

TELL EL-FARKHA (GHAZALA) EXPLORATIONS, 1999

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The 1999 research program from January 29 until March 10, 1999, covered extensive fieldwork on the western kom, trial pits on the central one, geological core drillings and the part of the geophysical survey that remained to be completed.¹⁾ (Fig. 1).

¹⁾ Funds were generously provided by the Poznań Prehistoric Society, the Institute of Archaeology of Jagiellonian University and the Polish Center of Archaeology of Warsaw University. The investigations were headed by Dr. Marek Chłodnicki and Dr. Krzysztof M. Ciałowicz; the team included: Ms Renata Ablamowicz, Ms Grażyna Bąkowska, Mr. Mariusz Jucha, Ms Edyta Mrowiec, Mr. Jacek Kabaciński, Mr. Ryszard Kierkowski, Ms Agnieszka Kołodziejczak, Mr. Piotr Osypiński, archaeologists; Mr. Tomasz Herbich, archaeologist-geophysicist; Mr. Tomasz Zapaśnik, geologist; Mrs. Halina Żarska-Chłodnicka, documentalist; Mr. Krzysztof Cichowski and Ms Joanna Dębowska, students of archaeology. Mr. Ahmed Robia Ahmed, Inspector for Mansura district, represented the Supreme Council of Antiquities.

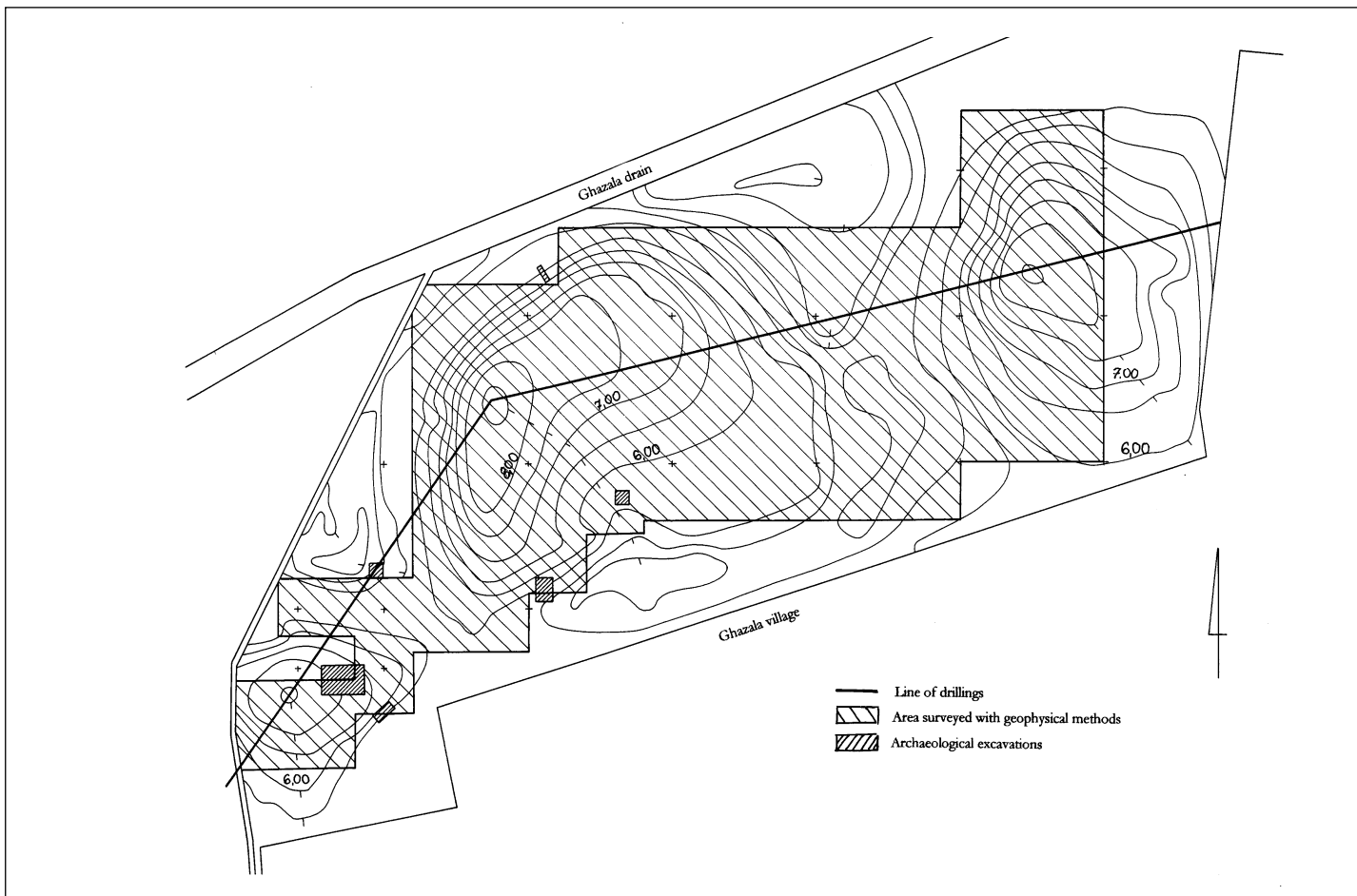


Fig. 1. Situation plan indicating trench position, line of geological drillings and area covered by geophysical prospection
(Drawing H. Źarska-Chłodnicka)

WESTERN KOM

The work on the western kom was concentrated in its center. The trench, which covered an area of 150 m², included the unfinished W02/98 pit dug in the previous season.²⁾ The number of small finds and architectural remains, as well as a complicated stratigraphy extending down over 4 m caused the explorations to be completed only in the eastern part of the trench, while the western part was dug down to a depth of 220 cm, the rest being protected for investigation in the coming season.

In 1999 some increasingly specific chronological determinations were made based foremost on pottery analysis. Five settlement phases are now becoming apparent on the western kom.

Phase 1, the oldest one, is marked by a characteristic pottery horizon and typical settlement patterns attributed to the Lower Egyptian civilization. Next comes a thin layer of a dozen or so centimeters containing fragmentary Lower Egyptian sherds but no settlement remains. It could be proof, although not necessarily, of a period of abandonment on the site. For now, based on currently available material, a short settlement hiatus is suggested.

Phase 2 continues to be characterized by Lower Egyptian pottery, including now some Nagada ware. The settlement structures repeat the same pattern: some may be attributed to the northern civilization sphere and they appear concurrently with mudbrick structures considered as typical of the settlers from the south of the land.

Phase 3 is entirely Nagadan in character, dated by the pottery evidence to Nagada IId2-IIIa1. In the upper layers of this phase the quantity of this pottery

drops gradually, giving way to products typical of Nagada IIIb/IIIc1 (early First Dynasty).

Phase 4 was distinguished on this basis.

The last level, **Phase 5**, isolated in the upper layers on the site yielded chronologically younger pottery, provisionally dating the abandonment of the western kom to the beginnings of the First Dynasty.

PHASE 1

Phase 1 is entirely Lower Egyptian, in terms of both the characteristic settlement structures and the pottery. In the lowermost layers several round and oval pits (Dia. 1.20-2.20 m) – presumably for storage purposes – were discovered to contain insignificant amounts of small potsherds. Beside these there occurred concentrations of small, round, mud-lined pits (Dia. 0.20-0.30 m), sometimes baked red. These are mostly empty of any archaeological material with some single potsherds found sporadically. A few furrows (W. 0.10-0.20 m) were observed to form a rectangular shape; they presumably reflect some kind of structure executed of organic materials.

In the upper layers of this phase the pits gradually disappear, but the furrow structures remain. No oval pits possibly of a dwelling nature, like the ones found last year, were discovered now.

PHASE 2

The second, transitional phase featuring a pottery assemblage with dominant Lower Egyptian material, yielded few architectural structures, most often successive floor levels with barely distinguishable walls.

²⁾ For previous work see *PAM X, Reports 1998* (1999), 63-70.

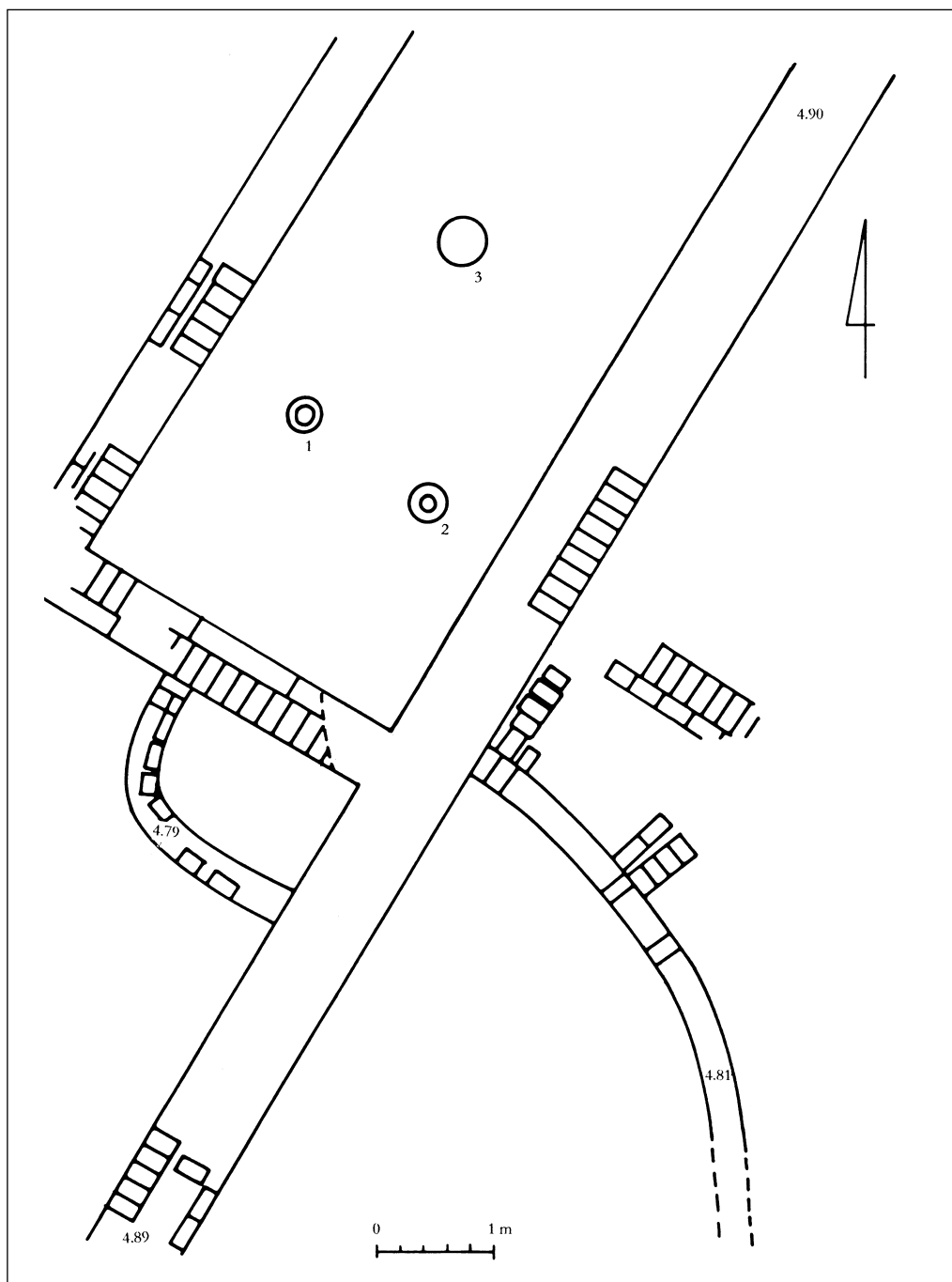


Fig. 2. Western kom. Mudbrick building (Phase 3). 1-3: ceramic vessels
(Drawing J. Dębowska)

The best preserved wall (50 cm thick) was uncovered in one of the lower layers of this phase; it is made of mudbrick and runs on a NE-SW axis for a distance of c. 9.5 m, joining in the north a semicircular structure surrounded by a wide band (0.30-0.40 m wide) of tamped mud. A few layers of tamped mud floors were found inside it, containing many small potsherds. Directly above the southern part of the wall an entirely different structure was discovered; its lower parts have been left for exploration in the coming seasons as a greater part of it is apparently still hidden in the part of the trench left unexplored this year. It is obviously an oval or oblong structure measuring 4 m in length and 1.90 m in width in the explored part. Three post-holes were found outside its perimeter: one to the south, two right next to each other to the east. All around the structure there were bricks arranged regularly enough, of a shape different than elsewhere, namely, resembling a cylinder cut in half, some 20 cm long and 10 cm wide. Similar bricks were also found inside the structure, lying around in irregular groups, horizontally, vertically and at an angle. The nature of this assemblage is more like fallen debris than a floor, as walking over them would have been impossible. The bricks were all made of mud, but for the most part, especially the ones inside and the inside part of those lying outside, they were baked red. Some of the outside bricks are burned black. The fill of the structure reveals clear evidence of fire – the mud has been baked red and is mixed with considerable quantities of charcoal and ash. The provisional conclusion is that the structure, which was sunk into the ground, had walls lined with these specific bricks in the lower parts and was covered, either partly or completely, with a roof supported on posts and composed of organic materials. It seems proba-

ble that similar walls surrounded the structure. The cause of fire is unclear. It is a fact that nowhere else in the explored area have traces of a fire been observed.

PHASE 3

Phase 3 is characterized by the appearance of considerable quantities of Nagadan pottery (Nagada IId2-IIIa1) testifying to the apparent settling of the tradition from the south of the land. The oldest preserved architectural structure is a big rectangular unit some 2.75 m wide and at least 6 m long. The longer walls, which followed a NE-SW line and were made of sand-tempered mudbrick (c. 30 x 15 cm in size), were almost 70 cm thick, the transversal wall reached 0.90 m in thickness. The structure is barely preserved, its place having been taken relatively quickly by the most extensive of the buildings uncovered so far (*Fig. 2*). This building is merely 40 cm above the bricks-and-post structure discussed earlier. A thick wall (80 cm) made of similar sand-tempered bricks runs NE-SW; attached to it on the northwest is a rectangular room 11.70 m long, at least 5.50 m wide, the remaining three walls being 50 cm thick. Successive floors were made of mud that was presumably covered thinly with a kind of lime mortar. Inside the unit, especially in its southern part, the assemblage was quite copious. Two big storage vessels with spiked bottoms were found beside the numerous potsherds; they were inserted in pits lined thickly with mud, while a third was fragmentarily preserved, accompanied by six small vases on the floor (two with fish bones), a flint knife and the flat flange of a big stone vessel. On the south this unit has a structure with rounded corner (1.20 x 1.50 m) surrounded with a low brick wall that was the same as a brick length in thickness. (c. 30 cm). A similar wall surrounded a semicircular

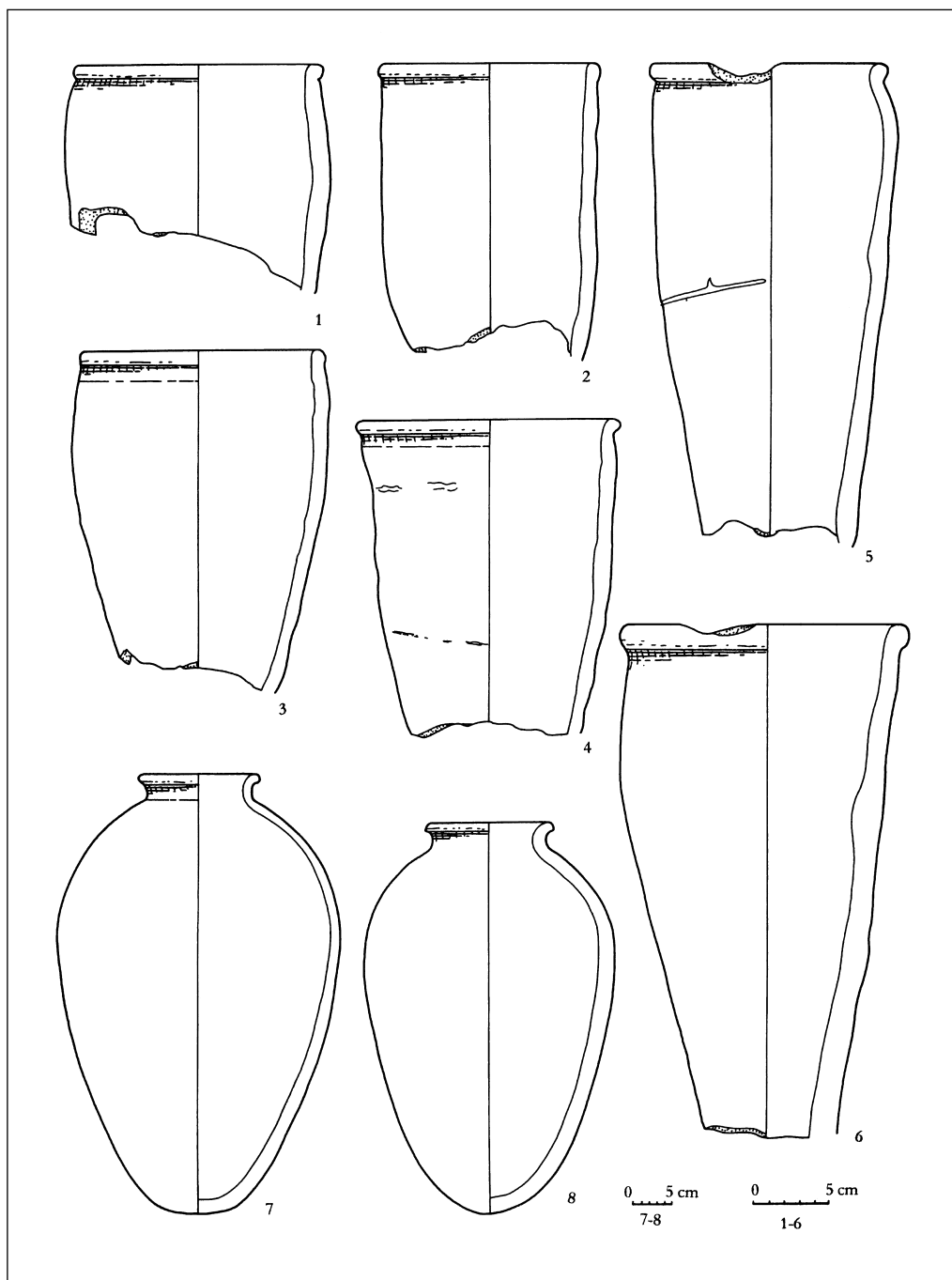


Fig. 3. Western kom. Vessels from the furnaces (nos. 1-6) and storage vessels (nos. 7-8)
(Drawing M. Jucha)

area (c. 4.60 x 4 m) that joined the main wall on the southeast. Groups of bricks lying in different directions in the area to the north of this wall may be evidence of a pavement. The walls of this complex have survived to a height of 40-50 cm; in places the brick courses bonded in some kind of lime mortar are quite well discernible. It is also apparent that the walls were founded on a layer of destruction.

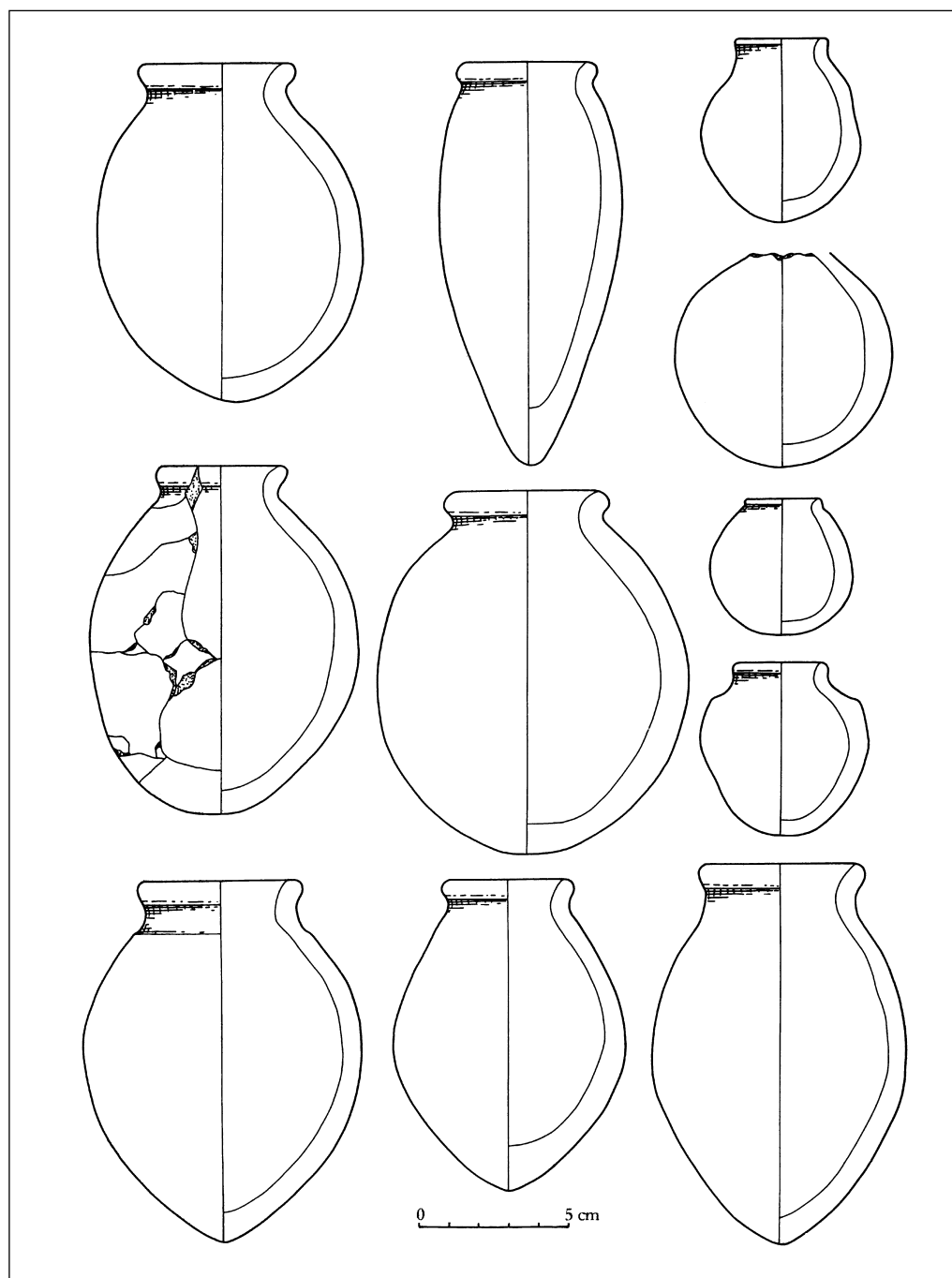
PHASE 4

The fourth occupational phase of the western kom was identified on the basis of changes of the ceramic inventory, the predominant pottery now being Nagada IIIa2-IIIb. The settlement structures of this phase include some that deserve special attention. Coming from the middle period of this phase are two fragments of parallel walls built of clearly discernible yellowish mudbrick (much sand temper) measuring c. 30 x 15 cm. The walls were a brick and a half in thickness and followed a NW-SE pattern (preserved length c. 2.5 m) with no transversal wall in evidence. The surviving height of these walls is 20 cm, the distance separating them 120 cm.

More of the wall, discovered in the last season and identified then as 2A2, was found this time. It turned out to be the outer wall of a big house that was partly uncovered in the previous season. This wall was 0.95 m thick and followed a NE-SW orientation for a distance of 10 m, that is, down the length of the explored section. It was made of mudbrick without any sand temper, very poorly preserved, measuring like the bricks described earlier. East of it, 3.30 m away, there was a thinner wall (c. 45 cm) that was parallel to it and built of similar bricks. Between the two walls ran a partition wall of similar thickness,

forming two rooms that were at least 5 m wide. There were two ovens in the northern of the two units. One of these, which was not fully explored, because it was situated partly in the trench wall, had a vessel standing inside it, the other one, in the southwest corner was little more than an open hearth. In the northwest corner of the southern room there was yet another oven with two vessels standing inside it. In its vicinity there were two round, mud-lined pits (c. 20 cm in diameter). One of these contained some potsherds, all of them less than characteristic unfortunately. West of the thick outer wall and level with the northern unit there were again two big ovens and a hearth. The south oven, which was almost square and had four vessels standing inside it, was described in the report from the previous campaign. The other oven, which was explored this year, was practically square and also had the remains of four vessels standing inside it. In all cases the vessels were missing the bottoms and were placed in mud stands. They all belong to one type, known from Tell Ibrahim Awad, although they are dated there to phase 7, which is contemporary with Nagada IId1.³⁾ Their preserved height ranges from 40 to a dozen or so centimeters, indicating that they had been used over and over again and their bottoms were broken off a few centimeters every time they were emptied. (*Fig. 3*) It was presumably easier to remove their content (dry grain?) in this way without having to take the vessels out from the oven. Confirming this observation is a series of layerets consisting of mixed charcoal, ash, baked mud and regular mud. It should be remembered that the oven in question had been dug into the corner of a brick wall originating from settlement phase 3. A semicircular pit (dia. c. 100 cm) with a single-brick wall (10-15 cm thick) around it abuts the southeastern part of the southern room.

³⁾ E.C.M. van den Brink, Preliminary report on the Excavations at Tell Ibrahim Awad, Seasons 1988-1990, in: E.C.M. van den Brink (ed.), *The Nile Delta in Transition: 4th-3rd Millennium B.C.* (Jerusalem 1992), 54.



*Fig. 4. Western kom. Selection of vessels
(Drawing M. Jucha)*

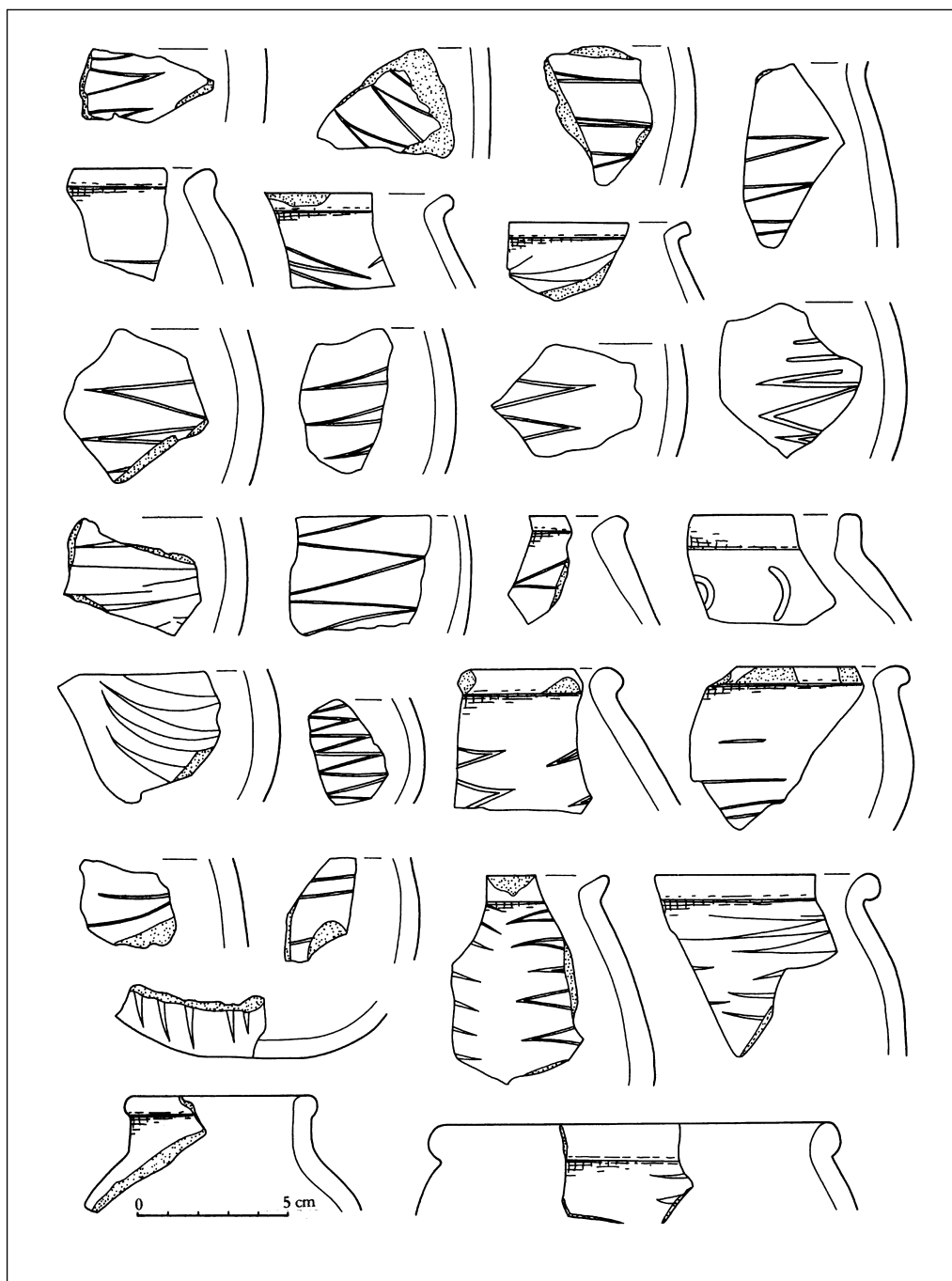


Fig. 5. Central kom. Trench C 16. Pottery of the Lower Egyptian civilization
(Drawing A. Mączyńska)

The described set is among the best preserved in phase 4. The walls were a few dozen centimeters high, the ovens and hearths untouched. Other finds included mud walls and floors from rectangular houses of a size difficult to estimate in view of the poor condition of the finds. Near some of the walls there were mud-lined pits, round or roughly rectangular (with a diameter of up to 30 cm), preserved to a depth of 15 cm, containing potsherds that may have served as stands for big storage vessels.

PHASE 5

The youngest phase of settlement on the site is very poorly preserved. There does not seem to be any clear interval between this and the previous phase, although a thin brownish layer observed overlying some earlier structure containing whole vessels and grinders could perhaps be proof of a short hiatus. As in the previous year, explorations revealed some poorly preserved mud floors, often burnt through, inside mudbrick walls, visible just under the surface, and some remains of ovens. One of these ovens marks a room that was at least 5 m long and of uncertain width, oriented NE-SW, like the earlier structures. The best preserved remains belong to a house with at least two rooms set in a row, each c. 2.5 m wide and at least 5 m long. The longer walls, following a NW-SE course, were three brick-lengths thick (c. 45 cm). A transversal wall was c. 50 cm thick. Remains of a similar wall noted on a slightly higher level were found running crosswise on the south; it may have been part of this household. By the long north wall there was a pit (Dia. c. 40 cm), thickly lined with mud and containing a yellow-colored piece of quern. Traces of round structures (Dia. c. 2.50 m) were also discovered beside the rectangular houses. The floors here were made of silt and were sur-

rounded by a thin layer of tamped mud (c. 10 cm wide). Under the floor there was a red-black fill with clear evidence of fire. Proof of burning was also found outside, while inside there was a big quern stone beside some potsherds. The potsherds were particularly concentrated in the northern part of the structure.

A few other categories of finds, beside the large quantities of pottery (including several whole vessels; cf. *Figs. 4-5*) uncovered in all the discussed phases of settlement, deserve attention. There was a considerable quantity of flint tools, especially frequent in the younger phases. The biggest group is made up of sickle blades, while knives are less numerous. Flint tools occur sporadically in the older phases. The Nagadan layers have also yielded examples of querns and grinders, fragments of stone vessels, a triangular palette, a piece of copper pin – the only metal find made so far, and a fragment of a male figurine modeled in clay (torso preserved).

TRENCH W/97

The 5 x 5 m trial pit was dug on the northern slope of the western kom where it joins the central one. In the south section of the trench the original surface of the site was preserved, in the northern end the upper layers had been destroyed. Five natural layers were identified in a trench dug 2 m down. The first of these was a layer of brown silt with infrequent modern pottery mixed with Old Kingdom wares. The assemblage in the second natural layer made of a dark silt was equally infrequent and mixed. Both are fill deposits resulting from erosion and leveling work in modern times.

Natural layer 3 is the original occupational level of the site. Its top was found c. 2.80-2.90 m down. It features a heavily sandy silt sometimes with white and

bluish-gray gravel and has yielded abundant archaeological material, including pottery, grinder fragments, flint waste. The layer covers natural layer 4 (2.60-2.50 cm) which is constituted by a loamy bluish sand. Infrequent finds (including a vessel) come from the top of this layer. At the bottom of layer 3 two small pits were noted, each c. 20 cm in diameter and 10 cm deep, made of a bluish clay. One of these contained pottery of the Lower Egyptian civilization. The trench bottom was reached at 2.45 m where a virgin layer of yellow *gezirah* sand appeared. Apparently

layers 3 and 4 reflect occupation of a *gezirah* shore zone that was flooded occasionally.

The lowest occupational layer (4) may be linked with Lower Egyptian civilization, while layer 3 yields Lower Egyptian material mixed with Nagada pottery and Old Kingdom vessels. It seems to date to the Nagada-Old Kingdom transitional period and was a dump area within reach of flooding and outside the settlements of the times. As no Old Kingdom material has been found on the western kom, the assemblage discovered here must have originated from the neighboring central kom.

CENTRAL KOM

TRENCH C/16

The 6 x 8 m trench was situated on the south slope of the central kom and constituted an extension of trench C/01 explored in 1998. The upper layers here had been damaged by *sebakh* diggers and farmers removing the sand. An Early Dynastic assemblage was present only in the surface layer of the extended trench. It was found that these layers had largely been disrupted in this part of the site; some remains of a Nagada II accumulation were observed, but there were no walls of any kind and only some hearths. The best preserved layer, linked to the presence of the Lower Egyptian civilization, yielded a few pits and post holes. Also noted were grooves c. 20 cm wide forming rectangular outlines. The ceramic material was abundant, but very fragmentary, consisting mostly of small vases decorated with a zigzag and small irregular bowls. A fragment of a clay seal in similarity to the one from trench C/126 was found here as well.

TRENCH C/49

A trial pit (5 x 5 m) was dug on the southeastern slope of the central kom to verify

the results of geophysical prospection that had revealed a series of lines and a round object featuring strong magnetic properties. Mudbrick walls c. 50 cm thick were found to run immediately under the surface (top at 5.50 m) and the round object turned out to be a hearth with a thick layer of ashes.

Eleven natural layers were distinguished in the trench (*Fig. 6*). The upper three layers, linked with the topmost level of walls, are to be dated to the Nagada III period. The lowest with mudbrick structures (at 4.90 m) are connected with the Nagada II civilization. Cultural layers identified with the Nagada civilization reach a depth of 4.40 m (level 9). No traces of mudbrick walls were observed in the bottom layers connected with this settlement phase. What is noteworthy is a layer of debris up to 20 cm thick composed of baked "bricks" of semicircular section, lying in part of the trench (as in the case of the object in trench W/97).

The lowest two layers with the remains of a round shelter are to be connected with the Lower Egyptian civilization. The shelter is c. 3.5 cm in diameter and inserted

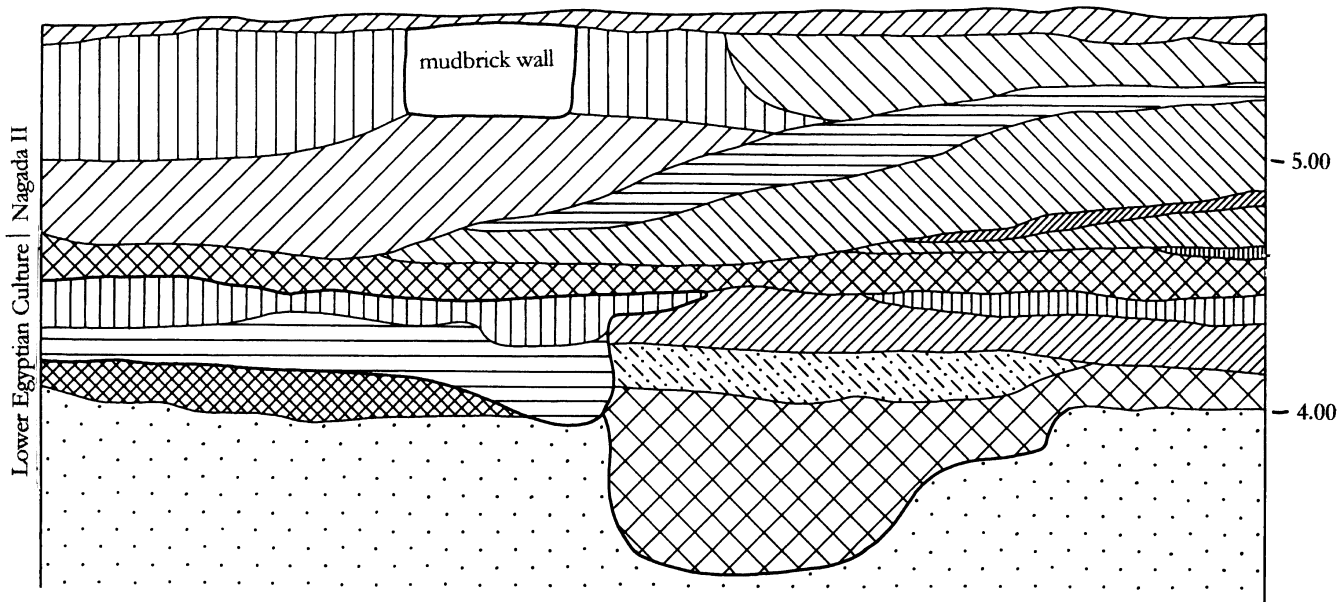


Fig. 6. Central kom. Trench C/49. South trench wall cross-section
(Drawing R. Kirkowski)

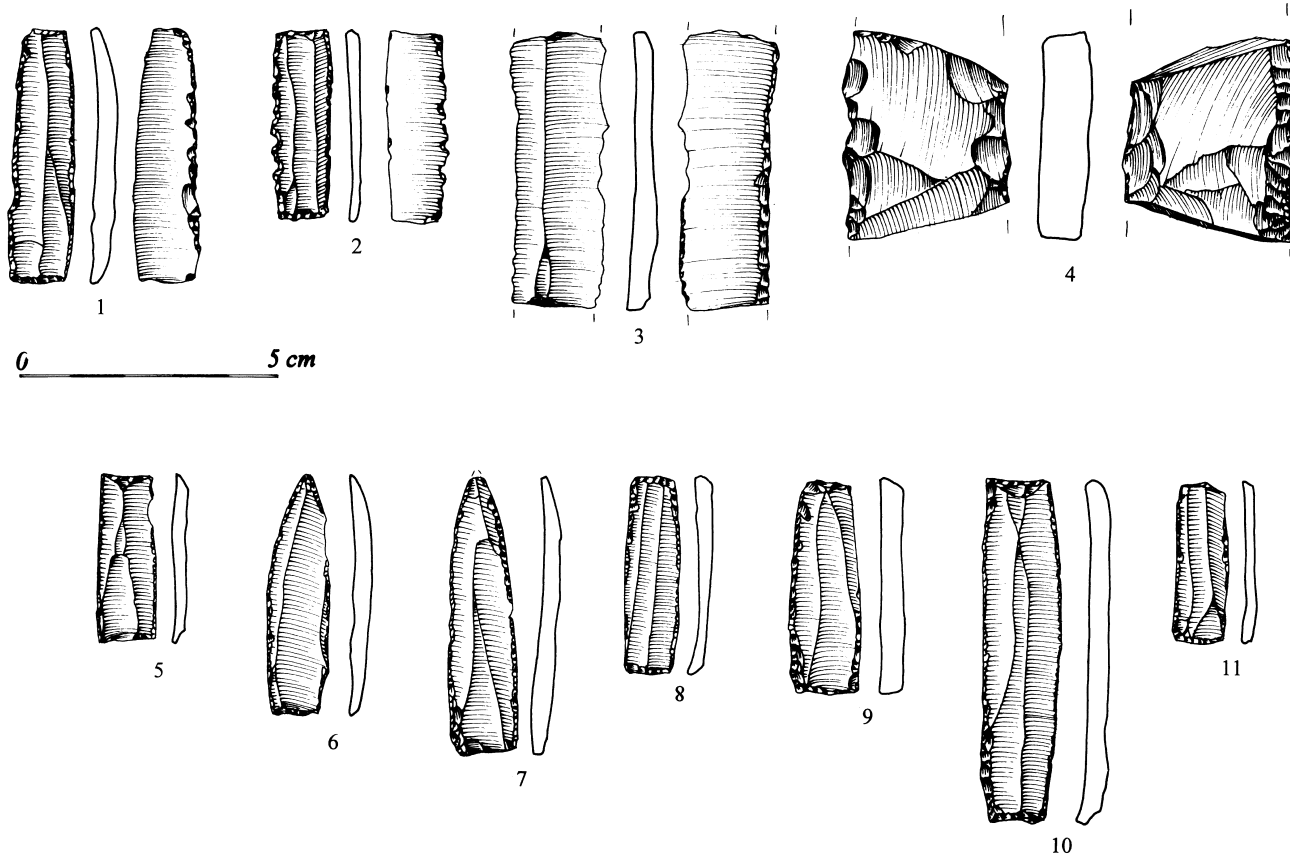


Fig. 7. Central kom. Trench C/49. Flint implements
(Drawing J. Kabaciński)

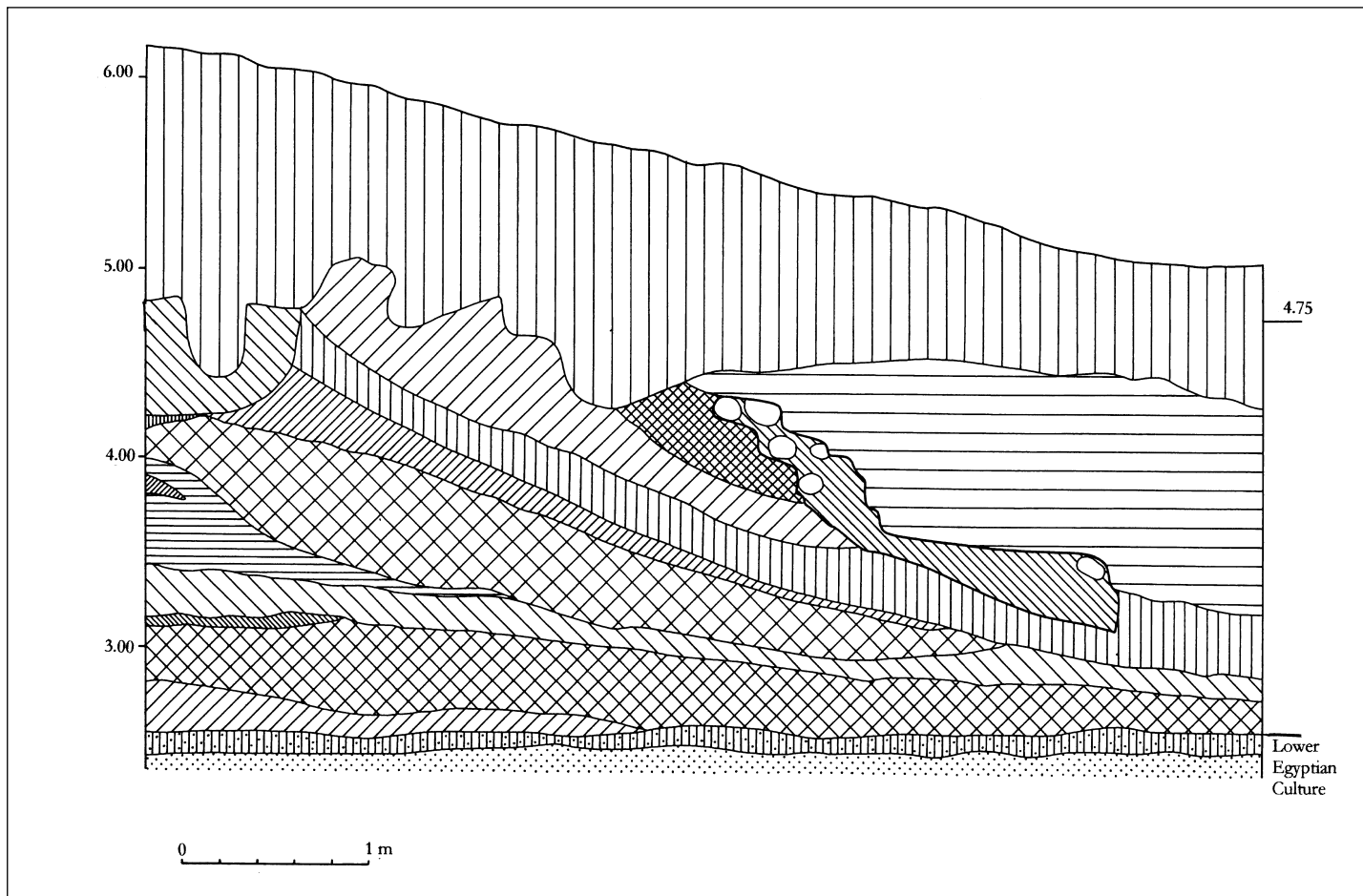


Fig. 8. Central kom. Trench C/126. West trench wall cross-section
(Drawing R. Kirkowski)

some 40-50 cm into the floor; inside it there was a hearth some 70 cm in diameter. A few other smaller archaeological objects were also found in this layer, stratigraphically on two different levels: the upper one the top of which corresponds to the c. 4.40 m level, and the lower one at c. 3.90 m. The bottom of the lowest layer reaches a depth of c. 3.00 m.

The pit yielded an abundant assemblage of ceramics, tools and osteological material (*Fig. 7*).

TRENCH C/126

The 6 x 2 m pit was dug on the northern slope of the central kom. The upper layer (ranging in thickness from 2.5 m in the north to 3.5 m in the south) was composed of debris containing many potsherds, bones, flint tools, dated to the Old Kingdom. The only structure discovered here was a kind of wall or steps made partly of mudbrick and

partly of compact silt (*Fig. 8*), possibly the only remnants of riverbank reinforcements or a landing. Underneath, there are successive anthropogenic layers containing no structures of any kind except for a fill including pottery and bones in abundance, provisionally dated to the Nagada II-Nagada III periods. Lower still, below a thin blue silt layer at 2.45 m, there is an object in the sand that may belong to the Lower Egyptian Culture. Inside it potsherds were found, as well as a clay bead-amulet(?) and a clay disc with an attachment hole, possibly used as a seal, with fingerprints on it.

It seems that the part of the site disclosed in this trench was in the Nagada II times a riverside zone. No dwellings had been erected here, the only remains being a midden that grew and helped to protect the edge of the settlement against flooding, while successively raising the surface above flooding levels.

GEOPHYSICAL RESEARCH

Geophysical research covered 27,000 m², that is, practically all of the site. A fluxgate radiometer was used in a 0.25 x 0.50 m grid. Clear traces of buildings were identified in the youngest, subsurface settlement phases attributed to the Early Dynastic period and the Old Kingdom. They were especially clear in the southern and central parts of the central kom. It was possible to determine the orientation of the structures, which disappear toward the north, presumably due to the thickness of overlying deposits (*Fig. 9*). The explorations have already revealed that ancient structures continue to the south, concealed under the buildings of the modern hamlet of Ghazala.

Drillings were carried out in a line running east-west through the tops of all three koms. The drillings made at 20 m

intervals were 5-6 m deep. Two kinds of Nile deposits were observed. At the bottom there were very fine and fine unsorted sands occasionally with gravel. The surface of these layers shows no significant height differences anywhere in the cross-section. The sandy island was obviously not much exposed regarding the surrounding area in the beginnings of settlement here. (The 1998 drilling results indicate that it was more elevated in a northerly direction). Superimposed on the sands are three main levels of silt, differing in color and sand amount. Anthropogenic remains are abundant here, especially in the bottom parts of the lowermost silt layer (*Fig. 10*). The drillings have confirmed that all three koms are the result of intensive human activity combined with seasonal Nile flooding.

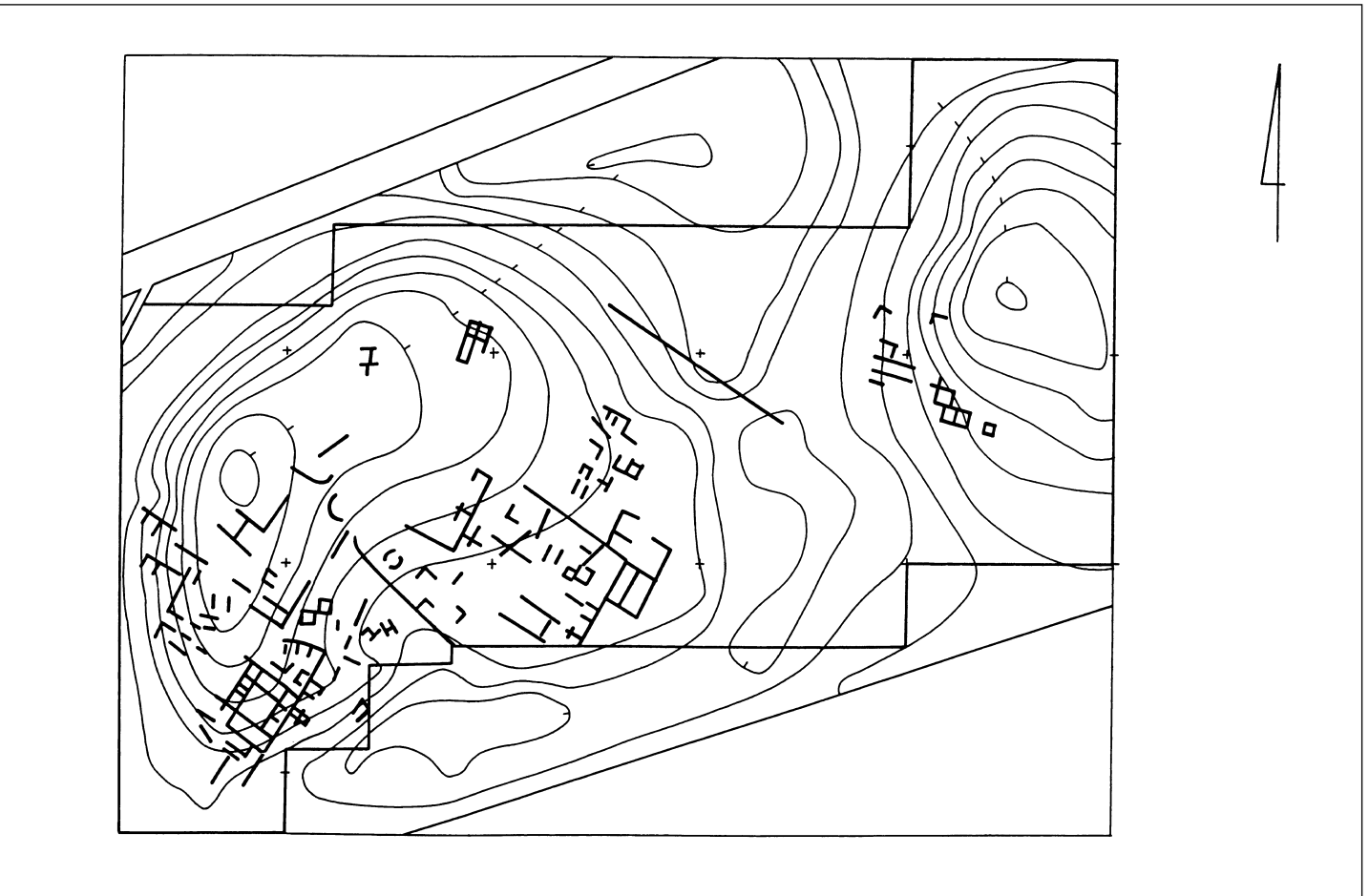


Fig. 9. Mudbrick wall outlines traced on the grounds of results from a geophysical study of the site
(Drawing M. Chłodnicki)

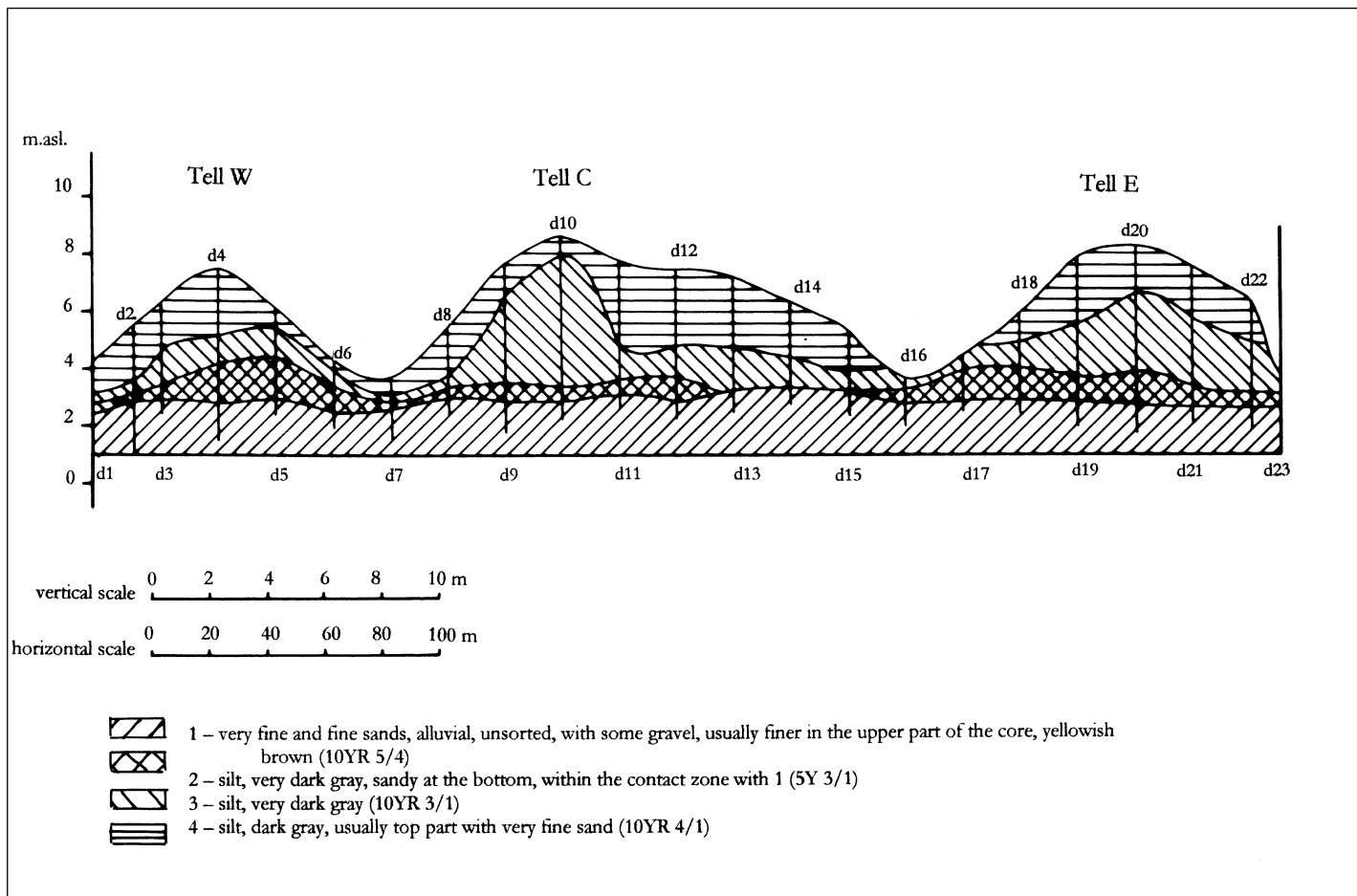


Fig. 10. E-W geological profile through the site
(Drawing J. Kabaciński)

CONCLUSIONS

Investigations in 1999 have confirmed the site stratigraphy and the main occupational phases distinguished so far. The oldest settlement corresponds to the Predynastic Lower Egyptian culture. The site was a rather flat sandy "bar" at the time, being elevated slightly above the surrounding area only in the north end. The inhabitants of this oldest (apparently also the most extensive settlement) left behind evidence of round huts and shelters and storage pits, as well as rectangular, presumably above-ground structures. This settlement phase should be dated concurrently with Nagada IIb, perhaps earlier (3800?-3400) to judge

by the two sherds of rippled ware found in the bottom layers of trenches C/16 and C/49.

The next settlement phase is clearly linked with Nagada civilization settlement, starting with the IId phase in all probability (c. 3300-3200) and lasting through phase III of the culture. The transition from Lower Egyptian to Nagada civilization appears to have taken place without any upheavals.

Only in the northernmost trenches (W/57 and C/126) was there any material that would indicate continued settlement in Old Kingdom times.