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EXCAVATIONS AT TABARA EL AKRAD, 1948-49

By SINCLAIR HOOD

TELL TABARA EL AKRAD lies about a twenty minute walk east of Atchana : to the north near the main road is Tell Akrad, and to the south the high conical Tell Saluq, now surmounted by a frontier post.¹

In the Atchana season of Autumn 1948 I visited the site and brought back samples of a hand-made burnished pottery, which was recognised by Sir Leonard Woolley as quite different from anything found either at Atchana or at the neighbouring Chalcolithic site of Tell Esh Sheikh.² It therefore seemed desirable to make some investigation of the site in the hope of securing a representative collection of the pottery and establishing its position in the sequence of the plain. But it was already late in the season, and impossible to undertake anything as part of the regular work of the Expedition. For this reason I offered to make a small sounding at my own expense ; to which plan Sir Leonard immediately acceded, and gave the fullest support and encouragement, providing equipment and every other facility for the work. Bay Ruhi Tekhan, Director of the Antioch Museum, kindly made all the necessary arrangements ; and the sounding was carried out in five days early in December by Bay Baki Ögün and myself with ten men.

A trench (B, Fig. 1) 15 metres long and 2 metres wide was dug to a depth of 2.50 metres on the west side of the tell just below the highest point. The pottery recovered from this was dominantly of the red and black burnished type found on the surface. It became clear that this was akin to the "Khirbet Kerak" ware characteristic of Judeideh XI, and that the period of its manufacture must belong somewhere between the Bronze Age of Atchana and the Chalcolithic of Tell Esh Sheikh.

The following Autumn, 1949, on the early completion of the Expedition's work at Atchana, Sir Leonard decided to make a deep sounding at Tabara in the hopes of establishing solid connections with Tell Esh Sheikh and Atchana. Once again Bay Ruhi Tekhan kindly made all the necessary arrangements ; and the work was entrusted to Bay Baki Ögün and myself with the help of Sir Leonard's able foreman Alawi and thirty men. An area 10 metres square (A, on Fig. 1) was selected on the summit of the tell east of the Trench B dug in 1948. This was carried down to a maximum depth of 4.25 metres through seven distinct levels of occupation, the work lasting twelve days in all.³

¹ Braidwood, "Mounds of the Antioch Plain" (*O.I.P.* XLVIII), 1937, p. 34 and Map VII. But the pottery there attributed to Tell Saluq, entirely of Period XI, sounds as if it had come from Tabara.

² Then in process of being excavated for the Atchana expedition by Bay Ahmet Dönmez, and shortly to be published in *Belleten*.

³ I am deeply grateful to Sir Leonard Woolley for constant help and advice at every stage of the work and in the preparation of the report ; to Professor Childe for reading through the MS., and for offering many useful suggestions and references ; to Miss Kathleen Kenyon for checking some Iron Age references ; to Bay Ruhi Tekhan, Director of Antioch Museum, and to Bay Baki Ögün, who assisted in the excavation.

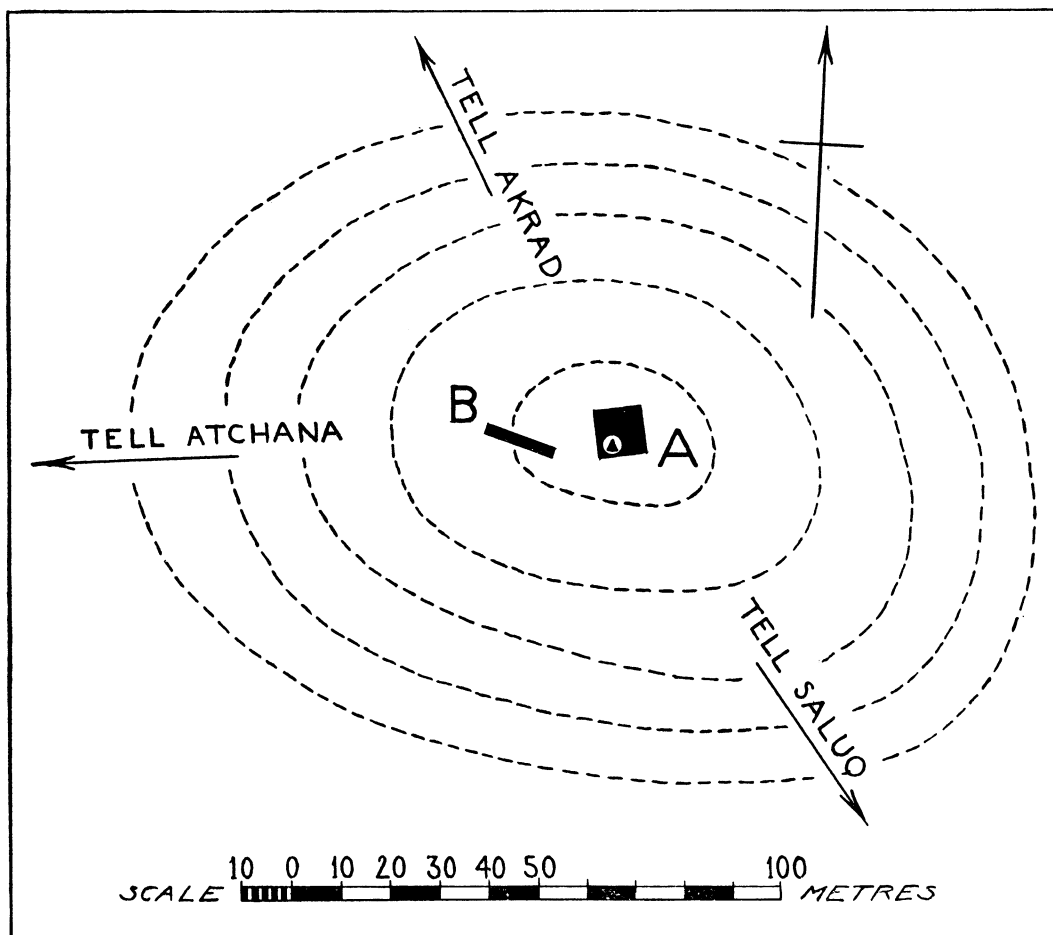


Fig. 1. Sketch Plan of Tell Tabara el Akrad : (Contours at c. 1 metre Intervals).

HISTORY OF THE SITE

The interest of this site lies not only in the very full picture it gives of the Khirbet Kerak Culture in the Amuq plain, but also in the fact that it fills the gap between the Chalcolithic of Tell Esh Sheikh and the Bronze Age of Atchana, while the material from the pre-Khirbet Kerak levels provides useful additional evidence for correlating contemporary Cultures in Mesopotamia and Palestine.

The stratification from Trenches A and B was as follows :—

	TRENCH A	TRENCH B
Surface	Early Iron Age	
	HIATUS	
I. } II. } III. } IV. }	Khirbet Kerak Culture.	Not carried down below a level which may be equated with Level V in Trench A.
V. }	Pottery showing affinities with Mesopotamian	
VI. }	Uruk, etc., wares.	
VII.	Late Chalcolithic Culture cf. Upper Levels at Tell Esh Sheikh.	

The lowest level VII in Trench A yielded a substantial building with pottery and small objects characteristic of a late phase of that variety of the "Northern 'Ubaid" Chalcolithic Culture which flourished in the Amuq plain, and which is illustrated by the upper levels at Tell Esh Sheikh.

In levels VI and V there makes its appearance a new cycle of pottery, which is represented at Tell Esh Sheikh only in the disturbed surface levels. This is characterized by carinated forms, and red washed and burnished surfaces ; and shows affinities with Mesopotamian "Uruk" and "Jemdet Nasr" wares on the one hand, and with the Early Bronze Age pottery of Palestine on the other. While this pottery may have been introduced by invaders or immigrants from abroad, there is nothing to prove that it did not develop on the spot through changes of fashion doubtless inspired by examples farther east. Level VI in Trench A was apparently open ground with pits ; but Level V produced a rather mean building with small rooms and thin walls.

With Level IV there is a clean break in the history of the site, marked by the intrusion of an entirely new culture possessing a handsome pottery with bold shapes, finely burnished and richly decorated, of the type known in Palestine as Khirbet Kerak ware. This culture was evidently introduced by invaders, possibly from the South Caucasus region (see p. 117), some of whom settled in the Amuq plain, while others moved onwards either then or a little later into Northern Palestine. In the Amuq plain at least, where the settlement of these people was clearly intensive, the original inhabitants may have been killed or driven out : there is, at any rate, no definite evidence that the older "native" pottery continued to be made alongside of the "Khirbet Kerak" wares at Tabara ; although owing to the confused nature of the stratification at the junction of Levels V and IV it is impossible to be absolutely certain about this.

Level IV was occupied by a series of large granary pits ; while from Level III was recovered the plan of a rectangular dwelling or room with a hearth in one corner. In these levels metal makes its first appearance at Tabara, with a couple of copper/bronze awls from the Level IV granary pits, and a flat axe from Level II (Fig. 9 Nos. 1 and 3). There was even evidence of metal working in the shape of a fragment of a vase used as a crucible (see p. 125, from Trench B).¹

This Khirbet Kerak Culture continues without interruption through some two metres or more of deposit and into Level I. The site then seems to have been deserted about the time that the full Bronze Age occupation at Atchana began ; and there is no sign of any further settlement of the tell until the Iron Age.

The Iron Age occupation appears to belong to a phase corresponding to the Early and Middle Iron at Megiddo in Palestine, but ending well before the Hellenistic period.

¹ Metal was already in use, at least for trinkets, in the upper levels at Tell Esh Sheikh, which correspond to Tabara Level VII or earlier. Compare also the neighbouring Judeideh, where metal is reported from the pre-Khirbet Kerak Levels XII and XIII (Braidwood, *Mounds of the Antioch Plain*, p. 7).

ORIGINS OF THE KHIRBET KERAK CULTURE (See Map, Fig. 2)

The Khirbet Kerak Culture is clearly related to the Chalcolithic and Copper Age Cultures of Anatolia.¹ The handsome burnished pottery has obvious affinities with early Anatolian wares; and such features as omphalos bases, and ribbed and fluted decoration, can be paralleled from all parts of that region.²

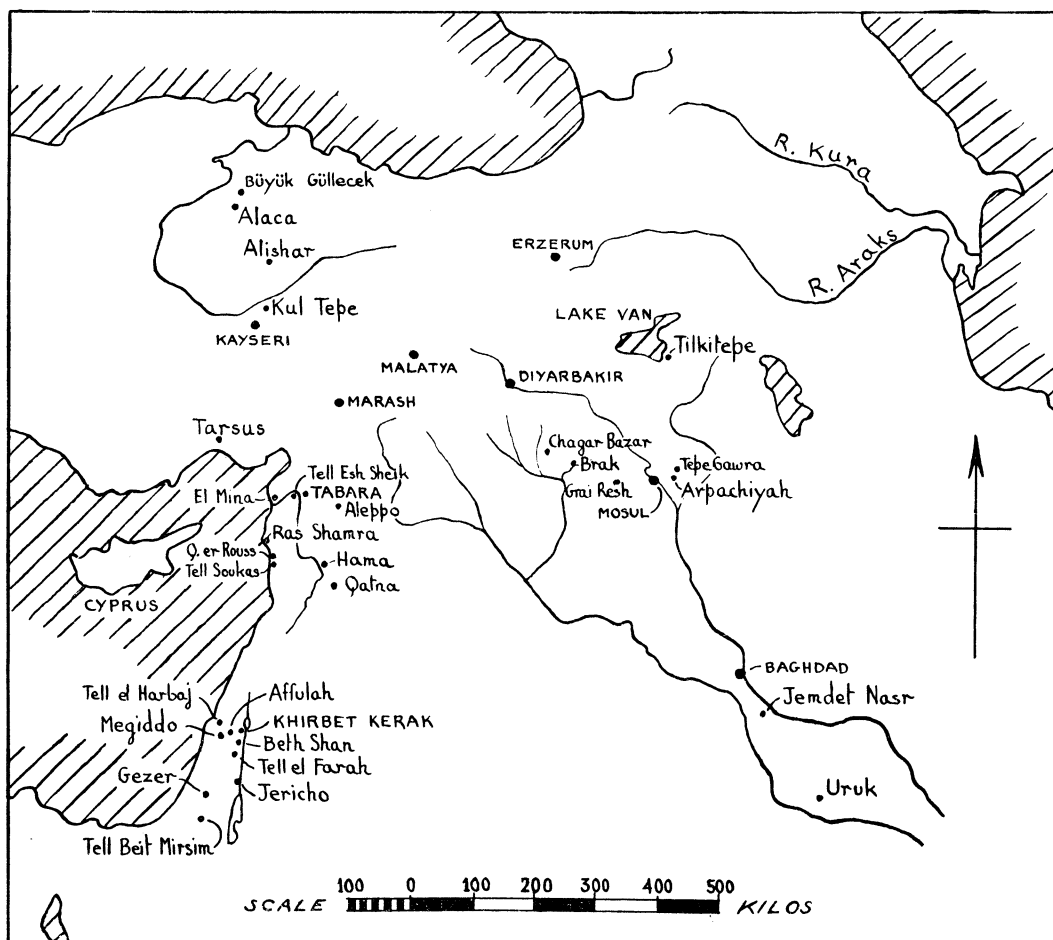


Fig. 2. Sketch Map of the Near East showing places mentioned in the text.

But the affinities of Khirbet Kerak ware are evidently Eastern rather than Western. Thus the pottery from early levels of sites in the Hittite country of Central Anatolia shows distinct connections with Khirbet Kerak ware. For instance, several of the shapes from the Chalcolithic and

¹ The northern origin of Khirbet Kerak ware has long been recognised. e.g. Fitzgerald and Bache, "Beth Shan: The Earliest Pottery," *Univ. Penn. Mus. J.* XXIV.1. 1935, p. 18; Braidwood, *Mounds of the Antioch Plain*, p. 55; Schaeffer, *Stratigraphie Comparée*, p. 34 note 1, and p. 345.

² For omphalos bases, e.g. Alishar, and the Chalcolithic pottery from Büyük Güllücek near Alaca (*Belleten* XII, 1948, Pl. ciii): for ribbed and fluted decoration, e.g. Alaca, Alishar, Kusura "B", and even Thermi in Lesbos (Lamb, *Thermi*, Pl. xvii).

Copper Age levels at Alişar Hüyük, are clearly reminiscent of those from Tabara and Palestinian sites (see e.g., Types 13, 15 and 21) ; while "pot stands" similar to Pl. XI, A-B, also occur. At Alaca the two vases from Tomb MA of the latest Copper Age have the distinctive red inside and black outside of Tabara Type 13, combined with fluted decoration ;¹ and also from the Copper Age levels comes a completely typical bowl of Type 16.²

On the other hand such characteristic western types as the jug with the beaked or raised spout, which are found as far east as Alişar and Alaca, at any rate in the Copper Age, are not represented at all among Khirbet Kerak forms. In fact, for the closest parallels to Khirbet Kerak pottery, it seems necessary to look still farther East. Here in the region between the Black Sea and the Caspian, just South of the Caucasus, the fertile Kur-Araxes basin contains a number of early settlement mounds yielding a type of pottery remarkably similar in many respects to what we get in Syria and Palestine.³ This pottery is hand-made. A favourite shape is a vessel with narrow base and wide rim ; while omphalos bases are common, and handles to the rim occur. The vases are given a high burnish, characteristically red inside and black outside as in Tabara Type 13. Decoration includes fluting, relief ornament and bosses, together with incision ; and the design is normally restricted to one side of the vase as in Type 17a. Moreover with this pottery are found "pot stands" exactly like those which occur with Khirbet Kerak ware in the Amuq plain and in Palestine (see p. 139 and Pl. XI (A-B)).

The culture to which this pottery and these "stands" belong is one of permanent agricultural settlements, and appears to have flourished a long time to judge from the number of mounds and the depth of deposit in them. It is clearly at home in the South Caucasus region, and it is the earliest culture defined by pottery recognised there. It is classified by Russian archaeologists as "aeneolithic" ; metal is rare, and finds of metal objects seem to be practically confined to simple pins and awls like Fig. 13, 1.

How far this culture extended beyond the Kur basin is not established. Little is known about the prehistoric archaeology of the eastern part of Turkey : but a site at Karaz Hüyük near Erzerum has yielded pottery very similar in appearance to that from the Kur-Araxes basin.⁴ That this

¹ H. Koşay, *Ausgrab. von Alaca Höyük* (*Ver. der Türk. Gesch.-Komm.*, V. Ser., Nr. 2a), Ankara 1944 : Colour Plate at the end.

² Found in 1943 and in the Museum at the site. But it appears to be quite isolated, and may perhaps be an import.

³ Kuftin, "The Urartian Columbarium at the Foot of Ararat and the Eneolithic Stage of the Kur-Araks Basin," *Vestnik Gos. Muzeia Gruzi*, XIII B, Tiflis, 1943, with an English summary. This is a complete survey of the culture in question, apropos of a settlement mound at Igdir covered by a lava flow, into the top of which an Iron Age Urn Field (the Columbarium) had been intruded. This reference was brought to my notice by Sir Leonard Woolley.

⁴ Excavated by Dr. Hamit Koşay and Bay Kemal Turfan, and in the Ethnological Museum at Ankara. Bay Baki Ögün first noticed the resemblance between this pottery and that from Tabara, and kindly drew my attention to it. Cf. *Türk Tarih Kongresi*, III, pp. 165-170.

culture did not extend as far south as the region of Lake Van and Diyarbakir is perhaps suggested by the negative evidence of a recent survey of mounds there.¹

It therefore seems very possible that the people who brought the Khirbet Kerak pottery into Syria and Palestine came from the area of the Kur basin or near it. This is clearly a great folk migration, an outpouring of barbarians from the North upon the more civilized peoples of the South, and not the gradual and piecemeal expansion of a growing population into adjacent regions. Thus there is no reason to postulate or expect a chain of intermediate sites in the territories through which the invaders may have passed on their way to the lands where they settled.²

Distribution of the Khirbet Kerak Culture (See Fig. 2).

Khirbet Kerak pottery has been recognised from a large number of sites in the Amuq plain, which indicates intensive settlement there.³ To the south west it occurs at Ras Shamra and at Qalaat er-Rouss above a level of destruction;⁴ and it has also appeared at Tell Sukas just south of Qalaat er-Rouss on the coast⁵, and at Hama on the Orontes⁶. But it was not apparently found in the course of a recent survey of mounds in the area east of Aleppo.⁷

In Palestine it is plentiful at Khirbet Kerak itself,⁸ at Beth Shan⁹ and at Affulah.¹⁰ But at the main excavated sites to the west and south, like

¹ A. Dönmez and W. C. Brice, "Distribution of Early Pottery in S.E. Turkey," *Iraq*, XI, 1949, p. 44. Compare also the account of excavations at the early mound of Til kitepe on Lake Van, by E. B. Reilly, *Türk Tarih*, IV, 1940.

² This invasion of the Khirbet Kerak people is, archaeologically at any rate, the most decisive and catastrophic event in Syria and Palestine before the end of the Bronze Age. The movement seems to be equivalent in scope to the Anatolian eruptions into Cilicia and perhaps Cyprus. If, as appears possible, it was also more or less contemporary, then it would be interesting to connect them. For the view that the Early Red Polished wares in Cyprus reflect an invasion from Anatolia contemporary with that of the Khirbet Kerak people into Syria, see Schaeffer, *Stratigraphie Comparée*, p. 345 seq. (But contrast Dikaïos, *Archaeologia* lxxxviii, p. 165 seq., who emphasises the possibility of a native Cypriot origin for this pottery.) At Tarsus in Cilicia, pottery of "Anatolian" character occupies a long phase before the appearance of painted pottery akin to that from early levels at Atchana (Garstang and Goldman, "A Conspectus of Early Cilician Pottery," *A. J. A.*, LI, 1947, p. 382).

³ See the distribution map in Braidwood, *Mounds of the Antioch Plain*, p. 55, Map XXII.

⁴ Schaeffer, *Stratigraphie Comparée*, pp. 33 and 41.

⁵ Wright, *Pottery of Palestine from the Earliest Times to the End of the Bronze Age*, 1937, p. 73. Two sherds from the middle and two from the lower layer 5 at Tell Sukas.

⁶ Ingholt, *Rapport Prélim. sur Sept Camps. de Fouilles à Hama*, 1940, pp. 19-20, and Pl. V, 4 and 6.

⁷ Maxwell-Hyslop, etc., "An Archaeological Survey of the Plain of Jabbul, 1939" (*P.E.Q.*, 1942, p. 8).

⁸ Albright, "The Jordan Valley in the Bronze Age," *A. A. S. O. R.*, VI for 1924-5, p. 27.

⁹ Fitzgerald and Bache, *Univ. Penn. Mus. J.* XXIV, 1, 1935, Levels XII and XI.

¹⁰ Sukenik, *Archaeological Investigations at Affula*, Jerusalem 1948, Pls. x and xi.

Megiddo¹ and Jericho,² Tell el-Harhaj and Gezer,³ it is only represented by a few sherds and stray vases, which do not suggest permanent or intensive settlement at any time there.

Chronology.

The pottery of Level VII corresponds to a late phase of the "Northern 'Ubaid" of Assyria; while that of the succeeding Levels VI and V has affinities with Mesopotamian "Uruk" and "Jemdet Nasr" wares, and with the mature Early Bronze Age pottery of Palestine (see p. 132). The "Khirbet Kerak" Levels from IV upwards clearly equate with a part at least of Judeideh XI, which contained cylinder seals of Mesopotamian Late Jemdet Nasr to Early Dynastic types.⁴ At Tabara, similarly, the little wheel-made bowls of Type 22 found together with Khirbet Kerak ware from its first appearance in Level IV, seem to belong to an Early Dynastic horizon in Mesopotamia (see p. 140).

In Palestine Khirbet Kerak pottery is securely fixed in Early Bronze III, which Wright and Albright have shown to be more or less contemporary with the Pyramid Age, Dynasties III-IV, in Egypt. But it is not clear at what stage in Early Bronze III it appeared in Palestine, although it seems unlikely that it was at the very beginning of the period; in any case it only seems to have flourished for a comparatively short time, about two centuries at most, and is no longer found in Early Bronze IV which is apparently contemporary with some part at least of the First Intermediate period.⁷

REPORT ON THE EXCAVATION

I. STRATIGRAPHY AND ARCHITECTURAL REMAINS.

TRENCH A (See Plans, Fig. 3, and Sections, Fig. 4).

Level VII. This level contained substantial remains of a building with thick well built walls of mud brick preserved in places to a height of a metre above the latest floor. The ruins were encumbered with solid masses of fallen brick, which

¹ Shipton, "Notes on the Pottery of Strata, VI-XX" (*S. A. O. C.* No. 17), 1938, p. 39. See also *Megiddo II* (*O.I.P.* LXII), 1948, Pl. 5, 14.

² Fitzgerald, *L. A. A. A.* XXIII, 1936, p. 91. See also *L. A. A. A.* XXII, 1935, p. 155, and XIX, 1932, Pl. VI, 11, from Tomb "A".

³ Parts of bowls recognised by Wright, *Pottery of Palestine*, p. 73.

⁴ Braidwood, *Mounds*, p. 7. The latest seal of Early Dynastic type came from about the middle of the period, while those of late Jemdet Nasr type occurred at the beginning. It is not clear whether the Khirbet Kerak ware appears at the beginning of the period or not.

⁵ Albright, *Archaeology of Palestine*, 1949, pp. 74-77.

⁶ Wright, *Pottery of Palestine*, p. 73 and note 128 for Beth Shan. At Jericho Khirbet Kerak ware was found in Room 109 at a depth of c. 12.50, well above the apparently Layer III floor at 11.50 (*L. A. A. A.* XXIII, 1936, p. 91); and a Khirbet Kerak vase occurred in the very top of the deposit in Tomb "A", which according to Wright seems to represent a late phase of Beth Shan XII (*Pottery of Palestine*, p. 75, and *L. A. A. A.* XIX, 1932, Pl. VI, 11).

⁷ Schaeffer has suggested (*Stratigraphie*, p. 36) that the invasion of the Khirbet Kerak people is in some way connected with the downfall of the Old Kingdom at the end of Dynasty VI. But this seems difficult to admit on the evidence available.

it took all the skill and experience of the foreman Alawi to distinguish from the standing walls. The door between Rooms I and II had a raised sill of mud brick. The mud floors had been relaid several times, and were marked by successive layers of black rubbish resting on them, particularly in Room I where six could be distinguished, the highest half a metre above the lowest (see Section C-D, Fig. 4).

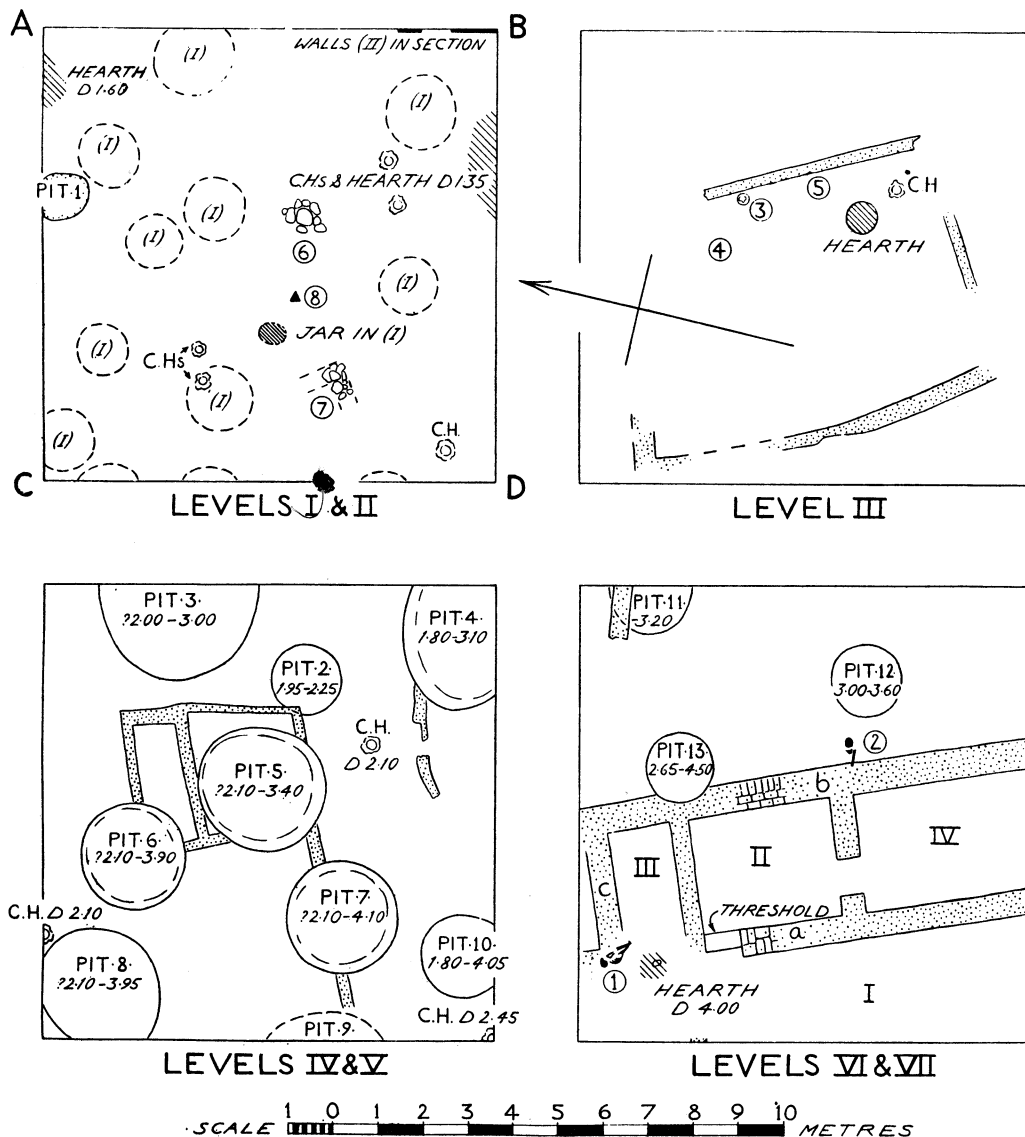


Fig. 3. Trench A: Plans. C.H. = Cooking Hole. (8) = Concrete Survey Base on the highest point of the Tell.

In the north-west corner of Room I were successive hearths, each with a flat slab of stone near the centre for cooking pots to rest on.

Where it was possible to make out their size, the bricks appeared to be small, roughly twice as long as they were wide, about 36×18 cms. and 7-10 cms. thick. In parts of walls *a* and *b* the arrangement of the bricks could be distinguished (see Plan, Fig. 3); wall *a* was three, wall *b* four bricks thick. But the debris in Room I

fallen from the upper part of the walls suggested that a larger brick, measuring as much as $45 \times 36 \times 12$ cms. thick, was also in use.

From the filling of Room II were recovered several fragments of small saddle querns of basalt, and part of a basalt mortar with traces of a red pigment, probably haematite, which had been ground in it (Fig. 12, 7). Also from Level VII came the miniature clay spoon (Fig. 12, 15), pieces of a large bowl of grey steatite, and two bits of limestone, apparently from globular mace heads. But the most interesting object from this level was the fine steatite gable seal bearing the figure of a stag (Fig. 12, 5).

A burial (Figs. 3, 1, and 3A) came to light in the north-west corner of the trench just below the level of the bottom of wall *c*, by which it appeared to be sealed; although this was not quite certain, as wall *c* had been almost entirely destroyed here by the Level IV Pit 8, the floor of which was only a few centimetres above the burial. The skeleton was tightly contracted; but the jaw had evidently been thrown out of position at some point after the flesh had decayed, perhaps when wall *c* was built.

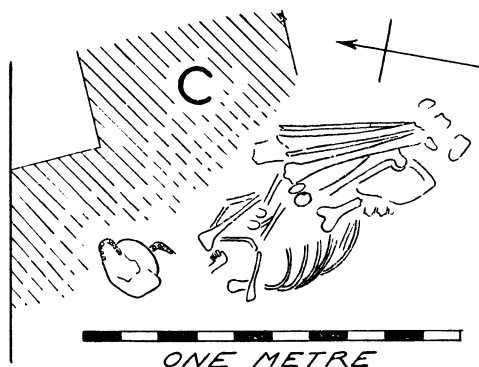


Fig. 3A. Burial in Level VII under wall C.

Level VI. This comprised at least two distinct phases of occupation. No structure of any kind came to light, except perhaps at the north-east corner of the trench, where a small piece of wall, standing to a height of about half a metre, may belong to a late phase of this period. This wall had been built over a shallow pit (Pit 11), not more than 0.20 deep, which may have been a winnowing hole; at its bottom was a good deal of white powder, which also occurred plentifully in the large granary pits of Level IV, and which may be the remains of grain or chaff. A second pit (Pit 12) 0.60 deep just to the south may have served a similar function.

A third pit (Pit 13), sunk from a somewhat higher level and belonging to the latest phase of Level VI, was altogether different in character. It was about 2 metres deep, and 2.80 wide at the bottom with sides sloping inwards to make a narrower top; and it had a loose filling of very black earth, which contained a great deal of representative pottery: this was the more welcome, since the pottery from the rest of the Level was sparse and fragmentary, as might be expected from open ground between houses.

A burial at a depth of 3.20, which seems to belong to this period, had been cut through by the Level IV Pit 5. The skeleton had evidently lain with the head to the east; but only the skull with a few ribs and an arm bone remained (Plan, Fig. 3, 2).

Level V. This was occupied by a building with flimsy walls of mud brick

still preserved in places to a height of 0.30–0.40. The walls were only 0.20–0.30 wide, except in one short stretch where they were as much as 0.40. At one point the outline of the bricks could be distinguished measuring $40 \times 23 \times 10$ cms. thick.

Level IV. With this level an abrupt change in the history of the site is marked by the appearance of the “Khirbet Kerak” Culture. In the south-west corner of the trench Level V was separated from Level IV by a distinct layer of burnt rubbish which covered the Level V building in that area; but this was not considerable enough to serve as positive argument for a destruction by fire either of this particular building or of the settlement as a whole.

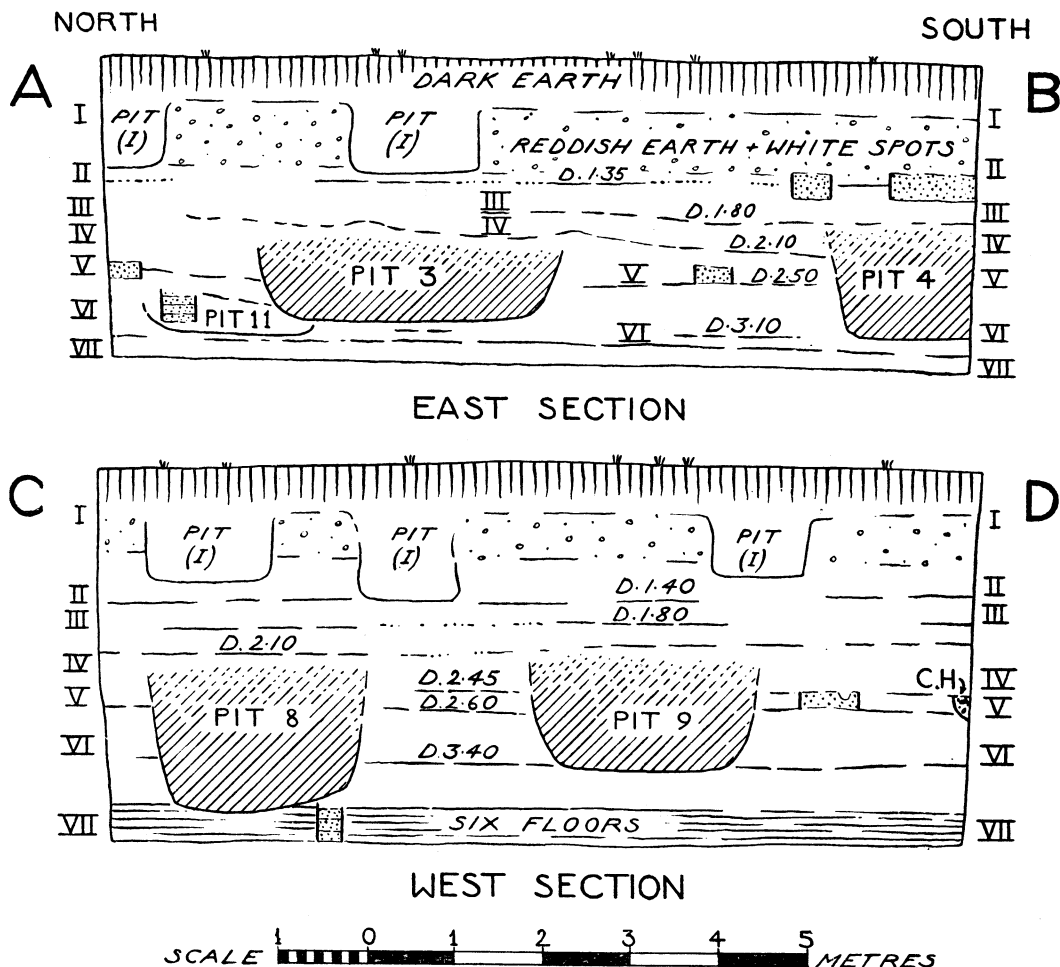


Fig. 4. Trench A : Sections.

During this period the area of the trench had apparently been open ground occupied by a series of large pits (Pits 3–10), some of them three metres or more in diameter, and varying in depth from 1.10–2.25 metres. These were presumably granaries; and from the bottoms of several came quantities of white powder, which may be the remains of grain or chaff. From their fillings were recovered a couple of bronze awls (Fig. 12, 1), many fragments of basalt grain rubbers, and bones, together with parts of articulated skeletons, identified as belonging to sheep or goats. Two complete bowls of Type 13 were found high in the fillings of Pits 5 and 7. These

pits do not seem to be all absolutely contemporary ; while most were covered by a surface at a depth of c. 2.10, Pits 4 and 10 apparently belonged to a later phase, and were only sealed by the occupation surface of Level III (see sections, Fig. 4).

To the latest phase of Level IV belongs a shallow pit (Pit 2), about 1.60 in diameter and only 0.30 deep, with the top immediately below the base of a wall of Level III : this may have been a winnowing hole like Pits 11 and 12. It had a filling of hard packed burnt layers ; but the sides and floor showed no trace of burning, and this filling must therefore be regarded as only rubbish.

Cooking Holes. No structure of any kind was detected in Level IV. But there were two cooking holes, one in the north side of the trench sunk from a surface at 2.10, and another in the south-west corner sunk from that at 2.45. Such cooking holes formed a very distinctive feature of the " Khirbet Kerak " Levels IV-I. They consisted of neat little hollows, usually conical, about 0.20 deep and 0.25 across, sunk in the floor, often near a larger open hearth. The hollows were carefully packed round with a mass of pebbles or pot sherds ; and in some cases the inner surface seems to have been lined with sherds. This inner surface was normally coated with a hard white film of ash, which almost gave the illusion of a deliberate plaster ; and the hardening and reddening of the earth in and around the packing was further proof that the hollows had contained fire. These holes, in fact, seem to be intended for cooking, presumably with charcoal embers : the packing of pebbles and pot sherds was evidently devised to conserve the heat. It is very probable, as Sir Leonard Woolley has suggested, that the curiously elaborate horseshoe-shaped " stands " (p. 139 and Pl. XI, A) were intended to support pots over such cooking holes.

Level III. In this level were detected the stumps of brick walls enclosing a rectangular room or house. These were only preserved to a height of 0.10, and showed up as reddish patches in the soil. The east wall at any rate was built of a single thickness of bricks, measuring c. 60 × 38 centimetres, laid lengthwise. In the south-east corner of the room was a hearth, about 1.00 in diameter, flush with the floor, but having a foundation composed of loose pebbles together with some pot sherds, including the larger part of a bowl (Type 15). Near it was a cooking hole : and about three metres away by the wall the base of a " vase support " (Type 20) was resting in position on the floor (Plan, Fig. 3, 3). From this floor were also recovered a small grain rubber, and two pieces of a fine " pot stand " (Plan, Fig. 3, and Fig. 11, 4 and 5).

Level II. A hearth and five cooking holes came to light in this level. The cooking holes seemed to be arranged in pairs. The hearth, which ran under the south side of the trench, covered an area about two metres across, and was as much as 0.20 deep in hard packed ash : a good deal of pottery was recovered from around it.

Even at this depth the soil was considerably weathered, showing reddish with white spots in the section, which made the slight remains of walls difficult to detect. A bit of walling was recognised in the south-east corner ; and thin splodges of red clay, only 1 or 2 centimetres thick, in the western part of the trench, probably represented walls or fallen walls. Piles of stones (Plan, Fig. 3, 6 and 7) may mark foundations of walls at corners.

A pit (Pit 1), about 1.20 deep, and rather irregular in shape with the sides overhanging in places, had been sunk from Level II. It was filled with soft brown earth, containing a little pottery and a few animal bones.

Level I. No stratification could be observed owing to weathering of the soil. But the whole area was honeycombed with small pits, circular in shape, with flat bottoms between 1.10–1.60 below the surface. These were probably store pits or granaries; one at any rate had at the bottom a deposit of white powder like the granary pits in Level IV. From Level I, and especially from the pits, came a good deal of Iron Age pottery, together with a series of steatite whorls (Fig. 12, 6) and notched bones (Fig. 12, 9–10). In the south-east corner, only 0.25 below the surface, were remains of an extended burial.

TRENCH B (See Plan and Section, Fig. 5).

The lowest level reached in Trench B seems to correspond to Level V in Trench A, to judge from the absence of burnished Khirbet Kerak wares, and the presence of abundant cooking pot together with a few sherds having painted decoration. But from the levels above, all the pottery was of the Khirbet Kerak type characteristic of the upper Levels IV–I in Trench A. The later Iron Age elements from the

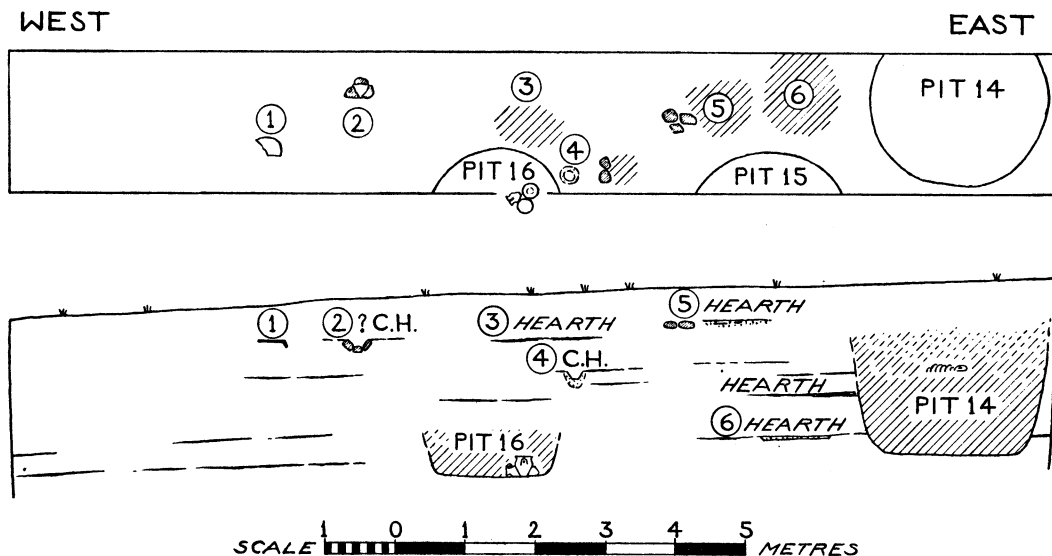


Fig. 5. Trench B: Plan and Section.

surface Level I of Trench A were hardly represented in Trench B; this would be explained by the greater amount of erosion likely to take place here on the slope of the tell.

In the 2.50 metres of deposit excavated, at least five distinct floors or occupation surfaces could be recognised. About the centre of the trench at a depth of 1.35 was a typical cooking hole beside a hearth (Fig. 5, 4). In a well marked level at about 0.60 below the surface was a hearth (Fig. 5, 3), and to the west of it a flat-bottomed hollow sunk in the floor and composed of four fragments of a basalt grain rubber (Fig. 5, 2); which may be another cooking hole, or perhaps a stand for pots, as there was no marked trace of fire round it: near to this a large flat base of a store jar had been let into the floor upside down (Fig. 5, 1). A hearth at the upper east end of the trench only 0.40 below the surface (Fig. 5, 5) had a base of small pebbles like the hearth in Trench A, Level III; three flat stones set in the floor made a stand for pots beside it. An interesting find was part of the base of a

coarse cooking pot type of vase, which had apparently been employed as a crucible for melting copper or bronze, remains of which still adhered to it : this came from the centre of the trench at a depth of about 1.95.

During the last ten minutes of work on the day of the excavations in 1948 four complete and unbroken vases came to light in a group together in the side of the trench. These were evidently resting in a shallow pit (Pit 16), apparently a store pit and not a grave, which was sealed by a floor just over a metre above ; but the sides of the pit could only be traced upwards for about 0.40. The vases were large, of coarse fabric, showing some signs of use over a fire. The bowl (Type 12) was upside down, while Type 17*b* lay on its side ; but the large jar (Type 17*a*) stood upright with 17*c* inside it.

At the upper east end the trench cut through two large pits (Pits 14 and 15), like the granary pits in Trench A, Level IV : their sides could be traced upwards to within at least a metre of the surface. The filling of Pit 15 was in horizontal strata containing much ash. From both pits, but especially from Pit 15, came a large and valuable collection of the finer Khirbet Kerak wares, including several complete or nearly complete bowls of Types 13 and 16. In Pit 14 about 1.25 from the surface was the complete skeleton of a (?) dog.¹

II. RELICS : POTTERY.

(A) PRE-KHIRBET KERAK WARE (Levels VII-V).

(a) *Typology* (Figs. 6 and 7).

Type 1. Bowl with incurving sides. Nos. found 40.²

(cf. Tell Esh Sheikh, Type 1). This type is especially characteristic of Level VII, from which four-fifths of the examples come ; but it occurs also in VI, and there are three rims from V. The fabric shows a considerable range of variety (see p. 129). Most bowls of this type, particularly in Level VII, had painted decoration around the upper part of the body. From VII came two examples, one with a burnished red wash,³ the other with a finely burnished brown surface. The two rims figured show incipient beads ; *a*, from VI, has a black burnished surface inside and out,⁴ while *b*, from a pit in IV, is of orange burnished ware.

Type 2. Small bowl with incurving S-shaped sides.

There were four examples of this type, from Levels VII-V. That figured from V is of fine orange clay, pebble burnished inside and out. The others are of orange or buff clay with the surface untreated (VII), or burnished (VI), or wet smoothed (V) on the outside.

Type 3. Bowl with rounded or roughly flattened base. Nos. found 260.

(cf. Tell Esh Sheikh, Type 7).⁵ This type is especially characteristic of Level

¹ The bones were sent to Ankara, where they await examination.

² Unless otherwise stated these numbers refer only to rims from Trench A. In the case of the commoner types especially it is quite possible that several fragments of rim from the same vase may have been included in the count.

³ c.f. Seton Lloyd, "Uruk Pottery" *Sumer*, IV, 1948, Pl. I (Red Ware), 5, from Uruk.

⁴ cf. Nineveh III (*L. A. A. XX*, 1933, Pl. xlix, 18, and p. 163), for black burnished as a variety of the characteristic grey burnished wares of this level.

⁵ Round-bottomed bowls of this shape are very common at Jericho in Levels VI-VII of E.B.I. (*L. A. A. A. XXIII*, 1936, p. 98, and Pl. xxxvi).

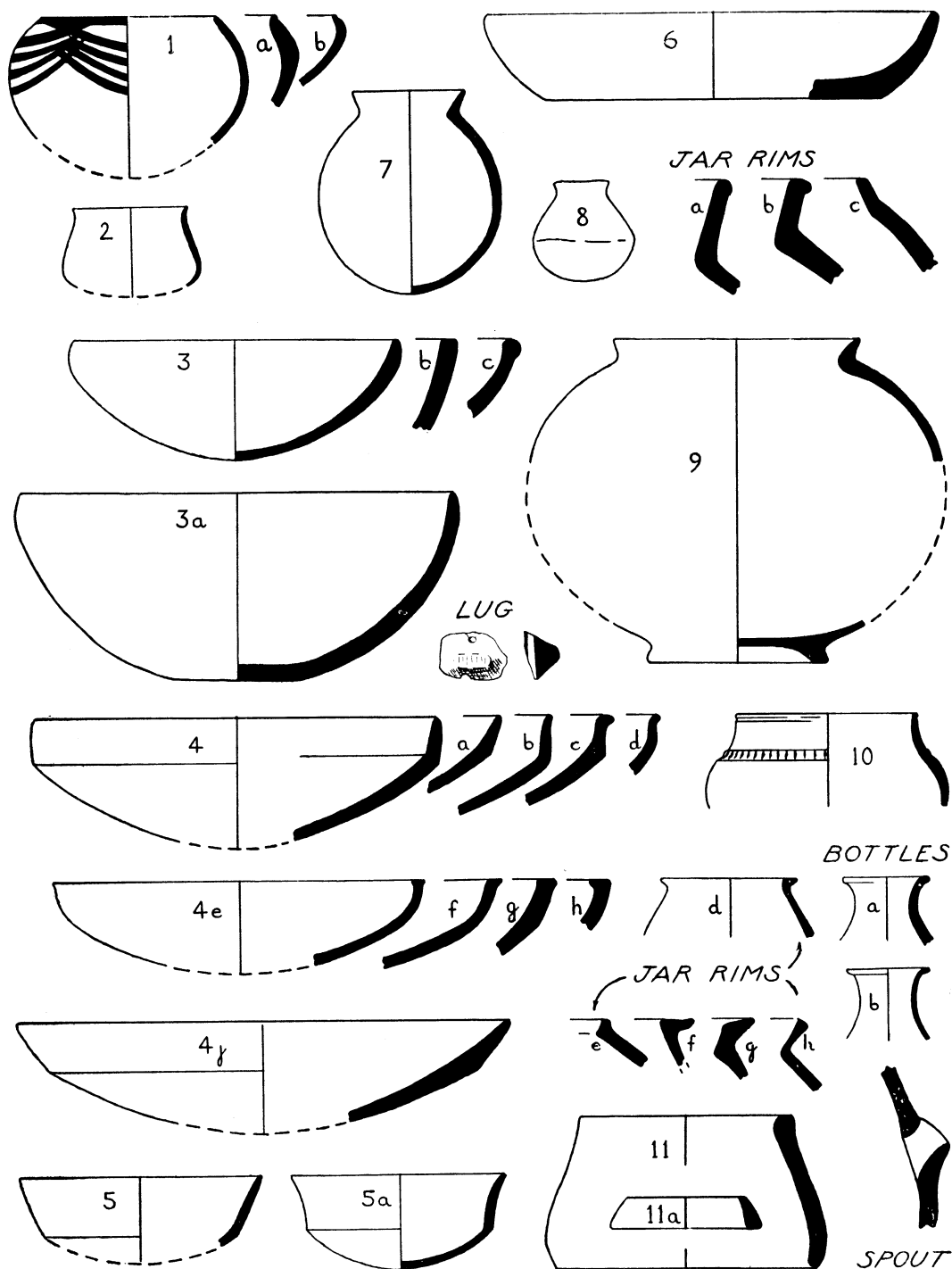


Fig. 6. Pottery Types 1-11 from Levels VII-V (p. 125 seq.). Scale 1/4.

VII, from which about three-fifths of the examples come ; but it is common also in VI, while about thirty rims occurred in V and IV. All the examples from VII are of coarse fabric with the surface rough ; but a few rims from VI-IV, while not differing in fabric from the rest, have a slight pebble burnish. There were six bead

rims, three from VII, of which one had a red wash smoothed inside and out, two from V and one from IV.¹

Type 4. Shallow carinated bowl with short upright or outward leaning sides. Nos. found 60.

This type is especially characteristic of Level VI, from which over half the examples come ; only five or six rims were recovered from VII, and ten from IV (see p. 121).¹ The clay is often rather fine, and shows a wide range of colour including brown and buff, grey, green and white, although orange predominates. The surface sometimes has a red wash, and is normally pebble burnished or smoothed whether with a red wash or not. One example of 4e from V is of coarse black clay with a red burnished wash. The marks of the slow, or perhaps of the fast wheel, are clearly visible when the burnishing has not obliterated them.

In the characteristic form the carination is sharp ; but nearly half the examples enjoy a rounded profile as *b*. Only three rims were found of the widely splayed variety 4j, all from Level VII of orange clay with a rough surface, and all probably from the same vase.

Bead rims as *c* occurred in twenty-four examples from all levels between VII-IV. Three of the rims of *c* are of fine grey burnished ware.

Thickening of the rim as in 4e-h was present in ten cases. None of these appeared to come from sharply carinated vases, except *g* from Pit 13 in VI, which is of coarse grey clay with an unburnished red wash inside and out.

Bowls of this type seem to be very characteristic of the E. B. II period in Palestine, and of the Uruk and more especially of the Jemdet Nasr phases in Mesopotamia.² The rise into fashion of this shape with its sharp carination and burnished finish may perhaps be explained by the widespread desire to imitate early metal vases.³

Type 5. Deep carinated bowl with outward leaning sides.

The seven examples of this type from Trench A included five straight sided as 5, all from Level IV, and two with curving sides as 5a, from VI and V. From the lower levels of B came four more as 5, and one as 5a. The clay is orange or buff, almost always burnished ; and one of 5a from V has a burnished red wash.

¹ Level IV is bound to contain a good many stray sherds from earlier levels owing to the large amount of spoil which would have been thrown up in digging the granary pits (Pits 3-10).

² e.g. *Palestine*. JERICHO, Layer IV of E. B. II (*L. A. A. A.* XXII, 1935, Pl. xxx, 19 and 20 ; XXIII, 1936, Pl. xxxviii, 1-3). TEL EL FARAH (*Rev. Biblique*, 1949), Tomb 2 (Fig. 6, 7) ; Tomb 5 (Fig. 8, 3), which is called "Aeneolithic", but contains high loop-handled pitchers of the kind regarded by Wright as characteristic of his E. B. I. b (*Pottery of Palestine*, p. 60). Probably related are the bowls from BETH SHAN XIV-XIII (*Univ. Penn. Mus. J.*, XXIV, Pl. V, 21 and 22), and MEGIDDO, Stages IV-III of the E. Slope which correspond to Level XVIII of the Main Mound (*S. A. O. C.* No. 10, Type 22b ; No. 17, p. 41), although in the examples figured the rim leans inwards.

Syria. HAMA, Level K, immediately below the horizon with Khirbet Kerak ware (Ingholt, *Rap. Prélim. sur Sept Camps. de Fouilles*, 1940, Pl. IV, 1, and p. 18, where it is said that some are carinated).

Mesopotamia. GRAI RESH (*S. Lloyd*, "Uruk Pottery," *Sumer*, IV, 1948, Fig. 2, 50, and 56). NINEVEH III-IV (*L. A. A. A.* XX, 1933, Pl. xlix, 6 and pp. 164 and 167). JEMDET NASR (*A. J. A.*, 1935, Pl. xxxvi, 36, and p. 312, all with a red wash on the outside).

³ Compare for example a copper bowl of exactly this shape figured by Emery, *Great Tombs of the First Dynasty*, 1949, Fig. 14, 6.

Type 6. Flat-bottomed dish.

The sole example of this type comes from VII, and is of coarse orange clay with a rough surface.¹

Type 7. Jar with globular body and everted rim.

(cf. Tell Esh Sheikh, upper levels). This seems to be the standard type of jar from all levels between VII-V : but the example figured from V was the only complete shape recovered ; it is of orange clay tempered with straw.

Type 8. Jar as Type 7, but with carinated shoulder.

(cf. Tell Esh Sheikh, upper levels). The only example of this type recognised is of grey clay tempered with finely chopped straw, from Level VI.

Type 9. Squat jar with ring foot.

The sole example of this type comes from Pit 13 in VI. It is made of coarse clay, grey at the core and heavily tempered with straw ; the straw impressions show in the surface, which has a burnished red wash on the outside.²

Type 10.

The solitary rim of this type was found in Level VI. It is of very fine grey clay, buff at the surface, which has a high burnish inside the rim and outside. Traces of the (?) slow wheel are clearly visible on the inside. The decoration consists of a raised band with opposed wedge-like marks impressed in it.

Jar Rims.

Bead rims, upright or slightly everted like *a*, were not uncommon in Level VII, and occurred in VI and V. The single example of *b* from V was of orange clay, tempered with finely chopped straw and small grit ; the surface had an engobage of a lighter shade and was untreated. The isolated rim *c*, from VII was of sandy orange clay tempered with finely chopped straw, and had a red wash on the outside.

Rims *d-h* can all be paralleled among Uruk shapes.³ *h* comes from a Level IV Pit : but *d-g* were found in Trench B, *d*, *e* and *g* in the lowest levels which ought to correspond to Levels V-IV in A, and *f* at a depth of 1.50 from the surface. *e* and *h* are of orange, *d* of fine buff clay, with the surface untreated. *g* is of coarse clay with straw marks showing in the surface, and has a plain red wash. *f* has a red wash with slight traces of burnish.

Bottle Necks.

a, of fine orange clay with the outside surface smoothed came from Level IV. *b*, although recorded from VII may have belonged to a Level IV Pit ; it is apparently made on the fast wheel, of fine orange clay tempered with very small grit and fired an even colour throughout, with the surface untreated.

Type 11. Ring stands for round-bottomed vases.

Three examples of ring stands were found, one as 11 from VII, of coarse orange clay with a rough surface, and two as 11a from VI, of orange clay with the surface untreated or pebble burnished.

¹ cf. Megiddo, Stages V-IV, (*S. A. O. C.*, No. 10, Type 22c).

² For the wide-bellied shape, cf. S. Lloyd, "Uruk Pottery", *Sumer*, IV, 1948, Figs. 1 and 2, both Red and Grey ware.

³ See S. Lloyd, "Uruk Pottery," *Sumer*, IV, 1948, Fig. 1 and 2. In particular for *d*, cf. Fig. 1, 36 ; for *e*, cf. Fig. 2, 16 ; for *g*, cf. Figs. 1, 39 and 2, 2-3.

Spout.

The two spouts recovered, both from Level VII, were of plain orange clay, and evidently belonged to large jars.

Cooking Pot.

The jar rims *b-e* occur in all levels from VII-V. The unique bowl rim *a* from VI is of gritty brown clay with a poor burnish inside and out.

Painted Ware. (N.B.—The paint is *matt* in every case, except *a*).

a. Level V. Bowl rim. Orange clay, decorated with horizontal bands in very dark red, slightly lustrous paint.

b. Level V. Jar rim. Orange clay, decorated in thick red paint with lattice pattern outside and a band round the inside of the rim.

c. Level V. (?) Jar. Clay black at the core, buff at the surface, which is roughly smoothed but full of straw impressions. Decoration of horizontal bands in brown, much worn.

d. Level V. Jar rim. Orange clay, with "polychrome" decoration, consisting of alternate red and black horizontal bands.

e. Level IV. (?) Jar. Orange clay, green at the surface, which is decorated with wavy bands in black. Marks of the (?) slow wheel clearly visible.¹

f. Level IV. Jar. Coarse greenish-orange clay, green at the surface, which is decorated in black with horizontal bands and loops depending from them. Marks of the (?) slow wheel clearly visible.²

g. Pit 14 (Trench B). Jar rim. Fine buff clay, with "polychrome" decoration, consisting of a red band along the top of the rim flanked by narrower black bands.²

Pl. XI, C, 3-4. Lowest level in Trench B. No. 3. Jar. Buff clay with the surface smoothed, and decorated with diagonal lines in red. No. 4. (?) Jar. Pale buff clay, decorated with lattice pattern in light brown.

(b) Fabrics and Decoration.

LEVEL VII. The pottery from Level VII in a general way resembles that from the upper levels IV-I at Tell Esh Sheikh. Jars are less common than bowls. The dominant shape is a bowl of Type 3 (cf. Tell Esh Sheikh, Type 7) : but also characteristic are bowls with incurving sides of Type 1 (cf. Tell. Esh Sheikh, Type 1).

Jars are of the globular or carinated shapes (Types 7 and 8), with simple everted or upright rims, as found in the upper levels at Tell Esh Sheikh. A considerable number of rims, mostly from large store jars, are beaded (as Fig. 6, Jar rim *a* ; cf. Tell. Esh Sheikh, Type F, *f* and *j*).

Bases. These were evidently rounded. No ring bases occur. Eight roughly flattened bases apparently belonged to coarse bowls akin to Tell Esh Sheikh, Type 7 ; although by contrast with the upper levels at Tell Esh Sheikh, the ordinary coarse bowl of this fabric from Level VII at Tabara seems to be round-bottomed (as Type 3). There is only one example of the flat-bottomed dish (Type 6).

Handles and Lugs. No handles were found : and there was only one lug, vertically perforated, from the body of a jar (Fig. 6) ; this had an unburnished red wash.

¹ For similar motives on pottery of the Uruk-Jemdet Nasr periods in Mesopotamia, see Mallowan, "Excavations at Brak and Chagar Bazar," *Iraq*, IX, 1947, Pl. xlv.

² cf. *Jemdet Nasr*, *A. J. A.*, 1935, Pl. xxx, 1-3, xxxvi, 11-24.

Many sherds appear to show traces of the slow wheel. The clay is green, buff or orange : some of the finer vases are fired an even colour throughout, especially when the clay is green ; but the firing is generally poor, so that the clay shows black or dusky at the core. In the finer wares the temper may be composed of small grit ; but chopped straw, often quite coarse, is normally used. The surface is usually left rough ; but there are examples of wet smoothing : and engobage, if not true green slip, occurs. One or two sherds are of fine black or brown burnished ware ; and several have a red wash, which is sometimes smoothed or burnished.

Decoration. As in the upper levels at Tell Esh Sheikh, painted decoration occurred upon a proportion, although by no means upon a majority, of the vases. It was largely confined to bowls with incurving rims of Type 1, most of which, in fact, seem to have had painted decoration occupying a zone round the outside of the rim. There were a few sherds from shallow bowls, the exact shapes of which could not be recovered, with decoration on the inside.

The designs are very simple and coarsely drawn : they include lattice pattern and thick wavy lines ; but most common are multiple hanging loops, particularly on bowls of Type 1. The paint is invariably matt, usually black, sometimes brown, and in one case crimson red.

There was one small fragment of a bowl of fine ware of Type 1 with heavy black decoration like certain distinctive bowls of similar shapes ("Black and White Bowls") from the upper levels at Tell Esh Sheikh.

LEVELS VI AND V. The pottery of these levels shows certain marked differences from that of Level VII. The slow wheel is much in evidence, and there is a suspicion of the fast wheel in the case of some sherds.

Bowls still outnumber jars. The commonest shape remains a coarse bowl of Type 3, usually, it seems, with a rounded base ; but a few roughly flattened bases evidently belong to such bowls. New, however, and characteristic of these levels are shallow carinated bowls of Type 4. Bases, apart from the roughly flattened bases of some Type 3 bowls, are almost invariably rounded : the ring foot of the jar Type 9 is unique.

The fabric is not essentially different from what it was in Level VII. The clay is normally a shade of green, buff or orange ; but grey, brown or white clay distinguishes some bowls of Type 4. The tempering is composed of straw, the marks of which often give a pitted look to the surface. The firing in all vases is apt to be poor and the clay dusky at the core. There are examples of engobage and true slip, for example, green slip on orange body clay.

In the treatment of the surface there is a distinct change of fashion from Level VII. "Pebble" burnishing, with the stroke marks clearly visible, becomes increasingly common throughout the period. It is especially characteristic of the bowls of Type 4, where it may be very fine and thorough ; but in Level V, even bowls of coarse ware often have a skimpy pebble burnish. At the same time many vases from both Levels VI and V are coated with a dark red wash, which is sometimes burnished.

Decoration. Painted decoration becomes distinctly rare. In Level VI were found a few decorated sherds, apparently from bowls of Type 1, which may be survivals or strays from Level VII ; but these did not occur in Level V. From Level V the rare decorated sherds recovered all, with one exception, appear to belong to jars with a white or buff surface bearing rather roughly drawn designs in matt paint,

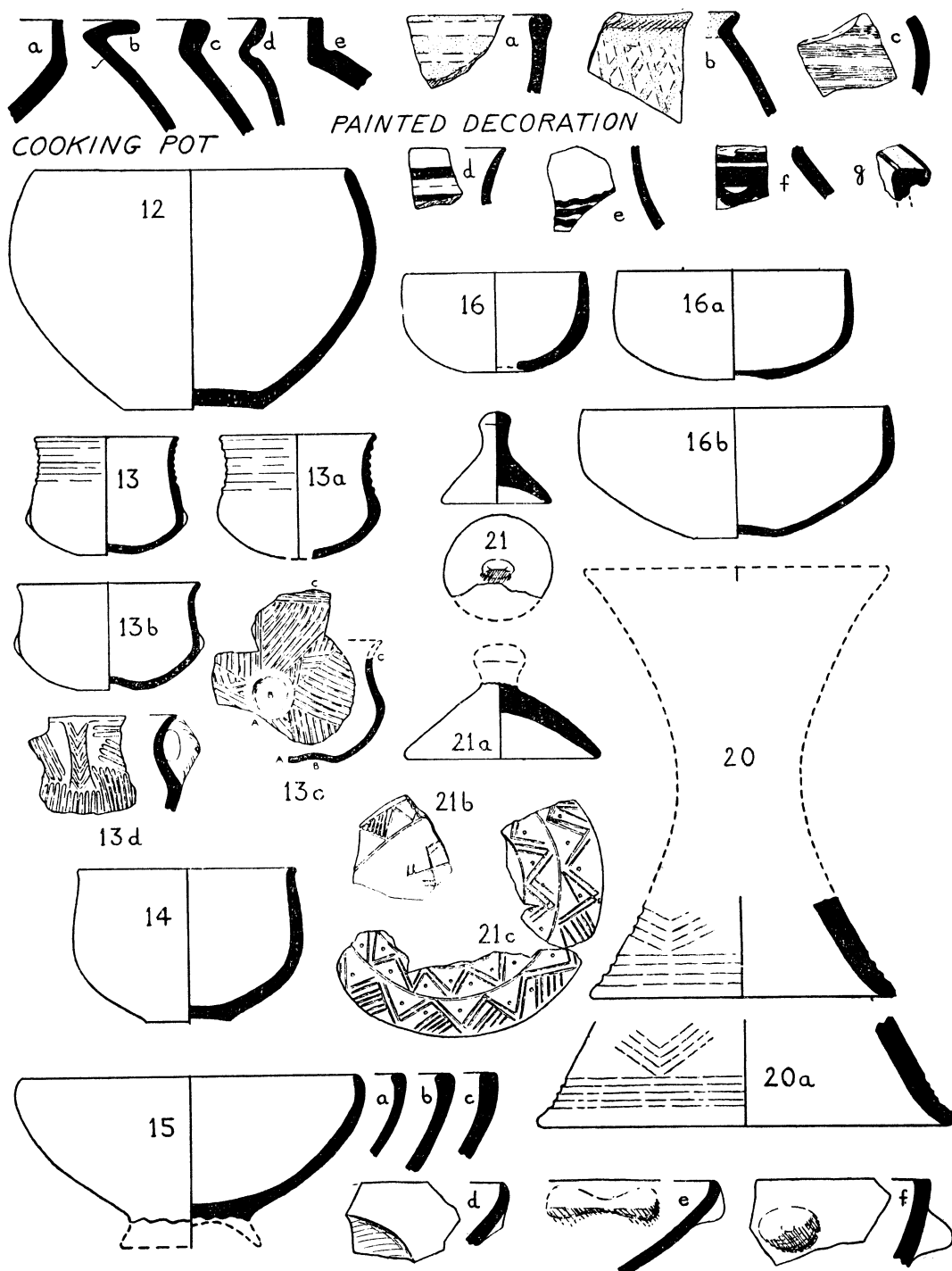


Fig. 7. Cooking Pot and Painted Decoration from Levels VII-V (p. 129):
 "Khirbet Kerak" Pottery Types 12-16 and 20-21 (p. 132 seq.). Scale 1/4.

which may be black, or brown, or red ; one jar rim carries " polychrome " decoration in black and red combined : the motives are very simple, either horizontal bands or lattice pattern (p. 129 and Fig. 7 (top)). The exception is a bowl rim

(Fig. 7, *a*) of orange clay decorated with horizontal bands in very dark, slightly lustrous paint. The unique jar rim, Type 10, has a raised band with impressed decoration round its neck.

COOKING POT (Fig. 7 (top)). Cooking pot, which forms only a small proportion of the pottery in Level VII, seems to become increasingly common in Levels VI and V; indeed, the great bulk of the pottery recovered from Level V was cooking pot.¹

Even in Level VII the fabric is often good, and the vases thin walled. In Levels VI and V most of the cooking pot is of very orthodox fabric, the clay black at the core and brown near the surface, tempered with small red and white grit mixed with finely chopped straw. The surface is occasionally burnished, or given a red wash which may be burnished.

Apart from a single bowl from Level VI (Fig. 7 (top) *a*), the only shapes seem to be jars with upright or everted rims and rounded bottoms; only one flat base was found. There does not appear to be any real development in shape, although the more upright variety of rim (*e*) is perhaps better represented in Level VII, the more everted (as Jar Type 7) and thickened rims (*c*), in Levels VI and V.

FOREIGN AFFINITIES OF POTTERY FROM LEVELS VII—V

The pottery of Level VII, like that from the upper levels at Tell Esh Sheikh, represents a late phase of the "Northern 'Ubaid" as found at Arpachiyah in Assyria.² At the same time bowls of Type 3, predominant in Level VII, are characteristic of Jericho VII—VI (Early Bronze Age I) in Palestine; while from Megiddo Stages V—IV come flat-bottomed dishes of Type 6.

In Levels VI and V the pottery seems to show affinities both with the Uruk and Jemdet Nasr wares of Mesopotamia to the East, and with the Early Bronze Age, more especially the Early Bronze Age II, pottery of Palestine to the South. The shallow carinated bowls of Type 4 in particular resemble forms which occur both in Nineveh III—IV and at Jemdet Nasr in Mesopotamia, and in such Early Bronze Age contexts in Palestine as Jericho IV, Beth Shan XIV—XIII, and Megiddo Stages IV—III. Certain rather distinctive jar rims, mostly from a low level in Trench B, can be paralleled in shapes of the Uruk phase (p. 128 and Fig. 6, Jar Rims *d-h*). Painted decoration has become rare in Levels VI and V, as in Mesopotamia after the 'Ubaid period; and it seems practically confined to jars with simple linear patterns, as in the Early Bronze Age in Palestine.

(B) KHIRBET KERAK AND CONTEMPORARY WARES (Levels IV—I)

(a) *Typology* (Figs. 7 and 8).

The pottery from Level IV and upwards is entirely different from that of the previous Levels VII—V. The bulk of it belongs to the class known as "Khirbet

¹ This may of course be due to local accident; but the same tendency was noticed in the surface levels at Tell Esh Sheikh.

² Mallowan and Rose, "Excavations at Tall Arpachiyah 1933," *Iraq*, II, 1935. For Tell Esh Sheikh, see p. 113, note (2).

Kerak" in Palestine.¹ This forms a very homogeneous group with distinctive shapes, fabric and finish. The commonest types are bowls of Type 13, and above all of Type 16, together with jars of Type 17; "vase supports" of Type 20, and lids of Type 21, are also characteristic. In addition, fragments were recovered belonging to vases of very large size, whose shapes, however, could not be restored (Types 18 and 19).

Type 12. Deep bowl with incurving sides.

The example figured, which is complete and unbroken, came from Pit 16 in Trench B. It is irregular in shape, with a large crack down one side. The fabric is very soft, the clay tempered with straw, orange at the core, but drab on the surface. The outside of the vase has been roughly wiped with a bunch of twigs or brushwood, the marks of which are clearly visible. No other rims of this type were recognised.

Type 13 (see also Fig. 2, 4; and 3, 2-3). Deep bowl with a low shoulder and outcurving rim.² Nos. found 60.

This type is common at all levels from IV-I. Bases are normally, if not always, sunk; and vases often carry grooved decoration, or knobs on the shoulder (e.g. 13 and 13*b*). The fabric is typical "Khirbet Kerak" (see p. 137), with the surface highly burnished, black outside and crimson red inside. Of the examples figured, 13*b* and 13*c* came from Level IV, 13*a* and 13 from Pits 14 and 15 in Trench B, and the handle, 13*d* (Pl. XII, B, 2) from Level I in B. A large vase of this type, from Pit 14 in B, with the surface entirely covered by fluted decoration, is reproduced on Plate XII, A, 4.

Type 14. Deep bowl with bead rim and sunk base.

Of the nine examples found, one came from Level III and the rest from II-I. The fabric is typical "Khirbet Kerak" with the surface finely burnished red both inside and out.

Type 15. Bowl with rather straight sides and rim slightly incurving at the top.³ Nos. found 46.

This type seems more characteristic of the upper Levels III-I: there were only five rims from IV, one as 15, three as *b*, and the sole example of *f* with an oval lug handle. The isolated examples *d* and *e* with plastic decoration, came from I and II. The only example of which the shape could be restored, from the make-up of the

¹ The classical publication of Khirbet Kerak ware is Fitzgerald and Bache, "Beth Shan: the Earliest Pottery", *Univ. Penn. Mus. J.* XXIV.1., 1935. But since in Beth Shan Levels XII-XI other kinds of pottery were found besides Khirbet Kerak, certain types, such as bowls of Type 16 and lids of Type 21, are not clearly distinguished as belonging to the Khirbet Kerak complex. For a good assemblage of Palestinian Khirbet Kerak ware, see E. L. Sukenik, "Archaeological Investigations at Affulah," *Journ. of the Pal. Oriental Soc.*, XXI, Jerusalem 1948.

² cf. *Beth Shan*, Pl. VIII, 7, from Level XI; and *Affulah*, Pl. X, 18-20. A somewhat similar shape appears at Alişar, (*O. I. P.* XXVIII, Fig. 70, c. 2747), from Level XII (the top Chalcolithic level) of the mound; but this has a flat bottom, although sunk bases occur on other types of vases from the same horizon.

³ Rims of this type from bowls of red burnished ware are common in the Copper Age levels at Alişar (*O. I. P.* XXVIII, Fig. 175).

hearth in Level III, had a ring base as shown. The fabric in every case is typical "Khirbet Kerak" with the surface red burnished inside and out.

Type 16. Shallow bowl with straight upright sides. Nos. found 260.¹

This was by far the commonest type of vase in all levels from IV-I. Bases are normally, if not always, sunk. The fabric is typical "Khirbet Kerak" with the surface characteristically red burnished inside and out: but in thirty examples, while the inside remains red, the outside surface is black; and about a third of these are decorated with lightly grooved chevrons (Pl. XII, B, 1). It is curious that not a single decorated example was found among the more numerous red inside-and-out bowls.

Type 17. Jar.²

The shapes figured seem to be characteristic. Types 17*a-c* all came from Pit 16 in Trench B; 17*d* is from Level II. Many rims were found of similar jars, often of very large size.

a. (Pl. XII, A, 2). Complete and unbroken, except for a small piece of the rim missing when the vase was placed in the pit. The shape is irregular, although the proportions are handsome. The fabric is soft, and the clay coarse and gritty, approaching to cooking pot ware. The outside surface is burnished black, shading to light brown; the inside is red, and is burnished round the rim. The vase bears a design on one side in applied decoration, which has partly peeled off, consisting of a knob enclosed by a half circle with a crescent above. There were traces of ash within the vase.

b. (Pl. XII, A, 1). Complete and unbroken. One thick strap handle to the rim. Fabric and finish as *a*, but the inside surface is brown instead of red. Traces of ash within the vase.

c. Complete. Found inside *a*. One thick strap handle to the rim. Irregular in shape and roughly made, of soft coarse fabric, the surface brown, shading to black and "rag" burnished, so that the strokes of a burnishing instrument are not visible. Traces of ash within the vase.

d. One circular sectioned handle to the rim. Very roughly made, of orange clay, with traces of a burnished red wash.

Type 18.

Fragments of large vases, with elaborate fluted and relief decoration, and finely burnished surfaces characteristically black outside and red inside, occurred at all levels.³ The rim figured, burnished black outside and red inside, is from a depth of c. 1.70 in Trench B. From A, mostly from Level IV, came eight rims of the same type with similar decoration, black outside and red or light brown to buff inside.

Type 19.

Some fragments were found of very large vases with finely burnished surfaces, and usually with fluted or relief decoration. The rim (Pl. XII, A, 3) from Level

¹ cf. *Beth Shan*, p. 16, and Pl. VIII, 9, from Level XII: but on p. 13 it is implied that bowls of this type appear as early as Level XIV. The type is, however, included as Khirbet Kerak by Y. Sukenik, "On the Technique of Khirbet Kerak ware," *B. A. S. O. R.* 106, 1947 (his type 5): see also *Affulah*, Pl. X, 8 and 10-17. An entirely characteristic example from the Copper Age levels at Alaca Hüyük was found in 1943 and is in the Museum at the site.

² cf. *Affulah*, Pl. X, 1-2.

³ Some, at any rate, of these rims may belong to squat jars or bowls of the type figured from *Beth Shan*, Pl. VII, 2-4.

IV, with the elaborate decoration in relief, has the outside surface burnished black, while the inside is brown and unburnished. 19*a* unstratified, and 19*b*, from a depth of c. 1.00 in Trench B, are characteristically burnished black outside and red inside.

Stalks (Fig. 7).

The example figured from Level I is of fine orange clay with a burnished red slip, and may even belong to the Iron Age: the bowl was made in a separate piece from the stem to which it is fitted; stalk and bowl are decorated with rather roughly drawn shallow channels as shown. A fragment, apparently from a stalk where it joins the bowl, of typical "Khirbet Kerak" ware with a brown burnished surface, was found in Level IV.

Type 20. Vase support.¹

Fragments of this type were recovered from all levels between IV-I. The fabric is characteristic "Khirbet Kerak" ware, with the surface burnished red or brown inside and out, or red inside and black outside. The outside is normally decorated with shallow channels or ribs.

Type 21. Lid.³ Nos. found 18.

Lids of this type occurred at all levels between IV-II. They all seem to be conical in shape, but there is a wide range in size; the only complete examples, 21 and 21*a*, are considerably smaller and steeper-sided than is usual. The fabric is apt to be rather coarse "Khirbet Kerak" ware, with the surface unburnished, normally brown, but sometimes red or black. Several examples have the top surface decorated with incised designs like *b* and *c*; some of these still carry traces of white fill (e.g. Pl. XI, C, 1).

Bases (Fig. 8).

The omphalos or sunk base is very much in evidence both on bowls and jars, although some jars at any rate have flat bases, and some bowls (e.g. Type 13*a*) may have had rounded bases. Some sunk bases approach very closely to ring bases (as base *b*); but true ring bases hardly occur, except in the high pedestal-like form (as base *a*). Both the sunk bases as *b*, and the high ring bases as *a*, apparently belonged to bowls, since the surface was invariably given a fine burnish on the inside of the vase as well as underneath the base. The sunk bases like *b* were mostly black burnished, although red burnished examples occurred: but the high ring bases like *a* were in every case of red burnished ware. The unique variety, *c*, from Pit 14 in Trench B, has a central knob beneath the base.

Handles.

Handles in general seem to be rare. Some jars from all levels have thick strap handles to the rim (as Type 17*b* and *c*); and at least one example of a bowl (Type 13*d*) has a handle of circular section. The bowl rim, Type 15*f*, has a solid oval lug; and a similar flat-topped rim of red burnished ware had a horizontally perforated

¹ cf. *Beth Shan*, p. 19, and Pl. VII, 5 and 7, from Level XII; *Affulah*, Pl. X, 5 and 6, Pl. XI, 1; Hama (Ingholt, *Rapport Prélim. sur Sept Camps. de Fouilles*, 1940, Pl. V, 4). Compare also an example from the Chalcolithic site of Büyüç Güllücek near Alaca (*Belleten* XII, 1948, Pl. CIII).

² cf. *Beth Shan*, p. 19 and Pl. X, 1; *Affulah*, Pl. XI, 3-6. Rather similar is a Chalcolithic example from Alişar (*O. I. P.* XXVIII, Fig. 77, 5).

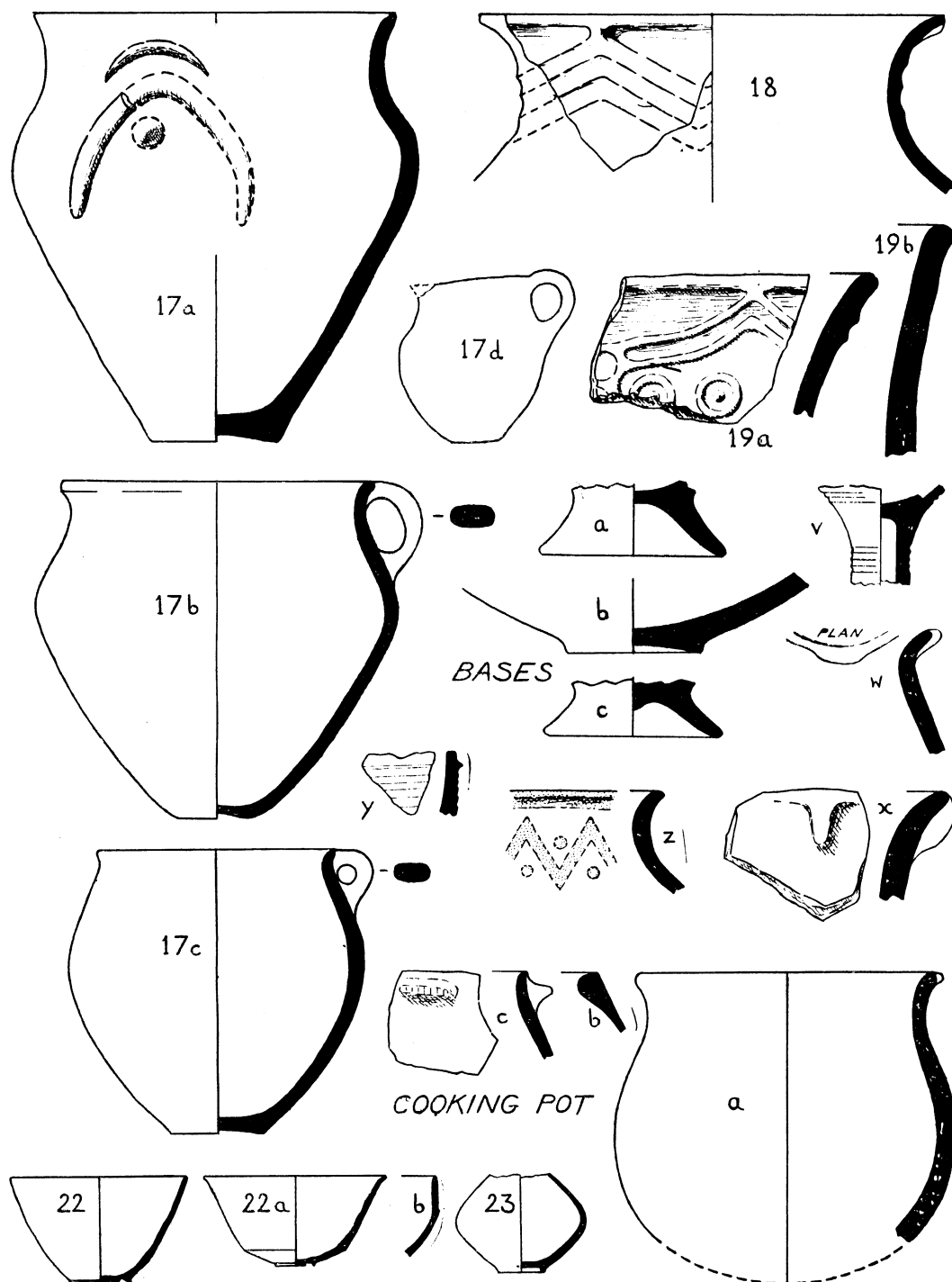


Fig. 8. "Khirbet Kerak" and contemporary Pottery Types 17-19 and 22-23 (p. 134 seq.). Scale 1/4.

tubular lug just below the rim.¹ Solid lugs on the rims of jars, horizontal (Fig. 8, *w*), and more rarely, vertical (Fig. 8, *x*), are not uncommon.

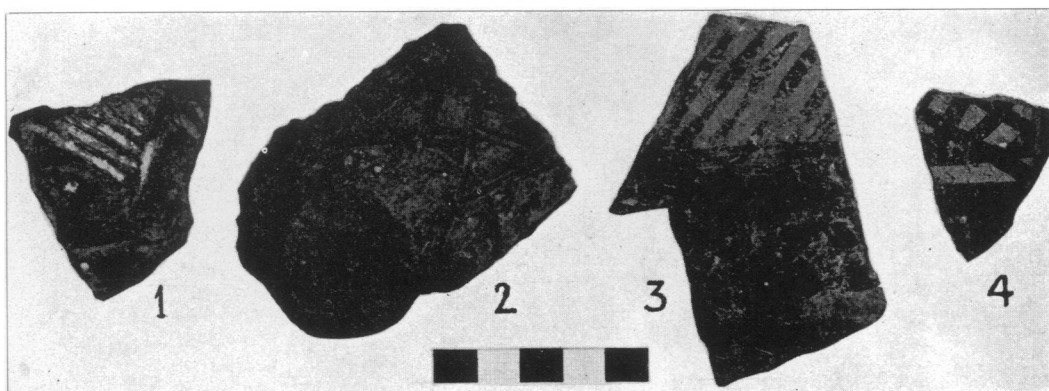
¹ cf. *Beth Shan*, Pl. VIII, 11, from Level XII, in red burnished ware.



A

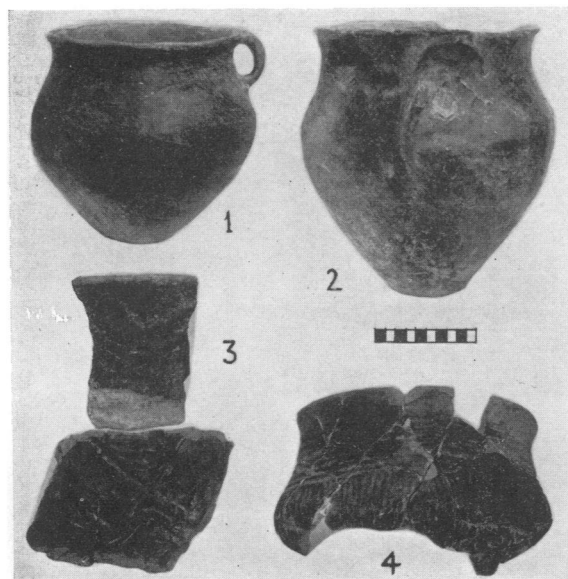


B

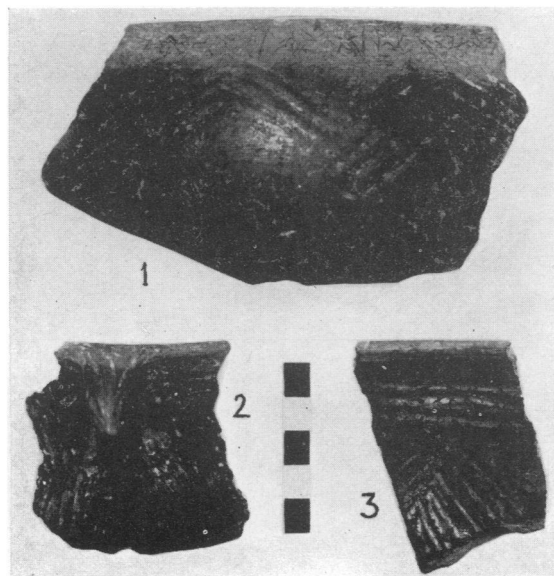


C

- A. "Pot Stands" (p. 139) : "Centrepiece" and "Foot" from different "Stands."
 B. Side view of A (left).
 C. 1. Lid of Type 21 with white filled incised decoration. 2. Jar with incised decoration.
 3-4. Sherds with painted decoration.



A



B

- A. "Khirbet Kerak" ware. 1. Type 17a. 2. Type 17b. 3. Type 19.
 B. " " " 1. Type 16. 2. Type 13d. 3. Type 13.

Spout.

A single example of a short tubular spout was found at a depth of c. 1.50 in Trench B. This had an unburnished red wash, and may perhaps be a stray from some earlier level, since similar spouts are very characteristic among "Uruk" forms.¹

(b) Fabric and Decoration.

All this "Khirbet Kerak" pottery appears to be handmade; and there is no evidence for the use even of the slow wheel, although in the case of the finer wares at any rate, thorough burnishing of the surface would tend to remove any traces of such use. Many of the finer vases, especially bowls such as Type 16, are very well made and regular in shape; but the larger jars are often extremely rough and uneven. The walls of all vases are normally rather thick, owing to the nature of the fabric, which even in the case of the finer wares is apt to be soft and crumbly, with the clay poorly levigated, sandy and tempered with straw. In the largest jars the texture of the fabric is often extremely loose, and the temper, which may be of either straw or grit, is very coarse.

The clay varies in colour according to the firing and the colour of the surface induced by it. In the larger vases especially the clay shows a great variety of shades, from black, through brown to orange and buff, often with a greenish tinge. In the finer wares it is dominantly orange when the surface is red, shading to black when the surface is black. The firing is very erratic; and the clay often shows dusky at the core.

The surface of all the finer wares (e.g. Types 13-16 and 20) is invariably given a high burnish. The marks of the burnishing implement are normally visible ("pebble" burnish), except in the case of some finely burnished vases bearing elaborate ribbed and fluted decoration (as Types 18 and 19). Bowls are for the most part a bright crimson red: this colour seems to be induced in the majority of cases at least by the application of a haematite wash. On some of the common bowls of Type 16, where the wash is thin, the marks of the brush used to apply it are clearly visible. One fragment with incised decoration (see p. 138 and Pl. XI, C, 2) has an unburnished red wash.

Bowls of Type 13, however, are almost invariably red inside, but black outside shading to light brown around the rim. The contrast of black outside with red inside is most striking.² A few bowls of Type 16 and some jars of Type 17, together with some rims of large vases of Types 18 and 19, have a similar red inside and black outside. In all vases the surface may fade off from black or red into light brown or buff, doubtless owing to mishaps in firing: but there is no suggestion that the surface was deliberately "mottled" as in some early Aegean wares.

Most of the lids of Type 21, and many of the standard jars of Type 17, have only a very summary pebble burnish, with the surface varying from dull black to brown or buff in colour.

In decoration, as in the treatment of the surface, each type of vase tends to have special traditions of its own.

¹ Cf. S. Lloyd "Uruk Pottery", *Sumer*, IV, 1948, Fig. 3 and p. 48.

² It has recently been argued that the black surface is a mistake owing to the use of the vases over a fire (Y. Sukenik, "On the Technique of Khirbet Kerak ware," *B.A.S.O.R.* 106, 1947, p. 9): but see Albright's sensible remarks on p. 17, note 1, of the same article.

(a) *Ribbing and Fluting, etc.* The characteristic form of decoration consists of ribs in relief, flutes, corrugations and channels. Flutes are only serried channels divided by sharp edges ; and narrow flutes become corrugations when these sharp edges are rounded down in burnishing the surface of the vase.

This type of decoration appears to be largely confined to vases with a black burnished surface. The obvious exceptions are vase supports of Type 20, whose outside surface varies widely in colour from black to brown or red ; these are characteristically adorned with flutes or channels forming bands of multiple chevrons.

Decoration is rare on bowls of Type 16, and when it occurs, invariably consists of a broad band of very narrow channelled chevrons (see Pl. XII, B, 1). In every case the decorated bowls of Type 16 belonged to the variety with the outside surface burnished black. Not a single example was found of the standard red surfaced bowls of this type which had decoration ; and the majority, even of the black surfaced variety, were undecorated.

Bowls of Type 13, on the other hand, are normally decorated ; often with a pair of low knobs or warts on the shoulder, less commonly with horizontal flutes or corrugations round the neck (see Fig. 7, 13 and 13*a*). Some examples have very elaborate fluted or channelled decoration covering the whole outside surface of the vase (e.g. Fig. 7, 13*c-d* ; Pl. XII, A, 4, and B, 2-3). The isolated rims (Fig. 7, 15*d* and *e*) are decorated in relief as shown.

The most elaborate decoration of this kind, however, seems to have adorned large vases of Types 18 and 19 (p. 134). On these fluting may be diagonal, as well as horizontal and vertical ; and the flutes are sometimes as much as 2.25 cms. wide. Designs in ribbing or relief include circles with or without a central knob, and such intricate motifs as Fig. 8, 19*a* and Pl. XII, A, 3.

The unique sherd (Fig. 8, *y*), reported to come from a depth of c. 1.25 in Trench B, is of orange clay with the surface untreated, and is decorated with very even ribbing, quite unlike that of the " Khirbet Kerak " wares ; it may be a stray from the Iron Age.

(b) *Incision.* This form of decoration is practically confined to lids of Type 21. The commonest motifs seem to be chevrons or hatched triangles with a single dot in the space between, as Fig. 7, 21*c*, and Pl. XI, C, 1 ; but more elaborate designs are found, like the swastika on Fig. 7, 21*b*. The incision in every case is bold, and often has traces of white fill (Pl. XI, C, 1). The only fragment bearing incised decoration which did not obviously belong to a lid, appears to come from a jar with the stump of a handle preserved, and has an unburnished red wash (Pl. XI, C, 2).

(c) *Painted Decoration.* A few sherds from Level IV, not of " Khirbet Kerak " fabric, which have painted decoration, may be imports or strays from earlier levels, (see p. 129, and Fig. 7, Painted Dec. *e-f*). From Level III, however, came the neck of a jar of orthodox " Khirbet Kerak " fabric and shape, the clay drab shading to dull buff at the surface, decorated in red paint with a poor burnish applied after decoration (Fig. 8, *z*) ; the design, a chevron with dots in the intervals, is identical with that found on lids of Type 21.¹

¹ cf. Beth Shan (*Univ. Penn. Mus. J.* XXIV), p. 19 and Pl. VII, 9, 12, etc., which seem to be similar.

COOKING POT. (Fig. 8). Well differentiated cooking pot of fine fabric with thin walls is excessively rare except in Level IV, and the examples there may be strays from Level V where it was abundant (see p. 132). On the other hand the coarser jar fabrics with a heavy tempering of straw and grit shade into a sort of rough cooking pot, like *a* from Level I; this has a horizontal lug on the rim (cf. Fig. 8, *w*). The rim, *c*, with a horizontal lug, and the unique rim of a hole mouth jar, *b*, come from the hearth in Level III. Several jars of ordinary fabric, including the complete examples Type 17*a-c*, show signs of use over a fire.

POT STANDS (Pl. XI (A) and Fig. 13, 12). These are characteristically horseshoe-shaped, with projecting "centrepieces" and "feet". The "feet" and the "centrepieces" each carry a knob facing inwards, evidently for the support of a vase (see Fig. 9). The "centrepiece", and apparently to judge from Fig. 9, the "feet" as well, are moulded into the likeness of a human face: the detail of the faces and the rest of the decoration is carried out in bold incision.

The best preserved example (Fig. 9) was found in two pieces on the floor of the Level III room (Plan, Fig. 3 (4) and (5)). It is made of coarse straw-tempered clay, orange shading to grey at the core, with a brown surface having a high

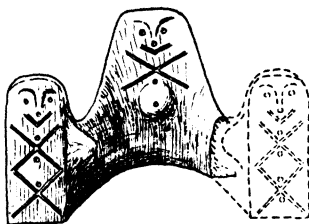


Fig. 9. "Pot Stand" from floor in Level III.

"pebble" burnish all over. Similar in fabric and appearance are the "centrepiece" and the isolated "foot" (Pl. XI (A)), both from Pit 14 in B. This "centrepiece" from Pit 14 is unique in having a circular sectioned handle at the back. The fragment of a "centrepiece" (Fig. 13, 12) from Level II, is of coarse orange clay, tempered with abundant large grit as well as straw, and burnished. Another similar fragment, not reproduced, came from Level I.

It seems most reasonable to suppose that these "pot stands" were for use in connection with the carefully prepared cooking holes which are characteristic of the "Khirbet Kerak" Levels at Tabara (see p. 123). They are of the right size to go with the cooking holes, although one fragment of a "foot" suggests that similar objects of a larger size also existed. Moreover, the most complete example, Fig. 9, had the surface stained black in places, apparently by the action of fire.

Identical "pot stands", although only represented by fragments, were found at Beth Shan in the "Khirbet Kerak" Levels XII-XI.¹ Similar objects are characteristic of the Copper Age and Early Bronze Age levels at Alişar, where they

¹ *Univ. Penn. Mus. J.* XXIV, Pl. X, 14 and 18, and p. 17-18, where it is suggested that these objects were used as "fenders" in front of the hearth, perhaps with a cooking pot resting on the knobs.

are called "andirons".¹ But the closest parallels for such "stands" outside of the "Khirbet Kerak" area of Syria-Palestine seem to come from the Kur basin south of the Caucasus (see p. 117) : a handled "stand" from Shengavit is almost identical with Pl. XI, (A).²

FINE WHEEL-MADE WARES. In all levels from IV-I occurred a certain amount of fine wheel-made pottery, entirely different in character from the "Khirbet Kerak" ware with which it was associated. The characteristic shape is a small

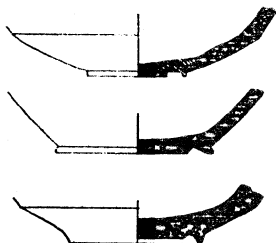


Fig. 10. Bases of wheelmade bowls of Type 22. 1/2.

bowl or cup of Type 22 ; but other shapes are represented, like the jar of Type 23, and perhaps the bottle of Fig. 16, Bottle *b*. These wheel-made vases are doubtless imports from some neighbouring centre of manufacture, perhaps to the east.

Type 22. Small bowl with grooved base. Nos. found 15.³

The flat base with a broad groove or channel running round the outside edge beneath is very distinctive (see Fig. 10). In contrast to the "Khirbet Kerak" types, these bowls give every appearance of having been thrown on the fast wheel. The walls are thin, but the vases are apt to be irregular in shape, suggesting an early

¹ A fragment of a figured "centrepiece" is reproduced (*O.I.P.* XXVIII, Fig. 100, e : 1732) from the Chalcolithic Level 13 ; but it is suggested that it may have intruded from the Copper Age levels above. To the Copper Age belongs another figured "centrepiece" (Fig. 183, d : 1683), and various fragments of "feet" shown in Fig. 205, including e : 858 which has a lateral knob. In the Early Bronze Age these "andirons" are said to be frequent, and sometimes relatively large ; but all those reproduced are of the simple horseshoe type, without a raised "centrepiece" or "feet", although one (Fig. 278) has a handle at the back. There is a similar simple horseshoe-like "stand" in Antioch Museum labelled as from Judeideh VI. This type may therefore represent a later development of the figured "stands" as found at Tabara, etc.

The "horns" from Kusura in Pisidia (*Archaeologia* 86, 1936, p. 37, and Fig. 17), are much larger and different in detail, and probably in function, from our "stands" ; although they may have some ultimate connection with them, since they seem to be associated with hearths. All those found belong to Kusura "C," which succeeds the Copper Age Culture of "B". For orthodox "horns of consecration" in clay from North Mesopotamia, apparently of Jemdet Nasr, date see Mallowen "Excavations at Brak and Chagar Bazar," *Iraq*, IX, 1947, p. 184, and Pl. XXXIX, who connects them with the "horns" from Kusura, etc.

² Kuftin, *The Uartian Columbarium at the Foot of Ararat and the Eneolithic Stage of the Kur-Araks Basin*, Tiflis, 1943, Fig. 74, 1.

³ cf. Mallowan, "Excavations at Tall Chagar Bazar," *Iraq*, III, 1936, Fig. 10, 16-17, from Level 5, which seems to correspond to the late Jemdet Nasr or Early Dynastic period (ib. p. 10).

stage in the use of the wheel. The clay is very fine and well levigated, orange or greenish, fired an even colour throughout ; and the surface is not burnished. Of the examples figured, *a*, of green clay, comes from Level I, and *b*, of orange clay, from a pit in IV.

The solitary rim *c*, from Level III, is of orange clay tempered with finely chopped straw, and appears to be wheel-made. It should perhaps be classified with the bowls of Type 5, which it resembles in fabric, but the surface is not burnished.

Type 23. Small jar with a ring base (N.B.—Rim missing).

The only example of this type, from Pit 14 in B, is wheel-made, of orange clay, with a plain unburnished surface.

(C) IRON AGE WARES (Surface Level I)

(Fig. 11).

Type 24. Plate. Nos. found 25.

The clay is orange, normally with a burnished red slip inside and ring bases seem to belong to such plates.

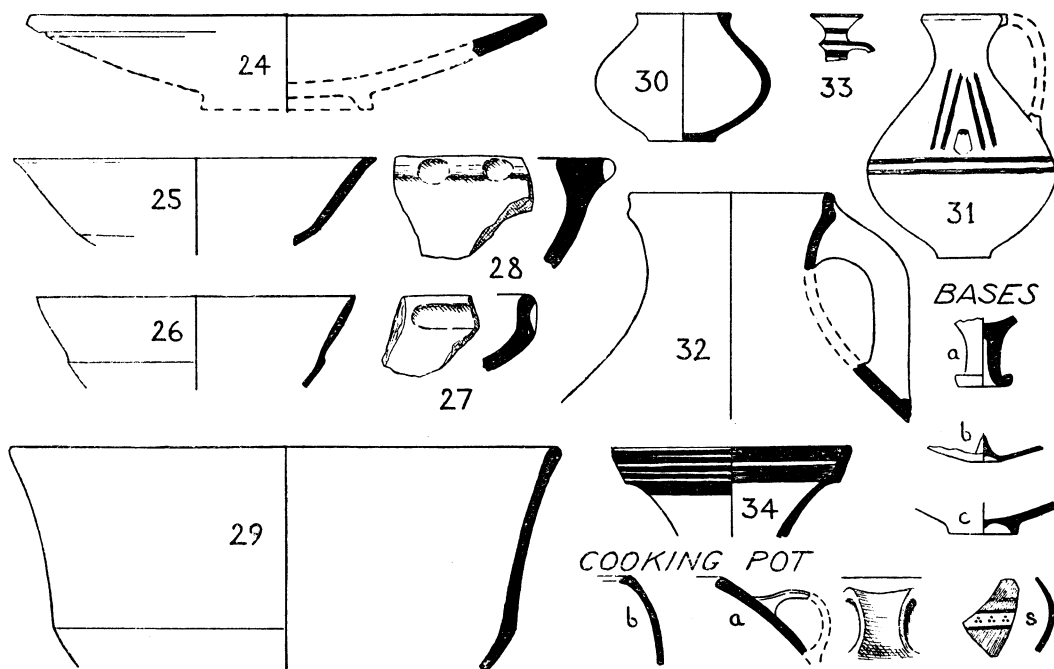


Fig. 11. Iron Age Pottery Types 24-34. 1/4.

Type 25. Bowl with small horizontal lug handle on the rim.

The sole example of this type is of orange clay, "ring" burnished inside and out.

Type 26. Carinated bowl with outward leaning rim. Nos. found 5.

The clay is orange or greenish. Round the rim both inside and out on the example figured was a broad band of reddish wash with a slight burnish.

Type 27. Bowl with a thick S-curved rim. Nos. found 4.

The example figured has a fragment of a lug or handle to the rim. The clay is orange, and apt to be coarse, with a tempering of large grit and straw; the surface is untreated.

Type 28. Large bowl with a thickened rim. Nos. found 2.

The rim has a finger-impressed band round it. The clay is orange, with a buff or light brown surface "pebble" burnished inside and out.

Type 29. Large carinated bowl with outcurving rim. Nos. found 3.

The clay is drab or orange with a burnished surface; one example has a burnished red slip.

Type 30. Squat jar.¹

The sole example found is complete and unbroken. It is made of sandy orange clay with the surface untreated.

Type 31. Side spouted jug.²

The only example found is complete except for the handle. It is of fine orange clay, with the hint of a very thin transparent slip of a paler colour on the upper part of the body, which is decorated in faint matt brown as shown.

Type 32. Large jar with thick strap handle(s) to the rim.³ Nos. found 16.

No complete profile was recovered; and it is impossible to be certain whether there were one or two handles. The clay is white or orange, sometimes with a greenish tinge. The surface is normally untreated, but may be roughly smoothed, and one example has traces of a red wash. The example figured has a band of matt red paint round the rim and down the back of the handle.

Type 33. "Cypriot" Oenochoe.⁴

Two necks were found of this distinctive type, the one figured of orange clay burnished and decorated in matt black, the other of red clay decorated with thin horizontal bands in black and burnished after decoration.

Type 34. Jar rim.

This unique rim is made of well levigated clay, greenish with an orange tinge, and tempered with fine grit. The decoration consists of bands painted inside and outside the rim in matt black.

¹ cf. the "squat handleless pots" from Tell Beit Mirsim "A" (Early Iron II) (*A. A. S. O. R.* XII, p. 86 and Pl. 67, 20-26).

² In Antioch Museum there are several vases of this type and fabric from Tainat and Judeideh labelled as from "Judeideh VI" (between 1600 and 1200 according to Braidwood, *Mounds*, p. 6). Side spouted vases, but almost always with a strainer spout, are characteristic at Megiddo from Level VI (the earliest Iron Age level) onwards (e.g. *Megiddo* II, p. 19 and Pl. 75).

³ Jars of this type seem to be characteristic of Strata IV-III (Middle Iron) at Megiddo (see *Megiddo* I, Pl. 3, 74).

⁴ These vases appear to be imports from Cyprus. They occur at Tell Beit Mirsim (*A. A. S. O., R.* XII, Pl. 51, 9, and p. 72), where it is argued that in Palestine they are only found in Early Iron I and the beginning of Early Iron II, not later than the 9th century. But at Megiddo they seem to be distributed throughout the Early Iron II-Middle Iron Strata IV-III (e.g. *Megiddo* I, Pl. 5, 123).

Bases. (Fig. 10).

a. Ring base with a central knob underneath. Orange clay with a red slip burnished inside and out.

b. Omphalos base with internal spike. Fine drab clay with the surface untreated.

c. Stalk. Fine clay, dark at the core but orange at the surface, which has a mottled red slip, "pebble" burnished inside and out.

From the surface Level I the pottery was very much mixed, and a good deal of "Khirbet Kerak" ware still occurred: but a large proportion of the pottery, including several complete vases (as Types 30 and 31), seems to fall into a homogeneous group and belong to the Iron Age.

The shapes best represented are plates of Type 24, and large jars with handle(s) to the rim like Type 32. Carinated bowls of Type 26 are also distinctive. Ring bases are very common.

All vases seem to be made on the fast wheel. In the finer examples the fabric is very good, with the clay well levigated, usually orange in colour. In the coarser wares (e.g. Types 27-29) the clay is tempered with both straw and grit, which may be large: in one example of Type 29 the grit was composed of shell. The firing is usually good, and the clay an even colour throughout; but in the larger vases the clay may show dusky at the core.

On the larger vases the surface is either left untreated, or given a thorough "pebble" burnish; or it may have a red slip, which is usually burnished. Most of the plates of Type 24 have a red burnished slip. These Iron Age red burnished wares are distinguished from the "Khirbet Kerak" wares by the darker tone of the red, while the surface tends to present a more uniform colour, and the slip is apt to crackle. In one case at least (Type 25) the surface is "ring" burnished inside and out.

Decoration. Not many decorated sherds were found. Most distinctive are a couple of necks of imported Cypriot Oenochos (Type 33). One or two sherds had characteristic Iron Age polychrome decoration in matt red and black, either red bands flanked by narrower black bands, or concentric circles in black with a red centre. The spouted jar (Type 31) is decorated in matt brown. Peculiar is a sherd from the body of a jar, of fine orange clay with a dark red wash covering the whole surface except for a reserved band, which is flanked by narrow black bands and serves as the field for groups of black dots; there is a thin wavy ribbon in white paint running parallel to the reserved band above (Fig. 11, 5).

COOKING POT. Hole mouth jars with thin strap handles (Fig. 11, *a* and *b*)¹ are abundant and distinctive; but no complete shape was recovered. The walls of these are thin, and the fabric hard; the clay is usually black all through, sometimes shading to grey or brown, with a tempering composed of finely chopped straw together with occasional grit.

¹ A cooking pot of similar fabric with the same type of handle in Antioch Museum is labelled as from El Mina, Level IX.

II. FLAKED STONE INDUSTRY.

Not a large number of flaked stone implements were found. The material in all levels included flint of various shades of brown and grey, and brown and buff chert, together with some obsidian.

Flint and Chert. The commonest implements were *Sickle Blades*, of which twenty-four were recovered in all. From Level VII came five made on short blade sections between 0.028–0.024 long, and resembling those from the upper levels at Tell Esh Sheikh: two had denticulations along the lustrous cutting edge; the backs were sharp or blunted, the ends blunted or snapped across. The four sickle blades from Level VI were made from little flakes 0.035–0.045 long, roughly crescent-shaped, with lustrous cutting edges, one showing slight denticulations; they had thick backs blunted by steep retouch. The four from Level V were on short blade sections 0.03–0.045 long, all having slight denticulations along the cutting edge.

From Level V onwards appeared fragments of fine large three-faceted blades of pale buff or white chert. All six sickle blades from the upper Levels III–I were on blade sections of this type, 0.035–0.08 long and 0.02–0.035 wide, with bold denticulations along the cutting edges. These denticulations had in every case been made on the bulbar face, by contrast with those on sickle blades from the lower levels; and in all except one case both edges had been prepared for use in this way, the blade having been turned in the haft and re-used when the original edge was blunted.¹

Other implements comprised nineteen *Scrapers*, including some fine “*Fan Scrapers*” made on tabular flint, from all levels; and six *Gravers* from Levels VII–V. The only *Blade Cores* found were small, and had evidently been used till the last possible moment. A few large *Flake Cores* and lumps of unworked flint occurred; and little lumps, remnants of cores, together with waste flakes and chips, were abundant at all levels.

Obsidian. This was much more common in the lowest Levels VII–VI than in those above. The material was invariably transparent, normally white, but often with a yellowish tinge, like that from Tell Esh Sheikh. The commonest implements were little *Blades* 0.03–0.035 long, three-faceted with striking platforms battered away before the removal of the blade from the core. Apart from these the only implements recognised were a *Hollow Scraper* on the end of a blade from Level VII, a (?) *Sickle Blade* with denticulations along the cutting edge from IV, and a *Graver* from V. A single tiny *Flake Core* was recovered from Level IV.

III. SMALL FINDS (Fig. 12).

1. Awl. Copper/Bronze. L. 0.05. Rectangular cross-section. From a Level IV Pit. Two similar awls came the one from a Level IV pit, the other from Trench B.
2. Pin. Copper/Bronze. Broken at both ends. L. preserved 0.06. Circular cross-section. Small lug perforated to take a thread. Found inside the side-spouted jug (Type 31). (*Iron Age*).

¹ cf. The “Canaanite” industry of the Early Bronze Age at Jericho. *L. A. A. A.* XXII, 1935, p. 176, Pl. lvi, 2, etc.

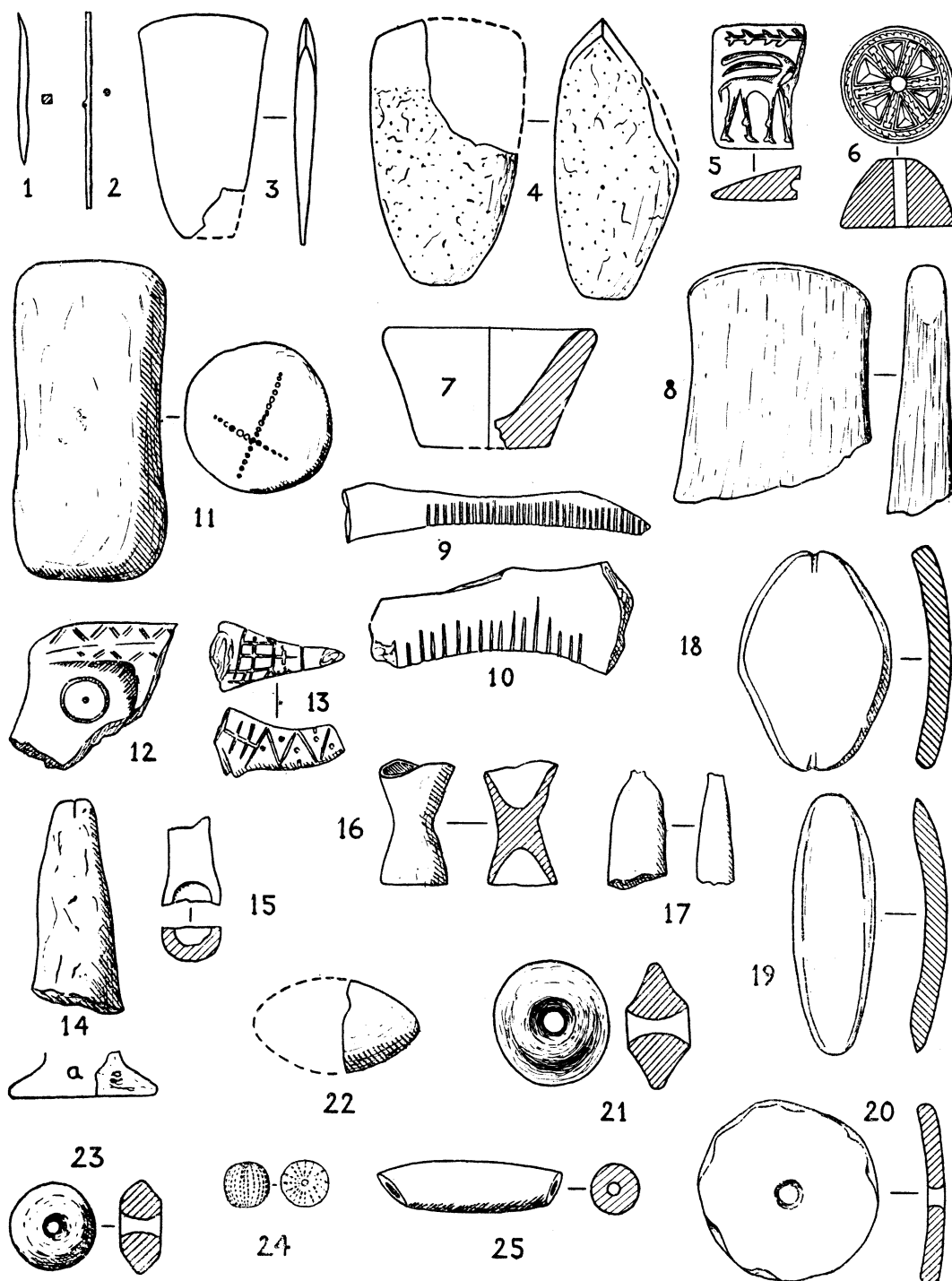


Fig. 12. Small Finds. All $\frac{1}{2}$, except 23-25 which are Full Size, and 9 which is $\frac{1}{4}$.

3. Flat axe. Copper/bronze. Part of butt missing. L. 0.07. From Level II.
4. Celt. Grey stone. Part of blade missing. L. 0.09. Blade set slightly off the central axis. Surface rough, except for the blade, which is ground and polished on both faces. From Level IV.
5. Gable stamp seal. Grey steatite. Only half preserved. L. 0.04. Boldly carved with the figure of an (?) ibex and a branch above. From Level VII.¹
6. Spindle whorl. Grey steatite. Diam. 0.037. Excised decoration on the flat side as shown. From a Level I pit. Four others similar, but of green steatite and undecorated, also came from Level I.² (*Iron Age*).
7. Mortar. Basalt. Only a fragment preserved. Ht. 0.08. Traces of a red substance, probably haematite, which had been ground inside it. From Level VII.
8. Rubber (?). Hard green stone. Broken at one end. L. preserved 0.08. The surface is smooth, except for traces of rubbing at the rounded end. From Level IV.
9. Notched bone. L. preserved 0.20. The notches are nearly 2 mm. wide. From Level I. ((?) *Iron Age*).
10. Notched bone. L. preserved 0.085. The notches are mostly less than 1 mm. wide. From Level I. ((?) *Iron Age*).
11. Reel (?). Orange Clay. L. 0.095. Decorated on one end with a cross made by punctuations as shown. From Level I. Another similar came from the same level, and a smaller example in stone was unstratified. ((?) *Iron Age*).
12. Pot stand. (For description, see p. 139). From Level II.
13. Animal figurine. Drab clay. Head and tail missing. L. preserved 0.045. Decorated in bold incision with a typical "Khirbet Kerak" design (e.g. the lid, Type 21c in Fig. 7, and z in Fig. 8). From Level I. ("Khirbet Kerak").
14. Phallus (?). Coarse grey clay. Broken at the base. L. preserved 0.065. From a depth of c. 2 metres in Trench B. The fragment, a, from the same horizon in Trench B seems to belong to the base of another similar object. ("Khirbet Kerak").
15. Miniature ladle (?). Grey clay. Broken at both ends. L. preserved 0.03. From Level VII.
16. Miniature goblet (?). Very roughly made of drab clay. Ht. 0.038. From Level IV.
17. Object of buff clay with the surface burnished. Broken at both ends. L. preserved 0.035. From Level V.
18. Rubber (?). Made from a pot sherd, with grooves at each end. L. 0.07. From Level VII.
19. Rubber. Made from a sherd of cooking pot fabric. L. 0.083. From Level III.

¹ Several seals of this type were recovered from the upper levels at Tell Esh Sheikh.

² cf. *Megiddo* I, Pl. 94, 8 and 53, from Level III of the Middle Iron Age (780-650 B.C.).

20. Spindle whorl. Made from a fragment of a (?) wheel-made pot of orange clay with a buff slip on the outside. Diam. 0.055. From Level III. Two similar whorls made from pot sherds came from Levels IV and V.

21. Wheel (?). Coarse grey clay. Diam. 0.04. From Level V. Another similar but larger (diam. 0.07) was found in the lowest level in Trench B.

22. Sling bullet. Grey clay. Only a part preserved. Diam. 0.03. From Level VII.¹

23. Bead. Light grey stone with the surface well polished. Diam. 0.015. "Hour-glass" perforation. From Level VII.

24. Bead. Orange clay with the surface burnished. Diam. 0.006. Decorated with lines of punctuations as shown. From a depth of c. 2 metres in Trench B.

25. Bead. Green steatite. L. 0.03. Diam. 0.008. From Level VII.

¹ Such sling bullets, both in clay and stone, were very common in the upper levels at Tell Esh Sheikh.