

ラーファイダーン

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- ニネヴェ、クユンジュクの試掘調査、1989年及び1990年（英文）
オーガスタ マクマホン
- イラク・ハディーサ地方の採集石器（英文） 大沼克彦
- テル・サラサートV号丘出土のウルク後期と
トランジショナル・ニネヴェ5期の土器（英文） 沼本宏俊
- オウシーアA区出土のビーズ（英文） 小口和美
- 主要分布圏外出土のハブール土器について（英文） 小口裕通

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THE KUYUNJIK GULLY SOUNDING, NINEVEH, 1989 & 1990 SEASONS

Augusta McMAHON*

Kuyunjik, the larger of the two high mounds enclosed within the Neo-Assyrian city walls of Nineveh, is perhaps best known as the location of the Neo-Assyrian palaces of Sennacherib and Ashurbanipal and of the contemporary temple of Ishtar. The deep sounding excavated below the Ishtar temple by Thompson and Mallowan in the early 1930's [Thompson & Mallowan 1933] had a great influence on the early reconstruction of the archaeological sequence for the prehistoric periods in northern Mesopotamia, but more recent excavations of similar material at other sites have superseded that excavation in importance. In order to test that excavated sequence and to investigate the early occupations at the site further, a stratigraphic trench, Area KG, was excavated at the east side of the Kuyunjik mound as part of the research project of the University of California at Berkeley¹⁾.

At the northeast edge of Kuyunjik, where the Khosr River winds past the site, several natural erosion channels have cut westward into the mound. These had apparently already formed by the early years of this century, since they are visible on the plan of Thompson and Hutchinson²⁾, although they have cut back further since that plan was made. The central of these gullies is currently approximately 50 meters long and from three to six meters wide at its base, and it is here that Area KG was located (see Fig. 1). The sides of the gully at the inner end are nearly vertical, with a depth of between four to ten meters. In 1987, during the first season of excavation by the University of California at Berkeley, two squares were opened at the western end of the gully, where eroded Parthian remains were uncovered, and one square at its base, where wash layers containing pottery of mixed date were exposed, the earliest material dating to the Ninevite 5 Period. In 1989 and 1990, work continued in this area, concentrating on a stratified section at the western, or inner, end, where levels from Ninevite 5 through Parthian were excavated.

The original goal of this excavation was to expose intact Ninevite 5 layers. Levels of this date had not been excavated at Nineveh since Thompson and Mallowan's 1931-32 deep sounding, which was an impressive effort but not without stratigraphic difficulties which remain unsolved³⁾. Recent studies of the internal sequence of the Ninevite 5 assemblage [*i.e.*, Roaf & Killick 1987; Schwartz 1985 & 1988; papers given at the Ninevite V Conference at Yale University in 1988] have made only the briefest mention of its type-site, but further investigation of this period at Nineveh seemed promising.

Instead of a traditional step-trench, the excavation in Area KG cut vertically through the mound, using the gully sides and inner end as boundaries; thus we hoped to expose a relatively large rectangular area at the elevation of the Ninevite 5 levels. However, the attempt at horizontal exposure was thwarted by the presence of a city wall and, approximately two meters outside it, a terrace wall, both dating to the late Akkadian Period. These walls were built of large limestone blocks, too potentially dangerous and time-consuming to remove, and they restricted excavation of the Ninevite 5 levels below them to a

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1) I would like to thank the director of the University of California Nineveh Excavation, Prof. David Stronach, for the invitation to join the Berkeley project team and for the permission to publish the results of the Area KG excavation. The excavation of Area KG was carried out under the supervision of the author during the 1989 and 1990 seasons, assisted in 1989 by Connie Gane of the University of California at Berkeley.

2) See Thompson & Hutchinson 1929: Pl. LXII.

3) Although now see the impressive restudy of the Nineveh Deep Sounding sequence in Gut 1995.

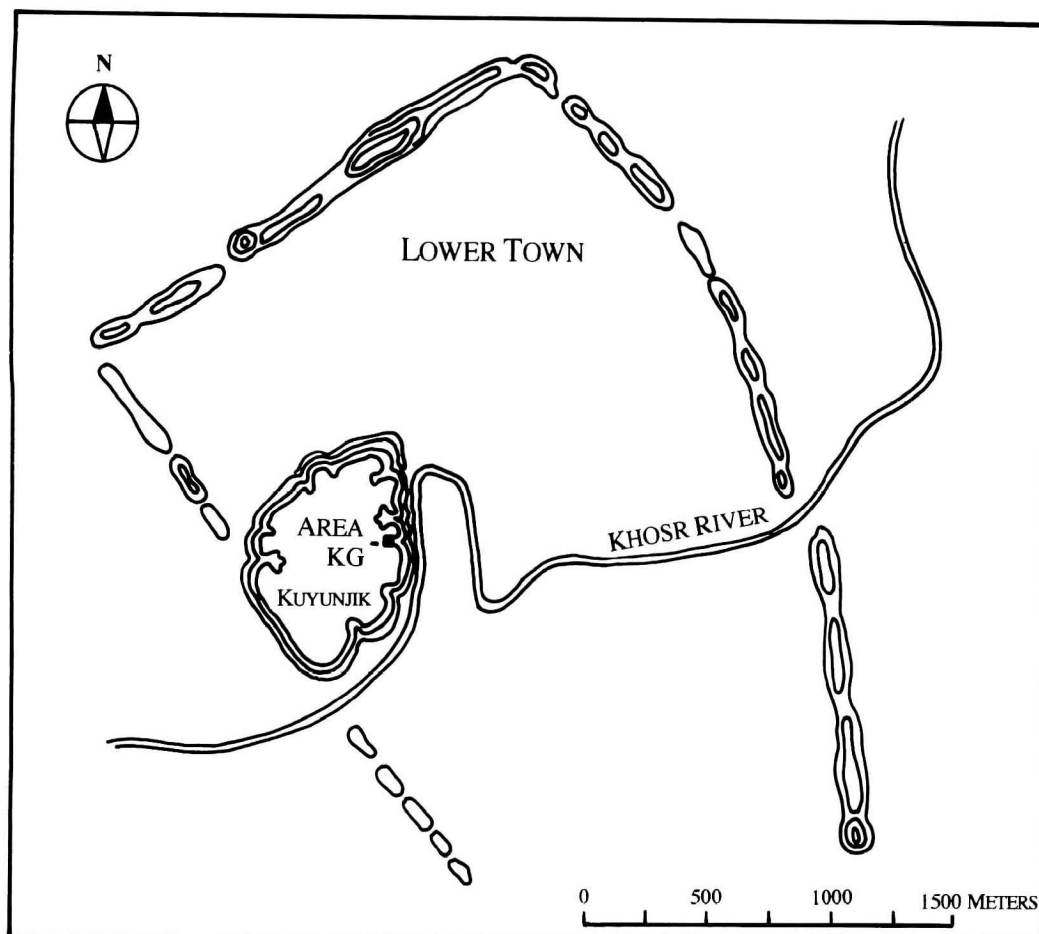


Fig. 1 Northern end of Nineveh, with Kuyunjik and Area KG.

narrow space between the walls and a small area to the east of the terrace wall. The north and south boundaries of the excavation were the near-vertical sides of the gully, which at the level of the stone walls were *ca.* 3.5 meters apart. The KG Sounding cut through about 7.5 meters of occupational debris, in which thirteen stratigraphic levels were distinguished, the lowest being datable to Ninevite 5.

Stratigraphy of Area KG

Level XIII

The lowest level, XIII, was reached only in a small test sounding east of the Akkadian Period terrace wall. It consisted of a layer of reddish soil at least 30 cm deep (the bottom of this layer was not reached). The layer is presumed to have continued to the west, below the terrace wall, but this area was not excavated to that depth. No architecture or diagnostic pottery was found; however, the layer might belong to the Ninevite 5 Period.

Level XII

Material of the next level, XII, was uncovered on both sides of the terrace wall. West of the wall, the lower deposit of this level consisted of a *ca.* 30 cm deep pile of debris from industrial activity, mainly ash and a great deal of slag, overlying a hard, burned surface. The slag contained a large quantity of organic temper, which, combined with a scarcity of sherds and absence of sherd wasters, suggests possible manufacture of baked bricks rather than pottery.

Above the slag and ash was a 30 cm thick layer of lensed green and red clay-like soil. This layer also appeared on the east of the terrace wall; but there, the underlying slag layer did not appear, despite a horizontal separation of less than two meters. Instead, the green and red layer was about 70 cm thick and rested directly on the red soil of Level XIII. The edge of the slag pile must be hidden below the later terrace wall. The green and red deposits on either side of the wall were identical in color, composition, and associated pottery, so there is little doubt that they belong to the same event or series of events. No architectural remains were found in this level, which, accompanied by the general slope of the layers downward towards the east (towards the Khosr River) suggests that during this phase, the area of our trench was an open space, probably at the mound edge.

The pottery of XII is typical of the mid-Ninevite 5 Period, with a combination of painted and incised wares. Among decorated types, simple incised decoration dominated (Fig. 2: 6-8, 15) with a smaller number of painted sherds (Fig. 2: 4, 13, 14)⁴. There were several pedestal bases (Fig. 2: 25) and a number of fine-ware vessels, bowls or cups with beaded rims (Fig. 2: 3, 9, 11) and straight or flared-neck jars (Fig. 2: 23). The undecorated plain ware included a number of rounded-rim bowls in two sizes, one averaging *ca.* 14 cm diameter and a larger version 20 to 24 cm in diameter (Fig. 2: 1). This common ware also included medium-sized jars with rounded or triangular rims usually ranging around 14 to 16 cm in diameter (Fig. 2: 19, 21, 22), plus larger storage vessels with rims from 24 to 32 cm in diameter. There were examples of holemouth cooking pots with straight or arched ledge handles near the rims (Fig. 2: 10, 18), and one example with an applied knob handle. Finally, there were several fragments of a flat disk-shaped object with a single central curved handle, in very coarse ware⁵. The pottery from Level XII is comparable to that from Telul eth-Thalathat V⁶; Tell Leilan Period IIIc and possibly IIIb⁷; and Tell Kutan⁸. This level may thus lie chronologically during the occupational gaps which have been postulated between Tell Billa Strata 7 and 6⁹ and Tell Mohammad 'Arab Periods 2 and 3¹⁰. A few excised and incised sherds (Fig. 2: 16) may indicate that this level continued into late Ninevite 5.

Level XI

The architectural remains of the succeeding level, XI, consisted of a narrow mudbrick wall, running NW to SE. In the small area exposed, it was impossible to reconstruct anything of the building plan. The wall was preserved only two courses high, each course consisting of a row of large (33 × 17 × 7–8 cm) rectangular mudbricks laid as headers, with a row of smaller stretchers (28 × 10 × 7–8 cm) on alternating faces. South of the wall was a layer of lensed greenish and reddish water-laminated material, possibly an open space. North of the wall there was mixed debris: a patch of yellowish sand and cobbles and a mass of fallen eroded mudbrick. Material contemporary with this level was not found on the east of the later terrace wall; the mudbrick wall must have originally extended in that direction but was cut away or had eroded at the time the terrace wall was built. This was the case for all the levels above, through Level VIII.

-
- 4) The relative scarcity of painted Ninevite 5 pottery in Area KG may be related to the probable date of the levels, in the middle of the Ninevite 5 sequence, when painted decoration is generally assumed to have been being replaced by incised and excised decoration. But Wilkinson and Tucker's survey of the northern Jezira [1995] has indicated that painted Ninevite 5 pottery was generally scarce in that area, just to the west of Nineveh. The scarcity of painted wares in the KG excavation may thus be either a regional or a chronological variant, a combination of the two, or even simply due to the fact that the excavation is situated at the mound edge.
 - 5) The fragments of this object from the KG excavation were not large enough to reconstruct, but see comparable examples from Telul eth-Thalathat V [Fukai, Horiuchi & Matsutani 1974: Pl. LVIII: 1] and from Tell Leilan IIIb [Schwartz 1988: Fig. 45: 5, 6].
 - 6) Fukai *et al.* 1974.
 - 7) Schwartz 1985, Schwartz 1988.
 - 8) Forest 1987, Bachelot 1987.
 - 9) Speiser 1933, Roaf & Killick 1987.
 - 10) Roaf 1983, Roaf 1984, Roaf & Killick 1987.

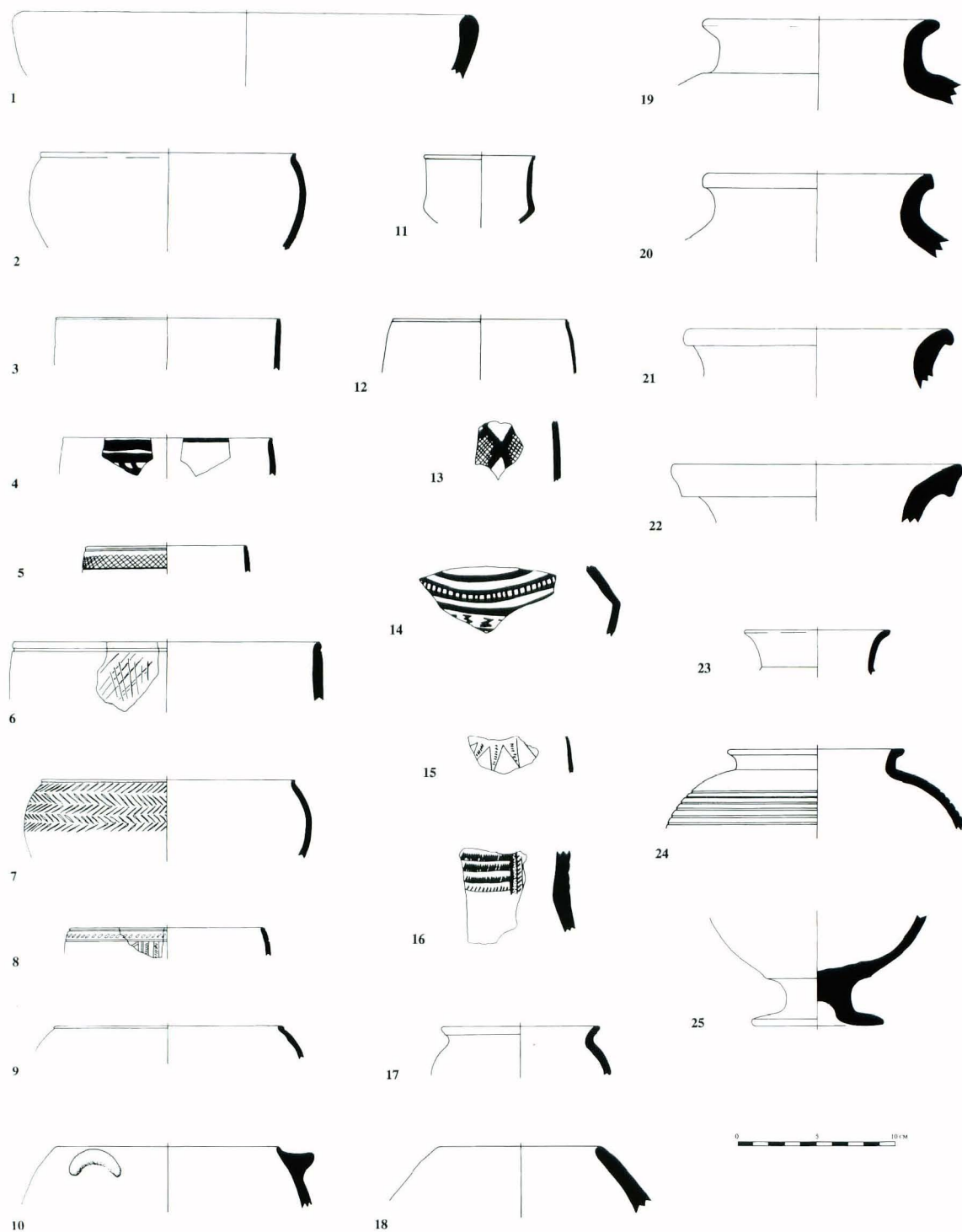


Fig. 2 Pottery from Levels XII and XI, Area KG.

The pottery from Level XI included fine-ware bowls and cups and flared neck jars similar to those from XII (Fig. 2: 2, 12); but there were no painted sherds, only one plain pedestal base, and one incised sherd (simple cross-hatching on a beaded-rim cup; Fig. 2: 5). Common ware vessels included similar jar and bowl types as were found in Level XII (Fig. 2: 20), and there were more examples of the holemouth cooking pots. The date is probably approximately the same as that of XII, mid-Ninevite 5; the sample, however, was so small as to be not truly representative.

Level X

Level X has two phases, a building layer (B) followed by a layer in which there was no visible architecture in the excavation area (A). In B, portions of three rooms separated by mudbrick walls (Fig. 3), were uncovered. One wall (Wall 22) ran approximately N-S across the excavated space and, at its south end, formed a bonded corner with Wall 33, running west from that point. Both walls were built of rectangular mudbricks, 28–30 × 13–15 × 8–10 cm. The space they defined, Locus 30, mostly remained unexcavated below the later city wall. But the floor in this area consisted of a layer of pebbles, possibly indicating it had been an open courtyard.

Immediately after construction of these first two walls, another wall (Wall 23) was added to them. It ran east from the corner of Walls 22 and 33, with its north face slightly further north than that of Wall 33 and abutting that corner, rather than being bonded with it. The space bounded by Walls 23 and 22 (Locus 32) was paved with a layer of large mudbricks (*ca.* 43–45 square by 12–14 cm thick) to a point

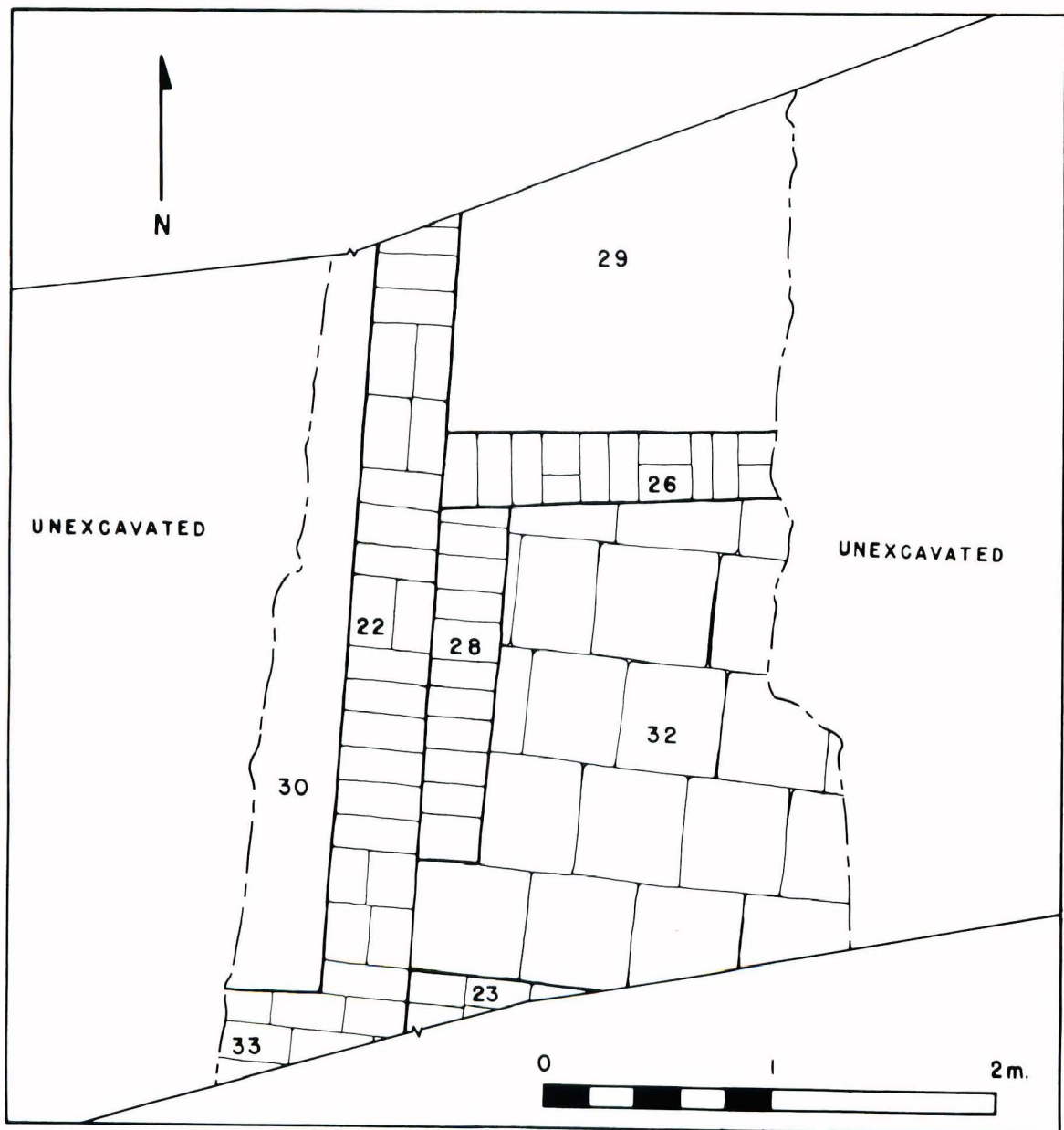


Fig. 3 Plan of Level XB, Area KG, Nineveh.

a little over two meters north of Wall 23. Wall 26 was then built on the north edge of the paving, not quite parallel to 23. The space thus created was filled with a second layer of the large mudbricks. Wall 26 was only one row of bricks wide, and these bricks were smaller than those of the other walls (26–29 × 13–15 × 7–8 cm). Against the east face of Wall 22 in Locus 32 was a mudbrick bench, 28.

There was no occupational debris within this room; so it may have been periodically swept out, and the paving implies a special function. The narrowness of the space suggests that it may have been for storage, which would fit with the brick paving, to prevent rising damp. The debris above the paving consisted of plaster rubble, heavy ash, and fragments of charred wood, derived from collapse of the roof. There was a similar deposit in the area north of Wall 26 (Locus 29), sloping up to the face of the wall.

Very little pottery was found in the rooms of Level XB, although the bricks and mortar of the paving did contain a number of sherds. The deposit above the paving included several examples of large bowls with overhanging rounded rims (Fig. 4: 18), finer cups with plain rims and incurving sides (Fig. 4: 1, 2), more hole-mouth cooking pots, a conical sieve, and an everted jar rim on a very low neck (Fig. 4: 13). There was also an unusual sharply angled everted rim of a bowl similar to an example from the Tepe Gawra VIII¹¹ (Fig. 4: 14). The rest of the pottery from this level came from the bricks of the paving and bench and certainly predated the level's construction. All those sherds were Ninevite 5, including pedestal bases, one painted with stripes and cross-hatching (Fig. 4: 16); fine-ware beaded-rim bowls (Fig. 4: 8); and a fine-ware bowl with incurving sides, beaded rim, and horizontal notched ridges on the body (Fig. 4: 7). This level probably belongs late in the Ninevite 5 Period, to judge from what little pottery was found in good context.

In Level XA the building was no longer in use and the area of the excavation might once again have been open, since there was a regular accumulation of 20 to 45 cm depth of striated ash and brown soil. The pottery of this layer may belong to the late Ninevite 5/late Early Dynastic III or even the early Akkadian Period. Useful diagnostics included two types of triangular jar rims (Fig. 4: 10, 11) and an everted rim bowl (Fig. 4: 5). The bowl and one jar rim (Fig. 4: 10) are paralleled at Tell Barri¹², where the final phase of Ninevite 5, with excised ware, is represented. The second jar rim (Fig. 4: 11) is similar to one on a storage jar from a "late ED III" deposit at Tell Brak¹³.

The possible material markers of the late Early Dynastic III versus early Akkadian Periods in southern Mesopotamia are still the subject of debate [*cf.* Matthews 1997; Gibson & McMahon 1995 & 1997]. And the difficulty in defining the assemblages associated with either side of the comparable transition is magnified in northern Mesopotamia by the fact that the political-historical changes on which these labels are based were happening at a greater geographical remove from the northern sites. In the absence of inscriptions or otherwise independently datable evidence, Level X and even Level IX at Nineveh KG must be labeled "transitional," in that they cannot be assigned for certain to either the late Early Dynastic or the early Akkadian Period, in historical terms. It is likely that the transition from one historical period to the next took place during the accumulation of these two levels, but the pottery sequence for northern Mesopotamia is not yet fine-grained enough for this crucial time that the distinction can be made.

Level IX

The remains of the next level, IX, consisted of a single wall, Wall 24, running east-west at the northern end of the trench; Locus 27 was the space cleared to its north and Locus 20 the space on the south. The wall was built of rectangular mudbricks 26–28 × 13–15 × 7–8 cm; the brick courses alternated between

11) Speiser 1935: Pl. LXIII, 33; the bowl is in a level attributed to the Late Uruk Period and so may be redeposited in our Level X.

12) Pecorella & Salvini 1982. The bowl is similar to Nos. 1, 2; the jar to No. 25.

13) Oates 1982: Fig. 6: 89, ER Level 4 and CH Level 6.

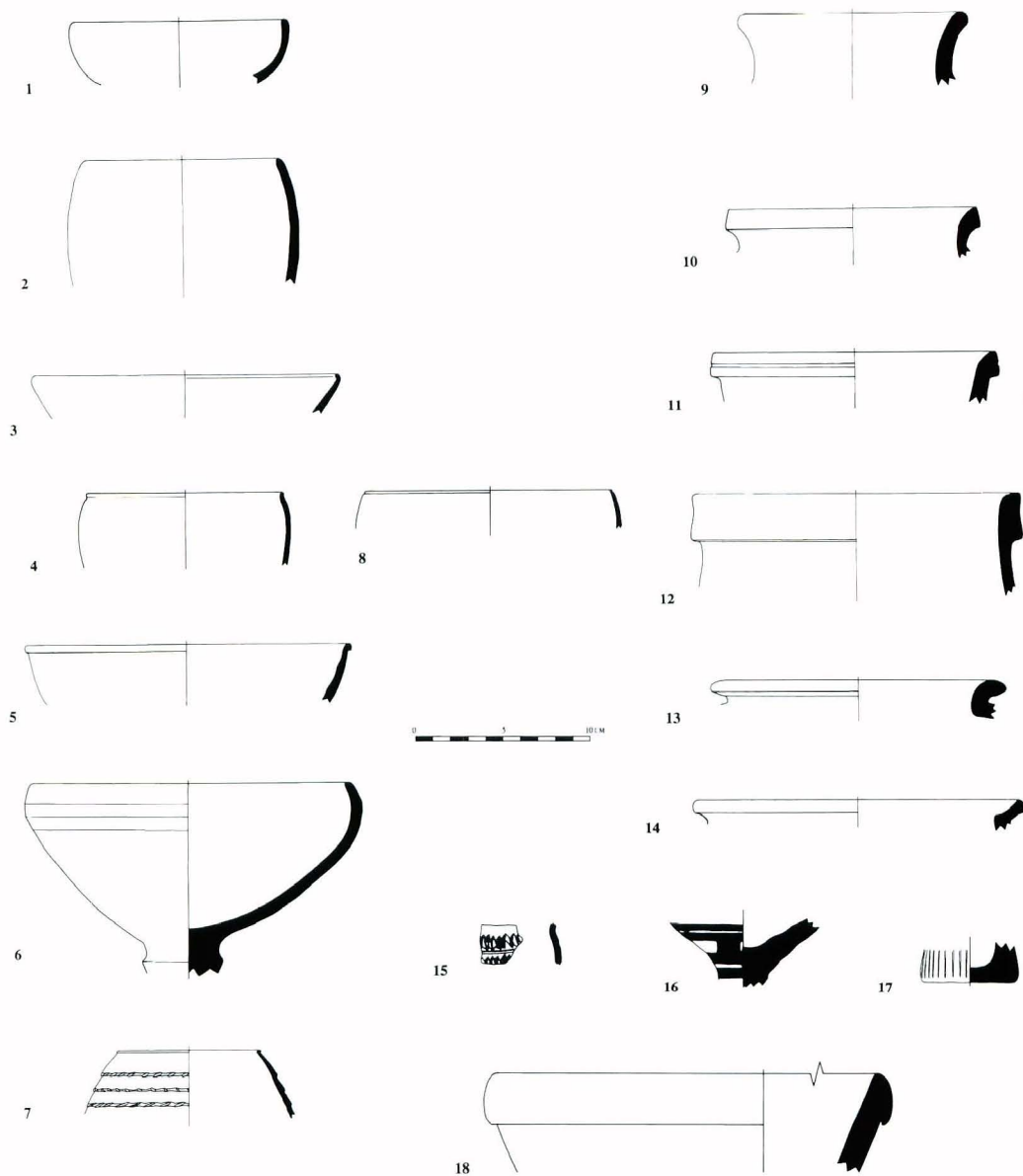


Fig. 4 Pottery from Levels X and IX, Area KG.

three rows of adjacent stretchers and one row of headers faced by a row of stretchers. The deposit in Locus 27 was very clean tan soil with broken mudbricks and very few sherds, probably derived from the wall collapsing in that direction. South of the wall there was occupational debris, a layer of horizontally striated ash and reddish soil. The pottery from this level was very mixed in date, with the earliest example being an Uruk Period beveled-rim bowl fragment. There were also the upper portion of a Ninevite 5 pedestal-base bowl (Fig. 4: 6), several Ninevite 5 fine ware cups (Fig. 4: 3, 4), and plain flared and collar jar rims (Fig. 4: 9, 12). A number of enigmatic forms appeared, such as a “rocker” impressed sherd (Fig. 4: 15)¹⁴ and a flat cup base with vertical sides, decorated with vertical incised lines; the ware was dark

14) This distinctive and easily recognized pattern is unfortunately difficult to date: it is paralleled at Tell Brak Area CH, in Phase I, a late Akkadian or Ur III context [Fielden 1977: Pl. XI: 6]; at Tell Leilan, in Level IIIId or late Ninevite 5 [Weiss 1990: Abb. 12, 2nd row, 2nd from left]; at Tell Billa in Stratum 6, also Ninevite 5 [Speiser 1932: Fig. 3, upper row, 3rd from left]; and at Tell Sheikh Hassan in Middle Uruk contexts [Boese 1995: 268]. It even appears in variant form in the later 1st millennium BC.

brown with a burnished surface (Fig. 4: 17).

Level VIII

This level may represent a surface levelling preparatory to construction of the city and terrace walls. The basal surface of this level was a dark gray and white ashy floor; the fill above it was clean reddish soil varying in depth from eight to fifteen centimeters. This fill contained broken mudbricks and was either an erosion product or debris deliberately brought from another part of the site to level the area. The pottery of VIII can be dated from Ninevite 5 through the Akkadian Period. Indeed, most of the sherds were Ninevite 5 and are here found in secondary or tertiary context; however, a *terminus post quem* in the Akkadian Period is provided by such types as a rounded base cup (Fig. 5: 1) and an everted jar rim decorated with a wavy three-point comb-incised line (Fig. 5: 27). This decoration, which can involve both horizontal and wavy lines made with a multiple-pointed comb, becomes more common in the succeeding levels VII and VI. Comb-incision is very common in contexts dated to the Akkadian and Ur III Periods in southern Mesopotamia; in northern Mesopotamia, it appears at Nuzi¹⁵⁾, Assur¹⁶⁾, Tell Billa¹⁷⁾, Tepe Gawra¹⁸⁾, Tell Jigan¹⁹⁾, Tell Fisna²⁰⁾, Tell Taya²¹⁾, Tell Rimah²²⁾, Tell al-Hawa²³⁾, and Tell Brak²⁴⁾, in other words, it is most popular in the Mosul triangle and eastern Habur regions.

Level VII

The succeeding level, VII, saw construction of the stone terrace and city walls and associated mudbrick walls (Fig. 6). From this level and those above, there is preserved material outside, or east of, the terrace wall. However, this level and the succeeding ones were cut by a modern excavators' tunnel, *ca.* 5 meters high and now partially filled with sand and debris, which was probably dug in 1904²⁵⁾.

The city wall was approximately 1.7 meters wide and was constructed of large (0.6–1.0 m square by 0.3–0.5 m thick), roughly cut limestone blocks set in clay mortar. There were two parallel lines of blocks, laid with their straighter edges along the faces and the more irregular within the wall. The space between these lines was filled with clay and smaller, uncut stones. Three courses were preserved at the wall's highest point and there was probably a mudbrick superstructure above the upper course, traces of which were found at the southern edge of the trench. The terrace wall, *ca.* 2 meters to the east, was built of similar stones but was a very different construction, being a layer of slabs laid against the sloped side of the earlier mound to prevent erosion from undermining the city wall. Its total preserved height was approximately 1.8 meters, in the course of which the east face stepped back *ca.* 80 centimeters. There was one layer of stones against the mound in the lowest part of the terrace, but the highest preserved course (and probably highest original course) was two rows deep.

Two mudbrick walls were built in the space between the stone walls. Wall 19 was a narrow and truncated veneer of bricks against the lower east face of the city wall; Wall 12 was perpendicular to 19,

15) Starr 1937: Pl. 44: B-D, F-J, M; Pl. 51: W-Y.

16) Miglus 1989: Abb. 4, 6, 7 (Old Palace, Akkadian-Ur III levels); Andrae 1922: Taf. 18: 22, 23, *et passim* (Ishtar Temple G & F); Haller 1954: Taf. 1: a, d, e, k (Ur III graves).

17) Speiser 1933: Pl. LVII: 7, Stratum 4.

18) Speiser 1935: Pl. LXX: 144-146, Level VI.

19) Fujii 1987a: Fig. 4: 19, Fig. 6: 55, 58, 60.

20) Fujii 1987a: Fig. 9: 42, Numoto 1988: Fig. 21: 134, Fig. 24: 198, 199, 201, 222.

21) Reade 1968: Pl. LXXXIV: 2, Pl. LXXXV: 20, Taya VII.

22) D. Oates 1970: Pl. IX: 7, Pl. X: b & d, Ur III deposits.

23) Ball, Tucker & Wilkinson 1989: Fig. 22.

24) Fielden 1977: Pl. XI: 2; Mallowan 1947: Pl. LXV: 7, Pl. LXVI: 10, 16, Pl. LXVIII: 14, Pl. LXIX: 5, Area CH Phase I, also Area SS.

25) The tunnel is visible on the plan in Thompson & Hutchinson 1929: Pl. LXII. The KG area is in the first gully immediately north of "Sennacherib's East Building" on that plan. Within the gully, there had been a rectangular excavation area, the boundaries of which are now no longer visible, with the tunnel extending from it approximately some 25 meters into the mound.

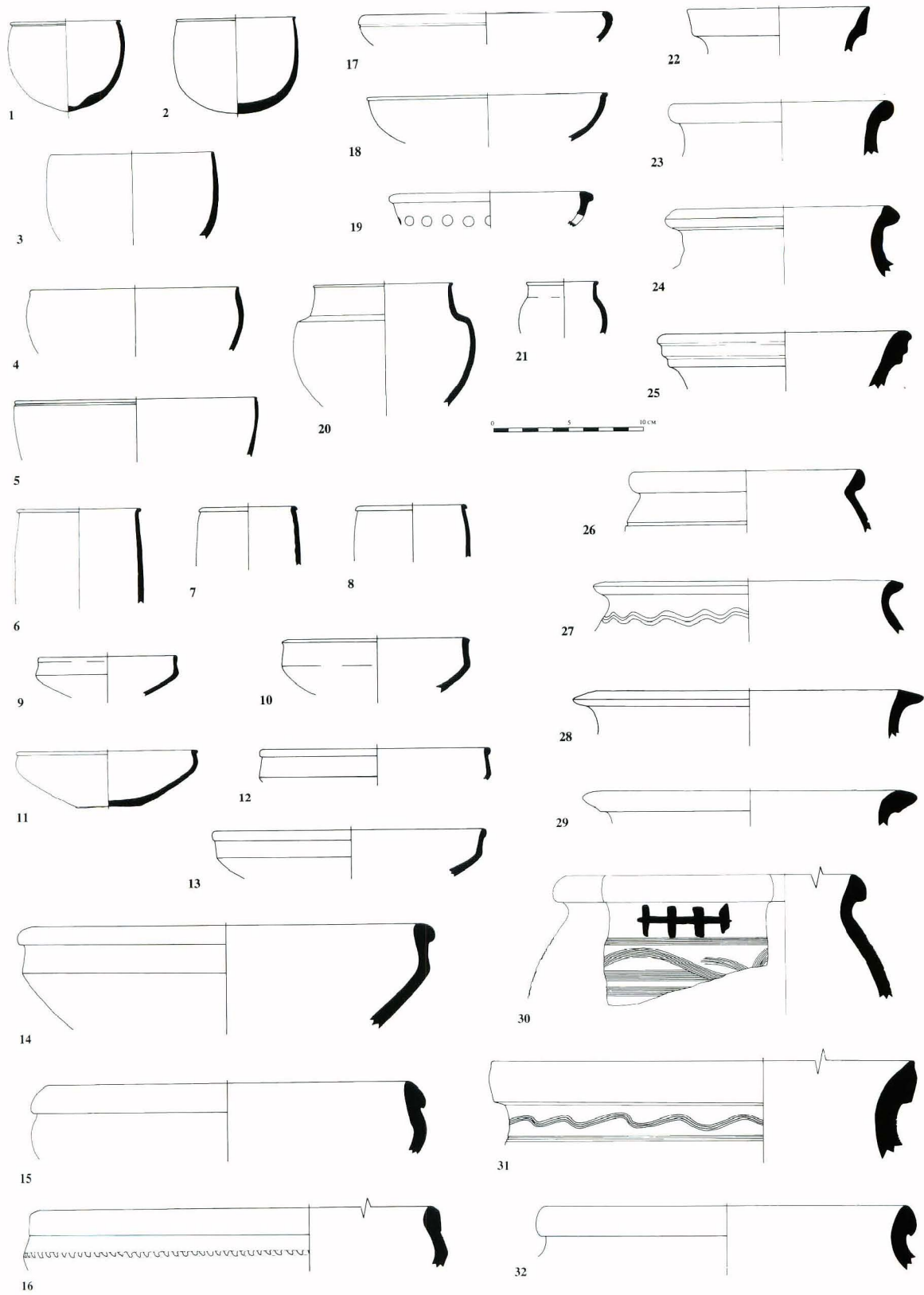


Fig. 5 Pottery from Levels VIII and VII, Area KG.

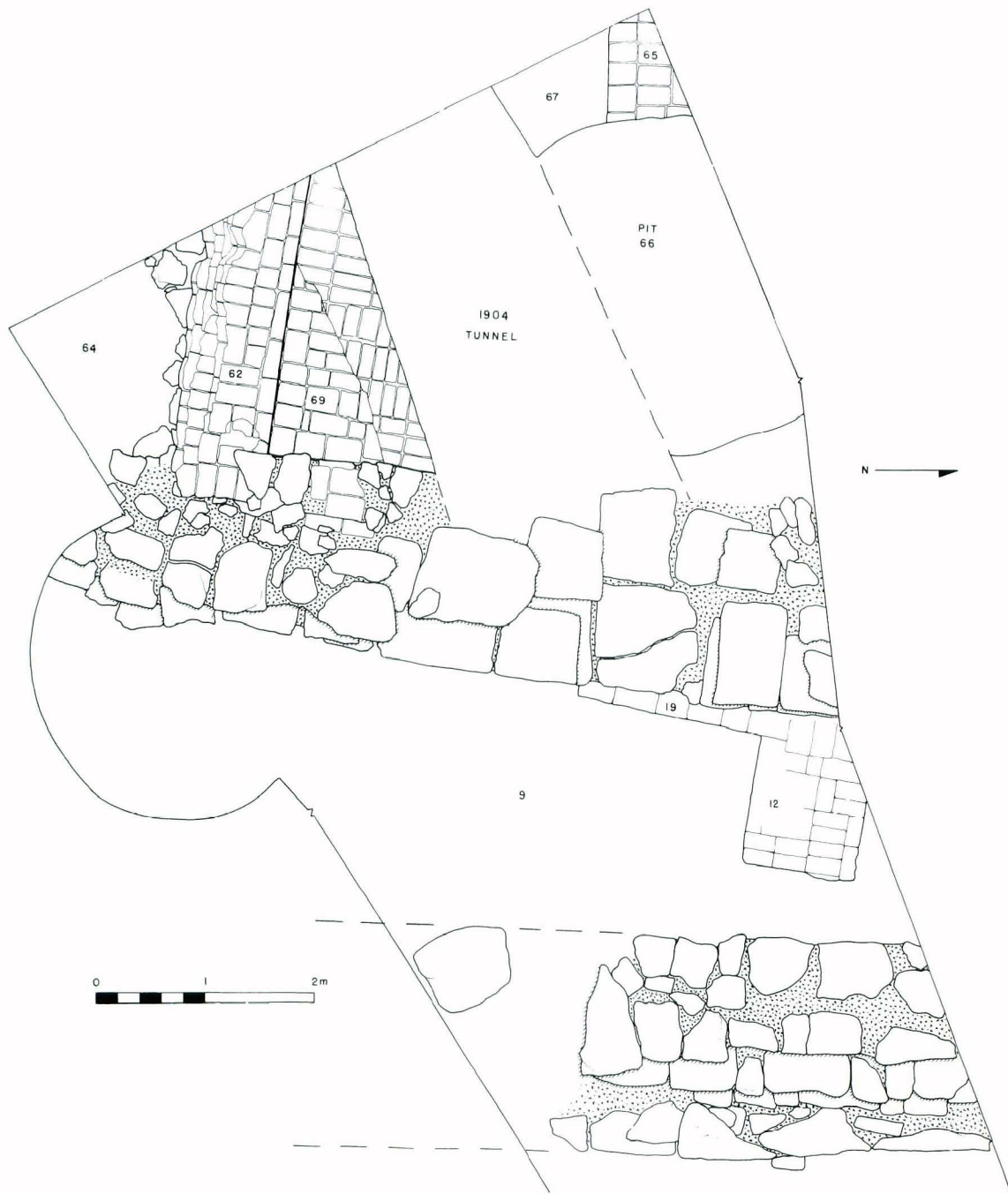


Fig. 6 Plan of Level VII, Area KG.

running towards the terrace wall but stopping *ca.* 60 cm short of it. This wall may have been one of a series of buttresses against the city wall; or the gap may be a doorway, providing access between two cells of a casemate arrangement between the inner wall and terrace wall. In the space between the two stone walls (Locus 9) an ashy deposit had accumulated, and next to Wall 19 was a cache of ovoid unbaked clay sling bullets.

Within the city wall, the western face of the inner wall was used as the eastern boundary of a structure which had been mostly cut away by the modern tunnel and a pit (66) belonging to Level II. One mudbrick wall (Wall 62) was built abutting the city wall, and traces of a second wall,

approximately parallel (Wall 65) were found at the western corner of the excavation. We assume that the two mudbrick walls defined an area which would have been approximately three meters wide by at least four meters long; this space was filled to a depth of at least 1.5 meters with mudbrick paving (Locus 69). The better preserved wall on the south (Wall 62) had a four-course-high foundation of stones similar to those of the city wall. This massive construction may have been the base of a tower, part of city's defenses. South of the southern wall was a layer of occupational debris, striated dark gray soil (Locus 64).

A large amount of pottery had accumulated in the debris between the city and terrace walls. Most sherds were datable to the late Akkadian to Ur III Periods. Types included fine ware bowls, deep and hemispherical with rounded bases (Fig. 5: 3, 4) or shallow with lightly carinated sides and flat bases (Fig. 5: 9–13); fine ware jars (Fig. 5: 20); beaded-rim cylindrical beakers (Fig. 5: 6–8); larger bowls with plain or thickened rounded rims (Fig. 5: 14, 15); and jars with rounded or triangular rims on flared necks (Fig. 5: 23, 24). Two distinctive types in particular are useful for the late Akkadian dating: a hemispherical bowl strainer (Fig. 5: 19) and a large jar with a thickened rim and horizontal and wavy comb-incised decoration (Fig. 5: 30). The strainer has parallels in late Akkadian to Ur III deposits at Tepe Gawra VI, Tell Rimah, Tell Taya VIII and VII, and Tell Jidle 5 and 6 (see catalogue of pottery for references); the jar is found in late Akkadian levels at Tell Fisna Va, Tell Jessary, Taya IX-VI, and Tell Brak.

The pottery from inside the city wall, associated with the large mudbrick construction there, is comparable to that outside, with the addition of several more types. The same fine ware types appeared in both areas, but from within the wall there were several examples of a bowl with an incurving rim and a shallow groove just below, in a size range from *ca.* 16 to 20 cm diameter (Fig. 5: 17) and several more jar rim types (Fig. 5: 22, 28), including a thickened rim with two horizontal grooves (Fig. 5: 25) and an everted rim with a droop in its lower surface (Fig. 5: 29). Close variants of both of these latter types are common in Ur III contexts in southern Mesopotamia²⁶. In northern Mesopotamia, these types appear in contexts dated anywhere from the late ED III/early Akkadian [Tell Jigan; Numoto 1992] to the late Akkadian Period [Leilan IIb; Weiss 1990]. The second form in particular is larger in diameter than the similar version from southern Mesopotamia and may belong to a different vessel entirely, a wide-mouthed carinated vessel, rather than the southern Mesopotamian rather narrow-necked storage jar. However, there was at least one sherd from Level VII from a distinctive jar known to be a late Akkadian (and Ur III) type in southern Mesopotamia, a tall jar with multiple raised horizontal ridges on the shoulder [see Gibson & McMahon 1995: Fig. 17: 14; Fig. 18: 15, Fig. 19: 15]. Despite the necessity of labeling the two preceding levels in Area KG “transitional”, it seems clear from the comparisons for the Level VII pottery that the construction of the city wall and terrace wall, and the accumulation of the use deposits associated with them, took place in the later part of the Akkadian Period at the earliest, probably during the reign of Naram-Sin.

During occupation of Level VII and use of the structure inside the walls, debris began to accumulate outside and against the terrace wall. The lowest layer was homogenous brown soil, about 15 centimeters thick; this was covered by a second layer, 25–35 centimeters deep, of greenish water-laminated material with clumps of fallen mudbrick. Both layers extended just over three meters to the east, at which point they were eroded away by movement of water through the gully. The layers sloped down slightly towards the east and the river, and this slope, together with the absence of architecture, would indicate that we are indeed at the edge of the ancient settlement. The pottery from the exterior debris complements that within the walls. Comb-incision was common on jars and there were similar fine-ware bowls, as well as redeposited sherds of Ubaid through Ninevite 5 date.

Contemporary city walls have been identified at a number of other sites in northern Mesopotamia:

26) See the preliminary report of the Nippur Area WF excavation, Gibson & McMahon 1995: Fig. 19: 11, 12.

at Tell Billa²⁷⁾, possibly at Tell Khoshi in the Sinjar region²⁸⁾, and at Tell Jidle in the Balikh Valley²⁹⁾. Similarly, at Tell Taya, the citadel was first walled in Level IX³⁰⁾; at Tepe Gawra, the layout of Level VI was such that the rear walls of the buildings approximated a city wall³¹⁾; and at Tell Leilan the Acropolis was walled in Level III and the Lower Town in Level IIb³²⁾, spanning the late Early Dynastic III to early Akkadian Periods. A stone city wall (said to be associated with a moat 8 meters wide and 7 meters deep) has been identified at Tell Jigan and was tentatively assigned to the Akkadian Period³³⁾. And at nearby Tell Jessary, a portion of a stone terrace wall of either Ninevite 5 or Akkadian date was exposed at the base of the mound³⁴⁾. A contemporary massive stone construction, walls and a pavement, at Tell Fisna³⁵⁾ is located well inside the mound and thus cannot have had the same defensive character; but its construction may be related to construction of city walls and the attainment of urban size at other sites and has implications for reconstruction of the political organization of northern Mesopotamia in this period. The walls at these sites might be evidence for control of this area by Akkadian rulers, but in the absence of texts or brick inscriptions indicating otherwise, the walls at many of these sites may in fact be the local population's defense attempts against the excursions of the Akkadian kings.

The presence of a substantial Akkadian Period level at Nineveh comes as something of a surprise, since no material of this date was uncovered in Mallowan and Thompson's deep sounding of 1931³⁶⁾. However, a cylinder of Shamshi-Adad from the Temple of Ishtar at Nineveh³⁷⁾ refers to the building of an earlier temple by Manishtushu; and it seems unlikely that the site, given its strategic location, would have been unused during the Akkadian Period. It also seems probable that the horizontal dimensions of the mound of Kuyunjik were well established by this time, and that the centre of the mound, the location of the Deep Sounding, should have been occupied. So it is probably the case that subsequent Neo-Assyrian building activity in that area had removed all traces of an Akkadian occupation by trenching or levelling. Although the builders of the city walls at other sites might have been either independent local inhabitants or under the control of the Akkadian kings, the strategic location of Nineveh in the landscape, plus the record of the Ishtar temple building, makes it likely that Nineveh was under Akkadian imperial control and that the wall was commissioned by an Akkadian king. Given that Sargon is probably hidden, archaeologically-speaking, within "Late ED III" material in both southern and northern Mesopotamia, we should probably attribute the wall to one of his successors: either Manishtushu, who after all is held by tradition to have done other work at the site, or Naram-Sin, who is responsible for the "Palace" and massive constructions in Areas SS and FS at Tell Brak.

Level VI

Level VI consists of material built up outside the city wall and is divided into two phases. During the initial phase (B), debris accumulated up to the top of the terrace wall, after which only the city wall was still visible and it is unclear whether that was still in use. In VIA, debris covered the terrace wall and

27) Speiser 1933.

28) Lloyd 1938: 126, 141.

29) Mallowan 1946: 134.

30) Reade 1968: 241.

31) Speiser 1935: 19.

32) Weiss 1990: 213. The nearby site of Tell Mozan is reported to have been walled even earlier, in the Early Dynastic Period, although the wall is reported to have gone out of use by ED III [Kelly-Bucellati 1990: 124].

33) H. Fujii 1987a: 36. The pottery illustrated from the 'moat' in Area A [Fujii 1987a: Fig. 4: 18–21, 23, 24] is comparable to the pottery from KG VII and VI, so the date of the Jigan structure is probably Akkadian. The published plan and section appear to show the wall backing up onto virgin soil, so it may in fact be a terrace wall comparable to that of Nineveh KG.

34) Fujii 1987c: 71.

35) Fujii 1987a: 45.

36) However, there is a single late Akkadian/Ur III sherd with horizontal and wavy comb-incision from the Deep Sounding (illustrated in Gut 1995: Taf. 97: 1371).

37) Thompson & Hamilton 1932: 105, K.

reached the preserved top of the city wall. Any possibly contemporary material inside the city wall was not reached within the boundaries of the excavation area.

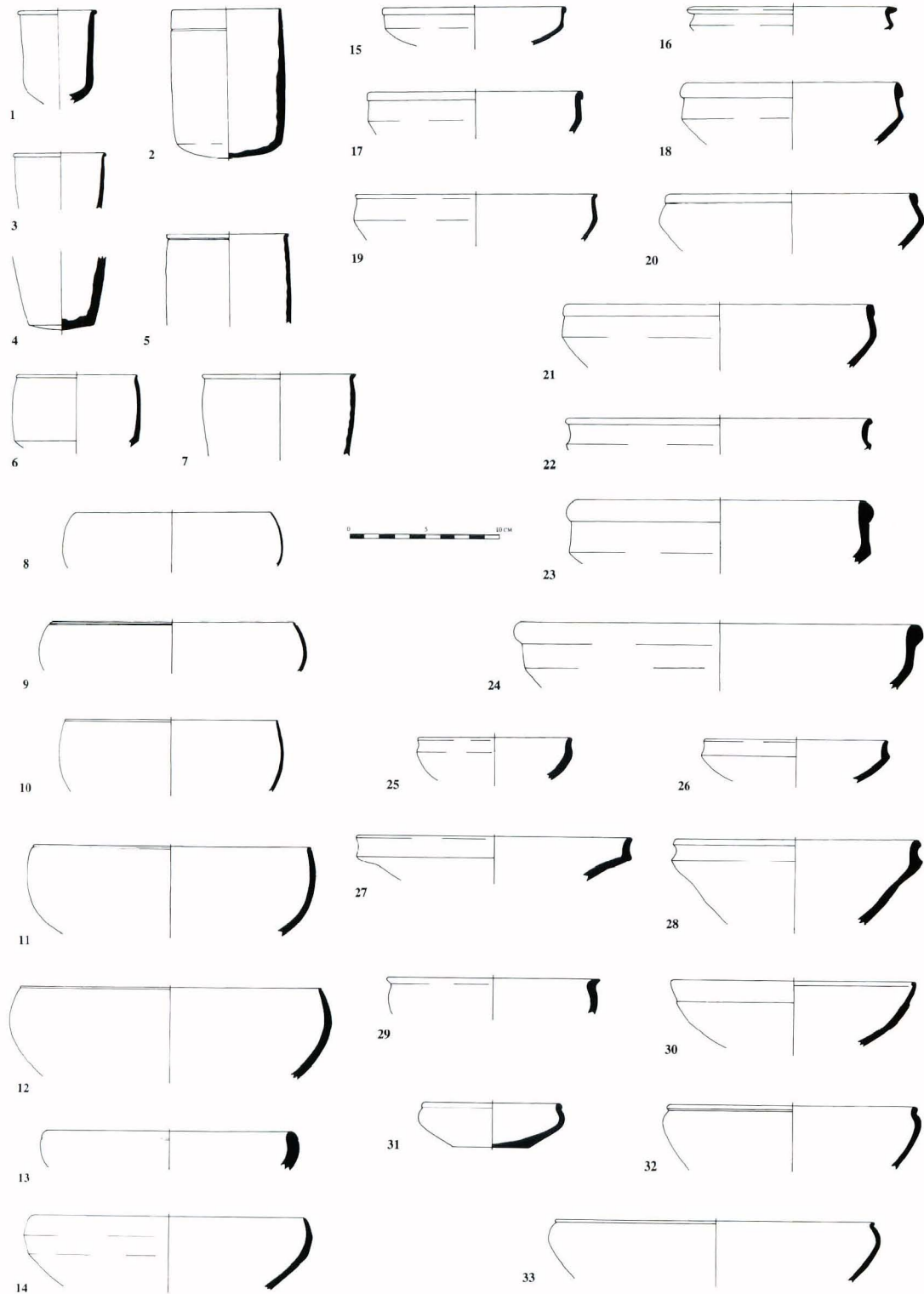


Fig. 7 Small-Medium Open Forms from Level VIA and B, Area KG.

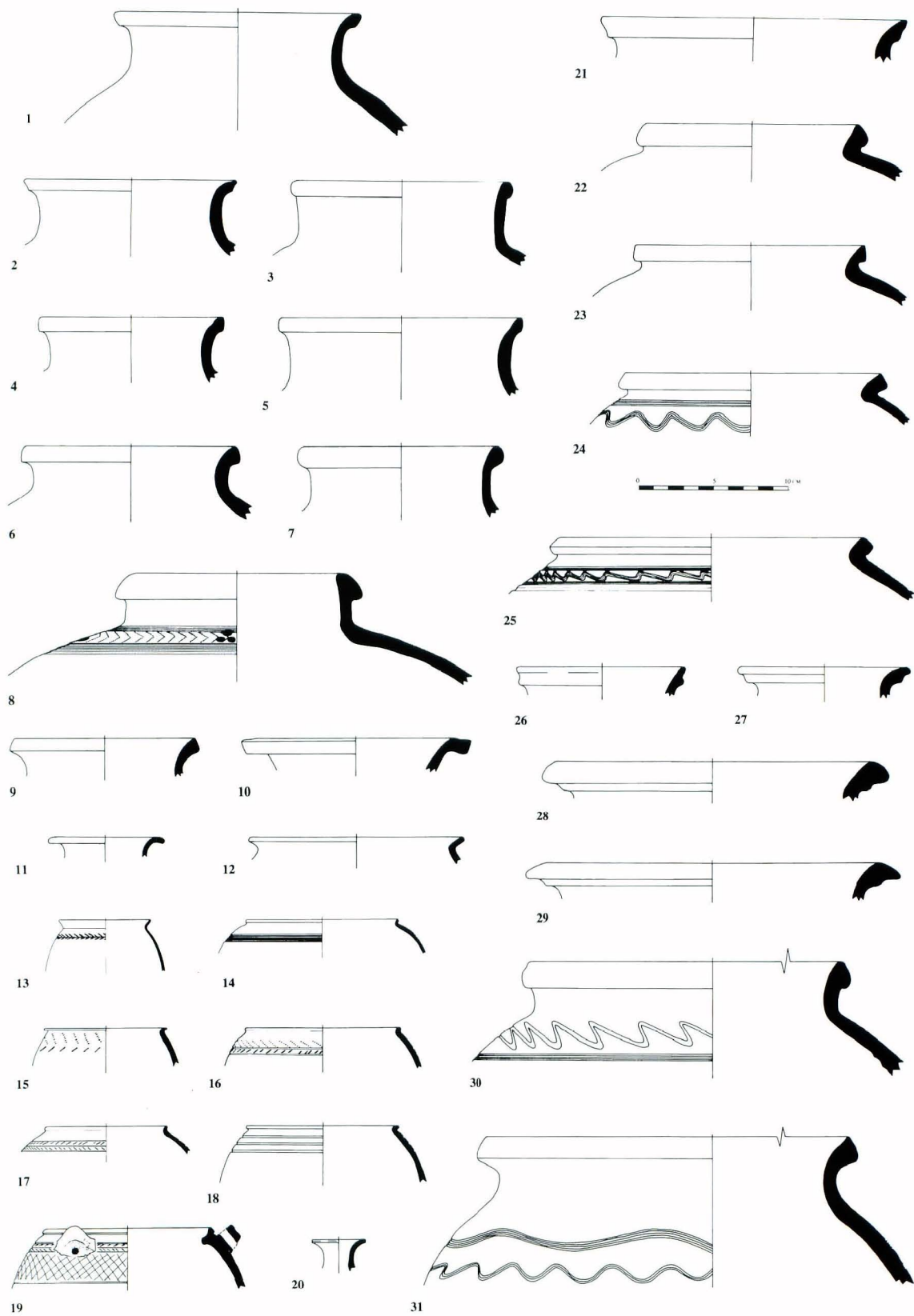


Fig. 8 Closed Forms from Level VIA and B, Area KG.

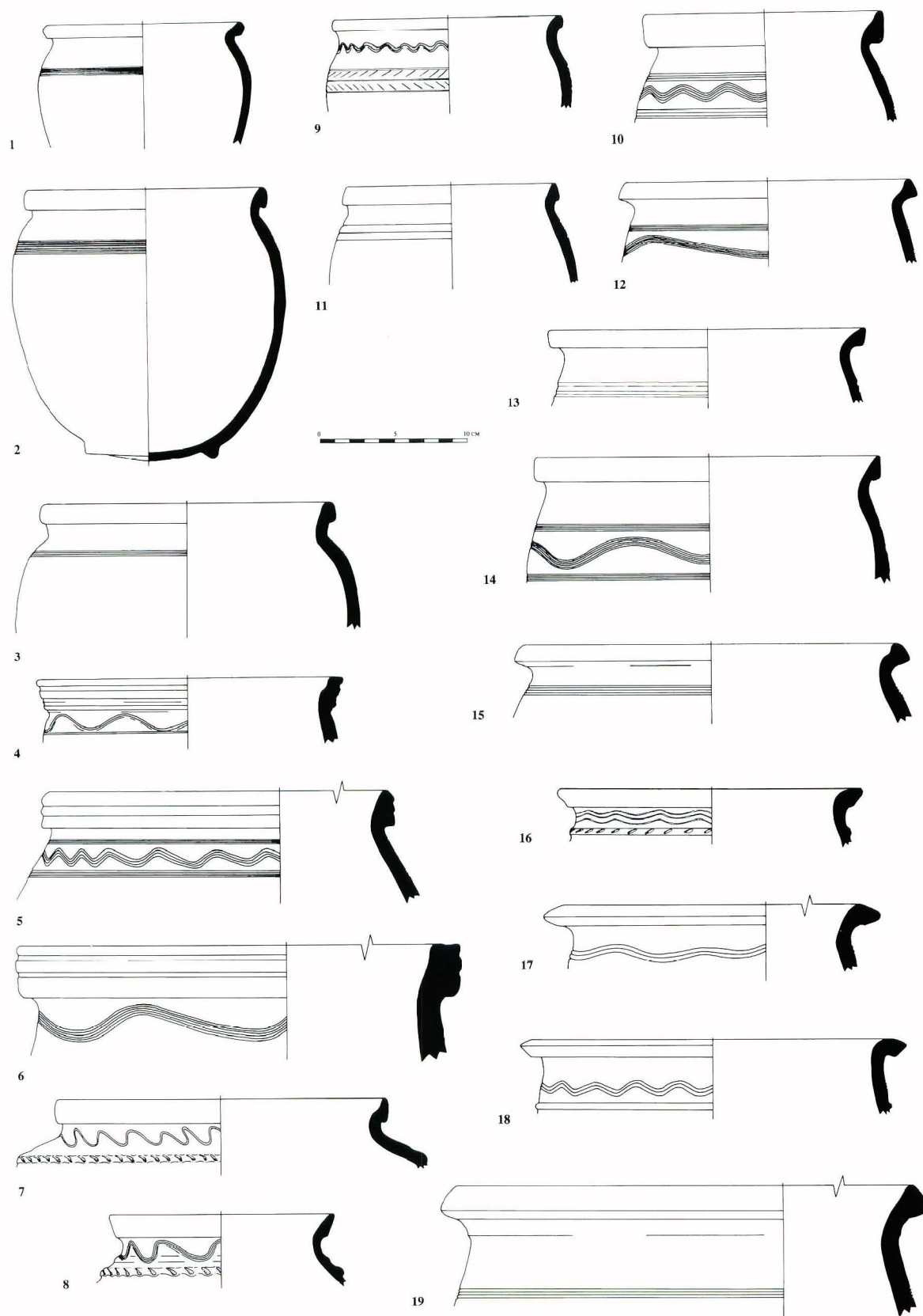


Fig. 9 Large Vessels from Level VIA and B, Area KG.



Fig. 10 Large Open Vessels from Level VIA and B, Area KG.

The accumulation in VIB was from 70 to 80 centimeters thick and consisted of many discontinuous lenses of reddish clay alternating with the dense patches of gravel and the very small, worn and abraded sherds typical of erosion deposits. At an intermediate elevation within this layer, *ca.* 2.5 meters east of the terrace wall, there was a horizontal drain parallel to the terrace wall, made of roughly cut stones, two courses high on each side, capped with larger flat slabs. The channel was 15–20 centimeters wide, sloping down from north to south.

Pottery from this debris accumulation was dense and belonged to a range of dates from Ninevite 5 through late Akkadian/Ur III³⁸). The Akkadian types included the familiar fine-ware cylindrical beakers (Fig. 7: 3, 4), cups (Fig. 7: 6, 7), and carinated-sided bowls (Fig. 7: 17, 19), as well as a more sinuous-sided small bowl (Fig. 7: 31–33); Some of these forms were mirrored in the plain ware (Fig. 7: 11), in which there was also a range of larger bowls with rounded rims (Fig. 10: 1–5). Small fine ware pots with punctate or obliquely-slashed decoration were well represented (Fig. 8: 13, 16, 17), and there were a few related undecorated forms (Fig. 8: 11, 12). The plain ware closed forms consisted of sharply angled jar rims (Fig. 8: 22), and large comb-incised jars (Fig. 8: 31). There was also an extensive array of medium-to-large storage vessels, including a globular pot in a range of sizes with horizontal comb-incision on the shoulder (Fig. 9: 1, 3), a slightly larger version of the same with a gutter rim and horizontal and wavy comb-incision (Fig. 9: 12, 15), and a variety of large elongated cylindrical vessels, similarly

38) Once again, we have at this point the difficulty associated with assigning historically-derived labels to archaeological data; the transition between the Akkadian and the Ur III Periods is as difficult to pin down, archaeologically, as is the Early Dynastic to Akkadian Period transition. And we still have the problem, when dealing with this time period at Nineveh or other sites in the north, of these being more appropriate labels for southern Mesopotamia. Various methods of dealing with this difficulty, from maintaining a site-specific set of labels for the sequence, as at Tell Leilan and Tell Taya, through attempting to match levels with the EBA-MBA sequence of western Syria and the Levant, have not solved the problem. Another approach is exemplified by the basic descriptive term of Wilkinson & Tucker [1995] who lump the period from Ninevite 5 to Khabur under “later 3rd millennium.”

decorated (Fig. 9: 16–19). There were also a few pieces of Metallic Ware more at home in NW Mesopotamia, an inturning-rim bowl (Fig. 7: 9), a convex beaker base (Fig. 7: 4), and a ledge-rim for a small jar (Fig. 8: 10). To judge by the similarity of this assemblage to that associated with the use of the mudbrick structures associated with the city and terrace walls, accumulation of this layer must have begun almost as soon as the city wall was built. A few objects were found in the debris: five fragments of baked clay animal figurines, a black stone pendant, and a fragment of a spirally-etched carnelian bead. The homeland of this etching technique is in the Indus Valley, and the presence of this bead at Nineveh is evidence of the widely-ramifying Indus Valley trade.

Level VIA was a mixed layer of rubble and stones. At the face of the city wall and running from it over the top of the terrace wall was a clean deposit of lensed green, gray and red soil. Further east, overlying level VIB, this deposit gradually changed in character: approximately in the area of the terrace wall, it became looser and grayer with a high quantity of pottery, bones and pebbles. This continued east for about a meter, beyond which there was less pottery but a higher concentration of larger stones; the soil was darker brown, with inclusions of broken baked bricks, slag, and large bitumen-covered sherds. Finally, the whole area was covered with another layer of erosion debris. Use of the city and terrace walls must have ceased at the end of Level VIA at the latest.

The pottery from Level VIA, like that of VIB, was mixed in date. Again, the earliest sherds were Ninevite 5 and the latest were late Akkadian to Ur III. The fine-ware component included inturning-rim bowls (Fig. 7: 8, 10, 12), carinated-sided bowls (Fig. 7: 15, 16, 18, 25), cylindrical beakers (Fig. 7: 1, 2, 5), small jars with decorated shoulders (Fig. 8: 14, 15, 18), and one small jar with a gutter rim, vertically-pierced lug handles, and incised decoration (Fig. 8: 19). The common ware included a number of carinated-sided bowls, similar in form to the fine-ware versions though on a larger scale (Fig. 7: 20–24), a set of band-rim bowls which are identical to a type produced in southern Mesopotamia in the Ur III through Isin-Larsa Periods (Fig. 7: 26–28), jars with rounded or band-rims on medium-high necks (Fig. 8: 1–5, 7, 8) or triangular rims on very low necks (Fig. 8: 23–25) and a variety of wide-mouth bag-shaped jars in a range of sizes (Fig. 9: 2, 9–11, 13, 14). Multiple-grooved rims were relatively common (Fig. 9: 4–6), and there were a few examples of a possibly archaizing jar form with a band rim on a short neck, comb-incised decoration on the neck and short shoulder, and a notched ridge at the shoulder-body carination (Fig. 8: 7, 8). There were many examples of comb-incision, some combined with punctate or obliquely-slashed decoration (Fig. 8: 8), a late Akkadian through Ur III Period decorative style found at Tell Rimah³⁹⁾, Tell al-Hawa⁴⁰⁾, and Tell Brak CH Phase I⁴¹⁾. And a further few examples of Metallic Ware appeared, plus a quantity of very large open vessels, with multiple-grooved or rounded and overhanging rims, possibly stands (Fig. 10: 6, 7). A few objects were found in this layer: a baked clay oblong with a central groove (possibly a tool for bead manufacture), several beads, a baked clay wheel and animal figurine head, a small obsidian blade, and a bronze pin fragment.

Level V

Level V is dated to the first half of the second millennium BC and consisted of a layer of fallen mud brick and soil which covered the entire excavation area. No architecture was uncovered in the KG trench, but there were stone foundations of ruined walls of the same date in an area just to the south, so it is likely that the area exposed in the KG excavation was an open space but close to occupied buildings at this time. There was an initial stratum about 1.6 meters deep, dark brown with many broken yellow sandy mudbricks; above it was a shallower layer of loose red soil. The pottery of Level V was datable by the presence of painted Habur ware, especially small-medium jars with painted horizontal bands

39) Oates 1970: Pl. X, b.

40) Ball, Tucker & Wilkinson 1989: Fig. 22: 11, 12.

41) Fielden 1977: Pl. XI: 1.

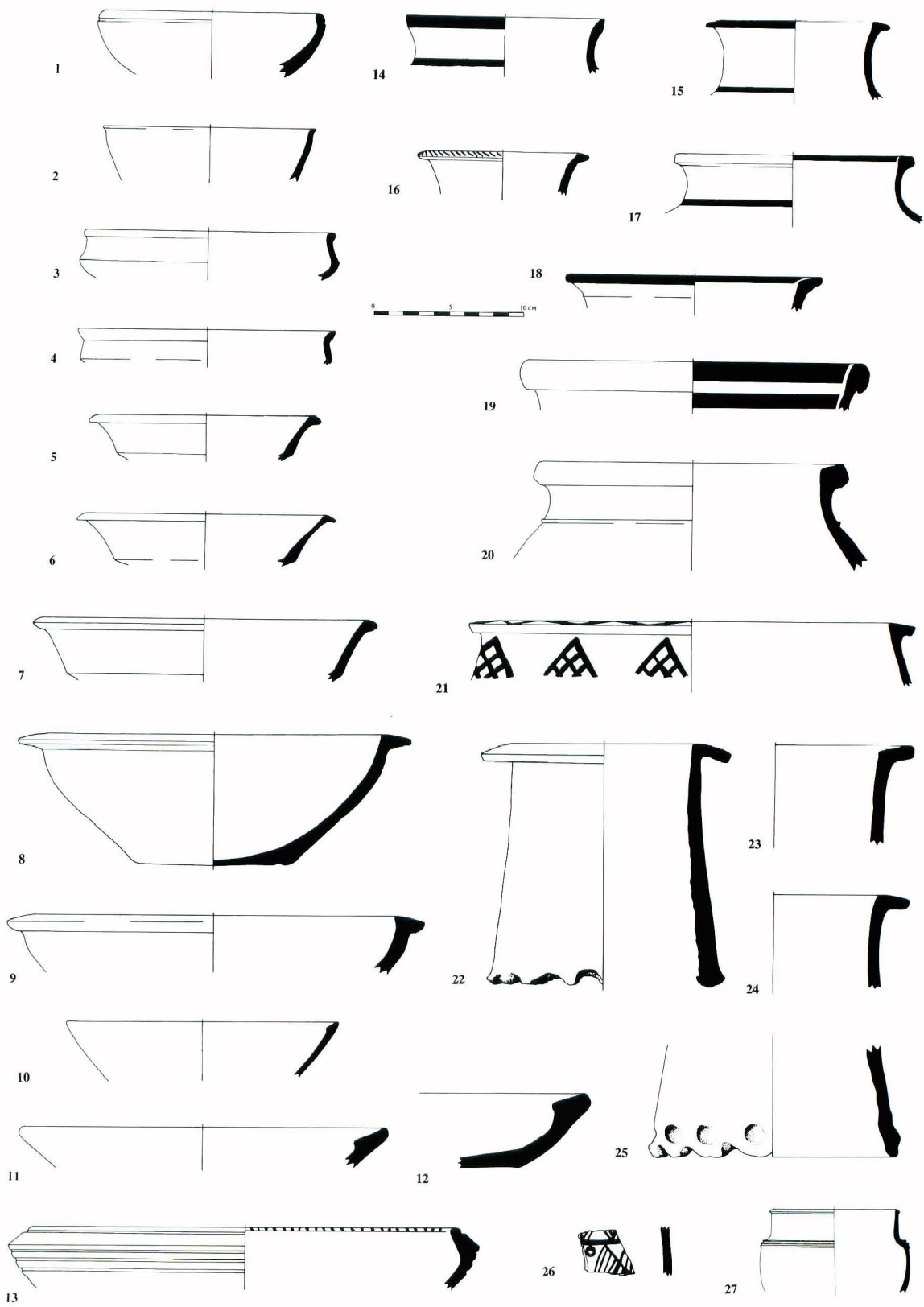


Fig. 11 Pottery from Level V, Area KG.

(Fig. 11: 14–18)⁴², and ledge rims of large vessels with distinctive painted cross-hatched triangles (Fig. 11: 21). Undecorated vessels included carinated and hemispherical fine-ware bowls (Fig. 11: 1–4)⁴³, gray ware bowls with black burnished surfaces (Fig. 11: 5, 7), ledge-rim bowls (Fig. 11: 8, 9), internally-bevelled-rim shallow bowls or trays (Fig. 11: 11, 12), and cylindrical stands with “pie-crust” bases (Fig. 11: 22–25)⁴⁴.

Level IV

Level IV was a striated layer of gray, yellow and red soil, possibly deliberate levelling fill. It appeared only in the southwestern corner of the KG trench and was cut away by erosion elsewhere. The limited exposure makes its interpretation difficult. The pottery was of two periods: 2nd millennium BC and Parthian. The apparent absence of Middle and especially Neo-Assyrian remains in the area of our excavation is odd, given that Area KG was well within the limits of the Neo-Assyrian mound and close to other excavated areas with known Neo-Assyrian remains. It is unlikely that this area was unused during that period; it would seem instead that subsequent Parthian occupation involved deep foundation trenches and surface levelling, which removed the Neo-Assyrian remains in our excavation area.

Levels III-I

The final three levels were preserved only in the southwest corner of Area KG and were Parthian in date⁴⁵. Level III was a layer of ashy gray debris with many large sherds, broken baked bricks and stones. In Level II, this was covered by a large wall or area of brick paving, built of a layer of foundation stones with two preserved courses of large mudbrick above (38–40 cm square by 9–12 cm thick). The eastern edge of the wall or paving was eroded and the western edge was beyond the limits of the excavation, but mortar lines indicate that the bricks ran northwest to southeast, and the construction was at least 1.6 meters wide. At some point after the wall or paving fell into disuse, a conical storage pit about four meters deep, lined with gray clay, was cut through the wall on the west. After use for an undetermined length of time, it gradually filled with green and gray loose soil, large sherds of pottery and a large quantity of animal bones, probably all trash derived from nearby buildings.

The final level, I, consisted of a baked brick pavement laid over the remains of the Level II wall and the now-disused pit. Those constructions had been levelled and the area was covered by a layer of gray soil and sand. The paving bricks were large but thin: 40–41 cm square by only 5 cm thick. Again, the horizontal extent of the paving was not definable, as it was eroded away on the east, but it was at least 2.4 meters north to south by 4 meters east to west.

The pottery of Levels I-III was Parthian throughout, except for a few earlier sherds redeposited in foundation fill⁴⁶. Carinated bowls, in which the carination varied from a gentle bend to an exaggerated

42) Compare Chagar Bazar: Mallowan 1936: Fig. 16: 1, 15; Mallowan 1937: Fig. 16: 13, Fig. 21: 2-10; Mallowan 1947: Pl. LXXXII: 5, 7, 15. The same type is also well illustrated from Tell Fakhariyah: Kantor 1958: Pl. 37: 127.

43) Compare those from Chagar Bazar, Mallowan 1936: Fig. 9: 4; and Dinkha Tepe, Hamlin 1971: Pl. V: 39b.

44) This peculiar pottery form has a long time range in this area, appearing in contexts dated from the late Akkadian/Ur III Period through the Middle Assyrian. There were a few fragments of this type in Level VIA at Nineveh KG, of late Akkadian or Ur III date, and this type of base occurs with a bowl top at Tell Rimah in a disturbed context which might belong to the Ur III Period or later [Oates 1970: Pl. IX: 5]. For association of this vessel type with Khabur ware of the Old Assyrian Period, see Dinkha Tepe [Hamlin 1971: Pl. XIV, m]; Tell Thuwajj [Fujii *et al.* 1989–90: Fig. 7: 19, 20], and Tell Hamad Aga as-Sagir [Spanos 1988: Abb. 22: 4, 5]. Elsewhere, it has been dated to the Middle Assyrian Period, *i.e.*, at Tell Mohammad ‘Arab [Roaf 1983: Fig. 5: 6] and Tell Jigan Area B [“Nuzi Period”; Fujii 1987a: Fig. 6: 79]. At Tell al-Hawa, it appears in levels from the Khabur through Middle Assyrian Periods [Ball, Tucker & Wilkinson 1989: Fig. 25: 25]; and at Assur it appears in the Ishtar Temple in levels G, F and E [Andrae 1920: Abb. 27, Taf. 19: 52].

45) Parthian material has been found elsewhere on Kuyunjik [Thompson & Mallowan 1933]; and a number of possibly Parthian vaulted brick tombs containing clay coffins have been found in the Lower Town [Madhlum 1969].

46) Most of these earlier sherds were from the third millennium BC, but there were a few possibly Hellenistic sherds (*i.e.*, Fig. 12: 11) which testify to the probable occupation of a portion of Kuyunjik at that time, although no contemporary architectural traces were recovered from Area KG.

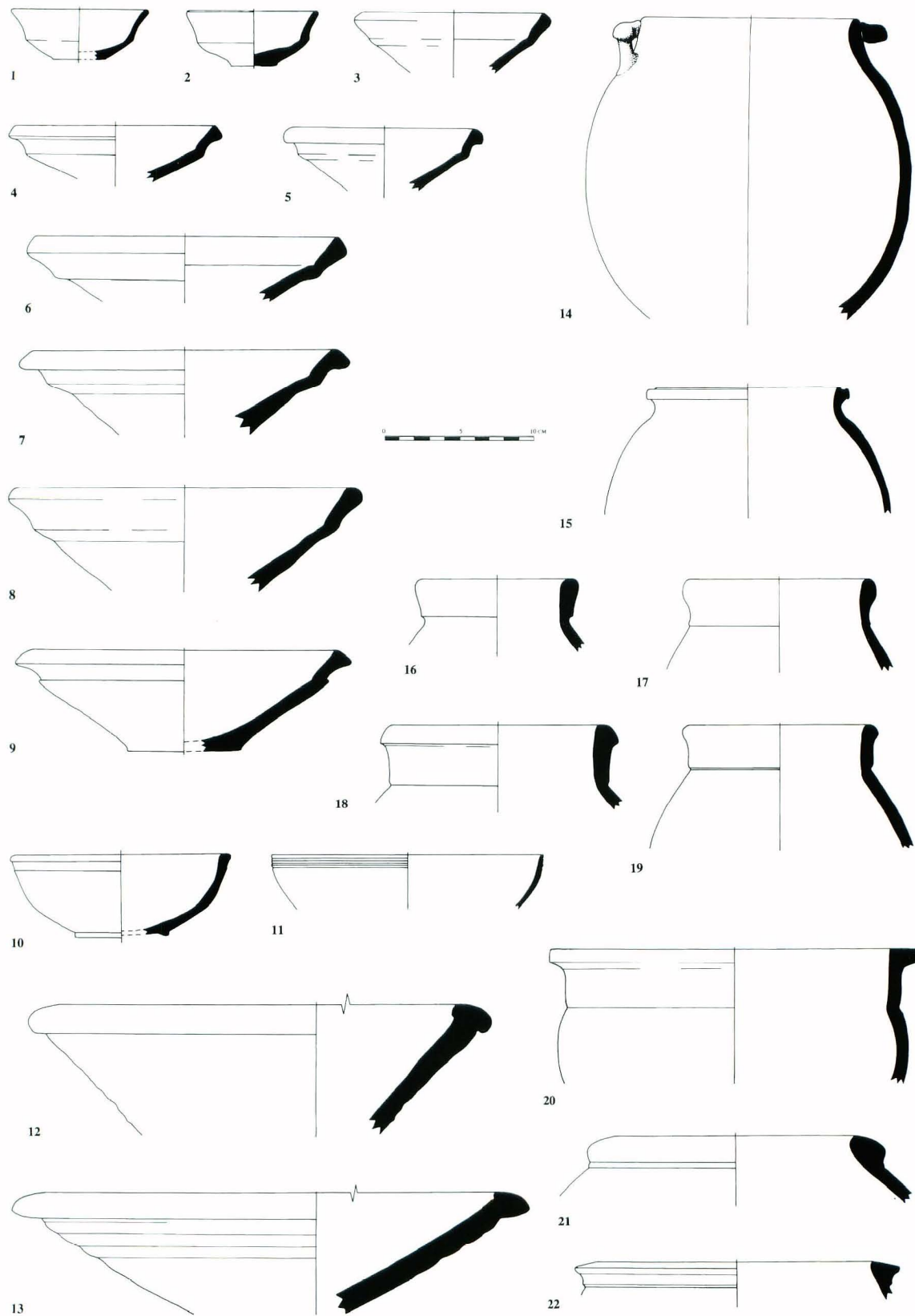


Fig. 12 Pottery from Levels III and II, Area KG.

ridge, were the most common type (Fig. 12: 1–9), followed by large bowls with club rims (Fig. 12: 12, 13). Other types included small bowls with grooved sides (Fig. 12: 10), and jars with collared rims (Fig. 12: 16–19)⁴⁷⁾, flat ledge rims (Fig. 12: 20) or low triangular rims (Fig. 12: 22). There was a single example of a rounded-base cooking pot with a plain rim and applied handles (Fig. 12: 14). The complete lack of glazed wares and of stamp-impressed wares is unusual and may indicate that these levels belong early in the Parthian Period. Alternatively, there may be a functional explanation for the absence of such wares. However, given the minimal architecture preserved in the excavation, interpretation of the function of this area is difficult.

In summary, the excavation of the Area KG sounding at Nineveh has given an expanded indication of the range of material present in the mound of Kuyunjik. The sequence of deposits was not an unbroken series, so we cannot claim that the record of occupation is complete in this case. But it does give evidence for substantial deposits of the Akkadian Period and of the mid-second millennium BC which were not visible in earlier excavations at the site, and which have important implications for reconstruction of the history of Nineveh and of northern Mesopotamia during those periods.

Catalogue of pottery

Fig. 2. Pottery from Levels XII and XI, Area KG.

- | | | |
|-----|--|---|
| 1. | 2097:2; XII; reddish ware with dark buff core, organic and sand temper, diam.: 28 cm. | |
| 2. | 2093:4; XI; pink ware, light organic temper, diam.: 16 cm. | Tell Brak ST & TW, Oates 1986: Fig. 5: 91. |
| 3. | 2099:9; XII; cream ware, no visible temper, diam.: 14 cm. | Tell Brak ST, Oates 1986: Fig. 5: 88, 89; Tell Leilan IIIc, Schwartz 1985: Fig. 5: 8. |
| 4. | 2060:3; XII; buff ware, cream surface, no visible temper, reddish-brown paint, diam.: 13 cm. | Tell Mohammad 'Arab, Roaf 1983: Fig. 3: 1, 6. |
| 5. | 2093:3; XI; buff ware, no visible temper, incised decoration, diam.: 10 cm. | |
| 6. | 2097:7; XII; cream ware, sand temper, incised decoration, diam.: 20 cm. | Tell Leilan IIIc, Schwartz 1988: Fig. 31: 1. |
| 7. | 2094:9; XII; gray ware, light organic temper, incised decoration, diam.: 16 cm. | Tell Leilan IIIb, Schwartz 1988: Fig. 43: 12; similar decoration from Nineveh Deep Sounding, Gut 1995: Taf. 93: 1302. |
| 8. | 2094:10; XII; buff ware, no visible temper, Late Ninevite 5 incised motif, diam.: 12 cm. | Tell Mohammad 'Arab Period 3, Roaf & Killick 1987: Fig. 5, lower right; Tell Fisna, Fujii 1987a: Fig. 10: 48. |
| 9. | 2094:11; XII; cream ware, no visible temper, diam.: 14 cm. | Tell Leilan IIIc, Schwartz 1985: Fig. 5: 20, Schwartz 1988: Fig. 34: 2; Tell Fisna, Numoto 1988: Fig. 15: 2, 6. |
| 10. | 2094:7; XII; pink ware, organic temper, diam.: 14 cm. | Tell Leilan IIIc, Schwartz 1988: Fig. 35: 2; Leilan IIIb, Schwartz 1988: Fig. 44: 7; Tell Fisna, Numoto 1988: Fig. 20: 118, 119; Tell Jigan, Numoto 1992: Fig. 2: 33, Fig. 4: 54; Tell Raqa'i Level 3, Curvers & Schwartz 1990: Fig. 19: 1–7. |
| 11. | 2094:15; XII; overfired greenish ware, no visible temper, diam.: 7 cm. | Tell Leilan IIIc, Schwartz 1988: Fig. 37: 6, 7; Tel Billa 6, Speiser 1933: Pl. LII: 8; Tell Brak ST, Oates 1986: Fig. 5: 87. |
| 12. | 2091:10; XI; gray-buff ware, no visible temper, diam.: 11 cm. | Tell Leilan IIIb, Schwartz 1988: Fig. 42: 3; Telul eth-Thalathat, Fukai <i>et al.</i> 1974: Pl. XLIX: 2, 3. |
| 13. | 2097:8; XII; buff ware, cream surface, no visible temper, black paint | Telul eth-Thalathat, Fukai <i>et al.</i> 1974: Pl. LVI: 3; Tell Fisna, Numoto 1988: Fig. 18: 72, 94. |
| 14. | 2058:21; XII; pink ware, buff surface, no visible temper, reddish-brown paint | Tell Mohammad 'Arab Period 2, Roaf & Killick 1987: Fig. 3, lower left & top centre; Tell Fisna, Fujii 1987a: Fig. 10: |

47) These collared rims may have developed from the typical Neo-Assyrian jar with a rounded rim and a low ridge at the neck-shoulder juncture. See Tunca 1987: Pl. 77: 13-15; Gibson 1975: Fig. 36: 8 (Seleucid).

15. 2097:6; XII; pink ware, buff surface on ext., no visible temper, Early Ninevite 5 incised motif
16. 2058:22; XII; buff ware, no visible temper, incised and excised motif
17. 2093:1; XI; buff ware, cream surface, no visible temper, diam.: 10 cm.
18. 2094:5; XII; light brown ware, gray core, organic temper, diam.: 10 cm.
19. 2060:12; XII; cream ware, organic temper, diam.: 14 cm.
20. 2093:6; XI; buff ware, cream surface, organic temper, diam.: 14 cm.
21. 2060:13; XII; greenish ware, organic temper, diam.: 16 cm.
22. 2058:16; XII; reddish ware, cream surface, organic temper, diam.: 18 cm.
23. 2060:10; XII; buff-gray ware, no visible temper, diam.: 9 cm.
24. 2099:8; XII; buff ware, light sand temper, diam.: 11 cm.
25. 2094:2; XII; light buff ware, organic temper, base diam.: 8 cm.
- 50, Numoto 1988: Fig. 16: 22, 23, 35, 39, 43, 56; Tell Billa 7, Speiser 1933: Pl. XLVIII: 2.
- Tell Mohammad 'Arab Period 2, Roaf & Killick 1987: Fig. 4, centre; Tell Leilan IIIc, Schwartz 1988: Pl. 10e; Tell Leilan IIIb, Schwartz 1988: Pl. 11c, n, Fig. 43: 8.
- Nineveh Deep Sounding, Gut 1995: Taf. 92: 1287.
- Tell Leilan IIIc, Schwartz 1985: Fig. 1: 4.
- Tell Leilan IIIc, Schwartz 1988: Fig. 35: 1.
- Tell Leilan IIIc, Schwartz 1985: Fig. 5: 6; Tell Raqa'i Level 3, Curvers & Schwartz 1990: Fig. 18: 4.
- Tell Leilan IIIc, Schwartz 1988: Fig. 34: 3.
- Tell Leilan IIIc, Schwartz 1988: Fig. 34: 11.
- Telul eth-Thalathat, Fukai *et al.* 1974: Pl. XLIX: 20, Pl. LI: 18.
- Tell Leilan IIIc, Schwartz 1988: Fig. 38: 3.
- Tell Fisna, Fujii 1987a: Fig. 10: 51, 54, Numoto 1988: Fig. 19: 100; Tell Kutana, Forest 1987: Fig. 9, top; Tell Raqa'i Level 3, Curvers & Schwartz 1990: Fig. 20: 19.

Fig. 4. Pottery from Levels X and IX, Area KG.

1. 2073:2; XB; pink-buff ware, cream surface, light organic temper, diam.: 12 cm.
2. 2088:2; XB; buff-cream ware, no visible temper, diam.: 11 cm.
3. 2077:4; IX; greenish ware, no visible temper, diam.: 17 cm.
4. 2077:5a; IX; gray ware, no visible temper, diam.: 11 cm.
5. 2080:2; XA; buff ware, cream surface, light organic temper, diam.: 18 cm.
6. 2072:6; IX; buff ware, organic temper, smoke staining
- Tell Brak CH, Mallowan 1947: Pl. LXXIV: 11.
- Tell Leilan IIIc, Schwartz 1985: Fig. 5: 1, Schwartz 1988: Fig. 33: 1, 7.
- Telul eth-Thalathat, Fukai *et al.* 1974: Pl. XLVII: 23-32; Tell Kutana, Forest 1987: Fig. 9, middle right.
- Tell Barri, Pecorella & Salvini 1982: 1, 2; Tell Chuera Kl. Antentempel 2/3, Kühne 1976: Abb. 151.
- Telul eth-Thalathat, Fukai *et al.* 1974: Pl. XLIX: 2, 3; Tell Billa 6, Speiser 1933: Pl. L: 1.
- Telul eth-Thalathat, Fukai *et al.* 1974: Pl. XLVII: 15, 16; Tell Mohammad 'Arab, Roaf 1983: Fig. 3: 11, 12.
- Tell Leilan IIIb, Schwartz 1988: Fig. 42: 4, 6.
- Telul eth-Thalathat, Fukai *et al.* 1974: Pl. LIII: 13; Tell Barri, Pecorella & Salvini 1982: 24.
- Tepe Gawra VII, Speiser 1935: Pl. LXXI: 83; Tell Brak ED-III, C. H. Fielden 1977: Pl. XIV: 24; Tell Barri, Pecorella & Salvini 1982: 25, 55.
- Telul eth-Thalathat, Fukai *et al.* 1974: Pl. LIII: 8; Tell Brak, Luc ED-III, Oates 1982: Fig. 6: 89.
- Telul eth-Thalathat, Fukai *et al.* 1974: Pl. XLIX: 20, Pl. LI: 18.
- Tell Leilan IIIc, Schwartz 1988: Fig. 34: 8; Tell Brak IXA, Fielden 1977: Pl. XIV: 82.
- Tepe Gawra VIII, Speiser 1935: Pl. LXIII: 33; Tell Thuwailiq, Fujii *et al.* 1989: 90: Fig. 6: 23.

15. 2077:5b; IX; gray ware, no visible temper, impressed 'rocker' pattern
16. 2086:2; XB; cream ware, organic temper, brown-black paint
17. 2072:5; IX; brown ware, dark brown burnished surface, no visible temper, incised decoration, base diam.: 5 cm.
18. 2073:3; XB; cream-greenish ware, organic temper, diam.: 30 cm.

Tell Brak Akk-Ur III, Fielden 1977: Pl. XI: 6.

Tell Barri, Pecorella & Salvini 1982: 19.

Fig. 5. Pottery from Levels VIII and VII, Area KG.

1. 2079:1; VIII; pink ware, no visible temper, diam.: 7 cm.
2. 2527:5; VII; greenish ware, no visible temper, diam.: 8 cm.
3. 2043:1a; VII; buff-cream ware, no visible temper, diam.: 11 cm.
4. 2043:1b; VII; buff ware, no visible temper, diam.: 14 cm.
5. 2521:18; VII; gray ware, no visible temper, diam.: 16 cm.
6. 2067:5; VII; pink ware, no visible temper, diam.: 8 cm.
7. 2046:7; VII; gray-buff ware, no visible temper, diam.: 6 cm.
8. 2043:8; VII; buff-greenish ware, no visible temper, diam.: 7 cm.
9. 2067:3; VII; cream ware, no visible temper, diam.: 9 cm.
10. 2067:2b; VII; pink ware with cream slip on ext., light organic temper, diam.: 12 cm.
11. 2067:2a; VII; buff-greenish ware, no visible temper, diam.: 12 cm.
12. 2043:3; VII; buff ware with cream surface, no visible temper, diam.: 15 cm.
13. 2043:5; VII; buff ware, no visible temper, diam.: 18 cm.
14. 2067:15; VII; buff ware, organic temper, bitumen blobs on ext., diam.: 26 cm.
15. 2043:6; VII; cream ware, organic temper, diam.: 24 cm.
16. 2527:3; VII; cream ware, light organic temper, brown paint on ext. with reserve triangles along carination, diam.: 36 cm.
17. 2521:2; VII; cream ware, no visible temper, diam.: 16 cm.
18. 2043:2; VII; buff-cream ware, light sand temper, diam.: 16 cm.
19. 2043:9; VII; buff ware, light sand temper, diam.: 12 cm.
20. 2067:7a; VII; greenish ware, no visible temper, rim diam.: 9 cm.
21. 2067:7b; VII; cream ware, light organic temper, diam.: 4.5 cm.

Tell Fisna, Fujii 1987a: Fig. 9: 32.

Tell Leilan IIB, Weiss 1990: Abb. 14: 11; Tell Fisna Vb, Numoto 1988: Fig. 21: 126, 127.

Tell Fisna, Fujii 1987a: Fig. 9: 38; Tell Jessary Trench D Level 2, Numoto 1990: Fig. 8: 134; Tell Chuera IED, Kühne 1976: Abb. 91, 93.

Tell Billa 5, Speiser 1933: Pl. LIV: 1, 3; Tell Chuera IED, Kühne 1976: Abb. 97, 98.

See Fig. 5: 6.

See Fig. 5: 6.

Tell Jessary Trench D, Level 2, Numoto 1990: Fig. 8: 131; Tell Fisna Vb, Numoto 1988: Fig. 21: 135, 138; Tepe Gawra VI, Speiser 1935: Pl. LXVII: 90.

Tepe Gawra VI, Speiser 1935: Pl. LXVII: 92.

Tell Fisna Va, Numoto 1988: Fig. 22: 144.

Tell Fisna Va, Numoto 1988: Fig. 23: 167, 168.

Tell Taya VII, Reade 1968: Pl. LXXXV: 19.

Tell Fisna Va, Numoto 1988: Fig. 23: 170.

Tell Fisna VI, Numoto 1988: Fig. 20: 116.

Tell Fisna, Fujii 1987a: Fig. 9: 23; Tell Billa 4, Speiser 1933: Pl. LVI: 6.

Tell Fisna, Fujii 1987a: Fig. 9: 24.

Tepe Gawra VI, Speiser 1935: Pl. LXVII: 97, 100; Tell Taya VIII & VII, Reade 1968: Pl. LXXXV: 16; Tell Jidle 5 & 6, Mallowan 1946: Fig. 9: 8; Tell Rimah Ur III, Oates 1970: Pl. IX: 18.

Tepe Gawra VI, Speiser 1935: Pl. LXVIII: 116.

Tepe Gawra VI, Speiser 1935: Pl. LXVIII: 110.

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| <p>22. 2521:13; VII; reddish ware, cream surface, organic temper, diam.: 12 cm.</p> <p>23. 2043:12; VII; buff ware, cream surface, organic temper, diam.: 14 cm.</p> <p>24. 2043:10; VII; cream ware, organic temper, diam.: 14 cm.</p> <p>25. 2521:8; VII; pink ware, sand temper, diam.: 16 cm.</p> <p>26. 2043:13; VII; buff ware, cream surface, organic temper, diam.: 15 cm.</p> <p>27. 2071:2; VIII; buff-pink ware, light organic temper; comb-incised decoration, diam.: 19 cm.</p> <p>28. 2521:12; VII; cream ware, organic temper, bitumen on interior, diam.: 20 cm.</p> <p>29. 2521:9; VII; cream ware, organic temper, diam.: 20 cm.</p> <p>30. 2067:26; VII; cream ware, organic temper, bituminous paint on rim, interior and for exterior motif, comb-incised decoration, diam.: 29 cm.</p> <p>31. 2522:2; VII; buff-greenish ware, organic temper, comb incision, diam.: 36 cm.</p> <p>32. 2067:24a; VII; red ware, sand temper, diam.: 24 cm.</p> | <p>Tell Fisna VI, Numoto 1988: Fig. 19: 109.</p> <p>Tell Brak Area SS, IAKk (pers. obs.); Assur Ur III graves, Haller 1954: Taf. 1: n, nl, r.</p> <p>Tepe Gawra VI, Speiser 1935: Pl. LXVIII: 19.</p> <p>Tell Leilan IIb, Weiss 1990: Abb. 16: 6, Abb. 17: 2; possibly Tell Jigan Grid 4, Level 4, Numoto 1992: Fig. 1: 10.</p> <p>Tell Fisna Va, Fujii 1987a: Fig. 9: 42, Numoto 1988: Fig. 24: 198; Tell Jessary Trench D, level 2, Numoto 1990: Fig. 8: 146–149; Tell Taya IX-VI, Reade 1968: Pl. LXXXIV: 2, Pl. LXXXV: 20; Tell Brak CH, Akk, Mallowan 1947: Pl. LXV: 7, Fielden 1977: Pl. XI: 2.</p> <p>Tell Jessary Trench D, Level 2, Numoto 1990: Fig. 8: 146–149; Tell Fisna, Fujii 1987a: Fig. 9: 42.</p> <p>See Fig. 6: 30.</p> |
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Fig. 7. Small-Medium Open Forms from Level VIA & B, Area KG.

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| <p>1. 2012:13; VIA; greenish-buff ware, no visible temper, diam.: 5 cm.</p> <p>2. 2029:12; VIA; pinkish-buff ware, light organic temper, diam.: 7 cm.</p> <p>3. 2036:20; VIB; cream ware, no visible temper, diam.: 6 cm.</p> <p>4. 2036:28; VIB; heavy dark gray Metallic ware, greenish slip stripes, no visible temper, base diam.: 4.5 cm.</p> <p>5. 2524:17; VIA; buff ware, no visible temper, diam: 8 cm.</p> <p>6. 2036:15; VIB; gray ware, sand temper, diam.: 8 cm.</p> <p>7. 2030:12; VIB; pink ware, cream surface, no visible temper, diam.: 10 cm.</p> <p>8. 2008:50; VIA; gray Metallic Ware, no visible temper, diagonal burnishing on interior, diam.: 13 cm.</p> <p>9. 2023:11b; VIB; dark gray Metallic Ware, greenish slip stripes, no visible temper, diam: 16 cm.</p> <p>10. 2524:15; VIA; greenish ware, no visible temper, diam.: 14 cm.</p> <p>11. 2023:10; VIB; buff ware, cream slip, light sand temper, diam.: 18 cm.</p> <p>12. 2012:8; VIA; greenish-buff ware, no visible temper, diam.: 20 cm.</p> <p>13. 2030:2; VIB; buff ware, organic temper, diam: 16 cm.</p> <p>14. 2023:11a; VIB; buff ware, no visible temper, diam: 18 cm.</p> <p>15. 2016:4; VIA; cream ware, no visible temper, diam.: 12 cm.</p> | <p>Tell Fisna Vb & Va, Numoto 1988: Fig. 21: 125–130, Fig. 22: 151; Tell Billa 5, Speiser 1933: Pl. LIV: 1, 3; Tell Leilan IIb, Weiss 1990: Abb. 14: 10, 11.</p> <p>See Fig. 5: 6.</p> <p>See Fig. 5: 6.</p> <p>Assur Ur III graves, Haller 1954: Taf. 1: 0.</p> <p>See Fig. 5: 5.</p> <p>See Fig. 5: 17.</p> <p>See Fig. 5: 12.</p> |
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| <p>16. 2012:10; VIA; buff ware, no visible temper, diam.: 13 cm.</p> <p>17. 2030:5b; VIB; buff ware, no visible temper, diam.: 14 cm.</p> <p>18. 2012:36; VIA; pink ware, organic temper, diam.: 14 cm.</p> <p>19. 2030:11; VIB; buff ware, no visible temper, diam.: 16 cm.</p> <p>20. 2029:3; VIA; cream ware, light organic temper, diam.: 16 cm.</p> <p>21. 2016:10; VIA; cream ware, light organic temper, diam.: 20 cm.</p> <p>22. 2002:60; VIA; pinkish-buff ware, no visible temper, diam.: 20 cm.</p> <p>23. 2012:37; VIA; cream ware, organic temper, diam.: 19 cm.</p> <p>24. 2008:29; VIA; pink ware, organic temper, diam.: 26 cm.</p> <p>25. 2016:3; VIA; gray-buff ware, no visible temper, diam.: 10 cm.</p> <p>26. 2038:7; VIA; buff ware, cream surface, sand temper, diam.: 12 cm.</p> <p>27. 2003:7; VIA; greenish overfired ware, sand temper, diam.: 18 cm.</p> <p>28. 2012:34; VIA; cream ware, light organic temper, diam.: 16 cm.</p> <p>29. 2008:53; VIA; greenish-buff ware, no visible temper, diam.: 14 cm.</p> <p>30. 2023:12; VIB; pale buff ware, no visible temper, diam.: 16 cm.</p> <p>31. 2030:5a; VIB; buff-gray ware, no visible temper, diam.: 8 cm.</p> <p>32. 2036:19; VIB; cream ware, light organic temper, diam.: 16 cm.</p> <p>33. 2055:13; VIB; buff ware, no visible temper, diam.: 21 cm.</p> | <p>Tell Fisna Va, Numoto 1988: Fig. 22: 144; Tell Jessary Trench D Level 2, Numoto 1990: Fig. 8: 129.</p> <p>Tepe Gawra VI, Speiser 1935: Pl. LXXVII: 90; Tell Fisna Vb, Numoto 1988: Fig. 21: 135–138.</p> <p>Assur Ur III graves, Haller 1954: Taf. 1: s, larger versions: Taf. 1: o3, more carinated versions Taf. 1: p, pl. See Fig. 7: 20.</p> <p>See Fig. 5: 14.</p> <p>Nippur WF Ur III, Gibson & McMahon 1995: Fig. 19: 3.</p> <p>Nippur WF Ur III, Gibson & McMahon 1995: Fig. 19: 2.</p> <p>See Fig. 7: 27.</p> <p>Tell Fisna Vb & Va, Numoto 1988: Fig. 21: 141, Fig. 122: 145, 146.</p> <p>See Fig. 5: 11.</p> <p>Tell Fisna Va, Numoto 1988: Fig. 22: 148, Fig. 23: 170; Tepe Gawra VI, Speiser 1935: Pl. LXXVII: 85.</p> <p>See Fig. 7: 32.</p> |
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Fig. 8. Closed Forms from Level VIA & B, Area KG.

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| <p>1. 2003:17; VIA; cream ware, organic temper, diam.: 16 cm.</p> <p>2. 2523:9; VIA; buff ware, cream surface, sand temper, diam.: 14 cm.</p> <p>3. 2524:11; VIA; pink-buff ware, cream surface, light organic temper, diam.: 14 cm.</p> <p>4. 2029:4; VIA; buff ware, organic temper, diam.: 12 cm.</p> <p>5. 2008:16; VIA; pink ware, cream surface, organic temper, diam.: 16 cm.</p> <p>6. 2030:22; VIB; buff-greenish ware, organic temper, diam.: 14 cm.</p> <p>7. 2012:21; VIA; greenish-buff ware, organic temper, diam.: 13 cm.</p> <p>8. 2019:1; VIA; buff ware, cream surface, organic temper, bitumen-coated interior & 4 sets of bitumen spots on exterior, comb-incision & punctate decoration, diagonal burnishing on body, diam.: 14 cm.</p> <p>9. 2036:7; VIB; cream ware, organic temper, diam.: 12</p> | <p>Tell Leilan IIb, Weiss 1990: Abb. 16: 2, 5.</p> |
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- cm.
10. 2030:30; VIB; gray Metallic Ware (?), no visible temper, diam.: 15 cm.
 11. 2036:22; VIB; buff-cream ware, light sand temper, diam.: 8 cm. Tell Leilan Iib, Weiss 1990: Abb. 15: 5.
 12. 2023:18; VIB; pale buff ware, no visible temper, diam.: 14 cm. Tell Fisna Va, Numoto 1988: Fig. 22: 156–158.
 13. 2036:23; VIB; buff ware, no visible temper, incised decoration, diam.: 6 cm.
 14. 2003:25; VIA; cream ware, no visible temper, comb-incision, diam.: 10 cm.
 15. 2012:14; VIA; buff ware, light organic temper, punctate decoration, diam.: 8 cm.
 16. 2023:17; VIB; greenish-gray ware, no visible temper, incised and punctate decoration, diam.: 10 cm. Tell Jigan Akk. grave, Fujii 1987a: Fig. 4: 22; Tell Taya VIII, Reade 1968: Pl. LXXXIV: 12; Tell Billa 5, Speiser 1933: Pl. LIV: 8; Tepe Gawra VI, Speiser 1935: Pl. LXVIII: 106, 107. See Fig. 8: 16.
 17. 2030:51; VIB; buff-greenish ware, incised decoration, no visible temper, diam.: 8 cm.
 18. 2525:5; VIA; buff ware, cream surface, light organic temper, lightly grooved lines, diam.: 10 cm.
 19. 2524:5; VIA; buff ware, cream surface, light organic temper, vertically-pierced lug handles, incised decoration, diam.: 11 cm.
 20. 2030:32; VIB; buff ware, no visible temper, diam.: 3.5 cm. Tepe Gawra VI, Speiser 1935: Pl. LXIX: 132, 133; Tell Leilan Iib, Weiss 1990: Abb. 15: 1–4.
 21. 2002:21; VIA; buff ware, organic temper, diam.: 20 cm.
 22. 2030:23; VIB; cream ware, sand and organic temper, diam.: 14 cm. Tepe Gawra VI, Speiser 1935: Pl. LXX: 143; Assur Ur III graves, Haller 1954: Taf. 1: b, c. See Fig. 8: 22.
 23. 2008:23; VIA; pinkish ware, cream surface, light organic temper, diam.: 15 cm.
 24. 2012:17; VIA; buff ware, organic temper, comb-incision, diam.: 17 cm.
 25. 2003:12; VIA; cream ware, organic temper, comb-incision, diam.: 20 cm. Assur Ur III graves, Haller 1954: Taf. 1: a, a1.
 26. 2008:24; VIA; pink ware, organic & white grit temper, diam.: 11 cm.
 27. 2036:13; VIB; cream ware, organic temper, diam.: 11 cm. Tell Leilan Iib, Weiss 1990: Abb. 16: 6.
 28. 2012:23; VIA; buff ware, organic temper, diam.: 23 cm. See Fig. 5: 29.
 29. 2030:33; VIB; cream ware, organic temper, diam.: 22 cm. See Fig. 5: 29.
 30. 2012:28; VIA; pink ware, organic temper, comb-incision and lightly-grooved wavy line, diam.: 24 cm. See Fig. 5: 30.
 31. 2049:1; VIB; buff ware, cream surface, organic temper, comb-incision, diam.: 30 cm. Tell Jessary, Trench D Level 2, Numoto 1990: Fig. 8: 146–149; and see Fig. 5: 30.

Fig. 9. Large Vessels from Level VIA & B, Area KG.

1. 2023:27; VIB; pink ware, cream surface, organic temper, comb-incision, diam.: 13 cm. Tepe Gawra VI, Speiser 1935: Pl. LXVIII: 119.
2. 2029:15; VIA; pinkish-buff ware, organic temper, bituminous paint on rim, neck, and shoulder, rim diam.: 16 cm. See Fig. 9: 1.
3. 2030:17; VIB; buff ware, cream surface, organic temper, comb-incision, diam.: 19 cm. See Fig. 9: 1.
4. 2523:7; VIA; buff ware, organic temper, comb-incision, diam.: 20 cm.

5. 2003:23; VIA; cream ware, organic temper, comb-incision, diam.: 32 cm.
6. 2003:24; VIA; cream ware, organic temper, comb-incision, diam.: 36 cm.
7. 2523:5; VIA; buff ware, cream surface, light organic temper, comb-incision & notched applique band, diam.: 22 cm. Assur Ur III grave, Haller 1954: Taf. I: d.
8. 2006:24; VIA; cream ware, light organic temper, comb-incision & notched applique band, diam.: 15 cm. See Fig. 9: 7.
9. 2008:6; VIA; pink ware, cream surface, light organic temper, comb- and single-point incision, diam.: 15 cm.
10. 2008:4; VIA; cream ware, organic temper, comb-incision, diam.: 16 cm.
11. 2002:27; VIA; buff ware, organic temper, lightly grooved lines, diam.: 14 cm.
12. 2023:28; VIB; cream ware, organic temper, comb-incision, diam.: 19 cm.
13. 2002:24; VIA; buff ware, organic temper, shallow grooves on body, diam.: 21 cm.
14. 2008:2; VIA; pink ware, organic temper, comb-incision, diam.: 23 cm.
15. 2030:18; VIB; pink ware, organic temper, comb-incision, diam.: 25 cm. Tell Fisna Va, Numoto 1988: Fig. 24: 198.
16. 2036:11; VIB; cream ware, organic temper, diam.: 20 cm. Tell Fisna Va, Numoto 1988: Fig. 24: 189, 202.
17. 2023:29; VIB; cream ware, organic temper, comb-incision, diam.: 30 cm.
18. 2052:11; VIB; cream ware, organic temper, comb-incision, diam.: 24 cm.
19. 2049:2; VIB; pink ware, cream surface, organic temper, comb-incision, diam.: 44 cm. Tell Taya IX-VI, Reade 1968: Pl. LXXXV: 20; Tell Fisna Va, Numoto 1988: Fig. 24: 199.

Fig. 10. Large Open Vessels from Level VIA & B, Area KG.

1. 2030:8; VIB; cream ware, organic temper, diam.: 19 cm.
2. 2052:1; VIB; cream ware, organic temper, diam.: 21 cm.
3. 2023:5; VIB; cream ware, organic temper, diam.: 24 cm. Tell Fisna VI & Va, Numoto 1988: Fig. 20: 114, Fig. 23: 167, 168; Tell Jessary Trench D, Level 2, Numoto 1990: Fig. 8: 132; Tell Taya VII, Reade 1968: Pl. LXXXV: 19.
4. 2023:6; VIB; pink ware, organic temper, diam.: 23 cm.
5. 2030:9; VIB; cream ware, organic temper, diam.: 22 cm.
6. 2003:4; VIA; cream ware, organic temper, diam.: 28 cm.
7. 2012:41; VIA; pinkish-buff ware, cream surface, organic temper, bitumen on interior, comb-incision and notched applique band, diam.: ca. 60 cm.

Fig. 11. Pottery from Level V, Area KG.

1. 2513:1; cream-greenish ware, no visible temper, diam.: 14 cm. Dinkha Tepe, Hamlin 1971: Pl. V: 39a.
2. 2511:9; buff ware, red slip on int. & ext., sand temper, diam.: 14 cm.
3. 2508:4; greenish ware, no visible temper, diam.: 16 cm. Dinkha Tepe, Hamlin 1971: Pl. V: 39b; Chagar Bazar 2,

4. 2001:1; pink ware, organic temper, diam.: 17 cm.
 5. 2513:3; dark buff ware, black burnished surface, no visible temper, diam.: 14 cm.
 6. 2511:11; cream ware, no visible temper, diam.: 16 cm.
 7. 2509:6; gray ware, black burnished surface, no visible temper, diam.: 21 cm.
 8. 2509:8; pale red ware, light organic temper, diam.: 22 cm.
 9. 2508:6; buff-cream ware, organic temper, diam.: 24 cm.
 10. 2509:20; pale red ware, cream surface, no visible temper, diam.: 18 cm.
 11. 2511:3; pale red ware, cream surface, organic temper, diam.: 24 cm.
 12. 2509:7; buff ware, organic temper, diam.: 42 cm.
 13. 2518:3; buff ware, light organic temper, burnished surface, reddish-brown paint spots on rim, diam.: 28 cm.
 14. 2508:12; cream ware, organic temper, black paint stripes, diam.: 13 cm.
 15. 2508:18; pale red ware, pink surface, sand temper, red paint stripes, diam.: 10 cm.
 16. 2508:19; buff ware, cream surface, no visible temper, dark brown paint design, diam.: 10 cm.
 17. 2518:4; greenish ware, light organic temper, dark brown paint stripes, diam.: 14 cm.
 18. 2001:2; cream ware, organic temper, reddish-brown paint stripes, diam.: 17 cm.
 19. 2517:4; buff-pink ware, sand temper, reddish-brown paint stripes, diam.: 22 cm.
 20. 2509:11; buff ware, organic temper, bitumen wash on ext., diam.: 20 cm.
 21. 2508:9; buff ware, cream surface, organic temper, brownish paint design, diam.: 26 cm.
 22. 2508:20; pink ware, buff surface, light organic temper, rim. diam.: 12 cm.
 23. 2509:10; buff ware, organic temper, bitumen on rim, diam.: 18 cm.
 24. 2513:4; buff ware, cream surface, organic temper, diam.: 14 cm.
 25. 2511:16; buff ware, cream surface, organic temper, base, diam.: 18 cm.
 26. 2511:12; cream ware, sand temper, dark brown paint design.
 27. 2513:13; cream ware, no visible temper, rim. diam.: 8 cm.
- Mallowan 1936: Fig. 9: 4.
Tell Fisna IV, Numoto 1988: Fig. 26: 240.
- Tell Fisna IV, Fujii 1987a: Fig. 9: 16.
- Dinkha Tepe, Hamlin 1971: Fig. 3, Type X.
- Mari, Chantier E, OB, Lebeau 1987: Pl. I: 8–15.
- Mari Chantier E, OB, Lebeau 1987: Pl. II: 1–8; Tell ed-Der III, Gasche 1989: Pl. 25: 42, 43; Nippur TA XII-X, OB, McCown & Haines 1967: Pl. 88: 1, Pl. 93: 1, Nippur WB IV, OB, Gibson *et al.* 1978: Fig. 59: 2a, 2b, 2d.
See Fig. 11: 11.
- Tell Fisna IV, Numoto 1988: Fig. 26: 252; Chagar Bazar post-I grave, Mallowan 1936: Fig. 9: 5.
- Tell Fisna IV, Fujii 1987a: Fig. 9: 15, Numoto 1988: Fig. 25: 224, 232.
See Fig. 11: 14.
- Tell Fakhariyah, Kantor 1958: Pl. 37: 127, 136; Dinkha Tepe, Hamlin 1971: Pl. XII: a-e; Chagar Bazar 1, Mallowan 1936: Fig. 16: 1, 5, Mallowan 1937: Fig. 16: 13, 15, Fig. 21: 1–13 *et passim*, Mallowan 1947: Pl. LXXXII: 5, 7, 15.
Tell Fisna IV, Numoto 1988: Fig. 25: 234; Chagar Bazar 1, Mallowan 1947: Pl. LXXXII: 6, 17.
- Tell Thuwajj, Fujii *et al.* 1989-90: Fig. 7: 1; similar, Chagar Bazar 2–1: Mallowan 1936: Fig. 14: 5, 10.
Assur Old Assyrian graves, Haller 1954: Taf. 1: as; Tell Taya III, Reade 1968: Pl. LXXXVII: 29; Chagar Bazar 1, Mallowan 1947: Pl. LXXXI: 5.
Tell Mohammad ‘Arab MAss, Roaf 1983: Fig. 5: 6; Tell Jigan “Nuzi Period”, Fujii 1987a: Fig. 6: 79; Tell Thuwajj, Fujii *et al.* 1989-90: Fig. 7: 19, 20; Tell al-Hawa, Ball, Tucker & Wilkinson 1989: Fig. 25: 25; Tell Rimah, Oates 1968: Pl. IX: 5; Dinkha Tepe, Hamlin 1971: Pl. XIV: m.
See Fig. 11: 22.
- See Fig. 11: 22.
- See Fig. 11: 22.
- Tell Jigan, Fujii 1987b: Fig. 5: 7; Tell Rijim, Bielinski 1987: Fig. 3A; for slightly heavier versions, Tell Fisna IV, Numoto 1988: Fig. 28: 274; Chagar Bazar 1, Mallowan 1936: Fig. 17: 8, Mallowan 1937: Fig. 15: 12, Mallowan 1947: Pl.

Fig. 12. Pottery from Levels III and II, Area KG.

1. 2503:7; III; cream-green ware, light organic temper, rim. diam.: 9 cm.
 2. 2501:12; II; cream ware, organic temper, rim. diam.: 8.5 cm.
 3. 2501:3; II; pink ware, organic temper, diam.: 13 cm.
 4. 2501:5; II; pink ware, organic temper, diam.: 13 cm.
 5. 2503:6; III; pink ware, light organic temper, diam.: 12 cm.
 6. 2503:3; III; buff-cream ware, light organic temper, diam.: 20 cm.
 7. 2501:6; II; pink ware, organic temper, diam.: 20 cm.
 8. 2501:4; II; cream ware, organic temper, diam.: 22 cm.
 9. 2503:5; III; pink ware, organic temper, bitumen on interior, diam.: 20 cm.
 10. 2516:1; II; pink ware, sand & light organic temper, rim diam.: 14 cm.
 11. 2520:2; II; pink-buff ware, red slip on exterior, sand temper, shallow grooves, diam.: 18 cm.
 12. 2503:2; III; pink ware, cream surface, organic temper, diam.: 34 cm.
 13. 2506:7; III; pink-buff ware, cream surface, organic temper, diam.: 36 cm.
 14. 2515:6; II; dark brown ware, sand & brown grit temper, rim diam.: 14 cm.
 15. 2515:4; II; buff ware, cream surface, sand temper, diam.: 12 cm.
 16. 2501:13; II; pink ware, cream surface, organic temper, diam.: 10 cm.
 17. 2503:8; III; pink ware, cream surface, organic temper, diam.: 12 cm.
 18. 2501:16; II; buff ware, grey-green surface, organic temper, diam.: 14 cm.
 19. 2506:12; III; buff ware, organic temper, diam.: 12 cm.
 20. 2506:18; III; buff ware, organic temper, diam.: 24 cm.
 21. 2515:2; II; buff ware, cream surface, bitumen on interior, sand temper, diam.: 16 cm.
 22. 2501:18; II; pink-brown ware, white grit temper, diam.: 18 cm.
- LXXXII: 13.
- Nimrud Hellenistic, Oates & Oates 1958: Pl. XXIV: 22; Uruk, Parthian Gareus Temple, Duda 1979: Taf. 59: 67 (glazed).
See Fig. 12: 1.
- Khirbet Qasrij post-Assyrian, Curtis 1989: Fig. 24: 20, 22, Fig. 23: 7; Uruk, Parthian Gareus Temple, Duda 1978: Taf. 29: 5 (glazed version), Taf. 31: 89 (unglazed).
See Fig. 12: 4.
- Khirbet Qasrij post-Assyrian, Curtis 1989: Fig. 24: 33, 35; Tell ed-Der Achaemenid, Haerinck 1980: Pl. 12: 7–10; Uruk, Parthian Gareus Temple, Duda 1978: Taf. 29: 8, 9; Tell Sabra Seleucid/Parthian, Tunca 1987: Pl. 48: 10–12.
Seleucia-on-the Tigris Parthian levels, Debevoise 1934: Fig. 189 (glazed); Tell Sabra Seleucid/Parthian, Tunca 1987: Pl. 48: 16.
See Fig. 12: 7.
- Tell Sabra Seleucid/Parthian, Tunca 1987: Pl. 44: 4.
- NJazira survey, Hellenistic, Wilkinson & Tucker 1995: Fig. 75: 19; Nimrud Hellenistic, Oates & Oates 1958: Pl. XXIII: 23.
Uruk, Parthian Gareus Temple, Duda 1979: Taf. 61: 144; Tell Sabra Seleucid/Parthian, Tunca 1987: Pl. 44: 1, 20.
Khirbet Qasrij post-Assyrian, Curtis 1989: Fig. 23: 19.
- NJazira survey, Parthian, Wilkinson & Tucker 1995: Fig. 76: 17; Uruk, Parthian Gareus Temple, Duda 1978: Taf. 31: 122.
Tell Sabra Seleucid/Parthian, Tunca 1987: Pl. 77: 13–15; similar collar on a longer neck, Khirbet Qasrij post-Assyrian, Curtis 1989: Fig. 37: 227–240.
Nippur WA I (Sel.), Gibson 1975: Fig. 36: 8; Uruk, Parthian Gareus Temple, Duda 1978: Taf. 31: 127.
- Tell Sabra Seleucid/Parthian, Tunca 1987: Pl. 77:9.
Khirbet Qasrij post-Assyrian, Curtis 1989: Fig. 41: 287; 'Ana Parthian, Northedge *et al.* 1988: Fig. 33: 68.
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LITHIC ARTIFACTS FROM HADITHA, IRAQ

Katsuhiko OHNUMA*

Introduction

From May 1981 to December 1983, the Japanese Archaeological Expedition to Iraq from Kokushikan University, headed by Hideo Fujii (now Professor emeritus of Kokushikan University), conducted a series of excavations at archaeological sites in Haditha, some 230 km west-north-west of Baghdad (Fig. 1). This series excavations were carried out in the Salvage Projects associated with construction of the Qadisiyeh Dam in the area.

Between November 1982 and December 1983 during the Salvage excavations, the Expedition excavated the site of 'Usiyeh¹⁾ located on the right bank of the River Euphrates, some 30 km north-west from the town of Haditha. The staff members of these 'Usiyeh excavations consisted of Hideo Fujii (director), Yasuyoshi Okada, Katsuhiko Ohnuma, Hiromichi Oguchi, Hirotoshi Numoto, Kazumi Yagi, Masayuki Yokokura, and Masaaki Itoga. Majid Abd-ur Rahman al-Hadithi, Ismail Ibrahim Shaveaf, Kahatan Abdul Hamid, and Makhady Saliekha Azidu joined the excavations as co-researchers representing the Directorate General of Antiquities and Heritage, Baghdad.

In the course of the excavations at 'Usiyeh, we took notice of two places covered by lithic artifacts on both sides of the Euphrates: one located on a hill slope near *Rayyash* on the left bank of the Euphrates, some 5 km south-east of 'Usiyeh, and the other located near the site 'Usiyeh on a fan-like topography developed along the Euphrates.

Thus, we conducted three days' surface survey at the two places from 1st to 3rd December 1982, and some 600 lithic artifacts were collected. All of the collected samples are now stored in the Iraq Museum, Baghdad.

The aim of the present paper is to report on the two surface materials in a hope that they are worthy enough of reporting. I must admit, however, that what is mentioned in this report are only speculative, suffering from the nature of the survey which involved surface sampling alone, with a considerable possibility of the samples being mixed²⁾, as well as from the rough quality of the analysis conducted in a limited time during excavational works at 'Usiyeh.

Description of the materials from *Rayyash* and 'Usiyeh

Rayyash material:

Two hours' sampling on a hill slope near *Rayyash* was conducted on 1st December, and some 200 lithic artifacts were collected. The spot where we conducted sampling is 146 m above sea level, and 25 m higher than the surface of the Euphrates (Fig. 2). Excluding extremely fresh ones probably of modern origins³⁾, the samples that seemed to have belonged to a same group total 169. These are made on agate-like flint, dark- to light-brown in colour in general, and scarcely bear considerable degrees of weathering

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1) The site of 'Usiyeh which the Japanese Archaeological Expedition to Iraq was in charge of excavation is dated to the early 2nd millennium B.C. (Isin/Larsa and Old Babylonian periods). See Oguchi [1996] for details of the site itself.

2) As regards the surface materials collected by the Field Museum North Arabian Desert Expeditions of 1927–1950 in Syria, Jordan, and Iraq, Dorothy Garrod demonstrated that the classification of the materials from a limited area (with a single set of identifiable geomorphological features) in terms of their physical conditions could be useful [1960: 111].

3) See Chmielewski and Kozłowski [1985: 67] regarding the probability that in modern times the local people in this area used flint to produce tools of everyday use.

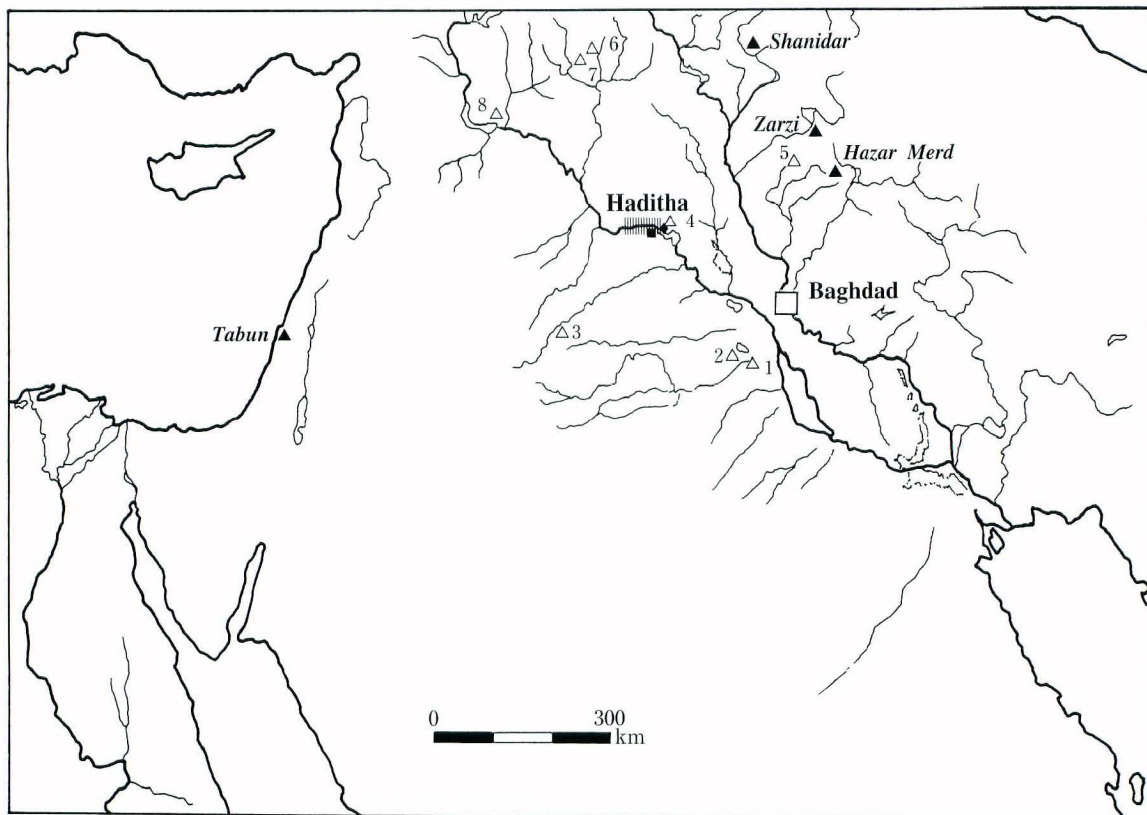


Fig. 1 Map showing the location of Haditha and the sites mentioned in the text.

1: Tar Jamal; 2: Abje; 3: Wadi Hauran near Rutba; 4: Masnaa; 5: Tarzil;
6: west of Tell Baqar; 7: Menaake; 8: Rhaiyat; ◆: Rayyash; ■: 'Usiyeh.

such as abrasion and whitening of flint surface due to the extraction of coloured minerals in its interior⁴). There are no clear outcrops of flint near by.

The 169 samples comprise 38 cores, 117 débitage pieces, and 14 retouched pieces (tools and/or weapons) (Table 1) (Figs. 3, 4, 5). Twenty of the 38 cores are prismatic in shape, with a single striking platform, and there is one discoidal core. One core exhibits the final detachment in the Levallois method of flake type (Table 2). Among the 117 débitage pieces are 35 cortical flakes wholly covered by natural surface, which in most cases were detached at the initial stage of core reduction. There are 79 partially-cortical flakes and 3 non-cortical flakes (Table 3). The partially-cortical and non-cortical flakes consist of 76 non-Levallois flakes and 6 non-Levallois blades (Table 4), of which butts are either cortical or plain (Table 5). Three of the 14 retouched pieces are choppers, and two are chopping-tools, both being considered as heavy-duty tool. There are also 6 scrapers, 2 notched pieces, and 1 denticulated pieces. Ten of the 14 retouched pieces are made on core or pebble (Table 6).

In all, the *Rayyash* material is characterized by a blade production reminiscent of blade technologies of the Upper Palaeolithic and the later periods.

'Usiyeh material:

At 'Usiyeh, three hours' sampling was conducted on 3rd December, and some 400 lithic artifacts were collected. The spot where we conducted sampling is 138 m above sea level, and 15 m higher than the surface of the Euphrates (Fig. 6). The samples except for extremely fresh ones total 363. They are generally made on dark- to light-brown agate-like flint, and bear considerable degrees of abrasion. Some

4) See Yamada *et al.* [1976: 286–289] for the mechanism of whitening of flint surface.

of them exhibit whitening of flint surface. Like at *Rayyash*, there are no outcrops of flint near by.

The 363 samples comprise 172 cores, 190 débitage pieces, and 1 retouched pieces (Table 7) (Figs. 7, 8, 9). In shape, eighty-four of the 172 cores are prismatic, with a single or opposed two striking platforms, and fifty-nine are discoidal. Twenty-six cores exhibit the final detachment in the three types of the Levallois methods, i.e. flake type (14 samples), blade type (5 samples), and point type (7 samples) (Table 8). The 190 débitage pieces consist of 47 cortical flakes, 101 partially-cortical flakes, and 42 non-cortical flakes (Table 9). The partially-cortical and non-cortical flakes consist of 87 non-Levallois flakes, 28 non-Levallois blades, 5 pseudo-Levallois or non-Levallois points, 15 Levallois flakes, 5 Levallois blades, and 3 Levallois points (Table 10). Many of the butts of the partially-cortical and non-cortical flakes are plain, dihedral faceted, or multiple faceted (Table 11). The only retouched piece collected at '*Usiyeh* is a scraper made on atypical Levallois flake (Table 12).

In every respect, the '*Usiyeh* material seems to have been related to the Middle Palaeolithic industries with the Levallois technology.

Surface materials from the regions surrounding Haditha

As early as the year of 1928, Dorothy Garrod reported a Middle Palaeolithic surface material from Iraq, which she had collected at the place called *Tarjil* near Kirkuk in the southern border of Kurdistan, some 230 km north of Baghdad. This collection comprises Levallois cores, Levallois flakes, and Levallois points [Garrod 1928].

The Field Museum North Arabian Desert Expeditions of 1927–1950 collected a large quantity of lithic artifacts in the areas covering Syria, Jordan, and Iraq, including the borders of the three countries [Field 1960]. Among the samples collected by these expeditions are Lower, Middle, and Upper Palaeolithic artifacts, which were later described by Dorothy Garrod in their typological features [1960: 111–124]. Garrod classified them first in terms of their physical conditions, examining patination and abrasion on the samples from each of the individual localities. After the classification, she dated them to various Palaeolithic periods from typological points of view: the Upper Acheulean with hand-axes, choppers, scrapers, flakes, and cores including the Levallois types; the Levallois-Mousterian with Levallois cores, Levallois flakes and points, Mousterian points, and side scrapers; the Upper Palaeolithic (the Aurignacian by Garrod) from very few localities with burins, end scrapers, flake scrapers, rostrate scrapers, steep scrapers, pounders, discs, pyramidal cores, and retouched flakes [*ibid*].

In the western part of Iraq near the Jordanian border, the Tokyo University Iraq-Iran Archaeological Expedition of 1956–1957, headed by Namio Egami, collected lithic artifacts in 1957, in and along the *Wadi Hauran* running near Rutba. Specimens, totaling 138, which had been brought to Japan were later analyzed by Yoshihiro Nishiaki and Sumio Fujii [Nishiaki and Fujii 1986]. Nishiaki and Fujii divided the specimens into three groups in terms of their physical conditions: Group A relatively thickly patinated, desert-varnished, abraded, and edge-damaged; Group B relatively thinly patinated or non-patinated, less varnished, practically non-abraded, and rather sharply edged; Group C with both features of Groups A and B. Group A comprises 53 samples including cores, flakes, and blades. Most of the 8 cores are of the Levallois flake type, with a single specimen of the “Jerf Ajla” type. More than half of the flakes and blades are fragmentary or small chips, and five of them are broken Levallois flakes. The single retouched piece in the analyzed specimens is a truncated-faceted blade. Group B comprises 70 samples including cores, flakes, blades, and retouched pieces. Most of the 9 cores have a single striking platform. These cores were for flakes and blades. The flakes and blades total 11, and small chips 5. Of the retouched pieces totaling 45, thirty-six are burins, and three are side scrapers [*ibid*]. Nishiaki and Fujii, in conclusion, related Group A to the Middle Palaeolithic, and Group B to the Pre-Pottery Neolithic. They particularly related Group A to a late variant of the Levantine Mousterian modelled by Tabun Type B, on the basis of the presence of Levallois flake cores and of a core of the “Jerf Ajla” type. Group B, on the other hand, was correlated to the “burin sites” of the Pre-Pottery Neolithic period, on the basis of its tool inventory

consisting predominantly of burins [*ibid*].

In 1973 and 1975, the Japanese Archaeological Expedition to Iraq from Kokushikan University, headed by Hideo Fujii, collected lithic artifacts on a fan-like topography or rocky fan, formed between a cliff line and a wadi, in the Iraqi South-western Desert 30 km south-west of Kerbala, 100 km south-west of Baghdad. This rocky fan, which the Expedition named *Tar Jamal*, is 40 to 78 m above sea level, and two groups of lithic artifacts were collected on its surface. One of them, made on agate-like flint, bears abrasion and whitening of flint surface. This group consists of some 1,200 samples including discoidal cores, prismatic cores, and Levallois cores of the flake and point types. Non-Levallois and Levallois flakes/blades/points and retouched pieces such as Mousterian points, burins, denticulated pieces, perforators, and side scrapers are also included in this group. Another group consists of some 300 samples which scarcely bear weathering. Included in this group are prismatic cores, non-Levallois flakes/blades, and rather many retouched pieces such as abrupt scrapers, side scrapers, chopping-tools, denticulated pieces, and burins [Ohnuma 1976; 1984/85]. While it is not clear about the chronological position of the unweathered group and its bearing to other lithic industries, it is almost unquestionable that the weathered group was related to the Middle Palaeolithic, particularly to the Levantine Mousterian modelled by Tabun Type B, characterized by Levallois flakes and points.

In the 1975 working season, the Japanese Archaeological Expedition to Iraq also collected lithic artifacts at *Abje*, some 25 km west-north-west of *Tar Jamal*. The site *Abje* is located on a small hill in the desert, the flat top of which is 76 m above sea level, and 10 m higher than its surroundings. Collected on the top of this natural mound are some 210 samples made on agate-like flint, which are divided into two groups in terms of weathering: one with heavy abrasion and the other with slight abrasion. The abraded group consists of Levallois and discoidal cores with faceted striking platforms and flakes detached from them. The cores are technologically similar to those from *Tar Jamal*, but are much smaller. The slightly-abraded group consists of prismatic cores with parallel flake scars plus plain, non-faceted striking platforms, and blade-like flakes detached from them [Wada 1984/85].

In the Haditha region itself, special mention must be given to well-organized, systematic research carried out in 1981 to 1983 by the mission from the Polish Center of Mediterranean Archaeology of Warsaw University. This research involved geological/geomorphological and archaeological surveys, and was conducted by Waldemar Chmielewski and Stefan Kozłowski. The research focused mainly on the *Masnaa* site complex, 13 km east of 'Usiyeh, with selective surveys around Fehimi, 7 km south-east of 'Usiyeh. Chmielewski and Kozłowski excellently outlined the sequence of terraces of the River Euphrates, and dated them on the basis of techno-typology and states of preservation of the lithic assemblages collected on the terraces [Chmielewski and Kozłowski 1985]. They distinguished six terraces (Terraces 1 to 6, numbered from the bottom upwards) on the bases of geomorphological and geological observations. From a slope of Terrace 4 (*Masnaa I and II*), Lower Palaeolithic materials, consisting of heavily rounded Abbevillian-type hand-axes, choppers, chopping-tools, and Clactonian-type flakes, were collected. Collected from Terraces 4 to 6 in the *Masnaa* area are Middle Palaeolithic materials consisting of many cores and flakes/blades, and few retouched or unretouched tools. Included in the cores are the three types of Levallois cores (flake, blade, and point types). Discoidal cores are interestingly rare, however. Of the numerous flakes and blades, Levallois flakes and points are characteristic. Retouched pieces such as side scrapers and denticulated pieces were collected, but no Mousterian points were found [*ibid*]. Kozłowski, who was in charge of the surveys of lithic artifacts, stated that the Middle Palaeolithic sites in the *Masnaa* complex had not been "home" sites. He also stated that they had been workshops exploiting flint raw material from nearby outcrops [*ibid*]. Kozłowski, in conclusion, related the *Masnaa* Middle Palaeolithic materials to the Middle-Eastern Mousterio-Levalloisian, dating them to the Early Würm and the Eemian interglacial [*ibid*].

In the Lower Balikh near the Middle Euphrates, Syria, a Middle Palaeolithic material was reported by Lorraine Copeland from the site called *Rhaiyat* [1981: 255]. This material is characterized by Levallois

cores with centripetal or parallel preparation. Because no artifacts other than cores and cortical (and/or preparation) flakes were found at this site, Copeland regarded it as a factory site.

At many places in the Khabur Basin near Hassake, north-east Syria, Lower and Middle Palaeolithic materials were collected by the 1989–1992 Khabur Prospection Project directed by Bertille Lyonnet. Among the sites confirmed by this mission are *al-Rasho* near Ras al-Ain and *Khirbet al-Qadir* near Tell Tamr, from which Lower Palaeolithic materials were collected. These sites are located on hill slopes, and small bifaces, non-Levallois cores and flakes, and déjeté scrapers were collected there. Yoshihiro Nishiaki, who joined the 1990–91 projects and directed the 1991 prehistoric survey, dated these materials to a final Lower Palaeolithic period on the basis of their techno-typological features [Nishiaki 1992]. More than ten Middle Palaeolithic open sites were also marked in the same area. All of these are located on higher wadi/river terraces or hill slopes, two sites of *Menaake* and a wadi terrace *west of Tell Baqar* being most representative. Many cores and cortical flakes and few tools were collected at these two sites, which led Nishiaki to state that they had been factory sites [*ibid*]. Because some of the cores and flakes from *Menaake* and *west of Tell Baqar* are of the Levallois categories, mainly of the flake type, Nishiaki suggested a similarity of the materials from these sites to the Levantine Mousterian modelled by Tabun Type C or B [*ibid*].

Brief review of the Middle and Upper Palaeolithic of West Asia

Judging from the inventories of the *Rayyash* and *'Usiyeh* materials and their technological details, it is highly likely that they were the products of the Upper Palaeolithic or the later period and of the Middle Palaeolithic period, respectively.

It is pertinent here, therefore, to briefly review the relevant lithic industries of West Asia, particularly those of the Levant in the west of Haditha and those of the Zagros in the east.

The research of the Middle Palaeolithic of the Levant started with the excavations at the *Tabun* Cave of Mount Carmel, Israel. Dorothy Garrod, who had excavated this site five times between 1929 and 1934, described three Middle Palaeolithic layers there, Layers D, C and B in ascending order [Garrod and Bate 1937]. Layer D (the Lower Levallois-Mousterian by Garrod) is characterized by triangular Levallois flakes. Mousterian points are large in quantity, and many of them are made carefully. Side scrapers, burins, and notched pieces are also numerous. Many of the cores are of the Levallois types, of which about a quarter are for triangular flakes. Some of the levallois cores are very small. Blade cores with faceted striking platforms were also unearthed. Layer C (the Lower Levallois-Mousterian) is characterized by broad Levallois flakes. Mousterian points are less numerous than in Layer D. Side scrapers on broad Levallois flake are numerous, and burins and notched pieces were also unearthed. Many of the Levallois cores are very small, but the Levallois flakes are rather large, indicating that these flakes were detached until the cores became very small. Layer B (the Upper Levallois-Mousterian) is characterized by Levallois flakes, both broad and triangular. About a half of the Mousterian points are made on triangular Levallois flakes. Most of the Levallois cores are for broad flakes. The specimens from this layer are smaller and less numerous than those from Layer C, but the retouched pieces such as side scrapers are far more numerous [*ibid*].

In 1975, Lorraine Copeland proposed three phases for the Levallois-Mousterian of Lebanon and Syria on the basis of the Tabun sequence [1975]. According to Copeland, the first phase (Model Tabun D) is characterized by “one-axis methods of preparation of the Levallois cores as well as the laminar, triangular parallel-sided blanks struck off along the same axis as the core preparation”. The second phase (Model Tabun C) is characterized by the virtual absence of Levallois points and the dominant presence of broad Levallois flakes and pseudo-Levallois points. The third phase (Model Tabun B) is characterized by the standard production of Levallois points from either one axis or radially prepared cores, as well as by flakes which are light and thin and mostly laminar [*ibid*].

Turning east to the Zagros Mountains, the Middle Palaeolithic in Iraq is different from that of the

Levant. Among the sites so far excavated in this region are two cave sites of *Hazar Merd* and *Shanidar*.

The cave site of *Hazar Merd*, which was excavated by Dorothy Garrod in 1928, is located 8 km south-west of Sulaimani in the southern border of Kurdistan. The Middle Palaeolithic material from Layer C of this site was described by Garrod as a Mousterian industry with side scrapers and Mousterian points, of which the latter include elongated specimens and are carefully made [Garrod 1930]. Flakes with faceted or unfaceted butts are triangular and slender, some with parallel sides approaching blades. Not a single core was found, and the practice of the Levallois methods was not evidenced [*ibid*].

The cave site of *Shanidar* is located near the Greater Zab, a branch of the River Tigris, north Iraq. This site was excavated by Ralph Solecki in 1951, and a Middle Palaeolithic material was unearthed from Layer D [Solecki 1952]. According to Solecki, the material from Layer D resembles that from Layer C of *Hazar Merd*, with Mousterian points resembling the *Hazar Merd* specimens. Side scrapers on broad flake-blade, retouched flakes, and cores of medium to small size were also unearthed. Faceted flakes were reported, but none of the Levallois methods were traced [Solecki 1953; 1955]. In 1973 and 1974, Takeru Akazawa analyzed the *Shanidar* Layer D material in Baghdad. Akazawa reported that the most numerous retouched pieces in this layer were side scrapers, mainly of the single convex type, and Mousterian points including elongated specimens took the second place [Akazawa 1975]. He also reported burins of the Upper Palaeolithic type, borers, truncated pieces, and notched or denticulated pieces. Flakes and blades were described as predominantly non-Levallois, and the cores as non-Levallois with few flake scars [*ibid*].

In 1951, the Upper Palaeolithic of the Levant was divided by René Neuville into six phases on the basis of his analyses of materials from the Judaeian Desert [Neuville 1951]. According to Neuville [*ibid*], Phase 1 (the Emiran by Garrod [1962] and the Ksar Akil Phase A by Copeland [1975]) was describable as the Middle to Upper Palaeolithic transition of the region with the Emiran point as its type fossil. This phase was characterized by backed points resembling the Chatelperron point, and pointed end scrapers. Truncated pieces and various types of burins are also characteristic. Blades including crested specimens are made very carefully. The butts of flakes and blades are faceted. Cores are generally small and irregularly detached, and are more or less prismatic in shape. Phase 2 (the Ksar Akil Phase B by Copeland [1975]) was characterized by the disappearance of the Emiran points and increase and refinement of backed points. End scrapers including specimens on blade are numerous. Burins are atypical and not numerous. Blades and crested blades, produced carefully, were also reported. Faceted butts are less numerous than in Phase 1. Cores are either prismatic or discoidal. Phase 3 (the Lower Antelian by Garrod [1962] and the Levantine Aurignacian B by Copeland [1975]) is represented by the material from Layer D of *Erq el-Ahmar*. This phase was characterized by pointed slender blades, crested blades, backed points resembling the Font-Robert and Font-Yves types, typical burins, and end scrapers in particular. Faceted butts are not numerous. Cores are small, and are of the discoidal or flat Levallois type. Some of the cores are prismatic. Phase 4 (the Upper Antelian by Garrod [1962] and the Levantine Aurignacian B by Copeland [1975]) was characterized by carinated end scrapers. Some of the burins are intermediate in shape between carinated end scrapers and busqué burins. Crested blades are not numerous. Faceted butts were not traced in this phase. Cores are small to medium in size and pyramidal in shape. Phase 5 (the Atlitian by Garrod [1962] and the Levantine Aurignacian C by Copeland [1975]) was characterized by the abundance of micro-blades and the appearance of microliths. Angle burins, polyhedral burins, and end scrapers, especially in nucléiform, are characteristic of this phase. Phase 6 (the Kebaran by Garrod [1962]) was described as the Upper Palaeolithic to Mesolithic transition of the region. The material from Layer D of *el-Khiam* consists of micro-blades, atypical backed points, burins, and carinated end scrapers resembling polyhedral burins in some cases. No nucléiform end scrapers were reported. Truncated blades, microliths, and crested blades were reported.

Recently, Isaac Gilead proposed a dichotomy of the Levantine Upper Palaeolithic [1988]. According to Gilead, there coexisted two traditions in the Upper Palaeolithic period of the southern Levant from its

beginning, which were partially contemporaneous: the tradition called the Ahmarian, dated by C¹⁴ to 38,000–16,000 B.P., on the one hand, and the tradition called the Levantine Aurignacian on the other. Gilead characterized the Ahmarian by blade-bladelet blanks and high frequencies of retouched, backed and pointed bladelets, as well as by the scarcity of end scrapers and burins. The Levantine Aurignacian was characterized by flake dominated débitage and the abundance of end scrapers and/or burins [*ibid*].

Details of the Upper Palaeolithic of the Zagros region are much less known than the contemporaneous industries of the Levant. Well-known among the Zagros industries of this period so far reported are the Baradostian and the Zarzian.

The Baradostian is represented by the material from Layer C of the *Shanidar* Cave. This industry was so named by Ralph Solecki in 1953 after the name of the mountain indistinctly seen from the *Shanidar* Cave, which Solecki himself had excavated in 1951 [Solecki 1955]. The material from *Shanidar* Layer C was dated by two C¹⁴ determinations to 29,500±1,500 B.P. and >34,000 B.P. [*ibid*]. According to Solecki, the Layer C material is essentially a blade tool industry, consisting of backed blades, blade points, burins, scrapers, perforators, retouched flakes and blades, and numerous notched blades. Included in the burins are angle burins and the “Bec-de-flute”-type burins, and the scrapers include side scrapers, end scrapers, circular scrapers and core scrapers [Solecki 1953; 1955]. It seems that the cores are small, prismatic-shaped, and have a single or opposed two striking platforms [Solecki 1953].

The Zarzian is represented by the material from Level B of the *Zarzi* Cave. This cave site, located in the valley of Cham Tabin in the Zarzi village, 50 km north-west of Sulaimani, was excavated by Dorothy Garrod in 1928, and an industry with microlithic features was unearthed from Level B [Garrod 1930]. The lithic artifacts from all through Level B consist of Gravette points, backed blades, notched and/or denticulated blades, end scrapers, scrapers such as circular scrapers and core-choppers, and burins including the angle type and the Noailles- and the “Bec-de-flute” types. The blades and micro-blades are narrow. The elongated triangle, the only geometric microlith found at this site, was confined to the upper part of Level B, which led Garrod to suggest the separation of the upper part material from the material of the lower [*ibid*]⁵⁾.

Conclusions

In the preceding sections, the surface materials from the regions surrounding Haditha were reviewed in their inventories, and the Middle and Upper Palaeolithic industries of the regions were outlined briefly. In this final section, the characteristic features of the *Rayyash* and *‘Usiyeh* materials are summarized, and their relationships to the lithic industries of the surrounding regions are considered. Also, the natures of the two sites are discussed on the bases of their artifactual characteristics.

The *Rayyash* material is characterized by blade cores with a single striking platform, but interestingly enough most of the débitage pieces are flakes, with elongated flakes or blades very rare. None of the butts of the flakes are multiple faceted, and linear or punctiform butts are not recognized. Overhang removal by abrasion is recognized on cortical and plain butts, however. This abrading operation was in practice to produce blades in the Upper Palaeolithic and the later periods, making edges of blade butts smooth to keep them from being impact-crushed when the blades were detached.

Judging from the presence of the overhang removal by abrasion, one of the important technological treatments in the production of the Upper Palaeolithic blades, it is highly likely that the *Rayyash* material was the product in the Upper Palaeolithic period or thereafter. At present, however, it is not possible to

5) The rock-shelter site of *Warwasi* in west Iran, north-east of Baghdad near the Irano-Iraqi border, yielded Zarzian assemblages above a late phase of the Baradostian. Deborah Olszewski, who analyzed the Zarzian materials from this site, interestingly confirmed what had been suggested by Garrod for temporal division of the Zarzian material of *Zarzi*, and stated that the *Warwasi* Zarzian was divided into two phases: the earlier one without geometric microliths and the later one with them [Olszewski 1993]. Olszewski also stated that the earlier Zarzian at *Warwasi* might have been a direct development from the late-phase Baradostian there [*ibid*].

point out particular lithic industries in the surrounding regions which may have been related to the *Rayyash* material.

At all events, it seems that flakes were being detached expediently, not elaborately, from prismatic cores at *Rayyash*; the reduction of prismatic cores at this site was not aimed for the elaborate production of blades. It is noteworthy that cortical flakes collected at *Rayyash* were large in quantity, which may suggest a factory nature of this site. Also noteworthy, however, is the considerable abundance of heavy-duty tools such as choppers and chopping-tools, and their combination with scrapers and notched pieces. If this inventory of retouched pieces is also taken into consideration, it is rather likely that *Rayyash* was not a mere factory site, but was a place for a kind of work such as butchering or skin scraping, where flakes were being detached expediently in order to make the tools needed on the spot.

The '*Usiyeh* material is characterized by prismatic cores for non-Levallois blades as well as discoidal cores and centripetally prepared Levallois flake cores. The débitage pieces have faceted butts in many cases, but linear or punctiform butts are rare. The overhang removal by abrasion is seen in one case only. It is now widely accepted that the Levallois methods and blade technology were not very different from each other in that the shapes of the flakes and blades were pre-determined on the cores prior to their detachment; in fact, these two technological concepts are now constantly found associated together in the Levantine Mousterian assemblages. It is very probable, therefore, that the prismatic cores and non-Levallois blades in the '*Usiyeh* material were the products of the Middle Palaeolithic, and that they were associated elements in the material.

In view of the technological features above, it seems unquestionable that the '*Usiyeh* material was related to the Middle Palaeolithic of the Levant, particularly to the Levantine Mousterian modelled by Tabun Type B, characterized by Levallois flakes and points. Also, the '*Usiyeh* material seems to show one of the footprints of the Levantine Middle Palaeolithic population, who arrived in the Haditha region, most probably by way of wadis.

The '*Usiyeh* material, in overall features, resembles the Middle Palaeolithic collections from the *Masnaa* complex in Haditha. However, there is seen a difference between the two materials; discoidal cores are numerous at '*Usiyeh*, but they are rarely seen at *Masnaa*.

In 1961, François Bordes divided discoidal cores into two categories according to distinct reduction processes. One of his two processes is centripetally-directed and involves continuous removal of flakes and pseudo-Levallois points until the core is abandoned. Another process is the continued reduction of a Levallois core following the removal of a Levallois flake, but even in this case, flakes are detached in the same way as in the other process [Bordes 1961: 16, 72–73]. The reduction processes of discoidal cores described by Bordes resemble the *méthode Levallois récurrente centripète* proposed by Eric Boëda recently, in which multiple Levallois flakes are detached in a series [Boëda 1988]. Experimental replication can, indeed, demonstrate the difficulty to distinguish Levallois flake cores from unifacial cores with discoidal shapes [Ohnuma 1995]⁶.

Bordes had already stated in 1953 that both Levallois and discoidal cores were essentially the same technologically and that they were nothing but different expressions due to different site locations and aspects of raw material including accessibility. At Mousterian sites, rich in raw material, Levallois cores were abandoned extravagantly, while at sites, poorer in raw material, cores were taken in from other places, reduced within the limits of possibility, and abandoned in discoidal shapes [Bordes 1953: 232–233].

In sum, it is inferred that the '*Usiyeh* material provides an additional datum for Mousterian non-factory sites that were located in natural environments lacking large flint raw material. This inference is based on the observation that cortical flakes as primary products of core reduction are not numerous at '*Usiyeh*. It also seems that unlike at *Masnaa* many of the Levallois cores at '*Usiyeh* were reduced as

6) See Lenoir and Turq [1995] for a similar statement.

much as possible and were abandoned in discoidal shapes.

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Table 1 Inventory of lithic artifacts from *Rayyash*.

	Number
Cores	38
Débitage pieces	117
Retouched pieces	14
Total	169

Table 2 Categories of cores from *Rayyash*.

	Number
Prismatic cores with a single striking platform	20
Cores intermediate between prismatic and pyramidal forms	6
Discoidal cores	1
Levallois flake cores <u>with centripetal preparation</u>	1
Cores with a single flake scar	4
Cores resembling chopping-tools	6
Total	38

Table 3 Categories of débitage pieces from *Rayyash*.

	Number
Cortical flakes	35
Partially-cortical flakes	79
Non-cortical flakes	3
Total	117

Table 4 Categories of partially-cortical and non-cortical flakes from *Rayyash*.

	Number
Non-Levallois flakes	76
Non-Levallois blades	6
Total	82

Table 5 Frequency of butt types of partially-cortical and non-cortical flakes from *Rayyash*.

	B	C	Pl	Df	Mf	L	P	(Ohra)
Non-Levallois flakes		36	37	3				(6)
Non-Levallois blades	1	2	3					(1)

B: Broken; C: Cortical; Pl: Plain; Df: Dihedral faceted; Mf: Multiple faceted;
L: Linear; P: Punctiform; Ohra: Overhang removal by abrasion.

Table 6 Categories of retouched pieces from *Rayyash*.

	Number
Choppers <u>on pebble</u>	3
Chopping-tools <u>on pebble</u>	2
Scrapers <u>on core</u>	2
Side scrapers <u>on core</u>	1
Side scrapers <u>on cortical flake</u>	2
Side scrapers <u>on non-Levallois blade</u>	1
Notched pieces <u>on core</u>	1
Notched pieces <u>on non-Levallois flake</u>	1
Denticulated pieces <u>on pebble</u>	1
Total	14

Table 7 Inventory of lithic artifacts from *'Usiyeh*.

	Number
Cores	172
Débitage pieces	190
Retouched pieces	1
Total	363

Table 8 Categories of cores from *'Usiyeh*.

	Number
Prismatic cores with a single striking platform	45
Prismatic cores with opposed two striking platforms	39
Discoidal cores	59
Levallois flake cores <u>with centripetal preparation</u>	13
Levallois flake cores <u>with parallel preparation</u>	1
Levallois blade cores <u>with centripetal preparation</u>	4
Levallois blade cores <u>with parallel preparation</u>	1
Levallois point cores <u>with centripetal preparation</u>	3
Levallois point cores <u>with parallel preparation</u>	4
Cores with a single flake scar	3
Total	172

Table 9 Categories of débitage pieces from 'Usiyeh.

	Number
Cortical flakes	47
Partially-cortical flakes	101
Non-cortical flakes	42
Total	190

Table 10 Categories of partially-cortical and non-cortical flakes from 'Usiyeh.

	Number
Non-Levallois flakes	87
Non-Levallois blades	28
Pseudo-Levallois points	5
Levallois flakes with centripetal preparation	9
Levallois flakes with parallel preparation	6
Levallois blades with centripetal preparation	1
Levallois blades with parallel preparation	4
Levallois points with parallel preparation	3
Total	143

Table 11 Frequency of butt types of partially-cortical and non-cortical flakes from 'Usiyeh.

	B	C	Pl	Df	Mf	L	P	(Ohra)
Non-Levallois flakes	7	13	37	15	9	1	5	
Non-Levallois blades	3	3	10	8	2		2	(1)
Pseudo-Levallois points	1	1	2	1				
Levallois flakes with centripetal preparation	2				7			
Levallois flakes with parallel preparation	1		2	2	1			
Levallois blades with centripetal preparation				1				
Levallois blades with parallel preparation	1		2		1			
Levallois points with parallel preparation					3			

B: Broken; C: Cortical; Pl: Plain; Df: Dihedral faceted; Mf: Multiple faceted; L: Linear; P: Punctiform; Ohra: Overhang removal by abrasion.

Table 12 Categories of retouched pieces from 'Usiyeh.

	Number
Side scrapers on partially-cortical flake (atypical Levallois flake with centripetal preparation)	1
Total	1

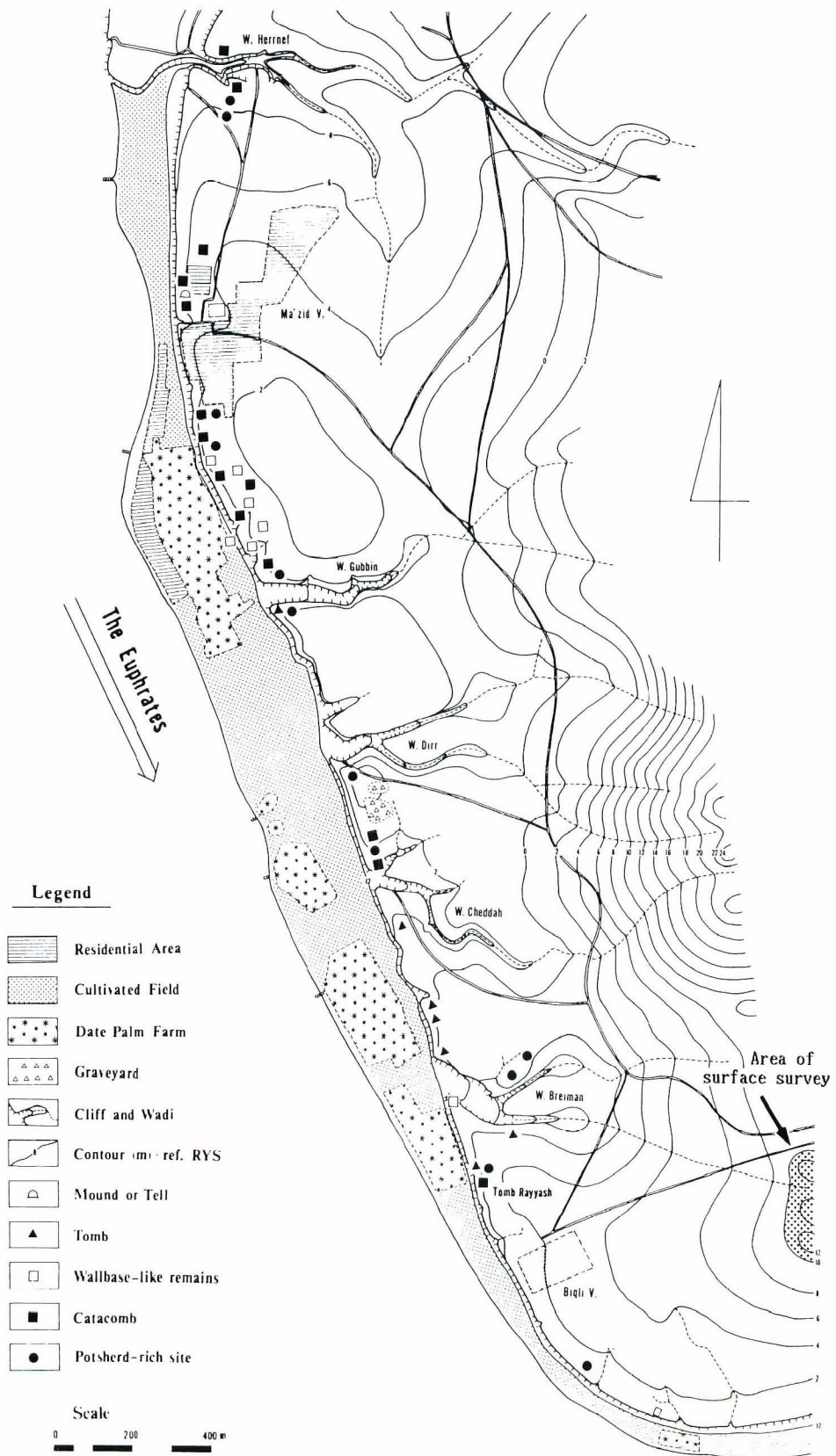


Fig. 2 Map of Rayyash showing the area of surface survey of lithic artifacts. (After Kokushikan Expedition to Tell Abu Thor [1982/83: fig. 16]).

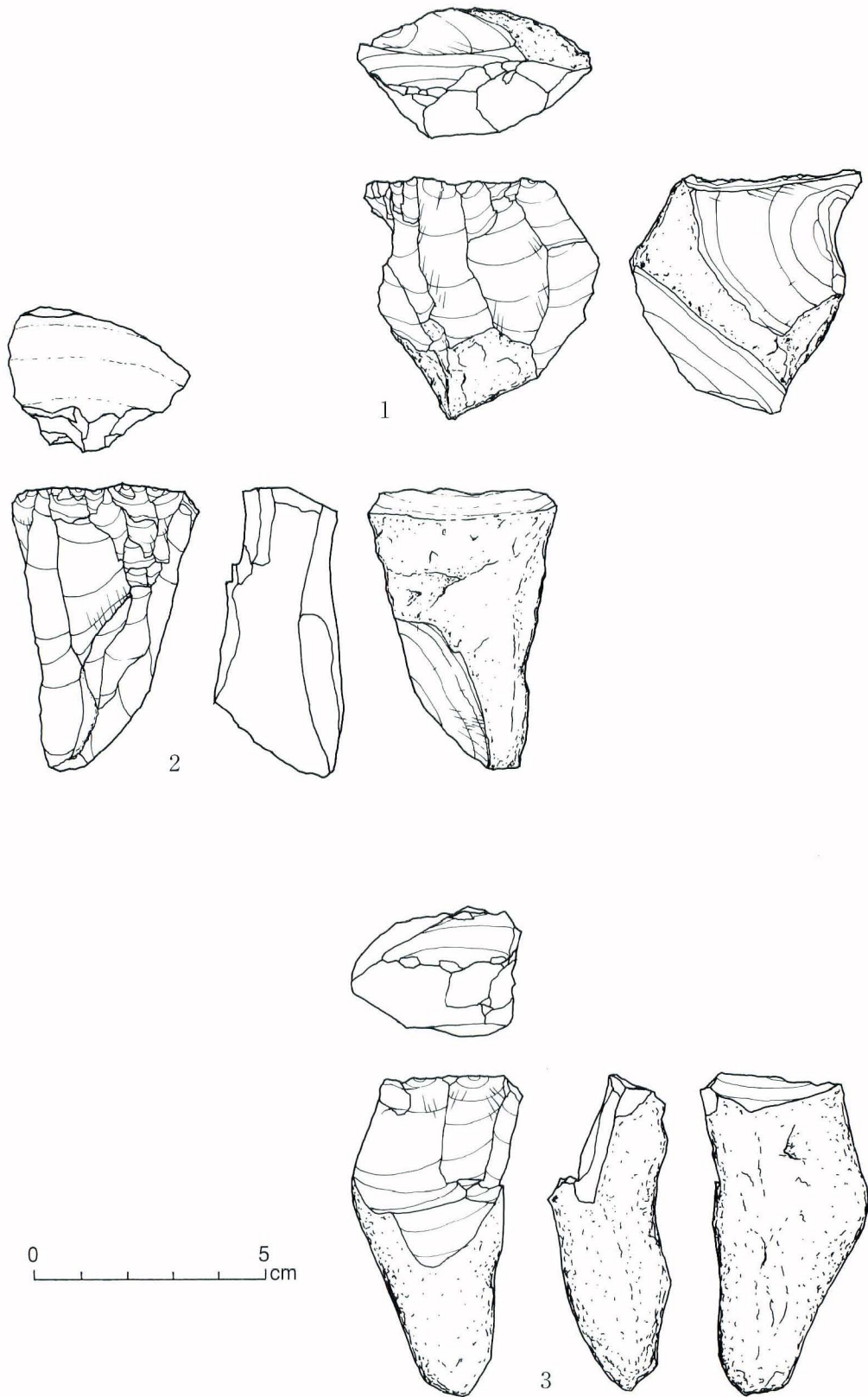


Fig. 3 Lithic artifacts from *Rayyash*.

1, 3: Prismatic cores with a single striking platform;
2: Core intermediate between prismatic and pyramidal forms.

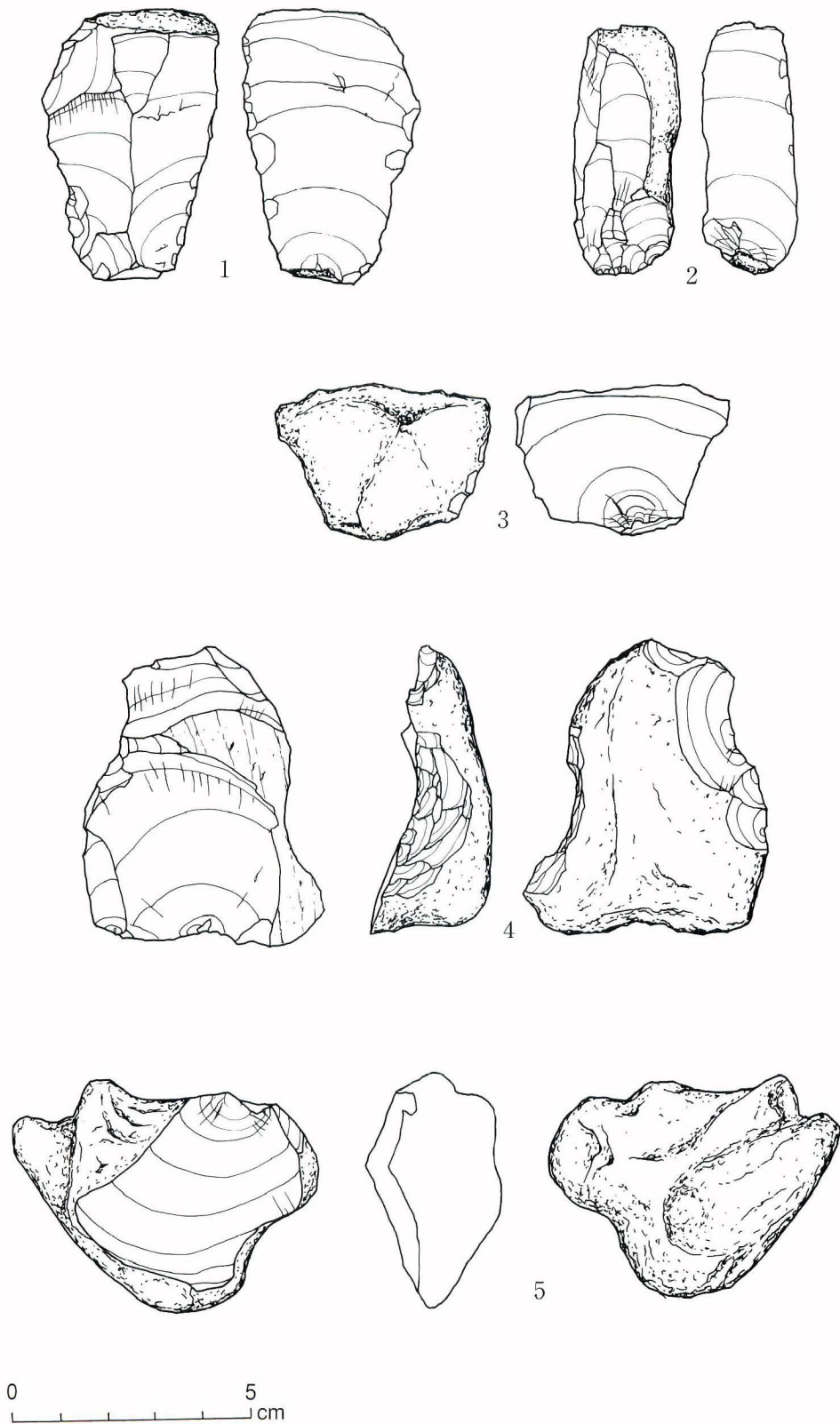


Fig. 4 Lithic artifacts from *Rayyash*.

1: Non-Levallois flake; 2: Non-Levallois blade; 3: Cortical flake;
4: Notched piece on core; 5: Core with a single flake scar.

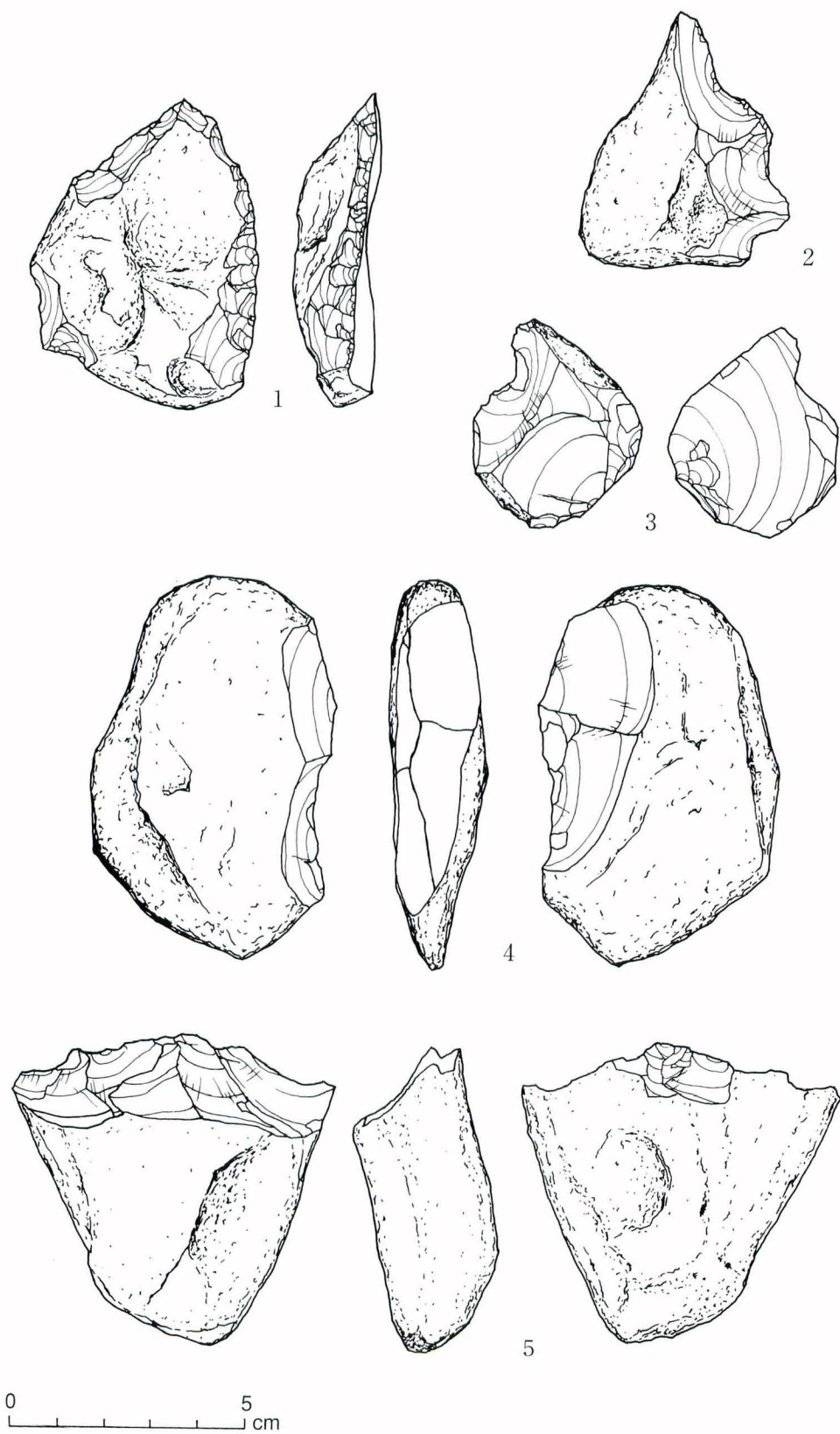


Fig. 5 Lithic artifacts from *Rayyash*.

1: Side scraper on cortical flake; 2: Denticulated piece on pebble; 3: Notched piece on non-Levallois flake; 4: Chopping-tool on pebble; 5: Chopper on pebble.

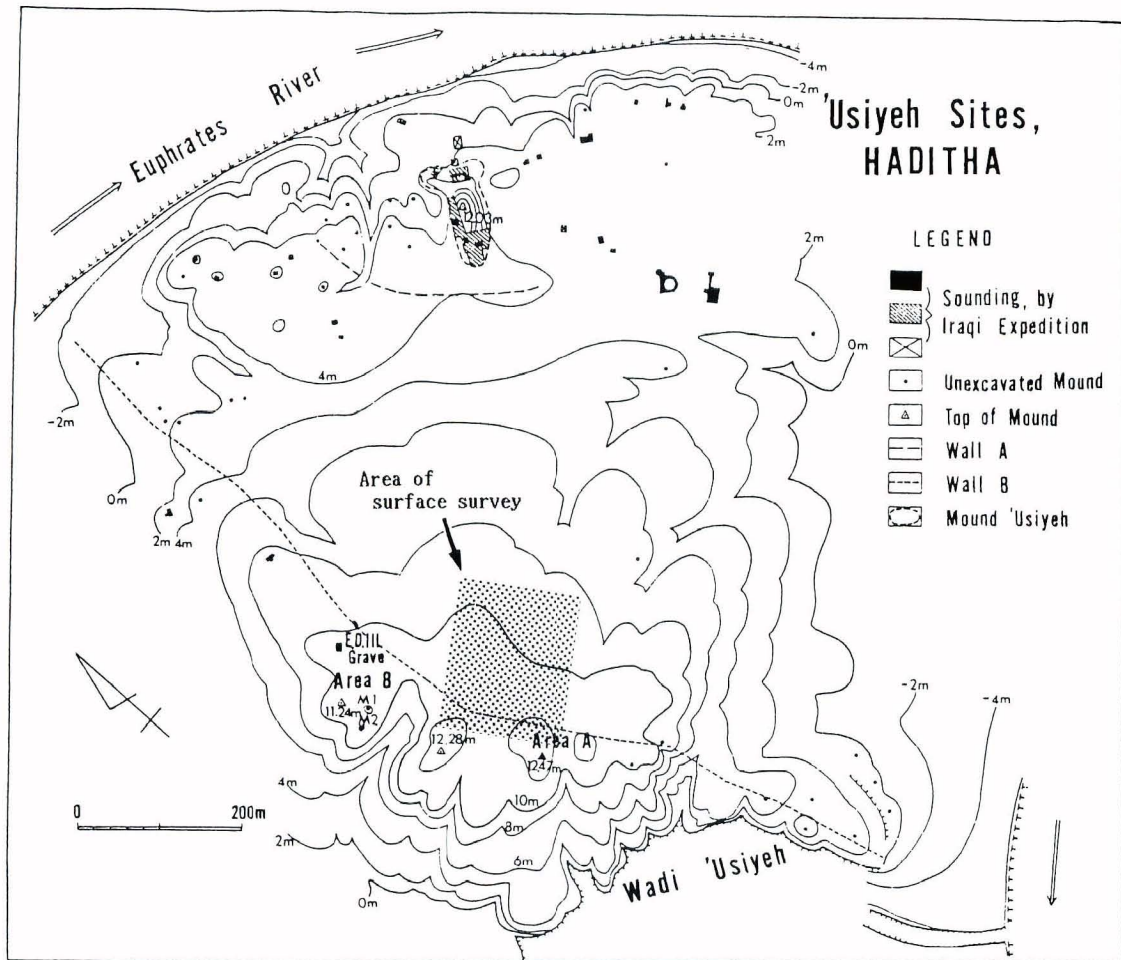


Fig. 6 Map of 'Usiyeh showing the area of surface survey of lithic artifacts. (After Fujii *et al.* [1984/85: fig. 2-a]).

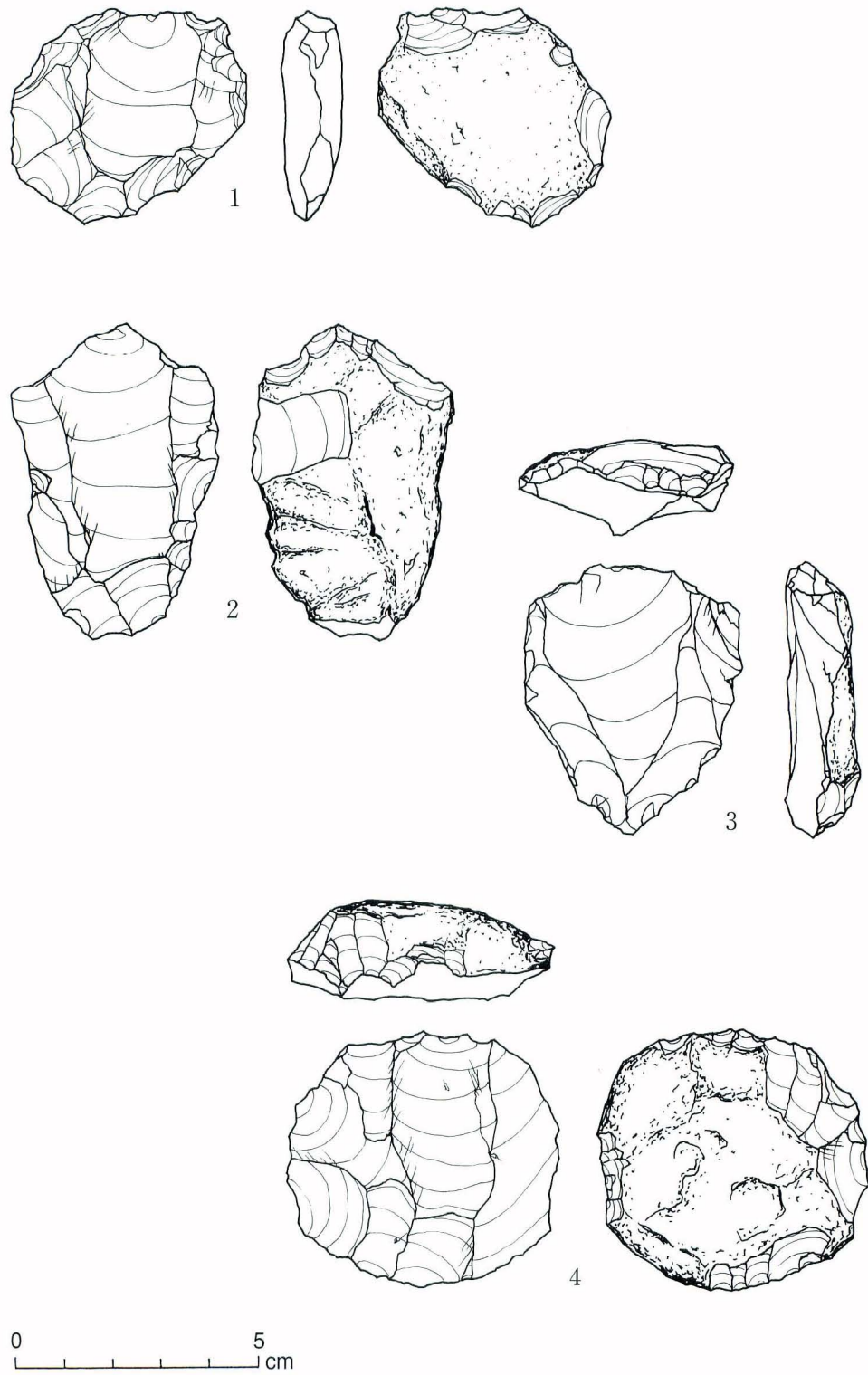


Fig. 7 Lithic artifacts from 'Usiyeh.

1: Levallois flake core; 2, 4: Levallois blade cores; 3: Levallois point core.

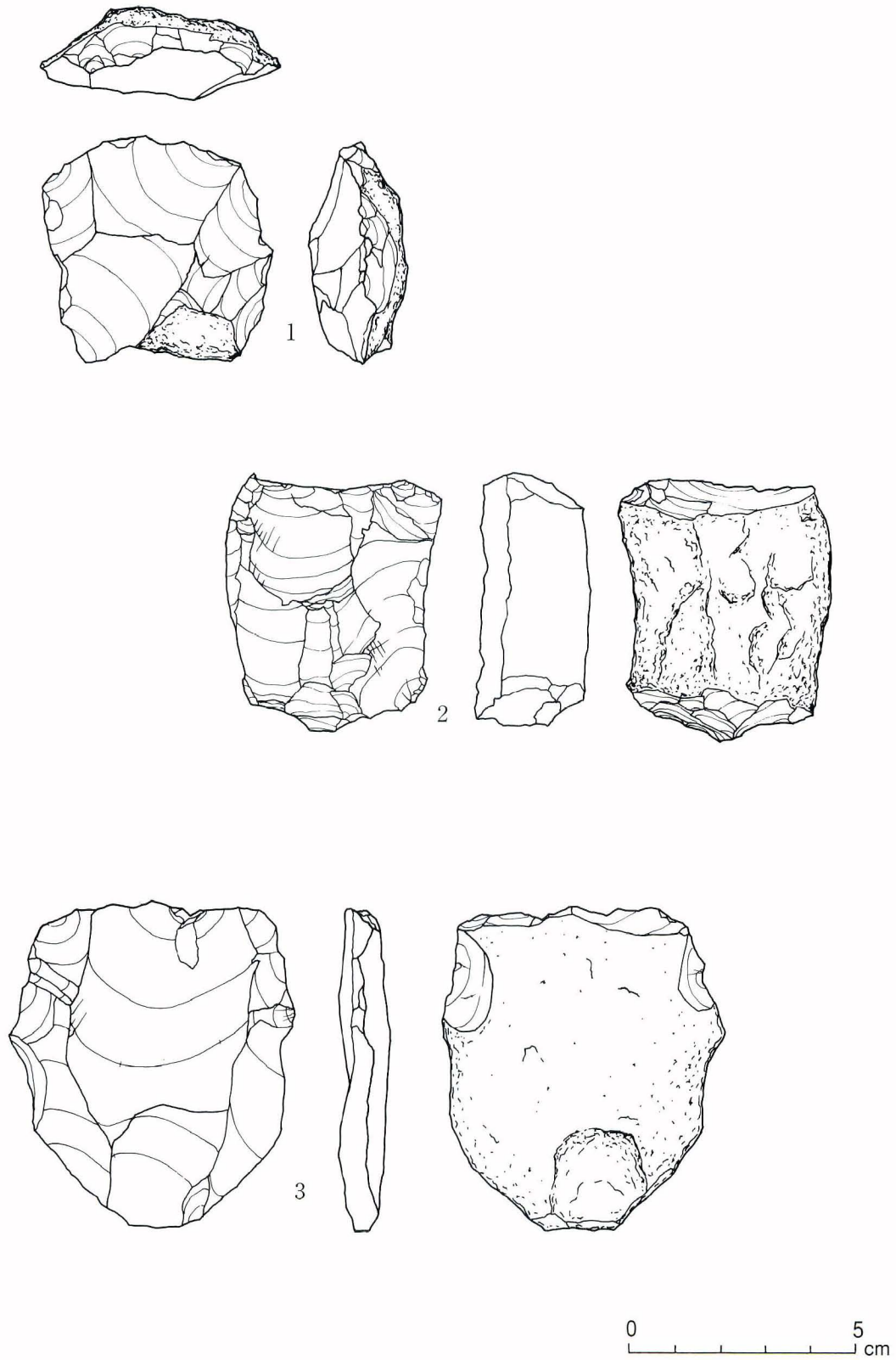


Fig. 8 Lithic artifacts from *'Usiyeh*.

1: Discoidal core; 2: Prismatic core with opposed two striking platforms; 3: Levallois flake core.

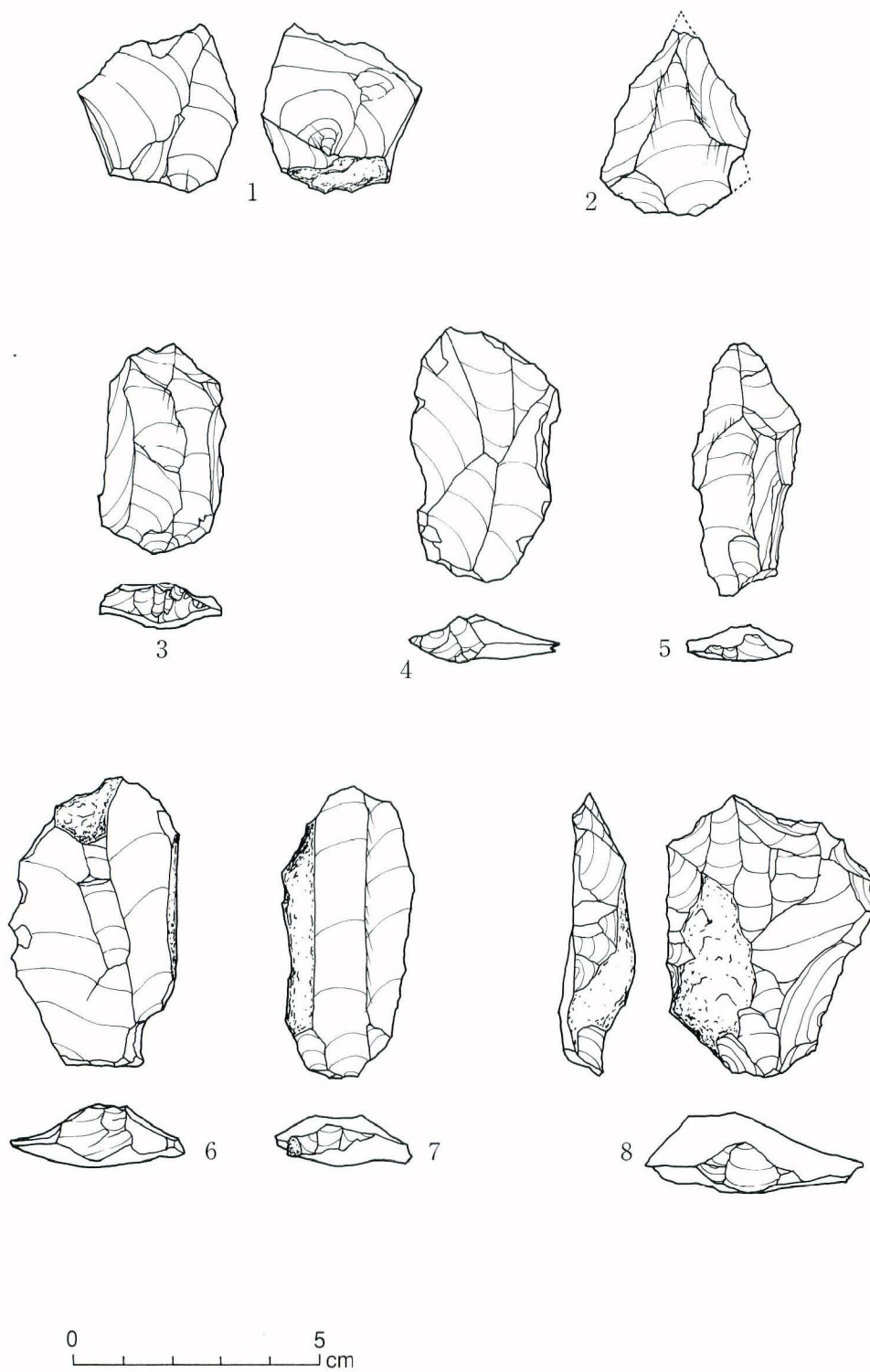


Fig. 9 Lithic artifacts from 'Usiyeh.

1: Pseudo-Levallois point; 2: Levallois point; 3, 4: Levallois flakes; 5: Levallois blade;
6: Non-Levallois flake; 7: Non-Levallois blade; 8: Side scraper on atypical Levallois flake.

LATE URUK AND THE TRANSITIONAL NINEVITE 5 POTTERY FROM TELL THALATHAT NO.5

Hirotoshi NUMOTO*

Introduction

In the last issue of this journal [Numoto 1997], the present author discussed the research results of re-examination of unpublished Ninevite 5 pottery from Tell Thalathat No.5, which is kept in the University Museum, the University of Tokyo. According to the research results, it is clear that most of the Ninevite 5 pottery from occupation levels with granary and circular kilns belonged to “the Painted and Early Incised Period” (Early Ninevite 5: Mohammed Arab Period 2). Furthermore, the research of the unpublished materials made it clear that a small quantity of pottery, supposed to have belonged to the Late Uruk and the Transitional Ninevite 5 Periods, was unearthed together with the Ninevite 5 pottery analyzed. The main purpose of this paper is to illustrate the pottery belonging to these periods and discuss their remarkable features, for they were not described in detail in previous excavation reports [Egami 1959; Fukai *et al.* 1974].

Late Uruk Pottery and the Transitional Ninevite 5 Pottery

Pottery, which is regarded to have belonged to the Late Uruk and the Ninevite 5 Transitional Period from Thalathat No. 5 was all fragmentary, and was about one hundred specimens¹⁾. These specimens are roughly classified into bevelled rim bowl, plain ware, incised ware, and painted ware as follows:

Bevelled rim bowls (Figs. 1a, b): Eight sherds of bevelled rim bowls which are most typical type in the Late Uruk period were found. The characteristic features of these sherds are as follows: 1) They are tempered with large amount of coarse vegetable except specimen No. 1. 2) All of them are made of mould, and the trace of rough finger-smoothing remains on their inner surfaces and part of bevelled rims, while no treatment on their outer surfaces were found at all. Some specimens are greenish in color caused by the high temperature firing (Nos. 3, 5, 6, 8).

<in Figs. 1a, b>

1. Outside granary at F-III: Rim of bevelled rim bowl; reddish buff surfaces (5YR7.5–7/4); blackish buff core (7.5YR6.5/1); much vegetable (2–10mm) and middle amount of fine sand temper; containing much mica; wet-smoothed (horizontal way) on inner surface and lip (part of bevell); outer surface is not finished; Rim diam.: about 13–15cm; 1/7 extant.
2. D-II/1: Rim of bevelled rim bowl; creamy surfaces (2.5Y9/1); pale pinkish both side of section (7.5YR8.5/3); creamy core (10YR9–8.5/1); partially blackish part of lip (5YR5.5/1); much vegetable (2–7mm) and middle amount of fine sand temper; containing chalky particles; wet-smoothed (horizontal way) on inner surface and lip; outer surface is not finished; Rim diam.: about 15–20cm.
3. F-III R24: Rim of bevelled rim bowl; greenish surfaces and core (7.5Y8.5/1); much vegetable (2–7mm) and middle amount of fine sand temper; containing chalky coarse sand and particles; wet-smoothed on inner surface and lip; outer surface is not finished; slightly distored; Rim diam.: about 15cm.
4. Lower stratum at floor of R6 (granary): Rim of bevelled rim bowl; reddish buff surfaces (2.5YR7–6.5/5); light buff core (5YR7.5/4); much vegetable (2–5mm) and middle to large amount of fine sand temper; containing chalky particles and mica; wet-smooted on inner surface and lip; trace of wet-smoothing remains on outer surface; Rim diam.: about 15cm.
5. Level IV-b at R2 (D-II): Rim of bevelled rim bowl; creamy upper half of surfaces (2.5Y9–8.5/2); greenish core and lower half of outer surface (10Y8.5–8/1); very much vegetable (2–15mm) and middle to large amount of fine sand temper; containing chalky coarse sand (2–3mm); wet-smoothed (horizontal way) on inner surface and lip; outer surface is not finished; Rim diam.: about 20cm.

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1) In addition to specimens illustrated in the present paper, about twenty body sherds were recognized.

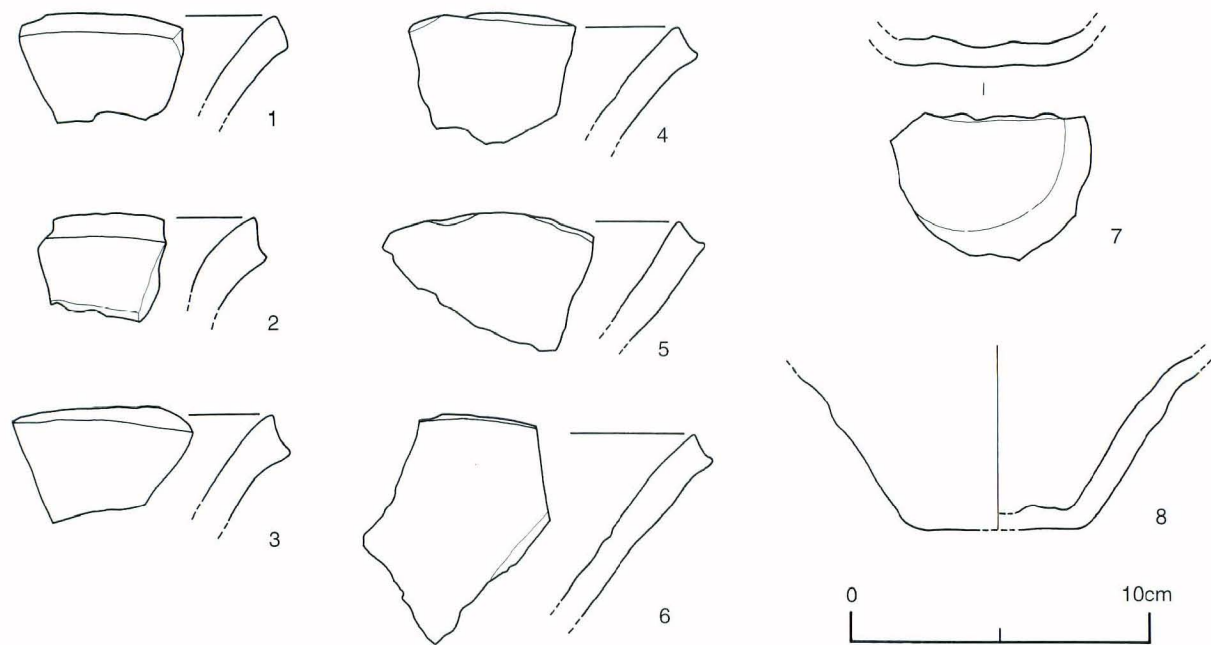


Fig. 1a Bevelled Rim Bowls.

6. D,E-II/1: Rim of bevelled rim bowl; greenish white surfaces and core (10Y7.5/2-3); very much vegetable (2-15mm) and middle to large amount of fine sand temper; containing chalky coarse sand; wet-smoothed (horizontal way) on inner surface and lip; outer surface is not finished; Rim diam.: about 15cm.
7. F-II/1: Base of bevelled rim bowl; dark brown outer surface (5YR6/3-4); light brown inner surface (2.5YR7-6.5/6); blackish grey core (N5.5/); much vegetable (2-15mm) and middle amount of fine sand and chalky particles temper; finger trace clearly remains on inner surface; outer surface is not finished; Bottom diam.: 6cm; 2/3 extant.
8. C-II/1: Body to bottom of bevelled rim bowl; greenish surfaces and core (10Y8/2-3); very much vegetable (2-15mm) and middle amount of chalky coarse sand and small stone (2-6mm) temper; wet-smoothed on inner surface; outer surface is not finished; distorted body; Rim diam.: about 15-17cm; Bottom diam.: 6cm; 1/3 extant.

The common features recognized among most of plain, incised, and painted wares are as follows: 1) Small to midium-sized wares were made on wheel, and have horizontal lines clearly seen on their surfaces. 2) Most of the surface colors are creamy buff and creamy pink, and the core colors are mainly dark pink and pinkish buff. Most examples have creamy or white slip on their surfaces. 3) The fabrics were always with much fine sand temper, and the surface therefore is very sandy. Moreover, many of the examples contain chalky particles and gold colored mica.

Spouted wares (Figs. 2a, b, 3a, b): Three spout sherds (Nos. 9-11), fragment of a small to middle-sized jar (No. 12), a carinated bowl (No. 13), and a large jar (No. 14) were found. Only one carinated bowl (No. 13) shows the whole shap of the body among these specimens, which is characterized by a keen carination and a flat base. The shape of large-sized jar is closely similar to the most typical shape of spouted-jar in the Late Uruk period. The most remarkable fact found in this large jar is that trace of two small holes remained at the lower part of the spout. Usage of these holes are not known.

<in Figs. 2a, b>

9. E-II/2: Fragment of spout; creamy white slip outer surface (10YR9/1-2); cream inner surface (10YR8.5/3); buff core (10YR8/4); much very fine sand temper; containing chalky particles and gold colored mica; wet-smoothed on surfaces; the hole is pierced from outside to inside.
10. A-III/1: Fragment of spout; creamy white outer surface (2.5Y9/1); light buff inner surface (5YR8-7.5/4); pinkish core (2.5YR7-6.5/5); much very fine sand and chalky particles and mica temper; wet-smoothed on surfaces; 1/5 extant.
11. Level IV-b at outside of R10,17 (D-III): Dropped spout; identical to specimen Pl.XXX-1-9 in the excavations report [Fukai et al. 1974]; most of outer surface is reddish buff (2.5YR7/5-6), partially cream (10YR9-8.5/2); reddish buff inner surface (2.5YR7/5-6); buff core (10YR8.5/3); much fine sand and chalky particles and mica temper; wet-smoothed on

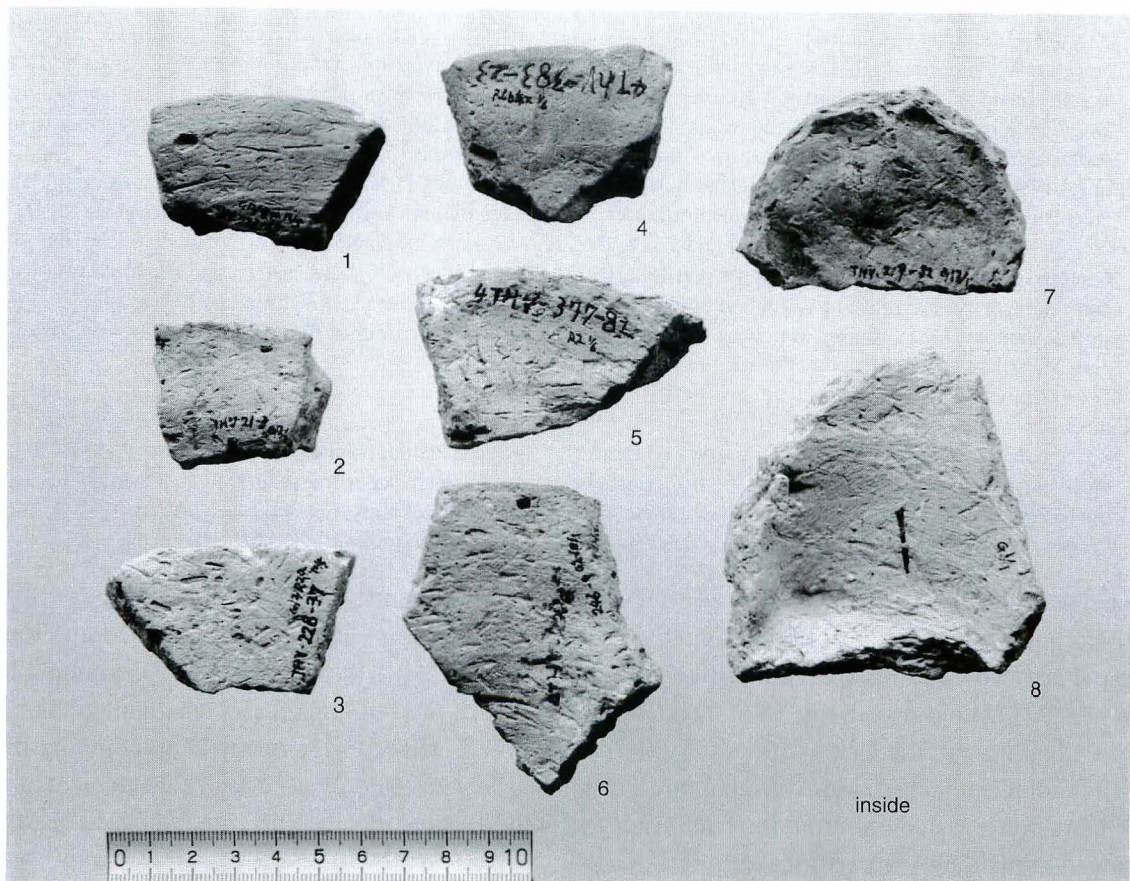
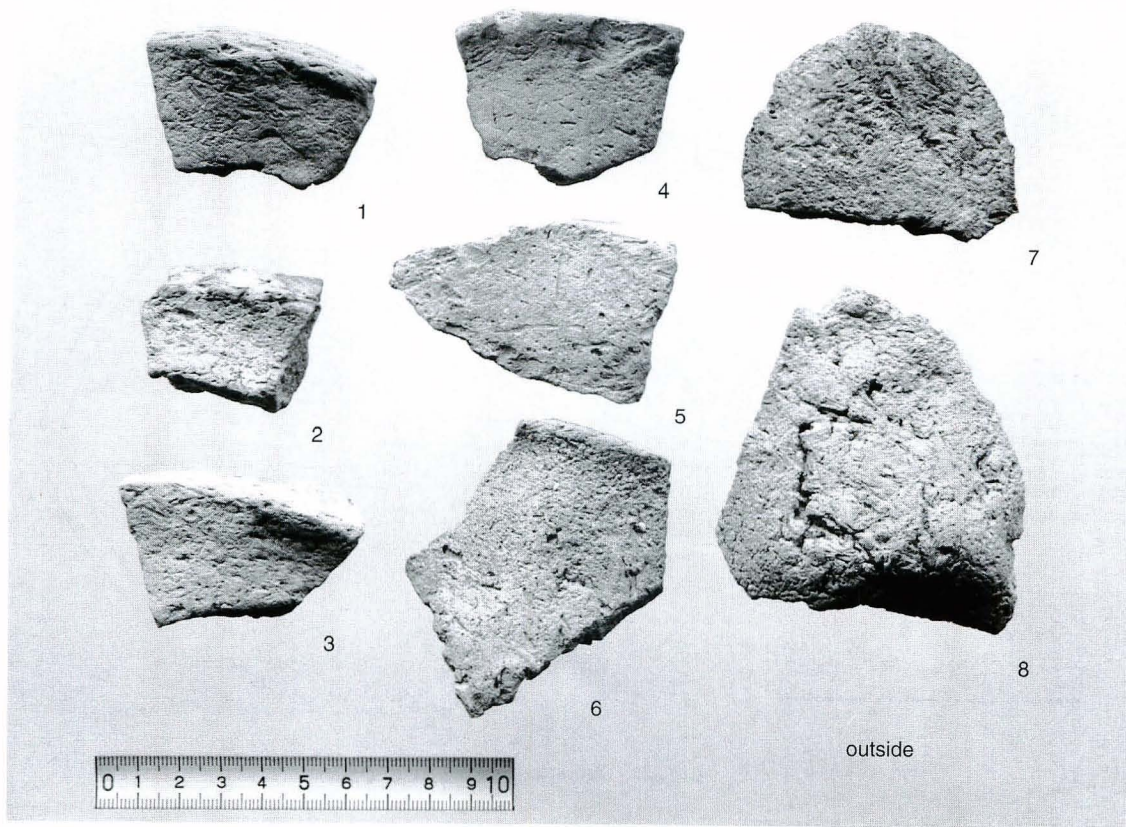


Fig. 1b Bevelled Rim Bowls.

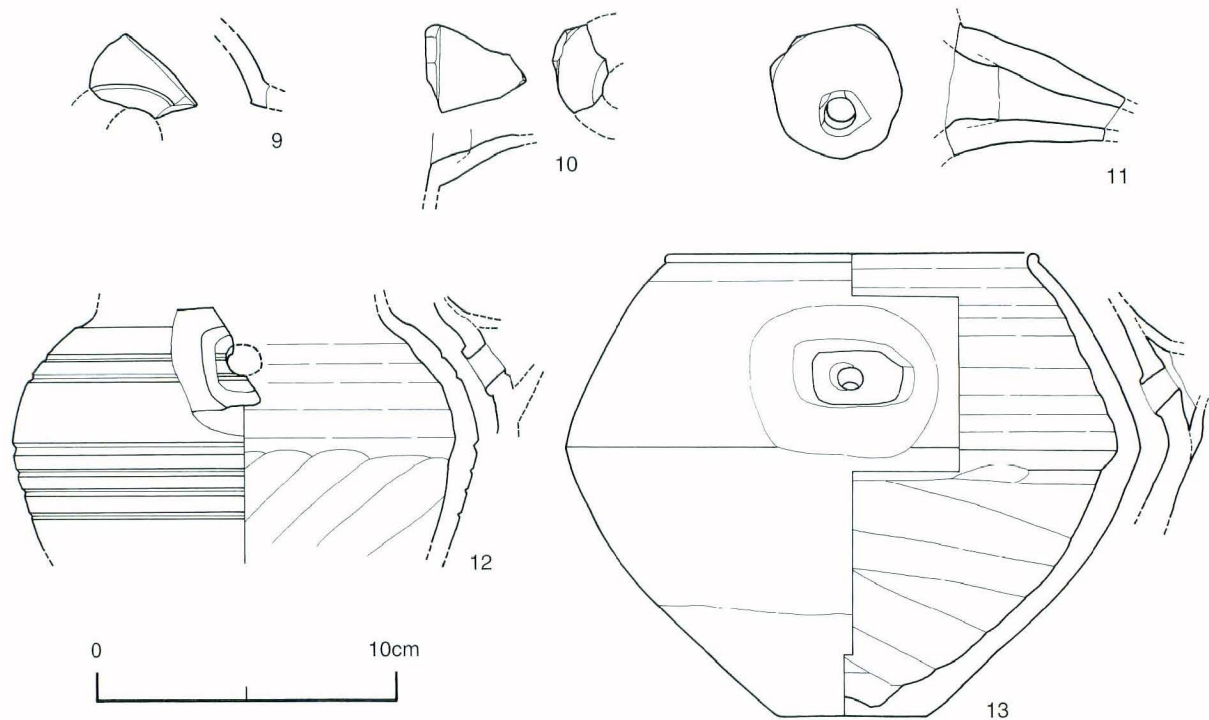


Fig. 2a Spouted Wares.

surfaces; relatively hard; Max. diam.: 4cm.

12. O3 and E-III/1: Body of spouted jar; creamy slip outer surface (10YR9/1-2); reddish buff inner surface and core (2.5YR6-5.5/7); much very fine sand, fine sand and chalky particles temper; very gritty; scraped on lower part of inner surface; wet-smoothed on lowermost part of body after scraping; wet-smoothed on upper part of surfaces using the wheel-turn; six horizontal grooved lines are arranged on shoulder to lower body; the hole is pierced from outer surface to inner surface; slightly defaced outer surface; two fragments; Max. diam.: about 15.5cm; 1/4 extant.
13. Level IV-b at R2 (D-II): Spouted carinated bowl; identical to specimen Pl.XXX-1-5 in the excavations report [Ibid]; greenish creamy white upper part of outer surface (7.5Y9/1); creamy buff lower part of outer surface (7.5YR8.5/2-3); creamy buff inner surface (2.5Y9/2-3); pinkish core (5YR8/3-4); much vegetable (1-6mm), chalky particles and a little fine sand temper; wet-smoothed on upper part of surfaces using the wheel-turn; burnished on upper half of lower part of outer surface; wet-smoothed on lower half of lower part to bottom of outer surface; roughly scraped on lower part of inner surface; bottom sherd was used as potstand of large painted footed bowl (specimen Pl.XLVIII-19 [Ibid]); rim remains in part; Max.diam.: about 19 cm; bottom 2/3 extant; lower body 1/3 extant;

<in Figs. 3a, b>

14. R3: Spouted jar; greenish cream (slip) outer surface (5Y8.5/1-2); pinkish buff inner surface and core (2.5YR7.5/3-4); much large-sized vegetable (1-10mm) and fine sand temper; containing chalky coarse sand; wet-smoothed on surfaces of rim using the wheel-turn; roughly scraped and smoothed on outer surface of body; two small holes (about 1cm) remain on lower part of spout; defaced and exfoliated inner surface of body; rim remains partially; Max. diam.: 44cm.

Incised wares (Figs. 4a, b): This type of ware was also all fragments. Incisions were always arranged on their upper part of bodies of bowls and jars. The incised designs can roughly be divided into rough rope pattern (Nos. 15, 16, 20, 21), nail-like impression (Nos. 17, 18), wavy line (No. 19), combing line (Nos. 23, 24), and grooving line (No. 22). Two fragments of incised lugged-jars which are one of the most typical type in the Late Uruk pottery were found (Nos. 15, 16). Fragments with combing lines were found, it is not clear, however, that this incision has been commonly used as design element of the Late Uruk pottery. Judging from the features of their fabrics and surface colors, it is supposed that they belonged to the Late Uruk period.

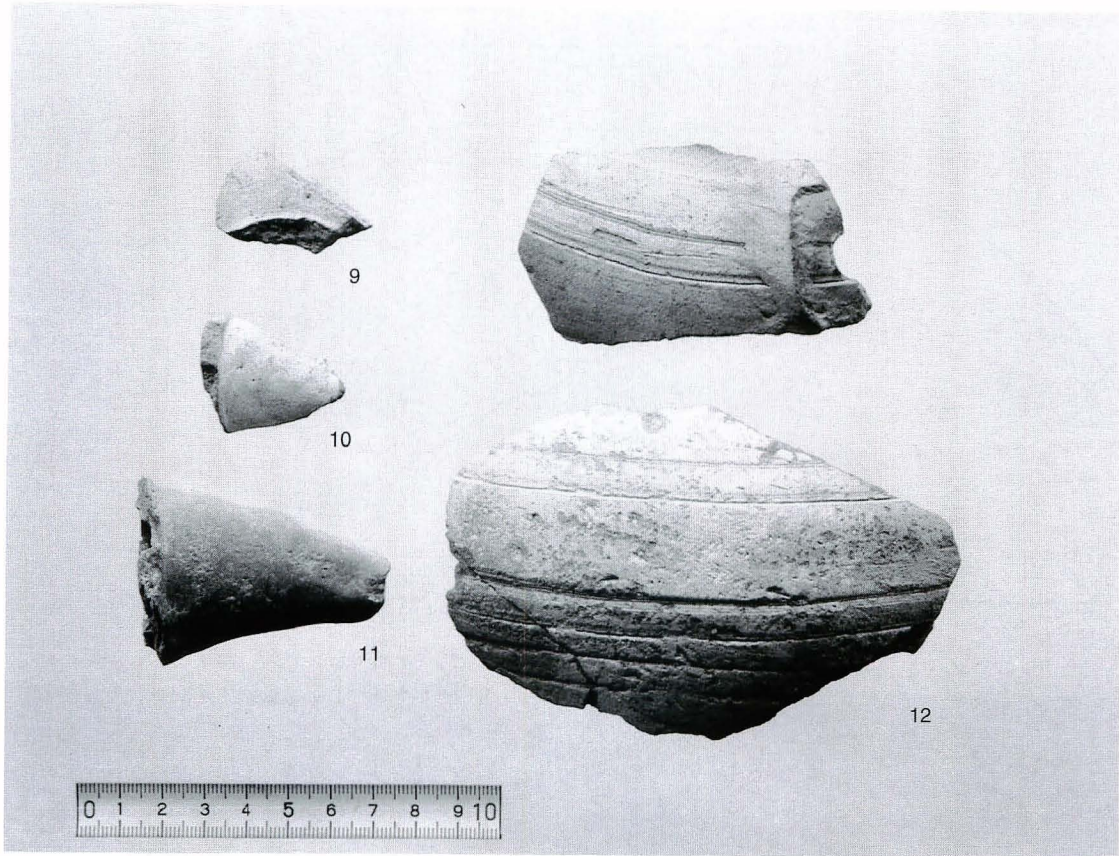


Fig. 2b Spouted Wares.

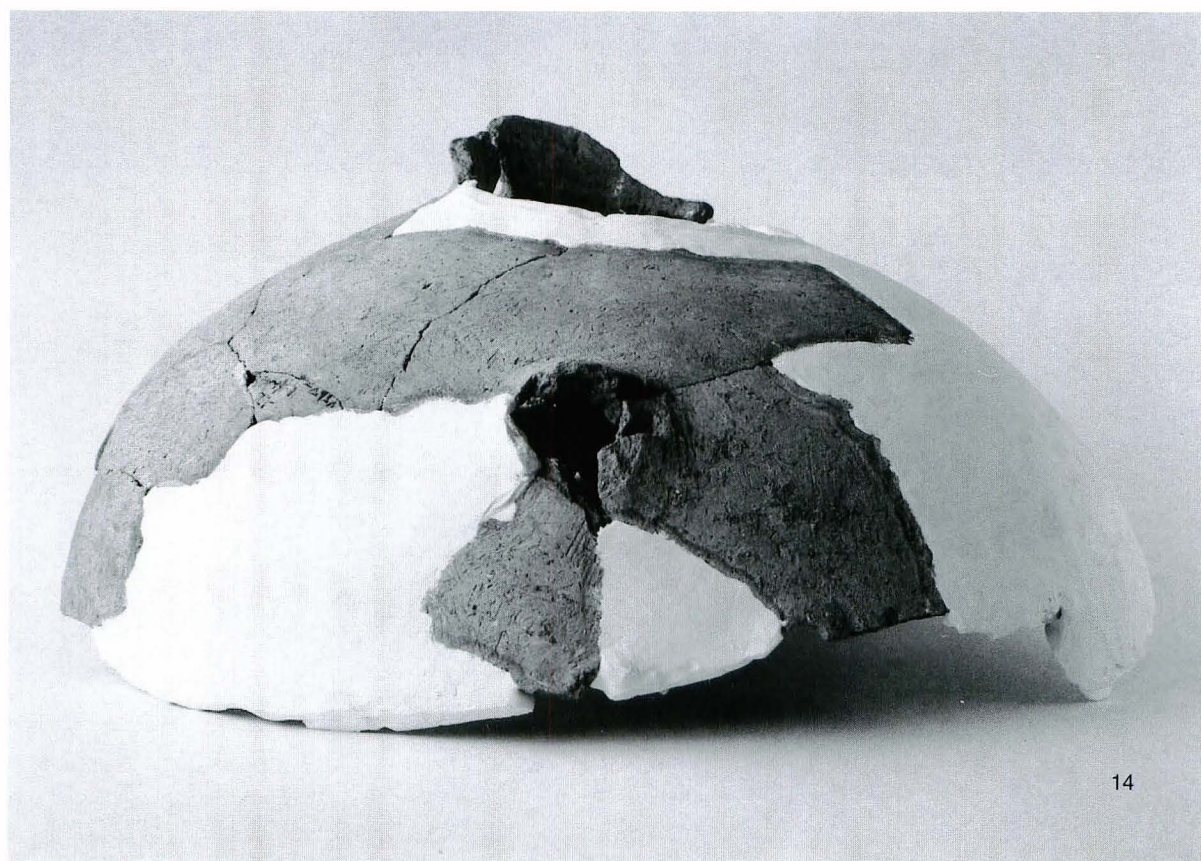
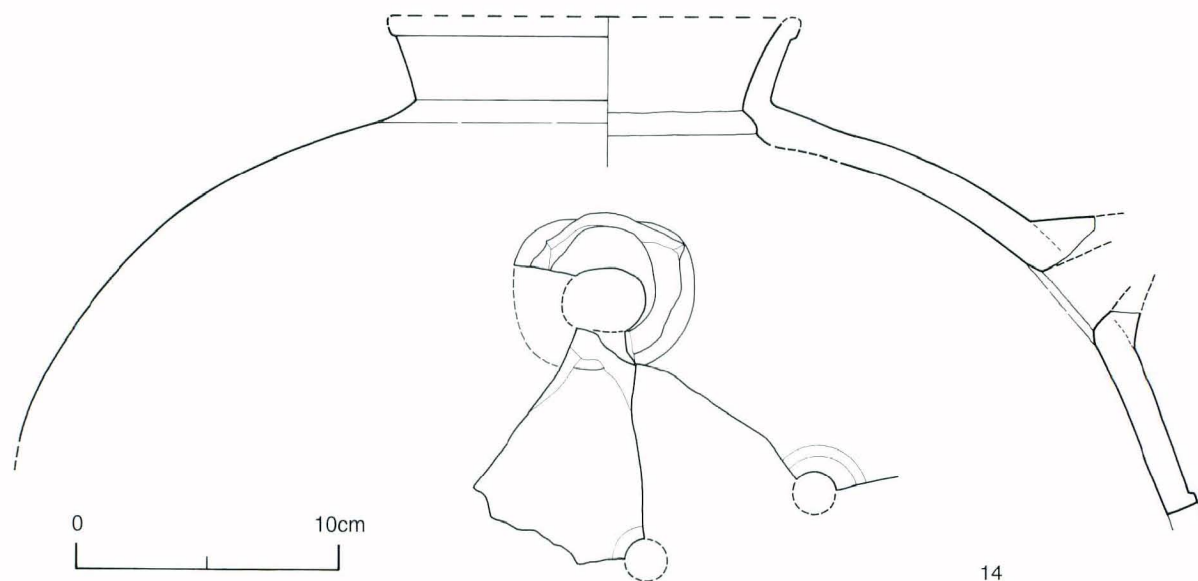


Fig. 3a Spouted Jar.

<in Figs. 4a, b>

15. Unidentified: Shoulder of incised lugged-jar; creamy slip densely covered on outer surface (10YR9/2); light buff inner surface and core (2.5YR7/6-7); much very fine sand temper; wet-smoothed on surfaces; relatively hard; feather band incision.
16. R1 (granary): Shoulder of incised lugged-jar; reddish buff outer surface; buff inner surface (7.5YR8-7.5/4) and core (10YR8/4-5); much vegetable (1-3mm), a little fine sand and coarse sand temper; wet-smoothed on surfaces; rope

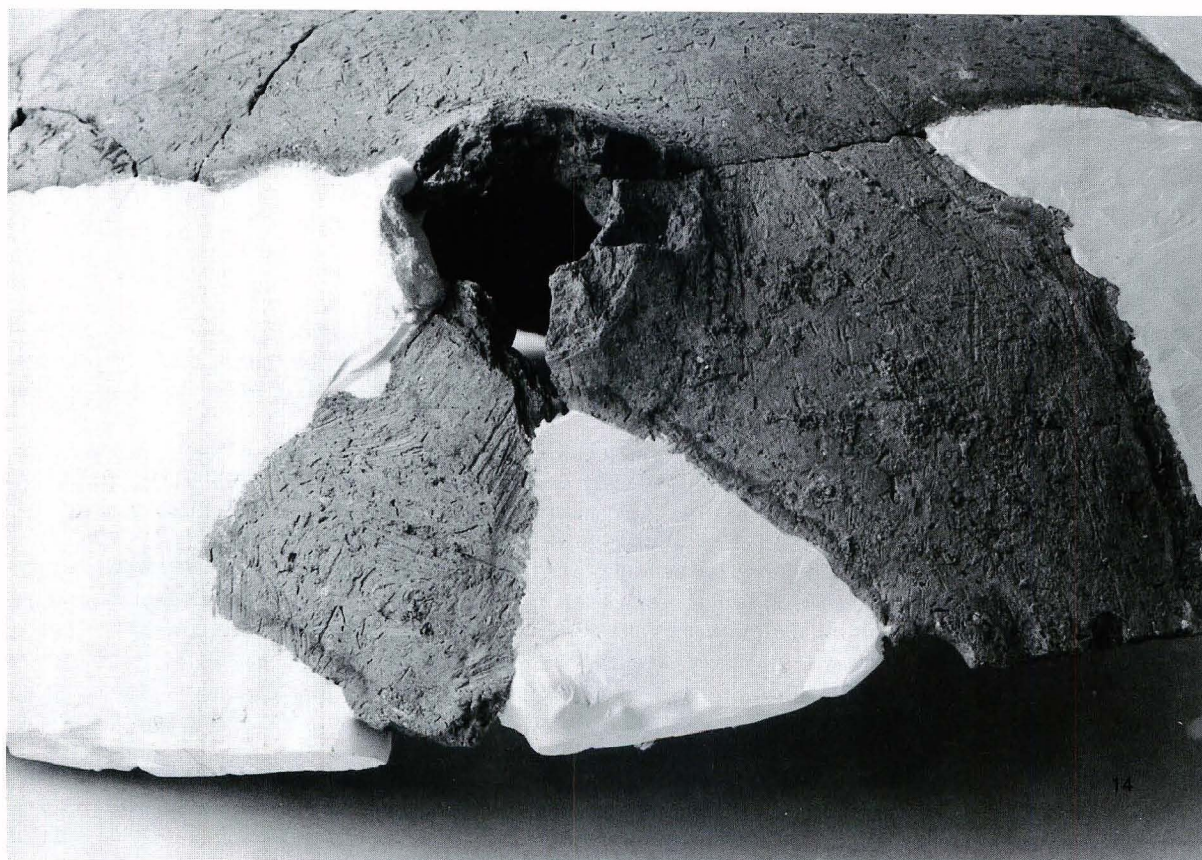
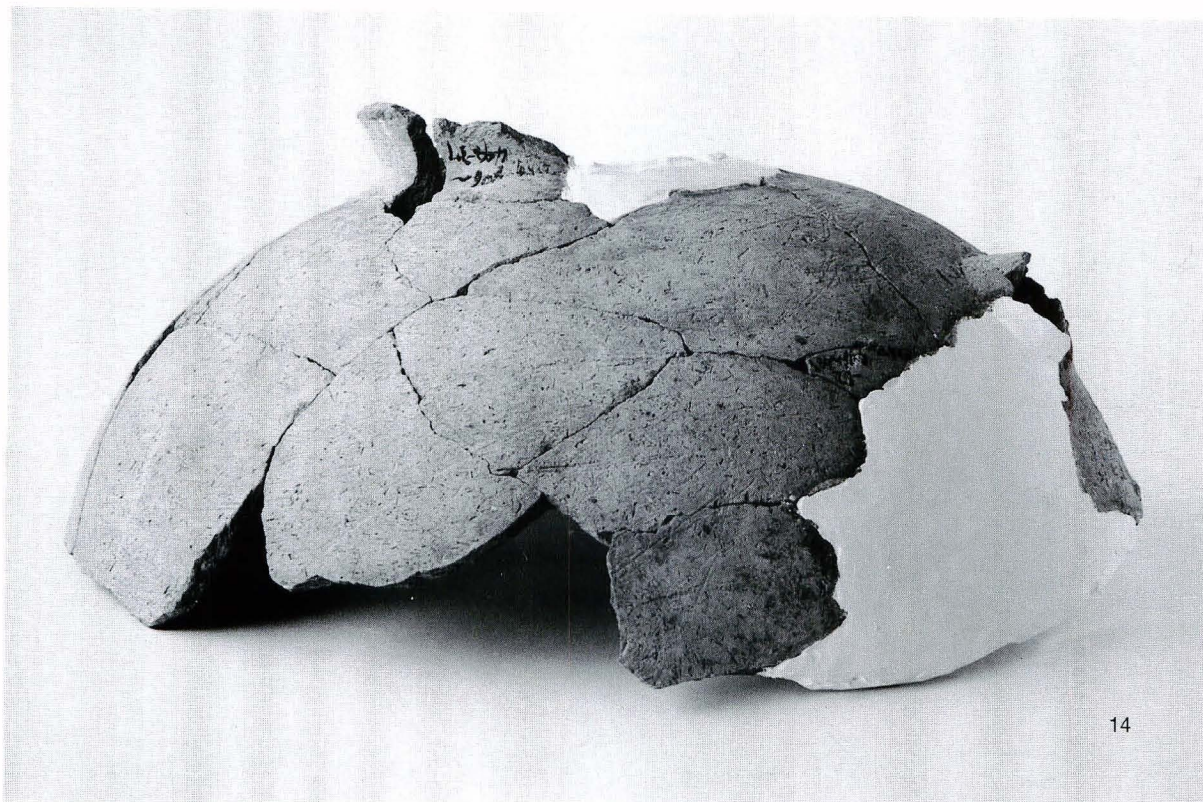


Fig. 3b Spouted Jar.

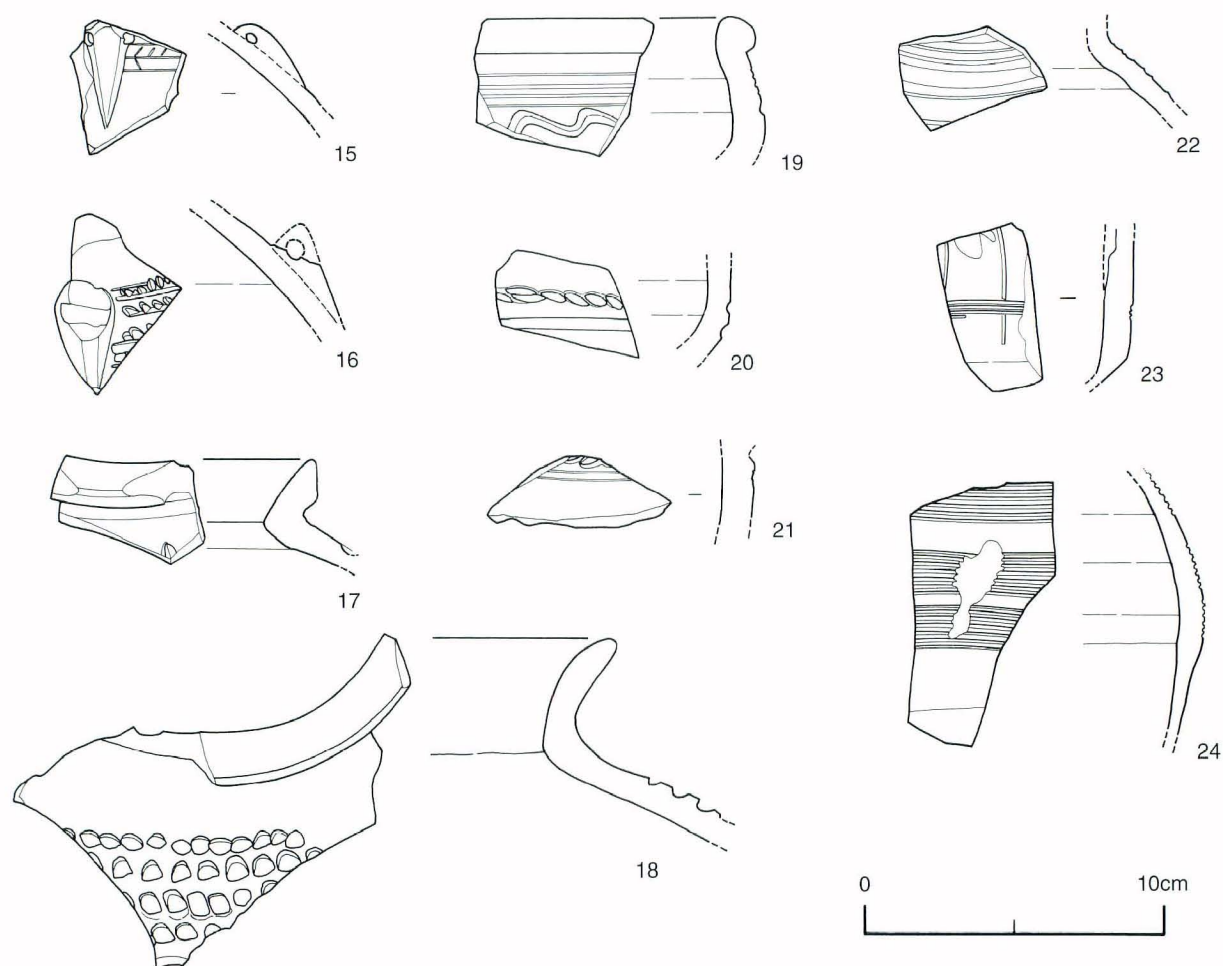


Fig. 4a Incised Wares.

- pattern incisions are deeply incised.
17. E-III/1: Rim of incised jar; creamy (slip) outer surface (7.5YR9/2); pinkish inner surface (5YR8/4); pinkish buff core (2.5YR7.5-7/4); much very fine sand, fine sand and a little vegetable (1-4mm) temper; containing chalky particles and gold colored mica; wet-smoothed on outer surface and inner surface of rim; scraped on inner surface of shoulder (horizontal way); only one incision remains on the shoulder.
 18. R24: Rim to shoulder of incised jar; identical to specimen Pl.XXX-1-9 in the excavations report [Ibid]; greenish creamy white (slip) outer surface to inner surface of rim (7.5Y9/1); buff inner surface of shoulder (7.5YR8/4-5); pinkish core (5YR8-7.5/4); much vegetable (1-4mm) and fine sand temper; containing chalky coarse sand; wet-smoothed on outer surface and inner surface of rim; scraped on inner surface of shoulder; Rim diam.: about 15-17cm.
 19. R7 (granary): Rim of incised large bowl; reddish buff surfaces (7.5YR8-7.5/5); blackish buff core (10YR6.5-6/1); middle amount of vegetable (2-5mm) and fine sand temper; containing gold colored mica; wet-smoothed on surfaces using wheel-turn; horizontal lines are clearly seen on the outer surface; wavy incision; Rim diam.: about 25-30cm.
 20. R7 (granary): Body of incised bowl; creamy outer surface (10YR9-8.5/2) (natural slip); light pinkish cream inner surface (7.5YR8.5/3-4); pinkish core (2.5YR7.5/5-6); much vegetable (1-3mm), middle amount of fine sand and chalky particles temper; wet-smoothed on surfaces using the wheel-turn; a rope pattern incision and a groove; slightly soft; Max. diam.: about 30cm.
 21. F-III R24: Body of incised jar; creamy buff surfaces (10YR8.5/3-4); pinkish (2.5YR7.5/4-5) and blackish (N5.5-5/) core; middle to large amount of vegetable (1-3mm) and middle amount of very fine sand temper; wet-smoothed on outer surface; scraped on inner surface; rope pattern incision remains in part.
 22. B-III/1: Shoulder of incised jar; reddish buff surfaces (10R6/4-5); buff core (5YR7-6.5/3); much very fine sand, fine sand and a little vegetable (1-4mm) temper; containing chalky particles and gold colored mica; wet-smoothed on inner surface using the wheel-turn; groove lines are formed by the wheel-turn.
 23. B-II/1 (The surface soil of Grid B-II had been excavated. However, excavators do not illustrate this fact in the plan of the

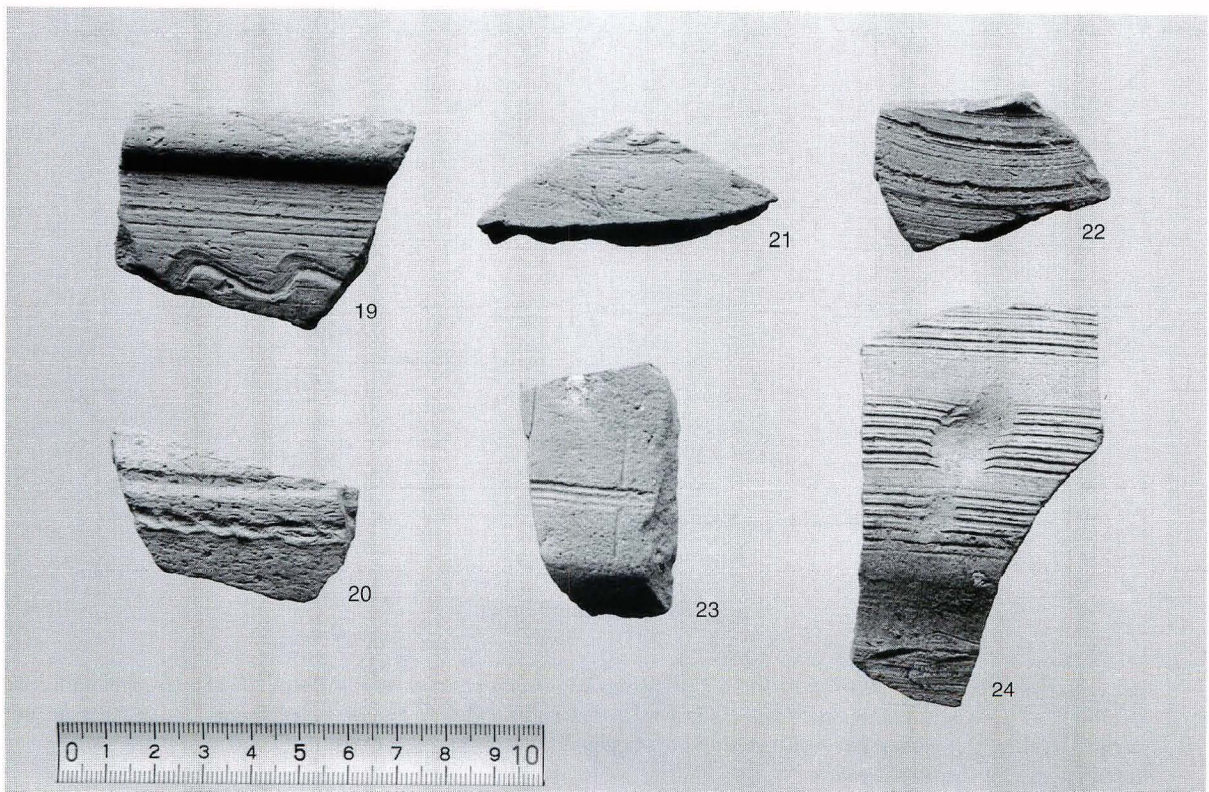
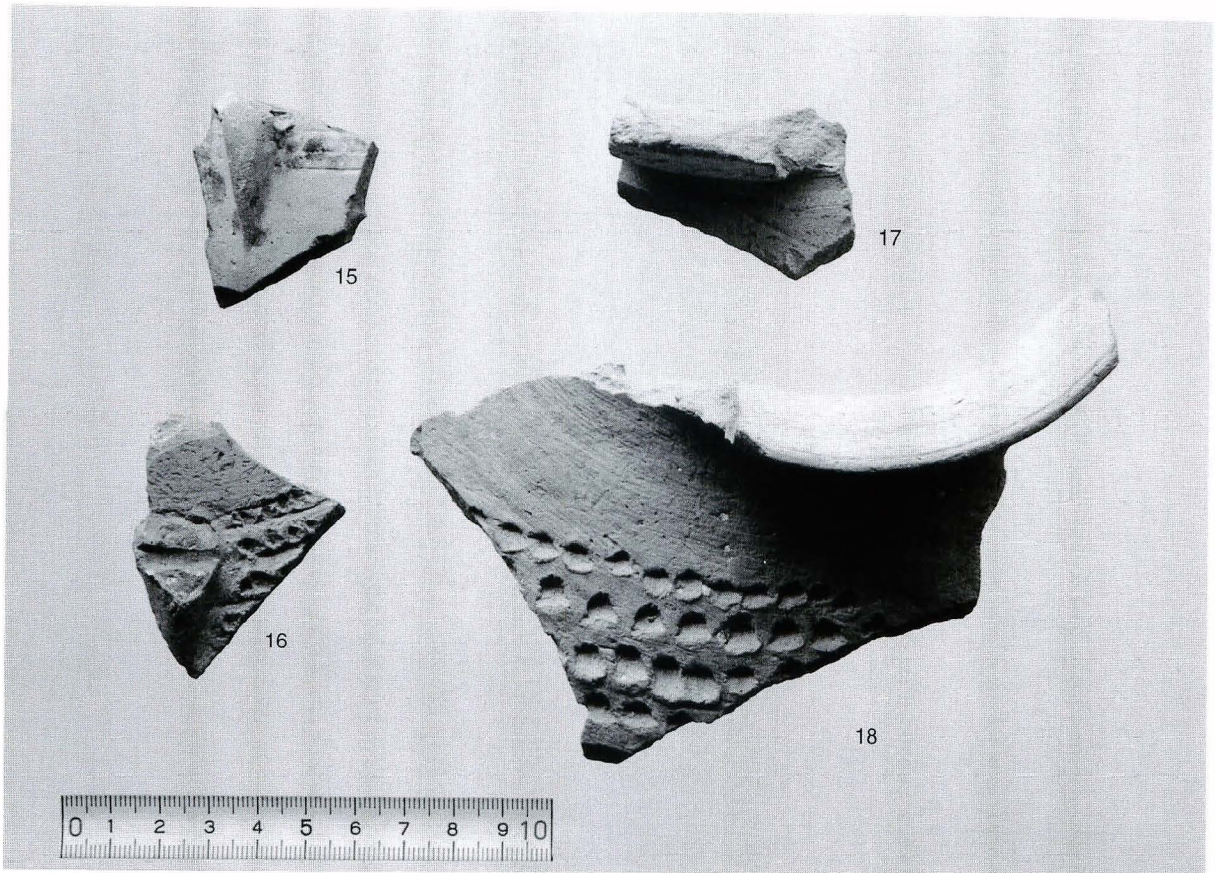


Fig. 4b Incised Wares.

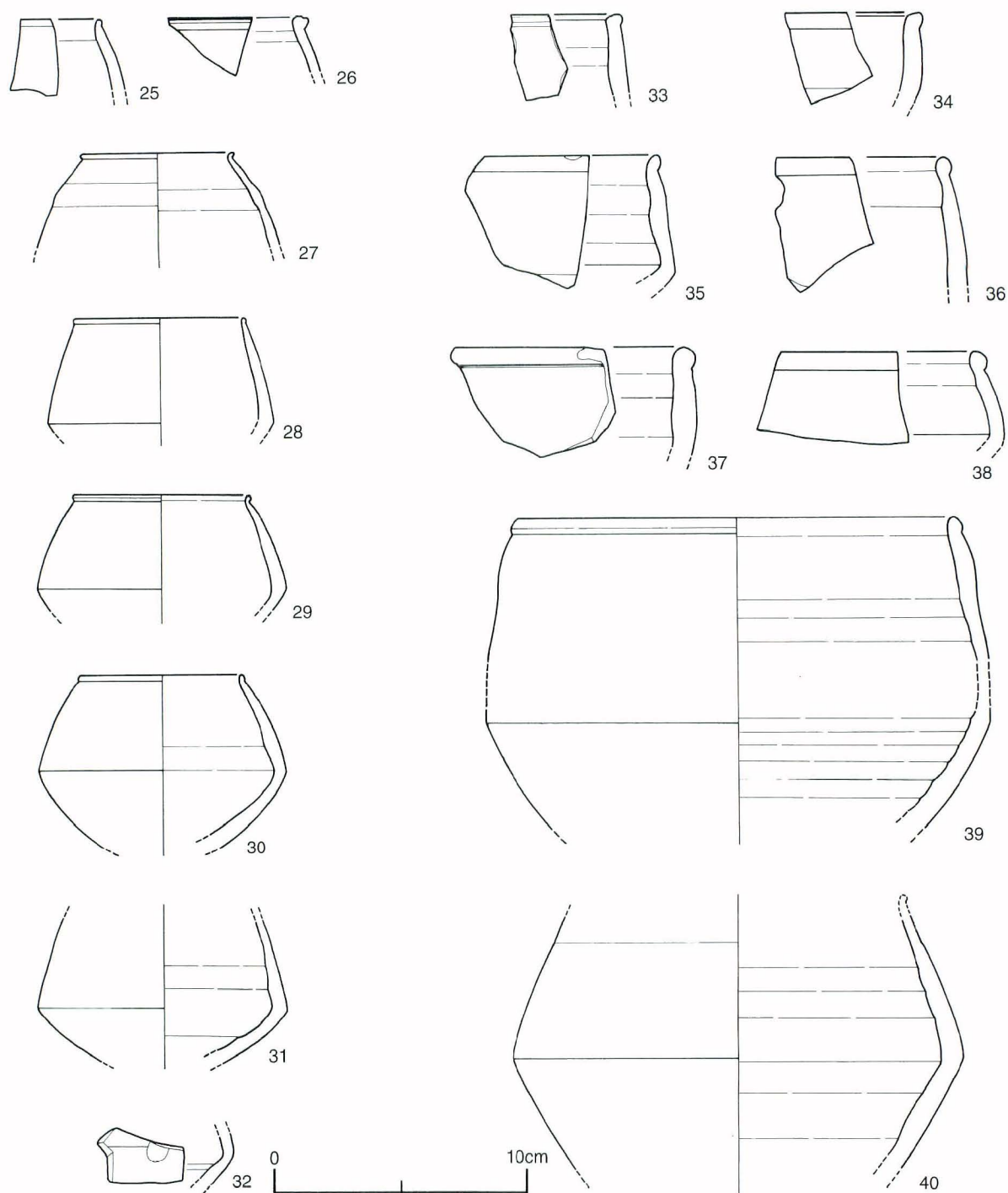


Fig. 5a Carinated bowls.

excavation report [Fukai et al. 1974: Pl.XLI]): Body of bowl; greenish ceamy (slip) surfaces (2.5Y8.5/1-2); pinkish core (5YR7.5/2-3); much very fine sand, fine sand and sparse vegetable (1-2mm) temper; containing chalky coarse sand and particles; gritty; wet-smoothed on surfaces; two vertical incised lines and one horizontal combing line; defaced inner surface; accurate shape is unknown.

24. R7 (granary): Body of incised jar; greenish cream outer surface (2.5Y8/2-3); cream inner surface (10YR8.5-8/3); pinkish buff core (5YR7/3); much fine sand temper; containing chalky particles and mica; gritty; wet-smoothed on upper part of surfaces; scraped on lowermost part of surfaces; each horizontal combing line consists of seven grooves; a finger impression remains on outer surface.

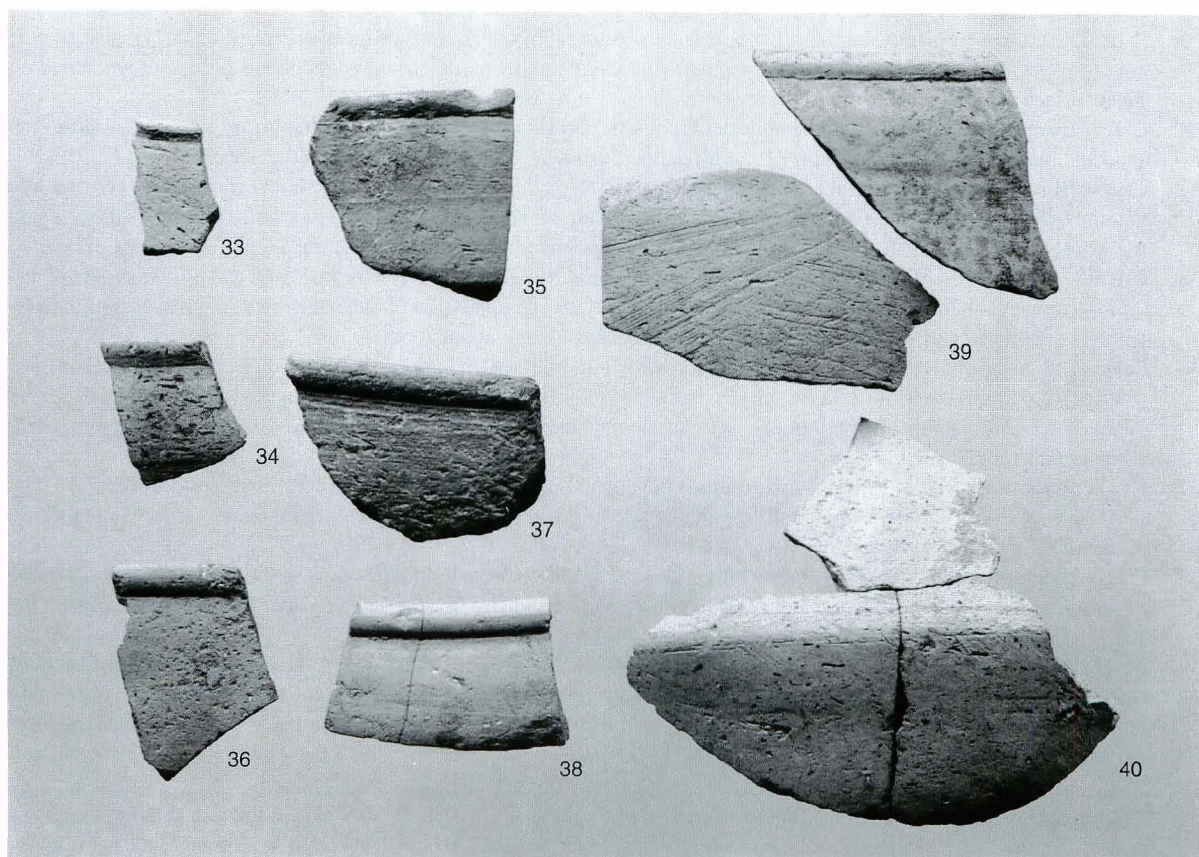
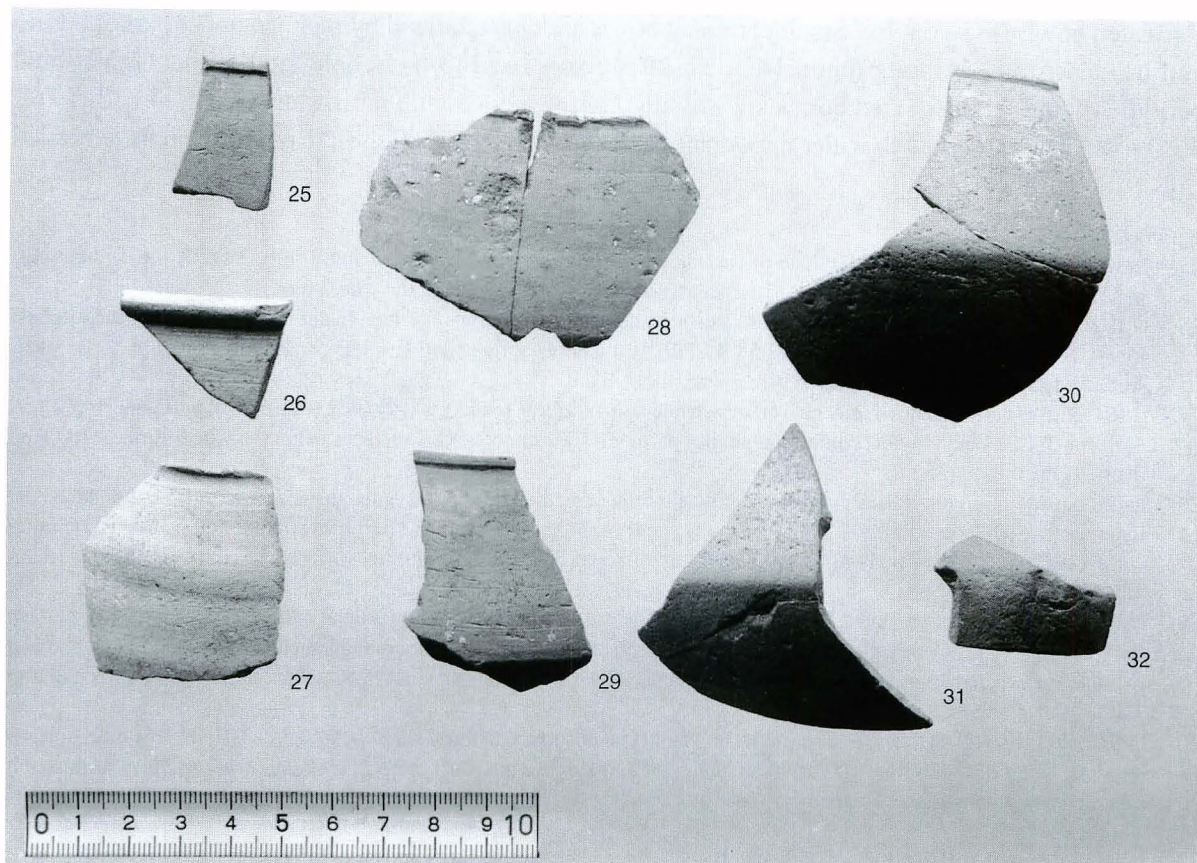


Fig. 5b Carinated bowls.

Carinated bowls (Figs. 5a, b): Small carinated bowls are characterized by inclined upper part of bodies and beaded rims²⁾. Among them, Nos. 27–29 are supposed to have belonged to the Transitional period. Middle-to-large-sized bowls are classified into two: one with narrow upper part of body (Nos. 36, 39, 40) and another with wider upper part of body (Nos. 33–35, 37, 38). Both of them have beaded rims.

<in Figs. 5a, b>

25. Level IV at outside of R10 (D-II): Rim of carinated bowl; creamy outer surface (natural slip) (10YR8.5/3–4); light buff inner surface and core (2.5YR7.5/6); gritty; wet-smoothed on surfaces using the wheel-turn.
26. C-II/1: Rim of carinated bowl; creamy outer surface and upper half of inner surface (natural slip) (2.5Y9/2); reddish buff lower half of inner surface and core (2.5YR7.5/5–6); much very fine sand temper; containing chalky particles; wet-smoothed surfaces using wheel-turn; Rim diam.: about 12cm.
27. E-II/1: Rim of carinated bowl; greenish creamy white (slip) surfaces (out:5Y9/1–2) (in:2.5Y9–8.5/3); buff core (10YR8.5–8/4); much fine sand temper; containing chalky particles; wet-smoothed on surfaces using the wheel-turn; gritty; Rim diam.: 6cm; 1/10 extant.
28. E-II/3 outside of granary: Rim to body of carinated bowl; creamy white (slip) outer surface (2.5Y9–8.5/2); pinkish buff inner surface and core (5YR8–7.5/4); much fine sand, chalky coarse sand and particles temper; wet-smoothed on inner surface and upper part of body using the wheel-turn; scraped on lower part of outer surfaces; Max. diam.: about 9–10cm; 1/7–1/8 extant.
29. B-II/1: Rim to body of carinated bowl; buff outer surface (10YR8/4–5); light buff inner surface (7.5YR8–7.5/4); pinkish buff core (5YR8–7.5/4); a little very fine sand and vegetable (1–4mm) temper; containing chalky particles; wet-smoothed on inner surface and upper part of outer surface; scraped on lower part of outer surface; relatively fine fabric; Max. diam.: 10cm.
30. D-II/1 and F-III/1: Rim to body of carinated bowl; buff outer surface (natural slip) (10YR8.5/2–3); light buff inner surface and core (7.5YR8–7.5/4); much very fine sand, chalky particles and mica temper; wet-smoothed on inner surface and upper part of outer surface; scraped on lower part of outer surface; slightly soft; defaced surfaces; Max. diam.: 10cm; 1/7–1/8 extant.
31. Lower stratum of D-III/1: Body of carinated bowl; light reddish buff surfaces and core (2.5YR7/6–7); much very fine sand and chalky particles temper; wet-smoothed on inner surface and upper part of outer surface; scraped on lower part of outer surface; defaced on outer surface; Max. diam.: about 10cm; 1/8 extant.
32. B-III,R3: Body of carinated bowl; creamy buff outer surface (10YR8.5/2–3); buff inner surface (7.5YR8/4); pinkish buff core (5YR8–7.5/3); much very fine sand temper; containing chalky particles and gold colored mica; wet-smoothed on inner surface using the wheel-turn; defaced outer surface; soft; Max. diam.: 12–13cm.
33. C-III/1: Rim of bowl; greenish white surfaces (10Y9/1); pinkish core (2.5YR8/2–3); much very fine sand, a little fine sand and middle amount of vegetable (1–5mm) temper; wet-smoothed on surfaces using the wheel-turn.
34. C-II/3b: Rim of bowl; creamy white (slip) surfaces (10YR9/1–2); light buff (7.5YR7.5–7/4) and grey (N5.5/) core; middle amount of vegetable (1–3mm) and fine sand temper; containing chalky particles; wet-smoothed on outer surface using the wheel-turn; wet-smoothed (hand) on inner surface after smoothing by the wheel-turn.
35. C-II,R8: Rim to body of bowl; light buff surfaces and core (7.5YR8/4); much very fine sand and a little vegetable (1–2mm) temper; containing mica; wet-smoothed on inner surface and upper part of outer surface using the wheel-turn; wet-smoothed on lower part of outer surface after scraping; Max. diam.: about 20cm.
36. Level IV at outside of R19 (D-III): Rim of bowl; creamy buff (slip) outer surface (7.5YR8–7.5/3); dark buff inner surface (5YR6.5/2–3); pinkish buff (2.5YR6.5/4–5) and blackish buff (5YR5.5/1) core; very fine sand, fine sand and sparse vegetable (1–3mm) temper; containing chalky particles and mica; wet-smoothed on surfaces using the wheel-turn; hard; Rim diam.: about 20cm.
37. Lower stratum of D-III/1: Rim of bowl; reddish buff outer surface (2.5YR7–6.5/5); buff inner surface (5Yr7.5–7/4); blackish core (N4.5/); middle amount of fine sand, vegetable (1–5mm) and a little coarse sand temper; wet-smoothed on surfaces using the wheel-turn.
38. C-II,outside of R8; Rim of bowl; creamy buff surfaces (10YR9–8.5/2); light buff core (5YR8–7.5/4); sparse vegetable (1–2mm) and a little to middle amount of chalky fine and coarse particles temper; wet-smoothed on surfaces using the wheel-turn; relatively fine fabric; Rim diam.: about 16–18cm; 1/12 extant.
39. Level IV-b at R2 and R4 (D-II): Rim and lower body of bowl; creamy outer surface (natural slip) (10YR9/1); reddish buff inner surface and core (2.5YR7/6); much very fine sand and middle amount of vegetable (1–3mm) temper; containing chalky particles; slightly gritty surfaces; wet-smoothed on inner surface and upper part of outer surface; scraped on lower part of outer surface; four fragments; Rim diam.: 17–18cm.

2) The shape of a carinated bowl illustrated in the excavations report [Fukai *et al.* 1974: Pl. LII-10] is very similar to those of carinated bowls of the Late Uruk period. However, this specimen was not made on wheel, and its fabric was the same quality as those of middle-to-large-sized Ninevite 5 pottery. Judging from the features mentioned above, there is a great possibility that this specimen did not belong to the Late Uruk period.

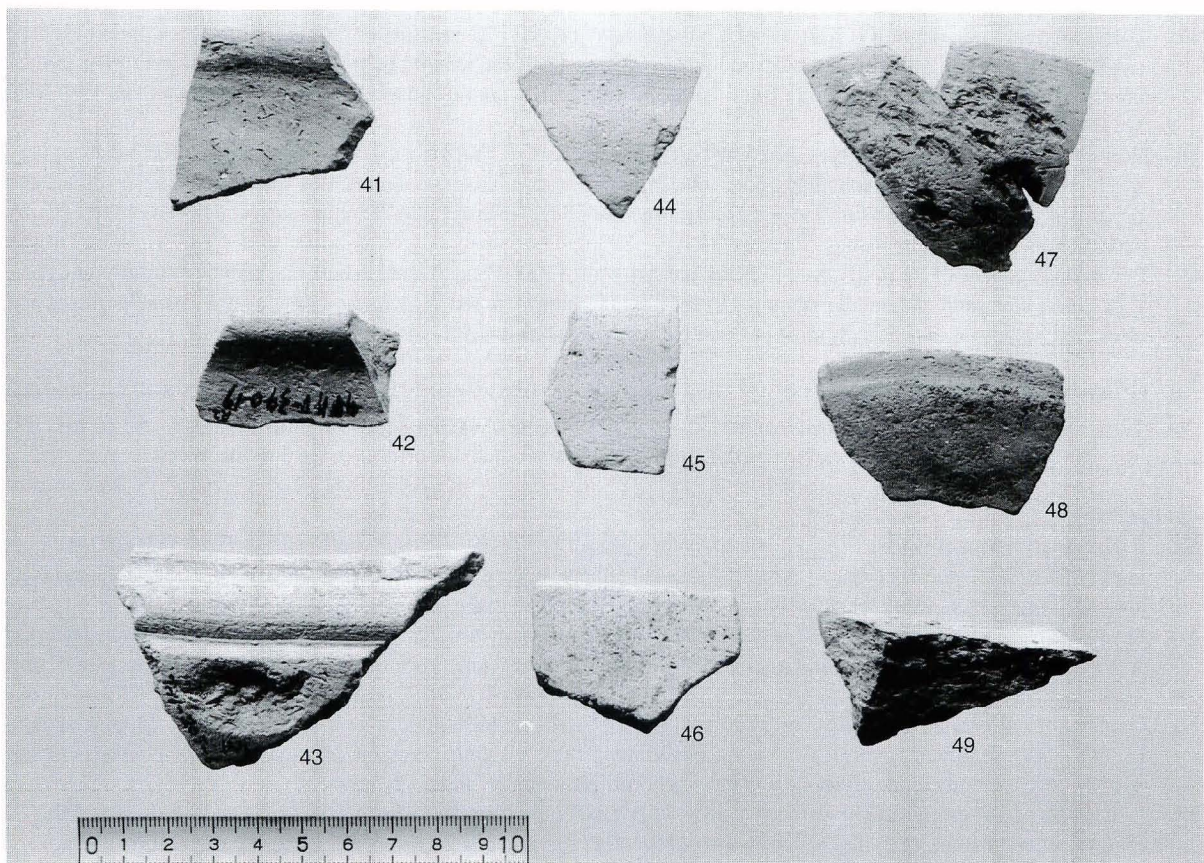
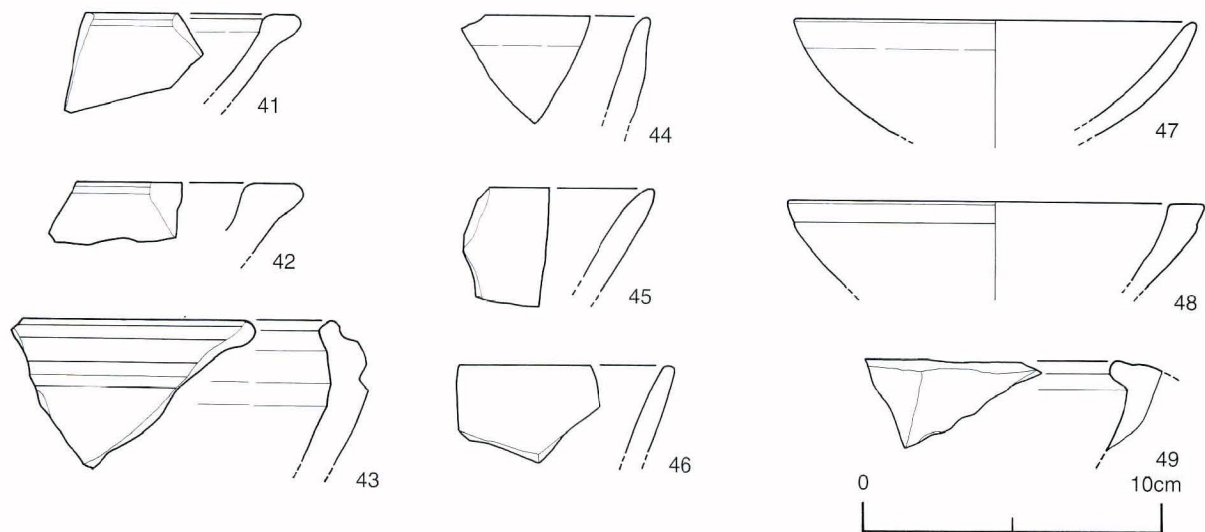


Fig. 6 Rim of bowls.

40. Level IV-b at R2 (D-II): Body of large carinated bowl; greenish outer surface (7.5GY9–8.5/1); pinkish inner surface and core (7.5YR9–8.5/1); a little fine sand, coarse sand, chalky particles (1–4mm) and middle to large amount of vegetable (1–3mm) temper; wet-smoothed on inner surface and upper part of outer surface; burnished on lower part of outer surface after scraping; a part of lower section is worn out artificially; Max. diam.: about 17–18cm; 1/5 extant.

Rim of bowls (Fig. 6): Specimens illustrated are rims of conical bowls or deep bowls (Nos. 44–46), bowls with flattened on the topmost part of rims (Nos. 41, 42, 48), and shallow bowl (No. 47). Specimens of peculiar shape are one with thicker deep grooves on the upper part of rim (No. 43) and another with

extremely inclined topmost part of the rim (No. 49).

<in Fig. 6>

41. R6 (granary): Rim of open bowl; greenish outer surface (2.5GY7.5–7/1); dark green inner surface (10Y6–5.5/2); greyish green core (2.5GY7/1); middle amount of very fine sand, fine sand and vegetable (1–3mm) temper; containing chalky particles; wet-smoothed on surfaces using the wheel-turn; very hard; Rim diam.: about 20cm.
42. Level IV-a at R2 (D-II): Rim of large open bowl; creamy white (slip) surfaces (10YR8.5/2–3); pinkish core (2.5YR7.5/4); pinkish buff core (5YR8/3); much very fine sand, fine sand and a little vegetable (1–3mm) temper; containing chalky particles and mica; wet-smoothed on surfaces using the wheel-turn.
43. F-III/1: Rim of bowl; greenish cream surfaces and core (2.5Y9–8.5/2); very much fine sand and a little vegetable (1–5mm) temper; containing chalky particles; wet-smoothed on outer surface and upper part of inner surface; scraped on lower part of inner surface; slightly distorted; two fragments; Rim diam.: about 25cm.
44. E-II/1: Rim of deep bowl; greenish surfaces (7.5Y8.5/1); deep greenish core (N5.5/); middle to large amount of fine sand and a little vegetable (1–3mm) temper; wet-smoothed on surfaces using the wheel-turn; containing chalky particles; hard; Rim diam.: about 15cm.
45. C-III/1: Rim of conical bowl; greenish surfaces (5Y9–8.5/2) and core (5Y8/1); middle to large amount of very fine sand and a little vegetable (1–3mm) temper; containing chalky particles and gold colored mica; wet-smoothed on surfaces using the wheel-turn.
46. On the floor of R16 (granary): Rim of conical bowl; greenish white (slip) outer surface (5Y9/1–2); creamy pink inner surface (5YR8/3–4); reddish pink core (10R6.5/6–7); much very fine sand and fine sand temper; containing chalky particles and gold colored mica; wet-smoothed on surfaces using the wheel-turn; slightly defaced surfaces; slightly distorted.
47. D-II/2, northern outside of R1: Rim of open bowl; creamy (10YR9/2) and buff (7.5YR8/3–4) surfaces; light buff core (5YR7/5–6); a little fine sand and middle amount of vegetable (1–4mm) temper; burnished on outer surface; wet-smoothed on inner surface and lip; distorted top of rim; not made on wheel; accurate period is unclear; Rim diam.: about 13–14cm; 1/6 extant.
48. Whitish soil of D-III/2: Rim of bowl; creamy buff (slip) surfaces (7.5YR8.5–8/3); reddish pink core (10R6–5.5/6); very much very fine sand temper; containing much chalky particles and gold colored mica; wet-smoothed on inner surface and upper part of outer surface using the wheel-turn; wet-smoothed on lower part of outer surface; defaced on lip of inner surface; Rim diam.: about 14cm; 1/7 extant.
49. Level IIIa at outside of R8 (C-II): Rim of bowl; creamy white (2.5Y9/2) and pinkish buff (2.5YR6.5/6) surfaces and core; a little very fine sand and middle amount of vegetable (1–4mm) temper; containing sparse chalky coarse particles and mica; wet-smoothed on surfaces; most part of outer surface is missing.

Jars (Fig. 7): Rims of jars are classified into following types; flared rim (Nos. 50–53), stand collar-like rim (Nos. 54, 55), and extreme out-turned short rim (56–60). A fragment which is supposed to be of a rim of a double mouth jar was found (No. 61).

<in Fig. 7>

50. R10 (granary): Rim of jar; buffish cream (slip) outer surface (7.5YR7.5–7/4); light buff inner surface (5YR7.5/3–4); buff core (7.5YR7/3); much very fine sand and fine sand temper; containing chalky particles and gold colored mica; wet-smoothed on surfaces using the wheel-turn; defaced surfaces; Rim diam.: about 11–12cm; 1/7 extant.
51. Level II at R2 (D-II): Rim of jar; buff surfaces (10YR8/2–3); blackish buff core (7.5YR6/1); very much fine sand temper; wet-smoothed on outer surface and upper part of inner surface; scraped on lower part of inner surface; Rim diam.: 10.4cm; 2/5 extant.
52. O3: Rim of Jar; creamy buff (slip) outer surface (10YR8.5–8/3); reddish pink inner surface (10R6.5/4–5); pinkish core (2.5YR7.5/4); middle amount of very fine sand and vegetable (1–4mm) temper; containing chalky coarse sand and particles; wet-smoothed on surfaces using the wheel-turn; Rim diam.: about 12–15cm.
53. F-II/1: Rim of Jar; greenish grey surfaces (2.5Y8–7.5/1); dark grey core (N6.5/); much fine sand and a little vegetable (1–3mm) temper; containing chalky particles and quartz sand; wet-smoothed on surfaces using the wheel-turn; gritty; very hard; slightly defaced surfaces; Rim diam.: about 12–13cm; 1/6 extant.
54. B-III/1: Rim to body of jar; greenish white (slip) outer surface (2.5GY9/1); creamy buff (slip) inner surface (2.5Y9–8.5/2); reddish pink core (2.5YR8/3–4); much very fine sand, fine sand and sparse coarse sand temper; containing sparse chalky particles; gritty; wet-smoothed on surfaces using the wheel-turn; horizontal section is worn out artificially; Rim diam.: about 15–18cm.
55. D-II/1: Rim of painted jar; greenish white (slip) outer surface (5Y9/1); creamy (slip) inner surface (10YR8.5–8/3); pinkish core (5YR8/3); brown paint (2.5YR6–5.5/4); middle to large amount of very fine sand and a little vegetable (1–2mm) temper; containing chalky particles and mica; wet-smoothed on surfaces using the wheel-turn; painted on top of the rim.
56. Level II at R5 (D-II): Rim of jar; greenish surfaces (out:5Y8.5/1) (in:7.5Y8.5–8/1); greenish grey core (5Y8/1); much chalky fine sand and sparse vegetable (1–2mm) temper; wet-smoothed on surfaces using the wheel-turn; very hard.
57. C-III/2: Rim of jar; buff surfaces (7.5YR7.5–7/4); blackish core (N3.5–3/); a little to middle amount of very fine sand, fine sand and much vegetable (1–5mm) temper; containing chalky particles and mica; wet-smoothed on surfaces using

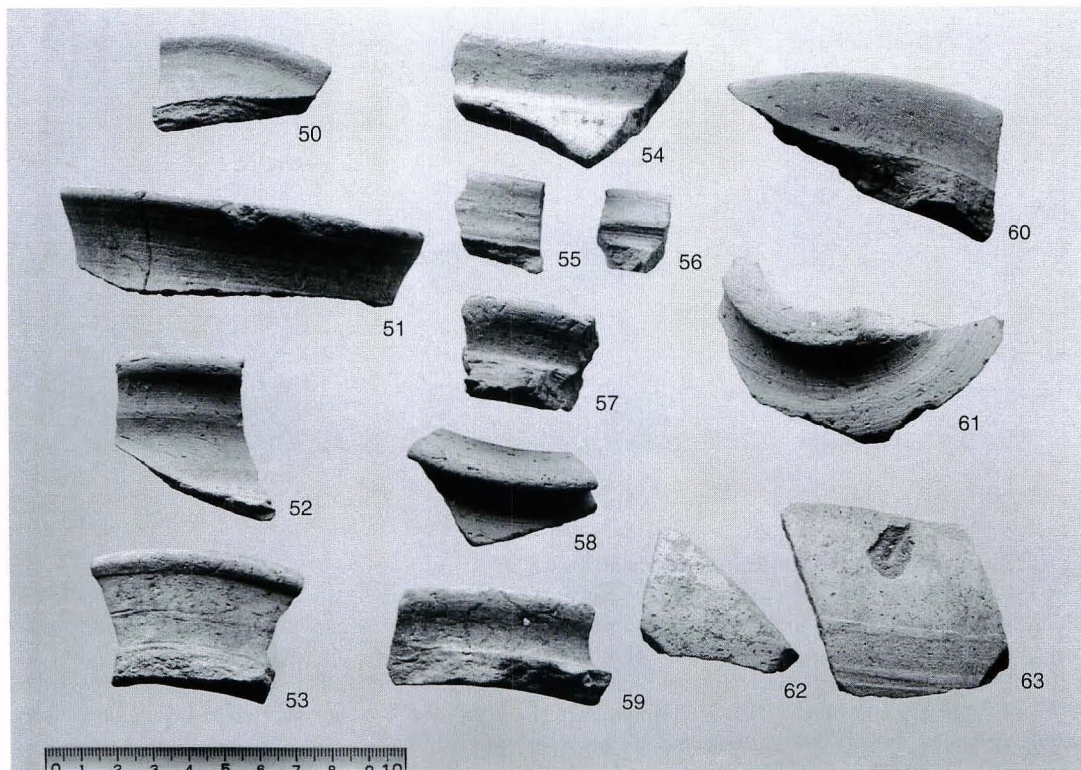
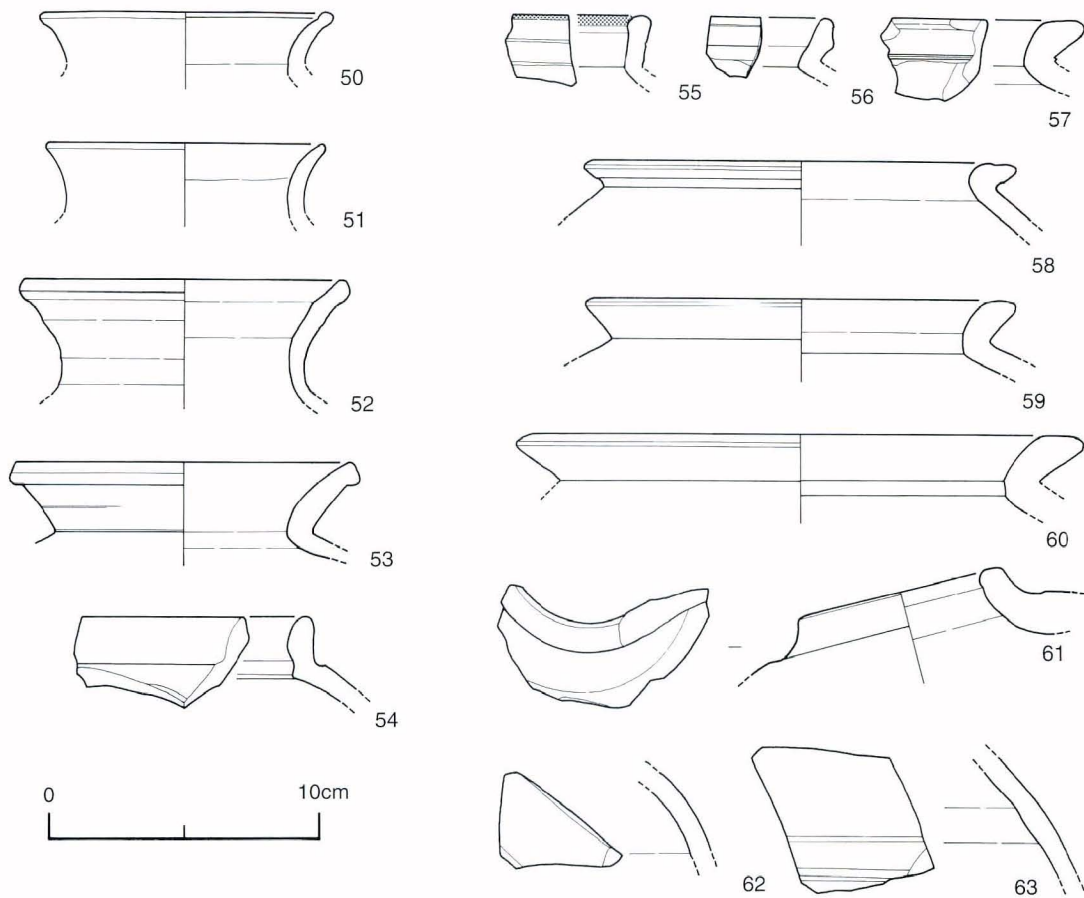


Fig. 7 Jar sherds.

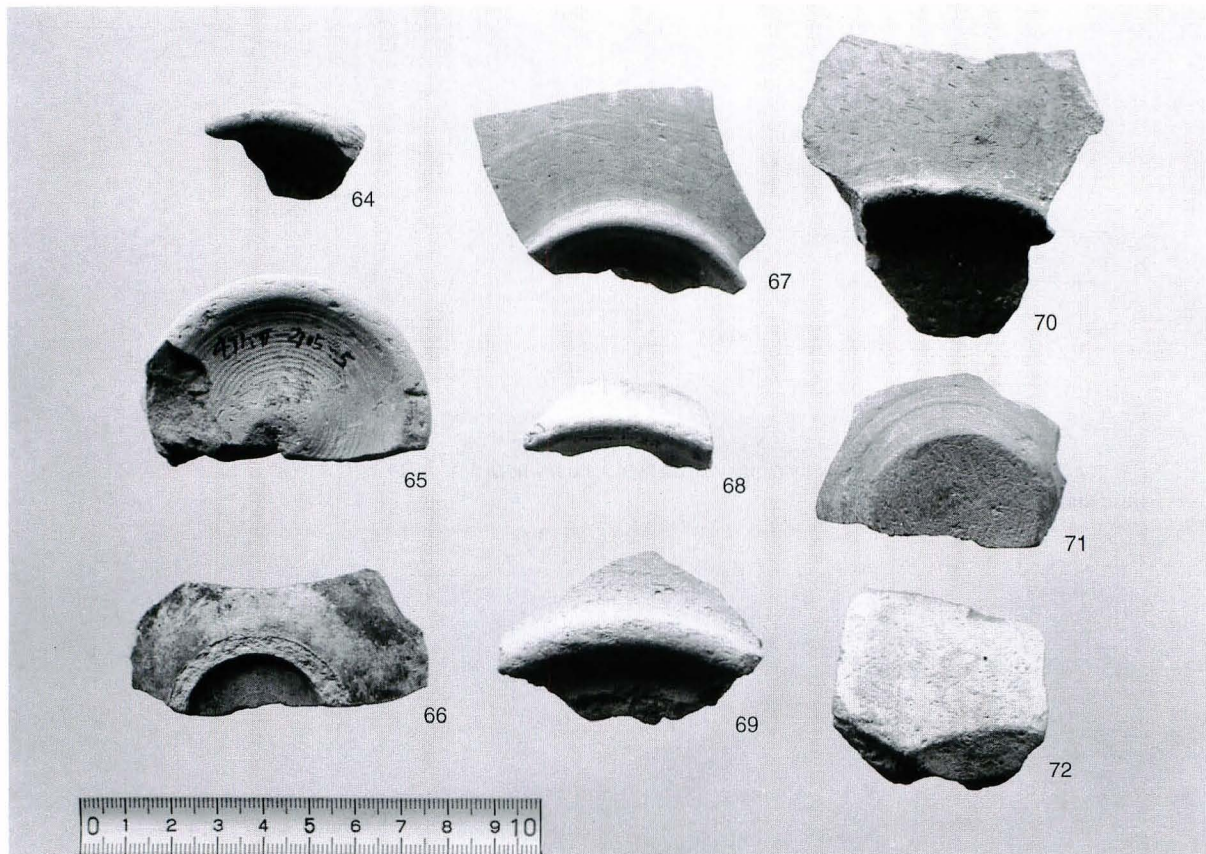
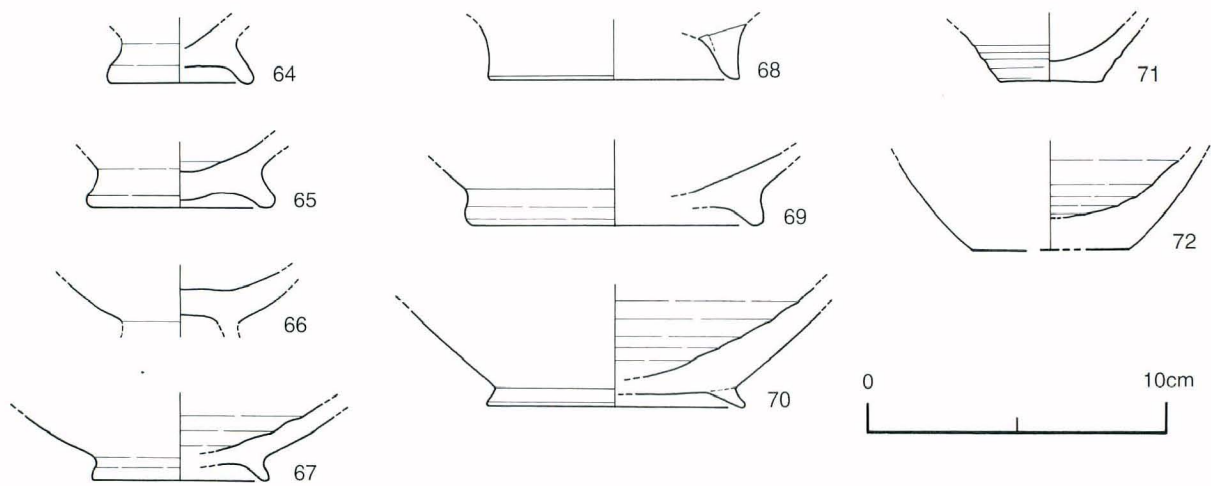


Fig. 8 Base Sherds.

- the wheel-turn; defaced surfaces; Rim diam.: about 20cm.
58. F-III/3 (outside of granary): Rim to body of jar; reddish buff (slip?) surfaces (10R7-6.5/6); light buff core (5YR7.5/4); middle amount of very fine sand and a little vegetable (1-5mm) temper; containing chalky particles and gold colored mica; wet-smoothed on surfaces using the wheel-turn; Rim diam.: 15-17cm; 1/9 extant.
 59. D-II/1: Rim to body of jar; greenish white (slip) outer surface (2.5Y9/1); reddish buff inner surface (10R6.5-6/6); light buff core (5YR7.5/4); much very fine sand, fine sand and a little vegetable (1-3mm) temper; containing much chalky particles and mica; wet-smoothed on outer surface and inner surface of rim; scraped on inner surface of shoulder; defaced surfaces; Rim diam.: 16-19cm; 1/9 extant.
 60. B-II: Rim of jar; reddish brown surfaces (10R5-4.5/5); dark buff core (5YR7.5/4); much very fine sand, fine sand and a little vegetable (1-3mm) temper; containing much chalky particles and gold colored mica; wet-smoothed on surfaces

- using the wheel-turn; defaced on inner surface; very hard; Rim diam.: 20–25cm; 1/9 extant.
61. Lower stratum of D-III/1: Rim to body of double mouth jar; buff (slip) outer surface (10YR8.5–8/3); light buff inner surface (2.5YR7/5–6); pinkish buff (2.5YR8–7.5/4) and buffish grey (7.5YR8–7.5/1) core; much very fine sand and a little to middle amount of vegetable (1–6mm) temper; containing chalky coarse sand and gold colored mica; wet-smoothed on outer surface and inner surface of rim using the wheel-turn; Rim diam.: about 8cm.
 62. F-II/1: Shoulder of jar; greenish white (slip) outer surface (5Y9/1–2); pinkish inner surface and core (10R7/4–5); much very fine sand temper; containing chalky particles and gold colored mica; burnished on outer surface; wet-smoothed on inner surface using the wheel-turn; defaced on outer surface.
 63. Lower stratum of D-III/1: Shoulder of jar; greenish white (slip) outer surface (2.5GY9–8.5/1); reddish buff inner surface and core (2.5YR7–6.5/5); much fine sand temper; containing chalky particles; gritty; reserved slip on outer surface; wet-smoothed on inner surface using the wheel-turn.

Base sherds (Fig. 8): Base sherds are classified in three types as follows: low pedestal (Nos. 64, 65), ring-base (66–70), and flat base (No. 71, 72). Two low pedestals are supposed to have belonged to the Transitional period. A flat base of No. 71 is considered to be of a conical bowl. Other specimens are believed to be of bases of either jars or bowls.

<in Fig. 8>

64. C-III/1: Low pedestal; buff surfaces (10YR8/4); partially smoked on outer surface of bottom (7.5YR6.5/1); reddish buff core (7.5YR8/4); a little very fine sand temper; containing mica; wet-smoothed on surfaces using the wheel-turn; Base diam.: 5cm; 1/3 extant.
65. R3: Fragment of ring-base (low pedestal); creamy buff outer surface (10YR8.5/3); dark creamy buff inner surface (7.5YR8.5–8/3) and core (7.5YR7.5/3); middle amount of fine sand and a little to middle amount of vegetable (1–3mm) temper; containing chalky particles; wet-smoothed on surfaces using the wheel-turn; Base diam.: 6.3cm; 2/3 extant.
66. R3: Fragment of ring-base; greenish white surfaces and core (2.5Y9–8.5/1); much very fine sand temper; wet-smoothed on surfaces using the wheel-turn; defaced inner surface; carbide sticking; exfoliated ring-base; Base diam.: 4cm; 1/2 extant.
67. A-III/2: Fragment of ring-base; creamy (slip) outer surface (10YR9/2); buff inner surface (7.5YR8.5–8/4); light buff core (5YR8/5); much very fine sand temper; wet-smoothed on surfaces of bottom using the wheel-turn; wet-smoothed on outer surface of body; Base diam.: 6cm; 1/2 extant.
68. C-II/1: Ring-base sherd; creamy (slip) surfaces (10YR9/2); buff core (7.5YR8/3–4); much very fine sand temper; containing much chalky particles and gold colored mica; wet-smoothed on surfaces; Base diam.: about 8–9cm; 1/7 extant.
69. Level IV at R14 (E-II): Fragment of ring-base; creamy (slip) surfaces (out: 10YR8.5/2–3) (in: 10YR9/1–2); pinkish core (10R6.5/4); middle to large amount of very fine sand and much vegetable (1–3mm) temper; containing chalky particles and gold colored mica; wet-smoothed on outer surfaces using the wheel-turn; wet-smoothed on inner surface after scraping; Base diam.: 10cm; 1/6 extant.
70. C-II/2: Fragment of body to ring-base; creamy pinkish buff outer surface of body (2.5YR7/4–5); reddish buff inner surface and outer surface of bottom (10R6–5.5/6); buff core (7.5YR7/4); a little to middle amount of very fine sand and vegetable (1–3mm) temper; containing chalky particles and gold colored mica; burnished on outer surface of body; wet-smoothed on inner surface and outer surface of bottom using the wheel-turn; Base diam.: about 8–9cm; 1/6 extant.
71. F-II/1: Base of conical bowl; reddish buff surfaces (2.5YR7/6) (partially buff (7.5YR8/4)); blackish buff core (10YR6/1); much fine sand temper; containing much mica; scraped on outer surface (horizontal way); scraped on bottom after string-cut; wet-smoothed on inner surface using the wheel-turn; Base diam.: 4cm; 2/3 extant.
72. R24 at F-III: Flat base sherd; greenish creamy white (slip) outer surface (2.5Y9/1 or 5Y9/1); pinkish inner surface; (2.5YR7/6); reddish buff core (2.5YR7/4–5); much very fine sand and fine sand temper; containing much chalky particles; gritty; wet-smoothed on surfaces using the wheel-turn; slightly defaced surfaces; Base diam.: about 4–5.5cm; 1/5 extant.

Painted wares (Fig. 9): Six specimens were found, but only two specimens show the part of painted designs (Nos. 73, 74). No. 73 is a body of a carinated bowl, which has elongated triangles motif on its upper body and a part of thin concentric arcs on its lower body. On the other hand, No. 74 is a lower body of a bowl, with very thin two concentric arcs on its outer surface. Both of them have typical features of painted motif found in those of painted ware in the Transitional period [Rova 1993: Pls. XVII, XX-57, 58]. Nos. 75 and 76 are supposed to be of lower bodies of jars or bowls, with almost no paint on their outer surfaces. In addition to above, the remarkable specimen is a fragment of shoulder which is supposed to be of a nose lugged-jar (No. 77).

<in Fig. 9>

73. Level I of R24: body of painted carinated bowl; creamy white (slip) outer surface (10YR8.5/2); pinkish inner surface and core (5YR7.5/3–4); reddish brown paint (2.5YR3.5–3/5); middle to large amount of very fine sand and fine sand temper;

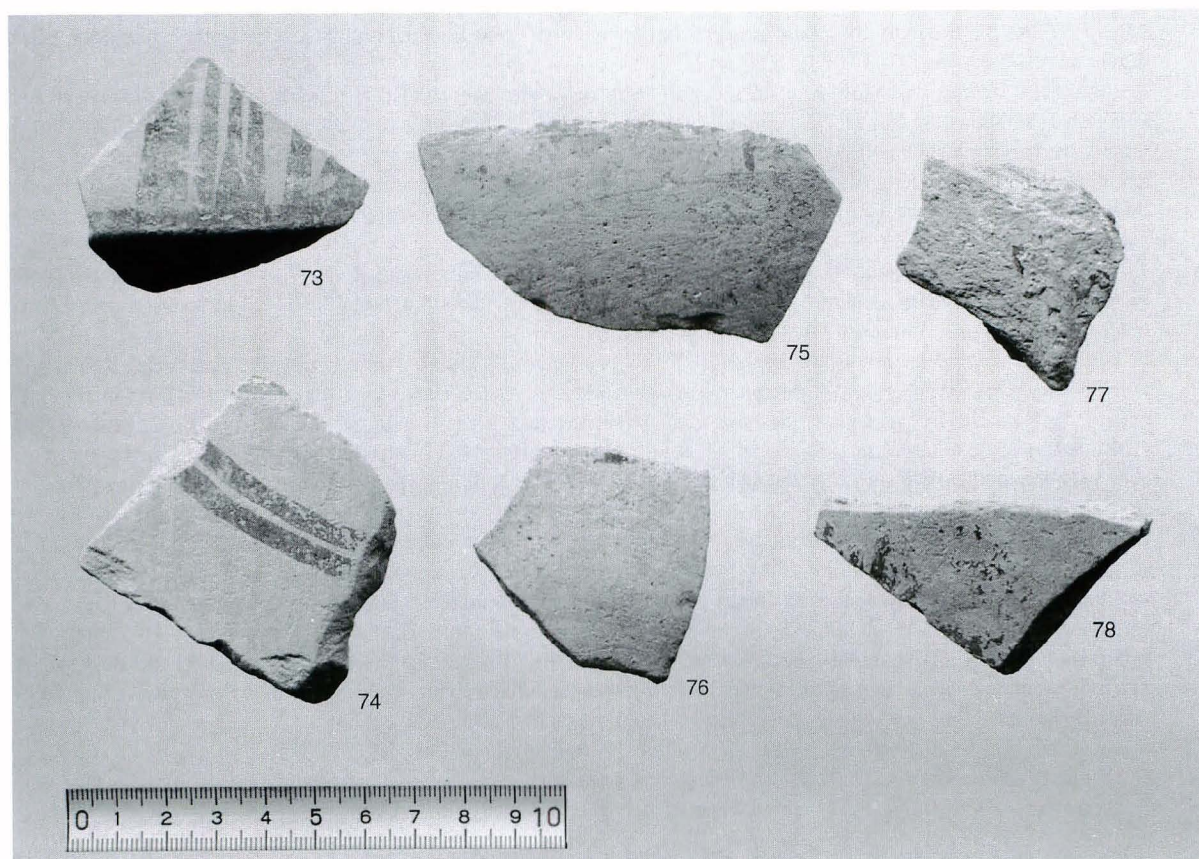
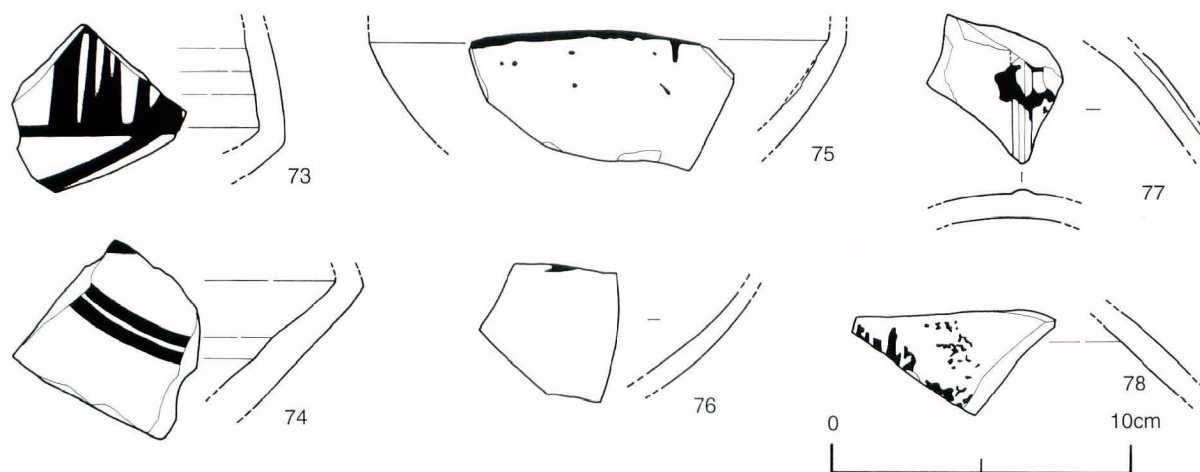


Fig. 9 Painted Wares.

containing chalky particles; wet-smoothed on inner surface and upper part of outer surface using the wheel-turn; scraped on outer surface of body; defaced paint.

- 74. C-II/1: Body of painted bowl; greenish cream (slip) outer surface (2.5Y9-8.5/2); pinkish buff inner surface and core (5YR8-7.5/3); dark purple paint (5R3.5/1-2); middle to large amount of very fine sand and fine sand temper; containing sparse chalky particles; wet-smoothed on inner surface using the wheel-turn; scraped on lower part of outer surface (vertical way); defaced surfaces.
- 75. E-III/2 (outside of granary): Painted body sherd; greenish creamy white (slip) outer surface (2.5Y9/1-2); pinkish buff inner surface and core (5YR7.5/3-4); brown paint (2.5YR6-5.5/5); middle amount of very fine sand and fine sand temper; containing sparse chalky particles; scraped on outer surface; defaced and exfoliated inner surface; Max.diam.: about 16-18cm; 1/6-1/7 extant.

76. C-III/1: Painted body sherd; greenish white (slip) outer surface (5Y9/1); pinkish inner surface and core (2.5YR7/5); reddish purple paint (5R2.5-2/6); much very fine sand, fine sand and sparse coarse sand temper; containing chalky particles and gold colored mica; wet-smoothed on outer surface; scraped on inner surface; paint remains in part.
77. E-III/1: Shoulder of painted nose-lugged jar; greenish white (slip) outer surface (2.5Y9-8.5/1); buff inner surface (7.5YR7.5/3); pinkish core (2.5YR7/4); dark brown paint (2.5YR2.5/3); much very fine sand, fine sand and vegetable (1-3mm) temper; soft and fragile; defaced surfaces; most paint exfoliated.
78. E-I/E-II/3 (outside of granary): body of painted jar; creamy white (slip) outer surface (2.5Y9/1-2); light buff inner surface (5YR8/3-4); pinkish core (2.5YR6.5/4-5); light brown paint (10R3/7-8); much very fine sand and a little fine sand temper; containing chalky particles and gold colored mica; wet-smoothed on inner surface using the wheel-turn; most paint defaced.

Conclusion

Most of pottery illustrated are closely similar to those of Northern Late Uruk pottery from well-known as Late Uruk sites such as Nineveh, Tells Brak, Leilan, Mohammed Arab, Karrana 3, Hawa, Jessary and so on³⁾. In the previous excavation reports of Tell Thalathat [Egami 1959, Fukai et al. 1974], there have not been discussed on the Late Uruk pottery at all. The research results of the study of the unpublished material from Tell Thalathat No. 5 produced pottery of the Late Uruk and the Transitional periods. This fact tells us that occupation levels belonging to the Late Uruk and the Transitional periods have existed in Tells of Thalathat. Most of specimens illustrated are supposed to have derived from other area which is different from excavation area of Tell No. 5, in terms of their amount and findspots⁴⁾. It seems, therefore, that occupation levels of the Late Uruk and the Transitional periods have not existed at excavation area of Tell No. 5 [Numoto 1997: 121]⁵⁾. Moreover, no occupation level of the Late Uruk period was found at excavations at Tell No. 2 [Egami 1959], judging from this, main residential areas of the Late Uruk and the Transitional periods are supposed to have spread in Tells No. 1, 3, and 4 as well as that of the Ninevite 5 period.

Acknowledgements

The present author heartily wishes to thank Professor Toshio Matsutani of the University of Tokyo, who generously permitted the present author to this research. Acknowledgement is due to Mr. Yoshimasa Chiyonobu of the University of Tokyo for his kind and invaluable wide-range of information on excavations at Tell Thalathat No. 5.

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3) Nineveh [Thompson and Hamilton 1932: Pl. LXI; Thompson and Mallowan 1933: Pls. L-LII; Gut 1995: Tafels 59-70, 122-124;], Brak [Fielden 1981: Figs. 1, 2; Oates 1985: Figs. 1-3; Oates and Oates 1991: Fig. 8; 1993: Figs. 49-54; Matthews et al. 1994: Figs. 3-5], Leilan [Schwartz 1988: Figs. 52-55], Mohammed Arab [Roaf 1983: Fig. 2; 1984: Fig. 8; Killick in press: Figs. 1-3; Roaf and Killick 1987: Fig. 2], Karrana 3 [Rova 1993: Pls. XVII, XXVI-XLIII], Hawa [Ball et al. 1989: Figs. 19-21], Jessary [Numoto 1990: Figs. 1, 4, 12, 16, 17], Thuwajj [Fujii et al. 1989-90: Fig. 6], Jigan [Numoto 1992: Figs. 9-10], Siyana and Abu Dhahir [Ball and Wilkinson in press: Fig. 10].

4) Total weight of the Late Uruk specimens is about 4.5 kg only. Most of specimens were excavated from fill and surface layer in various spots of the excavation area at Tell No. 5.

5) The remarkable fact recognized in specimens illustrated is that Late Uruk pottery (Nos. 13, 14, 39, 40) found from Level IV at R2, R4, and inside of R3 are relatively well-preserved than specimens from other findspots. Taking into this fact, there is a possibility that the Late Uruk occupation level had been spread the lower stratum of the Ninevite 5 level at above-mentioned findspots.

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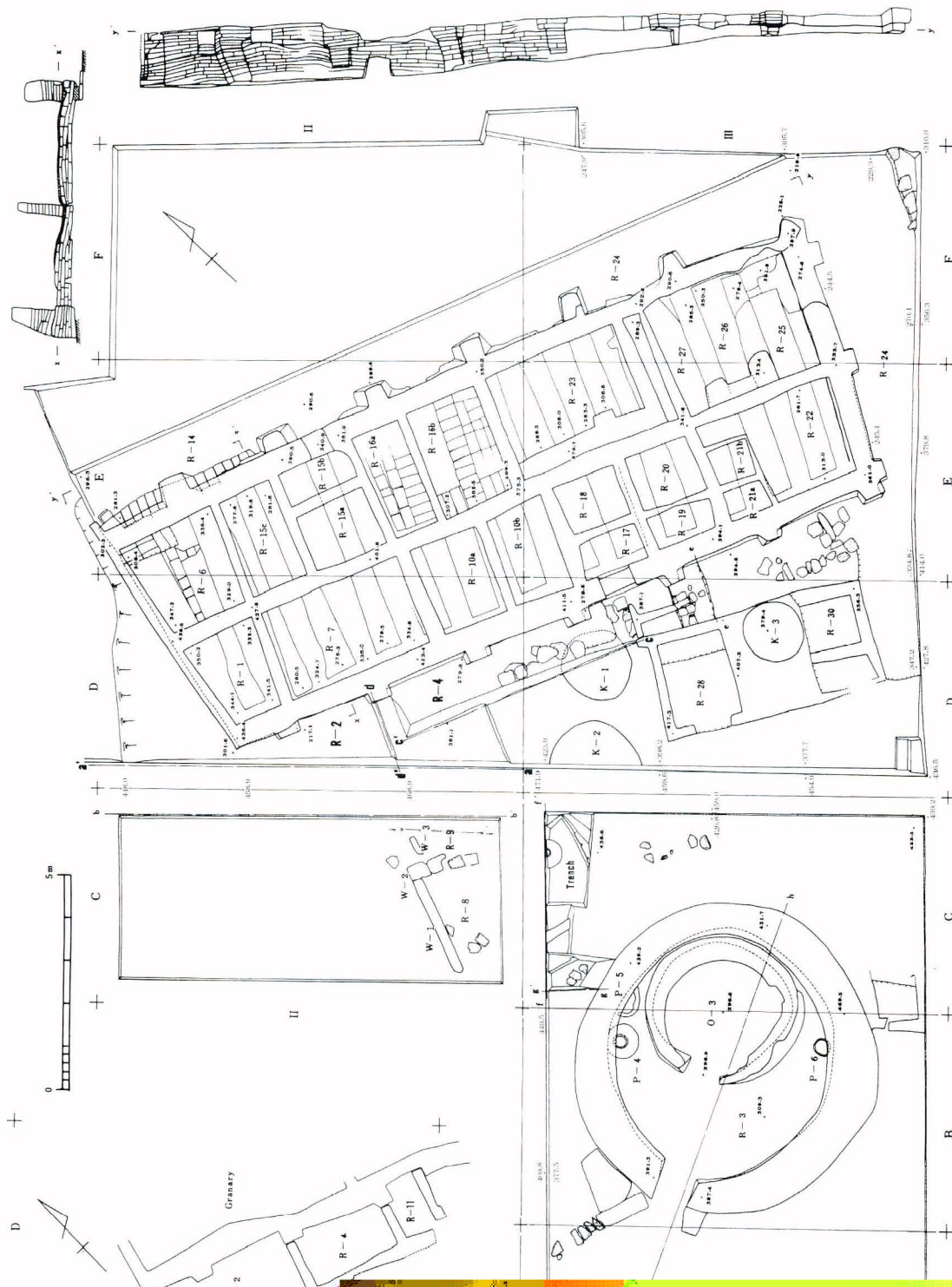


Fig. 10 Plan of structures at Tell Thalathat No. 5 (from Fukai *et al.* [1974: Pl. XLJ]).

BEADS FROM AREA A OF 'USIYEH

Kazumi OGUCHI*

The main aim of this paper¹⁾ is to analyze perforated small objects, *i.e.* beads, pendants and amulets²⁾, from Area A of 'Usiyeh, in particular from a typological point of view. Through the excavations of Area A, in total 451 examples of the beads were found with the other finds, excluding fragments. However, objects made of metal and shell³⁾ are not dealt with in this paper. The typological analysis is done in terms of the shapes and the ratio of the length and the diameter of each object. The frequency of occurrence of the bead types and the interrelation between the bead types and the materials of the beads are also examined.

The site of 'Usiyeh is located on the right bank of the Euphrates river, between the towns of Ana and Haditha. The excavations were carried out from November 1982 to December 1983 by the Japanese Archaeological Expedition in Iraq⁴⁾ (headed by Prof. Hideo Fujii) with cooperation of the State Organization of Antiquities and Heritage in Baghdad. Area A is the highest area of 'Usiyeh, lying south-west of the site. The so-called Underground Structure and remains of other structures were discovered in Area A [Oguchi 1996: p. 81ff.]. Most of the beads were found in the various points or phases of the Underground Structure (see Fig. 1 and Table 1).

The original construction of the Underground Structure (U.S.) was built in a rectangular pit, and the inside of the structure was divided into five chambers: Room S (R.S.), Room W (R.W.), Room N (R.N.), Room M (R.M.) and Room E (R.E.), with a forecourt door way (F.D.). These rooms had some phases individually, although the stratigraphy was not always clear [*ibid.*; see also Oguchi 1992: p. 61ff.].

Of the rooms, the Forecourt Doorway and Room W in particular have many beads (Fig. 1); and most of them seem to have belonged to the original structure (Level I of the Underground Structure).

As all of the beads were found singly, their arrangement is unknown; however, most of them must have been parts of accessories.

Materials⁵⁾ (Fig. 2 and Table 2)

The most common material of the beads is the family of quartz, such as carnelian, agate, crystal and amethyst. Among them, carnelian is the most favorite material, and the total number of carnelian beads

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1) The main contents of this paper are those which have been condensed, with reconsideration, from parts of a Ph. D. thesis submitted in 1996 to the University of Manchester. The following parts of my Ph. D. thesis, entitled *The Middle Euphrates Region in the Early Second Millennium B.C.*, are concerned with this paper: V-4 : Beads, Pendants and Amulets, in Chapter V: Other Finds from Area A of Usiyeh (pp. 231–256); List of Plates 149–153 (pp. 409–417); Appendix I; Catalogue of Beads, Pendants and Amulets (pp. 425–451); Appendix II: Distribution of Beads and Bead Types (pp. 452–454) and Appendix III: Index of Bead Types (pp. 455–457); Pls. 37 to 39; Pls. 149 to 153 and Pl. 212.

2) In this paper, the general term “beads” are used also for pendants and amulets. Cylinder seals and stamp seals are not treated in this paper although they are also beads.

3) Shell and shell objects from Area A of 'Usiyeh have been studied by the present writer [Oguchi 1992: pp. 61–85].

4) The excavations were carried out as a rescue survey of the Qadisiyeh (Haditha) Dam Salvage Project, and were given a grant of the Science Research Promotion from the Fund of Japan Private School Promotion. The preliminary reports of the excavations appeared in *al-Rāfidān* Vol. 5/6 [Fujii *et al.* 1984/85: pp. 111–150] and in *Archiv für Orientforschung* Band 34 [Fujii and Matsumoto 1989: pp. 166–173]. The full report has been written in my Ph. D. thesis [Oguchi 1996]. I should like to thank Prof. Hideo Fujii for permitting me to use all the finds from Area A of 'Usiyeh for my study and Mr. Charles Burney for giving me many suggestions. Thanks are also extended to the members of the expedition [See Oguchi 1992: Notes 5 and 6 on p. 72; Oguchi 1996: p. 18f.].

5) Unfortunately, the beads have not been analyzed by scientific methods of examination, such as X-ray diffraction powder analysis, for the identification of the materials. The materials were determined by our optical observations.

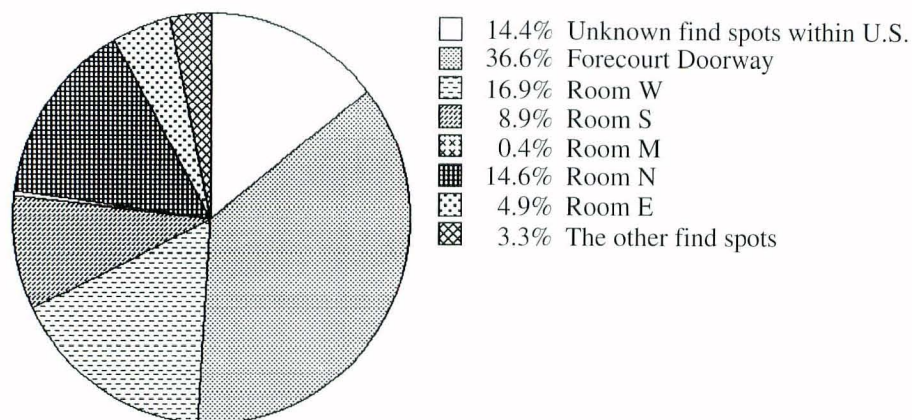


Fig. 1 Percentages of the Distribution of Beads in Area A of 'Usiyeh [Oguchi 1996: Fig. 5.22 on p. 231].

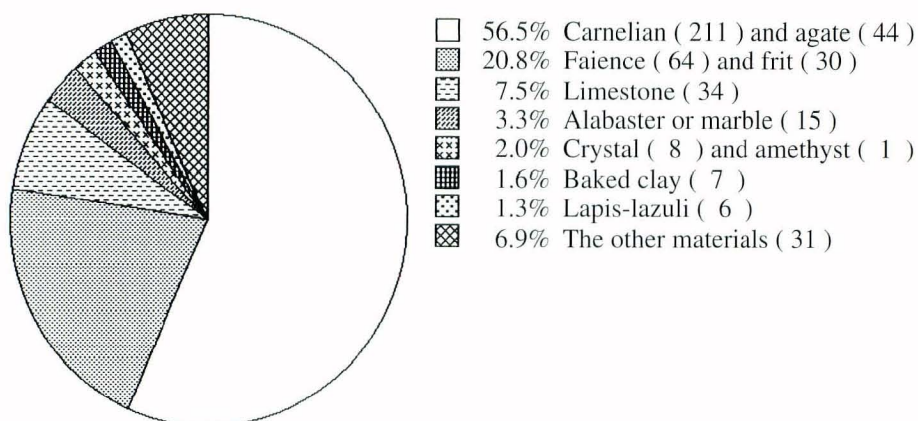


Fig. 2 Percentages of the Beads Materials [Oguchi 1996: Fig. 5.23 on p. 232].

amounts to 211 (about 46.8%). Agate also is a common material, of which 44 examples (about 9.8%) were confirmed. Crystal and amethyst are less common materials, the former having eight examples (about 1.8%) and the latter only one (about 0.2%).

Other common materials are frit and faience. Of the former 31 examples (about 6.8%) have been counted and of the latter 63 examples (about 14%). These are the family of "sintered quartz"⁶⁾. Frit is yellow, brown-black and blue in colour. Yellow is most common among the 'Usiyeh frit beads.

Other such materials as limestone, alabaster or marble, lapis-lazuli, haematite, amber, turquoise, green stone, baked clay and bone were also used for the beads. Among them limestone⁷⁾ and alabaster are common and the others are less common. There are 34 examples (7.5%) of limestone and fifteen examples (3.3%) of alabaster or marble.

Typology⁸⁾

The beads from 'Usiyeh can be divided into 45 types by shape. Types 1, 2, 3, 7, 29 and 34 have also

6) There are many synonyms for faience, such as sintered quartz, glazed frit, composition, "Egyptian faience", and paste [Moorey 1985 p. 133]. Frit is also often used as synonymous with faience [*ibid.*: p. 134]. In this paper, I use the term "faience" as a material which has a glazed surface, and the term "frit" as a material which has no glaze.

7) Sometimes we could not distinguish between white limestone and shell, especially for thin beads (Type 4). However, these materials can be understood as belonging to the same family of Calcium minerals [Sax 1986: p. 6]. In this paper these indistinct examples are treated as limestone.

8) Woolley's uniform nomenclature for types of beads, which is concerned with those commonly found in Mesopotamia, was adopted by a meeting of the heads of archaeological missions working in Iraq in 1929 [Woolley 1934: p. 366; Maxwell-Hyslop: 1971 p. 7]. Woolley's nomenclature for types of beads is applicable to some of the 'Usiyeh beads. Some nomenclature of Woolley's is, however, not available to a typological study of the 'Usiyeh beads.

some sub-types (Types 1, 2, 3, 7 and 29 are divided into two sub-types, a and b; Type 34 is divided into three sub-types, a, b and c). Among them, Types 1 to 24 have a circular section, but their vertical sections are different in shape. The frequency of occurrence of the bead types and the interrelation between the types and the materials are shown in Tables 1 and 2.

The plates illustrated here (Pls. 1–5) are not all the examples of beads, but include all the types found in Area A. All the beads are listed in the catalogue (Appendix I)⁹⁾.

Types 1 to 4 (Pl. 1)

These types are in the same category of shape. All of them are cylindrical in shape, and they have a different relation of length to diameter¹⁰⁾. Type 1 indicates a taller shape and Type 4 a shorter shape. With regard to the length, Type 1 is more than the diameter (B1 to B9); Type 2 is more than half the diameter (B10 to B16); Type 3 is between 21% and 49% of the diameter (B17 to B23); and Type 4 is less than 20% the diameter (B24 to B31). Type 4 is characteristically disk-shaped. Both ends, top and bottom, of Types 1a, 2a, 3a and 4 are flattened, but the ends of Types 1b, 2b, and 3b have an enlarged mouth from the drilling or use.

The length of B1 is nearly three times the diameter. This relation of the length to the diameter is the tallest in the cylindrical types, and may belong to Woolley's Type 5 "tubular" [Woolley 1934: p. 367 Fig. 70–5]. The length of the others, in Type 1, measures nearly twice the diameter, and these might be Woolley's Type 4 "cylindrical" [*ibid.* p. 367 Fig. 70–4]. Both ends, top and bottom, of Type 1a have smooth faces, and there are no traces of drilling damage; nor do they have rounded corners from use. They must have made the flat faces after drilling the stones. B1, B2, B3 and B6 are highly polished on all faces. The shapes of the drill are obscure, but the diameter of the perforation is comparable on average with the other types. B1 shows clearly the discrepancy of the drilling from both ends. The other examples among the stone beads, however, have no clear evidence of the direction of perforation, from both ends or one end only. These results are related not only to their finish but also to the material. Alabaster is softer than the other stones which were used to make the beads, and shows a tendency to weathering.

Cylindrical types of bead, Types 1a and 1b, are common throughout all periods [Maxwell-Hyslop 1971: p. 9], and in all regions in the Near East. These types occur made of most materials used for beads. In fact chalcedony, carnelian, steatite, quartz, serpentine, glazed frit (faience), glass paste, lapis paste, gold, copper, red steatite and glass existed in Type 11 (cylindrical) and Type 12 (tubular) from Level VII to Level I in Tell Atchana [Woolley 1955 p. 270 Pl. LXVIII]. In the case of 'Usiyeh, however, alabaster was often used. There are five alabaster cylinder seals at 'Usiyeh, although alabaster cylinder seals are not common in the early second millennium B.C. Types 1a and 1b, especially B2, B3, B4, B6, B8 and B9, are possible to use for making cylinder seals¹¹⁾.

Types 2, 3, and 4 are different not only in the relation of length to diameter but also in respect of their materials (Table 2). The main materials of Type 2 are baked clay¹²⁾ (B11) and limestone (B12, B13 and B14). Carnelian is less common in this type. On the other hand, the main materials of Type 3 are carnelian (B21 and B22) and limestone (B17, B20 and B23). No carnelian examples are included in the category of the shortest type, Type 4. Limestone occurs from Type 1 to Type 4 as a main material.

9) The descriptions of the illustrated examples are listed both in the list of plates 1 to 5 and in the catalogue of beads from Area A of 'Usiyeh (Appendix I), for the sake of convenience.

10) In this paper, the term 'diameter' for the bead indicates the maximum horizontal diameter at right angles to the perforation. The term 'length' for the bead indicates the maximum length in the vertical direction under the same conditions. The diameter of perforation is measured between the mouth of perforation and its end, when the trace of the drill is sharp and long. When the perforation was made with a V-shaped drill, the measurement indicates two sizes, the maximum diameter at the mouth of the perforation and the minimum diameter of the inside (see also List of Plates and Appendix I).

11) Beads and hematite weight seem to have been sometimes used as cylinder seals [*cf.* Collon 1986: p. 13].

12) The fabric of five examples of baked clay beads (B11) is similar to the fabric of white-filled grey ware and a baked clay cylinder seal from Area A of 'Usiyeh.

The baked clay beads of Types 2a (B11) have the same diameter, 4.5 mm x 4.5 mm, and seem to be segments of the same cylindrical or tubular beads. They must have cut many of the beads from one long tubular bead. B10 is made of lapis-lazuli, and there is only one example of Type 2a. On the other hand, it seems the same as the baked-clay method of production, because the surface finish is different between both the ends and the side in respect of the fact that the side is more highly polished than the ends. One baked clay bead of Type 3a seems to have had the same method of production as Type 2a.

Type 3b (B19, B20, B21, B22 and B23) is a common type of bead in 'Usiyeh. As for all the examples of Type 3b, the perforation is drilled from both ends, and sometimes their section appears X-shaped. The direction of perforation is sometimes not clear. However, both drilling methods, one from both ends and another from one end only (B30), occur in Type 4.

Types 5 to 8 (Pl. 2)

These types are of the same category in shape. All of them are barrel-shaped with a slightly convex body. The vertical section indicates a circle. However, these types show a difference in the relation of the length to the diameter. Type 5 is the longest and Type 8 the shortest of these types. With regard to the length, Type 5 is more than twice the diameter (B32 to B36); Type 6 is up to twice the diameter (B37 to B43); Types 7a and 7b is less than the whole diameter but more than half (B44 to B53); and Type 8 is less than half the diameter, so that its form is nearly disk-shaped with a slightly convex body (B54). Both ends of Type 7a have a flat face (B44, B45 and B46). A V-shaped drill is used for the perforation from both ends of Type 7b (B47, B48 and B49). Therefore the vertical section of perforation appears as X-shaped.

Types 5, 6 and 7 are very popular bead shapes. Sometimes measurements of Type 5 are more than three times the diameter (B32 and B36). Most commonly in Type 6, the length measures nearly twice the diameter, having in both ends flat faces made after the drillings, and the perforations from both ends are made by the drills which are sharp at the end. Type 6 is comparable with Type 5 (barrel shaped) of Tell Atchana [Woolley 1955 p. 269 Pl. LXVIII-5].

Type 7b is a common type, and carnelian is used especially for this type of bead (B47, B50, B51, B52 and B53). The other materials are less common in Type 7 (Table 2). In average size, this type measures about 10mm in diameter. The finishing of some examples is rough and inferior to other types.

The main materials of Type 5 are alabaster and agate. Carnelian is the most common material in Types 6 and 7.

Types 9 to 12 (Pl. 2)

These types are in the same category of shape, which characteristically have a convex body respectively. However, they show a difference in the relation of length to diameter. Type 9 is the longest and Type 12 is the shortest. With regard to the length, Type 9 is more than twice the diameter (B55 to B64), Type 10 is between twice and once the diameter (B65 to B67), Type 11 is between once and half the diameter¹³⁾ (B68 to B72) and Type 12 is less than half the diameter (B73 and B74).

These types are also common throughout all periods, and are comparable with many beads found at other sites in the Near East. All the examples of Type 12 are small in size as compared with the other types. Even small and thin beads have their perforations drilled from both ends. Carnelian is common among these types. Agate is common in Type 9 (B57, B58 and B59), but does not occur in the other types, Types 10, 11 and 12.

13) Type 11 is characterized by a convex body, nearly round. This type may be difficult to distinguish from Type 14 and Type 18, because the shape is very similar to them. However, it can be distinguished by their side shapes. The side elevation of Type 11 is round, the same as Type 14, but nearly hexagonal. On the other hand, Type 18 has a clearly carinated body. Thus Type 11 is between Type 14 and Type 18 in shape.

Types 13 to 16 (Pl. 3)

Types 13, 14, 15 and 16 are the same category as round shaped beads¹⁴⁾. Type 13 is a taller type and Type 16 a shorter or flatter type. Type 13 indicates a tall elliptical form, and the length is more than the diameter (B75 to B78). The shape of Type 14 is nearly spherical and the length is more than 60% the diameter (B79 to B104 and B109 to B119). The shape of Type 15 is short elliptical, and the length of it is between 25% and 59% of the diameter (B105 to B108). The shape of Type 16 is flat elliptical, and the length is less than 25% the diameter (B120).

Type 14 is the most common type of all. 133 examples belong to Type 14. This number is nearly equivalent to 30% (29.49%) of all the beads. The typical shape of this type shows that the length is a little shorter than the diameter. Among them, carnelian is the most common and favorite material (Table 2). 91 examples (B79 to B82, B84 to B90, B92 to B100, B103 and B104) of carnelian beads are recorded as belonging to this type. Only carnelian examples in Type 14 show a high percentage (20%) of all the beads. Most of the stone beads in Types 13, 14 and 15 are made of the family of quartz including carnelian, agate, crystal and amethyst, with the exception of two examples (Table 2). These examples show a good finish by polishing after the drilling, usually made by the slender and sharp drill at the end.

Faience and frit are common in Type 14. Most of the faience beads of Type 14 have white or pale yellow bodies with pale green glaze on the surfaces. Most of the frit examples of Type 14 are pale yellow and the others are brown and pinkish in colour.

Only one example belongs to Type 16 (B120). This is made of limestone and well finished. The perforation of B120 is drilled from one end.

Types 17 to 19 (Pl. 4)

Types 17, 18 and 19 are of the same category in shape with a carinated body. Type 17 is taller and 19 is shorter in these types. The shape of Type 17 is double conoid and the length is more than the diameter (B121, B122, B123 and B124). The shape of Type 18 is hexagonal and the length is between the diameter and half the diameter (B125 to B133). The shape of Type 19 is hexagonal and the length is less than half the diameter (B136).

'Usiyeh Types 17 and 18 are parallel with Woolley's Type 8 (double conoid), one of the commonest bead types at Ur [Woolley 1934 Fig. 70–8 p. 367]. Our Type 18 is a common bead type at 'Usiyeh, and carnelian is the most common in Type 18. On the other hand, Type 17, a taller type, is not common, and all of examples of this type are made of such various materials as carnelian (B124), agate (B122), lapis-lazuli (B123) and faience (B12).

One crystal beads of Type 18 (B132) has the perforation made from one end. On the crystal examples, the perforation from one end appears more frequently than in the other materials.

Only one carnelian example belongs to Type 19 (B136). B136 looks incomplete, but all the surface is highly polished, especially at the top of the figure, after the drilling of the perforation from both ends.

Types 20 to 28 (Pl. 4)

The shape of Type 20 is a polyhedron (B134 and B135). Its side has a lot of faces which bear traces of polishing or show some design. The shape of Type 21 is double conoid with a projection at both ends, top and bottom (B137). The shape of Type 22 is long double conoid with a slightly concave side (B138). The shape of Type 23 is octagonal (B139). The shape of Type 24 is nearly semi-circular with a circular section (B140 and B141). The shape of Type 25 is represented by characteristic elliptical or rhomboidal examples. The horizontal section is also elliptical (B142 to B147). The shape of Type 26 is characteristically circular with an elliptical section (B154). The shape of Type 27 is characteristically elliptical or rhomboidal with semi-circular section (148 to B150)¹⁵⁾. Type 28 has a circular body with a

14) Types 13, 14 and 15 are difficult to distinguish, and these types have only different relations of length to diameter. It is possible to regard these types as one type variety. However, they have been divided into three types; tall-type, medium-tall-type and short-type.

15) There is a stamp seal from Area A of 'Usiyeh, which belongs to Type 27. It is, however, not treated in this paper.

semi-circular section (B155 to B158).

All of Type 20 is made of carnelian and well finished. All of Types 21 and 22 are made of frit and are yellow in colour. Unfortunately, all of Type 22 is chipped off at the ends. However, the length of these examples may have measured more than twice the diameter. Two examples of Type 23 are made of bone (B139). Therefore these sections have warped but retained their natural form. These are shaven on the outside of both ends, obliquely, then are polished all over the face.

Two examples belong to Type 24 (B140 and B141). B140 is made of black stone, and its slant is nearly straight. On the other hand, B141 shows a swelling slant, and is made of agate. Both of them have a complete flat face on the bottom, which has a sharp angle to the other side. The flat face may have been divided into two beads from a double shaped bead. Fig. B141 is drilled from one end, which has no damage from drilling.

Type 25 is parallel with Woolley's Type 7 (elliptical) at Ur [Woolley: 1934 p. 367 Fig. 70–7]. According to Maxwell-Hyslop, four examples of Type 7 at Ur are listed by Nissen as belonging to the Akkadian period [Maxwell-Hyslop: 1971: p. 9]. However, the shape of this bead type also occurs at Tepe Gawra in Level XV [Tobler 1950: p. 248 Pl. CLXXI-8 (engraved beads)]. This type must have continued from prehistoric times. Type 27 is similar to some beads dated to the Agade period at Tell Brak [Mallowan 1947: p. 256ff Pls. LXXV-11 and LXXXVI-2].

Agate is used for Types 25, 27 and 28. These three types are large as compared to the other types, and are restricted to such stone beads. Type 28 is a common type of bead within the limit of faience. 40 out of 43 examples are made of faience (Pl. 152-B155 to B158). This number indicates about 8.9% of all the beads. Sometimes these are reduced by weathering. Most of these examples must have been similar in their original size, about 12 mm x 5 mm in diameter and about 11mm in length. The bodies are yellow or white in colour with pale green glaze on the surfaces. The perforation of B151, an agate example of Type 28, is incomplete.

Types 29 to 34 (Pl. 5)

The shape of Type 29a indicates it as rectangular. The section is also rectangular (B159 and B160). The shape of Type 29b is rectangular and the vertical section is square (B161). Type 30 is characteristically circular with a rectangular section (B162). Type 31 is characteristically barrel-shaped with a triangular section (B163). The shape of Type 32 is approximately short and rectangular with a square section (B164¹⁶). Types 34a, 34b and 34c are of the same category in their peculiar surface as fluted beads. However, these have a different body shape. The shape of Type 34a is fluted hemispherical (B166). The shape of Type 34b appears as fluted and spherical (B167 and B168). The shape of Type 34c is nearly a disk with a fluted side (B169).

Two examples belong to Type 29a. These are made of lapis-lazuli (B159), and amber (B160)¹⁷. These may have been incomplete or abandoned half way for making the small beads. B165 (Type 33) may have been from a bead of Type 29a. The original shape of B165 must have been square or rectangular, because the bottom flat face, in the figure, is less polished than the other faces, and this face looks like a later cutting. On the other hand, B165 must have been triangular in shape at the final stage.

All the length of Type 29b measures more than twice the diameter, and all of the examples of this type are made of agate.

All of Types 34a and 34b are made of frit or faience, but Type 34c is made of carnelian. B169 may have been made from Type 3 or 12, and is more likely to be a four-petaled flower in form than fluted. All the face is well finished. Type 34, especially Type 34b, must have occurred from the Jemdet Nasr period, which obviously became common from the Early Dynastic period. This type is comparable with

16) Unfortunately, it is doubtful whether B164 is a bead or not in its function, because the perforation is unusually large.

17) It is interesting to note that an amber bead was found at Tell Gubba, dating to the Jemdet Nasr period (Level VIIc) [Ii 1989: p. 185 Fig. 18–58g]. Amber trade seems to have already started in the Jemdet Nasr period.

Type 14 “ribbed ball-shaped” of Ur [Woolley 1934: Fig. 70-14 p. 14].

Types 35 to 39 (Pl. 5)

Types 35 to 39 are the same category as pendants which are suspended from an integral part of necklaces. The body shape of Type 35 shows a column body (B170). The shape of Type 36 is full-cheeked elliptical (B171). The shape and section of Type 37 are nearly elliptical (B172). The shape of Type 38 is an irregular. The section shows a thin rectangular shape (B173). The shape of Type 39 is a swollen circle with a perforated projection (B174).

There was found no pendants made of faience and frit in Area A of 'Usiyeh, and all the 'Usiyeh Area A pendants found are made of stone. One carnelian example belongs to Type 35 (B170), and is well finished. The perforation is drilled from a slightly shaved off face. One smoky dark green example belongs to Type 36 (B171). We also can call this example an amulet. Two incised lines are engraved on the surface, showing characteristically the front face. These lines must have symbolized the wings of some insect. However, the front face was destroyed when they used this pendant as an integral part of a necklace: the perforation is extended from the front face to the back. Therefore it is turned sideways if a string is put through this perforation. One dark brown stone example belongs to Type 37 (B172). The perforation is clearly drilled from one side. One limestone example belongs to Type 38 (B173). It is possible to say that this is an incomplete bead of Type 4, but all the surface is highly polished. The perforation is drilled from one side. Two examples belong to Type 39 (B174). Both of them are made of carnelian and highly polished.

Types 40 to 45 (Pls. 5 and 6)

Types 40 to 45 are unique beads, and have only one example respectively. The shape of Type 40 is a human figure (B175). The shape of Type 41 is nearly cylindrical, but its vertical section is elliptical (B176). The shape of Type 42 is a crescent form with a perforated projection (B177). Type 43 characteristically has double eyelets (B178). Type 44 represents the mask of a demon (B179).

We can say B175 is an amulet. Unfortunately, the head of B175 is missing. This figure is arranged feet together without its shoes, and stands on a pedestal. The perforation is drilled on its back vertically from both directions. The human depicted there wears a garment which looks as if made of a piece of cloth, probably a cape. The garment is decorated in its border, hem and shoulder, the decoration of which is represented by a ladder-pattern belt composed of numerous parallel incised lines. The left arm is out of sight beneath the garment, and the right arm is bent on his left chest.

In fact, it is unknown how B176 was used. Two perforations and one hole are drilled in it. These perforations cross each other, but the hole is not connected. At least four drills are used for the perforations and a hole, which show differences in thickness.

B177 is extraordinary large and made of limestone. It is highly polished on all the surface, but the perforated projection is missing.

There are some pendants comparable with Type 42. These positions are, however, usually upside-down, namely these eyelets are attached to the outside circle and are made of some metal, gold or bronze. On the other hand, B177 is attached to the inside circle, and is made of limestone. The usual position of lunar- or crescent-shaped pendants occurred in the fourth millennium B.C., and then it became popular in the second half of the second millennium B.C. [cf. Boehmer 1972: pp. 30 ff.]. In fact, its distribution extends to a wide area of the Near East [*ibid.*].

Within the limits of the Middle Euphrates region, the lunar type of pendant is found at Mari [Parrot 1959: Fig. 71-1114] and Haradum [Kepinski-Lecomte: 1992: Fig. 165-3]. In the British Museum, there is also a bronze statuette of a lady worshipper, from Mari, who is wearing a large lunar pendant [Maxwell-Hyslop 1971: p. 83 Fig. 66].

The Moon position is the same as in the 'Usiyeh example, the upside-down position, as can be seen in the Old Babylonian terracotta on which is represented a bearded warrior god who wears an enlarged

moon pendant [Maxwell-Hyslop 1971: p. 82 Figs. 62-c and d]. It is attached below six petals round a central knob.

In fact, only one example belongs to Type 43 with double eyelets (B178), and it is called a spacer bead. This is composed of lapis-lazuli, turquoise, gold, bronze and tin or other metal¹⁸). The shape of this bead has two attached half cylinders as a parallel arrangement. Therefore its back is flat, being made of tin or other metal, and the front side is decorated. The arrangement of decoration is composed of alternate triangular shapes of lapis-lazuli and turquoise in three belts for both eyelets. These triangular stones, some of which have fallen out, are encircled by gold lines. The inside of the eyelets is made of bronze and lapis-lazuli. Turquoise is the only material used in all the beads.

Decorated glass spacer beads have been so far found at Nuzi, Megiddo, Tell Abu Hawâm and Mycenae, where they are dated to the mid to the late second millennium B.C. [Taniichi 1992: pp. 136 ff.]. According to Taniichi, there is one decorated glass spacer bead in a private collection in Kurashiki, Japan [*ibid.* p. 133 and Fig. 2]. These glass examples seem to have been substituted for noble metal and precious stone. B178 may have thus been one of the models of decorated glass spacer beads.

B179 is identified as Humbaba, who has vertically striated hair and a pronounced rictus with a grooved moustache [Howard-Carter 1983 p. 69]. According to Howard-Carter, the earliest Humbaba mask has been found at Ur, which belongs to the early phase of the Isin-Larsa period and shows generally standardized or classic form [*ibid.*]. There are a lot of small terra-cotta Humbaba masks found in Mesopotamia, for instance at Nippur, Babylon, Asmar, Dhiba'i, Tello and Ur. However, such a frit or faience mask is rare, although it has been found at Ur [Woolley and Mallowan: 1976 Pl. 93d: U.1409] and a faience Puzuzu head at Chagar Bazar [Mallowan 1937: p. 151 Pl. XIV-A], both dating to the early second millennium B.C., as far as I know. B179 is the particular well-proportioned Humbaba mask.

On B179, the top of his head is missing, but probably an eyelet may have been there. This example must have been moulded: and the back of the mask is flattened. The inside body is white in colour with pale green glaze on all the surface.

Only one frit, yellow-coloured, example belongs to Type 45 (B180) (Pls 5 and 6). It may have represented a lion. The perforation runs through its haunches to its chest. It seems to be moulded.

This lion-shaped frit amulet is parallel with examples from Kanesh and Chagar Bazar. The Kanesh example [Özgülç 1986 Pl. 76-1] is exactly the same as the 'Usiyeh example. According to Özgülç, Chagar Bazar Level 1 and Kanesh Karum Ia-b are contemporary, and he suggests that "the origin of the Kanesh faience amulets reaches to the Khabur area and must be sought in South East Anatolia and North Syria" [Özgülç 1986: p. 37]. It is clear now that its distribution extends to the Middle Euphrates region.

The Chagar Bazar example [Mallowan 1937: p. 151 Pl. XIV-A, top row, right] is found together with the faience Puzuzu head (see above) and other grave goods [*ibid.* pp. 122 and 151 Pl. XIV-A, top row, second one from the right] in Grave 159, assigned to the early intermediate phase of Level I.

Conclusion

Trade of stones had already started in prehistoric times. At first, obsidian trade had started, for making tools and ornaments, and after that, trade of the other precious stones started in earnest through extensive regions. In fact, carnelian, obsidian, turquoise, amethyst, lapis-lazuli, agate, quartz, jadeite, beryl, diorite hematite, steatite, serpentine occurred in Level XIII of Tepe Gawra [Perkins 1949: p. 63]. These stones are mainly used for making beads. These precious stones were valuable and usually durable materials. These stones have usually no rush, are not rot, have less weather, and are usually hard. Moreover, precious stone beads were inherited from ancestors and were used for a long time. Actually the 'Usiyeh beads still preserve their shine. Hence the original date of the 'Usiyeh beads are obscure.

Frit and faience are fragile as contrasted with stones. Therefore frit and faience beads must have

18) Metal beads are excluded from discussion, but B178 is treated as a composite example in this paper.

been used merely for a short time. Therefore these beads show more certain dates than stone beads. A lion-shaped bead (B180) proves not only the relation between central Anatolia and northern Syria but also the certain date of the frit and faience beads from 'Usiyeh.

We can recognize that there are some relation between the types of beads and the materials. Carnelian is the most extensively used material in all the types, and the extent of it is 22 types. On the other hand, carnelian beads seem to concentrate in the same common types or the medium taller types (Types 7b and 14). The total number of the carnelian beads of Types 7b and 14 is 111. Agate is also one of the most extensively used materials in all the types; fifteen types are recorded as agate, though the total number is only 44 examples. On the other hand, Agate may have been liked for taller types (Types 1, 5, 9 and 13) or larger beads (B122, B143, B145, to B147, and B149 to B151), and is absent in the shorter types (Types 3, 4, 8, 11, 12, 15 and 16).

Alabaster may have been liked for long beads (Types 1 and 5); but it is less common in the beads of short types and barrel shapes.

Type 28 is the most common type among the faience beads, but not among the stone and frit beads. Although carnelian was the most favorite material of all, Types 27 and 28 have no carnelian examples. Carnelian seem to be unsuitable for making some bead shapes with flat faces. Actually, the vertical sections of Types 27 and 28 are nearly semi-circular, and these types have a flat face. Carnelian may have been liked for round shaped beads.

Types 14 and 15 are common among the frit and faience beads. Type 14 is the most common type among the carnelian beads, but Type 15 is less common among them.

The shape of Type 34b is common for frit and gold beads in the ancient Near East. Occasionally frit beads may have been made to imitate gold beads. Two out of three in Type 34b and Type 34a itself are yellow in colour. Frit may have an artificial colour, for instance yellow, blue or brown, which is made from a mixture of quartz and some mineral [Moorey 1985: p. 135]. The colour of frit and faience beads may have been produced to imitate stone or gold. Type 21 is also yellow in colour, and its shape seems to be able to discussed in connection of gold beads.

Many luxury goods, for instance stone objects, shell objects, metallic objects, an ivory object, cylinder seals and white-filled incised pottery were buried in the Underground Structure of Area A. The beads are nothing but part of these goods. On the other hand, it is interesting to note that there are some unique beads in the small objects from Area A of 'Usiyeh. The form of B175 is a human figure, B178 is a particularly elaborate bead consisting of many materials, B179 represents Humbaba, and B180 is a lion shape. These beads may have been imports from the surrounding regions.

Most of the beads unearthed from or near the Underground Structure seem to be associated with the original phase of the Underground Structure. The original phase of the Underground Structure seems to be dated to the Isin-Larsa period on the grounds of the finds. The other beads, unearthed from other spots, seems to fall within the early second millennium B.C.

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List of Plate 1

No.	Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	I.M. no. Rafidan no.
B1	7	E-XI, part of Tr.1 ②	1a	d:15.5x15.5 pd:4.5; l:4.2	agate p:both	orange & white spots.	I.M.2
B2	130	RW, below Phase 3	1a	d:12x12 pd:3; l:2.2	alabaster p:both?	pinkish-white	I.M.11-11 Ra:Fig.9-22
B3	18	RS ③	1a	d:8x8; pd:3 l:15.5	stone p:both?	white & dark green, spots	I.M.7-2
B4	381	RW~F.D. ⑤	1b	d:13x13;pd:6 to 3.5; l:2.0	alabaster p:both	white and smoky colourless, stripes	I.M.89
B5	293	F.D. ⑤	1a	d:4x4;pd:1.5 l:1.0	frit	pale blue	I.M.88-2
B6	438	U.S. ④	1a	d:5x5 pd: 2.7 to 1 l:1.2	agate? p:?	white to pink	I.M.92
B7	89	RE, -1.6m, level of Phase 2	1a	d:3x3; pd:1 l:5.5	faience	white?, light blue glaze on the surface	I.M.9-2
B8	380	RW~F.D. ⑤	1b	d:20x20;pd:8 to 5; l:35.5	alabaster	milky-white	I.M.89
B9	5	RS, below Phase 4	1b	d:16x14 pd:8 to 4 l:24.5	limestone p:both	milky-white	I.M.7-1
B10	22	RS ④	2a	d:7.3x7.2 pd:2.5; l:5.5	lapis-lazuli p:both?	purplish dark blue	I.M.7-3
B11	134	RW, below Phase 3	2a	d:4.5x4.5 pd:2; l:3.5	baked clay	dark brown	I.M.11-12
B12	123	RW, below Phase 3	2b	d:6.5x6.5 pd:2.5; l:4	limestone p:both	milky-white	I.M.11-10
B13	417	RW ④	2b	d:10x10 pd:5; l:6	limestone p:both?	white	I.M.90
B14	185	RE~RN, -1.1m	2b	d:12.5x12.5 pd:5; l:7.2	limestone	white	I.M.9-6
B15	156	RN ④	3b	d:7.2x7.2 pd:2; l:3.2	stone p:both	grey	I.M.10-1
B16	13	U.S. ③	2a	d:4.5x4.5 pd:1.7; l:2.5	faience	white, dark brown surface, there is some trace of pale green glaze	I.M.12-1
B17	91	RE, -1.6m, level of Phase 2	3a	d:5.5x5.5 pd:1.8; l:3	limestone p:both	milky-white	I.M.9-2
B18	172	RN, -1.3m	3a	d:7.5x7.2 pd:1.5; l:2.4	stone p:both	black	I.M.10-6
B19	90	RE, -1.6m, level of Phase 2	3b	d:6x6; pd:3 to 1.5; l:3	stone p:both	greyish black	I.M.9-2
B20	148	F.D. ④	3b	d:8x8; pd:3 to 1.5; l:3	limestone or shell p:both	white	I.M.11-2 Ra:Fig.9-14
B21	387	RW~F.D. ⑤	3b	d:7x7;pd:6.5 to 1.5; l:4	carneian p:both	pinkish orange	I.M.89
B22	77	RE, above the RF2	3b	d:5.5x5.5 pd:2.5 to 1.3; l:2.5	carneian p:both	reddish orange	I.M.9-1
B23	70	RE, -1.6m, level of Phase 2	3b	d:7.2x7 pd:3 to 2 l:2.8	limestone p:both	milky-white	I.M.9-3
B24	17	U.S. ③	4	d:10x9< pd:2.5; l:2	limestone p:both?	milky-white	I.M.12-1
B25	38	F.D. ④ west part	4	d:9.2x9 pd:1.5; l:0.9	limestone or shell;p:both	milky-white	I.M.8-1

List of Plate 1 (contd.)

No.	Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Directions	Colours and Remarks	I.M. no. Rafidan no.
B26	63	F.D. ④	4	d:6x6, pd:2; l:1	limestone p:both	milky-white	I.M.8-1(2)
B27	30	RS ③~④	4	d:8.7x8.1 pd:1.8; l:1.5	stone p:both?	greyish black	I.M.3
B28	8	F.D.②~③ west part	4	d:6x6 pd:2.5; l:1	limestone p:both?	milky-white	I.M.11-5
B29	92	RE, -1.6m, level of Phase 2	4	d:4x4; pd:1 l:0.5	stone p:both?	greyish black	
B30	330	F.D. west corner ⑤	4	d:9x9;pd:4.5 to 3; l:1	limestone? p:one	white	I.M.88-3
B31	457	EXI, in the drain pipe of D3	4	d:7x7; pd:4 to 2; l:15	crystal p:both	smoky colourless	I.M.95

List of Plate 2

B32	35	RW2 ④	5	d:6x6 pd:2; l:21	agate p:both	pale brown with white stripes	I.M.11-4(2)
B33	117	RW, below Phase 3	5	d:8x8;pd:4.5 l:15	stone p:both	brownish grey	I.M.11-10
B34	394	RN ④	5	d:4x4; pd:2 l:12	carnelian p:both?	orangish red	I.M.90
B35	151	RE, -1.1m,	5	d:9.8x7.5 pd:2.8; l:28	agate p:both	light brown to brown with	I.M.9-5
B36	159	RN ④	5	d:4.3x4 pd:1.5; l:16	agate p:both	white & light orangish brown with light brown stripes white stripes	I.M.10-1
B37	145	F.D. ⑤	6	d:8.5x8.2 pd:2; l:15.2	agate p:both	white and light brown	I.M.7-7 Ra:Fig.9-17
B38	415	RN ④	6	d:8x8; pd:2 l:16	alabaster p:both	white stripes	I.M.90
B39	375	RW, below Phase 3	6	d:5x5;pd:1.8 l:9	agate p:both	white, light brown and smoky brown	I.M.89
B40	55	D-XI, on the natural ground	6	d:7x7;pd:1.8 l:11.7	agate p:both	white with pale brown stripes	I.M.1
B41	440	U.S. ④	6	d:10x10 pd:4.2 to 2 l:15	agate p:both	light reddish orange	I.M.92
B42	374	RW, below Phase 3	6	d:4x4;pd:1.5 and 1; l:7	agate p:both	light brown and white stripes	I.M.89
B43	371	RW, below Phase 3	6	d:5x5 pd:1.5; l:7	carnelian p:both	reddish orange	I.M.89
B44	278	U.S. ④	7a	d:8x8; pd:2.6; l:6	bone?	milky- white	I.M.87-2(1)
B45	423	R.N. ④	7a	d:5x5; pd:2 l:4	frit	yellow	I.M.90
B46	179	U.S. ④	7a	d:4.5x4 pd:1; l:3.5	carnelian p:both	reddish orange	I.M.12-5
B47	82	U.S. ④	7b	d:7x7;pd:4.5 to 2; l:5.5	carnelian p:both	reddish orange	I.M.12-4
B48	382	RW~F.D. ⑤	7b	d:7x7;pd:4.5 to 2.7; l:6	limestone p:both	white	I.M.89

List of Plate 2 (contd.)

No.	Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	I.M. no. Rafidan no.
B49	42	RS, above Phase 4	7b	d:11x11 pd:5 to 2 l:8.4	limestone p:both	milky-white	I.M.7-5
B50	50	RE, -1.8m	7b	d:4.5x4.5 pd:1.2;l:4.8	carneian p:both	reddish orange	I.M.9-4
B51	213	F.D. ⑤	7b	d:7x7; pd:2 l:5	carneian p:both	reddish orange	I.M.87-1(3)
B52	84	RE, -1.6m, level of Phase 2	7b	d:10.2x10.2 pd:5.5 to 2 l:7	carneian p:both	reddish orange and smky reddish orange,	I.M.9-2
B53	209	F.D. ⑤	7b	d:15x15; pd:9 to 3; l:10	carneian p:both	light reddish orange & dark reddish orange	I.M.87-1(3)
B54	453	BXI, in the drain pipe of D3	8	d:24x24 pd:7.8; l:9	baked clay	dark brown	I.M.94
B55	427	RN ④	9	d:9x9; pd:3 l:25	stone p:?	light brown spots	I.M.90-2
B56	326	F.D., west corner ⑤	9	d:10x10 pd:3.5; l:23	stone p:both	white and grey spots	I.M.88-3
B57	69	H-XVI ①	9	d:7.6x7.5 pd:1.6 l:2.36	agate p:both	light brown, smoky grey and white stripes	I.M.5
B58	106	RW, Phase 1	9	d:7.2x6.8 pd:2; l:17	agate p:both	white & light brown stripes	I.M.11-6
B59	24	RS ③~④	9	d:7x7; pd:2 l:16.8	agate p:both	smoky orange with white stripes	I.M.3
B60	393	RN ④	9	d:5x5 pd:1.7; l:16	carneian p:both	reddish orange	I.M.90
B61	75	RE, above the EF2	9	d:6x6; pd:1 l:13	carneian p:both	reddish orange with dark red stripes	I.M.9-1
B62	304	F.D. ⑤	9	d:5x5 pd:2; l:14	carneian p:both	reddish orange	I.M.88-2
B63	19	RS ③	9	d:5.3x5.3 pd:1; l:31<	carneian p:both	reddish orange	I.M.7-2
B64	11	F.D. ④	9	d:6.5x6.5 pd:2; l:18<	carneian p:both	reddish orange	I.M.11-7
B65	376	RW, below Phase 3	10	d:8x8; pd:3 to 1.3; l:12	hematite? p:both	brown black	I.M.89
B66	442	U.S. ④	10	d:5x5; pd:2 to 0.5; l:9	carneian p:both	reddish orange	I.M.92
B67	129	RW, below Phase 3	10	d:6x5; pd:2 l:7.8	lapis-lazuli p:both	dark purplish blue	
B68	183	U.S. ④	11	d:10x10 pd:3.5 to 1.5; l:10	carneian p:both	light reddish orange	I.M.12-6
B69	320	F.D. ⑤	11	d:9x9 pd:3.2 to 2 l:8	carneian p:both	light reddish orange	I.M.88-2
B70	358	RW, below Phase 3	11	d:9x9; pd:3.5 to 2; l:7	carneian p:both	reddish orange	I.M.89
B71	66	F.D. ④	11	d:7.2x7 pd:3 to 1.5 l:5	carneian p:both	orange	I.M.8-1(2)
B72	199	RS, Phase 3	11	d:12x12 pd:3.6; l:8	faience	pale yellow with pale green glaze on the surface	I.M.87-1(2)
B73	239	F.D. ⑤	12	d:3x3; pd:3 to 1.5; l:2	carneian p:both	smoky reddish orange	I.M.87-1(3)
B74	368	RW, below Phase 3	12	d:4x4; pd:2.5 to 1.2; l:1.5	carneian p:both	reddish orange	I.M.89

List of Plate 3

No.	Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	I.M. no. Rafidan no.
B75	59	F.D. ④	13	d:11x10.8 pd:2; l:12.8	agate p:both	milky-white & pale brown with white stripes	I.M.8-1(2)
B76	109	RW, Phase 1	13	d:8x8; pd:2 l:9.2	carneian p:both	light reddish orange	I.M.11-18 Ra:Fig.9-12
B77	455	Pit 1	13	d:6x6; pd:2 l:8	carneian p:both?	smoky orange	I.M.95
B78	51	U.S. ④	13	d:5.5x5.5 pd:1.5; l:5.7	carneian p:both	reddish orange	I.M.12-3
B79	9	RN ③	14	d:8.5x8.5 pd:1.5; l:7	carneian p:both	reddish orange	I.M.10-8
B80	319	F.D. ⑤	14	d:9x9 pd:1.3; l:7	carneian p:both	orangeish red	I.M.88-2
B81	43	RS, above Phase 4	14	d:7x7; pd:2.3 l:6.5	carneian p:both	reddish orange	I.M.7-5
B82	64	F.D. ④	14	d:8.7x8.5 pd:2; l:8	carneian p:both	orange	I.M.8-1(2)
B83	74	RE, above the EF2	14	d:7x7; pd:2 l:6.2	agate p:both	reddish orange with dark red stripes	I.M.9-1
B84	79	U.S. ④	14	d:6.5x6.5 pd:2; l:6.5	carneian p:both	reddish orange with dark red stripes	I.M.12-4
B85	28	RS ③~④	14	d:5x5, pd:1.8; l:5	carneian p:both	reddish orange	I.M.3
B86	48	RE, -1.8m	14	d:10.6x10.7 pd:2.2; l:10	carneian p:both	reddish orange with red stripes	I.M.9-4
B87	27	RS ③~④	14	d:6x6 pd:1.4; l:5	carneian p:both	reddish orange	I.M.3
B88	171	RN, -1.3m	14	d:6.5x6.5 pd:1.6; l:5	carneian p:both	reddish orange	I.M.10-6
B89	176	U.S. ④	14	d:7.8x7.8 pd:2; l:6.8	carneian p:both	reddish orange	I.M.12-5
B90	23	RS ④	14	d:5x5; pd:1.5 l:4.5	carneian p:both	reddish orange	
B91	413	RN ④	14	d:6x6; pd:2 l:5	agate p:both	white and dark brown stripes	I.M.90 Ra:Fig.9-13
B92	46	F.D. ③	14	d:5.5x5.3 pd:1.2; l:5	carneian p:both	light reddish orange	I.M.11-6
B93	158	RN ④	14	d:3.6x3.6 pd:1; l:3.3	agate p:one?	light brown, white & dark brown, stripes	I.M.10-1
B94	6	E-XII, east part ①	14	d:12.5x12 pd:1.1; l:11	carneian p:both	reddish orange	I.M.6-2
B95	58	F.D. ④	14	d:15x14.8 pd:2; l:11.8	carneian p:both	orange	I.M.8-1(2)
B96	65	F.D. ④	14	d:9.8x9.8 pd:1.5; l:8	carneian p:both	orange	I.M.8-1(2)
B97	49	RE, -1.8m	14	d:5.8x5.8 pd:2.5 to 1 l:5.2	carneian p:both	reddish orange	I.M.9-4
B98	25	RS ③~④	14	d:8x8; pd:1.8 l:5.2	carneian p:both	reddish orange	I.M.3
B99	53	RW, Phase 3	14	d:7x7, pd:2 l:6	carneian p:both	reddish orange	I.M.11-8

List of Plate 3 (contd.)

No.	Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	I.M. no. Rafidan no.
B100	14	RN, -1m	14	d:16.8x16 pd:2.5 l:10.8	carnelian p:both	reddish orange	I.M.10-4
B101	10	RN~RW ④	14	d:8x7.5 pd:2.5; l:6	agate p:both	pale brown, pale orange & white, stripes	
B102	195	RS, below Phase 4	14	d:8x8; pd:2 l:5	agate? p:both?	light brown with black stripes	I.M.87-1(1)
B103	52	R.W. Phase 3	14	d:8.5x8.5 pd:2.2; l:6.5	carnelian p:both	orange, smoky orange with reddish orange stripes and reddish orange	I.M.11-8
B104	68	F.D. ④	14	d:5.8x5.8 pd:1.5; l:4	carnelian p:one	smoky orange	I.M.8-1(2)
B105	342	F.D., west corner ⑤	15	d:9.2x9 pd:2; l:4.5	frit	pale yellow	I.M.88-3
B106	29	RS ③~④	15	d:9x8, pd:2; l:5	faience	smoky white, black glaze on the surface	I.M.3
B107	67	F.D. ④	15	d:6x5.5 pd:2; l:3.5	carnelian p:both	light orange	I.M.8-1(2)
B108	412	RN ④	15	d:8.5x8.5 pd:1.5; l:4.8	amethyst p:both	colourless to light purple	I.M.90
B109	61	F.D. ④	14	d:18?x18? pd:2; l:?	crystal p:?	colorless	I.M.8-1(2)
B110	168	RN ④	14	d:11x10.5 pd:2; l:10.5	crystal p:both	colourless	I.M.10-5
B111	12	U.S. ③	14	d:11.5x11.5 pd:2.5; l:10	faience	white, pale green glaze on the surface	I.M.12-1 Ra:Fig.9-20
B112	32	RS ④	14	d:13.4x13.4? pd:3; l:11.8	faience	white, pale green glaze on the surface	I.M.7-4
B113	36	F.D. ④ west part	14	d:12x12 pd:2; l:10.6	faience	white, pale green glaze on the surface	I.M.8-1
B114	93	F.D. ③~④	14	d:16x16 pd:3; l:14.8	faience	white, pale green glaze on the surface	I.M.8-2
B115	2	RS, below Phase 4	14	d:11.5x11 pd:1.5	faience	pale yellow, there is some	I.M.7-1
B116	341	F.D., west corner ⑤	14	d:8x8 pd:1.8; l:7	frit	pale yellow	I.M.88-3
B117	14	U.S. ③	14	d:8x8; pd:2 l:8	faience	ditto	I.M.12-1
B118	289	F.D. ⑤	14	d:10x10 pd:1.6; l:7	faience	pale yellow, pale green glaze on the surface	I.M.88-1
B119	60	F.D. ④	14	d:8x8; pd:2 l:5	faience	probably white, pale green glaze on the surface	I.M.8-1(2)
B120	186	RE, below the level of Phase 2	16	d:22x20.5 pd:6 to 2.5 l:5.2	limestone p:one?	white	I.M.9-7

List of Plate 4

No.	Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	I.M. no. Rafidan no.
B121	198	RS, Phase 3	17	d:10x10 pd:2.5; l:16	faience	white with pale green glaze on the surface	I.M.87-1(2)
B122	182	U.S. ④	17	d:14x14.3 pd:5 to 2 l:16	agate p:both	white to light brown	I.M.12-6
B123	414	RN ④	17	d:5x5 pd:1.8; l:12	lapis-lazuli p:both	purplish blue	I.M.90
B124	44	RS, above Phase 4	17	d:5.8x5.8 pd:1.6 l:10.5	carneian p:both	reddish orange with white stripes	I.M.7-5
B125	71	RE, -1.6m, level of Phase 2	18	d:6x6 pd:1.4; l:5	carneian p:both	reddish orange	I.M.9-3
B126	16	U.S. ③	18	d:5.6x5.5 pd:2; l:5.2	carneian p:both	smoky reddish orange	I.M.12-1
B127	150	F.D. ④	18	d:5.7x5.3 pd:1.5; l:4.8	lapis-lazuli p:both	purplish blue	I.M.11-2
B128	94	F.D. ③~④	18	d:5x4.8 pd:1.5; l:4	carneian p:both	reddish orange	
B129	428	RN ④	18	d:7x7; pd:4 to 2; l:5	stone p:both	smoky orange	I.M.90-2
B130	15	U.S. ③	18	d:7x6.5 pd:2; l:6	carneian p:both	reddish orange	I.M.12-1
B131	160	RN ④	18	d:8x8 pd:1.5; l:5	carneian p:both	reddish orange & white stripes	I.M.10-1
B132	152	RE, -1.1m	18	d:8.2x8.5 pd:2; l:5	crystal p:one	colorless	I.M.9-5
B133	456	Pit 1	18	d:10x10 pd:1.8; l:5	carneian p:both	cloudy dark orange	I.M.95
B134	87	RE, -1.6m level of Phase 2	20	d:7x7 pd:1.8; l:6	carneian p:both	reddish orange and dark red	I.M.9-2
B135	128	RW, below Phase 3	20	d:9x7.2 pd:2.2; l:8.8	carneian p:both	reddish orange	I.M.11-10
B136	115	RW, below Phase 3	19	d:16x16 pd:7 to 3.4 l:5.8	carneian p:both	reddish orange	I.M.11-10
B137	73	RE, above the EF2	21	d:9.5x9, pd:2.5; l:12	frit	pale yellow	I.M.9-1 Ra:Fig.9-21
B138	188	RM, below Phase 3	22	d:5.5x5.5 pd:1.5 l:15	frit	pale yellow	I.M.91
B139	206	RS, Phase 3	23	d:10x9; pd:5.5; l:12	bone	milky-white	I.M.87-1(2)
B140	251	F.D. ⑤	24	d:11x11 pd:4; l:3	stone p:?	black stone	I.M.87-1(3)
B141	97	G-XVI ①	24	d:18.5x18.5 pd:3 to 2 l:4.5	agate p:one	white & light blown, stripes	I.M.4
B142	250	F.D. ⑤	25	d:15x5 pd:3; l:24	stone p:both?	smoky pink	I.M.87-1(3) Ra:Fig.9-11
B143	327	F.D., west corner ⑤	25	d:14x9 pd:2.8; l:24	agate p:both	white and pale brown stripes	I.M.88-3
B144	350	RW, below Phase 3	25	d:9x6 pd:2.5; l:17	frit	yellow	I.M.89 Ra:Fig.9-15

List of Plate 4 (contd.)

No.	Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	I.M. no. Rafidan no.
B145	105	RW, Phase 1	25	d:8.8x6 pd:2; l:18.2	agate p:both	milky-white, white, dark brown, light brown & black, stripes	I.M.11-16
B146	1	RS, below Phase 4	25	d:11x9; pd:2 l:15	agate p:both	pale brown & white, stripes	I.M.7-1
B147	20	RW2 ④	25	d:17.5x9.2 pd:2; l:24.5	agate p:both	pale brown with white stripes	I.M.11-4(1)
B148	187	RM, below Phase 3	27	d:15x8.7 pd:3; l:37.5	stone p:both	dark greenish grey	I.M.91
B149	57	U.S. ④	27	d:15.5x12.2 pd:2.5 l:21.5	agate p:both	dark brown with white stripes	I.M.12-2
B150	392	RN ④	27	d:15x10 pd:2.6; l:25	agate p:both	light brown and white stripes	I.M.90
B151	3	RS, below Phase 4	28	d:25.5x17 pd:3; l:26	agate p:both, but the holes did not reach	dark brown & white, stripes	I.M.7-1
B152	181	U.S. ④	28	d:18x8; pd:2.5; l:18	stone p:both	dark green	I.M.12-6
B153	40	RW2 ④	28	d:16.5x10 pd:3.5; l:16	agate p:one	pale brown with white stripes	I.M.11-1
B154	146	F.D. ④	26	d:17.5±x6.8 l:11.5±	alabaster p:?	white	I.M.11-2
B155	56	F.D. ④	28	d:12.8x5.4 pd:2; l:15±	faience	pale yellow, pale green glaze on the surface	
B156	39	F.d. ④ west part	28	d:12x4.5 pd:1.3 l:10.3	faience	white, pale green glaze on the surface	I.M.8-1
B157	138	RW, level of Phase 2	28	d:10x4.8 pd:1.8 l:11.2	faience	yellow, pale green glaze on the surface	I.M.11-13
B158	288	F.D. ⑤	28	d:12x4 pd:1.4; l:10	faience	white, pale green glaze on the surface	I.M.88-1

List of Plate 5

B159	170	RN, -1.3m	29a	d:13x8.2 pd:3.3 l:30<	lapis-lazuli p:both	purplish blue	I.M.10-6
B160	31	RS ④	29a	d:14x8.7 pd:2; l:24	stone, amber? p:both	amber	I.M.7-4
B161	118	RW, below Phase 3	29b	d:6x5.8 pd:3; l:14.8	agate p:both	white & light brown, stripes	I.M.11-10
B162	137	RW, below Phase 3	30	d:12.2x6± pd:2; l:12	stone? p:?	dark brown	I.M.11-12
B163	119	RW, below Phase 3	31	d:8.4x7 pd:2.5 l:15.4	agate p:both	cloudy pink & red, stripes	I.M.11-10
B164	207	RS, Phase 3	32	d:23x23; pd: 14 to 10.2 l:12	stone p:both	grey	I.M.87-1(2)
B165	416	RN ④	33	d:13x6; pd: 2.5; l:13	lapis-lazuli p:?	purplish blue	I.M.90

List of Plate 5 (contd.)

No.	Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Directions	Colours and Remarks	I.M. no. Rafidan no.
B166	4	RS, below Phase 4	34a	d:9x9; pd:2 l:6	frit	pale yellow	I.M. 7-1
B167	454	Pit 1	34b	d:15x15 pd:3; l:13	faience	white, pale green glaze on the surface	I.M. 95
B168	385	RW~F.D. ⑤	34b	d:9x9 pd:2.8; l:7	frit	yellow	I.M. 89 Ra:Fig. 9-19
B169	243	F.D. ⑤	34c	d:3x3 pd:1.5; l:2	carnelian p:?	reddish orange	I.M. 87-1(3)
B170	111	RW, Phase 1	35	d:21x5.5 pd:3.5; l:6	carnelian p:both	orange to white with dark orange stripes	I.M. 11-9 Ra:Fig. 9-24
B171	21	RS ④	36	d:18.2x12.5 pd:2.8; l:6	stone p:both	smoky dark green	I.M. 7-3 Ra:Fig. 9-26
B172	116	RW, below Phase 3	37	d:18x8 pd:2.5; l:7	stone p:both	dark brown	I.M. 11-10 Ra:Fig. 9-25
B173	37	F.D. ④ west part	38	d:1.65x1.22 pd:4; l:2.2	limestone p:one	milky-white	I.M. 8-1
B174	99	U.S. ②~③	39	d:10x4 pd:1; l:8	carnelian p:both?	light reddish orange	I.M. 6-1
B175	96	G-XVI ①	40	d:1.87x1.3 pd:2 l:3.85(head missing)	carnelian p:both	pinkish orange	I.M. 4 Ra:Fig. 9-18
B176	426	RN ④	41	d:20x15; pd:4, 2.5 and 2; l:29	stone p:crossed perforation and a hole	white and black, spots	I.M. 90-2
B177	290	F.D. ⑤	42	d:15x10 pd:4; l:52	limestone	white	I.M. 88-2
B178	458	D-XII ② (F.D. ?)	43	d:17x7 pd:2; l:18	complex of stones and metals:gold, bronze, tin?, turquoise & lapis-lazuli	purplish blue, pale blue, gold silver, etc.	I.M. 23
B179	459	F.D., west corner ④	45	d:23x8; pd:? l:25<	faience	white, pale green glaze on the surface	I.M. 20 Ra:Fig. 13-9
B180	460	F.D. ⑤	44	d:11x8; pd:2 l:18	frit	yellow	I.M. 86

Abbreviations for List of Plates and Appendix I.

d (diameter): The maximum horizontal diameter at right angles to the perforation.

pd (diameter of perforation): The diameter between the mouth of perforation and its end, when the trace of the drill is sharp and long. When the perforation was made with a V-shaped drill, the measurement indicates two sizes, the maximum diameter at the mouth of the perforation and the minimum diameter of the inside.

l (length): The maximum length in the vertical direction at right angles to the perforation.

p (perforated direction): The term "one" indicates drilling from one end, and the term "both" indicates drilling from both ends.

I.M. no.: Iraq Museum reference number when we registered the beads at the site.

Rafidan no. (Ra): The figure number of *al-Rāfidān* Vol. 5/6 [Fujii *et al.*: 1984/85].

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
35	RW2 ④	5	d:6x6 pd:2; l:21	agate p:both	pale brown with white stripes	Pl. 2-B32 I.M. 11-4(2)
36	F.D. ④ west part	14	d:12x12 pd:2; l:10.6	faience	white, pale green glaze on the surface	Pl. 3-B113 I.M. 8-1
37	ditto	38	d:1.65x1.22 pd:4; l:2.2	limestone p:one	milky-white	Pl. 4-B173 I.M. 8-1
38	ditto	4	d:9.2x9 pd:1.5; l:0.9	limestone or shell; p:both	milky-white	Pl. 1-B25 I.M. 8-1
39	ditto	28	d:12x4.5 pd:1.3 l:10.3	faience	white, pale green glaze on the surface	Pl. 4-B156 I.M. 8-1
40	RW2 ④	28	d:16.5x10 pd:3.5; l:16	agate p:one	pale brown with white stripes	Pl. 4-B153 I.M. 11-1
41	(transfer to the section of weight)					
42	RS, above Phase 4	7b	d:11x11 pd:5 to 2 l:8.4	limestone p:both	milky-white	Pl. 2-B49 I.M. 7-5
43	ditto.	14	d:7x7; pd:2.3 l:6.5	carnelian p:both	reddish orange	Pl. 3-B81 I.M. 7-5
44	ditto	17	d:5.8x5.8 pd:1.6 l:10.5	carnelian p:both	reddish orange with white stripes	Pl. 4-B124 I.M. 7-5
45	ditto	5?	d:5.5x5.5 pd:2; l:?	faience	pale yellow, white glaze (breached?) on the surface	
46	F.D. ③	14	d:5.5x5.3 pd:1.2; l:5	carnelian p:both	light reddish orange	Pl. 3-B92 I.M. 11-6
47	F.D. ③	9	d:6.4x6 pd:2; l:13<	carnelian p:both	reddish orange	I.M. 7-6
48	RE, -1.8m	14	d:10.6x10.7 pd:2; l:10	carnelian p:both	reddish orange with red stripes	Pl. 3-B86 I.M. 9-4
49	ditto	14	d:5.8x5.8 pd:2.5 to 1 l:3.2	carnelian p:both	reddish orange	Pl. 3-B97 I.M. 9-4
50	ditto	7b	d:4.5x4.5 pd:1.2; l:4.8	carnelian p:both	reddish orange	Pl. 2-B50 I.M. 9-4
51	U.S. ④	13	d:5.5x5.5 pd:1.5; l:5.7	carnelian p:both	reddish orange	Pl. 3-B78 I.M. 12-3
52	R.W. Phase 3	14	d:8.5x8.5 pd:2.2; l:6.5	carnelian p:both	orange, smoky reddish orange stripes and reddish orange	Pl. 3-B103 I.M. 11-8
53	ditto	14	d:7x7, pd:2 l:6	carnelian p:both	reddish orange	Pl. 3-B99 I.M. 11-8
54	R-XIII ① north part	9	d:6.4x6 pd:1.6; l:?	carnelian p:both	light reddish orange	
55	D-XI, on the natural ground	6	d:7x7; pd:1.8 l:11.7	agate p:both	white with pale brown stripes	Pl. 2-B40 I.M. 1
56	F.D. ④	28	d:12.8x5.4 pd:2; l:15+	faience	pale yellow, pale green glaze on the surface	Pl. 4-B155
57	U.S. ④	27	d:15.5x12.2 pd:2.3 l:21.5	agate p:both	dark brown with white stripes	Pl. 4-B149 I.M. 12-2
58	F.D. ④	14	d:15x14.8 pd:2; l:11.8	carnelian p:both	orange	Pl. 3-B95 I.M. 8-1(2)
59	ditto	13	d:11x10.8 pd:2; l:12.8	agate p:both	milky-white & pale brown with white stripes	Pl. 3-B75 I.M. 8-1(2)
60	ditto	14	d:8x8; pd:2 l:5	faience	probably white, pale green glaze on the surface	Pl. 3-B119 I.M. 8-1(2)
61	ditto	14	d:18?x18? pd:2; l:?	crystal p:?	colorless	Pl. 3-B109 I.M. 8-1(2)
62	(transfer to the section of stone objects)					
63	F.D. ④	4	d:6x6, pd:2; l:1	limestone p:both	milky-white	Pl. 1-B26 I.M. 8-1(2)
64	ditto	14	d:8.7x8.5 pd:2; l:8	carnelian p:both	orange	Pl. 3-B82 I.M. 8-1(2)
65	ditto	14	d:9.8x9.8 pd:1.5; l:8	carnelian p:both	orange	Pl. 3-B96 I.M. 8-1(2)
66	ditto	11	d:7.2x7 d:3 to 1.5 l:5	carnelian p:both	orange	Pl. 2-B71 I.M. 8-1(2)

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
67	ditto	15	d:6x5.5 pd:2; l:3.5	carneilian p:both	light orange	Pl. 3-B107 I.M. 8-1(2)
68	ditto	14	d:5.8x5.8 pd:1.5; l:4	carneilian p:one	smoky orange	Pl. 3-B104 I.M. 8-1(2)
69	II-XVI ①	9	d:7.6x7.5 pd:1.6 l:2.36	agate p:both	light brown, smoky grey and white stripes	Pl. 2-B57 I.M. 5
70	RR, -1.6m, level of Phase 2	3b	d:7.2x7 pd:3 to 2 l:2.8	limestone p:both	milky-white	Pl. 1-B23 I.M. 9-3
71	ditto	18	d:6x6 pd:1.4; l:5	carneilian p:both	reddish orange	Pl. 4-B125 I.M. 9-3
72	ditto	5	d:7x7; pd:2 l:2.4<	carneilian p:both	reddish orange and white	
73	RR, above the EF2	21	d:9.5x9, pd:2.5; l:12	frit	pale yellow	Pl. 4-B137 I.M. 9-1 Ra: Fig. 9-21
74	ditto	14	d:7x7; pd:2 l:6.2	agate p:both	reddish orange with dark red stripes	Pl. 3-B83 I.M. 9-1
75	ditto	9	d:6x6; pd:1 l:13	carneilian p:both	reddish orange with dark red stripes	Pl. 2-B61 I.M. 9-1
76	ditto	9	d:5x5; p:? l:1.2<	carneilian p:both	light reddish orange with white and dark orange stripes	I.M. 9-1
77	ditto	3b	d:5.5x5.5 pd:2.5 to l:3; l:2.5	carneilian p:both	reddish orange	Pl. 1-B22 I.M. 9-1
78	ditto	14	d:7x7; pd:? l:6.5	carneilian p:both	reddish orange	
79	U.S. ④	14	d:6.5x6.5 pd:2; l:6.5	carneilian p:both	reddish orange with dark red stripes	Pl. 3-B84 I.M. 12-4
80	ditto	14	d:5.5x5.5 pd:2; l:5	carneilian p:both	light reddish orange with dark red stripes	I.M. 12-4
81	ditto	14	d:5.5x5.5 pd:1.7; l:4.5	carneilian p:both	reddish orange	I.M. 12-4
82	ditto	7b	d:7x7; pd:4.5 to 2; l:5.5	carneilian p:both	reddish orange	Pl. 2-B47 I.M. 12-4
83	ditto	15	d:7x7; pd:2 l:4	carneilian p:both	light reddish orange, dark reddish orange stripes	I.M. 12-4
84	RR, -1.6m, level of Phase 2	7b	d:10.2x10.2 pd:5.5 to 2 l:7	carneilian p:both	reddish orange and smoky reddish orange,	Pl. 2-B52 I.M. 9-2
85	ditto	7b	d:9.8x9.8 pd:6 to 2 l:7.8	carneilian p:both	light reddish orange	I.M. 9-2
86	ditto	14	d:8.5x8.5 pd:2; l:7	carneilian p:both	reddish orange with dark red stripes	I.M. 9-2
87	ditto	20	d:7x7 pd:1.8; l:6	carneilian p:both	reddish orange and dark red	Pl. 4-B134 I.M. 9-2
88	ditto	9	d:5x5; pd:1.5 l:10.5	carneilian p:both	reddish orange with dark red stripes	I.M. 9-2
89	ditto	1a	d:3x3; pd:1 l:5.5	faience	white?, light blue glaze on the surface	Pl. 1-B7 I.M. 9-2
90	ditto	3b	d:6x6; pd:3 to 1.5; l:3	stone p:both	greyish black	Pl. 1-B19 I.M. 9-2
91	ditto	3a	d:5.5x5.5 pd:1.8; l:3	limestone p:both	milky-white	Pl. 1-B17 I.M. 9-2
92	ditto	4	d:4x4; pd:1 l:0.5	stone p:both?	greyish black	Pl. 1-B29
93	F.D. ③~④	14	d:16x16 pd:3; l:14.8	faience	white, pale green glaze on the surface	Pl. 3-B114 I.M. 8-2
94	ditto	18	d:5x4.8 pd:1.5; l:4	carneilian p:both	reddish orange	Pl. 4-B128
95	(transfer to the section of stone objects)					
96	G-XVI ①	40	d:1.87x1.3 pd:2 l:3.85(head missing)	carneilian p:both	pinkish orange	Pl. 5-B175 I.M. 4 Ra: Fig. 9-18
97	ditto	24	d:18.5x18.5 pd:3 to 2 l:4.5	agate p:one	white & light brown, stripes	Pl. 4-B141 I.M. 4
98	ditto	9	half missing			
99	U.S. ②~③	39	d:10x4 pd:1; l:8	carneilian p:both?	light reddish orange	Pl. 5-B174 I.M. 6-1

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
100	RW, Phase 1	14	d:6x6; pd:2 l:6	carnelian p:both	reddish orange	I.M.11-14
101	ditto	14	d:7x7; pd:2 l:5.5	carnelian p:both	reddish orange	I.M.11-15
102	ditto	14	d:9.5x9.5 p:2.2; l:8.5	faience	yellow?, pale green glaze on the surface	I.M.11-15
103	ditto	4	d:10x10 pd:2.2; l:1.5	limestone or shell; p:?	milky-white	I.M.11-15
104	ditto	28	d:14x6.5 pd:1.5; l:12	faience	yellow, pale green glaze on the surface	I.M.11-16
105	ditto	25	d:8.8x6 pd:2; l:18.2	agate p:both	milky-white, white, dark brown, light brown & black, stripes	Pl.4-B145 I.M.11-16
106	ditto	9	d:7.2x6.8 pd:2; l:17	agate p:both	white & light brown stripes	Pl.2-B58 I.M.11-16
107	ditto	14	d:4.5x4.5 pd:1.5; l:3.5	carnelian p:both	reddish orange	I.M.11-17
108	ditto	15	d:7x7;pd:1.8 l:4.5	carnelian p:both	orange	I.M.11-18
109	ditto	13	d:8x8; pd:2 l:9.2	carnelian p:both	light reddish orange	Pl.3-B76 I.M.11-18 Ra:Fig.9-12
110	ditto	13	d:6x6; pd:2 l:7.5	carnelian p:both	reddish orange	I.M.11-18
111	ditto	35	d:21x5.5 pd:3.5; l:6	carnelian p:both	orange to white with dark orange stripes	Pl.5-B170 I.M.11-9 Ra:Fig.9-24
112	ditto	7b	d:15x15 pd:10 to 2 l:10	carnelian p:both	reddish orange	I.M.11-9
113	ditto	4	d:6.5x6.5 pd:1.5; l:1	limestone p:both	milky-white	I.M.11-9
114	(transfer to the section of stamp seals)					
115	RW, below Phase 3	19	d:16x16 pd:7 to 3.4 l:5.8	carnelian p:both	reddish orange	Pl.4-B136 I.M.11-10
116	ditto	37	d:18x8 pd:2.5; l:7	stone p:both	dark brown	Pl.5-B172 I.M.11-10 Ra:Fig.9-25
117	ditto	5	d:8x8;pd:4.5 l:15	stone p:both	brownish grey	Pl.2-B33 I.M.11-10
118	ditto	29b	d:6x5.8 pd:3; l:14.8	agate p:both	white & light brown, stripes	Pl.5-B161 I.M.11-10
119	RW, below Phase 3	31	d:8.4x7 pd:2.5 l:15.4	agate p:both	cloudy pink & red, stripes	Pl.5-B163 I.M.11-10
120	ditto	14	d:10x10 pd:4; l:6.5	faience	white? pale green glaze on the surface	I.M.11-10
121	ditto	14	d:8x8; pd:2 l:6	frit	yellow	I.M.11-10
122	ditto	14	d:6x6; pd:2 l:6	faience	? pale green glaze on the surface	I.M.11-10
123	ditto	2b	d:6.5x6.5 pd:2.5; l:4	limestone p:both	milky-white	Pl.1-B12 I.M.11-10
124	ditto	4	d:9x9; pd:3 l:1.5	shell p:both	milky-white	I.M.11-10
125	ditto	3a	d:5x5;pd:1.5 l:2.2	limestone p:both	white	I.M.11-10
126	ditto	14	d:4.5x4.5 pd:1.5; l:4.5	carnelian p:both	reddish orange	I.M.11-10
127	ditto	13	d:6.5x6.5 pd:2.2; l:7.5	carnelian p:both	reddish orange	I.M.11-10
128	ditto	20	d:9x7.2 pd:2.2; l:8.8	carnelian p:both	reddish orange	Pl.4-B135 I.M.11-10
129	ditto	10	d:6x5; pd:2 l:7.8	lapis-lazuli p:both	dark purplish blue	Pl.2-B67
130	ditto	1a	d:12x12 pd:3; l:22.2	alabaster p:both?	pinkish-white	Pl.1-B2 I.M.11-11 Ra:Fig.9-22
131	ditto	14	d:6.5x6.5 pd:1.5; l:5.5	carnelian p:both	reddish orange with white stripes	I.M.11-12
132	ditto	14	d:5x5; pd:1.5; l:4	carnelian p:both	reddish orange	I.M.11-12

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I. M. no. Rafidan no.
133	ditto	14	d:4.5x4.5 pd:1.5; l:3.2	cornelian p:both	reddish orange	I. M. 11-12
134	ditto	2a	d:4.5x4.5 pd:2; l:3.5	baked clay	dark brown	Pl. 1-B11 I. M. 11-12
135	ditto	2a	d:4.5x4.5 pd:1.5; l:3	baked clay	dark brown	I. M. 11-12
136	ditto	2a	d:4.5x4.5 pd:1.2; l:2.5	baked clay	dark brown	I. M. 11-12
137	RW, below Phase 3	30	d:12.2x6± pd:2; l:12	stone? p:?	dark brown	Pl. 5-B162 I. M. 11-12
138	RW, level of Phase 2	28	d:10x4.8 pd:1.8 l:11.2	faience	yellow, pale green graze on the surface	Pl. 4-B157 I. M. 11-13
139	ditto	6?	d:7x5.5 pd:?.; l:8	faience	?	I. M. 11-13
140	ditto	3b	d:4.5x4.5 pd:2.5 to 1.5; l:2	limestone p:both	white	I. M. 11-13
141	ditto	2a	d:4.5x4.5 pd:1.5; l:2.5	baked clay	dark brown	I. M. 11-13
142	ditto	14	d:9x9; pd:2 l:8	cornelian p:both	dark reddish orange	I. M. 11-13
143	ditto	14	d:4.5x4.5 pd:2; l:3	cornelian p:both	reddish orange	I. M. 11-13
144	(transfer to the section of stone objects)					
145	F. D. ⑤	6	d:8.5x8.2 pd:2; l:15.2	agate p:both	white and light brown	Pl. 2-B37 I. M. 7-7 Ra: Fig. 9-17
146	F. D. ④	26	d:17.5±x6.8 l:11.5±	alabaster p:?	white	Pl. 4-B154 I. M. 11-2
147	ditto	9	d:7x7; pd:1.5 l:14.5	cornelian p:both	light reddish orange	I. M. 11-2
148	ditto	3b	d:8x8; pd:3 to 1.5; l:3	limestone or shell p:both	white	Pl. 1-B20 I. M. 11-2 Ra: Fig. 9-14
149	ditto	18	d:7x7; pd:? l:5	cornelian p:both	reddish orange stripes	I. M. 11-2
150	ditto	18	d:5.7x5.3 pd:1.5; l:4.8	lapis-lazuli p:both	purplish blue	Pl. 4-B127 I. M. 11-2
151	RE, -1.1m,	5	d:9.8x7.5 pd:2.8; l:28	agate p:both	light brown to brown with white stripes	Pl. 2-B35 I. M. 9-5
152	ditto	18	d:8.2x8.5 pd:2; l:5	crystal p:one	colorless	Pl. 4-B132 I. M. 9-5
153	ditto	14	d:8 ±?	cornelian p:both	reddish orange	I. M. 9-5
154	ditto	9	d:6x6, l:13	cornelian p:both	reddish orange	I. M. 9-5
155	RN ④	3b	d:6.5x6.5 pd:4 to 1.5 l:3	cornelian p:both	reddish orange	I. M. 9-5
156	RN ④	3b	d:7.2x7.2 pd:2; l:3.2	stone p:both	grey	Pl. 1-B15 I. M. 10-1
157	ditto	11	d:7x7; pd:2 l:4	cornelian p:one	reddish orange with white stripes	I. M. 10-1
158	ditto	14	d:3.6x3.6 pd:1; l:3.3	agate p:one?	light brown, white & dark brown, stripes	Pl. 3-B93 I. M. 10-1
159	ditto	5	d:4.3x4 pd:1.5; l:16	agate p:both	white & light orangish brown with light brown stripes	Pl. 2-B36 I. M. 10-1
160	ditto	18	d:8x8 pd:1.5; l:5	cornelian p:both	reddish orange & white stripes	Pl. 4-B131 I. M. 10-1
161	RN, -1.3m	14	d:15x15 p:2; l:12	cornelian p:both	reddish orange and smoky orange, stripes	I. M. 10-3
162	ditto	14	d:5.5x5.5 pd:1.8; l:5.5	cornelian p:both	reddish orange	I. M. 10-3
163	RN, -1m	14	d:16.8x16 pd:2.5 l:10.8	cornelian p:both	reddish orange	Pl. 3-B100 I. M. 10-4
164	ditto	7b	d:13.5x13.5 pd:7.5 to 2.5; l:8.5	cornelian p:both	light reddish orange	I. M. 10-4
165	ditto	14	d:9x9; pd:2.5 l:7.5	cornelian p:both	smoky reddish brown	I. M. 10-4
166	ditto	14	d:7.5x7.5 pd:1.8; l:6.5	cornelian p:both	reddish orange stripes	I. M. 10-4

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
167	ditto	4	d:10.5x10.5 pd:3; l:1.5	limestone p:one	milky-white	I.M. 10-4
168	RN ④	14	d:11x10.5 pd:2; l:10.5	crystal p:both	colourless	Pl. 3-B110 I.M. 10-5
169	ditto	14	d:5.5x5.5 pd:2; l:5.5	carnelian p:both	cloudy reddish orange	I.M. 10-5
170	RN, -1.3m	29a	d:13x8.2 pd:3.3 l:30<	lapis-lazuli p:both	purplish blue	Pl. 5-B159 I.M. 10-6
171	ditto	14	d:6.5x6.5 pd:1.6; l:1.5	carnelian p:both	reddish orange	Pl. 3-B88 I.M. 10-6
172	ditto	3a	d:7.5x7.2 pd:1.5; l:2.4	stone p:both	black	Pl. 1-B18 I.M. 10-6
173	U.S. ④	7b	d:1.2x1.2 pd:7.5 to 2 l:8.5	limestone p:both	white	I.M. 12-5
174	U.S. ④	7	d:11.5x11.5 pd:7.5 to 3 l:8	carnelian p:both	reddish orange with brown stripes	I.M. 12-5
175	ditto	9	d:6.5x6 pd:2.5 l:17.5	agate p:both	white & light brown stripes	I.M. 12-5
176	ditto	14	d:7.8x7.8 pd:2; l:6.8	carnelian p:both	reddish orange	Pl. 3-B89 I.M. 12-5
177	ditto	14	d:6x6; pd:2 l:6	carnelian p:both	reddish orange	I.M. 12-5
178	ditto	14	d:6x6 pd:1.5; l:5	agate p:both	reddish orange	I.M. 12-5
179	ditto	7a	d:4.5x4 pd:1; l:3.5	carnelian p:both	reddish orange	Pl. 2-B46 I.M. 12-5
180	ditto	2a	d:4.5x4.5 pd:1.5; l:2.5	baked clay	dark brown	I.M. 12-5
181	ditto	28	d:18x8; pd:2.5; l:18	stone p:both	dark green	Pl. 4-B152 I.M. 12-6
182	ditto	17	d:14x14.3 pd:5 to 2 l:16	agate p:both	white to light brown	Pl. 4-B122 I.M. 12-6
183	ditto	11	d:10x10 pd:3.5 to 1.5; l:10	carnelian p:both	light reddish orange	Pl. 2-B68 I.M. 12-6
184	ditto	4	d:6.5x6.5 pd:2; l:1.5	shell	milky-white	I.M. 12-6
185	RE~RN, -1.1m	2b	d:12.5x12.5 pd:5; l:7.2	limestone	white	Pl. 1-B14 I.M. 9-6
186	RE, below the level of Phase 2	16	d:22x20.5 pd:6 to 2.5 l:5.2	limestone p:one?	white	Pl. 3-B120 I.M. 9-7
187	RN, below Phase 3	27	d:15x8.7 pd:3; l:37.5	stone p:both	dark greenish grey	Pl. 4-B148 I.M. 91
188	ditto	22	d:5.5x5.5 pd:1.5 l:15.1	frill	pale yellow	Pl. 4-B138 I.M. 91
189	RS, below Phase 4	14	d:13x13 pd:2; l:10	agate p:both	light brown & white, stripes	I.M. 87-1(1)
190	ditto	14	d:8x8; pd:2 l:6	carnelian p:both	reddish orange	I.M. 87-1(1)
191	ditto	7a	d:4x4; pd:2 l:4	carnelian p:both	reddish orange	I.M. 87-1(1)
192	RS, below Phase 4	7b	d:7x7; pd:5 to 2; l:5	carnelian p:both	light reddish orange	I.M. 87-1(1)
193	ditto	3b	d:6x6; pd:4 to 1; l:3	carnelian p:both	pinkish orange	I.M. 87-1(1)
194	ditto	7b	d:5x5; pd:3.5 to 1.5; l:3	carnelian p:both	reddish orange	I.M. 87-1(1)
195	ditto	14	d:8x8; pd:2 l:5	agate? p:both?	light brown with black stripes	Pl. 3-B102 I.M. 87-1(1)
196	ditto	14	d:7x7; pd:2 l:6	crystal p:both?	colourless	I.M. 87-1(1)
197	ditto	10	d:8x8; pd:2.5; l:13	hematite p:both	dark grey	I.M. 87-1(1)
198	RS, Phase 3	17	d:10x10 pd:2.5; l:16	faience	white with pale green glaze on the surface	Pl. 4-B121 I.M. 87-1(2)
199	ditto	11	d:12x12 pd:3.6; l:8	faience	pale yellow with pale green glaze on the surface	Pl. 2-B72 I.M. 87-1(2)
200	ditto	28	d:12x4; l:12	faience	pale yellow, pale green glaze on the surface	I.M. 87-1(2)
201	ditto	28	d:11.4; l:9	faience	ditto	I.M. 87-1(2)

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (0B-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Kafidan no.
202	ditto	28	d:10x3; l:9	faience	ditto	I.M. 87-1(2)
203	ditto	14	d:8x8; pd:2 l:8	carnelian p:both	reddish orange	I.M. 87-1(2)
204	ditto	14	d:7x7; pd:2 l:7	carnelian p:both	light reddish orange	I.M. 87-1(2)
205	ditto	7b	d:7x7; pd:6 to 2.5; l:5	carnelian p:both	reddish orange	I.M. 87-1(2)
206	ditto	23	d:10x9; pd:5.5; l:12	bone	milky-white	Pl. 4-B139 I.M. 87-1(2)
207	ditto	32	d:23x23; pd: 14 to 10.2 l:12	stone p:both	grey	Pl. 5-B164 I.M. 87-1(2)
208	F.D. ⑤	23	d:14x12 pd:8x6; l:15	bone	milky-white	I.M. 87-1(3)
209	ditto	7b	d:15x15; pd: 9 to 3; l:10	carnelian p:both	light reddish orange & dark reddish orange	Pl. 2-B53 I.M. 87-1(3)
210	F.D. ⑤	7b	d:9x9; pd:6 to 1.5; l:7	carnelian p:both	light reddish orange	I.M. 87-1(3)
211	ditto	7b	d:11x11; pd:8 to 2; l:8	carnelian p:both	reddish orange	I.M. 87-1(3)
212	ditto	7b	d:9x9; pd:4.5 to 2; l:5	carnelian p:both	reddish orange	I.M. 87-1(3)
213	ditto	7b	d:7x7; pd:2 l:5	carnelian p:both	reddish orange	Pl. 2-B51 I.M. 87-1(3)
214	ditto	15	d:7x7; pd:2 l:4	carnelian p:both	light reddish orange	I.M. 87-1(3)
215	ditto	14	d:5x5; pd:2 l:4	carnelian p:both	reddish orange	I.M. 87-1(3)
216	ditto	7b	d:5x5; pd:4 to 2; l:4	carnelian p:both	reddish orange	I.M. 87-1(3)
217	ditto	14	d:4x4; pd:2 l:4	carnelian p:both	reddish orange	I.M. 87-1(3)
218	ditto	14	d:5x5 pd:1.5; l:5	carnelian p:both	reddish orange	I.M. 87-1(3)
219	ditto	13	d:4x4 pd:1.5; l:5	carnelian p:both	reddish orange	I.M. 87-1(3)
220	ditto	14	d:5x5 pd:2.5; l:5	carnelian p:both	light reddish orange	I.M. 87-1(3)
221	ditto	14	d:4x4 pd:1.5; l:4	carnelian p:both	reddish orange	I.M. 87-1(3)
222	ditto	13	d:4x4 pd:1.8; l:5	carnelian p:both	reddish orange	I.M. 87-1(3)
223	ditto	14	d:5x5 pd:1.2; l:4	carnelian p:both	reddish orange	I.M. 87-1(3)
224	ditto	14	d:6x6 pd:1.5; l:5	carnelian p:both	orangeish red	I.M. 87-1(3)
225	ditto	14	d:4x4 pd:2; l:4	carnelian p:both	reddish	I.M. 87-1(3)
226	ditto	14	d:3x3 pd:1.5; l:3	carnelian p:both	light reddish orange	I.M. 87-1(3)
227	ditto	14	d:4x4 pd:2; l:3	carnelian p:both	reddish orange	I.M. 87-1(3)
228	ditto	14	d:5x5 pd:2; l:4	carnelian p:both	light orange	I.M. 87-1(3)
229	ditto	7a	d:3x3; pd:2 l:4	carnelian p:both	smoky reddish orange	I.M. 87-1(3)
230	F.D. ⑤	7a	d:3x3; pd:2 l:3	carnelian p:both	reddish orange	I.M. 87-1(3)
231	ditto	7a	d:2x2 pd:1.5; l:3	carnelian p:both	reddish orange	I.M. 87-1(3)
232	ditto	11	d:6x6; pd:4 to 2; l:5	carnelian p:both	smoky reddish orange	I.M. 87-1(3)
233	ditto	14?	d:5x5 pd:1.5; l:3<	carnelian p:both	orangeish red	I.M. 87-1(3)
234	ditto	11	d:5x5; pd:4 to 1.5; l:4	carnelian p:both	reddish orange, stripes	I.M. 87-1(3)
235	ditto	3b	d:5x5 pd:1.5; l:2	carnelian p:both	pinkish orange	I.M. 87-1(3)
236	ditto	3b	d:7x7 pd:1.8; l:2	carnelian p:both	orangeish red	I.M. 87-1(3)
237	ditto	14?	d:5x5; pd:2 l:3<	carnelian p:both	orangeish red	I.M. 87-1(3)
238	ditto	3b	d:7x7 pd:1.5; l:3	carnelian p:both	orangeish red	I.M. 87-1(3)
239	ditto	12	d:3x3; pd:3 to 1.5; l:2	carnelian p:both	smoky reddish orange	Pl. 2-B73 I.M. 87-1(3)
240	ditto	3b	d:4x4; pd:4 to 1.5; l:2	carnelian p:both	reddish orange	I.M. 87-1(3)

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I. M. no. Rafidan no.
241	ditto	13	d:6x6; pd:2 l:10	cornelian p:both	light reddish orange	I. M. 87-1(3)
242	ditto	6	d:4x4 pd:2.5; l:6	cornelian p:both	light reddish orange	I. M. 87-1(3)
243	ditto	34c	d:3x3 pd:1.5; l:2	cornelian p:?	reddish orange	Pl. 5-B169 I. M. 87-1(3)
244	ditto	9	d:6x6 pd:3; l:14	agate p:both	white & light brown, stripes	I. M. 87-1(3)
245	ditto	9	d:8x6; l:17	agate p:both	light brown	I. M. 87-1(3)
246	ditto	13	d:6x6; pd:2 l:9	cornelian p:both	orangeish red	I. M. 87-1(3)
247	ditto	1a	d:6x6; pd:2 l:11	alabaster p:?	pinkish white	I. M. 87-1(3)
248	ditto	5	d:5x5; pd:2 l:17<	alabaster p:?	pink and white	I. M. 87-1(3)
249	ditto	5?	d:6x5<; pd:2 l:20	alabaster p:?	pinkish	I. M. 87-1(3)
250	F. D. ⑤	25	d:15x5 pd:3; l:24	stone p:both?	smoky pink	Pl. 4-B142 I. M. 87-1(3) Ra: Fig. 9-11
251	ditto	24	d:11x11 pd:4; l:3	stone p:?	black stone	Pl. 4-B140 I. M. 87-1(3)
252	ditto	14	d:10x10 pd:1.5; l:10	frit	dark brown	I. M. 87-1(3)
253	ditto	5?	d:7x6; l:19	alabaster		I. M. 87-1(3)
254	ditto	28	d:10x5; l:10	faience	yellow? pale green glaze on the surface	I. M. 87-1(3)
255	ditto	28	d:12x4; l:11	faience	pale yellow, pale green glaze on the surface	I. M. 87-1(3)
256	ditto	28	d:12x4; l:10	faience	pale yellow, pale green glaze on the surface	I. M. 87-1(3)
257	ditto	28	d:11x4; l:10	faience	pale yellow, pale green glaze on the surface	I. M. 87-1(3)
258	ditto	28	d:10x4; l:9	faience	yellow, pale green glaze on the surface	I. M. 87-1(3)
259	ditto	28	d:12x4; l:9	faience	pale yellow, probably pale green glaze on the surface	I. M. 87-1(3)
260	ditto	28	d:12x5; l:11	faience	pale yellow, pale green glaze on the surface	I. M. 87-1(3)
261	ditto	28	d:13x4; l:11	faience	pale yellow, pale green glaze on the surface	I. M. 87-1(3)
262	ditto	28	d:10x4; l:9	faience	ditto?	I. M. 87-1(3)
263	ditto	28	d:7x4; l:9	faience	white, probably pale green glaze on the surface	I. M. 87-1(3)
264	ditto	28	d:7x3; l:7	faience	ditto?	I. M. 87-1(3)
265	ditto	28	d:11x5; l:10	faience	pale yellow, green glaze on the surface	I. M. 87-1(3)
266	F. D. ⑤	28	d:9x4; l:7	faience	pale yellow, green glaze on the surface	I. M. 87-1(3)
267	ditto	28	d:14x5; l:9	faience	yellow, probably pale green glaze on the surface	I. M. 87-1(3)
268	ditto	22	d:7x7; l:10<	frit	pale yellow	I. M. 87-1(3)
269	ditto	14?	d:4x4<; l:6	frit	pale yellow	I. M. 87-1(3)
270	ditto	34b	d:10x10; l:7	frit	pale yellow	I. M. 87-1(3)
271	ditto	14	d:7x7; pd:2 l:5	frit	pale yellow	I. M. 87-1(3)
272	ditto	14	d:7x7 pd:1.5; l:5	frit	pale yellow	I. M. 87-1(3)
273	ditto	14	d:7x7 pd:1.5; l:5	frit	pale yellow	I. M. 87-1(3)
274	ditto	15	d:6x6; pd:2 l:4	frit		I. M. 87-1(3)

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
275	ditto	15	d:6x6; pd:2 l:3	frit		I.M. 87-1(3)
276	ditto	14	d:6x6, l:5	frit		I.M. 87-1(3)
277	U.S. ④	18?	d:7x7, l:6	stone p:both	smoky orange to light orange with two stripes	I.M. 87-2(1)
278	ditto	7a	d:8x8; pd:2.6; l:6	bone?	milky-white	Pl. 2-B44 I.M. 87-2(1)
279	ditto	10	d:6x6; pd:2 l:11	carnelian p:both	reddish orange	I.M. 87-2(1)
280	ditto	3b	d:6x6; pd:4 to 2; l:3	carnelian p:both	pinkish orange	I.M. 87-2(1)
281	ditto	9	d:8x8; pd:4 l:20	stone p:both	reddish pink	I.M. 87-2(2)
282	ditto	1a	d:9x9; pd:3 l:9	alabaster p:?	white to smoky colourless	I.M. 87-2(2)
283	F.D. ⑤	7b	d:8x8; pd:7 to 2; l:4	carnelian p:both	reddish orange	I.M. 87-2(3)
284	ditto	6	d:6x6; pd:2 l:11	carnelian p:both	reddish orange	I.M. 88-1
285	ditto	4	d:10x10 pd:2.5; l:1.5	limestone or shell	milky-white	I.M. 88-1
286	F.D. ⑤	28	d:12x3.5 l:7	faience		I.M. 88-1
287	ditto	28	d:10x4; l:11	faience	pale yellow, pale green glaze on the surface	I.M. 88-1
288	ditto	28	d:12x4 pd:1.4; l:10	faience	white, pale green glaze on the surface	Pl. 4-B158 I.M. 88-1
289	ditto	14	d:10x10 pd:1.6; l:7	faience	pale yellow, probably pale green glaze on the surface	Pl. 3-B118 I.M. 88-1
290	ditto	42	d:15x10 pd:4; l:5.2	limestone	white	Pl. 5-B177 I.M. 88-2
291	ditto	28	d:10x4; l:11	faience	pale yellow, pale green glaze on the surface	I.M. 88-2
292	ditto	14	d:6x6; pd:2 l:5	carnelian p:both	smoky reddish orange, stripes	I.M. 88-2
293	ditto	1a	d:4x4; pd:1.5 l:10	frit	pale blue	Pl. 1-B5 I.M. 88-2
294	ditto	14	d:7x7 pd:1.2; l:7	frit	dark brown	I.M. 88-2
295	ditto	34b?	d:7x7; l:4	frit	white	I.M. 88-2
296	ditto	14	d:6x6; l:4	frit	pale yellow	I.M. 88-2
297	ditto	28	d:12x5; l:11	faience	pale yellow, pale green glaze on the surface	I.M. 88-2
298	ditto	13	d:5x5; pd:2 l:6	agate p:both	white & dark brown stripes	I.M. 88-2
299	ditto	39	d:8x4; l:11	carnelian	light reddish orange	I.M. 88-2
300	ditto	6	d:4x4 pd:1.5; l:9	carnelian p:both	dark red	I.M. 88-2
301	ditto	9	d:4x4 pd:1.5; l:10	carnelian p:both	orangeish red	I.M. 88-2
302	ditto	9	d:5x5 pd:1.5; l:12	carnelian p:both	reddish orange	I.M. 88-2
303	ditto	14	d:5x5 pd:1.5; l:5	carnelian p:both	light reddish orange	I.M. 88-2
304	ditto	9	d:5x5 pd:2; l:14	carnelian p:both	reddish orange	Pl. 2-62 I.M. 88-2
305	ditto	2b	d:7x7 pd:2.5; l:5	agate p:?	light brown	I.M. 88-2
306	ditto	14	d:7x7; pd:2 l:5	carnelian p:both	orangeish red	I.M. 88-2
307	ditto	7a	d:4x4 pd:1.5; l:4	carnelian p:both	reddish orange	I.M. 88-2
308	ditto	13	d:3.5x3.5 pd:2; l:5	carnelian p:both	reddish orange	I.M. 88-2
309	ditto	14	d:4x4; pd:2 l:4	carnelian p:both	light reddish orange	I.M. 88-2
310	ditto	14	d:9x9; pd:2 l:7	carnelian p:both	reddish orange	I.M. 88-2
311	ditto	14	d:5x5; pd:2 l:4.5	carnelian p:both	reddish orange	I.M. 88-2

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
312	ditto	14	d:5x5; pd:1.5; l:4	carnelian p:both	orangeish red	I.M. 88-2
313	ditto	14	d:5.5x5.5; pd:2; l:4	carnelian p:both	reddish orange	I.M. 88-2
314	ditto	14	d:5x5; pd:1.8; l:5	carnelian p:both	light reddish orange	I.M. 88-2
315	ditto	14	d:7x7; pd:1.8; l:5	carnelian p:both	orangeish red	I.M. 88-2
316	ditto	11	d:6x6; pd:3.5 to 1.3; l:5	carnelian p:both	orangeish red	I.M. 88-2
317	ditto	14	d:7x7; pd:2; l:5	carnelian p:both	reddish orange and light reddish orange	I.M. 88-2
318	ditto	14	d:7.5x7.5; pd:2; l:7	carnelian p:both	reddish orange with white stripes	I.M. 88-2
319	ditto	14	d:9x9; pd:1.3; l:7	carnelian p:both	orangeish red	Pl. 3-880 I.M. 88-2
320	ditto	11	d:9x9; pd:3.2 to 2; l:8	carnelian p:both	light reddish orange	Pl. 2-869 I.M. 88-2
321	ditto	4	d:9x9; pd:2.5; l:1	limestone or shell; p:both	white	I.M. 88-2
322	ditto	7b	d:10x10; pd:5 to 3; l:7	stone p:both	greenish black and pale green spots	I.M. 88-2
323	ditto	9	d:7x7; pd:2.5; l:13	alabaster p:?	light brown	I.M. 88-2
324	ditto	14	d:14x14; pd:8.5 to 5; l:10	alabaster p:?	alabaster	I.M. 88-2
325	(transfer to the section of metal objects)					
326	F.D., west corner ⑤	9	d:10x10; pd:3.5; l:23	stone p:both	white and grey spots	Pl. 2-856 I.M. 88-3
327	ditto	25	d:14x9; pd:2.8; l:24	agate p:both	white and pale brown stripes	Pl. 4-8143 I.M. 88-3
328	ditto	6?	d:10x8; pd:1.5; l:14	alabaster	white and pale brown	I.M. 88-3
329	ditto	4	d:14x14; pd:3; l:1	shell? p:?	white	I.M. 88-3
330	ditto	4	d:9x9; pd:4.5 to 3; l:1	shell? p:one	white	Pl. 1-830 I.M. 88-3
331	ditto	4	d:9x9; pd:2.5; l:1	shell? p:one	white	I.M. 88-3
332	ditto	4	d:9x9; pd:1.5; l:1	limestone p:?	milky-white	I.M. 88-3
333	ditto	7b	d:12x12; pd:7 to 2; l:7	carnelian p:both	white, light reddish orange	I.M. 88-3
334	ditto	11	d:9x9; pd:6 to 2; l:6	carnelian p:both	orangeish red	I.M. 88-3
335	ditto	18	d:8x8; pd:5.5 to 2; l:6	carnelian p:both	light reddish orange	I.M. 88-3
336	ditto	7b	d:8x8; pd:4.5 to 1.5; l:5	carnelian p:both	reddish orange	I.M. 88-3
337	ditto	11	d:6x6; pd:4 to 1; l:4	carnelian p:both	light reddish orange	I.M. 88-3
338	ditto	14	d:4x4; pd:1.5; l:4	carnelian p:both	light reddish orange	I.M. 88-3
339	ditto	14	d:6x6; pd:2; l:5	carnelian p:both	light reddish orange and reddish orange stripes	I.M. 88-3
340	ditto	14	d:9x9; pd:1.5; l:7	faience	pale yellow, pale green glaze on the surface	I.M. 88-3
341	ditto	14	d:8x8; pd:1.8; l:7	frit	pale yellow	Pl. 3-8116 I.M. 88-3
342	ditto	15	d:9.2x9; pd:2; l:4.5	frit	pale yellow	Pl. 3-8105 I.M. 88-3
343	ditto	28	d:10x4; l:10	faience	pale yellow, green glaze on the surface	I.M. 88-3
344	ditto	28	d:11x4; l:12	faience	yellow, pale blue glaze on the surface	I.M. 88-3
345	ditto	28	d:11x5; l:10	faience	yellow, green glaze on the surface	I.M. 88-3
346	ditto	28	d:13x4; l:11	faience	ditto?	I.M. 88-3

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
347	ditto	28	d:10x5; l:9	faience	pale yellow, probably green glaze on the surface	I.M. 88-3
348	ditto	28	d:11x4; l:8	faience	pale yellow, probably green glaze on the surface	I.M. 88-3
349	ditto	14	d:6x6; pd:2 l:4<	frit	pale yellow	I.M. 88-3
350	RW, below Phase 3	25	d:9x6 pd:2.5; l:17	frit	yellow	Pl. 4-B144 I.M. 89 Ra. Fig. 9-15
351	ditto	28	d:13x5; l:10	faience	white, pale green glaze on the surface	I.M. 89
352	ditto	28	d:12x4; l:9	faience	pale blue, pale green glaze on the surface	I.M. 89
353	ditto	28	d:11x4; l:11	faience	pale yellow, pale blue glaze on the surface	I.M. 89
354	ditto	28	d:12x4; l:9	faience	pale yellow, probably glaze on the surface	I.M. 89
355	ditto	14	d:10x10 pd:2; l:7	frit	pinkish	I.M. 89
356	ditto	14	d:16x16 pd:2.5; l:13	faience	white, pale green glaze on the surface	I.M. 89
357	ditto	7b	d:11x11; pd:6 to 1.5; l:6	carnelian p: both	light reddish orange	I.M. 89
358	ditto	11	d:9x9; pd:3.5 to 2; l:7	carnelian p: both	reddish orange	Pl. 2-B70 I.M. 89
359	ditto	14	d:9x9 pd:1.5; l:7	carnelian p: both	light reddish orange	I.M. 89
360	ditto	14	d:7x7; pd:2 l:6	carnelian p: both	reddish orange	I.M. 89
361	ditto	18	d:6x6; pd:2 l:6	carnelian p: both	reddish orange	I.M. 89
362	ditto	14	d:5x5; pd:2 l:4.5	carnelian p: both	reddish orange	I.M. 89
Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
363	ditto	14	d:4x4 pd:1.2; l:4	carnelian p: both	smoky reddish orange	I.M. 89
364	ditto	13	d:4x4; pd:1.8 l:4.5	carnelian p: both	reddish orange	I.M. 89
365	ditto	13	d:3x3; pd:2 l:3.5	carnelian p: both	reddish orange	I.M. 89
366	ditto	3b	d:7x7; pd:4.5 to 1.5; l:4	carnelian p: both	smoky reddish orange	I.M. 89
367	ditto	3b	d:5x5; pd:3.5 to 1.2; l:3	carnelian p: both	smoky light red	I.M. 89
368	ditto	12	d:4x4; pd:2.5 to 1.2; l:1.5	carnelian p: both	reddish orange	Pl. 2-B74 I.M. 89
369	ditto	9	d:4x4; pd:3 to 1.5; l:1.2	carnelian p: both	reddish orange	I.M. 89
370	ditto	10	d:7x7 pd:2.5; l:10	carnelian p: both	reddish orange	I.M. 89
371	ditto	6	d:5x5 pd:1.5; l:7	carnelian p: both	reddish orange	Pl. 2-B43 I.M. 89
372	ditto	20	d:5x5; pd:2 l:7	carnelian p: both	light orange	I.M. 89
373	ditto	29b	d:6x6 pd:2.5; l:14	agate p: both	light brown and white stripes	I.M. 89
374	ditto	6	d:4x4; pd:1.5 and 1; l:7	agate p: both	light brown and white stripes	Pl. 2-B42 I.M. 89
375	ditto	6	d:5x5; pd:1.8 l:9	agate p: both	white, light brown and smoky brown	Pl. 2-B39 I.M. 89
376	ditto	10	d:8x8; pd:3 to 1.3; l:12	hematite? p: both	brown black	Pl. 2-B65 I.M. 89
377	ditto	4	d:5x5; pd:2 l:1	limestone or shell p:?	white	I.M. 89
378	(transfer to the stamp)					
379	RW~F. D. ⑤	29b	d:6x6 pd:2.5; l:14	agate p: both	light brown and white stripes	I.M. 89
380	ditto	1b	d:20x20; pd:8 to 5; l:35.5	alabaster	milky-white	Pl. 1-B8 I.M. 89

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.	Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
381	ditto	1b	d:13x13;pd:6 to 3.5; l:20	alabaster p:both	white and smoky colourless, stripes	Pl.1-B4 I.M.89	400	ditto	14	d:6x6; pd:2 l:5	carneilian p:both	reddish orange	I.M.90
382	ditto	7b	d:7x7;pd:4.5 to 2.7; l:6	limestone p:both	white	Pl.2-B48 I.M.89	401	ditto	14	d:7x7; pd:2 l:6	carneilian p:both	light reddish orange	I.M.90
383	ditto	14	d:9x9; pd:2.5; l:9	crystal p:one	colourless	I.M.89	402	ditto	7a	d:6x6; pd:1.5; l:6	carneilian p:both	reddish orange, stripes	I.M.90
384	ditto	14	d:9x9; pd:2.5; l:8	crystal p:?	smoky colourless	I.M.89	403	ditto	14	d:5x5; pd:2 l:4	carneilian p:both	reddish orange, stripes	I.M.90
385	ditto	34b	d:9x9; pd:2.8; l:7	frit	yellow	Pl.5-B168 I.M.89 Ra:Fig.9-19	404	ditto	14	d:6x6; pd:2 l:4.5	carneilian p:both	reddish orange	I.M.90
386	ditto	14	d:8x8; l:7<	frit	pale yellow	I.M.89	405	ditto	14	d:5x5; pd:2 l:4	carneilian p:both	reddish orange	I.M.90
387	ditto	3b	d:7x7;pd:6.5 to 1.5; l:4	carneilian p:both	pinkish orange	Pl.1-B21 I.M.89	406	ditto	14	d:5x5; pd:1.8; l:3	carneilian p:both	reddish orange	I.M.90
388	ditto	3b	d:7x7;pd:4.5 to 2; l:4	carneilian p:both	reddish orange	I.M.89	407	ditto	14	d:6x6; pd:1.5; l:5	carneilian p:both	reddish orange	I.M.90
389	RN ④	5	d:4x4; pd:1.5; l:13	agate p:both	white and light brown stripes	I.M.90-1	408	ditto	12	d:6x6; l:1	carneilian p:both	reddish orange	I.M.90
390	ditto	2a	d:5x5; pd:3.5; l:4	alabaster? p:both	white	I.M.90-1	409	ditto	2b	d:5x5; pd:4 to 1; l:3	carneilian p:both	pinkish orange	I.M.90
391	ditto	4	d:5x5; pd:2 l:1	limestone p:both	milky-white	I.M.90-1	410	ditto	3a	d:6x6;pd:2.5 l:1.5	carneilian p:both	reddish orange	I.M.90
392	ditto	27	d:15x10; pd:2.6; l:25	agate p:both	light brown and white stripes	Pl.4-B150 I.M.90	411	ditto	6	d:4x4; pd:2.5; l:8	carneilian p:both	light reddish orange	I.M.90
393	ditto	9	d:5x5; pd:1.7; l:16	carneilian p:both	reddish orange	Pl.2-B60 I.M.90	412	ditto	15	d:8.5x8.5; pd:1.5; l:4.8	amethyst p:both	colourless to light purple	Pl.3-B108 I.M.90
394	ditto	5	d:4x4; pd:2 l:12	carneilian p:both?	orangish red	Pl.2-B34 I.M.90	413	ditto	14	d:6x6; pd:2 l:5	agate p:both	white and dark brown stripes	Pl.3-B91 I.M.90 Ra:Fig.9-13
395	ditto	9	d:4x4; pd:2 l:11	carneilian p:both	reddish orange, stripes	I.M.90	414	ditto	17	d:5x5; pd:1.8; l:12	lapis-lazuli p:both	purplish blue	Pl.4-B123 I.M.90
396	ditto	10	d:6x6; pd:2.2; l:9	carneilian p:both	reddish orange, stripes	I.M.90	415	ditto	6	d:8x8; pd:2 l:16	alabaster p:both	white stripes	Pl.2-B38 I.M.90
397	ditto	7b	d:12x12; pd:9 to 2.5; l:8	carneilian p:both	white and reddish orange	I.M.90	416	ditto	33	d:13x6; pd:2.5; l:13	lapis-lazuli p:?	purplish blue	Pl.5-B165 I.M.90
398	ditto	7b	d:8x8; pd:6 to 2; l:6	carneilian p:both	reddish orange	I.M.90	417	ditto	2b	d:10x10; pd:5; l:6	limestone p:both?	white	Pl.2-B13 I.M.90
399	ditto	14	d:8x8; pd:2 l:8	carneilian p:both	reddish orange	I.M.90	418	ditto	3a	d:9x9; pd:2.5; l:3	baked clay	light brown	I.M.90

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.M. no. Rafidan no.
419	ditto	28	d:12x3; l:11	faience	pale yellow, probably glaze on the surface	I.M. 90
420	ditto	28	d:11x4; l:11	faience	ditto	I.M. 90
421	ditto	28	d:12x5; l:9	faience	pale yellow, pale green glaze on the surface	I.M. 90
422	ditto	22	d:5x5; pd:2 l:15<	frit	yellow	I.M. 90
423	ditto	7a	d:5x5; pd:2 l:4	frit	yellow	Pl. 2-B45 I.M. 90
424	RN ③-④	29b	d:7x7 pd:2.5; l:19	agate p:both	white & light brown stripes	I.M. 90-1
425	RN ④	14	d:5x5 pd:1.5; l:4	carnelian p:both	reddish orange	I.M. 90-1
426	ditto	41	d:20x15; pd:4, 2.5 and 2; l:29	stone p:crossed perforation and a hole	white and black, spots	Pl. 4-B176 I.M. 90-2
427	ditto	9	d:9x9; pd:3 l:25	stone p:?	light brown spots	Pl. 2-B55 I.M. 90-2
428	ditto	18	d:7x7; pd:4 to 2; l:5	stone p:both	smoky orange	Pl. 4-B129 I.M. 90-2
429	ditto	3b	d:7x7; pd:4 to 0.4; l:2	stone p:both	orangewish white	I.M. 90-2
430	ditto	3a	d:3x3; pd:2 l:1	limestone p:both	white	I.M. 90-2
431	ditto	14	d:16x16 pd:2; l:12	carnelian p:both	dark reddish orange	I.M. 90-2
432	ditto	5	d:6x6 pd:2.5; l:14	agate p:both	light brown stripes	I.M. 90-2
433	ditto	107	d:5x5 Pd:1.3; l:10	carnelian p:both	light orange	I.M. 90-2
434	ditto	107	d:5x5 pd:2.2; l:9	carnelian p:both	reddish orange and white	I.M. 90-2
435	ditto	14	d:3x3; pd:2 l:3	carnelian p:both	light reddish orange	I.M. 90-2
436	U.S. ④	14	d:7x7 pd:1.5; l:6<	crystal p:?	colourless	I.M. 92
437	ditto	4	d:10x10 pd:2.8; l:1	limestone	white	I.M. 92
438	ditto	1a	d:5x5 pd:2.7 to 1 l:12	agate? p:?	white to pink	Pl. 1-B6 I.M. 92
439	ditto	5	d:5x5; pd:2 l:15<	alabaster p:?	pale orangish pink	I.M. 92
440	ditto	6	d:10x10 pd:4.2 to 2 l:15	agate p:both	light reddish orange	Pl. 2-B41 I.M. 92
441	ditto	25	d:13x5 pd:2.5; l:17	agate p:both	white & light brown, stripes	I.M. 92
442	ditto	10	d:5x5; pd:2 to 0.5; l:9	carnelian p:both	reddish orange	Pl. 2-B66 I.M. 92
443	ditto	14	d:5x5; l:3	carnelian p:both	reddish orange	I.M. 92
444	ditto	14	d:6x6; pd:2 l:4	carnelian p:both	light reddish orange	I.M. 92
445	ditto	14	d:7x7; pd:2 l:5	carnelian p:both	orangewish red	I.M. 92
446	ditto	14	d:7x7 pd:2.5; l:6	carnelian p:both?	light orange and reddish orange, stripes	I.M. 92
447	ditto	14	d:8x8; pd:1.5 l:6.5	faience	light blue, yellow surface	I.M. 92
448	ditto	21	d:8x8; pd:2.5 l:12	frit	yellow	I.M. 92
449	ditto	28	d:11x5; l:12	faience	yellow, pale green glaze on the surface	I.M. 92
450	ditto	14	d:13x13 pd:3; l:11	faience	white, pale green glaze on the surface	I.M. 92
451	ditto	14	d:6x6 pd:2.5; l:4	frit	brownish black	I.M. 92
452	P2, between Phase 1 and 2	7b	d:10x10; pd:7 to 2; l:8	carnelian p:both	reddish orange	I.M. 93
453	BX1, in the drain pipe of D3	8	d:24x24 pd:7.8; l:9	baked clay	dark brown	Pl. 2-B54 I.M. 94

Catalogue of Beads from Area A of 'Usiyeh (contd.)

Field no. (UB-)	Location	Type	Measurements (mm)	Material & Perforated Direction	Colours and Remarks	Pl. no. I.N. no. Rafidan no.
454	Pit 1	34b	d:15x15 pd:3; l:13	faience	white, pale green glaze on the surface	Pl.5-B167 I.N.95
455	ditto	13	d:6x6; pd:2 l:8	carneilian p:both?	smoky orange	Pl.3-B77 I.N.95
456	ditto	18	d:10x10 pd:1.8; l:5	carneilian p:both	cloudy dark orange	Pl.4-B133 I.N.95
457	ditto	4	d:7x7; pd:4 to 2; l:15	crystal p:both	smoky colourless	Pl.1-B31 I.N.95
458	D-XII ② (F.D.?)	43	d:17x7 pd:2; l:18	complex of stones and metals	purplish blue, pale blue, gold silver, etc.	Pl.5-B178 I.N.23
459	F.D., west corner ④	45	d:23x8; pd:? l:25<	faience	white, pale green glaze on the surface	Pl.5-B179 I.N.20 Ra:Fig.13-9
460	F.D. ⑤	44	d:11x8; pd:2 l:18	frit	yellow	Pl.5-B180 I.N.86

Appendix II

Distribution of Bead Types [Oguchi 1996: pp.452-454].

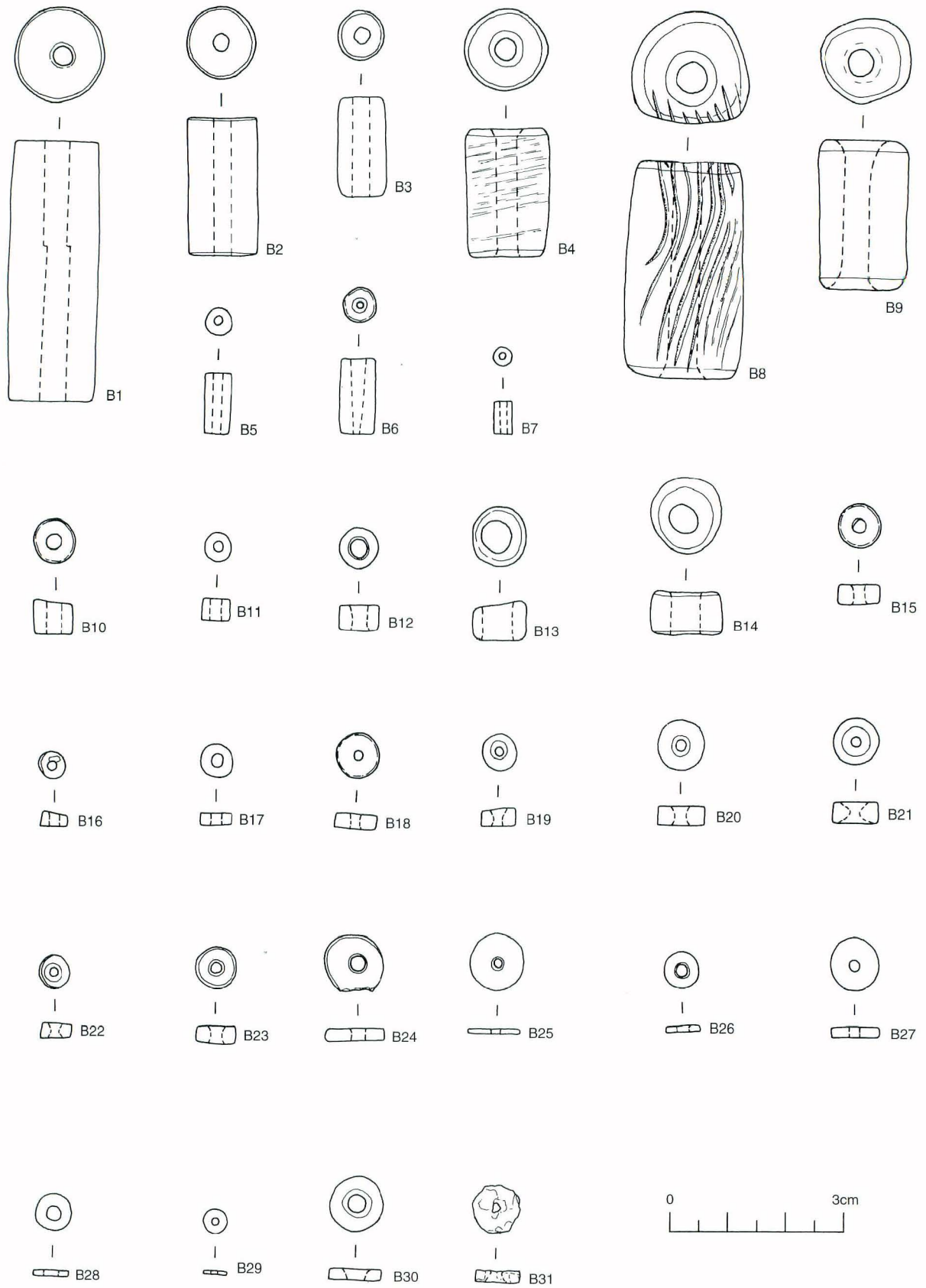
- D-XI : 5(6)
(on the natural ground)
- D-XII ② (F. D. ?) : 458(43)
- E-XI ② : 7(1a)
(part of Trench 1)
- E-XI : 453(8)
(in the drain-pipe of D3)
- E-XII ① : 6(14)
(east part)
- E-XIII : 54(9)
(north part)
- G-XVI ① : 96(40), 97(24), 98(9)
- H-XVI ① : 69(9)
- Pit 1 : 454(34b), 455(13), 456(18), 457(4)
- Floor 2 : 452(7b)
(between phase 1 and 2)
- U. S. ②~③ : 99(39)
- U. S. ③ : 12(14), 13(2a), 14(14), 15(18), 16(18), 17(4)
- U. S. ④ : 51(13), 57(27), 79(14), 80(14), 81(14), 82(7b), 83(15),
173(7b), 174(7b), 175(9), 176(14), 177(14), 178(14),
179(7a), 180(2a), 181(28), 182(17), 183(11), 184(4),
277(18?), 278(7a), 279(10), 280(3b), 281(9), 282(1a),
436(14), 437(4), 438(1a), 439(5), 440(6), 441(25), 442(10),
443(14), 444(14), 445(14), 446(14), 447(14), 448(21),
449(28), 450(14), 451(14)
- F. D. ②~③ : 8(4)
(west corner)
- F. D. ③ : 46(14), 47(9)
- F. D. ③~④ : 93(14), 94(18)
(west corner)
- F. D. ④ : 56(28), 146(26), 147(9), 148(3b), 149(18), 150(18)
- F. D. ④ : 36(14), 37(38), 38(4), 39(28), 58(14), 59(13), 60(14), 61(14),
(west corner) 63(4), 64(14), 65(14), 66(11), 67(15), 68(14), 459(45),
- F. D. ⑤ : 145(6), 208(23), 209(7b), 210(7b), 211(7b), 212(7b), 213(7b),
214(15), 215(14), 216(7b), 217(14), 218(14), 219(13), 220(14),
221(14), 222(13), 223(14), 224(14), 225(14), 226(14), 227(14),
228(14), 229(7a), 230(7a), 231(7a), 232(11), 233(14?),
234(11), 235(3b), 236(3b), 237(14?), 238(3b), 239(12),
240(3b), 241(13), 242(6), 243(34c), 244(9), 245(9), 246(13),
247(1a), 248(5), 249(5?), 250(25), 251(24), 252(14), 253(5?),
254(28), 255(28), 256(28), 257(28), 258(28), 259(28), 260(28),
261(28), 262(28), 263(28), 264(28), 265(28), 266(28), 267(28),
267(28), 268(22), 269(14?), 270(34b), 271(14), 272(14),
273(14), 274(15), 275(15), 276(14), 283(7b), 284(6), 285(4),
286(28), 287(28), 288(28), 289(14), 290(42), 291(28), 292(14),
293(1a), 294(14), 295(34b?), 296(14), 297(28), 298(13),
299(39), 300(6), 301(9), 302(9), 303(14), 304(9), 305(2b),
306(14), 307(7a), 308(13), 309(14), 310(14), 311(14), 312(14),
313(14), 314(14), 315(14), 316(11), 317(14), 318(14),
319(14), 320(11), 321(4), 322(7b), 323(9), 324(14), 460(44)
- F. D. ⑤ : 326(9), 327(25), 328(6?), 329(4), 330(4), 331(4), 332(4),
(west corner) 333(7b), 334(11), 335(18), 336(7b), 337(11), 338(14),
339(14), 340(14), 341(14), 342(15), 343(28), 344(28),
345(28), 346(28), 347(28), 348(28), 349(14)
- Room W2 ④ : 20(25), 35(5), 40(28)
- Room W, Ph. 3 : 52(14), 53(14)
(wall of Room W2)
- Room W : 115(19), 116(37), 117(5), 118(29b), 119(31), 120(14), 121(14),
(below Phase 3) 122(14), 123(2b), 124(4), 125(3a), 126(14), 127(13),
128(20), 129(10), 130(1a), 131(14), 132(14), 133(14),
134(2a), 135(2a), 136(2a), 137(30), 350(25), 351(28),
352(28), 353(28), 354(28), 355(14), 356(14), 357(7b),
358(11), 359(14), 360(14), 361(18), 362(14), 363(14),
364(13), 365(13), 366(3b), 367(3b), 368(12), 369(9),
370(10), 371(6), 372(20), 373(29b), 374(6), 375(6),
376(10), 377(4)
- Room W : 138(28), 139(6?), 140(3b), 141(2a), 142(14), 143(14)
(level of Phase 2)
- Room W~F. D. ⑤ : 379(29b), 380(1b), 381(1b), 382(7b), 383(14),
384(14), 385(34b), 386(14), 387(3b), 388(3b)
- Room W, Ph. 1 : 100(14), 101(14), 102(14), 103(4), 104(28), 105(25),
106(9), 107(14), 108(15), 109(13), 110(13), 111(35),
112(7b), 113(4)
- Room S③ : 18(1a), 19(9)
- Room S③~④ : 24(9), 25(14), 27(14), 28(14), 29(15), 30(4)
- Room S④ : 21(36), 22(2a), 23(14), 31(29a), 32(14), 33(15)
- Room S④ : 42(7b), 43(14), 44(17), 45(5?)
(above Phase 4)
- Room S : 1(25), 2(14), 3(28), 4(34a), 5(1b), 189(14), 190(14), 191(7a),
(below Phase 4) 192(7b), 193(3b), 194(7b), 195(14), 196(14), 197(10),
- Room S, Ph. 3 : 198(17), 199(11), 200(28), 201(28), 202(28), 203(14),
204(14), 205(7b), 206(23), 207(32),
- Room M : 187(27), 188(22)
(below Phase 3)
- Room N ③~④ : 424(29b)
(between slabs)
- Room N ③ : 9(14)
- Room N ④ : 155(3b), 156(3b), 157(11), 158(14), 159(5), 160(18),
168(14), 169(14), 389(5), 390(2a), 391(4), 392(27),
393(9), 394(5), 395(9), 396(10), 397(7b), 398(7b),
399(14), 400(14), 401(14), 402(7a), 403(14), 404(14),
405(14), 406(14), 407(14), 408(12), 409(2b), 410(3a),
411(6), 412(15), 413(14), 414(17), 415(6), 416(33),
417(2b), 418(3a), 419(28), 420(28), 421(28), 422(22),
423(7a), 425(14), 426(41), 427(9), 428(18), 429(3b),
430(3a), 431(14), 432(5), 433(10?), 434(10?), 435(14)
- Room N, -1m : 163(14), 164(7b), 165(14), 166(14), 167(4)
- Room N, -1.3m : 161(14), 162(14), 170(29a), 171(14), 172(3a)
- Room N~Room W ④ : 10(14), 11(9)
- Room E~Room N, -1.1m : 151(5), 152(18), 153(14), 154(9), 185(2b)
(pass between RE and RN)
- Room E, -1.6m : 70(3b), 71(18), 72(5), 73(21), 74(14), 75(9), 76(9),
(level of Phase 2) 77(3b), 78(14), 84(7b), 85(7b), 86(14), 87(20),
88(9), 89(1a), 90(3b), 91(3a), 92(4)
- Room E : 186(16)
(below the level of Phase 2)
- Room E -1.8m : 48(14), 49(14), 50(7b)
(lowest level)

Appendix III

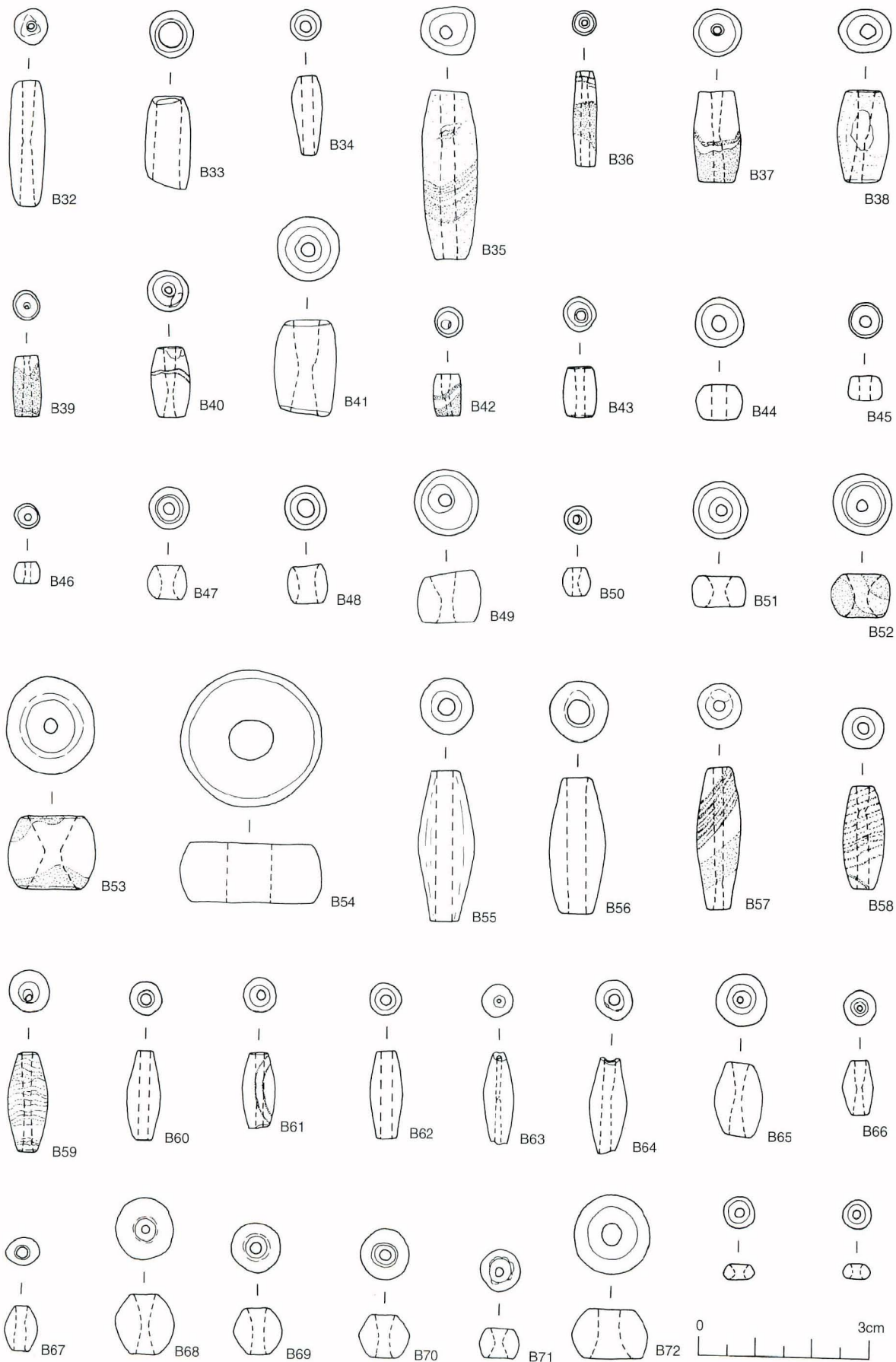
Index of bead Types [Oguchi 1996: pp.455-457].

- Type 1a: UB-7, UB-18, UB-89, UB-130, UB-247, UB-282, UB-293,
UB-438
1b: UB-5, UB-380, UB-381
- Type 2a: UB-13, UB-22, UB-134, UB-135, UB-136, UB-141,
UB-180, UB-390
2b: UB-123, UB-185, UB-305, UB-409, UB-417
- Type 3a: UB-91, UB-125, UB-172, UB-410, UB-418, UB-430
3b: UB-70, UB-77, UB-90, UB-140, UB-148, UB-155, UB-156,
UB-193, UB-235, UB-236, UB-238, UB-240, UB-280,
UB-66, UB-367, UB-387, UB-388, UB-429
- Type 4 : UB-8, UB-17, UB-30, UB-38, UB-63, UB-92, UB-103,
UB-113, UB-124, UB-167, UB-184, UB-285, UB-321,
UB 329, UB-330, UB-331, UB-332, UB-377, UB-391,
UB-437, UB-457
- Type 5 : UB-35, UB-45?, UB-72, UB-117, UB-151, UB-159,
UB-248, UB-249?, UB-253?, UB-389, UB-394, UB-432,
UB-439
- Type 6 : UB-55, UB-139?, UB-145, UB-242, UB-284, UB-300,
UB-328?, UB-371, UB-374, UB-375, UB-411, UB-415,
UB-440
- Type 7a: UB-179, UB-191, UB-229, UB-230, UB-231, UB-278,
UB-307, UB-402, UB-423
7b: UB-42, UB-50, UB-82, UB-84, UB-85, UB-112, UB-164,
UB-173, UB-174, UB-192, UB-194, UB-205, UB-209,
UB-210, UB-211, UB-212, UB-213, UB-216, UB-283,
UB-322, UB-333, UB-336, UB-357, UB-382, UB-397,
UB-398, UB-452
- Type 8 : UB-453
- Type 9 : UB-11, UB-19, UB-24, UB-47, UB-54, UB-69, UB-75,
UB-76, UB-88, UB-98, UB-106, UB-147, UB-154, UB-175,
UB-244, UB-245, UB-281, UB-301, UB-302, UB-304,
UB-323, UB-326, UB-369, UB-393, UB-395, UB-427
- Type 10 : UB-129, UB-197, UB-279, UB-370, UB-376, UB-396,
UB-433?, UB-434?, UB-442
- Type 11 : UB-66, UB-157, UB-183, UB-199, UB-232, UB-234,
UB-316, UB-320, UB-334, UB-337, UB-358
- Type 12 : UB-239, UB-368, UB-408
- Type 13 : UB-51, UB-59, UB-109, UB-110, UB-127, UB-219,
UB-222, UB-241, UB-246, UB-298, UB-308, UB-364,
UB-385, UB-455
- Type 14 : UB-2, UB-6, UB-9, UB-10, UB-12, UB-14, UB-23,
UB-25, UB-27, UB-28, UB-32, UB-36, UB-43, UB-46,
UB-48, UB-49, UB-52, UB-53, UB-58, UB-60, UB-61,
UB-64, UB-65, UB-68, UB-74, UB-78, UB-79, UB-80,
UB-81, UB-86, UB-93, UB-100, UB-101, UB-102, UB-107,
UB-120, UB-121, UB-122, UB-126, UB-131, UB-132,
UB-133, UB-142, UB-143, UB-153, UB-158, UB-161,
UB-162, UB-163, UB-165, UB-166, UB-168, UB-169,
UB-171, UB-176, UB-177, UB-178, UB-189, UB-190,
UB-195, UB-196, UB-203, UB-204, UB-213, UB-215,
UB-217, UB-218, UB-220, UB-221, UB-223, UB-224,
UB-225, UB-226, UB-227, UB-228, UB-233?, UB-237?,
UB-252, UB-269?, UB-271, UB-272, UB-273, UB-276,
UB-289, UB-292, UB-294, UB-296, UB-303, UB-306,
UB-309, UB-310, UB-311, UB-312, UB-313, UB-314,
UB-315, UB-317, UB-318, UB-319, UB-324, UB-338,
UB-339, UB-340, UB-341, UB-349, UB-355, UB-356,
UB-359, UB-360, UB-362, UB-363, UB-383, UB-384,
UB-386, UB-399, UB-400, UB-401, UB-403, UB-404,
UB-405, UB-406, UB-407, UB-413, UB-425, UB-431,
UB-435, UB-436, UB-443, UB-444, UB-445, UB-446,
UB-447, UB-450, UB-451
- Type 15 : UB-29, UB-33, UB-67, UB-83, UB-108, UB-214, UB-274,
UB-275, UB-342,
- Type 16 : UB-186
- Type 17 : UB-44, UB-182, UB-198, UB-414
- Type 18 : UB-15, UB-16, UB-71, UB-94, UB-149, UB-150, UB-152,
UB-160, UB-277, UB-335, UB-361, UB-428, UB-456
- Type 19 : UB-115
- Type 20 : UB-87, UB-128, UB-372
- Type 21 : UB-73, UB-448
- Type 22 : UB-188, UB-268, UB-422
- Type 23 : UB-206, UB-208
- Type 24 : UB-97, UB-251
- Type 25 : UB-1, UB-20, UB-105, UB-250, UB-327, UB-350, UB-441
- Type 26 : UB-146
- Type 27 : UB-57, UB-187, UB-392
- Type 28 : UB-3, UB-39, UB-40, UB-56, UB-104, UB-138, UB-181,
UB-200, UB-201, UB-202, UB-254, UB-255, UB-256, UB-257,
UB-258, UB-259, UB-260, UB-261, UB-262, UB-263,
UB-264, UB-265, UB-266, UB-267, UB-286, UB-287,
UB-288, UB-291, UB-297, UB-343, UB-344, UB-345,
UB-346, UB-347, UB-348, UB-351, UB-352, UB-353,
UB-354, UB-419, UB-420, UB-421, UB-449
- Type 29a: UB-31, UB-170
- Type 29b: UB-118, UB-373, UB-379, UB-424
- Type 30 : UB-137
- Type 31 : UB-119
- Type 32 : UB-207
- Type 33 : UB-416
- Type 34a: UB-4
34b: UB-270, UB-295?, UB-385, UB-454
34c: UB-243
- Type 35 : UB-111
- Type 36 : UB-21
- Type 37 : UB-116
- Type 38 : UB-37
- Type 39 : UB-99, UB-299
- Type 40 : UB-96
- Type 41 : UB-426
- Type 42 : UB-290
- Type 43 : UB-458
- Type 44 : UB-460
- Type 45 : UB-459
- Transfer to the others : UB-26, UB-34, UB-41, UB-62, UB-95,
UB-114, UB-144, UB-325, UB-378

Pl. 1

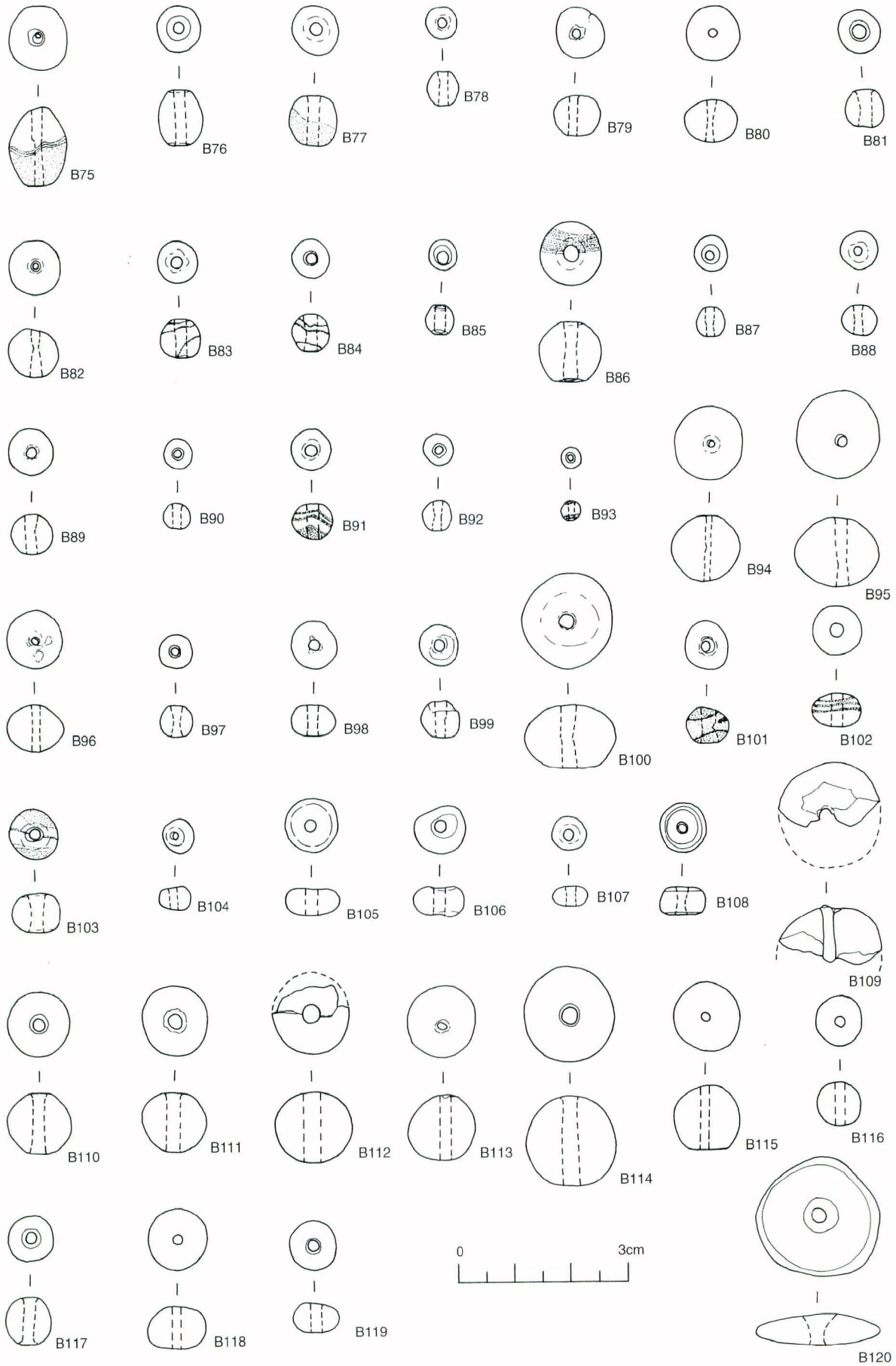


Beads from Area A of 'Usiyeh, Types 1 to 4 (B1-B31) [Oguchi 1996: Pl. 151].

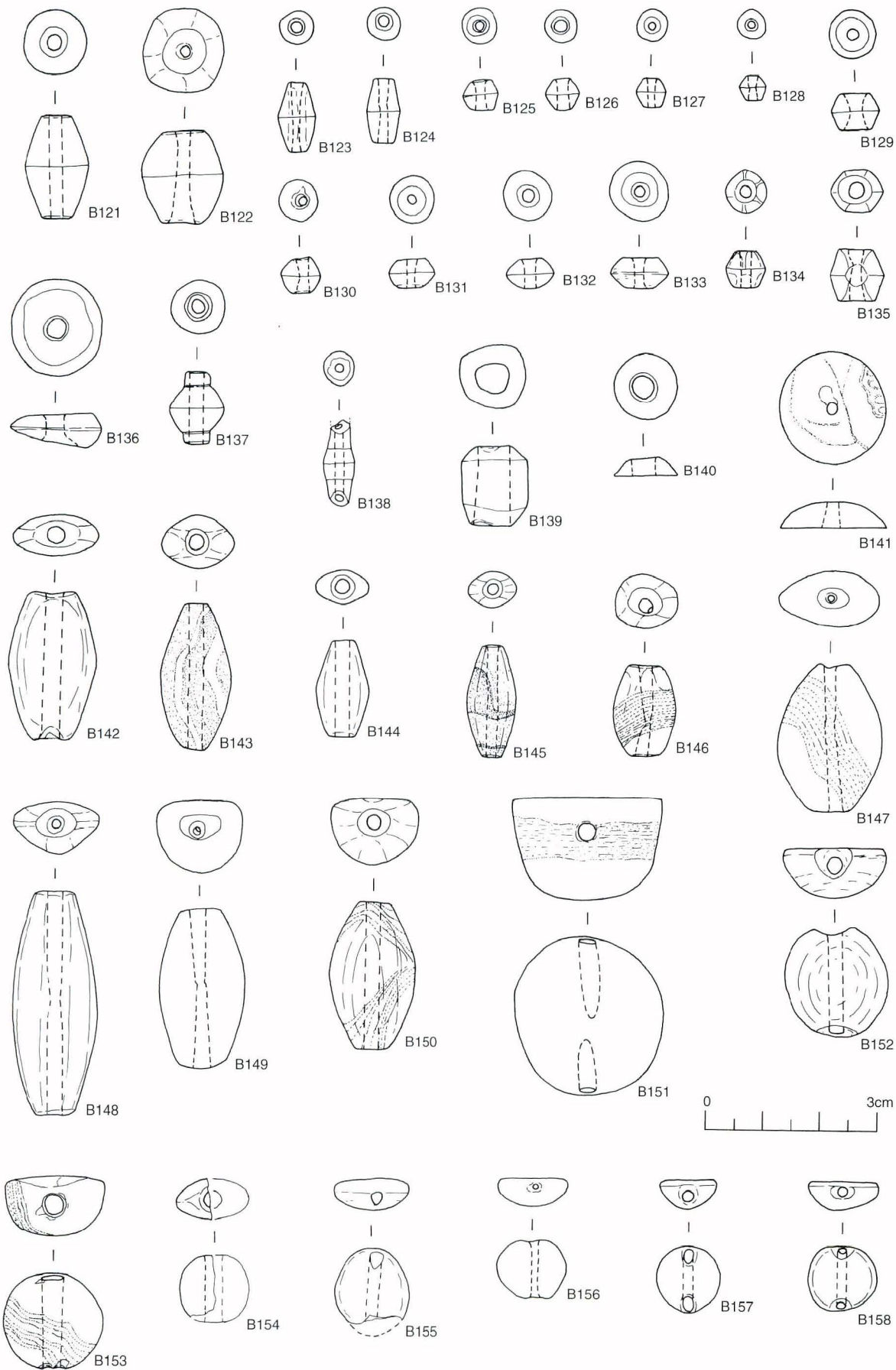


Beads from Area A of 'Usiyeh, Types 5 to 12 (B32-B74) [Oguchi 1996: Pl. 151].

Pl. 3

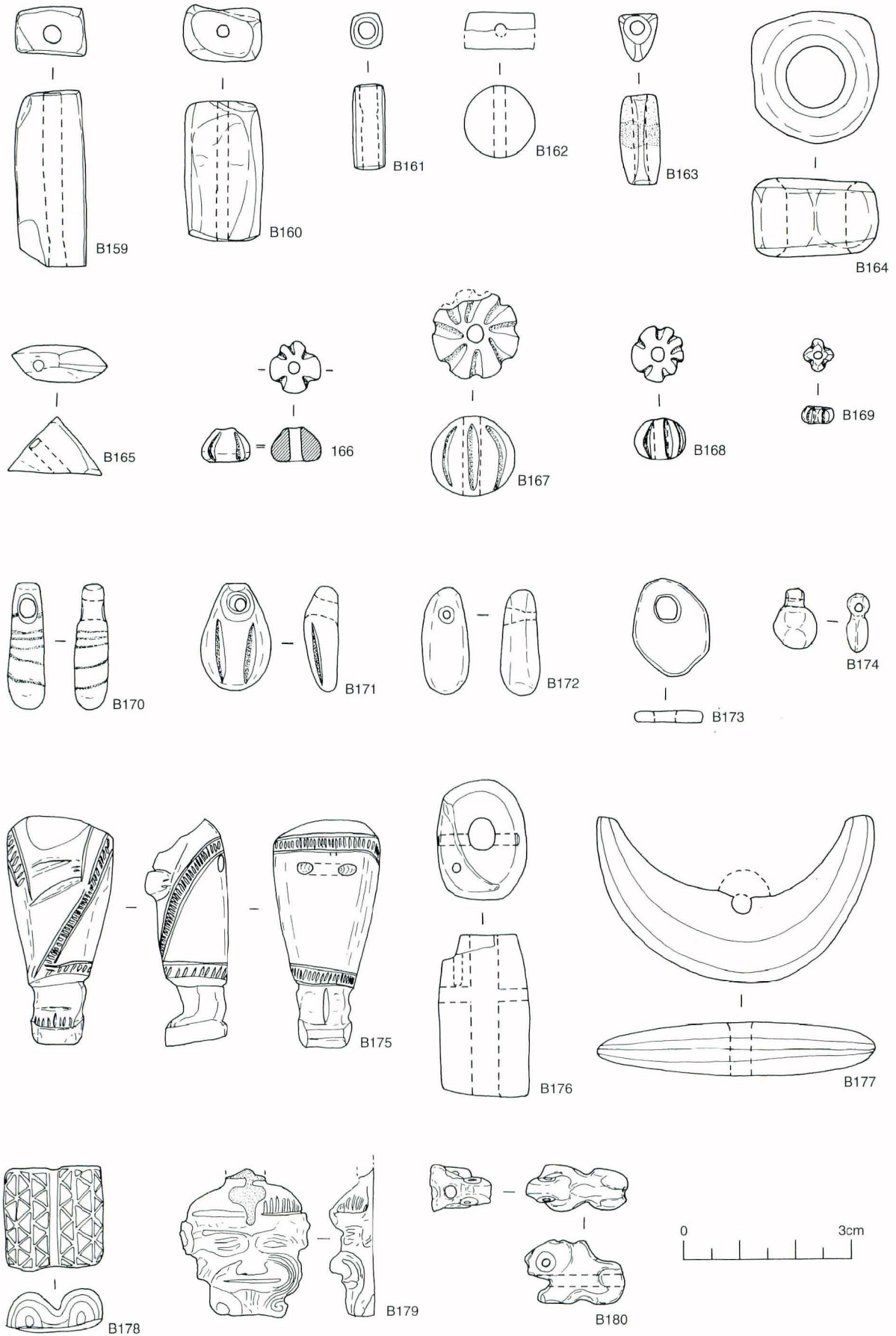


Beads from Area A of 'Usiyeh, Types 13 to 16 (B75-B120) [Oguchi 1996: Pl. 151].



Beads from Area A of 'Usiyeh, Types 17 to 28 (B121-B158) [Oguchi 1996: Pl. 152].

Pl. 5



Beads from Area A of 'Usiyeh, Types 29 to 45 (B159–B180) [Oguchi 1996: Pl. 153].



B175 front



B175 back



B179



B178 front



B178 back



B180

Beads from Area A of 'Usiyeh.

NOTES ON KHABUR WARE FROM SITES OUTSIDE ITS MAIN DISTRIBUTION ZONE

Hiromichi OGUCHI*

The latest nineteenth to the eighteenth century B.C. of northern Mesopotamia saw the florescence of the painted pottery termed Khabur ware. In this period, this particular painted pottery was distributed beyond its main distribution zone, in which such a pottery style predominated and many unpainted counterparts of the painted pottery occurred. The sites yielding Khabur ware and lying in the main distribution zone are those which we can legitimately call “Khabur ware sites”. Several sites lying outside the main distribution zone and also yielding Khabur ware may be described as “peripheral sites”, where the occurrences of Khabur ware are few and the majority of ceramics are different from those occurring in the main distribution zone, or where, if Khabur ware occurs to some extent in quantity, each ceramic assemblage essentially differs from that of the main distribution zone. Thus it seems now most pertinent that we discuss the Khabur ware from such “peripheral sites” in terms of the “secondary distribution” of Khabur ware¹⁾.

In an article in *al-Rāfidān* XVIII [1997], the *Festschrift* for Professor Fujii, the present writer proposed describing this period as Khabur Ware Period 2 (*ca.* 1813–1700 B.C.²⁾). It is evident, for example from the evidence of Tell al-Rimah and Tell Taya, that Khabur ware appeared before the reign of Šamši-Adad I, which enables us to set the first phase for Khabur ware, *i.e.*, Khabur Ware Period 1 (*ca.* 1900–1814 B.C.)³⁾. When excavating at such a “Khabur ware site” as has successive levels yielding Khabur ware

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1) A similar view is also taken by Dominique Parayre [1986: see *carte* 1].

2) In the present article, the middle chronology is adopted.

3) Another site providing ceramic evidence for the first Khabur ware phase is Tell Jigan, where was found pottery decorated with irregular bands of paint [see Oguchi 1997: Fig. 1:3], which is comparable in style with a distinctive Khabur ware jar from area AS of Tell al-Rimah [J. Oates 1970: Pl.IX:1]. The application of such irregular painted bands is a matter of importance because of a characteristic of earlier Khabur ware. At Tell Mozan, a rim-to-shoulder sherd, of either a deep bowl or a wide-mouthed jar, with an irregular painted band above the shoulder in addition to ribbing came from area P locus 1 [Buccellati & Kelly-Buccellati 1988: Fig. 26:M1 84]; this suggests that at Mozan, there may be a level assigned to Khabur Ware Period 1. Future excavations at this site may provide more convincing evidence for this first Khabur ware phase.

Other sites which should be taken into consideration regarding Khabur Ware Period 1 are Chagar Bazar and Tell Billa. As claimed by Patty Gerstenblith [1983: p.62 with n.3], some of the level 1 graves of Chagar Bazar (graves 1–3), yielding Khabur ware, may predate the earliest structures of level 1, dated to the reign of Šamši-Adad I; for M.E.L. Mallowan describes them as lying beneath the foundations of level 1, which is also obviously shown in the schematic section [Mallowan 1936: Fig. 2 and see p.55]. Globular jars of Khabur ware, from Chagar Bazar graves 2 and 3, are in fact marked as one type occurring not only in Khabur Ware Period 2 but also in Khabur Ware Period 1: such a type of Khabur ware, which has a globular body and is well slipped, occurs in one of the Jigan Area C levels relevant to this first phase [see Oguchi 1997: Fig. 1:4]. Accordingly, we must note that the assignment of these Chagar Bazar graves to Khabur Ware Period 1 remains a possibility. Also noted here is a rim-to-body sherd from stratum 4 of Tell Billa, which is decorated with comb-like wavy lines, horizontal grooves, a painted quadruped, and paint on the rim [Speiser 1933: a sherd in Pl. LXXII]: the combination of painted and comb-incised decorations is considered a distinctive feature of earlier Khabur ware, as represented by the Rimah area AS Khabur ware example cited above. A body sherd decorated with a painted horizontal stripe and comb-incised horizontal and wavy bands came from one of the Jigan levels relevant to the first Khabur ware phase. Although ceramic evidence from the Billa stratum is problematical because of containing a mixture of Khabur ware, Isin-Larsa type pottery and late third millennium pottery, the stratum 4 sherd in question may be worthy of being considered when one speculates about the possibility, at Billa, of the presence of a substratum assigned to Khabur Ware Period 1 [for the substrata of Billa 4, see Speiser 1935: p.160 and *idem* 1933: p.250].

Furthermore, the site that comes into question is Dinkha Tepe lying outside the main distribution zone of Khabur ware, because, if we postulate that Old Assyrian tin trade was responsible for the introduction of Khabur ware to this site or the Ushnu-Solduz valley of northwestern Iran, there arises the possibility that the first introduction of Khabur ware in the site/area may have occurred in the latter part of Khabur Ware Period 1. However, the dating of the earliest phase, a, of Dinkha period IV (= Hasanlu VI) yielding Khabur ware

and when taking into consideration the evidence from several sites so far excavated, we can know, if inferably, that Khabur ware lasted after the second phase, also represented as the main phase in which it reached the acme of fashion. This allows of the setting of Khabur Ware Periods 3–4 (*ca.* 1700–1400 B.C.). David Oates's recent excavations at Tell Brak in area HH have provided important evidence for dating the end of Khabur ware⁴.

An argument regarding the phasing of the Khabur ware sequence is to be done in a future separate article. Prior to such a particular discussion, the present writer attempts here to appraise the evidence of the occurrences, in the period 2, of Khabur ware at sites showing its "secondary distribution"; this also becomes an addition to his article which appeared in *al-Rāfīdān* XVIII. The sites, treated here, are (a) Nuzi, (b) the Rania plain site, (c) the Ushnu-Solduz valley sites, (d) the middle Euphrates sites, (e) the lower Khabur valley sites, (f) Tell Bi'a-Tuttul, (g) the middle and upper Balikh valley sites, (h) Tell Mardikh-Ebla, (i) Alalakh, (j) the Īslahiye-Gaziantep-Nizip region sites, (k) the upper Euphrates sites, and (l) Kültepe-Kaniš [see also Oguchi 1997: p.208 and p.214ff.].

Evaluation of evidence

(a) Nuzi

At this site (site no.25) in the ancient Arrapha region, one Khabur ware jar [Starr 1937: Pl.70:B] was found in the well of room X5 of stratum V in the city wall and related building area at the eastern extremity of the main mound [Starr 1939: p.324 and pp.389–390]. The jar itself is no doubt an example of genuine Khabur ware. The stratum, V, of the area is said to belong to the so-called Gasur-Nuzi transitional period, to which the so-called "Cappadocian" tablets, from pavement IIA of pit L4 in the palace site, are assigned [Starr 1939: p.30; Eliot 1939: p.519]. Historical considerations also suggest that the occurrence of Khabur ware at this site falls in early Khabur Ware Period 2 [see Oguchi 1997: p.210].

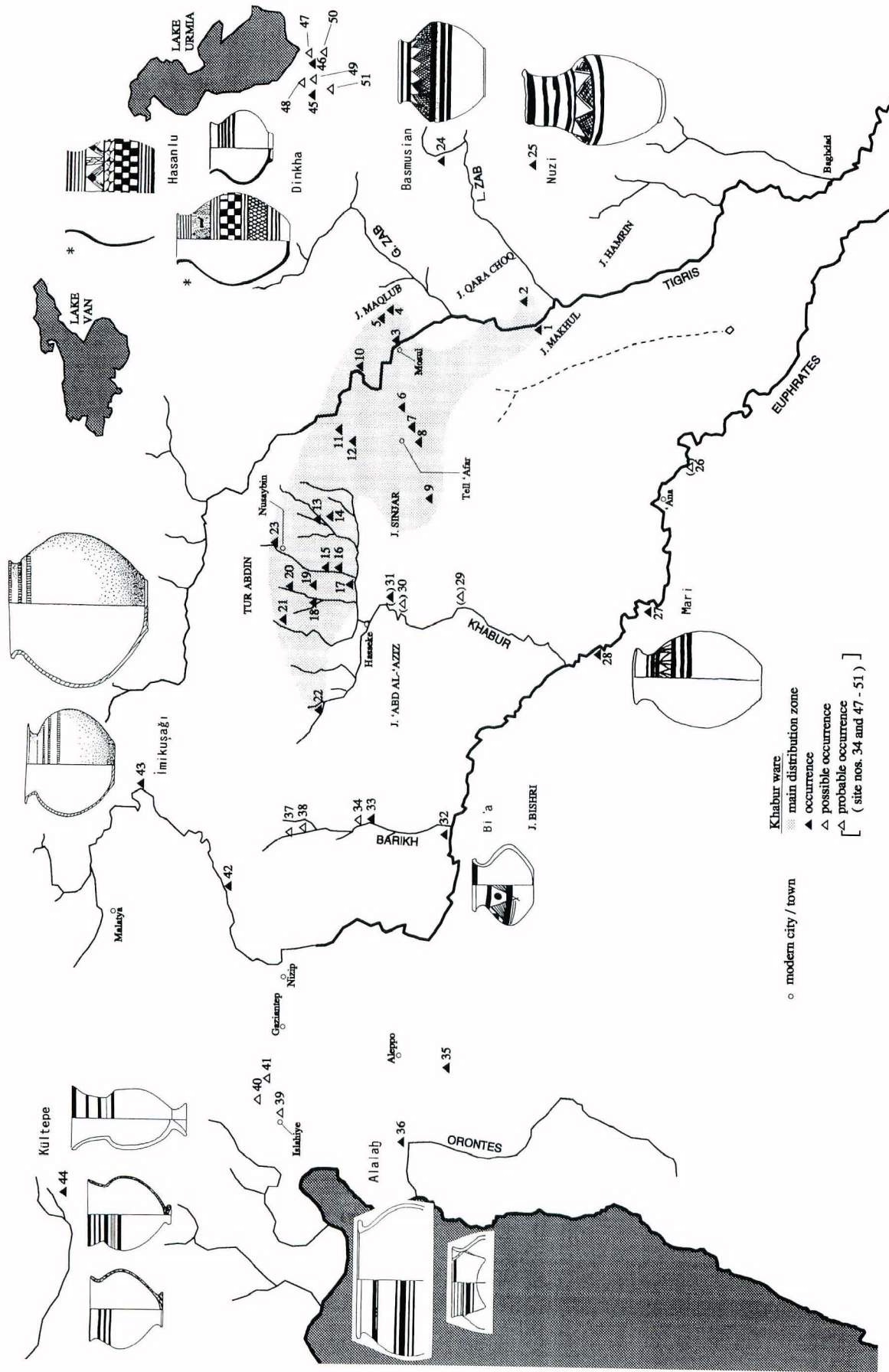
There is also a Khabur ware rim sherd [Starr 1937: Pl.75:N], decorated with a horizontal band, linear triangle(s), and strokes on the rim, which came from pavement II of stratum IV of room H64 in the northwestern ridge area and which was a ceramic example from the stratum assigned to the beginning of the so-called Nuzi period [Starr 1939: pp.202–203 and p.391]. In consideration of the fact that a white-on-dark painted Nuzi ware sherd was found in stratum III of H64 in the same area [Starr 1937: Pl. 79:L], it is suggested that stratum IV in question may postdate stratum V of the city wall and related building area. In fact, white-on-dark painted Nuzi ware becomes an indicator for the distinction between Khabur Ware Period 3 and Khabur Ware Period 4 in the main distribution zone of Khabur ware [see Oguchi 1997: Fig. 1]. Thus we must take it into consideration that it is possible that stratum IV of the northwestern ridge area is contemporary with Khabur Ware Period 3; and one may conclude that hence it follows that the Khabur ware from the northwestern ridge area stratum, IV, represents an example of "secondary distribution" of Khabur ware in the succeeding period 3 of the main distribution zone.

(b) The Rania plain site

In the Rania plain, the only site yielding Khabur ware is Tell Basmusian (site no.24). At this site, level IV, corresponding to temple 2, yielded early second millennium pottery including Khabur ware [Abu al-Soof 1970: p.68].

remains problematical. It is said that in Dinkha IV phases b-c, the occurrence of Khabur ware is most abundant [Hamlin 1971: p.135]. Only in the phase b context of Dinkha IV, a certain Isin-Larsa type occurs [Hamlin 1971: Pl. 1:5a; *idem* 1974: Fig. 1:5a]. In addition, it is noted that three Khabur ware sherds were found in B9/10a stratum 5 (= late Hasanlu VI), regarded as chronologically equivalent with Akkadian-Ur III in Mesopotamian terms [Hamlin 1971: p.34 and pp.135–136]. As for these three sherds, Carol Hamlin suggests that although "they could be stratigraphically intrusive", there is a possibility that "they may in fact represent an early phase immediately preceding the period of greatest vogue" of Khabur ware [1971: pp.135–136]. All things considered, we can suggest that the first introduction of Khabur ware at Dinkha Tepe may possibly fall within the latter part of Khabur Ware Period 1.

4) Joan Oates, personal communication in 1995.



N.B. The illustrated examples with asterisks may possibly be contemporary with the latter part of Khabur Ware Period I.
Fig. 1 Distribution of Khabur ware (ca. 1813–1700 B.C.).

The Khabur ware examples, illustrated in the report, are one body sherd from level IV, one small pot and one body sherd from level IV/temple 2, and two body sherds coming from level III but being probably out of context [Abu al-Soof 1970: Pl.XXXIII: 2, 3, 11, 13–14]. There is also one complete Khabur ware jar, reported to be from level II (a misprint ?) [Abu al-Soof 1970: Pl.XXXIII:9]. Some fragments of Middle Assyrian tablets were found in a pit cut into level IV either from level III or from level II [Abu al-Soof 1970: p.68].

The existence of Šušarra (Tell Shemshara) near this site yielding Khabur ware enables us to speculate about the function of Basmusian itself during the time of Šamši-Adad I or to surmise the seat of a *karum* or a *wabartum* in the Rania plain, *i.e.*, the existence, in a specific site, of an area of settlement of Assyrian traders. At Šušarra there was a tin depot through which the metal was supplied to Šamši-Adad's kingdom. However, the absence of Khabur ware at Shemshara remains a problem [see Hamlin 1971: p.151]. Giving full rein to his imagination, one may suggest that at Šušarra, located 5 kilometres north of Basmusian, there was the local administrative centre where Kuwari, a local ruler under the immediate control of Šamši-Adad and Išme-Dagan, was present, and that in Basmusian was a settlement of Assyrian traders, who were thus responsible for the introduction of Khabur ware at the site.

(c) The Ushnu-Solduz valley sites

Among the sites of secondary distribution of Khabur ware, Dinkah Tepe (site no.45) is one site yielding Khabur ware to some extent in quantity [see Hamlin 1974: n.6 on p.126]. Khabur ware also occurs at Hasanlu (site no.46) [Dyson 1965: Figs. 1 and 13]. At Tepe Gondavelah (site no.48), Kulera Tepe (site no.49), Mohammad Shah Tepe (site no.50) and Gird-i-Khusrau (site no.51), the occurrences of Khabur ware are probable [Kroll 1994: p.164]. These lead us to assume that this area played a role in the Old Assyrian tin trade network, as Carol Hamlin hypothesized. Given that the introduction of Khabur ware in this area falls within the latter part of Khabur Ware Period 1⁵⁾, it may have perhaps occurred in the time of Puzur-Aššur II, *i.e.*, the last Assyrian king of the period known as “Kültepe-Kaniš *Karum* II”. In this area, no doubt Khabur ware continued to occur over the period known as “Kültepe-Kaniš *Karum* Ib”. We can now assume that the role of this area as a trading outpost through which tin was brought from the east, probably from Afghanistan⁶⁾, continued. Since a route along the Greater Zab river through the Kalishin pass into the Ushnu-Solduz valley was the shortest route for passing through a mountainous area of the Zagros, which some such mountaineers as the Lulleans and the Gutians occupied, it must have been more attractive for Assyrian and other traders.

Of importance is the time range of the occurrence of Khabur ware at Dinkha, where four phases (a-d) yielding Khabur ware (period IV) were confirmed through Dyson's excavations. Hamlin considers that on the basis of data on radiocarbon determinations for Khabur ware-related levels at Dinkha, which are supplemented with C14 dates for earlier and later material in the Hasanlu sequence, Khabur ware must have continued in use until *ca.* 1600 B.C. at Dinkha [1971: p.303; 1974: p.129 with n.15]. From typological points of view, we are now in a position to suggest that Dinkha has certainly some later types of Khabur ware, assigned to Khabur Ware Period 3 in the main distribution zone [*e.g.* Hamlin 1974: Fig. I:12, said to be from Dinkha, and Fig. II:9, from phase c]. Thus we can further suggest with certainty that contact between north Mesopotamia and the Ushnu-Solduz valley continued after *ca.* 1700 B.C., *i.e.*, the date for the end of Khabur Ware Period 2 in the main distribution zone.

(d) The middle Euphrates sites

A genuine Khabur ware jar was discovered in room 162 of the Mari royal palace [Parrot 1959: Fig. 92:c]. It is most appropriate that the Khabur ware jar from Mari (site no.27) is regarded as dating from the time of destruction, *i.e.*, the time of Zimri-Lim, king of Mari [see Oguchi 1997: p.200]. In the case

5) See note 3 in the present article.

6) For a source of tin, see Stech & Pigott 1986: p.44 and Fig. 1.

of Mari, it is possible that the Khabur ware jar was brought as a container (*karpatum*) for transporting liquid, for example wine, oil or honey, from the main distribution zone of Khabur ware in the time of Zimri-Lim.

Terqa (Tell 'Ashara, site no.28), located about 60 kilometres north of Mari, also yielded Khabur ware in the form of potsherds, although the quantity was very small [Buia 1993: Tables 21–24 (phases 4–7) and see Fig. 159:a, d, f-g, from area F phase 7]. A time-span for the occurrence of Khabur ware at this site may possibly extend from some time during the time of Iaḥdun-Lim to a date immediately after the reign of Zimri-Lim at Mari, thus including the reign of Šamši-Adad I [see Oguchi 1997: p.204]. A chronological assessment of the first introduction of Khabur ware to this site is important for inferring the time of the prevalence of Khabur ware in the upper Khabur basin [see Oguchi 1997: p.205].

At 'Usiyeh (site no.26), situated on the Euphrates river about 27 kilometres downstream of the modern town of 'Ana, Abdullah Amin Agha discovered a small band-painted jar in a grave, reporting it to be of Khabur ware [1987–88: Fig. 10 and pp.118–119]. Its similar shape can be found in the Khabur ware corpus of Tell Jigan⁷⁾; but it is also said that the 'Usiyeh jar is likely to be Middle or Late Assyrian⁸⁾. This remains a moot question.

(e) The lower Khabur valley sites

It is said that a few sherds of Khabur ware were found on the mound surfaces of Tell Fadghami (? ancient Qattunan, site no.29) and Tell Ta'ban (? ancient Ṭabatūm, site no.30) [Kühne 1974–77: p.254]. The occurrences of Khabur ware at these sites are possible in consideration of the presence of Khabur ware at Terqa. But convincing evidence for the presence of Khabur ware at the two sites has not yet been adduced⁹⁾. The identification of Tell Fadghami with Qattunan/Qattuna, where Zakia-ḥammu was present as a governor under the control of Zimri-Lim of Mari, is inconclusive, as is the identification of Tell Ta'ban with Ṭabatūm, a place-name also appearing in the Mari texts. When these identifications are established and when the occurrences of Khabur ware at the two sites are corroborated, we will be able to give a much clearer picture of what happened in terms of interpersonal contact. In the case of giving consideration to the occurrence of Khabur ware in the lower Khabur valley, however, one may be faced with the problem of how to date it, unless any datable cuneiform tablet is found associated. Such a problem seems to arise at Tell Bdeiri/Bdēri in the Khabur Dam Project area¹⁰⁾.

Tell Bdeiri/Bdēri (site no.31) is one of the sites surveyed by Hartmut Kühne [Röllig & Kühne 1983: p.190], which was excavated by Peter Pfälzner. At this site, it is said that there were found ten sherds of Khabur ware [Pfälzner 1995: p.38]. Two sherds of Khabur ware and one sherd which might possibly be of Khabur ware are illustrated in Pfälzner's monograph [1995]. One is a band-painted rim-

7) In Area C of Tell Jigan, there have been found Khabur ware examples similar to the 'Usiyeh band-painted jar in shape; they, also decorated with horizontal bands of paint, are assigned to Khabur Ware Period 2. Of importance is the fact that the Jigan Khabur ware jars were found *in situ* in the pottery kiln of Level 2a in Trench G-4 of Area C.

8) J. Oates, personal communication in 1955.

9) In 1997, a team from Kokushikan University, under the direction of Katsuhiko Ohnuma, Director of the Institute for Cultural Studies of Ancient Iraq, commenced to excavate at Tell Ta'ban, now plotted as a site in the Khabur Dam Project area. In this season or in the near future, excavations by this team may confirm whether Khabur ware is present or absent at Ta'ban.

10) In this connection, it is interesting to note that at Tell Umm Qseir in the same project area, a band-painted rim-to-shoulder sherd, considered probably of Khabur ware, was found through the excavations carried out by a Japanese team from the University of Tsukuba, under the direction of Akira Tsuneki. In an annual seminar in which reports on Japanese excavations in the Near East were made and which was held in 1977 in the Ancient Orient Museum as part of the activities of the Japanese Society for West Asian Archaeology newly established, Yutaka Miyake, reporting on the 1996 excavations at Tell Umm Qseir, showed a photographic slide of the sherd in question. To the best of my memory, a white-on-dark painted Nuzi ware sherd was recovered from the same deposit where the band-painted sherd was found. A red-edged plate/bowl, said to be Mitannian and Middle Assyrian, was also recovered from there. The fact to which we must pay attention is that no early second millennium levels were confirmed at this site. Thus the treatment, and further the dating, of the sherd considered probably of Khabur ware must become a matter of argument at Umm Qseir. The details of the excavations will be reported through the forthcoming publication entitled *Excavations at Tell Umm Qseir in the Middle Khabur Valley, North Syria* (edited by A. Tsuneki and Y. Miyake).

to-neck sherd, comparable in profile with the part of a Khabur ware jar found at Chagar Bazar [Pfälzner 1995: Taf.52:a, from BD-N level 3]¹¹⁾; another is a body sherd with a ribbed band and a cross-hatched triangle of paint [Pfälzner 1995: Taf.66:e, from BD-N level 4]; the other is a body sherd, decorated with cross-hatching of paint, possibly of Khabur ware [Pfälzner 1995: Taf.66:i, from BD-N level 1]. These sherds (ware 10) came from some of the levels that contained pottery which Pfälzner regarded as Mitannian from a geographical point of view and by comparison with the pottery from the Mitanni palace (phase 2) at Tell Brak [Pfälzner 1995: p.XXXV]. The levels containing such pottery was thus dated by Pfälzner to the 14th century B.C. Hence he has considered that the presence of the Khabur ware sherds at this site, where early second millennium levels have not been confirmed through his excavations, suggests that Khabur ware was still in use in the 14th century B.C. [Pfälzner 1995: p.38]. However, it is highly unlikely that the Khabur ware fashion continued over a date of *ca.* 1400 B.C.: no Khabur ware came from the Mitanni palace (phase 2) and the later Mitanni houses of area HH at Brak, which is important as dating evidence for Khabur ware¹²⁾. The levels assigned to the 14th century B.C. at Bdeiri/Bdēri yielded “band-painted open-form goblet” sherds (ware 38) [Pfälzner 1995: Taf.34:b, Taf.35:b, f, and Taf.65:c, described as “*jüngere*” Khabur ware (on p.46)¹³⁾], white-on-dark painted Nuzi ware sherds (ware 39) including one sherd decorated probably with birds of white paint [Pfälzner 1995: Taf.66:m, and see p.47], sherds of red-edged plates/bowls (ware 8) said to be Mitannian and Middle Assyrian [Pfälzner 1995: *e.g.* Taf.1:c, d, f, and Taf.2:e], an angular-sided plain bowl and sherds of the bowl type [Pfälzner 1995: *e.g.* Taf.9:b and Taf.10:a], and a band-painted, shouldered “beaker” with a nipple base and a neck-to-body sherd of the “beaker” type (ware 38), which are considered rather Middle Assyrian in shape [Pfälzner 1995: Taf.36:a, b, from BD-N levels 3 and 5, described as “*jüngere*” Khabur ware (on p.46 and see also p.83)]. All things considered, it is suggested that the Khabur ware sherds found there can be out-of-context sherds, and that in unexcavated areas at this site, there may be a small area of occupation contemporary with a later phase of Khabur ware, perhaps Khabur Ware Period 4 (*ca.* 1550–1400 B.C.). It is, however, noted that there is also no reason to deny a possibility that there may perhaps be a very small area of occupation contemporary with the main phase of Khabur ware, *i.e.*, Khabur Ware Period 2, in unexcavated areas [*cf.* Röllig & Kühne 1983: p.190, for surface sherds].

(f) Tell Bi‘a-Tuttul

This site (site no.32)¹⁴⁾, yielding a small number of Khabur ware sherds, is one of the sites providing datable evidence for Khabur ware [Strommenger 1991: Abb.5 and see p.33; Einwag 1993: Abb.9:1, 2, and n.1 on p.40; see also Oguchi 1997: p.205]. It goes without saying that the site itself was strategically important to Šamši-Adad I, for example as known from the facts that at Tuttul, Iašub-El was present as a governor under Šamši-Adad and that near or not far from Tuttul, there was Šubat-Šamaš (? Tell Zadan/Zedan or Tell Muṭabb¹⁵⁾), an administrative/military outpost of Šamši-Adad’s kingdom. The confirmation of the occurrence of Khabur ware at this site throws light on the problem of interpreting the distribution of Khabur ware, particularly in the Balikh valley and furthermore in the west¹⁶⁾.

(g) The middle and upper Balikh valley sites

At Tell Jidle, lying on the west bank of the Balikh downstream of ‘Ain al-‘Arus, level 4 produced “some sherds of red painted Khabur ware” (?) and a “ring-burnished specimen of Khabur ware” [Mallowan 1946: p.134, Fig.11:9]. But the fact that Mallowan’s identification of the Jidle 4 specimen with Khabur

11) Pfälzner compares the sherd with Mallowan 1937: Fig. 21:3, assigned to the intermediate phase (C) of Chagar Bazar level 1.

12) J. Oates, personal communication in 1995.

13) Such “band-painted open-form goblets” can be no longer regarded as Khabur ware, as claimed by Diana L. Stein [Stein 1984: p.23: *cf.* Oguchi 1997: p.198].

14) The identification of Tell Bi‘a with ancient Tuttul has now been established [Strommenger 1994: p.144].

15) H. Lewy 1958: p.5.

16) See Oguchi 1997: p.210.

ware was erroneous was pointed out by Kühne, who argued that it was a painted variant of “metallic ware”, dated to the third millennium B.C., on the basis of material from Chuera/Huwaira [Kühne 1976: pp.69–70]. Kühne’s argument that such a kind of band-painted pottery [see Kühne 1976: Abb.D] should be differentiated from Khabur ware is generally accepted, apart from the question as to whether the band-painted pottery is metallic ware or not. Tell Jidle is therefore excluded from the sites showing the “secondary distribution” of Khabur ware.

At Tell Hammam et-Turkman (? ancient Zalpa/Zalpaḥ, site no.33), the extremely limited occurrence of Khabur ware was confirmed in period VII (MB) [Curvers 1988: p.413]. The strata of Hammam period VII were confirmed in separate areas of excavations. Some body sherds of Khabur ware came from strata VII:1 and VII:2 in squares J-K 23 of the western part of the mound, and two other body sherds of Khabur ware, from stratum VII:5 in step trench O 16–18 set on the north slope of the mound [Curvers 1988: pp.403–404 and Pl. 142: 214, 215 (from J 23)]. On the basis of the ceramic assemblage from J-K 23, Hammam period VII was divided into three phases; the early phase (VIIA) was represented by strata VI-VII, VII:1 and VII:2, the intermediate phase (VIIB) by strata VII:3 and VII:4, and the late phase (VIIC) by stratum VII:5 [Curvers 1988: pp.407–409; cf. Meijer 1988: pp.82–83, on which stratum VI-VII is assigned to period VI (EB)]. Hans H. Curvers suggests a ceramic correlation between Hammam phase VIIA and Mardikh IIIA [1988: p.414]. Tell Hammam et-Turkman is the only site providing convincing evidence for the occurrence of Khabur ware in the middle and upper Balikh valley.

Another candidate for a site yielding Khabur ware is Tell Sahlan (? ancient Saḥlala, site no.34). At this site, Mallowan confirmed that a band-painted sherd, which he identified as a sherd of Khabur ware, was embedded in a stone wall exposed on the side of the mound [1946: p.138]. It seems probable that at this site, as at Tell Hammam et-Turkman, there occurs a little Khabur ware.

The possible occurrences of Khabur ware in the upper Balikh valley are at Sultantepe (site no.37) and Aşağı Yarımaca (site no.38). Key Prag writes that John Evans communicates that at Sultantepe, there was definitely painted Khabur ware, attributed to the 18th and 17th centuries B.C. [1970: n.8 on p.63]¹⁷. With regard to Aşağı Yarımaca, Seton Lloyd and William Brice report that “some fragments of painted ware of the ‘Khabur’ type” were collected from the surface [1951: p.110].

One may thus suggest that the certain and probable/possible occurrences of Khabur ware in the Balikh valley can be indeed accounted for in both political and economic aspects of Šamši-Adad’s kingdom [see Oguchi 1997: p.210].

(h) Tell Mardikh-Ebla

Paolo Matthiae reports that Mardikh IIIB, assigned to MB II, yielded two examples of Khabur ware [1977: p.148]. On the other hand, Stefania Mazzoni writes that Ebla Khabur ware can be divided into two stages of development, suggesting the presence of Khabur ware at the end of Mardikh IIIA (MB I), as in Mardikh IIIB [1988: p.64 with n.22]. A small quantity of Khabur ware certainly occurs at this site (site no.35); there were a Khabur ware jar and several Khabur ware sherds in a storeroom of the Ebla expedition house, when the present writer visited the site in 1988¹⁸. To the best of my memory, the jar itself, found and stored at Ebla, was a typical Khabur ware example decorated with cross-hatched triangles and horizontal bands of paint [see also Oguchi 1997: p.215]. It is additionally noted that at Ebla, there is third millennium band-painted pottery from Mardikh IIB1 (“Royal Palace G”), which of course differs from Khabur ware [Matthiae 1977: Fig. 16 on p.97; Mazzoni 1985: Fig. 3: 2, 4–5, 11–12, 16, and 1994: Figs. 4–5 and Fig. 6: 2]. This indicates that surface sherds with banded decoration, particularly from

17) In the same article, Prag uses the term “‘early’ or ‘eggshell’ Khabur ware” to describe at Harran mid-third millennium pottery with spiral ring burnish and horizontal bands of matt orange or red paint, which was stratified in the same phase where “stone-ware” was found [1970: p.71, p.75 and pp.79–81]. Needless to say, however, she refers to second millennium Khabur ware as to that from Sultantepe in the note of the article.

18) I would like to thank Professor Paolo Matthiae and Dr. Stefania Mazzoni for generously showing me unpublished Khabur ware examples from Ebla.

sites around Ebla, must be treated with caution.

The occurrence of Khabur ware at this site allows us to explain a reason for the “secondary distribution” of Khabur ware in the west in connection with Šamši-Adad’s political and/or economic interest in the western region [see Oguchi 1997: p.209]. An important clue to such an interpretation is also given at Alalah.

(i) Alalah

In the study of unpublished Alalah XVII-VII ceramic materials, Marlies Heinz attempted to distinguish Khabur ware from Syro-Cilician painted pottery (“Amuq-Cilician ware”), and suggested the occurrence of Khabur ware in levels X-VIII [1992: *e.g.* p.62]. The Alalah X-VIII Khabur ware illustrated by Heinz is composed largely of small body sherds with painted horizontal bands [Heinz 1992: Taf.30–32 (VIII), Taf.51: 188–195 and Taf.52–53 (IX), and Taf.66: 87 (X)]. Such band-painted sherds are among the surface sherds collected from Çatal Hüyük in the Amuq plain by the British Institute of Archaeology at Ankara¹⁹⁾. However, there is no reason to deny that the band-painted sherds at these two sites may be parts of Syro-Cilician painted pottery vessels; this precludes the possibility of identifying them as genuine Khabur ware: therefore, they should be excluded from consideration. Further, at Arslantepe-Malatya there are some band-painted sherds from the level of period VA1 (MB I), which are said to be of Khabur ware by Edibe Uzunğlu who excavated at İmamoğlu [Alba Palmieri, personal communication in 1987]; but whether they are of Khabur ware or not is a moot question [Palmieri, personal communication]. As at Alalah and Çatal Hüyük, the Arslantepe sherds should be excluded from consideration as equivocal evidence. Heinz also illustrates painted rim or rim-to-body sherds as Khabur ware. They are as follows [Heinz 1992]:

Level VIII: Taf.22:37, Taf.23:45,46,48 (with horizontal bands);

Level IX: Taf.40:66 (with horizontal bands), 69 (with a horizontal band, a cross-hatched triangle, an animal, a tree and a plant), Taf.42:79 (with horizontal bands);

Level X: Taf.60:52 (with horizontal bands).

The level X-IX sherds are, however, differentiated from Khabur ware proper in shape; for example, Taf.40:66 and Taf.60:52 are similar in shape to ATP/46/264 illustrated by Leonard Woolley [1955: Pl. LXXXVII]. The examples that can be regarded as Khabur ware are only the level VIII rim-to-body sherds, whose shapes can be identified in the inventory of Khabur ware of north Mesopotamia. Thus, the Alalah evidence of the occurrence of Khabur ware in level VIII becomes a matter of importance for interpreting the “secondary distribution” of Khabur ware in the west [see Oguchi 1997: p.209].

At Alalah (site no.36), Khabur ware reappears in levels VI-V [Gates 1981: Ill.2:o (=Woolley 1955: Pl. LXXXVII:ATP/46/286) from level V, Ill.2:p (ATP/46/258) from level V, Ill.4:a (=Woolley 1955: Pl. XCV:ATP/39/279) from level V, Ill.4:b (ATP/39/142) from levels VI-V; Woolley 1955: Pl. XCV:AT/46/275 from level V]. The problem is that Alalah level VII provides no evidence for the presence of Khabur ware²⁰⁾, despite the occurrence of Khabur ware in Alalah level VIII, assigned to the same period as Khabur Ware Period 2 in the present article. This may suggest that contact between Alalah and the main distribution zone of Khabur ware was interrupted in the period of Alalah level VII (*ca.* 1720–1650/1620 B.C.). If Alalah VI-V are placed between 1650/1620 B.C. and the date for the beginning of Alalah IV (which may be dated late in the second half of the 16th century B.C.)²¹⁾, Alalah levels VI-V fall in the latter part of Khabur Ware Period 3 (*ca.* 1700–1550 B.C.) shown in the main Khabur ware

19) By courtesy of Dr. Geoffrey Summers, the present writer could have a look at the surface sherds.

20) In Alalah VII, a straight/concave-sided beaker type vessel, decorated with horizontal bands of red and black alternately, occurs [Woolley 1955: p.314 (ATP/39/307, type 94)]. However, such a bichrome decoration indicates that the only example of level VII is not regarded as Khabur ware [*cf.* D.L. Stein 1984: p.21].

21) Alalah is one of the important sites because of the well-known cuneiform archives discovered in level VII and level IV; but the chronology of both the levels has aroused much controversy [*e.g.* see McClellan 1989: Fig. 26 on p.183].

distribution zone, overlapping with Khabur Ware Period 4 (*ca.* 1550–1400 B.C.)²²⁾. If so, it is suggested that some time in the second half of the 17th century B.C., contact between Alalah and sites in the main Khabur ware distribution zone was resumed. We are thus inclined to conceive that, certainly controlling Alalah in the period of Alalah level VII, the kingdom of Iamhad, which attempted political intervention into the upper Khabur basin in the time of Samsuiluna of Babylon (*ca.* 1749–1712 B.C.)²³⁾, must have caused the interruption.

(j) The İslahiye-Gaziantep-Nizip region sites

At Carchemish (ancient Karkamiš/Kargamiš), located on the Syrian-Turkish border southeast of Nizip, there are one band-painted small jar and another band-painted shouldered vessel from a “Middle Hittite” tomb [Woolley 1921: Pl.27c:4,5]. It is said that they may possibly be of Khabur ware [Hamlin 1971: pp.176–177], or may be of third millennium band-painted pottery, such as was found at Amarna and Hammam which were excavated by Woolley²⁴⁾ [D.L. Stein 1984: p.27]. The Carchemish examples are, however, differentiated in shape from the relevant third millennium band-painted pottery [*cf.* Kühne 1976: Abb.D]. The similarity between other undecorated types from the same tomb of Carchemish [Woolley 1921: Pl.27c:2,6–7] and types found at Lidar Höyük in level 8 (MB II) yielding some Khabur ware [Hauptmann 1988: Fig. 6] may give an indication that the Carchemish pottery vessels in dispute may be connected with Khabur ware. However, since these Carchemish band-painted pottery vessels are, at any rate, problematical in several respects, the site itself cannot help being omitted from those which are marked as sites showing the “secondary distribution” of Khabur ware²⁵⁾.

A clue to the occurrences of Khabur ware in this region is given on evidence obtained from the Gaziantep Museum, where exhibited in 1987 was a jar decorated with horizontal bands, cross-hatched triangles and dots interposed between triangles, which was certainly an example of genuine Khabur ware. The Khabur ware example is said to have been brought from somewhere around Nizip. Indeed, this may support the occurrences of Khabur ware not only in the Nizip area but also in the İslahiye-Gaziantep area (Tilmen Hüyük, Gedikli Hüyük and Sakce Gözü).

At Tilmen Hüyük (site no.39), it is said that levels IIIa and IIIb, regarded as falling between the 20th and the first quarter of the 18th century B.C., yielded both Syro-Cilician painted pottery and Khabur ware [Alkım 1969: pp.286–287]. On the other hand, at Gedikli Hüyük (Karahüyük, site no.40), it is said that in level II, some ten sherds of Khabur ware were found [Alkım & Alkım 1966: p.35]. Four band-painted body sherds, from level II, are shown on the photographs of the report [Alkım & Alkım 1966: Figs.9–12]. But one of the four sherds is decorated in lustrous paint, and is therefore differentiated from Khabur ware [see Alkım & Alkım 1966: Fig. 12 and p.35]. The others, regarded by the excavators as Khabur ware, are decorated in matt reddish brown paint [Alkım & Alkım 1966: Figs.9–11]; however, whether they are of Khabur ware is a matter for argument. Nevertheless the occurrence of Khabur ware at a site around Nizip gives support to the possible presence of Khabur ware at this site.

22) Most recently, the excavations at Tell Umm el-Marra have confirmed the occurrence, in the Jabbul plain east of Aleppo, of straight/concave-sided beaker type painted vessels which can be regarded as Khabur ware [Curvers & Schwartz 1997: Fig.19:9 (period II) and Fig.23:17 (period III, the latest phase)]. White-on-dark painted Nuzi ware also occurs at this site [Curvers & Schwartz 1997: Fig. 20:1–4 (period II)]. The latest phase of period III and the occupation of period II at this site may be contemporary with Khabur Ware Periods 3 and 4 respectively because of the occurrence, in the latest period III phase and in period II, of such beaker type painted vessels and that of Nuzi ware in period II.

23) See Eidem 1987–88: pp.114–115.

24) Woolley 1914.

25) From a historical point of view, we know that Karkamiš ruled by Aplaḥanda was an ally with, or possibly a vassal-state under, Šamši-Adad's kingdom [Munn-Rankin 1956: pp.81–82]. The Mari texts refer to the fact that a large quantity of wine, held in *karpātu* (jars), were sent from Aplaḥanda of Karkamiš to Iasmaḥ-Adad at Mari, probably as a gift (*e.g.* ARMT V:13). Accordingly, there exists reason to be unable to deny the possibility that Khabur ware occurs at Carchemish. In addition, it is interesting to note the fact that at Acemhöyük (?? Buruḥattum, where a *karum* was seated, in particular in the period known as “Kültepe-Kaniš *Karum* II”), located near Aksaray southeast of Lake Tuz, a number of sealings bearing the impressions of the seal of Šamši-Adad I were found together with seal impressions of Aplaḥanda of Karkamiš [N. Özgüç 1980: pp.64–67].

Coba Hüyük (site no.41), called mound A by J. Garstang, lies about 3 kilometres northwest of the village of Sakçe Gözü, west-northwest of Gaziantep. With regard to her Cilician survey, Seton-Williams reports that “a bowl from Boz had the same profile as one from Chagar Bazar”, that “this type of bowl was also found at Sakçe Gözü, not on the mound at Coba, but in the cave site above the village”, and that “the larger forms ... show marked resemblances of Ḥabur ware in the hatched triangles and the zonal character of the decoration” [1954: p.133]. It seems, however, that her description is concerned with Syro-Cilician painted pottery rather than Khabur ware [*cf.* Seton-Williams 1953: p.64]. J. du P. Taylor, M.V. Seton-Williams and J. Waechter excavated at Coba Hüyük, and called levels VII-VIII the “Ḥabur period” [Taylor *et al.* 1950: p.56]. However, the occurrence, in the lower level VII, of some band-painted jar sherds of “the coarse drab ware which may be of Ḥabur type” is merely reported [Taylor *et al.* 1950: pp.109–110]. The Sakçe Gözü evidence for Khabur ware is therefore inconclusive, but the Nizip evidence noted above may suggest its possible occurrence.

These sites are in fact along a tin trade route inferable. Not only in the period known as “Kültepe-Kaniš *Karum* II” but in the period known as “Kültepe-Kaniš *Karum* Ib”, the Nizip-Gaziantep-İslahiye-Maraş route was probably one of the trunk roads to Kaniš.

(k) The upper Euphrates sites

At Lidar Höyük (site no.42), lying on the left bank of the upper Euphrates, the pottery recovered from level 8 (MB II) included some examples of Khabur ware, one of which was an example decorated with hatched triangles and horizontal bands of paint [Hauptmann 1988: p.110 with Fig. 6]. Most of the pottery of level 8 is said to have parallels in Hammam et-Turkman (probably VII), Hama H and Mardikh-Ebla IIIB [Hauptmann 1988: p.110].

Another site yielding Khabur ware is İmikuşağı (site no.43), which lies on the left bank of the upper Euphrates, upstream of Lidar Höyük. At this site, levels 12–13 (MB II) produced some eighteen complete jars and pots with horizontal bands of matt paint and many sherds with matt-painted, banded decoration [Veli Sevin, personal communication in 1987; Sevin 1988: pp.112–113 with Fig. 3]. Undecorated counterparts of the band-painted complete vessels occurred also in these levels [Sevin, personal communication]. Characteristic of the painted pottery of levels 12–13 is the exclusive use of simple horizontal bands of matt red/reddish brown paint on the rim-to-shoulder [see Sevin 1987: Res.22]. Some band-painted vessels with comb-incised wavy lines were found in level 13 [Sevin, personal communication]; but they are totally different from Khabur ware in shape. These levels, 12–13, are considered contemporary with *Karum* Ib at Kültepe²⁶. Pits of the underlying level, 14 (MB I), contained a few body sherds with matt-painted bands, such as were found in levels 12–13, and some body sherds with bands of lustrous paint, which resemble those found at İmamoğlu lying on the opposite bank of İmikuşağı [Sevin, personal communication]. The lustrous-painted sherds are of course differentiated from Khabur ware. The matt- and band-painted sherds, from the level 14 pits, may be intrusive sherds. Found in the same pits were the so-called “matt violet painted ware”, considered a continuation of the EB painted ware of the Malatya-Elazığ area, and ring-burnished blackish ware [Sevin, personal communication]. Veli Sevin regarded the band-painted complete jars and pots of levels 12–13 as Khabur Ware [1987: pp.309–310; 1988: pp.112–113]. In fact, some of the band-painted complete jars and pots are similar in shape to some globular examples of Khabur ware from Chagar Bazar (compare Sevin 1987: Res.22:c,e with Mallowan 1936: Fig.16:2,3). In my opinion, based on my having a look at the İmikuşağı band-painted pottery stored in the University of İstanbul through the courtesy of Oğuz Tekin and Gülsüü Umurtak²⁷, it appears to be composed of the local imitations of Khabur ware and their variants. Accordingly, many band-painted sherds from levels 12–13 are probably of the “Khabur ware”

26) *Anatolian Studies* XXXV (1985): p.196, XXXVI (1986): p.198 and XXXVII (1987): p.193.

27) I would like to thank Professor Dr. Veli Sevin for giving me valuable information on the excavations at İmikuşağı, in addition to his allowing me to have a look at the İmikuşağı ceramic material relevant to this article.

and its variants. In sum, İmikuşağı is marked as a site yielding Khabur ware and its variants, decorated exclusively with painted horizontal bands, to some extent in quantity.

Of importance is the fact that İmikuşağı is situated near Ergani, a source of copper, which tempts us to suggest that the site may have had a role as an outpost through which copper was brought to Assyria, possibly via Lidar Höyük [Oguchi 1997: p.209]. Further, the occurrences of Khabur ware at these sites lead us to assume that one of the trunk roads to Kaniš, at least in the period known as “Kültepe-Kaniš *Karum Ib*”, was the Lidar Höyük-İmikuşağı-Malatya route running along the upper Euphrates river.

(1) Kültepe-Kaniš

Three examples of Khabur ware, small in size and decorated only with painted horizontal bands, are known from graves of *Karum Ib* at this site (site no.44) [T. Özgüç 1953: Abb.17/25 and Abb.18/26; *idem* 1986: Pl.134:3]. To these examples, another example of Khabur ware from a grave of *Ib* should be now added as a known example [Emre 1963: Pl.XXV:1]²⁸⁾. The significant fact is that none of the Khabur ware examples of this site occurs in contexts other than graves [Kutlu Emre, personal communication in 1987]. This leads us to the assumption that Assyrians, concerned in the Old Assyrian trade, would sometimes carry with them small Khabur ware vessels with symbolic meanings when moving from Aššur to Kaniš. From this assumption, it follows that at this site, Khabur ware occurs only as grave goods symbolizing possessions which the deceased had in life. However, the dating of such graves as contained Khabur ware is problematical: the occupation of *Karum Ib* may have lasted much longer than the reign of Šamši-Adad I, covering the reign of Ḫammurabi of Babylon²⁹⁾. If we postulate that the Old Assyrian tin trade continued after the death of Šamši-Adad I till the end of the reign of Ḫammurabi of Babylon, *ca.* 1750 B.C., or possibly a date immediately after the end of Ḫammurabi's reign, it is possible that some Kültepe Khabur ware vessels from graves are dated after the reign of Šamši-Adad I. Further, what merits mention is the occurrence of south Mesopotamian-related types at this site. Among the Kültepe Khabur ware examples known at present, an eversible-necked/rimmed shoulder cup [T. Özgüç 1953: Abb.17/25] is considered a hybrid between south and north Mesopotamian ceramic traditions, and a shouldered vessel [T. Özgüç 1986: Pl.134:3], also a hybrid marked as an Old Babylonian-related type³⁰⁾. In fact, these examples, discovered at the Anatolian site remote from southern Mesopotamia, reflect an aspect of contact between the south and the north in Mesopotamia.

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28) Ryoichi Kontani, personal communication in 1997.

29) Buchanan 1969: p.759; *cf.* N. Özgüç 1968: p.319. In connection with this problem, it is noted that the Rimah texts dated to the times of Ḫatnu-rapi and İltani at Karana include references to tin [D. Oates 1968: p.137; Dalley 1984: p.64], and that in the economic texts of the İltani archive at Rimah, the name of Kaniš occurs [D. Oates 1968: p.137; Dalley 1976: pp.31–32]. Ḫatnu-rapi is known as a contemporary of Zimri-Lim of Mari; İltani's husband, Aqba-ḫammu, is known to have been subject to Ḫammurabi of Babylon. Furthermore, a Leilan text mentioning a treaty between Till-abnu and the city of Aššur [Eidem 1987–88: p.115; *idem* 1991: p.127] may be a matter of consideration for this problem: Till-abnu was a ruler present at Şehna (= Şubat-Enlil) some time after Ḫammurabi's having smitten Mari in battle (*ca.* 1761 B.C.) and before İakun-ašar's ascending the throne at Şehra, destroyed by Samsuiluna of Babylon in his 22nd regnal year (*ca.* 1728 B.C.).

30) See also Oguchi 1997: n.26 on pp.210–211.

References to the ceramic illustrations of Fig. 1

Drawings reproduced

For Nuzi, D.L. Stein 1984: Pl.V:12 (=Starr 1937: Pl.70B). For Basmusian, Abu al-Soof 1970: Pl.XXIX:12. For Dinkha Tepe, Hamlin 1974: Fig. XII:b (*), from operation B9/10a stratum 4 (period IV phase a), and Fig.I:2, from operation H1h stratum 3. For Hasanlu, Dyson 1965: Fig.1 (*) (period VI). For Mari, Parrot 1959: Fig. 92:c. For Bi'a-Tuttul, Einwag 1993: Abb.9:1. For Alalah, Heinz 1992: Taf.23:37,46. For İmikuşağı, Sevin 1987: Res.22:c.c. For Kültepe-Kaniş, Hrouda 1989: Fig. 2 (=T. Özgüç 1953: Abb.25 and Abb.26) and Kontani 1995: Fig. 1 (=T. Özgüç 1986: Pl.134:3).

N.B. The Khabur ware examples marked with asterisks (*) are those which may possibly be assigned to the same period as the latter part (*ca.* 1850–1814 B.C.) of Khabur Ware Period I. As for this, see note 3 in the present article.

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1. The papers handled include unpublished theses, reports, book reviews, translations, brief notes, etc. All articles must be written in either Japanese or English in principle.
2. For translated articles, the contributor should make themselves responsible for completing necessary procedures, such as copyright and permission to translate, with the original writer before their submission to the editorial board.
3. Contributors should clarify the literature cited in the article.
4. Notes and quotations should be limited to those indispensable to the discussion.
5. Any manuscript, together with photos, maps, figures, etc., submitted to the editorial board shall not be returned.
6. If a resume in any language needs to be printed, please send it with manuscript.
7. Tables of contents in every volume will be presented in both Japanese and English. Contributors are required to submit the papers with the title translated into Japanese, otherwise please trust it to the editorial board.
8. No payment shall be made for your manuscript. Two original copies of the journal and fifty offprints shall be distributed free of charge. In case of a joint article, two original copies and twenty-five offprints shall be distributed to each author. If more offprints are necessary, contributors are requested to pay for their cost and postage.
9. The following is the address of the editorial board for correspondence:

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Guideline to writing

1. The manuscript should be typed on one side only of A-4 size paper.
2. On the front page, to the exclusion of the text, the title of article should be written as well as the name, address and position of author(s).
3. Please be sure to prepare necessary drawings and tables on separate papers one by one (less than 23.5×16.0 cm each in size of completion of printing), with explanations and consecutive numbers respectively, and compile them aside from the text. In addition, designate, on the margin of the text, where each one should be inserted.
4. The drawings should be inked over, then covered. In general, photo typesetting of letters, numbers, etc. in illustrations is done by the editorial board.
5. In principle, monochrome photographs, clearly printed larger than 12×8 cm, are acceptable, but not negative films. They shall also require explanations, consecutive numbers, etc., as mentioned in item 3.
6. Explanatory notes should be written on separate papers, each with a consecutive number to be given to the relevant sentence in the text.
7. In the text, specify the literature for reference as below; writer's name, publication year, and quoted pages are arranged in order, enclosed in brackets:
[Childe 1956: 30–32]
[Annahar 1943: 123; Agha 1946: pl. 15]
If those of the same writer are published in the same year, classify them by additional alphabet to the publication year.
8. Put all the references that have been quoted in the text and notes, and write them as follows: (1) The writers' names are to be listed in alphabetical order. The names of Japanese, Arabs, etc. must be arranged among the European names based on the supposition of their having been rewritten in Latin. (2) The writer's name, issue year, title, volume name, volume number, issue number and publisher's name (place) are to be filled in the references in regular sequence. The title of journals or independent publications should be specified, with underline or by the use of Italic letters.
9. As a rule, the first proofreading shall be done by the original author.

正 誤 表 CORRIGENDA

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	誤 errors	正 corrections
p. 46 Fig. 1	Aieppo Shanider Cave	Aleppo Shanidar Cave
p. 169 l. 2	of Mari, dated between	of Mari, was dated between
p. 203 l. 32	Dadusa	Daduša
p. 207 Fig. 2	[△ probable occurrence] [(site nos. 31 and 47-51)]	[△ probable occurrence] [(site nos. 34 and 47-51)]
p. 210 n. 22)	<i>Cf.</i> Astor 1978:	<i>Cf.</i> Astour 1978:
p. 222 l. 34	<i>Bulletin</i>	<i>Bulleten</i>

編集後記 (postscript)

次号に数多くの投稿がなされんことを期待します。

(小口)

News

Professor Hideo Fujii retired from his post in the Institute for Cultural Studies of Ancient Iraq in March 1997. On his retirement, he was awarded the title *Professor Emeritus* of Kokushikan University. Professor Katsuhiko Ohnuma succeeded Professor Fujii as the director of the Institute. The Institute itself seems to see a turning point now. The new director has commenced excavations at Tell Taban in the Middle Khabur Valley in Syria near the Iraqi border.

(H. Oguchi)

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