The Polish-Egyptian archaeological mission pursued its activities at Saqqara from October 7 until November 22, 2001.¹ Ongoing conservation of relief and paintings inside the funerary chapel of vizier Meref-nebef, discovered in 1997 west of the Djoser pyramid, was the main focus of the present campaign. Restorers also worked on finds from previous campaigns, e.g., the wooden harpoon discovered in 2000. Following a request from Egyptian colleagues, they also undertook the conservation of stone and ceramic vessels from the newly discovered tomb of Qar near the Wenis pyramid.

Specialists continued the recording and study of the various groups of objects found during previous campaigns, including two of the largest: pottery, and anthropological remains (mummies and skeletons).

The excavation program was limited to two areas:

1) the trench extending westwards from the tomb of Meref-nebef and the immediate neighborhood of the vizier’s mastaba to the north and south, and

2) the area located between the enclosure wall of the step pyramid and the mud brick mastaba of Peh-en-Ptah excavated in 1999.

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The Supreme Council of Egyptian Antiquities was represented by Mr. Salah Mohamed El-Assy, Inspector of the Mission. Fieldwork has been dependent on the help and friendly cooperation of the highest authorities of the Supreme Council of Antiquities: Prof. Dr. Gaballa Ali Gaballa, Secretary General, and Prof. Dr. Zahi Hawass, Director of the Giza Plateau and Cairo, whom we would like to thank in particular.

We also gratefully acknowledge the commitment of Mr. Adel Hussein, Director of Saqqara district, and Mr. Samy Al-Husseyni, director in charge of the district, to making the season a success.
Fig. 1. Old Kingdom structures in the western part of the excavation, west of the tomb of Meref-nedef

(Drawing B. Błaszczyk)
WEST SAQQARA
EGYPT

WESTERN SECTOR

Current work on the long transversal trench in the western part of the excavated area (our sectors F1 and the northern part of F), which had been excavated for the past three seasons, was concentrated on removing the various irregularities of trench outline that were caused by the presence of Late Period burials and Old Kingdom structures. The trench now has a regular shape and a constant width of 7 m throughout (Fig. 1). Only in the section immediately north of the vizier’s mud brick mastaba the straight line of the trench has been interrupted by remains of a similar structure extending northwards, almost directly under the present ground surface.

The strata covering the rock surface in the area of the “upper plateau” between the enclosure wall of Meref-nebef and the first cliff ledge west of this tomb are clearly differentiated, this being best evidenced in the southern wall of the trench. The lower stratum, separated from the upper one by a thin horizontal layer of black mud, is 1.16 m thick and contains masses of fragmentary grayish-black mud bricks, as well as large fragments of local tafí blocks, lying in diagonal layers sloping down to the west. In the stratum above, which is 0.65 m thick, there are but smaller fragments of similar material, constituting a compact agglomeration without clear layers.

In the western part of the “upper plateau”, there are multiple remains of a structure made of mud bricks and large-sized irregular blocks (both local tafí and a whiter, stronger kind of limestone). These remains are present in a zone extending 3.10 m eastward of the upper edge of a cliff ledge (the one above the chamber with harpoon). They consist of one layer of mud bricks lying directly on the rock surface, a few stone blocks lying near the cliff edge and in line with it, and a thick compound of mud brick, stone and dakka, 1.60 m (N-S) by 1.40 m (E-W), found at the eastern edge of the structure. These remains, as well as the fragmentary mud bricks observed in the southern trench wall, clearly belong to a destroyed superstructure that had once stood over the rock-hewn chamber containing the harpoon.

West of the above-mentioned cliff ledge, the relation of strata, as seen in the southern trench wall, is different. The lower stratum, containing fragments of mud brick and tafí detritus, slopes westward abruptly and disappears above rock surface, and the upper layer, composed of pure sand, becomes progressively thicker and thicker. Underneath the sand layer, there is a thin stratum of dakka connected with Old Kingdom structures erected here on top of leveled rock. These structures comprise two funerary chapels, the southern parts of which, situated by the northern wall of our transversal trench, are fragmentarily preserved. They were built of predominantly tafí bricks, which are of the same yellow color as the dakka occurring at the same level. A regular depression hewn in the rock surface beside these walls announces further parts of at least two Old Kingdom mastabas, presently located beyond the limits of our trench to the north.

Fig. 2a. Burial no. 207: wooden coffin with carved mask on lid
(Photom. Jawornicki)
Fig. 2b. Burial no. 207: skeleton inside the coffin
(Photo M. Jawornicki)
Both the lower and upper stratum excavated in this sector (F-F1) contained a large number of simple late burials that may date from the times between the Late and Roman periods, most probably, however, from the Ptolemaic Period. The burials unearthed during this campaign comprise 28 skeletons (five of which were in reed “boxes”), nine mummies, and two skeletons without any traces of wrapping in two wooden coffins. Each coffin (nos. 185, 207) had a mask carved in the widest part of the lid (Fig. 2a). An intriguing case is that of a perfectly preserved mummy with a reed basket deposited on top of it (no. 183). Another mummy (no. 211) had the lower part, that is, the wrapped legs, in perfect condition, but the upper part (trunk) torn to pieces - robbers had obviously been searching for amulets inside it. Within the remains of funerary chapel no. 8, two skeletons (nos. 185 and 186) were found lying beside each other, the heads pointing in opposite directions, one to the west and the other to the east.

The most interesting object found in this area (on the “upper plateau”, near the northern trench wall) is a fragment of boundary stela belonging to the king Netjerikhet (S/01/31) (Fig. 3). This fragment connects with another fragment (S/99/15.P), found in the same sector in 1999. Made of white limestone, it bears a relief representing the Horus name of the King, with the figure of a hawk standing on a rectangle containing the sign ntr.\(^3\)

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\(^3\) For this type of stelae, cf. Egyptian Art in the Age of the Pyramids (catalogue of the exhibition), The Metropolitan Museum of Art (New York 1999), 172 (no. 4).
Two other fragments of the same (?) stela were found here in 1999 (S/99/16.P-17.P). Like the numerous fragments of blue-glazed faience tiles, this stela links the excavated area with the pyramid of Netjerikhet.

Clearing the area around the mud brick mastaba of Meref-nebef led to the uncovering of Old Kingdom structures running northward from the northern mud brick wall of the mastaba (Fig. 4). At a distance of 2 m north of this wall, there is a parallel E-W wall built of gray-black "silt mud bricks" alternating with yellowish "tafl bricks", the two varying in size (dark ones 24 x 12 x 6 cm; yellow ones 30 x 14 x 8 cm).
This wall is surprisingly thin in its main course, but it has two broader projections on its southern side. These are certainly not elements of a wall with recesses, but more likely a kind of reinforcement. To judge by their structure, they are a secondary addition. The preserved part of the wall is c. 6.5 m long. If it had indeed bordered a mastaba originally, the mastaba would be larger than any other discovered in this area to date. North of the wall, there are two shafts next to one another; only their southern parts are located within the limits of the present trench. It is plausible that the wall and the two shafts (the top parts of which were explored this year) belong to a single mastaba, to be explored during one of the coming campaigns. The space between the wall and the shafts had been plastered with mud; remains of this surface lie just about 10 cm below a similar coating extending between this wall and that of the mastaba of Meref-nebef. If the wall had belonged to another, as yet unexcavated mastaba to the north, it must have had its function changed when it was connected with the vizier's mastaba by means of a short wall running N-S between the mastaba's northeastern corner and the wall in question.

Although a ghost wall is all that remains of this connecting wall, its existence is indisputable. Its presence seems to indicate that at a certain moment the mastaba of Meref-nebef had been enlarged northwards, most probably when the eastern cult chapel was added to the eastern wall of the mastaba, near its northern corner. Extending this wall would have provided a broader, more monumental "frame" for the new chapel. The construction of the short connecting wall would have incorporated the southern wall of the neighboring mastaba into that of the vizier. This usurpation would explain the difference in structure between the two faces (northern and southern) of the long thin wall between the two mastabas. Its northern face is coated with a layer of mud, as if it were the outer one, while the irregular southern face bears no traces of coating of any kind. This is explainable only if one considers this wall as a part of the vizier's mastaba, at least in the secondary stage.

The area in front of the vizier's eastern chapel has now been cleared. Three subsequent levels of occupation have come to light, the two upper ones marked by a dark mud coating, and the lower one consisting of compact dakka. None of them had a perfectly leveled surface. On the surface of the dakka, there is a 30 cm wide circular spot testifying to the burning of ritual fires in front the eastern wall of the mastaba.

Also cleared in this campaign was the area adjoining the mastaba of Meref-nebef on the south: 3.20 m south of the vizier's structure, the outline of the north wall of another mastaba is well visible. The dark mud coating preserved on its outer face continues horizontally as a kind of "floor" extending toward the vizier's mastaba, and corresponding approximately to the latter's original occupational level. The rectangular "basin" extending N-S between these two mastabas and unearthed already in previous campaigns, lies on a higher level, which is that of the foundation of Meref-nebef's eastern chapel. Made of yellowish "tafl bricks", it is clearly a later addition to the original mastaba. The wall south of the vizier's mastaba should doubtless be connected with Shaft 27. Both were parts of the same mastaba.
Our work in this campaign focused on the eastern part of sector I, i.e., the zone extending between the mastaba of Peh-en-Ptah and the western enclosure wall of the Netjerikhet complex (Fig. 5). This zone is 23 m long (N-S) and 14.8 m wide (E-W). A transversal wall, which constitutes the northern edge of a broad mud brick platform, divides it into two parts. The entire surviving width of the platform has now been unearthed, practically right up to the enclosure of the step pyramid (Fig. 6; cf. also Fig. 7). The platform, built of large-sized (32 x 15 x 11 cm) silt bricks of a dark color, preserves neither the original western edge – it is jagged – nor the eastern one adjoining the enclosure wall façade. Here, the edge of the platform forms what is practically a regular N-S line, running at a distance of 1.10 m from the face of the wall.

Fig. 5. The enclosure wall of the step pyramid and structures of the Old Kingdom and Late periods west of this wall (Drawing B. Błaszczuk)
Fig. 6. Ptolemaic (?) platform and Old Kingdom structures west of the step pyramid’s enclosure wall. View from the east. (Photo M. Jaworowski)
This indicates that the area between the “bastions” and in front of them had later been damaged - apparently intentionally - possibly in order to clear the space for another structure, which has not been preserved. The surviving part of the platform, now cleared, measures: 15 m (E-W) and 11.20 m (N-S). To the south, it disappears under a modern building standing here today. If we associate this structure with a broad N-S wall of reused white limestone blocks (doubtless from Djoser's enclosure), constructed just in front of the eastern chapel of the vizier's tomb, we may indeed presume that the platform extends southwards, but not much more than 2 meters. Whatever the case may be, it will have to remain an open question for now.

The one end of the platform that is well marked is the one on the north. Bordering it is the above-mentioned transversal wall, built of yellowish “tafl bricks” (27 x 15 x 10 cm), and preserved up to its rounded top in the central section (5.60 m long). The upper part of the wall is lost at both the western (excavated in 1999) and eastern (excavated in this season) ends. It was originally somewhat higher in the east (86 cm) than in the west (80 cm). The

Fig. 7. Central part of the enclosure wall around the complex of Netjerikhet (after the 2001 season), to the left the Ptolemaic (?) platform. View from the south (Photo M. Jawornicki)

thickness - 30 cm - corresponds to the length of one brick plus coating, which is very thick (c. 3 cm). The coating is a kind of “tafl mortar” containing multiple inclusions, like small stones, dakka detritus and potsherds. It is worth mentioning that at the eastern end the lower part of the mud brick wall fits into one of the many cavities found in the limestone masonry of the pyramid’s enclosure wall. This speaks in favor of the platform’s relatively late date, when parts of the Djoser enclosure had already disintegrated substantially. There are traces of a white color on some parts of the wall. This indicates that the surface of the wall was originally painted white on both sides. The platform stands on a stratum of pure sand, and, at the moment of discovery, it was covered with a sand layer void of any pottery. In this respect, it contrasts with the sand layer covering the remains of the enclosure wall, where pottery sherds - mainly of New Kingdom date - have been found in quantity.

The unearthed part of the pyramid’s enclosure wall is 21 m long (N-S). Its façade is built of fine white Tura limestone, while its core consists of irregular blocks of yellowish local limestone, the same kind of stone as the one used in the masonry of the pyramid itself (Fig. 7). The enclosure wall stands not on rock, but on a 1.30 m high substructure built of large-sized local limestone blocks varying in shape and size. These blocks are bonded by a particularly solid mortar, which is a mixture of a white substance resembling gypsum (lime?), mud and dakka. The substructure extends 2.67 m beyond the façade of the enclosure wall, and its overall height above the rock surface is c. 1.75 m. A section of the western face of the substructure about 3 m long has been cleared in front of the space extending between the northern and middle “bastions” of the enclosure wall. It reveals some five layers of irregular blocks, set on a thin (c. 5 cm) layer of dakka and a thicker (c. 45 cm) stratum of small stones reaching down to the surface of the rock (with another thin layer of dakka in its thickness) (Fig. 8). This stratum has an orange-brownish color due to the powder-like substance filling the space between the stones. This kind of natural geological formation is frequently found in the desert near Saqqara. It is worth noting that the orange-brownish stratum extends westwards above poor remains (powdered dark gray mud bricks) of a mastaba (see below), which must have existed before the construction of the enclosure wall. Therefore, the earliest mastaba built in this spot chronologically would have preceded the eldest pyramid, that of Netjerikhet.

The uncovered part of the enclosure wall comprises three rectangular “bastions” of analogous shape and size, and the connecting wall in back of them. The northern “bastion”, preserved better than the two other ones (cf. Fig. 7), contains seven courses of white limestone blocks (= 1.7 m in height). The width of the front of each of the “bastions” is 3.14 m, the length of the lateral faces 2.37 m. There are two rectangular vertical recesses, c. 13 cm deep, in each “bastion” face.

The core of the wall, preserved up to a height of 3.20 m above walking level (as measured in front of the girdle wall), begins at a distance of c. 1.80 m behind the inner edge of the white limestone façade. The outer face of the core constitutes the eastern boundary of our excavations.

Significant damages to the substance of the white limestone may be observed on
Fig. 8. Western face of the substructure supporting the enclosure wall of the complex of Netjerikhet. View from the west (Photo M. Jawornicki)
the lower courses of the three “bastions”, the southern and middle ones in particular. Excessive loads have fostered disintegration processes in the stone, which must have shown cracking and loss of surface layers already in antiquity. Missing parts must have been repaired with a strong mortar composed of silt and stone detritus, the same kind of mortar that was used to cover the surface of the mud brick platform. It should be noted that one of the bricks of the platform is inserted into one such cavity.

The space adjoining the platform on the north has been explored down to rock level. There was a mastaba erected directly by the substructure of the enclosure wall. Its main shaft, hewn in the rock, is found at a distance of 0.63 m west of the substructure. The space left between the substructure and the eastern edge of the shaft has provided a comprehensive cross-section that is 2.10 m high, showing strata from the rock bottom to the uppermost walking level in front of the enclosure wall (Fig. 9). Three phases of use are clearly visible, marked by concentrations of dark mud brick, and separated by layers consisting of either the brownish-red desert mixture (mentioned above) or dakka with many fragments of local taf. The brownish-red substance is found directly on the rock surface, and again above the lowest stratum of bricks, while dakka occurs between the middle and upper mud brick concentrations. The middle concentration preserves two limestone blocks that seem to be standing in situ, while the upper concentration contains a flat block lying horizontally. This block doubtless belongs to the last phase of use. It is beside this block, east of it, that a fragmentary limestone jamb with part of a hieroglyphic inscription in two columns was found.5) The style of the hieroglyphs would point to a late phase of the Old Kingdom.

Quantities of Old Kingdom pottery sherds found in the filling of the shaft (no. 51), particularly in its upper part, would confirm this date. The shaft has the following dimensions measured at the top of the part hewn in the rock: 2.04 m (E-W) by 2.07 m (N-S). Its total depth is 9.50 m (Fig. 10). At a depth of 6.60 m, a 1-m thick “collar” was left in the rock and only a small square hole (c. 1.10 m by c. 1.10 m) is hewn through the thickness in the southwestern corner. Directly below the “collar”, the shaft enters a burial chamber hewn in the rock to the east of the shaft. The chamber is 5.20 m long (N-S), 2.98 m wide (E-W) and 1.90 m high. A meter away from its eastern wall there is a rectangular cavity hewn in the floor and lined with white limestone slabs. This “sarcophagus” is 2.45 m long (N-S), 0.94 m wide (E-W) (measured along the outer edge) and 0.8 m deep. Slab thickness varies from 10 to 12 cm. The “sarcophagus” had been covered with a lid made of the same kind of limestone as the slabs, but only in the southern part has it been preserved in many broken pieces. There is no inscription on any of these elements. South of the “sarcophagus” there is a rectangular cavity (0.81 m (N-S) by 0.83 m (E-W); 0.90 m deep) that may have contained the canopic equipment. Scarce remains of human bones were found scattered inside and outside the “sarcophagus”. There are no premises to suggest that the tomb was robbed any later than in the late Old Kingdom.

5) Cf. contribution by K. O. Kuraszkiewicz in this volume.
Fig. 9. Cross-section through strata between Shaft 51 and west face of the substructure of Netjerikhet's enclosure wall:
1 - red sand with small pebbles, 2 - gray mud, deriving from pulverized bricks, 3 - beige-gray tafl with pebbles and limestone fragments, 4 - red sand with large-sized pebbles, 5 - sand with large-sized pebbles and limestone fragments, 6 - beige-gray tafl with pebbles, 7 - powdered limestone with limestone chips and pebbles, 8 - blocks of hard limestone cemented with strong (lime?) mortar, 9 - dark gray mud bricks, complete and fragmentary, 10 - small pieces of tafl, 11 - fragments of tafl with coarse-grained sand, 12 - tafl with compact yellow-beige sand, 13 - mud bricks: complete, fragmentary and pulverized, 14 - large fragments of tafl in a sand layer, 15 - dark gray mud, 16 - loose sand (Drawing K. Kuraszkiewicz)
The superstructure above the shaft is preserved but fragmentarily. A large number of big dark silt bricks (36 x 18 x 12 cm), many of them intact and doubtless coming from this mastaba, was found in the filling of the shaft, particularly in its upper part. Parts of the superstructure must have collapsed into the shaft.

The present investigation also focused on completing the documentation (photographs, drawings, measurements, descriptions) of some of the shafts discovered in previous campaigns, including nos.: 3 (photographs), 28 (photographs), and 3-10 (description and measurements). The following shafts have now been filled with sand coming from our present excavations: nos. 3, 11, 22, 27, 28, 31, 34. Much of the debris dug up during earlier campaigns and dumped south of the excavated area was removed far into the desert.

Fig. 10. Cross-section through the enclosure wall of the Netjerikhet complex and the shaft of the adjoining mastaba (Drawing B. Błaszczyk)