

DEUTSCHES ARCHÄOLOGISCHES INSTITUT
ABTEILUNG BAGHDAD

Materialien zur Archäologie
der Seleukiden- und Partherzeit
im südlichen Babylonien
und im Golfgebiet

Herausgegeben
von Uwe Finkbeiner

Ed-Dur, Umm al-Qaiwain (U.A.E.)

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INTRODUCTION

On the southern coast of the Gulf, roughly 120 kms. from the Straits of Hormuz, the peninsula of Ned Bin Tamana, on which the town of Umm al-Qaiwain is located, together with the island of Jazirat Siniyah, protect the lagoon of Umm al-Qaiwain (25° 43' N 55° 48' E) from the open sea. That part of the lagoon system adjacent to the mainland, today known as Khawr Yfrah, abuts a large archaeological site which extends along the coast for as much as 3-4 kms., and inland for over 1 km (plate 7b). The site, called ed-Dur ("the houses"), known to local citizens interested in the archaeology of the area since at least 1970, was tested briefly by an Iraqi mission in 1973 (Salman 1972, al-Qaisy 1975). Thereafter the ceramics and coins from the surface of the site were the subjects of two studies by J.-F. Salles (Salles 1980, 1984). These preliminary investigations highlighted the presence of Characene coins, glazed Parthian pottery and Roman glass at the site, the landscape of which was dominated by a roughly square fort with round corner towers built of locally available beach-rock (*farush*). In contrast to the substantial remains of the Seleucid period then known from other sites in the Gulf, such as Failaka, Thaj and Qalat al-Bahrain, ed-Dur offered evidence of a large habitation dating to the succeeding Parthian and early Sasanian period.

When in 1986 it became known to R. Boucharlat, director of the French Archaeological Mission to Sharjah, that ed-Dur might be threatened by local development, he approached E. Haerinck, D.T. Potts and eventually C.S. Phillips with the idea of forming an international expedition to excavate the site. A preliminary visit was made to the site in November of that year by these four scholars, at which time survey and test excavations were undertaken. With the assistance of Mr. Jolyon Kay, ex-British Consul-General in Dubai, talks were held with HH Shaykh Khaled bin Rashid al-Mualla, President of the Diwan of Umm al-Qaiwain, on the possibility of launching an expedition. Thanks to the gracious interest of the Ruler, HH Shaykh Rashid bin Ahmed al-Mualla, together with the Crown-Prince HH Shaykh Saud bin Rashid and HH Shaykh Khaled, the expedition was granted permission to work. Excavations were carried out beginning from January 1987 through December 1990. Teams from the universities of Copenhagen, Edinburgh, Gent and Lyon have worked under

the direction of D.T. Potts, C.S. Phillips, E. Haerinck and O. Lecomte for consecutive 6-7 week seasons each year, receiving funding from various sources in their own countries and substantial local support from the Diwan and interested local businesses and individuals. Four seasons of work at ed-Dur have shown that the site is the most important one in the first and second centuries A.D. in the Lower Gulf.

The material discussed below deals with the results obtained till the end of 1989.

ARCHITECTURE

Funerary architecture

The grave types excavated at ed-Dur can generally be divided into two types, simple rectangular graves and larger tombs with a dromos or shaft entrance. The former type are by far the most numerous and probably account for at least 90% of the graves. Although anthropological remains from both types of grave have been sparse due to thorough robbing, it would appear that the simple rectangular type represent simple burials, whilst the larger tombs clearly represent multiple burials.

The simplest and smallest of the graves consist merely of four stone slabs arranged to form a simple cist, with a similar slab used to seal the grave. The majority however are constructed of blocks of locally available beach-rock forming a smooth-sided rectangular cist averaging 1.50 m long and 0.90 m wide. The graves of this type are usually several courses deep and a few examples have paved floors. The available evidence would suggest that the entire feature lay below ground with large flat slabs being used to seal the grave. An exception to the regular rectangular-shaped grave is T 928 from area K. In this instance the grave is of irregular plan, the stone used in its construction is of various types and not shaped. The burial is that of a young adult male and is unusual in not having been accompanied by a single grave good.

There is more variety amongst the larger tombs. These are similarly built of beach-rock and were predominantly, though not entirely, below-ground constructions. Some of the smaller dromos type tombs (e.g., grave T 857 of area G,

ed-Dur II: 51, fig. AK) were corbelled and then roofed with large stone slabs. Others (e.g., area A, *ed-Dur II*: 13, fig. C) appear to have had vertical inner walls and a vaulted roof, suggesting that many of the larger tombs would have been roofed in such a manner. Tombs such as that in area G referred to above, illustrate a typical simple dromos type entrance whilst the tomb in area A has a shaft type of entrance. These larger tombs usually have a plastered or paved floor and occasionally the inner walls have been plastered. Area K tomb T 913 illustrates a typical dromos type tomb with a stepped dromos leading to the burial chamber. The floor of this chamber is paved and also showed evidence of having been painted, traces of a red pigment still being preserved.

Evidence for burial practices related to the tomb architecture are few. Where anthropological remains have been retrieved in anatomical order it would appear that the body was placed in a flexed position. With the single graves no preferred orientation is evident, but with the larger tombs the entrance is usually on the north side with the chamber built along a roughly north-south axis.

In area K, tomb T 3666 showed further evidence of ritual activity in that a camel was buried in a pit at the entrance to the dromos. The camel was placed so as to be "looking into" the tomb and consequently there are no steps or retaining wall at the end of the dromos as one might otherwise expect.

Domestic architecture

The initial excavations at ed-Dur by the Iraqi Expedition brought to light a simple, roughly square fort with circular towers at each of the four corners. During the course of the recent excavations at ed-Dur this building has been re-excavated and consequently further details have been obtained. Although the plan of this building is unique at ed-Dur, the main constructional features are typical of much of the domestic architecture of the site. The fort is built of dressed blocks of beach-rock forming smooth-sided walls. The larger walls are infilled with smaller irregular stones. Within the walls of the fort there are two simple buildings. The room built against the east wall probably functioned as a gate house since it encloses the only entrance into the fort, located in the east wall. A doorway at the south end of this room then leads into the courtyard. In the courtyard the other building is a simple two-roomed construction. It has to be remembered that this building had been previously excavated and so there was no evidence to suggest the use of this building. However, in the courtyard several oven bases were located together with concentrations of animal bones and shell, thus suggesting that many of the domestic activities took place outside in the courtyard. Post holes were also recognised in the courtyard area and so it is possible that there were additional less-permanent structures present during the occupation of the fort.

The walls of the fort are presently preserved in some areas to a height of just over one metre. Whether the upper part of the walls was also built of stone or whether it was built of mud brick is not clear. However, the recent

excavations have clearly shown that the fort was built over the area previously occupied by a simple three-roomed building (this is contrary to the Iraqi report, where it is stated that the fort was built on virgin soil). This simpler building does not have a foundation of large stones, but of smaller stones that probably formed the foundations of a less-substantial construction, perhaps made of organic materials such as palm wood.

The recent excavations at the fort have produced additional evidence for the dating of the fort and the earlier building that it overlies. It is not possible to differentiate between the material, which indicates a date consistent with that generally accepted for the site (i.e., excluding area F).

Outside and immediately adjacent to the fort there is an extensive area of domestic buildings again contemporary with the fort. The close proximity of these buildings to the fort is perhaps important when considering the function of the building. At this stage it suffices to suggest that buildings constructed in such close proximity to each other are not typical of the site. More typically the buildings at ed-Dur appear to be widely separated and quite varied in plan.

Multi-roomed buildings are well-illustrated by those from areas C, E and Z. The building in area C is important in showing evidence of external structural or decorative features such as semi-circular buttresses. There is also evidence that the walls of the building were plastered. The building in area E is one of the best preserved at ed-Dur, with the walls standing to a height of 1.50 m.

The floors of the domestic buildings are rarely paved or plastered. Many of the buildings are simple single- or two-roomed structures, again with evidence of domestic activities taking place outside the buildings. It is also common for there to be a number of burials close to some of the buildings, for example, as seen between the two simple buildings in areas AC and AE.

A further type of domestic building that should be noted is that where large blocks of cut beach-rock have been used as part of the construction, that is, buildings constructed in a manner similar to that of the simple building underlying parts of the fort. Evidence for such buildings, probably constructed mainly from organic materials, has been found over large areas of the site. The evidence consists of the outlines of single-roomed buildings and occasionally floors comprised of compacted small stones. In instances where such features have been excavated, a similar array of small finds and domestic refuse to those from the more substantially-built stone structures has been recovered. Given the vulnerability of such buildings to erosion and other forms of destruction, it is possible that this type of building was more numerous during the actual occupation of the site and that the rather dispersed settlement plan evident from the stone-built structures is largely illusory.

Religious architecture

Regarding religious architecture, the most attention should be paid to the relatively large and well-preserved, almost square (8.30 x 8.00 m) temple of area M, which most

probably is to be attributed to the sun god Shamash (*ed-Dur II*: 60-67, fig. AS-AT, fig. 41-59; *ed-Dur III*: 32-40, fig. 1-9; *ed-Dur IV*: fig. 1-4). The building itself, which clearly faces east, consists of four rather solid walls, built with well-cut, rectangular ashlar of beach-rock. On the outside the walls are still covered with a fine gypsum plaster, decorated with alternating squares and rectangles obtained through incised horizontal and vertical lines. Each of the squares and rectangles has a smooth border and raised central panel in imitation of marginally drafted, hewn stone masonry. The exterior corners of all the walls are reinforced by plaster imitations of strong, upright pillars, which seem to narrow toward the top. A protruding plinth, also covered with gypsum plaster and noticeably broader on the front side, forms a kind of low bench. The monumental, eastern entrance is flanked on both sides by pillars which, like the corner-pillars, are also incised in the gypsum plaster, decorated with slender, half-cylindrical and vertical mouldings in combination with a vertical meander band still showing slight traces of ochre paint. The two square pedestals on either side of the main entrance, probably meant as socles for statues, are linked by a low plastered podium. Directly in front of this podium and almost exactly in the axis of the door was a square stone with a slight depression showing traces of intense burning. A second, but smaller entrance, differently decorated, is situated in the western wall, directly opposite the eastern door. The function of a rectangular, canal-like channel in the northern wall, located directly above the plinth and running from the outside to the inside, is not clear. A niche, plastered with pinkish gypsum, is located on the inside of this northern wall. The numerous fragments of plastered relief moulding found around the building suggest not only that the complete exterior of the building at roof level was certainly decorated, but also allow us to reconstruct the original height of the temple to ca. 2.40 m with some certainty. Originally, the floor must have been paved with fine, flat flagstones, although only a few were found *in situ*. Notable features inside the building included a re-used Umm an-Nar stone with a distinct depression, found lying on its small side, as well as a possible fireplace in the axis of the main entrance, marked with upright stones.

Just outside the northeastern corner of the temple four separate structures were discovered, interpreted as altars, two of which have a distinctly pyramidal shape (whether or not originally truncated is hard to say) and two of which are rectangular. The top of one of the pyramidal structures is marked by a deep, more or less rectangular niche, facing east.

Outside the northwestern corner of the temple a stone-lined well (*ed-Dur III*: 37, fig. 10; *ed-Dur IV*: fig. 1), with an external diameter of 2.60 m was discovered. The shaft was sunk to a depth of ca. 6 m, i.e., to ca. 4.40 m above present-day sea level. However, at a depth of ca. 4.50 m (6 m above present-day sea level) the ancient water level was clearly marked by a hard, solid limey deposit.

The puzzling structural remains of area T may also have a possible religious or funerary ritual function (*ed-Dur II*: 23-26, fig. R-U, fig. 8). The area apparently shows three phases of building. The earliest is represented by two nearly square

stone platforms, together with a possible third, slightly smaller one. In a second phase, a rectangular enclosure was built around the two larger platforms. In the third phase, an open structure, larger than the others, was built over the area of the enclosure wall and two platforms.

METALWORK

Bronze objects

These consist mainly of Western (Roman) imports. Of note are a bronze wine set consisting of a deep cauldron with an attached spout in the form of a realistic bull's head, a ladle with a snake head terminal and a two-handled strainer (*ed-Dur II*: 14-15, fig. E-H). Other objects include socles for statuettes. One is square (H. 8.5 cm) and decorated with a male bust in relief on one of its sides. The other is bell-shaped (H. 5.5 cm) (*ed-Dur II*: 65, fig. AT, fig. 53 & 57). A bronze lamp with a crescent-shaped handle is also a Roman import (*ed-Dur II*: 65, fig. AT, fig. 59). Finally, there is also a ram's head from a Roman *patera* (*ed-Dur IV*: fig. 22).

A bronze horse protome is comparable to objects from Mleiha (Boucharlat & Mouton 1990: Pl. XIII b, fig. 34,2), Jabal Kenzan (Potts 1989: fig. 118-119) and Samad (Yule & Weisgerber 1988: fig. 8: 6) and is almost certainly of Arabian manufacture.

Other bronze objects include personal ornaments, such as rings, bracelets, ankle rings and torques (*ed-Dur III*: fig. 22-23, 26), or a small pendent of a horse and rider with outstretched arms and a loop on the back of the man (*ed-Dur III*: fig. 20:1; fig. 39).

Iron

Iron was mainly used for weapons. Arrowheads are represented by ob lanceolate and trilobate types (*ed-Dur I*: fig. 11:4, fig. 12:4; *ed-Dur II*: 52, fig. AL: 5-7, fig. 35; Mouton, 1990).

Several graves also contained long swords, sometimes with an ivory disk fixed with a bronze rivet to the hilt (*ed-Dur I*: fig. 11, pl. IIIb; *ed-Dur II*: 15). Other swords have a bronze loop handle and an iron blade (*ed-Dur IV*: fig. 12).

Lead

Lead appears as weights (*ed-Dur I*: fig. 13:7-8; *ed-Dur II*: 27, fig. AA) or as folded leaves, which were probably used as netsinkers.

Silver

Silver is rare as is gold. A golden earring was found in a child's grave (*ed-Dur III*: fig. 24). Two golden beads came from a grave in area Q (*ed-Dur II*: 22).

COINS

At least three hoards have been found at ed-Dur by amateurs, along with dozens of stray finds. To these should be added another dozen pieces from recent excavations. Foreign issues are rare, consisting of a badly worn silver tetradrachm of Seleucus III (16.07 g); a gold denarius of Tiberius (7.526 g); a poorly preserved square Indian base-metal coin; and six Characene coins, including a tetradrachm of Attambelos III from 38/39 A.D. (15.34 g), two of Attambelos IV from 59/60 A.D. (15.4 and 15.08 g), two of Attambelos VI, one of which is dated to 104/105 A.D. (14.83 g, no weight is available for the other), and one of uncertain attribution (Potts 1988: 141-142, fig. 2). In addition, several dozen debased silver and copper coins, likely to have been minted in northeastern Arabia, are also known from the site. The majority of the more than 350 Arabian issues from ed-Dur, however, are generally assumed to have been minted at or near the site (note the discovery in 1990 of half of a mold for coins of this type at Mleiha). These are modelled on the coinage of Alexander the Great and show, on the obverse, a debased head of Heracles; on the reverse, a seated figure in place of Zeus accompanied by various monograms. Most of these bear the legend Abi'el in lapidary-style Aramaic (Potts 1991: 79-101). One series, with a blank obverse and a seated figure supporting an eagle in its outstretched right hand on the reverse, has a date in exergue consisting of the Greek letters zeta and lambda, i.e. 37. It is not known, however, according to which era this series should be dated (Potts 1990: 288-291).

BONE/IVORY

The most ubiquitous form of bone/ivory object to be found are inlays. These have been found entirely in funerary contexts and consist of small plaques, triangles and minute cubes (*ed-Dur III*: fig. 12-17; *ed-Dur IV*: fig. 9).

The plaques are usually rectangular in shape and sometimes have one or two circular holes drilled through them. Presumably this is to facilitate their attachment to some other object (no evidence has been forthcoming to suggest what this may have been) and suitably sized pegs for this have also been recovered. The plaques are usually of bone, though a small number have been shown to be of ivory. The plaques are decorated by shallow incision. A variety of male and female types have been recorded, along with zoomorphic types. These tend on the whole to consist of lions. In one instance a bovine animal appears to be depicted; another beast seems to have wings (a griffin?) and one is unusual in showing a human being consumed by a lion. Frequently the incised design has been infilled in some areas, notably the eyes, with a combination of bitumen and ash. Some of the lions have been enhanced with a red iron oxide color. Some of the plaques are decorated with simple geometric dot and circle motifs. The small triangles and cubes (*ed-Dur III*: fig. 17) presumably acted as "fillers" in the composition of the plaques.

There are no definite parallels for such bone/ivory inlays outside the United Arab Emirates dating from this period,

although the form of the lions and particularly the female figures is entirely familiar. They are probably therefore result of local manufacture.

Other bone objects from the site include hemispherical beads, tubular containers, a comb (*ed-Dur III*: fig. 19: 2-3) and weaving implements (*ed-Dur III*: fig. 18-19:1).

GLASS

Pieces of broken glass are quite common surface finds on the site. The glass is clearly imported from the West. Characteristic are pillar-molded bowls (*ed-Dur II*: 18, fig. 1) and pear-shaped flasks (*ed-Dur II*: 22, fig. Q; *ed-Dur III*: fig. 31, fig. 32:1). Small jugs also occur (*ed-Dur III*: fig. 25, fig. 32:3). Unique so far is a molded-blown, almond-bossed beaker (*ed-Dur II*: 14, fig. D).

Beads made of glass and glass paste (*ed-Dur III*: fig. 35) are also common.

STATUARY

So far very little statuary has been discovered at ed-Dur. From the temple in area M came a small (ca. 27 cm) sculpture of a bird, probably representing an eagle, made of local white limestone (*ed-Dur II*: 67, fig. AU, fig. 47).

Two sculptures found in a reused situation and representing eagles are also locally made and might equally belong to the period of the 1st/2nd century A.D. (*ed-Dur II*: 38, fig. AE-AF, fig. 25-28).

INSCRIPTIONS

Until now, only a few inscriptions were found at ed-Dur. One is fragmentary Latin and one is an Aramaic graffito (*ed-Dur II*: 26, fig. Y). From the temple in area M comes a broken lapidary inscription in Aramaic (*ed-Dur II*: 67, fig. AT: 8, fig. 55).

The longest Aramaic inscription so far discovered on the site was found on a rectangular stone basin (30 x 40 x 30 cm), consisting of seven lines on one side and probably three lines on another side. This stood on a stone-built socle close to the temple in area M (*ed-Dur III*: fig. 8). This inscription, to date the longest Aramaic text found in the Gulf, is now being studied by J. Teixidor.

MISCELLANEOUS

Further finds include small terracotta statuettes of horses (*ed-Dur I*: fig. 9:7), goats (*ed-Dur III*: fig. 4:2, fig. 5), stylised human heads (*ed-Dur III*: fig. 4: 1) or women holding their breasts (*ed-Dur II*: 21, fig. O, fig. 5-6).

Beads are very common in the graves and occur in a variety of materials and shapes (glass, glass paste, frit, bronze, gold, shell, carnelian, amethyst, quartz, agate and pearl) (e.g., *ed-Dur III*: fig. 36-37). Amongst the frit beads

we can cite phallic pendants, altars, melon shapes, birds, pigs and an Aphrodite (*ed-Dur III*: fig. 28-29).

Also of note is an oval-shaped, agate intaglio depicting Athena/Minerva with helmet, lance, shield and a snake crawling at her feet (*ed-Dur III*: fig. 20:2, fig. 21).

Soft stone vessels in the shape of bowls are also present (*ed-Dur II*: fig. AL: 1,3-4, fig. 36-37).

Other objects made of stone include incense burners (*ed-Dur III*: fig. 3: 3, fig. 7: middle).

POTTERY

Pottery is very abundant all over the site. The teams working on the project adopted a common classification system for the different kinds of ware, in order to be able to distinguish the major groups and to create a typology.

Since the study of the pottery is only in its initial stages, it is impossible to present all categories and their most frequent types. However, a very important study on a surface collection from ed-Dur has already been published by J.-F. Salles (Salles 1984) and still remains an important source of information. Of course, during four excavation seasons many more complete types turned up (see, e.g., *ed-Dur I*: fig. 3-12; *ed-Dur II-IV*), although the overall picture presented by J.-F. Salles has not been drastically altered.

Glazed ware (fig. 1-2) is very common throughout the site. The paste is usually yellow and the glaze yellowish, but more often green or goldish-green. Amongst the open forms fishplates are undoubtedly the most common. Other bowls show a carinated profile, sometimes with a ribbed rim. Jars with one or two handles and incised zig-zag or shark's tooth pattern and vertical grooving on the shoulder occur frequently. Pilgrim flasks and three-footed (sometimes shell-like) handleless kraters with offset rim are less common.

The presence of a vast amount of glazed pottery raises the question of its origin. As has already been suggested, the Kingdom of Characene could be taken into consideration as a very likely source (J.-F. Salles 1990: 329).

Buff pottery occurs as "thin buff" ware, maybe of local manufacture, and appears in a rich variety of shapes. A particular group in this assemblage is represented by jars with an almost white paste and rolled rim. "Thick buff" vessels comprise rather large bowls and jars, mainly storage vessels, which sometimes are covered on the inside with bitumen. A "chaff tempered buff" ware is not uncommon and is also represented by big bowls and jars, also often covered on the inside with bitumen.

Thin grey ware is usually very well-fired, if not overfired, and contains small chalk grits. This group is basically represented by jars and jugs.

Thick black ware (fig. 3) is confined to pithoi and often has rim diameters between 30 to 50 cm. In the decoration two major groups can be distinguished; namely banded and ridged surfaces. Sometimes nail impressions or rope decoration occur.

Red brick-salmon ware shows an equally rich variety of forms and is also quite common, whereas a fine red ware (fig. 4: 1-6) is rather rare.

A particular group in the ed-Dur assemblage is what can be labelled "Thaj ware" (*ed-Dur I*: 58, fig. 4: 1-4), a type of ceramic well known throughout northeastern Arabia (fig. 4: 7-12). It has a reddish core, a red color on the interior and a grey-black exterior. Characteristic are deep bowls with out-turned rim and rounded bottom.

Rare sherds of fine Indian red polished ware, *terra sigillata*, eggshell and buff ware with punctuate decoration were also found.

The painted pottery, probably from Southeastern Iran, is either monochrome or bichrome and is also quite common (fig. 5). The motifs are painted in black-on-red or buff, or black and red-on-buff or orange.

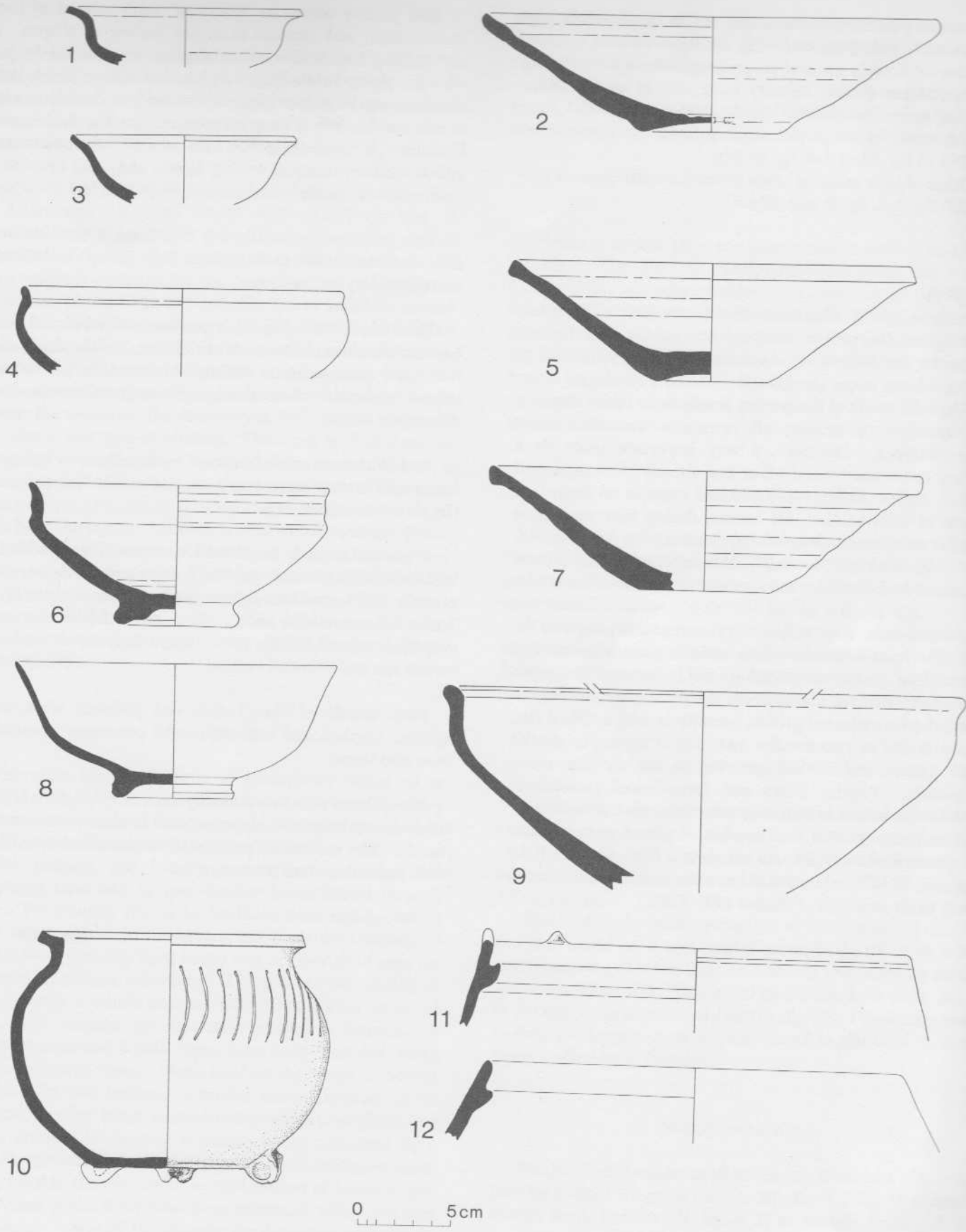


Figure 1 ed-Dur. Glazed ware.

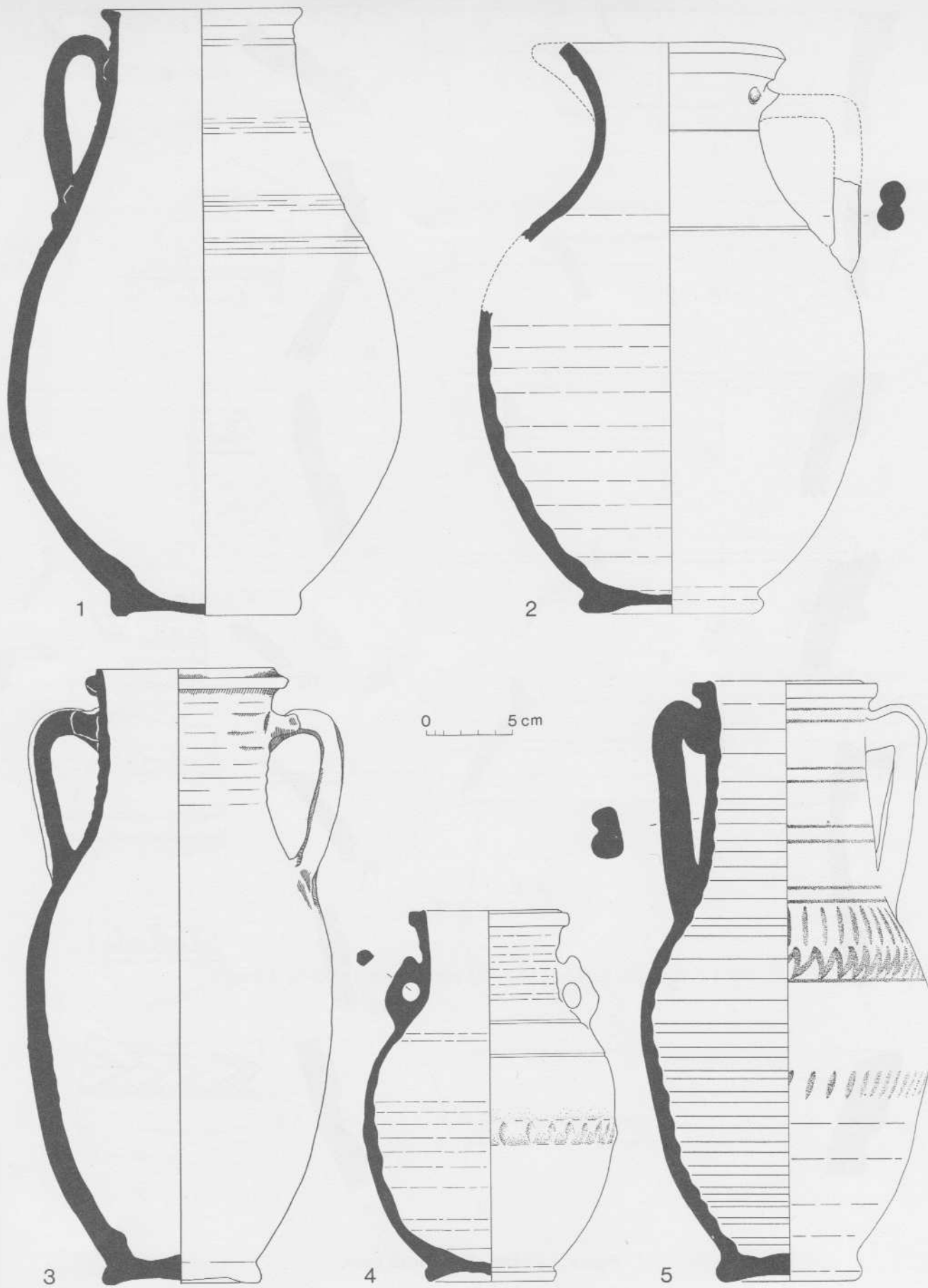


Figure 2 ed-Dur. Glazed ware.

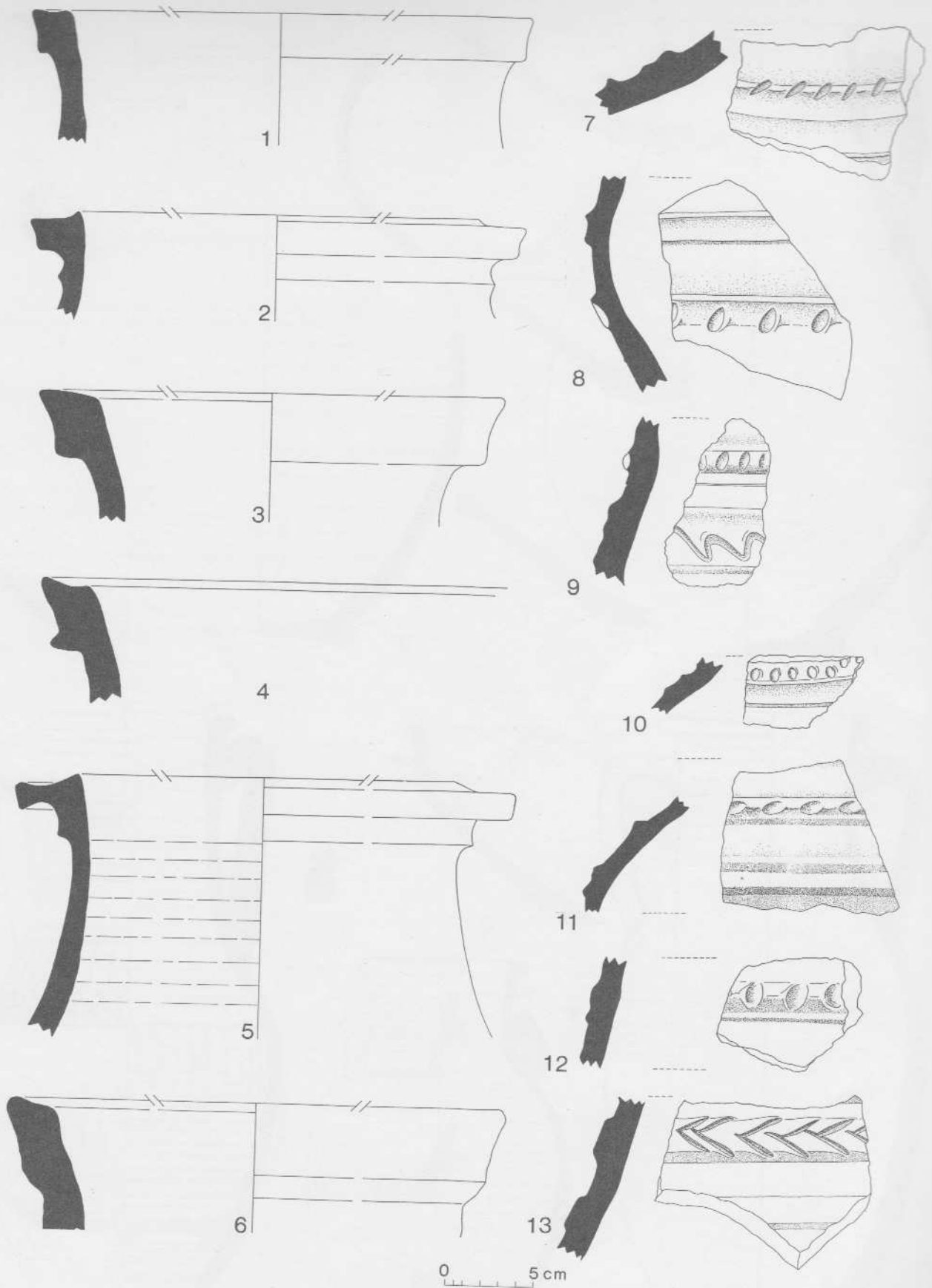


Figure 3 ed-Dur. Thick black ware.

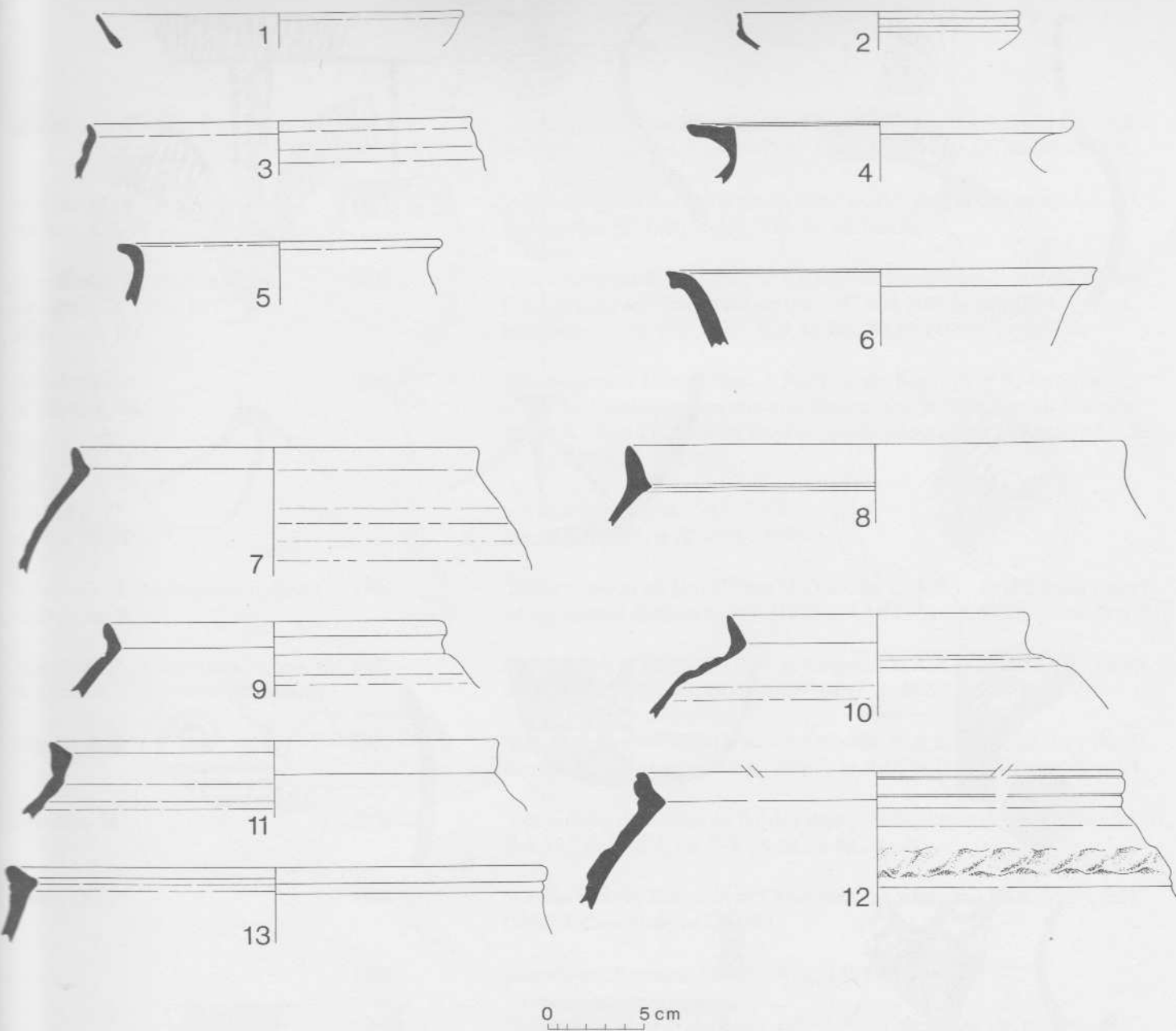


Figure 4 ed-Dur. Fine red ware (N^o. 1-6) and *Thaj* ware (N^o. 7-12).

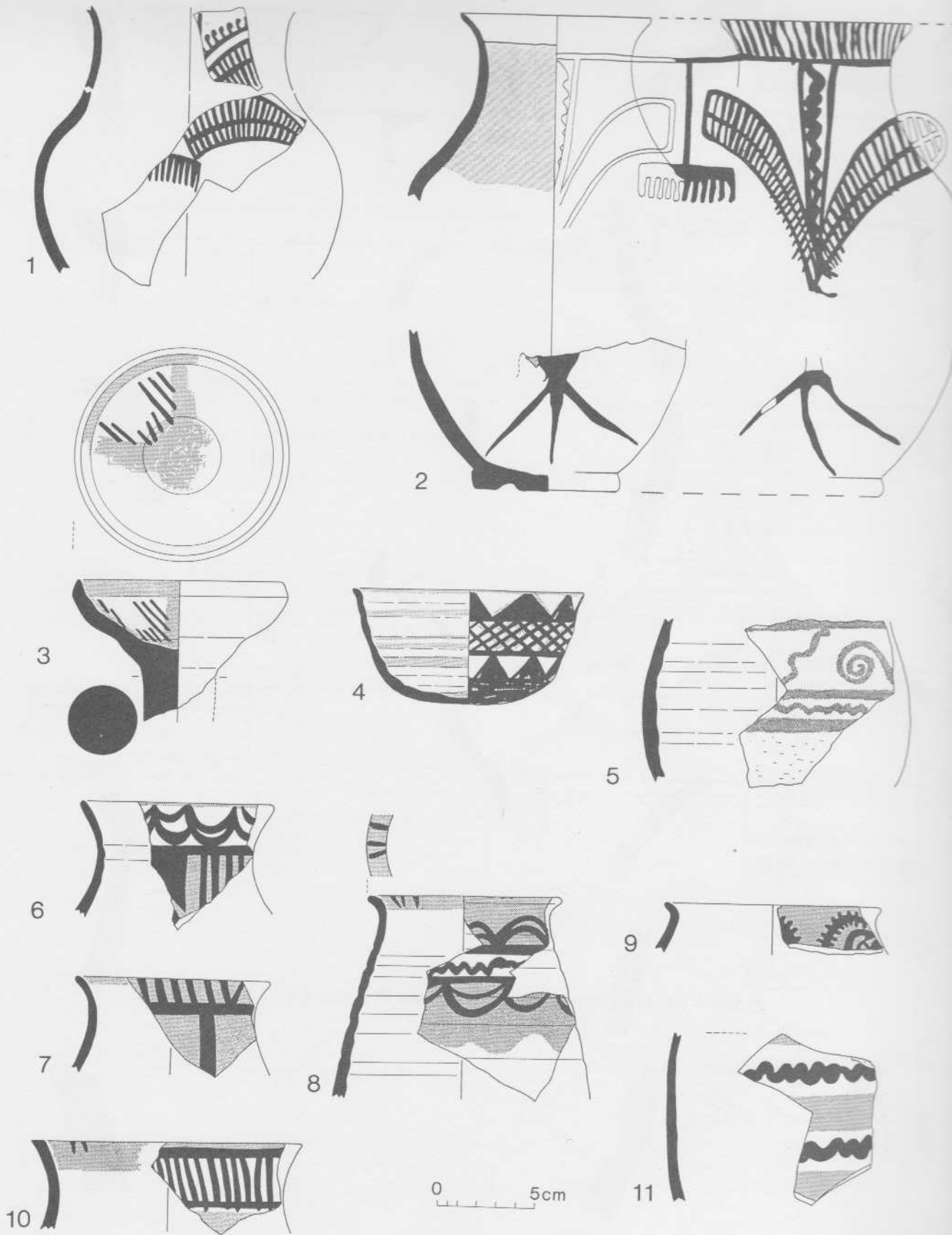


Figure 5 ed-Dur. Monochrome or bichrome painted pottery.

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ARCHAEOLOGICAL RECONNAISSANCE AT ED-DUR, UMM AL-QAIWAIN U.A.E.

Introduction

The proliferation of archaeological surveys and excavations throughout the length and breadth of the Arabian peninsula has indeed been marked in recent years, and no part to the region has been the object of more new research than the western shores of the Arabian Gulf (1). Every country from Kuwait to Oman has had its history transformed, its antiquity unfolded, its own historical consciousness steadily enriched as archaeological research has advanced rapidly along this new front. On the lower Gulf coast there is one site dating to the later pre-Islamic era which surpasses all others both in size and diversity of material. Ed-Dur, located in the Emirate of Umm al-Qaiwain, United Arab Emirates (see map), was previously known to the scholarly world both through the brief soundings made there by an Iraqi team in 1974, and the subsequent surface collections made in 1980 and 1981 by J.-F. Salles (2). The material found at the site included scattered Iron Age pottery; a high concentration of glazed Parthian wares; rare sherds of Eastern Sigillata C; Roman glass; first and second century A.D. Characene coins; and local issues representing barbarized Alexander imitations bearing the name of a ruler, Abi'el, in Aramaic.

Realizing that here was a site of enormous historical and archaeological interest, with the potential for yielding valuable information about a poorly known period, the authors applied to the Ruler of Umm al-Qaiwain, His Highness Shaikh Rashid b. Ahmed al-Mu'alla, for permission to carry out a short reconnaissance in order to assess the feasibility of launching a full-scale investigation of the site and its environs. The results of a two-week stay during late October and early November, 1986, are presented here.

The authors would like to thank H.H. Shaikh Rashid b. Ahmed al-Mu'alla, Ruler of Umm al-Qaiwain; H.H. Shaikh Saud b. Rashid al-Mu'alla, Crown Prince; and H.H. Shaikh Khaled b. Rashid al-Mu'alla, Head of the Diwan, for the kind interest they have shown in our work and for the material support which they extended to us. Without their personal intervention, our new program of research could never take place. In Dubai, the British Consul-General, Mr. Jolyon Kay, and his wife, Mrs. Shirley Kay, offered us hospitality and much help with practical matters. Likewise, Mr. Peter Hudson of Sharjah was a valued friend during our stay. At home, the Universities of Copenhagen, Edinburgh, Gent, and Lyon, (3) as well as the research councils in our

respective countries, have supported the endeavour. To all of these individuals and institutions go our sincere thanks.

The Site of Ed-Dur

The modern town of Umm al-Qaiwain is located on a narrow peninsula which juts out from the mainland and, together with the island of As Siniyyah, shelters the shallow lagoon of Khor al-Beidah from the open waters of the Arabian Gulf. The highway which links Dubai, Sharjah, and Ajman to the south with Ras al-Khaimah, the northernmost Emirate, skirts the edge of the lagoon, and in fact cuts through the western side of an extensive zone of former habitation extending for several kilometers in a roughly 1 km. wide strip tending northeast to southwest. This zone, which is in part covered by recent sand dunes, has been inhabited for millennia, but occupation has shifted laterally, with the result that no build-up of stratified occupational debris seems to have occurred. In the south an area of third millennium, Umm an-Nar type pottery and stone vessel fragments has been located; along the crest of the lagoon itself are shell-mounds of variable age; in the central part of the zone is a concentration of graves and buildings from the first centuries A.D., although the occasional chipped stone tool, Umm an-Nar or Iron Age sherd to be found here suggests a scattered, earlier occupation as well; and in the north we find a concentration of Iron Age ceramics, comparable to that known elsewhere in the U.A.E. and Oman.

The entirety of this extensive archaeological zone is known locally as ed-Dur (Arabic, 'the houses'). In antiquity, the settlement here must have profited from its position on the sheltered Khor al-Beidah, particularly as the coast itself between Umm al-Qaiwain and Dubai is renowned for its dangerous shoals and reefs (4). By the same token, ed-Dur would have enjoyed communication with the interior via a traditional route leading to the fertile inland Dhayd plain, where the important Hellenistic site of Mleiha is located, and where several routes from the south converge.

Results of the Survey and Test Excavations

The Early Periods

Scattered finds of chipped stone, stone bowl fragments, and pottery attest to the continuous occupation of ed-Dur since prehistoric times, and while our main interest is in the later periods, we intend to investigate all periods of occupation at the site. Here, however, only a few pieces of early date will be presented. Only one early sherd is illustrated. Fig. 1:13 bears a motif well-attested from the 3rd to the 1st millennium B.C., but the quality of the paste recalls most strongly the pottery of the Umm an-Nar period dating to the latter half of the 3rd millennium (5).

Turning to the three chlorite or steatite vessel fragments found in different locations at the site, these are in some cases difficult to date. The form of Fig. 2:1 recalls vessels of the Wadi Suq period of 2nd millennium B.C. date (6), while decorated examples of the same type are well-known during the Iron Age (7). Fig. 2:2 is decorated with dotted double circles, a motif commonly found during the 3rd and early 2nd millennium (8). The form alone of this piece, incomplete as it is, could, however, be accommodated in the 3rd to 1st millennium B.C. (9). Fig. 2:3, on the other hand, is best dated to the 3rd millennium on the basis of both its form and decoration (10).

The Iron Age

In 1982 an area of Iron Age occupation of uncertain size was located in the northern part of ed-Dur, more particularly to the north of an east-west paved road linking a power plant with the main highway (11). At this time, two characteristic types of Iron Age pottery were recovered, a black or brown-painted red-brown ware, often slipped; and a red or black-slipped ware with incised decoration. Most of the material collected in 1986 came from the area, estimated to cover more than one hectare. Scattered Iron Age sherds were also picked up around the perimeter of the central area of the site, however.

For the most part, the pottery published here falls into the two categories mentioned above, and can be paralleled easily with finds made at numerous sites extending from Ras al-Khaimah in the north to al-Ain in the south, and to the east as far as the Batinah coast and the interior of Oman (12). Less easily typed are Fig. 1:10 and 11. The design on Fig. 1:10 is not very distinct, while that on Fig. 1:11 should perhaps be compared with the sherds illustrated in Fig. 4:5-7, of uncertain date.

As for types of incised decoration, we find sets of wavy-lines on the shoulder and rim of a hole-mouth jar (Fig. 1:1); a crude meandering line around the neck of a jar (Fig. 1:2); and many examples of cross-hatch incised bands (Fig. 1:3). Good parallels can be found for all three categories (13).

Looking at the painted pottery, we find bowls with a rounded profile; straight sides and carination; and slightly flaring rim. These are among the most common forms in the Iron Age repertoire of the Oman peninsula. Painted zones of cross-hatching (Fig. 1:4-5), or diagonal lines (Fig. 1:6-7) are equally familiar (14). Closed shapes, with good parallels at Rumeilah (15), are also present (Fig. 1:9, 12).

This small collection, with the exception of a few stray pieces, obviously dates to the Iron Age, presently put between c. 1300 and 400/300 B.C. It is not possible to assign a more precise date to the ed-Dur material, although most of it would fall in the earlier part of the period. We would not suppose that there was any hiatus in occupation at ed-Dur, however, between the Iron Age and the later, main occupation of the site. Rather, if the primary zone of Iron Age occupation seems to be distinct from that of the later occupation of

the site, there are, nevertheless, other areas where we find a mixture of sherds belonging to both periods.

The First Century B.C./A.D.

Architecture

Prior to our work, the only architectural monument known at ed-Dur was the small, roughly square fort with round corner towers excavated by the Iraqis. Before it was excavated, this must have stood out as a prominent mound. In fact, traces of architectural remains are visible throughout the entire site, and in order to get a better idea of both the depth of deposit and the variety and quality of buildings on the site, four areas were chosen for test excavation. It should be noted, however, that all of our soundings were extremely modest. No workmen were available during the roughly 7 days that we spent digging.

Area 1 (Fig. 14; pl. IA)

A 2 x 2 m. square was opened in an area where the remains of walls could be clearly seen on the surface. The sounding here revealed a building preserved to a depth of 80 cms., amounting to six courses of ashlar masonry. The fill against the building consisted of pure sand devoid of finds, and no floor was found at the base of the wall. Further surface cleaning revealed more of the plan of the building, the nature of which, however, could not be determined in our limited sondage.

Area 2 (Fig. 15; pl. IB)

Scattered remains of walling extending over an area measuring c. 6 x 4 m. seemed to indicate the outline of a rectangular building. After removing about 10 cm. of surface sand in the west end of the area, a hard floor made of grey gypsum plaster was struck. The walls of the building were not, in consequence, preserved to any appreciable height, but it was possible to recover the complete plan of a rectangular, two-room house measuring approximately 7 x 4 m. The western room was roughly half the size of the eastern one. Both were floored with smooth, irregularly shaped stone slabs which served as the foundation for a plaster layer, preserved only in the westernmost room. Several sherds of common ware were recovered from the fill of the building, as well as a single piece of a glazed fishplate (Fig. 10:10) and part of a glazed figurine (Fig. 10:11).

Area 3 (Fig. 16:1; pl. IIA)

Here, too, remains of ashlar masonry could be seen on the surface. After clearing a small area it soon became apparent that we had struck a small, rectangular cist grave measuring c. 2 x 1 m. The grave was built of stone blocks, the interior face of which had been smoothed. This, as the graves excavated in area 4 were oriented N-S. When the sand fill of the grave was removed, the chamber was found to comprise six courses of masonry, extending to a depth of c. 60 cm. No

articulated skeletal remains were recovered in the grave, which had obviously been robbed. There were, however, scattered if fragmentary bones in the fill of the grave, and these have been identified as those of a young adult male (kindly identified by Ms. K. McSweeney, Edinburgh). The grave also contained a rim sherd of a coarse, reddish-brown ware; a sherd of light grey ware; a bronze chape; and an iron trilobate arrowhead (Fig. 11:A). Outside the grave, more sherds as well as the tip of an iron sword were recovered, presumably spoil left by the grave-robbers (Fig. 11:B).

Area 4 (Fig. 16:2-4; pl. IIB)

A bulldozer cut in the side of a large sand dune had revealed a series of small graves built of stone slabs. The sand was cleared from three of these graves. Grave 1 was a chamber c. 1.05 m. deep built of small stones and once covered by a stone slab. The floor of the grave consisted of gravel. No human bone was recovered, but a fragment of a decorated glazed bowl, parts of a two-handled jar, a fragment of a glass vessel, and an iron arrowhead were recovered (Fig. 12). Grave 2 was also built of stone slabs. It had a plastered floor, and was 78 cm. deep. No finds were recorded. Finally, Grave 3 was of similar construction. The chamber, which had a gravel floor, was approximately 1 m. long. The only find was a fragment of a unglazed yellow-buff ring base.

Ceramics and Glass

In 1984 a very important study of surface sherds from ed-Dur was published by J.-F. Salles (16). Here, we wish only to provide some additional material collected during our recent survey. It should be noted at the outset, however, that the sherds published here were not gathered according to a systematic sampling strategy, but along rather to random collections made throughout the site.

For the period in question we can follow the classification established by Salles, although new categories will have to be introduced, such as 'light reddish-orange common ware' (Fig. 3:8-9). Fig. 3:4-5 belong to Salles' category 'céramique blanche'; Fig. 3:2 is an example of his 'céramique rouge commune'; and Fig. 3:1 and 3 are 'céramique rouge fine'. Fig. 3:10, which is undoubtedly the base of an imported amphora, has a brick-red surface and grey core (17). A notable kind of pottery, which could be called 'Thaj-ware' (Fig. 4:1-4), was also found by Salles (18). This type of pottery is well-known throughout northeastern Arabia. It has a reddish core, a red slip on the interior, and a grey-black slip on the exterior.

Fig. 4:5 may be similar to a piece illustrated by Salles (19). As far as we know, this type of pottery does not belong to the Iron Age répertoire in the lower Gulf. It might be a local type of painted ware manufactured during the Hellenistic-Parthian period. Fig. 4:6 is of a type not previously attested, and may have some affinities with material from southeastern Iran or southwestern Pakistan. Fig. 4:7 is of a type known from Salles' collection (20).

Three sherds of terra sigillata were found during the survey, but only one (Fig. 4:8) presented a profile (21). As for glazed pottery, Salles had noted that ed-Dur is the only site in the Gulf which has such a large quantity of glazed pottery on the surface. One question which must be asked is whether this pottery was made at the site, in another part of eastern Arabia (Kuwait or eastern Saudi Arabia), or in southern Mesopotamia or southwestern Iran, where glazed ware was a common product of the period. In any case, it is obvious that the glazed sherds from ed-Dur link the site more closely with regions to the northwest, particularly reminiscent in some cases of BI-ware on Failaka (22), than with the nearer parts of Iran. On the Iranian side of the Gulf, it must be noted, glazed pottery was confined to Khuzistan, which at that time played a more important role in international trade with the west than did other parts of the country. Eastern Iran lacks the glazed wares, nor was the Iranian coast very well suited for harbor or coastal sites comparable to ed-Dur.

Characteristic of the glazed pottery from ed-Dur is its light yellow paste. No blue glaze was observed, while the majority of the sherds seen had a light to dark moss-green glaze. The large number of fishplates (Figs. 5-6) is quite astonishing (23). In Mesopotamia and Iran it was once thought that their production stopped by the 1st century B.C., but the evidence from Seleucia and Failaka (24) attests to the fact that they were produced much later, well into the 1st century A.D. (25). Other interesting types made of glazed ware include decorated vessels with appliqué handles (Fig. 7:5-6); twisted handles or handles with plastic decoration (Fig. 8:2-4) (26); and the numerous sherds with incised zig-zag or shark's tooth pattern (Fig. 8:5-8) (27). Other ceramic surface finds include numerous coarse-ware net-weights (Fig. 9:1-6). A unique, but unfortunately fragmentary camel figurine (Fig. 9:7) (more likely than a horse-and-rider) was probably a local product.

During the survey we also picked up several fragments of cobalt blue, molded Roman glass. Although generally small, the majority of these can be assigned to the category of pillar-molded bowls with vertical ribbing, well-known in the 1st century A.D. (28). Another fragment of a glass bowl or beaker was found in Tomb 1 in Area 4 (Fig. 12:3).

Metal Objects

The 1986 sondages recovered a small number of metal finds which can be briefly discussed, proceeding area by area.

The house excavated in Area 2 yielded a fragment of a flat iron tool with serrated edge (Fig. 10:12). Without having attempted to scour the archaeological literature for parallels to this piece, it is interesting to note that a larger example of similar appearance was found in 1928 during the excavations of the Himyaritic temple at al-Ḥuqqa, north of Ṣan 'ā', where it was identified as a sickle of a type then used in the region for harvesting barley, wheat, grass, and alfalfa (29).

The cist grave excavated in Area 3 yielded the only stratified bronze published here. The object in question is a small chape of sheet metal (Fig. 11:3), folded symmetrically in the shape of a flat, hollow trapezoid, with perforations for attachment by thread or leather to another object. The exact function of this object is unclear, but it is likely to have covered the end of something made of leather, such as a belt or scabbard. A tanged trilobate arrowhead of iron (Fig. 11:4) was also recovered from the grave. Arrowheads of this type enjoyed a long vogue in the Near East, and can be found from the Achaemenian through the Sasanian period (30). They are also known to have been used by the Arabs in the 5th and 6th centuries, for they are mentioned by the pre-Islamic Arab poets (31). The point of an iron sword with a pronounced midrib (Fig. 11:7, Pl. IIIB) was found while cleaning around the perimeter of the grave. Similar swords are known, for example, from Mleiha in the interior of Sharjah (32). Finally, an iron arrowhead with square-sectioned tang and ovoid-sectioned body was found in Tomb 1, Area 4 (Fig. 12:4; Pl. IIIB).

A small number of bronze, iron, and lead objects were picked up during the course of the survey. Several of these were particularly interesting, such as a fragment of a 1 mm. thick bronze mirror, with two concentric circles around the rim, and a tighter cluster of circles around the center point (Fig. 13:1). A small bronze ring (Fig. 13:2) shows a bucranium engraved on the bezel. A small, narrow blade with circular ring handle (Fig. 13:3) was also recovered, as were a flat sheet fragment with an incised bovine leg (Fig. 13:4) and a crudely rendered, but perhaps Hellenistic-inspired bronze head which once may have served as a cauldron attachment (Fig. 13:5). A further fragment of an iron dirk or dagger with pronounced midrib (Fig. 13:6) was picked up, as well as two lead objects (Fig. 13:7-8), presumably weights. It will be interesting to pursue the potential source of the lead at ed-Dur (33).

Miscellaneous

Besides a single shell bead with sawn-off, flattened surface (Fig. 13:12), and a peculiar, perforated sandstone stamp (Fig. 13:13) with an incised symbol on its irregularly shaped sealing face, the most interesting objects recovered were several thin bone plaques (Fig. 13:9-11, Pl. IIIA). Two of these are perforated in the middle for attachment to something, and all seem to have been originally rectangular in shape. Crudely engraved human and animal figures, as well as dotted circles, can be seen. Whether these originally functioned as gaming chips is difficult to say, but during the 1987 excavations a large number of these bone plaques were found in graves excavated by the British team.

Conclusions

The 1986 reconnaissance, although brief, more than confirmed our belief that ed-Dur is a significant site, worthy of more investigation. Perhaps the most important result of our stay was the shared

conviction that the organization of a European expedition to excavate ed-Dur would readily repay our efforts. A proposal, submitted to the Ruler's Office just before leaving Umm al-Qaiwain, suggested that teams from the four participating universities begin excavating in 1987, each group working for 6 weeks on a rotating basis. The proposal received official approval in early December, and excavations by the Danish, French, and British teams took place between mid-February and early May of this year. The Belgian team is scheduled to work in November and December, after which we look forward to the commencement of our second season in January, 1988, when the Danish team will begin again. The results of the European Expedition to Umm al-Qaiwain will, it is hoped, contribute to a better understanding of a coastal site on the lower Gulf which, to judge by the material found during the survey and subsequent excavations, may have played an important role in the political and economic geography of Arabia at the beginning of the Christian era. Characene coins, Roman glass, Parthian pottery, the occasional sherd of Indian Red Polished Ware, all point to the far-flung connections of a port which was occupied at precisely the time when the Periplus of the Erythraean Sea tells us of the thriving trade which linked Roman Egypt and the eastern Mediterranean with India and the Far East. Further work at ed-Dur should aid in clarifying the role of southeastern Arabia at that time, and thereby help to increase our knowledge of one of the least well-known periods in the region's part.

NOTES

1. See the more than 600 titles listed in E. Haerinck and K.G. Stevens Pre-Islamic Archaeology of Kuwait, Northeastern Arabia Bahrain, Qatar, United Arab Emirates and Oman : A Bibliography, Gent, 1985.
2. I. Salman, 'Foreword', Sumer 30 (1974) : m-n; R. al-Qaisy, 'Archaeological Investigations and Excavations at the State of the United Arab Emirates (sic) - Arabian Gulf', Sumer 31 (1975) : 75-156 (in Arabic); J.-F. Salles, 'Céramiques de surface à Ed Dour, Emirats Arabes Unis', in R. Boucharlat and J.-F. Salles, eds., Arabie Orientale, Mésopotamie et Iran Méridional de l'âge du Fer au début de la Période Islamique, Editions Recherche sur les Civilisations, Paris, 1984, p. 241-270.
3. For Denmark : The University of Copenhagen, Faculty of Humanities; the "Carsten Niebuhr Institute"; and the State Humanities Research Council (SHF). For Great-Britain : The University of Edinburgh and the British Council. For Belgium : The Dept. of Near Eastern Art and Archaeology (Dir. Prof. Dr. L. Vanden Berghe) at Gent University; and the National Foundation for Scientific Research (NFWO). For France : Maison de l'Orient, Université Lyon 2 / the Centre National de la Recherche Scientifique et le Ministère des Affaires Etrangères.
All of the authors would like to thank Mr. E. Smekens, Gent University, for preparing the final drawings.
4. Pliny, Natural History VI, 32, 149, writing of the coast south of Qatar, says, 'According to Juba the voyage beyond on that side has not been explored because of the rocks'. Cf. J. Horsburgh, India Directory, Vol. I, 6th ed., W.H. Allen & Co., London, 1852,

- p. 390-391, with stern warnings about the 'foul and rocky' coast, 'fronted by a dangerous coral reef'.
5. S. Cleuziou, 'Oman Peninsula in the Early Second Millennium B.C.', in H. Härtel, ed., South Asian Archaeology, Reimer, Berlin, 1981, Fig. 4:11 and 21; and B. Vogt, 'The Umm an-Nar Tomb A at Hili North : A preliminary report on three seasons of excavations, 1982-1984', Archaeology in the United Arab Emirates 4 (1985) : Pls.25-26.
 6. S.Cleuziou, 'The Second and Third Seasons of Excavations at Hili 8', Archaeology in the United Arab Emirates 2-3 (1980) : Fig. 41:5.
 7. P. Lombard, L'Arabie Orientale a l'âge du Fer, Thèse de Doctorat, Univ. de Paris I, 1985, Vol. II, Fig. 97.
 8. B. Vogt, 'The Umm an-Nar Tomb A at Hili North...', op.cit., Pl. 27:14, 16-24.
 9. For the 1st millennium, cf. S. ur-Rahman, 'Report on Hili 2 Settlement Excavations 1976-1979', Archaeology in the United Arab Emirates 2-3 (1980) : Fig. 8:3; and B. de Cardi, 'Further Archaeological Survey in Ras al-Khaimah, U.A.E., 1977', Oriens Antiquus 24 (1985) : Fig. 17.
 10. B. Voght, 'The Umm an-Nar Tomb A at Hili North...', op.cit., Pl. 27:19.
 11. R. Boucharlat, 'Les périodes pré-islamiques récentes aux Emirats Arabes Unis', in R. Boucharlat and J.-F. Sales, eds., Arabie Orientale, Mésopotamie et Iran Méridional de l'âge du Fer au début de la Période Islamique, Editions Recherche sur les Civilisations, Paris, 1984, p. 195, n. 4.
 12. For example, B. de Cardi and D.B. Doe, 'Archaeological Survey in the Northern Trucial States', East and West 21 (1971) : Fig. 17; de Cardi, 'Ras al-Khaimah : further archaeological discoveries', Antiquity 50 (1976) : Figs. 3-4; 'Further Archaeological Survey in Ras al-Khaimah...', op.cit., Figs. 7-12; R. Boucharlat and P. Lombard, 'The Oasis of Al Ain in the Iron Age : Excavations at Rumeilah 1981-1983, Survey at Hili 14', Archaeology in the United Arab Emirates 4 (1985) : Pls. 47-52; and J.H. Humphries, 'Harvard Archaeological Survey in Oman : II - Some Later Prehistoric Sites in the Sultanate of Oman', PSAS 4 (1974) : Figs. 6-12.
 13. Cf. references given in note 6.
 14. Idem.
 15. Boucharlat and Lombard, 'The Oasis of Al Ain in the Iron Age..', op.cit., Pl. 49:12-13; Pl. 50:1-3.
 16. J.-F. Salles, 'Céramiques de surface à Ed Dour...', op.cit., p. 241-270.
 17. Cf. R. LeB. Bowen, 'The Early Arabian Necropolis of Ain Jawan', BASOR Suppl. Studies 7-9 (1950) : 45, Fig. 22G.
 18. Salles, 'Céramiques de surface à Ed Dour...', op.cit., p. 245, Fig. 9:76-79.
 19. Salles, 'Céramiques de surface à Ed Dour...', op.cit., p. 264, Fig. 11:118.
 20. Salles, 'Céramiques de surface à Ed Dour...', op.cit., Fig.11: 115.
 21. Cf. Salles, 'Céramiques de surface à Ed Dour...', op.cit., p. 250, Fig. 16:196.
 22. L. Hannestad, The Hellenistic Pottery from Failaka, Ikaros - The

- Hellenistic Settlements Vol. 2 (= Jutland Archaeological Society Publications XVI:2), Aarhus, 1983.
23. Salles, 'Céramiques de surface à Ed Dour...', op.cit., Fig. 12.
 24. Hannestad, The Hellenistic Pottery from Failaka, op.cit., p. 103.
 25. This is also borne out by the excavations conducted at ed-Dur in 1987, when fishplates were found in association with Roman glass of unmistakable 1st century A.D. type.
 26. Cf. Salles, 'Céramique de surface à Ed Dour...', op.cit., Fig. 14:170.
 27. Cf. Salles, 'Céramique de surface à Ed Dour...', op.cit., Fig. 15.
 28. Cf. comparable examples from Bahrain, E.C.L. During Caspers, 'The Bahrain Tumuli, An Illustrated Catalogue of Two Important Collections', Uitgaven van het Nederlands Historisch-Archaeologisch Instituut te Istanbul 47 (1980) : 14, Fig. 6a, Pl. XXV-XXVI; and an example in the British Museum, as well as a fragment from Kuyunjik, D. Barag, Catalogue of Western Asiatic Glass in the British Museum, Vol. I, British Museum Publications Ltd and The Magnes Press, London and Jerusalem, 1985, p. 92-93, Fig. 9:116, Pl. 13:116-117, with extensive bibliography. Another large fragment of a vessel of this type was found in a building at ed-Dur excavated during the 1987 season.
 29. C. Rathjens and H. von Wissmann, Vorislamische Altertümer, Rathjens- v. Wissmannsche Südarabien-Reise, Band 2, Hamburgische Universität, Abhandlungen aus dem Gebiet der Auslandskunde, Bd. 38, Reihe B, Bd. 19, Hamburg, 1932, p. 94, Phot. 54:d = VA 8918.
 30. S. Cleuziou, Les pointes de flèche en métal au Proche et Moyen-Orient, des origines à la période achéménide, These de Doctorat de IIIe cycle, Univ. de Paris I, 1974, p. 271-272. One could point to many similar examples, e.g. D. Huff and Ph. Gignoux, 'Ausgrabungen auf Qal'a-ye Dukhtar bei Firuzabad 1976', AMI 11 (1978) : 123, Abb. 5c, or Cleuziou, 'Les Pointes de Flèches "Scythiques" au Proche et Moyen-Orient', in J. Deshayes, ed., Le Plateau Iranien et l'Asie Centrale des Origines à la Conquête Islamique, Editions du CNRS, Paris, 1977, p. 196, Fig. 4.
 31. F.W. Schwarzlose, Die Waffen der alten Araber, aus ihren Dichtern dargestellt, Hinrichs, Leipzig, 1886, p. 305 for 'dreiseitige Pfeilspitzen', and p. 307 for 'Tripelspitze'.
 32. T. Madhloom 'Excavations of the Iraqi Mission at Mleha, Sharjah, U.A.E', Sumer 30 (1974) : Pl. 16A, and R. Boucharlat, Archaeological Surveys and Excavations in the Sharjah Emirate, 1986 : A Third Preliminary Report, Lyon, 1986, Fig. 34:1, 3, 4.
 33. On lead, see P.R.S. Moorey, Materials and Manufacture in Ancient Mesopotamia : The evidence of Archaeology and Art, BAR Int. Ser. 237, Oxford, 1985, p. 121-126, with further bibliography.

Fig. 1 : Ed-Dur 1986 (surface)

1. Light brown ware with whitish grits; black slipped ext.; brown-red slipped int.; incised decoration.
2. Light brown ware; red brown slip int.; ext. ?; incised decoration.
3. Black slipped coarse ware; white grits; incised decoration.
4. Black on red ware.

5. Black on red ware; traces of red paint on int.
6. Light brown ware; brown slip on ext.; black decoration on int.
7. Red brown ware; dark brown decoration.
8. Grey/brown ware; red slipped ext. & int.; dark brown paint ext. & int.
9. Black on red ware.
10. Black on orange-red ware.
11. Fine grey-brown ware, like stoneware; buff to red-brown ext. surface with black paint ext.
12. Black on orange-red ware.
13. Brick red core; small mineral temper; well fired, dark red slip with black paint on ext. (3rd millennium B.C. ?).
14. Pottery weight; green fabric, with lots of vegetal temper.

Fig. 2 : Ed-Dur 1986 : stone vessels (surface)

1. Soft stone, light blue-grey (Iron Age).
2. Soft stone, light grey (Iron Age).
3. Burnt steatite (3rd mill. B.C. ?).

Fig. 3 : Ed-Dur 1986 : common ware (surface)

1. Reddish brown hard fired ware.
2. Grey core; brick red surf., well fired (ca. 36 cm).
3. Light brown ware, well fired.
4. Light yellow ware; some vegetal temper.
5. Pale yellow ware; small black mineral grits.
6. Dark grey to black ware; mineral temper; several large grits.
7. Light to dark grey ware with vegetal and mineral temper. Incised decoration.
8. Light orange reddish; incised decoration.
9. Orange-red with grey core; black mineral temper.
10. Brick red with grey core.

Fig. 4 : Ed-Dur 1986 (surface)

1 - 4 : Thaj ware

1. Reddish core; even red slip int.; grey slip ext.
2. Reddish core; even red slip int.; grey slip ext.
3. Reddish core; even red slip int.; grey slip ext.
4. Reddish core; dark reddish brown slipint. and grey slip ext.

5 - 7 : Painted ware

5. Black on buff; very well fired.
6. Light-yellowish brown ware; sepia paint ext.
7. Light pink ware; black paint ext.

8. : Terra sigillata (probably class C : Pergamon-ware)

8. Orange core; red slip (ca. 27 cm).

Fig. 5 : Ed-Dur 1986 : glazed pottery (surface)
Core of all : very light yellow to very light brown.

1. Pale green glaze.
2. Dark moss-green glaze.
3. Green glazed.
4. Glaze completely disappeared.
5. Glaze completely disappeared.
6. Traces of green glaze.
7. Traces of glaze.
8. Dark green glaze.

Fig. 6 : Ed-Dur 1986 : glazed pottery (surface)
Core of all : light yellow to very light brown.

1. Light green glaze.
2. Glaze completely disappeared.
3. Glaze completely disappeared.
4. Dark green glaze.
5. Glaze completely disappeared.
6. Traces of pale green glaze.
7. Whitish; mother of pearl glaze.
8. Dark green glaze.

Fig. 7 : Ed-Dur 1986 : glazed pottery (surface)
Core of all : light yellow to very light brown.

1. Dark green glaze.
2. Dark green glaze.
3. Dark green glaze.
4. Dark green glaze.
5. Decayed, dark green to whitish glaze.
6. Moss-green glaze.
7. Decayed green (?) glaze.
8. Moss-green glaze.
9. Dark green glaze.
10. Moss-green glaze
11. Dark green glaze.
12. Dark green glaze.

Fig. 8 : Ed-Dur 1986 : glazed pottery (surface)
Core of all : light yellow to very light brown.

1. Moss-green glaze.
2. Moss-green glaze.
3. Moss-green glaze.
4. Light to dark green decayed glaze.
5. Moss-green glaze.
6. Dark green, decayed glaze.
7. Dark green, decayed glaze.
8. Dark green glaze.

9. Dark green glaze.
10. Green glaze.
11. Green glaze.

Fig. 9 : Ed-Dur 1986 (surface)

1. Pottery weight; grey-green fabric with vegetal temper.
2. Pottery weight; grey-green fabric with vegetal temper.
3. Pottery weight; grey-green fabric with vegetal temper; bitumen coated on concave face.
4. Pottery weight; grey-green fabric with vegetal temper.
5. Pottery weight; light brown fabric with vegetal temper.
6. Pottery weight; grey-green fabric with vegetal temper;
7. Pottery figurine of camel or horse (?); light yellow fabric, small mineral temper.

Fig. 10 : Ed-Dur 1986 : Area 2 (building)
(Area 2 : Building)

1. Plain yellow buff.
2. Plain, pall yellow buff.
3. Coarse grey.
4. Brown, well fired hard ware.
5. Plain buff, vegetal temper (ca. 42 cm).
6. Grey-buff ware (handle).
7. Black ware; mineral & vegetal temper.
8. Black ware; mineral & vegetal temper (ca. 30 cm).
9. Heavy black ware, with many mineral grits (ca. 40 cm).
10. Buff ware, yellow fugitive glaze int. & ext.
11. Buff ware, green-blue glaze (figurine ?)
12. Fragment of iron saw.
13. Steatite.
14. Bead (Rock-cristal ?), translucent.

Fig. 11 : Ed-Dur 1986 : Area 3 (grave)

A. Interior

1. Coarse reddish brown ware with vegetal temper; light grey surface.
2. Light grey pottery with big mineral grits.
3. Bronze object.
4. Iron trilobate arrowhead.

B. Exterior

1. Buff yellow common ware.
2. Grey black common ware with mineral grits.
3. Light yellowish ware.
4. Buff yellowish ware with int. & ext. whitish glaze.
5. Light yellowish brown ware, yellow glaze int. & ext., blue in some places.
6. Yellowish common ware; Whitish glaze ext.
7. Fragment of iron sword.

Fig. 12 : Ed-Dur 1986 : Area 4 (grave 1)

1. Light brown fine paste; pale green glaze, incised decoration.
2. Yellowish brown paste; whitish green to dark green glaze.
3. Fragment of glass beaker; dark grey exterior; core : purple to blue.
4. Iron arrowhead.

Fig. 13 : Ed-Dur 1986 (surface)

1. Bronze mirror with decoration of concentric circles (thickness 1 mm).
2. Bronze ring with engraved bezel (stylised bullshead).
3. Bronze blade.
4. Fragment of bronze bowl (?) with incised bovine leg (thickness 1 mm).
5. Bronze head of figurine (cauldron attachment ?)
6. Fragments of broken iron dagger with midrib.
- 7 - 8. Lead weights.
- 9 - 11. Incised bone plaques.
12. Shell bead with sawn off flat surface.
13. White stone (sandstone ?) seal with incised decoration.

Fig. 14 : Ed-Dur 1986 : Sounding Area 1

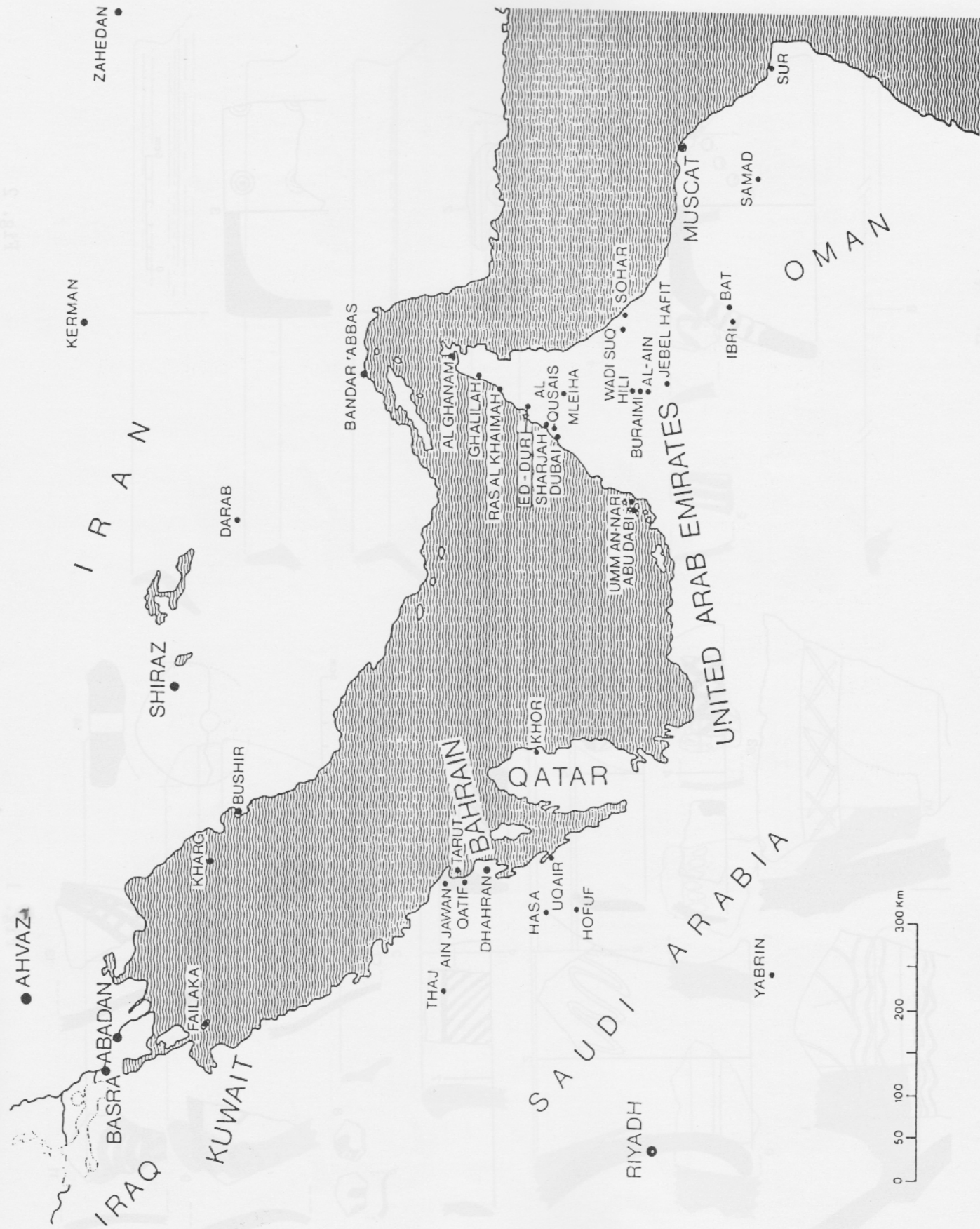
Fig. 15 : Ed-Dur 1986 : Sounding Area 2

Fig. 16 : Ed-Dur 1986 : n° 1 : Area 3 (grave); n° 2-4 : Area 4 (grave 1-3)

Pl. I : Ed-Dur 1986 : A. Area 1; B. Area 2.

Pl. II : Ed-Dur 1986 : A. Area 3 (grave); B. Area 4 (grave 2)

Pl. III : Ed-Dur 1986 : A. incised bone plaque; B. iron arrowhead (Area 4 : tomb 1); point of an iron sword (Area 3 grave)



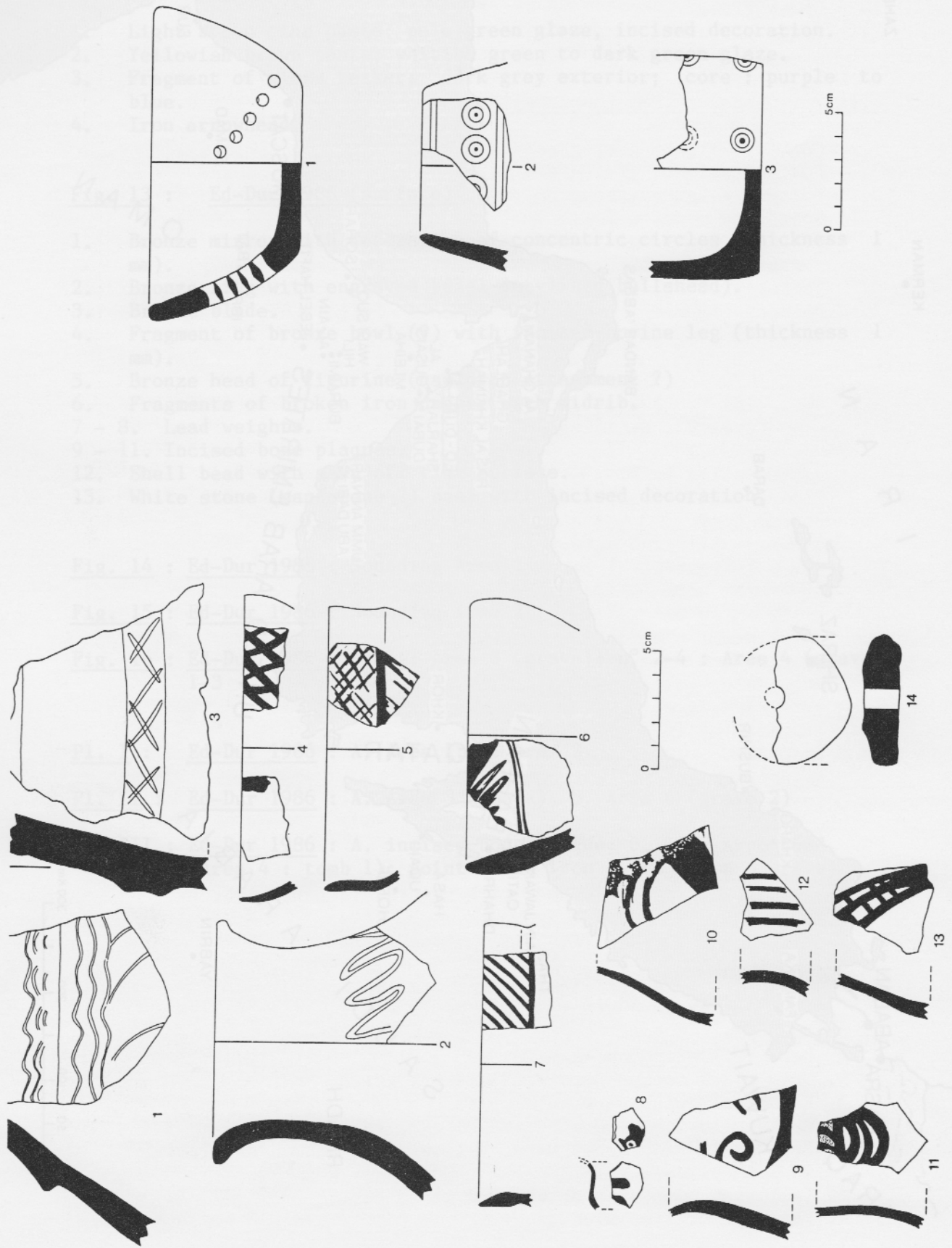


Fig. 1

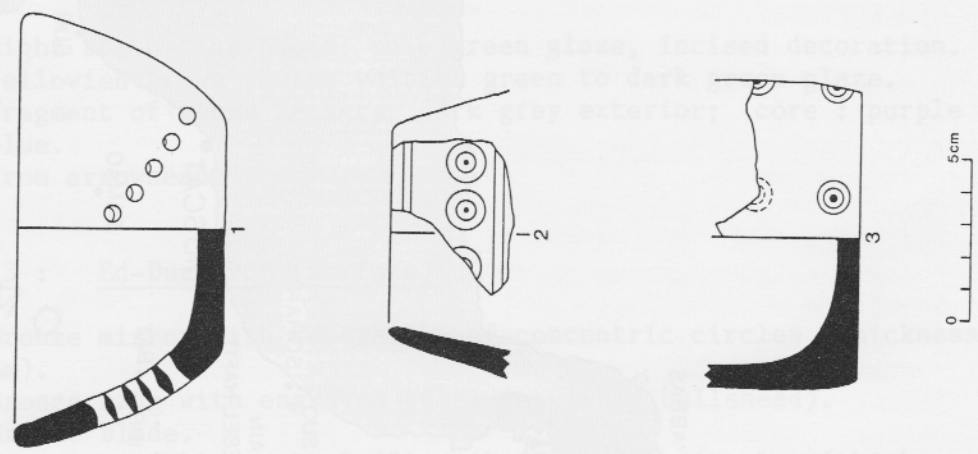


Fig. 2

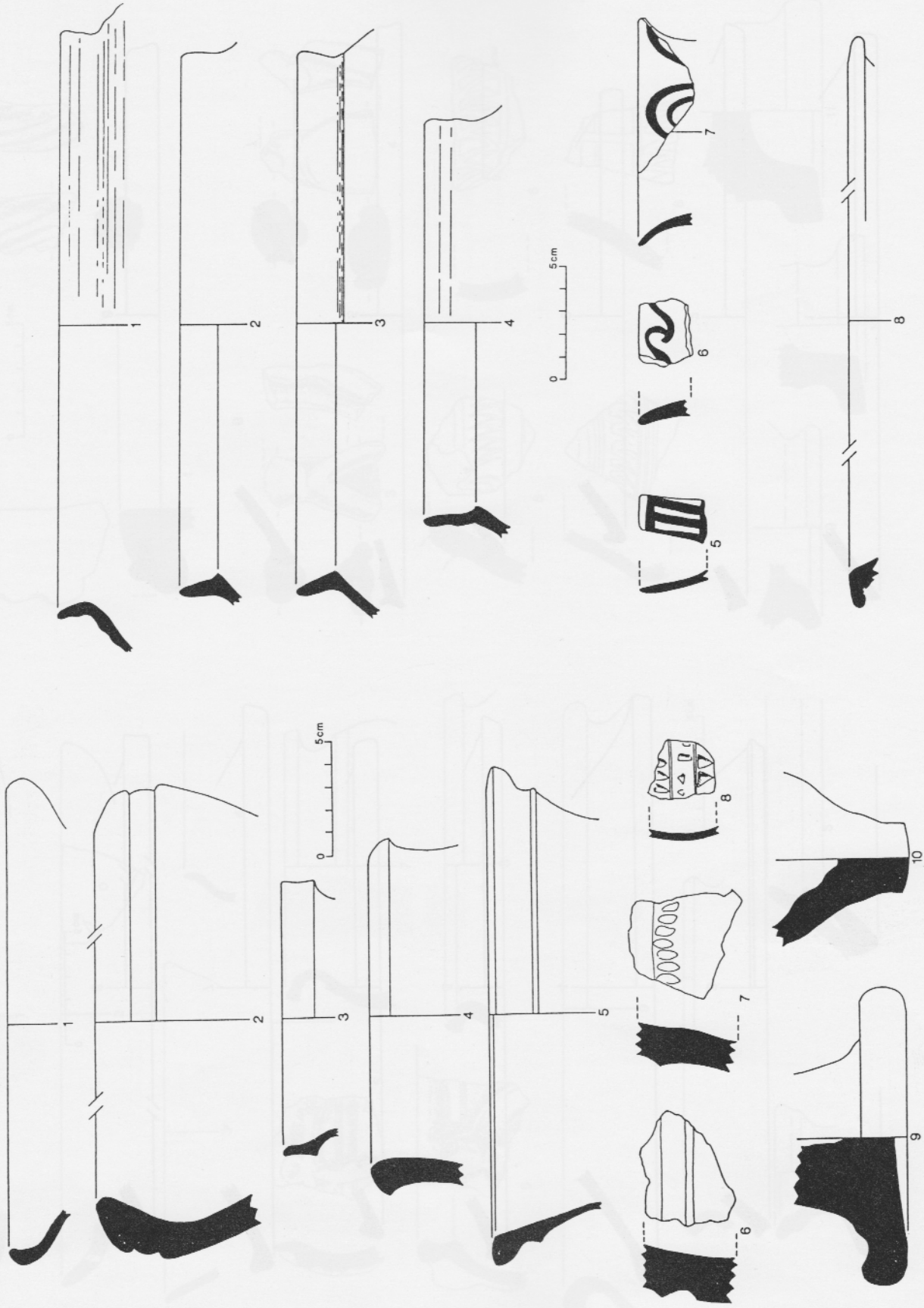


Fig. 4

Fig. 3

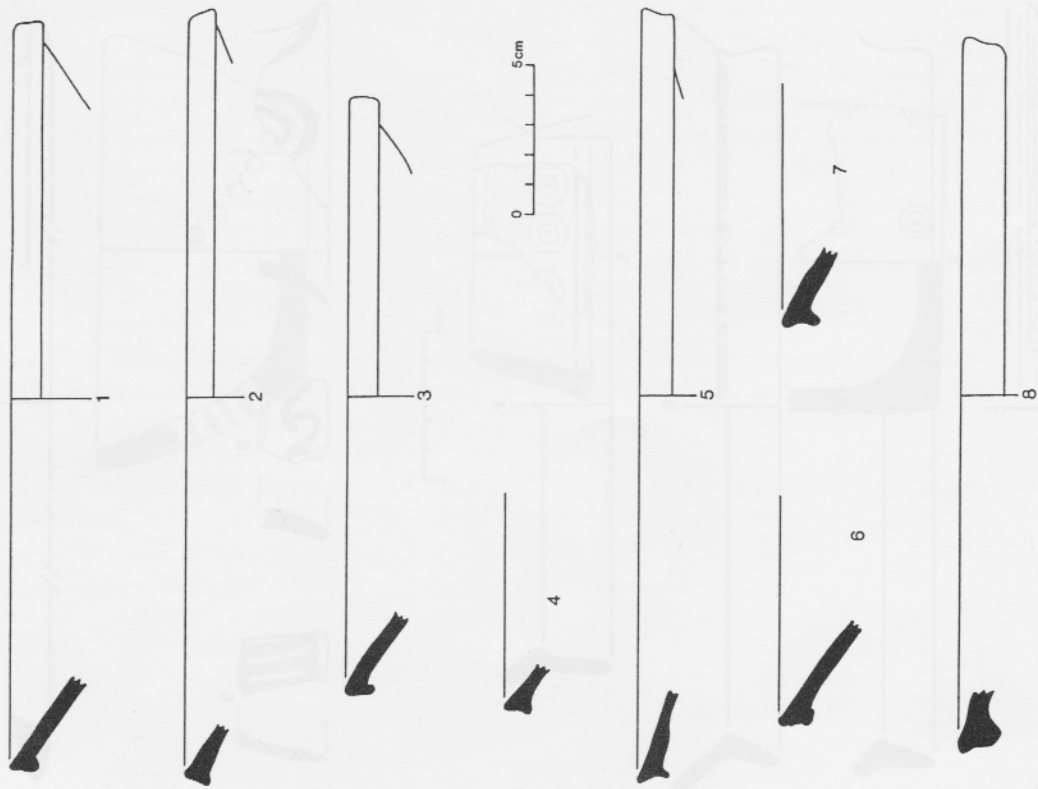


Fig. 5

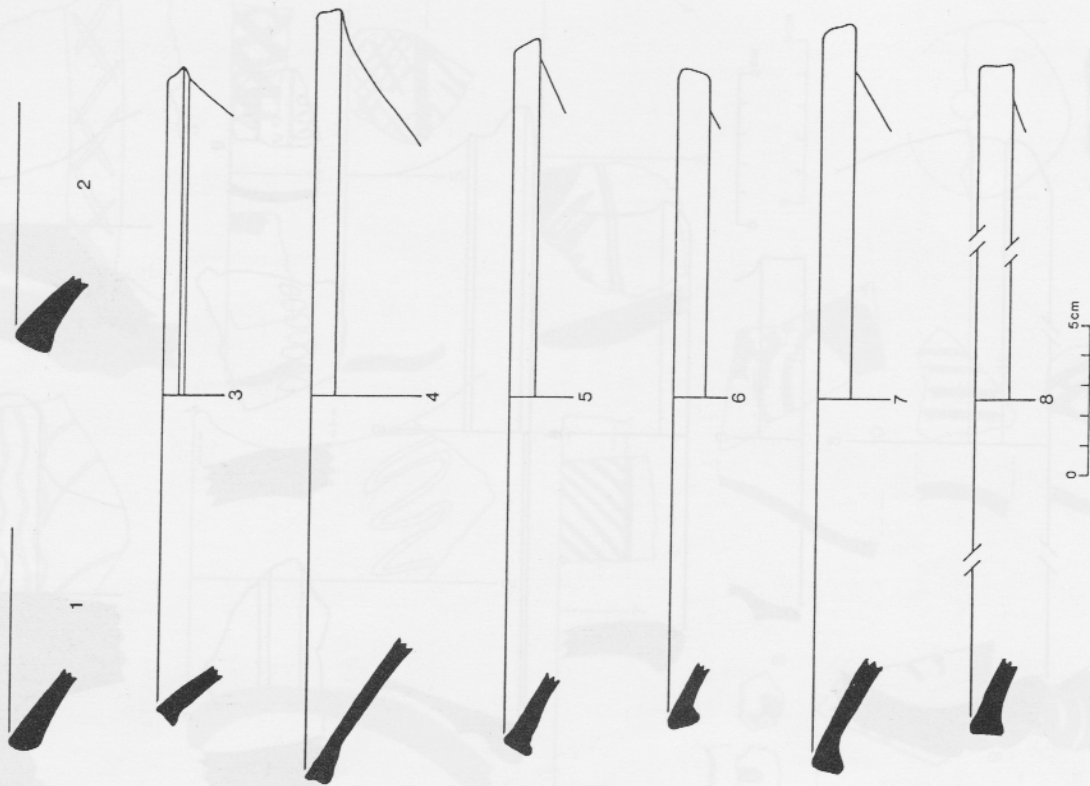


Fig. 6

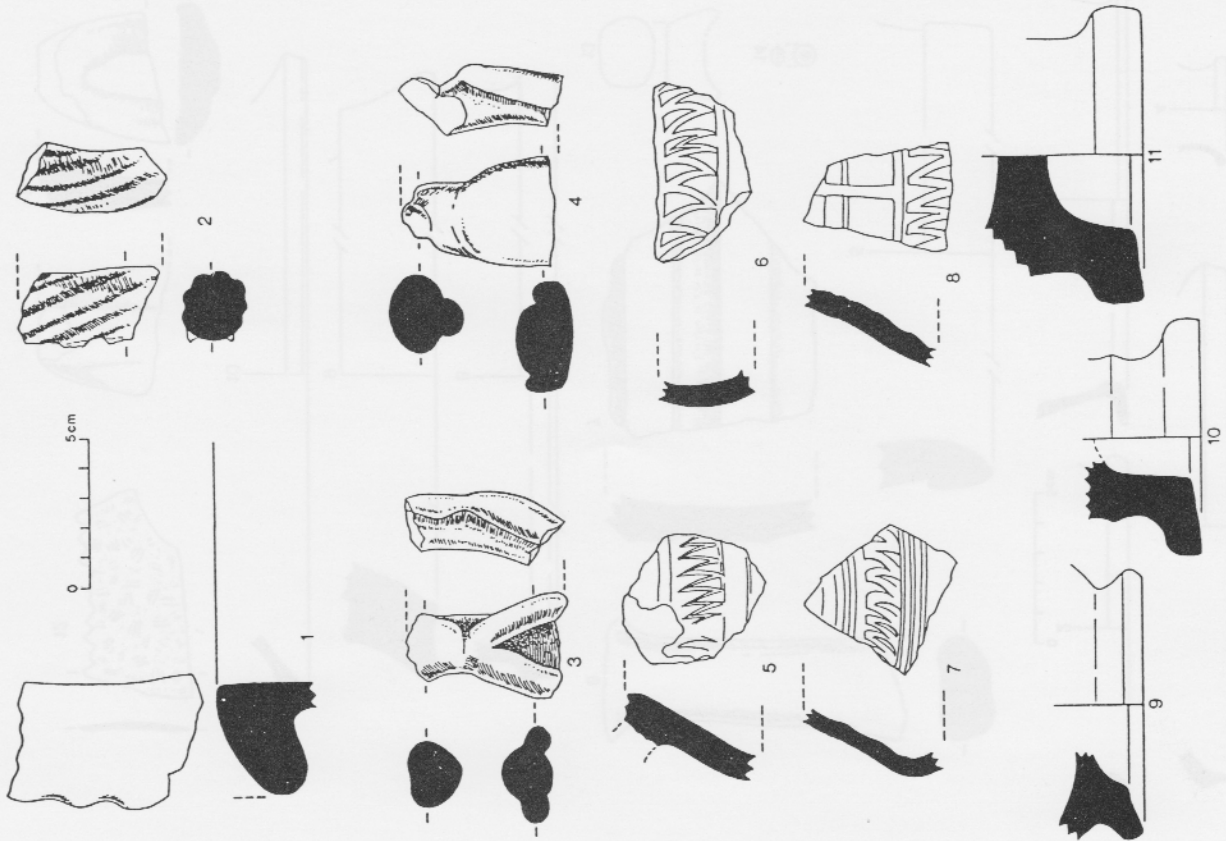


Fig. 8

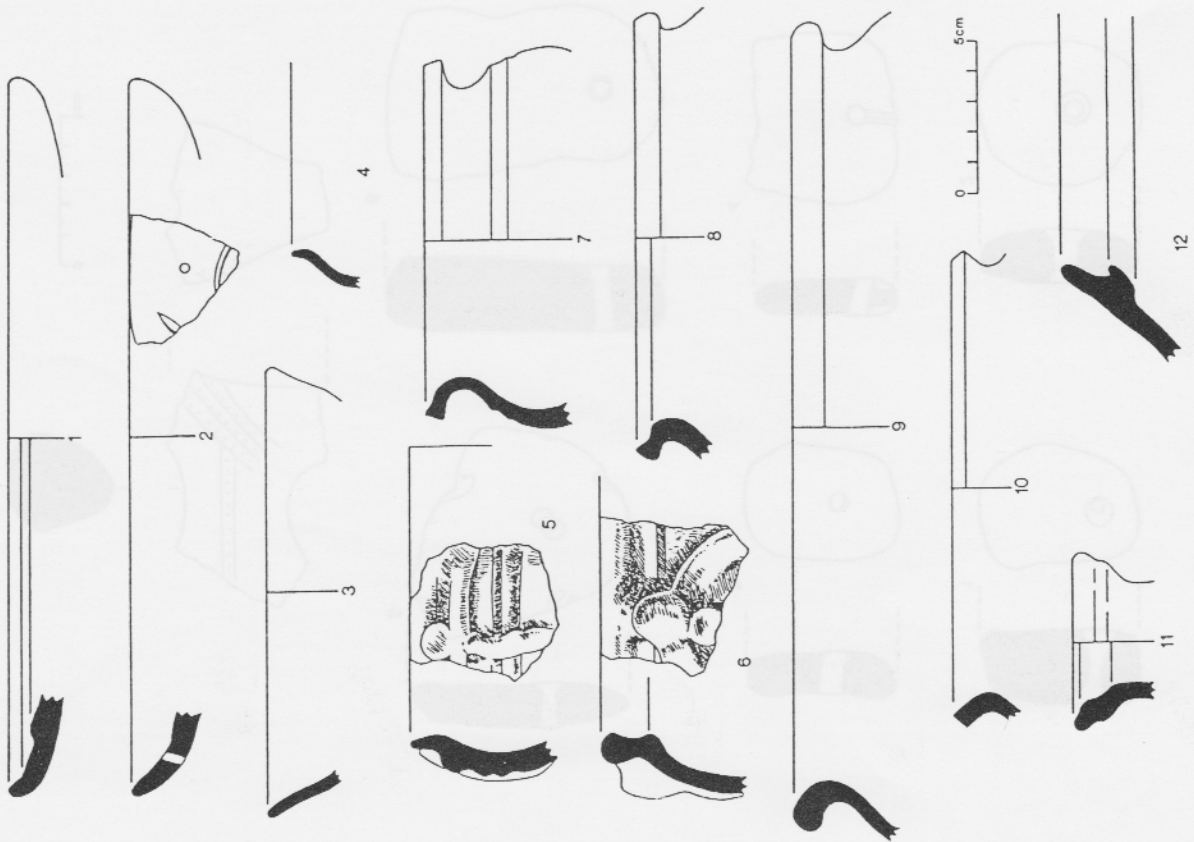


Fig. 7

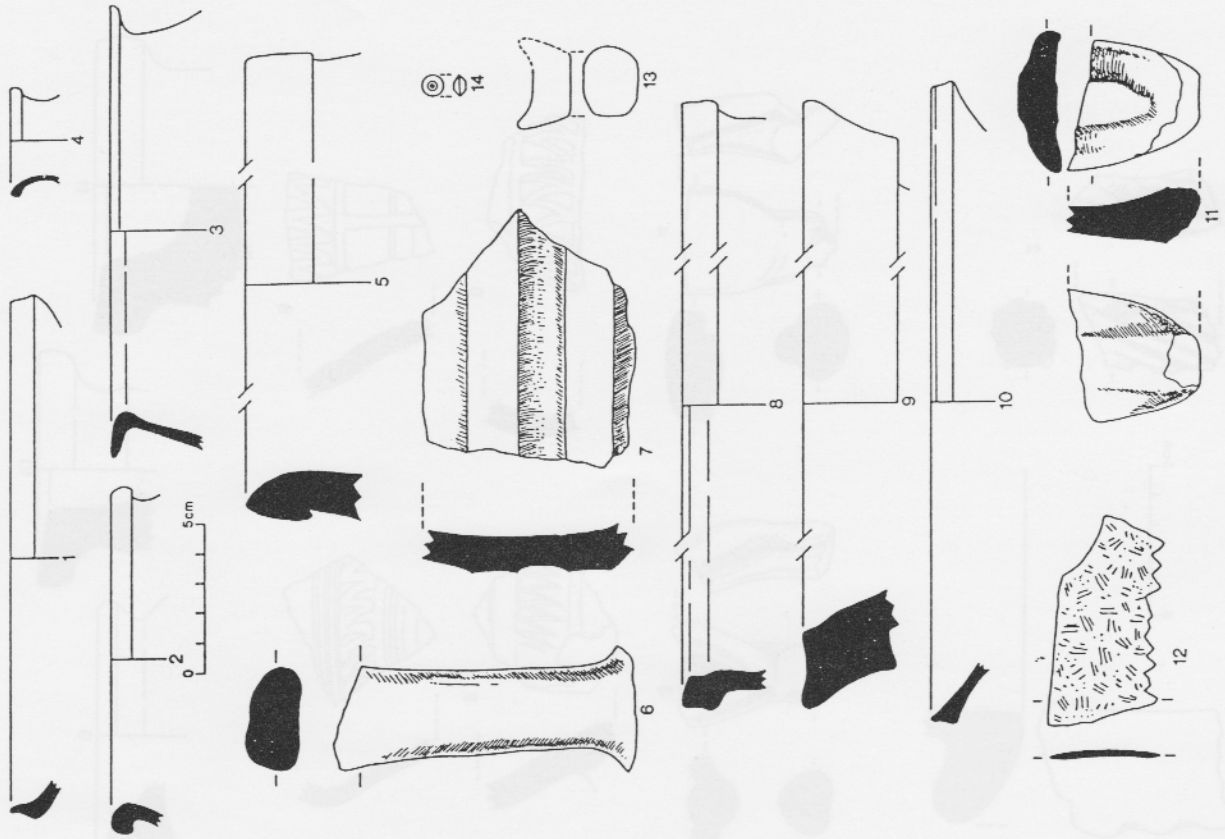


Fig. 10

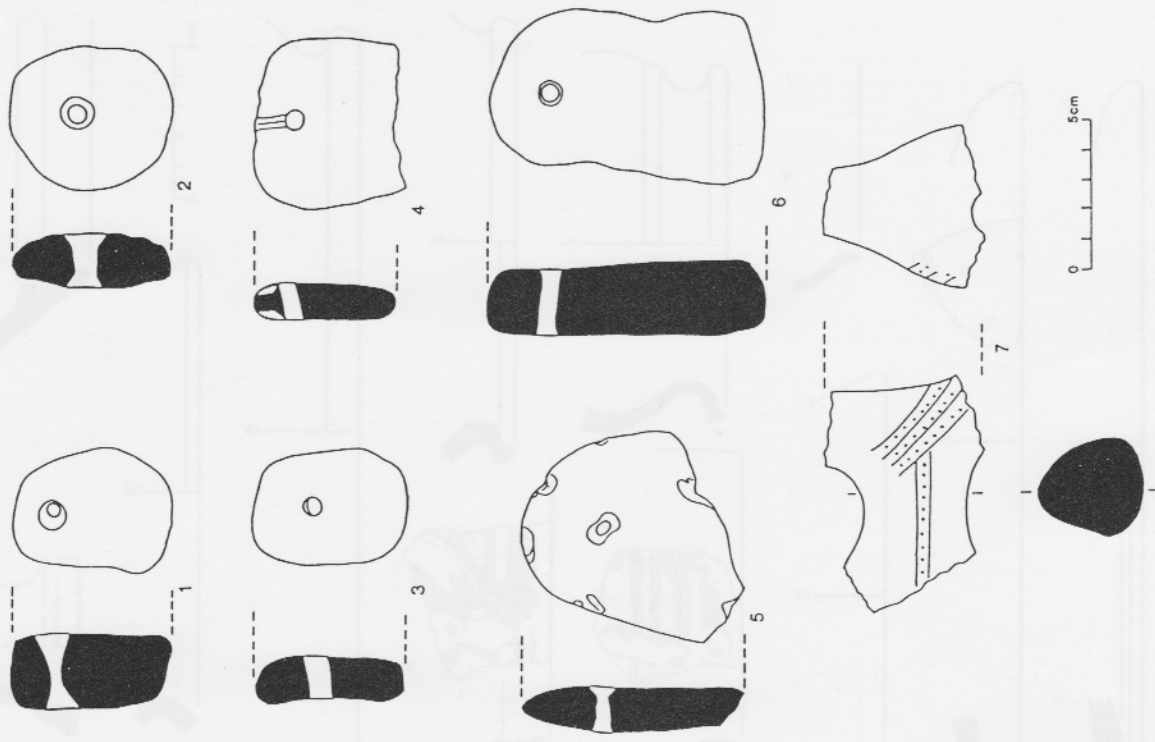


Fig. 9

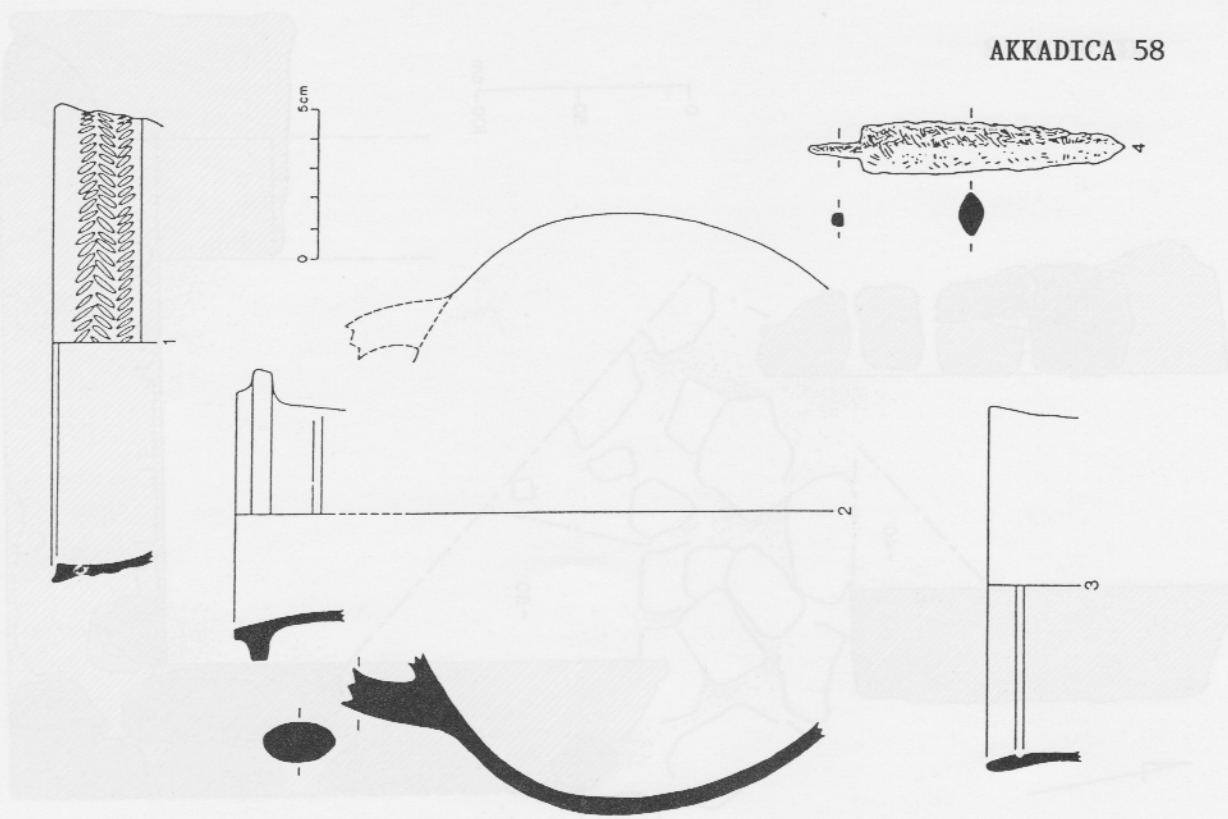


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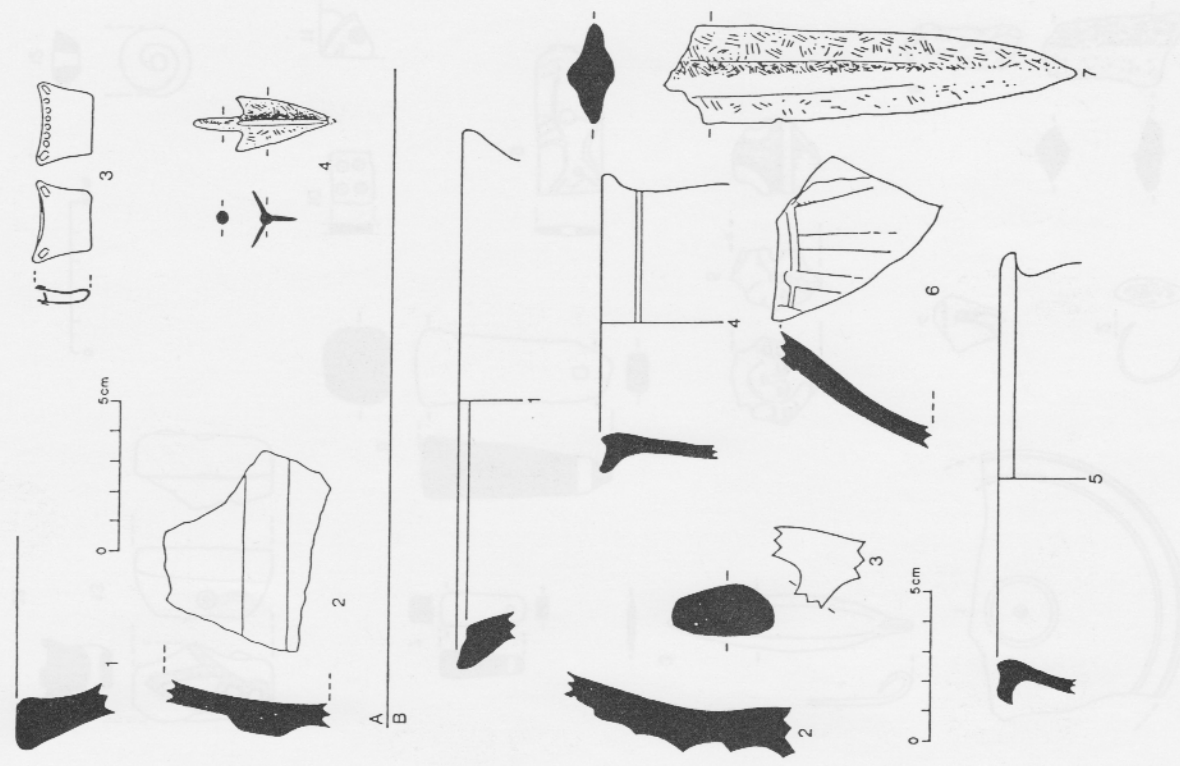


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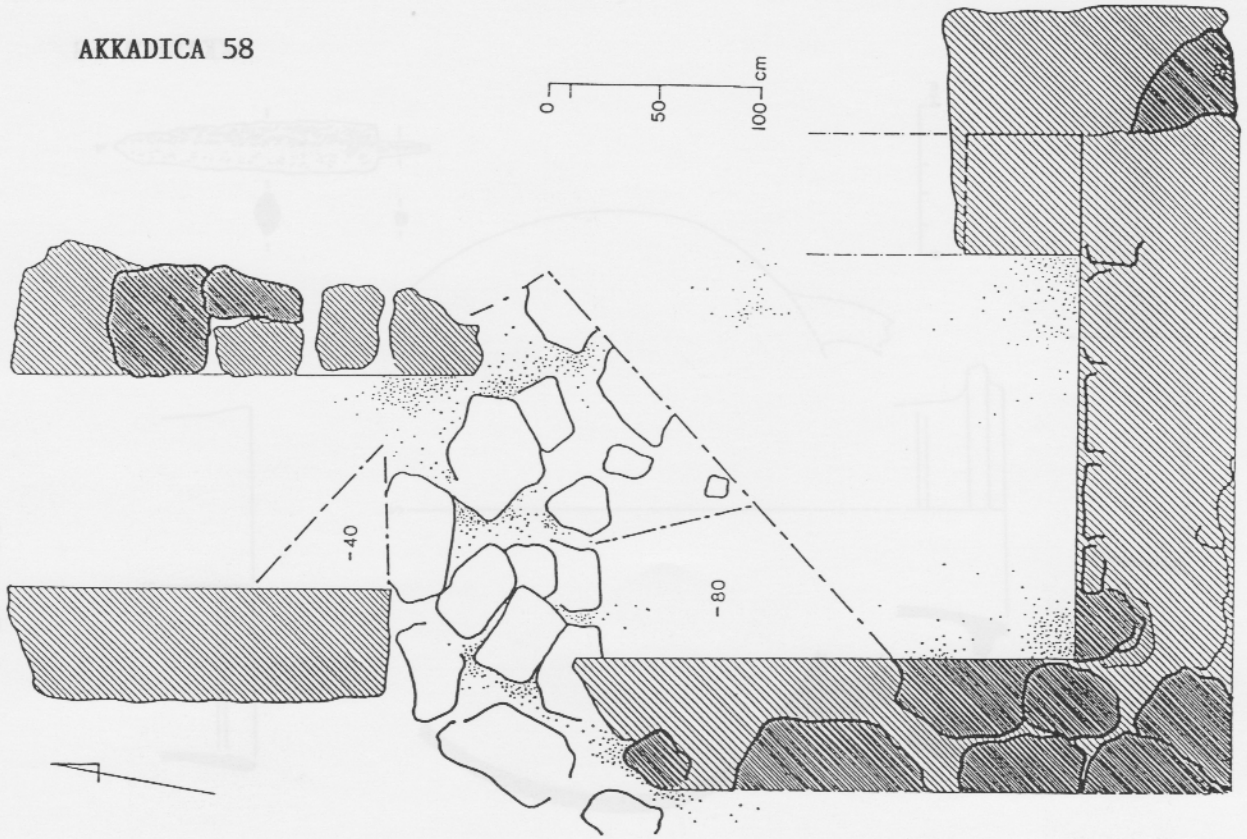


Fig. 14

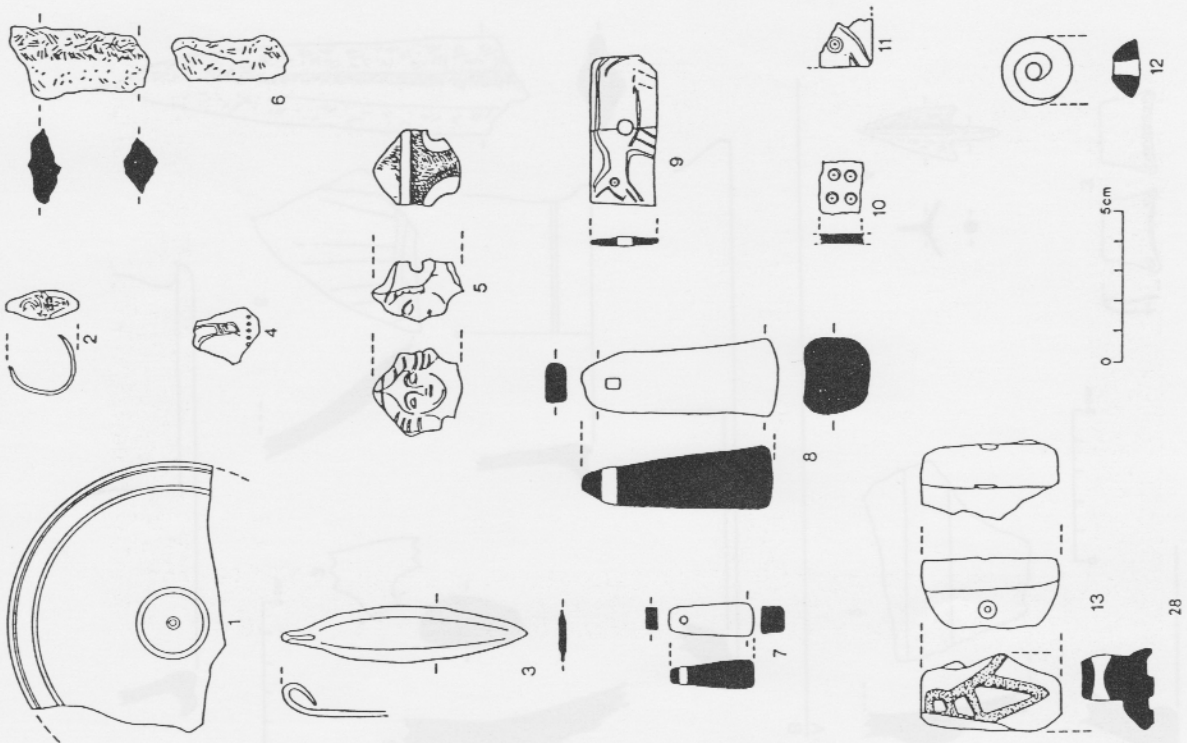


Fig. 13

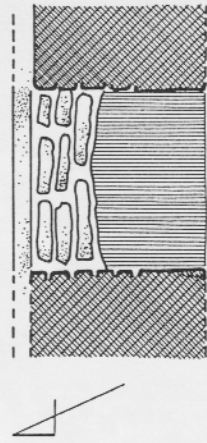
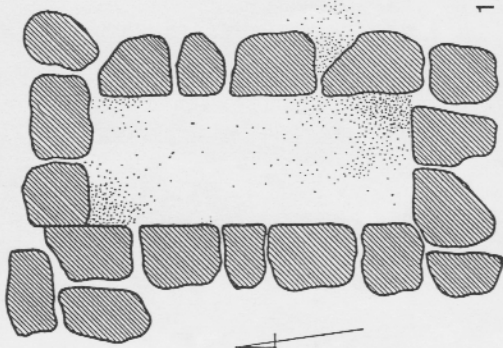
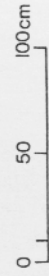
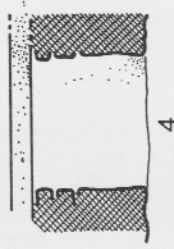
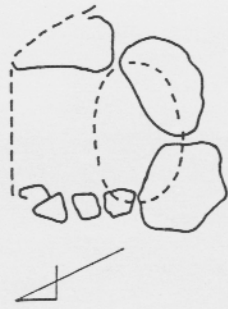
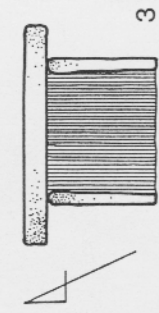


Fig. 16

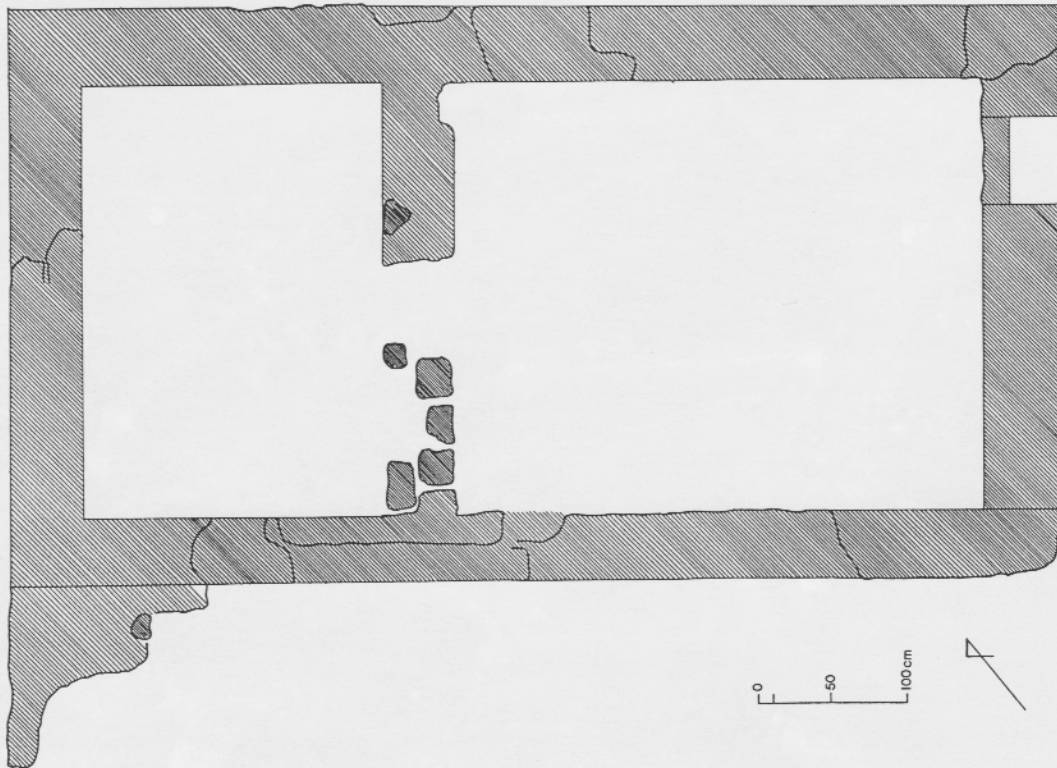
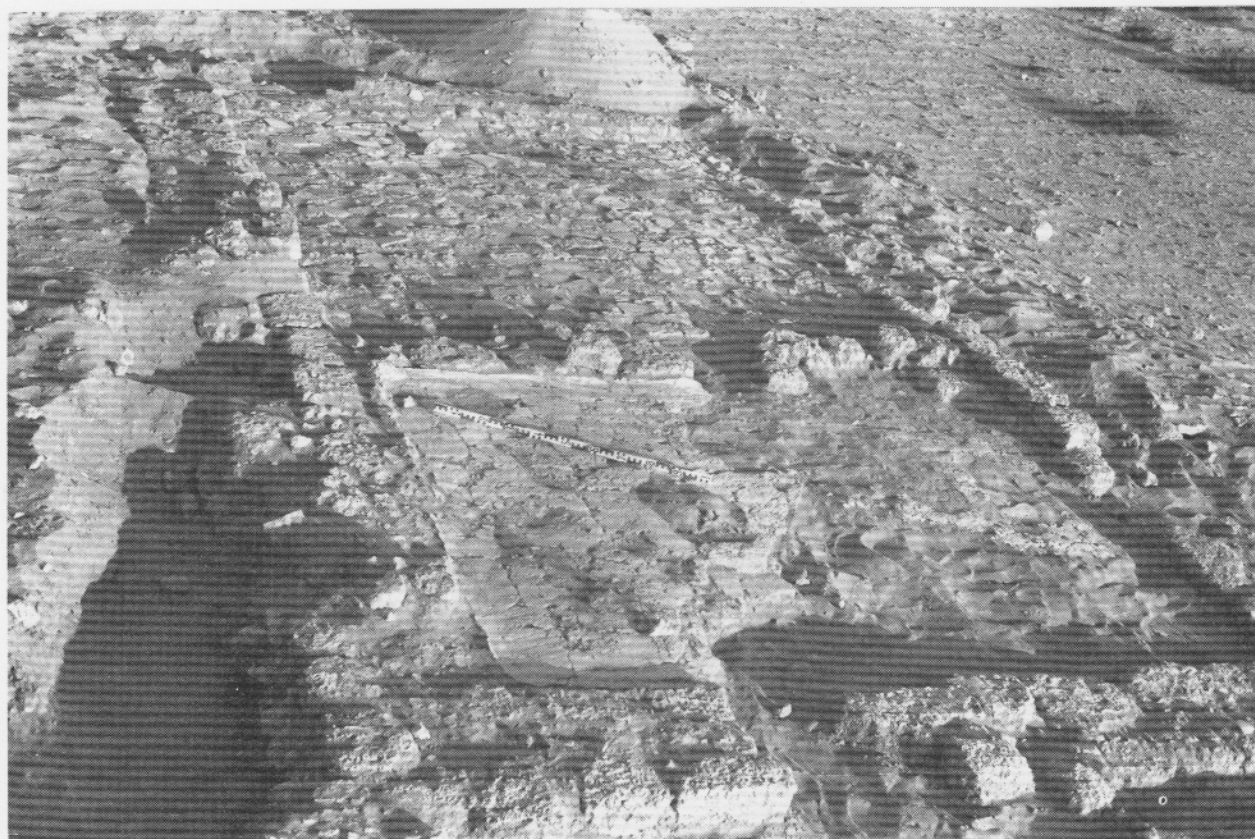


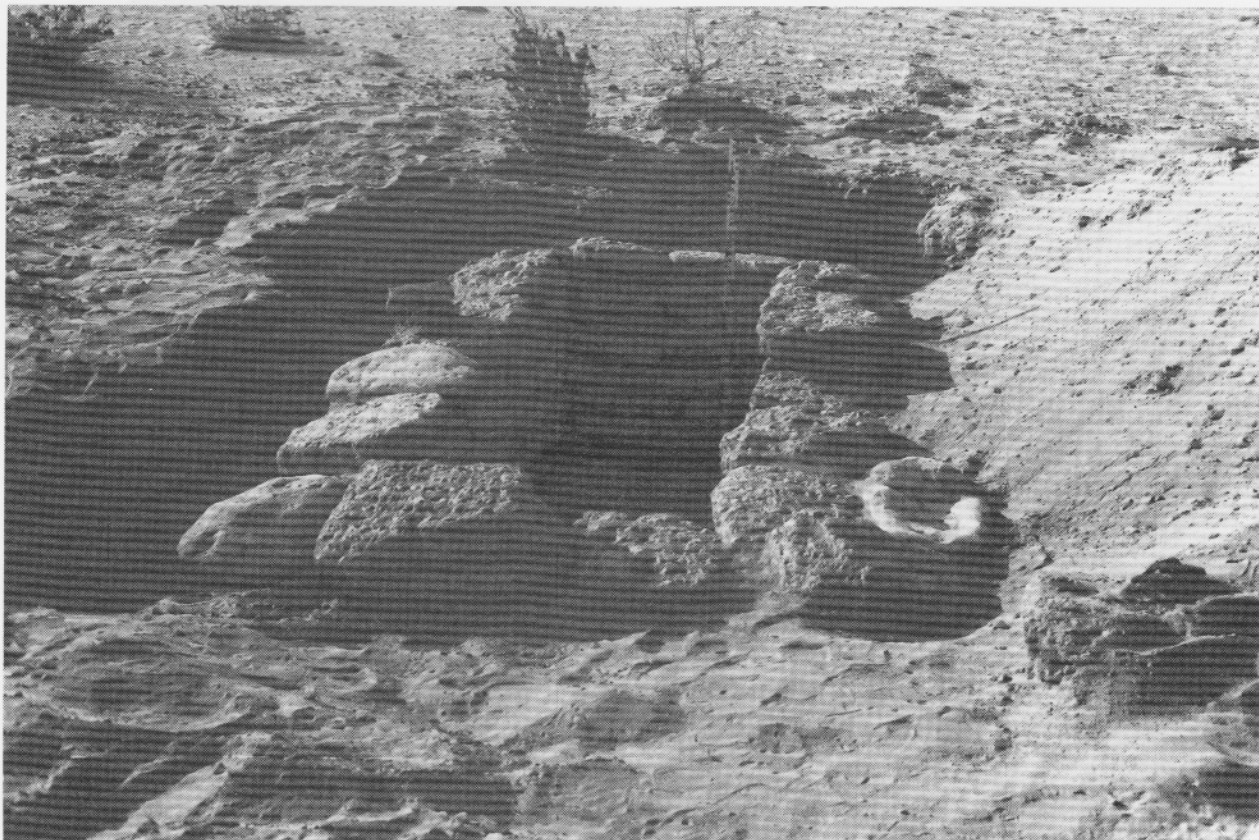
Fig. 15



Pl. IA



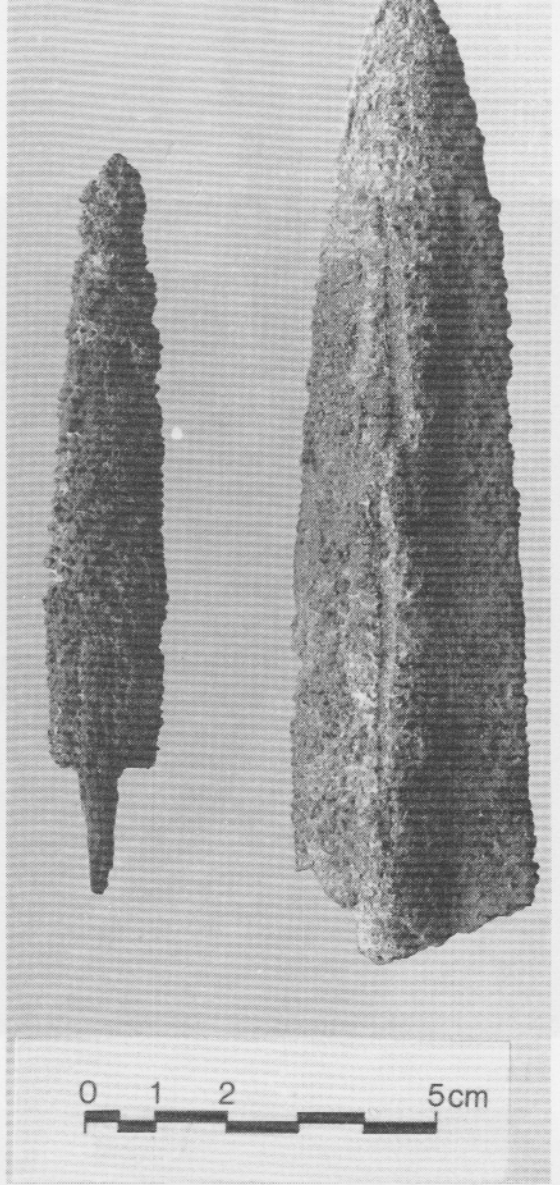
Pl. IB



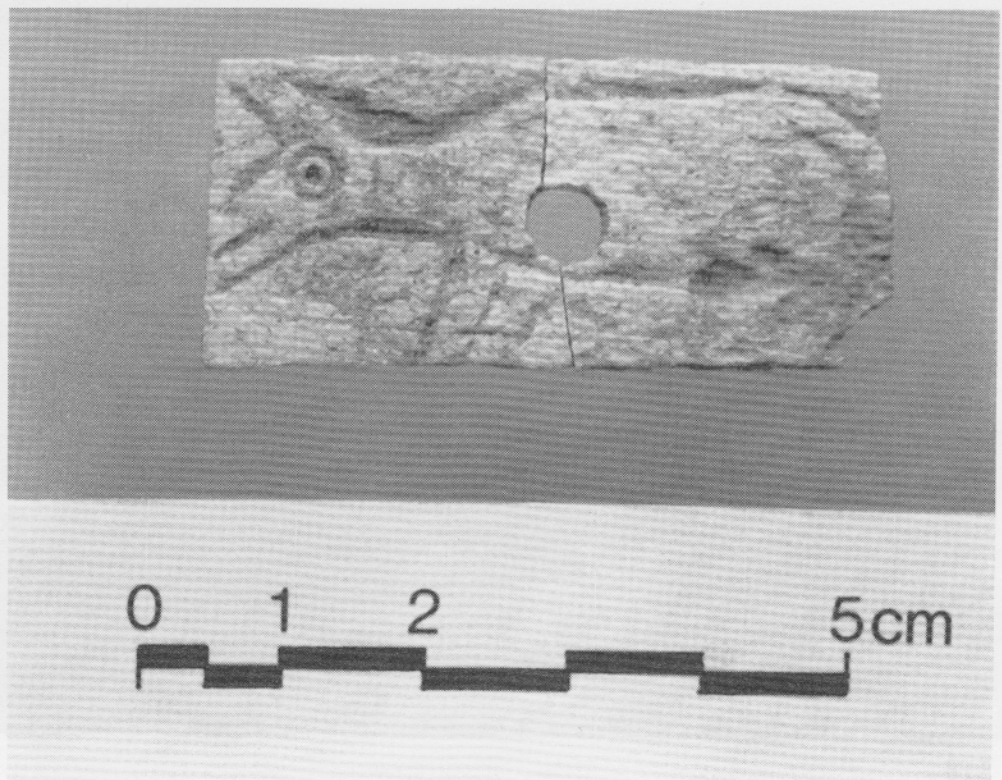
P1. IIA



P1. IIB



Pl. IIIB



Pl. IIIA