

PRELIMINARY REPORT ON THE LEIDEN EXCAVATIONS AT SAQQARA,  
SEASON 2009: THE TOMBS OF KHAY II AND TATIA

M.J. RAVEN, H.M. HAYS, B.G. ASTON, L. HORÁČKOVÁ, N. WARNER  
AND M. NEILSON

The joint expedition of the Leiden Museum of Antiquities and Leiden University resumed its work south of the causeway of Unas on 21 January 2009 and continued until 2 March. The staff consisted of Dr Maarten J. Raven and Dr Harold M. Hays (joint field directors), Dr Barbara G. Aston (ceramicist), Dr Rob J. Demarée (hieraticist), Dr Ladislava Horáčková (anthropologist), Dr Lyla Pinch-Brock (artist), Dr Nicholas Warner (architect), Drs Willem F.M. Beex (surveyor), Mr Peter Jan Bomhof and Ms Anneke J. de Kemp (photographers), Mr Michael Neilson (conservator), Ms Dorothea Schulz (artist), and Ms Christa Brauers, Ms Amber Hood, Ms Rania Zin el Deen Abed Elazez, Ms Gwen Jennes, Mr Vincent Oeters, and Mr Paul van Pelt (field assistants). Dr Kim Duistermaat, Dr Ilona Regulski and Dipl.-Ing. Claudia Lacher investigated Archaic Period substructures under two tombs.

The fieldwork was carried out in close collaboration with Mr Usama Abdessalam el-Shimy (Director of Saqqara) and was supervised by Mr Galal Moawad Moawad and Mr Malak Shefik Fahmy (SCA inspectors). The expedition is very grateful to Dr Zahi Hawass (Secretary General of the Supreme Council for Antiquities), Mr Magdy el-Ghandur (Chairman of the Department for Foreign Missions), and to the members of the Permanent Committee of the SCA, for permissions, advice, and assistance.

Work was concentrated in and around the tombs of Ptahemwia and Meryneith, who were both contemporaries of King Akhenaten. Study and recording was undertaken of the reliefs, pottery, and skeletal material found during the 2007-2008 seasons. Further consolidation of mudbrick structures and reinstatement of blocks was done. Additionally, the expedition widened pathways in areas of its previous excavations in order to prepare the site for tourist access. The expedition also conducted brief investigations under the tombs of Maya and Meryneith, where Archaic Period tombs were once located; the results of this work are presented under separate authorship in the same volume of this journal.

*Area between the tombs of Meryneith, Iniuiia, Pay, and the forecourt of Horemheb*

One of the principal objectives of the season was to complete our knowledge of the necropolis area thus far excavated, by excavating the pocket between the tombs of Meryneith, Iniuiia, Pay, and the forecourt of Horemheb (see Fig. 1). The pocket was about 140 m<sup>2</sup>, through about 2.5 vertical meters of material down to an Old Kingdom mud plaster flooring. The flooring was about 20 cm below the level of Horemheb's forecourt.

Although small in surface area, there was a high density of New Kingdom and Late shafts: eight in total (2009/1, 2009/4, 2009/4b, 2009/5, 2009/7, 2009/13, 2009/16, and 2009/17). Due

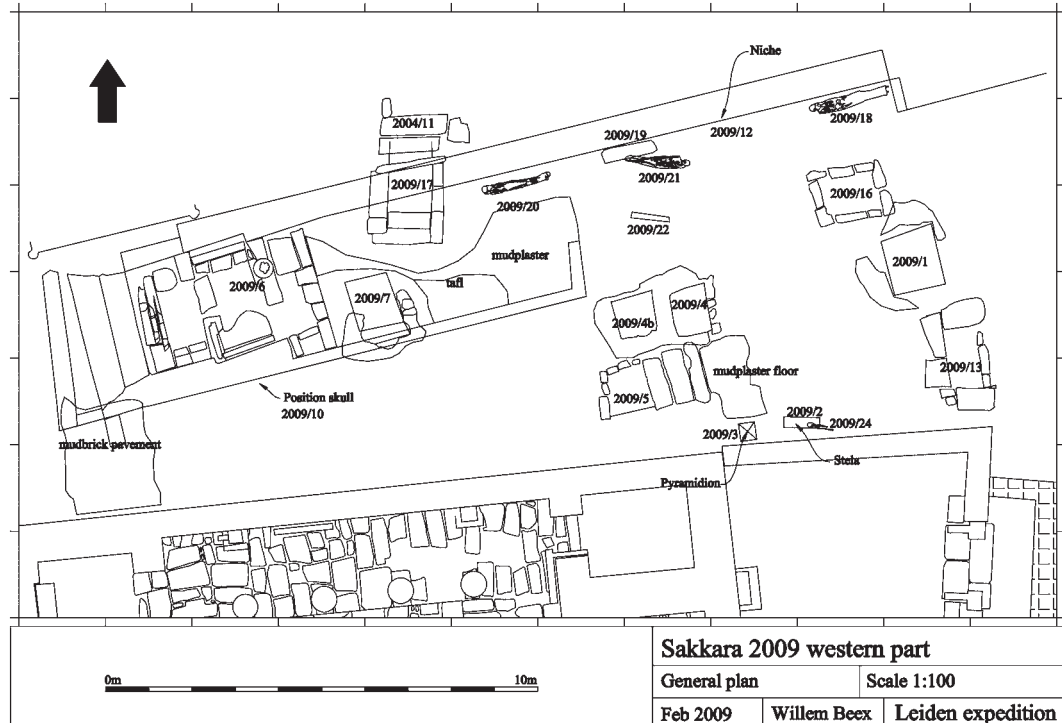


Fig. 1. Area between the tombs of Meryneith, Iniua, Pay, and the forecourt of Horemheb.

to their proximity to one another, the shafts at the eastern end of the area were deemed unsafe to clear. A number of subsidiary burials were found in the area, usually interred at about the same depth as Horemheb's forecourt floor: 2009/18, 2009/19, 2009/20, 2009/21, 2009/22, and 2009/24. One of these (2009/24) was directly beneath a free-standing, *in situ* stela, SAK 2009-R34 (2009/2) (Fig. 2). Although of fine quality carving, this New Kingdom monument depicting the deceased alternately before Ptah and Osiris was found heavily weathered on top, rendering the complete reading of the owner's name impossible.

#### *Clearance of the New Kingdom Chapel of Khay II*<sup>1</sup>

One of the shafts in the area (2009/17) had been previously encountered, as it is bisected by the south wall of the forecourt of Horemheb.<sup>2</sup> Because it is bisected by the wall, the shaft, as originally constructed, must predate the forecourt. In fact, it seems clear that the shaft was adopted for use by the owner of the chapel 2009/6, whose name is Khay. His tomb consists

<sup>1</sup> We use the designation 'Khay II' in order to distinguish the present individual from the similarly named person who has a tomb-chapel to the north of Horemheb; see G.T. Martin, *et al.*, *The Tombs of Three Memphite Officials: Ramose, Khay, and Pabes* (London, 2001), 10-17.

<sup>2</sup> Its former designation was 2004/11; see M.J. Raven, *et al.*, Preliminary Report on the Leiden Excavations at Saqqara, Season 2004: The Tomb of Horemheb, *JEOL* 38 (2003-2004), 29 n. 8 and 30, where it was thought to date to the Late Period.



Fig. 2. Stele SAK 2009-R34.

of a mudbrick forecourt, an antechapel with rear sanctuary, and a pyramid, with a total length of 12.5 m and a width of 3.25 m. The tomb's pyramid and a pyramidion bearing his name had been discovered already in 1993,<sup>3</sup> but the chapel had not until now been cleared. The chapel (Fig. 3) was built after the tomb of Horemheb, since its north wall is engaged with the latter,

<sup>3</sup> See H.D. Schneider, G.T. Martin, *et al.*, The Tomb of Iniua: Preliminary Report on the Saqqara Excavations, 1993, *JEA* 79 (1993), 3 Fig. 1, 8, and pl. III.2.



Fig. 3. Chapel of Khay (2009/6), looking west.

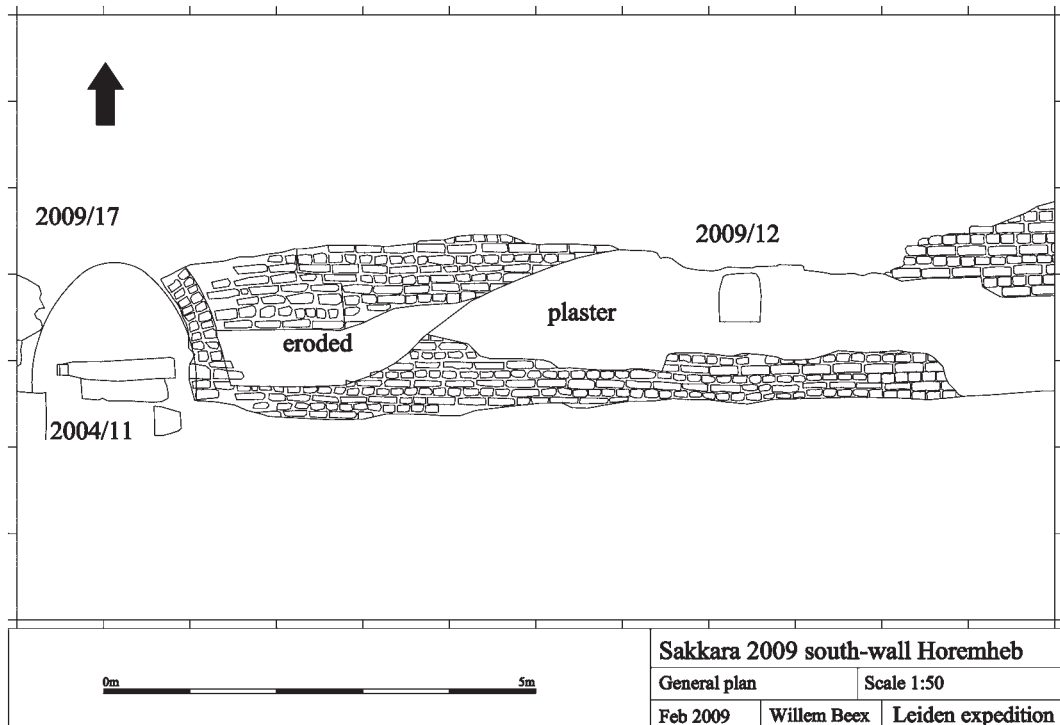


Fig. 4. Elevation of Horemheb Forecourt South Wall.

and since its own court omits a north wall entirely. Indeed, the chapel stands about 1 meter above the floor level of Horemheb, and thus it seems significantly later in date. Further, it is evident that Khay adapted the older shaft 2009/17 for his own use. To facilitate access to it, he evidently rebuilt a section of Horemheb's wall to include a parabolic arch over the older shaft (Fig. 4). Its clearance was deferred to next season.

Some of the chapel's decorated limestone revetments were found *in situ*, including a jamb identifying the tomb owner as one of the priests responsible for bearing the front part of the shouldered bark of Ptah, [w'b] n(i) ḥ3.t n(i) Pth (Fig. 5). The hieroglyphs and figures were roughly carved and painted in yellow. Additionally, a fine quality relief slab depicting offering bearers in blue and red paint, SAK 2009-R19 (Fig. 6) was found face down in the tomb's chapel, doubtless from a nearby Dynasty 18 tomb. This relief slab and those from the chapel of Khay were cleaned by SCA conservator Yussef Ham-mady. The reliefs of Khay were encased in mudbrick and left *in situ*.



Fig. 5. South jamb of chapel of Khay, looking west.

#### *Clearance of the Late Period burial complex 2002/16, south of the tomb of Meryneith*

Another principal objective of the season was to locate the above-ground aperture to the shaft 2002/16 (Fig. 7). The Late burial apartments to which the shaft belongs were already discovered and mapped during the 2002 season via a breakthrough to the subterranean complex under the tomb of Meryneith, but they had not been completely cleared. Moreover, it was desired to re-examine the complex under Meryneith in the context of its Archaic Period architecture.

The burial apartment of 2002/16 consists of a single chamber with six mummy niches. It was cleared of debris, ceramic fragments (largely Late), and numerous disturbed bones in the present season. It yielded no intact burials, but there was a high concentration of faience amulets: a total of nineteen in the forms of Thoth, Anubis, Isis, Shu, Taweret, *wedjat* eye, papyrus column, and pataekos.

#### *Discovery of New Kingdom Chapel of Tatia*

In the process of searching for the above-ground aperture of shaft 2002/16, the modest Ramesside tomb of one Tatia was discovered, consisting of shaft (2009/23) and chapel (2009/8) (Fig. 8). The chapel is constructed of inscribed limestone, with the lower courses *in situ* and measuring about 50 cm in height. They are capped in the east by jambs measuring



Fig. 6. Slab SAK 2009-R19.

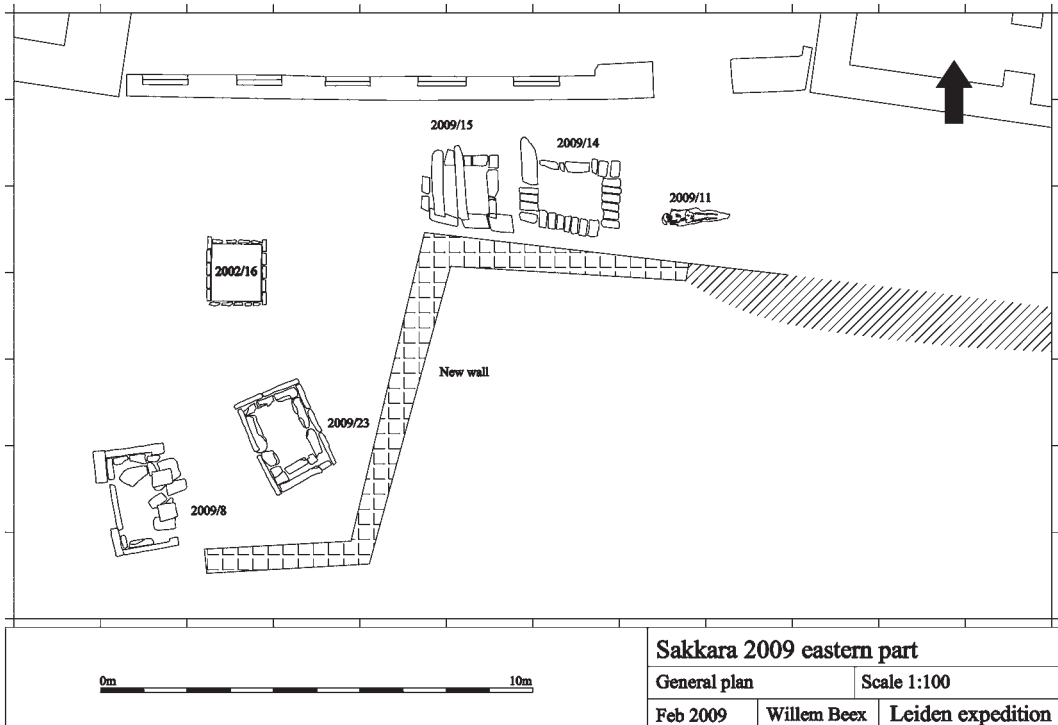


Fig. 7. Area south of the tomb of Meryneith.



Fig. 8. Chapel of Tatia 2009/8 and shaft 2009/23.

another 50 cm in height. The chapel measures some 2.4 m in width and 1.6 m in length. A large limestone stele, SAK 2009-R8 (Fig. 9), was found in close proximity to the chapel and virtually intact, but for a couple of fragments found in the vicinity of the tomb of Meryneith in 2002. The inscriptions are of good quality, though imperfections in the limestone were liberally corrected with gypsum plaster, now often fallen away. Ample traces of blue and red pigment occur both on the stele and the chapel walls.

Like Khay II, Tatia was a front-man for the bark of Ptah. Additionally, he was chief of goldsmiths, with access to image workshops — thus of similar station to the well-known Amenemone, whose Tutankhamun-era tomb was in the vicinity of the Teti pyramid. The composition of the stelae of the two chief goldsmiths is very similar,<sup>4</sup> including a top register depicting the deceased alternately before the gods Osiris and Re-Harakhti. In the case of Re-Harakhti, Tatia's is different in that he is shown slaughtering an oryx (Fig. 10). The south interior wall of the chapel shows a scene with singers, flutist, and harper and most of an accompanying text in 16 vertical lines which may be termed an 'orchestra song' (Fig. 11). The lines are short, and unfortunately the first few hieroglyphs of all but the last three are missing. Because of the text's largely religious character, one would be inclined to term it a 'Harper's Song',<sup>5</sup> but it lacks the classificatory criteria by which it might have been entered officially into

<sup>4</sup> See B.G. Ockinga, *Amenemone the Chief Goldsmith. A New Kingdom Tomb in the Teti Cemetery of Saqqara*, *ACE* 22 (Oxford, 2004), 37-44 and pl. 5.

<sup>5</sup> Rather than an orchestra song, which typically bears *carpe diem* type statements; on such songs, see M. Lichtheim, *The Songs of the Harpers*, *JNES* 4 (1945), 181-185.



Fig. 9. Stele of Tatia, SAK 2009-R8.



the ranks thereof — there is no explicit paratextual designation as a song specifically sung by a harpist or musician, and the harpist is not alone.<sup>6</sup> Among other things, its text announces, *You will be at rest !!! Yours is the beautiful West after 110 years upon earth !!! May you [go forth] as a Ba and see the disk, breathe [air] !!! sunlight, and your nose smell !!!*.

Reliefs from the chapel of Tatia and the stele SAK 2009-R8 were consolidated with Primal by SCA conservators Hatem Gamil Mahmoud and Yussef Hammady, under the supervision of Mustafa Ahmed Ahmed. The stele and the south door jamb (SAK 2009-R37) were stored in the tomb of Meryneith, pending reinstatement next season, and the chapel was covered in cloth and plastic, bricked in, and filled with sand, pending a deliberate consolidation next season.



Fig. 10. Tatia slaughtering an ox.

#### Documentation

1. Drawings of the *in situ* reliefs in the tomb of Ptahemwia from previous seasons were collated and corrected for publication.
2. All reliefs found during the present season were traced and drawn.
3. All reliefs and objects discovered this season were photographed.
4. Over 200 pots from previous excavation seasons were drawn.

#### New information on the tomb of Pay and Raia (M.J. Raven)

The main section of the New Kingdom necropolis investigated during the present season was the area enclosed by the tombs of Iniuia, Pay, and Meryneith and by the forecourt of Horemheb's tomb. One of the incentives for the selection of this area was the expectation to

<sup>6</sup> See Lichtheim, *op. cit.*, 181: harpers' songs are 'those songs which are recorded with the figure of a single harpist or attributed to a harpist by means of an introductory phrase'. On harpers' songs, see further the bibliography at J. Osing, *Das Grab des Nefersecheru in Zawyet Sultan* (Mainz am Rhein, 1992), 67 n. 168; and add L. Manniche, *Music and Musicians in Ancient Egypt* (London, 1991), 97-107; J. Osing, *Aspects de la culture pharaonique* (Paris, 1992), 11-24; M. El-Noubi, A Harper's Song from the Tomb of Roma-Roy at Thebes (TT 283), *SAK* 25 (1998), 251-255; P.A. Bochi, Gender and Genre in Ancient Egyptian Poetry: the Rhetoric of Performance in the Harpers' Songs, *JARCE* 35 (1998), 89-95; R.J. Finnestad, Enjoying the Pleasures of Sensation: Reflections on a Significant Feature of Egyptian Religion, in: E. Teeter and J.A. Larson (eds.), *Gold of Praise. Studies on Ancient Egypt in Honor of Edward F. Wente*, *SAOC* 58 (Chicago, 1999), 111-119; A.M. Gnirs, Der Tod des Selbst. Die Wandlung der Jenseitsvorstellungen in der Ramessidenzeit, in: H. Guksch, *et al.* (eds.), *Grab und Totenkult im Alten Ägypten* (Munich, 2003), 185-187; and L. Vanbina, Die Blindheit der Harfner, *GM* 223 (2009), 89-95.



Fig. 11. Flutist and harpist in orchestra, chapel of Tatia.

find additional information on all four adjacent monuments, in the shape of architectural features, loose relief blocks and inscriptions, and stray objects. Although the results of the excavation have not proved to be equally informative on all four neighbours, they have indeed produced some interesting new data on the tomb of Pay and his son Raia which adjoins the area in the south. Since this tomb has already been published in 2005,<sup>7</sup> the following notes are here given as an addendum.

The first day of the actual excavations produced a large fragment from the left-hand edge of a limestone stele inscribed for Pay (find SAK 2009-R1, Fig. 12). The fragment is 50 cm high, 54 cm wide, and 19 cm thick and still shows part of eight framed lines of incised hieroglyphs. It was found about 1 m north of the exterior north wall of Raia's forecourt, about 2 m west of the north-east corner, and 1.5 m above Pay's pavement level. It can immediately be recognised as belonging to a well-known stele of Pay, seven fragments of which were found before in and around the tomb whereas another part has been in the Metropolitan Museum of Art since 1904.<sup>8</sup> This is a round-topped stele with a lunette showing a double adoration scene of Pay in front of Re-Harakhte and (probably) Atum, and surmounting a text in twenty-one framed lines. The new fragment can be seen to form the end of lines 8-15 and thereby fills a substantial gap. The text runs as follows:<sup>9</sup>

<sup>7</sup> M.J. Raven, *et al.*, *The Tomb of Pay and Raia at Saqqara* (Leiden/London, 2005).

<sup>8</sup> *Ibid.*, 42-45 no. [70] with frontispiece and pls. 72-75.

<sup>9</sup> Those parts extant on the other fragments or inferred from parallels have been added between square brackets. The translation is partly based on previous work by J. van Dijk.



Fig. 12. Fragment from stele of Pay, SAK 2009-R1.

(8) [... *The true King's scribe whom he loves, overseer of the King's private apartments of the King's wife, overseer of the King's private apartments of Memphis, overseer of the King's private apartments of Gereg-waset, overseer of the young females of the lord of the Two Lands, overseer of cattle of Amun-Re, overseer of ... in*] Upper and Lower Egypt<sup>10</sup> [... *Pay, justified, he says: (9) 'Hail to you, when you rise in the horizon as Re who is satisfied with the cosmic order. When you cross the sky, all faces are looking up at you, even though your movements remain*] hidden from their sight. When you show yourself in the mor[n]ing every day, steady is (10) the course under Your Majesty. Your rays are in our faces, but one does not understand them. Even fine gold is not like your splendour, O hidden one, who created yourself] while you were still alone. Your primaeval form was Nun, for his movements equal (11) [your movements, without allowing himself to tarry, just like Your Majesty. Short is the

<sup>10</sup> This seems to be a new title not attested before for Pay; cf. Raven, *Pay and Raia*, 2.

day but far the journey:] millions and hundreds of thousands [of miles.] When you set, you complete the hours,'<sup>11</sup> so says the hereditary prince of the stations of the festival court,<sup>12</sup> (12) [first] friend [among the courtiers, master of secrets of the King's house, chief of the mag-nates of the palace, mouthpiece of the King, balance of the lord of the Two Lands,] praised one [of] the resident of the palace, unique one of the King, about whose counsel one is pleased, (13) [upon hearing whose words one] rejoices, [who does what is beneficial to the lord of the Two Lands, to whom one tells what is in his heart because of the greatness of his excellence in the King's heart, the royal scribe, overseer of the King's private apartments,] Pay, justified, he says: 'I am one praised by his lord, [whose ka] the sovereign created, (14) [for he knew my virtues and had been acquainted with my character, being convinced of my skill as an excellent man who does not fail, perfect of] mouth, excellent of lips, of penetrating knowledge ... (15) [traces]...

Thus, the new text allows us to correct the reconstruction of the inscription as published before. Unfortunately, the new title in line 8 remains unclear. The hymn of lines 9-11 has several parallels and could therefore already be reconstructed with a fair degree of accuracy before the find of the present fragment, although the last clause is more abridged than expected. The ends of lines 12 and 13 just contain more self-laudatory phrases that do not really add to our knowledge.

The most interesting element of this text fragment is constituted by the title at the end of line 11, which has not been attested for Pay before. The title is known from the Middle Kingdom, but was left untranslated by the *Wörterbuch*.<sup>13</sup> However, the general context is suggested by the triple sign, which is well known from representations of the *sed* festival and seems to depict the characteristic podia or bases of the court where the king ran his ritual course.<sup>14</sup> As Helck has shown, the obsolete Middle Kingdom title was then reinstated on the occasion of the first jubilee of Amenhotep III, when it was borne by four high officials involved in the festivities.<sup>15</sup> This would suggest that Pay, too, may have been involved in this king's *sed* festivals, which in that case would be the earliest datable attestation of his activities. Since one of his other titles rather indicates a connection with the reign of Tutankhamun,<sup>16</sup> a date corroborated by an analysis of the style of the wall-decorations,<sup>17</sup> this stele fragment sheds an unexpected light on the length of Pay's career.

Another fragment originally from the tomb of Pay was found to the south of the tomb of Meryneith, halfway down the Late Period shaft 2002/16 which was excavated during the present season. This is the torso of a mummiform shabti of greenish blue faience, inlaid with exquisite yellow hieroglyphs (find SAK 2009-24, Fig. 13). This rare technique immediately

<sup>11</sup> This passage is slightly abridged and should be read *hṭp.k ḳm.n.k wnwṭ grg m mitt* 'when you set, you complete the hours of the night in the same manner'.

<sup>12</sup> For this title, see the comments below.

<sup>13</sup> A. Erman and H. Grapow, *Wörterbuch der ägyptischen Sprache* (Berlin, 1926-1963), II, 416.1.

<sup>14</sup> Cf. H. Kees, *Der Opfertanz des ägyptischen Königs* (Leipzig, 1912), 113, 120, 121, 151, 192, 230. The sign is probably related to *Sign-list* N 20-22; it should be noted that N 20 occurs in writings of the word *ḥb sd*.

<sup>15</sup> W. Helck, *Rp'ṯ auf dem Thron des Geb*, *Or* 19 (1950), 416-434, especially 431; W. Helck, *Inhaber und Bauleiter des thebanischen Grabs 107*, *MIO* 4 (1956), 11-26, esp. 13 and 21. For the inscriptions in the tomb of Neferssekheru, see also W. Helck, *Urkunden der 18. Dynastie, Heft 17: Inschriften von Zeitgenossen Amenophis' III.* (Berlin, 1958), 1881 no. 680A; *ibid.*, *Übersetzung zu den Heften 17-22* (Berlin, 1961), 299 no. 680.

<sup>16</sup> Raven, *Pay and Raia*, 4 (*imy-r ipt-nswt m Grg-W3st*).

<sup>17</sup> *Ibid.* 53-56.

reminded us of a previously discovered shabti fragment of Pay, found in two parts in Pay's north-east chapel during the season 1994.<sup>18</sup> The two fragments make a perfect fit, and thus we are now able to state that the shabti was inscribed in a total number of (at least) eight framed lines of hieroglyphs, plus a single column on the back. The text gives a full version of the so-called Amenhotep III formula:<sup>19</sup> (1) *The Osiris Pay, (he says):*<sup>20</sup> O, gods (2) who are at the side of the Lord of the Universe and who sit (3) at his orders, remember (4) me so that (you) will pronounce (5) my name and that you will give me the evening meal (6) which is in the forefront; and listen to (7) my supplications in the district of Peker (8) when he celebrates the Wag-feast. (back) *The Osiris, the royal scribe, overseer of the private apartments (of the King), Pay, justified, lord of veneration.* The total height of the two joining fragment amounts to 10.8 cm. The occurrence of this formula on Pay's shabti may be yet another indication that part of his career at least evolved during the reign of Amenhotep III, since so far the text has only been found on shabtis of contemporaries of that king (plus a revival on specimens of Montemhat).<sup>21</sup> We can only hope that future excavations to the south or east of the tomb of Pay will produce additional evidence on this matter.

#### *Study of pottery* (B.G. Aston)

Pottery work focused firstly on reconstructing the burial assemblage from the southern burial chamber of the tomb of Ptahemwia (Chamber F). Parts of 22 vessels were recorded; eleven were nearly complete and were undoubtedly provided for the New Kingdom burial (or burials) in that room. The vessels comprised a marl amphora with pointed base inscribed in hieratic on the shoulder with the word *hzmn* (natron),<sup>22</sup> two large, white-slipped funnel-necked storage jars (one of which was reconstructed from over 125 sherds), three red-slipped burnished dishes, and five large, thick-walled dishes — 4 uncoated and one with a red-slipped rim.



Fig. 13. Fragment of faience shabti of Pay, SAK 2009-24.

<sup>18</sup> *Ibid.* 85, cat. 141 with pls. 95 and 102.

<sup>19</sup> H.D. Schneider, *Shabtis* (Leiden, 1977), I, 270-276.

<sup>20</sup> Add *ddf*, unless there was a preceding line of text with the preamble to this formula.

<sup>21</sup> Schneider, *Shabtis*, I, 270.

<sup>22</sup> On Chamber F and this amphora, see M.J. Raven and H.M. Hays, *et al.*, Preliminary Report on the Leiden Excavations at Saqqara, Season 2008: The Tomb of Ptahemwia, *JEOL* 41 (2008-2009), 6 and 22.

During the second half of the season, reconstruction work focused on a large deposit of pottery found at the original floor level in the southeast corner of the forecourt of the tomb of Khay II (2009/6). About 90% of this deposit consisted of sherds of red-slipped funnel-necked jars of the type depicted in the ceremony of 'breaking of the red pots' and may represent the actual remnants of such a ceremony. A similar deposit of red-slipped funnel-necked jars was found around the rim of the shaft of Ptahemwia's tomb in 2007,<sup>23</sup> though in comparison to the Ptahemwia deposit, there is less variety in the size and shape of the jars in the Khay deposit. Seven jars could be reconstructed from base to rim — six of which are medium-sized jars with straight, flaring rim/necks, while the seventh is an unusual drop-shaped jar with an out-curved rim and two incised grooves on the neck. The Khay forecourt deposit also contained some dishes, one ovoid jar blue-painted on pink, and a small beaker blue-painted on pink with a red-slipped interior and a pinched rim. The shape of the funnel-necked jars in the Khay deposit is characteristic of the late Eighteenth to early Nineteenth Dynasties.

Excavation south of the tomb of Meryneith uncovered the chapel of Tatia (2009/8) and its shaft (2009/23). Five small silt dishes of Ramesside date, some containing remnants of ash, were found along the east side of the shaft rim exactly at rim level and may have been used in a rite in conjunction with burials therein, the first time such a phenomenon has been observed in the Saqqara New Kingdom necropolis.

#### *Study of human remains* (L. Horáčková)

Human skeletal remains studied this season come from the 2007 and 2008 excavations in the north chapel of Ptahemwia, the 2008 excavations in the shaft of Ptahemwia, and some peripheral burials from the 2009 season.

Skeletons and their parts were studied macroscopically, and their dimensions and basic demographic parameters (for the determination of sex and age) were ascertained. The variability and pathological changes on the skeletons were also studied in anthropological analyses. Detailed results of these analyses will be presented in a monograph currently under preparation and preliminary findings offered here.

Remains from the north chapel found closest to the surface were clearly secondary burial sites, because bones were not laid in the anatomical order, and only six out of all 24 skeletons were almost complete. It is highly probable that tomb-robbers contributed to mixing the bones together and spreading them over the entire tomb area. As with what was found in the south chapel,<sup>24</sup> the number of children's skeletons increased with depth. It can thus be presumed that both chapels were initially used for burials of children. Three individuals had evidently been buried in coffins in superficial layers, since their skeletal remains were found lying on top of wooden planks.

The maximum concentration of skeletal remains was observed at a level of approximately 40 cm above the north chapel floor level. There was a thick layer of barren sand and stones (c. 90 cm) under the floor level. Since skeletal remains had been found in 2007 in the south chapel still deeper under the floor level, excavations continued under this 'barren' stratum in

<sup>23</sup> See *ibid.*, 21-22 and Fig. 14.

<sup>24</sup> See M.J. Raven and R. van Walsem, *et al.*, Preliminary Report on the Leiden Excavations at Saqqara, Season 2007: The Tomb of Ptahemwia, *JEOL* 40 (2006-2007), 36.

2008 in the north chapel, and three children's skeletons were indeed found there.<sup>25</sup> These children's graves were certainly primary burial sites because the skeletons were in their anatomical positions and were complete and intact. A grave of an approximately six-month old infant was lined by stones, and the child had been put into a reed mat. The other two children had been placed in wooden coffins, with the heads of both pointed eastwards, while one of them was in the 'prone' position.

Human remains of at least 24 individuals (6 nearly complete skeletons, and the rest only partly preserved) were found in the north chapel: altogether 18 adults (75 %) and 6 children (25 %). Of the adults, 9 skeletons have been identified as men and 8 as women; the gender of 1 skeleton could not be determined because it was preserved in small fragments only. Among the children buried in the chapel, there were 3 children under 6 years of age (infant I category), 1 child who had died between 7-14 years (infant II category), and 2 juvenile individuals who had died at an age of about 18 years.

Some pathological lesions were found in this rather small skeleton set. A mandible of an individual of about 17-18 years — with a head severely deformed at the left mandibular ramus, a sequential deformation of the mandibular fossa of the temporal bone, and an asymmetry of the entire mandible — is one of the most interesting findings. The right head was stricken with a degenerative process, too, the reason apparently being a changed chewing mechanism, since the handicapped individual favored the impaired temporo-mandibular joint and thus overloaded the healthy side.

This season, numerous peripheral burials were found around the major New Kingdom monuments. All skeletal remains found will be studied in detail in the next season and the results fully published elsewhere, but for the moment a review may be made of the more interesting of them.

Skeletons of two adults and one child were found 2.4 m south of the entrance to the Meryneith forecourt, at a level of about 1.9 m above the floor of the same. The adult skeletons were laid so that one of them was placed more to the north and somewhat more superficially (designated 2009/11 north) and reached approximately to the middle of the skeleton placed more to the south (2009/11 south). Bones of the upper right limb of the north skeleton extended slightly over the left femur of the south skeleton. Both deceased persons were placed in the grave in the 'supine' position with heads westwards. The north skeleton had the right upper limb placed on the chest so that the hand pointed to the left arm, but bones of the left upper limb have not been preserved.

Curly dark reddish-brown hair of approximately 24 cm length was preserved in contact with the skull of the south skeleton. Bones of its upper limbs were placed so that the left arm was along the body, but the right one, approximately from the middle of the forearm, was behind the right hip bone, most probably because a child (age 1-1.5 years) wrapped in dark red fabric was resting on the upper limb (Fig. 14). Since the adult skeleton belonged to a woman, it seems likely that she was a mother who died in consequence of an infectious disease and her child with her. The skeleton of the putative mother was wrapped in a dark red garment, with inwoven decoration in red, green, and yellow wool. A part of the inwoven patterns (heart

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<sup>25</sup> Noted at M.J. Raven and H.M. Hays, *et al.*, Preliminary Report on the Leiden Excavations at Saqqara, Season 2008: The Tomb of Ptahemwia, *JEOL* 41 (2008-2009), 8.



Fig. 14. Feature 2009/11 South, woman's skeleton with baby at her left upper limb.

shapes in green and yellow on a red background) was preserved in the area of the left knee joint. The mother's body was wrapped in an approximately 140 cm long linen shroud or mantle of a yellowish to dark brown colour, the upper part of which was black, while the lower was brown with approximately 3 cm wide transverse stripes of black colour. These stripes alternated with bands about 5 cm wide, where only the warp threads were left in the fabric. The entire hemline was bordered with a twisted string.

Other graves found this season were concentrated along the external side of the south wall of Horemheb's forecourt. The grave designated 2009/18 was found adjacent to the first pylon and approximately 50 cm above the level of the forecourt, and it contained the skeleton of an adult individual wrapped in a reed mat. The skeleton was in the 'prone' position with the head eastwards and the bones of the upper limbs placed along the body, while the hands of the deceased were crossed in front of the pelvic cavity (Fig. 15). Remnants of bandages were preserved on the skeleton from the upper pelvic rim to the feet. It was also tied by a rope around the ankles, in the middle of the crura and close under the knees.

To the west and a bit closer to the surface was grave 2009/19, which contained the skeleton of a child in a reed mat and linen bandages of a yellow colour. The child was buried with the head westwards, and it had died at the age of approximately 3-4 years. An amuletic necklace consisting of green felspar, carnelian, and faience pendants in various shapes (Bes, baboons, hand, heart, and others) was found at the neck (Fig. 16).

The skeleton of an adult individual with a skull shattered into small fragments was found approximately 80 cm below the level of the mud plaster floor of the forecourt of Khay II, with





Fig. 15. Feature 2009/18, adult skeleton in 'prone' position.

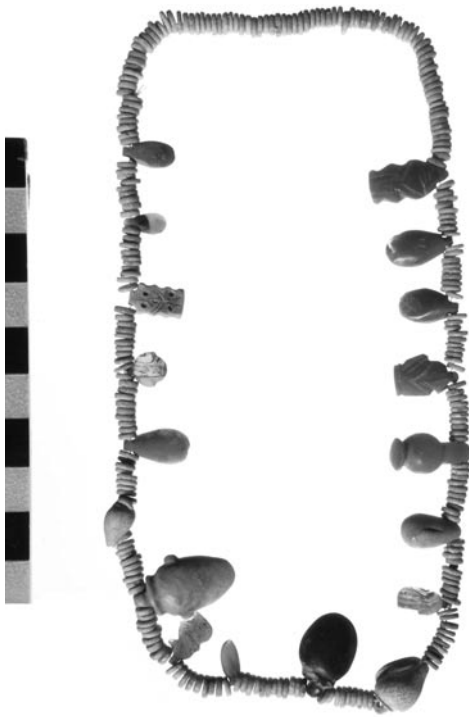


Fig. 16. Amuletic necklace, associated with Feature 2009/19.



Fig. 17. Stele of Panakhtemdjedu, associated with Feature 2009/20.



Fig. 18. Feature 2009/21, adult skeleton in 'supine' position.

the head about 50 cm under the crude stele SAK 2009-R21, belonging to one *p3-nht-m-ddw* (Fig. 17). The grave was designated 2009/20. The skeleton lay on a palm rib mat in 'prone' position turned to the right side. For this reason, the right upper limb was situated under the body with fingers reaching to the middle of the femur. Residue of linen bandages was found on the bones of the lower limbs, with the fabric tied at the ankles.

The grave designated 2009/21 was found just beneath 2009/19 and was lined on its sides by several massive stones; the interior length amounted to 159 cm, and the interior width to 29 cm. A skeleton of an adult individual with the skull pointing eastwards was found inside. The skeleton was in the 'supine' position, with the upper limbs crossed in front of the pelvis (Fig. 18). Three mummification packages about the size of a fist were found both in the thoracic cavity and in the abdominal cavity but disintegrated on contact with the air. Bandages in several layers were preserved on the head, and within the innermost was part of a plait of hair, approximately 63 mm long and 35 mm wide, and braided out of three intertwining, dark brown locks. Reddish-brown linen bandages in several layers and part of a twisted string were partly preserved distally of the knee. A palm rib mat, regularly tied, was found under the skeleton. The total length of the preserved part of the mat, which was situated underneath the upper body, amounted to 76 cm. Grave 2009/22 was located just over a meter to the south of the previous one and at about the same level. It contained a reed mat and remains of a newborn wrapped inside, with fragments of a bandage from a yellowish linen fabric on the lower limbs.

X-ray photographs of a 5-6 year old child's skull (Ptahemwia, south chapel, No. 46, exhumed in 2008) with lythic lesions were also made this season. Dr Salima Ikram from the American University in Cairo made X-ray photographs necessary to specify the diagnosis.

*Consolidation and site management* (N. Warner)

Conservation work in the 2009 season took place in two separate areas: in and around the tomb of Horemheb and in the central chapel of the tomb of Ptahemwia. As the mudbrick perimeter wall to the south of the forecourt of the tomb of Horemheb was badly eroded in places, it was consolidated with new mudbrick masonry to a consistent height. During the course of the work, limestone steps leading into an adjacent tomb shaft (2009/17; see above) were discovered directly beneath this wall. To allow the future excavation of this shaft to proceed in safety, a steel lintel supporting half of the thickness of the wall above was installed over the shaft. In the other half of the wall, an elliptical arch was constructed that spanned the shaft, following the line of an earlier arch in this location. Additionally, the northeast corner of the first pylon of the tomb of Horemheb was consolidated with a mudbrick cap, and a 2 meter section of the north wall of the court of Pay was consolidated with a mudbrick buttress.

At the tomb of Ptahemwia, five decorated limestone fragments were reinstated within the central chapel within a new limestone lining wall set back 2 cm from the face of the existing sections of original lining wall. The fragments came from locations that could be determined by an analysis of the decoration and architecture of the chapel and varied considerably in size. At the same time, two large monolithic limestone blocks were installed in the location of the screen-walls separating the inner part of the chapel from the outer, thus recreating the original spatial division of the structure. A further single decorated block fragment deriving from the north wall of the peristyle courtyard of the tomb was also reinstated in a limestone 'frame'. All work was carried out using lime-based mortars.

*Preparation of Cast of Hand for BM EA 36* (M. Neilson)

Until now there had been no conclusive evidence to support an attribution for the anonymous dyad statue BM EA 36, thought to be one of the most beautiful examples of Egyptian sculpture in the British Museum. Acquired in the nineteenth century, it has been since displayed without title. As R. van Walsem had noticed that the unique position of the hands of a fragment excavated in 1976 from the tomb of Horemheb Chapel D<sup>26</sup> seemed to match the statue, the British Museum's Department of Conservation and Scientific Research (Facsimile Service) was invited to travel to Egypt to make a mould of it to prove the fit. In short, there was success: the cast made from the mould fits the statue perfectly.

The procedure by which the cast was made will be described. The mould was built up from the limestone fragment in the Study Room at the Saqqara Inspectorate's Magazine 1. The fragment was protected with laboratory film (parafilm) stretched to the object's shape after it had been cleaned of surface dust. A mould was made in two parts using an additional curing silicone rubber system (Silastic P-1 Base and curing agent, with Silastic Thixo additive). Plasterline was also used to create a dividing wall to split the mould into two halves. Coatings of catalysed liquid silicone rubber were carefully brushed over the protected surface of the object and allowed to cure. Plaster bandage was applied over the cured rubber to make a solid

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<sup>26</sup> For the fragment, see H.D. Schneider, *The Memphite Tomb of Horemheb, Commander-in-Chief of Tur'anhamûn, II: A Catalogue of the Finds* (London/Leiden 1996), 79 and pl. 87 (St. 15).

support case. This was done twice, once for each half. After curing, the two-piece silicone rubber mould was carefully teased apart, as was some of the pre-moulding barrier. The remainder of the protective film was peeled away from the object by hand.

Following the removal of the protective barrier, the object was closely inspected. There was no damage of any kind, and the fragment remained dry. The object was delivered back to the Egyptian authorities, and it was returned to the storage magazine.

The cast was made in a studio at the British Museum using white pigmented polyester resin filled with marble dust. Fine lines on the cast caused by the overlap of protective film were removed with the aid of a fine grade abrasive paper. Some weeks later, a protective screen surrounding the statue was removed, and in the presence of the object's curator J. Taylor and a small assembly of inquisitive staff, the cast was attentively offered-up to the statue. It was immediately obvious that it matched. All the break-edges corresponded precisely, as did all the carved detail.

Given the find spot of the fragment, it may be confidently said that BM EA 36 can be attributed to the general Horemheb and his wife.

#### *Other tasks*

1. Skeletal material from the previous two seasons was re-interred in the subterranean chambers below Meryneith.
2. All SCA-registered relief fragments and objects from seasons 2003-2009 were transported for permanent storage at the Inspectorate's main magazine.