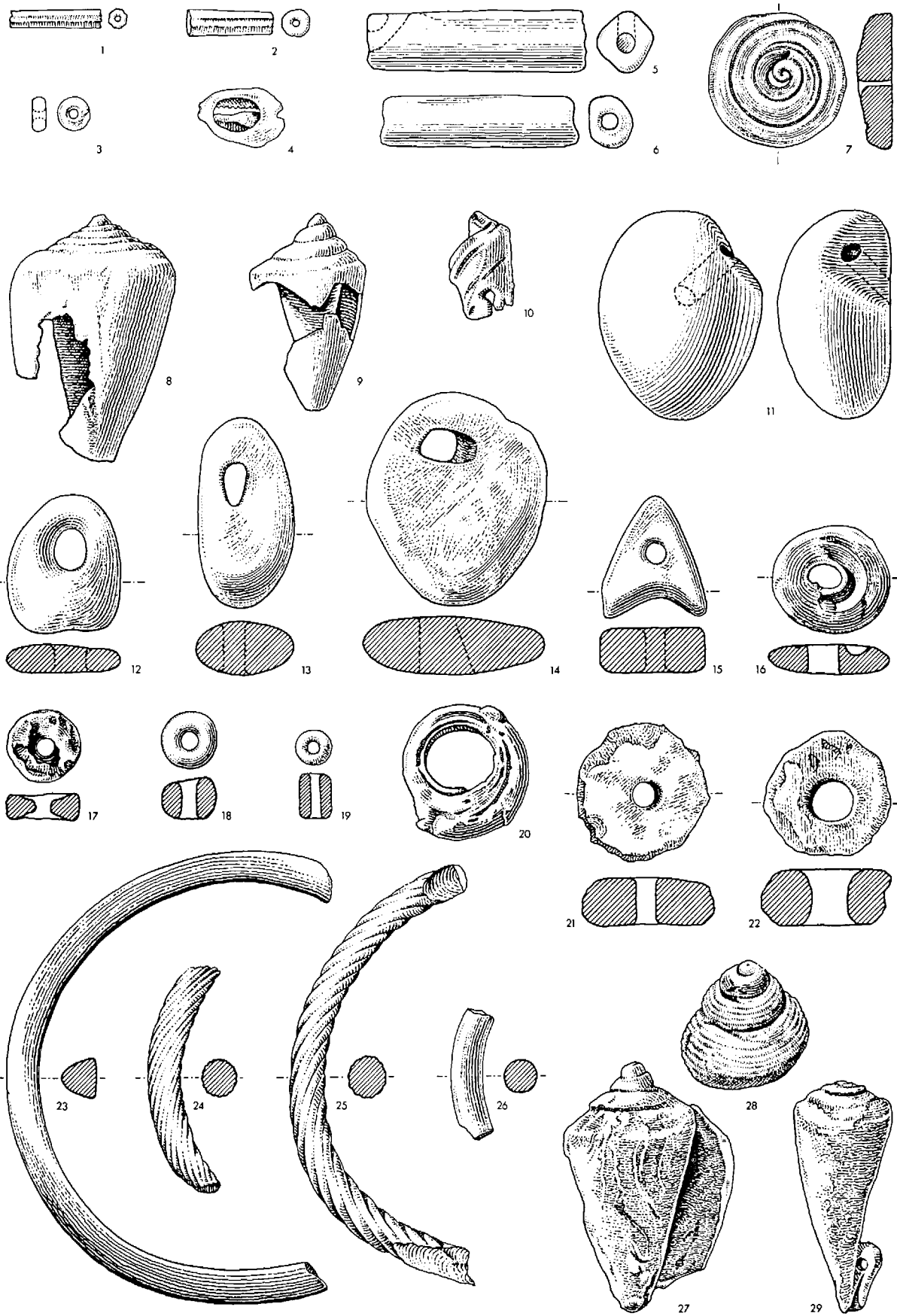
4



5

PLATE 55

No.	Provenience	Level	Description	Reference
1 Uc 339	Loc. 475, Fl. 1	VI A	Bead, shell	p. 40
2 Uc 267	Loc. 20, pit	III	Bead, shell	68
3 Uc 340	Loc. 475, Fl. 1	VI A	Bead, stone	40
4 Uc 259	Loc. 404, Fl. 1	IV	Cowrie shell	60
5 Uc 258	Loc. 79, Fl. 1, fill	IV	Bead, stone	62
6 Uc 279	Loc. 421, Fl. 3, fill	V B	Bead, stone	43
7 Uc 286	Loc. 421, Fl. 4, fill	VI A	Bead, shell	38
8-15 Uc 5	Loc. 2 Burial 2	I	Beads	81
16 Uc 6	Loc. 1, surface	I	Bead, shell	82
17 Uc 24	Loc. 29, surface	Town Wall	Bead, agate	84
18 Uc 40	Loc. 1, surface	I	Bead, glass	82
19 Uc 287	Loc. 52, pit 2	I	Bead, faience	81
20 Uc 39	Loc. 25, surface	I	Bead, shell	81
21 Uc 297	Loc. 52, pit 2	I	Bead, clay	81
22 Uc 296	Loc. 52, pit 2	I	Bead, pottery	81
23	Field near Uch Tepe Village (not register- ed)		Bracelet, glass	
24 Uc 43	Loc. 6, pit	I	Bracelet, glass	81
25 Uc 44	Loc. 36, surface	I	Bracelet, glass	81
26 Uc 45	Loc. 31, pit	I	Bracelet, glass	81
27-29 Uc 66	Loc. 5, Fl. 1 fill	V A	Shells	56



Beads etc. (all 1:1)

PLATE 56

No.	Provenience	Level	Group	Type	Color	Reference
1 Uc 254	Tell Ajamat Loc. 12, Fl. 1	IV	-	Flake	-	p. 148
2 Uc 255	Tell Ajamat Loc. 2, Fl. 1	I	-	Blade	-	150
3 Uc 256	Tell Ajamat Loc. 8, Fl. 1	II	-	Blade	-	149
4 Uc 341	Loc. 456, Fl. 4	VI A	3a	Blade	Gray/ inclusions	39, 89
5 Uc 342	Loc. 456, Fl. 4, fill	VI A	3a	Blade	Black/ inclusions	“
6 Uc 343	Loc. 456, Fl. 7	VI B	3a	Blade	Gray- brown	35, 89
7 Uc 346	Loc. 456, Fl. 7	VI B	3a	Blade	Gray/ inclusions	“
8	Loc. 54 (lot 127*)	VI B	3a	Blade	Gray/ inclusions	89
9	Loc. 421, Fl. 3 (lot 207*)	V B	3a	Blade	Gray/ inclusions	“

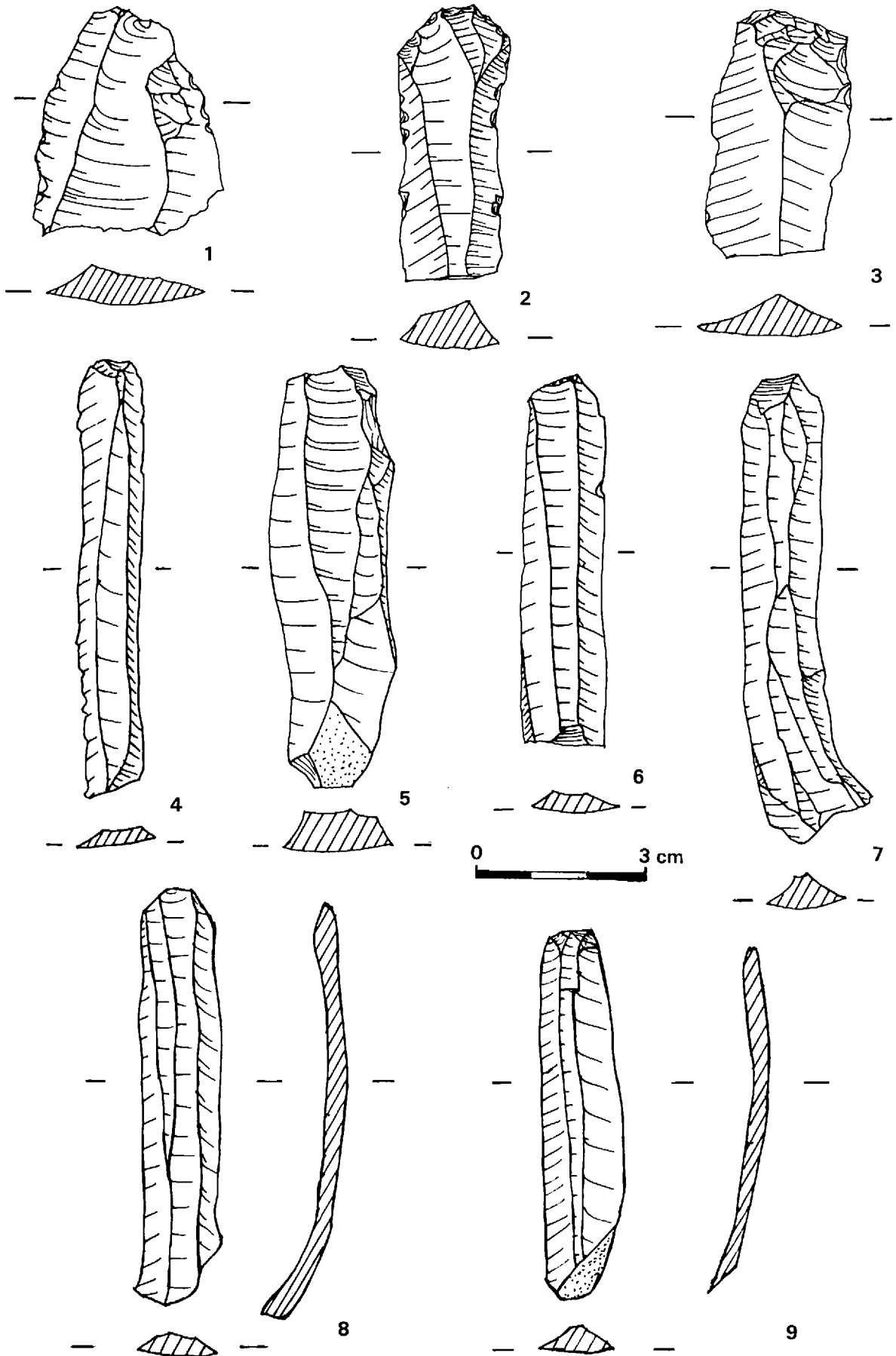


PLATE 57

No.	Provenience	Level	Group	Type	Color	Reference
1	Loc. 67, Fl. 1 (lot 864)	IV	4a	Notched flake	Gray/ striations	p. 90
2	Loc. 73 (lot 919)	III	4a	Retouch- ed flake	Gray- brown	“
3	Loc. 1, Fl. 1 (lot 56)	I	1	Core?	White	“
4	Loc. 47, Fl. 7 (lot 136*)	VI A	3b	Blade fragment	Gray/ inclusions	“
5	Loc. 47, Fl. 8 (lot 145*)	VI A	3b	Blade fragment	Gray	“
6	Loc. 444, Fl. 1 (lot 152*)	V B	3d	Blade fragment	Gray/ striations	“
7	Loc. 90, Fl. 2 (lot 161*)	V A	3d	Blade fragment	Gray/ striations	“
8	Loc. 5, Fl. 1a (lot 490)	V	3d	Blade fragment	Gray	“
9	Loc. 23, feature (lot 471)	V B	3d	Blade fragment	Brown	“

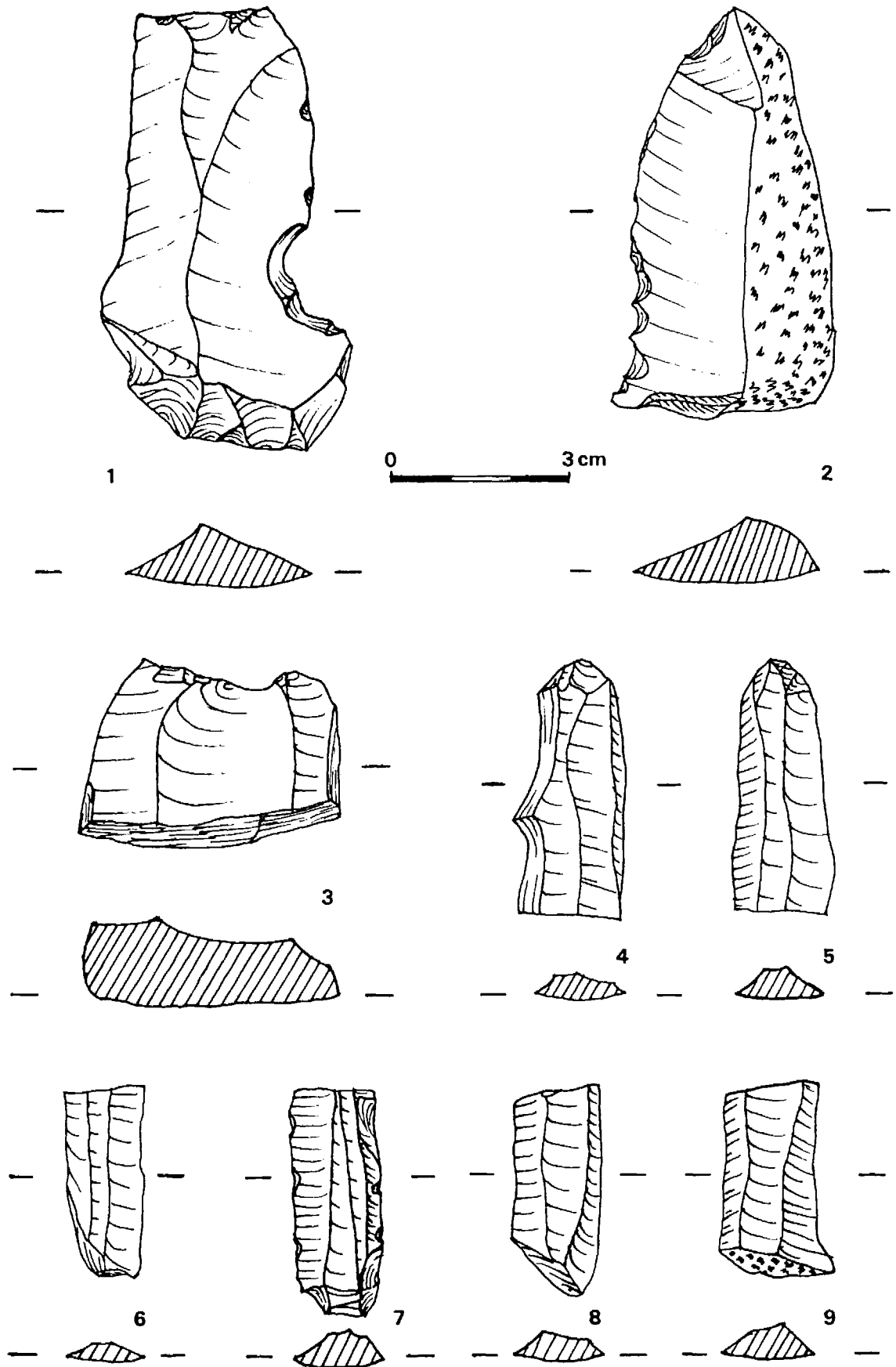
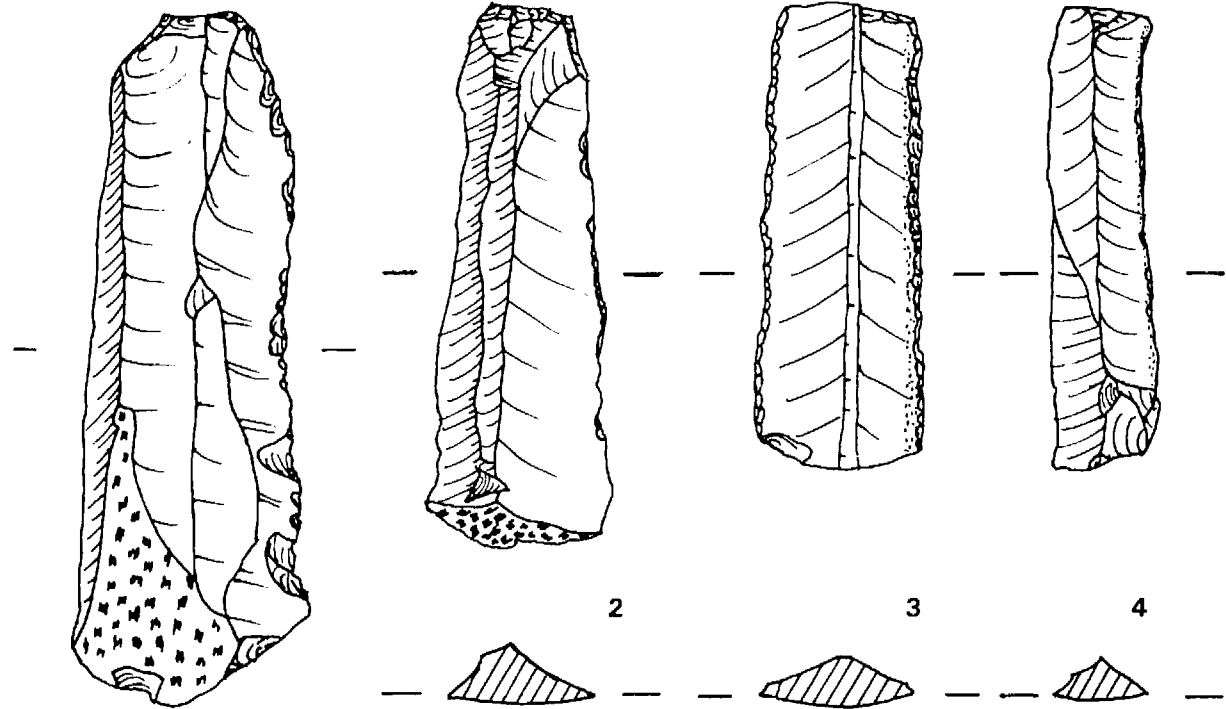


PLATE 58

No.	Provenience	Level	Group	Type	Color	Reference
1	Loc. 54, Fl. 1 (lot 769)	V B	4b	Retouch- ed blade	Gray	p. 90
2	Loc. 93, Fl. 1 (lot 195*)	V A	4b	Retouch- ed blade	Gray- brown/ inclusions	“
3	Loc. 98, pit (lot 992)	II	4b	Retouch- ed blade	Dark brown	“
4	Loc. 23, feature (lot 471)	V B	4b	Retouch- ed blade	Light gray/ inclusions	“
5	Loc. 93, Fl. 1 (lot 195*)	V A	4b	Retouch- ed blade	Gray/ striations	“
6	Loc. 79, Fl. 1 (lot 159*)	IV	4b	Retouch- ed blade	White	“
7	Loc. 79, Fl. 1 (lot 158*)	IV	4b	Retouch- ed blade	Gray/ sheen	“
8	Loc. 22, Fl. 3 (lot 369)	V A	4b	Retouch- ed blade	Dark gray	“
9	Loc. 421, Fl. 2 (lot 203*)	V B	4b	Retouch- ed blade	Light- brown/ striations	“
10	Loc. 449, Fls. 1-3 (lot 194*)	VI B	4b	Retouch- ed blade	Gray/stria- tions/sheen	“
11	Loc. 444, Fl. 3 (lot 186*)	VI A	4b	Retouch- ed blade	Brown sheen	“
12	Loc. 49, Fl. 6 (lot 756)	V B	4b	Retouch- ed blade	Gray/ inclusions	“

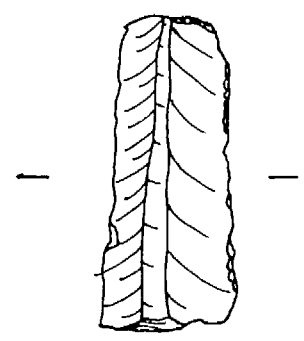
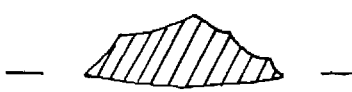


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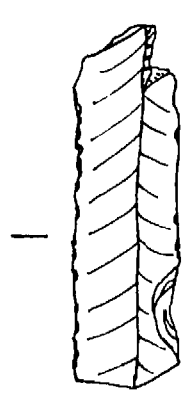
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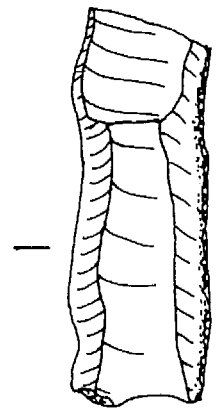
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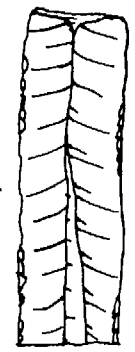
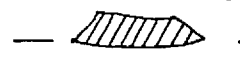
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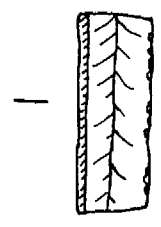
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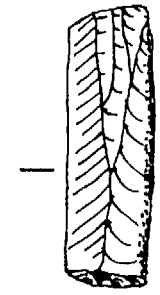
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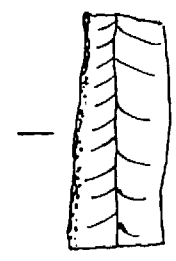
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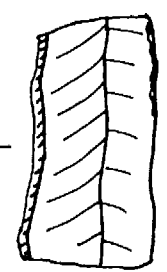
9



10



11



12



PLATE 59

No.	Provenience	Level	Group	Type	Color	Reference
1	Loc. 85 (lot 991)	II-IV	5b	Serrated blade	Reddish/ striations	p. 91
2	(lot 774)	I	5b	Serrated blade	Gray/ inclusions	"
3	Loc. 408, Fl. 1 (lot 1103)	IV	5b	Serrated blade	Gray/ inclusions	"
4	Loc. 20, pit (lot 202*)	III	5b	Serrated blade	Gray/ sheen	"
5	Loc. 421, Fl. 6 (lot 217*)	VI A	5b	Serrated blade	Gray- brown/ sheen	"
6	Loc. 421, Fl. 1 (lot 607)	V B	5b	Serrated blade	Gray/ sheen	"
7	Loc. 5, Fl. 1a (lot 490)	V A	5b	Serrated blade	Gray/ sheen	"
8	Loc. 49, Fl. 3 (lot 577)	V A	5b	Serrated blade	Gray/ sheen	"
9	Loc. 475, Fl. 1 (lot 313*)	VI A	5b	Serrated blade	Gray/stria- tions/sheen	"
10	Loc. 76, Fl. 1 (lot 948)	V B	5a	Serrated flake	Gray- brown/ sheen	"
11	Loc. 34, Fl. 5 (lot 588)	VI A	5b	Serrated blade	Gray/inclu- sions/sheen	"
12	Loc. 49, Fl. 4 (lot 586)	V B	5b	Serrated blade	Gray/inclu- sions/sheen	"
13	Loc. 84, Fl. 2 (lot 976)	II	5b	Serrated blade	Gray/ sheen	"
14	Loc. 71, pit (lot 60*)	I	6	Denticu- lated blade	Gray/inclu- sions/sheen	91-92

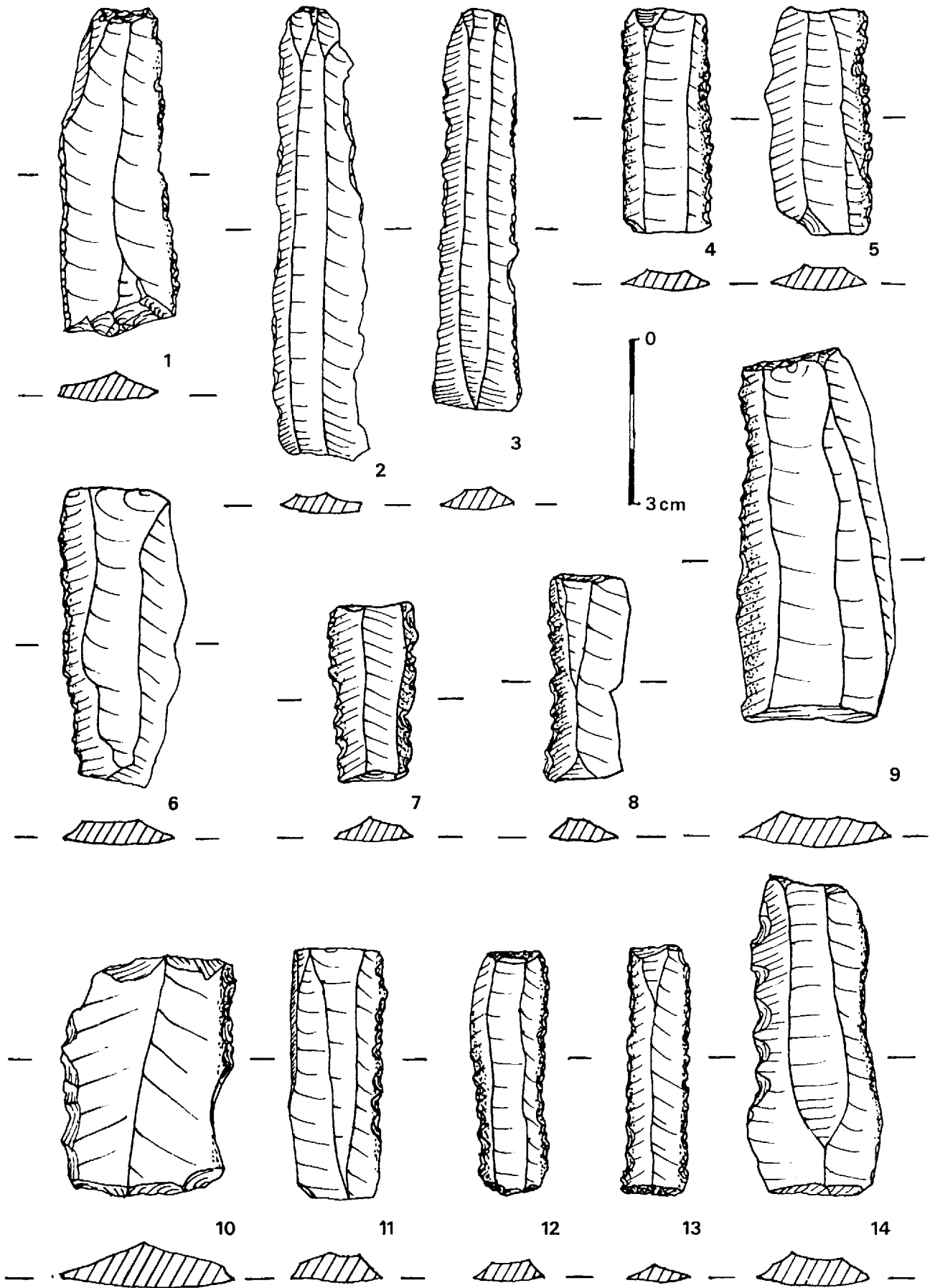


PLATE 60

No.	Provenience	Level	Group	Type	Color	Reference
1	Loc. 49, Fl. 6 (lot. 756)	V B	6	Denticu- lated blade	Gray/ Sheen	p. 91
2	Loc. 16, Fl. 2 (lot 478)	IV	6	Denticu- lated blade	Light gray/sheen	"
3	Loc. 421, Fl. 3 (lot 210*)	V B	6	Denticu- lated blade	Gray/stria- tions/sheen	"
4	Loc. 26 (lot 934)	V B	6	Denticu- lated blade	Gray/stria- ations	"
5	Loc. 47, Fls. 1-4 (lot 565)	V	6	Denticu- lated blade	Gray/stria- tions/sheen	"
6	Loc. 49, Fl. 6 (lot 756)	V B	6	Denticu- lated blade	Gray/inclu- sions/sheen	"
7	Loc. 25 (lot 284)	I	6	Denticu- lated blade	Brown/ striations/ sheen	"
8	Loc. 3 (lot 267)	I	6	Denticu- lated blade	Gray/ sheen	"
9	Loc. 73, pit (lot 919)	III	4a	Retouch- ed flake	Gray/stria- tions	90

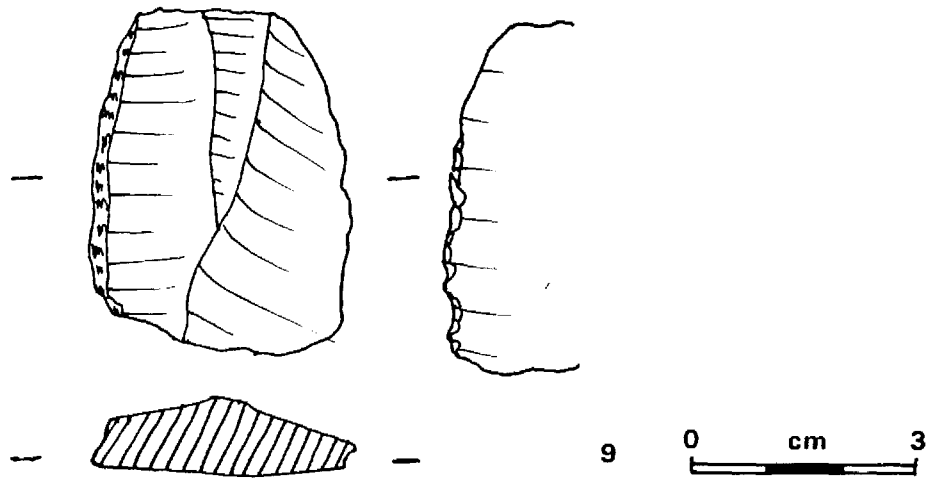
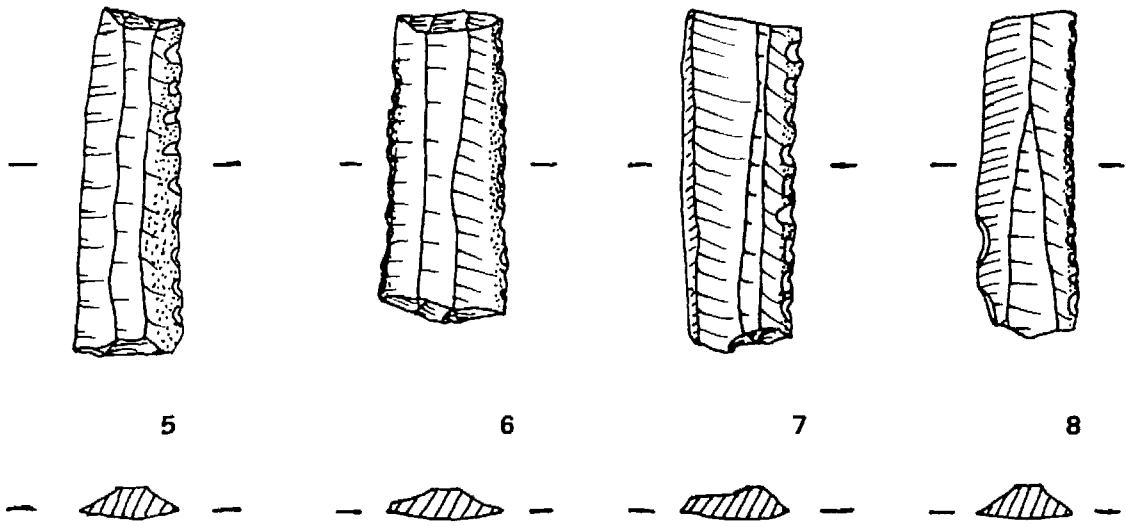
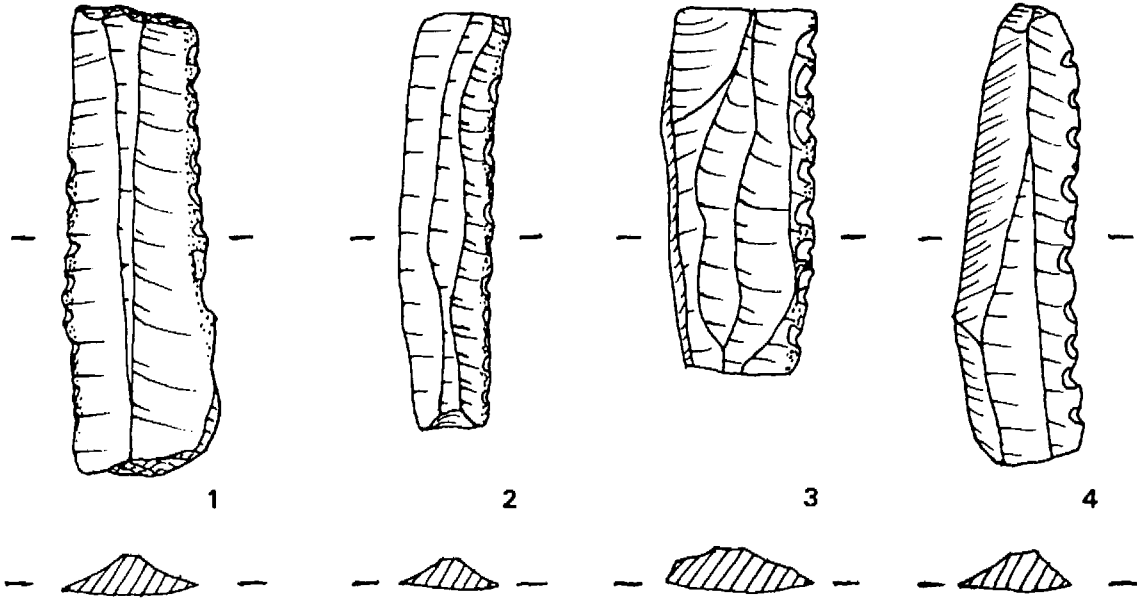


PLATE 61

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 20 (lot 279)	III	Pink	1a	pp. 102-3
2	Loc. 47, Fl. 4 (lot 896)	V B	Green	1a	” Delougaz, B.002.200a
3	Loc. 47, Fl. 3-6 (lot 1115)	V	Buff	1a	pp. 102-3. Delougaz, B.003.200b
4	Loc. 54, above Fl. 1 (lot 106*)	V	Pink	1a	pp. 102-3. Delougaz, B.002.200a
5 Uc 199	Loc. 421, Fl. 1 (lot 616)	V B	Buff	1a	pp. 43, 102-3
6 Uc 201	Loc. 47, Fl. 3 (lot 986)	V A	Buff	1a	pp. 55, 102-3. Delougaz, B.002.200a
7	Loc. 47, Fl. 4 (lot 899)	V B	Pink	1a	pp. 102-3
8	Loc. 79, fill under roof (lot 178*)	IV	Buff	1a	”

1a

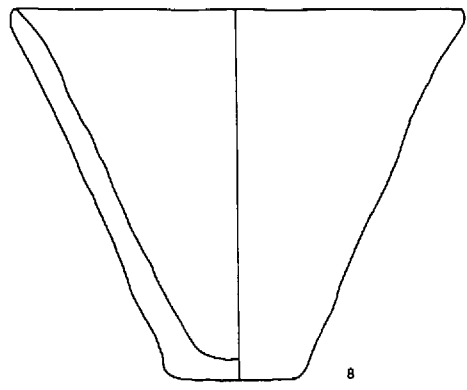
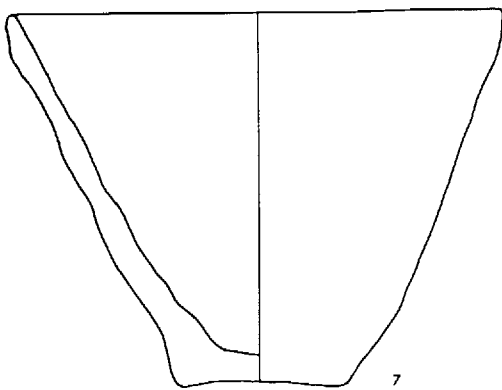
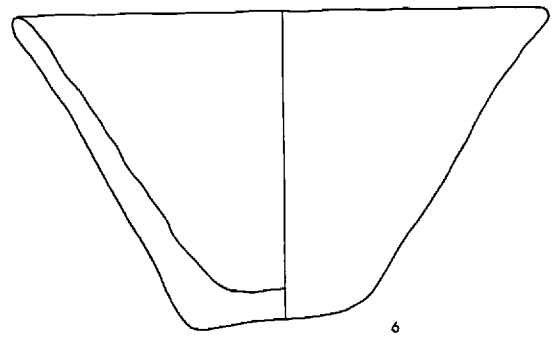
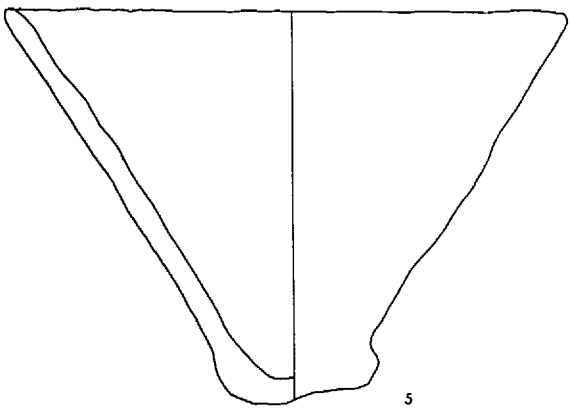
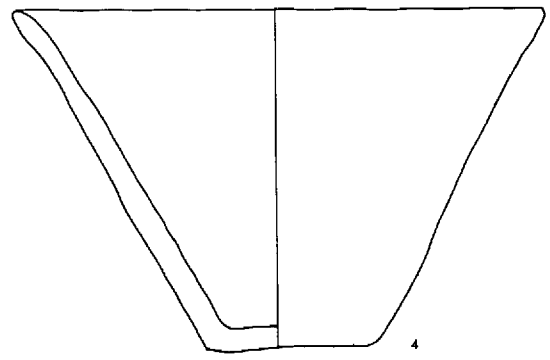
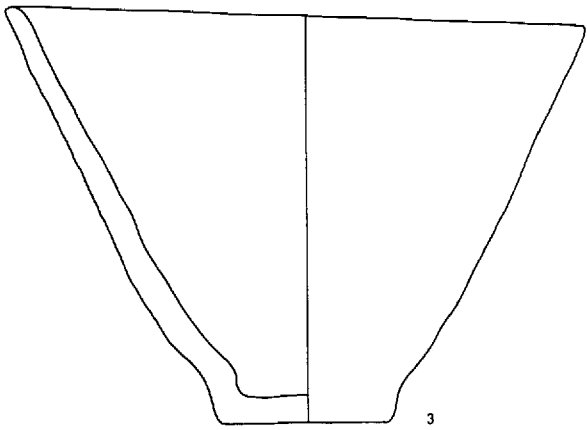
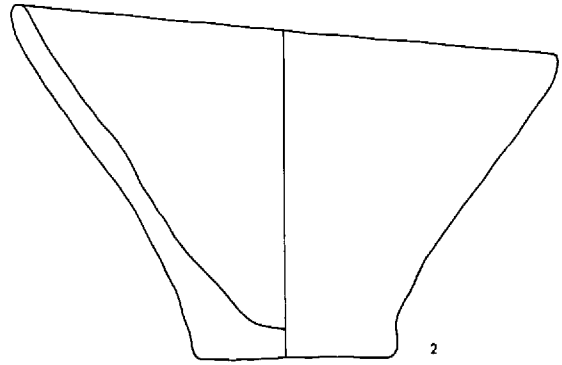
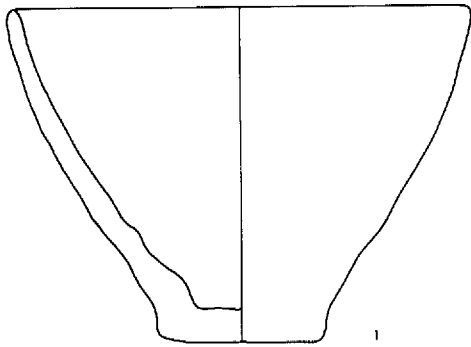


PLATE 62

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 421, above Fl. 1 (lot 607)	IV-V A	Buff	1a	p. 103
2	Loc. 404, Fl. 1 (lot 1107)	IV	Buff	1a	"
3	Loc. 451 (lot 55*)	-	Buff	1a	"
4	Loc. 22, Fl. 2 (lot 396)	IV	Buff	1a	"
5	Loc. 455, Fl. 1-3, DZ bin. (lot 265*)	VA	Buff	1a	"
6	Loc. 11 (lot 83)	III	Pink	1a	"
7	Loc. 67, fill above Fl. 1 (lot 857)	IV?	Pink	1a	"
8	Loc. 54, Fl. 1 (lot 769)	V B	?	1a	"
9	Loc. 16, Fl. 3-7 (lot 480)	IV-V A	Pink	1a	"
10	Loc. 54, Fl. 1 (lot 769)	V B	Pink	1a	"
11	Loc. 416, Fl.2 (lot 370*)	V A	Buff/slip	1b	" Delougaz, Pl. 49d
12	Loc. 49, Fl. 1d (lot 563)	IV	Buff	1b	p. 103
13	Loc. 41, Fl. 1 (lot 467)	V B	Pink	1b	"
14	Loc. 54, Fl. 1 (lot 769)	V B	Buff/slip	1b	"
15	Loc. 54, Fl. 2 (lot 1102)	VI A	Buff	1b	"
16	Loc. 54, Fl. 1 (lot 769)	V B	Pink	1b	"
17	Loc. 22, Fl. 4 (lot 298)	V A	Buff	1b	"
18	Loc. 57 (lot 592)	IV	?	1b	"
19	Loc. 57 (lot 592)	IV	?	1b	"
20	Loc. 49, Fl. 2 (lot 575)	V A	Buff	1b	"
21	Loc. 47, Fl. 3-6 (lot 1115)	V	Green	1b	"

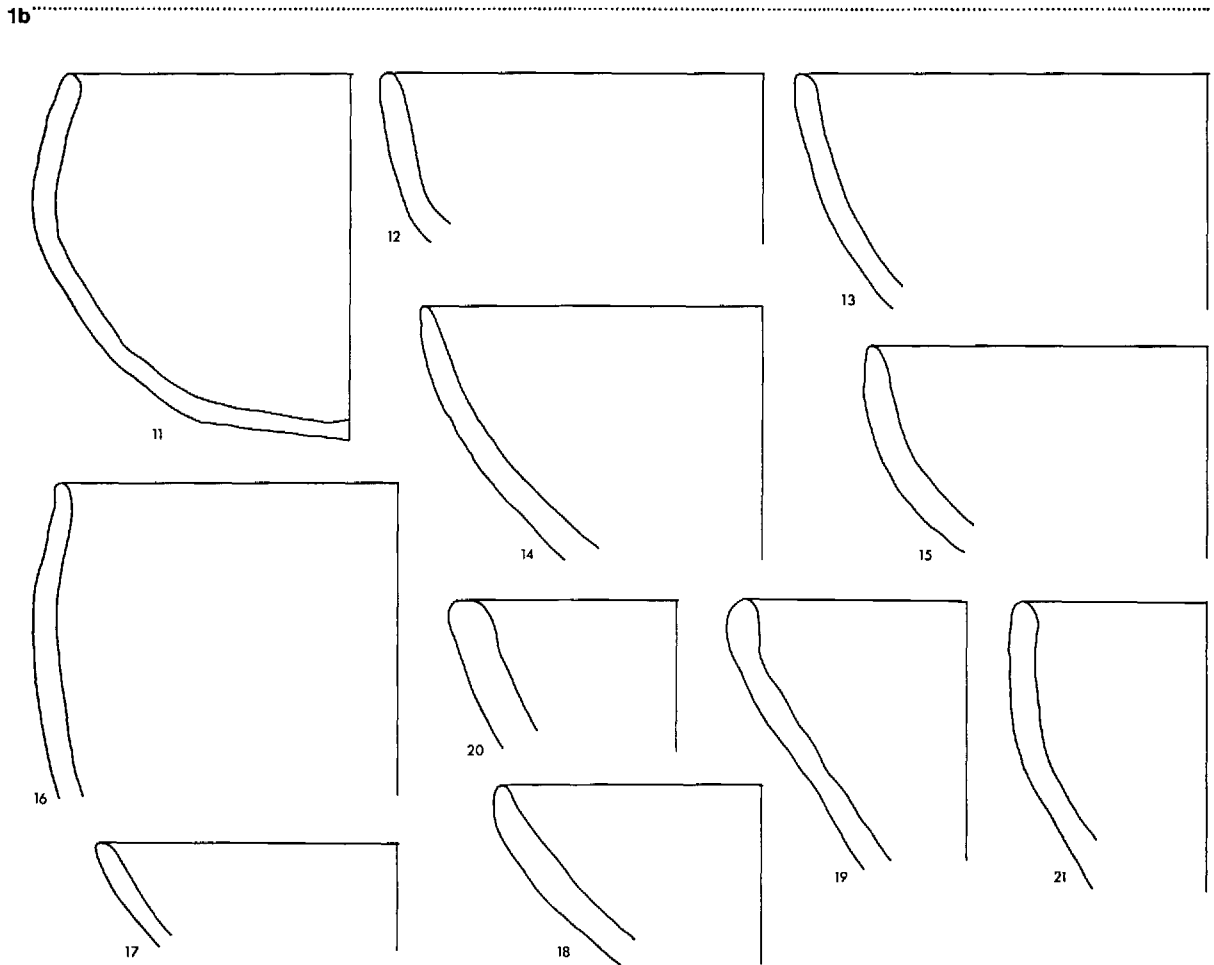
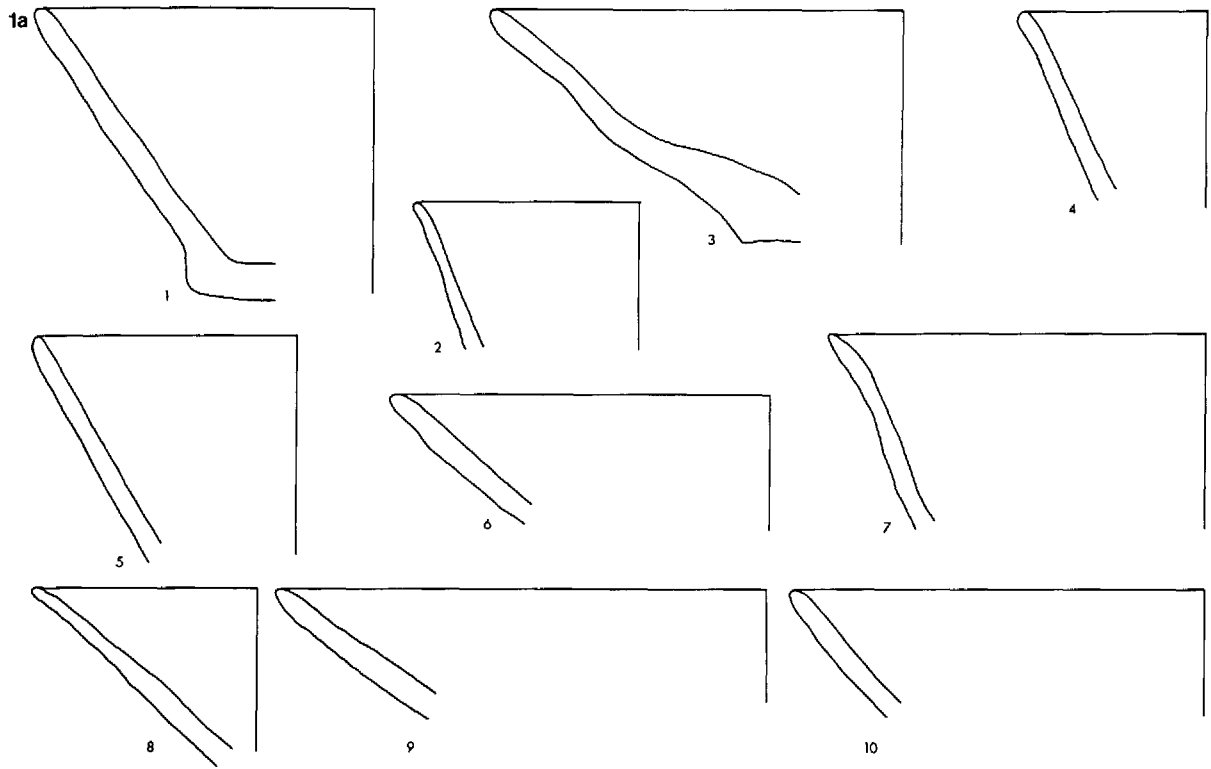


PLATE 63

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 404 (lot 1105)	IV	Buff	1c	p. 103
2	Loc.421, Fl. 2 (lot 205*)	V B	Buff/slip	1c	"
3	Loc. 444, Fl. 2-3 (lot 185*)	VI A	Buff	1c	"
4	Loc. 88 (lot 154*)	II	Pink	1c	"
5	Loc. 421, above Fl. 1 (lot 607)	IV-V	Green	2	"
6	Loc. 94, Fl. 2 (lot 969)	V A	Green	2	pp. 103, 139 Delougaz, B.033.210 Pl. 74c
7	Loc. 423, Fl. 2 (lot 619)	V B	Buff	2	p. 103
8	Loc. 47, Fl. 3-6 (lot 1115)	V	Buff	2	"
9	Loc. 23, Fl. 1 (lot 277)	V B	Pink/slip	2	" Delougaz, B.082.210
10	Loc. 79 (lot 952)	IV	Green	2	p. 103
11	Loc. 95, Fl. 1 (lot 968)	V A	Green	2	" Delougaz, B.083.200?
12	Loc. 47, Fl. 3-6 (lot 1115)	V	Buff	3	p. 103
13	Loc. 36 (lot 379)	I	Buff	3	"
14	Loc. 93, Fl. 4 (lot 980)	V A	Pink/slip	3	" Delougaz, B.123.200?
15	Loc. 421, Fl. 6 (lot 217*)	VI A	Pink/slip	3	p. 103 Delougaz, B.123.200?
16	Loc. 49, Fl. 6 (lot 756)	V B	Pink	4	p. 103
17	Loc. 48, Fl. 2 (lot 125*)	VI A	Buff	4	"
18	Loc. 79 (lot 952)	IV	Pink	4	"
19	Loc. 79 (lot 952)	IV	Pink	4	"
20	Loc. 421, Fl. 2 (lot 203*)	V B	Buff	4	pp. 103, 139 Delougaz, B.062.210b?
21	Loc. 47, Fl. 2-3 (lot 882)	IV-V A	Buff/slip	4	pp. 103, 139 Delougaz, C.002.500

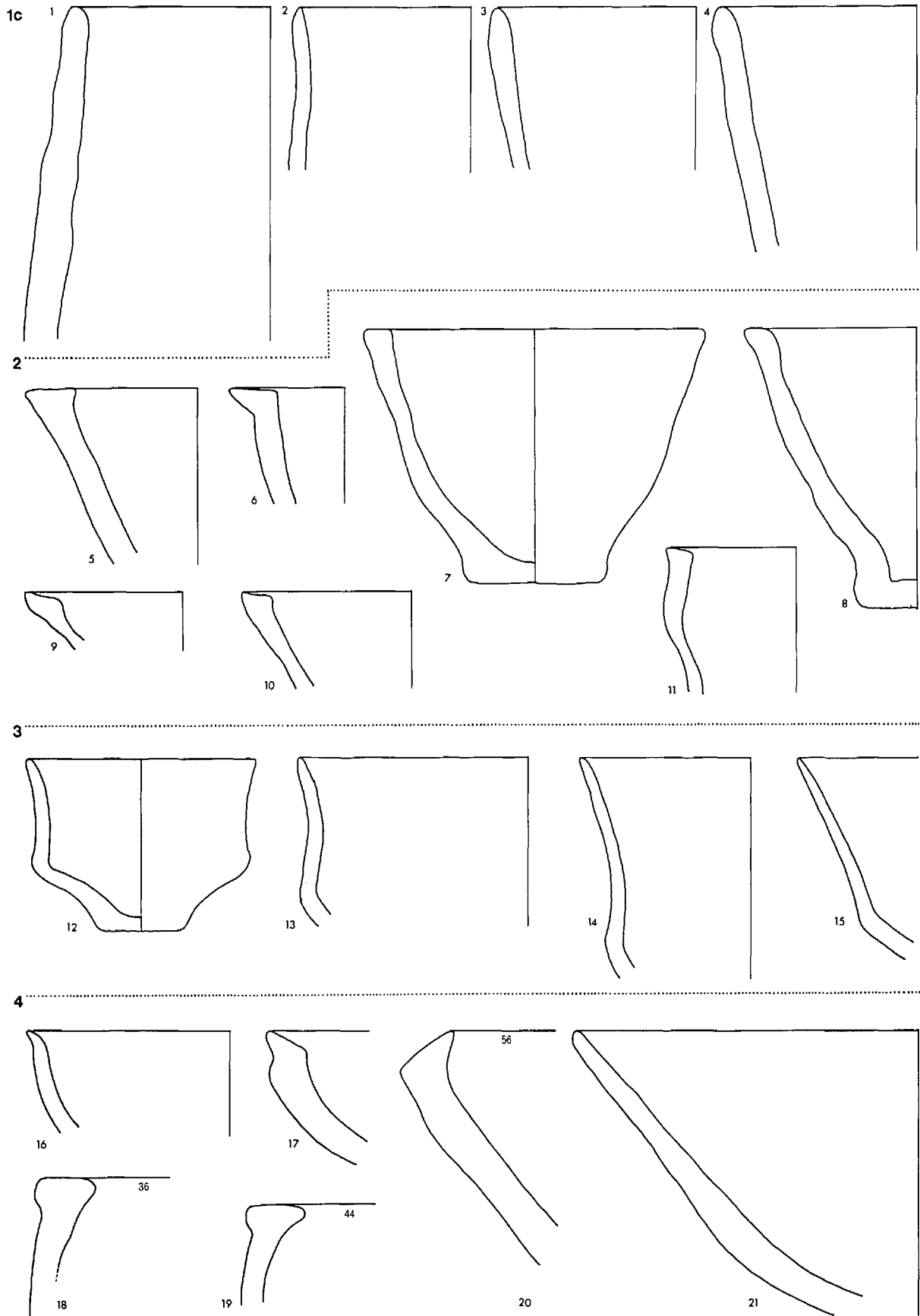
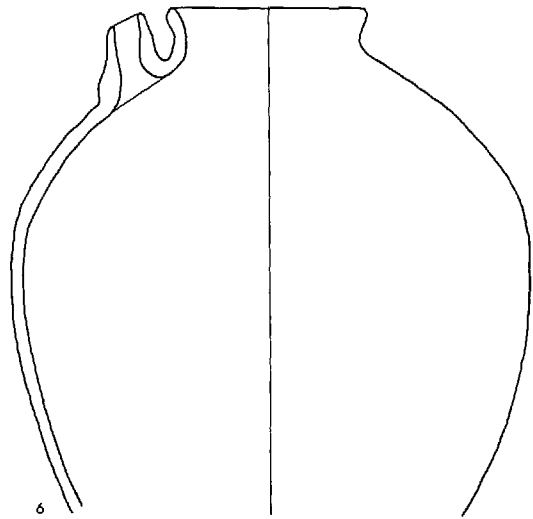
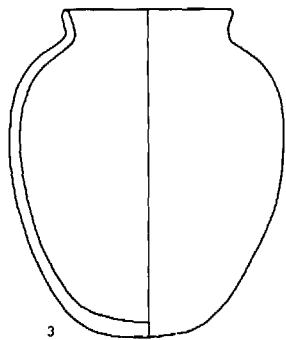
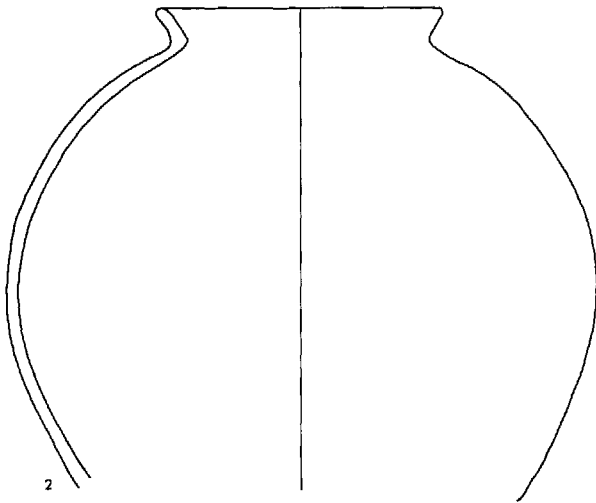
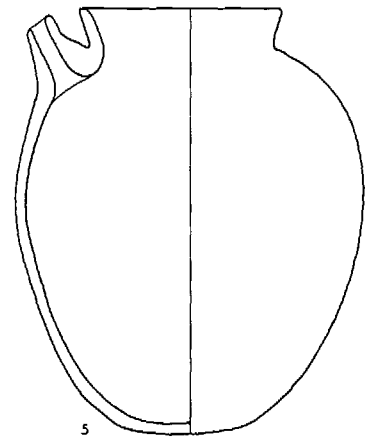
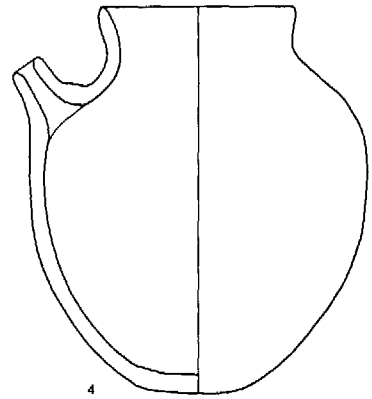
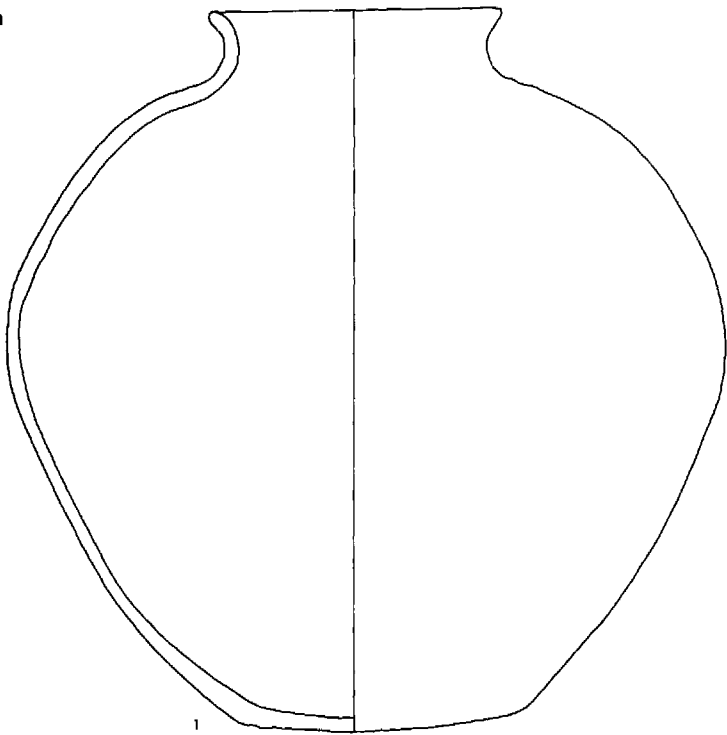


PLATE 64

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 23, Fl. 4 (lot 464)	V B	Buff	5a	p. 104
2	Loc. 23, Fl. 5 (lot 589)	V B	Buff	5a	"
3 Uc 202	Loc. 55, pit (lot 983)	III	Pink	5a	pp. 68, 104
4 Uc 152	Loc. 83, Fl. 1 (lot 921)	II	Pink	5a	pp. 71, 104 Delougaz, C.534.222
5 Uc 153	Loc. 86, Fl. 1 (lot 932)	IV	Buff	5a	pp. 65, 104
6	Loc. 47, Fl. 4 (lot 896)	V B	Pink	5a	p. 104 Delougaz, C.535.242

5a



(14)

PLATE 65

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 455, bin DZ. (lot 265*)	V A	Buff	5a	p. 104
2	Loc. 79 (lot 159*)	IV	Buff	5a	”
3	Loc. 16, Fl. 3-8 (lot 480)	IV-V A	Buff	5a	”
4	Loc. 11 (lot 83)	III	Buff	5a	”
5	Loc. 93, Fl. 3 (lot 980)	V A	Buff/slip	5a	”
6	Loc. 456, Fl. 2 (lot 279*)	V B	Pink/slip	5a	”
7	Loc. 23, Fl. 4 (lot 387)	V B	Buff	5a	”
8	Loc. 10 (lot 252)	III	Pink	5a	”
9	Loc. 57 (lot 592)	IV	?	5a	”
10	Loc. 33 (lot 367)	-	Pink/slip	5a	”
11	Loc. 93 (lot 980)	IV-V A	Buff	5a	”
12	Loc. 50 (lot 877)	I	Pink	5a	”
13	Loc. 49, Fl. 5 (lot 753)	V B	Buff	5a	”
14	Loc. 421, above FL.1 (lot 607)	IV-V	Buff	5a	”
15	Loc. 80 (lot 917)	II-IV	Green	5a	”
16	Loc. 421, above Fl. 1 (lot 607)	IV-V	Pink	5a	”

5a

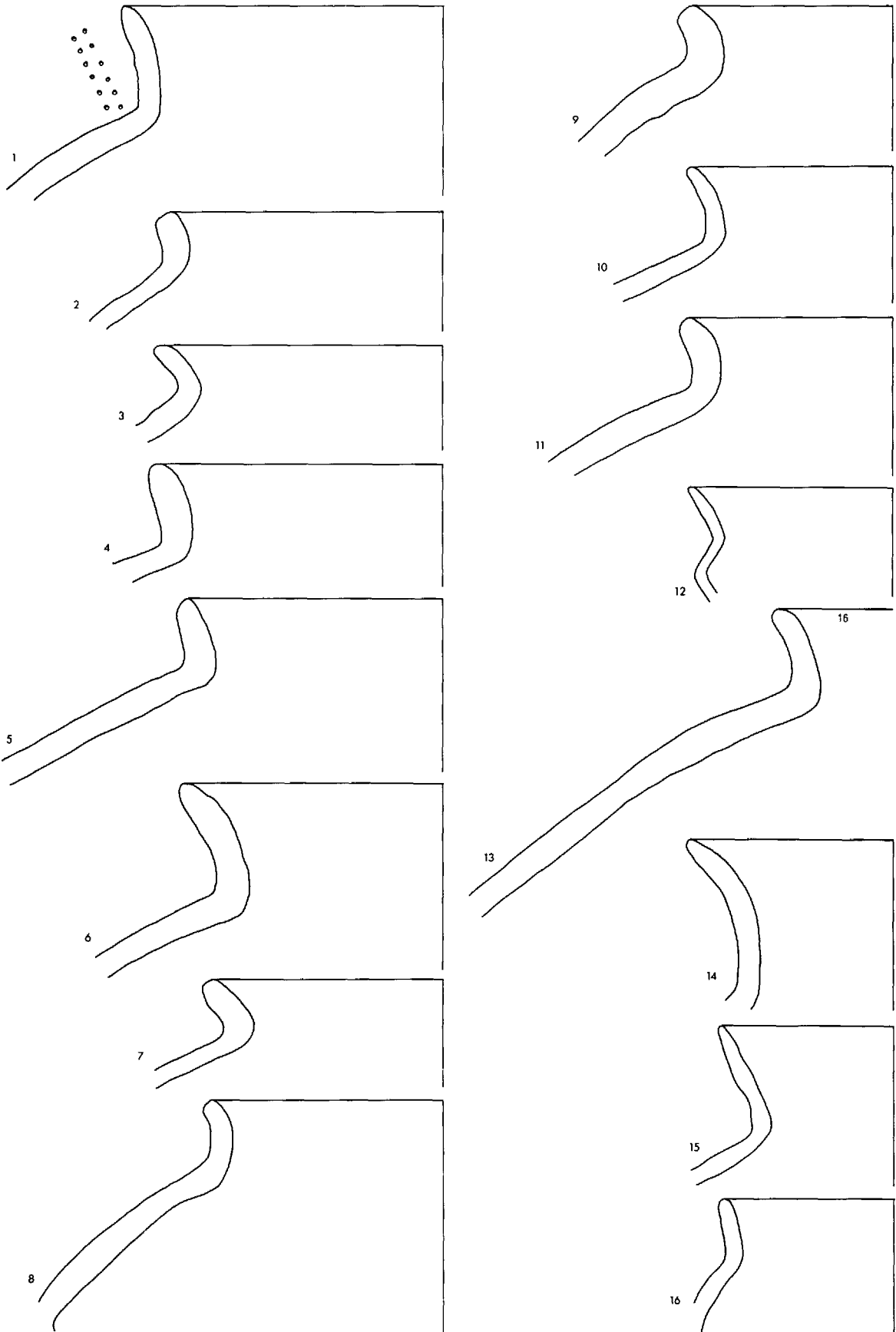


PLATE 66

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 98	II	Buff	5a	pp. 104, 118
2	Loc. 404 (lot 1112)	IV	Buff	5a	p. 104
3	Loc. 76 (lot 935)	V	Pink/slip	5a	”
4	Loc. 70, Fl. 2 (lot 907)	IV	Buff	5a	”
5	Loc. 456, Fl. 2-4 (lot 280*)	V B-VI A	Pink/slip	5a	”
6	Loc. 47, Fl. 2-3 (lot 882)	IV-V A	Buff	5a	”
7	Loc. 455, Fl. 3-4 (lot 256*)	V	Buff/slip	5a	”
8	Loc. 48, Fl. 3 (lot 114*)	VI B	Buff	5a	”
9	Loc. 33 (lot 372)	-	Pink	5a	pp. 104, 118
10	Loc. 421, above Fl. 1 (lot 607)	IV-V	Pink/slip	5a	p. 104
11	Loc. 455, Fl. 1 (lot 48*)	V A	Buff	5a	”
12	Loc. 49, Fl. 2 (lot 575)	V A	Buff	5a	”
13	Loc. 93, Fl. 3 (lot 980)	V A	Pink/slip	5a	”
14	Loc. 403 (lot 885)	III	Pink	5a	”
15	Loc. 29 (lot 295)	-	Pink	5a	pp. 104, 138

5a

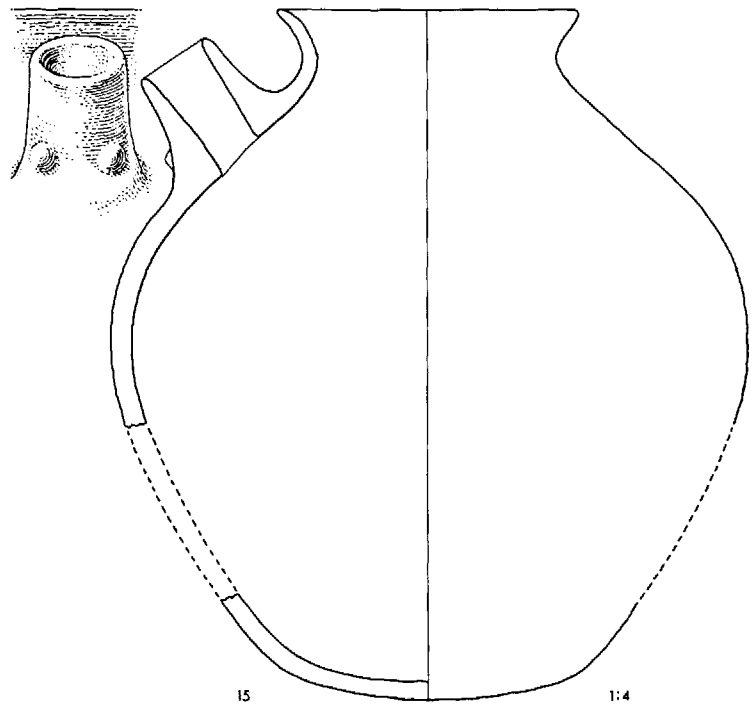
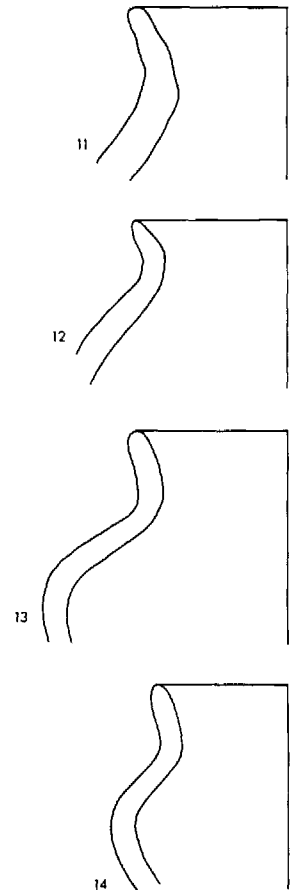
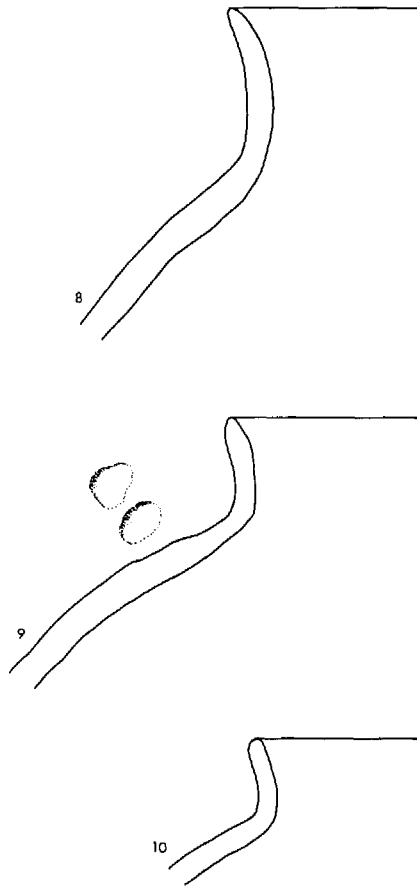
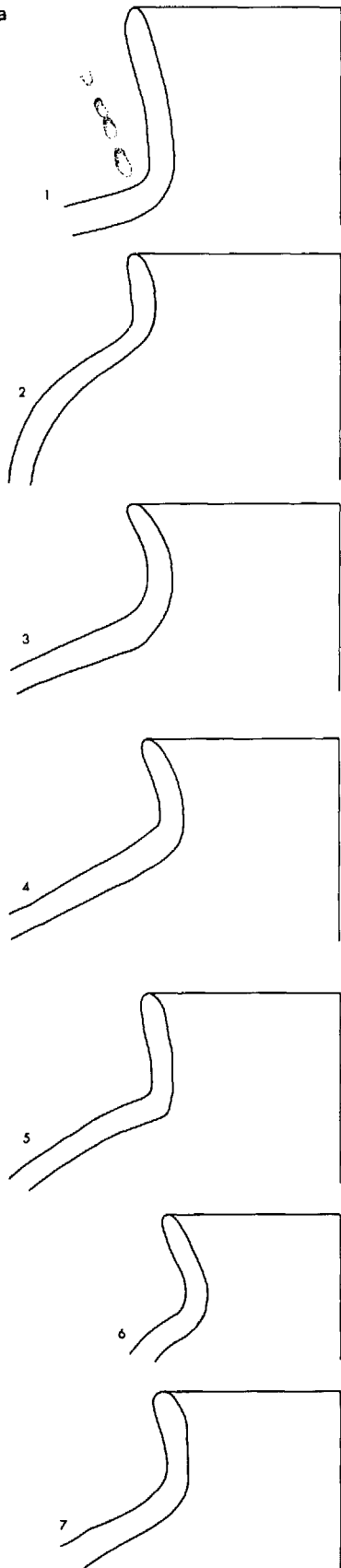
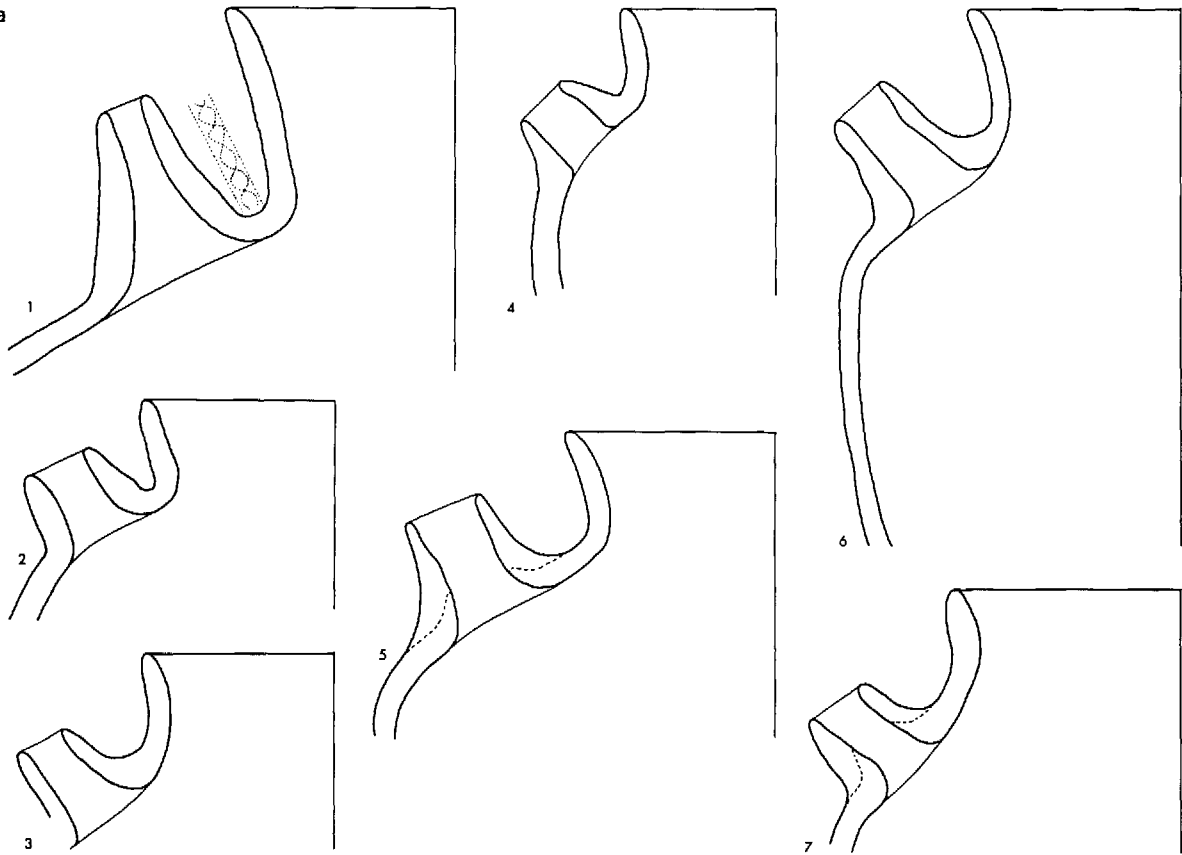


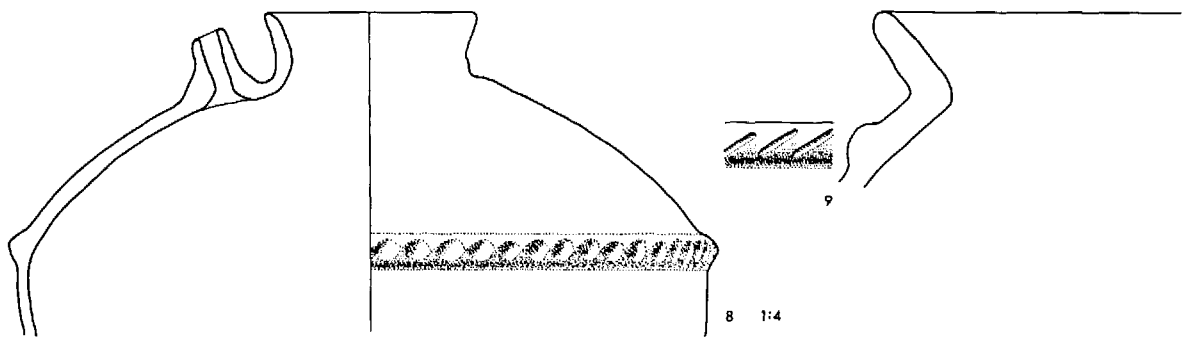
PLATE 67

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 67, Fl. 1	IV	Buff	5a	p. 104 Delougaz, C.525.362b
2	Loc. 420 (lot 893)	III	Buff/slip	5a	p. 104
3	Loc. 421, above Fl. 1 (lot 607)	IV-V	Buff	5a	"
4	Loc. 10 (lot 252)	III	Buff	5a	"
5	Loc. 487, Fl. 2c (lot 305*)	V A	Buff/slip	5a	45
6	Loc. 94, Fl. 1 (lot 962)	V A	Buff	5a	57
7	Loc. 75 (lot 144*)	IV-V A	Pink	5a	104
8	Loc. 54, sub Fl. 2 (lot 1101)	VI B	Buff/slip	5b	" Delougaz, D.525.362
9	Loc. 438, Fl. 4 (lot 182*)	V B	Buff/slip	5b	p. 104
10 Uc 114	Loc. 49, Fl. 6 (lot 752)	V B	Pink	5c	pp. 46, 104 Delougaz, C.526.262b
11	Loc. 421, Fl. 3 (lot 207*)	V B	Buff	5c	p. 104
12	Loc. 98 (lot 992)	II	Pink/slip	5c	"
13	Loc. 455, Fl. 6 (lot 62*)	VI A	Buff/slip	5c	"
14	Loc. 455, Fl. 6-13 (lot 275*)	VI	Pink	5c	"

5a



5b



5c

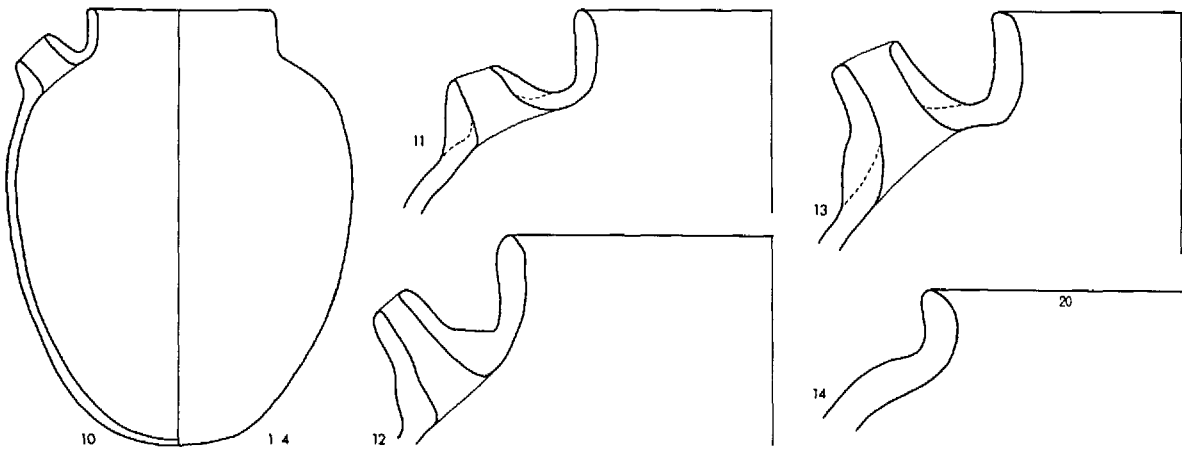
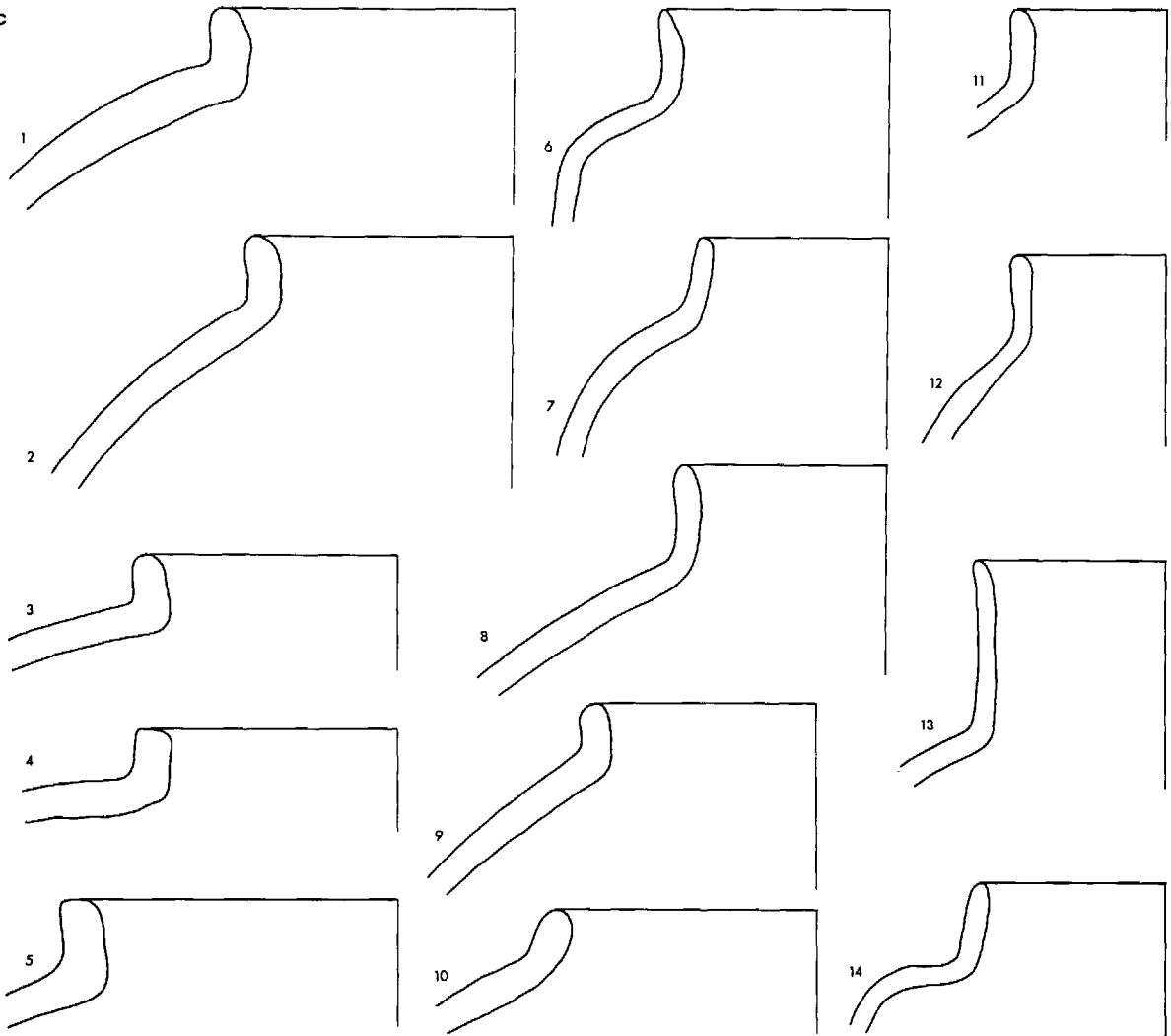


PLATE 68

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 23, feature (lot 471)	V B	Buff	5c	p. 104
2	Loc. 33 (lot 101*)	-	Buff	5c	”
3	Loc. 41, Fl. 1 (lot 467)	V B	Pink	5c	”
4	Loc. 49, Fl. 8 (lot 768)	V B	Buff	5c	”
5	Loc. 49, Fl. 1d (lot 563)	IV	Buff	5c	”
6	Loc. 33 (lot 393)	-	Buff	5c	”
7	Loc. 33 (lot 392)	-	Buff	5c	”
8	Loc. 479, Fl. 2 (lot 192*)	VI B	Buff	5c	”
9	Loc. 23, feature (lot 471)	V B	Buff	5c	”
10	Loc. 34, Fl. 2 (lot 570)	V B	Buff	5c	”
11	Loc. 49, Fl. 1d (lot 563)	IV	Buff	5c	”
12	Loc. 47, Fl. 7 (lot 136*)	VI A	Buff	5c	”
13	Loc. 456, Fl. 2-4 (lot 280*)	V B-VI A	Buff/slip	5c	”
14	Loc. 79 (lot 178*)	IV	Buff/slip	5c	”
15	Loc. 40, Fl. 1 (lot 459)	V B	Buff	6a	” Delougaz, C.556.242
16	Loc. 485, Fl. 1 (lot 121*)	IV	Buff/slip	6a	pp. 63, 104
17	Loc. 481, Fl. 1 (lot 117*)	IV	Buff/slip	6a	”

5c



6a

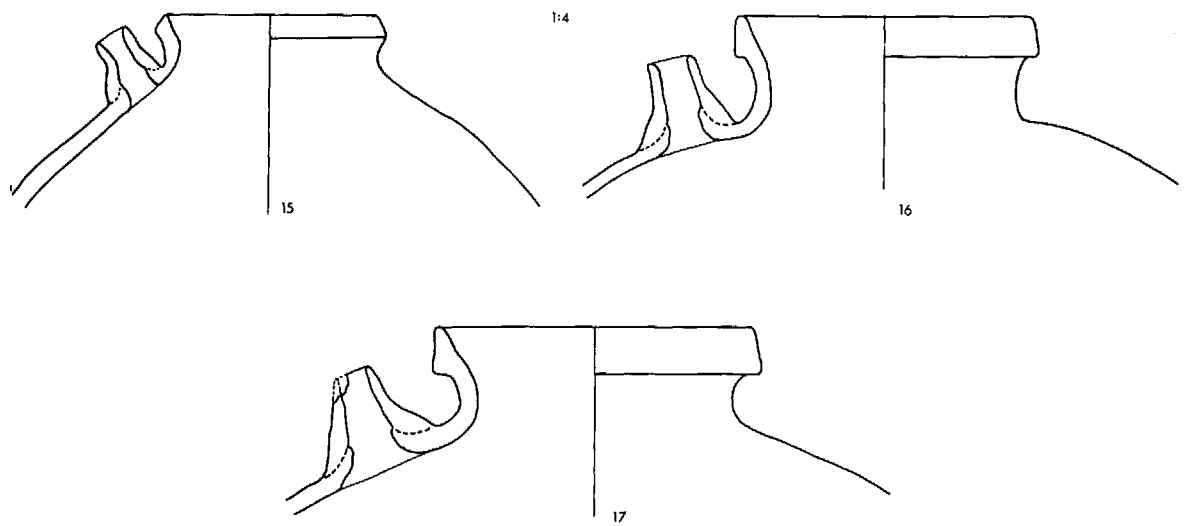


PLATE 69

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 49, Fl. 4 (lot 586)	V B	Buff/slip	6a	pp. 46, 104
2	Loc. 49, Fl. 1a (lot 74)	IV	Reserved slip	6a	64, 104, 117
3	Loc. 8, Fl. 3 (lot 99)	V A	Buff	6a	p. 104
4	Loc. 404, Fl. 1 (lot 1107)	IV	Pink	6a	"
5	Loc. 88 (lot 154*)	II	Buff/slip	6a	"
6	Loc. 456, Fl. 2 (lot 258*)	V B	Pink/slip	6a	"
7	Loc. 455, Fl. 1-3 (lot 261*)	V A	Buff	6a	"
8	Loc. 97, Fl. 1 (lot 162*)	V A	Buff/slip	6a	"
9	Loc. 450, above Fl. 1 (lot 52*)	-	Buff	6a	"
10	Loc. 79 (lot 952)	IV	Buff/slip	6a	"
11	Loc. 98, Fl. 2 (lot 988)	II	Pink/slip	6a	"
12	Loc. 97, Fl. 1 (lot 162*)	V A	Buff/slip	6a	"
13	Loc. 62, Fl. 1 (lot 794)	II	Pink	6a	"
14	Loc. 49, Fl. 8 (lot 768)	V B	Buff	6a	"
15	Loc. 97, Fl. 1 (lot 162*)	V A	Buff	6a	"
16	Loc. 451 (lot 55*)	-	Buff/slip	6a	"
17	Loc. 404, Fl. 2 (lot 1114)	IV	Pink/slip	6a	"
18	Loc. 60 (lot 105*)	II	Buff	6a	"
19	Loc. 33 (lot 372)	-	Buff	6a	"
20	Loc. 451 (lot 55*)	-	Buff/slip	6a	"
21	Loc. 455, Fl. 6-13 (lot 275*)	VI	Pink/slip	6a	"
22	Loc. 449 (lot 188*)	VI B	Buff/slip	6a	"
23	Loc. 8, Fl. 1 (lot 90)	IV	Buff	6a	"

6a

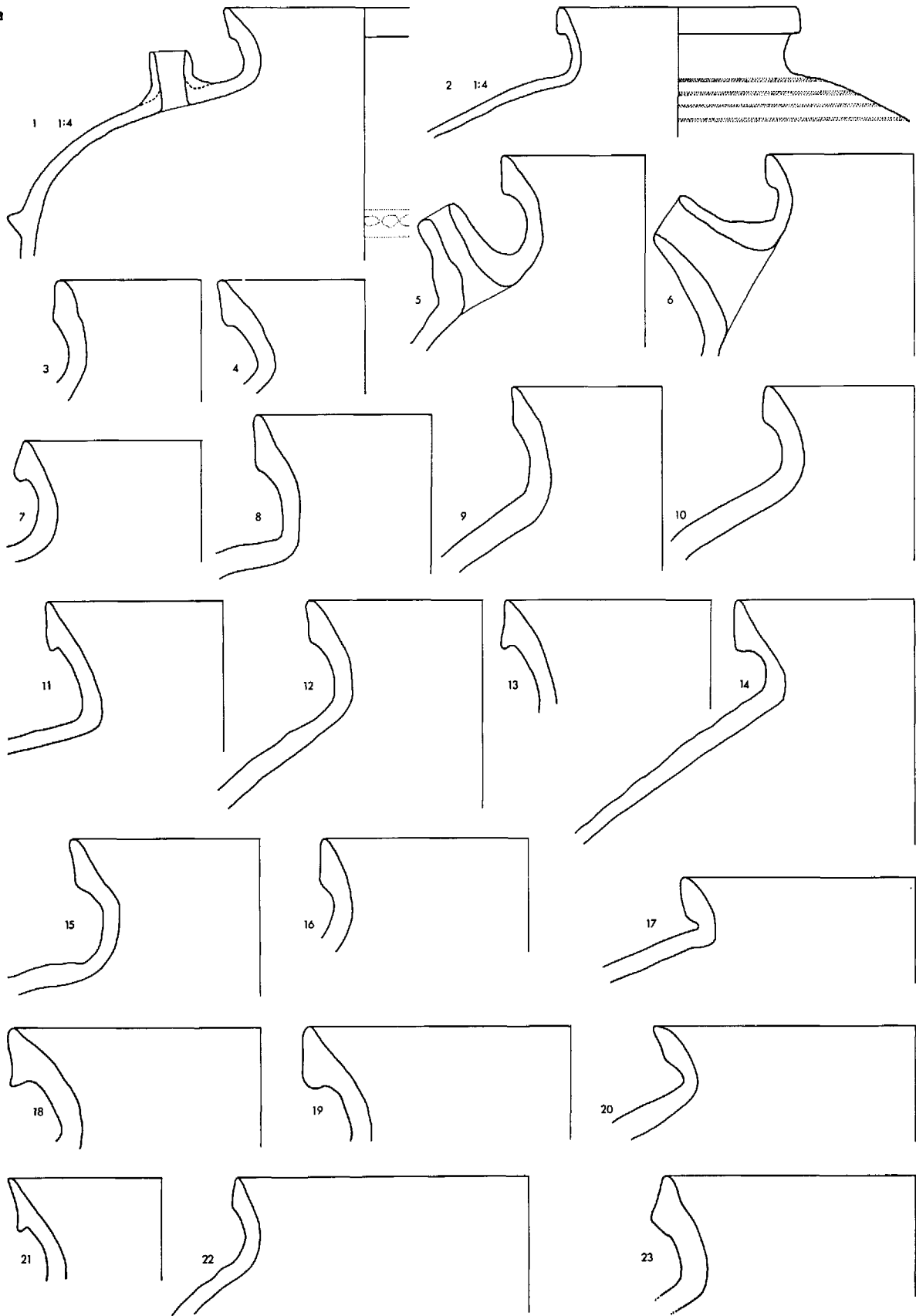
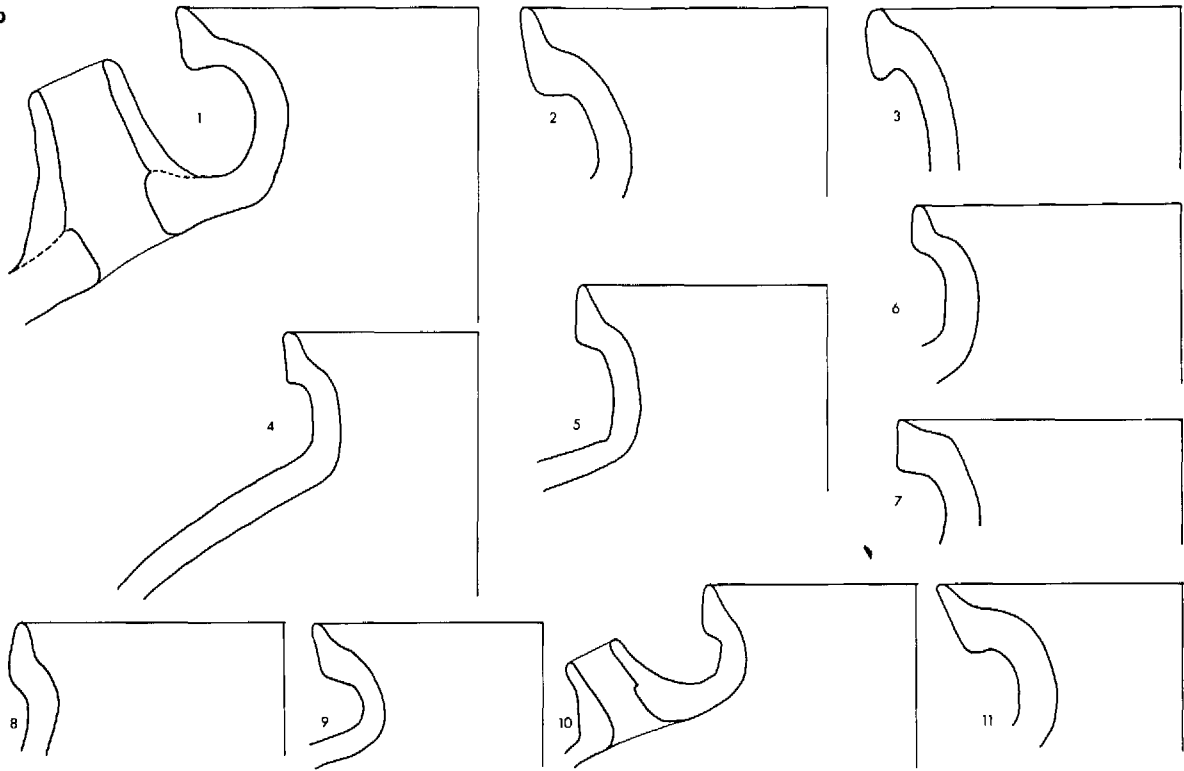


PLATE 70

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 455, Fl. 6 (lot 62*)	VI A	Buff	6b	p. 104 Delougaz, D.545.542
2	Loc. 22, Fl. 2 (lot 289)	IV	Green	6b	p. 104
3	Loc. 473 and 479 (lot 147*)	VI	Buff/slip	6b	"
4	Loc. 93 (lot 980)	IV-V A	Buff	6b	"
5	Loc. 421, Fl. 3 (lot 207*)	V B	Buff/slip	6b	"
6	Loc. 47, Fl. 3-6 (lot 1115)	V	Green	6b	"
7	Loc. 455, Fl. 9-12 (lot 270*)	VI	Buff	6b	"
8	Loc. 479, Fl. 3 (lot 193*)	VI B	Green	6b	"
9	Loc. 11 (lot 83)	III	Buff	6b	"
10	Loc. 33 (lot 392)	-	Buff	6b	"
11	Loc. 444, Fl. 4 (lot 190*)	VI A	Buff/slip	6b	"
12	Loc. 416, Fl. 1 (lot 361*)	V A	Gray	7a	pp. 104-5 Delougaz, C.525.370a
13	Loc. 89 (lot 940)	III	Buff/red paint	7	p. 105
14	Loc. 444, Fl. 3 (lot 186*)	VI A	Pink	7	"
15	Loc. 455, Fl. 1 (lot 48*)	V A	Gray	7	"
16	Loc. 54, Fl. 2 (lot 1102)	VI A	Gray	7	"
17	Loc. 49, Fl. 1b (lot 79)	IV	Gray	7	"
18	Loc. 23, Fl. 1 (lot 277)	V B	Gray	7	"
19	Loc. 421, Fl. 2 (lot 203*)	V B	Buff/slip	7	"
20	Loc. 421, above Fl. 1 (lot 607)	IV-V	Buff	7b	" Delougaz, D.515.370
21	Loc. 455, Fl. 9-12 (lot 270*)	VI	Buff/slip	7b	Delougaz, D.525.370 p. 105
22	Loc. 479, Fl. 3 (lot 303*)	VI B	Pink/slip	7	"

6b



7

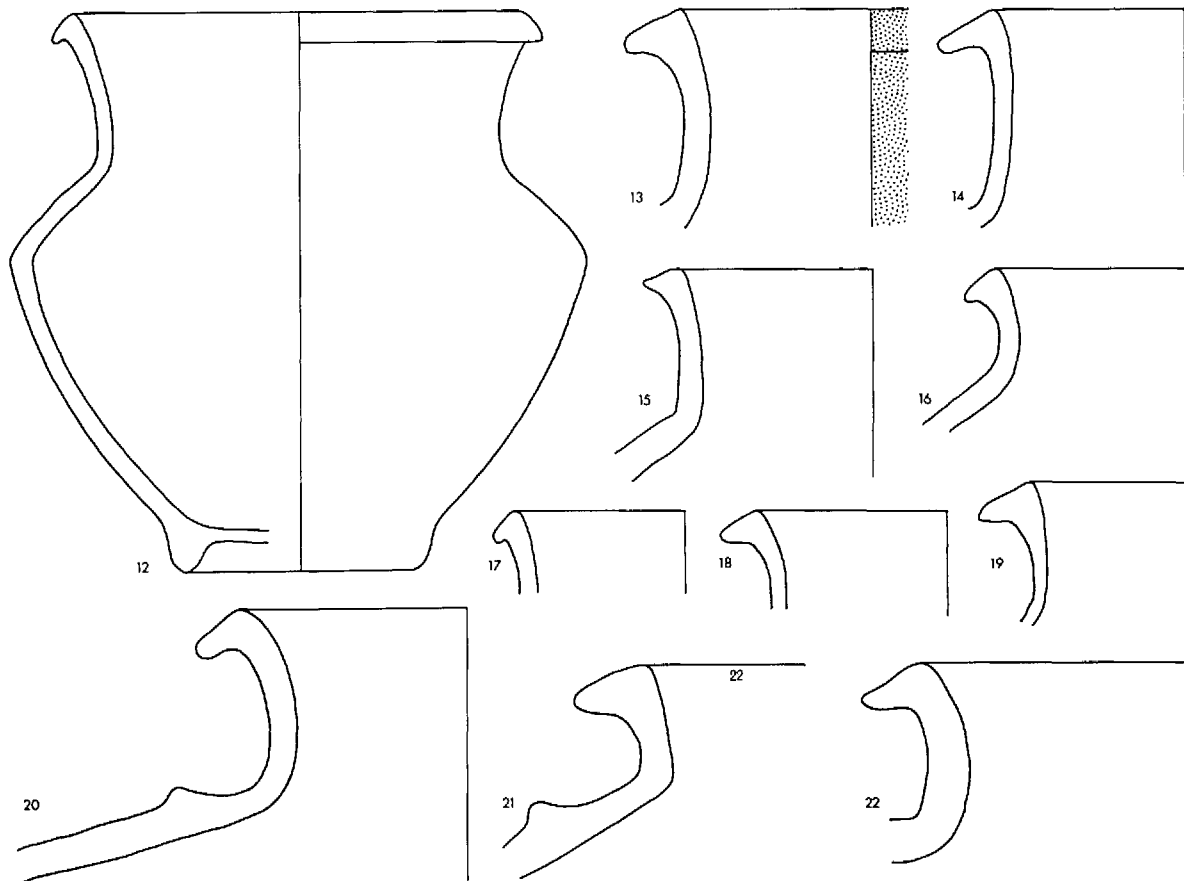


PLATE 71

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 444, Fl. 3 (lot 186*)	VI A	Pink	7	p. 105
2	Loc. 421, above Fl. 1 (lot 607)	IV-V	Buff/red paint	7	pp. 105, 120
3	Loc. 54, Fl. 1 (lot 769)	V B	Buff/slip	7	p. 105
4	Loc. 23, Fl. 5 (lot 470)	V B	Buff/slip	7	"
5	Loc. 455, Fl. 6-13 (lot 275*)	VI	Buff	7	"
6	Loc. 5, Fl. 1 (lot 490)	V A	Buff/slip	7	"
7	Loc. 11 (lot 83)	III	Buff/red paint	7	pp. 105, 120
8	Loc. 441, Fl. 1 (lot 989)	II	Buff	7	p. 105
9	Loc. 444, Fl. 3 (lot 186*)	VI A	Buff	7	"
10	Loc. 11 (lot. 83)	III	Buff/slip	7	"
11	Loc. 49, Fl. 7 (lot 767)	V B	Buff	8	pp. 46, 105 Delougaz, C.654.510
12	Loc. 421, above Fl. 1 (lot 607)	IV-V	Pink	8	pp. 105, 139
13	Loc. 47, Fl. 5 (lot 1108)	V B	Pink	8	p. 105
14	Loc. 455, bin DZ. (lot 265*)	V A	Buff/slip	8	"
15	Loc. 47, Fl. 2-3 (lot 882)	IV-V A	Pink	8	"
16	Loc. 455, Fl. 6 (lot 62*)	VI A	Pink	8	"
17	Loc. 34, Fl. 1 (lot 562)	V B	Pink	8	"
18	Loc. 49, Fl. 8 (lot 768)	V B	Green	8	"
19	Loc. 421, Fl. 3 (lot 207*)	V B	Buff/slip	8	"
20	Loc. 456, Fl. 2 (lot 258*)	V B	Pink/slip	8	"
21	Loc. 421, above Fl. 1 (lot 607)	IV-V	Buff	8	"
22	Loc. 94, Fl. 2 (lot 969)	V A	Buff	8	"

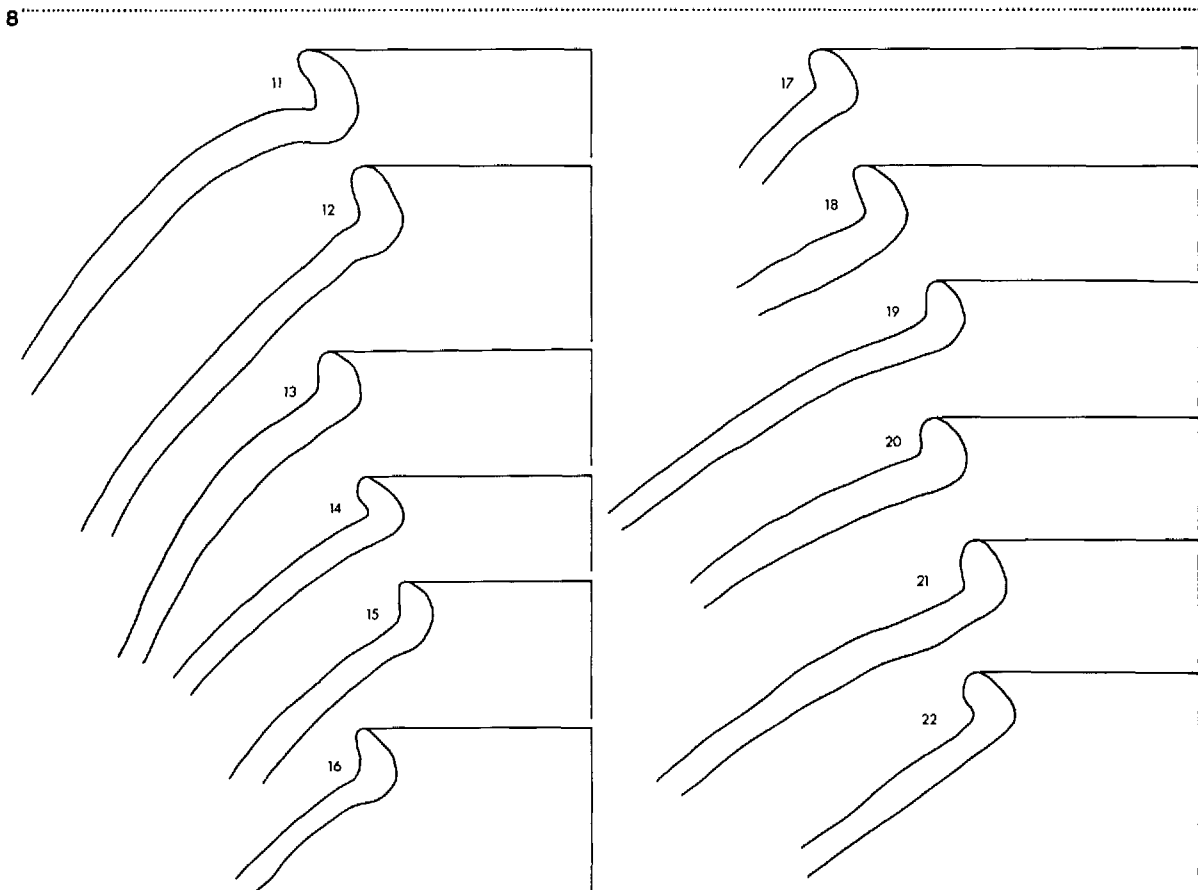
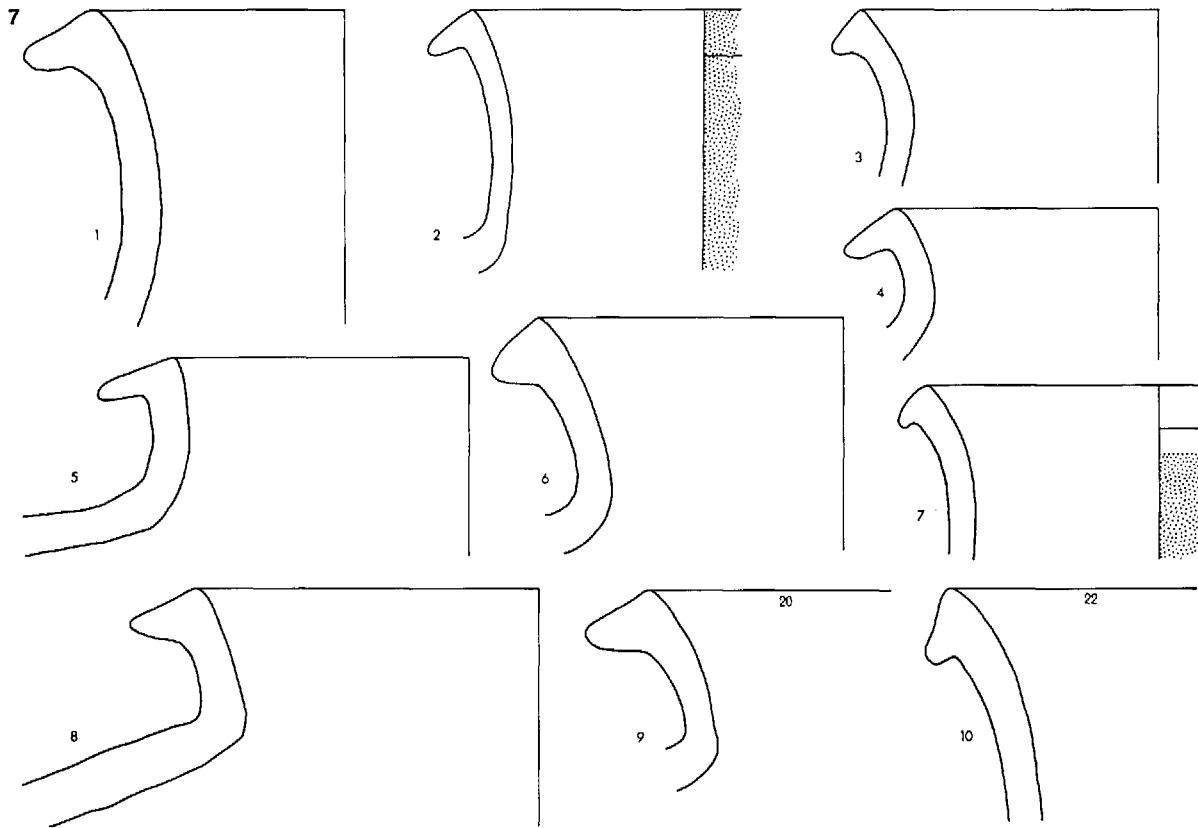


PLATE 72

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 438, Fl. 4 (lot 182*)	V B	Pink	8	p. 105
2	Loc. 80 (lot 917)	II-V A	Buff	8	"
3	Loc. 475, Fl. 1 (lot 313*)	VI A	Pink	8	"
4	Loc. 5, Fl. 1 (lot 490)	V A	Pink	8	"
5	Loc. 450 (lot 52*)	-	Buff	8	"
6	Loc. 455, Fl. 1 (lot 48*)	V A	Buff	8	"
7	Loc. 455, Fl. 3-4 (lot 256*)	V	Buff/slip	8	"
8	Loc. 455, Fl. 4 (lot 260*)	V B	Buff	8	"
9	Loc. 67, Fl. 1 (lot 857)	IV	Pink	8	"
10	Loc. 54, Fl. 1 (lot 769)	V B	Buff	8	"
11	Loc. 48, Fl. 3 (lot 114*)	VI B	Buff	8	pp. 105, 119
12	Loc. 48, Fl. 3 (lot 114*)	VI B	Buff	8	p. 105
13 Uc 253	Loc. 481, Fl. 1 (lot 109*)	IV	Buff	9	pp. 63, 105, 139 Delougaz, B.654.520
14	Loc. 27, Fl. 1 (lot 290)	IV	Buff/slip	9	pp. 105, 139
15	Loc. 47, Fl. 3-6 (lot 1115)	V	Coarse	9	"
16	Loc. 8, Fl. 3 (lot 99)	V A	Coarse	9	"
17	Loc. 421, above Fl. 1 (lot 607)	IV-V	Coarse	9	"
18	Loc. 450 (lot 52*)	-	Coarse	9	" Delougaz, B.652.500
19 Uc 345	Loc. 416, Fl. 2, fill (lot 363*)	V A	Buff	10	pp. 55, 105 139
20	Loc. 420 (lot 893)	III	Buff	10	105, 139 Delougaz, B.601.530
21	Loc. 480 (lot 103*)	-	Buff	10	pp. 105, 139 Delougaz, B.533.230

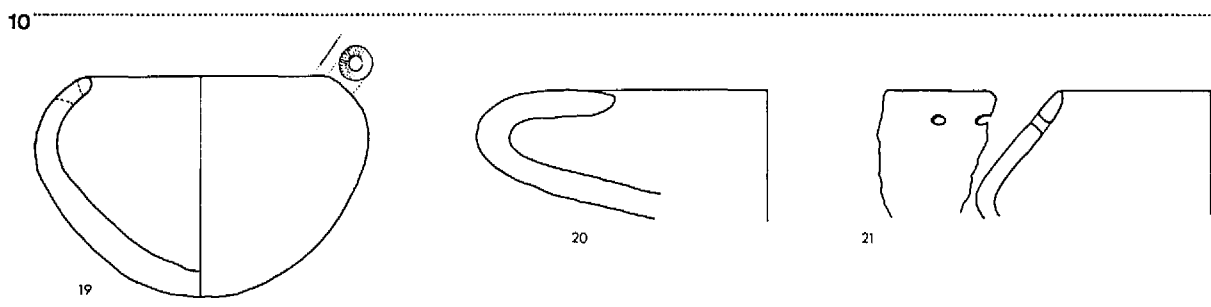
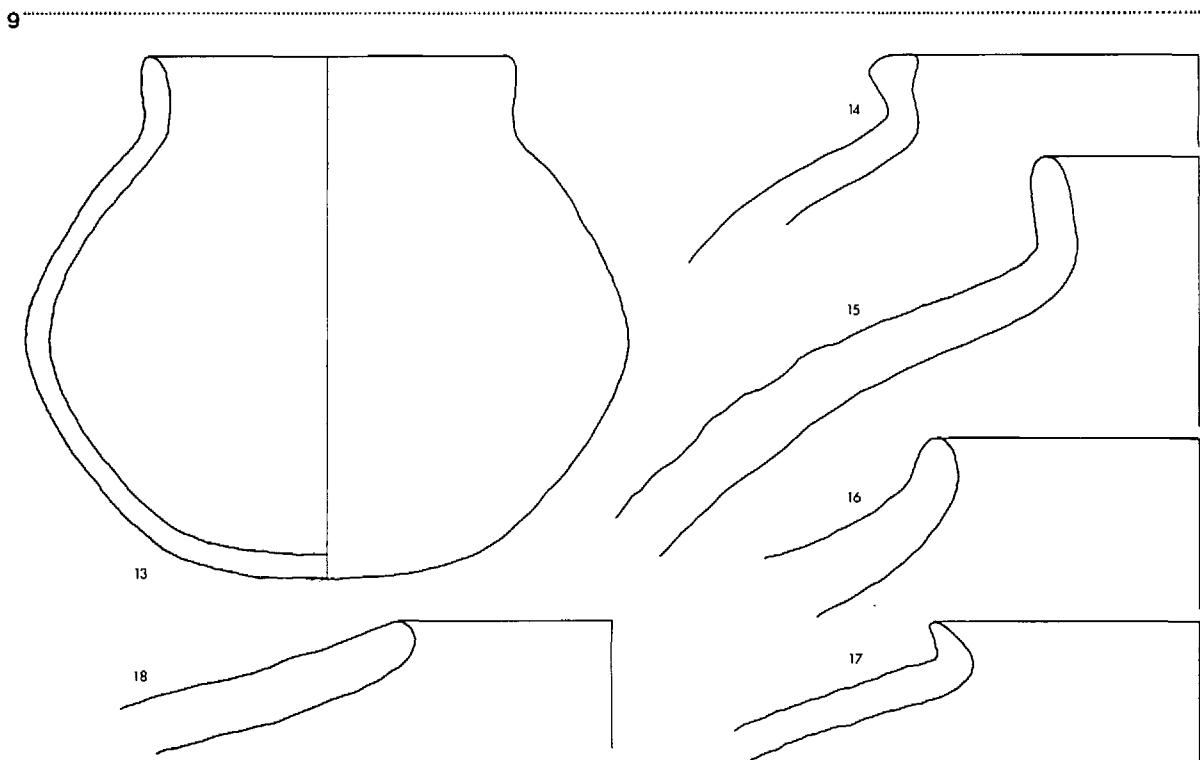
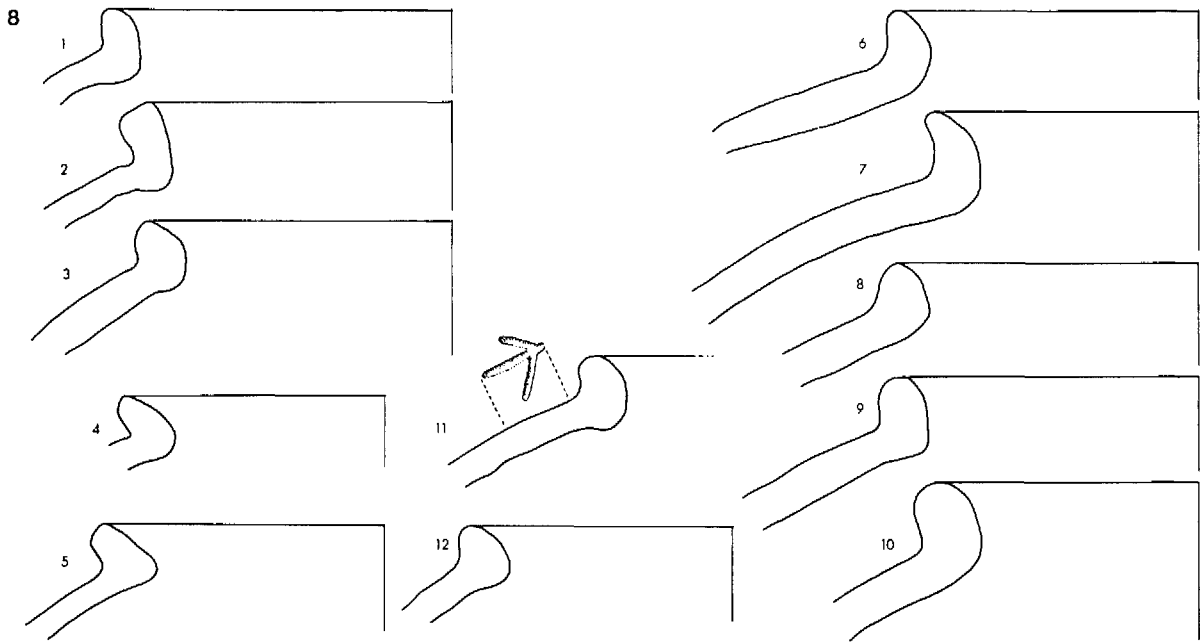


PLATE 73

No.	Provenience	Level	Ware	Type	Reference
1 Uc 149	Loc. 75, Fl. 1, fill (lot 926)	IV	Buff	11a	pp. 61, 105-6
2 Uc 148	Loc. 84, Fl. 1 (lot 923)	II	Buff	11a	71, 105-6
3	Loc. 49, Fl. 5 (lot 598)	V B	Buff	11a	p. 106
4 Uc 288	Loc. 421, Fl. 4, fill (lot 213*)	VI A	Buff	11a	pp. 38, 105-6
5 Uc 77	Loc. 49, Fl. 7 (lot 766)	V B	Pink	11a	46, 105-6 Delougaz, B.072.210a
6 Uc 281	Loc. 421, Fl. 2 (lot 205*)	V B	Buff	11a	pp. 43, 105-6
7	Loc. 49, Fl. 4 (lot 586)	V B	Buff	11a	105-6
8 Uc 222	Loc. 421, Fl. 1, fill (lot 617)	VB	Pink	11b	43, 106, 139 Delougaz, B.573.220
9	Loc. 485, Fl. 1 (lot 134*)	IV	Buff	11b	pp. 106, 139
10 Uc 348	Loc. 416, Fl. 3, fill (lot 368*)	V A	Pink	11b	55, 106, 140 Delougaz, B.184.220b?
11	Loc. 54, Fl. 1 (lot 769)	V B	Buff	11b	pp. 106, 139
12	Loc. 455, Fl. 6 (lot 62*)	VI A	Buff/slip	11b	106, 140 Delougaz, B.525.220
13 Uc 183	Loc. Fl. 1 (lot 922)	II	Buff	11b	pp. 71, 106 140
14 Uc 68	Loc. 49, Fl. 4 (lot 591)	V B	Buff	11b	46, 106
15	Loc. 50 (lot 898)	I	Buff	11b	106, 139
16	Loc. 35 (lot 925)	I	Pink	11b	"
17	Loc. 50 (lot 776)	I	Buff, inc.	11b	106, 138
18	Loc. 69 (lot 797, disturbed)	II	Buff, inc./ind.	11b	"
19 Uc 37	Loc. 29 (lot 294)	IV-II(?)	-	11b	84, 106, 138
20 Uc 349	Loc. 416, Fl. 2, fill (lot 367*)	V A	Buff	11c	55, 106, 140 Delougaz, B.514.572

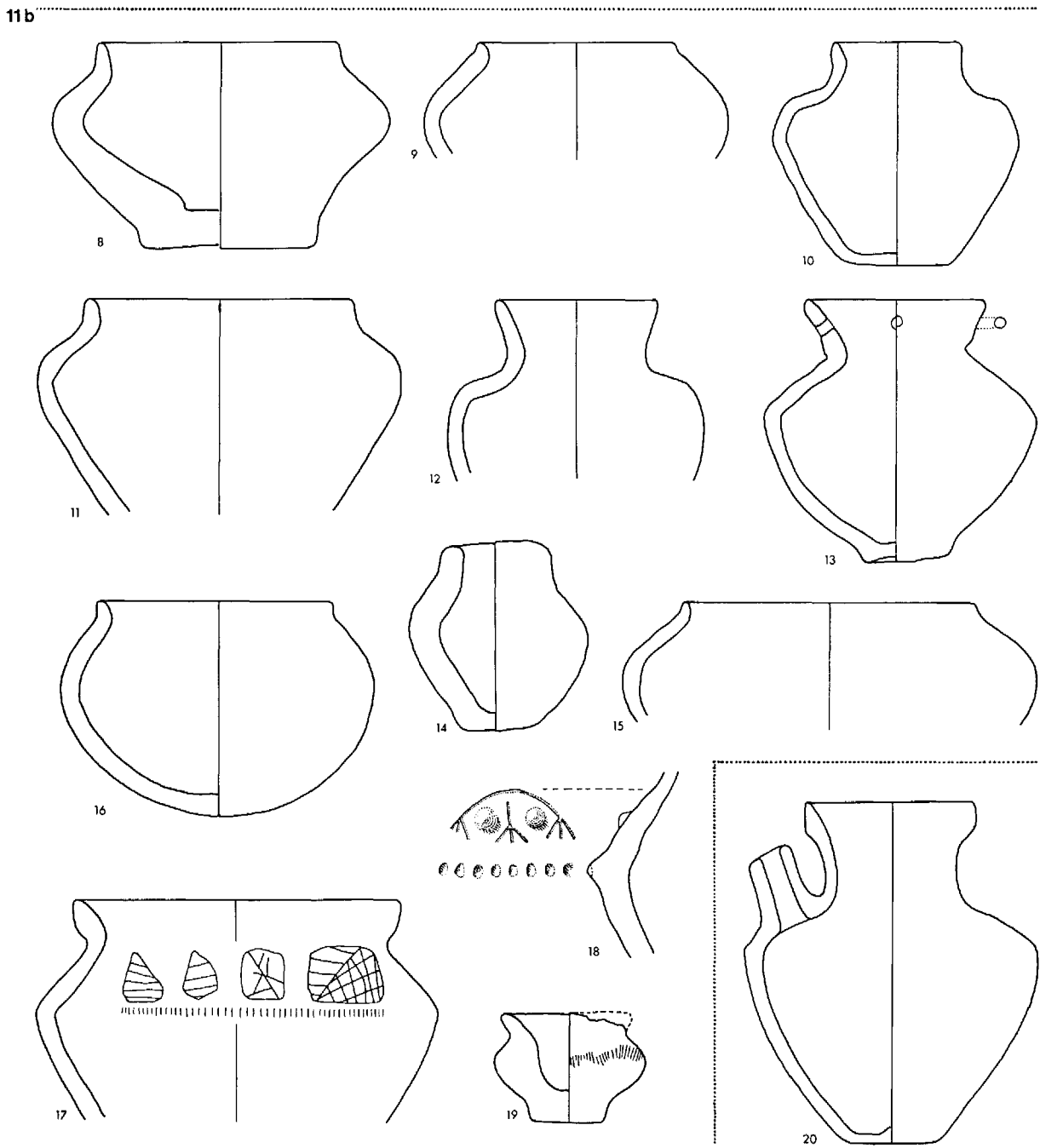
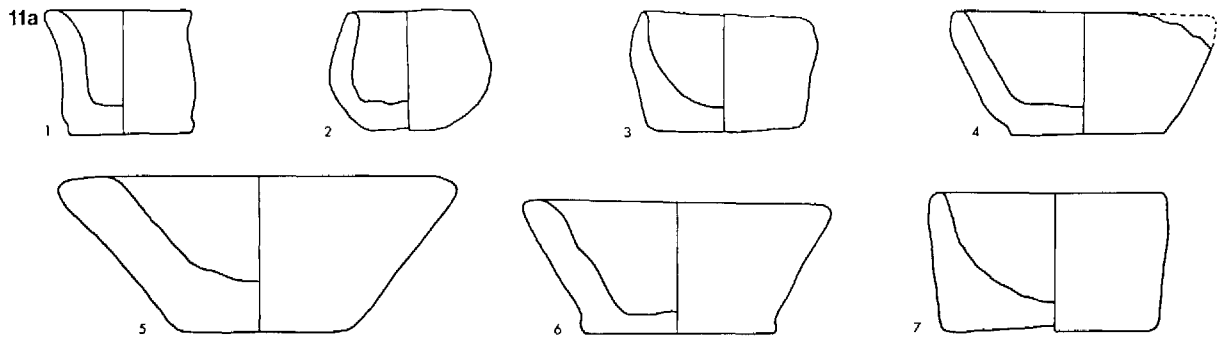
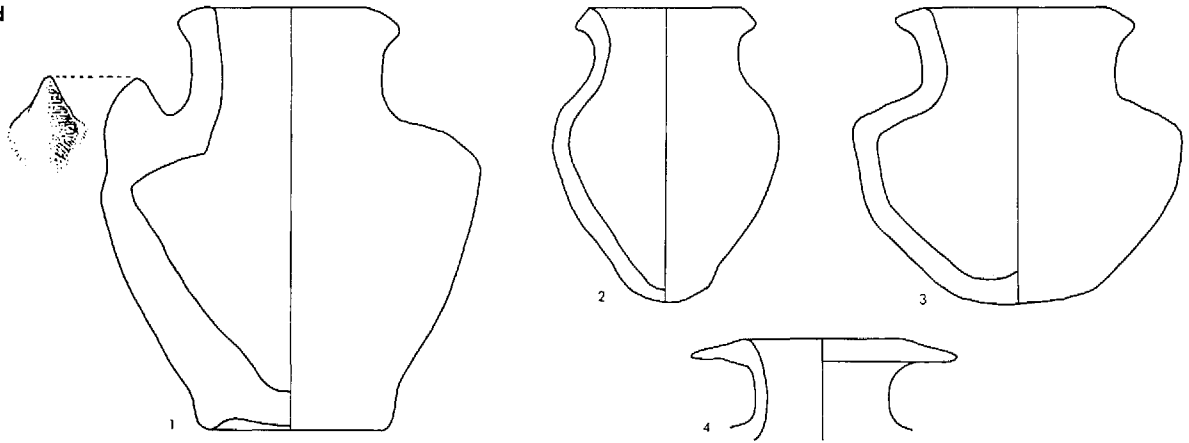


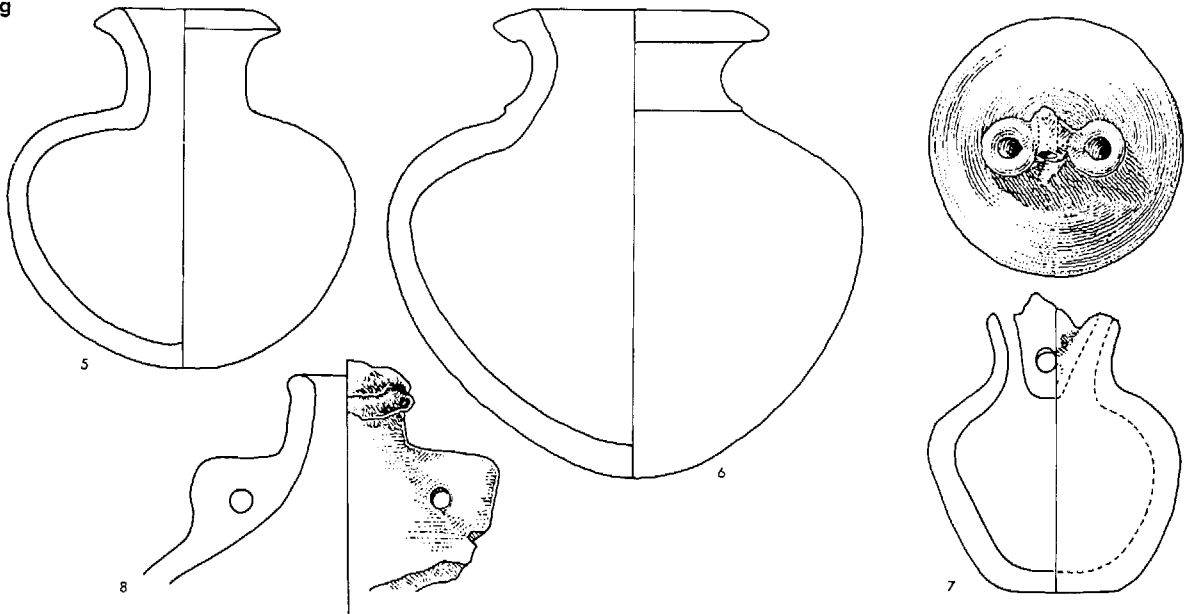
PLATE 74

No.	Provenience	Level	Ware	Type	Reference
1 Uc 285	Loc. 454, Fl. 2 (lot 61b*)	V A	Buff	11d	pp. 52, 106 Delougaz, A.525.273 and Pl. 47
2	Loc. 20 (lot 620)	III	Pink/slip	11d	p. 106
3 Uc 347	Loc. 416, Fl. 2, fill (lot 366*)	V A	Buff	11d	pp. 55, 106 Delougaz, B.514.270
4	Loc. 455, Fl. 6 (lot 75*)	VI A	Buff	11d	p. 106 Delougaz, B.664.570
5 Uc 271	Loc. 48, Fl. 1 (lot 119*)	VI A	Buff/slip	11e	pp. 40, 106 Delougaz, B.545.540
6 Uc 284	Loc. 454, Fl. 2 (lot 61a*)	V A	Buff	11e	pp. 52, 106 Delougaz, B.664.570 Delougaz, C.663.540
7 Uc 350	Loc. 416, Fl. 3, fill (lot 369*)	V A	Buff	11f	pp. 55, 106 Delougaz, B.575.225
8 Uc 277	Loc. 421, Fl. 2 (lot 204*)	V B	-	11g	pp. 43, 106 Delougaz, B.816.521 a-b
9	Loc. 455, Fl. 2 (lot 262*)	V A	Coarse	12a	p. 106
10	Loc. 57 (lot 916)	IV	Coarse	12a	pp. 62, 106 Delougaz, D.743.310

11d



11
e-f-g



12a

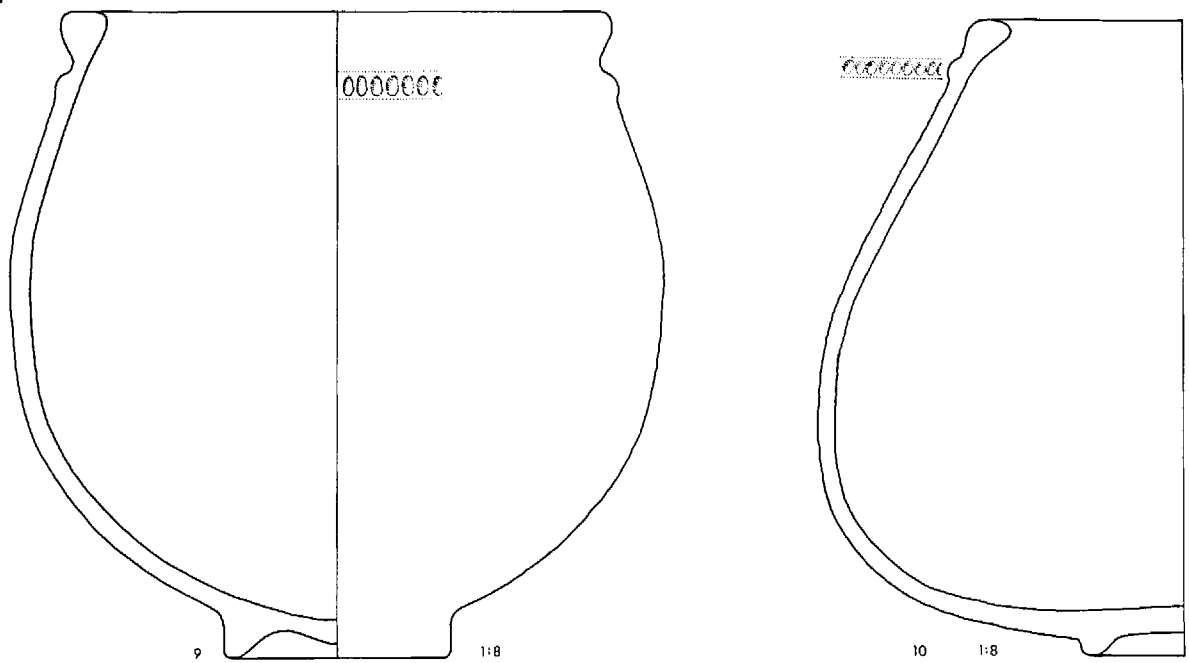
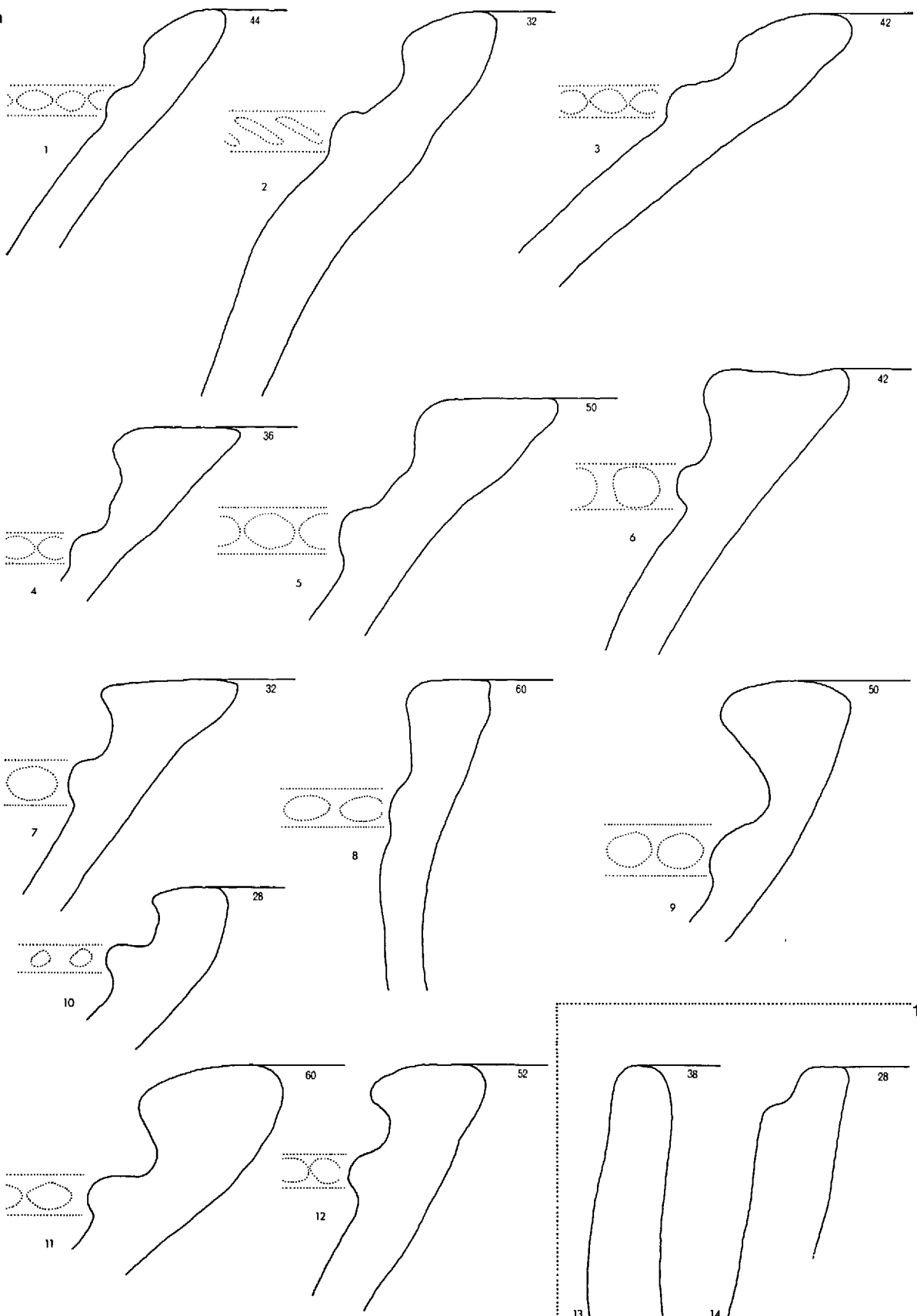


PLATE 75

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 79 (lot 952)	IV	Coarse	12a	p. 106
2	Loc. 54, Fl. 1 (lot 769)	V B	Coarse	12a	"
3	Loc. 47, Fl. 3 (lot 900)	V A	Coarse	12a	"
4	Loc. 49, Fl. 4 (lot 586)	V B	Coarse	12a	"
5	Loc. 47 (lot 489)	IV-VI	Coarse	12a	"
6	Loc. 27, Fl. 1 (lot 290)	IV	Coarse	12a	"
7	Loc. 421, above Fl. 1 (lot 607)	IV-V	Coarse	12a	"
8	Loc. 91 (lot 951)	IV	Coarse	12a	"
9	Loc. 456, Fl. 2 (lot 258*)	V B	Coarse	12a	"
10	Loc. 420 (lot 893)	III	Coarse	12a	"
11	Loc. 96 (lot 971)	V A	Coarse	12a	"
12	Loc. 19 (lot 260)	V-VI	Coarse	12a	"
13	Loc. 26 (lot 934)	V-VI	Coarse	12b	"
14	Loc. 26 (lot 934)	V-VI	Coarse	12b	"

12a



12b

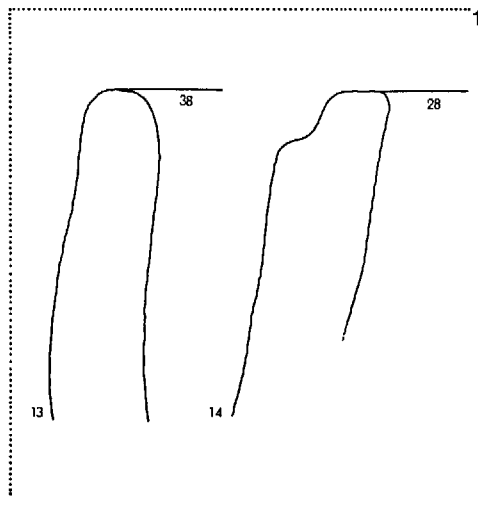
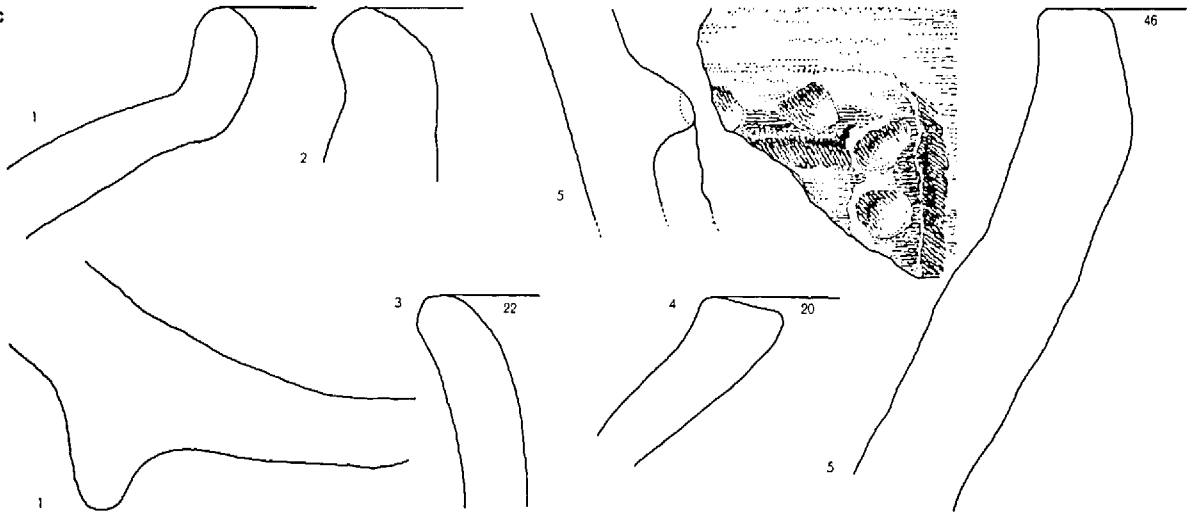


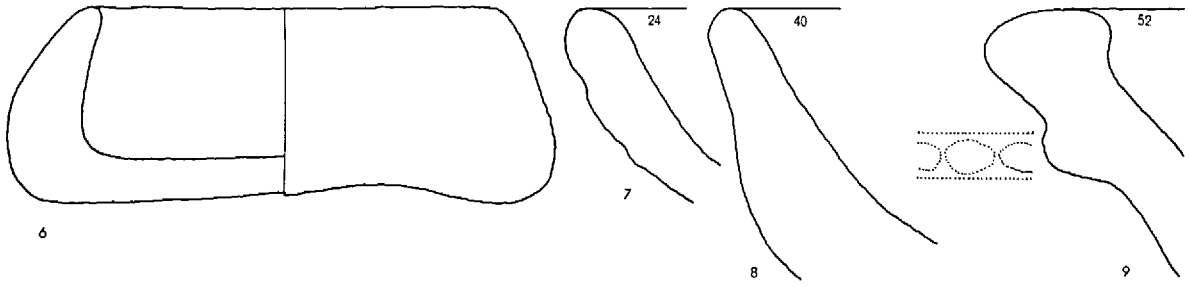
PLATE 76

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 415 (lot 73*)	I	Coarse	12c	p. 106
2	Loc. 23, Fl. 5 (lot 470)	V B	Coarse	12c	"
3	Loc. 47, Fl. 8-12 (lot 364*)	VI	Coarse	12c	"
4	Loc. 444, Fl. 2-3 (lot 185*)	VI A	Coarse	12c	"
5	Loc. 479, Fl. 2 (lot 191*)	VI B	Coarse	12c	"
6 Uc 78	Loc. 49, Fl. 8 (lot 772)	V B	Coarse	12d	pp. 46, 106
7	Loc. 75 (lot 208*)	V A	Coarse	12d	p. 106
8	Loc. 421, Fl. 4 (lot 211*)	VI A	Coarse	12d	"
9	Loc. 444, Fl. 3 (lot 186*)	VI A	Coarse	12e	"
10	Loc. 56 (lot 775)	I	Buff/slip	13a	pp. 106, 138
11	Loc. 475, feature (lot 312*)	VI A	Buff	13a	p. 106
12	Loc. 438, Fl. 2 (lot 174*)	V B	Buff	13a	" Delougaz, C.366.810
13	Loc. 33 (lot 101*)	-	Buff	13a	p. 106
14	Loc. 455, bin DZ. (lot 265*)	V A	Buff/slip	13a	"
15	Loc. 94 (lot 962)	V A	Pink	13b	"
16	Loc. 20 (lot 620)	III	Buff/slip	13b	"

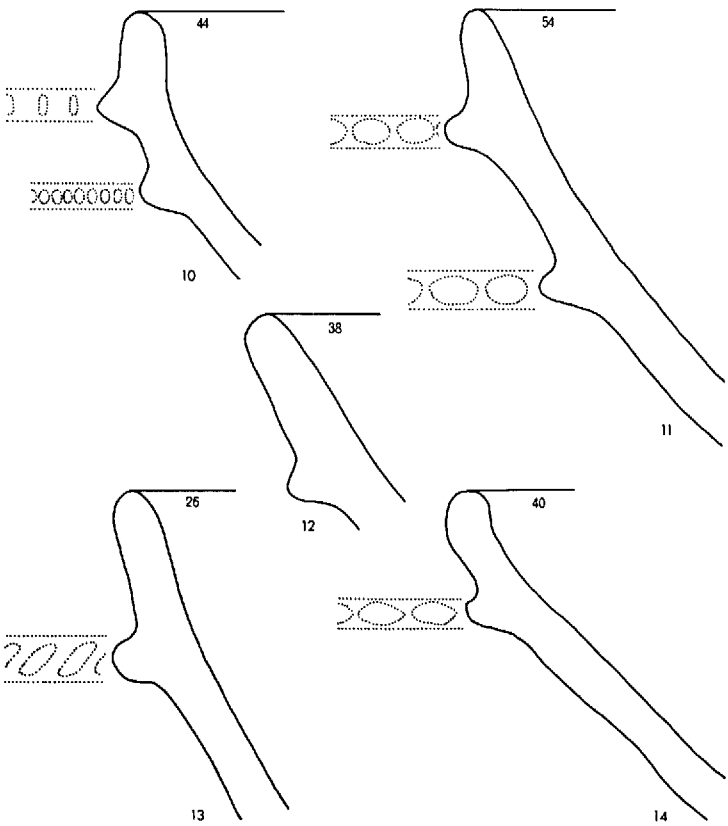
12c



12d-e



13a



13b

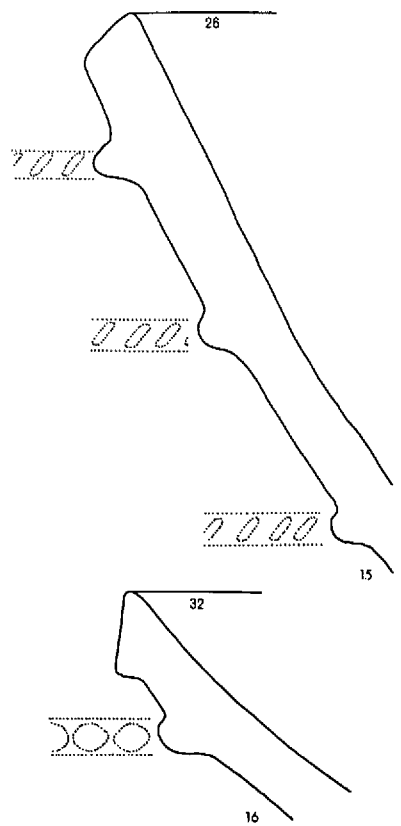


PLATE 77

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 49, Fl. 4 (lot 586)	V B	Pink	13c	p. 107 Delougaz, C.364.810b
2	Loc. 19 (lot 260)	V-VI	Pink	13d	p. 107 Delougaz, C.357.010a
3	Loc. 451 (lot 55*)	-	Buff	13d	p. 107
4	Loc. 95 (lot 968)	V A	Coarse	13d	"
5	Loc. 33 (lot 372)	-	Pink	13d	"
6	Loc. 421, Fl. 2 (lot 203*)	V B	Pink/slip	13d	" Delougaz, C.357.010a
7	Loc. 421, Fl. 5 (lot 216*)	VI A	Buff/slip	13d	p. 107
8	Loc. 33 (lot 390)	-	Buff	13e	pp. 107, 138 Delougaz, C.366.810
9	Loc. 56 (lot 775)	I	Green	13e	p. 107 Delougaz, C.357.010a
10	Loc. 56 (lot 775)	I	Buff	13f	pp. 107, 138 Delougaz, C.3--.0--

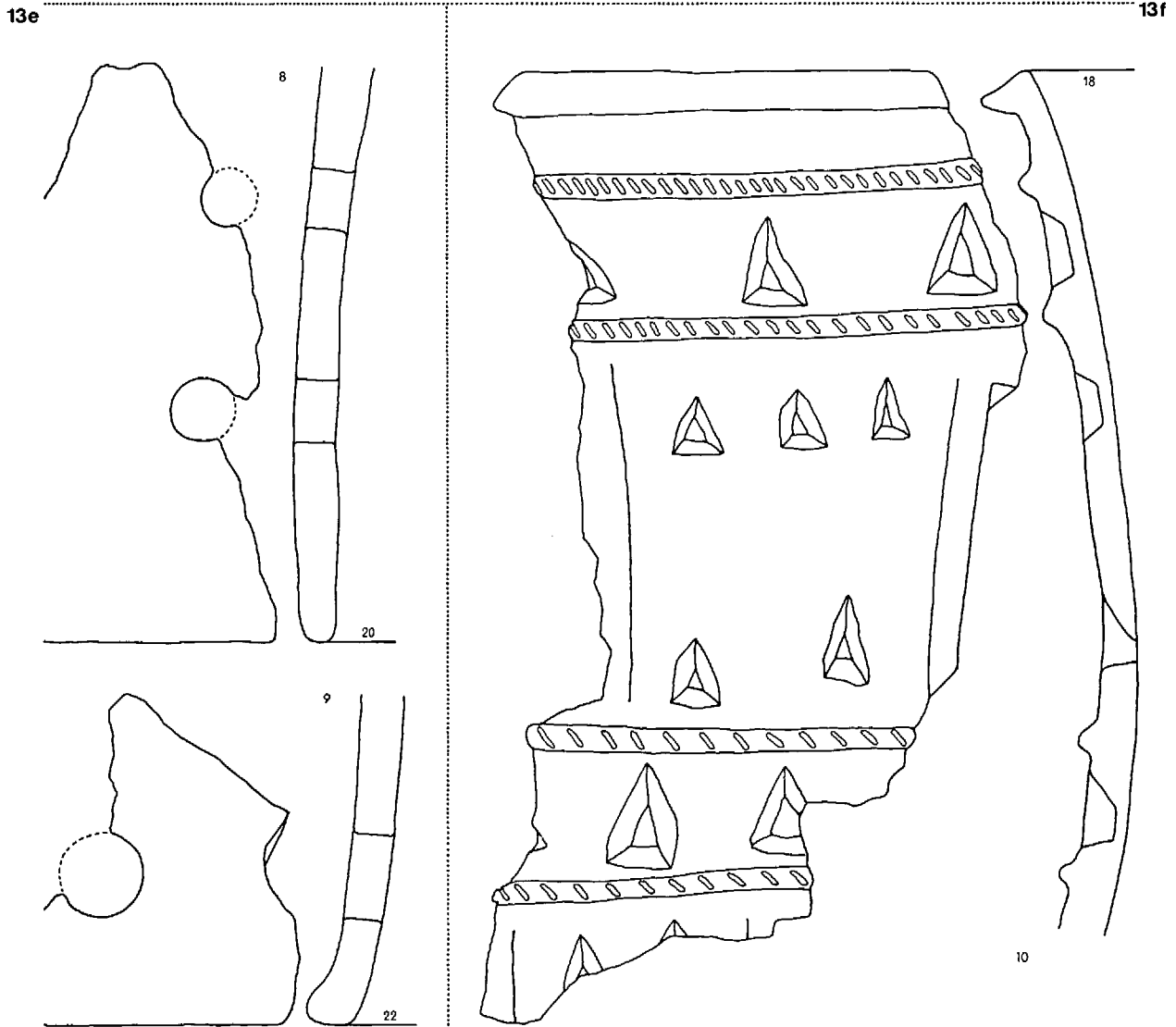
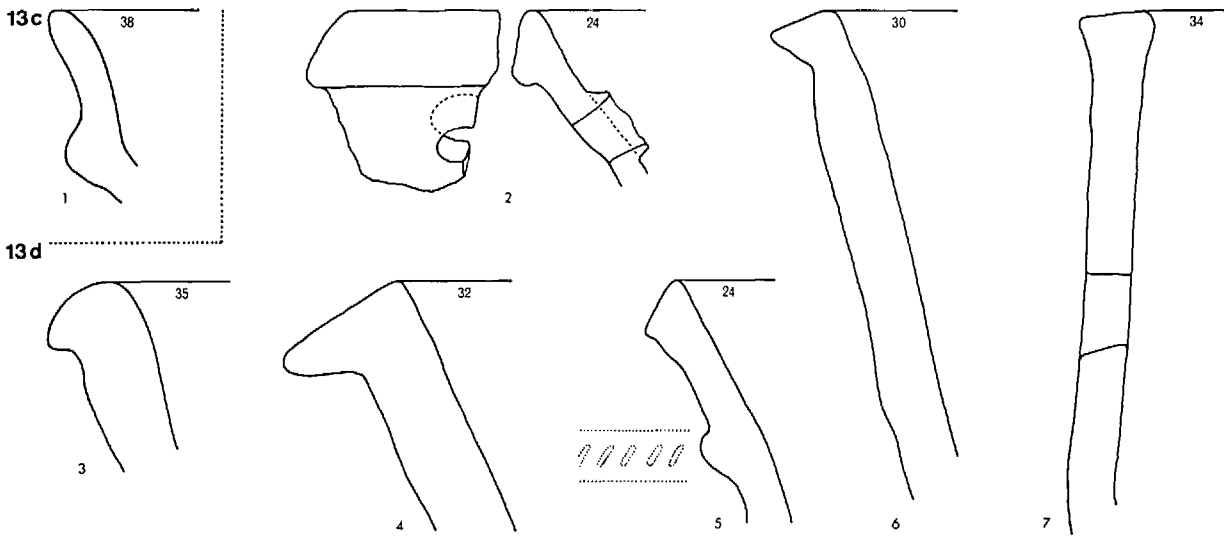
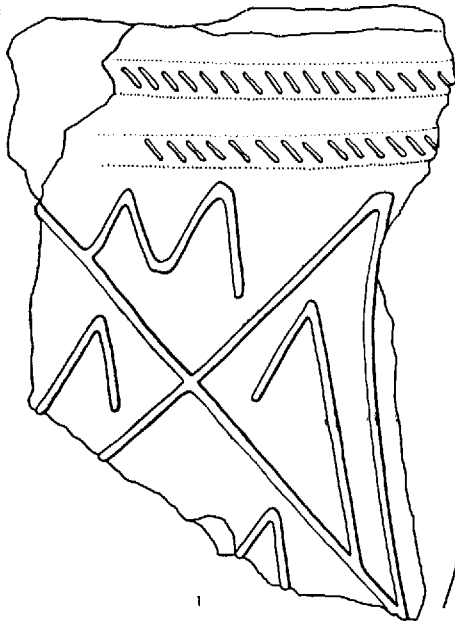


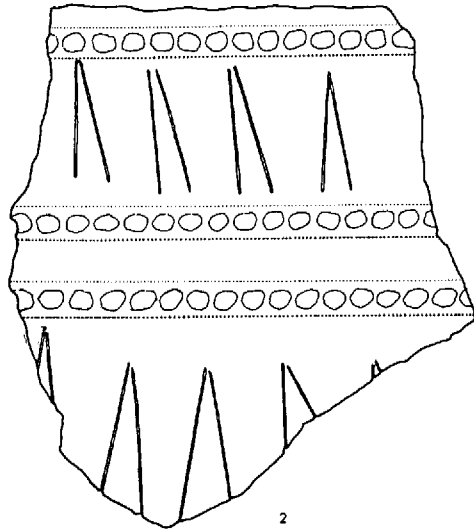
PLATE 78

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 31 (lot 361)	I	Pink/plas- tic ridges	13f	pp. 107, 119 138
2	Loc. 50 (lot 877)	I	- inc.	13f	”
3	Loc. 50 (lot 573)	I	Pink? inc.	13f	”
4	Loc. 403 (lot 885)	III	Buff inc./ exc.	13f	”
5	Loc. 50 (lot 872)	I	Buff inc.	13f	”

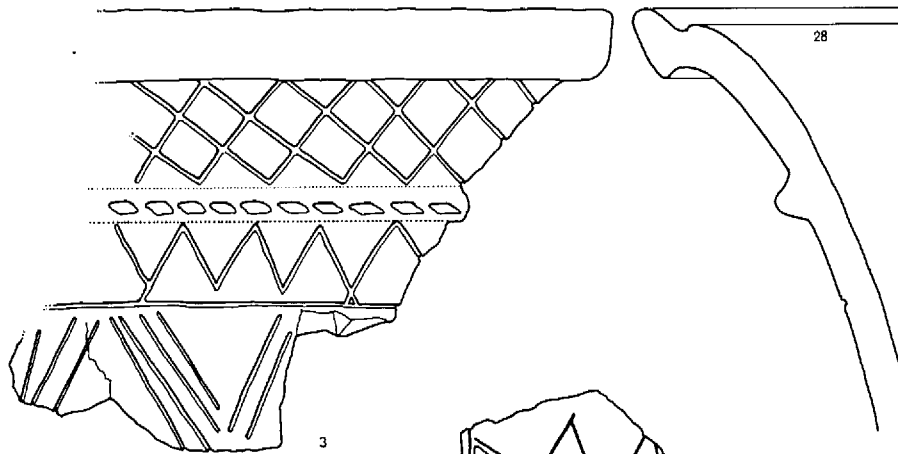
13f



1

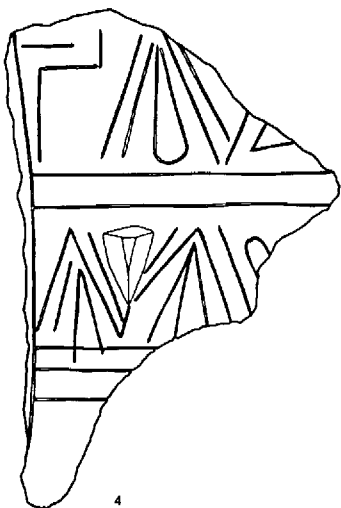


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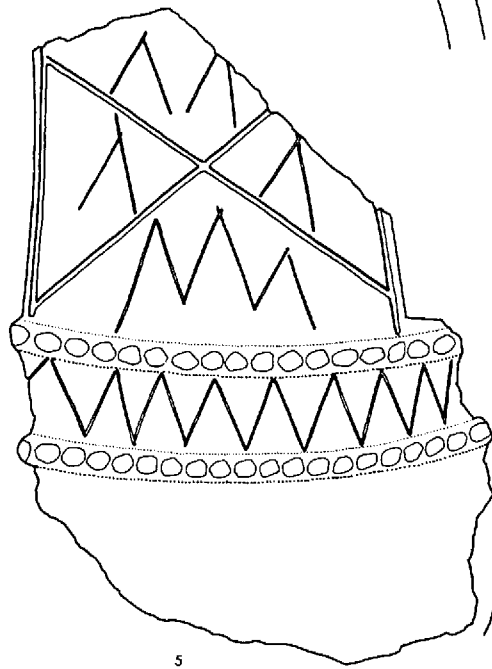


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28



4

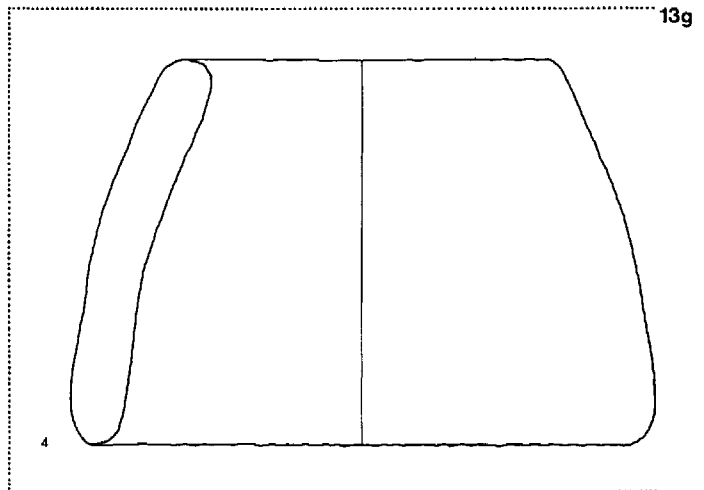
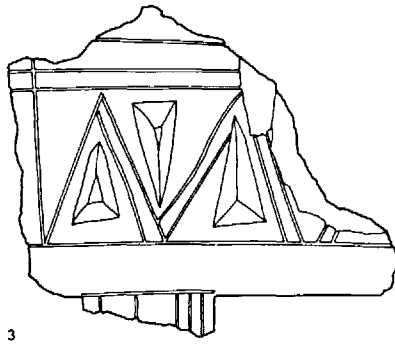
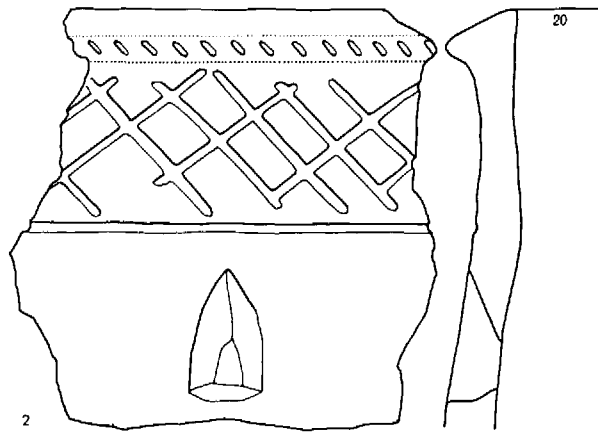
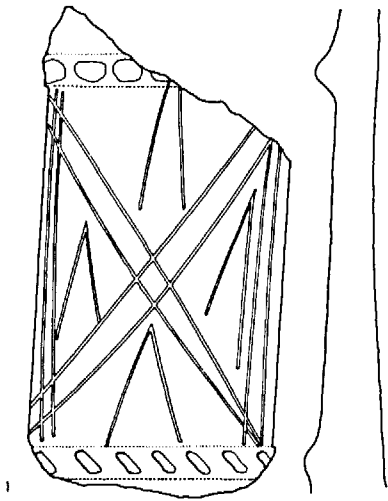


5

PLATE 79

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 52 (lot 108*)	I	Buff	13f	p. 107 Delougaz, C.35-0--b
2	Loc. 420 (lot 893)	III	Buff	13f	p. 107
3	Loc. 42, Fl. 1 (lot 74*)	V A	- inc./exc.	13f	"
4	Loc. 421, above Fl. 1 (lot 607)	IV-V	Coarse	13g	108
5 Uc 278	Loc. 48, Fl. 1 or 2 (lot 124*)	VI A	Baked	14	pp. 40, 108
6 Uc 283	Loc. 438, Fl. 3 (lot 179*)	V B	Baked	14	44, 108 Delougaz, Pl. 130b
7 Uc 223	Loc. 421, Fl. 1, fill (lot 614)	V B	Cream	14	pp. 43, 108

13f



14

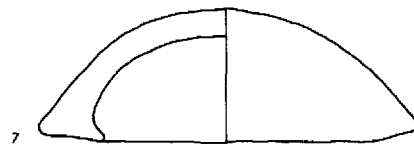
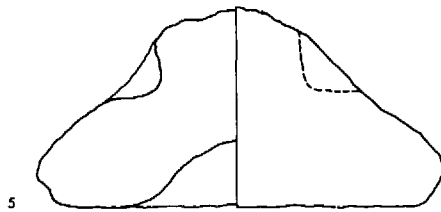
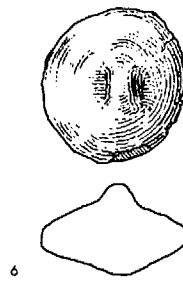
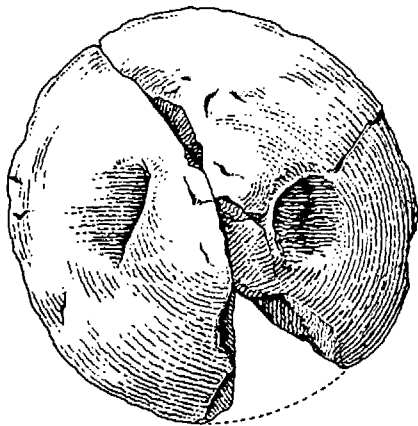


PLATE 80

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 49, Fl. 4 (lot 596)	V B	Buff	15a i	p. 108 Delougaz, C.515.370b Delougaz, D.515.370
2	Loc. 443, Fl. 2 (lot 151*)	VI A	Buff	15a i	p. 108
3	Loc. 70, Fl. 2 (lot 905)	IV	Pink/slip	15a ii	"
4	Loc. 76 (lot 965)	V	Green	15a ii	"
5	Loc. 420 (lot 893)	III	Pink	15a ii	"
6	Loc. 421, above Fl. 1 (lot 607)	IV-V	Buff/slip	15a ii	"
7	Loc. 60 (lot 792)	II	Buff	15a ii	"
8	Loc. 47, Fl. 8 (lot 145*)	VI A	Pink	15a ii	"
9	Loc. 93, Fl. 5 (lot 980)	V A	Buff	15a ii	"
10	Loc. 22, Fl. 4 (lot 370)	V A	Buff	15a ii	"
11	Loc. 421, above Fl. 1 (lot 607)	IV-V	Green	15a ii	"
12	Loc. 5, Fl. 5 (lot 870)	V B	Buff/slip	15a ii	"
13	Loc. 47, Fl. 3-6 (lot 1115)	V	Buff/slip	15a ii	"
14	Loc. 421, above Fl. 1 (lot 607)	IV-V	Pink	15a ii	"
15	Loc. 416, Fl. 1 (lot 359*)	V A	Pink	15d	109
16 Uc 295	Loc. 421, Fl. 4, fill (lot 215*)	VI A	Pink	15d	pp. 38, 109

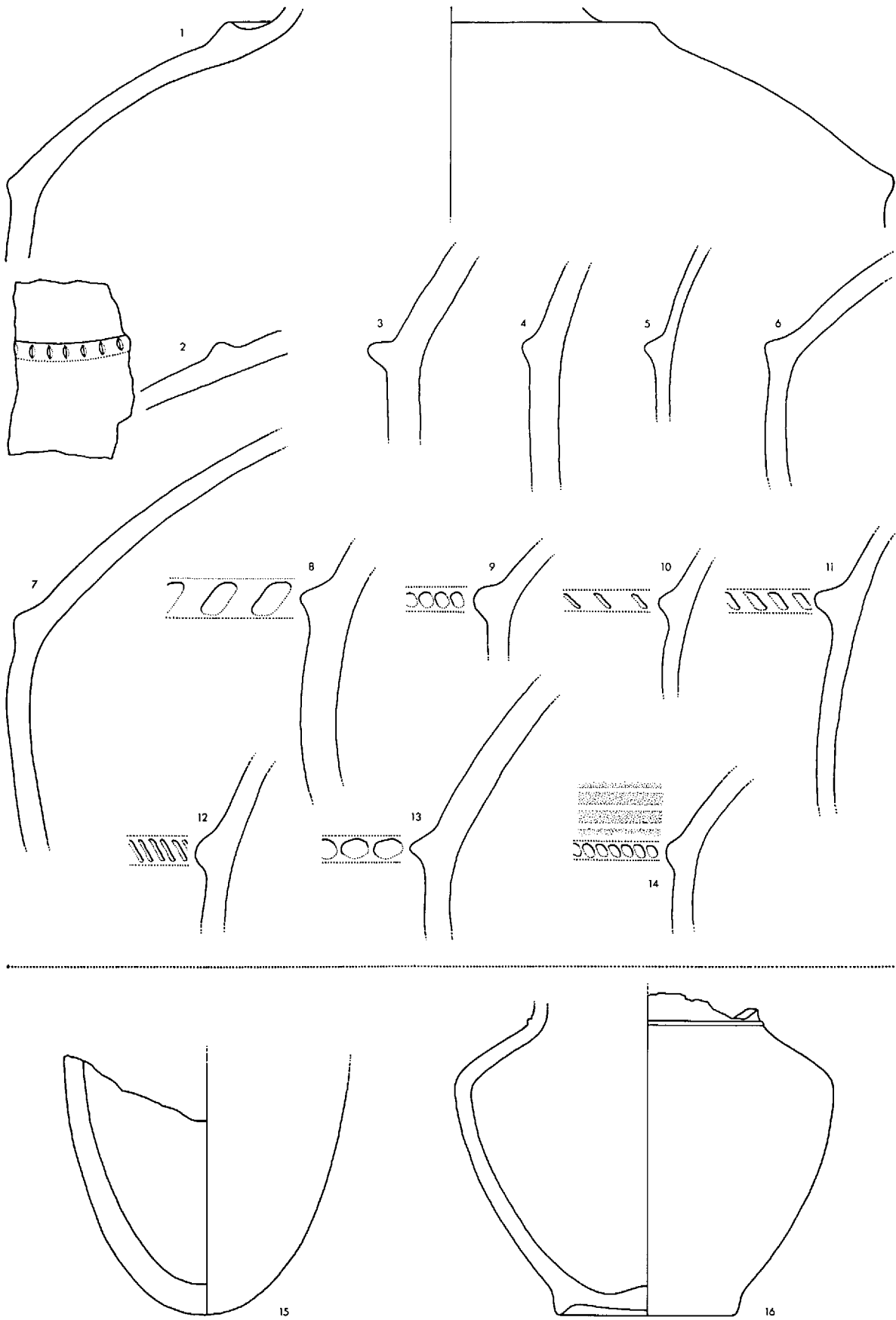


PLATE 81

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 455, bin DZ. (lot 265*)	V A	Buff/slip	15b	p. 108
2	Loc. 455, Fl. 3-4 (lot 256*)	V	Pink	15b	"
3	Loc. 23, Fl. 5 (lot 555)	V B	Pink/slip	15b	"
4	Loc. 49, Fl. 2 (lot 575)	V A	Pink	15b	"
5	Loc. 49, Fl. 4 (lot 586)	V B	Buff	15b	"
6	Loc. 98 (lot 974, disturbed)	II	-	15b	138 Delougaz, Pl. 91 a-d
7	Loc. 57 (lot 592, disturbed)	IV	-	15b	p. 138 Delougaz, Pl. 91 a-d
8	Loc. 42, Fl. 2 (lot 74*)	V A	Buff	15c	p. 109
9	Loc. 49, Fl. 1D (lot 291)	IV	Pink	15c	"
10	Loc. 49, Fl. 6 (lot 756)	V B	Buff	15c	" Delougaz, Pl. 51 b?
11	Loc. 455, Fl. 6-13 (lot 275*)	VI	-	15c	p. 109 Delougaz, Pl. 51 b?
12	Loc. 455, Fl. 6-13 (lot 275*)	VI	Buff/slip	15c	pp. 109, 117 Delougaz, Pl. 51 b?

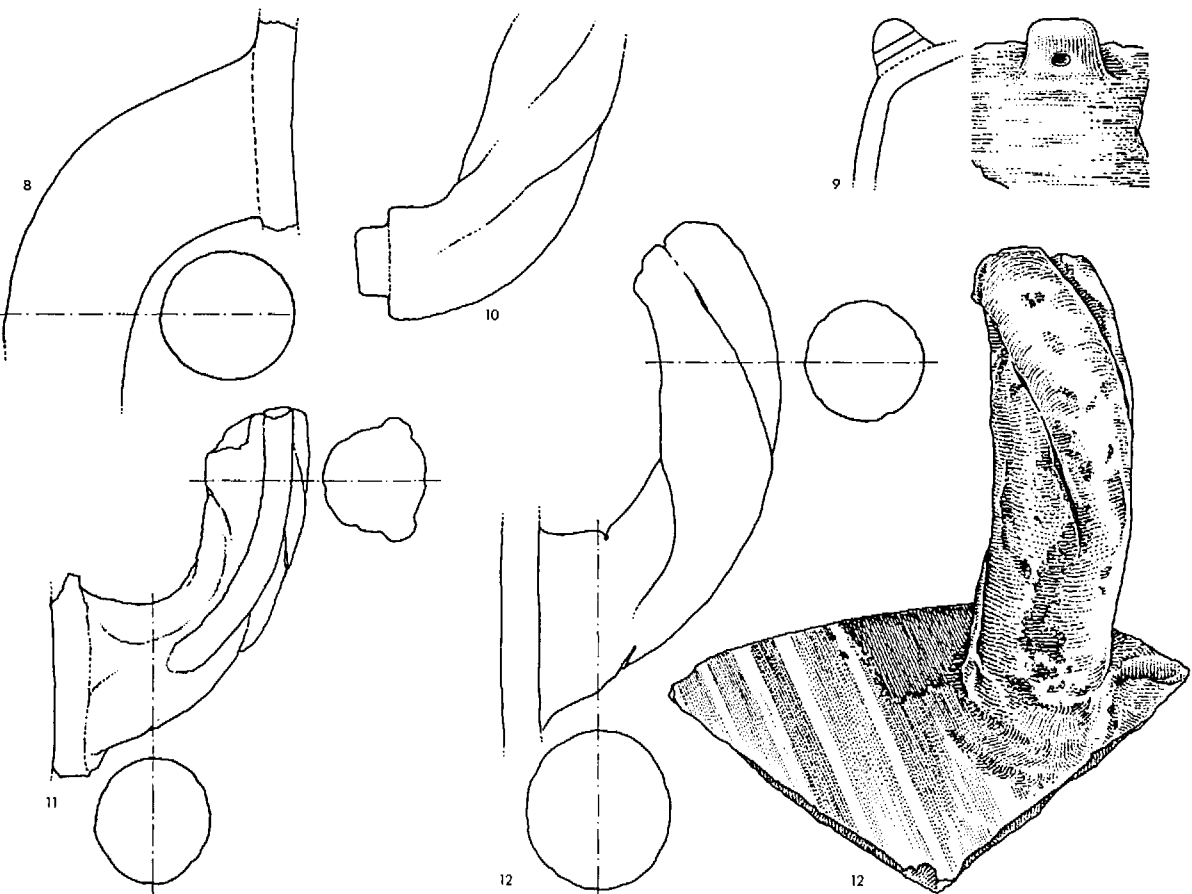
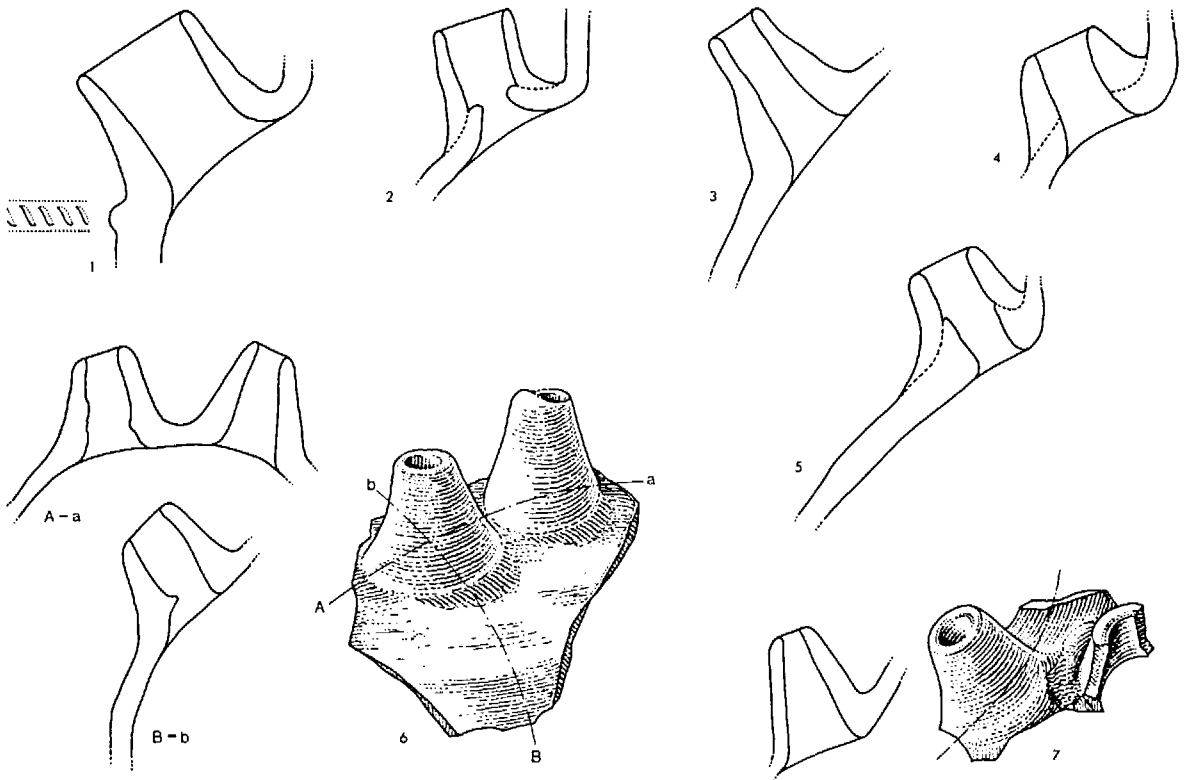
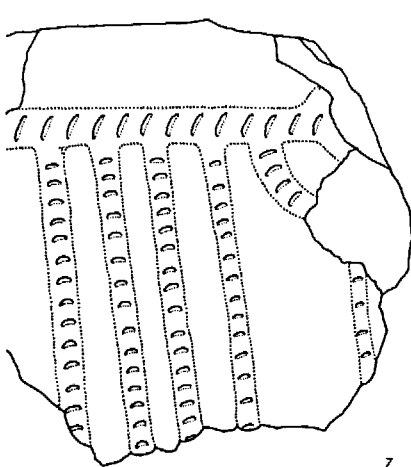
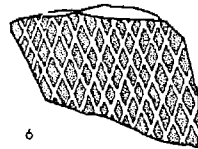
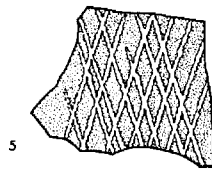
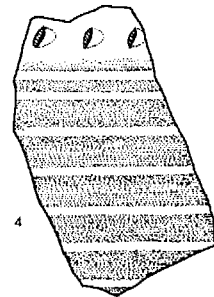
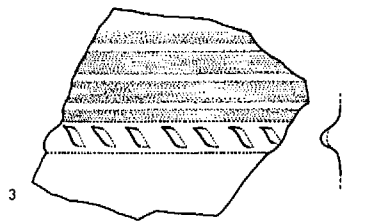
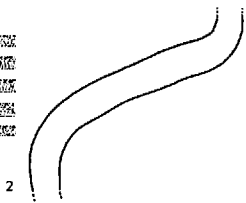
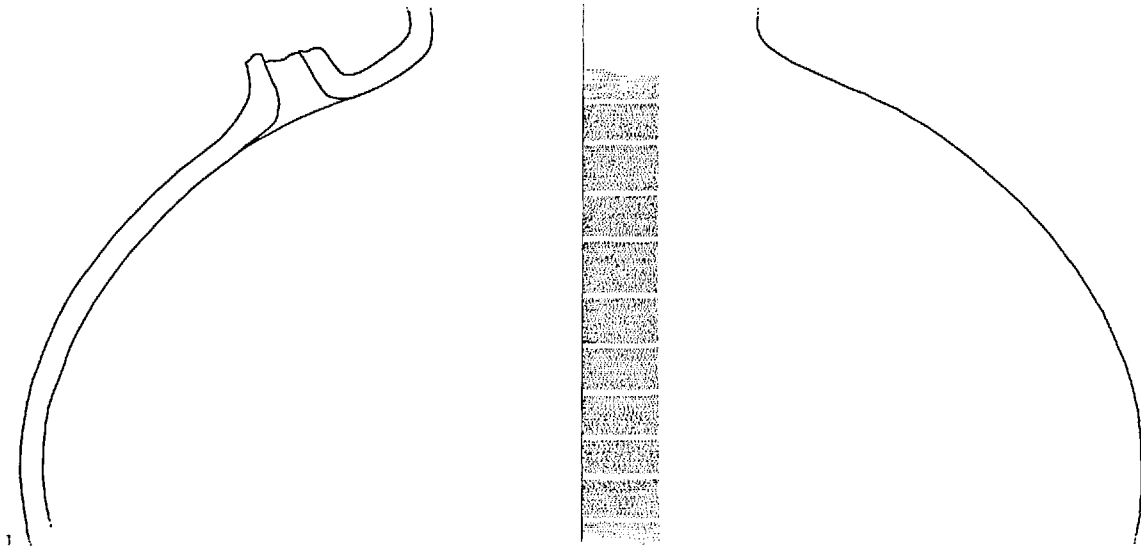
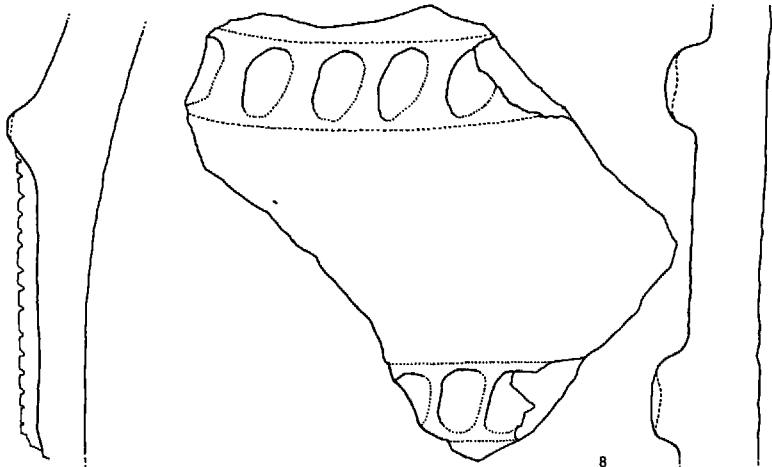


PLATE 82

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 47, Fl. 4 (lot 985)	V B	Buff/slip	Reserved slip	p. 117 Delougaz, Pl. 39a
2	Loc. 8, Fl. 1 (lot 90)	IV	Pink/slip	Reserved slip	p. 117
3	Loc. 421, Fl. 4 (lot 211*)	VI A	Buff/slip	Reserved slip	" Delougaz, Pl. 63 No. 11
4	Loc. 22, Fl. 1 (lot 272)	IV	Buff/slip	Reserved slip	p. 117 Delougaz, Pl. 43e
5	Loc. 421, Fl. 3 (lot 207*)	V B	Gray	Cross- burnished	p. 117
6	Loc. 438, Fl. 2 (lot 174*)	V B	Gray	Cross- burnishing	"
7	Loc. 455, Fl. 9-12 (lot 270*)	VI	Coarse	Plastic ridges	"
8	Loc. 16, Fl. 3-8 (lot 480)	IV-V A	Coarse	Plastic ridges	"



7



8

PLATE 83

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 1 (lot 52)	I	Coarse	Plastic decora- tion	pp. 117, 138 Delougaz, Pl. 51 c-d
2	Loc. 33 (lot 393)	-	Buff	Plastic decora- tion	p. 117 Delougaz, Pl. 51 c-d
3	Loc. 57 (lot 781)	IV	Coarse	Plastic ridges	p. 117
4	Loc. 57 (lot 937)	IV	Buff	Indenta- tion	pp. 118, 141
5	Loc. 476, Fl. 1 (lot 315*)	VI A	Buff/slip	Indenta- tion	p. 118
6	Loc. 70, Fl. 1 (lot 798)	IV	Pink	Indenta- tion	pp. 118, 141
7	Loc. 11 (lot 83)	III	Green	Indenta- tion	"
8	Loc. 49, Fl. 5 (lot 753)	V B	Buff	Incised	p. 119
9	Loc. 50 (lot 573)	I	Pink	Incised	138

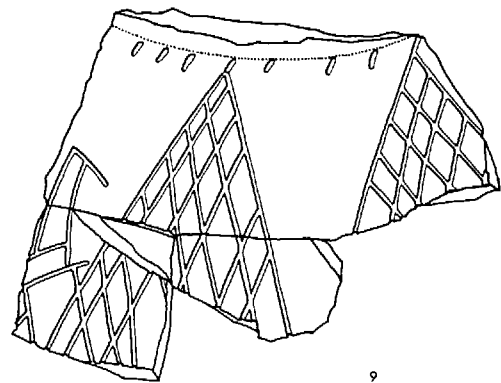
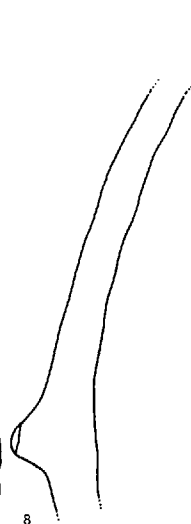
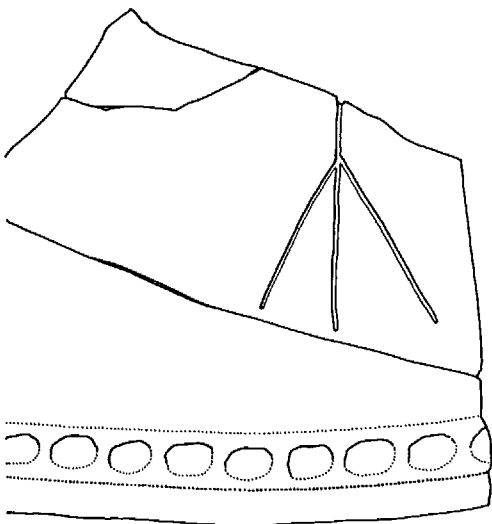
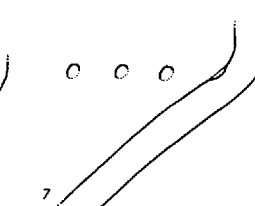
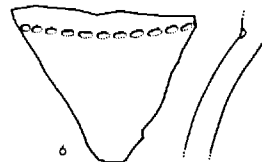
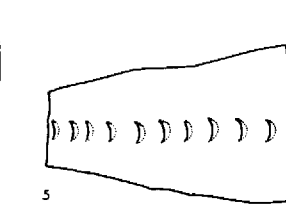
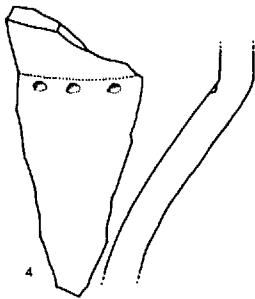
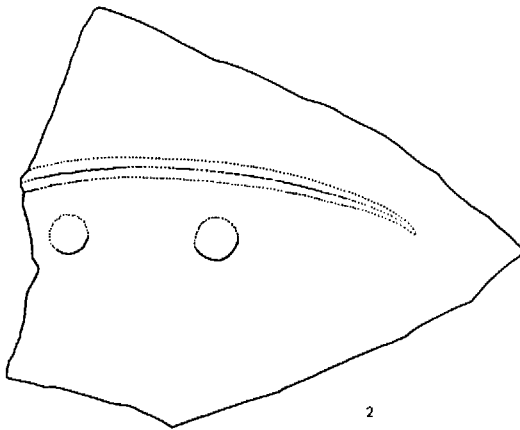
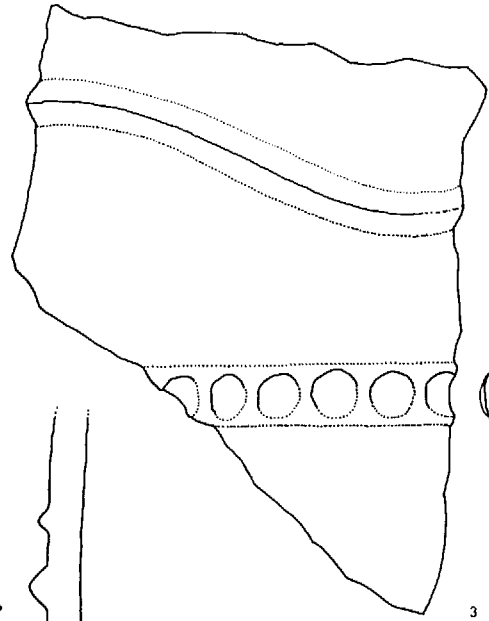
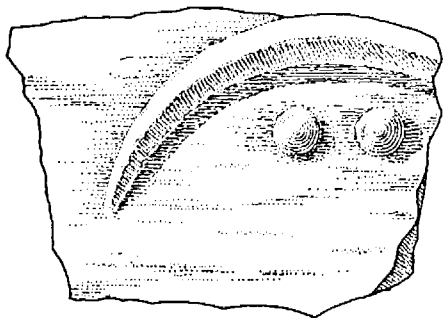


PLATE 84

No.	Provenience	Level	Ware	Type	Reference
1 Uc 314	Loc. 456, Fl. 1 (lot 70*)	V A	Buff	7c	pp. 54, 119- 21, 141

G1-2

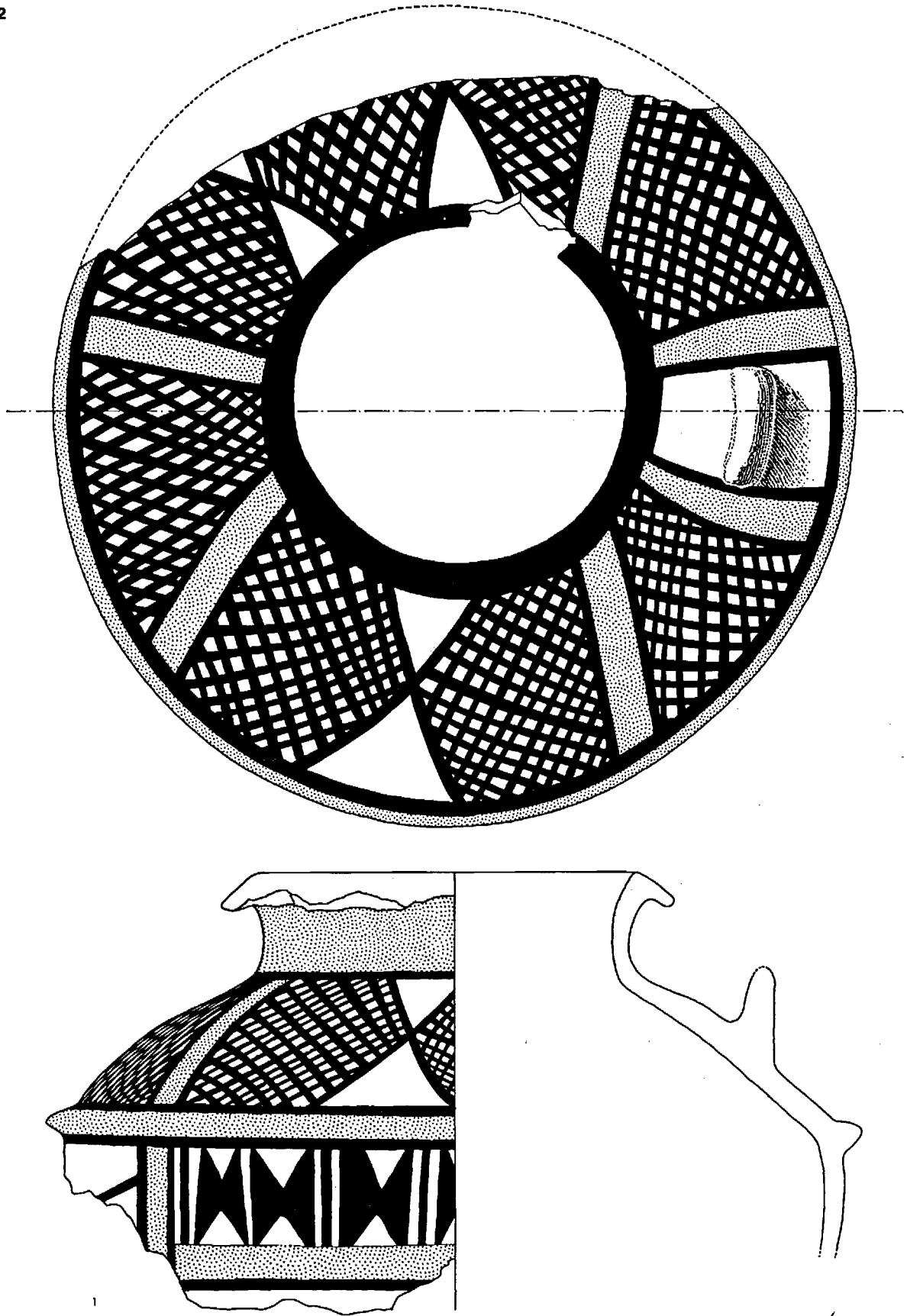
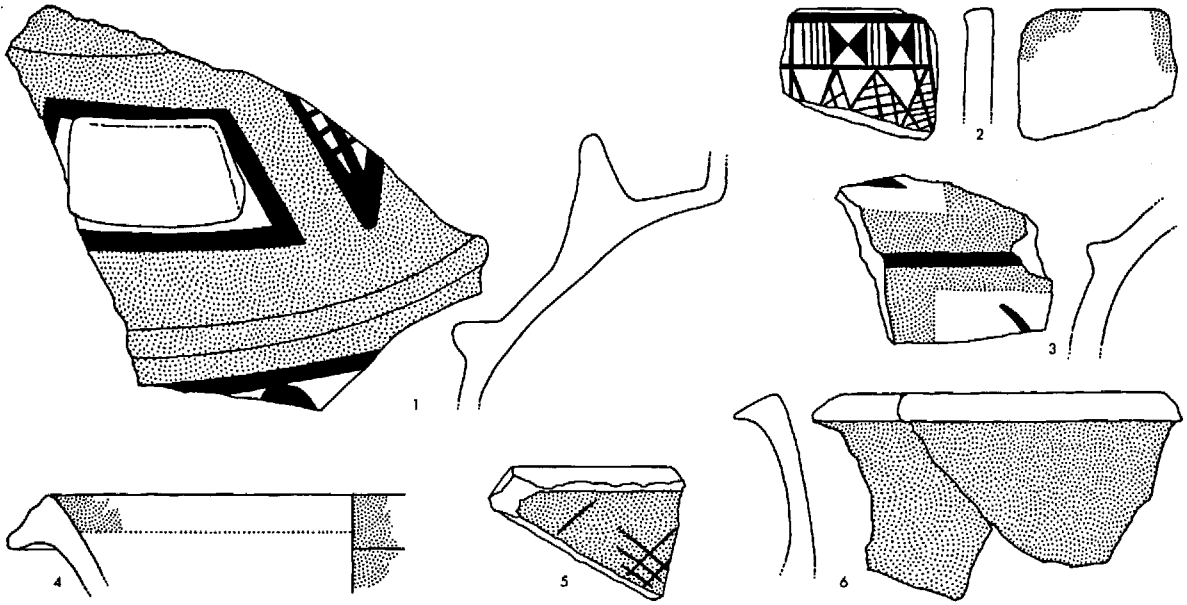


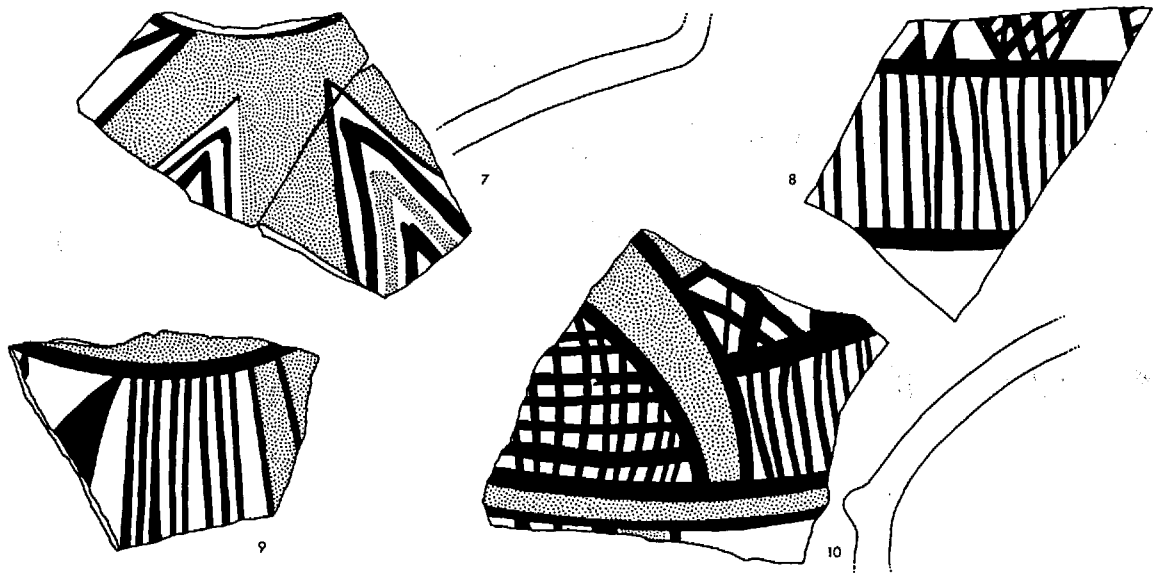
PLATE 85

No.	Provenience	Level	Ware	Type	Reference
1 Uc 317	Loc. 406, Fl. 1 (lot 1111)	IV	Buff/slip	7c	pp. 60, 119 141
2	Loc. 58, Fl. 1 (lot 799)	II	Pink	7c	120, 141
3	Loc. 5, Fl. 1 (lot 490)	V A	Pink/slip	7b	p. 121
4	Loc. 50 (lot 869)	I	Buff/slip	7	120
5	Loc. 6 (lot 452)	I	Buff	7	”
6	Loc. 49, Fl. 6 (lot 756)	V B	Buff	7	”
7	Loc. 47, Fl. 6 (lot 142*)	V B	Pink	7	119
8	Loc. 479, Fl. 3 (lot 303*)	VI B	Buff/slip	7	”
9	Loc. 444, Fl. 2-3 (lot 185*)	VI A	Buff/slip	7	”
10	Loc. 455, Fl. 3 (lot 261*)	V A	Buff	7b	”
11	Loc. 455, Fl. 1-2 (lot 267*)	V A	Buff	7b	”
12	Loc. 455, Fl. 10 (lot 351*)	VI A	Buff/slip	7	”

G1-2



G3-4



G5a-d

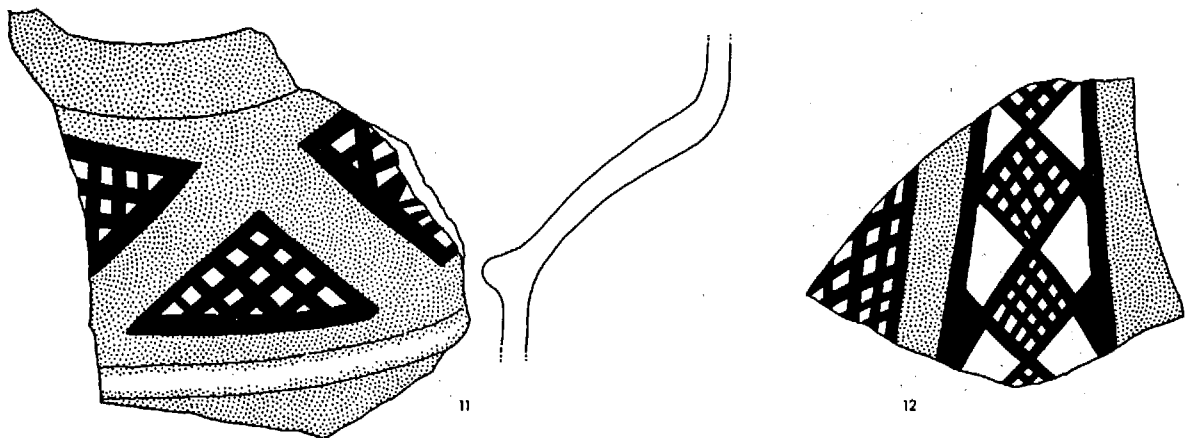
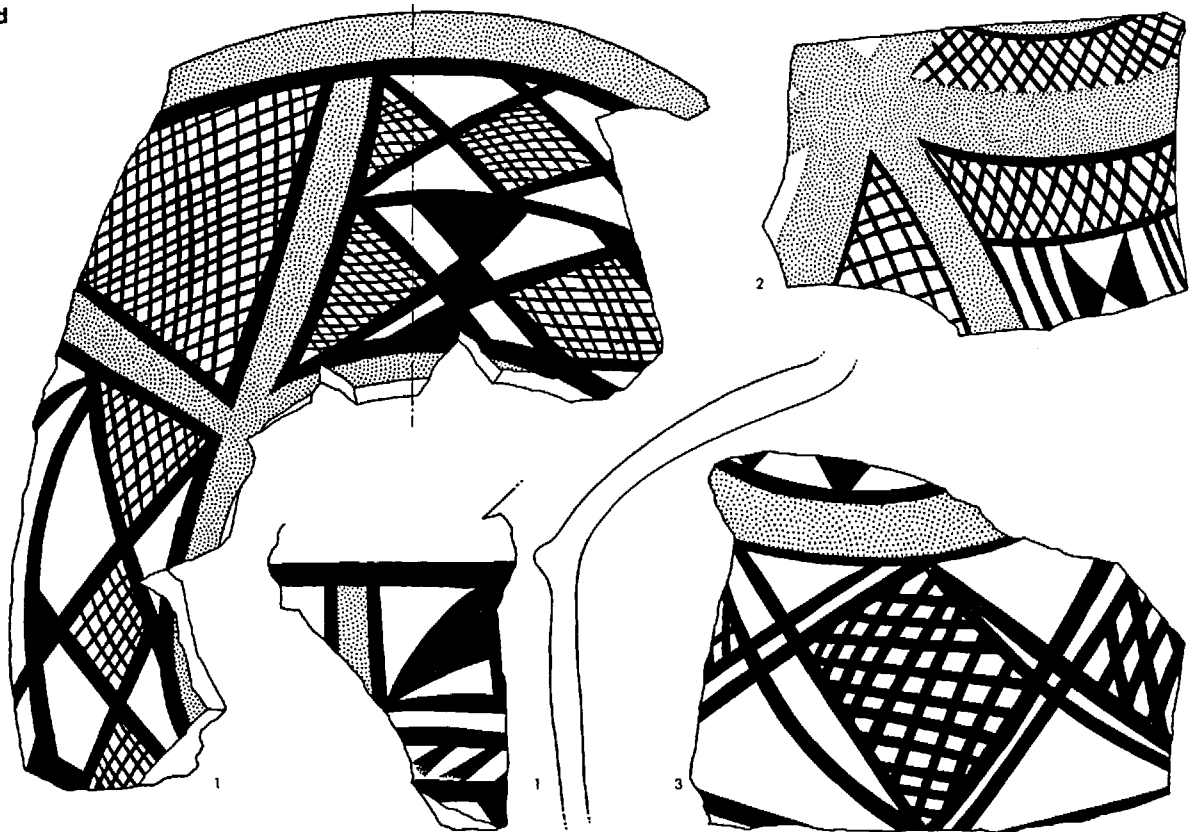


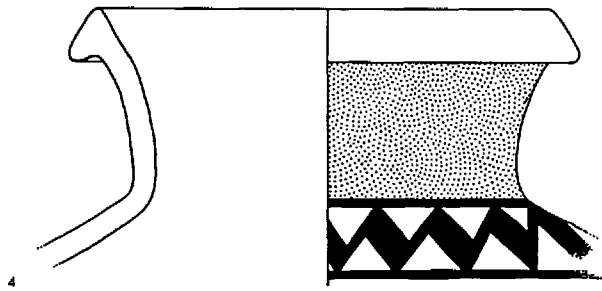
PLATE 86

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 93, Fl. 1 (lot 195*)	V A	Buff/slip	7b	pp. 120-21
2	Loc. 47, Fl. 5 (lot 1108)	V B	Buff/slip	7	119-20
3	Loc. 48, Fl. 2 (lot 494)	VI A	Buff	7	p. 120
4	Loc. 80 (lot 917)	III-IV	Buff/slip	7	pp. 119-20
5	Loc. 483 (lot 140*)	III	Buff/slip	7b	”
6	Loc. 57, Fl. 1 (lot 933)	IV	Pink	7	p. 119
7	Loc. 443, Fl. 1 (lot 987)	V B	Buff	7	pp. 119-20
8	Loc. 23, Fl. 1 (lot 376)	V B	Pink	7	p. 119
9	Loc. 89 (lot 940)	III	Buff	7a	”
10	Loc. 30 (lot 351)	I	Buff/slip	7	pp. 119-20

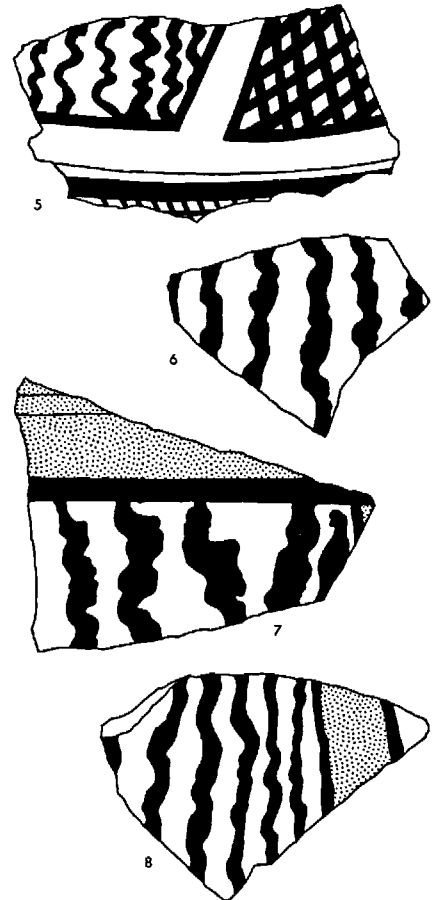
G5a-d



G6



G7



G8

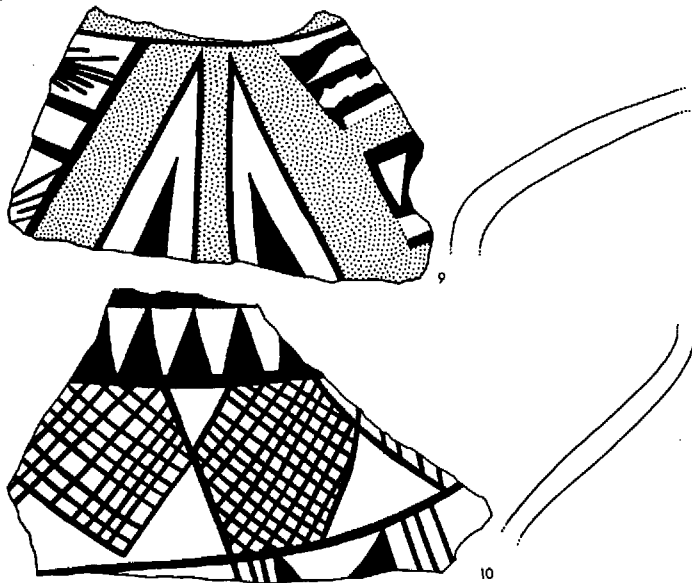
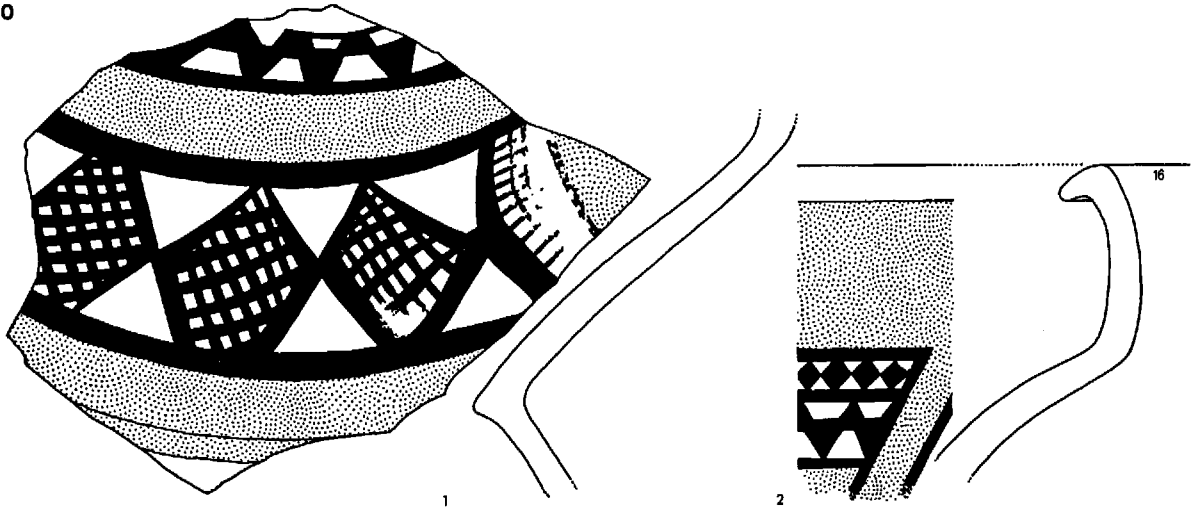


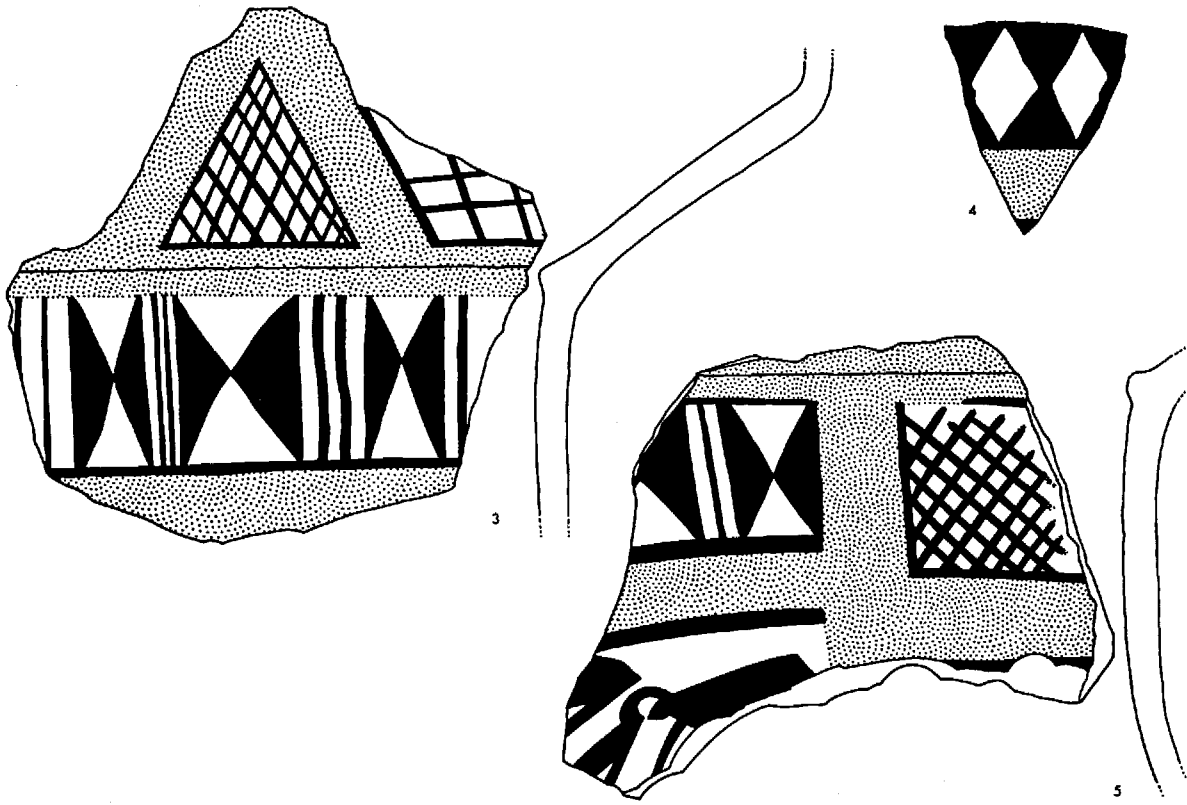
PLATE 87

No.	Provenience	Level	Ware	Type	Reference
1 Uc 322	Loc. 26, Fl. 1, fill (lot 260)	V B	Buff/slip	7b	pp. 44, 119- 21
2	Loc. 32 (lot 360)	I	Buff	7	119-21
3	Loc. 50 (lot 890)	I	Buff/slip	tb	p. 119
4	Loc. 421, Fl. 1 (lot 607)	V B	Buff	7	"
5	Loc. 50 (lot 573)	I	Buff/slip	7b	"
6	Loc. 52 (lot 790)	I	Buff/slip	7b	pp. 119-20
7	Loc. 57 (lot 592)	IV	Buff/slip	7	p. 119
8	Loc. 421, Fl. 6 (lot 217*)	VI A	Buff	7	"

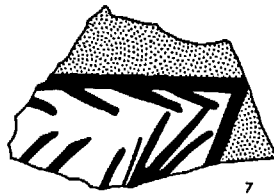
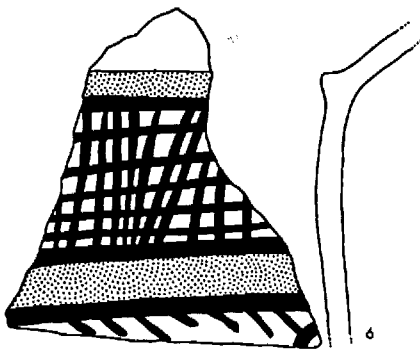
G9-10



G11-12



G13



G14

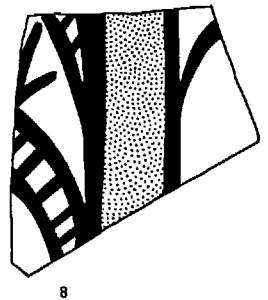
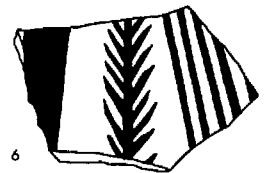
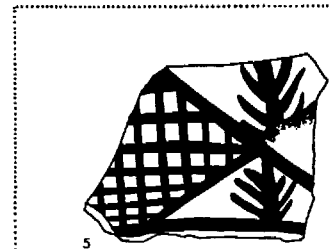
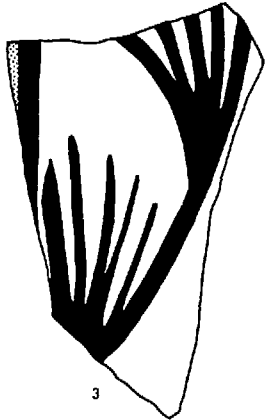
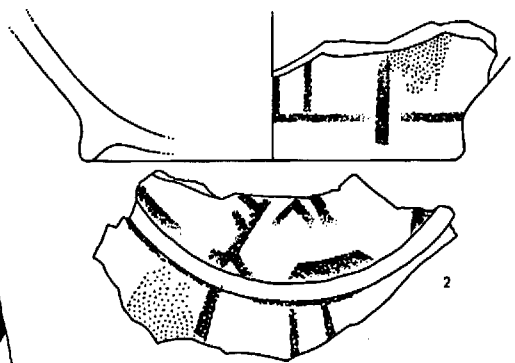
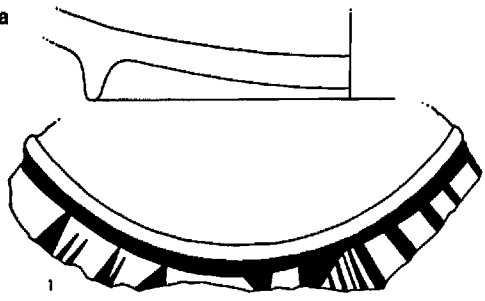


PLATE 88

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 71 (lot 881)	I	Pink/slip	7	pp. 119, 121
2	Loc. 39 (lot 457)	I	Buff/slip	7	”
3	Loc. 93, Fl. 1 (lot 195*)	V A	Buff/slip	7	p. 119
4	Loc. 47, Fl. 5 (lot 989)	V B	Buff	7	”
5	Loc. 49, Fl. 6 (lot 756)	V B	Buff/slip	7	pp. 119-20
6	Loc. 455, Fl. 6-13 (lot 275*)	VI	Buff/slip	7	p. 119
7	Loc. 441 (lot 978)	II	Buff	7	pp. 119-20
8	Loc. 93, Fl. 1 (lot 195*)	V A	Buff/slip	7b	p. 119
9	Loc. 456, Fl. 1 (lot 68*)	V A	Buff/slip	7b	pp. 119-20
10	Loc. 23, Fl. 2 (lot 283)	V B	Buff/slip	7	p. 119
11	Loc. 49, Fl. 5 (lot 598)	V B	Buff/slip	7	”

N1a



N1b

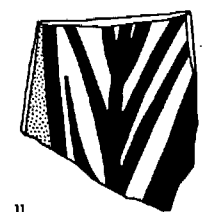
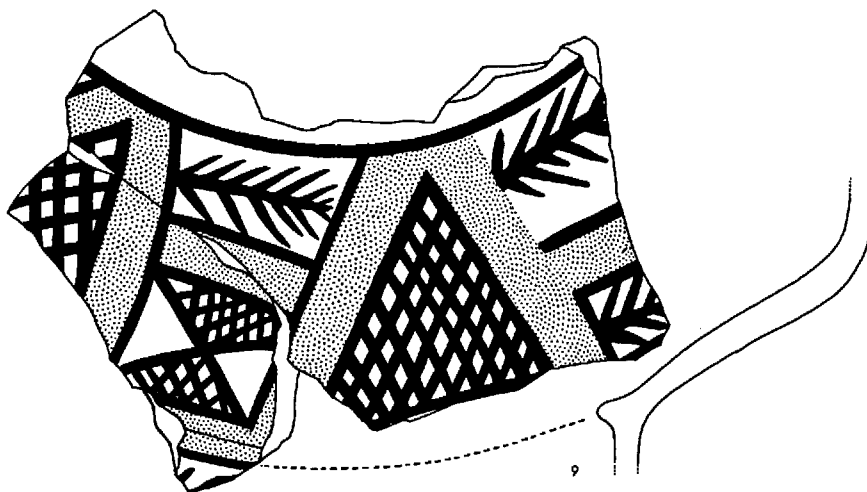
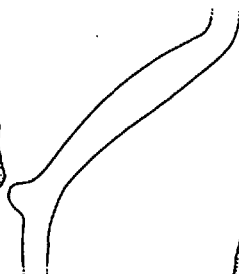
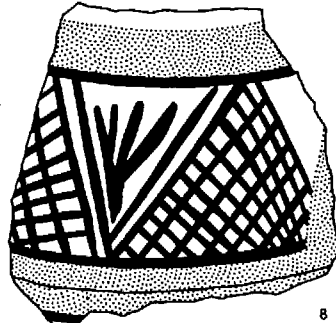
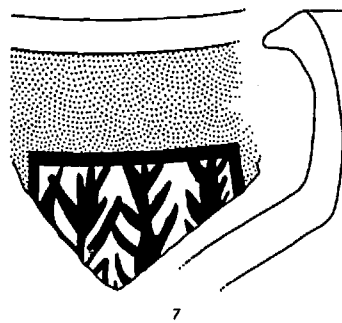
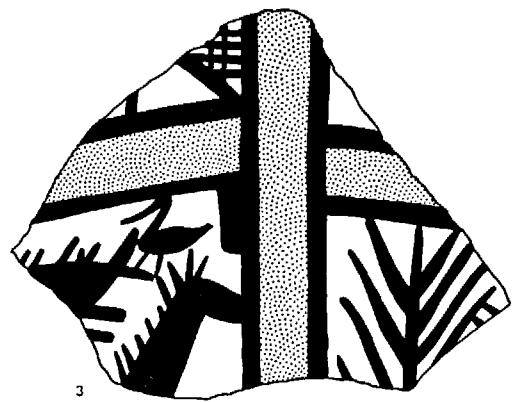
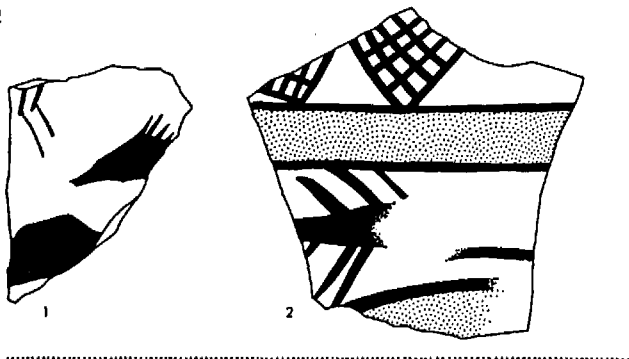


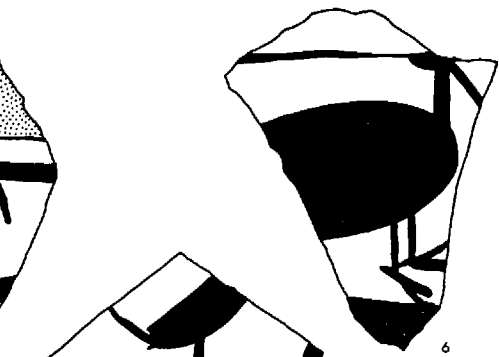
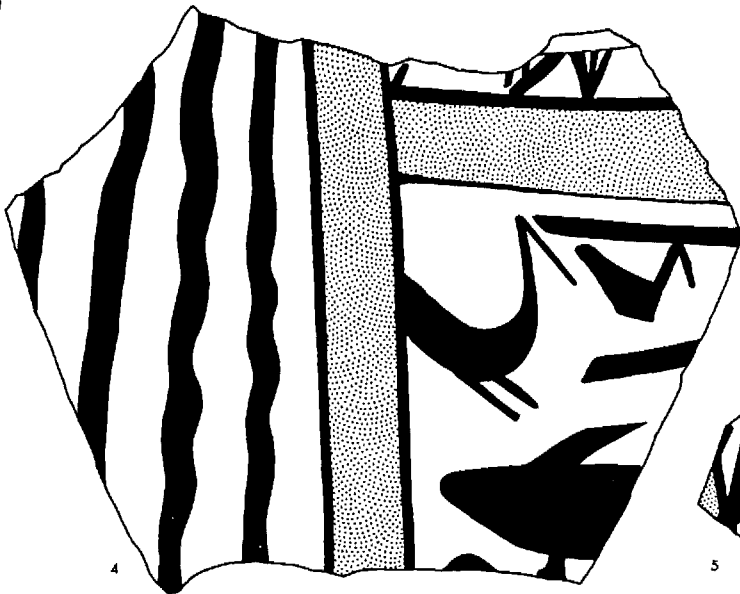
PLATE 89

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 487, Fl. 1 (lot 148*)	V A	Buff/slip	7	p. 119
2	Loc. 406, Fl. 1 (lot 1111)	IV	Buff	7	"
3 Uc 319	Loc. 34, Fl. 5 (lot 588)	VI A	Pink	7	pp. 40, 119, 121
4 Uc 321	Loc. 443, Fl. 1 (lot 987)	V B	Buff/slip	7	44, 119, 121
5 Uc 316	Loc. 20, pit (lot 282)	III	Buff/slip	7	68, 119
6	Loc. 34, Fl. 1 (lot 562)	V B	Pink	7	p. 119
7	Loc. 93, Fl. 1 (lot 195*)	V A	Buff/slip	7	"
8 Uc 320	Loc. 421, Fl. 1, fill (lot 607)	V B	Buff/slip	7	pp. 43, 119, 121
9 Uc 312	Loc. 487, Fl. 1 (lot 148*)	V A	Buff/slip	7	56, 119 121

N2



N3a



N3b

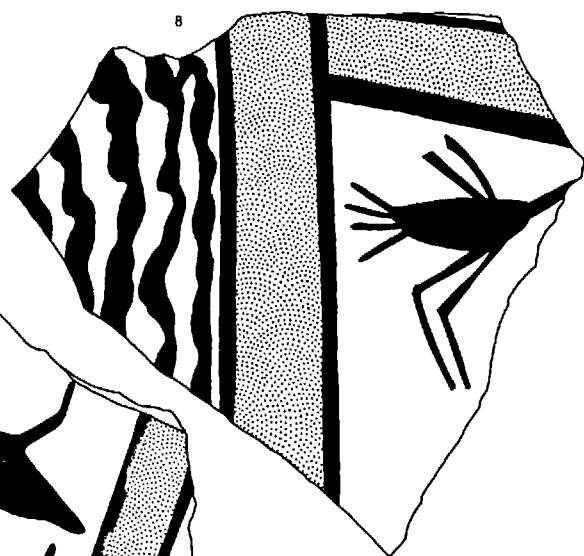


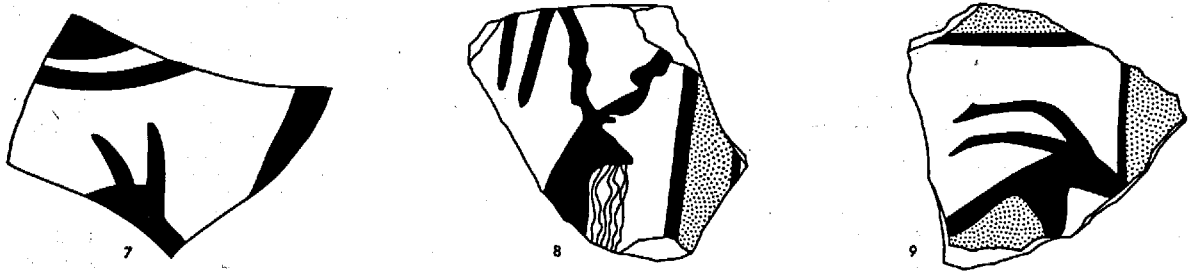
PLATE 90

No.	Provenience	Level	Ware	Type	Reference
1	Loc. 56 (lot 775)	I	Pink/slip	7	p. 119
2	Loc. 50 (lot 869)	I	Buff	7	"
3	Loc. 3 (lot 68)	I	Buff/slip	7	"
4	Loc. 58, Fl. 1 (lot 799)	II	Buff	7	pp. 119, 121
5	Loc. 49, Fl. 6 (lot 756)	V B	Buff/slip	7b	119-21
6 Uc 318	Loc. 93, Fl. 2 (lot 980)	V A	Buff/slip	7	55, 119
7	Loc. 10 (lot 96)	III	Buff	7	120-21
8 Uc 333	Loc. 487, Fl. 2c (lot 304*)	V B	Buff/slip	7	45, 120- 21
9	Loc. 487, Fl. 1 (lot 148*)	V A	Buff/slip	7	120-21
10	Loc. 23, Fl. 5 (lot 470)	V B	Buff/slip	7	"
11	Loc. 442, Fl. 1 (lot 978)	II	Buff/slip	7	p. 120
12	Loc. 44 (lot 482)	II	Pink	7	pp. 120-21
13	Loc. 10 (lot 599)	III	Buff/slip	7b	p. 120
14	Loc. 50 (lot 877)	I	Buff/slip	7	"
15 Uc 315	Loc. 10, pit (lot 86)	III	Green	7	pp. 67, 120

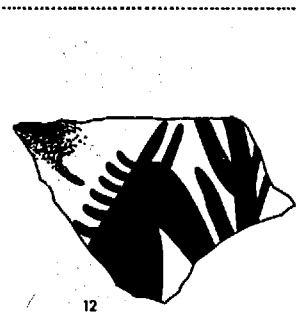
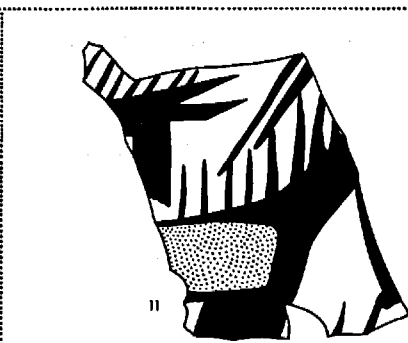
N3c



N4a



N4b



N4c

N4d

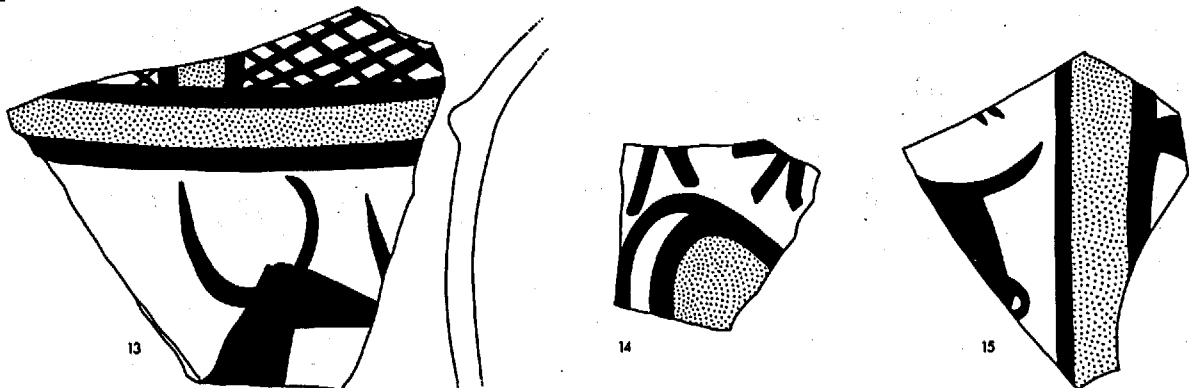


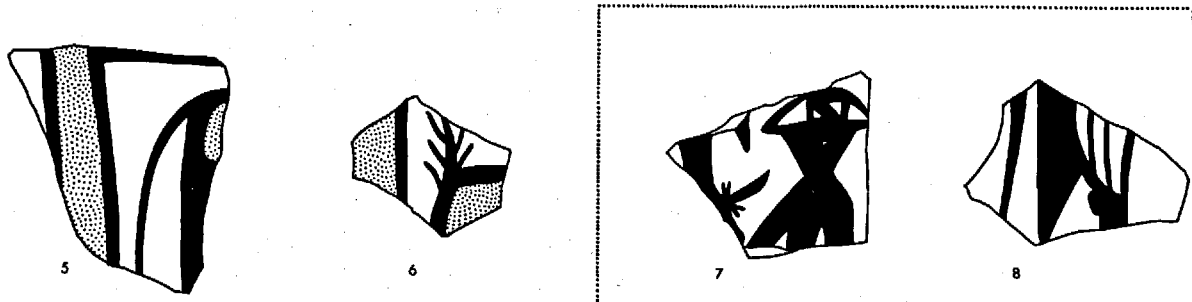
PLATE 91

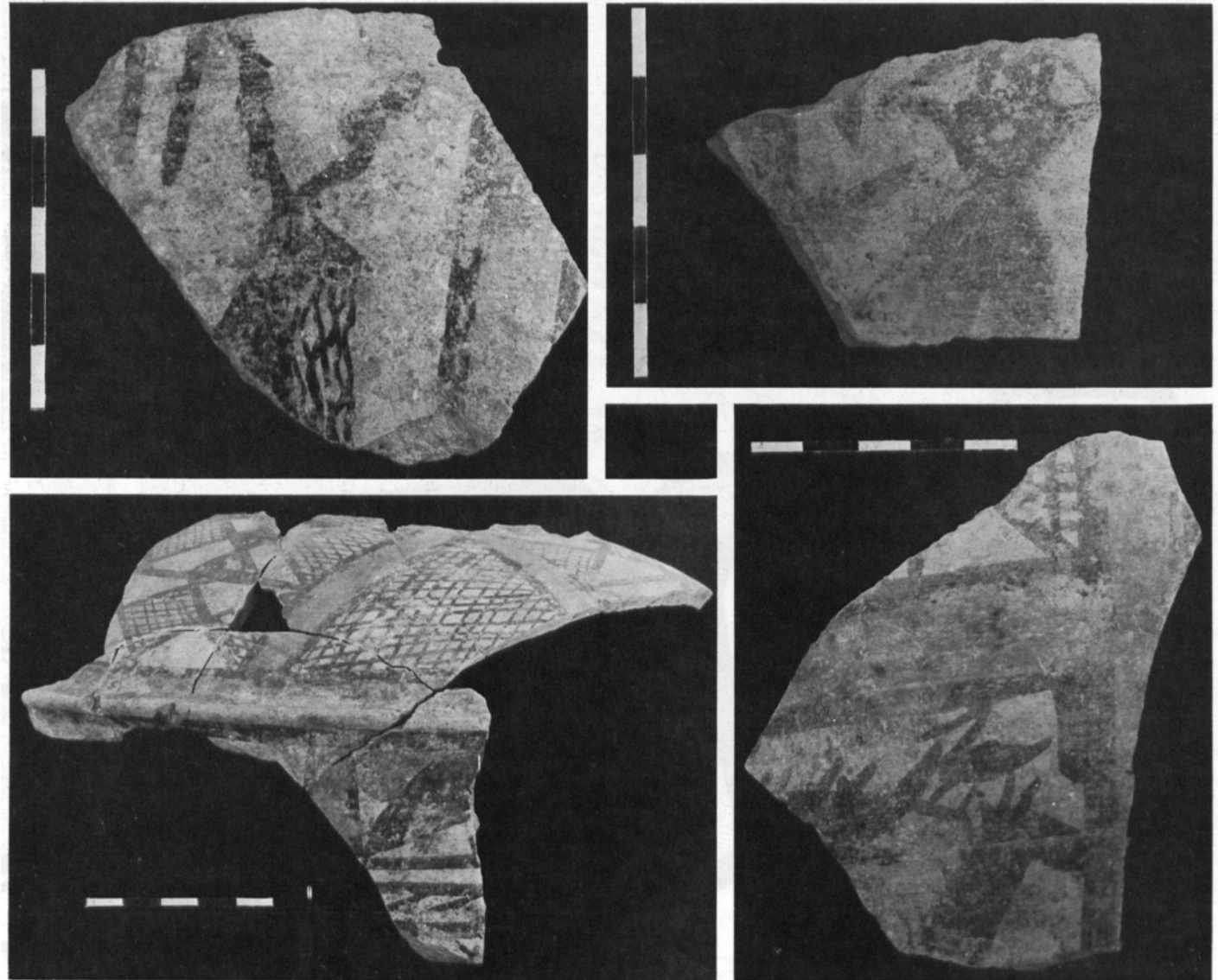
No.	Provenience	Level	Ware	Type	Reference
1	Loc. 52 (lot 853)	I	Pink/slip	7	pp. 120-21
2	Loc. 487, Fl. 2c (lot 304*)	V B	Buff	7	"
3	Loc. 487, Fl. 2c (lot 304*)	V B	Buff/slip	7	"
4	Loc. 455, below Fl. 12 (lot 272*)	VI B	Buff/slip	7	"
5	Loc. 93, Fl. 1 (lot 195*)	V A	Buff/slip	7	"
6	Loc. 93, Fl. 1-5 (lot 980)	V A	Buff	7	"
7 Uc 313	Loc. 18, pit (lot 277)	I	Buff/slip	7	82, 120- 21
8	Loc. 37 (lot 296)	-	Buff	7	120-21

N4e

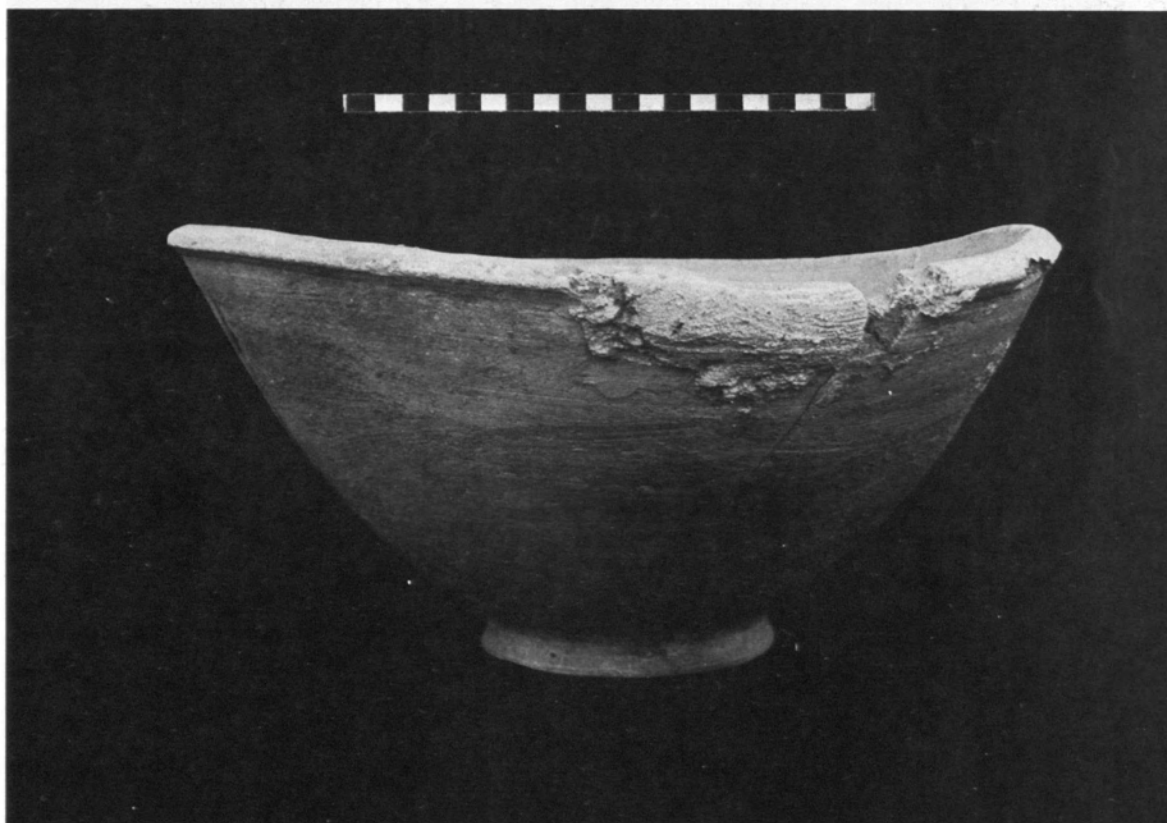


N5



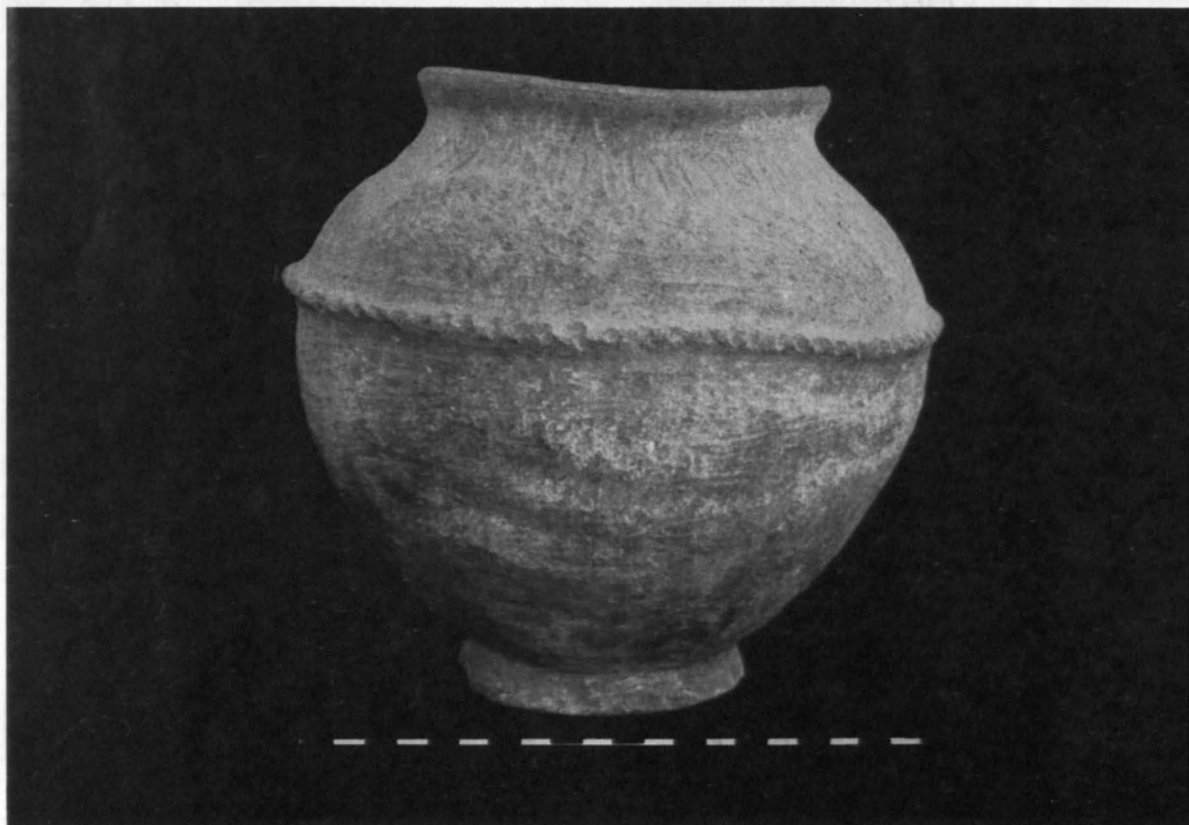
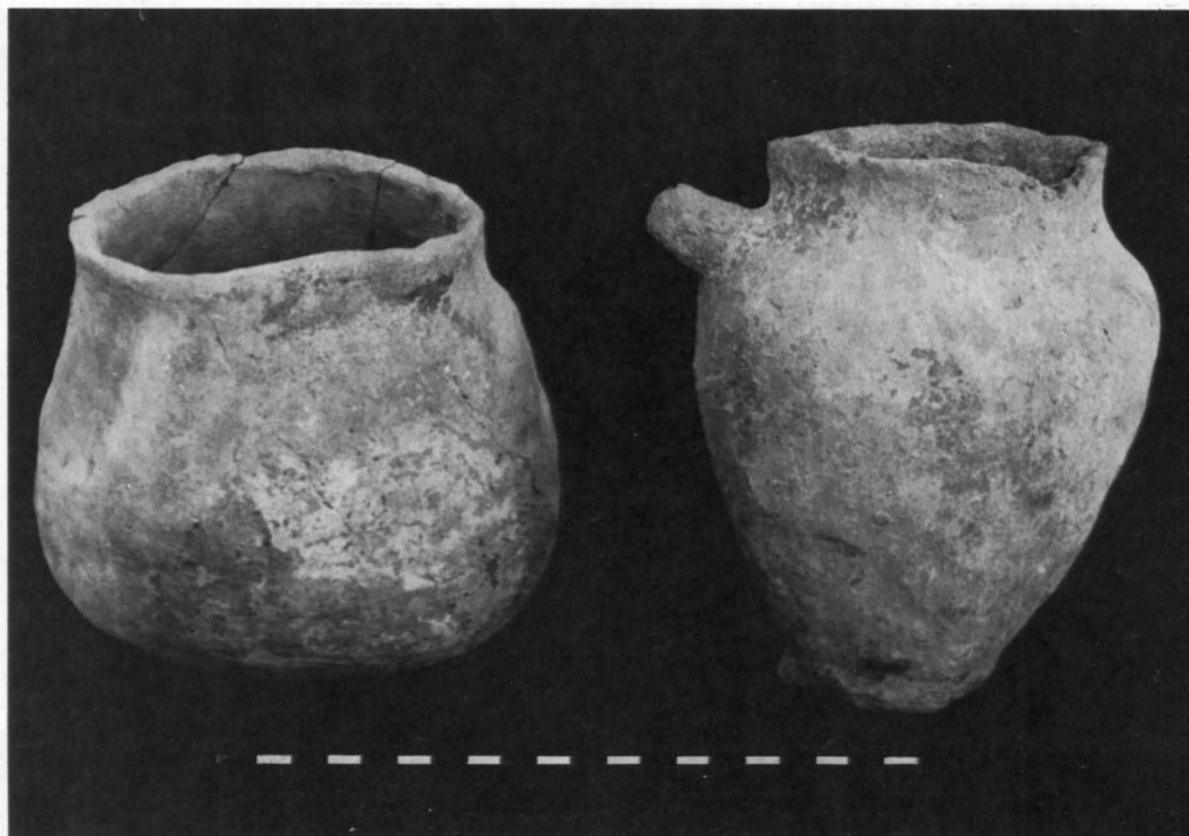


Early Dynastic Scarlet Ware Sherds.

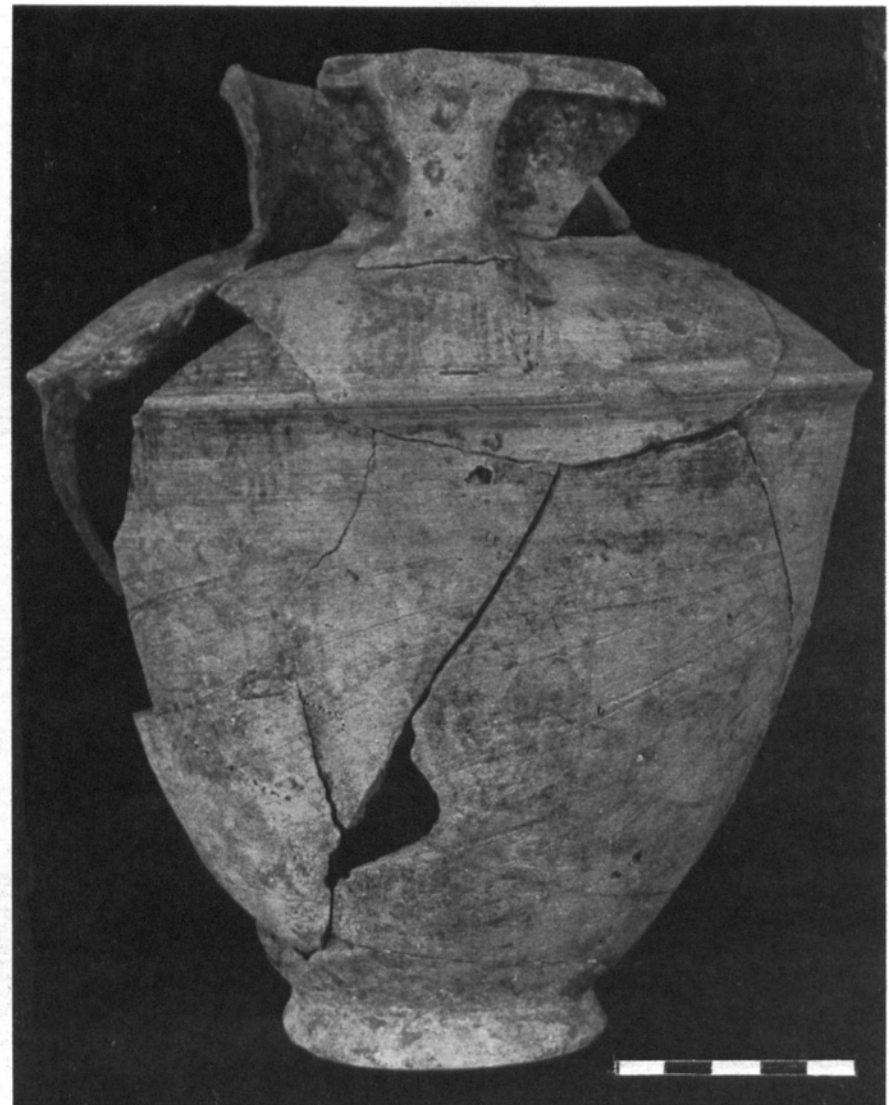


Early Akkadian pottery from Burials on Razuk. 1. Assemblage from Burial 12. 2. Large bowl (Uc 298) from Burial 18. Note ancient repair on rim.

PLATE 94



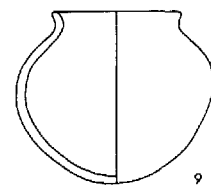
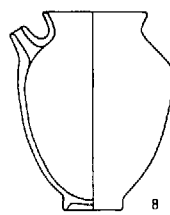
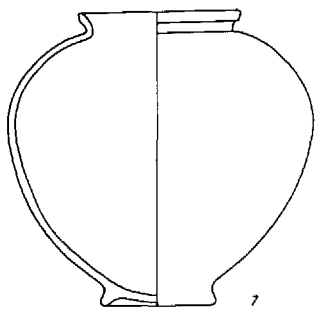
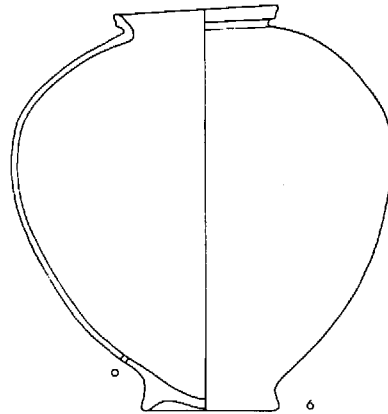
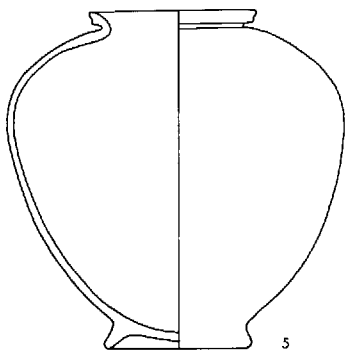
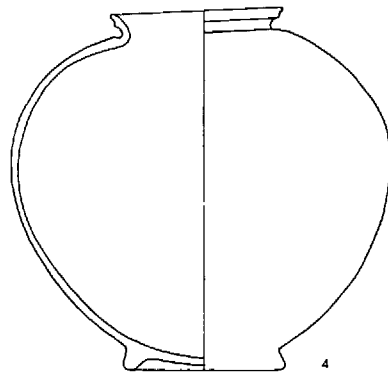
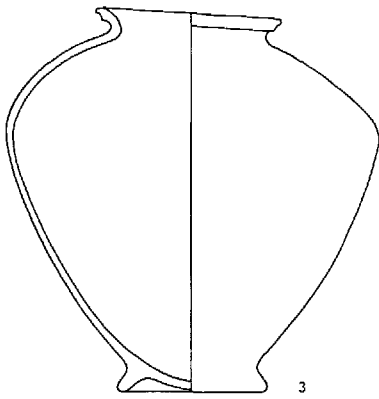
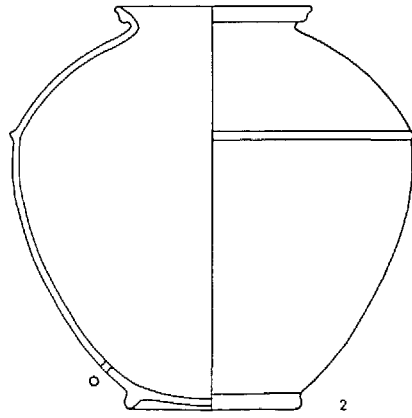
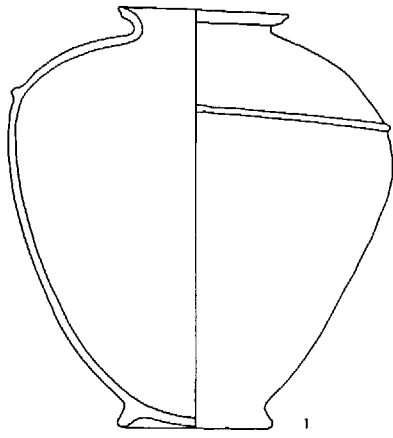
Early Akkadian pottery from Burial 16 at Razuk. 1. Handmade jar (Uc 156) and spouted jar (Uc 189). 2. Jar (Uc 241).



*Early Akkadian pottery from Burials on Razuk. 1. Jar (Uc 327), with incised-wave decoration on shoulder, from Burial 17.
2. Black-painted, upright-handled jar (Uc 344) from Burial 17.*

PLATE 96

No.	Provenience	Level	Description	Reference
1 Uc 331	Loc. 415 Burial 12	I	Jar, green ware	p. 73
2	Loc. 415 Burial 12	I	Jar	"
3 Uc 324	Loc. 415 Burial 12	I	Jar, buff ware	74
4 Uc 332	Loc. 415 Burial 12	I	Jar, buff ware	"
5 Uc 325	Loc. 415 Burial 12	I	Jar, green ware	"
6 Uc 323	Loc. 415 Burial 12	I	Jar, green ware	"
7	Loc. 415 Burial 12	I	Jar	73
8 Uc 311	Loc. 415 Burial 12	I	Jar, green ware	"
9 Uc 326	Loc. 415 Burial 12	I	Jar, coarse ware, hand-made	"

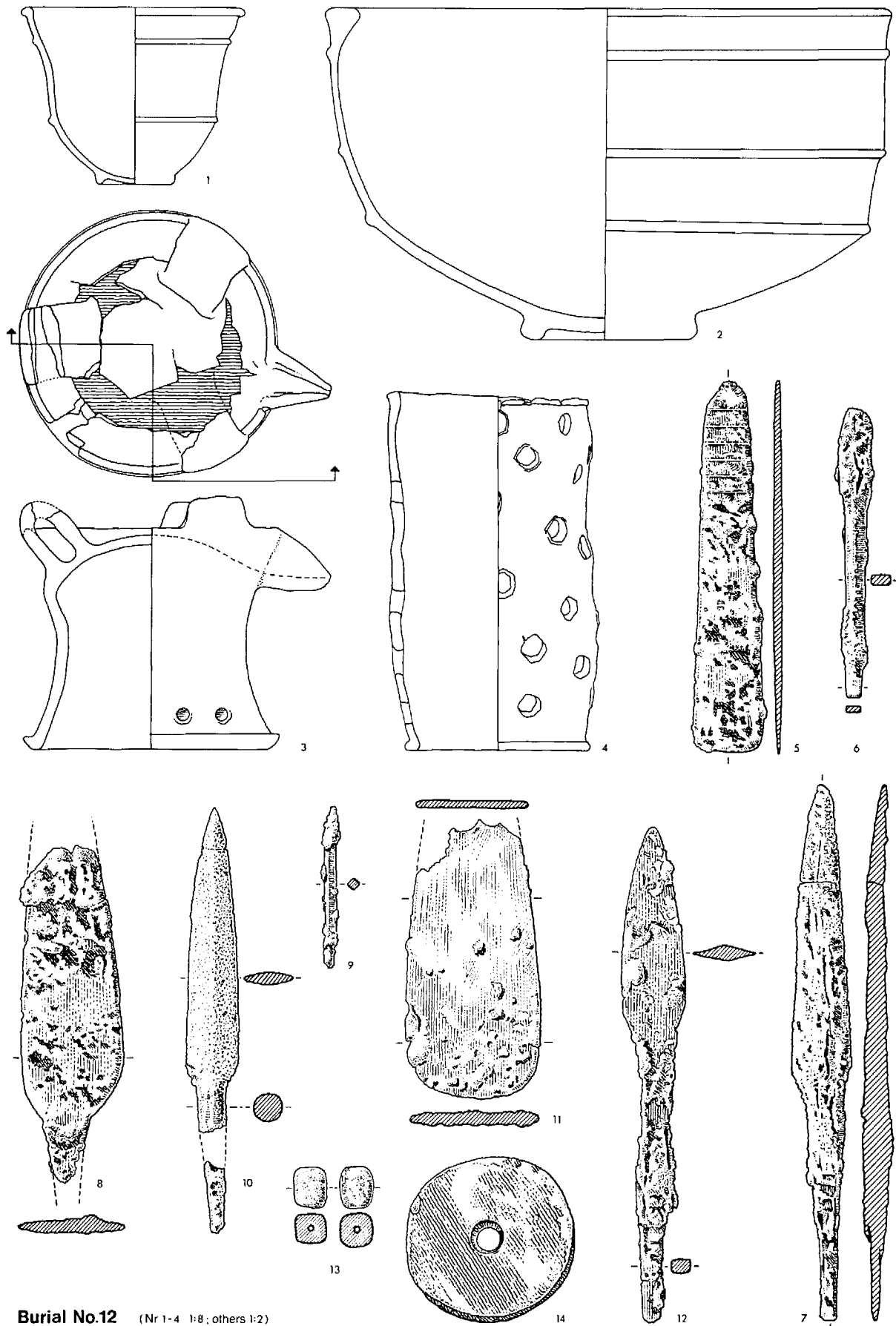


Burial No.12 (all 1-8)

4

PLATE 97

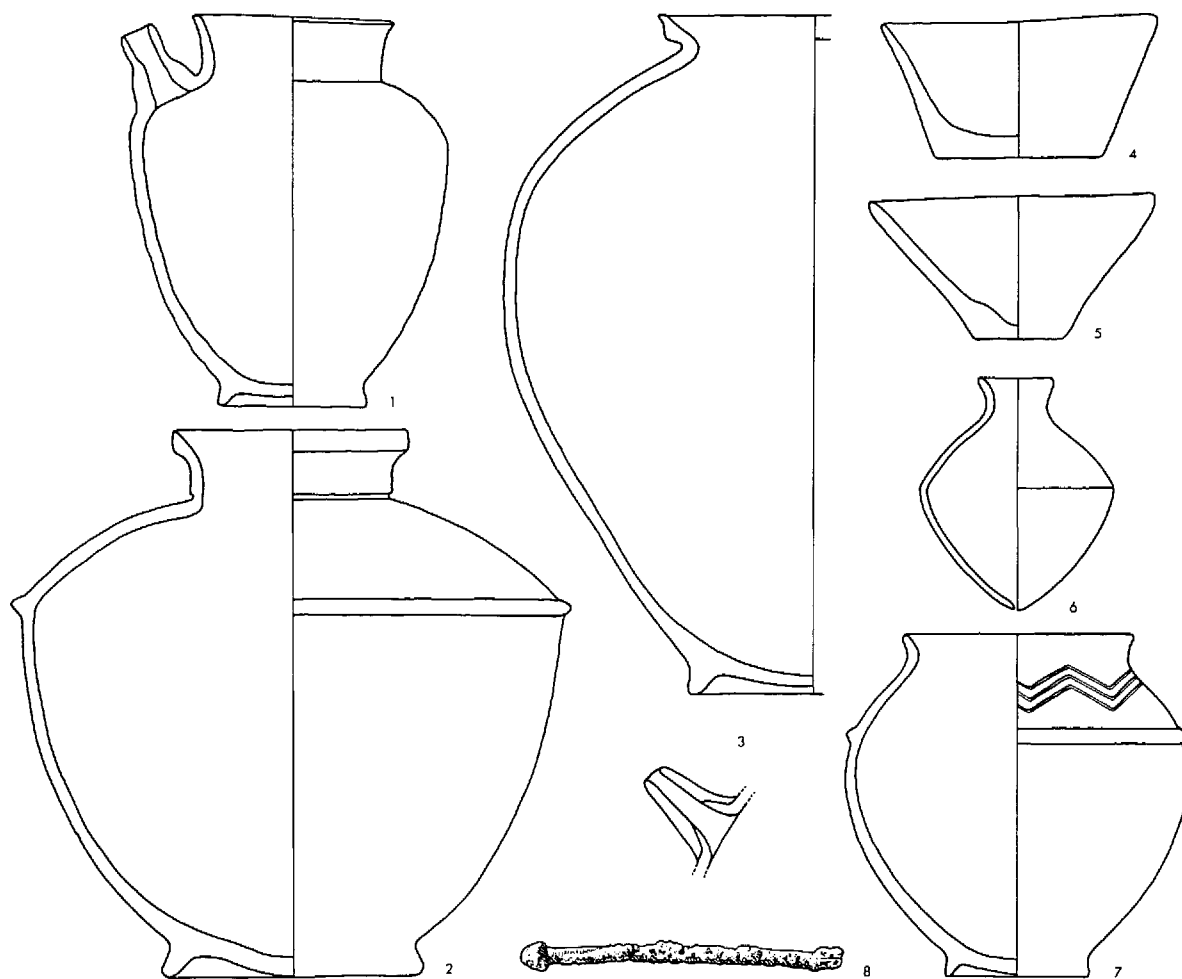
No.	Provenience	Level	Description	Reference
1 Uc 334	Loc. 415 Burial 12	I	Bowl, pink ware	p. 74
2	Loc. 415 Burial 12	I	Large bowl	73
3 Uc 336	Loc. 415 Burial 12	I	Pot support, green ware	74
4 Uc 335	Loc. 415 Burial 12	I	Strainer, green ware	73
5 Uc 299	Loc. 415 Burial 12	I	Chisel, copper	74
6 Uc 300	Loc. 415 Burial 12	I	Chisel, copper	"
7 Uc 307	Loc. 415 Burial 12	I	Spear point, copper	"
8 Uc 290	Loc. 415 Burial 12	I	Blade, copper	"
9 Uc 291	Loc. 415 Burial 12	I	Chisel (?), copper	"
10 Uc 207	Loc. 415 Burial 12	I	Spearhead, copper	"
11 Uc 208	Loc. 415 Burial 12	I	Blade, copper	"
12 Uc 338	Loc. 416, Fl. 1, fill	V A	Spear point, copper	55
13 Uc 328	Loc. 415 Burial 12	I	Beads, lapis lazuli	73
14 Uc 329	Loc. 415 Burial 12	I	Whorl, gray stone	74



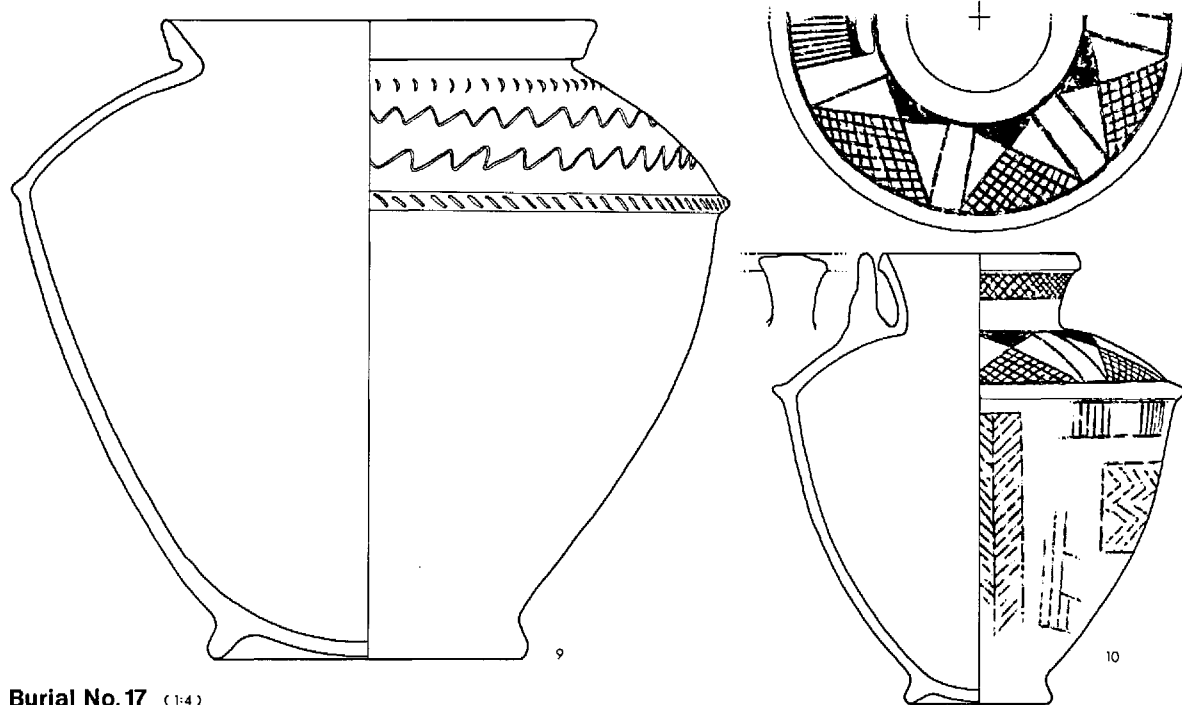
Burial No.12 (Nr 1-4 1:8; others 1:2)

PLATE 98

No.	Provenience	Level	Description	Reference
1 Uc 280	Loc. 52 Burial 11	I	Spouted jar, buff ware with cream slip	p. 75
2 Uc 292	Loc. 52 Burial 11	I	Jar, green ware	"
3	Loc. 52 Burial 11	I	Jar, buff ware	"
4 Uc 268	Loc. 52 Burial 11	I	Bowl, stone	"
5 Uc 270	Loc. 52 Burial 11	I	Bowl, green ware	"
6 Uc 137	Loc. 52 Burial 11	I	Jar strainer/funnel, buff ware	"
7 Uc 107	Loc. 52 Burial 11	I	Jar, pink ware	"
8 Uc 269	Loc. 52 Burial 11	I	Copper pin	"
9 Uc 327	Loc. 50 Burial 17	I	Jar, pink	76
10 Uc 344	Loc. 50 Burial 17	I	Green, black paint	"



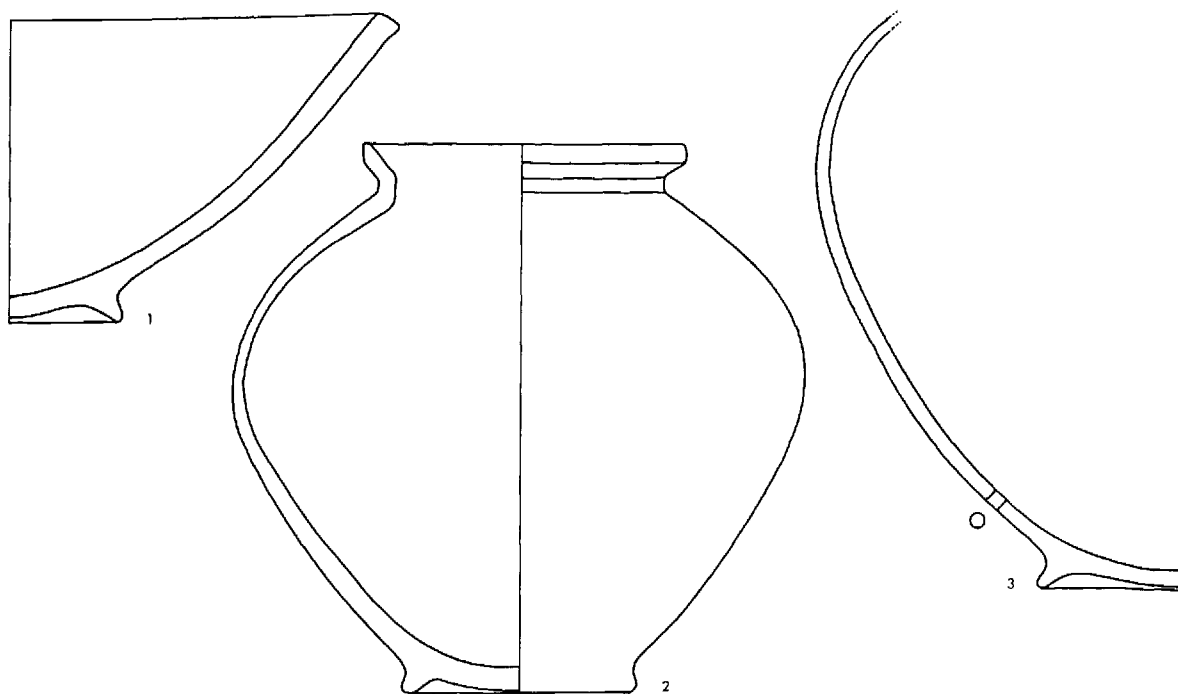
Burial No. 11 (1:4 except Nr. 8 1:2)



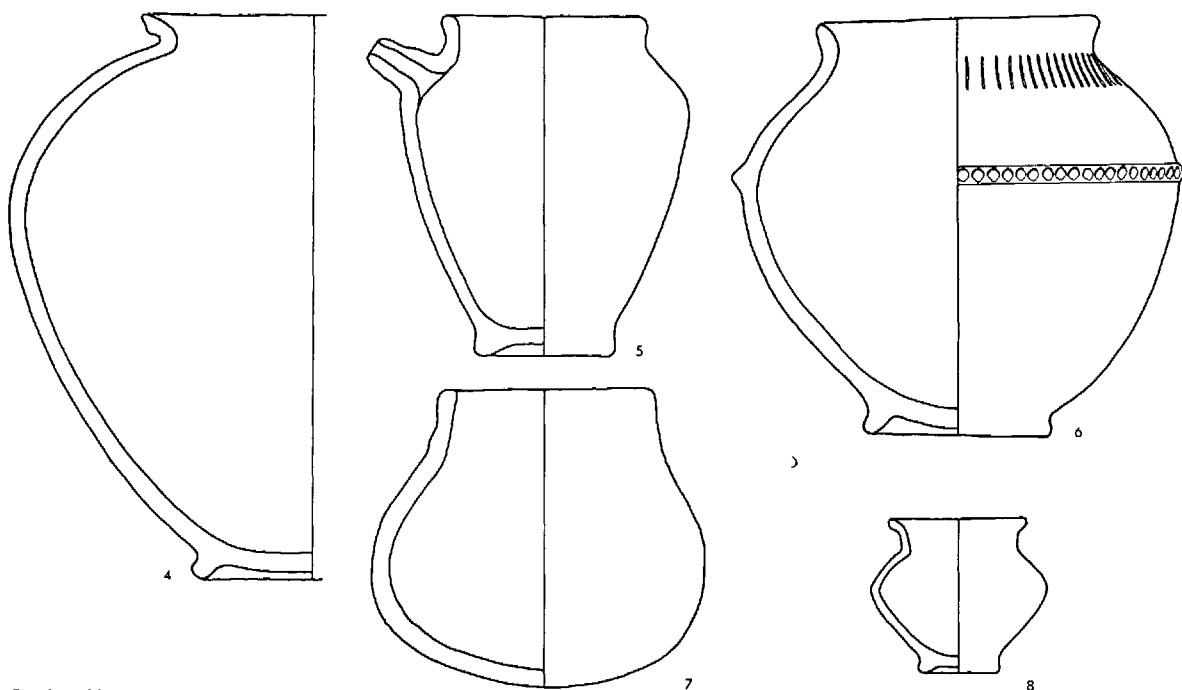
Burial No. 17 (1:4)

PLATE 99

No.	Provenience	Level	Description	Reference
1 Uc 298	Loc. 417 Burial 18	I	Bowl, greenish buff ware	p. 76
2 Uc 293	Loc. 417 Burial 18	I	Jar, pink ware	"
3 Uc 294	Loc. 417 Burial 18	I	Jar, pink ware	"
4 Uc 154	Loc. 50 Burial 16	I	Jar, grayish green ware	"
5 Uc 189	Loc. 50 Burial 16	I	Jar, pink ware	"
6 Uc 241	Loc. 50 Burial 16	I	Jar, pink ware	"
7 Uc 156	Loc. 50 Burial 16	I	Jar, coarse ware	"
8 Uc 190	Loc. 50 Burial 16	I	Jar, buff ware with cream slip	"
9 Uc 159	Loc. 28, surface	I	Cup, pink ware	"
10 Uc 65	Loc. 50, fill of recent grave	I	Jar, buff ware with cream slip	"



Burial No. 18 (1-4)



Burial No. 16 (1-4)

(1:4)

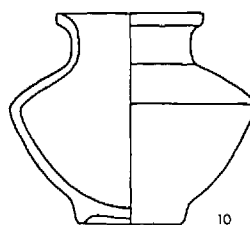
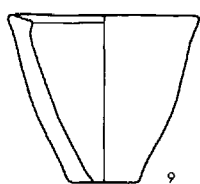
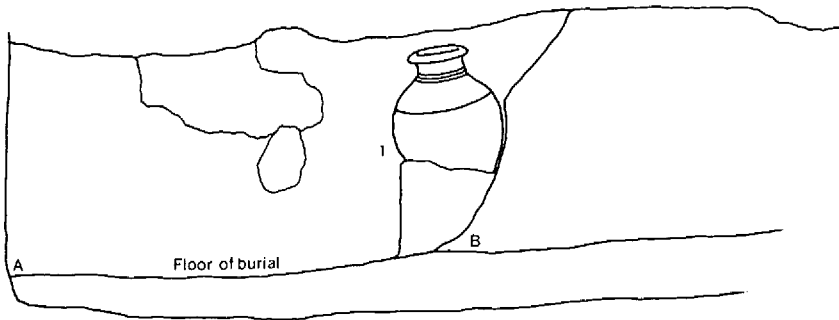
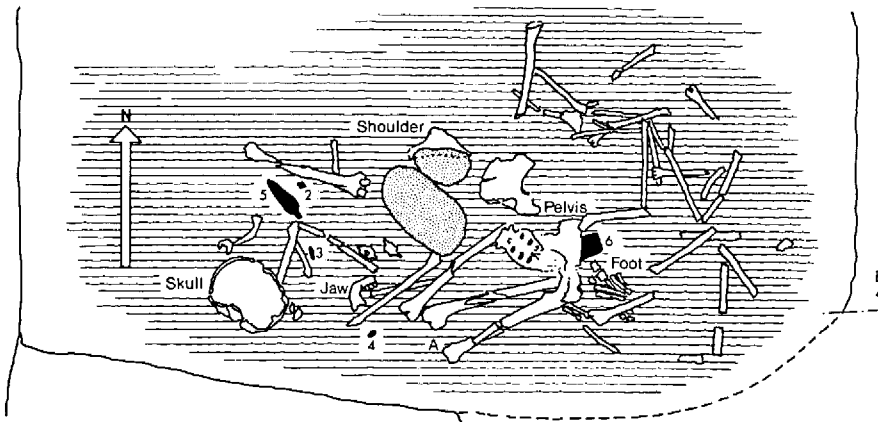


PLATE 100

No.	Provenience	Level	Description	Reference
1 Uc 131	Burial 7	I	Jar, greenish buff ware	p. 80
2 Uc 132	Burial 7	I	Bead, stone	”
3 Uc 133	Burial 7	I	Bead, stone	”
4 Uc 134	Burial 7	I	Bead, stone	”
5 Uc 135	Burial 7	I	Dagger, copper	”
6 Uc 143	Burial 7	I	Bitumen	”
7 Uc 184	Loc. 43, pit	I	Cup, gray ware	”
8	Loc. 86, intrusive (lot 936)	I	Shoulder of jar, intended decoration with white inlay	”

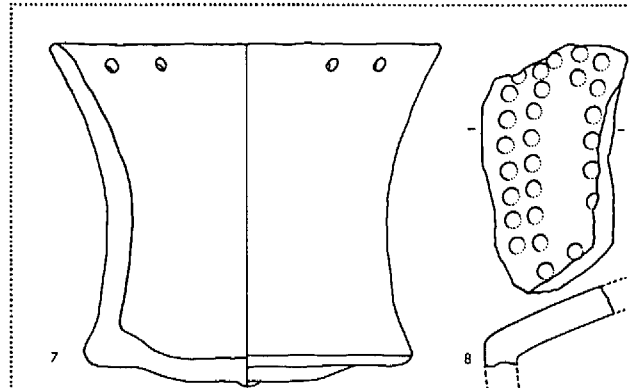
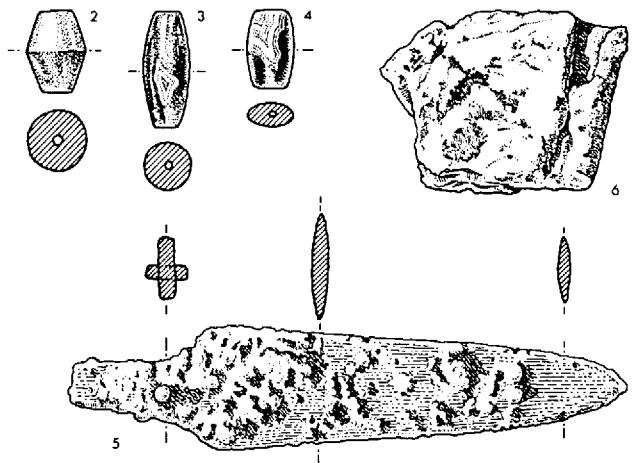
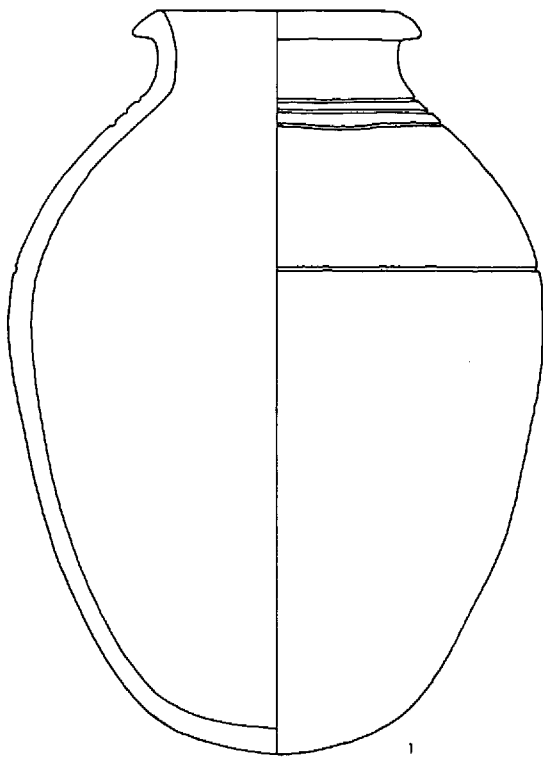


Section A-B



Plan

1:20



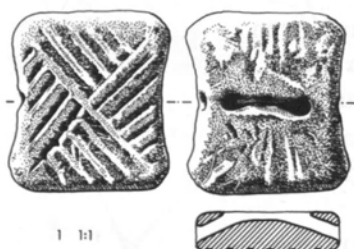
Burial Nr. 7, Isin-Larsa. (Nr.1 1:4, others 1:2)

PLATE 101

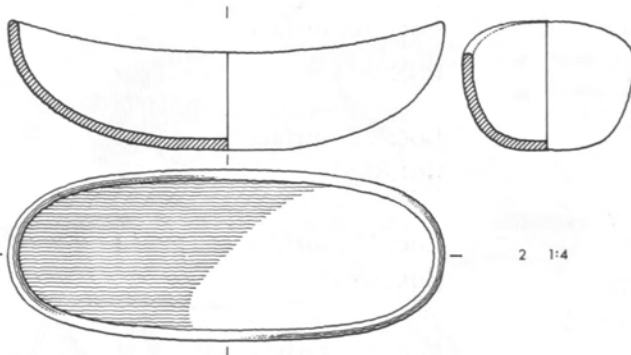
No.	Provenience	Level	Description	Reference
1 Uc 15	Burial 1	I	Stamp seal	p. 81
2 Uc 17	Burial 1	I	Copper bowl	”
3 Uc 16	Burial 1	I	Glass bottle	”
4	Loc. 1, surface (lot 52)	I	Shoulder of jar, triangular inden- tations	”



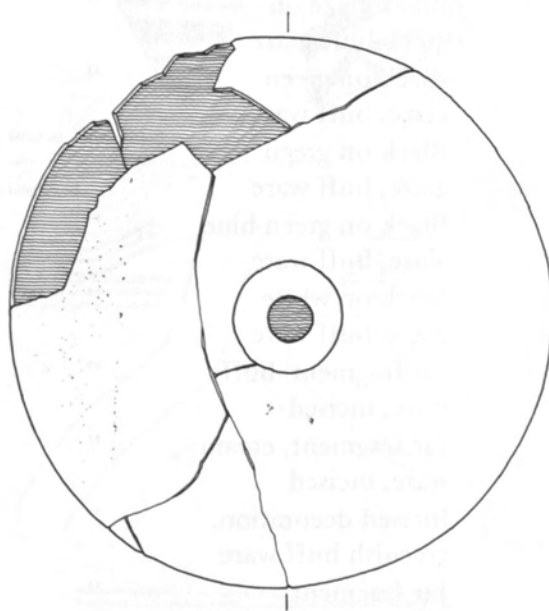
ca. 1:20



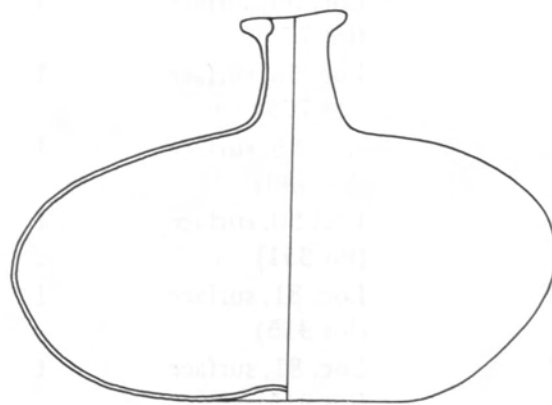
1 1:1



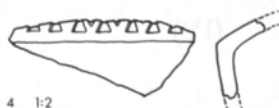
2 1:4



3 1:2



Burial Nr.1, Sasanian.

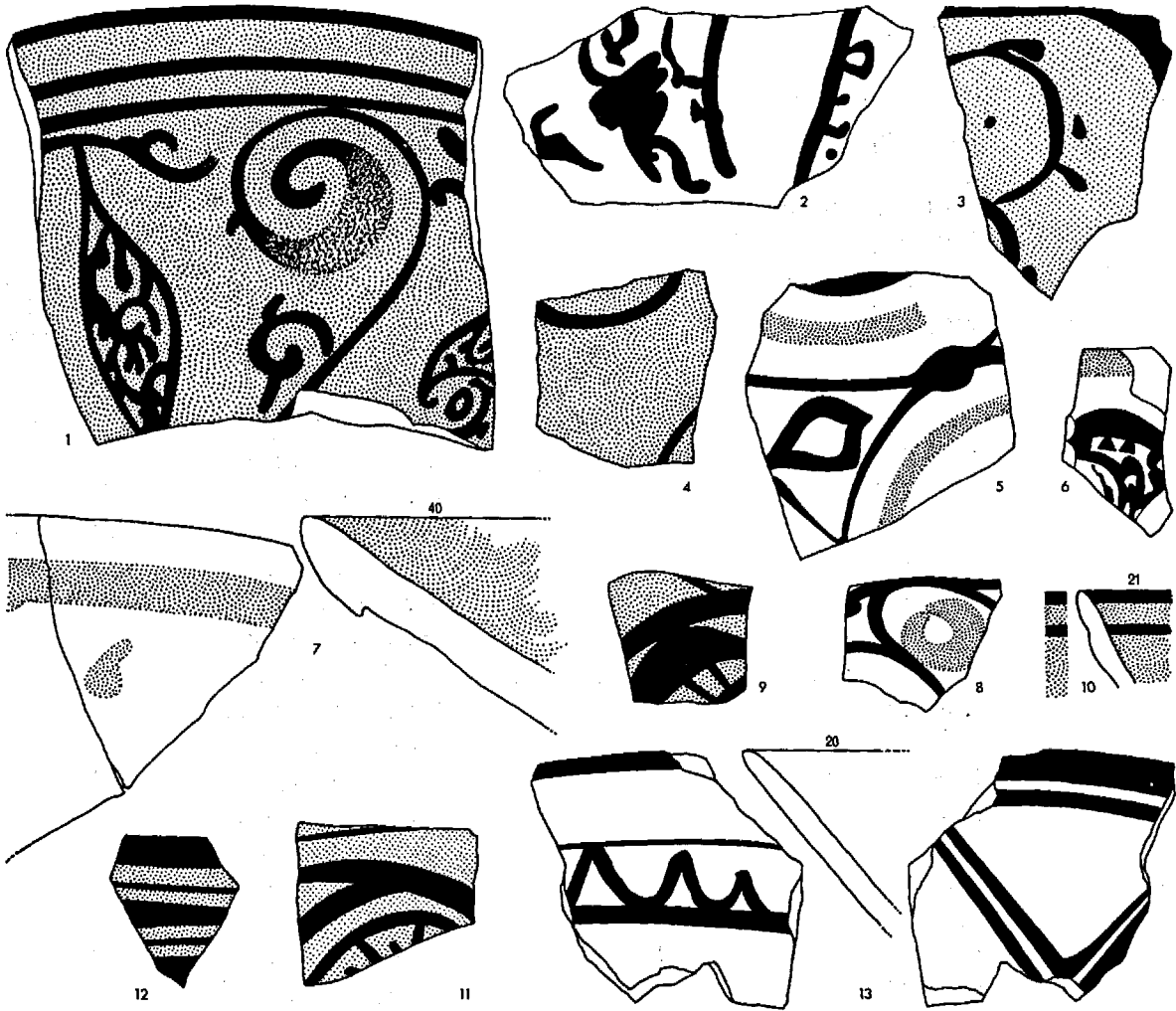


4 1:2



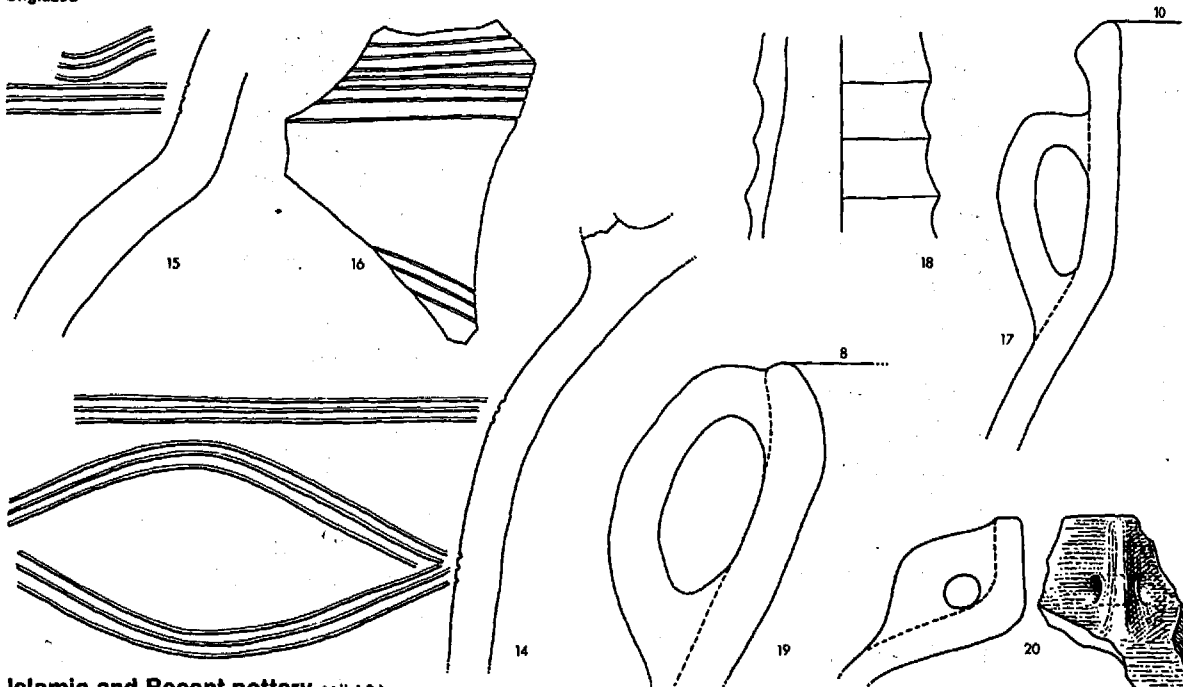
PLATE 102

No.	Provenience	Level	Description	Reference
1	Loc. 81, surface (lot 915)	I	Bowl fragment Black on blue glaze, buff ware	p. 81
2	Loc. 52, surface (lot 780)	I	Black on white glaze, buff ware	"
3	Loc. 71, surface (lot 904)	I	Bowl fragment Black on light gray glaze, buff ware	"
4	Loc. 71, surface (lot 904)	I	Black on green glaze, buff ware	"
5	Loc. 52, surface (lot 866)	I	Black and green glaze on cream ground	"
6	Loc. 52, surface (lot 866)	I	Black and green glaze on cream glaze, buff ware	"
7	Loc. 52, surface (lot 866)	I	Bowl fragment Green glaze, cream ware	"
8	Loc. 50, surface (lot 776)	I	Black and green glaze on white glaze, cream ware	"
9	Loc. 56, surface (lot 775)	I	Black glaze on green-blue glaze	"
10	Loc. 56, surface (lot 775)	I	Black on green glaze, buff ware	"
11	Loc. 56, surface (lot 775)	I	Black on green glaze, buff ware	"
12	Loc. 56, surface (lot 775)	I	Black on green-blue glaze, buff ware	"
13	Loc. 35, surface (lot 380)	I	Black on white glaze, buff ware	"
14	Loc. 30, surface (lot 351)	I	Jar fragment, buff ware, incised	"
15	Loc. 81, surface (lot 915)	I	Jar fragment, cream ware, incised	"
16	Loc. 81, surface (lot 915)	I	Incised decoration, greenish buff ware	"
17	Loc. 81, surface (lot 915)	I	Jar fragment, green ware	"
18	Loc. 2, surface (lot 64)	I	Jar-neck, cream ware	"
19	Loc. 8, Fl. 1 intrusive (lot 90)	(IV)	Jar with handle, coarse ware	"
20	Loc. 8, Fl. 1 intrusive (lot 90)	(IV)	Jar with lug- handle, coarse ware	"



Glazed

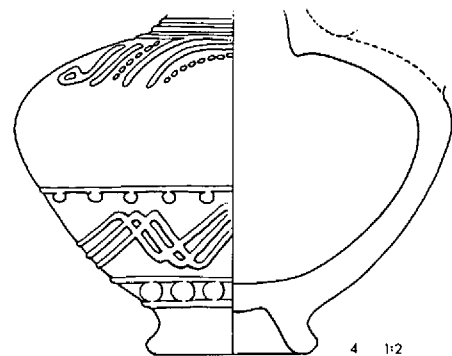
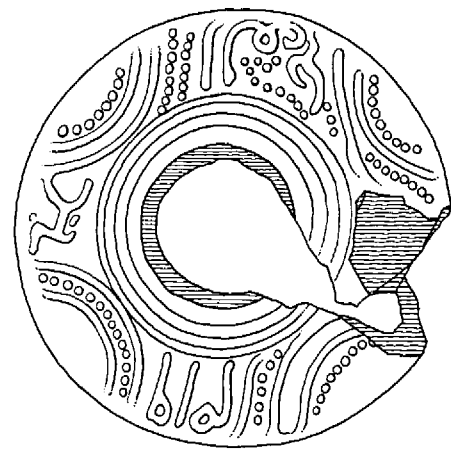
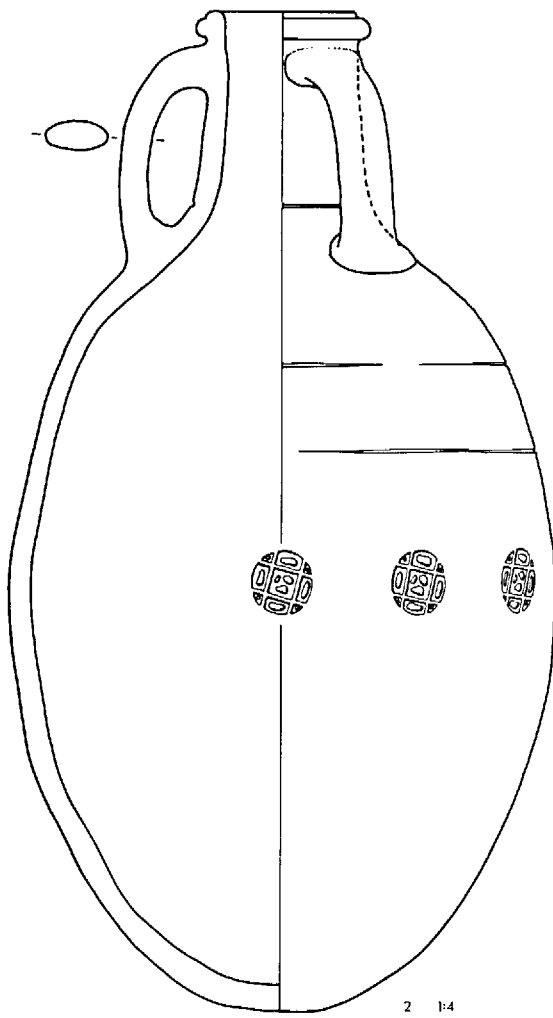
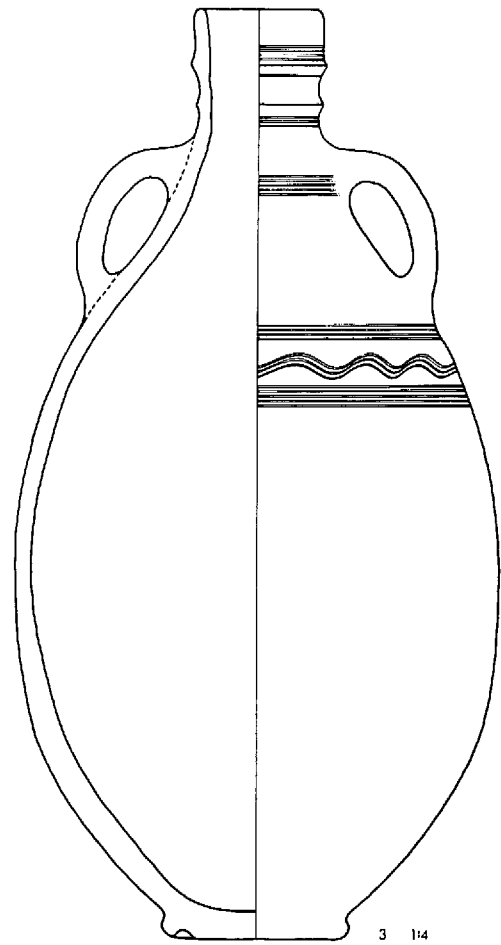
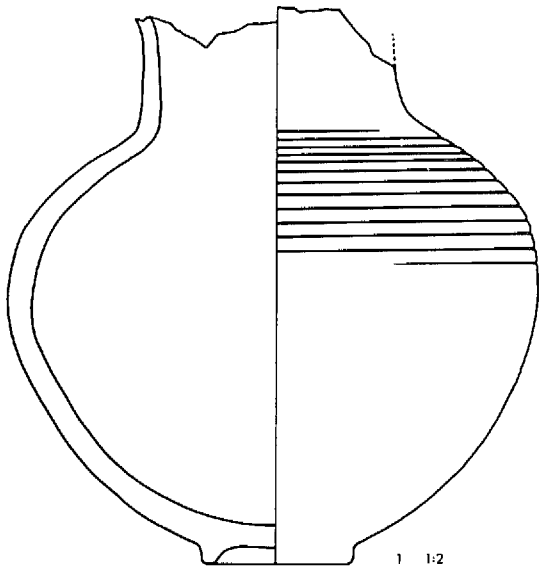
Unglazed



Islamic and Recent pottery (all 1:2)

PLATE 103

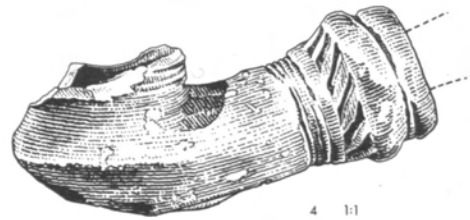
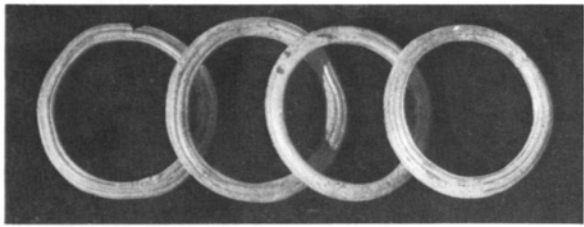
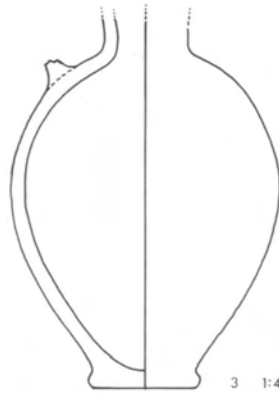
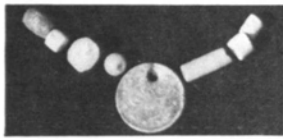
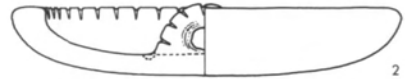
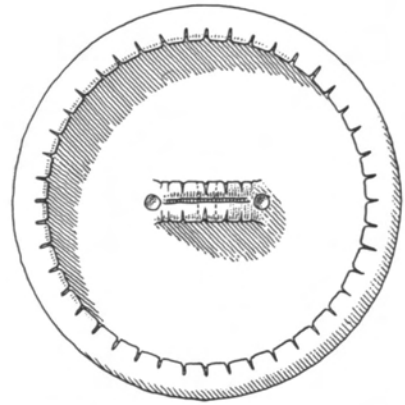
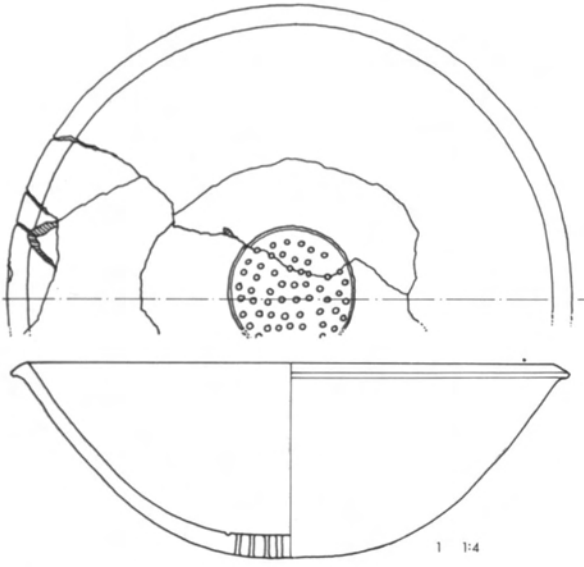
No.	Provenience	Level	Description	Reference
1 Uc 138	Loc. 65, surface	I	Jar, pink ware, grooved decoration	p. 81
2 Uc 182	Loc. 65, pit	I	Stamped jar, green ware	"
3	Loc. 65, surface (lot 852)	I	Jar, greenish buff ware, incised deco- ration	"
4 Uc 26	Loc. 2, pit	I	Pitcher, buff ware	"



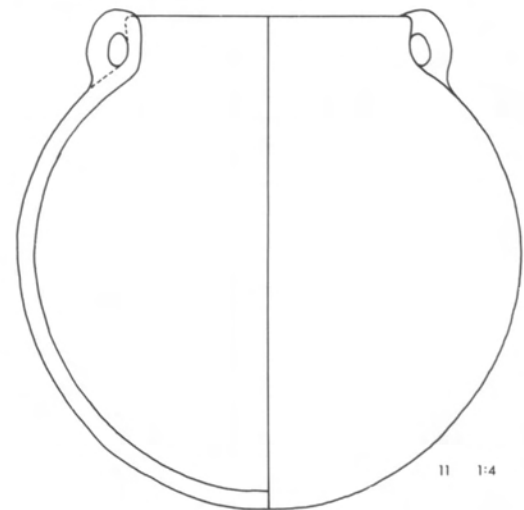
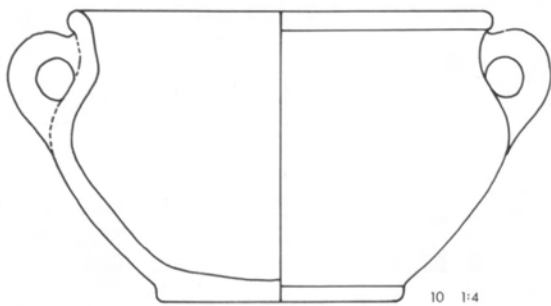
Islamic pottery

PLATE 104

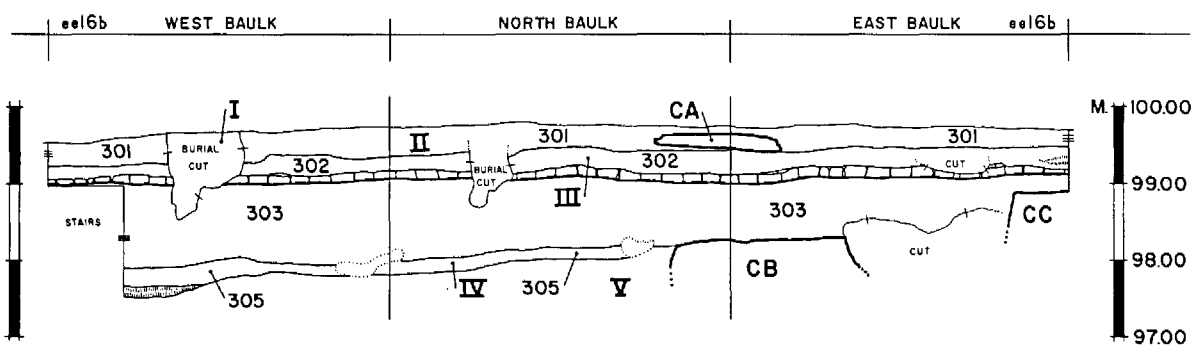
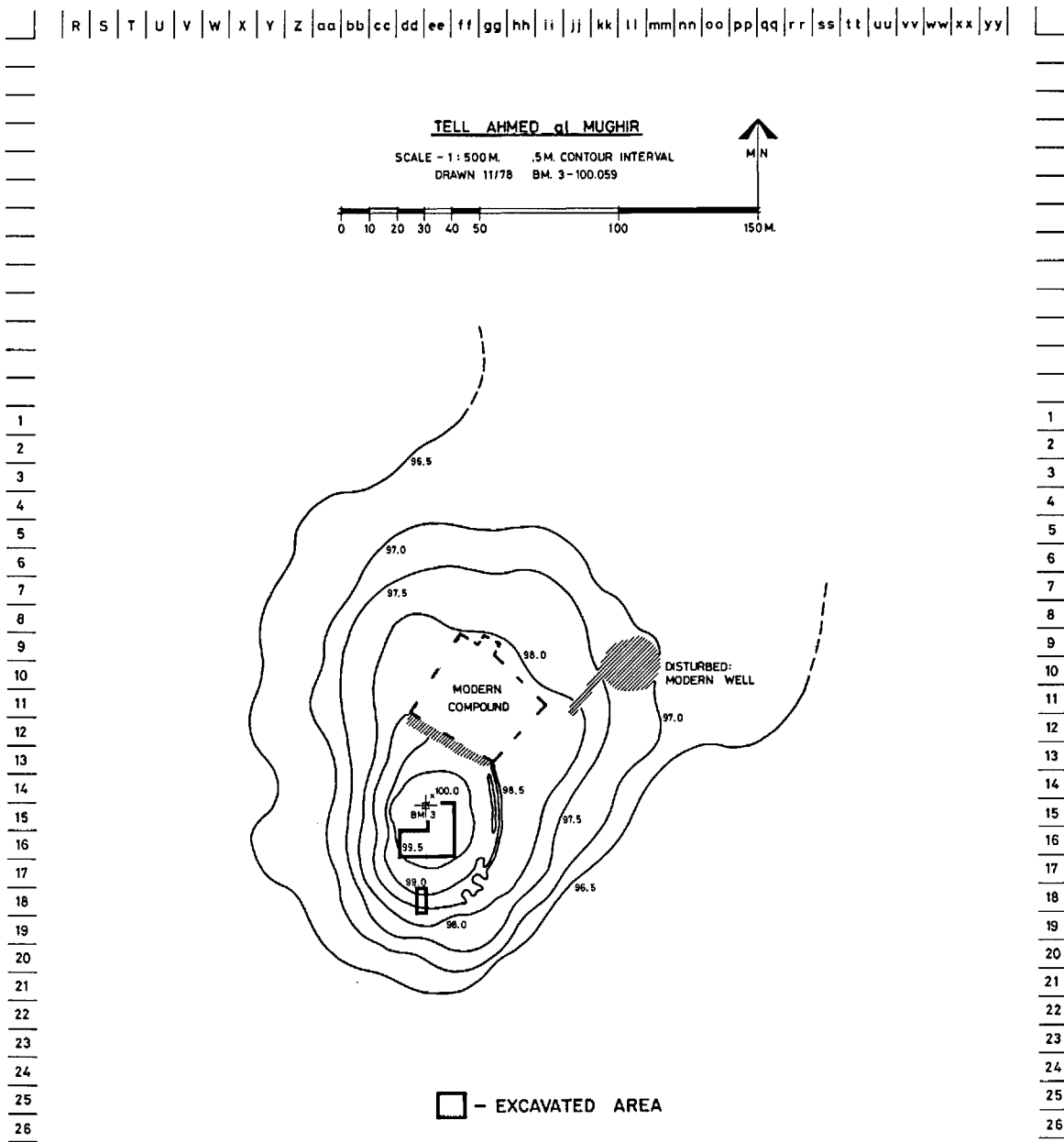
No.	Provenience	Level	Description	Reference
1 Uc 110	Loc. 52, surface	I	Sieve, pink ware	p. 81
2 Uc 306	Loc. 52, pit 2	I	Lid, pottery Dark brown ware	”
3 Uc 265	Loc. 445, surface	I	Jar, green ware	”
4 Uc 257	Loc. 56, surface	I	Pipe, baked clay, red ware	”
5-7 Uc 180	Loc. 56, Burial 4	I	Necklace, plastic rings, coin	82
8 Uc 181	Loc. 50, Burial 5	I	Glass beads	”
9 Uc 7	Loc. 2, surface	I	Horseshoe, iron	81
10 Uc 112	Loc. 53, surface	I	Jar, green ware	76
11 Uc 245	Loc. 56, well	I	Jar, grayish green ware	”



Islamic

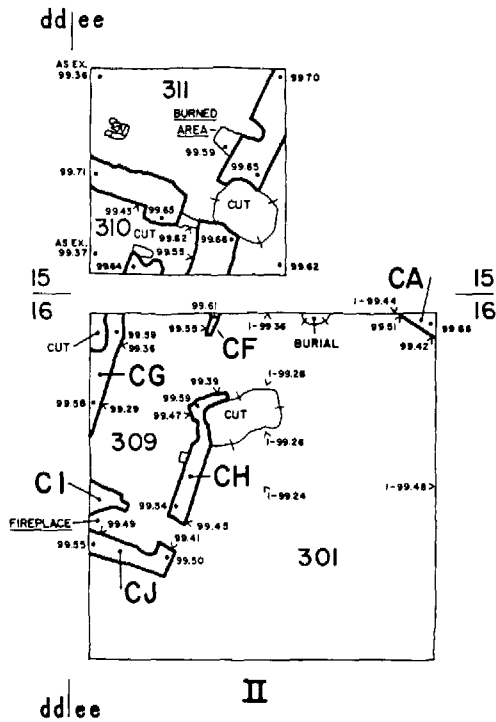
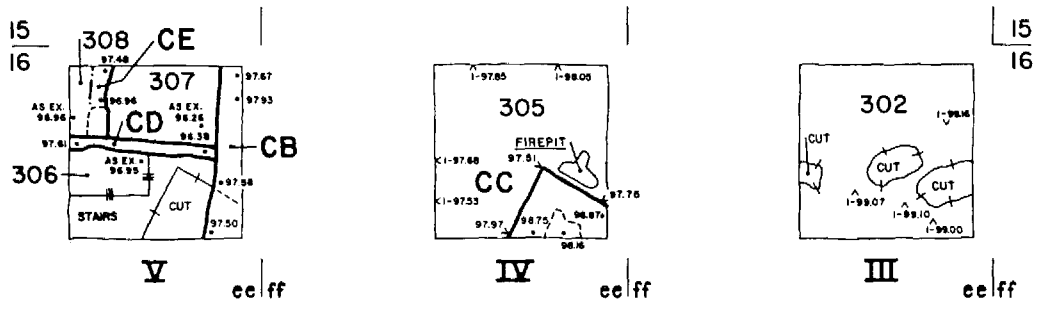


Islamic?



Tell Ahmed al-Mughir. 1. Topographic map. 2. Section.

PLATE 106

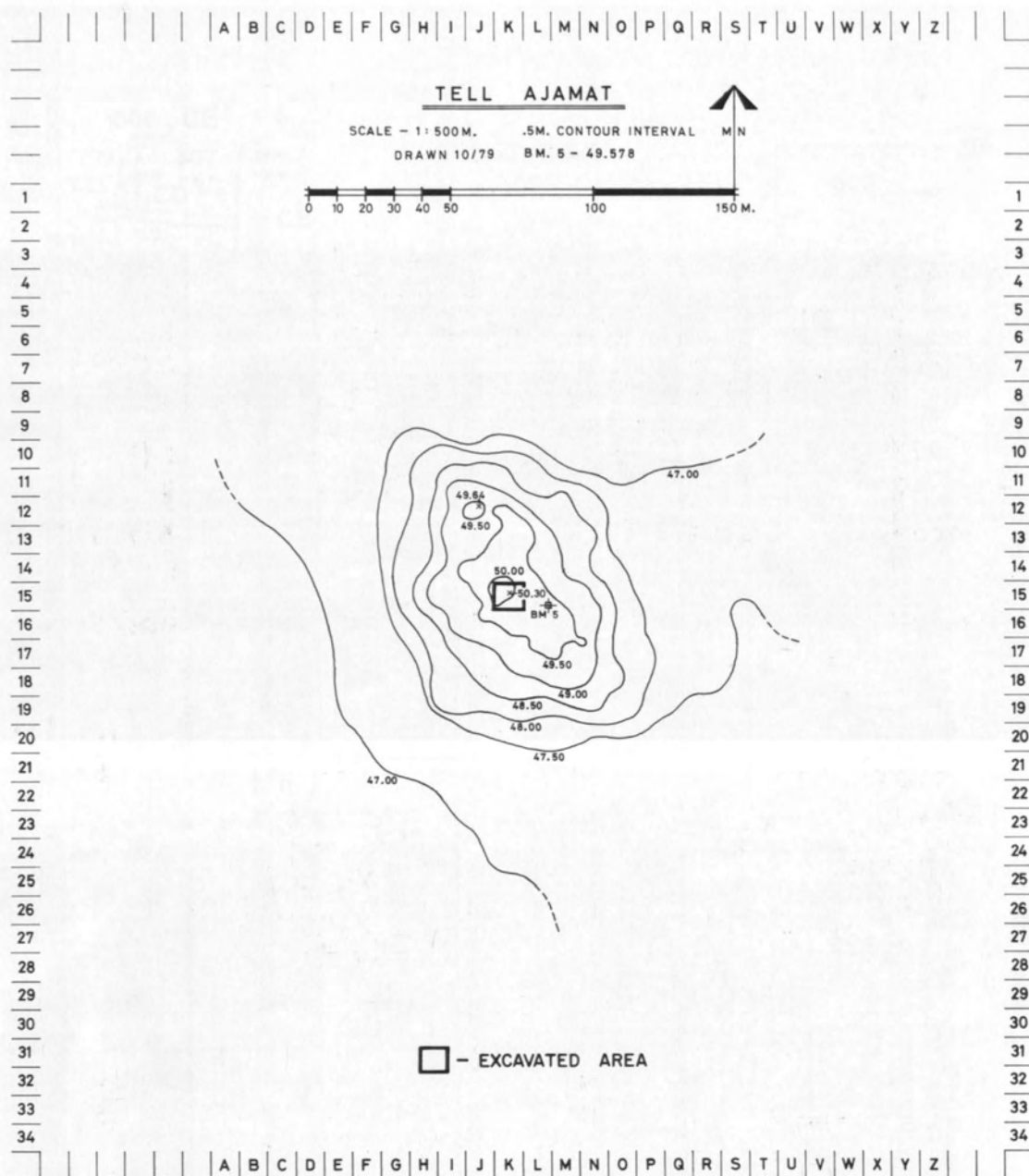


Tell Ahmed al-Mughir. Plans of Levels V, IV, III and II.

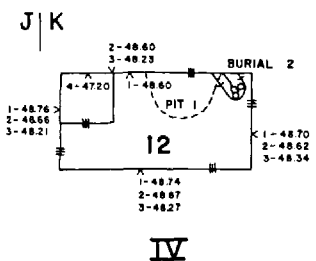
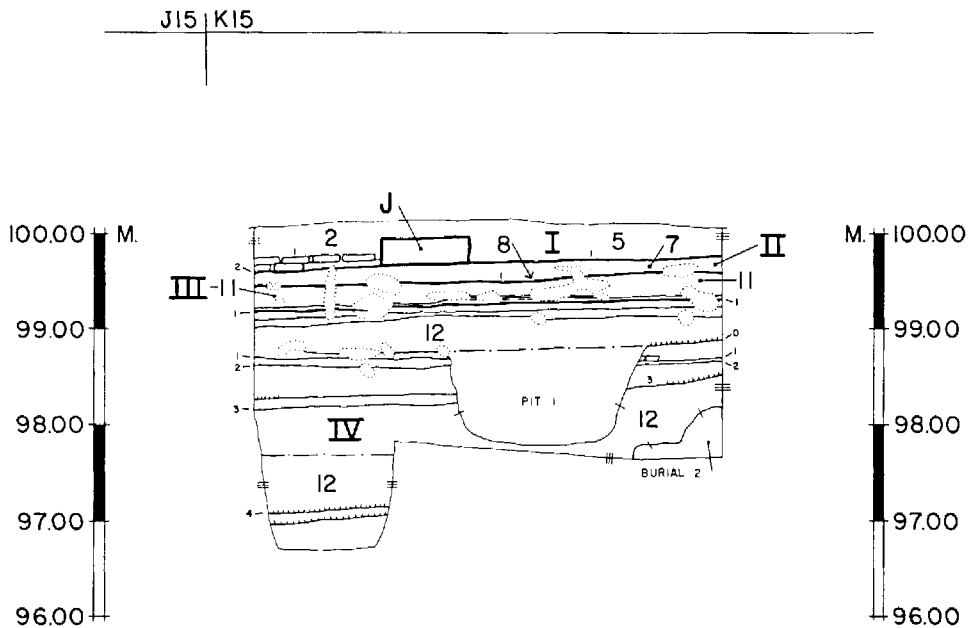


Tell Ahmed al-Mughir. 1. Upper levels of excavation. Kassite/post-Kassite. 2. Deep pit, Isin-Larsa, Kassite/post-Kassite.

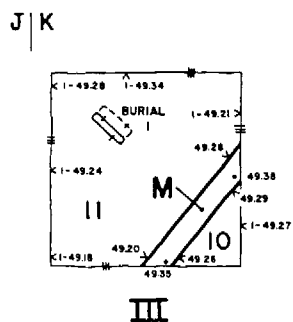
PLATE 108



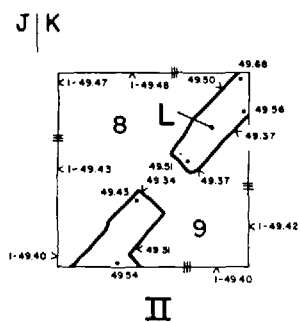
Tell Ajamat. 1. Topographic map. 2. Upper level, recent house.



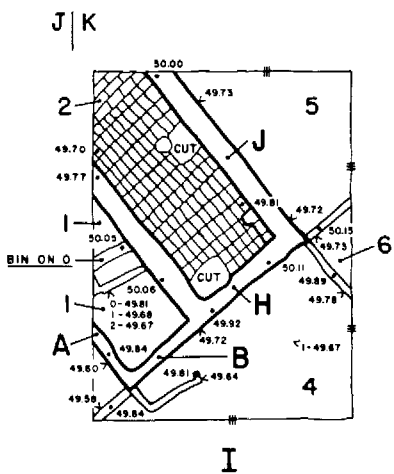
14 / 15



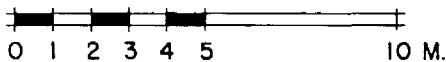
14 / 15



14 / 15



14 / 15



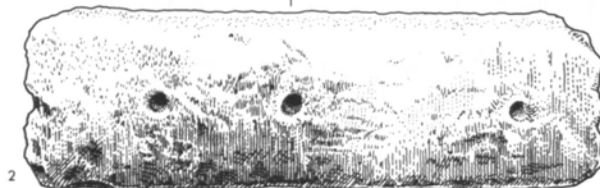
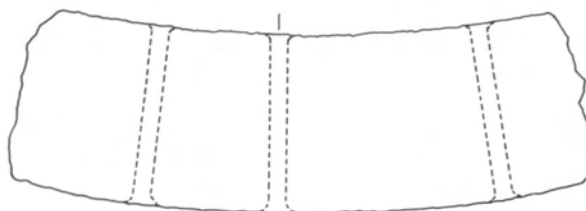
Tell Ajamat. 1. Section. 2. Plans.

PLATE 110

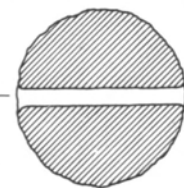
No.	Provenience	Level	Description	Reference
1 Uc 69	Loc. 306, Fl. 1	V	Figurine?, baked clay	p. 145
2 Uc 243	Loc. 305, pit	IV	Curved object, baked clay	”
3 Uc 105	Loc. 301, Fl. 1, fill	II	Spindle whorl, pottery	146
4 Uc 108	Loc. 301, Fl. 1, fill	II	Dagger blade, iron	”
5 Uc 262	Loc. 12, Fl. 4, fill	IV	Blade, copper	148
6 Uc 261	Loc. 12, Fl. 4, fill	IV	Cylinder seal? baked clay	”
7 Uc 119	Uch Tepe Village	-	Plaque, baked clay	



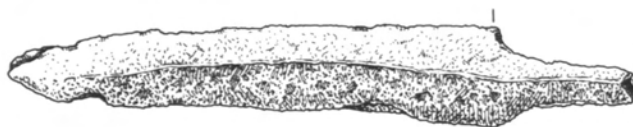
1



2



3

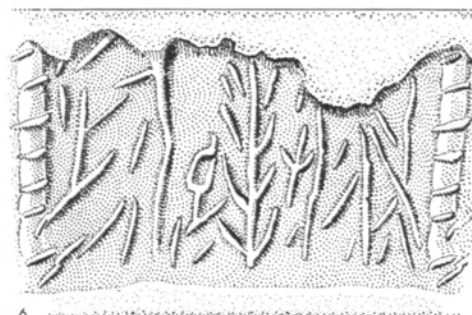


4

Ahmed al-Mughir



5



6

Ajamat

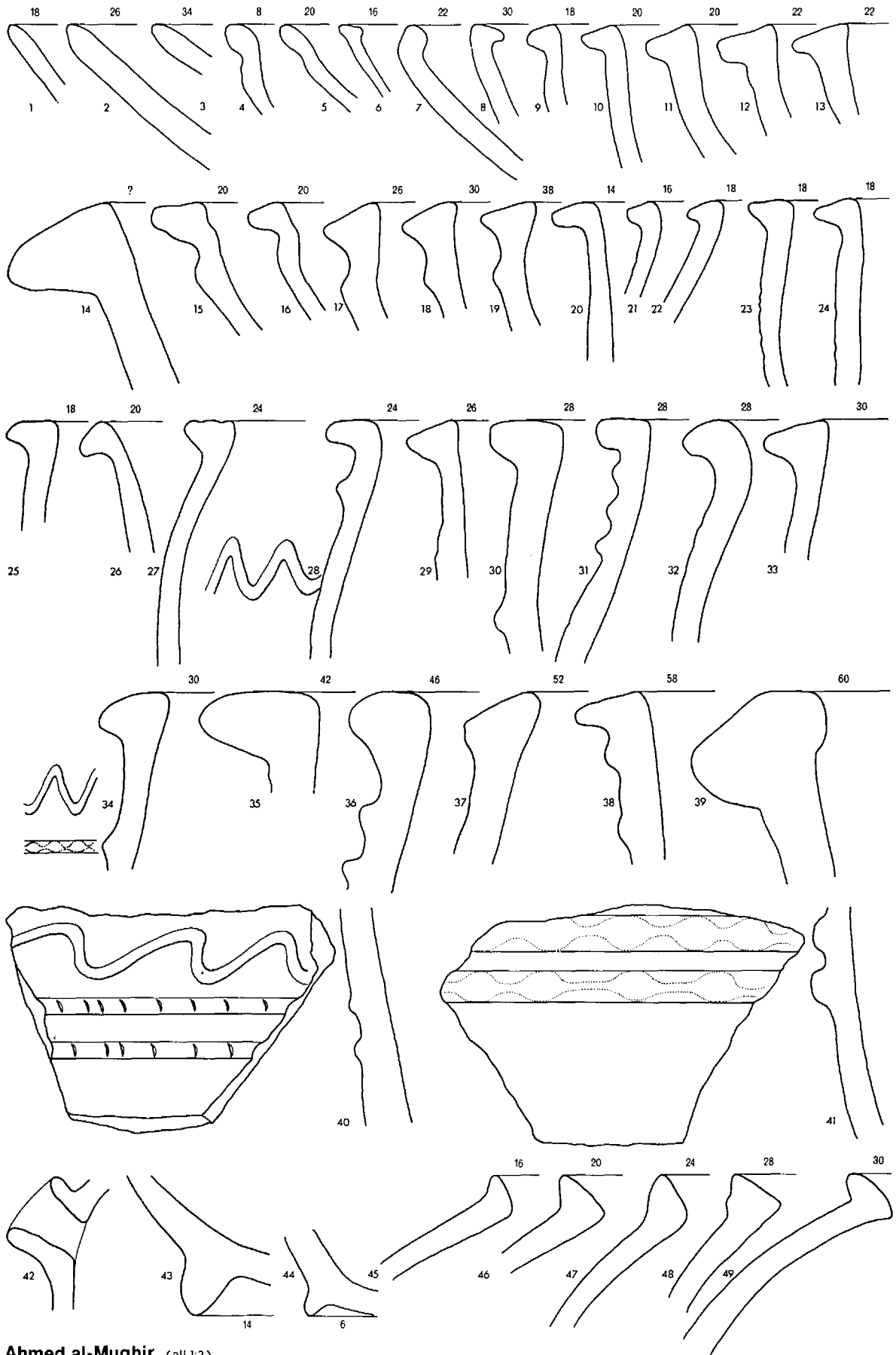


7

ÜçTepe village (all 1:2 except Nos 6a&b 1:1)

PLATE 111

No.	Provenience	Level	Ware	Reference
1	Loc. 307, fill above Fl. 1 (lot 406)	V	Buff with cream slip	
2	(Loc. 305, fill above Fl. 1 (lot 405)	IV	Buff	
3	Loc. 307, fill above Fl. 1 (lot 406)	V	Buff	
4	Loc. 305, fill above Fl. 1 (lot 405)	IV	Gray	
5	Loc. 307, Fl. 1 (lot 415)	V	Buff with cream slip	
6	Loc. 305, Fl. 1 (lot 408)	IV	Buff with cream slip	Umm al-Hafriyat (OB)
7	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Brownish- buff	
8	Loc. 307, fill above Fl. 1 (lot 406)	V	Pink	
9	Loc. 305, fill above Fl. 1 (lot 405)	IV	Buff	
10	Loc. 305, fill above Fl. 1 (lot 405)	IV	Buff with cream slip	
11	Loc. 305, fill above Fl. 1 (lot 405)	IV	Cream	
12	Loc. 307, fill above Fl. 1 (lot 406)	V	Buff	
13	Lot 306, fill above Fl. 1 (lot 414)	V	Buff with cream slip	
14	Loc. 307, Fl. 1 (lot 415)	V	Green	<i>Nippur 12</i> , Fig. 61:4 (OB)
15	Loc. 307, fill above Fl. 1 (lot 406)	V	Buff	Umm al-Hafriyat (Ur III) Delougaz, C.142.310 (Larsa)
16	Loc. 305, Fl. 1 (lot 408)	IV	Buff with cream slip	
17	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Cream	
18	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Buff	
19	Loc. 307, fill above Fl. 1 (lot 413)	V	Buff	
20	Loc. 307, fill above Fl. 1 (lot 413)	V	Green	<i>Nippur 12</i> , Fig. 61:2a, 2b (OB)
21	Loc. 306, fill above Fl. 1 (lot 414)	V	Buff	
22	Loc. 305, Fl. 1 (lot 408)	IV	Cream	



Ahmed al-Mughir (all 1:2)

PLATE 111 (continued)

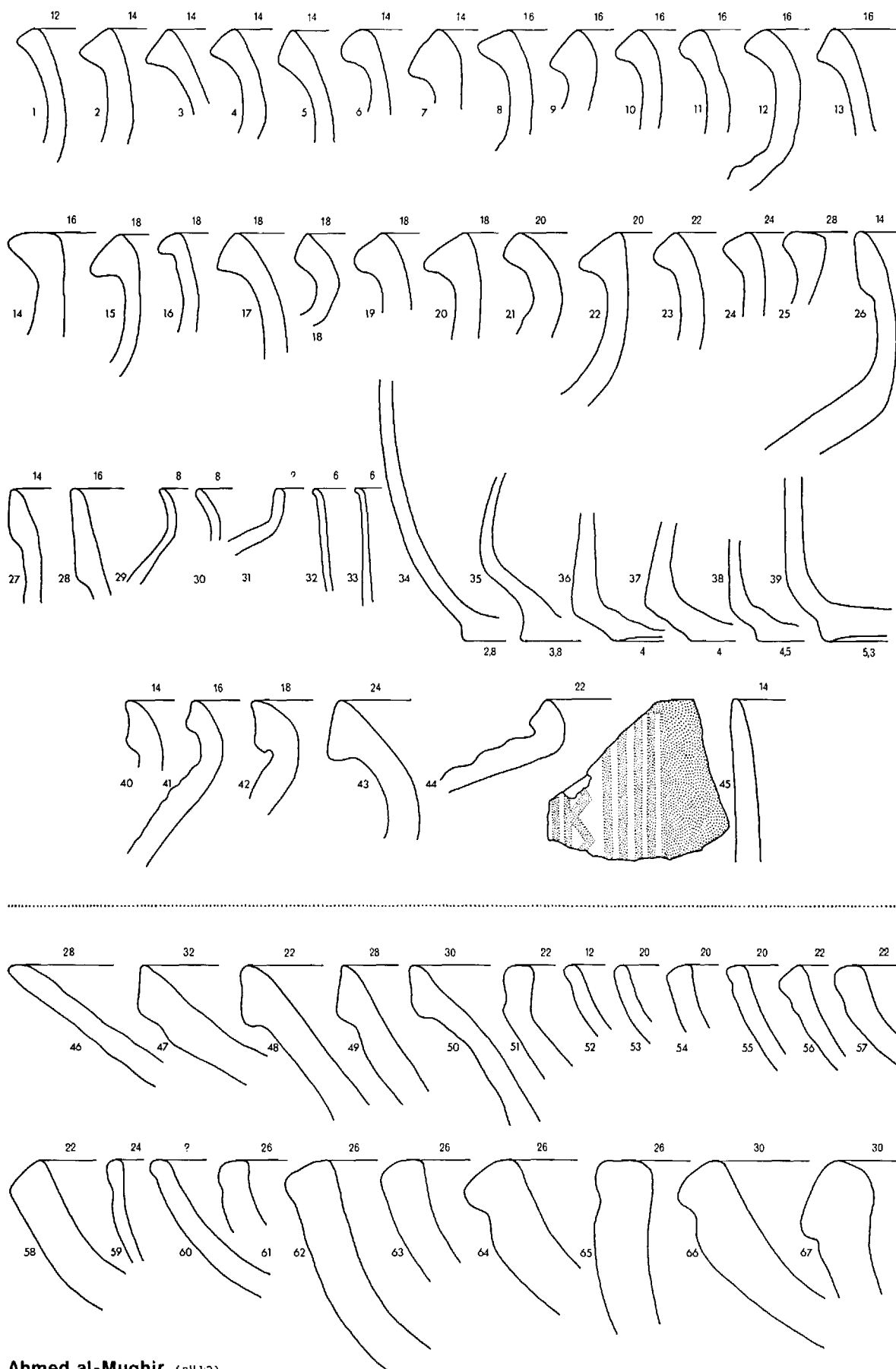
No.	Provenience	Level	Ware	Reference
23	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Cream	Delougaz, C.043.310; C.044.310 (late Larsa-OB)
24	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Buff	
25	Loc. 305, Fl. 1 (lot 408)	IV	Cream	
26	Loc. 307, Fl. 2 (lot 417)	V	Buff with cream slip	
27	Loc. 306, fill above Fl. 2 (lot 416)	V	Cream	
28	Loc. 306, fill above Fl. 1 (lot 414)	V	Buff with cream slip	
29	Loc. 307, fill above Fl. 1 (lot 413)	V	Pink	
30	Loc. 307, fill above Fl. 1 (lot 406)	V	Buff	
31	Loc. 307, fill above Fl. 1 (lot 413)	V	Green	
32	Loc. 305, Fl. 1 (lot 408)	IV	Cream	
33	Loc. 305, fill above Fl. 1 (lot 405)	IV	Cream	
34	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
35	Loc. 307, fill above Fl. 1 (lot 413)	V	Green	
36	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
37	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
38	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
39	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Cream	
40	Loc. 306, fill above Fl. 2 (lot 416)	V	Cream	
41	Loc. 307, Fl. 2 (lot 417)	V	Buff with cream slip	
42	Loc. 307, fill above Fl. 1 (lot 413)	V	Green	Umm al-Hafriyat (IL); Delougaz, C.053.312 (Akk.); C.053.212 (Larsa)
43	Loc. 306, fill above Fl. 1 (lot 414)	V	Buff	
44	Loc. 305, Fl. 1 (lot 408)	IV	Buff with cream slip	

PLATE 111 (continued)

No.	Provenience	Level	Ware	Reference
45	Loc. 305, Fl. 1 (lot 408)	IV	Brownish- buff with sand temper	Umm al-Hafriyat (IL)
46	Loc. 306, fill above Fl. 2 (lot 416)	V	brownish- buff with sand temper	
47	Loc. 305, Fl. 1 (lot 408)	IV	Brownish- buff with sand temper	
48	Loc. 307, fill above Fl. 1 (lot 413)	V	Brownish- buff with sand temper	
49	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Brownish- buff with sand temper	

PLATE 112

No.	Provenience	Level	Ware	Reference
1	Loc. 305, Fl. 1 (lot 408)	IV	Buff with cream slip	Umm al-Hafriyat (Ur III-OB); <i>Nippur I</i> , Pls. 86:9; 87:3, 4, 8- 11; 90:17 (Ur III-IL); Delougaz, C.545.340d (Larsa)
2	Loc. 305, Fl. 1 (lot 408)	IV	Cream	
3	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
4	Loc. 305, Fl. 1 (lot 408)	IV	Buff with cream slip	
5	Loc. 307, Fl. 1 (lot 415)	V	Buff with cream slip	
6	Loc. 307, fill above Fl. 1 (lot 413)	V	Buff	
7	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Buff	
8	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
9	Loc. 307, Fl. 1 (lot 415)	V	Buff	
10	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Cream	
11	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
12	Loc. 305, Fl. 1 (lot 408)	IV	Cream	
13	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
14	Loc. 306, 307, 308, fill above Fl. (lot 410)	V	Cream	
15	Loc. 307, fill above Fl. 1 (lot 413)	V	Gray	
16	Loc. 305, fill above Fl. 1 (lot 405)	IV	Buff with cream slip	
17	Loc. 305, Fl. 1 (lot 408)	IV	Cream	
18	Loc. 307, Fl. 1 (lot 415)	V	Buff	
19	Loc. 307, fill above Fl. 1 (lot 413)	V	Green	
20	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Buff	



Ahmed al-Mughir (all 1-2)

PLATE 112 (continued)

No.	Provenience	Level	Ware	Reference
21	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Cream	
22	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Buff	
23	Loc. 306, fill above Fl. 1 (lot 414)	V	Buff	
24	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
25	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Cream	
26	Loc. 305, fill above Fl. 1 (lot 405)	IV	Buff with cream slip	Umm al-Hafriyat (OB)
27	Loc. 305, Fl. 1 (lot 408)	IV	Buff with cream slip	
28	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
29	Loc. 305, Fl. 1 (lot 408)	IV	Buff with cream slip	
30	Loc. 307, Fl. 2 (lot 417)	V	Cream	
31	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Buff with cream slip	
32	Loc. 305, Fl. 1 (lot 408)	IV	Buff with cream slip	Umm al-Hafriyat (IL-OB)
33	Loc. 305, Fl. 1 (lot 408)	IV	Buff	
34	Loc. 305, Fl. 1 (lot 408)	IV	Buff	<i>Nippur 12</i> , Fig. 59:5 (OB)
35	Loc. 305, fill above Fl. 1 (lot 405)	IV	Pink with cream slip	
36	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Pink with cream slip	Umm al-Hafriyat (IL); <i>Nippur 12</i> , Fig. 59:4a-5 (OB); Delougaz, B.236.200c, B.236.300, B.237.200, B.247.200 (Larsa)
37	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Pink	
38	Loc. 307, fill above Fl. 1 (lot 413)	V	Buff with cream slip	
39	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	V	Buff with cream slip	
40	Loc. 305, fill above Fl. 1 (lot 405)	IV	Buff with cream slip	
41	Loc. 306, 307, 308, fill above Fl. 1 (lot 410)	IV	Cream	

PLATE 112 (continued)

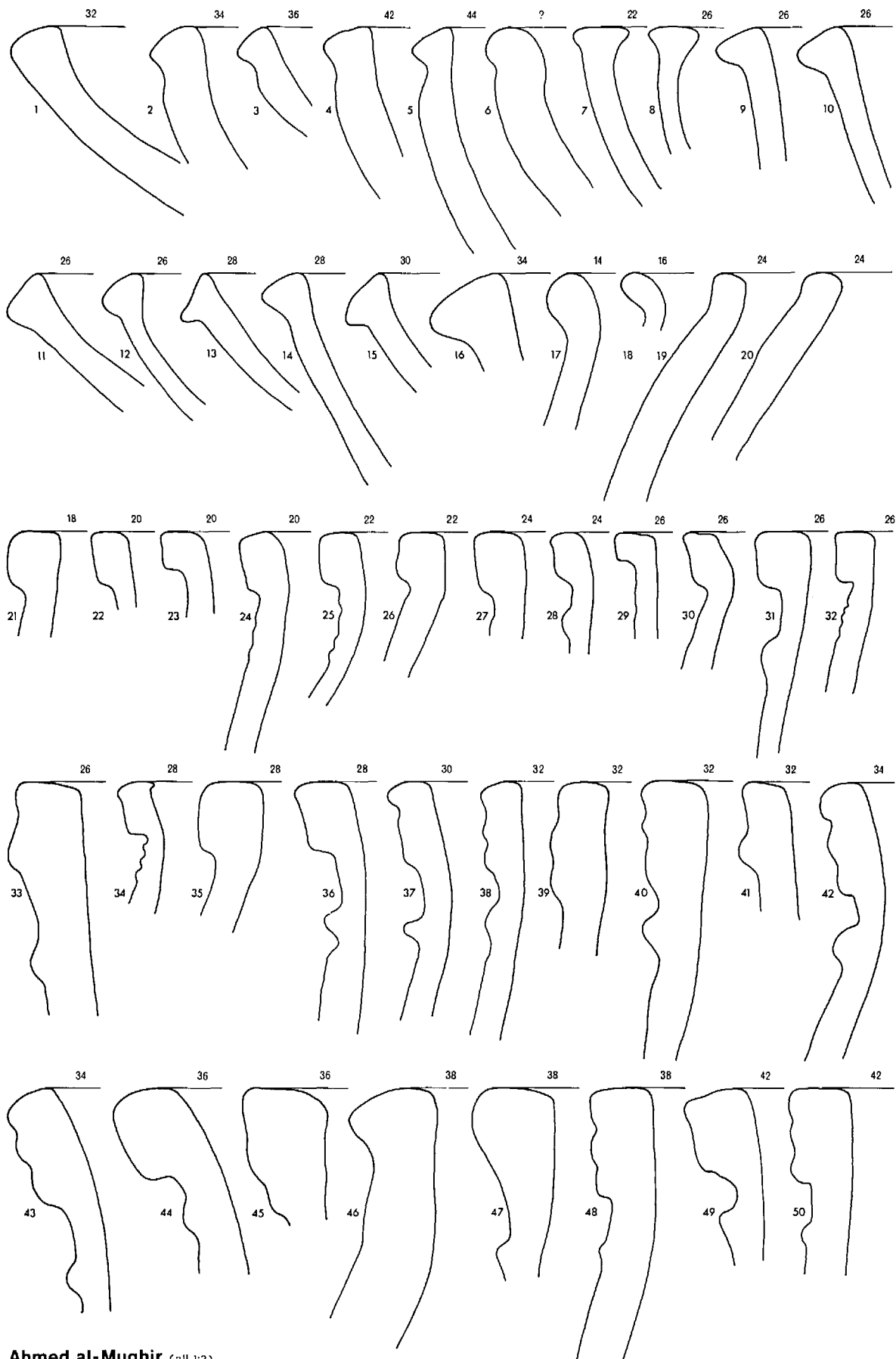
No.	Provenience	Level	Ware	Reference
42	Loc. 306, fill above Fl. 2 (lot 416)	V	Green	
43	Loc. 306, fill above Fl. 2 (lot 416)	V	Buff with cream slip	
44	Loc. 306, fill above Fl. 2 (lot 416)	V	Cream	
45	Loc. 305, Fl. 1 (lot 408)	IV	Yellowish- cream with black paint	
46	Loc. 302, fill above Fl. 1 (lot 402)	III	Buff with cream slip	
47	Loc. 302, fill above Fl. 1 (lot 402)	III	Pink	
48	Loc. 301, fill above Fl. 1 (lot 421)	II	Buff	
49	Loc. 301, fill above Fl. 1 (lot 421)	II	Buff	
50	Loc. 301, fill above Fl.1 (lot 401)	II	Pink	
51	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	<i>Nippur I</i> , Pl. 97:13 (post- Kass.)
52	Loc. 309, fill above Fl. 1 (lot 422)	II	Green	<i>Nippur 12</i> , Fig. 63:20-28 (Kass., post-Kass.)
53	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
54	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
55	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
56	Loc. 301, fill above Fl. 1 (lot 421)	II	Buff	
57	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
58	Loc. 302, Fl. 1, firepit (lot 430)	III	Buff	
59	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff with cream slip	
60	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
61	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
62	Loc. 311, fill above Fl. 1 (lot 434)	II	Pink	
63	Loc. 309, fill above Fl. 1 (lot 422)	II	Buff	

PLATE 112 (continued)

No.	Provenience	Level	Ware	Reference
64	Loc. 310, fill above Fl. 1 (lot 432)	II	Pink	
65	Loc. 302, fill above Fl. 1 (lot 428)	III	Pink	
66	Loc. 310, fill above Fl. 1 (lot 432)	II	Pink	
67	Surface collection		Green	

PLATE 113

No.	Provenience	Level	Ware	Reference
1	Topsoil (lot. 427)		Buff	
2	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
3	Loc. 311, fill above Fl. 1 (lot. 434)	II	Buff	
4	Loc. 310, fill above Fl. 1	II	Pink	
5	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
6	Loc. 302, fill above Fl. 1 (lot 402)	III	Buff	
7	Loc. 301, fill above Fl. 1 (lot 421)	II	Green	<i>Nippur I</i> , Pl. 97:14 (Kass.- Ach.)
8	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
9	Loc. 301, fill above Fl. 1 (lot 421)	II	Buff	<i>Nippur 12</i> , Fig. 65 (Kass.- post-Kass.); <i>Nippur I</i> , Pls. 97: 15, 18; 100:7, 11 (Kass.- post-Kass.)
10	Loc. 301, fill above Fl. 1 (lot 421)	II	Buff	
11	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
12	Loc. 302, fill above Fl. 1 (lot 428)	III	Green	
13	Loc. 302, fill above Fl. 1 (lot 402)	III	Buff	
14	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
15	Loc. 301, fill above Fl. 1 (lot 421)	II	Green	
16	Surface collection		Buff	
17	Surface collection		Green	
18	Surface collection		Buff	
19	Loc. 301, fill above Fl. 1 (lot 421)	II	Brownish- buff, many grits	
20	Loc. 302, fill above Fl.1 (lot 428)	III	Brownish- buff, many grits	
21	Topsoil (lot 425)		Green	
22	Loc. 309, fill above Fl. 1 (lot 422)	II	Buff	
23	Loc. 302, fill above Fl. 1 (lot 402)	III	Buff	



Ahmed al-Mughir (all 1:2)

PLATE 113 (continued)

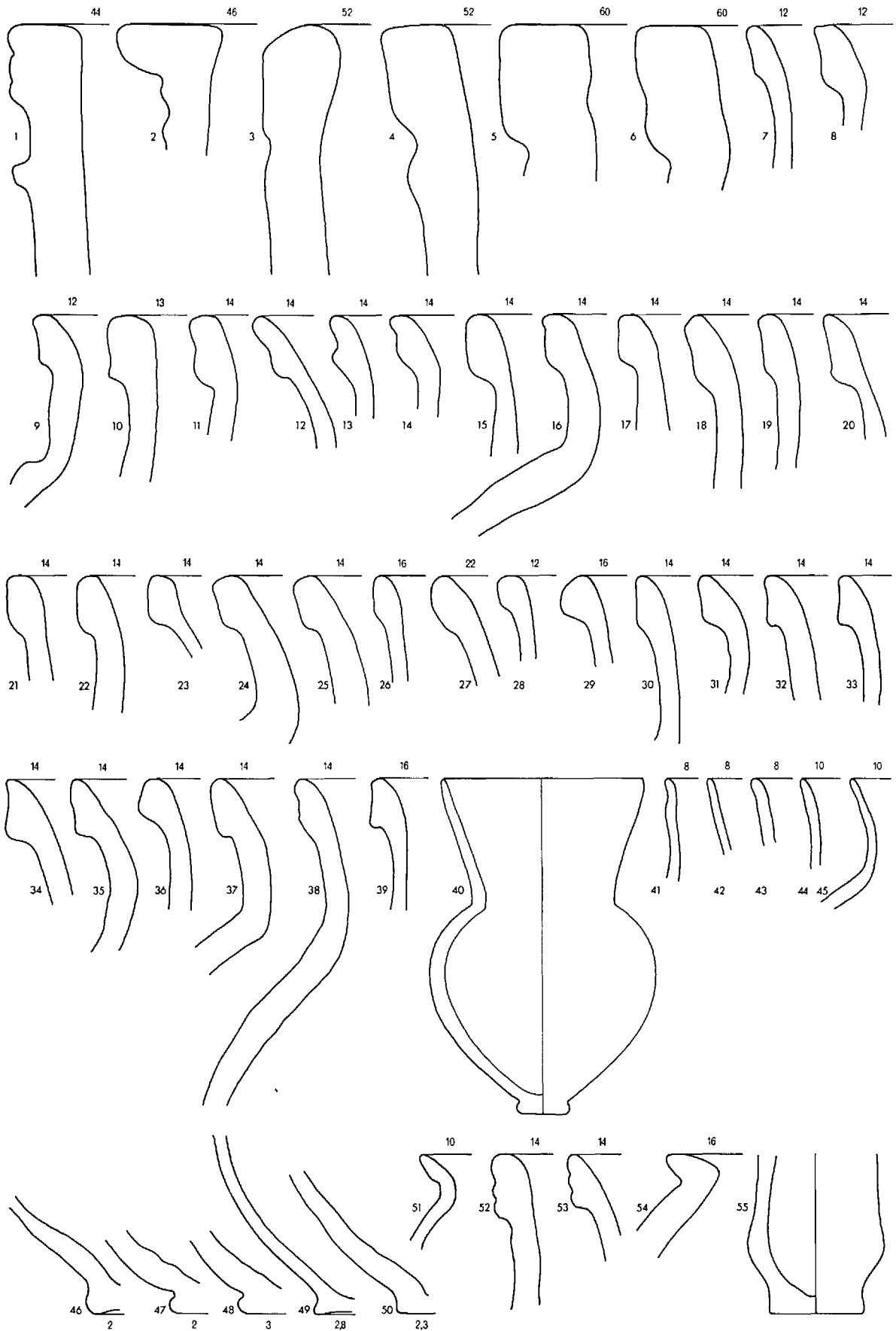
No.	Provenience	Level	Ware	Reference
24	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
25	Loc. 301, fill above Fl. 1 (lot 421)	II	Green	
26	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
27	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
28	Loc. 302, fill above Fl. 1 (lot 428)	III	Green	
29	Loc. 302, Fl. 1, firepit (lot 430)	III	Green	
30	Loc. 302, fill above Fl. 1 (lot 402)	III	Buff with cream slip	
31	Topsoil (lot 425)		Green	
32	Loc. 302, Fl. 1, firepit (lot 430)	III	Buff	
33	Topsoil (lot 418)		Green	
34	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
35	Loc. 309, fill above Fl. 1 (lot 422)	II	Green	
36	Loc. 302, Fl. 1, firepit (lot 430)	III	Buff	
37	Loc. 302, Fl. 1, firepit (lot 430)	III	Buff	
38	Topsoil (lot 427)		Green	
39	Loc. 309, fill above Fl. 1 (lot 422)	II	Buff	
40	Topsoil (lot 425)		Green	
41	Loc. 309, fill above Fl. 1 (lot 422)	II	Green	
42	Loc. 302, fill above Fl. 1 (lot 428)	III	Green	
43	Topsoil (lot 427)		Buff	
44	Loc. 302, Fl. 1, firepit (lot 430)	III	Buff	
45	Topsoil (lot 427)		Green	
46	Loc. 301, fill above Fl. 1 (lot 421)	II	Pink	

PLATE 113 (continued)

No.	Provenience	Level	Ware	Reference
47	Topsoil (lot 425)		Buff	
48	Loc. 311, fill above Fl. 1 (lot 434)	II	Buff	
49	Topsoil (lot 427)		Green	
50	Topsoil (lot 425)		Green	

PLATE 114

No.	Provenience	Level	Ware	Reference
1	Loc. 301, fill above Fl. 1 (lot 421)	II	Green	
2	Loc. 309, fill above Fl. 1 (lot 422)	II	Pink	
3	Loc. 309, fill above Fl. 1 (lot 422)	II	Green	
4	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
5	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
6	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
7	Loc. 301, fill above Fl. 1 (lot 421)	II	Buff	<i>Nippur 12</i> , Fig. 67:2-5, Fig. 68:18 (Kass.-post-Kass.)
8	Loc. 302, fill above Fl. 1 (lot 402)	III	Buff	
9	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
10	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
11	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
12	Loc. 301, fill above Fl. 1 (lot 421)	II	Pink	
13	Loc. 311, fill above Fl. 1 (lot 434)	II	Buff	
14	Loc. 302, fill above Fl. 1 (lot 402)	III	Buff	
15	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
16	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
17	Loc. 309, fill above Fl. 1 (lot 422)	II	Buff	
18	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	<i>Nippur 12</i> , Fig. 67:7 (Kass.)
19	Loc. 301, fill above Fl. 1 (lot 401)	II	Pink with cream slip	
20	Loc. 301, fill above Fl. 1 (lot 421)	II	Green	
21	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
22	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
23	Loc. 311, fill above Fl. 1 (lot 434)	II	Buff	



Ahmed al-Mughir (all 1:2)

PLATE 114 (continued)

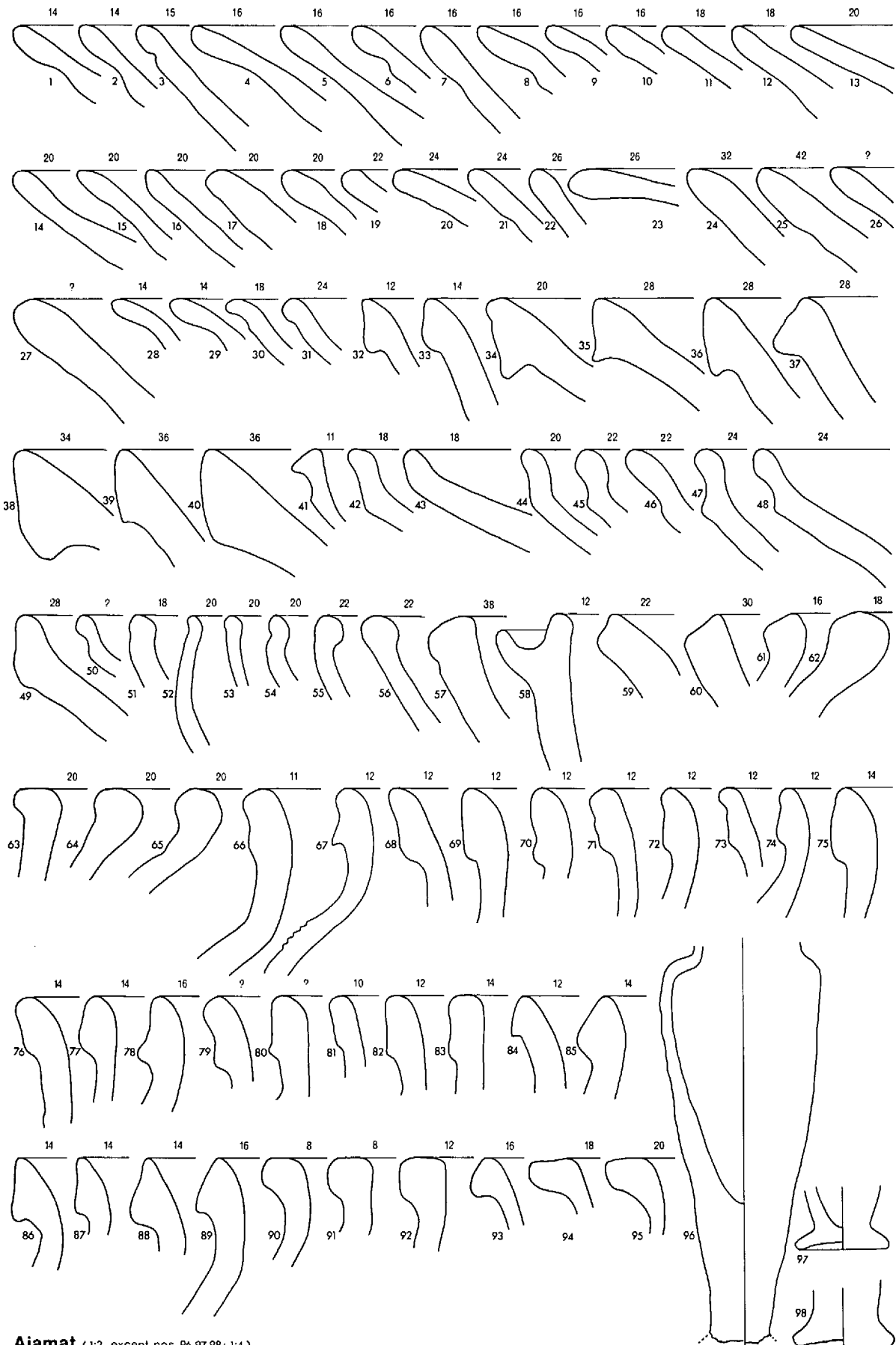
No.	Provenience	Level	Ware	Reference
24	Topsoil (lot 427)		Buff	
25	Topsoil (lot 427)		Buff	
26	Loc. 301, fill above Fl. 1 (lot 401)	II	Pink with cream slip	
27	Loc. 309, fill above Fl. 1 (lot 422)	II	Pink	
28	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
29	Loc. 309, fill above Fl. 1 (lot 422)	II	Gray	
30	Loc. 301, fill above Fl. 1 (lot 421)	II	Pink with cream slip	<i>Nippur 12</i> , Figs. 67:8, 68:3, 5-10 (Kass., post-Kass.)
31	Loc. 302, fill above Fl. 1 (lot 402)	III	Buff	
32	Loc. 309, fill above Fl. 1 (lot 422)	II	Buff	
33	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
34	Topsoil (lot 418)		Buff	
35	Loc. 302, Fl. 1, firepit (lot 430)	III	Buff	
36	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff	
37	Loc. 301, fill above Fl. 1 (lot 421)	II	Green	
38	Loc. 310, fill above Fl. 1 (lot 432)	II	Green	
39	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
40	Loc. 309, fill above Fl. 1 (Uc 141, lot 422)	II	Buff with cream slip	<i>Nippur 12</i> , Figs. 69-71 (Kass., post-Kass.)
41	Loc. 309, fill above Fl. 1 (lot 422)	II	Buff	
42	Topsoil (lot 425)		Buff with cream slip	
43	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff with cream slip	
44	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
45	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
46	Loc. 301, fill above Fl. 1 (lot 421)	II	Green	

PLATE 114 (continued)

No.	Provenience	Level	Ware	Reference
47	Surface collection		Buff with cream slip	
48	Surface collection		Pink	
49	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff with cream slip	
50	Topsoil (lot 418)		Buff	
51	Loc. 302, fill above Fl. 1 (lot 428)	III	Buff with cream slip	
52	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	<i>Nippur I</i> , Pl. 84:7-8
53	Loc. 301, fill above Fl. 1 (lot 401)	II	Buff	
54	Topsoil (lot 431)		Green	See above, Pl. 111:45
55	Loc. 309, fill above Fl. 1 (lot 422)	II	Buff	See above, Pl. 112:36-39

PLATE 115

No.	Provenience	Level	Ware	Reference
1	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Pink with cream slip	<i>Nippur 12</i> , Fig. 62 (Kass., post-Kass.)
2	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Pink with cream slip	
3	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Buff with cream slip	
4	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Pink with cream slip	
5	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Buff with cream slip	
6	Loc. 12, fill above Fl. 1, in clay (lot 26*)	IV	Buff with cream slip	
7	Surface collection			
8	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Buff with cream slip	
9	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Buff with cream slip	
10	Loc. 12, fill up to 15 cm. above Fl. 1 (lot 30*)	IV	Buff with cream slip	
11	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Buff with cream slip	
12	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	
13	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	
14	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Buff with cream slip	
15	Loc. 12, fill above Fl. 1 (lot 22*)	IV	Pink with cream slip	
16	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff	
17	Loc. 1, fill above Fl. 1 (lot 3*)	I	Pink with buff slip	
18	Loc. 12, fill above Fl. 1, in clay (lot 26*)	IV	Buff with cream slip	
19	Loc. 12, fill above Fl. 2 (lot 34*)	IV	Buff	
20	Loc. 12, fill up to 15 cm. above Fl. 1 (lot 30*)	IV	Buff with cream slip	
21	Surface collection			
22	Surface collection			
23	Loc. 7 (lot 17*)	II	Buff with cream slip	
24	Loc. 2, fill above Fl. 1 (lot 6*)	I	Buff with cream slip	



Ajamat (1:2, except nos. 96, 97, 98: 1:4)

PLATE 115 (continued)

No.	Provenience	Level	Ware	Reference
25	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	
26	Loc. 12, Pit 1 (lot 31*)	IV	Buff with cream slip	
27	Loc. 12, fill above Fl. 1, in clay (lot 26*)	IV	Buff	
28	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Buff	
29	Loc. 12, fill up to 15 cm. above Fl. 1 (lot 30*)	IV	Buff with cream slip	
30	Loc. 12, fill above Fl. 1 (lot 25*)	IV	Pink with cream slip	
31	Loc. 12, fill up to 15 cm. above Fl. 1 (lot 30*)	IV	Green	
32	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Pink with cream slip	
33	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Buff with cream slip	
34	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Green with cream slip	
35	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Buff with cream slip	
36	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Buff	
37	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Green	
38	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Buff	
39	Loc. 12, fill above Fl. 1, in clay (lot 21*)	IV	Buff with cream slip	
40	Loc. 7 (lot 17*)	II	Buff	
41	Surface collection			<i>Nippur 12</i> , Fig. 64:2 (Kass.)
42	Loc. 12, Pit 1 (lot 33*)	IV	Buff	<i>Nippur 12</i> , Fig. 63:1-17 (Kass.-Ach.)
43	Loc. 12, fill above Fl. 4 (lot 45*)	IV	Buff	
44	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	
45	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff	
46	Loc. 12, fill above Fl. 2 (lot 34*)	IV	Buff with cream slip	
47	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	

PLATE 115 (continued)

No.	Provenience	Level	Ware	Reference
48	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Buff with cream slip	
49	Loc. 12, fill above Fl. 4 (lot 45*)	IV	Buff with cream slip	
50	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	
51	Loc. 12, Pit 1 (lot 31*)	IV	Buff with cream slip	
52	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Buff with cream slip	<i>Nippur 12</i> , Fig. 65:22-27 (post-Kass.)
53	Loc. 12, fill up to 15 cm. above Fl. 1 (lot 30*)	IV	Pink with cream slip	
54	Loc. 12, fill up to 15 cm. above Fl. 1 (lot 30*)	IV	Buff with cream slip	
55	Loc. 12, Pit 1 (lot 31*)	IV	Pink	
56	Loc. 7 (lot 16*)	IV	Buff with cream slip	
57	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff	
58	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Buff with cream slip	
59	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Pink with cream slip	
60	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Pink	
61	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Pink with cream slip	
62	Surface collection			
63	Loc. 11, fill above Fl. 1	III	Buff with cream slip	
64	Loc. 7 (lot 17*)	II	Pink with cream slip	
65	Loc. 12, fill above Fl. 4 (lot 45*)	IV	Pink, many black and white grits	
66	Loc. 12, ashy floor mate- rial below Fl. 4 (lot 46*)	IV	Buff with cream slip	<i>Nippur 12</i> , Figs. 67:2-5, 68:18 (Kass., post-Kass.)
67	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Pink	
68	Loc. 12, fill above Fl. 4 (lot 45*)	IV	Buff with cream slip	
69	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Buff with cream slip	
70	Loc. 7 (lot 17*)	II	Buff with cream slip	

PLATE 115 (continued)

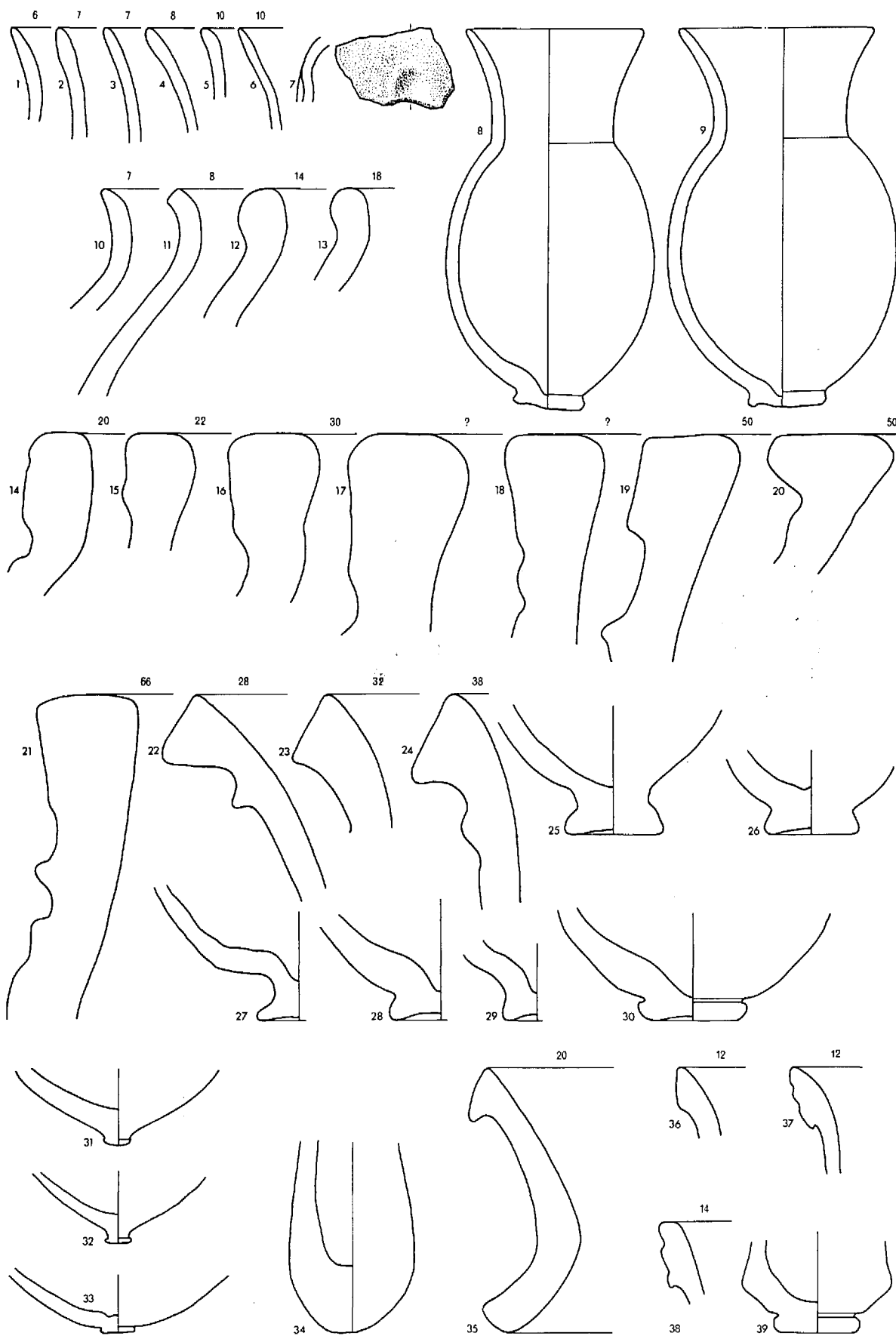
No.	Provenience	Level	Ware	Reference
71	Loc. 12, Pit 1 (lot 33*)	IV	Buff with cream slip	
72	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Buff with cream slip	
73	Loc. 12, Pit 1 (lot 31*)	IV	Buff with cream slip	
74	Loc. 11, fill above Fl. 1 (lot 24*)	III	Buff	
75	Surface collection			
76	Loc. 5, fill above Fl. 1 (lot 14*)	I	Green with cream slip	
77	Loc. 12, fill above Fl. 2 (lot 34*)	IV	Buff with cream slip	
78	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Buff	
79	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Green	
80	Loc. 12, Pit 1 (lot 37*)	IV	Green with cream slip	<i>Nippur 12</i> , Fig. 67:7 (Kass.)
81	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Buff	
82	Loc. 12, Pit 1 (lot 38*)	IV	Buff	
83	Surface collection			
84	Loc. 12, Pit 1 (lot 38*)	IV	Buff with cream slip	<i>Nippur 12</i> , Figs. 67:8, 68:3, 5-10 (Kass., post-Kass.)
85	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Buff with cream slip	
86	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	
87	Loc. 12, Pit 1 (lot 38*)	IV	Buff	
88	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	
89	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV		
90	Loc. 12, fill above Fl. 3 (lot 35*)	IV	Buff with cream slip	
91	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Pink with cream slip	
92	Loc. 7 (lot 17*)	II	Buff	
93	Loc. 11, fill above Fl. 1 (lot 24*)	III	Pink with cream slip	
94	Loc. 7 (lot 17*)	II	Brown with cream slip	

PLATE 115 (continued)

No.	Provenience	Level	Ware	Reference
95	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Brownish- buff with cream slip	
96	Loc. 12, fill above Fl. 1 (lot 45*)	IV	Buff with cream slip	<i>Nippur 12</i> , Fig. 66 (Kass., post-Kass.); <i>Nippur I</i> , Pl. 98:14-16 (Kass., post-Kass.)
97	Loc. 12, fill above Fl. 1 (lot 22*)	IV	Buff with cream slip	
98	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	

PLATE 116

No.	Provenience	Level	Ware	Reference
1	Loc. 9, fill above and just below Fl. 1 (lot 19*)	II	Green with cream slip	
2	Loc. 5, fill above Fl. 1 (lot 14*)	I	Green with cream slip	
3	Loc. 12, Pit 1 (lot 33*)	IV	Buff with cream slip	
4	Loc. 12, fill above Fl. 4 (lot 43*)	IV	Buff with cream slip	
5	Loc. 12, fill above Fl. 3 (lot 36*)	IV	Buff with cream slip	
6	Loc. 12, Pit 1 (lot 38*)	IV	Buff with cream slip	
7	Surface collection			R. Starr, <i>Nuzi</i> , Pls. 77, 78 <i>passim</i> (15th c. BC); J. Oates, <i>Iraq</i> 21 (1959): 130-46 <i>passim</i> (Neo-Assy.)
8	Loc. 12, Burial 2 (Uc 263, lot 40*)	IV	Buff with cream slip	
9	Loc. 12, Burial 2 (Uc 264, lot 39*)	IV	Buff with cream slip	
10	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	
11	Loc. 12, Pit 1 (lot 33*)	IV	Pink with cream slip	
12	Loc. 5, fill above Fl. 1 (lot 14*)	I	Buff with cream slip	
13	Loc. 12, fill above Fl. 1, in brown soil (lot 29*)	IV	Buff with cream slip	
14	Loc. 12, fill above Fl. 2 (lot 33*)	IV	Buff	
15	Loc. 12, fill up to 15 cm. above Fl. 1 (lot 30*)	IV	Buff with cream slip	
16	Loc. 12, fill above Fl. 5 (lot 47*)	IV	Pink	
17	Loc. 12, fill above Fl. 1, in clay (lot 21*)	IV	Buff with cream slip	
18	Loc. 12, fill above Fl. 1, in brown soil (lot 27*)	IV	Buff	
19	Loc. 2, fill above Fl. 1 (lot 6*)	IV	Buff	
20	Loc. 12, fill above Fl. 3 (lot 35*)	IV	Green	
21	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Green	
22	Loc. 12, fill above Fl. 4 (lot 45*)	IV	Green	<i>Nippur</i> 12, Fig. 73:21 (post-Kass.)



Ajamat (all 1:2)

PLATE 116 (continued)

No.	Loc.	Level	Ware	Reference
23	Fill above Fl. 1 (lot 6*)	I	Buff with cream slip	
24	Loc. 12, Pit 1 (lot 33*)	IV	Buff with cream slip	
25	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Pink with cream slip	<i>Nippur 12</i> , Figs. 70-71 Kass., post-Kass.)
26	Loc. 1, fill above Fl. 1 (lot 3*)	I	Buff with cream slip	
27	Loc. 11, fill above Fl. 1 (lot 24*)	III	Pink with cream slip	
28	Loc. 2, fill above Fl. 1 (lot 4*)	I	Pink with cream slip	
29	Loc. 2, fill above Fl. 1 (lot 4*)	I	Buff with cream slip	
30	Loc. 12, fill above Fl. 4 (lot 44*)	IV	Buff with cream slip	
31	Loc. 7 (lot 17*)	II	Pink with cream slip	<i>Nippur I</i> , Pl. 102:13, 16 (post-Kass.)
32	Loc. 7 (lot 17*)	II	Green	
33	Surface collection			
34	Loc. 12, Pit 1 (lot 33*)	IV	Buff with cream slip	
35	Loc. 7 (lot 17*)	II	Buff	<i>Nippur 12</i> , Pl. 75:5-10 (Kassite)
36	Loc. 12, fill above Fl. 5 (lot 47*)	IV		
37	Loc. 7 (lot 17*)	II	Buff with cream slip	<i>Nippur I</i> , Pl. 84:7-8
38	Loc. 12, Pit 1 (lot 31*)	IV	Buff with cream slip	See above, Pl. 112:36-39
39	Loc. 7 (lot 16*)	II	Buff with cream slip	

