

THE NEOLITHIC SITE OF GHRUBBA

GHRUBBA is situated on the southern side of Wadi Nimrin about 2 km. west of the Police Post of Shunah on the main Jerusalem–Amman road, map ref. 20501445. Only a very slight rise in the ground, about one metre in height, marks the otherwise flat site, which would easily have escaped notice had it not been for a fall of rock which exposed a large pit full of black ashes on the southern side of the wadi. The extent of the site was difficult to determine; along the edge of the wadi it was traced for about 150 m. past the modern cemetery, which is on the highest point of the site, and comes to an end just west of a single house built on the southern edge of the wadi. Its extent eastward and southward cannot be determined without digging. This site was obviously one of those straggling settlements along the edge of a wadi like the Ghassulian site of Tell Ghanam on the other side of the Wadi Nimrin, where we traced occupation debris for about 5 km. Sites of this type are not likely to have extended far from the wadi.

Our attention was drawn to the special interest of this site by the sherds which had fallen from the pit; these sherds, some of which could be fitted to others which we discovered stratified in the pit, were painted and showed little resemblance to those collected at Tell Ghanam or from Teleilat Ghassul, 10 km. due south of Ghrubba.

The pit was excavated and it was found that only a small section had been destroyed by the fall of rock. It was of oval shape, measuring *circa* 5 × 3 m., and was cut through a layer of not very stable gravel down to the underlying soft limestone. To prevent its sides from collapsing it had been cut in stages, leaving a ledge all round (see plan and section, Fig. 3).

Stratification of the Pit

Layers 1–4 sealed the pit and extended beyond it, and a modern burial had caused a disturbance. In layer 4 a small beaker (no. 30) of Ghassulian type was found and this suggests that the four top layers are of later date than the pit and the ash layers in it. The pit was filled with alternate layers of ash, soil and gravel, either fallen from the side of the pit or deliberately put there.

Below layer 4 sherds of the same pot were often found in different layers, showing that the interval between the deposit of the ash layers cannot have been very long. The alternation of ash and clean gravel and soil layers demands an explanation, and perhaps this pit was used for outdoor cooking in the warm season, during which the ash layers accumulated. During the winter months, when inclement weather would necessitate cooking under cover, rains washing down mud and gravel would account for the small number of sherds found in them. Some such habit might explain this curious pit fill.

The Pottery

The pottery from the pit fill (layers 5–15) was homogeneous. No complete pots were found, but some pots could be partly reconstructed on paper (no. 110). Painted

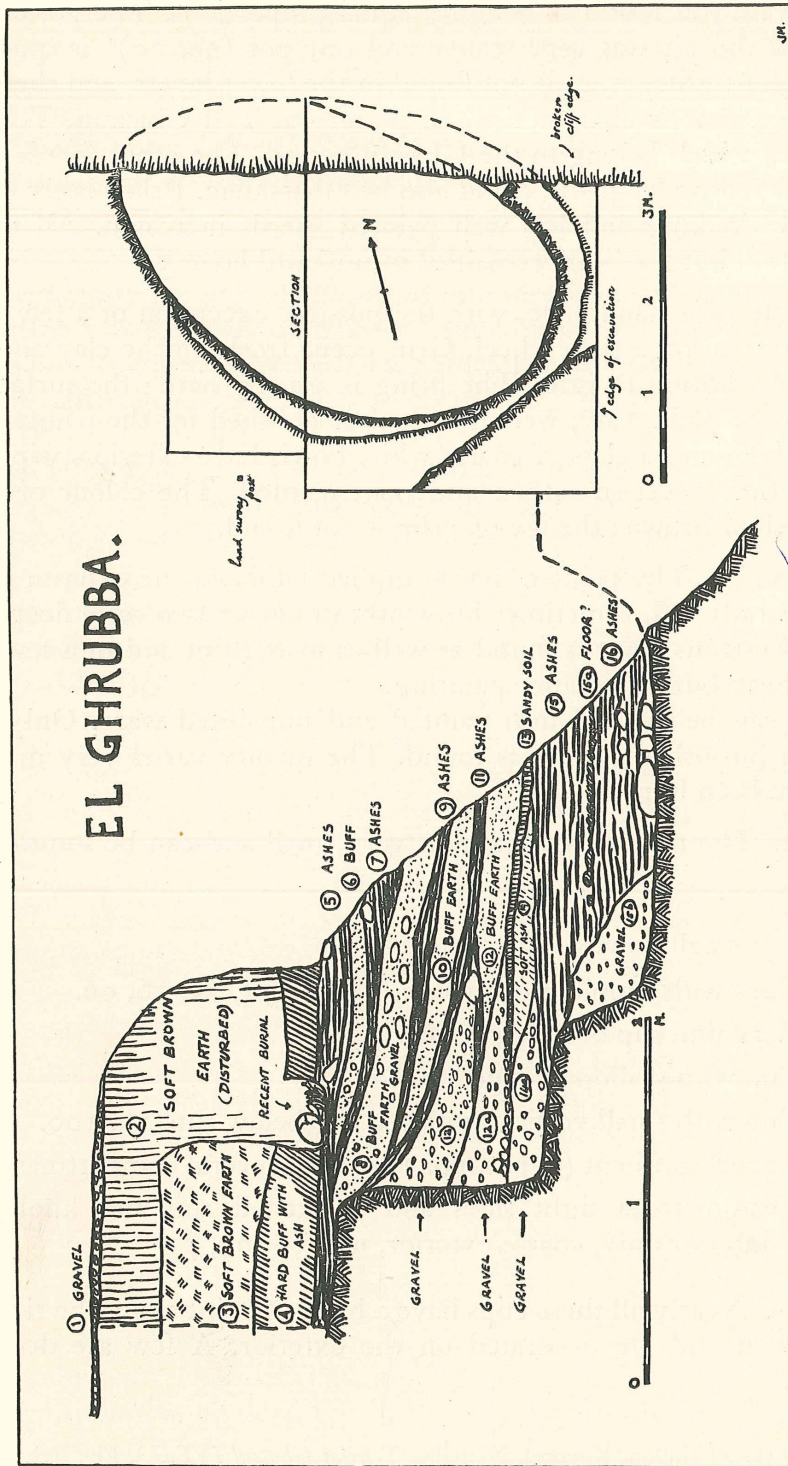


FIG. 3

and unpainted ware was found in roughly equal proportions. The pottery from layers 1-4 which sealed the pit was very scanty and one pot (no. 30)¹ is quite different in ware and shape. Red gritty ware is not found in the lower layers, and the mottled grey-red, rough surface ware is characteristic of pottery at Tell Ghanam, Tell Ghassul and Tell Mafjar, all of which belong to the Ghassulian period. The other sherds found with it, decorated in poor red washy paint, could also be Ghassulian. Below layer 13 the number of more primitive-looking and less well painted sherds increased. All the best pieces came from layer 12, but fine ware remained in use until layer 5.

Ware. All pottery is handmade, with the possible exception of a few pieces² which may have been turned on a slow wheel. Grits occur freely in the clay and straw occurs in a few cases³ in addition to grits. The firing is usually hard; the surface is rough or wet-smoothed in the plain ware, wet-smoothed or polished for the painted ware. A few pieces are burnished, and a class of coarse white bowls have exteriors wiped with twigs, whereas the interior is wet-smoothed and matt-painted. The colour of the surface is buff, pink, greyish or brown; the use of a slip is not found.

Painted decoration. The paint which is applied either to the exterior or the interior or to both is generally red, sometimes brownish, in one or two cases deep red to brown (nos. 90, 130). Lustrous paint is found as well as matt paint and in a few cases it looks as if the pot has been burnished after painting.

The pottery can be divided into painted and unpainted ware. Only one sherd of unslipped brown burnished ware was found. The quality varies very much and many of the sherds have been burnt.

Painted ware. The number of shapes is very small and can be summed up as cups, bowls and jars.

A. *Cups* or small bowls (Fig. 5 and Pl. V):

Cups with simple profiles, nos. 63, 71, 72, 75, 76, 96.

Very fine cup or bowl, no. 64.

Cup with scalloped edge, no. 81.

Cup with small vertically placed lug below rim, no. 100.

Lobed ointment (?) pot, no. 119, with several compartments.

Cups with straight sides and thickened rim and knobs, painted on interior only, coarse exterior, nos. 68, 69, 73.

Decoration. Nearly all these cups have a band of paint along the rim with another pattern below it and are decorated on the exterior. A few are decorated on the interior only.

¹ Cf. lugs on bird vases (Mallon, Koepfel, Neuville, *Teleilat Ghassul I (T.G.)*, Fig. 57).

² Nos. 1, 3, 4, 6-8, 39, 49.

³ In coarse white bowls only, nos. 18, 87, 89, 90.

B. *Bowls* of various shapes, with straight sides or curved profile and flat bases (Fig. 5 and Pl. V):

- (a) Fine thin burnished bowl, no. 70, a very deep bowl painted outside.¹
- (b) Bowls painted inside and out, nos. 65, 80, 83, 85.
- (c) Bowls painted inside only with rough scraped exteriors, nos. 66, 67; with lug, nos. 90, 91.
- (d) Coarse white bowls, nos. 62, 78, 86, 92, made of very light-coloured clay, painted inside only with very rough scraped or twig-wiped exterior. Like other bowls which are painted inside only, they often have a horizontally placed lug just below the rim. Some of these bowls have a straw admixture as well as grits.

C. *Jars* (Fig. 6 and Pl. V). Some of the large jars are magnificent specimens, such as no. 122; not enough remained of this to rebuild it, but a tentative reconstruction drawing could be made. Jars of this type seem to have two loop handles on the body. Other jars of roughly the same type have lugs on the neck, nos. 117, 118, placed either vertically or horizontally.

The necks on these jars are never clearly marked off from the body, nos. 99-110; some of the smaller jars have small necks, nos. 112, 113, or bead rim, no. 116.

Decoration. Very common is a group of more or less horizontal lines at the base of the neck to distinguish neck from body. Above these, groups of diagonal lines are common, nos. 101, 110, 122, and below the lines groups of multiple chevrons often combine with a row of dots in the few sherds. Where enough is preserved, a band of triangles, no. 122, or a band of herringbone pattern, marks the end of decoration. The lower part of the vessel remains undecorated.

Other common motifs are rows of triangles on the neck, nos. 98, 99, 102, 106, 118. In some cases the decoration is like that on the cups, i.e. horizontal lines below the rim with chevrons below, nos. 107, 109, 112.

A very fine jar neck has a modified herringbone pattern, no. 111 (cf. *Megiddo*, Chicago Oriental Institute Publications, Vol. XLII, Pl. II, no. 38, in painted and incised ware). Some of the more complicated patterns, which seem to belong to both large and small jars, are illustrated in nos. 121-130.

Plain ware (Fig. 4 and Pl. V). A number of shapes are common to both plain and painted vessels, such as jars nos. 26 and 27; cups nos. 14, 17, 22, 82; simple bowls with mat impressions on the base, nos. 2, 4, 10, 15.

Variants of the same shapes are found in plain ware only. See jars nos. 38, 43, 44, 45, 46; bowls, some with flattened rims, nos. 1, 3, 5-7, 11, 12; cups, nos. 16, 25, with plastic finger-imprinted band; deep bowls, no. 23, with knobs, no. 24, and bowls with perforated rim lug, nos. 19, 20.

¹ Cf. Garstang, *Prehistoric Mersin*, p. 36, no. 42.

Two very typical shapes found in plain ware only are a jar with bow rim, nos. 39-42, 47, and the hole-mouth jar, nos. 31-37.

Primitive ledge handles, nos. 34, 36, 56, 57, indented ledge handles, nos. 58, 59, and plastic decoration, no. 31, are common on these hole-mouth cooking pots, some bowls, no. 21, and a cup, no. 25.

Plastic decoration is also found on a pottery stand with a perforated side, no. 60.

Miscellaneous sherds include fragments of large storage jars, nos. 48, 49, small pedestal bases, no. 50, with a mat impression, nos. 51-53, and a primitive loop-handle.

The pottery must have been precious at this period, as mending holes are very common on plain as well as on painted ware, nos. 3, 16, 90, 101 and 109.

Other objects (Fig. 6). Two clay spoons of red-washed ware were found, nos. 54, 55, and a fragment of a figurine is illustrated, no. 134, also a clay spindle whorl, no. 135.

Two fine chipped and polished flint axes were found, one of brown flint polished all over, no. 132, the other of light grey flint with only the cutting edge polished, no. 133, as well as two brown flint sickle blades, no. 136, retouched and steep backed with a lustre on the cutting edge.

A bun-shaped brick, *circa* 25 × 30 cm. and about 15 cm. thick, of brown clay, was the only other object found in the pit.

*The Place of Ghrubba among the Early Painted Pottery Cultures in the North-East.
Comparison of Ghrubba Material with that of the Ghassulian Period*

Our first impression was that the material from Ghrubba represented a variant of Ghassulian (Chalcolithic), as the plain ware and the few stone and clay tools and objects found could easily be matched with material from Ghassul and the roughly contemporary sites of Jericho VIII and Tell Ghanam. The two axes nos. 132 and 133 in no way differed from those found at Ghassul (*T.G. I*, Pl. 27) or from those we picked up at Tell Ghanam, the large site of the same period just across the wadi from Ghrubba.

The simple sickle blades no. 136 were also found at Tell Ghanam and Tell Ghassul (*T.G. II*, Pl. 110).

As for the pottery, bowls with mat impressions on the base, either with straight sides or with a rounded profile, indented ledge handles, nos. 58, 59 (cf. *T.G. I*, Pls. 40-43, from level IV), and small primitive spouts, no. 104 (cf. *T.G. I*, Pl. 54: 3), as well as a rather globular jar shape with high neck, nos. 99, 122, etc. (cf. *T.G. II*, Pl. 78: 7, 9, 12), all looked very Ghassulian.

The bow rims also (nos. 39-42), although not found at Tell Ghassul, had been found at Jericho VIII,¹ which is closely related to Ghassul.

A closer comparison showed, however, that none of the patterns common at Ghrubba, except some of the simplest, was found at Ghassul. Decoration of latticed bands and hatched triangles as well as wavy lines, which are common at Ghassul,² were conspicuous

¹ *Liverpool Annals of Archaeology and Anthropology (AAA)*, XXII (1935), Pl. XL, nos. 3-5.

² *T.G. II*, Pls. 80, 89, 90.

by their absence at Ghrubba. Rows of solid triangles on the rim form an exception, but lines of dots, chevrons and diagonal parallel lines which are characteristic motifs at Ghrubba are not common at Ghassul. Typical Ghassulian shapes, such as the cornet, jars with vertically placed lugs, animal vases, small cups with a burnished slip such as were found at Tell Mefjer, stone vessels and side scrapers were not found at Ghrubba. Nearly all the pottery at Ghrubba was handmade, whereas the use of the slow wheel was common at Ghassul.

Comparison of the Ghrubba Neolithic Pottery with that of Related Sites in Palestine and their External Relations

Besides Ghrubba, the following Neolithic sites are known in Palestine: Jericho, where Prof. Garstang first discovered Neolithic pottery¹ and where Dr. K. M. Kenyon's recent excavations have produced a much larger amount of the same pottery. From Abu Gosh,² west of Jerusalem, Neolithic pottery is reported, as well as from Tell Avid,³ but no comprehensive accounts have yet been published.

In the Northern Palestine *Megiddo XX*⁴ and the site of *Sha'ar ha-Golan*,⁵ situated in the northern Jordan valley on the north bank of the Yarmuk, have also produced comparable material. The material from the latter site, called Yarmukian by its excavator Dr. Stekelis, clearly belongs to this period. Layer XX at Megiddo unfortunately also contained later material. A few sherds of Neolithic pottery were also found at *Magharat Abu Usba*⁶ near Mt. Carmel and at Tell es Sa'idiyah in the central Jordan valley.⁷

The published Neolithic pottery can be divided into four classes, painted and incised ware, painted ware, burnished ware, and plain or coarse ware.

Painted and Incised Ware

This ware is covered with a red or brown paint or wash, leaving in reserve the area to which incised ornament is applied. The reserved area is always clearly defined from the painted area by incised lines, and usually consists of a horizontal band below the rim of bowls and at the base of the neck, passing through the openings of the loop handles, in the case of jugs. Below this horizontal band there is often a continuous zigzag.

The interior of these reserve bands is filled with diagonal incised lines or more often with a herringbone pattern.

The number of shapes decorated in this technique is small; shallow bowls,⁸ straight-

¹ *AAA*, XXIII, 1936, Pls. XXIX-XXXI.

² *Syria*, 1952, p. 140 ff.

³ *American Journal of Archaeology (AJA)*, LV, 1951, p. 85 ff.

⁴ *OIP*, LXII (*Megiddo II*), Pl. 2.

⁵ *Israel Exploration Journal (IEJ)*, I, 1950/51, p. 1 ff., Pls. 1, 2.

⁶ *IEJ*, II, 1952, p. 155 ff. and Figs. 16 and 17.

⁷ *Annual of the American Schools of Oriental Research (AASOR)*, XXV-XXIX (1945-1948), Pl. 149, nos. 9, 10.

⁸ *Megiddo II (OIP, LXII, Pl. 2, no. 37)*.

sided bowls¹ and jugs with two loop handles² are the most common. A rather straight-necked jar is found at Megiddo³ and two sherds from Tell es Saidiyah⁴ are typical and may belong to the following period like the Tell Far'ah sherd.

Only at Jericho and at Sha'ar ha-Golan is there proof that this pottery belongs to the Neolithic period of Palestine; at Jericho it occurs together with the painted Neolithic pottery, at Sha'ar ha-Golan it occurs with plain ware which has close parallels with Ghrubba. But at the site of Ghrubba itself no painted and incised ware was found.

Beyond Palestine, painted and incised ware with red slip and decorated with herringbone pattern was found at Byblos.⁵ There it occurs together with grey burnished incised ware of Mersin Neolithic type. At Mersin painted and incised ware has not been found, but at Hassuna⁶ it occurs from layer Ib (which marks the beginning of the Hassuna period) onwards, not becoming characteristic, however, until layer IV. Shapes and decoration, which includes herringbone patterns, show little resemblance to the Palestinian material.

Painted Ware

Painted ware is much more common at Ghrubba than at Jericho: this class seems to be absent at Sha'ar ha-Golan. Although Tell es Sultan, the site of ancient Jericho, is only 13 km. from Ghrubba by Wadi Nimrin and Wadi Nu'aïmi, the pottery from both sites is by no means identical. The handmade fabric is more or less the same, buff with small grits, but whereas the Ghrubba pottery is well fired, that of Jericho is often very soft. The straw admixture found only in a few of the coarse white bowls at Ghrubba is more common at Jericho. The surface of the Ghrubba pots is buff, pink or whitish and a slip is practically unknown, whereas at Jericho pink or even red slip occurs on the finest pieces. Burnished surfaces and painted designs are common at Jericho, rare at Ghrubba. Lustrous paint, while occurring at Ghrubba, is more common at Jericho, but matt paint occurs at both sites; red washy paint like the Chalcolithic occurs only at Jericho. Decoration in more than one colour is unknown at Ghrubba but occurs in a few cases at Jericho.

More important than these technical differences are the stylistic ones. With the exception of one or two sherds the use of solid areas of paint is unknown at Ghrubba, where all ornament is essentially linear, i.e. the decoration tends to cover only a small part of the vessel decorated. At Jericho, on the other hand, the paint covers most of the vessel, and the design more often than not is left in reserve. This technique links the Jericho painted pottery with the painted and incised class, the difference being that the areas in reserve are decorated with incised lines.

¹ Sha'ar ha-Golan (*IEJ*, I, Pl. 1, nos. 2, 8).

² Tell Far'ah, in Chalcolithic Ghassulian layer (*Revue Biblique*, 54, 1947, p. 407, no. 34).

³ *OIP*, LXII, Pl. 2, no. 38.

⁴ *AASOR*, XXV-XXIX (1945-1948), Pl. 149, nos. 9, 10. Sherds of this ware are also said to occur at Jericho VIII in Chalcolithic Ghassulian.

⁵ *Bulletin du Musée de Beyrouth*, IX, 1951, p. 37, class 6.

⁶ *Journal of Near Eastern Studies (JNES)*, IV, 1945, Fig. 3.

The number of patterns at Ghrubba is much larger than at Jericho, as a glance at the illustration will show; at Jericho the solid triangle and the chevron predominate.

The shapes, primitive as they are, show little more than a general resemblance; shallow bowls, common at Jericho, are rare at Ghrubba; bowls with flaring straight sides with a vertically placed loop handle characteristic of Jericho are missing at Ghrubba, where the predominant bowl shape is similar but with a wider base and a horizontally placed lug. Jars with two loop handles on the body occur at both sites, as well as jars or jugs with high neck and lugs on the neck (Ghrubba nos. 117, 118).¹

Lugs at Ghrubba are usually placed horizontally, but vertically at Jericho. Low pedestal bases and flat bases with mat impressions are found at both sites (Ghrubba no. 50). This short comparison² shows clearly that Ghrubba represents a different painted pottery tradition from that of Jericho and Sha'ar ha-Golan, and it is exactly this use of a linear style of decoration which relates Ghrubba, and the few sherds from Megiddo,³ to the earliest painted pottery culture of Cilicia, Northern Syria and Northern Mesopotamia during the Hassuna period.

In the Early Chalcolithic layers of Mersin (XXIV-XXX) one finds the closest parallel for the Ghrubba pottery, both in shapes and in decoration. Decoration in matt or burnished red paint on a burnished pink or buff slip applied to interior, exterior or to both faces is very common. Simple bowls (Ghrubba nos. 71, 96, and *Prehistoric Mersin*, p. 52, no. 14, and p. 58, no. 23), deep bowls (Ghrubba no. 61, *Prehistoric Mersin*, p. 36, no. 42), jars (Ghrubba no. 99, *Prehistoric Mersin*, p. 53, no. 6, p. 71, no. 2, p. 52, nos. 1 and 4, p. 55, no. 4), and the use of lugs placed horizontally at the rim of bowls (Ghrubba nos. 89, 91, 92, *Prehistoric Mersin*, p. 42, no. 1) are common at both sites. The most characteristic pattern is the chevron (Ghrubba no. 84, *Prehistoric Mersin*, p. 50, no. 26), but triangles (e.g. *Prehistoric Mersin*, p. 71, no. 2, at the beginning of Halaf influence) are not common. Linear decoration is the only one in use until the beginning of Halaf influence. This similarity is so strong that some of the pieces could be interchanged without being detected. At Mersin the black and brown burnished pottery of the preceding Neolithic period continues in use, but without the incised design, and a sherd of exactly the same brown burnished ware was found at Ghrubba and similar sherds occur also at Jericho.

At Hassuna near Mosul the pottery called Hassuna archaic painted ware strongly resembles the Ghrubba painted pottery both in technique and in colour of the paint, whereas only a few sherds at Ghrubba show the technique of the developed Hassuna ware (standard ware with matt paint on an unburnished surface). The patterns of Ghrubba, on the other hand, are more varied than those of Hassuna archaic ware,⁴ and though many of the simple shapes are the same, the jars at Hassuna do not have the long neck found both at Mersin and at Ghrubba. True chevrons also are not so common

¹ Cf. also *Megiddo II*, Pl. 2, no. 31.

² When Dr. Kenyon's new material from Jericho is published we will no doubt be able to make a better comparison. The writer has had the benefit of seeing a certain amount of the pottery from the recent excavation.

³ *Op. cit.*, Pl. II, nos. 30, 31, 34, 36.

⁴ *JNES*, IV (1945), Figs. 7 and 8.

at Hassuna as at Mersin and Ghrubba,¹ and some of the Ghrubba patterns (nos. 94 and 122) are found in the Samarra ware, which appears to be a variant of developed Hassuna,² indicating a date for Ghrubba later than early Hassuna.

Burnished Ware

One brown sherd, already referred to above, was found at Ghrubba, but at Jericho red and brown burnished as well as brown burnished ware with incised decoration is more common.

Plain and Coarse Ware

Little plain ware has been published from Jericho, so that a comparison is necessarily incomplete. Bowls with knobs like Ghrubba no. 88, bowls with flaring sides (nos. 4, 10) and small jars with lugs (no. 28) are also found at Jericho. Mat-impressed bases, perhaps showing the earliest attempt to turn a pot, plastic decoration, small ledge handles on hole-mouths and other shapes are also found at Jericho, though one of the most characteristic shapes in plain ware at Ghrubba, i.e. the jar with bow rim (nos. 39-42), does not appear at Jericho until the following period.³

Some of the painted Jericho shapes are, however, found in red burnished ware at Byblos.⁴

Conclusions

The site of Ghrubba presents a Neolithic culture distinct from that of Jericho IX and the so-called Yarmukian from Sha'ar ha-Golan.

The Neolithic pottery found in the mixed layer XX at Megiddo belongs to the same group as Jericho and Sh'ar ha-Golan but shows some linear decoration like Ghrubba.

Ghrubba's closest contacts appear to be with the earliest painted pottery of Mersin, the other early sites of Cilicia and also the Amuq B culture.⁵ This group is a western variant of a complex called Hassuna and Samarra in Northern Mesopotamia. Patterns from both areas are found in the Ghrubba pottery, which suggests that the people who brought this pottery to Palestine came from an area in contact with both areas, in other words probably Northern Syria. The road by which these people came is probably the magnificent natural road which leads from the Amuq plain by way of the Orontes valley and the Bega'a plain to the Jordan valley.

The presence of two distinct Neolithic painted pottery cultures in Palestine demands an explanation. No stratified site has produced both types so far. Jericho Neolithic and Sha'ar ha-Golan are clearly two forms of one culture to which some of the Byblos

¹ The false chevron common to Hassuna and Samarra ware occurs on the Megiddo jar (*op. cit.*, Pl. 2, no. 30).

² Cf. Al Matarra (*JNES*, XI, 1951, p. 12, no. 17, p. 13, no. 14, p. 14, no. 14) or Hassuna (*JNES*, IV, 1945, Pl. 18, no. 1).

³ *AAA*, XXII (1935), Pl. XL, nos. 3-5 (Jericho VIII).

⁴ Cf. Garstang, *Story of Jericho*, Fig. 6, with Barrois, *Manuel d'Archéologie Biblique*.

⁵ Tell Jedeidah XIV (material is still unpublished).

material is also related. There is little evidence to suggest that both cultures existed side by side (the distance between Ghrubba and Jericho is 13 km.) without seriously influencing each other, or that the one developed from the other.

In the writer's opinion one is earlier than the other, and the fact that Ghrubba shows strong northern influence, whereas Jericho does not, leads one to regard the Jericho and Sha'ar ha-Golan pottery as later in date than that of Ghrubba.

Until more evidence is forthcoming the writer is inclined to place Ghrubba in the later phase of the Hassuna period, and Jericho and Sha'ar ha-Golan towards the end of the same and the beginning of the Halaf period in North Syria and Mesopotamia.

JAMES MELLAART

ILLUSTRATED SHERDS FROM GHRUBBA

(All handmade unless otherwise stated)

	<i>Body</i>	<i>Firing</i>	<i>Grits</i>	<i>Surface Colour</i>	<i>Surface Treatment</i>	<i>Decoration</i>	<i>Layer No.</i>	<i>Remarks</i>
1	bf	h	f	bf	sm		9	Wheel-made
2	br	s	straw	bf	ro	m.r.p.	16	Very coarse
3	bf	h	f	bf	sm		5	Wheel-made
4	bf	h	f	bf	sm		5	Wheel-made
5	bf	h	f	wh	sm	m.br.p.	12	
6	r	h	f	or/r	sm	m.r.p.	5	Wheel-made
7	r	h	f	or/r	sm	m.r.p.	14, 16	Wheel-made
8	bf	h	f	bf	ro	m.r.p.	7	Wheel marks
9	bf	h	f	bf	ro	m.r.p.	7	
10	bf	h	f	bf	sm	m.r.p.	16	Mat impress on base
11	r	h	f	r	sm		14, 16	Wheel-made
12	gy/br	h	f	gy	ro	inc.	9	
13	gy/br	h	f	br	sm		7	
14	gy/br	6	f	gy	sm		7	
15	wh/bf	h	f	wh	ro	m.r.p.	14, 16	
16	bf	h	c	r	sl bur		14	
17	bf	h	me	bf/gy	sm		4	Grey core
18	r	h	straw	or/r	ro	r.bur.	9	Grey core
19	bf	h	f	bf		m.r.p.	7	
20	r	h	f	r	ro		7	
21	r	h	f	or/r	sm	m.r.p.	9	
22	bf	h	f	bf	sm		16	
23	bf	h	f	bf	w		9	
24	bf	m	f	bf	sm		5	
25	bf	m	f	bf	sm		13	
26	gy/bf	s	f	bf	ro		5	
27	bf	s	straw	bf	sm		6	
28	bf	h	f	bf	sm		12	
29	bf	h	straw	bf	ro	m.r.p.	5-12	
30	r	h	sandy	bf/r	ro		4	Ghassulian
31	bf	me	me	bf	sm		14	
32	bf	me	me	bf	sm		12	
33	bf	me	me	r	sm		5-12	
34	r	me	me	r	sm		12	Burnt
35	bf	me	f	bf	sm		5-12	Grey core
36	gy	me	me	bf	sm		11	
37	bf	me	me	bf	sm		14, 16	
38	gy/bf	me	me	gy/bf	sm		9	
39	gy	h	f	gy	sm		14	Wheel-made
40	gy/bf	h	c	bf	sm		16	
41	bf	h	c	bf	bur		12	
42	gy	h	f	gy	sm		14	Burnt
43	bf	h	f	bf			14, 16	Grey core

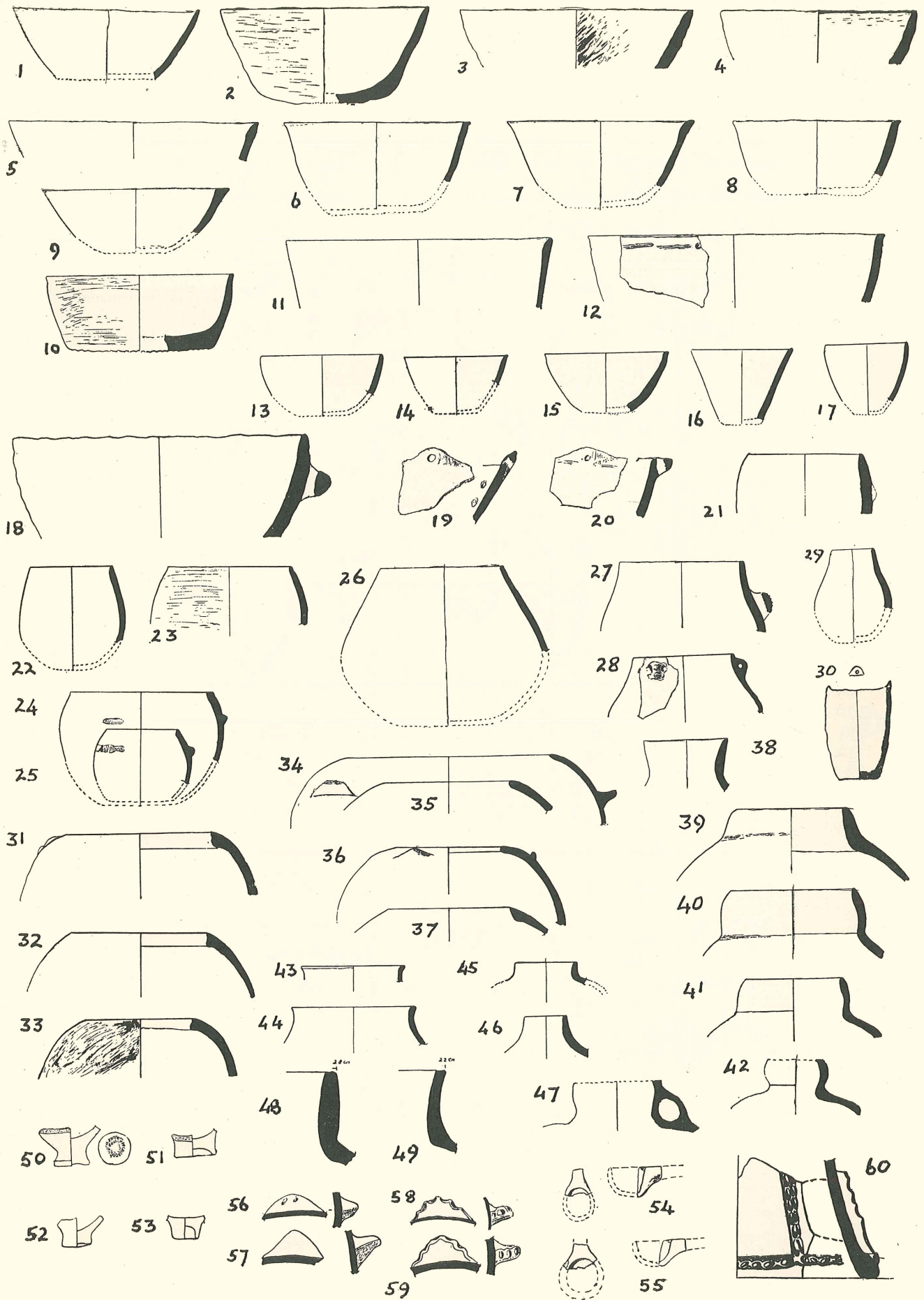


FIG. 4. Ghrubba, Pottery, Scale 1 : 5

	<i>Body</i>	<i>Firing</i>	<i>Grits</i>	<i>Surface Colour</i>	<i>Surface Treatment</i>	<i>Decoration</i>	<i>Layer No.</i>	<i>Remarks</i>
44	bf	h	f	bf			5-12	Grey core
45	gy/bf	s	me	gy/bf	sm		9	
46	gy	h	f	gy	sm		5-12	
47	bf	h	c	bf	sm		14	Burnt
48	bf	h	shell	bf	sm		14	
49	bf	s	f	bf	sm		surface	Wheel-made
50	bf	me	f	bf	sm		5	
51	r	h	f	r	sm		4	Grey core
52	bf	h	f	bf	ro		12	Burnt, grey core
53	r	h	f	r	sm		5	Red wash, grey core
54	r	h	sandy	r	ro		7	Red wash
55	br	h	f	r	sm		5	
56	r	h	f	r	ro		14	
57	r	h	f	r	ro		7	Grey core
58	r	h	sandy	r	sm		5-12	Grey core
59	r/bf	h	sandy	r	sm		9	
60	r	h	f	bf	sm		surface	Wash
61	r	h	f	r	sm	m.r.p.	5-12	Washy paint
62	bf	h	f	bf	ro	m.r.p.	5-12	
63	gy	h	f	bf	sm	m.r.p.	5-12	Burnt
64	bf	h	f	bf	sm	m.r.p.	surface	Fine
65	bf	h	f	bf	sm	m.r.p.	16	Burnt
66	r	h	f	bf	ro	m.r.p.	11	
67	bf	h	f	bf	ro	m.r.p.	12	
68	bf	h	f	bf	sm	m.r.p.	7	
69	bf	h	straw	bf	ro	m.r.p.	9	
70	bf	h	f	bf	bur	m.br.p.	12	Fine
71	bf	h	f	bf	sm	l.r.p.	14, 16	Burnt
72	r	h	f	r	w	m.r.p.	12	Burnt, grey core
73	bf	h	f	bf	ro	m.r.p.	12	
74	bf	h	f	bf	sm	l.r.p.	9, 12	
75	gy	h	f	bf	br sl	l.r.p.	5-12	
76	or	h	f	or	sm	m.r.p.	9	Grey core
77	bf	h	f	bf	sm	m.r.p.	16	
78	bf	h	f	bf	sm	m.r.p.	12	
79	bf	h	f	bf	sm	m.br.p.	5-12	
80	bf	h	f	bf	sm	m.br.p.	9	
81	bf	h	f	bf	sm	m.r.p.	5	
82	gy	s	me	bf	sm		5	
83	bf	h	f	bf	sm	m.r.p.	16	
84	r	h	f	or	sm	m.r.p.	12	
85	bf	h	f	bf	sm	m.r.p.	6	
86	bf	h	f	bf	ro	m.r.p.	9	
87	wh/bf	h	straw	wh	ro w	m.r.p.	9	
88	bf	h	f	r		m.r.p.	16	
89	wh/bf	h	straw	wh	ro w	m.r.p.	14	
90	bf	h	straw	bf	ro	m.r.p.	9	
91	bf	h	f	bf	ro	m.r.p.	16	

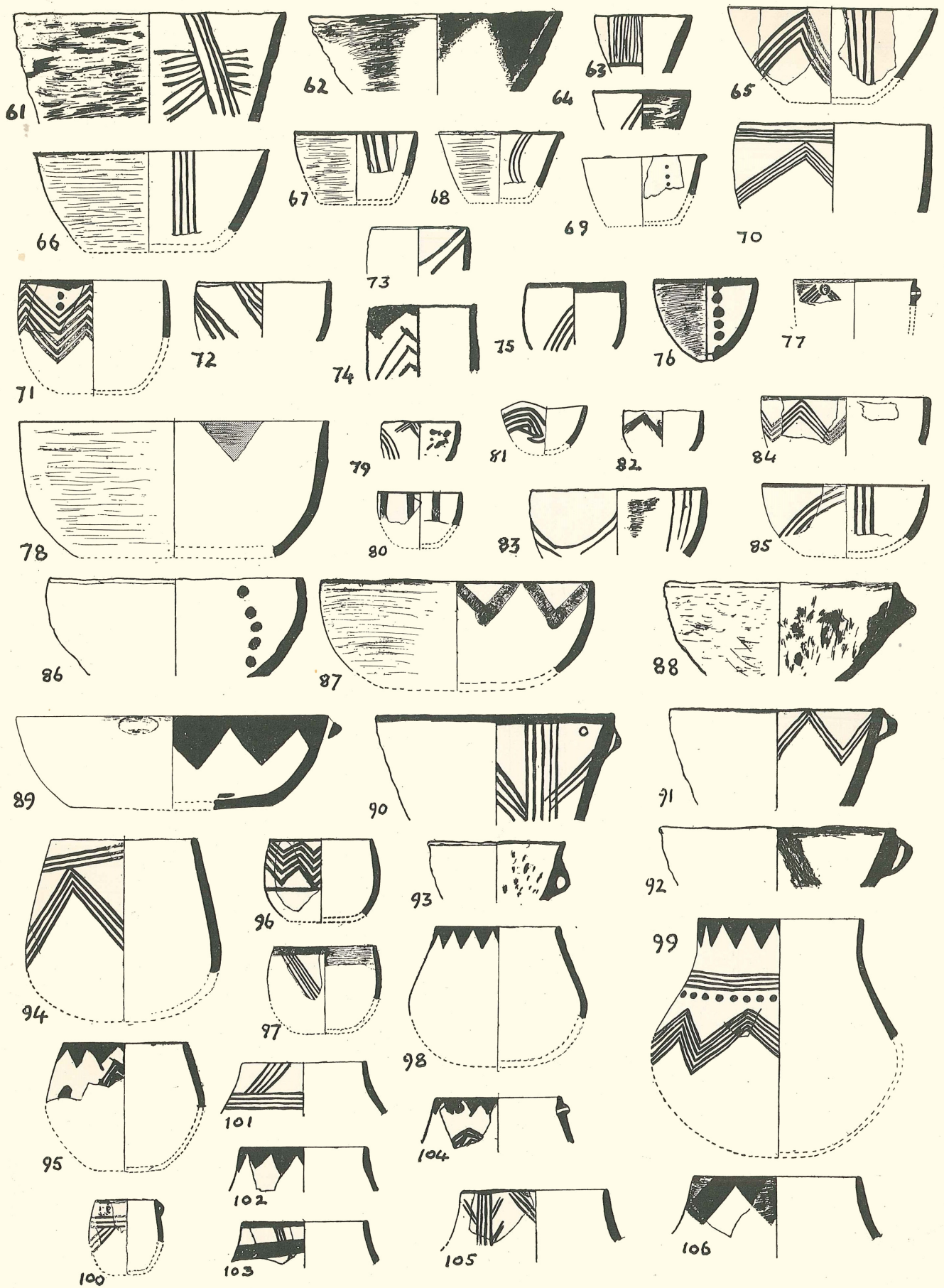


FIG. 5. Ghrubba, Pottery, Scale 1 : 5

	<i>Body</i>	<i>Firing</i>	<i>Grits</i>	<i>Surface Colour</i>	<i>Surface Treatment</i>	<i>Decoration</i>	<i>Layer No.</i>	<i>Remarks</i>
92	bf	h	f	bf	ro	m.r.p.	7	
93	bf	h	f	bf	sm	m.br.p.	9	
94	bf	me	m	bf	sm	l.r.p.	5	
95	bf	h	f	bf	ro	m.r.p.	16	
96	gy	h	f	gy	sm	m.r.p.	16	Burnt
97	bf	h	f	bf	bur	m.r.p.	9	
98	bf	h	c	bf	sm	m.r.p.	12	
99	bf	h	f	bf	sm	m.r.p.	9	
100	bf	h	f	bf	sm	m.r.p.	5-12	
101	bf	h	f	bf/gy	sm	m.r.p.	12, 14	Grey core
102	bf	h	f	bf/gy	sm	m.r.p.	9	
103	bf	h	f	bf/gy	sm	m.r.p.	5-12	
104	bf	h	f	bf/gy	sm	l.r.p.	9	
105	bf	h	f	bf	sm	m.r.p.	12	Burnt
106	bf	h	f	bf	sm	m.r.p.	5	Fine ware, grey core
107	bf	h	f	bf	ro sm	m.r.p.	5-12	
108	bf	h	f	bf	sm	m.r.p.	5-12	
109	r	h	f	r	sm	m.r.p.	10	
110	bf	h	f	bf	sm	m.r.p.	12	
111	bf/r	h	f	r	bur	m.r.p.	5-12	Grey core
112	bf	h	f	bf/gy	bur	br.p.	12	Fine ware
113	gy	h	f	bf	sm	m.r.p.	5-12	
114	gy/r	h	f	bf	bur	m.r.p.	7	
115	r	h	me	bf	ro sm	m.r.p.	11	
116	bf	h	f	bf	ro	m.r.p.	5	
117	bf	h	f	bf	sm	m.r.p.	12	
118	bf	h	f	bf	ro sm	m.r.p.	5-12	Burnt
119	bf	h	f	bf	sm	l.r.p.	12	
120	bf	h	f	bf	bur	m.br.p.	12	
121	bf	h	f	bf	sm	m.r.p.	9	
122	bf	h	f	bf	sm	l.r.p.	9, 12	
123	bf	h	f	bf	bur	m.r.p.	surface	Light brown inside; dark triangle
124	bf	h	f	bf	sm	m.r.p.	5	
125	bf	h	f	bf	sm	m.br.p.	14	
126	bf	h	f	bf	sm	m.r.p.	7	
127	bf	h	f	bf	bur	m.r.p.	5-12	
128	bf/r	h	m	wh/or	sm	m.r.p.	16	
129	bf	h	f	wh/bf	bur	m.br.p.	9	
130	bf	h	f	bf	sm	l.r.p.	12	
131	bf	h	f	bf	sm	m.r.p.	9	

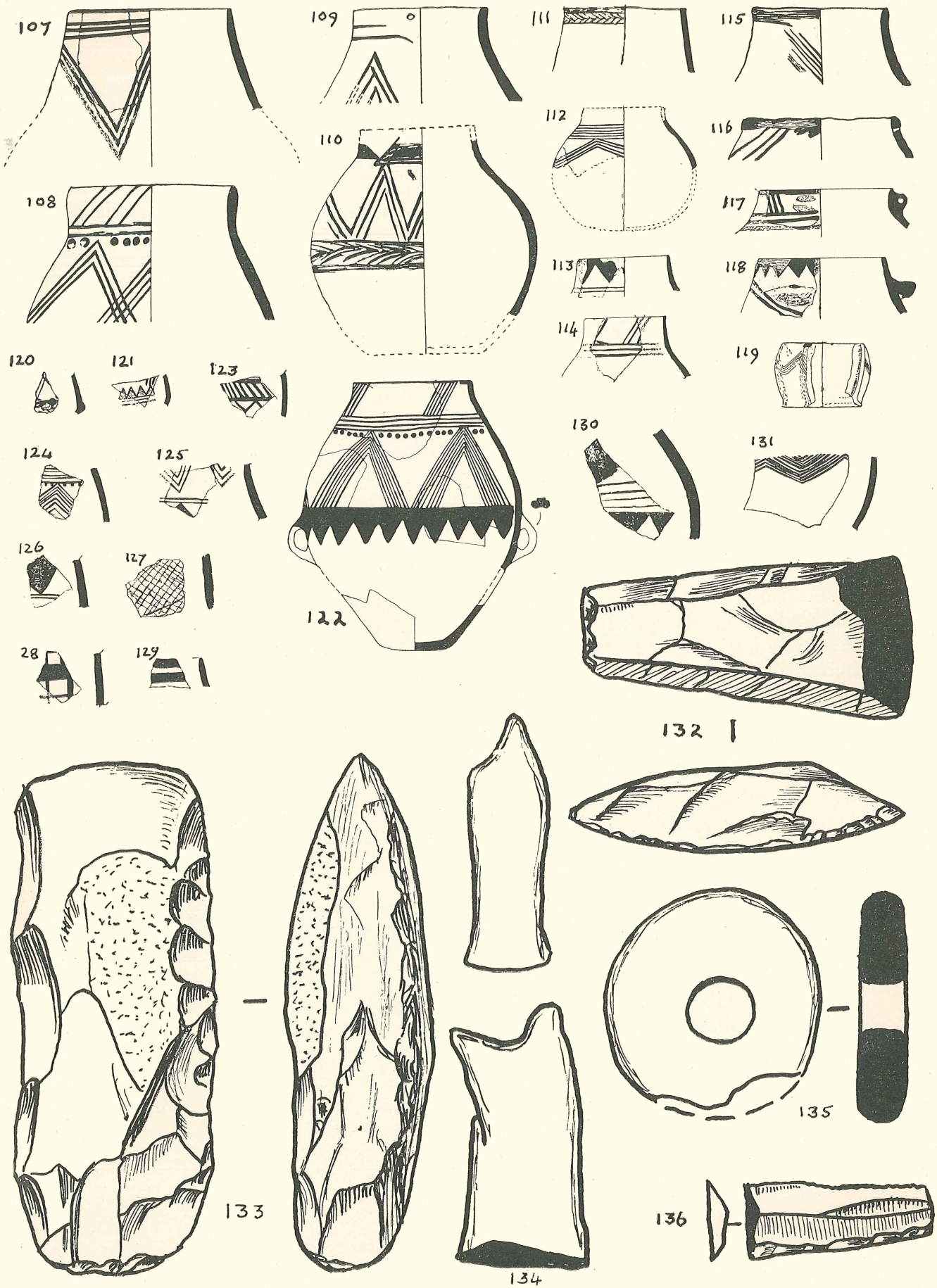


FIG. 6. Ghrubba, Pottery. Scale 1 : 5 ; remainder 1 : 1

Objects

132	Celt, light grey flint	Polished cutting edge, broken	Surface
133	Celt, brown flint	Polished all over	Surface
134	Figurine (?)	Grey gritty clay, coarse	Layer 9
135	Spindle whorl	Buff gritty ware, smoothed	Layer 14, 16
136	Sickle blade, brown flint	Retouched and backed, lustrous cutting edge	Layer 9
	Sickle blade, brown flint	Retouched and backed, no lustre	Layer 6 (not illustrated)

Contractions

bf	buff	f	fine	l	lustrous	p	paint	sl	slip
br	brown	gy	grey	m	matt	r	red	sm	smoothed
bur	burnished	h	hard	me	medium	ro	rough	w	wiped
c	coarse	inc	incised	or	orange	s	soft	wh	white