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ON THE FRONTIER OF ASSYRIA: EXCAVATIONS AT TELL SABI ABYAD, 1991

Peter M.M.G. Akkermans, José Limpens and Richard H. Spoor

INTRODUCTION

Since the spring of 1986 four campaigns of archaeological investigation have been undertaken on the mound of Tell Sabi Abyad in northern Syria. These campaigns showed that Sabi Abyad is a major prehistoric site primarily occupied in the 6th millennium B.C., but in addition impressive remains were found of a Late Bronze Age or Middle Assyrian settlement, dating from the later 13th and, perhaps, 12th century B.C. The results of our first two campaigns have already been reported¹. The intention of this article is to outline the work of our 1991 and 1992 field season², but only the late second millennium remains will be taken into consideration. The outcome of the prehistoric investigations will be presented elsewhere.

So far political and cultural developments in Late Bronze Age Syria have been poorly understood. To put it simply, it seems that after the fall of Mitanni western Syria, up to the Euphrates, was controlled by the Hittites, that the easternmost part of Syria fell within the Assyrian realm, whereas the intermediate region was part of the kingdom of Hanigalbat. Assyrian texts have made clear that the kings of Assyria considered Hanigalbat of their sphere of influence, thereby taking the Euphrates and the Hittite stronghold of Carchemish as their western border. It is doubtful whether Assyrian power in this region was firmly established; particularly during the first half of the 13th century it seems to have been fluctuating and superficial in nature, based upon weak vassal contracts with local elites and requiring constant military intervention and repression (see e.g. Wilhelm 1982:55ff). In the later 13th century, however, and perhaps as a result of Shalmaneser's military victory over Hanigalbat (cf. Grayson 1972:82-83), Assyrian control of the lands of Hanigalbat seems to have become structural and direct, involving the annexation of Hanigalbat and the establishment of Assyrian governor seats like at Tell Sheikh Hamad (ancient Dur-katlimmu) on the Khabur. Our recent excavations at Tell Sabi Abyad, too, have yielded ample evidence for Assyrian control of the former lands of Hanigalbat.

1 For the 1986 and 1988 seasons, see Akkermans 1987a, 1987b, 1988, 1990, 1991; Akkermans, ed. 1989; Akkermans and Rossmesl 1990; Akkermans and Le Mièrè 1992.

2 The archaeological research at Tell Sabi Abyad, formerly carried out under the auspices of the University of Amsterdam, was conducted by the National Museum of Antiquities, Leiden, the Netherlands. The third campaign of excavation took place in the autumn of 1991. The fourth field season (fall 1992) was mainly devoted to the processing of finds from the earlier excavations. We wish to express our sincere gratitude to the Directorate-General of Antiquities and Museums, Damascus, for its continued assistance and encouragement; our thanks go to Dr. Ali Abu Assaf, Director-General, and Dr. Adnan Bounni, Director of Excavations. We would also like to thank Mr. Murhaf al-Khalaf, Department of Antiquities, Raqqa, and our representative, Mr. Nauras al-Mohammad.

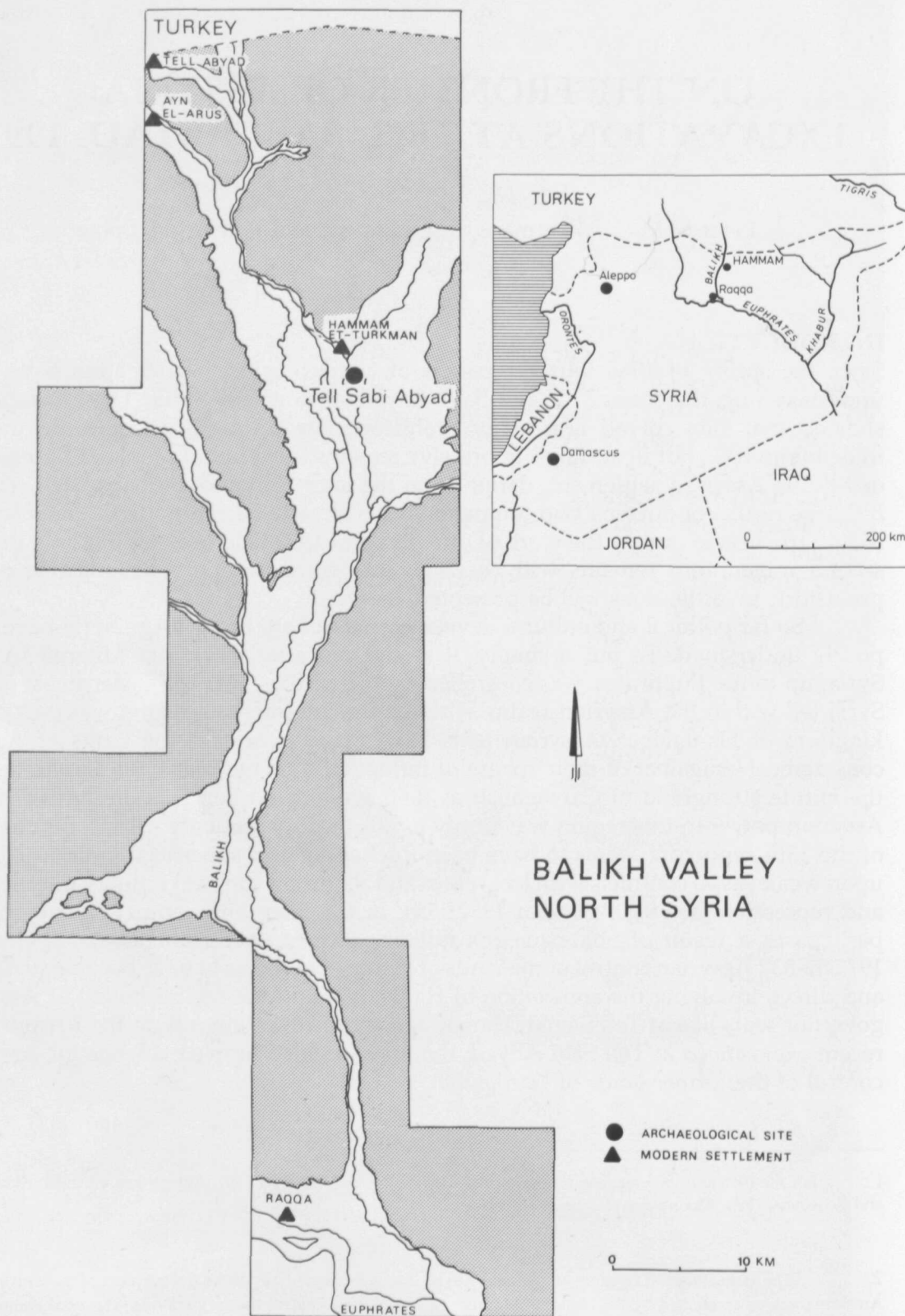


Fig. 1 Map of the Balikh valley with (inset) its location in Syria.

Tell Sabi Abyad is located in the upper Balikh valley of northern Syria, about 30 km from the Syro-Turkish border in the fertile, undulating plain south of the modern village of Hammam et-Turkman (fig. 1). The mound rises between 5 and 10 m above the surrounding fields and comprises an area of about 4.1 ha³. The Middle Assyrian settlement, however, directly founded upon the lower, prehistoric deposits, seems to have been largely restricted to the western half of the mound, occupying an area of about 2 ha. On the top of Sabi Abyad, the impressive and well-preserved remnants of a huge, monumental building were exposed, whereas domestic structures were uncovered along the slope. The areas not used for settlement served as burial grounds or contained large pits, probably dug to obtain clay for mud-brick production.

EXCAVATIONS ON THE SLOPE OF THE MOUND

In 1991 excavation was continued in areas begun during the earlier seasons and in addition a series of new trenches was opened nearby. On the southeastern slope of Sabi Abyad the 1988 excavation had revealed three phases of late second millennium occupation, each defined by architectural features and termed strata 1 to 3 (cf. Akkermans and Rossmesl 1990:13). The lowest building level (stratum 3) gave evidence of parts of a large rectangular mud-brick building, most likely a private house, with floors littered with broken but restorable pottery vessels and some clay jar stoppers, apparently all *in situ*. In addition, two cuneiform tablets were recovered from this building (*ibid.*:14ff.; see also Jas 1990). In order to complete the plan of this structure and to investigate its proper nature, the area immediately north of the 1988 trenches was excavated in 1991 (squares P10, P11, Q10 and Q11; see fig. 2). These newly opened trenches indeed revealed a continuation of the various walls earlier uncovered in squares P12 and Q12 but it appeared that, unfortunately, the western half of the building had been heavily disturbed by slope erosion and later construction works. Here it was found that most walls were fragmentarily preserved and stood to a height of 10-20 cm only (i.e. one or two bricks). In contrast, the eastern part of the house was rather well-preserved, with the walls standing to a height of 40-50 cm.

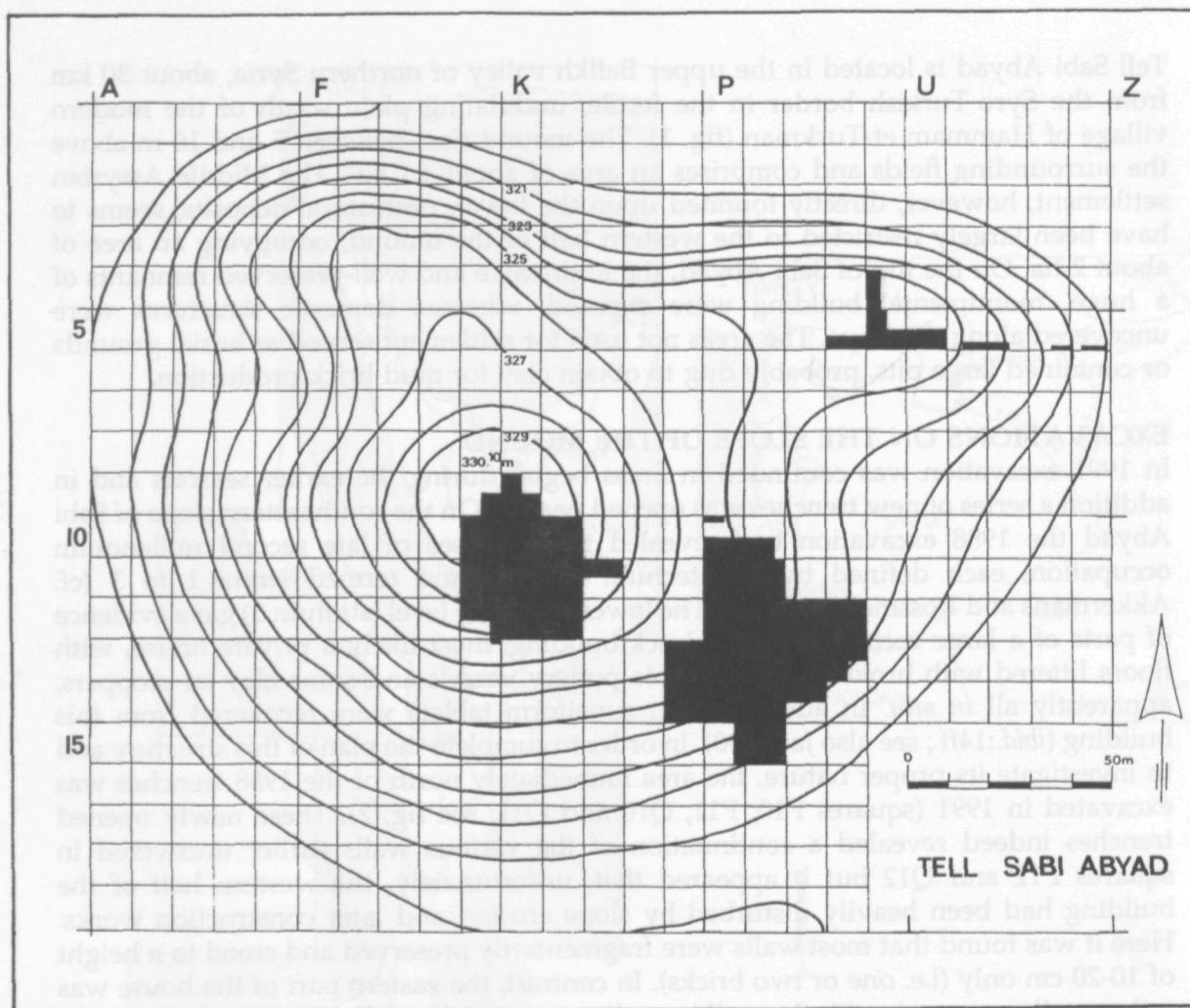
The building (fig. 3) is oriented more or less N-S and constructed of large, square mud bricks generally measuring 39/40x39/40x12 cm. In addition, half-sized bricks were commonly used. Generally, the walls were 1.5 or 2 bricks wide (a notable exception was the easternmost wall M3, having a width of 2.5 bricks) and simply founded on earth, thereby following the slope of the mound; apparently, no foundation works were carried out⁴. Some of the interior and exterior wall facades carried a mud plaster ca. 1.5-2.5 cm thick.

At present, the building is about 16.5 m long (N-S) and at least 11 m wide (E-W), and consists of five or, more likely, six rooms⁵ of varying size, the most important of

3 The area of settlement, however, must have been much larger, for the excavations have made clear that a considerable part of the mound is deeply buried underneath later deposits around the site and thus hidden from view. In trench P15 along the southern slope of the mound, virgin soil was reached at a depth of 4 m below the level of the modern fields.

4 Occasionally, however, foundation works do seem to have taken place at Sabi Abyad. In one case we have evidence for terrace construction: part of the mound had been dug away to a depth of about one metre in order to create a flat surface on the slope for building (Akkermans, ed., 1989:55).

5 Originally perhaps some additional rooms were located in the now wholly eroded or disturbed western half of squares P10 and P11 (see fig. 3).



a



b

Fig. 2 a: Plan of Tell Sabi Abyad with (in black) the areas of excavation.
b: Tell Sabi Abyad (view from the north).

which was undoubtedly the central room 4. It cannot be established yet whether rooms 2 and 4 represent two separate areas or should be considered as one, large room but we do have some, admittedly meagre, evidence that the former is the case. Wall M6, now dividing room 1 from room 3, may very well continue to the east (but hidden from view by the balk between squares Q11 and Q12) and also separating rooms 2 and 4. This would perfectly account for the presence of the small bench in room 2 which is not found in room 4, and for the position of the rather large, oval-shaped oven in room 4: this kind of thin-walled and vulnerable 'tannur' is often found in room or area corners⁶.

Earlier it was suggested that the house was conceived and constructed at a single point in time (Akkermans and Rossmeisl 1990:14), but it now seems more likely that the building was erected in various stages: basically, the structure seems to have been L-shaped and consisting of one main room (4) flanked by three smaller and oblong ones (1 to 3), whereas two other rooms (5 and 6) were added at a slightly later stage (cf. fig. 3). The building was accessible only from the northwest, from the open area or court in front of rooms 3 and 4. In the case of the basic, L-shaped component, the main entrance has to be sought for in wall M8⁷; this passage gave access to room 3, which may have acted as a kind of portico or antechamber, and subsequently, by means of a more than 1.25 m wide doorway in wall M5, to room 4. In its turn room 4 gave access to room 2 and, finally, through a 0.75 m wide passage with mud-brick threshold in wall M7, to room 1 (see also *ibid.*:14). The added part (rooms 5 and 6) must have been accessible from the west but so far it has not been possible to locate any doorways with certainty. No direct passage exists between the L-shaped part and the added rooms.

Interestingly enough, in the main room 4 and immediately next to the entrance, a small platform was found of three *baked* bricks laid down in a triangle, in front of which a small and shallow, hemispherical basin was present (60 cm long, 25 cm wide and 10 cm deep), partly filled with a sandy deposit. In and around this basin four bowls were found *in situ*. A similar arrangement of baked bricks appeared near the main entrance of the monumental building on the top of the mound (see below); most likely, these features are related to some sort of customary or hygienic washing of hands or the like, required before entering the main rooms⁸.

The floor in most rooms consisted of a whitish to grey, hard-tamped mud layer about 5-7 cm thick; only in the siderooms 5 and 6 no clear floor was encountered (here the floor was arbitrarily defined as the interface between the upper room fill and the lower, dark-grey deposits of prehistoric origin). As pointed out before, the 1988 excavations yielded a wealth of pottery vessels, etc., in rooms 1 and 2 on this floor, apparently all *in situ*. In 1991, a similar concentration of finds was uncovered, this time on the floor in room 4 (see fig. 3). Low, carinated bowls were found in considerable quantities as well as some fragmentarily preserved nipple-based goblets. Some large jars

6 At Sabi Abyad, both in indoor and outdoor contexts, 'tannurs' are almost exclusively found in the very close vicinity of walls or in the corner of two walls, which in this respect most likely served as protective devices or as wind shields.

7 Most likely, this wall M8 originally continued for about one metre or so towards the east and contained a doorway in its now wholly eroded and disturbed eastern part.

8 Baked bricks, each measuring about 30x30x10 cm and thus of considerably smaller size than their sun-dried counterparts, were rare at Sabi Abyad and seem to have been used only in relation with water and drainage. In 1988 part of a drainage was exposed, made of two rows of baked bricks and lined with cobbles (Akkermans and Rossmeisl 1990:18).

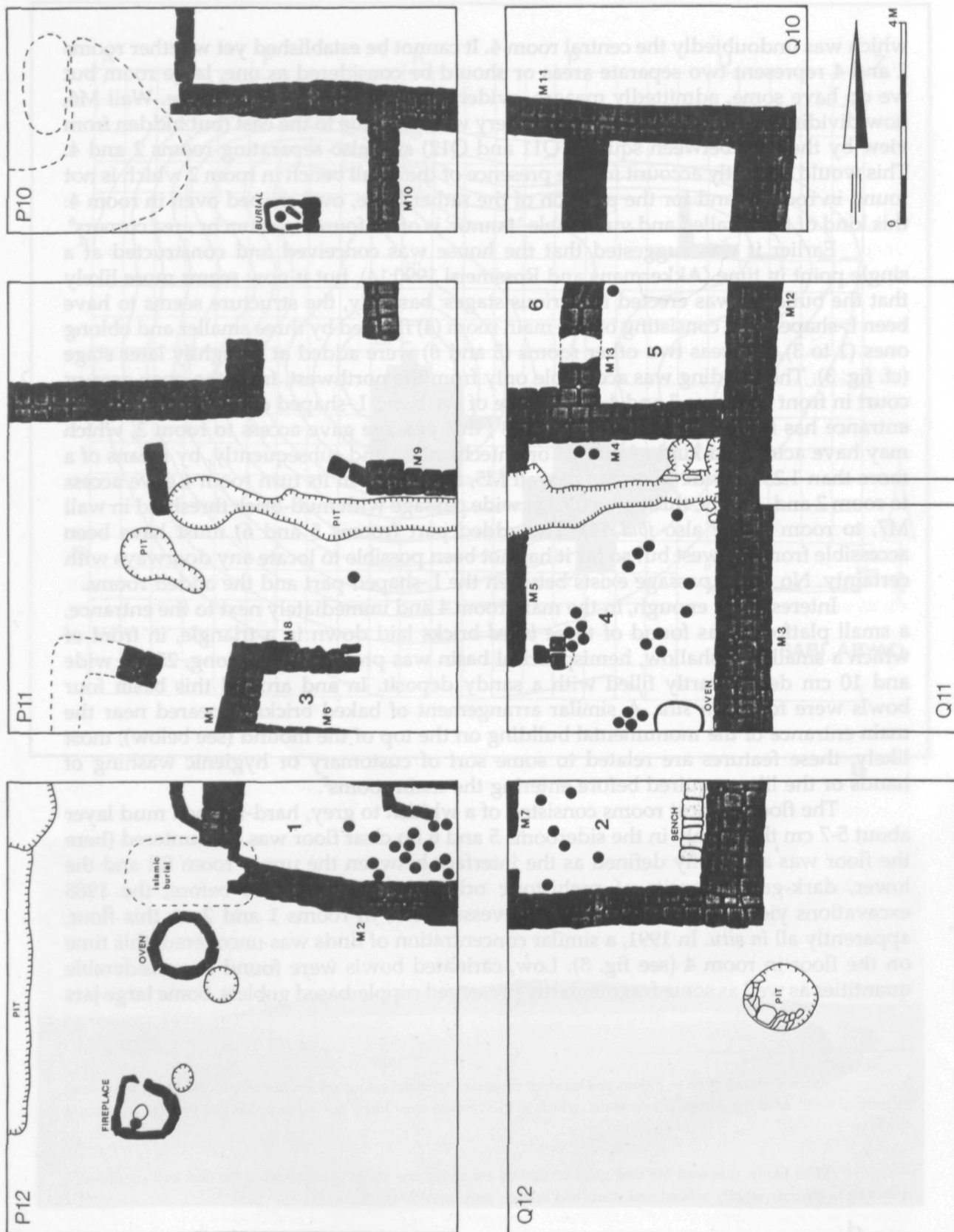


Fig. 3 The domestic building on the slope of the mound.

and pots were found as well, particularly in the northern part of room 4, along wall M4. Amidst the sherds of one of these pots a considerable quantity of burnt bread-wheat/hard-wheat (free-threshing)⁹ was found, undoubtedly once stored in this vessel. A similar deposit of burnt wheat was uncovered in room 5 but here there was no trace of a storage vessel or the like; this grain had either simply been laid down in a heap on the floor or, perhaps more likely, originally been stored in a container of perishable material. Apart from these ceramics, only a few other objects were found in room 4: some basalt ground stone implements and a black-stone bead. The other rooms (5 and 6) were largely without finds; perhaps these added areas served wholly different purposes than the rooms of the main, L-shaped part.

Earlier it was reported that no traces of fire were found in the house (Akkermans and Rossmeisl 1990:15) but this view must now be rejected. Apart from the burnt cereals found in room 4 (and in room 5), the presence of considerable quantities of soft and very ashy fill in various rooms suggests that the building came to an end by a violent fire.

The slit-like trench running east-west in squares P11 and Q11 is a curious and as yet unexplained feature. This trench has a length of about 11 m and a width varying between 0.5 and 1.25 m. It was sunk to a depth of at least 1.20 m and from the upper stratum 3, at a time when the house had already been left to its fate, for part of wall M5 was seriously disturbed. Interestingly enough, however, in the east the trench ends in room 4, immediately in front of wall M3 which was spared from destruction. Perhaps this pit represents a foundation trench of a wall originally belonging to the house, the mud bricks of which were later removed for other purposes. A similar suggestion has earlier been made for the elongated trench along the west balk of square P12 (Akkermans and Rossmeisl 1990:16). That mud bricks were, indeed, reused in some instances appeared in fact from wall M1: here it was found that, when constructing wall M1, some bricks taken from an older building were incorporated, as shown by traces of white plaster between these bricks (*ibid.*:14).

Domestic settlement on the slopes of Sabi Abyad seems to have been rather spacious in layout, with considerable areas left uninhabited. The house was largely detached; only in the westernmost squares some additional wall fragments were uncovered, probably associated with the present structure. At a certain time, and for reasons not yet wholly understood, the house was destroyed and left to the elements. Soon, however, the space in and around the former building was reshaped (stratum 2). A series of small, rounded ovens was constructed, most of them in the close vicinity of the house walls which apparently still stood to a certain height at this time and which may have acted as wind shields or the like. These ovens generally stood to a limited height only (i.e. up to almost 40 cm) and were built of 3-7 cm wide coils of clay, subsequently plastered. Some ovens gave evidence of repair or of a second floor and seem to have been in use for a considerable period of time. Occasionally the oven walls were reinforced by large sherds, placed in or along the outer facade. In diameter these ovens varied between about 50 and 82 cm. A ventilation hole was commonly present near the base.

In addition, some burials were sunk from the upper strata in the formerly inhabited area (cf. Akkermans and Rossmeisl 1990:17ff). In 1988, a pot inhumation was uncovered in room 1, close to wall M6; a similar grave was found in 1991, now in the open area immediately west of room 6 (fig. 12b). However, whereas the burial found

9 W. van Zeist, pers. comm. A detailed analysis of the botanical remains is under way.

in room 1 yielded a large burial vessel laid down in a pit, the 1991 grave consisted of a small rectangular, tomb-like structure, which may easily have stood and thus may have been permanently visible. This structure was about 1.10 m long and 0.60 m wide, and built of both mud bricks and thin mud walls. Within this small enclosure, a large, E-W oriented jar was laid on its side, kept in place by two vertically situated bricks along the vessel's base. Between these bricks a small, carinated bowl was placed. A third brick stood on its side somewhat to the south of the other ones. The burial jar, the rim of which had been deliberately broken to allow interment (subsequently the broken rim fragment was re-added for cover), contained the poorly preserved skeletal remains of an infant, laid on its left side in a loosely flexed position, with the head towards the west, facing north. The dead child was wearing a necklace made of rounded, flattened beads of alternately bone (white) and stone (black), and carried a bronze bracelet around the wrist of the right arm. Most likely, these finds should not be considered as true funerary gifts but as personal belongings of the interred child.

The topmost stratum of occupation along the slope of Sabi Abyad seems to have been largely eroded. In addition to the earlier found and badly preserved wall remains in square P12, in 1991 part of a large but shallow pit was uncovered in the southwestern area of square P11, filled with soft, ashy soil and considerable quantities of ceramics and other domestic debris.

EXCAVATIONS ON THE TOP OF THE MOUND

On the top of the tell the well-preserved remains of a huge, monumental building were excavated over a considerable area (figs. 4-6). Parts of this building were first encountered in a long-drawn but narrow test trench laid out north-south in trenches J10 to J13 in 1988 (Akkermans and Rossmesl 1990:18ff). The building, constructed at the highest point of Sabi Abyad and overlooking the settlement and the surrounding plain, is definitely more than a simple domestic structure: undoubtedly, it represented the seat of a local administration and served as the focal point of settlement at Sabi Abyad.

This building, henceforth referred to as the Fortress, is oriented NE-SW and is about 23 m long and 21 m wide, so more or less square in layout. It was constructed in a very regular manner of thick mud-brick walls, which varied in width between 2.6 and 3.5 m and which partly still stood to a height of almost 3 m.

It appeared that the Fortress has had more than one phase of occupation and that its basic plan changed considerably in the course of time. The lowest, original phase has so far been reached in a very limited area only in rooms 3, 4 and 6 and, in a test trench, in room 2; it definitely requires further excavation. The second building phase, however, has been completely exposed. It appeared that this second phase is separated from the lower by an up to 70 cm thick debris layer of fallen mud bricks and other domestic debris, covered by newly laid loam or mud-brick floors. Apparently, after its initial stage of occupation, the Fortress stood empty for a considerable period of time and the various walls were heavily damaged by erosion or other disturbances. During the second phase of occupation some earlier walls were demolished, others were newly constructed in their entirety, whereas most of the remaining phase-one walls were reinforced by newly added mud-brick walls. Apparently, the layout of the Fortress in its second phase must have been quite different from that of the original building. Interestingly enough, at this time of renovation another building of monumental outline was erected immediately west of the Fortress and partly incorporated within the Fortress's walls. Apparently, the entire acropolis of Sabi Abyad now contained structures of administrative and, probably, military importance.

At a certain moment the renovated (second-phase) Fortress was also abandoned.

Fig. 3 The domestic building on the slope of the mound.

Again the building must have stood empty for a long period of time, for again walls collapsed and again rooms were filled to a considerable extent with mud-brick debris. Only the northern series of rooms seems to have witnessed a third and final phase of occupation, although of short duration only. The southern part of the building seems to have been left to its fate and must have been in a ramshackle state when the northern area was reinhabited.

The Fortress: the first phase

As yet we know very little about the earliest phase of the Fortress. Its basic plan is still partly still hidden from view, with various walls demolished and buried below later floor levels. Thus, when looking at fig. 4, it appears that, indeed, those features termed "early walls" can be considered part of the original, phase-one building but the simple omission of the "new walls" (i.e. the added, second-phase walls) does not automatically yield the basic, phase-one layout. For example, in room 6 and below the (phase-two) wall dividing this room 6 from the neighbouring chamber 5, part of an east-west running wall was uncovered (not included in fig. 4), which strongly indicate that room partitioning in this area was originally wholly different from that in later phases of occupation.

It is interesting to note that in contrast with the rather compact, greyish to brown mud bricks used to construct the second-phase features, the walls associated with the earliest building period are mainly built of granular and crumbly, reddish-brown mud bricks, separated from each other by means of sometimes up to 12 cm thick layers of greyish mortar. In general, these earlier mud bricks appear to be much less solid than their later counterparts. The various phase-one walls varied in width between three and five mud bricks (i.e. somewhere between 1.16 and 2.40 m), with bricks ranging in size from 34x34x10 to 40x40x12 cm. All phase-one walls seem to have been directly founded upon the lower, prehistoric deposits without any foundation works; some levelling of the surface can be assumed to have taken place¹⁰ but any terraces or platform construction seem to be absent.

The entrance to the Fortress in its earliest stage should no doubt be sought for at exactly the same spot as the main gateway in the subsequent phase two, i.e. in the northern wall of room 2. This entrance must have given access to the various rooms and to the well of a staircase, constructed of a series of large mud-brick stairs. For matters of convenience, this staircase will be discussed in more detail in association with the phase-two Fortress (see below).

A remarkable find was a series of 13 small niches built of mud bricks standing on their sides and constructed at floor level in the southern wall of room 4 (fig. 10b). These niches varied in length between 19 and 44 cm and in width between 12 cm and 41 cm. Their depth ranged between 8 and 20 cm. In the same area, and close to the doorway, a small, *tannur*-like oven was found, about 50 cm in diameter. This oven, so far the only one found in the Fortress, was built upon a low mud-brick platform and surrounded by a repeatedly renewed floor, covered by layers of ashes. The configuration of niches resembles to some extent that of the Neo-Babylonian library room recently discovered within the precincts of the Shamash temple at Sippar, where the niches, arranged in rows one above the other, served to store cuneiform tablets (cf.

¹⁰ Earlier it was suggested that a hard red soil layer had been brought up to create a stable and flat area for building (Akkermans and Rossmesl 1990:19) but so far this layer has only been attested in room 4 where it seems to run against (not below) the various walls.

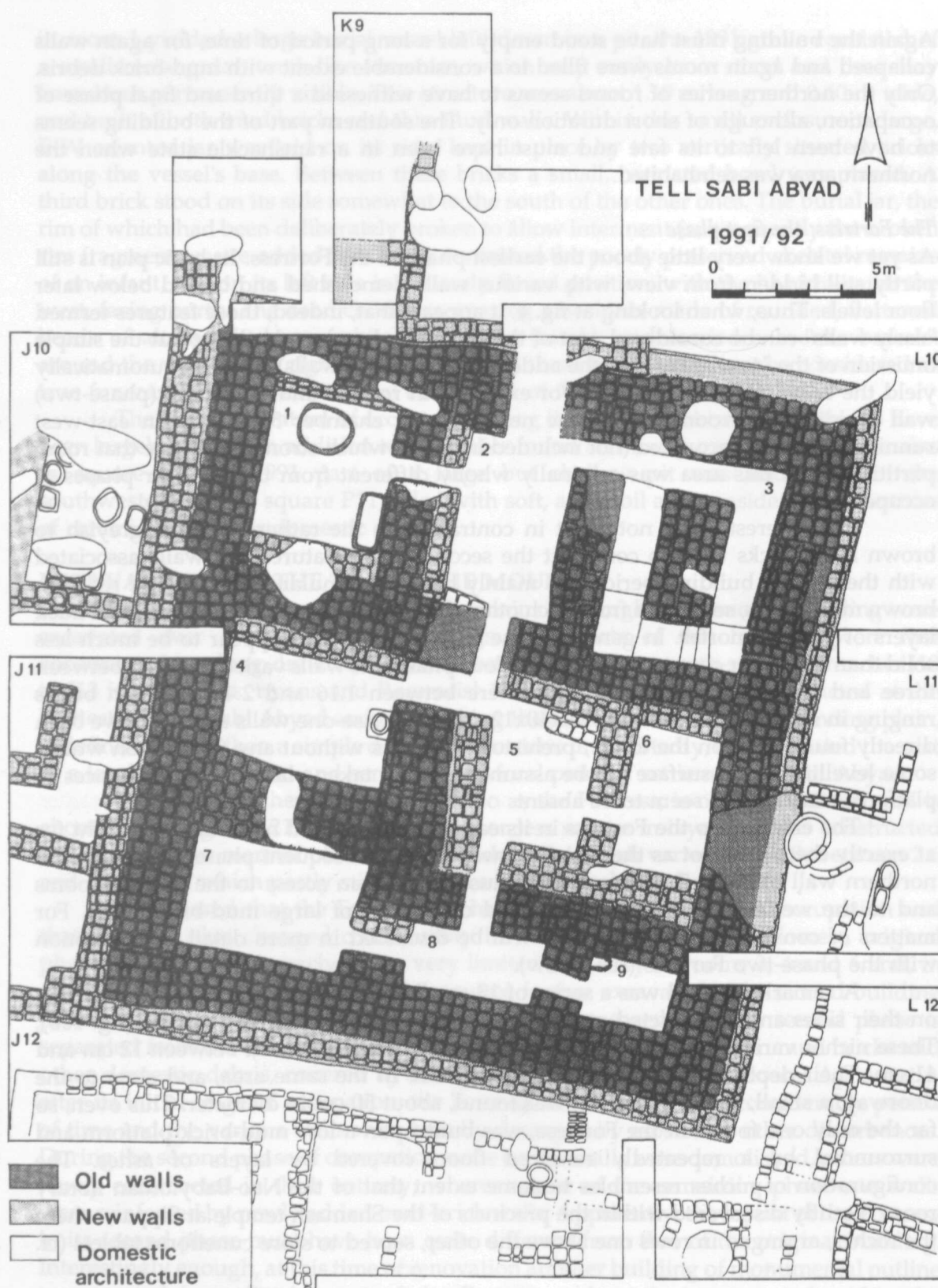


Fig. 4

Plan of the Fortress showing the various modifications.

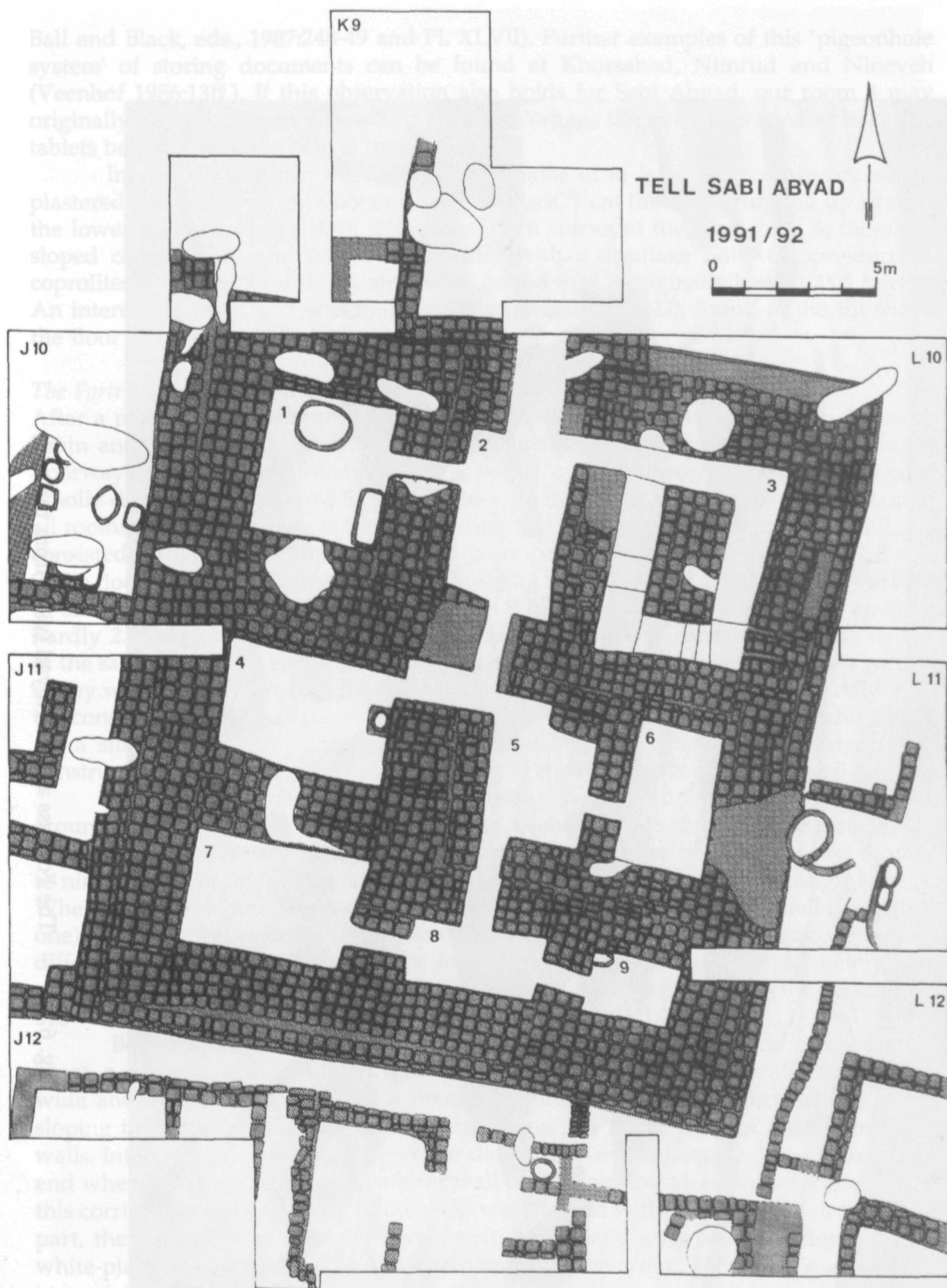


Fig. 5 The phase-two Fortress.



Fig. 6

The Fortress at Sabi Abyad (view from the east).

Ball and Black, eds., 1987:248-49 and Pl. XLVII). Further examples of this 'pigeonhole system' of storing documents can be found at Khorsabad, Nimrud and Nineveh (Veenhof 1986:13ff.). If this observation also holds for Sabi Abyad, our room 4 may originally have contained a now lost archive. Perhaps the oven was used to bake the tablets before they were placed in the niches.

In various trenches well-preserved remains of at least twice renewed, white-plastered (lime or gypsum) floors were exposed, ca. 1 cm thick and running up against the lower parts of the walls. In the northeastern corner of the later room 6, this floor sloped considerably and ended in a gutter with a drainage hole; the presence of coprolites in and around this drainage suggested that it originally served as a latrine. An interesting small find was the limestone statuette (fig. 22), found in the fill above the floor in room 6 (see below).

The Fortress: the second phase

After a period of desertion of unknown length, the Fortress was taken into use once again and considerably renovated. Earlier, still-standing walls had been re-enforced, doorways modified and room partitioning seems, at least in some areas, to have been wholly different from that of the lower phase one. In addition, new floors were laid in all rooms, covering the lower building debris and some demolished walls. Most floors consisted of, sometimes renewed, layers of tamped loam but in three rooms (6, 8 and 9) the floor was built of mud bricks. The building now consisted of nine rooms, varying in size: the largest room measured about 5.8 by 3.4 m (almost 20 m²), the smallest hardly 2.75 by 2 m (5.5 m²). The walls dividing the various rooms were more or less of the same size as the exterior walls, i.e. up to 2.5 m in width, and most likely a second storey was originally present (as in phase one). The latter can be inferred not only from the considerable width of the various walls, which are all much stronger than necessary for a simple, one-storey construction, but also from the presence of a large, well-constructed staircase in the northeastern part of the building (area 3; cf. figs. 5 and 7a).

This staircase was constructed of at least seven mud-brick stairs of varying size around a large and solid pivot of mud bricks. Each of the steps was two or three bricks high. No stairs were found in the lower part of the well but here it appeared that up to nine courses of bricks had been laid down, undoubtedly covering the original steps. When taking into account that the staircase was already part of the original (i.e. phase-one) building, the reason for this mud-brick pavement seems obvious: considerable differences in elevation between the lower, phase-one surfaces and the newly laid, phase-two floors had to be bridged. The various steps were coated by means of a brownish mud plaster, varying in thickness from 0.5 to 1.5 cm.

Below this staircase and along the southern and western side of the central pivot, a corridor with a vaulted roof was partly excavated. This corridor was 1.07 m wide and 1.50 m high, and had a floor consisting of a ca. 2 cm thick white plaster, sloping towards the east and running up against the lower parts of the surrounding walls. Interestingly enough, this corridor did not serve as a passage: it came to a dead end when reaching the eastern exterior wall of the Fortress. Moreover, the entrance to this corridor (in the beginning of the well) was blocked with mud bricks. For the larger part, the corridor was filled with very soft, brown and ashy soil, laid down on the white-plastered floor. In the southwestern part, however, mud-brick debris was found, at a point where in addition part of the vaulted superstructure was missing; most likely, this debris came from the collapsed vault. On top of this roof debris and amidst considerable quantities of chaff remnants, a number of ceramics and other objects have been found: so far, one jar and twenty-two bowls, partly stored in piles, were recovered

as well as three unbaked-clay jar stoppers and one large, sword-like object made of bronze (fig. 8b). In the case of the bowls, it appeared that seventeen of them were of virtually the same carinated shape and had the same small dimensions (rim diameter ca. 8.1 to 9 cm; cf. fig. 15, no. 26). It remains vague why these objects were deposited in this blocked corridor but perhaps one has to reckon with one or more burials in this area (since the corridor has not yet been completely unearthed, these burials will perhaps be found in the unexcavated part).

The main entrance was found in the north wall of room 2 (cf. fig. 5), heavily disturbed by a large pit sunk from a topmost level of late second millennium occupation. This gateway was about 1.47 m in width and may originally have carried an arched superstructure (this on the basis of the arches found elsewhere in the Fortress). No traces of this superstructure were left; it may have collapsed or deliberately been demolished during the final stage of inhabitation (phase three) for at this time the doorway was entirely blocked by mud bricks. In the northeastern corner of room 2, and immediately next to the entrance, five baked bricks were found on floor level, resembling the array of baked bricks uncovered earlier near the doorway in the domestic house on the slope.

The area north of the main entrance is still poorly known. Here some walls were found which seem to be associated with the renovated outer facade of the Fortress (see below). Further excavation in this area will perhaps reveal the presence of some sort of court and gate constructions.

Circulation through the Fortress was enhanced by a series of rather low and narrow doorways, consisting of carefully constructed mud-brick arches (fig. 9b). These vaulted passages varied in height between about 1.00 and 1.60 m and were 0.70 to 1.30 m wide. Sometimes a mud-brick threshold was present and in two cases (i.e. the doorways between rooms 1 and 2 and between rooms 2 and 5) the remains of pivot holes were found, indicating that these entrances were originally closed by wooden doors. Originally, the various doorways must have been much larger in size: most of them had been constructed during phase one but were reduced in size in phase two, due to changes in floor level and to reinforcements of the walls. In some cases (e.g. the passage between rooms 4 and 5; cf. fig. 9a) it appeared that doorways were entirely renewed by removing the ancient masonry and laying down new bricks, not bonded with the adjacent wall.

Actually, renewals or repairs of earlier building features were observed in most rooms (cf. fig. 4). For example, the south wall of room 1 was on both sides heavily strengthened by new walls, 1.5 or 2 bricks wide. In general, these newly erected walls were built of mud bricks much more compact and stronger than their earlier counterparts; various sources of clay, of different qualities, were used. Apparently, the need for renovation was most seriously felt in the central part of the Fortress, for modifications seem to have been most radical in this area. A series of new walls, 1.5 to 3 bricks wide, was added, whereas earlier ones were entirely demolished. Room partitioning seems to have been wholly different from that of the phase-one building. Two small rooms (5 and 6) were newly created, which, according to the ceramic inventory found on the floor, may have served as storage rooms. A mud-brick bench, 1.85 m long, 0.70 m wide and 0.35 m high, was found in the northeastern corner of room 5. It was built of square, reddish-brown bricks measuring 38x38x10 cm.

Like the interior walls the exterior walls, too, appeared to have needed renovation or additional support. The outer facade of the Fortress was reinforced by a 1.5 to 3 bricks (0.60 to 1.17 m) wide wall, encircling the building entirely. The individual bricks used for construction varied considerably in size; in general, however, they were



a



b

Fig. 7 a: Staircase (area 3) in the phase-two Fortress.
b: View (from the south) of room 5 of the phase-two Fortress.



a



b

Fig. 8

a: Pottery and 'sword' in corridor (area 3) below staircase.

b: Pottery on the floor of room 5 (Fortress, phase two).

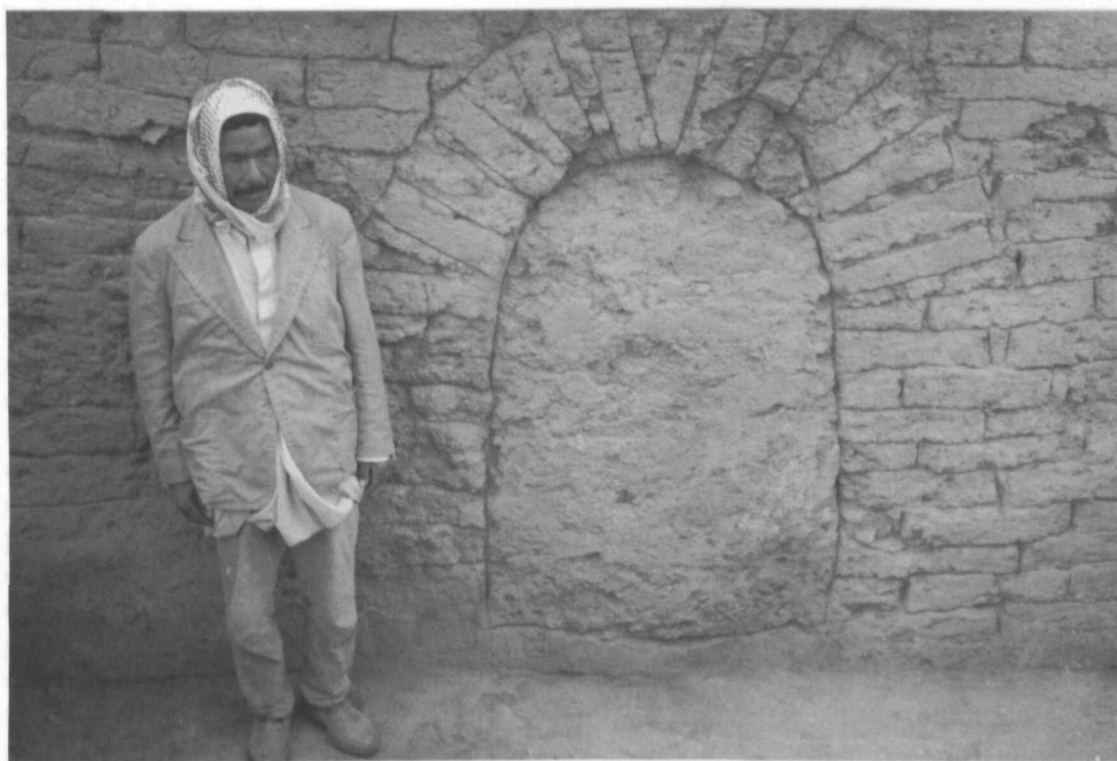
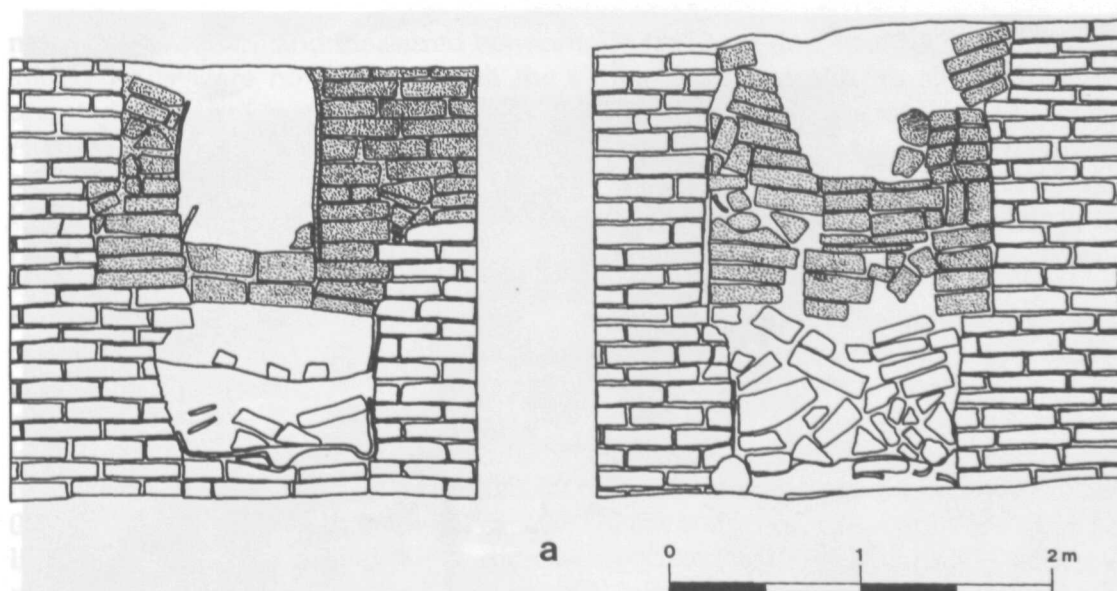


Fig. 9 a: Phase-two doorway from room 1 to room 2, with (in grey) phase-three modification (left: view from the west, right: view from the east).
 b: Arched doorway from room 8 to room 5 (phase-two Fortress).



a



b

Fig. 10

a: Phase-two Fortress, room 1 with burnt mud-brick debris on the floor (view from the west). b: Niches in room 4.

more or less square and measured between 38x38x12 cm and 40x40x13 cm. The newly added walls were not bonded with the earlier ones and, due to slope-downwards oriented pressure, part of them (particularly in the south) came loose and hang over. At this time, a second building of monumental outline was erected immediately west of the Fortress, partly incorporated within the newly added exterior facade of the Fortress. So far, this second building has been traced over a very limited area in squares J10, J11 and J12 only (fig. 5) and, consequently, little can be said at present on its layout. At least in length (N-S), it seems to be identical to the Fortress and it may well represent some sort of enlargement of the latter feature. The added building is constructed of mud-brick walls two or three bricks wide (ca. 0.80 to 1.45 m), which carried an, occasionally, twice-renewed mud plaster 2 to 7 cm thick. In the northernmost room of the building, a concentration of five bins, ovoid or rectangular in shape, and one somewhat oval tannur was unearthed. The bins, made in coils, varied in size between 0.65x0.40 m and 1.20x1.00 m, and were preserved to a height of about 0.20 m. The oven had a diameter of ca. 100-120 cm and stood to a height of 24 cm. Most likely, these features should not be directly associated with the building in which they were found but should be related to a much later phase of reoccupation. Similar bins have been found in the Fortress, at a time when this building had already largely lost its original meaning (i.e. the third phase; see below), and were also uncovered in the topmost domestic structures east of the Fortress.

Returning to the Fortress itself, it appears that the original use of the various rooms is hard to determine but we do have some clues in this respect. There can be little doubt that the present structure represents the ground-floor portion of an originally much larger building. Moreover, when taking into account that all walls seem to be massive, without windows or the like, it appears that this ground floor must have consisted of very dark rooms where torches were a necessary requirement. A storage function for this ground floor seems to be obvious, a hypothesis which is supported at least for several rooms by the finds in these areas. In rooms 2, 5 and 6 considerable quantities of ceramics were found on the floor, especially jars and pots, and to a lesser extent bowls and one or two goblets. To judge from the sherd scatters, the pottery seems originally to have been placed along the walls or, perhaps, on shelves: in room 5 the burnt remains of a small, wooden shelf were found amidst the pottery. In this same room, a considerable quantity of burnt bread-wheat or hard-wheat was found, once stored in one of the large jars. However, apart from the pottery, only few other finds came to light: some grinding slabs, mortars and wetstones were found as well as a few bronze pins and arrowheads and a small, iron ring. The sole exceptional find was done in room 6 where hundreds of faience beads (cf. figs. 24-25) appeared, undoubtedly part of one or more necklaces. The fact that these beads, which must have been of considerable value even in antiquity, were simply left behind, together with numerous ceramics and stored goods (e.g. grain), suggests that the building was abandoned in great haste at a certain time. In the light of this, one wonders whether the present context of in-situ finds is complete or, in other words, whether a considerable part of the original inventory left the building together with its inhabitants. Apart from the relatively biased material assemblage that has been recovered (mainly large ceramics), some evidence in this direction is perhaps also found in the distribution of objects in room 2. This chamber must have been of primary importance in terms of passage and may have acted as a kind of central reception room but, unexpectedly, considerable quantities of ceramics were recovered from this area. Moreover, many of these vessels seem to be out of their proper position and were, for example, simply left behind in or in front of the various doorways (thus seriously hampering direct passage). Some

bronze pins, too, were found on the floor in one of the entrances, again a position which is hardly expected to be the original one. It is recalled that in the domestic house on the slope, too, mainly ceramics were found, many of them in front of doorways (cf. fig. 3). In this respect, it is not unlikely that generally only the least valuable or least portable items were left behind; to judge from the position of these objects, however, it seems that even in these cases it was tried to arrange transport albeit without success (perhaps due to lack of time, as suggested by the beads)¹¹.

Not all rooms of the ground floor of the Fortress seem to have had a storage function. Earlier it was suggested that room 4 had originally served as a kind of archive but whether this also holds for the second-phase Fortress remains unknown. At this time the niches in the southern wall of this room 4 must have been out of use and buried below a renewed, tamped loam floor. Room 1 in the northwest of the building may have served as a bathroom. Along the eastern wall, and next to the doorway, fragments of a longdrawn but completely ruined, ceramic bathtub were found (measuring approximately 1.5x0.5x0.6 m, with ca. 5 cm thick walls) while another, rounded basin was sunk into the floor of the room. This basin was about 1.5 m wide and 0.7 m deep and covered by a ca. 4 cm thick, white coating (probably gypsum) to make it watertight. The function of the southernmost series of rooms (7 to 9) remains vague. These areas were virtually empty of finds. In the northwestern corner of room 9, a more or less circular bin was found, ca. 0.7 m in diameter and built of mud bricks of half size (ca. 40x25x10 cm).

We do have some evidence that the phase-two Fortress was finally destroyed by fire. The most solid proof comes from room 1, where fire deeply blackened both floor and walls and caused the deposition of a thick layer of burnt, sintered mud-brick debris and burnt wooden beams, originally perhaps part of the roof construction. Charred wood was also found in rooms 8 and 9, whereas a burnt wooden shelf came from room 5. Elsewhere (rooms 3 and 6) impressions of burnt reeds were found, again probably part of some sort of roof cover, as well as black ashes and charred seeds (rooms 1, 2, 5 and 6). It is recalled that traces of fire were also found in the domestic building on the slope of Sabi Abyad; apparently, the destruction by fire was not an isolated phenomenon but affected the settlement as a whole.

Subsequently the phase-two Fortress stood empty for a considerable period of time. Mud-brick debris, plaster fragments, etc., filled in the various rooms. In the northernmost areas (rooms 1 to 3), this debris reached a height of up to 1.30 m.

The Fortress: the third phase

Remains of the youngest phase of occupation were only found in the northernmost rooms 1 to 3. It remains unclear whether inhabitation was actually restricted to these areas only or whether later erosion destroyed the indicators of settlement elsewhere.

New floor levels were laid down, each one ca. 1-2 cm thick and consisting of tamped loam mixed with lime particles. The staircase in the northeastern part of the buildings seems to have lost its function, for the well partly filled in with a series of alternating, compact and reddish-brown to light-grey layers of loam, intermingled with ashes and charcoal. Moreover, on one of the stairs a bin was built, rectangular in shape

¹¹ Indeed, the somewhat puzzling position of many ceramics may also have been due to the fact that they had originally perhaps been stored on shelves along the walls and had subsequently fallen down. It is, on the other hand, unlikely that the large and heavy storage vessels had been placed on shelves. Moreover, this does not account for the general lack of small finds other than ceramics.

with rounded corners. The bin was ca. 80 cm long and 70 cm wide and stood to a height of 46 cm. Its wall thickness varied between 5 and 10 cm. Elsewhere in the former well, two tannur-like ovens were constructed, one rounded and ca. 60 cm in diameter, the other somewhat oval in shape and measuring 0.55x0.48 m. Around the former oven, some ceramics were found, including a pot stand and a V-shaped, nipple-based goblet.

Another major change involved the blocking of the main entrance to the Fortress (in the north wall of room 2) by mud bricks. Apparently, this feature lost its meaning, too, but it is not clear where the new entrance should be sought for. Other doorways were renovated and partly rebuilt (fig. 9a). In width these passages varied between 0.70 and 1.14 m. Their height could be established in one instance only: 1.11 m. It seems that this feature, like its predecessors, had an arched superstructure. In some doorways a low mud-brick staircase was found, two or three steps high and rising over 40 cm above the associated floor level.

When compared with the earlier phases of occupation, it seems that in its final days the Fortress was used for entirely different purposes. Not only was just a limited part of the building used for living but former passages (e.g. the well of the staircase) served domestic purposes, access to the building entirely had been changed and, perhaps most important, the building now seems to have lacked a second storey. Whereas the Fortress was originally designed for administrative and military purposes, it appears that in its final phase of occupation it was reduced in importance to some sort of domestic feature: the stillstanding ruins of the phase-two Fortress were simply modified and reused for domestic housing.

Ultimately, this kind of domestic occupation came to an end, too, but elsewhere at Sabi Abyad people seem to have gone on living and working for quite some time. The former Fortress was left to its fate and the various rooms were filled with fallen wall parts and mud-brick debris. In contrast, room 1 was largely filled in with loose layers of alternately grey and brown, ashy soil, containing vast quantities of broken ceramics and other waste; apparently, this area now served as a dump (cf. Akkermans and Rossmeisl 1990:20). A series of large, bell-shaped pits was sunk into various parts of the building. One of these pits, over 3 m deep (the base has not yet been found) and ca. 2 m in diameter, contained large quantities of characteristic Middle Assyrian pottery, some grinding-stone fragments and, most interestingly, the head of a small female statuette (fig. 23, no. 79).

DOMESTIC ARCHITECTURE ON THE TOP OF THE MOUND

In the areas to the east and the west of the Fortress, extensive scraping of the surface and some small-scale excavation have revealed the presence of architectural features of an undoubtedly domestic character (see also Akkermans and Rossmeisl 1990:21ff). The various buildings seem to have been separated from the Fortress by means of a 1.5 to 2 m wide corridor, largely filled with soft, greyish loam yielding numerous animal bones and other domestic debris. In this corridor, and near the southeastern corner of the Fortress, the arched superstructure of a doorway was found, suggesting that passage could be blocked.

The areas east and south of the Fortress seem to have been densely built on but a coherent building plan has not been found so far. The various walls are generally 1.5 bricks wide (70 to 80 cm) but walls either one or two bricks wide were found as well. Some rooms yielded bins or ovens. Restricted excavation along the eastern facade of the Fortress (square L11) gave evidence of a large, oval oven, ca. 1.10 m in diameter and raised of mud bricks, which was partly built on top of the outer wall of the Fortress;



a



b

Fig. 11 a-b: Bins with associated pottery in the domestic area east of the Fortress.

apparently, the Fortress was already in disuse and deeply buried below later overburden at the time when this oven was constructed. East of the oven, two rectangular and coiled bins were found, one measuring 90x60 cm, the other 75x55 cm. Both were preserved to a height of about 30 cm. Around these bins, a considerable number of ceramics were found *in situ*, including jars, bowls (some of them in piles) and some pot stands (fig. 11a-b). The wall north of the oven and the bins may have served as a windscreen. Most likely, this area is related to the one with the bins found to the west of the Fortress and, perhaps, to the phase-three occupation in the Fortress itself.

The presence of a sawn elephant bone was most interesting. It was found in a topmost debris layer in square L12. Earlier a similar sawn elephant bone (a left femur) was found in room 1 of the Fortress, phase three (Akkermans and Rossmesl 1990:20). Probably these bones represent slaughter offal, suggesting that elephants could be found in the Balikh basin at the end of the second millennium B.C. Elephant bones have earlier been reported from various sites in Syria and the Levant, e.g. Alalakh, Ras Shamra, Kamid el-Loz and Munbaqa. Egyptian sources reveal that pharaoh Thutmosis III hunted elephants in the Euphrates valley in 1464 B.C., as did the Assyrian king Ashur-nasirpal II in the first half of the 9th century (Zeuner 1963; Smith 1949).

THE POTTERY

During the 1991 excavation, thousands of sherds as well as over 300 complete vessels were recovered from the late second millennium levels at Sabi Abyad. About a quarter (ca. 1000 fragments) of the sherd sample can be considered as diagnostic: rims, bases and decorated body sherds. These diagnostic samples were kept apart and systematically coded according to vessel, rim and base shape and a series of technological aspects, including technique of manufacture, temper, firing, surface treatment, colour and decoration. A detailed analysis of the 1991 ceramic material is under way (Limpens, in prep.); the following, preliminary results are mainly based on the study of 135 complete vessels, all from a reliable context (i.e. floor levels and room fill).

The vast majority of the vessels stems from the Fortress (second phase) on the top of the mound: 101 bowls, jars, pots, etc., found on the floor and the associated fill in various rooms (a selected sample is shown in figs. 15-17, nos. 22-47). Another 21 vessels came from the domestic building on the slope of the mound, all found in room 4 (these ceramics are shown in figs. 13-14, nos. 1-21)¹². Finally, 13 vessels were collected from the topmost level of occupation in square L11 on the top of the mound, in the area just outside the eastern wall of the Fortress (a selection is shown in figs. 18-19, nos. 48-59). These ceramics belong to the final stage of settlement at Sabi Abyad (at this time, the Fortress had already been in disuse for a long time).

Shape

About two-thirds of the selected vessels are shallow to deep bowls, with a rim diameter varying between 80 and 410 mm. Most bowls have a carination, situated at the upper half of the bowl (e.g. fig. 13, nos. 5 and 12; fig. 18, no. 53). Only some very small specimens are carinated near the base (fig. 13, no. 1). Commonly these vessels have a plain rim, sometimes slightly thickened on the outside (e.g., fig. 13, no. 13; fig. 15, no.

¹² In 1988, and in the same building, a series of vessels was recovered from the floors in rooms 1 to 3; see Akkermans and Rossmesl 1990:25ff.

23) but some have an everted rim (fig. 18, no. 49). Bases are usually flat or slightly concave. Occasionally ringbases occur (fig. 13, nos. 9 and 13; fig. 15, no. 25). In addition to these carinated vessels, two bowls with a straight and widely flaring wall, an outward bevelled rim and a flat base were found (fig. 18, nos. 50-51) as well as a hemispherical bowl (fig. 13, no. 14). Four vessels, all of considerable size (rim diameters varying between 340 and 410 mm) and with a ring base, show a slightly rounded wall and a prominently overhanging rim (e.g. fig. 14, no. 21; fig. 15, no. 27). A unique find was the small vessel found in one of the topmost levels of occupation on the top of the mound (fig. 19, no. 60). It is a shallow, hemispherical bowl with a pinched spout shaped out of the rim. The vessel was broken but repaired with white plaster (gypsum or lime) and a second, carinated bowl had been placed in it, also secured by plaster. Most likely, this repaired vessel represented an oil lamp, which, after breakage, needed the added bowl to hold the liquid.

Within the limited sample that has been examined, jars are present in various shapes and sizes. The smaller vessels (up to 40 cm high) all have a narrow neck (with a rim diameter varying between 70 and 130 mm) and a simple everted rim (fig. 14, no. 19; fig. 15, nos. 28 and 30; fig. 18, nos. 55-56; fig. 19, no. 59), sometimes thickened towards the outside (fig. 15, no. 29). These jars have either a ring base or a flat base; only one specimen showed a pedestal base (fig. 18, no. 55). The larger jars (over 40 cm high), too, usually have a narrow neck (rim diameter 120-145 mm) and an everted (fig. 19, no. 57) or a flat rim, thickened towards the outside (fig. 16, nos. 32-33). Other large vessels, however, have no neck at all but only show a wide, plain rim (fig. 14, nos. 15-17; fig. 16, nos. 34-35) or a ribbon rim (fig. 16, no. 36). Most of the large jars have ring bases; so far only one has shown a flat base (fig. 14, no. 17). Other jar types occurred only incidentally: on the floor of room 4 of the domestic building a medium-sized jar with a loop handle, a spout and a rounded base was found (fig. 14, no. 18), whereas in room 2 of the Fortress a painted miniature jar (height only 67 mm) with a handle and a (broken-off) spout was uncovered (fig. 17, no. 47).

In association with the jars, a series of jar stoppers was found, both in the Fortress and, during an earlier season of excavation, in the domestic building on the slope (cf. Akkermans and Rossmesl 1990:15). These jar stoppers are all made of unbaked clay and have a conical or rounded shape (fig. 20, nos. 65-69).

Pots are present in small quantities only. Commonly these vessels have distinct hammer rims (fig. 14, no. 20; fig. 19, no. 58), occasionally obliquely turning inwards (fig. 17, nos. 40-42). One pot had a beaked rim (fig. 17, no. 39). All pots have ring bases. In one case, and for reasons as yet unclear the ring base had a hole in the centre (fig. 19, no. 58).

Goblets are found in restricted numbers, too. Two kinds of goblets are present: one has an S-shaped profile and a simple plain rim (fig. 17, no. 44), the other a flaring, V-shaped profile (fig. 19, no. 61). Both shapes can have either a button base or a nipple base, which seem to be largely restricted to goblets only.

One strainer was present within the sample studied (fig. 17, no. 43). However, the sherd sample has made it clear that strainers commonly occurred at Sabi Abyad. These vessels are always hemispherical in shape and have a simple, plain rim.

Pot stands are common at the site as well. The two pieces that are shown (fig. 16, nos. 37-38) both have more or less straight walls and rims thickened on the outside (slightly overhanging in the case of no. 38).

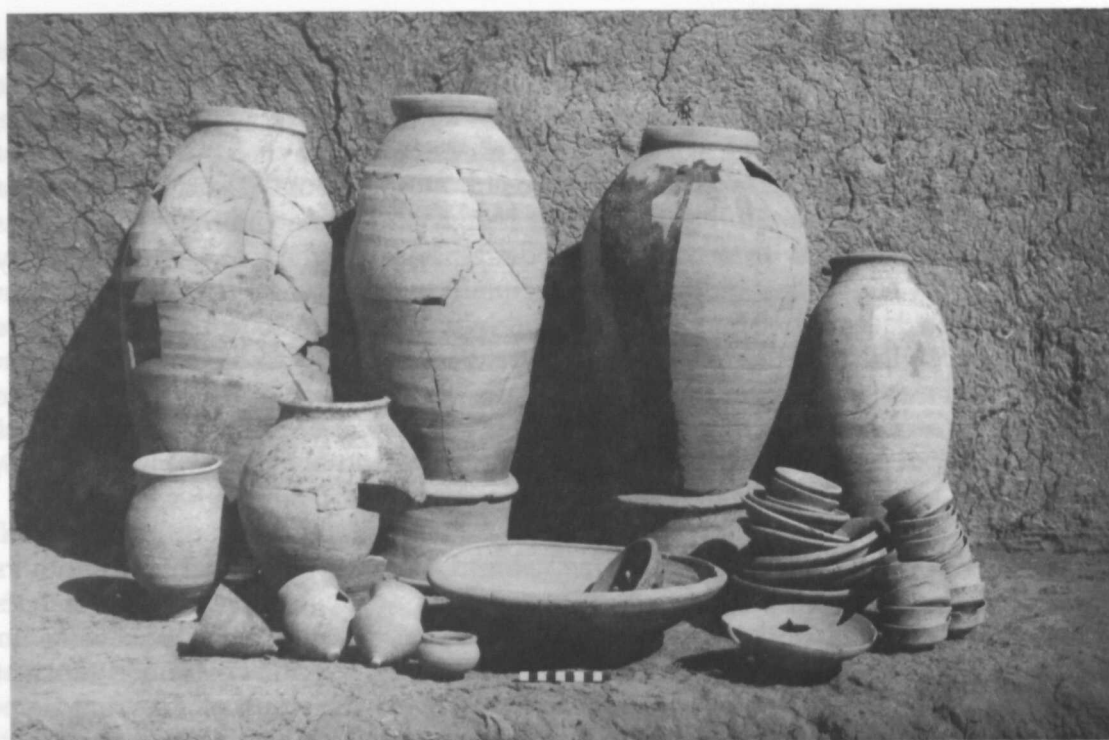
Some sort of special meaning must be attached to a number of ceramics found in the Fortress and in the topmost levels of occupation at Sabi Abyad. A small, rectangular tray (fig. 17, no. 45) was found on the mud-brick floor of room 6 in the

Fortress, amidst other ceramic vessels, some metal implements and hundreds of faience beads; actually, it may very well be the case that the latter were originally stored in the tray (in other words: the tray may have served as a kind of jewellery box). The wide, stepped rim may have carried a lid. The long sides of the tray each show a pair of drilled holes, perhaps to attach a now lost lid. In another room (2) of the Fortress a vessel of extreme size was found: this object had a rim diameter of 69 cm and was hemispherical in shape with a somewhat pointed base (fig. 17, no. 46). The badly finished cut rim suggests that this vessel actually represents the lower part of an originally much larger storage jar or the like, reworked into a trough. Some rope impressions are visible on the wall. Finally, attention is drawn to the so-called 'grain measures', so far found only in the topmost levels of occupation at Sabi Abyad. These vessels are of a rather high and narrow, almost cylindrical shape with more or less straight walls, carrying an incised decoration of both horizontal and wavy lines (fig. 19, nos. 62-64).

As pointed out before, the ceramics presented here stem from different spatial backgrounds: some come from a monumental and, perhaps, public structure, others from a domestic context¹³. In this respect, one may wonder whether these differences in context are reflected in the various ceramic assemblages. Pfälzner (1986:168ff), for example, suggested that the Middle Assyrian ceramics of Tell Sheikh Hamad (ancient Dur-katlimmu) and related sites in the Khabur area were the result of Assyrian state-directed production and restricted in distribution to administrative centres only. However, excavations at very small and definitely non-administrative sites in the Balikh basin, such as at Khirbet esh-Shenef (Bartl 1990), have made it clear that at least at the intersite level no such prerogative manufacture and use existed: the pottery from Khirbet esh-Shenef is largely indistinguishable from that found at Sabi Abyad. Now, if Pfälzner's view does not seem to hold for the intersite level, could it perhaps have some validity at the intra-site level, or in a quantitative manner (emphasising the numerical abundance or rareness of shapes instead of, in a qualitative way, simply recording the presence or absence of specific shapes)?

In the case of Tell Sabi Abyad, it appeared that all shapes found in the domestic building on the slope are represented in the (second-phase) Fortress on the top of the mound as well. However, the other way round, it was found that not all shapes recovered from the Fortress were present in the domestic building as well; differences were mainly found among the jars and pots, showing a wide variety of rim types. To a large extent, and perhaps exclusively, this may have been due to the considerable differences in sample size (21 vessels came from the domestic building, whereas 101 stem from the Fortress) but other variables cannot be excluded yet. In addition, it appeared that large jars and pots dominated in the Fortress. Storage of goods of all kinds thus seems to have been of foremost importance in this area. It must, however, be stressed that storage was also practised in domestic contexts; the differences seem to have been merely a matter of scale. At present, it cannot be established whether the products apparently stored in large quantities in the Fortress simply served to maintain its inhabitants or to survive lean years (and so were available, at a certain time, to the

13 In addition, there are some temporal differences as well: a small sample stems from the topmost levels of occupation and cannot be directly related with the samples of the Fortress or the domestic building on the slope. Chronological developments, however, seem to have affected the ceramic assemblage to a limited extent only; most of the earlier vessel types remained in use, although some new shapes (e.g. fig. 18, nos. 50 and 55; fig. 19, no. 59) were introduced in the upper levels. From a technological point, too, few changes took place. Apparently, all ceramics at Tell Sabi Abyad were either produced within a short period of time or in a very conservative manner.



a



b

Fig. 12

a: Middle-Assyrian pottery from Tell Sabi Abyad.
b: Pot burial from square P10.

community as a whole), or whether they should be considered as state-demanded tributes, taxes or the like. Whatever the case, it seems most unlikely that the mere presence of particular ceramics should be included in these considerations (as suggested by Pfälzner); specific vessels were simply used in specific quantities to fulfill specific needs.

Likewise, from a technological point of view hardly any differences seem to exist between the pottery from the various areas of excavation. A minor distinction is found in the fact that burnished, painted or repaired ceramics mostly stem from the Fortress.

Technological aspects

Apart from some rare vessel shapes (e.g. fig. 17, nos. 45-46), the Sabi Abyad ceramics are all wheel-made. Only additional features, such as handles or spouts, have been shaped by hand. Faint impressions on some larger jars and pots suggest that ropes were used to consolidate these ceramics during the process of drying. The majority of the pottery is tempered with vegetable inclusions, lime and sand or plant with either lime or sand. Vessels with only mineral temper, usually a combination of lime and sand, also occur. Purely plant-tempered specimens are rare. Most ceramics are well-fired and have an even fracture. Occasionally, some vessels with a dark core are found, indicating incomplete oxidation during firing, either due to low firing temperatures or to firing for a short time only. Overfired ceramics, with a greenish colour and crumbly structure, or vessels which are partly or totally warped (e.g. fig. 16, no. 31) were commonly found and show that pottery was locally produced at Sabi Abyad. Local pottery manufacture is also indicated by the presence of a jar base of unbaked clay; for some reason or another, the original vessel had apparently not been fired. Genuine pottery ovens and dumps of wasters have not yet been found but must be present somewhere at the site.

In general terms, it appears that most of the ceramics at Sabi Abyad were mass-produced in a rapid and hasty manner. Not only do the numerous deformed vessels (e.g. fig. 16, no. 36; fig. 18, nos. 48 and 56) point in this direction but in addition many bowls show cracks or bursts around the base, undoubtedly the result of uneven drying and ill-controlled firing conditions. The cracks also indicate that these bowls cannot have contained liquids but must have had dry contents. Interestingly enough, many of these bowls show distinct, black traces of secondary firing near or at the rim, probably as a result of a specific use (as oil lamps?). The massive appearance of small bowls and their rather careless finish suggests that these vessels had only little intrinsic value and were easily discarded after a short effective lifetime.

The surface of most vessels was simply wet-smoothed. In addition, large jars often show traces of scraping, particularly at the lower half of the vessel. Traces of wash, slip or burnish were found in restricted cases. Within the studied sample, one bowl (fig. 15, no. 25) and one jar (fig. 16, no. 32) gave evidence of an overall burnish. Some vessels carried a white (gypsum/lime) or black (bitumen) coating, probably to make these ceramics watertight. One jar (fig. 18, no. 55) showed a bitumen coating wholly covering the vessel's exterior and interior. Bitumen and, to a lesser extent, gypsum/lime plaster were also used for repair of cracks (see e.g. fig. 16, no. 34; fig. 19, no. 60).

The vast majority of the pottery at Sabi Abyad is undecorated. Jars and pots occasionally show some incised decorative elements, usually consisting of one or more horizontal or wavy lines near the rim (fig. 15, no. 30; fig. 16, nos. 32-34; fig. 19, no. 57). In the case of pots, these incised patterns are sometimes found in combination; in some rare instances a wavy band was added in *appliqué*. One large jar, from the floor of room 6 in the Fortress, carried a coarsely executed decoration in greyish-black paint (fig.

16, no. 35), comparable in a way to the one earlier found on a burial jar (cf. Akkermans and Rossmesl 1990, fig. 14, no. 50)). Painted decoration was also attested on a miniature jar (fig. 17, no. 47) uncovered in the fill of room 2 of the Fortress (phase two). This vessel showed a broad band in combination with a hanging semi-circle around the junction of neck and shoulder, all in brown paint. Finally, in the topmost debris layers of the Fortress, some sherds were found with incised concentric circles inlaid with a white paste and showing some resemblance to the grey-polished Nuzi ware (cf. Starr 1939).

Comparisons

In local terms, the Sabi Abyad pottery compares to that found recently at Khirbet esh-Shenef, a very small late second millennium site sounded in 1988 (Bartl 1990), and again in 1991, within the scope of the archaeological work at Sabi Abyad. To a lesser extent, parallels are also found at Tell Hammam et-Turkman (Smit 1988). Some of the incised decorative elements at Sabi Abyad, such as horizontal and wavy lines or patterns of concentric circles, are found in a period-VIII A context at Tell Hammam et-Turkman, whereas our carinated bowls have some counterparts in period VIIB at this site. In general, however, the period VIII ceramics of Tell Hammam et-Turkman are considerably different in shape and seem to be of earlier date than those of Sabi Abyad.

So far, the closest parallels for the Sabi Abyad pottery are found in the east¹⁴, at sites like Tell Billa (Speiser 1933), Mohammad Arab (Roaf 1983) and, in particular, Tell Sheikh Hamad on the Khabur, identified by texts as the Assyrian governor's seat of Dur-katlimmu and dated, by the same texts, in the later 13th century B.C. (see e.g. Pfälzner 1986). Striking parallels are also found among the Middle Assyrian pottery found on the surface of Tells Umm `Aqrebe, Agaga and Ta`ban and in excavation at Tell Barri (*ibid.*). As argued earlier (Akkermans and Rossmesl 1990:28), it can hardly be doubted in view of these comparisons that Sabi Abyad dates somewhere in the second half of the 13th century B.C. and was closely oriented towards eastern Syria and northern Iraq, dominated at this time by the Assyrians.

SELECTED SMALL FINDS

So far, rather few small finds have come from the various areas of excavation. Ground-stone tools of various kinds and sizes were most often found, such as flat grinding slabs, conical or long, oval-shaped pestles and mortars with thick and straight sides (fig. 26). One grinding slab gave evidence of traces of red ochre (fig. 26, no. 107). Invariably these objects were made of basalt, which must have been brought to Sabi Abyad from a considerable distance, i.e. up to 100 km or more. The nearest (known) sources of basalt are found in the Turkish piedmont east of Urfa or, to the south, in the volcanic area east of Raqqa on the Euphrates.

A most interesting small find was the 24.6 cm tall, limestone statuette (fig. 22), found in a debris layer above the white-plastered floor of room 6 of the phase-one Fortress. This crudely-shaped figurine, most likely representing a male, has a somewhat triangular stub head facing upward. The wide nose is the most dominant facial feature and seems to be an extension of the brow ridge. Eyes and mouth are represented by slight incisions. Some relief on the back of the head may indicate the hair. The arms,

¹⁴ It must, however, be stressed that so far little is known about the contemporary ceramics from western Syria. Hardly anything has been published on the pottery of e.g. Tell Fray or Emar/Meskene, both dated in the 13th century B.C.

cut in slight relief, emerge from the pronounced, rounded shoulders; they bend sharply in at the elbows and then immediately upwards. The fingers of the right hand on the breast are spread and fully delineated. Below a sharp ridge on the lower body the legs are shown, separated from each other by means of a deep depression. The statuette has no true base and cannot stand alone; apparently, it was originally set in some sort of foundation. Similar figurines, termed 'stone spirits' by Theresa Carter (1970), were found at a wide array of sites and mainly seem to date from the middle and later second millennium, i.e. 1500-1200 B.C. So far, most examples have come from Syria (e.g. Tell Brak, Tell Mardikh, Qatna and Nebi Mend) and the Levantine coast (Alalakh, Ras Shamra, Megiddo) but others have appeared in the Mosul region of northern Iraq (Tepe Gawra, Tell Billa and Tell al-Rimah; cf. Carter 1970). In view of the find circumstances, Carter (1970:40) suggests that these statuettes served as guardian spirits "who are equally at home at temple doors, in city gates, in house doors, in ancestor shrines, and in palace shrines. The more details rendered the more potent the figure. They are the antidote *par excellence* against evil and bad magic. The more stone spirits in one's immediate surroundings, the greater the security for mortals".

Another small sculpture in the round, made of baked clay, was found in a large pit ascribed to the topmost levels of occupation at Sabi Abyad. Only the 4.7 cm high, worn head is preserved (fig. 23, no. 79). This wide head shows carefully rendered facial features: large, oval eyes, a distinct brow ridge and pronounced lips. The nose is broken. The long, curling hair covers the ears and extends to the shoulders. On the front side, the hair shows some cross-hatched incisions, perhaps indicating the hairdress. The head was found in association with large quantities of characteristic Middle Assyrian pottery; a date around 1200 B.C. for this sculpture seems warranted. Some remote parallels can perhaps be found at Assur, albeit in a Late Assyrian context. A small terracotta head from Assur, dated around 750 B.C. and now in the Vorderasiatisches Museum in Berlin, shows some facial traits comparable to our figurine (cf. Klengel-Brandt 1978:66-67 and Tafel 11, no. 400), as does a much larger, limestone or marble statue in the Baghdad Museum, probably dating from the 7th century B.C. (Orthmann 1975:296 and Fig. 173c).

Hundreds of beads of faience and, to a much lesser extent, shell and stone were found scattered on the mud-brick floor of room 6 of the Fortress (phase two). Traces of string in three beads clearly illustrate that these objects were once strung together and were part of some necklaces or bracelets. The often colourful beads varied considerably in size and shape (a selection is shown in figs. 24-25). Commonly they have a pale yellow, white, grey or greenish colour; additional banding commonly appeared. Small, simply flattened or rounded beads, drilled through the centre (fig. 25, nos. 96-98), were most numerous. Others were cylindrical or conical in shape, occasionally thickened around the middle and longitudinally pierced (fig. 24, nos. 93-94). Some others were more robust and ball-shaped, yellow or white in colour and sometimes at one end decorated by greenish, spiral banding (fig. 24, nos. 90-91, 95). Most remarkable was a series of large, phallus-like beads, some of them additionally decorated by continuous banding (fig. 24, no. 92). Beads made of stone or shell constitute a very small minority. On a total of about 500 beads and bead fragments recovered from the floor, only six were made of shell and two of greyish stone. The shells, deliberately perforated at one end, were all of marine origin and must have come from the Mediterranean, about 480 km to the west of Sabi Abyad. Three species seem to be present, each represented by two examples: *Cerastoderma* (?; fig. 24, no. 86), *Conus* (fig. 24, no. 87) and *Arcularia* (fig. 24, no. 89). Mediterranean shells have a wide distribution in Syria and adjacent regions (for a detailed account, see e.g. Reese 1991) but their presence in association with

faience ornaments seems to be a characteristic feature of the later second millennium (Moorey 1985:152; Tucker 1992:169-170). A considerable repertoire of faience ornaments has been recovered from the Middle Assyrian levels at sites like Assur, Nimrud, Tell al-Rimah and, more recently, Khirbet Karhasan in Iraq (cf. Tucker 1992:170) but, interestingly enough, associated shell beads were found at these sites in much larger quantities than at Sabi Abyad. For example, the Middle Assyrian hoard found at Khirbet Karhasan yielded over 600 small *Arcularia* shells, of which 60% was perforated and had once been strung together (*ibid.*:161, 169).

It remains unknown whether the faience beads were locally manufactured at Sabi Abyad or should be considered import products. Some evidence for local production is perhaps found in the rareness of shell beads (an obvious import item), suggesting that Sabi Abyad had restricted access to long-distance trade routes, and in the presence of some specific shapes (e.g. the elongated, phallus-like beads) not found at other sites. Moorey (1985:151-152) suggests that faience production was largely in the hands of workshops associated with temples and palaces in the 15th and early 14th century B.C. but that manufacture became much more loosely and widely organised between ca. 1350 and 1200 B.C., with the founding of numerous small and local production facilities.

In association with the beads, two very small combs and two button-like discs, all made of bone, were found on the mud-brick floor. Both combs (fig. 25, nos. 102-103) were pierced at one end and may actually, as part of these same necklaces, have been worn around the neck. The same may hold for the discs (fig. 25, nos. 100-101). One was conical in shape with a flat base, the other flattened with, on one side, a protruding axle socket and a raised rim with short, incised lines.

Other bone objects mainly consisted of simple awls and, to a lesser extent, spatulas. The latter were made of the ribs of sheep and goats, whereas the awls were all made of caprid metapodia. In addition, some thin and sharply pointed needles appeared, delicately worked out of small, polished bone splinters and pierced on one end (fig. 25, nos. 104-105).

Metal objects were found in small quantities, both in the domestic structures and in the Fortress. Virtually all were made of bronze but, in addition, an iron ring was found on the floor of room 2 of the Fortress (phase two). Various types of arrowheads were present (fig. 21, nos. 71-73). Most had a leaf-shaped blade with midrib and square shaft; in one instance, part of the shaft was wrapped with metal wire (bronze or copper), probably to facilitate secure attachment (fig. 21, no. 72). One arrowhead was elongated and rounded in shape and had no wings; perhaps these have been corroded (fig. 21, no. 73). Rather large bodkins all had eyes made by bending the wire into a loop (fig. 21, no. 76). Needles were generally much thinner and had pierced eyes (fig. 21, no. 74). In addition, a number of large pins (fig. 21, no. 78) were found as well as some nails with thick, rounded heads (fig. 21, no. 77). The pair of tweezers (fig. 21, no. 75), found in the doorway between room 2 and 3 of the phase-three Fortress, was unique. The large bronze find, uncovered together with a series of ceramics, from the corridor below the staircase in the Fortress (phase two), was likewise exceptional. This sword-like object (fig. 20, no. 70) showed a 66 cm long and 12.5 cm wide blade, varying in thickness between hardly 0.3 and 1.7 cm, and a short, rounded shaft, 6 cm long. The corroded blade showed dense traces of chaff (encrusted with the corrosion); a similar wrapping or cover of chaff was found on or in the various pottery vessels accompanying the blade. So far, no parallels have been found for this wide, somewhat curiously shaped 'sword'.

Finally, some objects of unbaked clay were found. Wheel models of varying sizes (fig. 23, nos. 82-83), undoubtedly once part of miniature chariots or coaches, came from the massive dump of broken ceramics and other domestic debris found in room 1 of the Fortress. These wheel models were all of baked clay and similar in shape, i.e. tapering towards the rim with a protruding axle-socket. These models have a wide distribution; similar ones, ranging in date from the third till the late second millennium B.C., were found at e.g. Nuzi in Iraq, Korucutepe in central-Turkey and at Hama, Sweyhat and Tell Hammam et-Turkman in Syria (cf. Rossmeisl and Venema 1988:570).

A number of loomweights (fig. 23, nos. 80-81) stem from the same dump as the wheel models. All were made of sun-dried clay and were round in shape and pierced through the middle.

Further finds from the dump are the miniature 'table' (fig. 23, no. 84) and the rather large animal figurine, probably representing a bull (fig. 23, no. 85). The rather coarsely finished, four-legged table of sun-dried clay is circular in shape and has a diameter of almost 7 cm. Perhaps this object represented a child toy. The terracotta bull representation, of which only the front part is preserved, showed a carefully modelled head with (partly broken) horns turning inwards and ring-shaped eyes, placed upon a massive, hunchbacked body. The legs are hardly indicated but are incorporated in the solid body. The snout is broken but a groove is still visible at the broken part.

TELL SABI ABYAD IN A WIDER CONTEXT

Earlier it has been tried to come to a first interpretation of the late second millennium settlement at Tell Sabi Abyad (Akkermans and Rossmeisl 1990:31ff) and until now little has changed in our previously presented views. When summarising the available evidence, it appears that Sabi Abyad was conceived and raised within a short period of time. The duration of occupation was limited, too, and probably confined to the second half of the 13th century B.C. only. No immediate predecessors are found at the site and thus its inhabitants must have come from somewhere else, either from within or outside the Balikh valley. Moreover, the need for buildings of monumental outline as well as the ability to construct such features, requiring literally hundreds of thousands of mud bricks, immediately after arrival, suggests that these newcomers were invested with power and were able to raise a considerable labour force. At least partially this power must have been based upon military force, as indicated by the fortification on the top of Sabi Abyad and some weaponry found in it. Elsewhere it has been argued that the rise of Sabi Abyad to the status of a political and economic centre seems to have taken place at the expense of nearby Tell Hammam et-Turkman, for millennia one of the major and foremost cities in the upper Balikh basin (cf. *ibid.*:33). If this view is correct, it implies that local institutions of power and authority, rooting in time-honoured traditions, were replaced and that social and economic relations, both intra- and intersite, were seriously disturbed. Traditional regimes were side-tracked by the establishment of new centres of power at sites formerly uninhabited, i.e. at sites lacking any *direct* connection with the immediate past. Stated in other words: a severe break with the past was set off somewhere in the 13th century B.C.

It may very well be the case that this changing pattern of power relations is, at least partially, due to Assyrian policies. In his campaign against Uasashatta, king of Hanigalbat, Adad-narari I (ca. 1305-1274 B.C.) already claims to have conquered the city of Harran and its surroundings and to have pursued Uasashatta up to Irridu, which perhaps has to be sought for near Arslan Tash (Kessler 1980). This display of Assyrian force may easily have affected the Balikh region, too, either by the collapse of existing (and intersite) elite alliances or perhaps even by the appearance of Assyrian troops.

Shalmaneser I, too, facing a rebellion, was forced to take up war in the land of Hanigalbat and states to have reinforced Assyrian supremacy as far as the Euphrates, up to Carchemish (Grayson 1972:82-83). Shalmaneser's war seems to have led to the annexation of Hanigalbat and to the conversion of the area to a province under direct Assyrian supervision, a policy further consolidated under the reign of Tikulta-ninurta I (Machinist 1982; Harrak 1987). Most likely, the rise of Sabi Abyad is closely affiliated with this newly established Assyrian governance system; the site may have acted as an Assyrian frontier settlement in the far west province.

It can hardly be doubted that the, admittedly meagre, textual remains so far uncovered at Sabi Abyad were the products of an Assyrian style of administration, left behind by Assyrians who lived and worked at the site and kept personnel of both Assyrian and local, Hurrian origin (see Jas 1990). Despite the risk of false 'pots-and-people' associations, it is stressed that the other artefactual evidence strongly points in the direction of Assyria as well, with close parallels at sites like Tell Sheikh Hamad (ancient Dur-katlimmu), Tell Mohammad 'Arab and Tell Billa. Again it is suggested that Sabi Abyad does not solely represent the seat of a local ruler but a small economic and political centre, guided and protected by a higher authority, which is Assyria. In this sense, the rise and fall of Sabi Abyad can be related to the establishment of Assyrian power in Hanigalbat during the reign of Shalmaneser I and its decline after the death of Tukulti-ninurta I.

Survey evidence from the Balikh valley has suggested that a similar Assyrian settlement as the one found at Sabi Abyad existed at Tell Jittal, a site about 10 km north of Sabi Abyad. Further north, a comparative centre or 'Herrensitz' can probably be found at Tell Chuera, as recent excavations at this site have shown (W. Orthmann, pers.comm.). Perhaps these settlements should all be considered as part of a series of Assyrian border garrisons, protecting the western frontier of the Assyrian empire and, at the same time, taking care of local governance and administration. In this respect, the Balikh valley may have represented the extreme western periphery of Assyria but whether Assyrian control of this region was of a durable and structural nature is doubtful. At Tell Sabi Abyad it was found that the Assyrian presence (at least at this site) was fluctuating and intermittent in character: the settlement was repeatedly abandoned for substantial periods of time and apparently in great haste, for considerable parts of the buildings' inventories were simply left behind. This strongly suggests that violence or a deliberate destruction was at hand, forcing people to evacuate the settlement rapidly. Unambiguous evidence of warfare or the like is unavailable at present but perhaps the repeatedly occurring traces of fire both in the domestic buildings on the slopes and in the main structure on the top of the mound point in this direction.

Interestingly enough, each enforced desertion of the site was followed by a return of its inhabitants after some time; apparently, it was constantly attempted to regain lost property and to restore the original balance of power. It thus seems that the site of Sabi Abyad was considered to be of great importance within the Assyrian military or governance system and as such people could ill-afford simply to leave it to its fate. The fluctuating pattern of settlement at Sabi Abyad perhaps serves as an illustration of the highly uncertain political relations and ever-changing relations of military strength in an undoubtedly most unstable part of Assyria.

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CATALOGUE OF POTTERY AND OTHER SMALL FINDS

Fig. 13

1. P91-43. Plant and lime temper. Cream colour. Diameter 95 mm. Height 32 mm. Base cracks. On the floor in room 4 of the domestic building.
2. P91-37. Plant and lime temper. Greenish colour. Diameter 100 mm. Height 35 mm. On the floor in room 4 of the domestic building.
3. P91-38. Plant, lime and fine sand temper. Cream colour. Diameter 90 mm. Height 35 mm. On the floor in room 4 of the domestic building.
4. P91-33. Plant, lime and fine sand temper. Buff colour. Diameter 95 mm. Height 44 mm. On the floor in room 4 of the domestic building.
5. P91-44. Plant, lime and fine sand temper. Cream colour. Diameter 150 mm. Height 38 mm. On the floor in room 4 of the domestic building.
6. P91-35. Plant and lime temper. Greenish colour. Diameter 150 mm. Height 39 mm. Base cracks. On the floor in room 4 of the domestic building.
7. P91-39. Plant, lime and fine sand temper. Orange colour. Diameter 130 mm. Height 49 mm. On the floor in room 4 of the domestic building.
8. P91-45. Plant and lime temper. Cream colour. Diameter 130 mm. Height 51 mm. On the floor in room 4 of the domestic building.
9. P91-36. Plant and lime temper. Buff colour. Diameter 220 mm. Height 66 mm. On the floor in room 4 of

- the domestic building.
10. P91-42. Plant and lime temper. Orange colour. Diameter 200 mm. Height 80 mm. On the floor in room 4 of the domestic building.
 11. P91-46. Plant and lime temper. Cream exterior, buff interior colour. Diameter 185 mm. Height 65 mm. On the floor in room 4 of the domestic building.
 12. P91-41. Plant and lime temper. Green colour (overfired). Diameter 210 mm. Height 81 mm. On the floor in room 4 of the domestic building.
 13. P91-32. Plant, lime and fine sand temper. Buff colour. Diameter 230 mm. Height 84 mm. On the floor in room 4 of the domestic building.
 14. P91-34. Fine sand temper. Cream colour. Diameter 180 mm. Height 59 mm. On the floor in room 4 of the domestic building.

Fig. 14

15. P91-169. Plant and lime temper. Buff colour. Diameter 135 mm. Height 630 mm. On the floor in room 4 of the domestic building.
16. P91-168. Plant and lime temper. Cream colour. Diameter 140 mm. Height 535 mm. On the floor in room 4 of the domestic building.
17. P91-170. Plant and lime temper. Buff colour. Diameter 150 mm. Height 585 mm. On the floor in room 4 of the domestic building.
18. P91-189. Lime and fine sand temper. Buff colour. Diameter 105 mm. Height 290 mm. On the floor in room 4 of the domestic building.
19. P91-40. Plant, lime and fine sand temper. Cream colour. Diameter 95 mm. Height 195 mm. On the floor in room 4 of the domestic building.
20. P91-52. Plant and lime temper. Buff colour. Diameter 335 mm. Height 300 mm. On the floor in room 4 of the domestic building.
21. P91-173. Plant, lime and fine sand temper. Orange colour. Diameter 370 mm. Height 125 mm. In room fill of room 4 of the domestic building.

Fig. 15

22. P92-36. Plant and lime temper. Buff exterior, orange interior colour. Diameter 150 mm. Height 40 mm. Base cracks. In the corridor in area 3 of the phase-two (?) Fortress.
23. P91-130. Plant and lime temper. Buff exterior, red interior colour. Diameter 145 mm. Height 50 mm. Base cracks. On the floor of room 5 of the phase-two Fortress.
24. P91-111. Plant and lime temper. Buff colour. Diameter 105 mm. Height 50 mm. On the floor of room 5 of the phase-two Fortress.
25. P92-26. Plant and lime temper. Orange colour. Burnished. Diameter 210 mm. Height 80 mm. In the corridor in area 3 of the phase-two (?) Fortress.
26. P92-29i. Plant, lime and fine sand temper. Cream exterior, buff interior colour. Diameter 85 mm. Height 35 mm. In the corridor in area 3 of the phase-two (?) Fortress. P92-29ii. Plant, lime and fine sand temper. Greenish colour. Diameter 85 mm. Height 35 mm. In the corridor in area 3 of the phase-two (?) Fortress. P92-29iii. Plant, lime and fine sand temper. Greenish exterior, buff interior colour. Diameter 85 mm. Height 35 mm. In the corridor in area 3 of the phase-two (?) Fortress.
27. P92-45. Plant and lime temper. Buff colour. Diameter 340 mm. Height 85 mm. In the corridor in area 3 of the phase-two (?) Fortress.
28. P91-229. Plant and lime temper. Greenish colour (overfired). Diameter 95 mm. Height 175 mm. On the floor of room 2 of the phase-two Fortress.
29. P92-46. Plant and lime temper. Cream colour. Diameter 130 mm. Height 285 mm. In the corridor in area 3 of the phase-two (?) Fortress.
30. P91-161. Plant and lime temper. Red colour. Diameter 100 mm. Height 290 mm. On the floor of room 5 of the phase-two Fortress.

Fig. 16

31. P91-157. Plant and lime temper. Greenish colour (overfired, warped). Diameter 145 mm. Height 470 mm. On the floor of room 5 of the phase-two Fortress. On the floor of room 6 of the phase-two Fortress.
32. P91-204. Plant, lime and fine sand temper. Buff colour. Burnished. Diameter 120 mm. Height 445 mm. On the floor of room 6 of the phase-two Fortress.
33. P91-205. Plant and lime temper. Orange colour. Diameter 140 mm. Height 455 mm. On the floor of room 6 of the phase-two Fortress.
34. P91-191. Plant, lime and fine sand temper. Buff colour. Diameter 190 mm. Height 555 mm. On the floor of room 6 of the phase-two Fortress.
35. P91-207. Plant and lime temper. Cream colour. Diameter 155 mm. Height 640 mm. On the floor of room 6 of the phase-two Fortress.
36. P91-206. Plant, lime and fine sand temper. Orange colour. Diameter 170 mm. Height 630 mm. On the floor of room 6 of the phase-two Fortress.
37. P91-117. Plant and lime temper. Buff colour. Diameter 220 mm. Height 155 mm. On the floor of room 2 of

the phase-two Fortress.

38. P92-75. Plant, lime and fine sand temper. Greenish colour (overfired). Diameter 230 mm. Height 147 mm. On the floor of room 6 of the phase-two Fortress.

Fig. 17

39. P91-209. Plant and lime temper. Buff colour. Diameter 360 mm. Height 310 mm. On the floor of room 5 of the phase-two Fortress.
40. P91-208. Plant and lime temper. Cream exterior, buff interior colour. Diameter 360 mm. Height 280 mm. On the floor of room 5 of the phase-two Fortress.
41. P91-211. Plant, lime and fine sand temper. Green colour (overfired). Diameter 300 mm. Height 260 mm. On the floor of room 2 of the phase-two Fortress.
42. P91-210. Plant, lime and fine sand temper. Greenish exterior, buff interior colour. Diameter 280 mm. Height 185 mm. On the floor of room 5 of the phase-two Fortress.
43. P91-108. Plant, lime and fine sand temper. Greenish colour (overfired). Diameter 110 mm. Height 45 mm. On the floor of room 5 of the phase-two Fortress.
44. P91-146. Lime and fine sand temper. Cream colour. Diameter 75 mm. Height 100 mm. On the floor of room 6 of the phase-two Fortress.
45. P91-138. Plant and lime temper. Buff colour. Length 240 mm. Width 140 mm. Height 150 mm. On the floor of room 6 of the phase-two Fortress.
46. P91-234. Plant, lime and fine sand temper. Buff colour. Diameter 690 mm. Height 370 mm. On the floor of room 2 of the phase-two Fortress.
47. P91-95. Lime and fine sand temper. Cream colour. Diameter 50 mm. Height 67 mm. On the floor of room 2 of the phase-two Fortress.

Fig. 18

48. P92-66. Plant, lime and fine sand temper. Greenish colour. Diameter 205 mm. Height 70 mm. On the floor of the domestic area east of the Fortress (phase three or later).
49. P92-60. Plant, lime and fine sand temper. Cream colour. Diameter 220 mm. Height 70 mm. On the floor of the domestic area east of the Fortress (phase three or later).
50. P92-89. Plant and lime temper. Buff colour. Diameter 260 mm. Height 60 mm. On the floor of the domestic area east of the Fortress (phase three or later).
51. P92-73. Plant, lime and fine sand temper. Greenish colour. Diameter 260 mm. Height 60 mm. On the floor of the domestic area east of the Fortress (phase three or later).
52. P92-74. Plant, lime and fine sand temper. Cream colour. Diameter 190 mm. Height 70 mm. Base cracks. On the floor of the domestic area east of the Fortress (phase three or later).
53. P92-66. Plant, lime and fine sand temper. Greenish colour. Diameter 205 mm. Height 70 mm. Base cracks. On the floor of the domestic area east of the Fortress (phase three or later).
54. P92-67. Plant, lime and fine sand temper. Cream colour. Diameter 230 mm. Height 75 mm. On the floor of the domestic area east of the Fortress (phase three or later).
55. P92-72. Plant, lime and fine sand temper. Cream colour (covered with bitumen). Diameter 100 mm. Height 225 mm. On the floor of the domestic area east of the Fortress (phase three or later).
56. P92-79. Plant and lime temper. Cream colour. Diameter 130 mm. Height 330 mm. On the floor of the domestic area east of the Fortress (phase three or later).

Fig. 19

57. P92-82. Plant, lime and fine sand temper. Cream colour. Diameter 120 mm. Height 460 mm. On the floor of the domestic area east of the Fortress (phase three or later).
58. P92-81. Plant and lime temper. Cream colour. Diameter 330 mm. Height 280 mm. On the floor of the domestic area east of the Fortress (phase three or later).
59. P92-65. Plant and lime temper. Light brown colour. Diameter 70 mm. Height 120 mm. On the floor of the domestic area east of the Fortress (phase three or later).
60. P92-21a. Plant, lime and fine sand temper. Buff colour. Diameter 130 mm. Height 65 mm. On the floor of the domestic area west of the Fortress (phase three or later). P92-21b. Plant, lime and fine sand temper. Cream colour. Diameter 100 mm. Height 30 mm. On the floor of the domestic area west of the Fortress (phase three or later).
61. P91-51. Lime and fine sand temper. Red colour. Diameter 80 mm. Height 110 mm. In the fill of room 1 of the phase-three Fortress.
62. P92-10. Plant, lime and fine sand temper. Red colour. Diameter 120 mm. Height (of present part) 150 mm. On the floor of the domestic area west of the Fortress (phase three or later).
63. P91-62. Plant, lime and fine sand temper. Orange colour. Diameter (of upper wall) 105 mm. In the fill of room 1 of the phase-three Fortress.
64. SAB 1991 (square P11):18-51, 104. Plant and fine sand temper. Cream colour. Diameter (of upper wall) 125 mm. In the fill of room 6 of the domestic building.

Fig. 20

- 65. O91-171. Unbaked-clay jar stopper. Height: 7 cm. Max. diameter: 16.5 cm. Found in the fill of room 1 of the Fortress (phase three?).
- 66. O91-171. Unbaked-clay jar stopper. Height: 8.1 cm. Max. diameter: 12 cm. Found in the fill of room 1 of the Fortress (phase three?).
- 67. O91-177. Unbaked-clay jar stopper. Max. diameter: 8.9 cm. Found in the fill of room 1 of the Fortress (phase three?).
- 68. O91-171. Unbaked-clay jar stopper. Height: 8.8 cm. Max. diameter: 8.4 cm. Found in the fill of room 1 of the Fortress (phase three?).
- 69. Unbaked-clay jar stopper. Height: 3.4 cm. Max. diameter: 3.8 cm. Found in mud-brick wall of the Fortress.
- 70. M92-7. Bronze sword-like object. Length blade: 66 cm and length shaft: 6 cm. Thickness: ca. 0.3 cm. In corridor below staircase (area 3) of the phase-two Fortress.

Fig. 21

- 71. M91-23. Bronze arrowhead. Length: 7.9 cm. Found on the floor in room 2 of the phase-two Fortress.
- 72. M92-1. Bronze arrowhead. Length: 8.2 cm. Found in the fill in the northern room of the architecture to the west of the Fortress (phase three?).
- 73. M92-2. Bronze arrowhead. Length: 5.9 cm. Found in the fill in the northern room of the architecture to the west of the Fortress (phase three?).
- 74. M92-9. Bronze needle. Length: 8.4 cm. Found in the fill of the doorway between room 1 and 2 of the phase-three Fortress.
- 75. M92-5. Bronze pair of tweezers. Length 12.1 cm. Found in the fill of the doorway between room 2 and 3 of the phase-three Fortress.
- 76. M92-11. Bronze bodkin. Length: 10.8 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
- 77. M92-14. Bronze nail. Length: 4.8 cm. Found on the white-plastered floor in room 6 of the phase-one Fortress.
- 78. M91-7. Bronze pin. Length: 9 cm. Found on the floor in room 4 of the domestic house.

Figure 22

F92-7. Limestone statuette. Height: 24.6 cm. Width: 15 cm. Thickness: 8.5 cm. Found in the fill above the white-plastered floor in room 6 of the phase-one Fortress.

Figure 23

- 79. F92-12. Head of baked-clay figurine. Height: 4.7 cm. Width: 3.5 cm. Thickness 2.9 cm. Found in the fill of a large pit disturbing the main entrance of room 2 of the phase-two Fortress.
- 80. O91-73. Unbaked-clay loomweight. Diameter: 4.4 cm. Found in the topmost fill in the area to the north of the Fortress.
- 81. O91-73. Unbaked-clay loomweight. Diameter: 4.2 cm. Found in the topmost fill in the area to the north of the Fortress.
- 82. O91-186. Two baked-clay chariot wheels. Diameter: 3.5 cm. Found in the fill of room 1 of the phase-three Fortress.
- 83. O91-44. Baked-clay chariot wheel. Diameter: 5.6 cm. Found in the fill of room 2 of the phase-three (?) Fortress.
- 84. O91-172. Sun-dried clay 'table'. Height: 1.6 cm. Diameter 6.9 cm. Found in the fill of room 1 of the Fortress (phase three?).
- 85. F91-7. Fragment of baked-clay animal figurine. Height: 9.3 cm. Found in the fill of room 1 of the Fortress (phase three?).

Fig. 24

- 86. B91-22. Shell (Cerastoderma?) bead. Diameter 3.8 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
- 87. B91-22. Two shell (Arcularia) beads. Diameter: 1.2 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
- 88. B91-22. Green-white faience bead. Length: 3.5 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
- 89. B91-22. Shell (Conus) bead. Length: 4.5 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
- 90. B91-22. Ball-shaped, grey faience bead. Diameter: 2.3 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
- 91. B91-22. Ball-shaped, yellow faience bead. Diameter: 2.1 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
- 92. B91-22. Six phallus-like, green and white faience beads. Max. length: 3.5 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
- 93. B91-22. Nine white faience beads. Max. length: 1.5 cm. Found on the mud-brick floor in room 6 of the

phase-two Fortress.

94. B91-22. Four white, green and yellow faience beads. Max. diameter: 1.1 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
95. B91-22. Ball-shaped, white-green faience bead. Diameter: 3.1 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.

Fig. 25

96. B91-22. Five flattened and round, yellow-white faience beads. Diameter: 1.1 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
97. B91-22. Five white, yellow and grey faience beads. Max. diameter: 1.1 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
98. B91-22. Ten white, grey and yellow faience beads. Max. diameter: 1.6 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
99. B91-22. Two incised, yellow faience beads. Diameter: ca. 1.7 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
100. J91-48. Bone pierced disc. Diameter: 2.2 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
101. J91-46. Bone pierced disc. Diameter: 2.6 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
102. J92-19. Bone comb. Height: 2.3 cm. Width: 2.3 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
103. J92-19. Bone comb. Height: 2.1 cm. Width: 2.4 cm. Found on the mud-brick floor in room 6 of the phase-two Fortress.
104. J91-21. Bone needle. Length: 5.4 cm. Found on the floor in room 5 of the domestic house.
105. J91-29. Bone needle. Length: 5.8 cm. Found in the fill in room 1 of the phase-three Fortress.

Fig. 26

106. S91-346. Basalt grinding slab. Length: 29.5 cm. Width: 15.2 cm. Thickness: 6 cm. Found on the floor in room 5 of the phase-two Fortress.
107. S91-147. Basalt grinding slab. Length: 18 cm. Width: 16.5 cm. Thickness: 2.3 cm. Traces of red ochre. Found on the floor of room 4 of the domestic house.
108. S91-112. Basalt mortar. Height: 5 cm. Diameter: 13 cm. Found in the topsoil to the southeast of the Fortress.
109. S91-4. Basalt mortar. Height: 10 cm. Diameter: 20 cm. Found in the fill of room 4 of the domestic house.
110. S91-257. Basalt pestle. Length: 8 cm. Max. diameter: 5.5 cm. Found on the floor in room 4 of the phase-one Fortress.
111. S91-18. Stone pestle. Length: 10.8 cm. Max. diameter: 6.8 cm. Found in the fill of room 5 of the domestic house.

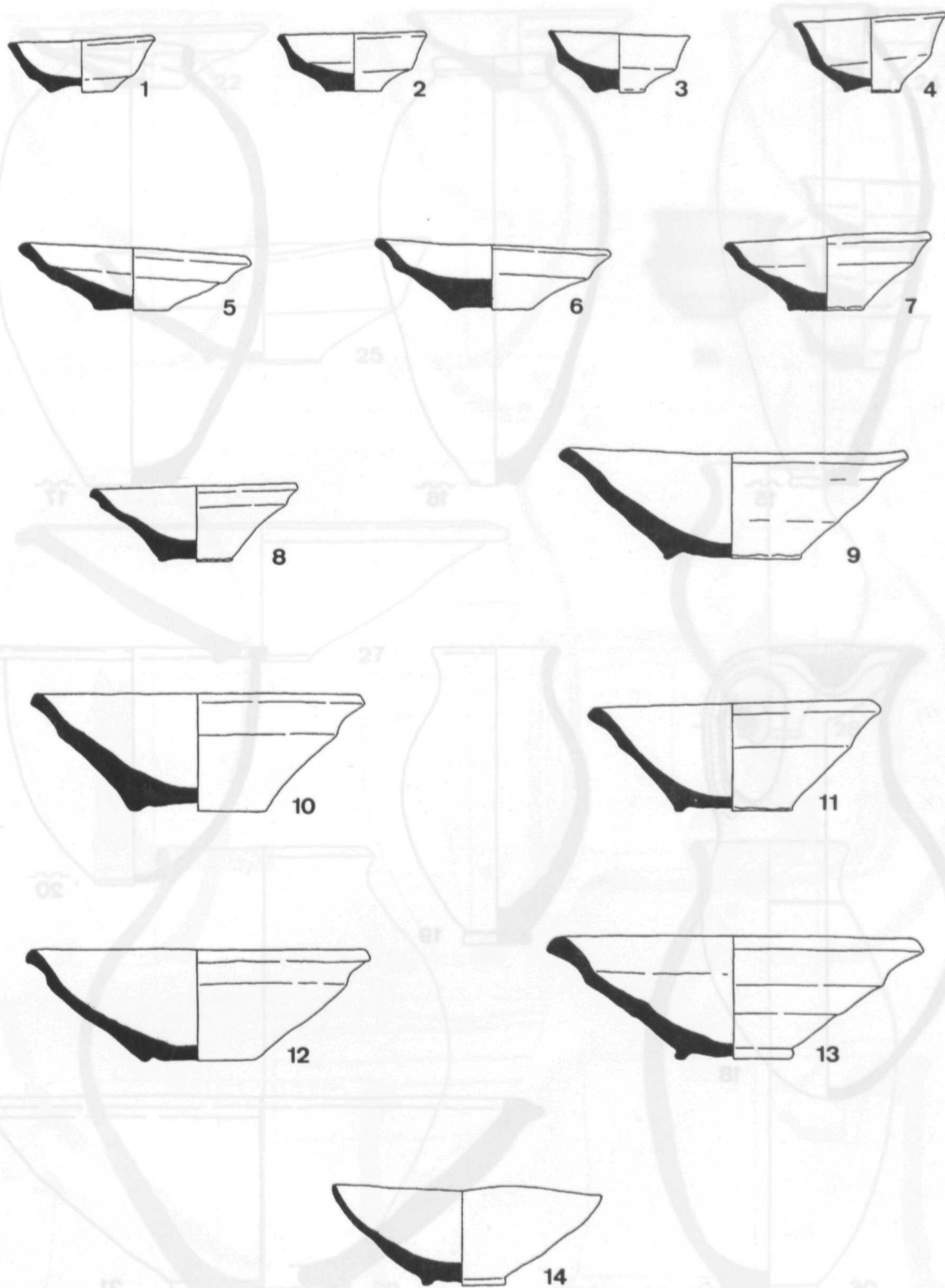


Fig. 13 Bowls found on the floor of room 4 of the domestic building (scale 1:4).

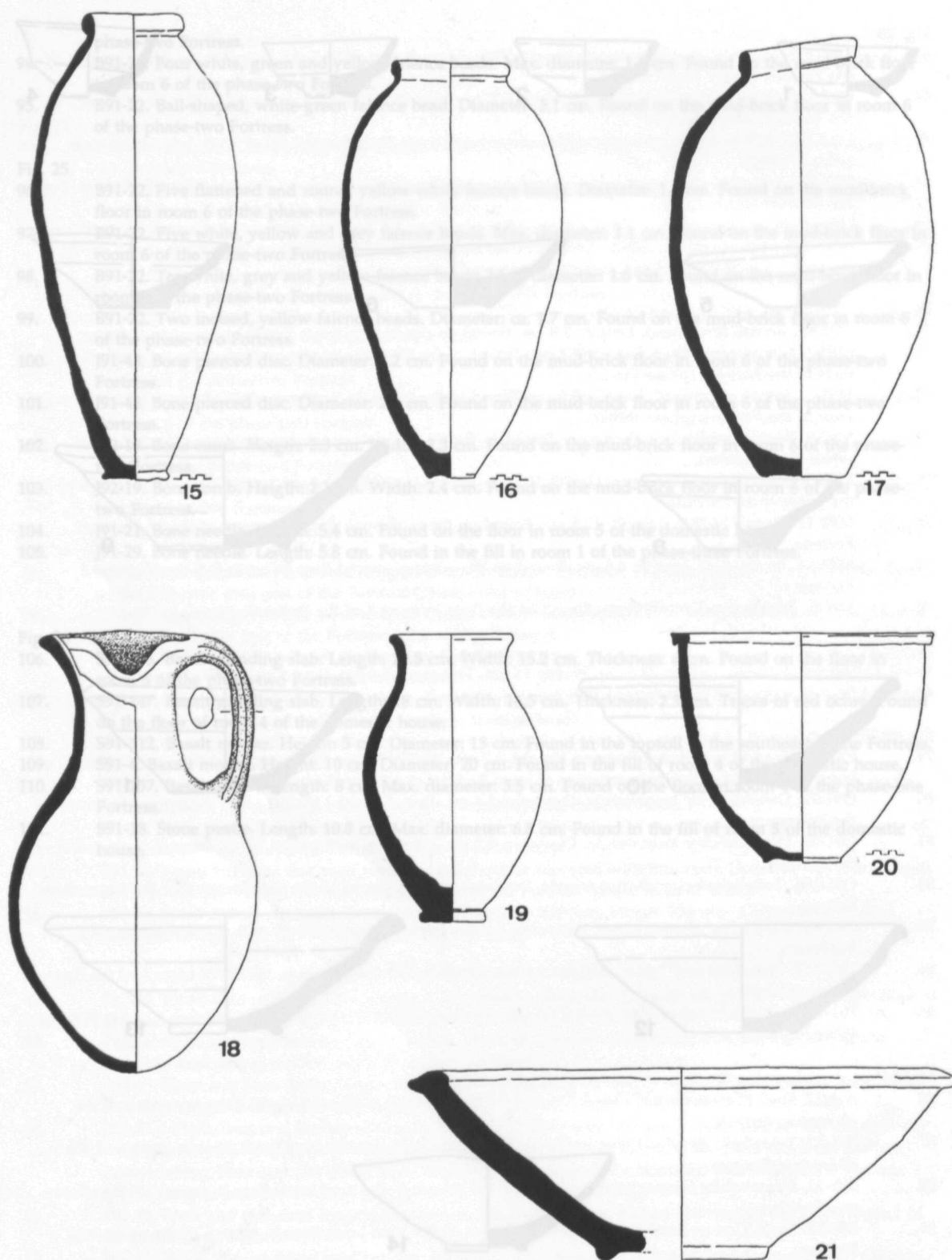


Fig. 14 Pottery found on the floor and in the fill of room 4 of the domestic building (scale 1:4, except nos. 15-17, 20: see measure balk).

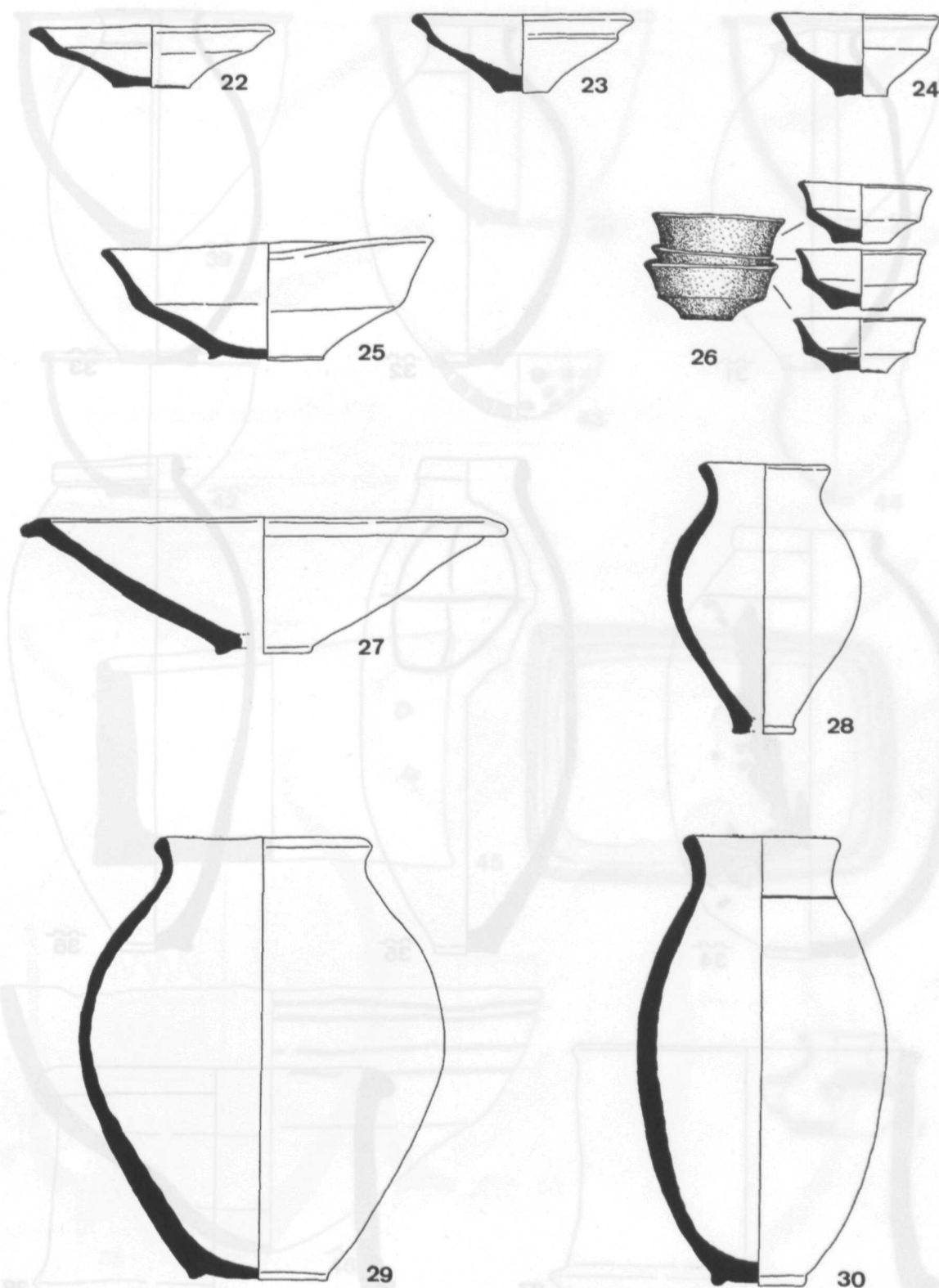


Fig. 15 Pottery found on the floor of areas 2, 3 and 5 of the phase-two Fortress (scale 1:4).

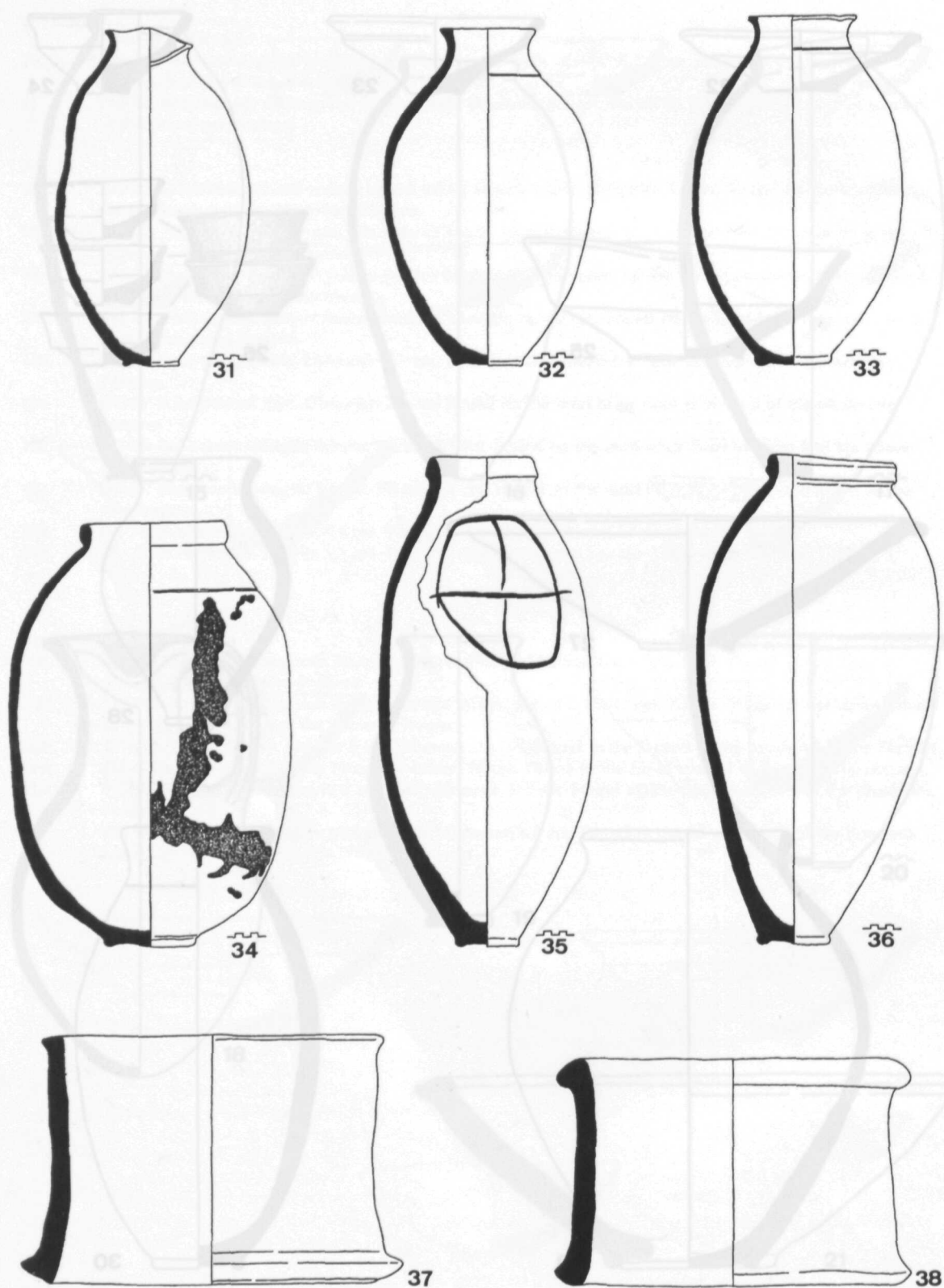


Fig. 16

Jars and pot stands found on the floor of rooms 2, 5 and 6 of the phase-two Fortress (scale 1:4, except nos. 31-36: see measure balk).

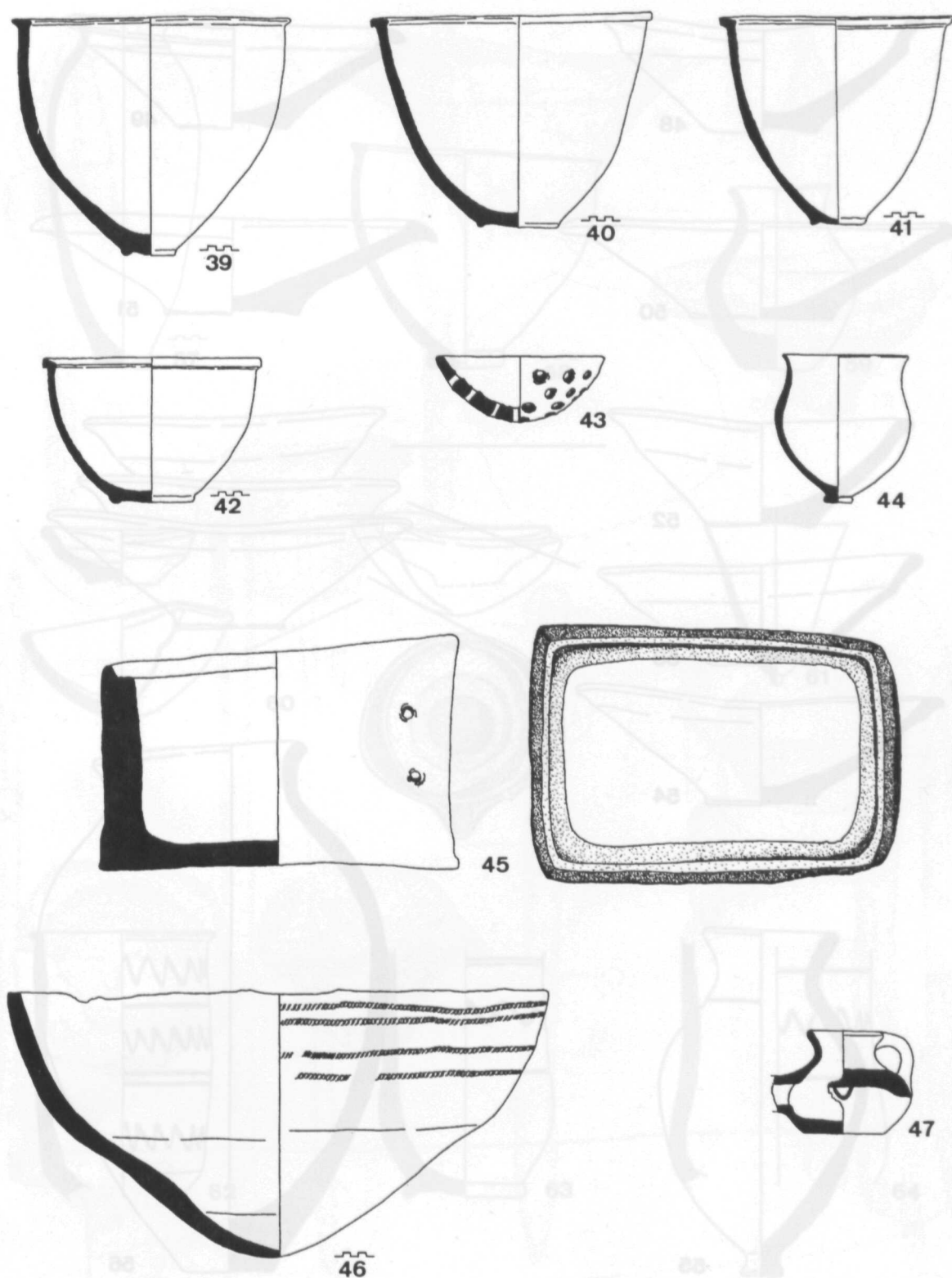


Fig. 17

Pottery found on the floor of rooms 2, 5 and 6 and in the fill (no. 47) of room 2 of the phase-two Fortress (scale 1:4, except nos. 39-42, 46: see measure balk).

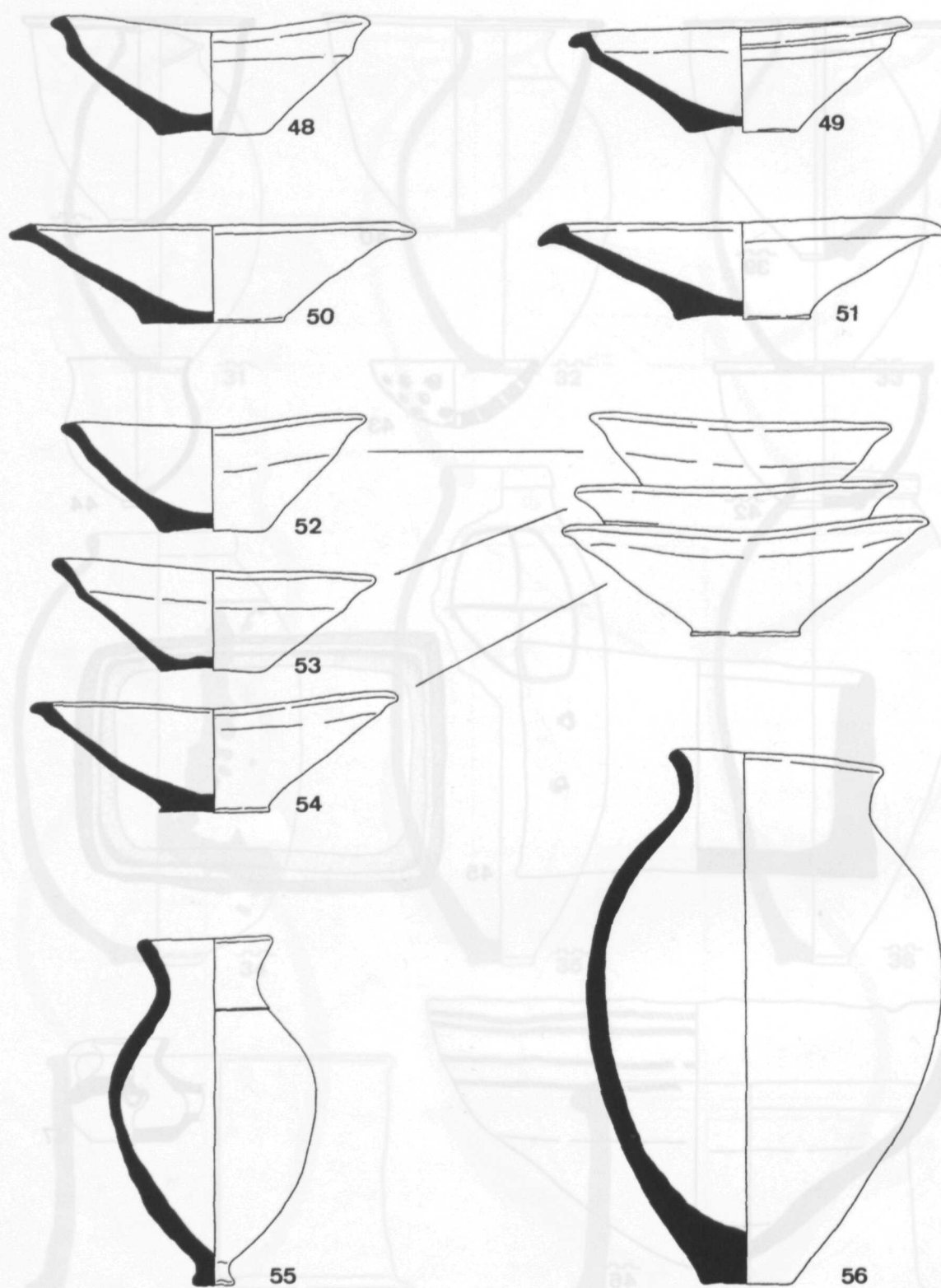


Fig. 18 Bowls and jars found on the floor in the domestic area east of the Fortress, phase three or later (scale 1:4).

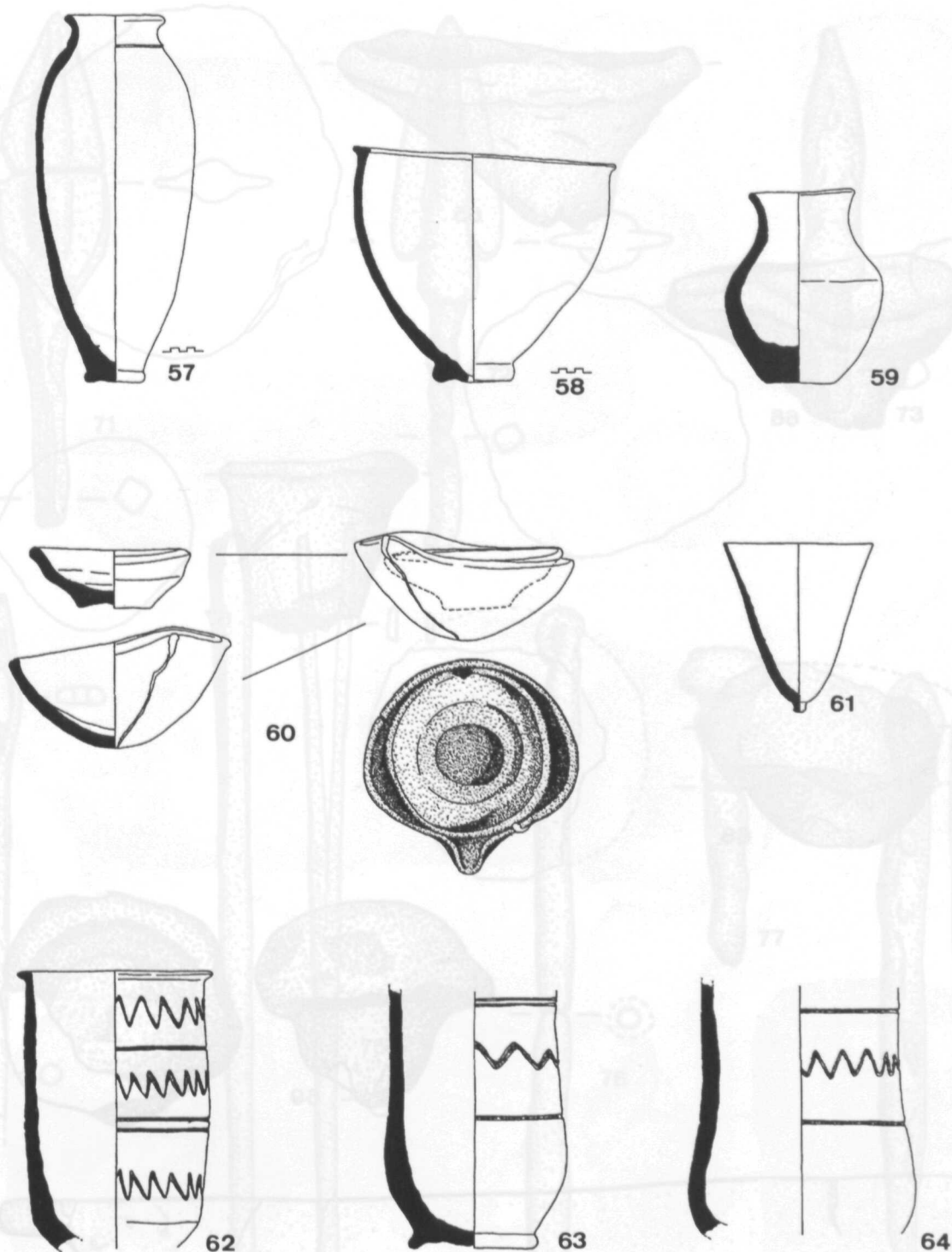


Fig. 19 Pottery (nos. 57-59) found on the floor in the domestic area east of the Fortress and other ceramics from the final levels of occupation (scale 1:4, except nos. 57-58: see measure balk).

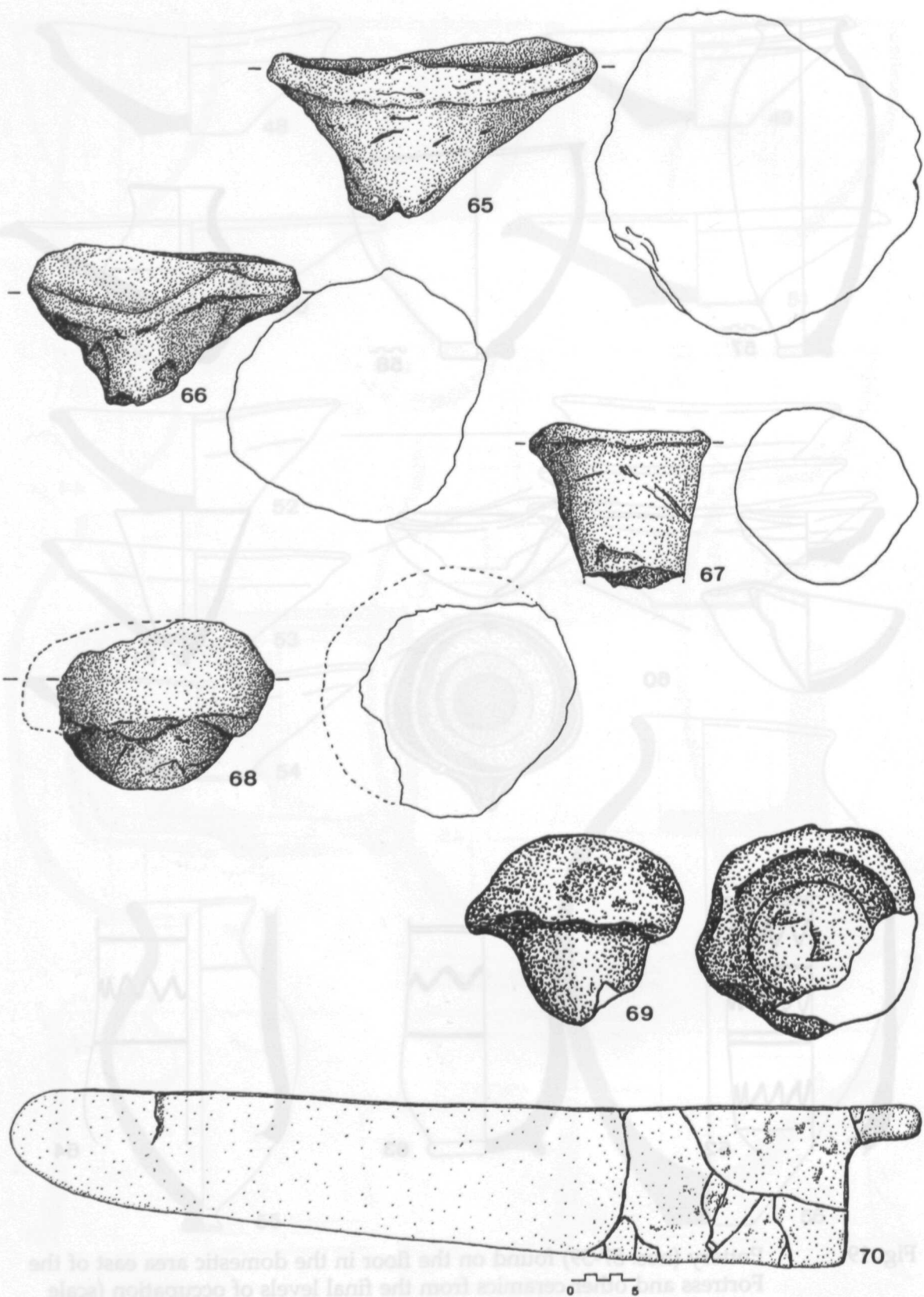


Fig. 20

Clay jar stoppers and bronze 'sword' (nos. 65-68 scale 1:3, no. 69 scale 1:1, no. 70: see measure balk).

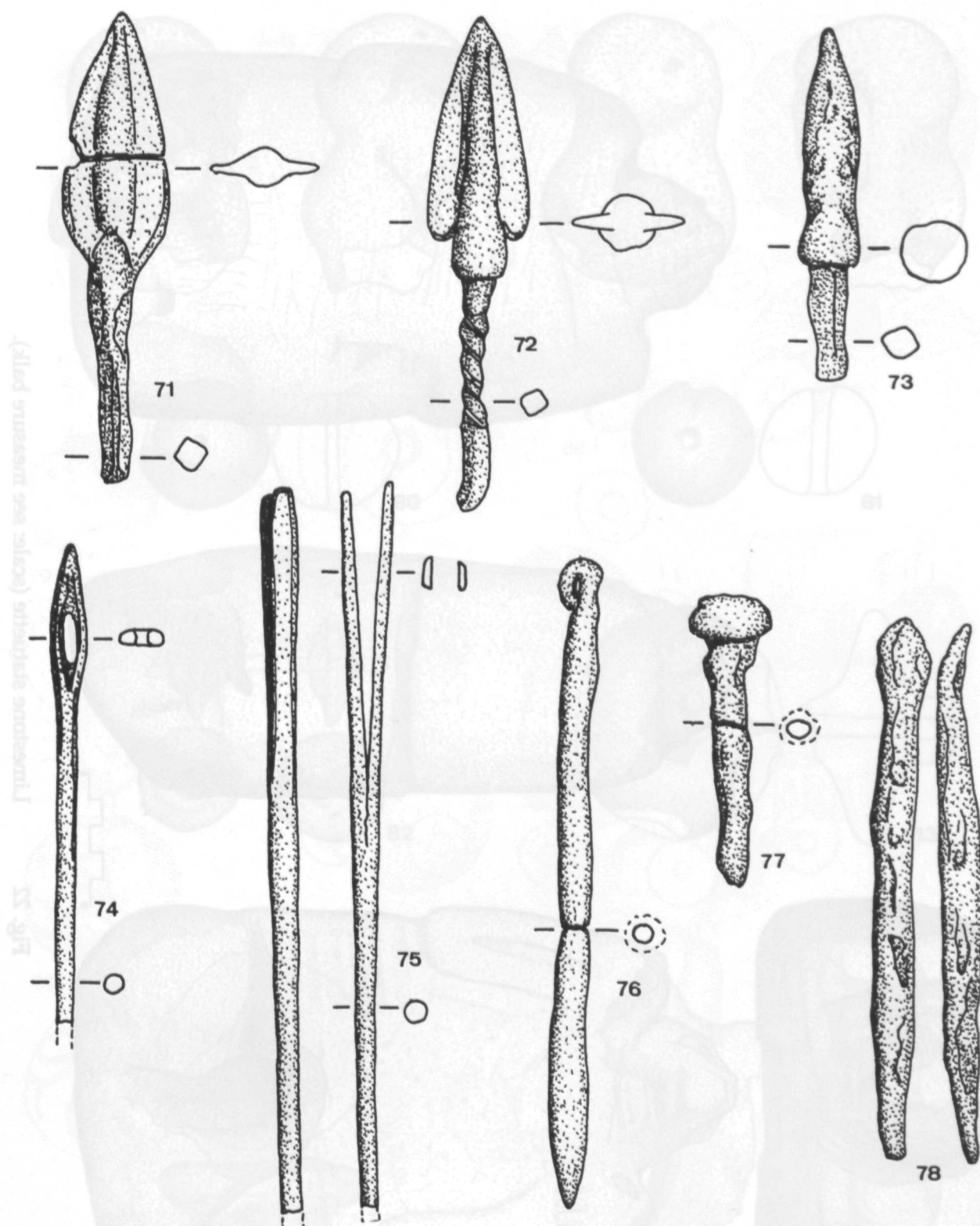


Fig. 21 Arrowheads and other bronze objects (scale 1:1).

Fig. 23 Baked and unbaked clay objects (scale 1:2, except no. 79: scale 1:1).

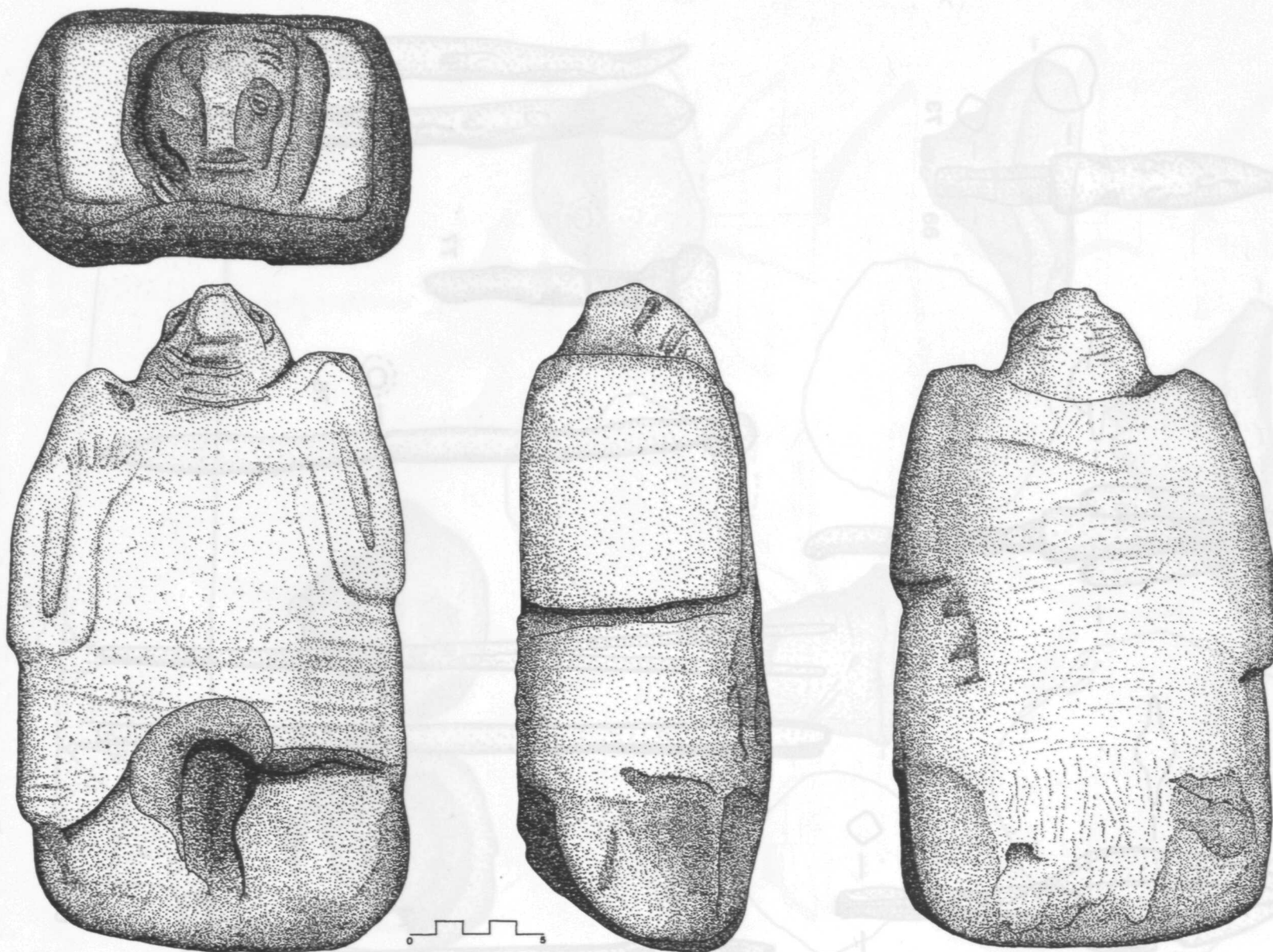


Fig. 22 Limestone statuette (scale: see measure balk).

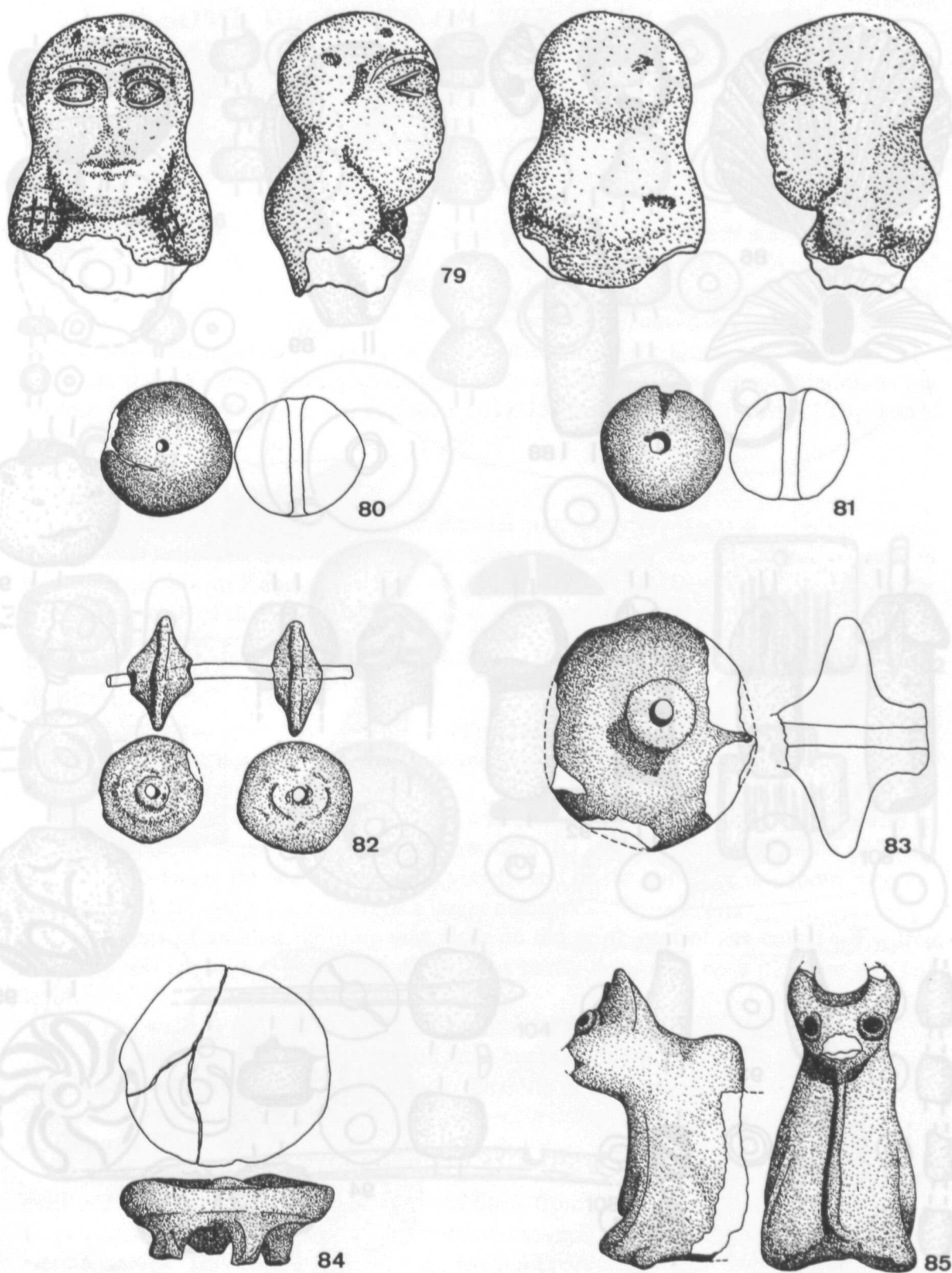


Fig. 23 Baked and unbaked clay objects (scale 1:2, except no. 79: scale 1:1).

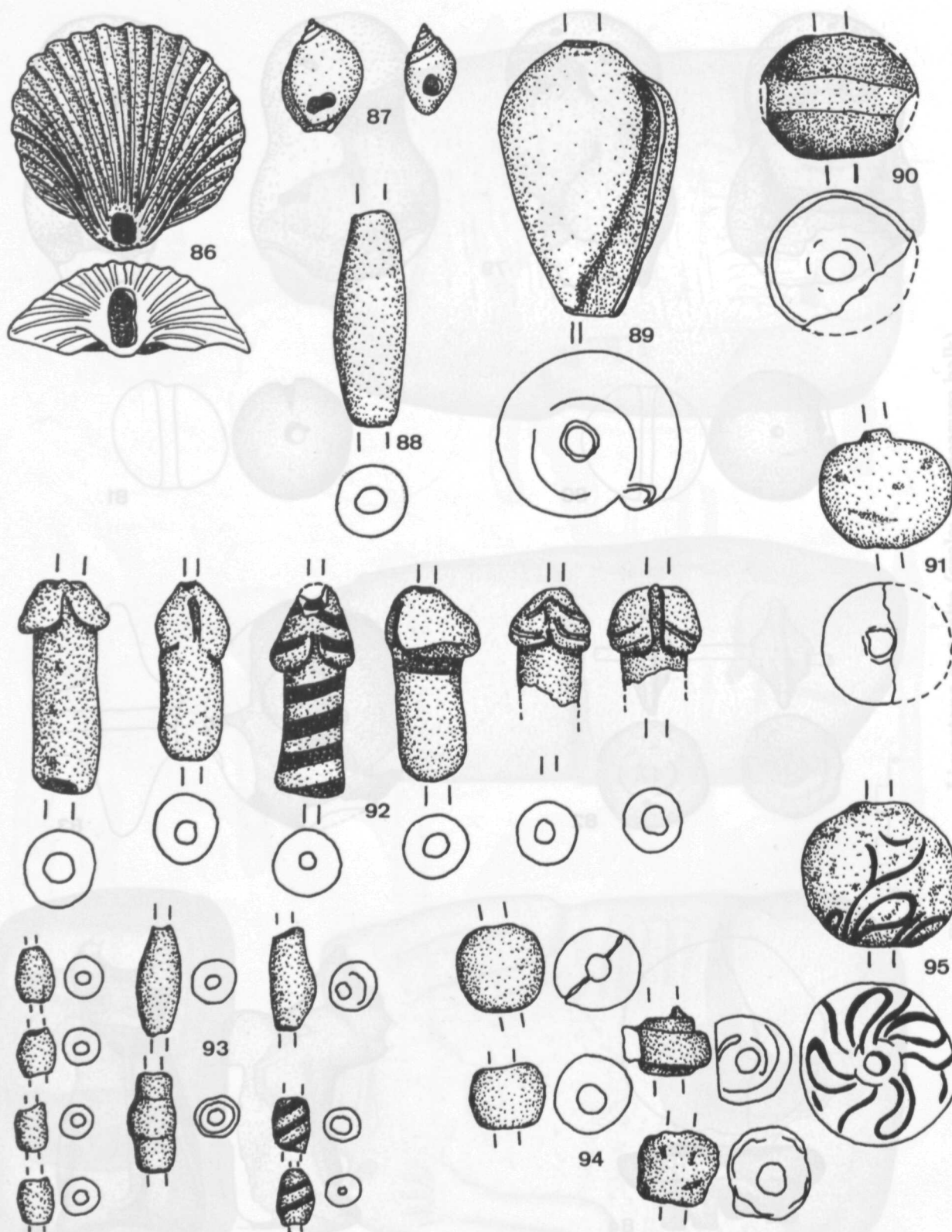


Fig. 24 Faience and shell beads (scale 1:1).

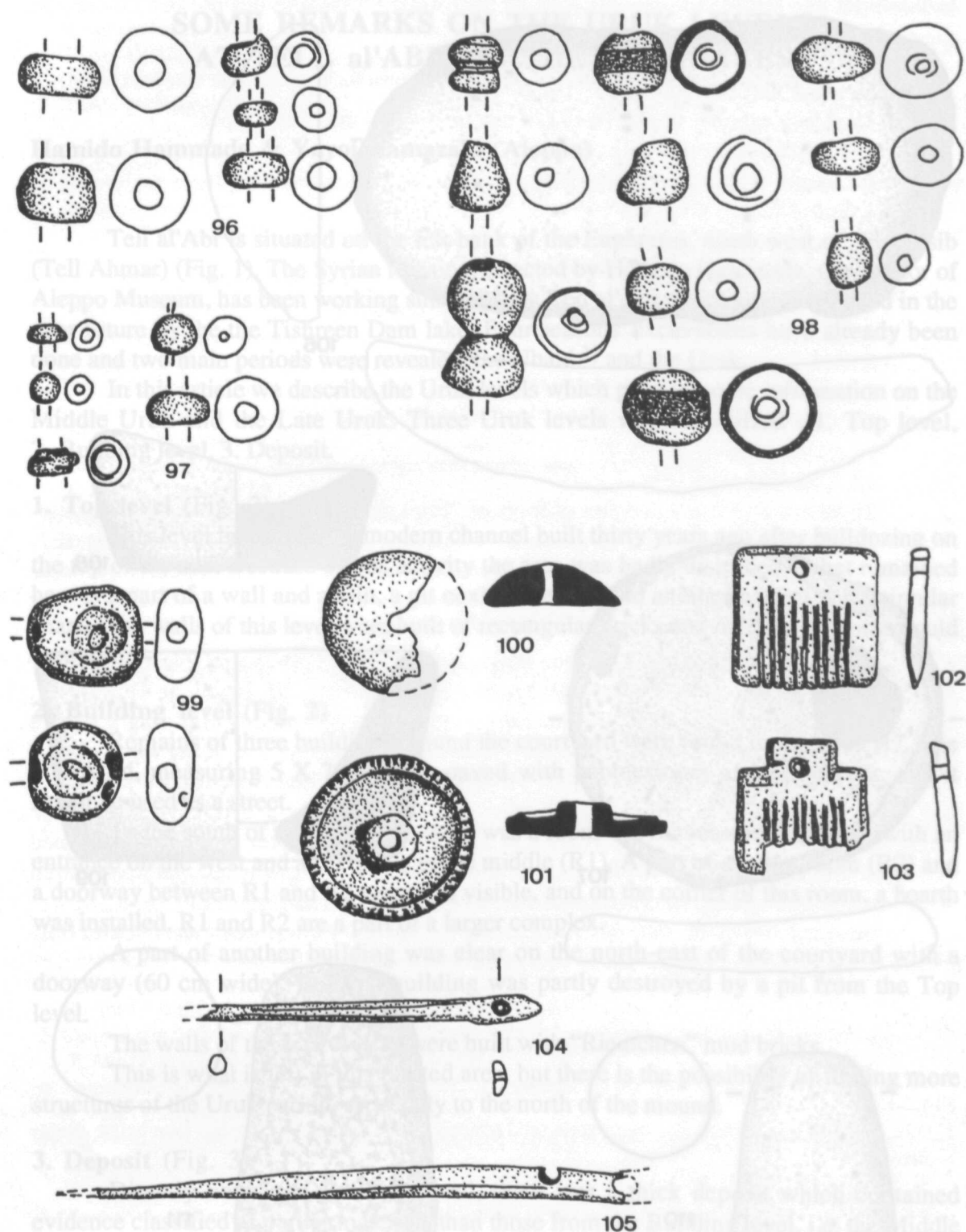


Fig. 25 Faience beads and bone objects (scale 1:1).

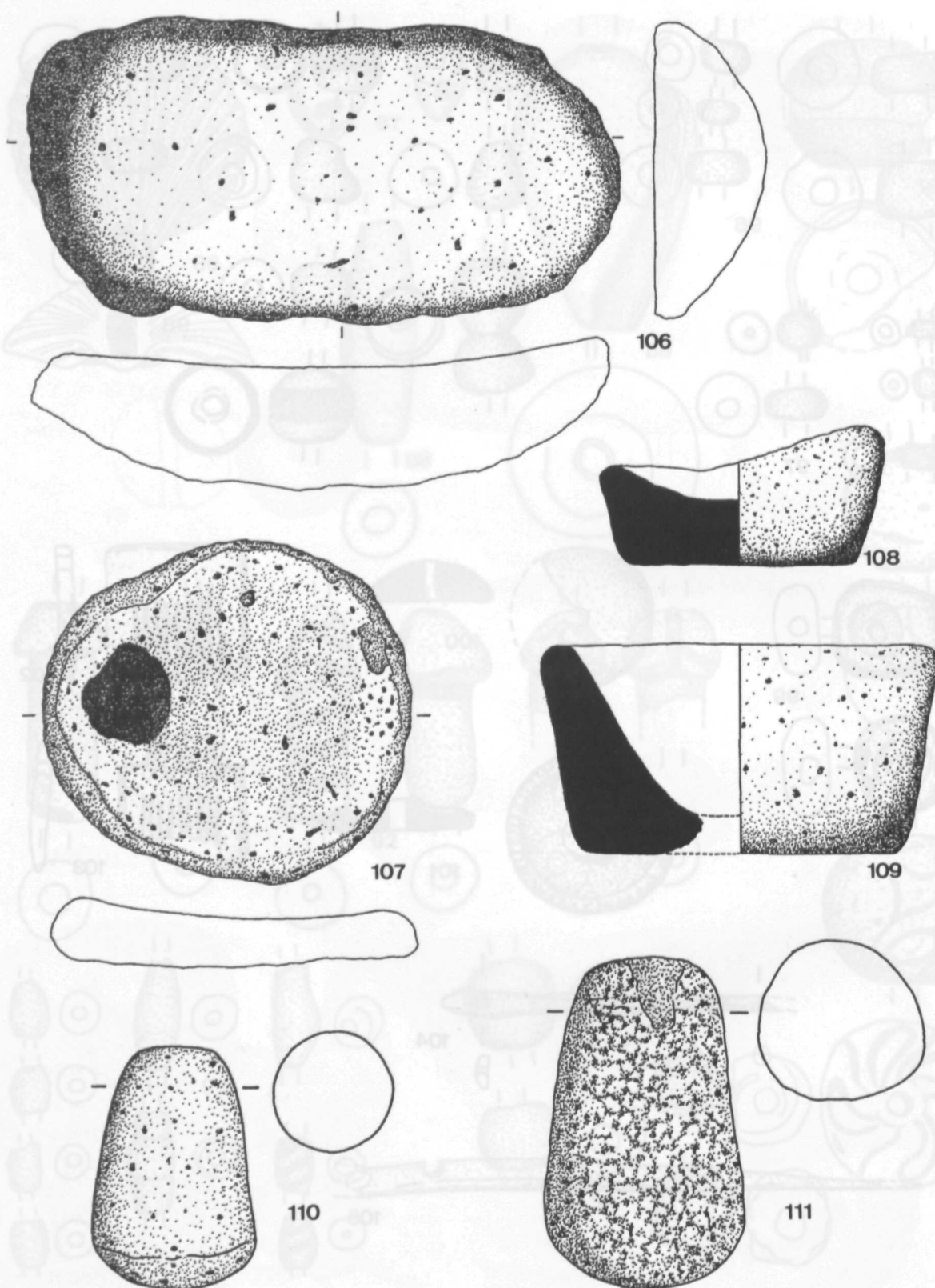


Fig. 26

Grinding slabs, mortars and pestles (scale 1:3, except nos. 110-111: scale 1:2).