

ORIENS ANTIQUVS

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DEL VICINO ORIENTE

ESTRATTO

THE SITE OF MADĪNAT AL-AḤĠUR
AND A FIRST TYPOLOGICAL STUDY OF
CLASSICAL SOUTH-ARABIAN POTTERY FROM THE YEMEN PLATEAU

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TAVOLE I-XIX

During a series of surveys carried out on the inland North Yemen plateau in the months of November and December 1981, the IsMEO Italian Archaeological Mission led by Prof. Alessandro de Maigret discovered the pre-Islamic settlement of Madīnat al-Aḥḡur. This settlement is the subject of the present study⁽¹⁾.

During the second visit to Madīnat al-Aḥḡur in October 1984 we were able to survey the site more thoroughly and, in particular, to carry out a systematic collection of the surface pottery together with archaeological and topographical surveys of the dwellings⁽²⁾.

To reach the ancient city of Madīnat al-Aḥḡur, in the Al-Ḥadā region, you must leave Ṣan'a' taking the road to Damār (Fig. 1). Descending to the plain (Qā' Ḡahrān) and crossing the Naqīl Yaslaḥ, you then turn left on reaching the village of Qaryat an-Naqīl and set off along the road for the small town of Zirāḡah, passing through the villages of Yakār (before leaving the southern slopes of the Ḡabal al-Maryat) and Saqatayn (by which time you are on the northern slopes of Ḡabal Ḥalāl). From Zirāḡah you continue in the same direction (SE) as far as Banī Aḥmad and Banī Hawīdah, and then enter the Wādī Ḥaykān. This *wādī* describes a sinuous course along a narrow gorge between walls of basaltic rock (of the "columnar basalt" type) which afford terrace cultivation only in a few stretches. This is the Banī Buḡhayt region, belonging to the Al-Ḥadā district (province of Damār). The *wādī* takes you to a village set on a peak formed from the same basaltic rock. This is Banī Baddā', which the ruins of Madīnat al-Aḥḡur belong to. The site is in fact about 50 metres from the village as the crow flies, but separated by a deep valley which cannot be crossed on foot (Pl. I).

(1) de Maigret, 1981, pp. 8-11

(2) de Maigret, 1984, p. 431. My thanks go to Prof. A. de Maigret, who gave me the opportunity to study the ceramic material from this important pre-Islamic center on the Yemen plateau and offered valuable advice and suggestions during the course of my work.

The city

To reach the ruins of Madīnat al-Ahğur from Banī Baddā' you must retrace your steps along the Wādī Ḥaykān and climb south from the bottom of the valley to gain access to the ancient city from the west side. The city lies on one of the columnar basalt plains cut by deep gorges that characterize the morphology of the surrounding area.

Geologically speaking, the plain consists of a Palaeocene bed of lava (formed in the early Palaeogene and defined on the geological map as TKy1) superimposed by the more acid lava beds (*facies riolitica*) formed in an advanced stage of the Palaeogene (TKy2). Tectonic effects on the faults (resulting from differentiated uplifting of the plates) played an important role in the processes of erosion determined the appropriate conditions for the formation of the deep erosive gorges surrounding the site. The rhyolites, marked by a whitish colour, can be seen on the high plain to the south where the villages of Banī 'Isa, Al-Ğabāhirah and Al-Mayānid stand⁽³⁾.

Three of the sides of the plateau are bounded by the sheer drop of the short *wādyan* converging here on the Wādī Ḥaykān: the Wādī Madhaq to the north, the Wādī Banī Baddā' to the east, the Wādī Ma tarn to the south-east and the Wādī Ađanah (Pl. II) to the south. A city was built on the west side which, as we have seen, affords the only access to the city. To the north of the site the Wādī Ḥaykān, a tributary of the Wādī Naysān (which subsequently becomes the Wādī Nabāh, and then the Wādī Danah), forms a vast loop full of excellent sediments for crop growing before narrowing towards the east. Many crops are also grown in the Wādī Banī Baddā' and the Wādī Ađanah. Today good hydrological conditions favour the cultivation of the sorghum, *qāt* and a great many fruit trees (mainly pomegranate).

The ruins of Madīnat al-Ahğur stretch lengthwise (east-west from the wall to the far eastern end) about 560 m and cover a breadth of about 380 m (Figs. 2-3). The plateau narrows considerably to the north and south about half way from one side to the other and is thus morphologically divided into two distinct sectors to the east and west.

An unmetalled road cuts through the wall and crosses the sectors from west to east to reach the two modern dwellings, built with material quar-

(3) The geological position of Madīnat al-Ahğur can be seen in the Geological Map of the Yemen Arab Republic (Şan'ā') (1:500.000) (prepared by U.S. Geological Survey), Reston, Virginia 1978, by M. Grolhier & W.C. Overstreet. Our thanks are due to the geologist Dr. Bruno Marcolongo for the advice and suggestion he gave us during the survey.

ried from the ruins, situated at the eastern edge of the plateau (Pl. III). In the eastern sector the road does not run straight but curves to the north to avoid some relatively high structures where a large quantity of pottery was found. Here the recent removal of blocks has left some sections exposed. One of the sections (1.20 m thick), which can be seen from the curve in the road, shows a thick floor in *qađāđ* (hydraulic mortar). In cross section it appears at -0.40 m from the ground level above, while further south it appears on the surface (Pl. IV). Together with shards of the pre-Islamic period, charcoal and animal bones, a green glazed shard of the Islamic period was noted in the cross section, suggesting that the greater height of the ruins here probably resulted from a later settlement in this sector of the city.

The highest point of the plateau, 5 m above the mean level, is in the western sector. From here the surface slopes gently south to a level of -2.50 m. To the east the slope becomes increasingly steep as it descends from 0.00 m to -10.00 m. Within the wall the ruins occupy almost the whole area of the site, giving the visual impression of a group of small, irregular protuberances resulting from the various natural and artificial levels of the land (Pls. V-VI). The areas of the highest concentration of ruins became the major quarries for the local people to build the neighbouring villages, including Banī Baddā'.

The natural basaltic surface of the plateau is overlaid by a yellowish layer of anthropic origin consisting of earth and various types of blocks and stones, extracted and disarranged pending further use (Pl. VII). Fields have been created in various parts of the plateau with stones from the ruins piled along the sides. The material used to build the ancient city included columnar basalt (black), green tufa, volcanic breccia (pinkish), rhyolite (whitish) and sandstone (yellowish). The sandstone came from quarries that can be observed in the Banī Zaydān area. The sequence of these various materials in built-up structures can be observed in some parts of the site. The only structures remaining *in situ* and undisturbed, described below, stand in the western sector of the plateau and in some parts extend as far as the area adjacent to the inner face of the wall.

In order to give a description of the site and organize the systematic collection of surface pottery, the entire settlement was divided into four sectors separated by the road running from east to west and the north-south narrowing. Thus the south-east sector is taken as the first, the north-east the second, the south-west the third and the north-west the fourth (Fig. 2).

In the case of the first sector, we have seen that where the road diverges from its straight course the ruins reach a considerable height and extend as far as the south-west limits of the sector, while the area around the two modern houses shows no such structures (Pl. VIII). A small cistern with plastered walls was constructed at the narrow point between the first and third sectors on the south side of the plateau (Pl. IX). It is in a good state of preservation.

The ruins are mainly concentrated in the south-east part (Pl. X) of the third sector, the ruins thinning out as the land slopes down westwards towards the walls (Pl. XI). Here, between the walls and the deep gorge bounding the site to the south-west, the blackish ground is scattered with small stones and scanty pottery. Rows of large, semi-hewn blocks of green tufa abutting on the city wall suggest that a large rectangular building once stood here (d) (Pl. XII).

The low earthwork apparently marking the line once followed by the city walls begins at the gorge to the south-west and proceeds north-east with a break at the entrance through which the road now passes (Pl. XIII). Here lies the base of a large square tower (Fig. 2:a; Pl. XIV) which is not, however, aligned with the city wall but with another similar, base (b) to the north (Pl. XV).

Room "b", aligned with another building to the north (f), lies outside the wall, which proceeds in its eastward course, apparently breaking off after about 200 m from the beginning. Here the line continues with a course set further in, the base of which is still visible in robust semi-hewn green tufa blocks (c) (Pl. XVI).

Another structure, "e", stands outside the third sector wall (Pl. XVII). The south-east side of this structure is hidden by the wall it abuts on.

Outside the city wall, in the vicinity of tower "b", there is an elongated rise in the land stretching north-east from the north-west side of the tower, in a more northerly direction than the wall itself. Looking north-east from the gap through which the road passes, the wall can be seen in cross section, with the large unhewn blocks in their original position within it.

Given the solidity and arrangement of the structures, the impression is that room "e" in the third sector, the large towers "a" and "b" and structure "f" to the north of them must predate the wall. This would also apply to the rise in the land to the north aligned with the structures in a north-south direction. In other words, there may have been an earlier wall closing in the city to the west and probably enclosing a larger area of the

plateau. The surviving city wall (running SW-NE), together with the rectangular structure "d" and the inner wall "c" aligned with it, thus belong to a later period.

The fourth sector is relatively extensive. There are ruins with disarranged blocks at the topmost point, not far from the gorge cutting into the site to the north: here can be found many slabs of volcanic breccia and a few shards.

Practically the whole of the second sector is contained within the narrow strip of land running between the gorge bounding the site to the north and the sheer drop of the Wādī Maḥḥaq. Here the rows of blocks of columnar basalt showing a considerable amount of patina still stand in their original positions (Pl. XVIII).

For some time now the site has been used as a quarry and the plentiful archaeological material seems destined to be recycled as building material or end up on the clandestine market. A visit to the old town of Banī Baddā', known as Al-Ḥuṣn, revealed a great deal of hewn rhyolite and sandstone taken from the site. Set into the walls of some houses a number of blocks can be seen bearing South-Arabian characters.

In the 1981 survey we had already noted two inscriptions on material taken from the ruin, together with a small figured votive altar in limestone (fragmentary) and a sculpture of a reclining bull, now in the Ṣan'ā' National Museum (previously in the keeping of the owner of one of the two houses built at the eastern end of the plateau); this material was published by A. de Maigret⁽⁴⁾.

During the second visit to the site in 1984 we found among the stones that had been removed: blocks with one face carved and the others rough-hewn and tapered; rough-hewn architraves; fragments of smooth columns in rhyolite (Pl. XIX); a fragment of an architectural relief with inset fillets (Pl. XX); slabs (c. 40x40 cm) hewn in volcanic breccia, probably used in flooring; gutters; grindingstones in trachyte; the base of a chalcedony crucible for the smelting of copper, sandstone hones; pestles; hinge-brackets in breccia; a necklace bead in cornelian with hexagonal cross-section, etc., together with a considerable quantity of pottery.

Also of note was a fragment of a relief in pinkish liparite (18.5x17.5 cm) with a fragmentary boustrophedonic inscription (letter h. 5 cm), decorated with a superimposed series of reclining ibexes facing right (Fig. 4

(4) de Maigret, 1981, p. 10.

and Pl. XXI). There are various occurrences of this type of bas-relief design in the South-Arabian repertory, where the ibexes appear alone in reliefs without epigraph, or accompanied by antilopes in inscribed votive plaques⁽⁵⁾. From the palaeographic point of view, the form of the *m* (still closed) and the *n* (with perfectly vertically strokes) together with the application of the *boustrophédori* suggest dating the inscription around the middle of the 5th century B.C.; this dating is also supported by the ibex motif which occurs most frequently in the *mukarrīb* period.

The cisterns and the isolated fortress to the north

Just over 200 m north of the central gap in the site wall, three cisterns (g) (Pl. XXII), resembling the cistern observed in the southern section of the plateau between the first and third sector, were created within a narrow, somewhat shallow natural ditch. They were obtained by separating the space within the ditch by means of transverse *qaḍāḍ* plastered walls. The wall at the east end is somewhat thicker than the others, while the first cistern at the west end is hidden by pile of debris of uncertain origin.

A few metres to the north of these cisterns a ruin which we took to be a small fortress (h) (Pl. XXIII) stands separated from the rest of the structures, almost on the edge of the plateau. It stands on a rectangular area separated by somewhat shallow but steep ditches (Pl. XXIV). Access is only possible from the south-west corner, where there signs of an early path to the valley floor of the *Wādī Maḍhaq*. As usual, the structures of the fortress consist of large, hewn basaltic blocks overlain by smaller blocks of liparite. The inner partitioning of the large room cannot be distinguished, although some rows of blocks are partly visible. The best preserved blocks standing in their original position belong to the outer facade and can be seen quite clearly on the east side.

Two minor plastered cisterns were created on the northern edge of the small plateau and evidently served for the water supply to the fortress. Another, larger cistern is situated beyond the ditch separating the fortress from the plateau to the east. It is accessible by means of a short, regulation communication trench.

To the west of the fortress a small cemetery stands on the plateau, the graves marked by ovals of small blocks of columnar basalt driven into

(5) Cf. e.g. Pirenne, 1977, pp. 315-323 and 397-402.

the ground (i). The alignment suggests that burial took place in the pre-Islamic period. In fact, with the NE-SW alignment of the tombs the dead could not possibly have faced north (towards Mecca) as in the Islamic period. Some graves show a single stone set vertically into the ground within the oval of stones (Pl. XXV).

South-west of the necropolis there is a large, almost rectangular area lying at a lower level than the plain around it. The difference in levels seems to be due to anthropic rather than natural causes, suggesting that the area was used as a quarry for building material.

The area between the cemetery, fortress and site wall is scattered with fragmentary paving in columnar basalt, suggesting that this could be the site of threshing floors (l) (Pls. XXVI-XXVII). The paved areas at Madīnat al-Aḡgur (as we also saw in the surroundings of the ancient city now called *Ḥarābat al-Aḡḡar* near *Ḍamār*)⁽⁶⁾ must have been used as areas for processing crops (e.g. gathering and threshing grain), thus pointing to notable agricultural activity which probably represented the basis of the economy in many centres in both the Al-Ḥadā region and the *Ḍamār* plain.

In conclusion, it is worth noting that many more rows of blocks were observed *in situ* on the plateau where Madīnat al-Aḡgur stands but, unfortunately, there was not enough time to survey them during the 1984 campaign. In the near future we intend to carry out archaeological sondages in the city and thus take the opportunity to complete survey of the other structures.

The large necropolis to the south-west

On the road from the site to *Ḥuṣn Banī Kulayb*, just east of another TKy2 rhyolite effusion, a vast, intact necropolis stretched along a north-south axis (Pl. XXVIII). The many graves are aligned like the graves observed in the necropolis near the fortress, with the one difference that the elliptical plan of the graves is more extensive, suggesting that important persons were buried here (Pl. XXIX). In other cases the circular line is broken by the encroachment of adjacent graves, as if there were not sufficient space available for more burials. Some very small graves were probably for children or babies. The necropolis reaches a length of 200/300 m and a width of about 30 m (Pl. XXX).

(6) Cf. de Maigret, 1986, p. 380, fig. 5.

THE POTTERY

Introduction

After the initial surface collection carried out at Madīnat al-Ahğur during exploration performed by A. de Magret, F. Di Mario and M. Jung in 1981, a further collection was carried out in October 1984 in the context of a systematic survey of the site conducted by the IsMEO Archaeological Mission, in which I also took part. The second collection covered the entire surface area of the site sector by sector. Collection was thus organized systematically to allow for the possibility of making further observations on the distribution.

The material collected was confined to shards of distinct diagnostic significance (1,024 in all), mostly rims (but with some decorated walls, handles and bases), but at any rate only shards that could be related to classifiable shapes. Particularly fragmentary shards that would not allowed for reconstruction of the shape were ignored.

The classification we offer here is primarily based on the morphological range found in Madīnat al-Ahğur pottery. Thus we drew up a series of types (or classes) each of which covered a characteristic pot shape, distinction being made among the variants constituting sub-types in each class. These variants are due to: the surface finish (possible occurrence of burnishing, application of burnishing to the inner or outer surface, or to both surfaces); type of clay (paste: colour of surface, temper; firing: colour of paste in cross section; texture: consistency of paste); possible occurrence of decoration (if so, type of decoration - incised, impressed, painted, etc.), decorative motive and variations in rim shapes within the same category.

The 19 types identified cover the range of the 4 major categories which Madīnat al-Ahğur pottery falls into according to nomenclature (bowls, dolia, jars, ollas). These categories were defined on the basis of the considerable number of rims representing the first large collection of shards.

Along with this first collection we made three further collections on the basis of the secondary morphological features (handles and bases) and functional accessories (lids) of the pots.

Finally, we chose to create a further pottery group covering the decorations and including the many fragments of simple walls collected on the site. This category reveals a variety of techniques (incision, application, impression, painting and burnishing as a form of decoration) and decorative motives.

General features

The primary feature which emerges from typological analysis and characterizes Madīnat al-Ahğur pottery production is the type of paste. The clay shows two prevalent hues: a pinkish, or possibly darker, beige/light brown and pale or reddish orange.

In general little care was taken over the purification of the pastes; in fact, all the pastes show straw temper (which can be recognized by the impressions left in the paste after firing) and, to a lesser extent, mineral temper (mainly of a white calcareous nature), while there are very few cases of micaceous temper. However, rather more care was taken in the case of medium to small pots, ollas (types 6-8) and bowls (types 10-15), i.e. for what we may take to have served as tableware. Firing appears to have been generally carried out at medium or medium-to-low intensity, producing a fairly compact texture. Crafting was performed both manually and on the wheel. In particular, the large or medium-to-large pots (types 1-5) were made by hand, while the smaller jars, ollas, and bowls were mostly wheel-made. It is, moreover, also possible that a mixed type of crafting was employed for the larger pots, the body being handmade and the rim wheel-made.

Of the 1,024 shards collected, 570 are rims, 60% of which show slip and burnishing⁽⁷⁾ while the remaining 40% show different types of surface finish, i.e. with unpolished slip or wash; the surface is occasionally left plain, although it is always smoothed down⁽⁸⁾. Since, however, this pottery was collected from the surface and had therefore been long exposed to atmospheric agents, there may have been a higher occurrence of red burnished slip than our data reveal. About 20 shards show burnishing performed directly on the plain surface⁽⁹⁾. The prevalently light-coloured slip may be red verging on orange or light brown or, quite often, of the same colour as

(7) The hypothesis that red burnished slip (characteristic of South-Arabian pottery in the pre-Islamic period) derived from 1st millennium B.C. Syro-Palestinian production is favoured by van Beek (1969, pp. 79-83 and 356-361). He argues that traditional use of this technique, attested in the South-Arabian area as early as the 10th-8th centuries B.C., survived through to the 3rd century B.C. (Cit., pp. 170-171, fig. 113).

(8) The pottery collected at Madīnat al-Ahğur shows no rough surfaces; the ridged surface is often due to "scraping" on the grit contained in the clay.

(9) Cf. also de Maigret, 1982, p. 249.

the paste. Stroke burnish was performed on the slip leaving mostly horizontal impressions, although there are several examples of crossing oblique lines.

The Madīnat al-Ahğur typology displays a prevalence of bowls belonging to types 11-12 and 14-19 in our classification. There is one group consisting of a series of 26 deep, slightly flared bowls with straight rims. Somewhat less numerous than the bowls but still plentiful are the hole-mouth ollas (types 3, 5-8) and jars (types 2, 4, 9, 13). There were few fragments (a total of 7) of the large dolia which were probably used to store foodstuffs.

The dark colour of the clay (burn marks), minimal attempt at purifying the pastes and the lack of care in surface finish of some shards suggest that they belonged to pots used for the preparation of food (type 11d bowls; type 4a jars (Fig. 8:18); the type 5b olla (Fig. 10:2); type 6b ollas (Fig. 10:17, 19); type 7c ollas (Fig. 11:17, 18), etc.). The type 9 necked jars presumably served to hold liquids.

In most cases the vessels rested on ring-shaped bases (there are only 4 flat bases which, moreover, belonged to very small pots). The "low ring" type is the most common, while only two bases are of the "high ring" type. Due to the lack of whole pots or complete sections these bases cannot as yet be attributed to precise pottery categories.

The only handles found are of the type with finger hollows.

Only 4 lids were identified, 3 showing slip and burnish on the inner surface. Only one strainer fragment was found.

As we have seen, a total of 1,024 shards were collected: 463 came from sector I; 191 from sector II; 335 from sector III, and only 35 from sector IV⁽¹⁰⁾. The first point that strikes one here is the fact that almost 78% of all the pottery collected was found in the southern sectors of the site (see graph, Fig. 5), and only 22% from the northern sectors (18.6% from sector II and 3.4% from sector IV).

Thus our pottery distribution data reveal that the actual town nucleus and the dwellings in the site area were concentrated in the southern part of the plateau. This is confirmed by the striking concentration of ruins in the south-western area of sector I and the south-eastern area of sector III, possibly due to the fact that then as now access to the plateau could

(10) As noted above, 570 of the 1024 are rim fragments: 266 from sector I, 79 from II, 213 from III and 12 from IV.

only be obtained from the gorge to the south. Moreover, thus sited the settlement enjoyed a sheltered position, protected from the major communication route of the Wādī Ḥaykān which represented a threat to Madīnat al-Ahğur.

It can be seen in second graph (Fig. 6) that the pots used for the storage of agricultural produce (foodstuffs), e.g. the dolia, large jars and ollas (types 1-3 in our collection), are to be found in all the sectors, occurring in equal proportion in sectors I and III. Sector I shows a distinct prevalence of the finer pottery and tableware (deep bowls, ollas and small jars, i.e. types 6b, 7-10, 11c, 12, 15), which are completely lacking in sector IV, while in sector III they occur in practically equal proportion with the kitchen pots. In fact, 51.4% of the kitchenware, including cooking pots, ollas and jars (types 4-6a, 11a,d, 13-14, 16-19) were found in sector I, 27.1% in sector III, 19.4% in sector II and only 1.9% in sector IV.

Approximate as these figures may be, they nevertheless provide indirect evidence of the fact that rooms were set apart for large containers (store-rooms) in practically all the areas in the city, while the preparation and eventual consumption of foodstuff took place primarily in the first and third sectors, i.e. in the areas that appear to have had the highest concentration of dwellings.

I. RIMS

TYPE 1: *Large dolia* (Fig. 7:1-7)

Few rims - a total of 7 - were found for type 1, which consists of large dolia.

The somewhat loose-textured pottery is characterized by light brown-reddish clay with a high frequency of straw and mineral temper. Apart from the few cases in which it is left plain, the surface is finished with a wash or red burnished slip. The articles are handmade except for two fragments, where the wheel was probably used only for work on the rim while the body was modelled by hand.

Four types can be distinguished within this group:

1a: *dolia with thickened, top-flattened rims* (Fig. 7:1-2). They are characterized by regular "finger-nail" decoration marking both the troughs and ridges of a series of grooves below the outer rim. Piece Y.84.MA.IV/1 (Fig. 7:2) shows a characteristic yellowish wash on the outer surface.

1b: *dolia* with thickened rims showing concave upper surface (Fig. 7:3-4). Also somewhat large (the inner diameter of the rim for both pieces is 42 cm), with traces of red burnished slip displayed on both the outer and inner surfaces of piece Y.84.MA.I/1 (Fig. 7:4).

1c: represented by two fragments of *dolia* with internally hollow rim (Fig. 7:5-6). These are smaller than the previous specimens, wheelmade and covered with a wash. One of them shows grooves on the outer surface, with "finger-nail" decoration on a fillet below.

1d: the last sub-type in this category of pottery is represented by one single fragment of a *dolium* with top-flattened rim, and plain, vertical walls (Fig. 7:7).

Type 1c is the most common and also occurs on other sites in the Al-Ḥadā region, not far from Madīnat al-Aḥḡur, where the Italian Archaeological Mission carried out a series of surface collections⁽¹¹⁾. We have two fragments of *dolia* from Baynūn⁽¹²⁾: piece Y.81.BA/2 shows the customary yellowish wash on the outer surface and a red unburnished slip within; piece Y.81.BA/10 shows a large groove which held the lid in place (Fig. 25:1). There are two further pieces from Shibām Ghirās (Y.83.SG/3 and Y.83.SG/9; Fig. 25:7), one from Al-Ḥuṭmah (Y.81.HAT/11, Fig. 26:1) and four from Ḥarābat al-Aḥḡar, in the Damār region (Y.85.KAHii/3, 6-7 bis, Fig. 27:13). Ḥaḡar Bin Ḥumayd also yielded a fragment amply comparable with our type 1c specimens (fragment H19)⁽¹³⁾.

A parallel to type 1a was found at Hammat Kilāb (Y.80.HK/1), with the same type of decoration, seen in the grooves on the outer surface of the pot, a thick red burnished slip within and a wash on the outer surface. Fragment Y.85.KAHii/18 from Ḥarābat al-Aḥḡar (Fig. 27:11) showed a certain similarity with type 1a in virtue of the "finger nail" pattern impressed on the raised parts of the outer series of grooves, while another piece from Al-Ḥuṭmah, Y.81.HAT/14, showed a similar groove decoration, in this case, however, with a wavy line motive incised below (Fig. 26:3). Two further fragments, from Baynūn (Y.81.BA/3; Fig. 25:2) and Ḥarābat al-Aḥḡar (Y.85.KAHii/10; Fig. 27:14), show similar dimensions and morphology to type 1a.

(11) At present the material is stored in the "tessonier" of the Italo-Yemeni Centre for Archaeological Cooperation at San'a'.

(12) A brief survey was carried out on the early sites of Baynūn, Shibām Ghirās and Al-Ḥuṭmah during the 1981 campaign (cf. de Maigret, 1981, p. 249).

(13) van Beek, 1969, type 1000, p. 181, fig. 38, from layer A.

A piece comparable with type 1b was found at Ḥarābat al-Aḥḡar (Y.85.KAH/ii/1, Fig. 27:10).

Parallels with the group 1d *dolium* were observed in fragments H1437 and H947 from Ḥaḡar Bin Ḥumayd⁽¹⁴⁾.

TYPE 2: Large jars (Fig. 7:8-12)

The second type in our collection comprises shards belonging to *very large jars* of considerable thickness.

The paste is generally of a light colour (orange or light brown/pinkish), with a medium to high frequency of mineral and plant temper and medium to low intensity firing, giving the pot a fairly compact texture. Crafting was mainly performed by hand. There are various types of surface finish, slip appearing at times on the outer or inner surface alone and in other cases on both surfaces, with no apparent criterion. There are also cases of plain surfaces and outer surfaces with a pinkish wash.

2a: comprising the *jars with thickened, protruding rims* (Fig. 7:8-10). The three rim fragments belong to jars of very similar size, i.e. with the inner diameter of the mouth ranging from 18 cm to 24 cm.

2b: the second group in this category comprises *jars with top-flattened protruding rims* (Fig. 7:11-12). The finish is characterized mainly by a burnished slip on the inner or outer surface. Crafting was performed by hand with the exception of one case where the wheel was used.

Like type 1, this class of pottery also met with parallels in other centres near Madīnat al-Aḥḡur. Al-Ḥuṭmah yielded a jar fragment (Y.81.HAT 12; Fig. 26:2) that matched our group 2a fragments perfectly, as did Shibām Ghirās (Y.83.SG/6) and Ḥarābat al-Aḥḡar (Y.85.KAH/ii, Fig. 27:12). The latter site also yielded a jar fragment (Y.85.KAHii/9) showing morphological similarity to the sub-type 2b fragments. Two fragments relating to type 2a were found during the collection carried out at Ḥarabat Qā' Swayd (Y.86.KQS/11,36; Fig. 27:1), while another fragment from the same site showed the group 2b features (Y.86.KQS/34).

(14) van Beek, 1969: respectively, type 1221, p. 320, fig. 87, from layer J (where the analogy in fact lies in the shape of the flat rim and straight wall, the difference being the presence of decoration and internal burnish), and type 1000, p. 177, fig. 34, from layer F₁.

TYPE 3: *Large ollas* (Fig. 8:1-5)

The third category comprises *large hole-mouth ollas with upperly thickened rims*. It includes 5 fragments of beige-light brown clay with reddish pigments and plentiful straw but scanty mineral temper; firing is medium or medium to low and the texture somewhat loose. The surfaces are plain with the one exception of Y.84.MA.III/8 (Fig. 8:4), which shows a thin reddish slip on the outer surface, while the inner surface is covered with a pinkish wash. As regards crafting, three were modelled by hand while the wheel was probably only used to create the rims of the remaining two.

Of all the material collected on sites in the Al-Ḥadā region and in the neighbourhood of Dāmār, only three pieces were found that could be related to this third category of pottery: two from Ḥarabat Qā' Swayd (Y.86.KQS/10, 23; Fig. 27:2-3), and the third from Al-Ḥuṭmah (Y.81.HAT/8; Fig. 26:4).

TYPE 4: *Jars with outward expanded rims* (Fig. 8:6-19; Fig. 9:1-6)

The features of manufacture are on the whole fairly consistent: the clay is orange or light brown/pinkish in colour (with the exception of two grey-brown fragments: Fig. 8:9-10) and shows plentiful straw and, somewhat less plentiful, mineral temper. Firing is medium to low and the texture relatively compact. The two manufacture techniques, i.e. on the wheel and by hand, appear to be attested in equal proportions. In this class burnishing appears on both the inner and outer surfaces, but use is restricted to sub-type 4b jars.

4a: this group is characterized by *jars with top-flattened, outward expanded rims* (Fig. 8:6-10). Another feature common to this group is the surface finish, which is either plain or with a wash.

4b: *jars with inner and outer surfaces covered with thick burnished slip* (Fig. 8:11-16). There are two quite distinct types of slip: a reddish-brown slip, which appears on three fragments (Fig. 8:11, 13, 15); a red-purple slip, red on the inner and purple on the outer surfaces (Y.84.MA.III/14, 17, Y.84.MA.IV/21).

4c: this group differs from the others in virtue of the *thickened, protruding rim* (Fig. 8:17-19). The pieces in this group consistently show use of the wheel and lack of polishing, although one piece shows comb decoration below the rim, incised with irregular wavy lines (Fig. 8:18).

4d: one fragment alone shows the peculiar feature of *ridges on the outer surface* below the characteristic thickened rim (Fig. 9:1).

4e: the last group belonging to the fourth type comprises *jars with outward expanded rims flattened on the outer surface* (Fig. 9:2-5). Piece Y.84.MA.I/10 (Fig. 9:2) stands out from the group in virtue of reddish burnish on the inner surface and an elongated, vertical zig-zag pattern on the outer surface, which is also burnished. This decoration appears both on the wall and on the upper part of the rim. Another fragment (Fig. 9:3) shows wavy line decoration below the rim, probably incised with a rotating tool.

Two jar fragments from Al-Ḥuṭmah (Y.81.HAT/9, 13) share the 4a category features, while two jar fragments from Ḥarābat al-Aḡār (Y.85.KAHii/13, 14) relate to type 4b. The one 4d piece (Y.84.MA.III/19) is matched by a piece found during surface collection carried out at Hammat Kilāb (Y.80.HK/3) and another piece from Ḥarābat al-Aḡār (Y.85.KAHii/20). Pieces relating to group 4c were found at Kawlāt al-'Adi (Y.81.KA/4) and Haḡar Bin Ḥumayd⁽¹⁵⁾.

Shards corresponding to the last group, 4e, were found at Haḡar Bin Ḥumayd⁽¹⁶⁾, the first in layer C and the second in layer D.

TYPE 5: *Large and medium ollas with external grooves below the rim* (Fig. 9:7-13; Fig. 10:1-5)

Type 5 comprises ollas distinguished by the occurrence of *one or two grooves below the rim on the outer surface*. The paste is mainly light brown, although darker hues also appear, and a relatively large proportion of the straw temper has been removed, while the mineral temper shows average frequencies. One fragment contains micaceous temper (Fig. 10:2). Here, as is also the case with most of the pottery so far described, the shards consistently show a dark grey core, evidence of the customary low or medium to low firing, although the texture is of average compactness. From the technical point of view, hand modelling prevails although there are some cases of wheel crafting.

5a: the common feature of ollas in this category is the *absence of polishing* (Fig. 9:7-13); in fact, the surface is covered with a slip in light brown or various shades of red, or with a wash; there are also some examples of a plain surface. One fragment is marked out by comb decoration

(15) van Beek, 1969, H423, type 1000, p. 178, fig. 35, from layer C₁.

(16) van Beek, 1969, H478 and H557, type 1120, p. 209, fig. 66.

incised in wavy lines between the two grooves on the outer surface (Fig. 9:7). A recurrent feature in these ollas is a bulging plain rim, the one exception showing a flattened outer surface on the rim (Y.84.MA.II/9). Almost all the pieces in this series show a diameter of 30 cm within the mouth, although for one olla the inner mouth diameter is 42 cm (Fig. 9:13).

5b: sub-type 5b comprises medium to large ollas which, unlike the pieces in group 5a, have a *burnished surface* (Fig. 10:1-5). They have thin walls and top-flattened rims, although one fragment shows a relatively thick wall and a flat surface on the inner side of the rim (Fig. 10:3). Piece Y.84.MA.I/27 (Fig. 10:2) is decorated with a band of grooves below the rim on the outer surface. The diameter within the rims of these ollas is somewhat less than that of the unburnished pieces, ranging from a minimum of 22 cm to a maximum of 36 cm.

The pottery collected at Ḥarābat al-Ahḡār included 4 fragments typologically related to type 5 ollas (Y.85.KAHii/24-27; Fig. 28:1-2). They also showed grooves on the outer surface, while two fragments showed burnished slip on the inner and outer surfaces (Y.85.KAHii/24-25). Further matching pieces were found among the pottery from Ḥammāt Kilāb (Y.80.HK/8) and Ḥarabat Qā' Swayd (Y.86.KQS/12; Fig. 27:4).

TYPE 6: *Small and medium ollas with no burnishing on outer surface* (Fig. 10:6-20).

Type 6 includes the highest proportion of olla fragments from Madinat al-Ahḡūr in our collection. It comprises *ollas with no external burnish*. The dominant clay colour is mid- or pinkish brown, occasionally tending to dark brown or grey, while a few fragments are in orange or reddish clay.

Analysis of the shards reveals an improvement in the firing process and the now customary use of the wheel. Developments in the purification process can also be observed, with a considerable drop in the presence of temper, especially temper of plant origin, which may now be assessed at low frequency. The surfaces are plain, or covered with slip or wash indifferently. Pieces Y.84.MA.I/65 (Fig. 10:15) and Y.84.MA.I/83 share the peculiarity of a particular finish on the inner surfaces, which respectively show a blackish and a red burnished slip.

6a: comprising *ollas with decoration below the rim on the outer surface* (Fig. 10:15-20). The common factors in this group are the decorative motive, i.e., a wavy line, and the technique employed to create it, i.e. incision. Three fragments bear a single wavy line incised with a pricker (Fig. 10:17, 19-20); piece Y.84.MA.I/65 (Fig. 10:15) bears two wavy lines

incised with the same type of tool. Finally, three ollas share the same type of incised comb decoration (Fig. 10:16, 18 and Y.84.MA.III/223).

6b: comprising *small and medium undecorated ollas* (Fig. 10:6-14). This group shows considerable variety in rim shapes: one olla has a plain rim with flat outer surface (Fig. 10:8); the rim of piece Y.84.MA.I/85 has a thickened outer part and flat top; olla Y.84.MA.III/266 (Fig. 10:9) has a smaller mouth diameter (14 cm) than the others, with a plain rim showing a flat inner surface; fragments Y.MA.84.II/36 and Y.84.MA.I/36 (Fig. 10:12-14) are characterized by bulging rims. Finally, there are the ollas with plain rims (Fig. 10:7, 10, 11, 13); they have thin walls and mouth openings ranging from 14 cm to 22 cm (Y.84.MA.III/272).

Of all the settlements in the Al-Ḥadā region where we carried out surface collection, only Shibām Ghirās yielded an olla fragment conforming perfectly to the sub-type 6b features (Y.80.SG/10; Fig. 25:8). Three shards from Ḥarābat al-Ahḡār (Y.85.KAHii/28-30) and one from Ḥarabat Qā' Swayd (Y.86.KQS/5) also belong to this category. No pieces were found to match type 6a decorated ollas devoid of burnish.

TYPE 7: *Medium and small ollas with burnishing on both surfaces* (Fig. 11:1-21)

This class comprises *ollas with burnishing applied to the inner and outer surfaces*. With the exception of 7a, comprising undecorated fragments, the series is subdivided into 4 sub-types according to decorative motives and crafting techniques.

Here too the clay is generally light in colour, i.e. light brown, with occasional orange or red variants. Assessment of firing and texture revealed a fair quality of processing, and the consistency of texture in this pottery production may thus be classed as average. Moreover, a greater degree of purification was observed in the pastes, with lower frequency or, in some cases, total absence of straw temper. As regards crafting, the pieces examined seem to show ample use of the wheel, although some of our ollas are handmade and one was made with mixed techniques, i.e. handmade body and wheel crafted rim (Fig. 11:12).

The feature essentially differentiating this from the previous class is the burnish. It is applied to a slip, usually on both the inner and outer surfaces. In some cases, however, this finish was not applied to the inner surface, which thus remained plain. The dominant slip colour is red.

7a: as mentioned with reference to the general features of type 7, the first group comprises *burnished, undecorated ollas* (Fig. 11:1, 3, 5-6, 8,

10). The series is typologically uniform with slight morphological rim variations. The rim is in fact usually plain or slightly protruding, but there are also some cases of thickened rims and rims with flat upper or inner surfaces. In the case of one fragment the rim is marked by a fine groove on the outer surface (Fig. 11:5).

7b: sub-type 7b consists of a series of small ollas characterized by combed *decoration in wavy lines* (Fig. 11:2, 4, 7, 9, 11-16), recurring just below the rim. One fragment is differentiated by a further decorative motive of crossing lines incised below the wavy line motive (Fig. 11:13). Piece Y.84.MA.III/239 (Fig. 11:11) stands out from all the other objects in this category in virtue of its incised decoration of straight horizontal lines. One further variant in this sub-type is the peculiar rim shape revealed by fragment Y.84.MA.I/69 (Fig. 11:12): the inner surface is broadened and flattened, while the upper surface is slightly depressed.

7c: this group comprises *ollas incised with interrupted comb decoration*, i.e. with a horizontal row of clusters of short strokes (Fig. 11:17-19). The only distinctive element in the series is the rim with flat top and a slight depression at the centre observed on fragment Y.84.MA.I/68 (Fig. 11:19).

7d: this group is represented by two *painted ollas* (Fig. 11:20-21). The decoration consists of a row of red-purple drop-like shapes below a thin band painted in the same colour along the upper edge of the rim. The larger of the two ollas (Fig. 11:21) also shows a combed motive in a wavy strip below the lower edge of the painted decoration.

For this entire category the only comparable pieces found elsewhere relate to sub-type 7a. Ḥarābat al-Aḥḡār yielded many (about 30) olla fragments (Y.85.KAHii/31-58) with both inner and outer surfaces burnished, but without decoration (Fig. 28:3-4); three pieces belonging to the same sub-type were found at Shibām Ghirās, Kawlāt al-'Adi (Y.80.SG/11, Y.81.KA/5) and Baynūn (Y.81.BA/5; Fig. 25:5).

TYPE 8: *Small ollas with protruding rims* (Fig. 12:1-7)

This category comprises *small ollas with naturally protruding rims*. The inner diameter of the rim ranges between 12 cm, 12.8 cm and 15.2 cm, with the one exception of the 20 cm diameter of fragment Y.84.MA.III/225.

The paste tends to a dark, greyish colour, although light brown and orange can also be found.

Apart from fragment Y.84.MA.II/50 (Fig. 12:6), the surface of which shows no signs of finish, red slip and burnish are applied to both the

inner and outer surfaces of the pots. Here too, as in the case of piece Y.84.MA.II/56 (Fig. 12:7), the category includes a variant where the red slip is replaced with a polished black slip, which is applied to the outer surface alone.

As regards the processing of the clay, i.e. the degree of purification, firing and manufacture technique, we find the same essential features as in the previous category.

8a: the first sub-type in class 8 consists of *ollas with rims flattened on the inside* (Fig. 12:1-2, 4-5, 7).

8b: the second group comprises only two fragments of *small ollas with plain, slightly thickened rim* (Fig. 12:3, 6).

The group 8a ollas, with their distinctive rim shape, are very common. Two examples were found at Hammat Kilāb⁽¹⁷⁾, two at Al-Ḥuṭmah (Y.81.HAT/5-6; Fig. 25:5-6) and a further example at Rabāḥ⁽¹⁸⁾. The pottery collected at Ḥarābat al-Aḡār includes 16 fragments fit perfectly within this category (Fig. 28:5, 8), although they also include one variant, i.e. zig-zag and wavy lines incised on two fragments (Y.85.KAHii/66, 70). Further pieces corresponding to this category were found among the Ḥaḡar Bin Ḥumayd pottery. Here we wish to record only the most significant items, i.e. with the most pronounced morphological rim features: pieces H991, H621 and H493 were found in layers F₁, E and D⁽¹⁹⁾.

The sub-type 8b ollas do not, in general, appear to be so common; only one fragment from Zirāḡah⁽²⁰⁾ and one from Shibām Ghirās (Y.80.SG/4; Fig. 25:9) come close to this category (Y.84.MA.II/60; Fig. 12:3).

TYPE 9 *Small and medium necked jars* (Fig. 12:8-26)

The ninth class in our typology comprises small and medium necked jars; the variants show different types of surface finish, and a sub-type has been created for each case.

The clay is characterized by bright, vivid colours, mainly reddish and orange. There are also, however, some examples of duller hues including mid-brown. This colour recurs in all the pottery described up to this

(17) Mazzoni, 1985, fig. 3, no. 7; fig. 4, no. 13.

(18) Ibid., fig. 5, no. 10.

(19) van Beek, 1969, type 1120, p. 210, fig. 67.

(20) Mazzoni, 1985, fig. 6, no. 11.

point. As the colour of the shard cores demonstrates, firing is often medium or medium to low. The texture is of average compactness, with the exception of the very compact paste of piece Y.84.MA.II/8.

9a: comprises *jars with externally thickened rims* (Fig. 12:8-10). There may be a pinkish wash covering both inner and outer surfaces (Fig. 12:10), or only the outer surface (Fig. 12:9), or alternatively both surfaces may be left plain (Fig. 12:8). All the pieces were wheelmade.

9b: comprises three jars sharing the same rim features, i.e. *plain flared rim without burnish* (Fig. 12:11-13). However, the wash appearing in the previously described group is here replaced with a slip, which is applied to the outer surface alone in the case of two of the three fragments. The diameter of the mouth ranges between 8 cm, 12 cm and the 16 cm of fragment Y.84.MA.I/99 (Fig. 12:11).

9c: the *burnished jars with plain, flared rim* in this sub-type (Fig. 12:14-26) are decidedly more common. The burnish on a, usually, red slip is applied to both inner and outer surfaces. Two fragments (Fig. 12:20, 23) are polished on the outer surface only.

As usual, this series too was matched by pieces found at Ḥarābat al-Ahḡār (Y.85.KAHii/86, 70, 68, Fig. 28:6-7, 9). Two unburnished shards found on the site also come under sub-type 9b, while 9 more belong to sub-type 9c. Further matching pieces were found at Ḥarabat Qā' Swayd (Y.86.KQS/29, Fig. 27:5) and Baynūn (Y.81.BA/4, Fig. 25:6). The Haḡar.Bin Ḥumayd pottery collection includes a number of places with plain flared rim, but only a few of these come very close to this category, e.g. no. H564, which resembles fragment Y.84.MA.II/76 (Fig. 12:12)⁽²¹⁾, and no. H779, resembling piece Y.84.MA.II/3 (Fig. 12:23) from Madīnat al-Ahḡur⁽²²⁾.

TYPE 10: *Deep bowls* (Fig. 13:1-24)

We now come to consider the series of small jars, or rather *narrow, deep bowls*, small and burnished, with straight slightly flared rim. The criterion distinguishing the two sub-types here is the presence or absence of decoration.

The production is characterized by a fairly uniformly light brown clay, with some variation in the degree of lightness. The exceptions are four fragments in orange paste and a black fragment.

(21) van Beek, type 1100, p. 195, fig. 52, from layer D.

(22) Ibid., type 1000, p. 178, fig. 35, from layer F₂.

As regards the processing of the clay, we noted a greater degree of purification than observed in the previous two categories (8 and 9) together with a more compact texture. Stroke burnishing is applied to a slip ranging from red to beige, light brown and black.

10a: this group of *deep bowls* (Fig. 13:1-5) consists of just a few fragments, among which piece Y.84.MA.I/97 (Fig. 13:4) stands out on account of its handle and carinated form.

10b: this sub-type comprises a considerable number of *decorated deep bowls* (Fig. 13:6-24). Here the comb motive incised with a wavy line is the most common decoration. Two fragments (Fig. 13:7, 14) couple the wavy line motive with a burnish motive of irregularly crossing lines. The "fragmented comb" is another recurrent motive familiar to us from the Madīnat al-Ahḡur pottery repertory. One fragment shows this coupled with the wavy line motive (Fig. 13:17), while in three other cases it is combined with the burnish decoration (Fig. 13:15, 18-19). Piece Y.84.MA.III/87 (Fig. 13:13) is the exception here, since it shows incised decoration bounded with horizontal burnish above and oblique burnished lines below. Four bowls bear "finger nail" decoration (Fig. 13:20-21, 23-24), while a fifth shows a decorative motive applied and incised (Fig. 13:22).

As usual, the greatest number of matching pieces were found at Ḥarābat al-Ahḡār, where systematic surface collection was carried out. Here we find both typological analogies and the same surface finish (burnish on slip) seen in type 10. However, the bowls from Ḥarābat al-Ahḡār are devoid of decoration. Further matching pieces were found at Baynūn (three type 10a fragments) (Y.81.BA/6, Fig. 25:4) and Al-Ḥuṭmah (Y.81.HAT/4, Fig. 26:8) and Ḥarabat Qā' Swayd, which also yielded a shard with incised "fragmented comb" decoration comparable with type 10b pottery (Y.86.KQS/8).

TYPE 11: *Bowls with plain rim* (Fig. 14:1-19; Fig. 15:1-5)

Type 11 comprises the second group of bowls, which is sub-divided into four sub-types.

The paste displays two fairly distinct colours: light brown (dark or pinkish) and orange, with the exception of fragment Y.84.MA.III/129 (Fig. 14:3), which is in grey clay. The processing of the pastes is marked by more care in the purification, resulting in a very low frequency of grit and medium to low frequency of straw temper, although micaceous temper is present. The texture is generally fairly compact.

11a: comprises *bowls with plain, mostly top-flattened, thickened rim* (Fig. 14:1-10). The surfaces are not always burnished. The bowls are large

or medium size, with a range of mouth diameters covering various gradations from the 10.4 cm of fragment Y.84.MA.I/233 (Fig. 14:10) to the 26.8 cm displayed by piece Y.84.MA.I/176 (Fig. 14:1).

11b: comprising a total of five bowls with thin, plain, slightly flared rim (Fig. 14:11-15). Four of the fragments show burnish on both the inner and outer surfaces. As in the case of 11a, the groups is not characterized by standard proportions. The inner rim diameter ranges from a maximum of 30 cm (Fig. 14:11) to a minimum of 18 cm (Fig. 14:15).

11c: for the sake of convenience a separate sub-type was reserved for the bowls with the same morphological features as the previously described sub-types (11a and 11b), but distinguished by the presence of a decoration (Fig. 14:16-19; Fig. 15:1, 3, 5). There is in fact one type of decoration, i.e. the comb motive incised with wavy lines, although variation can be seen in the graphic presentation. Two bowls couple incised and burnished decoration, while piece Y.84.MA.III/29 (Fig. 14:8) shows very slight undulation and burnish applied with oblique strokes. Bowl Y.84.MA.III/48 (Fig. 15:3) shows close multiple waves together with horizontal burnish along the rim and criss-cross burnish below the incised pattern. In this group fragment Y.84.MA.III/34 (Fig. 15:1) stands out on account of hole piercing the wall from side to side. The largest bowl in this series has a mouth diameter of 32.8 cm, the smallest 12 cm.

11d: the last group consists of two cups of very basic crafting, displaying a low degree of firing and somewhat loose texture, with coarse temper emerging on the plain surface (Fig. 15:2, 4).

Pieces matching the Madīnat al-Ahğur type 11a bowls were found at Hammat Kilāb (Y.80.HK/6), Zirāğah⁽²³⁾, Rabāh⁽²⁴⁾, Al-Ḥuṭmah (Y.81.HAT/7, Fig. 26:7) and, finally, Ḥarābat al-Ahğār (Y.85.KAHii/97-98; Fig. 28:10-11). Type 11b bowls were found at Hammat Kilāb (Y.80.HK/7), Kawlāt al-'Adi (Y.81.KA/3), Al-Ḥuṭmah (Y.81.HAT/1; Fig. 26:9) and Ḥarābat al-Ahğār (Y.85.KAHii/90-91; Fig. 28:12-13). Pieces corresponding to group 11c were found at Rabāh⁽²⁵⁾, while Kawlāt al-'Adi yielded one piece matching 11d (Y.81.KA/2). Excavation at Hağar Bin Ḥumayd yielded a great number of bowls, many of which morphologically close to Madīnat al-Ahğur type 11. However, we also found pieces with rim shape and decoration matching them specifically

(23) Mazzoni, 1985, fig. 6, no. 13.

(24) Ibid., fig. 5, nos. 3-4, 6-7.

(25) Ibid., fig. 5, no. 2.

with groups 11b and 11c. In fact, the type 11b bowls (Fig. 14:12-13, 15) match pieces H39 and H502 from Hağar Bin Ḥumayd⁽²⁶⁾, as also piece H679⁽²⁷⁾.

In the case of type 11a, we found some morphologically convincing matches in the Hağar Bin Ḥumayd pottery⁽²⁸⁾, but only a few of them were precise parallels: fragment H1126 from Hağar Bin Ḥumayd⁽²⁹⁾ can be compared with the Madīnat al-Ahğur fragment labelled Y.84.MA.II/90 (Fig. 14:9), as can H1111⁽³⁰⁾ with Y.84.MA.I/80.

TYPE 12: Bowls with turned-in rims (Fig. 15:6-18; Fig. 16:1-17)

Type 12 comprises the second series of bowls, characterized by a turned-in rim: subdivision is in 6 sub-types according to the presence or absence of decoration (incised or paited) and burnish, which may be applied to the natural surface or to a red slip.

There are essentially two types of clay with different colours: the first, and most common, has a more vivid colour tending to orange (pinkish or with reddish hue), while the second is of a duller pinkish light brown. Examination of the paste processing reveals the same features observed in type 11: very low frequency of grit, medium to low frequency of plant temper, the occasional appearance of micaceous temper, medium or medium to low firing and fairly compact texture. With the exception of two handmade bowls, the products are wheelmade.

12a: the first group comprises bowls with burnishing applied to the natural surface and decoration incised on the rim section showing maximum curvature (Fig. 15:6-10). Four of the five bowls bear wavy line motives performed in various ways. In the case of fragment Y.84.MA.I/120 (Fig. 15:7) the outer wall is decorated with burnished lines crossing lozenge-wise below the incised decoration, while piece Y.84.MA.I/193 (Fig. 15:9) shows burnish applied with irregularly crossing strokes on the inner surface. One bowl alone (Fig. 15:10) shows the incised "interrupted comb" motive, which is by now quite familiar to us in Madīnat al-Ahğur pottery.

(26) van Beek, 1969, type 1000, p. 174, fig. 31, from layer A; type 1510, p. 236, fig. 93, from layer D.

(27) Ibid., type 1000, p. 185, fig. 42, from layer E.

(28) Ibid., type 1220, "Bowl 9", p. 220-221, figs. 77-78, from layers C₁-D, although we made no strict distinction between bowls with burnish on the inner or outer surface.

(29) Ibid., type 1220, p. 218, fig. 75, from layer G.

(30) Ibid., type 1300, p. 231, fig. 88, from layer G.

12b: this group differs from the first in that it comprises bowls with incised decoration similar to the previous type, but with a *red burnished slip* (Fig. 15:11-18; Fig. 16: 1-5). In the case of three fragments (Fig. 15:16-17; Fig. 16:3) the burnish is applied to the natural surface on the outer side.

Unlike type 12a, the "interrupted comb" motive dominates here, and is incised in various ways (with two, three or four strokes) on each bowl. Bowl Y.84.MA.I/234 (Fig. 15:15), the smallest in the series (diameter 12 cm), has this motive incised above the familiar burnished lozenge decoration. Three bowls bear the comb motive incised with parallel wavy lines, the interval between them varying from bowl to bowl; one fragment (Fig. 15:11) bears a single wavy line incised with a pricker and framed between two horizontal lines. The large (inner rim diameter 32.8 cm) bowl Y.84.MA.I/187 (Fig. 15:13) shows criss-cross burnish on the outer surface. The last piece (Fig. 16:1) stands out from the rest of the series on account of its "finger-nail" decoration. The decorative motive is incised mainly on the wall or just below the rim on the bowls described up to this point.

12c: sub-type 12c includes two very small *bowls with burnished plain surfaces* (Fig. 16:6-7).

12d: consists of *undecorated bowls with turned-in rims and red burnished slip* (Fig. 16:13-17). These medium to large bowls are covered on both surfaces with a red slip (at times quite thick) and burnished. A shallow groove below the rim distinguishes Y.84.MA.I/192 (Fig. 16:4) from the rest of the series.

12e: some *small bowls* with burnish on either a red slip or the natural surface are characterized by a *groove incised on the outer wall surface* (Fig. 16:8-10).

12f: the last sub-type consists of two medium size (inner rim diameter just over 20 cm) *painted bowls* (Fig. 16:11-12). The inner surface of fragment Y.84.MA.I/184 (Fig. 16:12) bears a wavy red line painted on a whitish painted background. This kind of decoration is limited to the upper part and the outer surface of the rim. The other bowl shows the familiar "drop" motive painted red-purple along the lower edge of the rim (Fig. 11:20-21).

The surface collection carried out at Ḥarābat al-Aḥḡār yielded 6 bowls with receding rim matching type 12 perfectly, notably bowls Y.85.KAHii/105-106 belonging to group 12d (Fig. 28:14-15).

The only examples of parallels for type 12e appear in pottery yielded by the Ḥaḡar Bin Ḥumayd excavation, and more precisely in van Beek's type 1221 collection. The closest parallels are to be found in fragments H969 and H691 from layers F₁ AND E⁽³¹⁾.

TYPE 13: *Jars with flared rim thickened on the outer side*
(Fig. 16:18-22; Fig. 17:1-3)

The clay is basically light brown but occasionally acquires a more vivid hue from the red colouring matter applied, tending to a reddish beige. The paste shows a predominance of mineral temper, which however occurs at medium to low frequency, while straw temper is almost entirely absent. Only one fragment (Fig. 16:19) displays micaceous temper. As regards processing, firing appears to have been thorough and most of the fragments reveal a decidedly compact clay texture. All crafting was performed on the wheel. The surfaces invariably show burnish, either on a beige slip or, more often, on the plain surface itself. Two of these jars are decorated: piece Y.84.MA.III/117 (Fig. 16:22) displays a groove with "finger-nail" motives above and vertical burnish decoration below; fragment Y.84.MA.I/125 is pierced below the rim by a hole by means of which the jar could be hung (Fig. 16:21).

The average mouth diameter of these jars is about 30 cm, with the exception of two small jars with diameter of 11.2 cm and 17.2 cm.

No matching pottery fragments could be found in our San a' ceramic collection.

TYPE 14: *Bowls with angular outer rims* (Fig. 17:4-15; Fig. 18:1-2)

The fourteenth class in our typology comprises *bowls with angular outer edge of rim*. The clay in this series is mainly light brown tending to pinkish, fairly well purified, fired at medium or medium to low temperatures and has a texture of average compactness. For the crafting itself, the wheel appears to have been used in only a few cases.

14a: this group consists of *bowls with unburnished outer surface* (Fig. 17:4-8), with the exception of two fragments showing burnish on the rim alone (Fig. 17:4-5).

14b: this sub-type comprises *seven bowls with burnish on both inner and outer surfaces*, not applied to slip but *either to the plain surface* (Fig. 17:9-14) *or to a wash* (Fig. 17:15).

14c: group consisting of two fragments belonging to *large bowls* (diameter 19.4 cm) *covered with reddish brown burnished slip decorated with a*

(31) van Beek, 1969, type 1221, "Bowl 1", p. 228, fig. 85.

wavy line incised below the rim (Fig. 18:1-2).

The characteristic rim shape distinguishing this type of bowl is not peculiar to the Madīnat al-Ahğur site, similar specimens appearing at Kawlāt al-'Adi (1 fragment), Ḥarābat al-Ahğār (4 fragments), Rabāḥ⁽³²⁾ and Ḥarabat Qā' Swayd (2 fragments), mostly relating to group 14a.

TYPE 15: *Bowls with double groove on outer surface* (Fig. 18:3-5)

Type 15 consists of *small bowls with double groove on the outer surface* (Fig. 18:3-5). The paste is either of a dull orange or a more vivid colour verging on red, mineral and plant temper being somewhat scanty. Firing is generally medium to low (as witnessed by the dark-coloured core of the fragments), giving the shards a fair consistency, with the exception of fragment Y.84.MA.I/163, which has a somewhat compact texture. The inner and outer surfaces of the pieces are covered with a red burnished slip. This series of small bowls has every appearance of being wheelmade.

The only piece found elsewhere matching this category is a fragment from Shibām Ghirās (Y.80.SG/7).

TYPE 16: *Large bowls with plain rim and red burnished slip on the inner surface* (Fig. 18:6-13)

This class is distinguished from the previously described ceramic category on account of the pastes, which have undergone little purification, especially in the case of plant temper. This temper occurs in high proportions, while firing and texture show no substantial differences. As regards surface finish, burnish is applied only to the red slip on the inner surface, while the outer surface is generally left plain or covered with a wash.

16a: this sub-type comprises *bowls with top-flattened rim* (Fig. 18:6-9). The mouth diameter ranges from the 38 cm of piece Y.84.MA.II/118 (Fig. 18:9) to the 28 cm of bowls Y.84.MA.III/82 and Y.84.MA.I/256 (Fig. 18:7, 6).

16b: the variant distinguishing type 16b is the shape of the *turning-out rim* (Fig. 18:10-13). The series consists of 4 large bowls which have a wide open look due to the practically flared rims.

(32) Mazzoni, 1985, fig. 6, no. 2.

The parallels observed among pottery collected in the Al-Hadā region relate mostly to the type 16a bowls. The survey carried out at Al-Ḥuṭmah in 1981 yielded two fragments of large bowls with plain, top-flattened rims (Y.81.HAT/2,7), while two similar specimens were found at Shibām Ghirās (Y.80.SG/7 and Y.83.SG/2) and one at Hammat Kilāb (Y.80.HK/10). Two pieces from Shibām Ghirās (Y.80.SG/5-6; Fig. 25:10-11) come typologically close to the sub-type 16b bowls. The Hağar Bin Ḥumayd pottery classified by van Beek includes some type 1220 bowls that match up quite well with our 16a category, e.g. bowls H456 (from layer C), H968 and H887 (both from layer F)⁽³³⁾. There are, however, a fair number of parallels with type 16b (bowls H411 and H406 from layer C)⁽³⁴⁾, and in particular with the Madīnat al-Ahğur fragments Y.84.MA.II/112 and Y.84.MA.III/112 (Fig. 18:12-13).

TYPE 17: *Bowls with rim thickened on outer side* (Fig. 19:1-6)

The pottery collected at Madīnat al-Ahğur included a small number of fragments belonging to this category (Fig. 19:1-6). In some cases this thickening is quite pronounced (Fig. 19:5-6), in other cases hardly discernible (Fig. 19:1-2). On the fragment labelled Y.84.MA.II/64 (Fig. 19:5) a section of the rim is thickened to the extent of forming a handle-like projection.

The uniformly beige-orange paste appears to be of a rather poor quality on account of the low level of purification and, above all, the little care revealed in firing and texture. In fact, five fragments show a somewhat loose texture. Three of the bowls are handmade.

Examination of the surface does not reveal a uniform type of finish; there are examples of burnish (on red slip), wash and surfaces left plain. The diameter of the bowls ranges from c. 23 cm to 36 cm.

The characteristic feature of these bowls, i.e. the rim thickened on the outer side, was also observed on similar bowls from Kawlāt al-'Adi (Y.81.KA/1), Hammat Kilāb (Y.80.HK/3) and Ḥarābat al-Ahğār (Y.85.KAHii/115-119bis; Fig. 28:16). Two pieces from Rabāḥ⁽³⁵⁾ show comparable features. There is, moreover, a bowl from Hağar Bin Ḥumayd which shows morphological similarity to type 17⁽³⁶⁾.

(33) van Beek, 1969, type 1220, "Bowl 8", pp. 219-220, figs. 76-7.

(34) Ibid., type 1220, "Bowl 9-10", pp. 220-221, figs. 77-78.

(35) Mazzoni, 1985, fig. 5, no. 13; fig. 6, no. 3.

(36) van Beek, 1969, H783, type 1220, p. 219, fig. 76, from layer F₂.

TYPE 18: *Bowls with rim thickened on the inner side* (Fig. 19:7-8)

Type 18 is represented by only two fragments (Fig. 19:7-8).

The paste (light brown-pinkish) shows relatively scanty grit and straw temper; firing was found to be of medium intensity and the texture of medium consistency. Fragment Y.84.MA.III/108 shows traces of red burnished slip and was thrown on the wheel, while piece Y.84.MA.III/114 is handmade with plain surface. The smaller of the bowls has an inner diameter of 12 cm, the larger piece 28 cm.

TYPE 19: *Bowls with outward projecting rims* (Fig. 19:9-14)

Type 19 concludes our classification of the ceramic repertory covering four major categories (dolia, jars, ollas, bowls), and is followed by further categories comprising secondary morphological attributes (bases and handles) and functional accessories (lids).

Type 19 consists of *bowls with outward projecting rim*. The dominant beige-orange colour of the clay assumes more delicate hues in some fragments, tending to pinkish, while in others it takes on darker hues, i.e. mid-brown and greyish.

Type 19 pottery reveals poor quality crafting, above all in the degree of firing, apparently medium to low, and the scanty purification of the pastes. There is, moreover, a high proportion of straw and, to a lesser extent, grit.

The class is divided into the following sub-types:

19a: *bowls with red burnished slip on the inner surface* (Fig. 19:9-11). In some cases the rim not only projects outwards but also turns down (Fig. 19:12, and four other bowls: Y.84.MA.I/21, 24; Y.84.MA.II/11-12).

19b: here the variant is the shape of the *rim* which, although projecting outwards, has a *flat top* (Fig. 19:13-14).

Two fragments from Ḥarābat al-Ahḡar (Y.85.KAHii/121-122; Fig. 28:17) and one from Ḥarabat Qā' Swayd (Y.86.KQS/33; Fig. 27:6) match well with type 19a. Only one specimen comparable with these bowls with outward projecting rim was found at Hammat Kilāb⁽³⁷⁾.

(37) Mazzoni, 1985, fig. 4, no. 12.v.

II. HANDLES (Fig. 20:1-6)

Class II of our typological survey of pottery from Madīnat al-Ahḡur comprises handles, which have been divided into two sub-groups.

The light-coloured (beige-light brown) clay is of rather poor quality: purification was not very successfully performed, while firing and surface finish were also given little attention.

a: this type of *horizontal handle with "finger hollows" on the lower projecting part* is represented by three fragments (Fig. 20:1-3). The "finger hollows" serve for a better grip on the handle, especially when the pot is being raised; the upper part is slightly hollowed for the same purpose.

b: the second group of horizontal handles, consisting of three pieces, also shows corresponding finger hollows in the upper part; the two finger hollows are sunk deep in either side of the handle but do not meet (Fig. 20:4-6).

The handles found at Madīnat al-Ahḡur show particular features. Handles with finger hollows have been found at Ḥarabat Qā' Swayd (6 fragments) (Y.86.KQS/40; Fig. 27:9), Ḥarābat al-Ahḡar (13 fragments, 9 of which show finger hollows on the lower surface - Y.85.KAHii/160, 162, 158; Fig. 28:18-19 - and 4 with finger hollows on either side: Fig. 28:20) and Shibām Ghirās (Y.80.SG/1; Fig. 25:12).

It should, however, be borne in mind that the handles with finger holes can be confused with tripod-style bases⁽³⁸⁾.

III. LIDS (Fig. 20:7-10)

The pottery collected at Madīnat al-Ahḡur includes only four definitely identified lid fragments showing morphological differences among themselves. The paste shows a poor level of purification; firing was carried out a medium to low intensity and the texture is of average compactness. The pieces are handmade.

Fragment Y.84.MA.I/240 (Fig. 20:7) shows two concentric ridges on the outer surface, the higher one on the rim and the other about half way down the length of the surviving fragment. The surface of the area between the two ridges bears an incised decoration of irregular criss-cross lines. The beige clay surface of the inner part is burnished, while the pinkish-orange outer surface shows no finish.

(38) Cf. de Maigret, 1982, figs. d (from Shibām Ghirās), f (from Baynūn).

The small lid fragment labelled Y.84.MA.I/245 (Fig. 20:8) differs from the previous fragment in virtue of its simple shape: the rim is plain and slightly angular where it rested on the pot. The outer surface is covered with red-black burnished slip, the inner surface with a brown slip which is also burnished.

A minute rim fragment remains of lid Y.84.MA.IV/24 (Fig. 20:9), the diameter of which cannot be determined. It has a bulging outer surface and is entirely covered with red-black slip.

The last piece in our lid typology is fragment Y.84.MA/14 (Fig. 20:10) which, unlike the three concave pieces described above, rests on a flat base. Both surfaces are covered with a light brown wash.

IV. BASES

1. Bottom-flattened bases (Fig. 20:11-14)

This class consists of a small collection of bottom-flattened ring bases. The pastes reveal a high frequency of plant temper but hardly any grit. Medium or medium to low intensity firing results in a medium to compact texture. As regards crafting, all the pieces appear to be handmade apart, possibly, from fragment Y.84.MA.I/377.

a: in this group the *inner part of the base is covered with a red burnished slip*, which also appears on the outer surface of fragment Y.84.MA.I/365 (Fig. 20:12).

b: comprises *bottom-flattened bases without burnish*: fragment Y.84.MA.I/340 (Fig. 20:14) is covered with a thin red slip, while fragment Y.84.MA.III/205 (Fig. 20:13) shows a plain surface.

2. Low ring bases (Fig. 20:15-18; Fig. 21:1-10)

The second class is represented by a greater number of bases. They are characterized by the shape of the ring the object rests on, which is in fact somewhat low in this category. The paste tends to beige or pinkish-light brown, with the exception of two fragments displaying a bright red-dish-orange hue and a dark grey-brown. Fragment Y.84.MA.II/127 is of relatively poor quality paste, showing a high frequency of grit and mediocre crafting in the firing and texture.

a: the difference between this and the following sub-group consists in the *absence of burnish* (Fig. 20:15-18). One of the fragments (Fig. 20:17) shows no surface finish, while base Y.84.MA.II/123 (Fig. 20:16) is covered

with a thick buff slip on the inner part; the entire surface of Y.84.MA.I/360 (Fig. 20:15) is covered with a reddish wash.

b: consists of six fragments displaying slip and burnish (Fig. 21:1-2, 4-7). Both surfaces of fragment Y.84.MA.II/137 (Fig. 21:2) are covered with a red burnished slip.

c: this sub-type is represented by only one base fragment. The variant here is the *"interrupted comb" decoration* incised on the flat surface (0.7 cm broad) which the object rests on (Fig. 21:3).

d: there are three quite exceptional fragments with *decoration painted on the inner part of the vase (at the centre) as well as on the outer parts of the base*. The outer surface of piece Y.84.MA.III/196 (Fig. 21:9) is covered with a wash, while the entire surface of Y.84.MA.I/390 (Fig. 21:8) is covered with a delicately coloured pinkish-yellow slip. Another feature shared by these fragments is the high frequency of fine white grit. The flower motive decoration is painted a shade of purple-red in flowing lines on fragment Y.84.MA.I/390, and with a more geometrical style on Y.84.MA.III/196. The "drop" motive (purplish-buff in colour), previously seen on the two type 7d (Fig. 11:20-21) and one type 12f (Fig. 16:11) ollas, returns on the outer surface of Y.84.MA.I/382 (Fig. 21:10).

3. High ring bases (Fig. 21:11-12)

The last sub-type in this series consists of high ring bases, represented by two fragments of rather poor quality. In fact, the pastes are not well purified, firing was carried out at low intensity and the texture is somewhat loose. Moreover, both bases were handmade, and neither shows any surface finish. Base fragment Y.84.MA.II/33 must have belonged to a large pot, given the inner diameter of c. 48 cm (at the bottom). Base Y.84.MA.I/372 appears to have belonged to a somewhat smaller pot. Apart from the difference in size, the latter object is also distinguished by a series of grooves on the outer surface and a particularly solid bottom.

The ring base is recurrent in the South-Arabian ceramic repertory, the most common type being of medium height. It appeared in all the sites we visited (also frequent at Ḥarābat al-Aḡḡar and Ḥarabat Qā' Swayd). However, the greatest number of matching pieces was found at Ḥaḡar Bin Ḥumayd. The bases with incised and painted decoration remain, nevertheless, isolated specimens.

Piece Y.84.MA.II/33 (Fig. 21:12) shows a base height that appears quite similar to that of fragment H560 from layer D at Ḥaḡar Bin Ḥumayd⁽³⁹⁾. A fairly close parallel for fragment Y.84.MA.I/372 (Fig. 21:11) comes from

layer A at Haġar Bin Humayd⁽⁴⁰⁾, piece H31 showing a similar groove decoration. This motive can also be seen on another base from Haġar Bin Humayd, H1676; although here the decoration only appears on the upper part⁽⁴¹⁾.

V. FRAGMENTS OF DECORATED WALLS

The last class in our typological survey of Madīnat al-Ahġur pottery comprises decorated pot walls.

We have a set of wall fragments in a sufficiently good state of preservation to show the carination of the lower part of the pots. Decorated with burnished stripes or incised lines, these fragments form group V.1 of our typology.

The various types of decoration - 10 in all - are classified in our decoration typology.

1. Walls of medium to small carinated vases (Fig. 21:13-18; Fig. 22:1-5)

The mostly dark-coloured (buff-light brown, sometimes grey) clay is mixed with fine grit and straw temper at medium to low frequency; firing was carried out at medium or medium to low intensity. The pottery shows a reasonably good consistency apart from fragment Y.84.MA.I/335, which has a somewhat loose texture. All the pieces are handmade. These features combine to suggest that the fragments belonged to large bowls or pots used in the kitchen for the preparation of food.

a: the decorative motive on the carinated walls belonging to this group was performed with *burnish in criss-cross lines on the buff-light brown slip covering the outer wall*. This decoration covers the entire outer surface of the wall, both above and below the carination (Fig. 21:13-15).

b: the wall fragments in this group share the same features as the previous group, but with the variant of a *"finger-nail" motive impressed along the carination*. The closeness of the pattern varies from one fragment to the next (Fig. 21:16-18).

c: this sub-type consists of only *one piece, the inner and outer surface of which is covered with red burnished slip* (thicker on the inner

(39) van Beek, 1969, type 1000, p. 182, fig. 39.

(40) Ibid., p. 257, fig. 115.

(41) Ibid., type 1511, p. 238, fig. 95, from layer K.

surface; Fig. 22:3). The decoration is incised on the wall in broken vertical lines ending at a horizontal "interrupted comb" band running along the upper edge of the carination. This decoration covers the entire outer surface of the fragment.

d: the two walls in this sub-group are characterized by a *band of vertical comb decoration*: in the case of piece Y.84.MA.I/332 (Fig. 22:1) they are incised on the plain surface, for fragment Y.84.MA.I/336 (Fig. 22:2) on red unburnished slip.

e: the last group in this category consists of *small, poorly crafted bowls with no evidence of decoration* (Fig. 22:4-5). The texture is loose, while the surface shows neither finish nor decorative devices.

A close match for the group b walls, i.e. with "finger-nail" pattern impressed along the carination, was found among the pottery collected at Harabat Qā' Swayd (Y.86.KQS/46; Fig. 27:7). Fragment Y.86.KQS/44 also resembles this category, although it lacks the "finger-nail" pattern (Fig. 27:8). The vertical bands of "combing" decoration on group d walls is matched by two specimens from Rabāḥ⁽⁴²⁾ and pottery found at Subr (north of Aden)⁽⁴³⁾.

2. Decoration in relief (Fig. 22:7-9)

The second category consists of pottery fragments with applied decoration.

Fragment Y.84.MA.III/282 (Fig. 22:7), probably belonging to a dolium or large jar, is decorated with large, vertical, parallel fillets, semi-circular in cross section. Piece Y.84.MA.III/281 (Fig. 22:6) comes close to it morphologically, but here the convex parts (clear in cross section) were formed by cutting grooves into the outer surface of the wall.

Fragment Y.84.MA.III/192 (Fig. 22:8) bears applied decoration, here a fine, angular fillet following the horizontal curve of the wall.

The object labelled Y.84.MA.I/315 (incense-burner?) is decorated with small protuberances (one surviving) applied at regular intervals along the edge of the rim (Fig. 22:9). Observation in cross section reveals a shallow horizontal groove running immediately below the protuberances. Two further parallel grooves run close together along the lower edge of the fragment.

(42) Mazzoni, 1985, p. 31, R.82.15, 19, fig. 5, no. 8.

(43) Lancaster-Harding, 1964, p. 21, table VII, nos. 43, 49-50; table X, no. 48; Doe, 1960-61, fig. 2, F5.

Another applied motive appears on bowl Y.84.MA.I/94 (Fig. 13:22), which we classified under type 10A. The decoration consists of a fillet, triangular in cross section, applied horizontally and subsequently incised to create a row of small elements.

3. *Impressed decoration* (Fig. 22:10-12; Fig. 23:1-2)

The following motives can be seen impressed: a: "chain" decoration (Fig. 22:10); b: "rope" decoration (Fig. 22:11); c: "lozenge" decoration (Fig. 22:12); d: punctured decoration, in oblique rows of three holes (Fig. 23:1); e: "chain" decoration, which is framed above and below by a row of "finger-nail" motives (Fig. 23:2); f: the "finger-nail" decoration, which is undoubtedly the most common of the impressed motives, has already been seen in various ceramic categories: the type 1a dolia, the four deep bowls in group 10b; a type 12b bowl and the class V.b carinated walls.

4. *Incised decoration* (Fig. 23:3-15; Fig. 24:1-3)

Incised decoration invariably shows very simple geometrical stylistic elements.

The most common motive is the wavy line, appearing in various forms: with one wave, or a number of waves in the combed motive seen on many type 10a bowls, the small ollas in groups 6b and 7b and the bowls in groups 11c, 12a and 12b. "Comb" incisions, i.e. bands of parallel lines, may be straight (Fig. 23:3-4); fragment Y.84.MA.I/308 couples both wavy and straight line motives (Fig. 23:7). Piece Y.84.MA.I/412 displays bands of oblique lines running below bands of horizontal lines (Fig. 23:5).

The "fragmented" or "interrupted comb" motive is the second most common. Many examples occur in types 7c, 12a, 12b and 10a. Group 10a also includes a bowl combining the "fragmented comb" motive with wavy line decoration (Fig. 13:17). The motive also occurs on the small wall fragment Y.84.MA.I/407 (Fig. 23:6).

The incised criss-cross line motive also occurs quite frequently (Fig. 23:9-13); piece Y.84.MA.I/311 (Fig. 23:14) shows a horizontal line along the length of which parallel oblique lines are incised at regular intervals.

An incised motive already seen on the carinated walls (class V.1.d) is the band of vertical combed decoration, which also appears on wall fragment Y.84.MA.II/151 (Fig. 23:15).

Isolated motives occur on two pottery fragments (Fig. 24:1-2): the first shows three wavy lines along the sides of the handle and a stylized tree below, while the bowl rim of the second fragment is decorated with a "chevron" motive unique among the pottery collected at Madīnat al-Aḡur. Of all the pottery found on this site, incised zig-zag decoration only appears on one jar fragment (Fig. 24:3).

5. *Applied-impressed decoration* (Fig. 24:4-6)

We now come to consider the combination of two of the decorative techniques previously described: application and impression. The projecting surface (applied) on these three wall fragments bears impressed decoration.

6. *Applied-impressed-incised decoration* (Fig. 24:7-8)

In this class decoration of the walls is created with the first three techniques described: application, impression and incision. As in the previous class, Y.84.MA.III/181 (Fig. 24:7) shows impressions on the applied element and criss-cross line incision. In the case of Y.84.MA.III/183 (Fig. 24:8) the decoration in relief is impressed with "finger-nail" motives, while the incised part appears to be an inscription.

7. *Painted decoration*

Paint is also frequently used to decorate this pottery. Essentially there are three recurrent motives: the "drop" motive seen on types 7d and 12f ollas, the base labelled Y.84.MA.I/382 (Fig. 21:10) and on wall Y.84.MA.III/192 (Fig. 24:9); the wavy line motive, painted on the group 12f fragment only; and the flower motive on the class III.2.d bases.

8. *Applied-painted decoration* (Fig. 24:9)

The eighth sub-group consists of one single fragment, Y.84.MA.III/192 (Fig. 24:9), where painted decoration is combined with applied decoration.

9. *Impressed-incised decoration* (Fig. 24:10)

In this category decoration is created with two coupled techniques: impression and incision. Piece Y.84.MA.I/393 (Fig. 24:10) shows impressed "chain" decoration coupled with incised wavy line decoration.

10. *Incised-painted decoration* (Fig. 11:21)

The type 7d olla is decorated with the "comb" motive incised with close wavy lines and the painted "drop" motive.

11. *Burnished decoration*

Burnish is occasionally also used decoratively, as in the case of the carinated walls (class V.1.a), where the wavy lines cross to form lozenges. The same motive appears on the large bowl labelled Y.84.MA.III/271 (Fig. 24:11), surmounted by a band of horizontal burnishing. In one case the burnish appears in vertical zig-zag form, as seen previously on the type 4e jar (Fig. 9:2).

Of all the various types of decoration recurring on Madīnat al-Ahğur pottery, the incised wavy line motive - including "combed" decoration - is the most common. It often appears on the small and medium ollas (types 6b and 7b) and the bowls (10a, 11c, 12d, and 14c). The wavy line motive can be seen on Hağar Bin Ĥumayd pottery from almost all the layers (an exception is layer O), and in relatively high proportions in layer M and the layers between C₂ and A⁽⁴⁴⁾. The straight horizontal line motive is rare at Madīnat al-Ahğur but predominant at Hağar Bin Ĥumayd, where it is found in all levels, especially the earliest. The graph of incised decoration at Hağar Bin Ĥumayd⁽⁴⁵⁾ shows, in fact, that this decoration appears in all layers, but in distinctly higher proportions in layers S and E. Excavation carried out by van Beek showed that the "comb" motive recurs in layers N and M, but above all in A⁽⁴⁶⁾. The motive appearing frequently on our pottery and described as "fragmented comb" decoration is unknown at Hağar Bin Ĥumayd. We can see the same technique used on Subr⁽⁴⁷⁾ pottery, although the "fragmented comb" motive in vertical bands is distinctly different from the type found at Madīnat al-Ahğur.

Ĥarābat al-Ahğar yielded a great many parallels - some of which have already been seen in the descriptions of individual types - for decoration

(44) van Beek, 1969, p. 104, fig. 28.

(45) See note 44.

(46) van Beek, 1969, p. 97.

(47) Doe, 1960-61, fig. 2, C1 and C2; fig. 3, H1.

incised in single wavy lines (Y.85.KAHii/173-174, 177-178, 180) and in the "comb" motive (Y.85.KAHii/175-176, 181).

The "chevron" (or herring bone) decoration which appeared on only one piece from Madīnat al-Ahğur (Fig. 24:2) was found in layers D-A during excavation at Hağar Bin Ĥumayd, with the highest frequency in layer C (C₁ and C₂). This motive also recurs on some pottery fragments from the surface collection carried out by the American Mission at Wādī al-Gūbah (North Yemen)⁽⁴⁸⁾.

Pottery of the "finger-nail" type found on our site is rare at Hağar Bin Ĥumayd, where it is represented by three pieces, two from layer K and one from F₂. Further but fewer matching pieces were found at Ĥarābat al-Ahğar (Y.85.KAHii/11, 18-19, 184) (Pl. 32).

The "chain" motive, few examples of which appeared at Madīnat al-Ahğur, is to be found in layers C₂-A at Hağar Bin Ĥumayd, and in isolated cases at levels Q, N and L. Three matching pieces come from the collection made at Ĥarābat al-Ahğar (Y.85.KAHii/12, 186-187).

The excavation carried out by van Beek revealed painted pottery in all the layers from S to C₁ with the exception of F₁, the highest concentration appearing in N⁽⁴⁹⁾.

Criss-Cross burnish decoration can be seen on two fragments from layers C₂ and A at Hağar Bin Ĥumayd⁽⁵⁰⁾.

CONCLUSIONS

Typological study of Madīnat al-Ahğur pottery reveals analogies mainly with production in the Al-Ĥadā and Ĥamār regions (in areas where the Italian Archaeological Mission has carried out surveys) as with material from excavation at Hağar Bin Ĥumayd (Qatabān), published by G.W. van Beek. It has proved both necessary and useful to seek analogies with the pottery from this site, since van Beek's typological reconstruction is as yet the only one to give us a chronological sequence of ceramic typologies based on

(48) Toplyn, 1984, p. 53, pl. 18.

(49) In the case of painted pottery, as shown in the graphic section of S. Mazzoni's contribution (1985, fig. 6: 14, 17), the decorative motive suggests this is common Islamic pottery.

(50) van Beek, 1969, p. 96.

stratigraphic excavation⁽⁵¹⁾. The appreciable number of parallels between pottery found at certain levels of the Haġar Bin Ĥumayd excavation and the Madīnat al-Ahġur pottery will help us to define the chronological picture of our site. The results so far obtained along these lines have, in fact, been confirmed by epigraphic data. Clearly, the results set out in this study are merely preliminary, since they require the evidence of further archaeological investigation or excavation at Madīnat al-Ahġur itself.

The close analogies observed between Madīnat al-Ahġur pottery production and products from Baynūn, Shibām Ghirās, Al-Ĥuṭmah, Hammat Kilāb, Ĥarābat al-Ahġār, Ĥarabat Qā' Swayd, Kawlāt al-'Adi, Rabāh and Zirāġah - with affinities both in the morphological features and the manufacture technology - point to the existence of a unified, homogeneous cultural tradition in this area of the Yemen plateau⁽⁵²⁾.

Turning to the analogies found with Haġar Bin Ĥumayd pottery and dealt with as they arose in our description of the typological classes, we observe that close parallels with our Madīnat al-Ahġur pottery come mainly from the pottery in layers C-F of the Qatabān excavation⁽⁵³⁾, although some morphological analogies also appear in the layers above and below these levels⁽⁵⁴⁾.

On the basis of these parallels we should place Madīnat al-Ahġur pottery production in a chronological span extending from the middle of the 4th century to the end of the 2nd century B.C., which also embraces the

(51) Moreover, there is no comprehensive, organic study on pre-Islamic South-Arabian pottery apart from brief contributions by: C. Rathjens, H. von Wissman, 1932, pp. 76-82, figs. 31-37 (on Ĥugga pottery); G.C. Thompson, 1944, pp. 115-131, tables XLIX-LVI; C. Rathjens, 1955, pp. 176-190, tables 601-641; B. Doe, 1960-1, pp. 3-10, figs. 1-5, 10; A; de Maigret, 1988, pp. 14-17, figs. 18-26.

(52) This pottery also shares features with Al-Ĥugga production; cf. C. Rathjens, H. von Wissman, 1932, pp. 76-82.

(53) The type 1d dolium, type 4c, 4e jars, class 8a ollas, group 9 jars; the most frequent matches are found with the type 11, 12, 16-17 bowls in our collection; criss-cross burnish decoration from levels C₂ and A.

(54) A match for the type 1d dolium appeared in layer A at Haġar Bin Ĥumayd; a group 11b bowl shares features with two bowls from layer A; one of the high ring bases is again matched by specimens from layer A at Haġar Bin Ĥumayd. A dolium in our collection comes close to a similar piece from layer J; some pieces from our group 11a match bowls from level G of van Beek's stratigraphy.

centre's most flourishing period. There is, moreover, evidence of uninterrupted settlement up to the early centuries of the Christian era, and it is probable that human occupation lasted into the Islam period.

As pointed out above, epigraphic evidence supports the results obtained from analysis of the archaeological data; palaeographic examination places the two inscriptions found during the 1981 survey of the site between the 4th and 3rd centuries B.C.⁽⁵⁵⁾



Madīnat al-Ahġur must have taken on a key role in this period, since it stood at a point of great strategic importance. To the east it was directly linked with the large towns looking out over the Ṣayhad desert, in particular Marib and Qatabān. In fact, Madīnat al-Ahġur stood on the middle altitude road that led to Marib, exploiting the rich hydrological system along the Wādī Ḥaykān (as far as Banī Zaydān), and thence the Wādī Al-'Iṣṣ, the Wādī Baqaṭah, Wādī Nabah and Wādī Sabah, and finally the Wādī Danah. Moreover, the town was also linked with the Damār area (to the south-east, along the Wādī Banī Baddā') and, by means of the old road that ran parallel (to the east) to the road now connecting the capital with Damār (running north-south), with Ṣan'ā'⁽⁵⁶⁾.

The excavation of a hypogean tomb (KAHi, T2) in the Waraqah area (c. 10 km east of Damār) in 1986 entailed survey of the surrounding area, thus leading to the identification of the remains of Ĥarābat al-Ahġār (KAHi), Qā' Swayd (KQS) and Al-Maḥaṭṭah⁽⁵⁷⁾. These three centres were connected by a paved road, traces of which can still be followed for a number of kilometres (the road starts from the town gate opening on the east side of Ĥarābat al-Ahġār).

These towns were probably also connected with the neighbouring towns of Baynūn, Hammat Kilāb and Al-Ĥuṭmah and, further north, Madīnat al-Ahġur itself, which, as we have seen, shared the same material culture⁽⁵⁸⁾.

(55) Cf. de Maigret, 1981, pp. 200-202, and Idem, 1982, p. 249.

(56) Cf. S. Mazzoni, 1985, p. 3.

(57) de Maigret, 1986, p. 380: the Italian Archaeological Mission had been acquainted with this area since 1985, subsequent to excavation of another hypogean tomb (KAHi, T1): cf. A. de Maigret, 1985, p. 357. The many coins found in the tomb - all silver - include pieces bearing the name 'Amdan Bayyn, the monogram of Yanaf , the symbol , and at times "Raydān" is also written; these features point to dating of the latest tomb burials in the 1st-2nd centuries A.D.

(58) Various opinions have been expressed about the Ḥimyarite domination of Qā' Ḡahrān: while H. von Wissman (1964, p. 429) and Ch. Robin (1982, pp. 98-99) include the

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entire Damār plain in the Himyarite confederation, A.F.L. Beeston includes attribute this region to the Ṣayadica cultural area (1975), p. 6).

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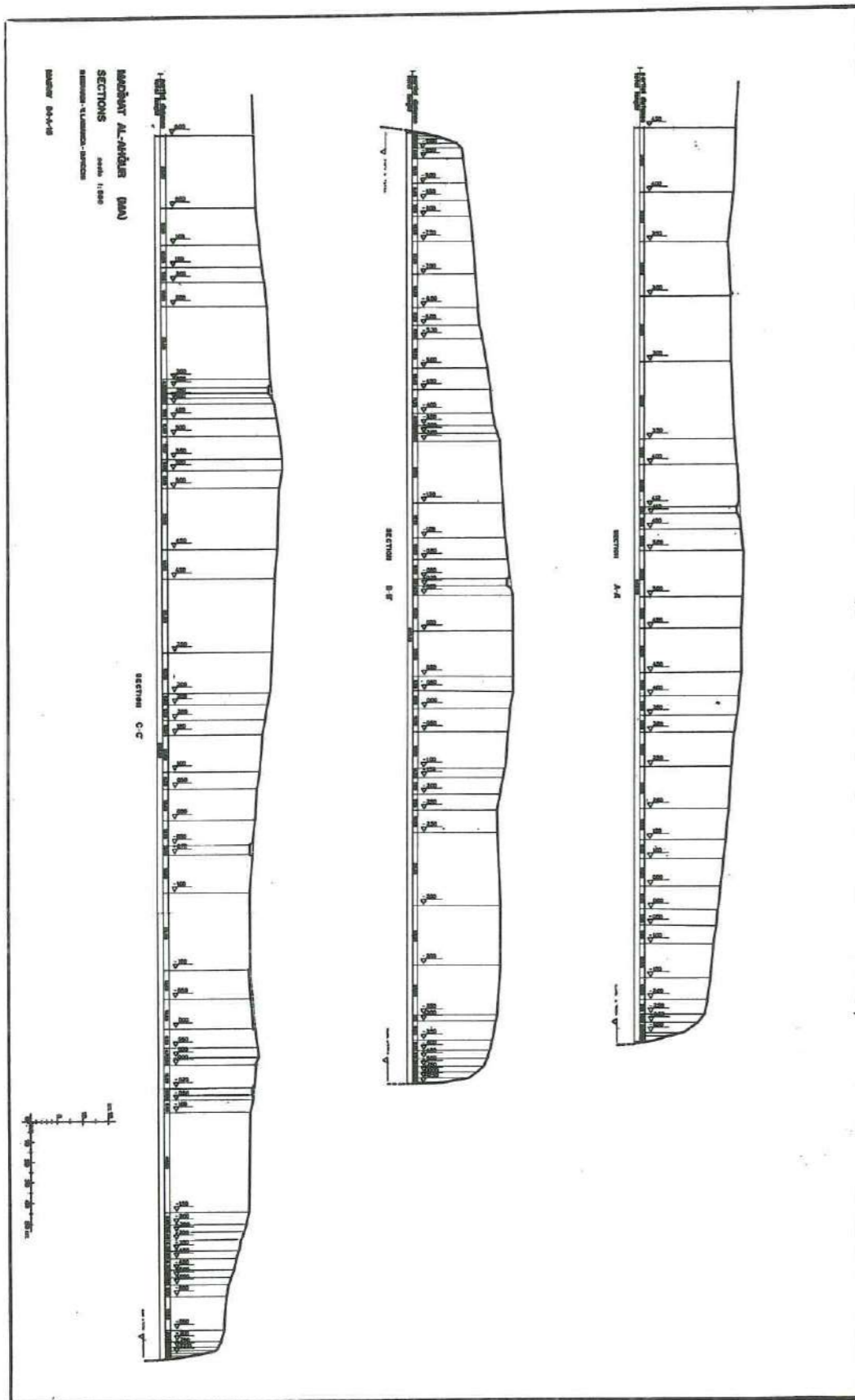


Fig. 3
 Cross sections of Madinat al-Ahḡur (MIRAV, 84-A-15; V. Labianca, D. Picchi, P. Berardi).

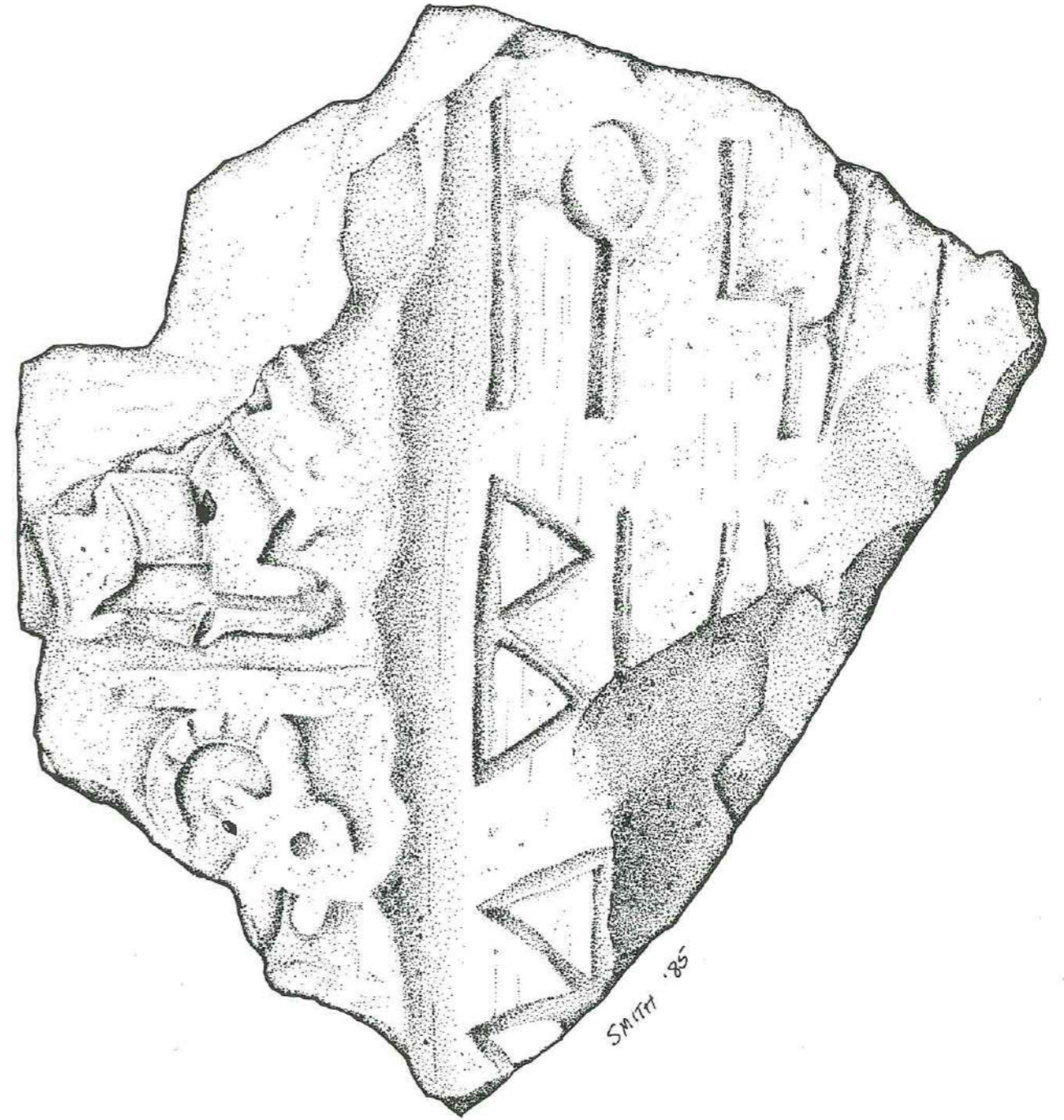


Fig. 4
 Madinat al-Ahḡur; fragment of figured relief with inscription (drawing by Patricia Smith).

DISTRIBUTION OF CERAMIC MORPHOLOGIES
(NO. OF PIECES) IN THE 4 MADĪNAT AL-AHĠUR SECTORS

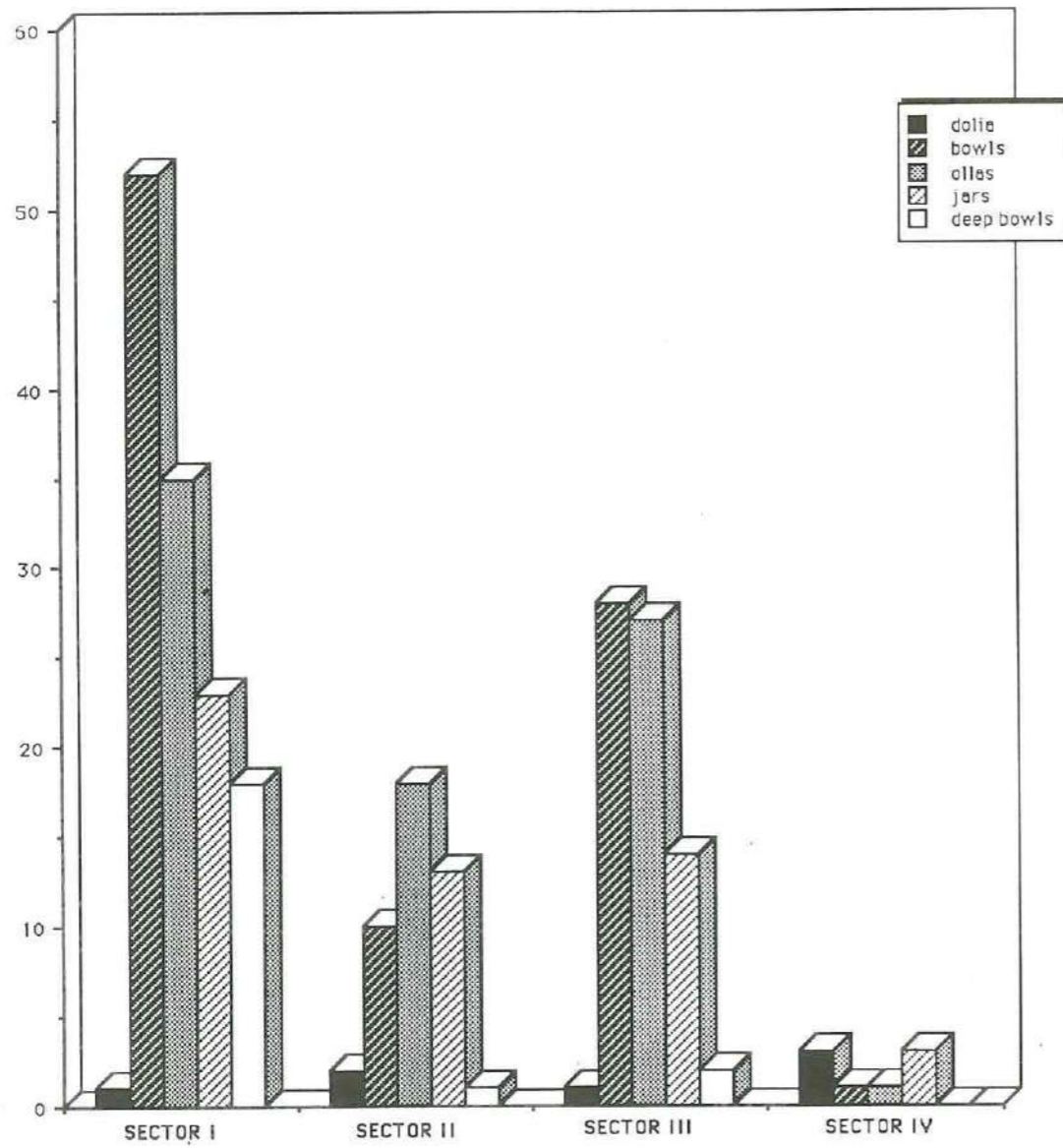


Fig. 5
Graph 1.

DISTRIBUTION OF CERAMIC MORPHOLOGIES (IN %) AND THEIR FUNCTIONS IN THE 4 MADĪNAT AL-AHĠUR SECTORS

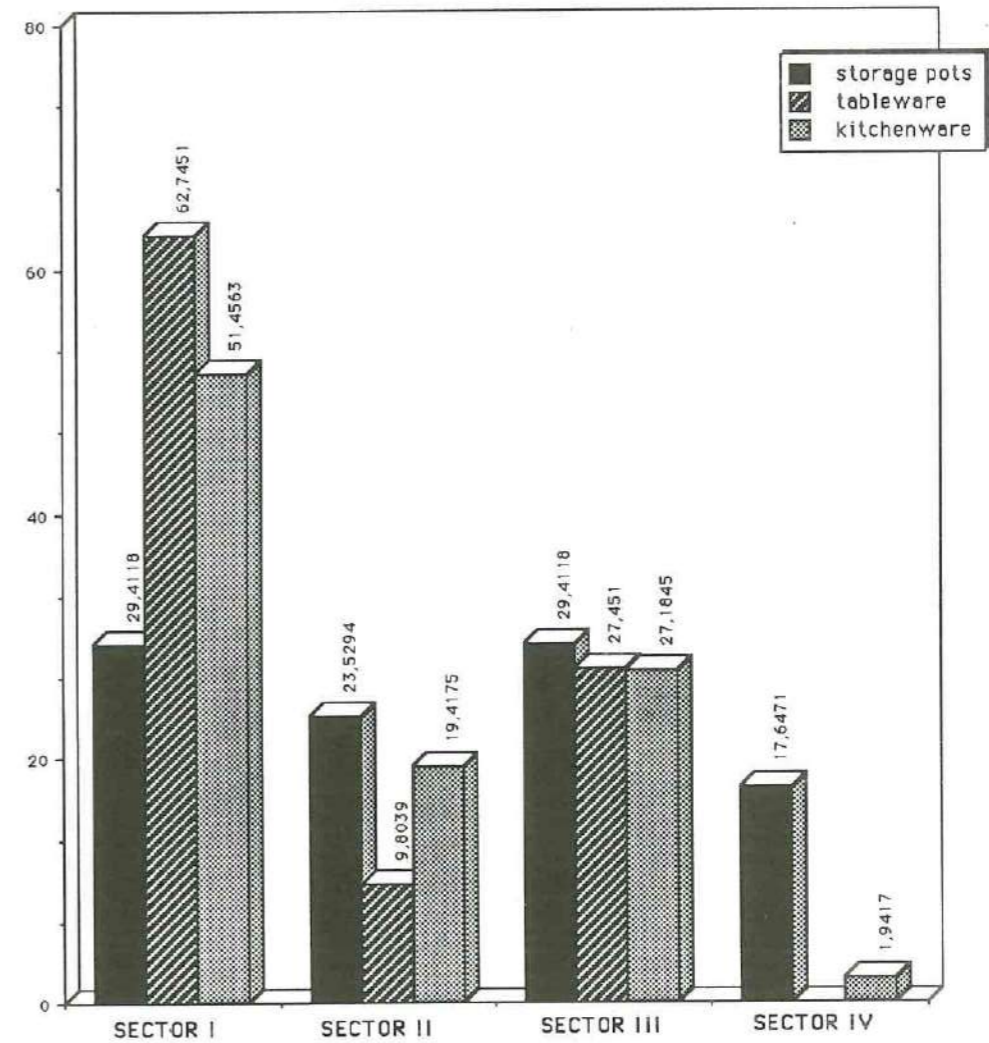


Fig. 6
Graph 2.

- 1) Dolium (Y.84.MA.II/2). Paste: brown/reddish; dark grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of small size. Surface: plain on outside, red burnished slip on inside; impressed decoration. Handmade.
- 2) Dolium (Y.84.MA.IV/1). Paste: purplish; dark grey core; loose texture; medium to low firing. Temper: straw; high frequency of grey grit of medium/large size. Surface: plain on inside, yellowish wash on outside; impressed decoration. Handmade.
- 3) Dolium (Y.84.MA.IV/3). Paste: brown/reddish; dark grey core; medium texture; medium to low firing. Surface: straw; medium frequency of black grit of small size. Surface: brown/reddish wash on outside, plain on inside. Handmade.
- 4) Dolium (Y.84.MA.I/1). Paste: light brown/pinkish; dark grey core; medium texture; medium to low firing. Temper: straw; high frequency of black grit of medium/large size. Surface: traces of red burnished slip. Handmade.
- 5) Dolium (Y.84.MA.II/1). Paste: orange/reddish; dark grey core; medium texture; medium to low firing. Temper: straw; medium frequency of black grit of medium/large size. Surface: light brown/pinkish wash. Wheelmade.
- 6) Dolium (Y.84.MA.IV/2). Paste: light brown/reddish; grey/reddish core; medium texture; medium to high firing. Temper: straw. Surface: light brown/reddish wash; impressed decoration. Wheelmade.
- 7) Dolium (Y.84.MA.III/1). Paste: light brown/pinkish; dark grey core; medium texture; medium to low firing. Temper: straw. Surface: traces of red slip unburnished. Handmade.
- 8) Jar (Y.84.MA.I/4). Paste: orange/pinkish; light brown/pinkish core; loose texture; medium firing. Temper: straw; low frequency of grey grit of small size. Surface: plain. Handmade.
- 9) Jar (Y.84.MA.II/4). Paste: dark brown on inside, light brown/pinkish on outside; dark brown core; medium texture; medium firing. Temper: straw; high frequency of black grit of medium/small size. Surface: traces of brownish burnished slip on inside. Handmade.
- 10) Jar (Y.84.MA.III/31). Paste: orange/pinkish; light grey core; medium texture; medium to low firing. Temper: straw; medium/high frequency of white grit of small size. Surface: traces of reddish burnished slip. Handmade.
- 11) Jar (Y.84.MA.II/30). Paste: light brown/reddish; light grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of medium size. Surface: pinkish wash on outside. Wheelmade.
- 12) Jar (Y.84.MA.III/3). Paste: orange/pinkish; dark grey core; medium texture; medium to low firing. Temper: straw; high frequency of blackish and whitish grit of medium/small size. Surface: red burnished slip on outside. Handmade.

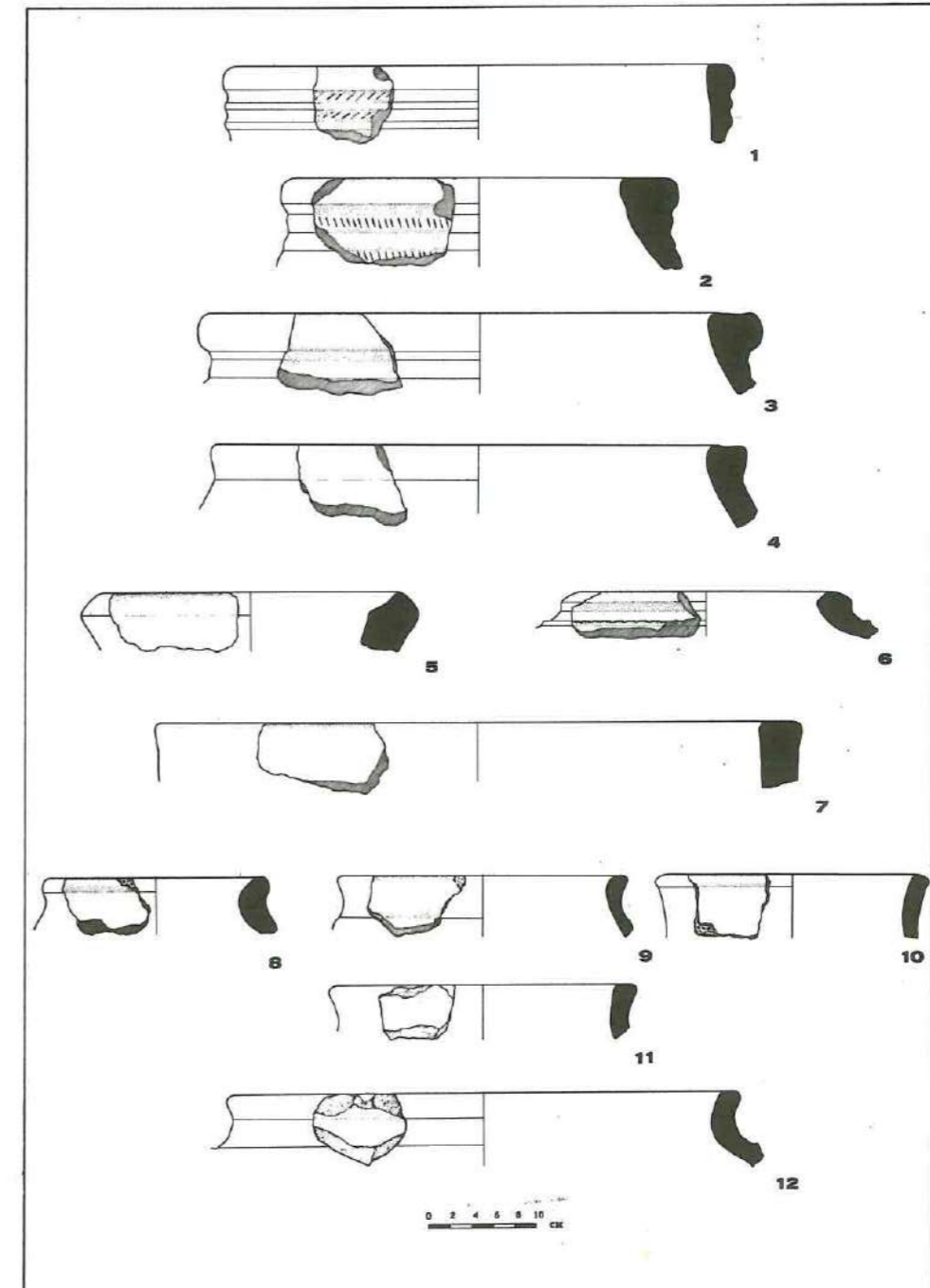


Fig. 7

Madīnat al-Aḥḡur pottery. Type 1: nos. 1-7; type 2: nos. 8-12.

- 1) Olla (Y.84.MA.I/5). Paste: beige; light grey core; loose texture; medium firing. Temper: straw; low frequency of white grit of large size. Surface: plain. Handmade.
- 2) Olla (Y.84.MA.I/7). Paste: beige; light grey core; loose texture; medium firing. Temper: straw. Surface: plain. Handmade.
- 3) Olla (Y.84.MA.III/5). Paste: light brown; light grey core; loose texture; medium firing. Temper: straw. Surface: plain. Wheelmade.
- 4) Olla (Y.84.MA.III/8). Paste: light brown/reddish; dark grey; loose texture; medium to low firing. Temper: straw. Surface: pinkish wash on inside, reddish light slip on outside. Wheelmade.
- 5) Olla (Y.84.MA.I/6). Paste: brown/reddish; light grey core; loose texture; medium to low firing. Temper: straw; low frequency of grey grit of small size. Surface: plain. Handmade.
- 6) Jar (Y.84.MA.II/8). Paste: light brown; dark grey; medium texture; medium to low firing. Temper: straw; low frequency of grey grit of small size. Surface: light brown slip on inside, red slip on outside. Handmade.
- 7) Jar (Y.84.MA.III/11). Paste: light brown/pinkish; light grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of medium size. Surface: plain on inside, reddish wash on outside. Wheelmade.
- 8) Jar (Y.84.MA.III/12). Paste: orange/pinkish; dark grey core; medium texture; medium to low firing. Temper: straw; medium frequency of grey grit of medium/small size. Surface: orange/pinkish wash. Wheelmade.
- 9) Jar (Y.84.MA.III/18). Paste: dark brown; dark grey; medium texture; low firing. Temper: straw. Surface: plain. Handmade.
- 10) Jar (Y.84.MA.II/6). Paste: grey on inside, reddish on outside; grey core; medium texture; medium to low firing. Temper: straw; medium frequency of grey grit of medium size. Surface: reddish wash on outside, plain on inside. Handmade.
- 11) Jar (Y.84.MA.I/8). Paste: orange; dark grey core; medium texture; medium to low firing. Temper: straw. Surface: reddish burnished slip. Handmade.
- 12) Jar (Y.84.MA.II/26). Paste: light brown/pinkish; grey core; medium texture; medium to low firing. Temper: straw; low frequency of black and white grit of small size. Surface: red burnished slip. Handmade.
- 13) Jar (Y.84.MA.I/11). Paste: reddish; reddish core; medium texture; medium to high firing. Temper: straw; medium frequency of grey grit of medium size. Surface: heavy reddish burnished slip. Handmade.
- 14) Jar (Y.84.MA.I/82). Paste: light brown/pinkish; grey core; medium texture; medium to low firing. Temper: straw; high frequency of grey grit of medium size. Surface: traces of red burnished slip. Wheelmade.
- 15) Jar (Y.84.MA.IV/27). Paste: brown/reddish; grey core; medium texture; medium to low firing. Temper: straw; low frequency of grey grit of medium size. Surface: brown/reddish burnished slip. Handmade.
- 16) Jar (Y.84.MA.III/17). Paste: orange; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip on inside, purplish burnished slip on outside. Handmade.
- 17) Jar (Y.84.MA.I/15). Paste: light brown; black core; medium texture; low firing. Temper: straw; low frequency of black grit of small size. Surface: light red slip. Wheelmade.
- 18) Jar (Y.84.MA.III/18). Paste: light/brown greyish; dark grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of small size. Surface: reddish slip; incised decoration. Wheelmade.
- 19) Jar (Y.84.MA.I/278). Paste: light brown; grey core; medium texture; medium firing. Temper: straw; medium frequency of grey grit of large size. Surface: plain. Wheelmade.

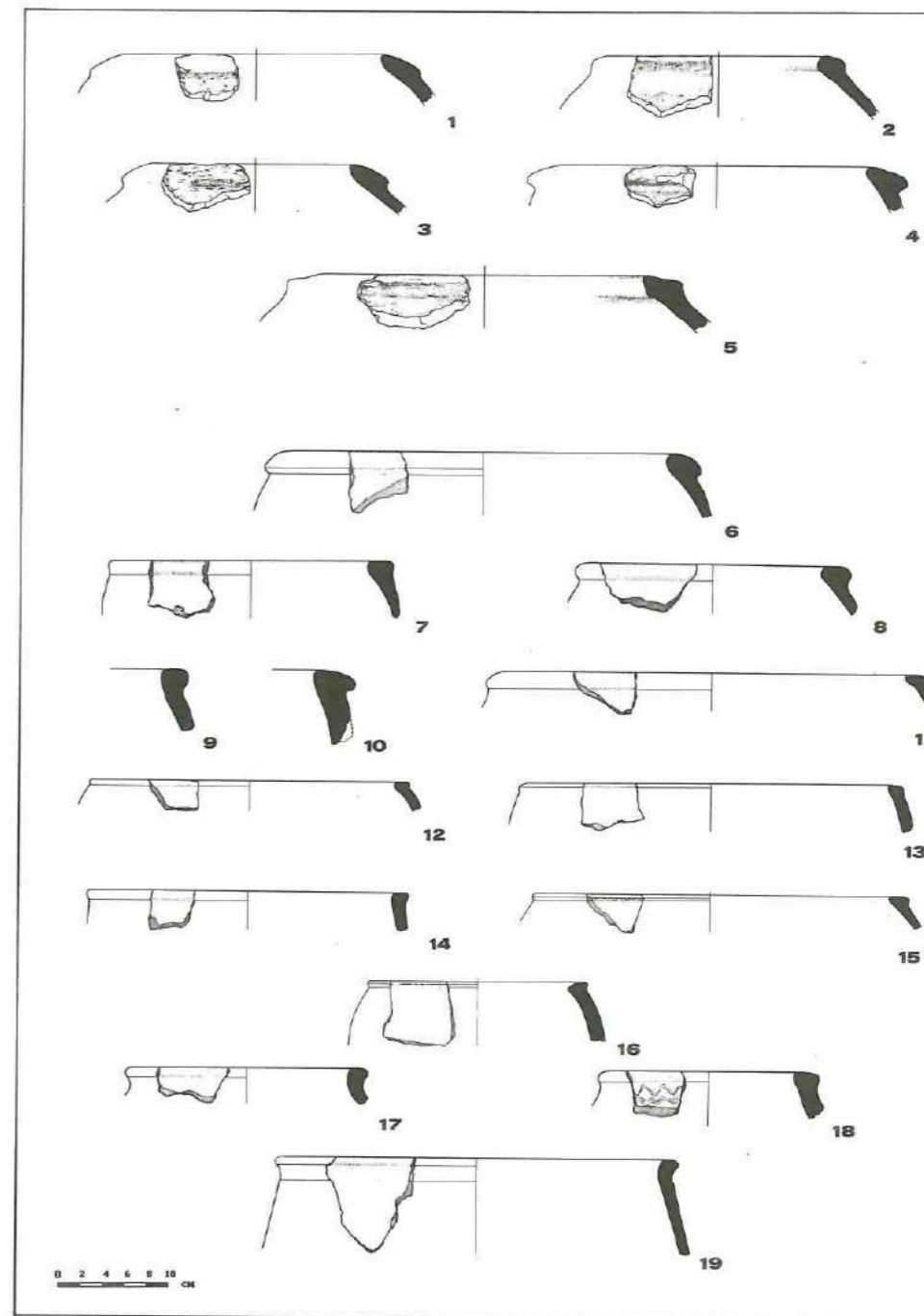


Fig. 8

Madīnat al-Aḡur pottery. Type 3: nos. 1-5; type 4: nos. 6-19.

- 1) Jar (Y.84.MA.III/19). Paste: brownish; grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of medium size. Surface: reddish wash. Wheelmade.
- 2) Jar (Y.84.MA.I/10). Paste: light brown; grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of large size. Surface: reddish burnished slip on outside, plain on inside; burnished decoration. Handmade.
- 3) Jar (Y.84.MA.I/18). Paste: light brown; dark grey core; medium to low texture; medium firing. Temper: low frequency of grey grit of medium/small size. Surface: reddish wash; impressed decoration. Wheelmade.
- 4) Jar (Y.84.MA.I/272). Paste: deep orange; grey core; medium to low texture; medium firing. Temper: straw; low frequency of black grit of medium size. Surface: red slip. Wheelmade.
- 5) Jar (Y.84.MA.I/16). Paste: reddish; dark grey core; medium to low texture; medium firing. Temper: straw; low frequency of black grit of small size. Surface: traces of reddish slip. Wheelmade.
- 6) Jar (Y.84.MA.III/20). Paste: light brown/pinkish; dark grey core; medium to low texture; medium firing. Temper: straw; low frequency of black grit of medium size. Surface: plain on outside, red slip on inside. Wheelmade.
- 7) Olla (Y.84.MA.III/27 bis). Paste: beige; grey core; medium texture; medium firing. Temper: straw. Surface: reddish wash. Handmade.
- 8) Olla (Y.84.MA.III/27). Paste: orange/reddish; dark grey core; medium texture; medium firing. Temper: straw. Surface: plain on outside, red slip on inside. Handmade.
- 9) Olla (Y.84.MA.II/21). Paste: light brown/pinkish; grey core; medium to low texture; medium firing. Temper: low frequency of black grit of small size. Surface: reddish wash on outside, plain on inside. Handmade.
- 10) Olla (Y.84.MA.I/25). Paste: light brown; dark grey core; medium to low texture; medium firing. Temper: straw; low frequency of grey grit of medium/small size. Surface: light brown slip. Handmade.
- 11) Olla (Y.84.MA.II/20). Paste: grey on inside, beige on outside; grey core; medium to low texture; medium firing. Temper: straw; medium frequency of white grit of medium size. Surface: traces of light brown slip on outside, plain on inside. Handmade.
- 12) Olla (Y.84.MA.II/19). Paste: light brown/pinkish; dark grey core; medium to low texture; medium firing. Temper: straw; high frequency of grey grit of medium/small size. Surface: traces of reddish slip. Wheelmade.
- 13) Olla (Y.84.MA.II/17). Paste: brown; brown/greyish core; medium to low texture; medium firing. Temper: straw; medium frequency of white and black grit of medium size. Surface: plain. Wheelmade.

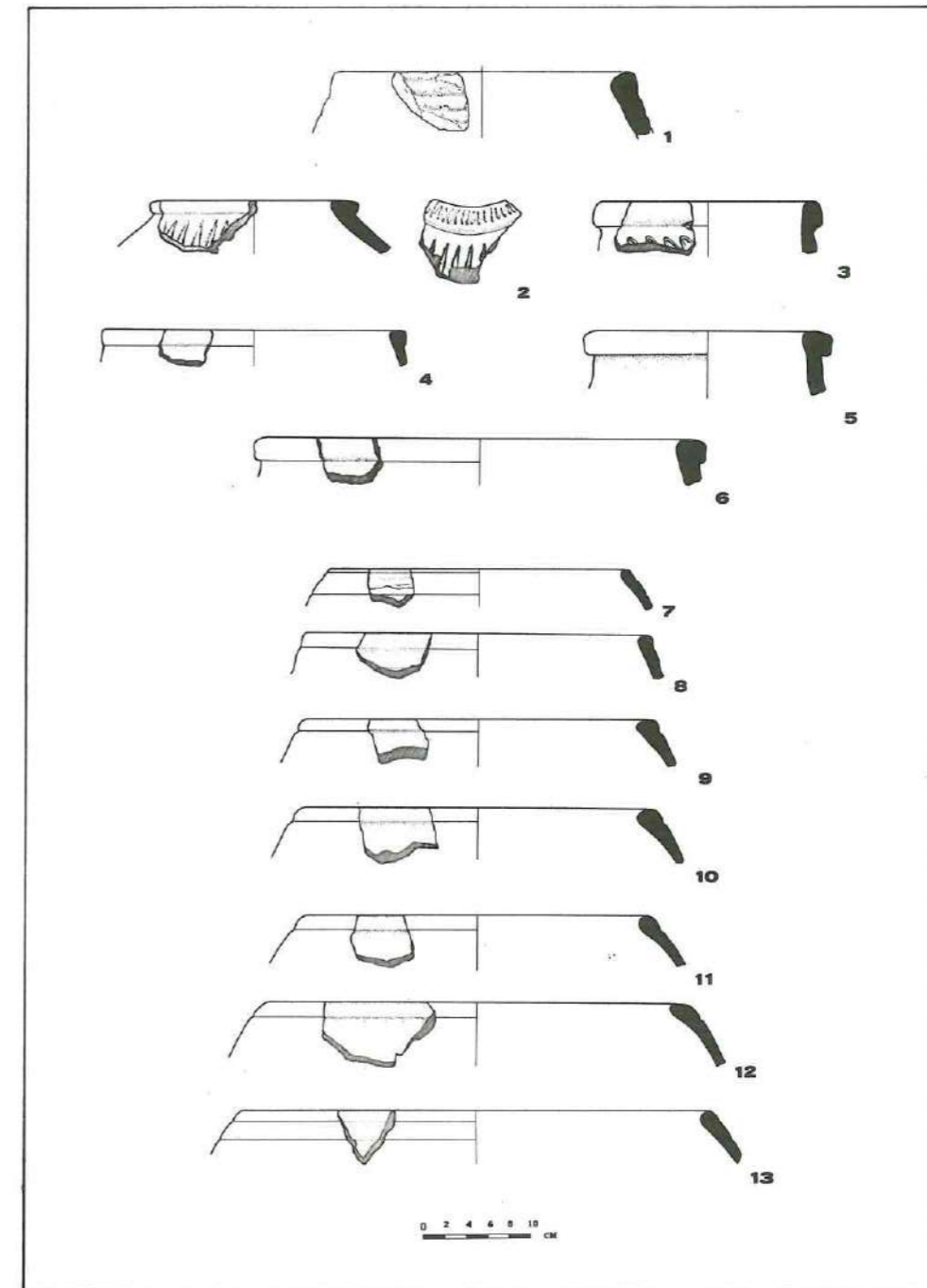


Fig. 9
Madīnat al-Aḥḡur pottery. Type 4: nos. 1-6; type 5: nos. 7-13

- 1) Olla (Y.84.MA.III/26). Paste: light brown; light grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of medium size. Surface: reddish burnished slip. Wheelmade.
- 2) Olla (Y.84.MA.I/27). Paste: brown/greyish on inside, brown/reddish on outside; grey core; medium to low texture; medium firing. Temper: straw; micaceous. Surface: traces of red burnished slip on outside, plain on inside. Wheelmade.
- 3) Olla (Y.84.MA.II/14). Paste: light brown; grey core; medium to low texture; medium firing. Temper: straw; high frequency of grey grit of medium size. Surface: plain on inside, traces of brownish burnished slip on outside. Wheelmade.
- 4) Olla (Y.84.MA.I/273). Paste: reddish; grey core; medium texture; medium firing. Temper: straw; low frequency of black grit of small size. Surface: traces of black burnished slip on inside; wash on outside. Wheelmade.
- 5) Olla (Y.84.MA.I/81). Paste: orange on outside, brown on inside; grey core; medium to low texture; medium firing. Temper: straw. Surface: reddish burnished slip. Rim: wheelmade; body: handmade.
- 6) Olla (Y.84.MA.I/75). Paste: brown/greyish; brown core; medium texture; medium to low firing. Temper: straw; medium frequency of black grit of medium size. Surface: plain on outside, light brown slip on inside. Wheelmade.
- 7) Olla (Y.84.MA.II/42). Paste: light brown/pinkish; grey core; medium texture; medium firing. Temper: straw; low frequency of black grit of small size. Surface: light brown wash. Handmade.
- 8) Olla (Y.84.MA.I/34). Paste: brown/greyish on inside, reddish on outside; grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of small size. Surface: plain. Wheelmade.
- 9) Olla (Y.84.MA.III/266). Paste: light brown/reddish; reddish core; medium texture; medium to high firing. Temper: pinkish wash on outside, reddish wash on inside. Wheelmade.
- 10) Olla (Y.84.MA.I/54). Paste: brown on inside, reddish on outside; grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of small size. Surface: plain on inside, reddish wash on outside. Wheelmade.
- 11) Olla (Y.81.MA/23). Paste: light brown; dark grey core; medium to close texture; medium firing. Temper: straw; low frequency of black grit of medium/large size. Surface: plain. Wheelmade.
- 12) Olla (Y.84.MA.I/36). Paste: brown; dark orange core; medium texture; medium firing. Temper: straw; high frequency of black grit of medium size. Surface: plain on outside, traces of reddish slip on inside. Wheelmade.
- 13) Olla (Y.81.MA/24). Paste: orange; beige/orange core; medium texture; medium firing. Temper: straw. Surface: plain on inside, burnishing on outside. Handmade.
- 14) Olla (Y.84.MA.II/36). Paste: orange/pinkish on outside, brown on inside; light grey core; medium texture; medium firing. Temper: straw; low frequency of black grit of medium/small size. Surface: plain. Wheelmade.
- 15) Olla (Y.84.MA.I/65). Paste: beige/greyish; grey core; medium texture; medium firing. Temper: straw; low frequency of black grit of small size. Surface: plain on outside, blackish burnished slip on inside; incised decoration. Handmade.
- 16) Olla (Y.84.MA.I/177). Paste: orange/reddish on inside, grey/reddish on outside; grey core; medium texture; medium firing. Temper: wash; incised decoration. Wheelmade.
- 17) Olla (Y.84.MA.I/35). Paste: brown; dark grey core; medium texture; medium firing. Temper: straw. Surface: plain; incised decoration. Wheelmade.
- 18) Olla (Y.84.MA.I/64). Paste: beige/pinkish on outside, light brown on inside; grey core; medium texture; medium to low firing. Temper: straw; low frequency of grey grit of small size. Surface: light brown wash; incised decoration. Wheelmade.
- 19) Olla (Y.84.MA.I/63). Paste: beige/greyish; dark grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of small size. Surface: plain; incised decoration. Handmade.
- 20) Olla (Y.84.MA.III/231). Paste: dark grey on inside, orange/pinkish on outside; dark grey core; medium texture; medium to low firing. Temper: straw; high frequency of white grit of medium/small size. Surface: reddish wash on outside, grey burnished slip on inside; incised decoration. Wheelmade.

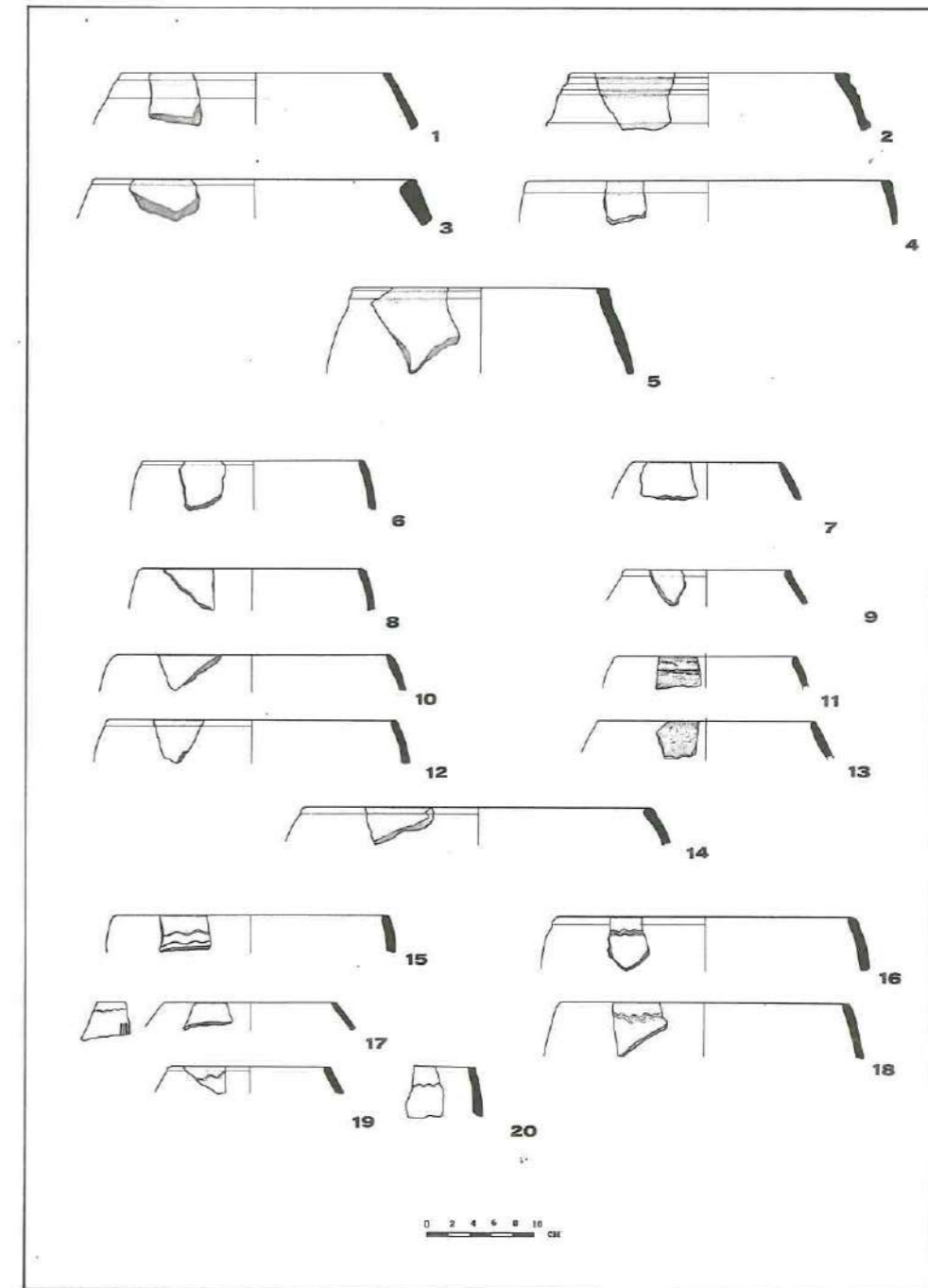


Fig. 10
Madīnat al-Aḡgur pottery. Type 5: nos. 1-5; type b: nos. 6-20

- 1) Olla (Y.84.MA.III/261). Paste: light brown; dark grey core; medium texture; medium to low firing. Temper: low frequency of black grit of medium size. Surface: traces of reddish burnished slip on outside, brown/purplish burnished slip on inside. Wheelmade.
- 2) Olla (Y.84.MA.I/40). Paste: light brown/pinkish; dark grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of small size. Surface: red burnished slip on inside, brown burnished slip on outside; incised decoration. Wheelmade.
- 3) Olla (Y.84.MA.III/276). Paste: brown; reddish core; medium texture; medium firing. Temper: low frequency of black grit of medium size. Surface: reddish burnished slip on outside, reddish wash on inside. Wheelmade.
- 4) Olla (Y.81.MA/16). Paste: orange; dark grey core; medium to close texture; medium firing. Temper: straw. Surface: red burnished slip on outside, purplish burnished slip on inside; incised decoration. Wheelmade.
- 5) Olla (Y.84.MA.II/37). Paste: orange; light grey core; medium texture; medium firing. Temper: straw; low frequency of white grit of medium/small size. Surface: reddish burnished slip. Wheelmade.
- 6) Olla (Y.81.MA/12). Paste: beige/orange; grey core; medium texture; medium firing. Temper: straw. Surface: red/brownish burnished slip. Handmade.
- 7) Olla (Y.84.MA.III/230). Paste: light brown/pinkish; dark grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of small size. Surface: traces of reddish burnished slip on outside, plain on inside; incised decoration. Wheelmade.
- 8) Olla (Y.84.MA.III/227). Paste: light brown in inside, reddish on outside; dark grey core; medium texture; medium to low firing. Temper: straw; medium frequency of black grit of medium/small size. Surface: plain on inside, reddish burnished slip on outside. Wheelmade.
- 9) Olla (Y.81.MA/36). Paste: beige/pinkish; dark grey core; loose texture; medium to low firing. Temper: straw. Surface: red burnished wash; incised decoration. Wheelmade.
- 10) Olla (Y.84.MA.I/88). Paste: reddish; grey core; medium texture; medium to low firing. Temper: straw. Surface: traces of red burnished slip. Wheelmade.
- 11) Olla (Y.84.MA.III/239). Paste: reddish; grey core; loose texture; medium firing. Temper: straw. Surface: burnishing; incised decoration. Wheelmade.
- 12) Olla (Y.84.MA.I/69). Paste: light brown; brown core; medium texture; medium firing. Temper: low frequency of black grit of small size. Surface: red burnished slip; incised decoration. Rim: wheelmade, body: handmade.
- 13) Olla (Y.84.MA.III/67). Paste: light brown; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip; incised decoration. Wheelmade.
- 14) Olla (Y.84.MA.III/237). Paste: reddish; grey core; medium texture; medium firing. Temper: straw. Surface: traces of purplish burnished slip on inside, plain on outside, incised decoration. Wheelmade.
- 15) Olla (Y.84.MA.I/185). Paste: light brown/greyish; grey core; medium texture; medium to low firing. Temper: low frequency of black grit of small size. Surface: light brown burnished slip; incised decoration. Wheelmade.
- 16) Olla (Y.84.MA.III/232). Paste: light brown/pinkish on inside, reddish on outside; dark grey core; medium texture; medium to low firing. Temper: low frequency of black grit of small size. Surface: burnishing; incised decoration. Wheelmade.
- 17) Olla (Y.84.MA.III/236). Paste: dark grey on outside, grey/reddish on inside; grey core; medium texture; medium to low firing. Temper: straw. Surface: burnishing; incised decoration. Wheelmade.
- 18) Olla (Y.84.MA.III/238). Paste: light brown/greyish; grey core; loose texture; medium firing. Temper: straw; low frequency of black grit of small size. Surface: red burnished slip; incised decoration. Wheelmade.
- 19) Olla (Y.84.MA.I/68). Paste: light brown; grey/reddish core; medium texture; medium firing. Temper: straw. Surface: red burnished slip; incised decoration. Wheelmade.
- 20) Olla (Y.84.MA.I/73). Paste: beige/reddish; brown core; medium texture; medium firing. Temper: medium frequency of white grit of medium size. Surface: reddish burnished slip; red/purplish painted decoration. Handmade.
- 21) Olla (Y.84.MA.III/244). Paste: light brown/pinkish; grey core; medium texture; medium to low firing. Temper: straw; high frequency of white grit of medium size. Surface: burnishing; red/purplish painted decoration. Wheelmade.

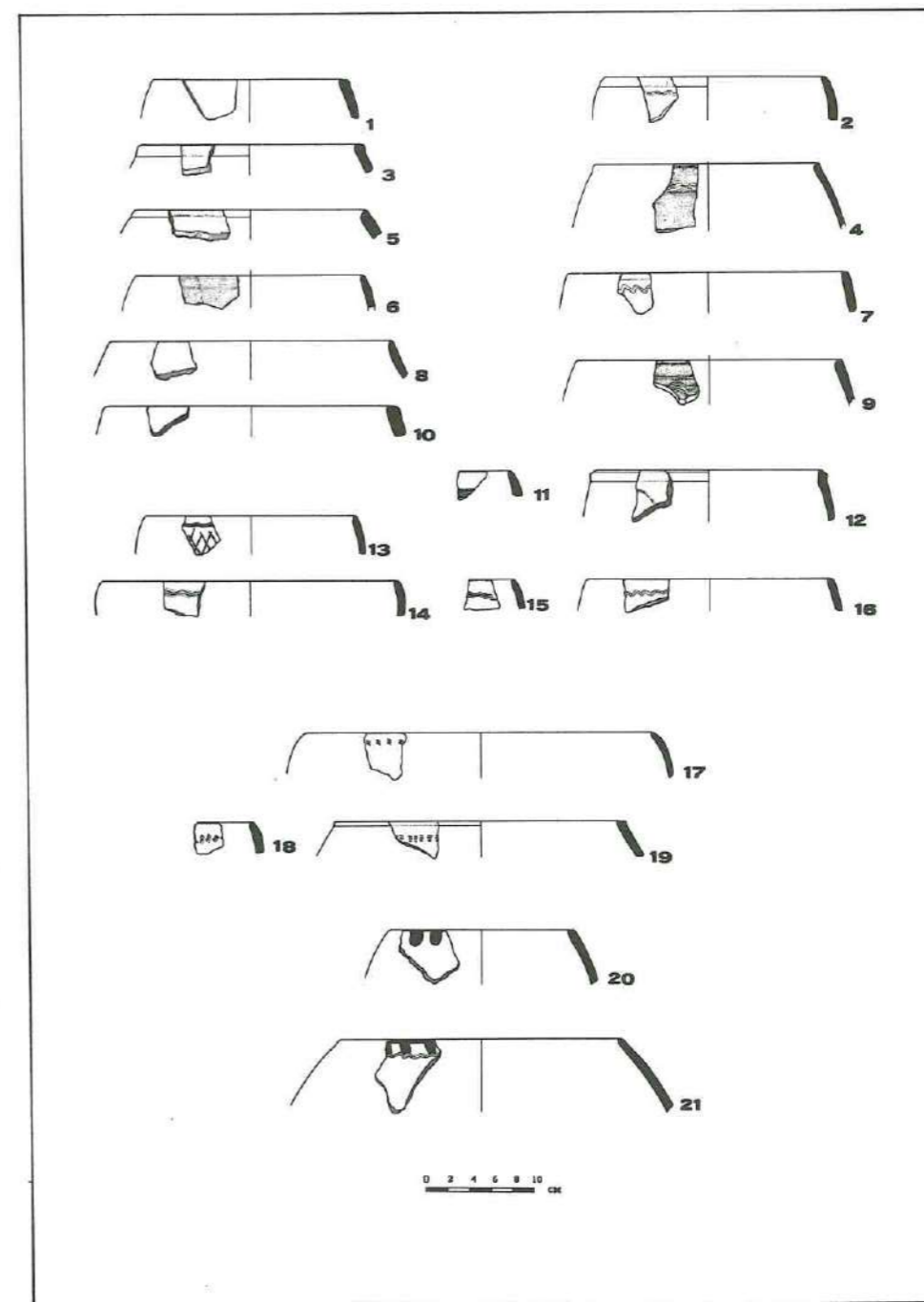


Fig. 11
Madīnat al-Aḥḡur pottery. Type 7: nos. 1-21

- 1) Olla (Y.84.MA.III/141). Paste: light brown; grey core; medium to low firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 2) Olla (Y.84.MA.II/54). Paste: light brown/greyish; grey core; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 3) Olla (Y.84.MA.II/60). Paste: light brown/pinkish; grey core; medium texture; medium to low firing. Temper: straw; red burnished slip. Wheelmade.
- 4) Olla (Y.84.MA.III/143). Paste: orange; grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of medium size. Surface: red burnished slip. Wheelmade.
- 5) Olla (Y.84.MA.III/142). Paste: orange; grey core; medium texture; medium to low firing. Temper: straw. Surface: dark red burnished slip. Wheelmade.
- 6) Olla (Y.84.MA.II/50). Paste: light brown; brown core; medium texture; medium firing. Temper: medium frequency of black grit of medium size. Surface: plain. Handmade.
- 7) Olla (Y.84.MA.II/56). Paste: grey; grey core; medium texture; medium to low firing. Temper: straw. Surface: plain on inside, black burnished slip on outside. Handmade.
- 8) Jar (Y.84.MA.I/279). Paste: reddish; grey core; medium texture; medium firing. Temper: low frequency of black grit of medium/small size. Surface: plain. Wheelmade.
- 9) Jar (Y.84.MA.I/277). Paste: brown/pinkish; dark grey core; medium texture; medium to low firing. Temper: straw; high frequency of black and white grit of small size. Surface: pinkish wash on outside, plain on inside. Wheelmade.
- 10) Jar (Y.84.MA.II/61). Paste: beige/reddish; grey core; medium texture; medium firing. Temper: medium frequency of black grit of medium/small size. Surface: pinkish wash. Wheelmade.
- 11) Jar (Y.84.MA.I/99). Paste: beige/reddish; grey core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of large size. Surface: plain. Handmade.
- 12) Jar (Y.84.MA.II/76). Paste: brown; light brown/pinkish core; medium texture; medium to high firing. Temper: straw; high frequency of black grit of medium/small size. Surface: plain on outside, burnishing on inside. Wheelmade.
- 13) Jar (Y.84.MA.III/158). Paste: beige; grey core; medium texture; medium to high firing. Temper: straw; low frequency of black grit of small size. Surface: traces of red burnished slip on outside, plain on inside. Wheelmade.
- 14) Jar (Y.81.MA/30). Paste: light brown; dark grey core; medium texture; medium firing. Temper: straw. Surface: plain on inside, purplish burnished wash on outside. Handmade.
- 15) Jar (Y.84.MA.III/159). Paste: orange; grey core; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip. Handmade.
- 16) Jar (Y.84.MA.I/103). Paste: orange/purplish; grey core; medium texture; medium firing. Temper: straw; high frequency of white and black grit of medium/large size. Surface: red burnished slip. Handmade.
- 17) Jar (Y.84.MA.III/146). Paste: light brown/pinkish; brown core; medium texture; medium firing. Temper: low frequency of black grit of small size. Surface: traces of red burnished slip. Wheelmade.
- 18) Jar (Y.84.MA.III/151). Paste: light grey; grey/pinkish core; medium texture; medium firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 19) Jar (Y.84.MA.I/105). Paste: reddish; grey core; medium texture; medium to low firing. Temper: straw; medium/low frequency of black and white grit of small size. Surface: reddish burnished slip. Wheelmade.
- 20) Jar (Y.84.MA.II/84). Paste: reddish; medium texture; medium firing. Temper: low frequency of black grit of small size. Surface: plain on inside, traces of red burnished slip on outside. Wheelmade.
- 21) Jar (Y.81.MA/25). Paste: beige/pinkish; dark grey core; loose texture; medium to low firing. Temper: straw. Surface: red burnished slip. Handmade.
- 22) Jar (Y.84.MA.I/123). Paste: orange/pinkish; grey core; medium texture; medium to low firing. Temper: straw; low frequency of black and white grit of small size. Surface: traces of red burnished slip on inside, plain on outside. Wheelmade.
- 23) Jar (Y.84.MA.II/3). Paste: brown; brown/greyish core; medium texture; medium to low firing. Temper: straw; high frequency of grey grit of small size. Surface: traces of red burnished slip on outside, wash on inside. Wheelmade.
- 24) Jar (Y.84.MA.I/101). Paste: beige/pinkish; grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of medium size. Surface: traces of red burnished slip. Wheelmade.
- 25) Jar (Y.84.MA.I/106). Paste: reddish; dark grey core; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 26) Jar (Y.84.MA.I/102). Paste: orange; grey core; medium texture; medium to low firing. Temper: straw. Surface: traces of red burnished slip. Handmade.

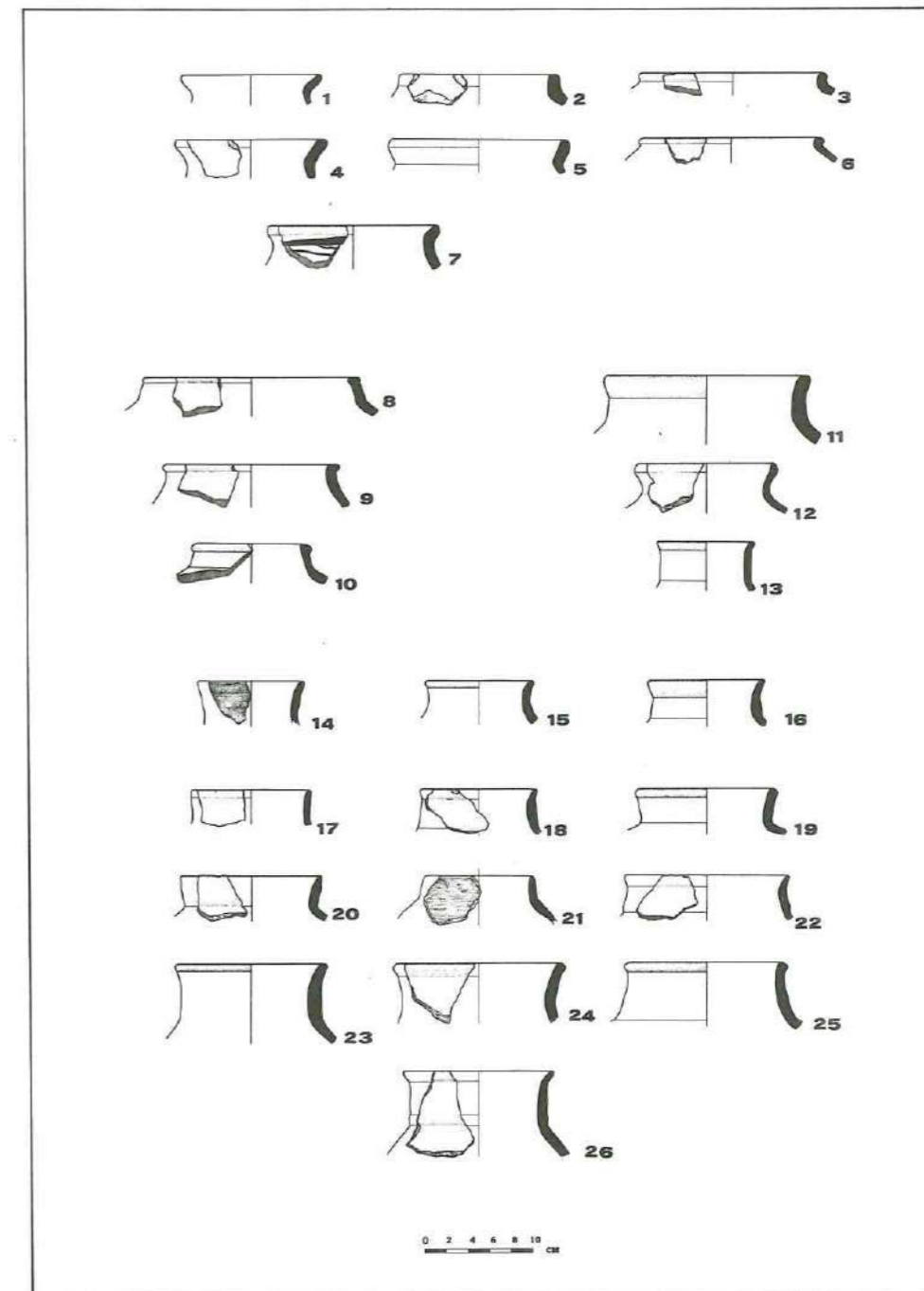


Fig. 12

Madīnat al-Aḥḡur pottery. Type 8: nos. 1-7; type 9: nos. 8-26.

- 1) Bowl (Y.81.MA/10). Paste: beige/pinkish; grey core; medium texture; medium firing. Temper: straw. burnishing; incised decoration. Handmade.
- 2) Bowl (Y.84.MA.I/134). Paste: deep orange; medium texture; medium to high firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 3) Bowl (Y.84.MA.I/95). Paste: buff; dark grey core; medium texture; medium firing. Temper: straw. Surface: brownish burnished slip. Wheelmade.
- 4) Bowl (Y.84.MA.I/97). Paste: buff; medium texture; medium firing. Temper: medium frequency of black grit of medium size. Surface: plain on inside, brownish burnished slip. Handmade.
- 5) Bowl (Y.81.MA/39). Paste: beige/pinkish; brown core; medium texture; medium firing. Temper: straw. Surface: brownish burnished slip. Wheelmade.
- 6) Bowl (Y.84.MA.III/98). Paste: light brown; dark grey core; medium texture; medium to low firing. Temper: low frequency of black grit of small size. Surface: plain on inside, burnishing on outside; incised decoration. Wheelmade.
- 7) Bowl (Y.84.MA.I/93). Paste: light brown; light grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of small size. Surface: reddish burnished slip on outside, plain on inside; incised decoration. Handmade.
- 8) Bowl (Y.84.MA.I/161). Paste: orange; greyish core; medium texture; medium firing. Temper: straw; micaceous. Surface: red burnished slip; incised decoration. Wheelmade.
- 9) Bowl (Y.84.MA.I/235). Paste: grey; loose texture; low firing. Temper: straw; low frequency of black grit of small size. Surface: traces of buff burnished slip; incised decoration. Wheelmade.
- 10) Bowl (Y.84.MA.I/77). Paste: black; close texture; low firing. Surface: burnishing; incised decoration. Handmade.
- 11) Bowl (Y.84.MA.I/126). Paste: light brown; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip; incised decoration. Handmade.
- 12) Bowl (Y.84.MA.II/71). Paste: beige/orange; grey core; medium texture; medium firing. Temper: low frequency of grey grit of medium/small size. Surface: brownish burnished slip; incised decoration. Handmade.
- 13) Bowl (Y.84.MA.III/87). Paste: light brown; grey core; medium texture; medium firing. Temper: straw. Surface: red/purplish burnished slip; incised decoration. Handmade.
- 14) Bowl (Y.84.MA.I/92). Paste: orange/pinkish; medium texture; medium to high firing. Temper: medium frequency of black grit of small size. Surface: red burnished slip; incised decoration. Handmade.
- 15) Bowl (Y.84.MA.I/89). Paste: beige; greyish core; medium texture; medium firing. Temper: low frequency of white grit of small size. Surface: red burnished slip; incised decoration. Handmade.
- 16) Bowl (Y.84.MA.I/122). Paste: light brown; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip; incised decoration. Handmade.
- 17) Bowl (Y.84.MA.I/91). Paste: beige; dark orange; medium texture; medium firing. Temper: straw. Surface: red burnished slip; incised decoration. Handmade.
- 18) Bowl (Y.84.MA.I/90). Paste: light brown; dark grey core; medium texture; medium to low firing. Temper: straw; low frequency of grey grit of medium size. Surface: reddish burnished slip on outside, grey burnished slip on inside; incised decoration. Handmade.
- 19) Bowl (Y.84.MA.I/136). Paste: reddish; grey core; medium texture; medium to low firing. Temper: straw. Surface: reddish burnished slip on inside, black burnished slip on outside; incised decoration. Handmade.
- 20) Bowl (Y.84.MA.I/98). Paste: brownish; grey/pinkish core; medium texture; medium firing. Temper: high frequency of black and white grit of medium/small size. Surface: burnishing; impressed decoration. Wheelmade.
- 21) Bowl (Y.84.MA.I/78). Paste: light brown/greyish; grey core; medium texture; medium firing. Temper: high frequency of black and white grit of medium/small size. Surface: traces of greyish burnished slip; impressed decoration. Wheelmade.
- 22) Bowl (Y.84.MA.I/94). Paste: beige/greyish; grey core; medium texture; medium to low firing. Temper: low frequency of white grit of small size. Surface: traces of brown burnished slip; applied and impressed decoration. Handmade.
- 23) Bowl (Y.84.MA.I/127). Paste: light brown; grey/pinkish core; medium texture; medium firing. Temper: medium frequency of black and white grit of medium size. Surface: reddish burnished slip on inside, brownish burnished slip on outside; impressed decoration. Wheelmade.
- 24) Bowl (Y.81.MA/9). Paste: orange; reddish core; loose texture; medium to high firing. Temper: high frequency of black and white grit of medium size. Surface: light reddish burnished slip. Handmade.

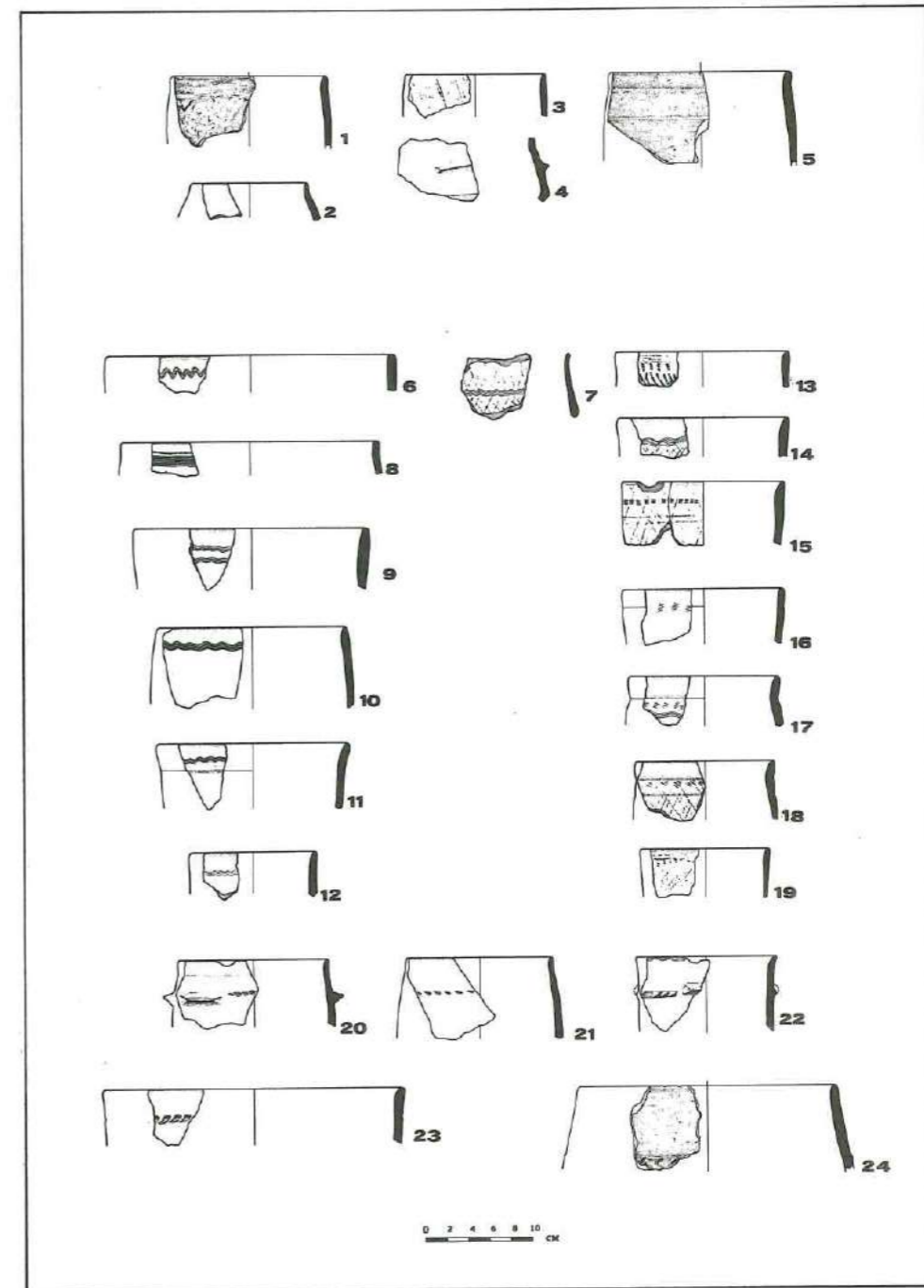


Fig. 13
Madīnat al-Aḥḡur pottery. Type 10: nos. 1-24

- 1) Bowl (Y.84.MA.I/176). Paste: beige; greyish core; medium texture; medium firing. Temper: straw. Surface: plain on inside; traces of red burnished slip on outside. Wheelmade.
- 2) Bowl (Y.84.MA.I/258). Paste: deep pink; grey/pinkish core; medium texture; medium firing. Temper: straw. Surface: traces of reddish burnished slip on inside, unburnished on outside. Wheelmade.
- 3) Bowl (Y.84.MA.III/129). Paste: beige; grey core; medium texture; medium to low firing. Temper: straw; medium frequency of black grit of small size. Surface: traces of reddish burnished slip on outside, plain on inside. Wheelmade.
- 4) Bowl (Y.84.MA.I/223). Paste: reddish; grey core; medium to close texture; medium to high firing. Temper: straw. Surface: pinkish wash on inside, burnishing on outside. Wheelmade.
- 5) Bowl (Y.84.MA.IV/23). Paste: beige; grey core; medium texture; medium firing. Temper: straw. Surface: traces of reddish burnished slip. Wheelmade.
- 6) Bowl (Y.84.MA.I/198). Paste: light brown; light grey core; medium texture; medium firing. Temper: straw. Surface: brownish wash. Wheelmade.
- 7) Bowl (Y.84.MA.I/266). Paste: reddish; medium texture; medium to high firing. Temper: straw. Surface: reddish burnished slip. Wheelmade.
- 8) Bowl (Y.84.MA.I/180). Paste: light brown/pinkish; light grey core; medium texture; medium firing. Temper: micaceous; low frequency of grey grit of small size. Surface: plain. Wheelmade.
- 9) Bowl (Y.84.MA.II/90). Paste: brown on outside, beige/pinkish on inside; greyish core; medium texture; medium firing. Temper: straw. Surface: plain on inside, burnishing on outside. Wheelmade.
- 10) Bowl (Y.84.MA.I/233). Paste: brown on inside, brown/greyish on outside; dark grey core; medium texture; medium to low firing. Temper: straw. Surface: burnishing. Handmade.
- 11) Bowl (Y.84.MA.III/226). Paste: brown; grey core; medium texture; medium to low firing. Temper: high frequency of grey grit of medium size. Surface: plain on outside, burnishing on inside. Wheelmade.
- 12) Bowl (Y.84.MA.I/227). Paste: reddish; grey core; medium texture; medium firing. Temper: low frequency of grey grit of small size. Surface: brownish burnished slip. Wheelmade.
- 13) Bowl (Y.84.MA.II/96). Paste: deep orange; dark grey core; medium texture; medium to low firing. Temper: straw. Surface: reddish burnished slip. Wheelmade.
- 14) Bowl (Y.84.MA.I/203). Paste: light brown; light/pinkish core; medium texture; medium firing. Temper: straw; micaceous. Surface: brownish slip. Wheelmade.
- 15) Bowl (Y.84.MA.III/32). Paste: deep orange; light grey core; medium texture; medium firing. Temper: straw; medium frequency of black grit of medium size. Surface: reddish burnished slip. Wheelmade.
- 16) Bowl (Y.84.MA.I/59). Paste: light brown; grey core; medium texture; medium to low firing. Temper: straw. Surface: reddish burnished slip on outside, brownish burnished slip on inside; incised decoration. Wheelmade.
- 17) Bowl (Y.84.MA.III/164). Paste: light brown; grey core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip; incised decoration. Handmade.
- 18) Bowl (Y.84.MA.III/29). Paste: light brown; light brown/pinkish core; medium texture; medium to high firing. Surface: burnishing on outside; incised decoration. Handmade.
- 19) Bowl (Y.84.MA.III/46). Paste: orange; black core; loose texture; low firing. Temper: ; straw; micaceous; high frequency of black grit of medium/large size. Surface: grey wash on outside, traces of red burnished slip on inside; incised decoration. Handmade.

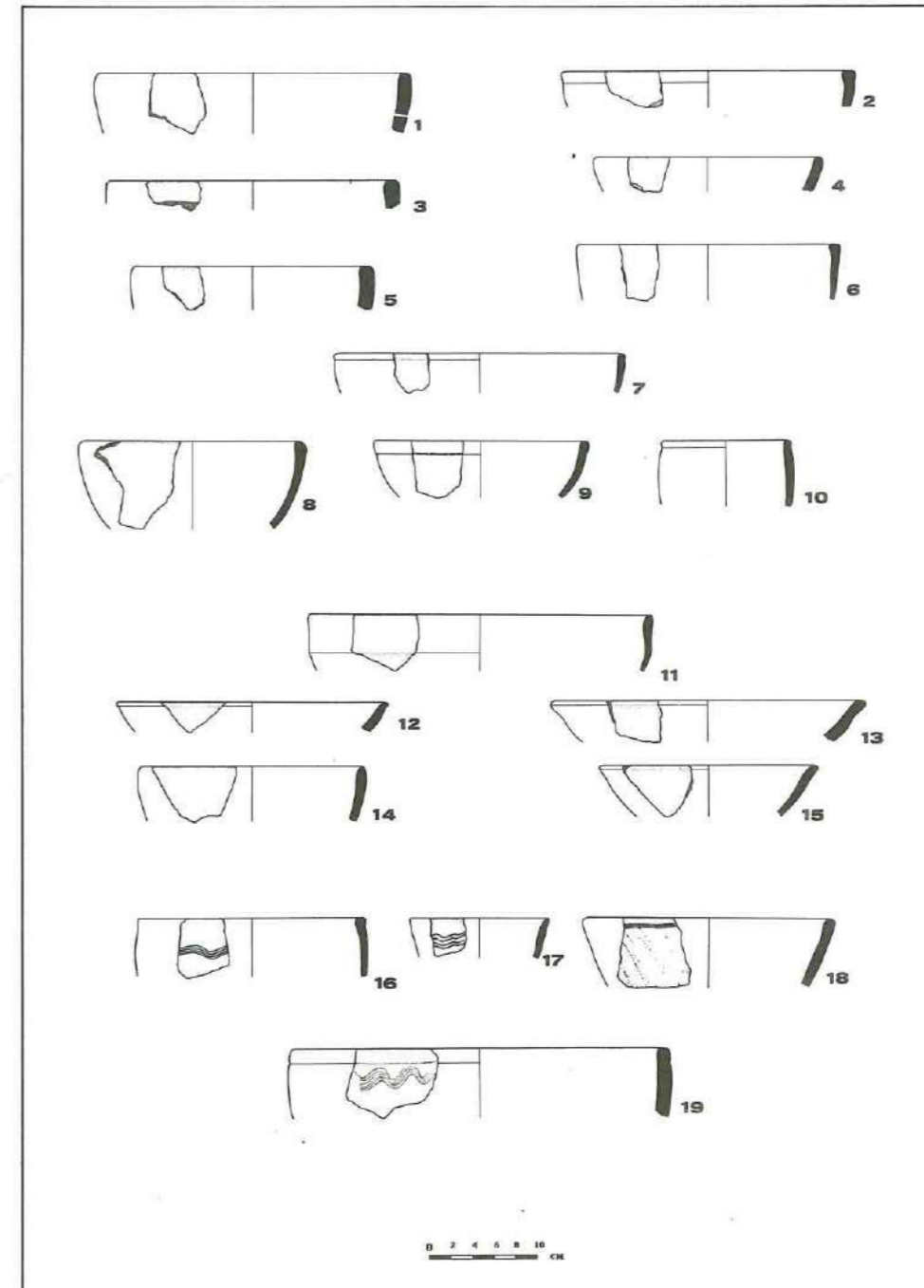


Fig. 14
Madīnat al-Aḥḡur pottery. Type 11: nos. 1-19.

- 1) Bowl (Y.84.MA.III/34). Paste: orange; grey core; medium texture; medium firing. Temper: low frequency of black grit of medium size. Surface: brownish burnished slip; incised decoration. Wheelmade.
- 2) Bowl (Y.84.MA.III/121). Paste: deep orange; black core; loose texture; low firing. Temper: straw; low frequency of white grit of medium size. Surface: plain. Handmade.
- 3) Bowl (Y.84.MA.III/48). Paste: beige/pinkish; grey/pinkish core; medium to close texture; medium firing. Surface: plain on inside; traces of brownish burnished slip on outside; incised decoration. Wheelmade.
- 4) Bowl (Y.84.MA.I/263). Paste: light brown/pinkish; black core; loose texture; low firing. Temper: micaceous; low frequency of white grit of medium size. Surface: plain. Handmade.
- 5) Bowl (Y.84.MA.I/238). Paste: brown; grey core; medium texture; medium to low firing. Temper: straw. Surface: traces of brownish slip, burnished on outside; incised decoration. Wheelmade.
- 6) Bowl (Y.84.MA.I/218). Paste: light brown; grey core; medium texture; medium firing. Temper: straw. Surface: burnishing on the plain surface; incised decoration. Wheelmade.
- 7) Bowl (Y.84.MA.I/210). Paste: brown/greyish; grey core; medium texture; medium firing. Temper: low frequency of black grit of medium size. Surface: burnishing on the plain surface; incised decoration. Wheelmade.
- 8) Bowl (Y.84.MA.I/205). Paste: light brown; dark grey core; medium texture; medium firing. Temper: medium frequency of black and white grit of small size. Surface: burnishing on the plain surface; incised decoration. Wheelmade.
- 9) Bowl (Y.84.MA.I/193). Paste: brownish; grey core; medium texture; medium firing. Temper: straw. Surface: burnishing on the plain surface; incised decoration. Wheelmade.
- 10) Bowl (Y.84.MA.I/190). Paste: light brown; grey core; medium texture; medium to low firing. Temper: medium frequency of black grit of small size. Surface: burnishing on the plain surface; incised decoration. Wheelmade.
- 11) Bowl (Y.84.MA.III/68). Paste: orange; grey core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip; incised decoration. Wheelmade.
- 12) Bowl (Y.84.MA.III/36). Paste: reddish; greyish core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip; incised decoration. Wheelmade.
- 13) Bowl (Y.84.MA.I/187). Paste: reddish; grey core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip; incised decoration. Wheelmade.
- 14) Bowl (Y.81.MA/3). Paste: beige/orange; dark grey core; medium to close texture; low firing. Temper: straw. Surface: light buff burnished slip on inside, burnishing on the plain surface on outside; incised decoration. Rim: wheelmade; body: handmade.
- 15) Bowl (Y.84.MA.I/234). Paste: deep orange; grey core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip; incised decoration. Wheelmade.
- 16) Bowl (Y.84.MA.I/207). Paste: reddish; purplish core; medium texture; medium to high firing. Temper: straw. Surface: reddish burnished slip on inside, burnishing on the plain surface on outside; incised decoration. Wheelmade.
- 17) Bowl (Y.84.MA.III/90). Paste: light brown/pinkish; grey core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip on inside, burnishing on the plain surface on outside; incised decoration. Wheelmade.
- 18) Bowl (Y.84.MA.I/231). Paste: grey on outside, reddish on inside; grey/pinkish core; loose texture; medium firing. Temper: low frequency of white grit of small size. Surface: heavy burnished red slip; incised decoration. Handmade.

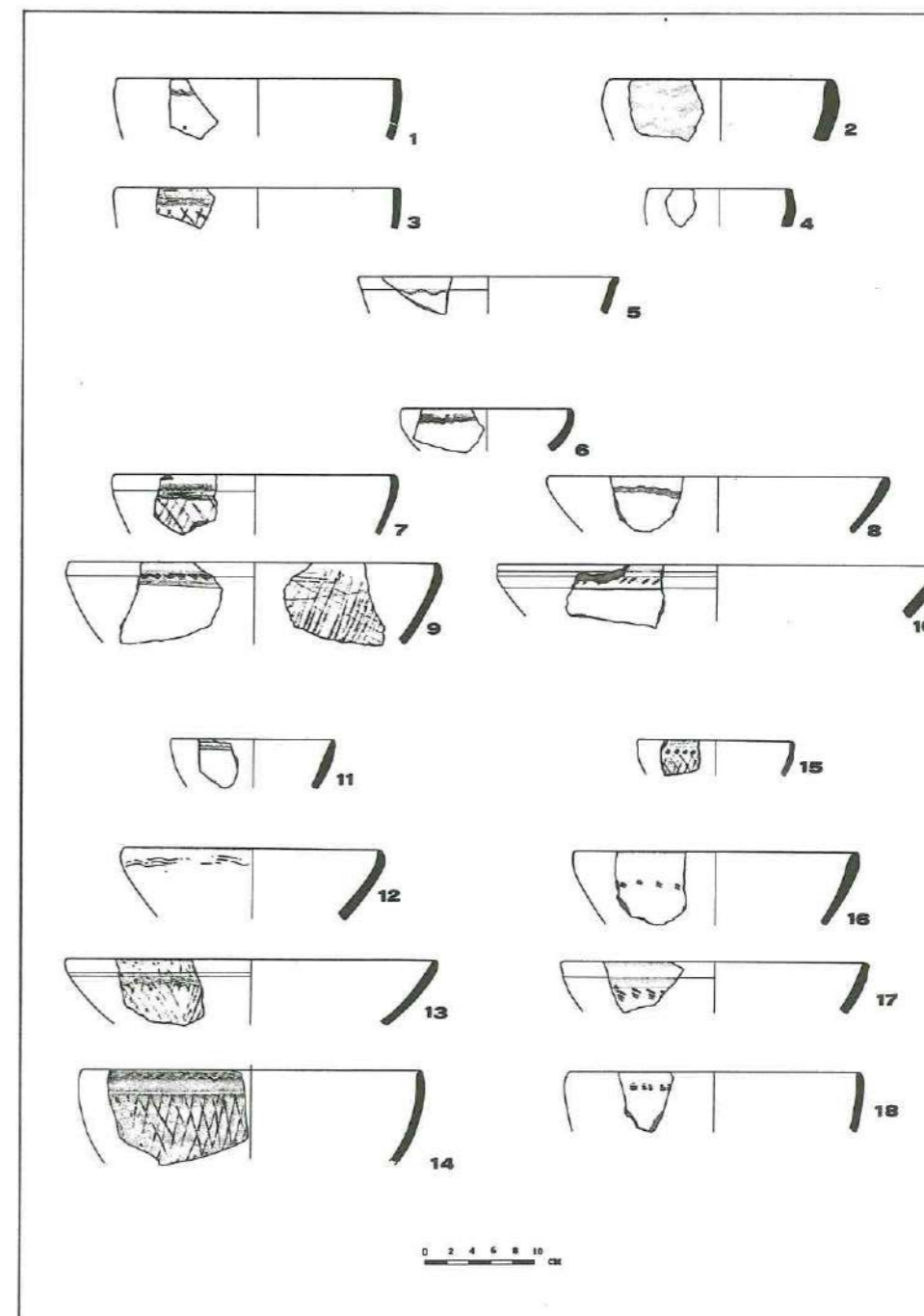


Fig. 15

Madīnat al-Ahḡur pottery. Type 11: nos. 1-5; type 12: nos. 6-18.

- 1) Bowl (Y.84.MA.I/206). Paste: orange/pinkish; grey core; medium texture; medium firing. Temper: straw; low frequency of black grit of small size. Surface: reddish burnished slip; impressed decoration. Wheelmade.
- 2) Bowl (Y.84.MA.I/216). Paste: beige/reddish; grey core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip; incised decoration. Wheelmade.
- 3) Bowl (Y.84.MA.III/85). Paste: light brown/pinkish; grey core; medium texture; medium to low firing. Temper: straw. Surface: brownish burnished slip on inside, burnishing on the plain surface on outside; incised decoration. Wheelmade.
- 4) Bowl (Y.84.MA.I/220). Paste: brown/pinkish; grey core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip; incised decoration. Wheelmade.
- 5) Bowl (Y.81.MA.I/19). Paste: orange/pinkish; greyish core; medium to close texture; medium firing. Temper: straw. Surface: reddish burnished slip; incised decoration. Wheelmade.
- 6) Bowl (Y.84.MA.II/91). Paste: grey/pinkish; grey core; loose texture; medium firing. Temper: straw. Surface: burnishing on the plain surface. Handmade.
- 7) Bowl (Y.84.MA.I/175). Paste: reddish; grey core; medium texture; medium firing. Temper: straw. Surface: burnishing on the plain surface. Wheelmade.
- 8) Bowl (Y.84.MA.III/110). Paste: brownish; light grey core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip. Wheelmade.
- 9) Bowl (Y.84.MA.III/69). Paste: beige/reddish; light grey core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip. Wheelmade.
- 10) Bowl (Y.84.MA.I/251). Paste: orange/reddish; light grey core; medium texture; medium firing. Temper: low frequency of white grit of medium/large size. Surface: burnishing on the plain surface on inside, plain on outside. Wheelmade.
- 11) Bowl (Y.84.MA.I/236). Paste: beige/orange; grey core; medium texture; medium firing. Temper: straw. Surface: plain on inside; reddish wash on outside; purplish painted decoration. Wheelmade.
- 12) Bowl (Y.84.MA.I/184). Paste: orange on inside, brownish on outside; grey/pinkish core; medium texture; medium firing. Temper: straw. Surface: plain on inside, black wash on outside; painted decoration. Wheelmade.
- 13) Bowl (Y.84.MA.I/188). Paste: grey/pinkish; grey/pinkish core; loose texture; low firing. Temper: straw. Surface: red burnished slip. Handmade.
- 14) Bowl (Y.84.MA.I/192). Paste: orange/reddish; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 15) Bowl (Y.84.MA.I/182). Paste: orange; grey core; medium texture; medium firing. Temper: straw; low frequency of black and white grit of medium/large size. Surface: reddish burnished. Wheelmade.
- 16) Bowl (Y.84.MA.I/202). Paste: orange/pinkish; grey/pinkish core; medium texture; medium firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 17) Bowl (Y.84.MA.I/232). Paste: orange/pinkish; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip on outside, red/purplish slip on inside. Wheelmade.
- 18) Jar (Y.84.MA.IV/32). Paste: beige/reddish; grey/pinkish core; medium to close texture; medium firing. Temper: straw. Surface: traces of burnishing on the plain surface. Wheelmade.
- 19) Jar (Y.84.MA.I/275). Paste: brown; grey/pinkish core; medium to close texture; medium firing. Temper: micaceous; low frequency of black grit of small size. Surface: brown burnished slip. Wheelmade.
- 20) Jar (Y.84.MA.I/270). Paste: brown; dark grey core; medium texture; medium to low firing. Temper: low frequency of grey grit of medium/small size. Surface: brownish burnished slip. Wheelmade.
- 21) Jar (Y.84.MA.I/125). Paste: brownish; grey core; medium texture; medium firing. Temper: medium frequency of black grit of medium size. Surface: traces of burnishing on the plain surface. Wheelmade.
- 22) Jar (Y.84.MA.III/117). Paste: reddish; dark grey core; medium to close texture; medium firing. Surface: reddish burnished slip on outside, brownish burnished slip on inside; impressed decoration. Wheelmade.

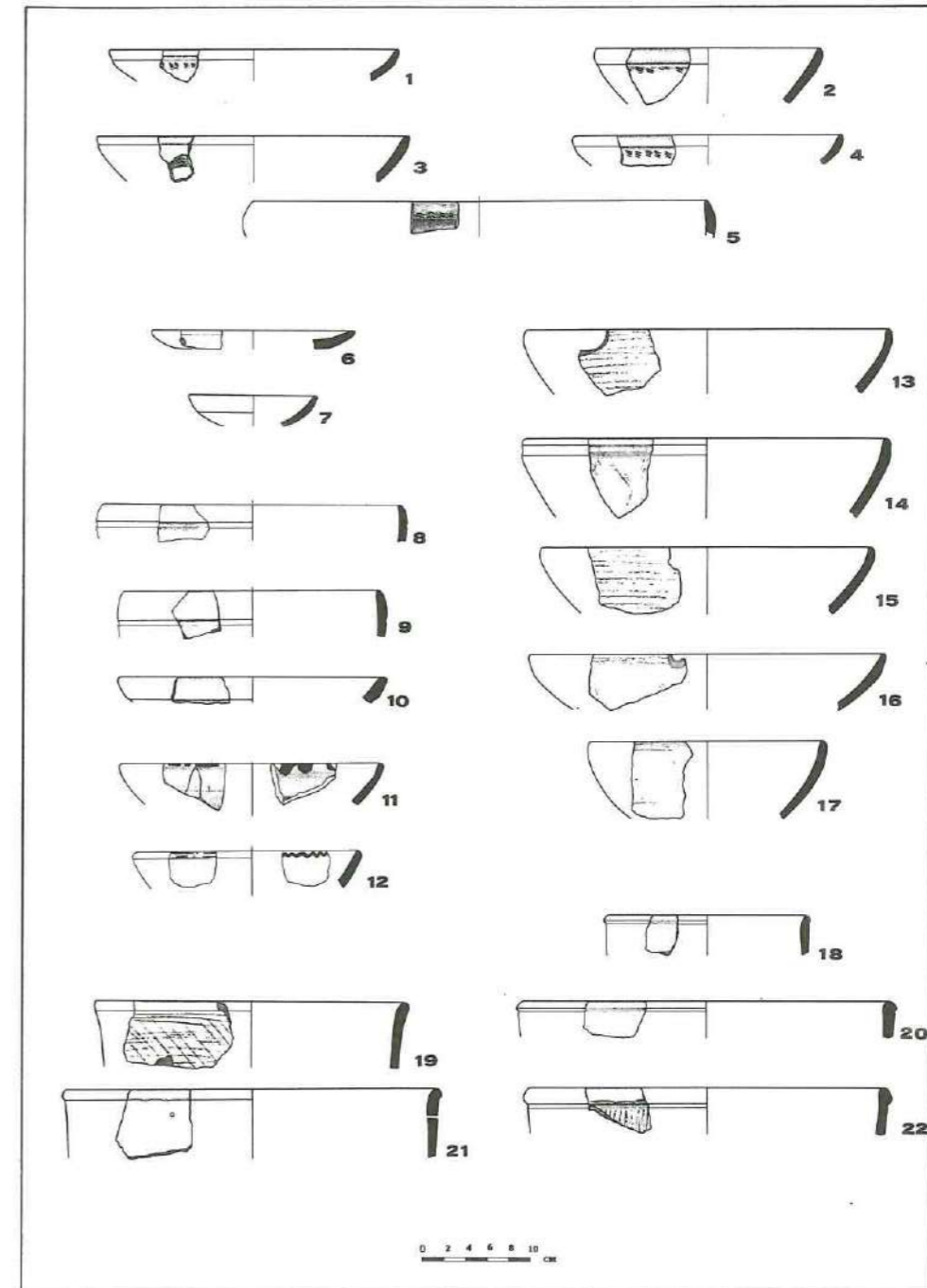


Fig. 16

Madīnat al-Ahḡur pottery. Type 12: nos. 1-17; type 13: nos. 18-22.

- 1) Jar (Y.84.MA.II/165). Paste: grey; dark grey core; medium texture; medium to low firing. Temper: straw; low frequency of black and white grit of small size. Surface: traces of burnishing. Wheelmade.
- 2) Jar (Y.84.MA.I/250). Paste: brownish; grey core; medium texture; medium firing. Temper: straw; medium frequency of grey grit of medium/small size. Surface: brownish burnished slip. Wheelmade.
- 3) Jar (Y.84.MA.III/119). Paste: beige/pinkish; grey core; medium texture; medium to low firing. Temper: straw; medium frequency of grey grit of medium size. Surface: burnishing on the plain surface. Wheelmade.
- 4) Bowl (Y.84.MA.I/172). Paste: beige/pinkish; light grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of small size. Surface: plain on outside, brown burnished slip on inside. Handmade.
- 5) Bowl (Y.84.MA.I/252). Paste: beige/pinkish; grey core; medium texture; medium to low firing. Temper: straw. Surface: burnishing on inside, plain on outside. Wheelmade.
- 6) Bowl (Y.84.MA.I/173). Paste: orange; light grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of small size. Surface: pinkish wash. Wheelmade.
- 7) Bowl (Y.84.MA.I/260). Paste: beige; grey core; medium texture; medium to low firing. Temper: straw. Surface: plain on inside, reddish slip on outside. Wheelmade.
- 8) Bowl (Y.84.MA.I/249). Paste: beige/greyish; grey core; medium texture; medium to low firing. Temper: straw. Surface: plain. Handmade.
- 9) Bowl (Y.84.MA.I/274). Paste: beige/pinkish; grey core; medium texture; medium to low firing. Temper: straw; medium frequency of grey grit of small size. Surface: burnishing on the plain surface on outside, brownish burnished slip on inside. Handmade.
- 10) Bowl (Y.84.MA.I/169). Paste: light orange; grey core; medium texture; medium firing. Temper: low frequency of grey grit of small size. Surface: burnishing on the plain surface on outside, red burnished slip on inside. Wheelmade.
- 11) Bowl (Y.84.MA.I/264). Paste: beige/pinkish; grey core; medium texture; medium to low firing. Temper: straw. Surface: burnishing on the plain surface on outside, red burnished slip on inside. Wheelmade.
- 12) Bowl (Y.84.MA.III/14). Paste: brown; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip on inside, plain on outside. Wheelmade.
- 13) Bowl (Y.84.MA.I/246). Paste: light brown/pinkish; dark grey core; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip on inside, plain on outside. Wheelmade.
- 14) Bowl (Y.84.MA.I/257). Paste: brownish; grey core; medium texture; medium firing. Temper: straw; medium frequency of white grit of small size. Surface: reddish burnished slip on inside; brownish burnished slip on outside. Wheelmade.
- 15) Bowl (Y.84.MA.III/28). Paste: beige; light grey core; medium texture; medium firing. Temper: low frequency of grey grit of medium size. Surface: burnishing on the plain surface. Wheelmade.

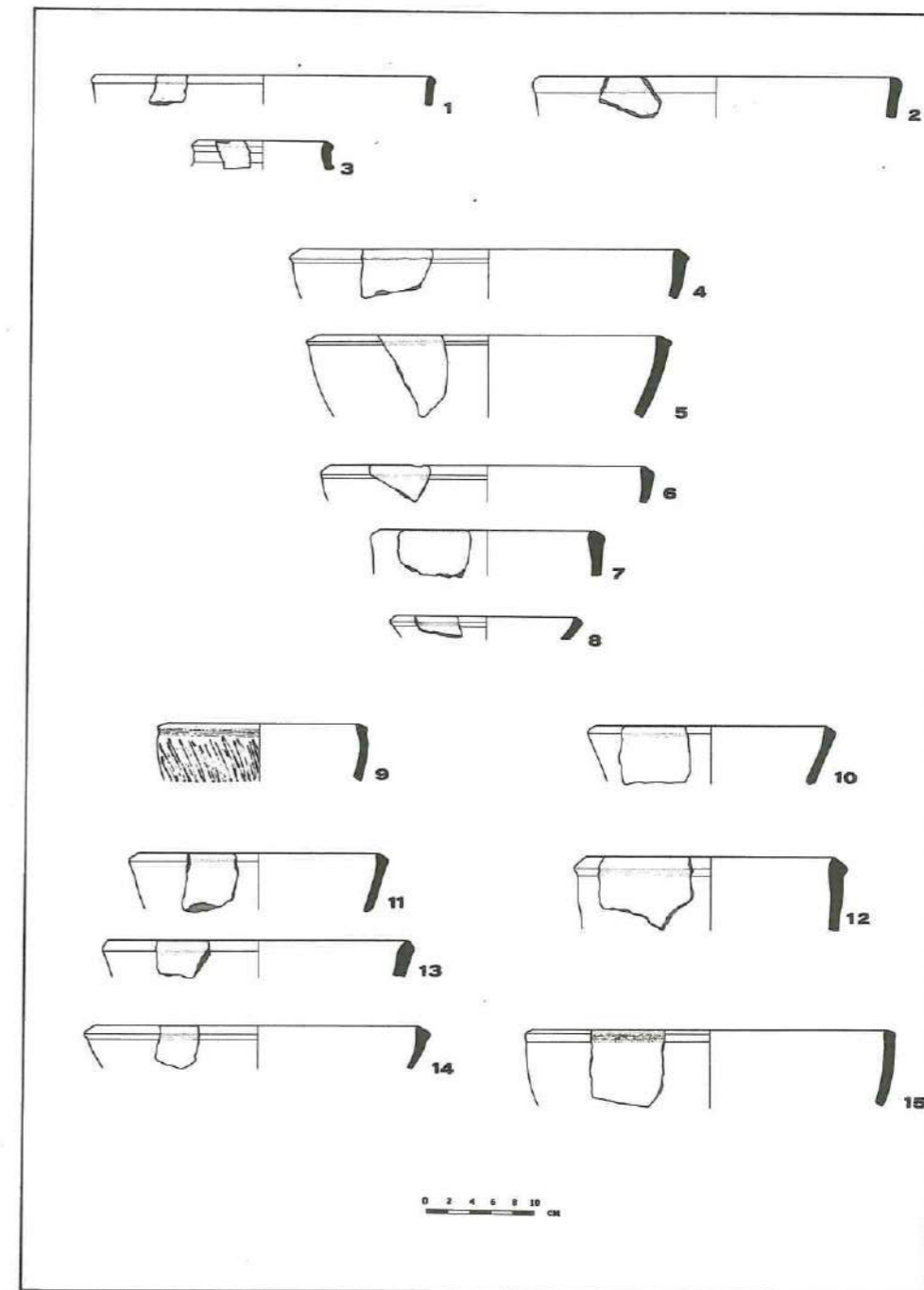


Fig. 17

Madīnat al-Aḡur pottery. Type 13: nos. 1-3; type 14: nos. 4-15.

- 1) Bowl (Y.84.MA.I/170). Paste: light brown/reddish; greyish core; medium texture; medium firing. Temper: medium frequency of grey grit of medium size. Surface: plain on inside, heavy brownish burnished slip on outside; incised decoration. Handmade.
- 2) Bowl (Y.84.MA.I/171). Paste: light brown; greyish core; medium texture; medium firing. Temper: high frequency of black grit of medium/large size. Surface: reddish burnished slip; incised decoration. Handmade.
- 3) Bowl (Y.84.MA.II/31). Paste: deep orange; greyish core; medium texture; medium firing. Temper: high frequency of black grit of medium size. Surface: reddish burnished slip. Wheelmade.
- 4) Bowl (Y.84.MA.I/162). Paste: orange/pinkish; black core; medium texture; medium to low firing. Temper: straw. Surface: reddish burnished slip. Wheelmade.
- 5) Bowl (Y.84.MA.I/224). Paste: orange/pinkish; greyish core; medium texture; medium firing. Temper: straw. Surface: reddish burnished slip. Wheelmade.
- 6) Bowl (Y.84.MA.I/256). Paste: light brown; greyish core; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip on inside, traces of burnishing on the plain surface. Wheelmade.
- 7) Bowl (Y.84.MA.III/82). Paste: beige/pinkish; purplish core; medium texture; medium to high firing. Temper: straw. Surface: plain on outside, traces of red burnished slip on inside. Wheelmade.
- 8) Bowl (Y.84.MA.II/29). Paste: beige; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip on inside, reddish wash on outside; incised decoration. Wheelmade.
- 9) Bowl (Y.84.MA.II/118). Paste: light orange; dark grey core; medium texture; medium to low firing. Temper: medium frequency of grey grit of medium size. Surface: plain on outside, red burnished slip on inside. Wheelmade.
- 10) Bowl (Y.84.MA.I/276). Paste: beige; grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of large size. Surface: pinkish wash on outside, purplish burnished slip on inside. Wheelmade.
- 11) Bowl (Y.84.MA.III/115). Paste: orange/pinkish; dark grey core; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip on inside, plain on outside. Wheelmade.
- 12) Bowl (Y.84.MA.II/112). Paste: deep orange; reddish core; medium texture; medium firing. Temper: straw. Surface: traces of red burnished slip on inside, plain on outside. Wheelmade.
- 13) Bowl (Y.84.MA.III/112). Paste: beige/pinkish, light grey core; medium texture; medium firing. Temper: straw. Surface: traces of red burnished slip on inside, beige wash on outside. Wheelmade.

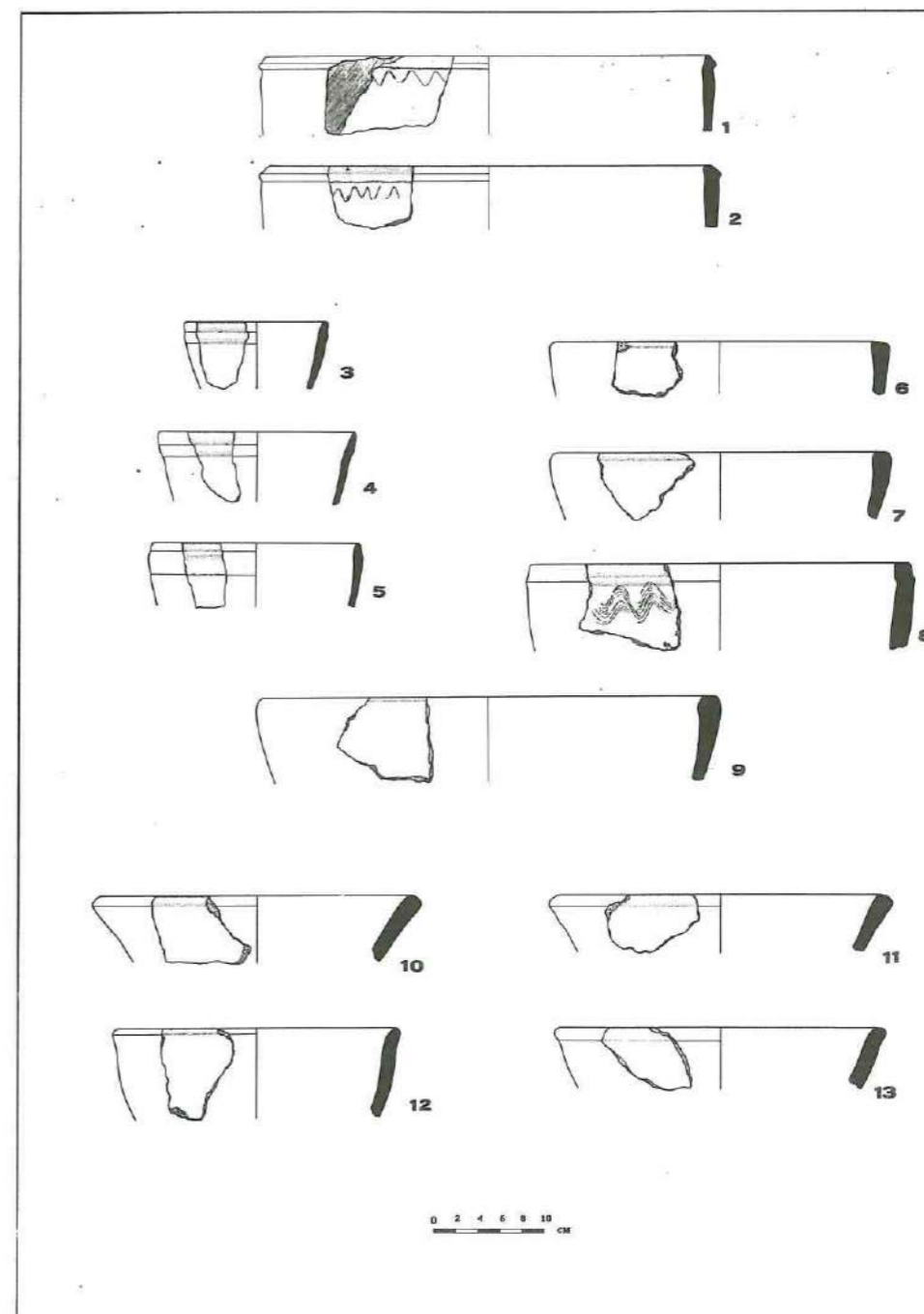


Fig. 18

Madīnat al-Aḡur pottery. Type 14: nos. 1-2; type 15: nos. 3-5; type 16: nos. 6-13.

- 1) Bowl (Y.84.MA.III/47). Paste: beige/orange; dark grey core; loose texture; medium to low firing. Temper: straw; medium/low frequency of grey grit of medium size. Surface: red wash on outside, reddish burnished slip on inside. Wheelmade.
- 2) Bowl (Y.84.MA.III/132). Paste: orange; grey/pinkish core; loose texture; medium firing. Temper: straw. Surface: reddish burnished slip on inside, unburnished on outside. Handmade.
- 3) Bowl (Y.84.MA.II/110). Paste: beige/greyish; greyish core; loose texture; medium to low firing. Temper: straw. Surface: plain on inside, wash on outside. Wheelmade.
- 4) Bowl (Y.84.MA.II/59). Paste: beige/orange; dark grey core; loose texture; medium to low firing. Temper: low frequency of grey grit of small size. Surface: plain on outside, reddish wash on inside. Handmade.
- 5) Bowl (Y.84.MA.II/64). Paste: beige/pinkish; light grey core; medium texture; medium to low firing. Temper: straw. Surface: reddish burnished slip. Handmade.
- 6) Bowl (Y.84.MA.III/106). Paste: beige/orange; dark grey core; loose texture; medium to low firing. Temper: straw; low frequency of grey grit of small size. Surface: red wash on outside, traces of red burnished slip on inside. Wheelmade.
- 7) Bowl (Y.84.MA.III/108). Paste: beige/pinkish; light grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 8) Bowl (Y.84.MA.III/114). Paste: beige/pinkish; grey core; loose texture; medium firing. Temper: medium frequency of black and white grit of medium/small size. Surface: plain. Handmade.
- 9) Bowl (Y.84.MA.III/24). Paste: greyish; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip on inside, brown burnished slip on outside. Wheelmade.
- 10) Bowl (Y.84.MA.I/23). Paste: beige; dark grey core; medium texture; medium to low firing. Temper: high frequency of grey grit of large size. Surface: red burnished slip on inside, unburnished on outside. Wheelmade.
- 11) Bowl (Y.84.MA.II/13). Paste: deep orange; dark grey core; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip on inside, unburnished on outside. Wheelmade.
- 12) Bowl (Y.84.MA.I/22). Paste: beige; greyish core; loose texture; medium to low firing. Temper: straw; high frequency of grey grit of large size. Surface: plain on outside, red burnished slip on inside. Wheelmade.
- 13) Bowl (Y.84.MA.III/23). Paste: beige/orange; greyish core; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 14) Bowl (Y.84.MA.I/19). Paste: beige/orange; dark grey core; loose texture; medium to low firing. Temper: straw. Surface: red burnished slip. Wheelmade.

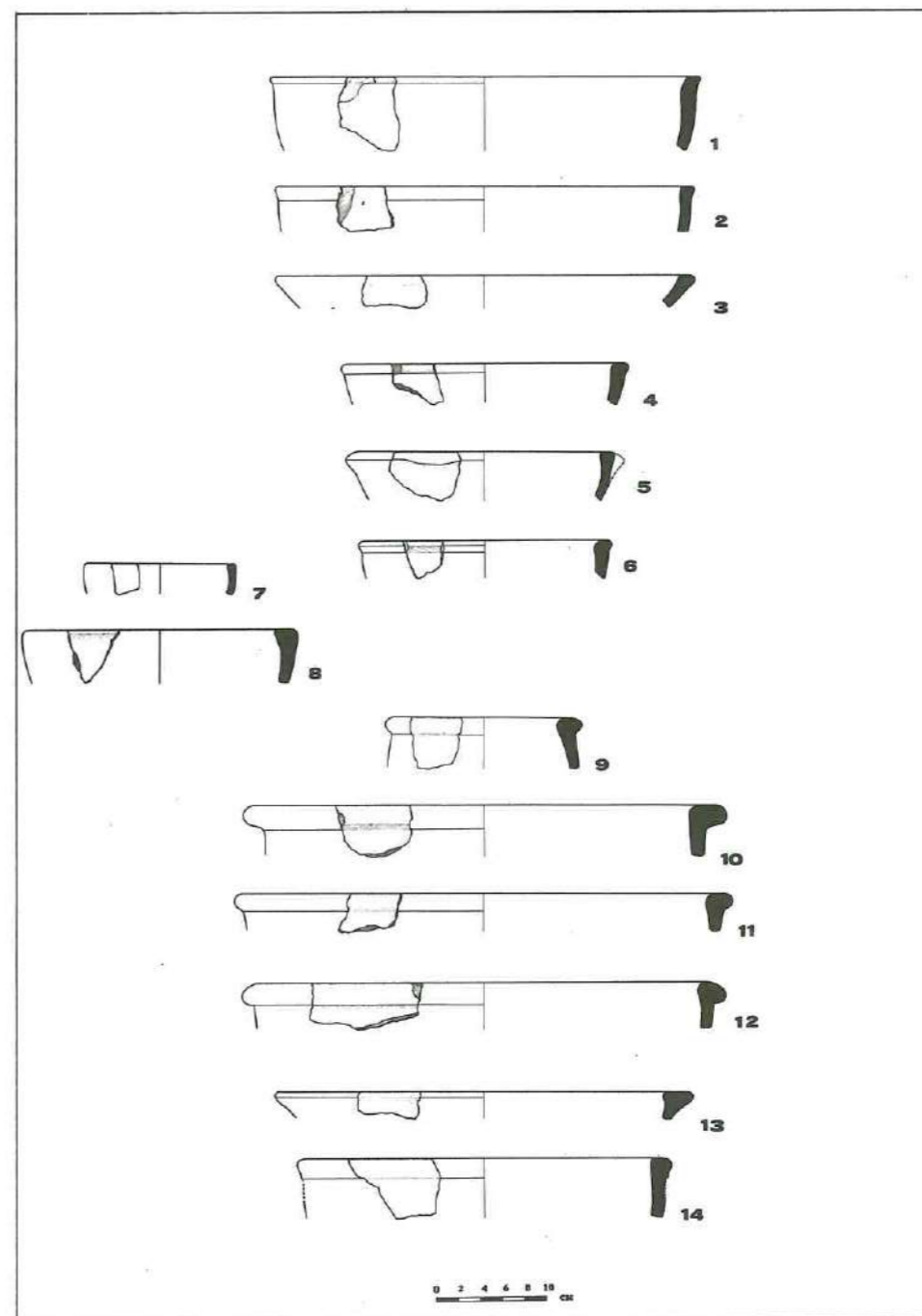


Fig. 19

Madīnat al-Ahḡur pottery. Type 17: nos. 1-6; type 18: nos. 7-8; type 19: nos. 9-14.

- 1) Handle (Y.84.MA.I/321). Paste: grey/pinkish; greyish core; medium texture; medium to low firing. Temper: straw; high frequency of grey grit of medium size. Surface: plain. Handmade.
- 2) Handle (Y.84.MA.I/319). Paste: brown/reddish; grey core; medium texture; medium to low firing. Temper: high frequency of grey grit of medium size. Surface: plain. Handmade.
- 3) Handle (Y.84.MA.I/322). Paste: beige/orange; light grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of small size. Surface: beige/pinkish wash. Handmade.
- 4) Handle (Y.84.MA.I/147). Paste: light brown; grey core; medium to close texture; medium to high firing. Temper: straw. Surface: plain. Handmade.
- 5) Handle (Y.84.MA.I/317). Paste: light brown; grey core; medium texture; medium to low firing. Temper: high frequency of black and white grit of medium size. Surface: plain. Handmade.
- 6) Handle (Y.84.MA.II/169). Paste: brown/reddish; grey core; medium texture; medium firing. Temper: high frequency of black and white grit of medium size. Surface: plain. Handmade.
- 7) Lid (Y.84.MA.I/240). Paste: orange; grey core; medium texture; medium to low firing. Temper: straw. Surface: buff burnished slip; incised decoration. Handmade.
- 8) Lid (Y.84.MA.I/245). Paste: buff; grey core; medium texture; medium to low firing. Temper: straw; medium frequency of black and white grit of medium size. Surface: red burnished slip on outside; brownish burnished slip on inside. Handmade.
- 9) Lid (Y.84.MA.IV/24). Paste: beige/pinkish; reddish core; medium texture; high firing. Temper: straw. Surface: red burnished slip. Handmade.
- 10) Lid (Y.81.MA/14). Paste: beige/orange; dark grey core; medium texture; medium to low firing. Temper: straw; medium frequency of black grit of small size. Surface: light brown wash. Handmade.
- 11) Base (Y.84.MA.I/377). Paste: beige/pinkish; light grey core; medium to close texture; medium firing. Temper: straw. Surface: plain on outside, red burnished slip on inside. Wheelmade.
- 12) Base (Y.84.MA.I/365). Paste: grey/pinkish; medium texture; medium to low firing. Temper: straw. Surface: red burnished slip. Handmade.
- 13) Base (Y.84.MA.III/205). Paste: brown/greyish; grey core; medium texture; medium firing. Temper: straw. Surface: plain. Handmade.
- 14) Base (Y.84.MA.I/340). Paste: grey/reddish; dark grey core; medium texture; medium to low firing. Temper: straw; medium frequency of white grit of small size. Surface: red slip. Handmade.
- 15) Base (Y.84.MA.I/360). Paste: beige/pinkish; brown/greyish core; medium texture; medium to low firing. Temper: straw; micaceous. Surface: reddish wash. Wheelmade.
- 16) Base (Y.84.MA.II/123). Paste: beige/pinkish; grey/pinkish core; medium texture; medium firing. Temper: straw. Surface: plain on outside, heavy brownish slip on inside. Wheelmade.
- 17) Base (Y.84.MA.II/127). Paste: brown/greyish; dark grey core; loose texture; low firing. Temper: high frequency of black grit of medium/large size. Surface: plain. Handmade.
- 18) Base (Y.84.MA.III/206). Paste: beige; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip. Wheelmade.

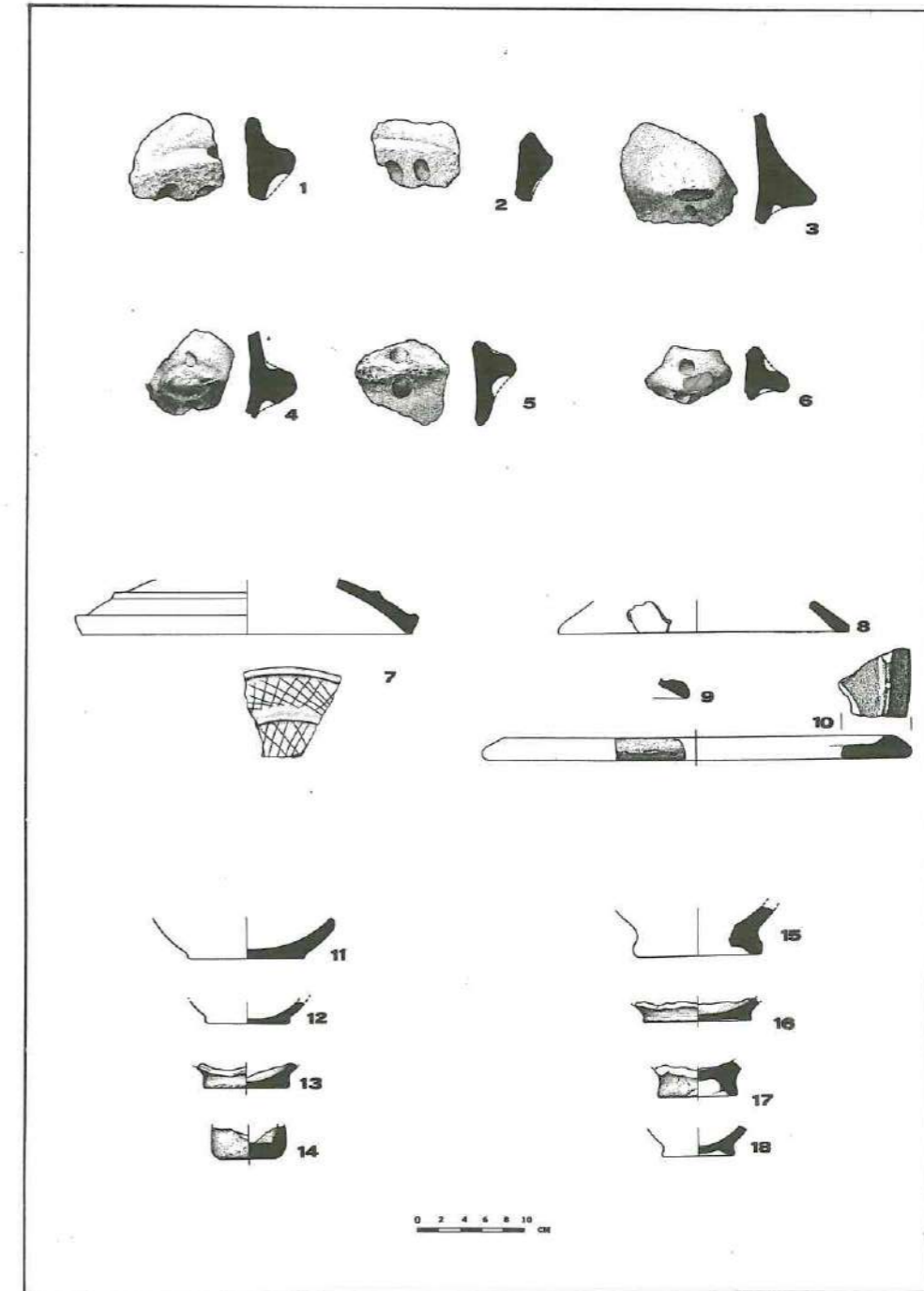


Fig. 20

Madīnat al-Aḥḡur pottery. Handles: nos. 1-6; lids: nos. 7-10; bases: nos. 11-18.

- 1) Base (Y.81.MA/21). Paste: orange; reddish core; medium texture; medium to high firing. Temper: straw. Surface: red burnished slip. Handmade.
- 2) Base (Y.84.MA.II/137). Paste: beige; grey/pinkish core; medium texture; medium firing. Temper: straw; high frequency of grey grit of medium/small size. Surface: traces of light beige/pinkish slip, burnished on inside. Wheelmade.
- 3) Base (Y.84.MA.I/387). Paste: beige/pinkish; grey core; loose texture; medium firing. Temper: straw. Surface: yellowish wash on outside, plain on inside; incised decoration. Handmade.
- 4) Base (Y.84.MA.I/362). Paste: brown; grey core; medium texture; medium to low firing. Temper: straw. Surface: brown burnished slip. Wheelmade.
- 5) Base (Y.84.MA.II/124). Paste: beige; dark grey core; medium texture; medium to low firing. Temper: straw. Surface: plain on inside, heavy red burnished slip on outside. Handmade.
- 6) Base (Y.84.MA.I/364). Paste: orange/pinkish; reddish core; medium texture; medium to high firing. Temper: straw. Surface: red burnished slip on outside, purplish burnished slip on inside. Wheelmade.
- 7) Base (Y.84.MA.I/375). Paste: beige; grey core; medium texture; medium firing. Temper: straw. Surface: red burnished slip. Wheelmade.
- 8) Base (Y.84.MA.I/390). Paste: beige; beige/pinkish core; medium texture; medium firing. Temper: high frequency of white grit of small size. Surface: light yellow/pinkish slip; red/purplish painted decoration. Wheelmade.
- 9) Base (Y.84.MA.III/196). Paste: orange/reddish; orange/reddish core; medium texture; medium firing. Temper: high frequency of white grit of small size. Surface: wash; painted decoration. Wheelmade.
- 10) Base (Y.84.MA.I/382). Paste: beige/pinkish; beige/reddish core; loose texture; medium to high firing. Surface: plain; purplish painted decoration. Wheelmade.
- 11) Base (Y.84.MA.I/372). Paste: orange/reddish; dark grey core; loose texture; medium to low firing. Temper: straw; low frequency of grey grit of large size. Surface: plain. Handmade.
- 12) Base (Y.84.MA.II/33). Paste: beige/pinkish on outside, black on inside; grey core; loose texture; medium to low firing. Temper: straw; low frequency of white grit of medium/small size. Surface: plain. Handmade.
- 13) Vase fragment (Y.84.MA.I/334). Paste: light brown; greyish core; medium texture; medium to low firing. Temper: straw; medium frequency of black grit of small size. Surface: crossed burnishing on the plain surface. Handmade.
- 14) Vase fragment (Y.84.MA.I/338). Paste: brownish; light grey core; medium texture; medium firing. Temper: straw. Surface: red burnished (cross lines) on outside, plain on inside. Handmade.
- 15) Vase fragment (Y.84.MA.I/343). Paste: brownish; greyish core; medium to close texture; medium firing. Temper: low frequency of white grit of medium size. Surface: criss-cross burnished lines on the plain surface. Handmade.
- 16) Vase fragment (Y.84.MA.II/141). Paste: brownish; grey core; medium texture; medium to low firing. Temper: low frequency of black grit of small size. Surface: criss-cross burnishing on the brownish burnished slip; incised decoration. Handmade.
- 17) Vase fragment (Y.84.MA.III/202). Paste: brownish; light grey core; medium to close texture; medium firing. Temper: low frequency of black grit of small size. Surface: brownish burnished slip; incised decoration. Handmade.
- 18) Vase fragment (Y.84.MA.III/221). Paste: light brown; grey core; medium texture; medium to low firing. Temper: straw. Surface: brownish burnished slip; incised decoration. Handmade.

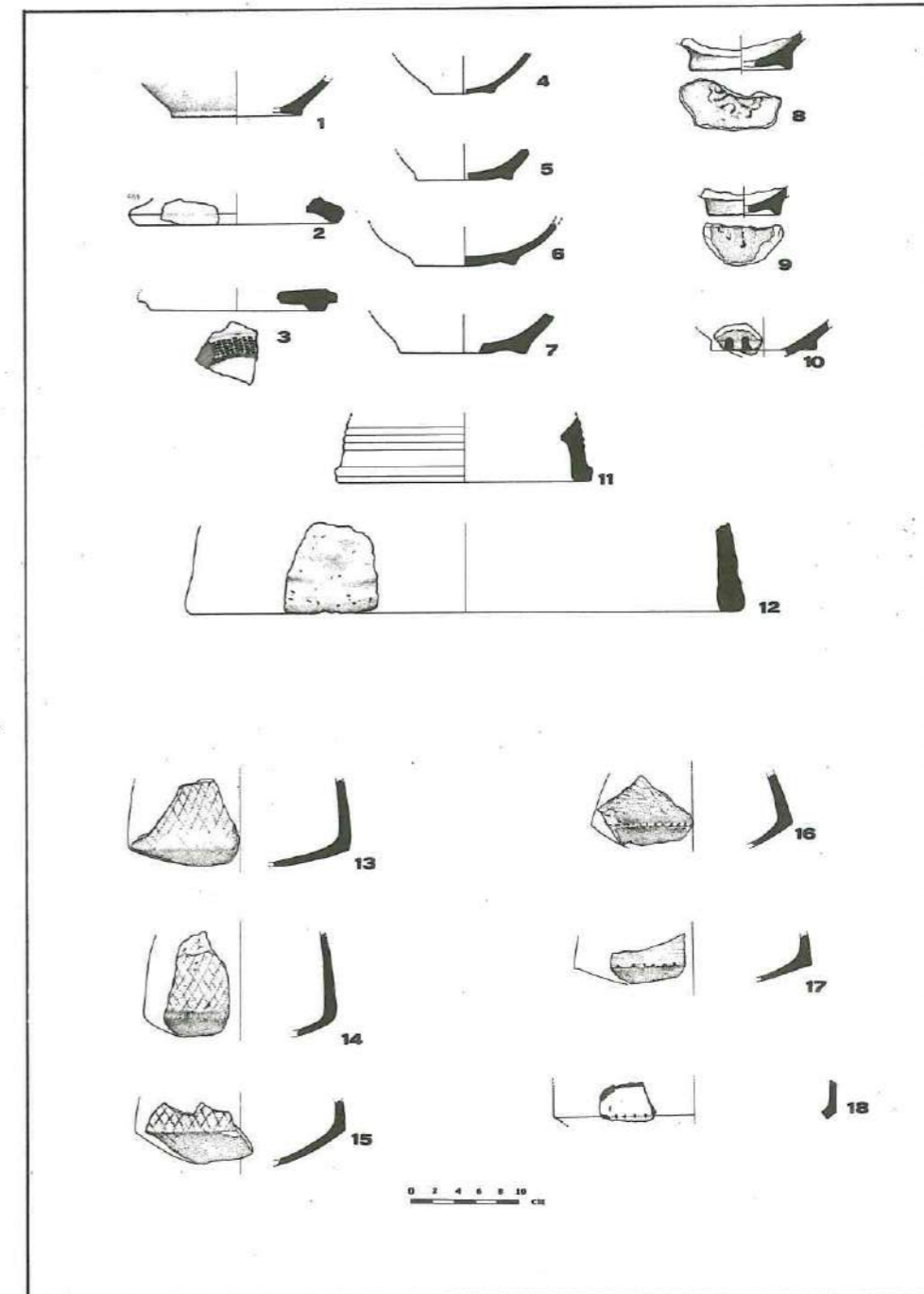


Fig. 21

Madīnat al-Aḡur pottery. Bases: nos. 1-12; carinated walls: nos. 13-18.

- 1) Vase fragment (Y.84.MA.I/332). Paste: grey/pinkish; medium texture; medium firing. Temper: straw; high frequency of white grit of medium size. Surface: plain; incised decoration. Handmade.
- 2) Vase fragment (Y.84.MA.I/336). Paste: reddish; grey/pinkish core; medium texture; medium to high firing. Temper: high frequency of white grit of small size. Surface: red slip; incised decoration. Handmade.
- 3) Vase fragment (Y.84.MA.I/135). Paste: beige/orange; light grey core; medium texture; medium firing. Temper: straw; low frequency of grey grit of small size. Surface: heavy red burnished slip; incised decoration. Handmade.
- 4) Vase fragment (Y.84.MA.I/330). Paste: reddish on outside, beige/greyish on inside; grey core; loose texture; medium to low firing. Temper: straw. Surface: plain. Handmade.
- 5) Vase fragment (Y.84.MA.I/314). Paste: beige/orange; grey core; loose texture; medium to low firing. Temper: straw. Surface: plain. Handmade.
- 6) Vase fragment (Y.84.MA.III/281). Paste: orange; reddish core; medium texture; medium to high firing. Temper: straw; medium frequency of black and white grit of medium size. Surface: plain; ridges decoration. Handmade.
- 7) Vase fragment (Y.84.MA.III/282). Paste: beige/reddish; grey core; medium texture; medium to low firing. Temper: straw. Surface: plain; applied decoration. Handmade.
- 8) Vase fragment (Y.84.MA.III/192). Paste: beige/orange; grey core; medium texture; medium firing. Temper: straw. Surface: burnishing on the plain surface; applied decoration. Handmade.
- 9) Incense-burner (?) (Y.84.MA.I/315). Paste: reddish; grey core; medium texture; medium firing. Temper: straw; medium frequency of black grit of small size. Surface: plain; applied decoration. Handmade.
- 10) Vase fragment (Y.84.MA.II/149). Paste: beige/pinkish; light grey core; medium texture; medium firing. Temper: straw. Surface: plain; impressed decoration. Handmade.
- 11) Vase fragment (Y.84.MA.I/392). Paste: beige/orange; light grey core; medium texture; medium firing. Temper: straw. Surface: reddish wash; impressed decoration. Handmade.
- 12) Vase fragment (Y.84.MA.II/150). Paste: reddish; grey/pinkish core; medium texture; medium firing. Surface: reddish slip; impressed decoration. Handmade.

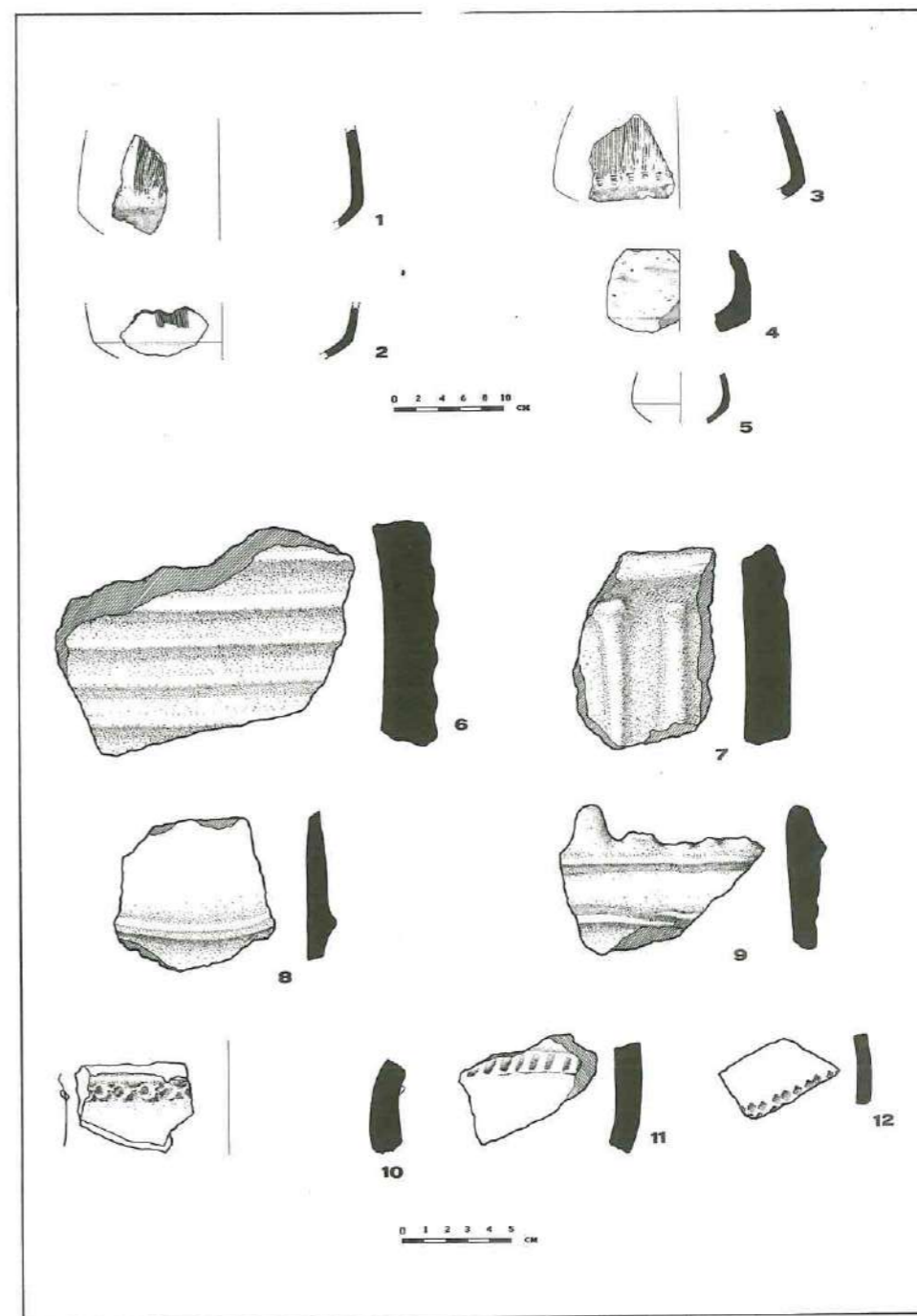


Fig. 22

Madīnat al-Aḡur pottery. Carinated walls: nos. 1-5;
wall fragments with decoration in relief (nos. 7-9) and impressed (nos. 10-12).

- 1) Vase fragment (Y.84.MA.I/405). Paste: beige; grey core; loose texture; medium to low firing. Temper: straw. Surface: traces of red slip on inside, plain on outside; impressed decoration. Handmade.
- 2) Vase fragment (Y.84.MA.III/166). Paste: beige/pinkish; grey/pinkish core; medium texture; medium firing. Temper: straw. Surface: brownish burnished slip; impressed decoration. Handmade.
- 3) Vase fragment (Y.84.MA.III/245). Paste: brown; brown/greyish core; medium texture; medium firing. Temper: low frequency of grey grit of small size. Surface: brownish burnished slip; incised decoration. Handmade.
- 4) Vase fragment (Y.84.MA.I/411). Paste: deep orange; reddish core; medium texture; medium to high firing. Temper: straw. Surface: reddish burnished slip; incised decoration. Handmade.
- 5) Vase fragment (Y.84.MA.I/412). Paste: light orange; greyish core; medium texture; medium to low firing. Temper: straw; low frequency of black grit of medium size. Surface: reddish burnished slip; incised decoration. Handmade.
- 6) Vase fragment (Y.84.MA.I/407). Paste: beige/orange; reddish core; medium texture; medium to high firing. Temper: straw. Surface: traces of red slip; impressed decoration. Handmade.
- 7) Vase fragment (Y.84.MA.I/308). Paste: light brown; light grey core; medium texture; medium firing. Temper: straw. Surface: light brown burnished slip; incised decoration. Handmade.
- 8) Vase fragment (Y.84.MA.I/309). Paste: orange; grey core; loose texture; medium to low firing. Temper: straw; low frequency of grey grit of large size. Surface: reddish wash; incised decoration. Handmade.
- 9) Vase fragment (Y.84.MA.I/410). Paste: grey/reddish; grey core; medium texture; medium to low firing. Temper: straw. Surface: plain; incised decoration. Handmade.
- 10) Vase fragment (Y.84.MA.I/402). Paste: beige/pinkish; greyish core; loose texture; medium to low firing. Temper: straw; low frequency of black grit of small size. Surface: plain; incised decoration. Handmade.
- 11) Vase fragment (Y.84.MA.I/404). Paste: beige/pinkish; grey core; medium texture; medium to low firing. Surface: plain; incised decoration. Handmade.
- 12) Vase fragment (Y.84.MA.III/173). Paste: light brown; grey core; medium to close texture; medium firing. Temper: straw. Surface: plain on inside, pinkish wash on outside; incised decoration. Handmade.
- 13) Vase fragment (Y.84.MA.I/408). Paste: reddish; grey core; medium texture; medium firing. Temper: straw. Surface: traces of red burnished slip; incised decoration. Handmade.
- 14) Vase fragment (Y.84.MA.I/311). Paste: orange/reddish; grey core; loose texture; medium to low firing. Temper: straw; low frequency of black grit of small size. Surface: plain; incised decoration. Handmade.
- 15) Vase fragment (Y.84.MA.II/151). Paste: beige/reddish; grey core; medium texture; medium firing. Temper: high frequency of white grit of medium size. Surface: plain; incised decoration. Handmade.

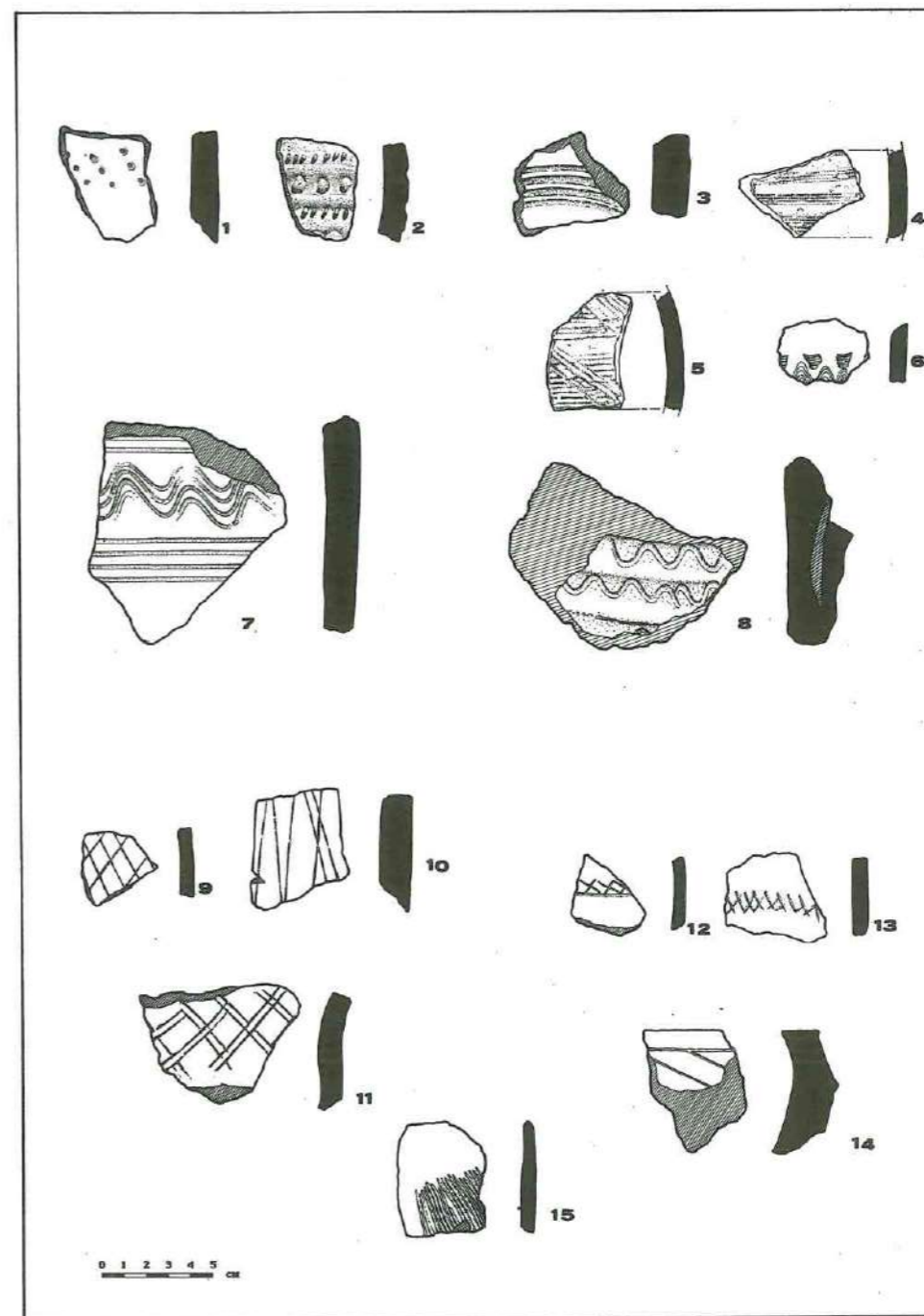


Fig. 23
Madīnat al-Aḥḡur pottery.
Wall fragments with impressed (nos. 1-2) and incised (nos. 7-14) decoration

- 1) Vase fragment (Y.84.MA.I/463). Paste: reddish; grey core; medium texture; medium firing. Temper: straw; low frequency of white grit of medium size. Surface: reddish slip; incised decoration. Handmade.
- 2) Bowl (Y.84.MA.I/132). Paste: light brown; greyish core; medium texture; medium firing. Temper: straw. Surface: burnishing. Wheelmade.
- 3) Jar (Y.81.MA./1). Paste: beige/pinkish; greyish core; medium texture; medium firing. Temper: straw. Surface: burnishing on the plain surface; incised decoration. Handmade.
- 4) Vase fragment (Y.84.MA.I/435). Paste: beige/orange; grey core; medium texture; medium firing. Temper: straw; medium frequency of black grit of small size. Surface: burnishing on inside; applied and impressed decoration. Handmade.
- 5) Vase fragment (Y.84.MA.III/184). Paste: beige/grey; grey core; medium texture; medium to low firing. Temper: straw. Surface: plain on inside, reddish burnished slip on outside; applied and impressed decoration. Handmade.
- 6) Vase fragment (Y.84.MA.II/178). Paste: beige/orange; grey core; loose texture; medium to low firing. Temper: straw. Surface: traces of burnishing; applied and impressed decoration. Handmade.
- 7) Vase fragment (Y.84.MA.III/181). Paste: beige/pinkish; grey core; medium to close texture; medium firing. Temper: straw. Surface: plain; incised, applied and impressed decoration. Handmade.
- 8) Vase fragment (Y.84.MA.III/183). Paste: grey; grey core; loose texture; medium to low firing. Temper: high frequency of white grit of small size. Surface: plain; incised, applied and impressed decoration. Handmade.
- 9) Vase fragment (Y.84.MA.III/192). Paste: beige/orange; grey core; medium texture; medium to low firing. Temper: straw. Surface: plain; applied and painted decoration. Handmade.
- 10) Vase fragment (Y.84.MA.I/393). Paste: beige/orange; grey core; medium texture; medium to low firing. Temper: straw; medium frequency of black and white grit of small size. Surface: plain; incised and impressed decoration. Handmade.
- 11) Bowl (Y.84.MA.III/271). Paste: light brown; greyish core; medium to close texture; medium firing. Temper: straw; low frequency of black grit of small size. Surface: burnished decoration. Wheelmade.

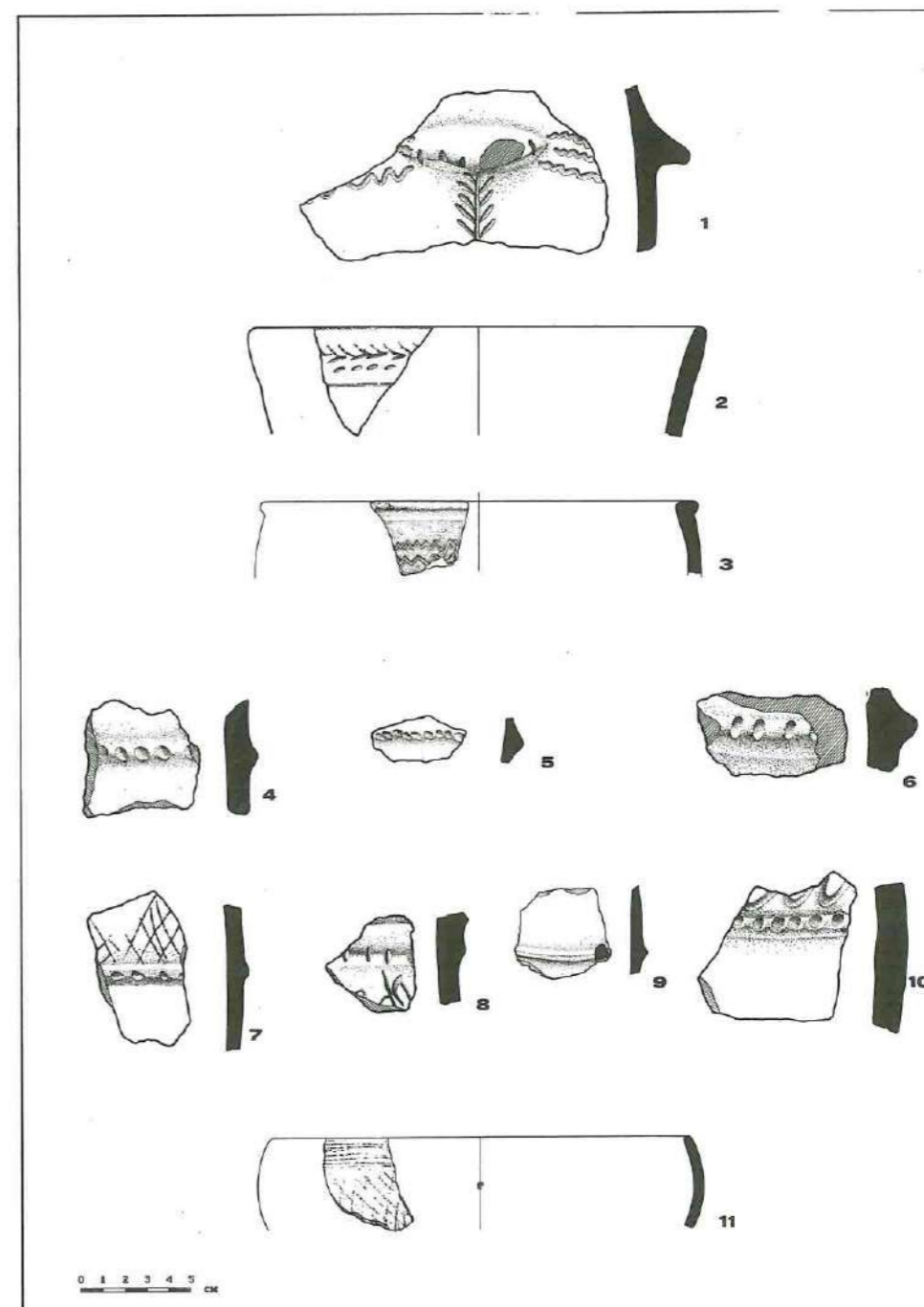


Fig. 24

Madīnat al-Aḡur pottery.

Incised decoration (nos. 1-3); applied-impressed (nos. 4-6);
 applied-impressed-incised (nos. 7-8); applied-painted (no. 9; impressed-incised (no. 10);
 decoration burnished in vertical crossing lines (no. 11)

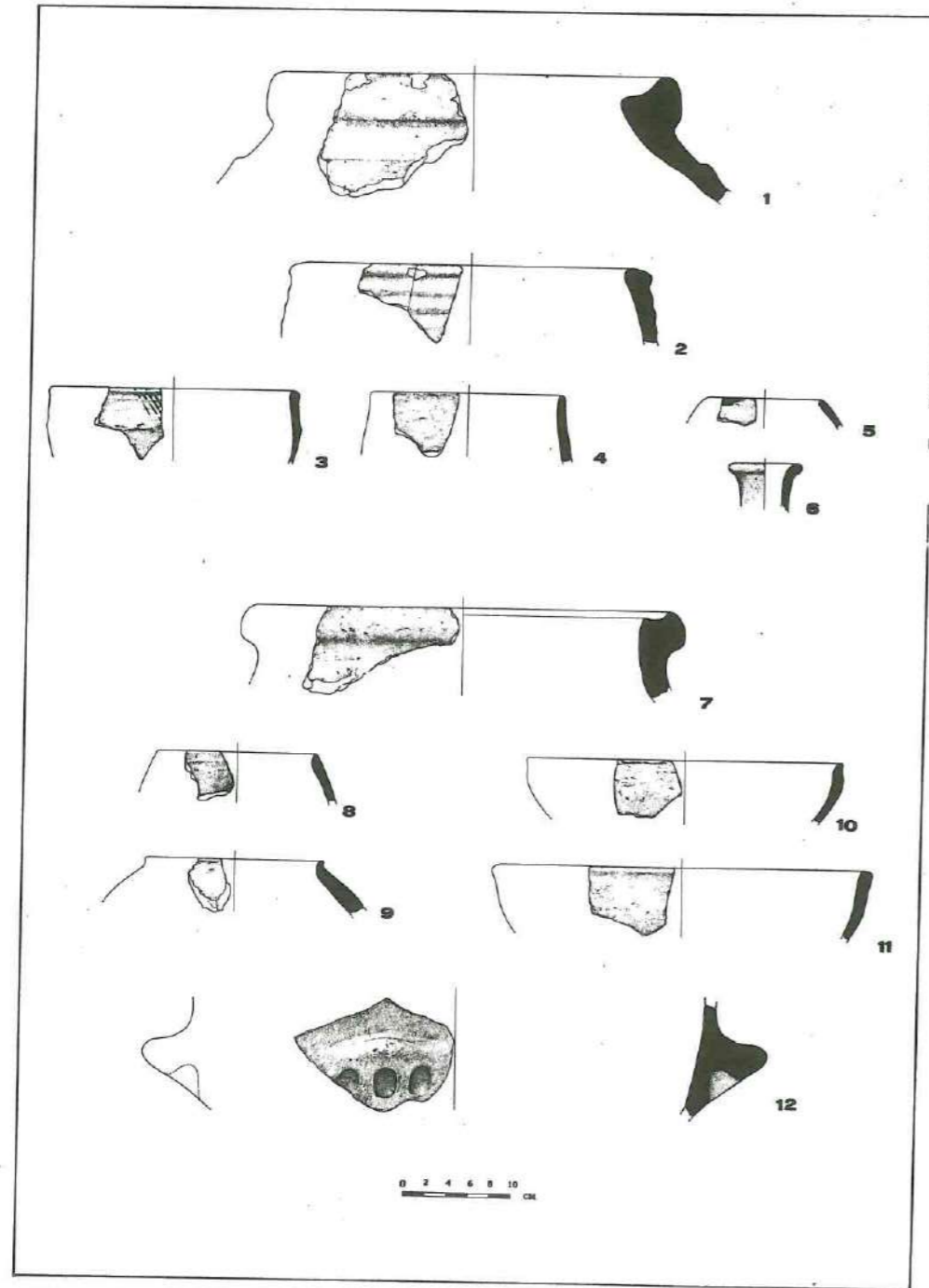


Fig. 25

Nos. 1-6: Baynūn pottery (Y.81.BA/10,3,7,6,5,4);
Shibām Ghirās pottery (Y.83.SG/3, Y.80.SG/10,4,6,5,1).

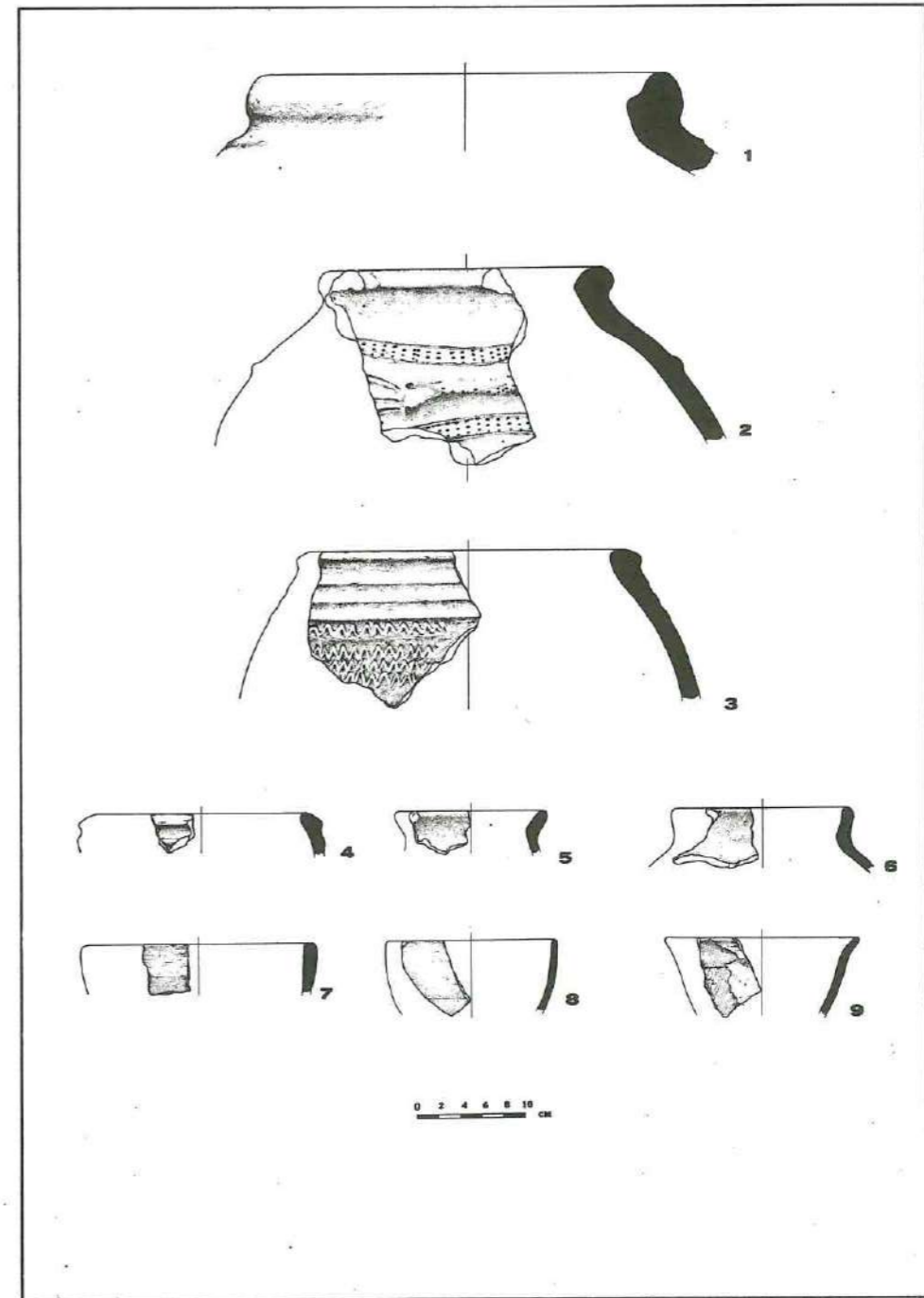


Fig. 26

Al-Ḥuṭmah pottery (Y.81.HAT/11,12,14,8,6,5,7,4,1).

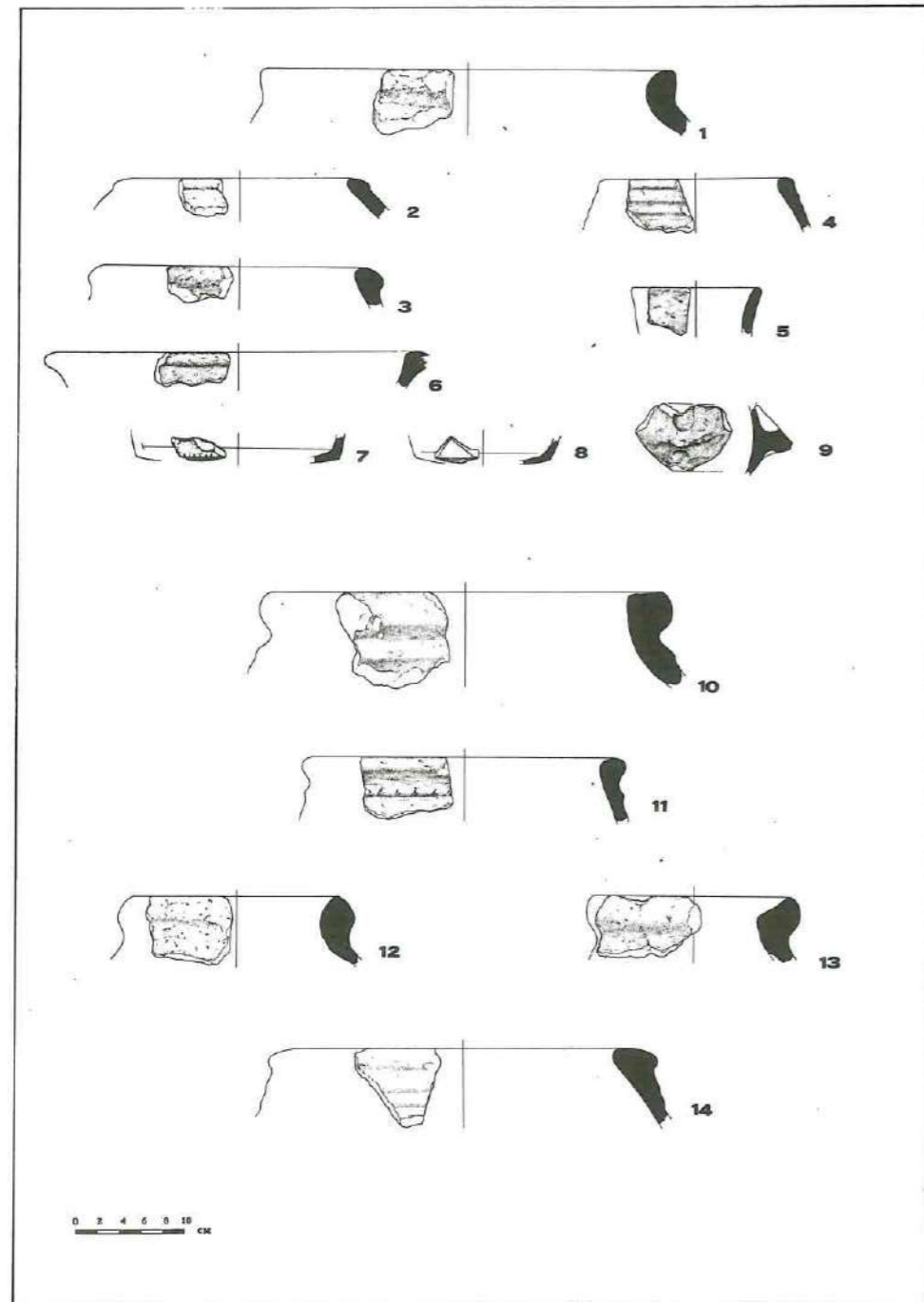


Fig. 27

Nos. 1-9: pottery fragments from Harabat Qā' Swayd (Y.86.KQS/11,10,23,12,29,33,46,44,40);
nos. 10-14: pottery from Harabat al-Ahḡār (Y.85.KAHii/1,18,2,7bis,10).

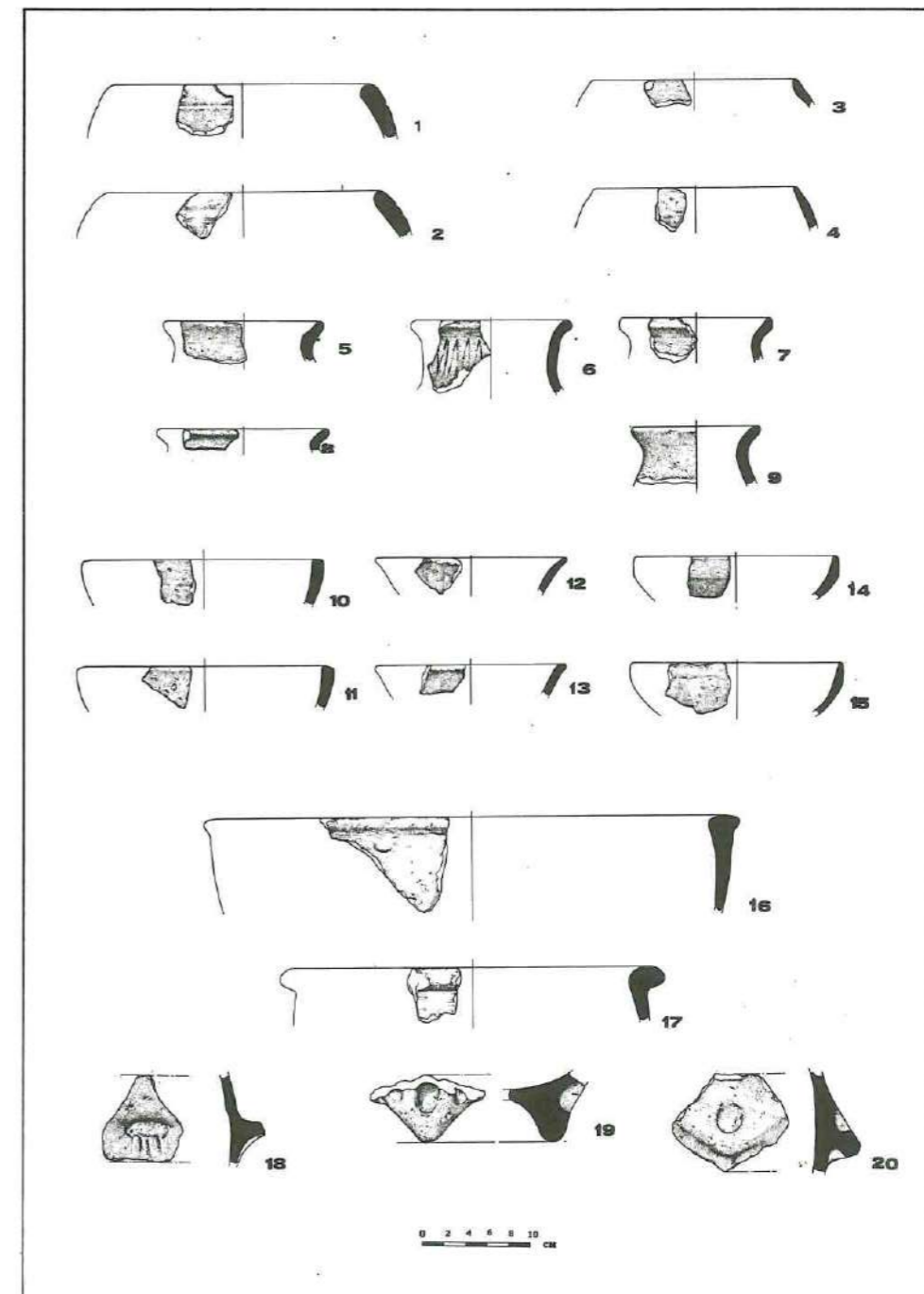


Fig. 28

Pottery from Harabat al-Ahḡār
(Y.85.KAHii/26-27,44,43,63,86,70,64,68,97-98,90-91,105-106,117,122,160,162,158).

NOTIZIE PRELIMINARI SULLE CRETULE DEL PALAZZO DI NATAKAMANI

Irene VINCENTELLI - Università della Calabria

TAVOLE XX-XXVII

Dal 1979 la missione archeologica dell'Università di Roma, diretta dal Prof. Sergio Donadoni, sta lavorando al Gebel Barkal (Sudan) allo scavo di un grande e complesso edificio di età meroitica che, soprattutto ma non solo, in base ad una epigrafe, qui rinvenuta, viene datato al regno di Natakamani (25 a.C. - 25 d.C.)⁽¹⁾ (Fig. 1).

Durante le campagne 1987 e 1988 nella ripulitura degli ambienti del settore ovest è stata messa in luce una discarica di cretule con impronte di sigillo. Si tratta di un grande ambiente rettangolare di m 6,40x2,40 con pareti intonacate, seppur rozzamente con fango, che scende per circa m 1,10 sotto il livello della pavimentazione circostante, analogamente ad altri ambienti formati dall'intersecarsi delle mura di contenimento del grande terrazzamento su cui il palazzo era costruito.

Un riempimento di pietrisco di arenaria, verosimilmente scarti di lavorazione, dato che alcuni frammenti hanno tracce di sagomatura, colmava il vano. Sulla sommità del riempimento un battuto dello stesso materiale formava il pavimento di una stanza delle stesse dimensioni del sottostante vano, su questo pavimento si è abbattuta, almeno in parte, la parete nord della stanza al momento del crollo del palazzo.

A m 2,10 dalla parete est il riempimento sembra essere stato asportato per far posto ad una serie di colate di argilla molto compatta. Questa parte del vano, compreso il muro di fondo ovest, è stata in seguito sconvolta dallo scavo di una grande fossa fatta verosimilmente alla ricerca di materiale per mattoni, quando il palazzo era stato ormai abbandonato. Questa fossa, mentre ha seriamente danneggiato il muro ovest, ha lasciato pressoché integre le colate di argilla, poco interessanti per i cercatori di fango da costruzione.

Le gettate sigillavano un deposito di cretule in più strati la cui disposizione, digradante verso ovest, sembra indicare che il materiale era stato gettato dal centro della stanza, proprio dove il riempimento di pie-

(1) S. Bosticco, *Les récentes fouilles du complexe 1500 au Gebel Barkal: Meroitica 10*, Berlin 1989, pp. 777-782.



Aerial photograph of the Madīnat al-Aḥḡur area:
the ancient city stands at the confluence of the wādī ḡaykān
Maṣṭam, Aḡanah and Maḡḡaq with the Wādī ḡaykān.



a. Extensive cultivation in the Wādī Adanah (from N)
(invent. no. MAIRAY-810095, A. de Maigret).



b. General view from the first sector looking east.
In the background: modern houses built with material taken from the ruins
(invent. no. MAIRAY-840096, A. de Maigret).



a. First sector: the thick *qadad* floor, probably
from the late period of settlement, can be seen in cross section
(invent. no. MAIRAY-840105, A. de Maigret).



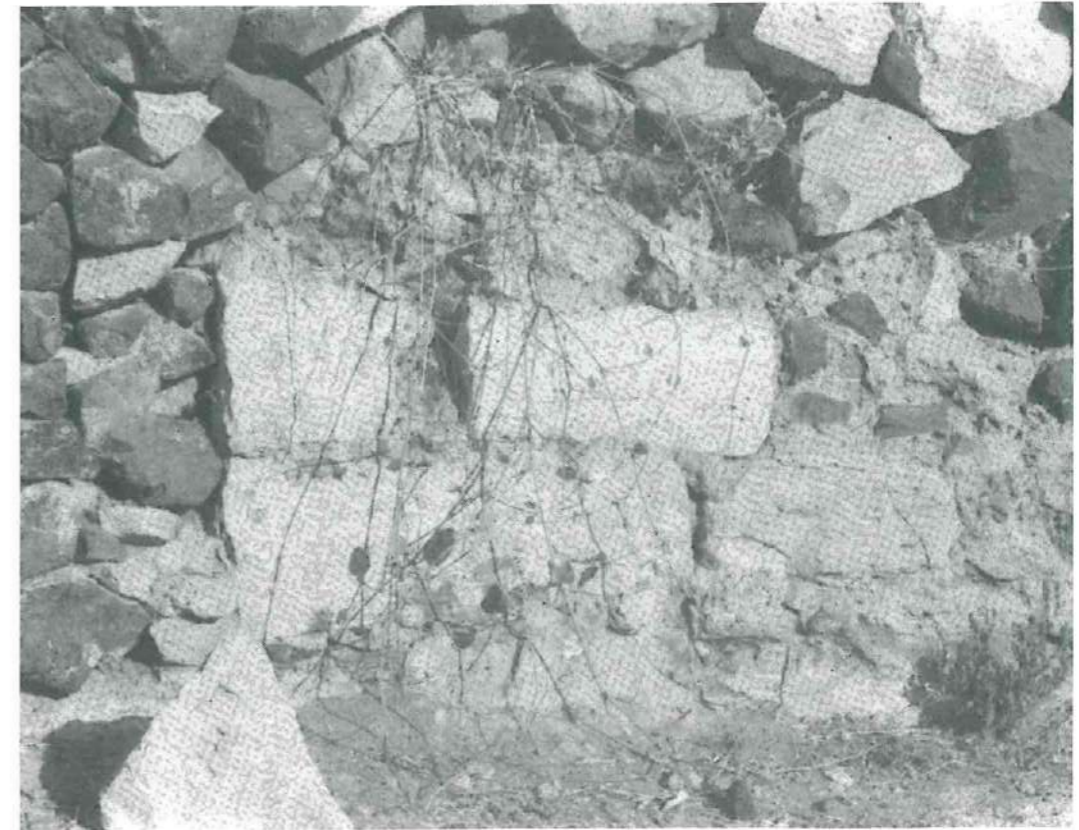
b. General view of the first sector looking west
(invent. no. MAIRAY-840109, A. de Maigret).



a. General view of the first sector looking east
(invent. no. MAIRAY-840110, A. de Maigret).



b. Disarranged stones at the southern end of the first sector;
note the many hewn blocks
(invent. no. MAIRAY-840103, A. de Maigret).



a. Wall in original position at the southern end of the first sector
(invent. no. MAIRAY-840100, A. de Maigret).



b. Cistern between the first and third sectors;
the remains of the plaster covering the cistern walls are still clearly visible
(invent. no. MAIRAY-810084, A. de Maigret).



a. Disarranged hewn stones at the south-east end of the third sector
(invent. no. MAIRAY-840116, A. de Maigret).



b. Western part of the plateau (third sector, from the west)
(invent. no. MAIRAY-840119, A. de Maigret).



a. Row of stones abutting on the city wall from within
(invent. no. MAIRAY-840120, A. de Maigret).



b. part of the city wall in the third sector, looking south-west
(invent. no. MAIRAY-840122, A. de Maigret).



a. Bulwark base of gate "a" from the north
(invent. no. MAIRAY-840165, A. de Maigret).



b. Structure (b) outside the city wall, aligned with tower "a" (from the west)
(invent. no. MAIRAY-840126, A. de Maigret).



a. Wall "c" inside the city wall (in the fourth sector)
(invent. no. MAIRAY-840143, A. de Maigret).



b. Corner of structure "e" on outer side of the wall it abuts on (from the west)
(invent. no. MAIRAY-840125, A. de Maigret).



a. Double row of blocks at the south end of the first sector
(invent. no. MAIRAY-840135, A. de Maigret).



b. Fragment of column found in the first sector
(invent. no. MAIRAY-840104, A. de Maigret).



a. Fragment of architectural relief in the first sector
(invent. no. MAIRAY-840111, A. de Maigret).



b. Fragment of figured relief with inscription
(invent. no. MAIRAY, Y.84.842, A. de Maigret).



a. Cisterns (g) at the south end of the plateau, outside the city
(invent. no. MAIRAY-840148, A. de Maigret).



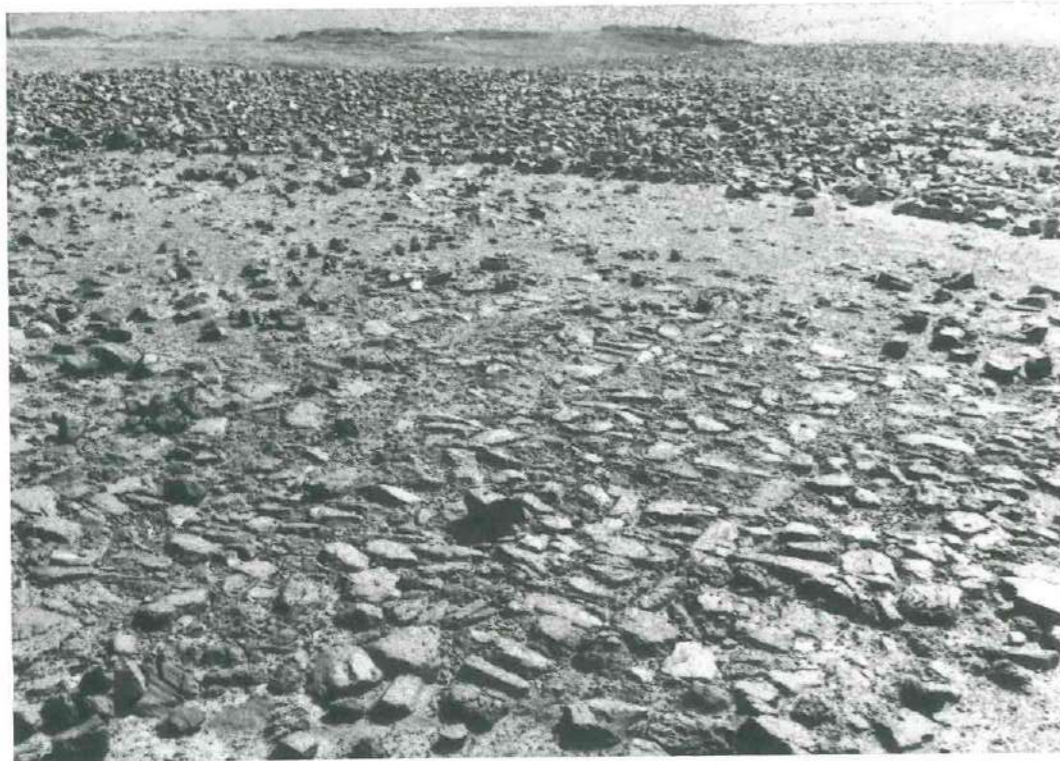
b. Remains of the isolated building (h) from the south
(invent. no. MAIRAY-840128, A. de Maigret).



a. Detail of ruin "h" to the west of the plateau (from the east)
(invent. no. MAIRAY-840161, A. de Maigret).



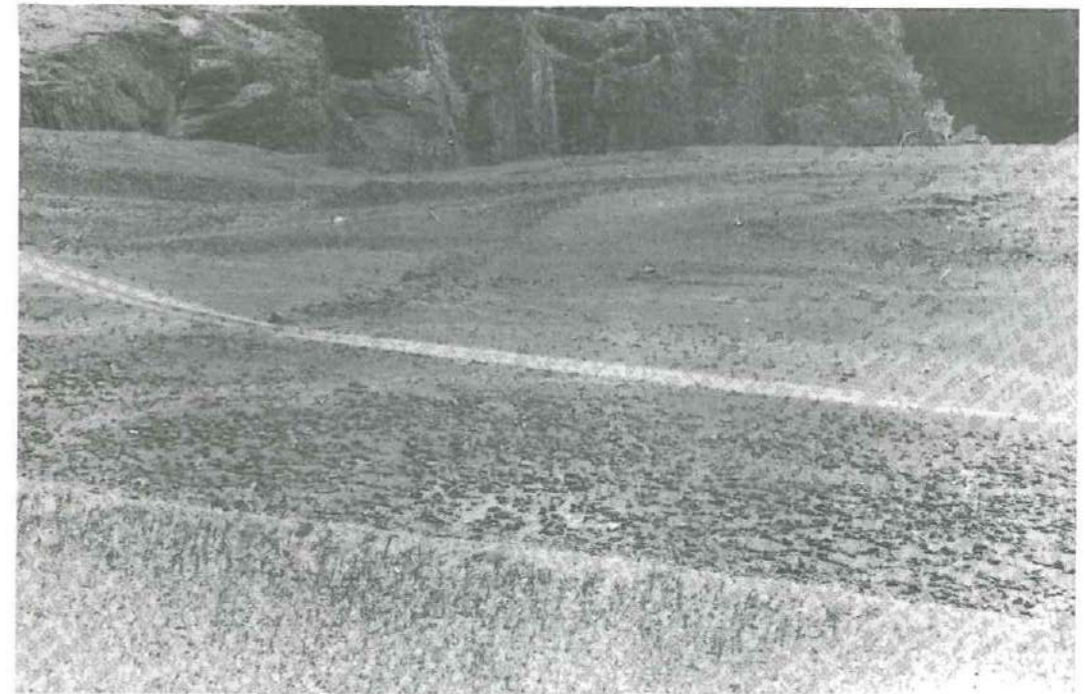
b. Cemetery (i) to the west of the fortress (from the east).
A number of graves are marked by small blocks of columnar basalt
set vertically into the ground (invent. no. MAIRAY-840129, A. de Maigret).



a. Paved surface (1) outside the city wall
(invent. no. MAIRAY-840128, A. de Maigret).



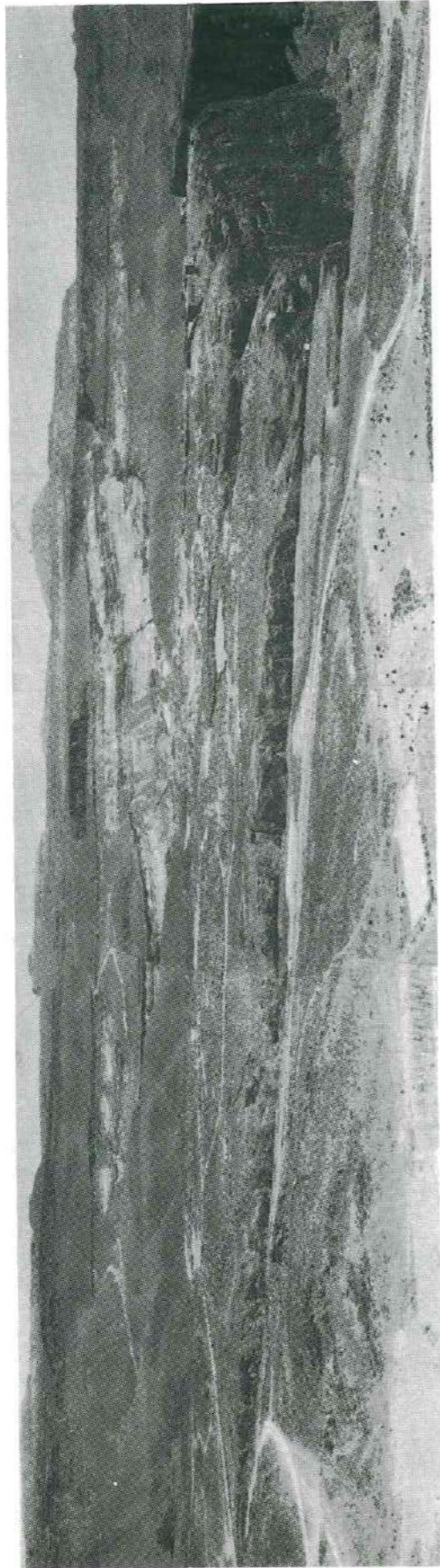
b. The paved area (1) was probably used for the processing of crops
(invent. no. MAIRAY-840145, A. de Maigret).



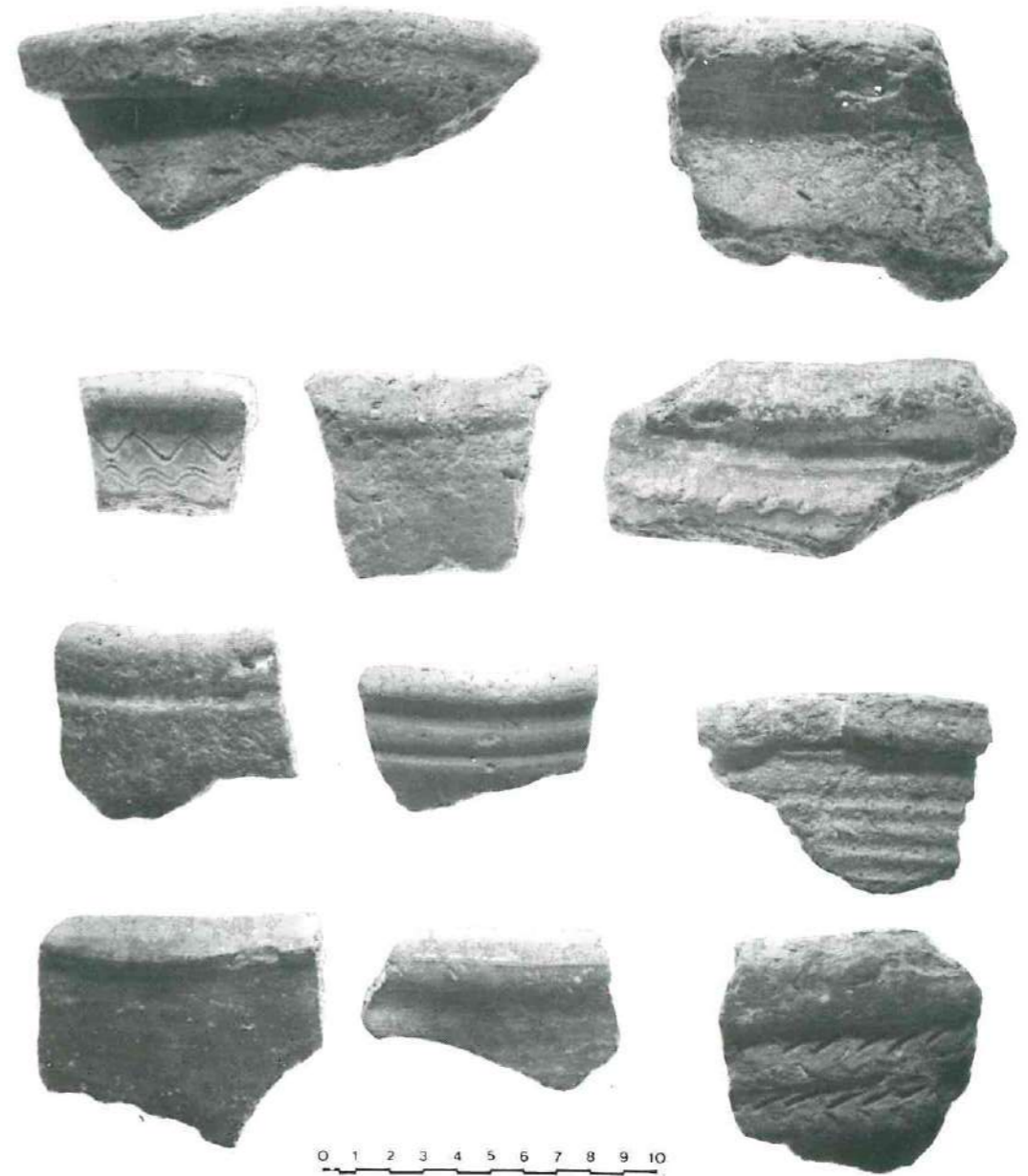
a. Large necropolis to the south-west of the city
(invent. no. MAIRAY-840171, A. de Maigret).



b. Detail of the graves in the necropolis to the south-west of the ancient site
(invent. no. MAIRAY-840182, A. de Maigret).



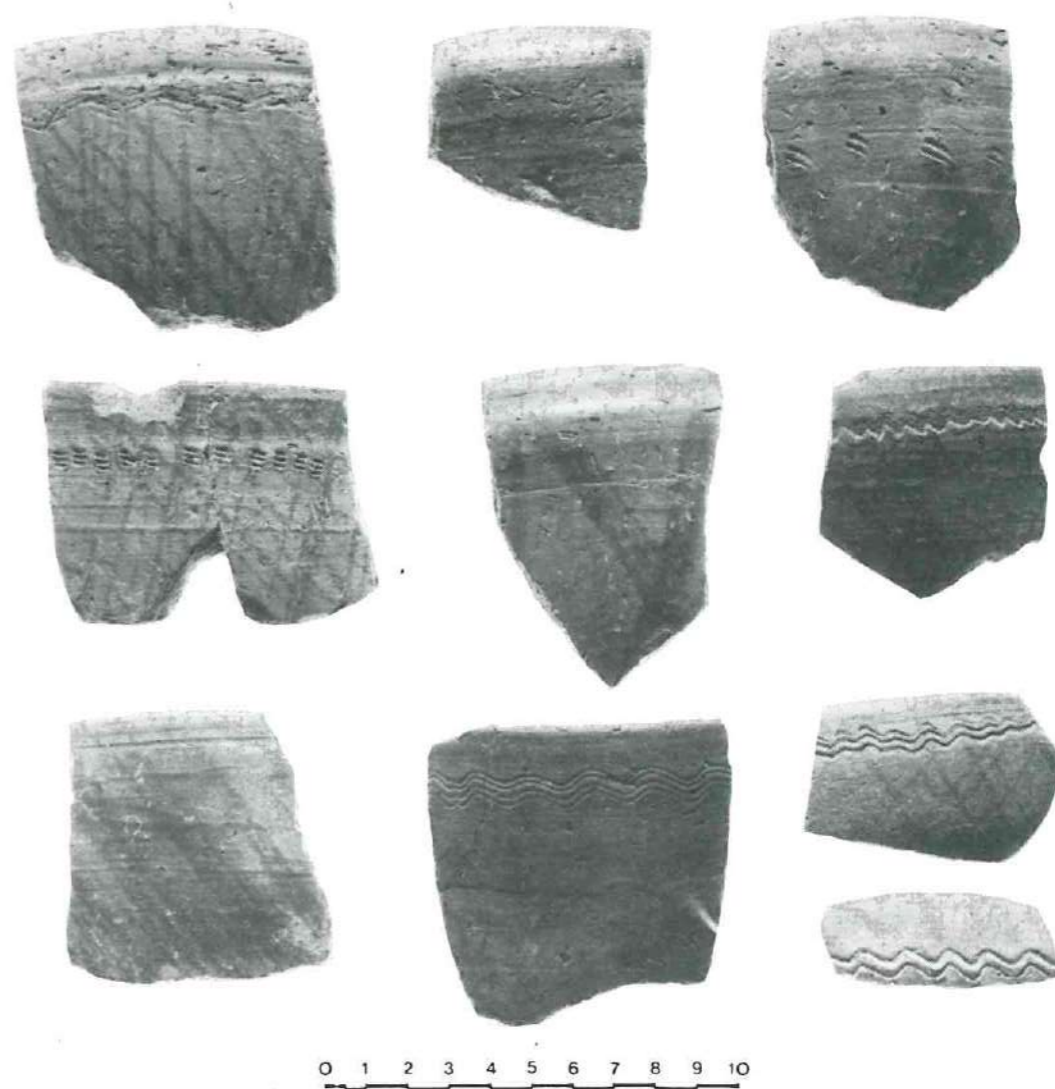
General view of the plateau Madīnat al-Ahğur stands on (from south-west)
(a. de Maigret).



Pottery from Madīnat al-Ahğur: fragments of large jars and dolia (A. Solazzi)



Pottery from Madīnat al-Ahḡur: wall fragments with decoration incised in wavy lines, with the "finger nail" and "chevron" motives, and with criss-cross lines (A. Solazzi).



Pottery from Madīnat al-Ahḡur: most of the bowls are burnished with criss-cross lines (A. Solazzi).



Il vano delle cretule

