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## EDITORIAL FOREWORD

THIS year has been an active and eventful one for the Society, with the opening of a Cairo Office, and no fewer than seven expeditions working in the field. The Mission to North Sinai participated in a second season at Tell Farama (Pelusium), with an expanded team under the direction of Dr S. R. Snape working in June–July and late August–September; Dr P. Wilson joined the expedition as assistant director for the latter period. In addition to further investigation of the industrial complex recorded last year, a Late Roman cemetery was identified and a small trial excavation was made there. The Gebel el-Haridi survey also embarked on a second season, under the direction of Mr C. J. Kirby, and an account of this will appear in next year's *Journal*, as will a report of work in the Sacred Animal Necropolis at North Saqqara. Accounts of the continuing work at Memphis and the New Kingdom Necropolis at Saqqara appear below, pp. 1–16. Of the latest season at Amarna, Mr Kemp writes:

The first party of expedition members arrived in Cairo on 20 February and proceeded to site on 24 February. Work at Kom el-Nana ran between 28 February and 14 April, and at the Small Aten Temple between 3 March and 8 April. The expedition comprised: Barry Kemp (field director), Peter Sheehan, Duncan Schlee, Anthony Thomas (Kom el-Nana site supervisors), Michael Mallinson, Simon Bradley, William Mann (Small Aten Temple), Andrew Boyce (artist), Fran Weatherhead (wall plaster), Pamela Rose, Paul Nicholson, Catherine Powell, Irene Mitchell (pottery), Jane Faiers (Roman pottery), Gillian Pyke (finds registrar), Nicolas Fieller (statistical adviser and assistant to Paul Nicholson), Gwilym Owen (photographer), Delwen Samuel (archaeobotanist), Marta Garcia (animal bones). The representatives of the EAO were Inspectors Helmi Hussein Soliman and Mohammed Abd el-Hamid Khallaf, and, for the South Tombs photography, Assam Ahmed Ali. Thanks are due to the Chairman of the EAO, Dr Mohammed Bakr, and the Permanent Committee for permission to undertake the work, and to Mutawa Balboush in Cairo, and Adel Hassan and Yahyia Zakaria in Minia and Mallawi for much help in arranging the work.

The expedition received generous support and assistance from: the British Academy, the Leverhulme Trust, the McDonald Institute for Archaeological Research, the G. A. Wainwright Fund, Jim Merrington and Scottish and Newcastle Breweries, Alf Baxendale and Cementone Beaver, Amr Fayed and BP (Middle East), Robert Hanawalt, Edward Henderson, Richard Keane and Keminco (Cairo), the staff of McLaren Air Systems, Aylesbury (donation of an air compressor), and Dr Hugh Miller and his colleagues of British Gas (Cairo) who made possible two photographic flights.

*Kom el-Nana.* The 1993 season marked the first proper exploration of the Late Roman phase of the site. It had long been evident from abundant surface indications that a settlement of this date occupies an area of higher ground roughly 105 × 85 m in the middle of the northern part of the original Amarna Period enclosure. Before this year's excavations four main elements stood out, three of them being conspicuous steep-sided mounds at roughly the north-east, north-west and south-east corners, and, over the south-west corner, a spread of smaller mounds, two of them partly dug in 1963 by the EAO. Sherds, mounding, and short lengths of brick wall spread over the intervening ground and especially around the two northern mounds. Because the visible remains of this later settlement obviously occupy an elevated position it has hitherto been tempting to interpret them as representing a later layer overlying in a simple way a layer of the Amarna Period. The results of fieldwork so far show that the stratigraphic relationship is more complicated.

Two parts were chosen for excavation this year. One was the south-eastern mound, the other an east-west strip which took in the north-east mound and ground to the east which runs down towards the bakery area of the Amarna Period. It quickly became apparent that illicit digging, which had left abundant signs on the surface, had done less damage than might have been expected, partly because some of the buildings are so deeply buried in their own rubble. The buildings themselves are of some architectural interest, with much detail preserved, and it is clear that, with enough time and patience, much of the layout of this complex is recoverable. What kind of community lived here remains an open question. Although defence was one concern of the occupants, the site as a whole cannot properly be termed a fort, nor is there yet sufficient evidence to identify the community as religious.

The south-east mound was the site of a solidly constructed mud-brick building with slightly battered outside wall surfaces, 7.5 m square, subdivided into four chambers of which the south-easterly was further subdivided. All of them were filled with rubble, lacked doorways, and were clearly casemates to create a solid foundation for a square tower. On the east it was separated by a gap of about 2.3 m from a long chamber, the north end of which was occupied by a staircase rising over barrel vaults. It is possible that it was by this staircase, and a connecting bridge, that access was gained to the tower. The remainder of the long chamber was empty save for two well-preserved sleeping-platforms.

The north-eastern mound also covered the remains of a solidly constructed rectangular building of which only part has yet been cleared, but sufficient to give its east-west width as 10 m. It too, had risen quite high, but this had been partly achieved by digging out completely the underlying Amarna Period remains, constructing the building in the pit so created, and then filling the lowest two metres or so with earth. Above this a set of chambers was built, but it is evident that these had merely served as a kind of basement to at least one storey built above. The basement had been roofed with brick barrel-vaults which had, after the building was abandoned, dropped downwards, so preserving much of their structure. The northern outside wall rose from the low surface created by the removal of the Amarna Period remains. At this low level, which is similar to the present ground level, a series of constructions had been laid out evidently for industry, one of them being a well-preserved circular kiln. Here one is at the northern edge of the low mound created by the presence of Amarna Period ruins, but the Roman occupants had built at least one further building to the north; of this only the tops of the walls have yet been exposed.

The ground to the east of this mound slopes steadily downwards to the flat ground which covers the Amarna Period bakeries. Beneath the surface lay a network of walls of the Amarna Period. Some were built over and so buried by the Late Roman occupants, but others which were thicker had been utilised for the construction of further vaulted rooms, dug into the Amarna Period fill and forming an annexe to the adjacent north-east tower. One of these underground vaults, measuring 3 × 9 m and reached by a narrow sloping passage in the middle of one long side, was fully excavated this season. It was provided with a double lamp-niche in one wall, a low bench opposite, and something like a brick cupboard in one corner which was screened by a projecting wall from a doorway which probably gave access to the adjacent subterranean chamber. At the very end of the season a narrow trench cut into the mud-plaster floor revealed an earlier stone-slab pavement and a bench made from red bricks. The sloping access to the subterranean chamber led up to a narrow annexe which had originally been floored with fine white plaster. In this annexe abundant evidence was found for a period of decay, possibly of abandonment, followed by a re-occupation by people who brought the building back into use simply by plastering over the rubble and making floors at higher levels, the result being crude by comparison with the original architecture.

Outside and further to the east the character of the site changed, and one moved from interiors intended for human occupation to an irregular walled area lying across a narrow street. To judge from the floor deposits and the nature of the constructions, this had been used for the keeping of animals and perhaps also for an industry. More than one phase of occupation was detected here, too, during excavation, and it was possible to link the two areas stratigraphically on account of a drain which ran beneath the street from the annexe to the open yard.

Brick walls show at the surface at many points over the ground and between the salient points of the Late Roman settlement. The full excavation of the area will be a major undertaking, and so, as

a guide to future work, a preliminary survey of the walls was started by simply brushing along their tops and then planning their outlines. The two periods of walls, Amarna Period and Late Roman, can be easily distinguished by their brickwork. In some places the Romans reused the earlier walls or built against them, but over a patch of ground between the north-west and north-east mounds these seemingly Amarna Period walls show fewer signs of modification. Furthermore, it is these walls which, in this part, give the ground its greater elevation, implying that a substantial brick building of the Amarna Period must occupy this area.

Another element in the mapping of the Late Roman remains involved cleaning parts of buildings excavated by the EAO in 1963 to the west of the south-east mound. Here it seems that a series of rooms grouped into little suites surrounded a courtyard. The parts so far recleared consisted of rooms in which floors and walls were coated with thick white plaster. Their general style is distinct and also shows no significant modifications, indicating perhaps that this part belongs to just one phase within the timescale of the Late Roman occupation.

So far the most abundant material found in this settlement is pottery, and here we have been in the unusually fortunate position of having a detailed corpus from the site itself ready at the commencement of serious excavation. The source is a huge collection of sherds from a midden at the edge of the settlement, where it overlapped a part of the South Shrine dug in 1989. Jane Faiers worked over the three subsequent seasons to create a fully inked-in corpus, and this is now in use and enables the freshly excavated pottery to be processed quickly. The second most abundant material of this period is fine glassware broken into small pieces; a small number of coins was also recovered. As in previous seasons, a few Old Kingdom artefacts surfaced, most notably rim sherds from an alabaster bowl, and a well-preserved stone vase grinder.

In previous seasons, and continuing this year, an informal survey was conducted over other sites of the Roman Period which stretch from the North Tombs (including the church in the tomb of Panehsy) to el-Hawata and the desert lying further south. The collective pottery style is generally the same (with one significant exception), and the emerging picture is of a distinctive and populous period of local history into which the finds from Kom el-Nana must be set. The most striking of these sites is a tiny settlement perched high on a ledge at the mouth of the Great Wadi. The ledge lies below a line of caves which have been enlarged, the largest being roughly rectangular, with plastered walls embellished with niches and generally suggestive of a small church. An interesting collection of pottery was made. The exception to the general homogeneity of this later material comes from a tiny collection of huts apparently guarding a route to the top of the cliffs behind the South Tombs. The pottery here is of the first century AD and is, to our knowledge, the first material of this period encountered at Amarna.

Correct chronology is obviously of considerable importance if the historical interpretation of the evidence of this period in the Amarna area is to be reliable. Apart from dating suggested by the pottery itself, a few coins from previous years have recently been identified giving dates which range between AD 350 and 550.

*Small Aten Temple.* As was the case last year, work was centred on the site of the stone Sanctuary in the third court, the aim being to complete the reclearance and replanning of the Sanctuary foundations. The area that remained was essentially the rear part, which has suffered particularly intense erosion since Pendlebury's day. Nevertheless, sufficient traces remained of the basic outline to provide a corrected plan. On reaching the back of the Sanctuary a strip of the rear brick enclosure wall was also freed of sand on both sides. Here were found further traces of the first-phase enclosure wall which had run slightly outside the line of the later wall. Time also permitted a five-metre wide strip to be cleared running due east from the rear wall, out across the large open space which lay behind the temple. This was found to have been floored with a flat mud surface which still bore drying cracks. In addition to this work around the rear of the temple, some limited dump clearance was undertaken in the north part of the second court.

The mud-brick conservation programme was moved to the second pylon, which was completely recorded by Kate Spence in September 1992. A good deal of brickwork survived, so that all that was required was the patching of gaps and flooring of those areas where basal sand was exposed. When this was finished, conservation was started on the rear temple wall, concentrating on two places where the foundations had been badly eaten into. Where the brickwork

had been completely lost new brickwork was built up on a foundation of reinforced concrete completely encased in newly-made mud-bricks to render it invisible.

Last year the base and lower part of one of the colossal columns was also set up and given a temporary finish. This year the final rendering was made by Simon Bradley, who went on to set up the base of the companion column, taking advantage of lessons learned last year. The large sandstone fragments from the columns were also arranged in groups in front of the two restored bases, marking the possible positions of the other columns which made up the giant portico.

*House Q44.1.* In an extension of the work of architectural conservation, the field director spent the month of September 1992 cleaning drift sand from house Q44.1, excavated by the Society in 1924, and repairing the walls with bricks made in the Small Aten Temple brickyard. In the course of this a new plan of the house was made. The house and its grounds were also surrounded by a barbed-wire fence, but were made more visible to visitors through the erection of a viewing platform.

*South Tombs photography.* Gwilym Owen took a series of black-and-white and colour photographs in a selected group of tombs to provide a basis for judging how best to proceed in future, in terms of both technique and also usefulness in comparison with Davies's record published in the *Rock of Tombs of Amarna* series. Photographs were taken in the tombs of Parennefer, Tutu, May, and Ay, and also in some of the eight undecorated tombs recently recleared by the EAO in co-operation with the expedition and through the support of Mr Robert Hanawalt.

*Aerial photography.* In an hour's flying time on two successive days in early April over the Amarna area, Gwilym Owen, assisted by Timothy Loveless, took a series of oblique and vertical pictures in black-and-white and colour. The flights were made in a helicopter provided by the Egyptian armed forces and arranged and paid for by British Gas (Egypt).

*Research projects.* In furtherance of her study of painted plaster at Amarna, Fran Weatherhead made a preliminary examination of some of the walls of the King's House in the Central City. She found that, at many places, Pendlebury had left lengths of painted dado in position, covering them with sand and bricks. They have generally survived very well, with pigments retaining strong colours. Other projects pursued were: thin sectioning of imported marl wares of the Amarna Period for provenance studies (Paul Nicholson and Nicholas Fieller); study and reconstruction of pottery vessels from large deposits at Kom el-Nana excavated in previous years and further study of Workmen's Village pottery (Pamela Rose and Irene Mitchell); further sherd-survey sample areas in the North City (Pamela Rose, Paul Nicholson, Nicholas Fieller); completion of the drawing of wooden objects from the Workmen's Village excavations (Andrew Boyce); recording of the animal bones from the Kom el-Nana excavations (Marta Garcia); use of the large flotation machine to process soil samples from the Kom el-Nana excavations, and experimental work with cereals (Delwen Samuel); further investigation of local clays and experimentation with throwing techniques using the replica ancient wheel (Catherine Powell).

As this goes to press, Ann Bomann and Dr Robert Young are embarking on a second expedition to the Middle Egyptian zone of the Eastern Desert, to continue their survey of the Wadi Abu Had. A preliminary season from 11 August to 17 September 1992 enabled them to examine the topography of this little-known region, which may contain routes giving access to mining areas and the Red Sea coast, as well as links with the Nile valley. Evidence was recorded of nomadic or semi-nomadic life in the wadi from prehistory to the present day, including flint scatters and knapping sites ranging from the Lower Palaeolithic to the Holocene. A report of this preliminary work will appear in the next *Journal*. Meanwhile, it is hoped to extend the survey and investigate areas where conditions for temporary settlements may exist.

The study of the evolution of settled communities in the Nile valley and the creation of the Pharaonic kingdom has once again become a major focus of Egyptology; current fieldwork allied to the renewed analysis of material from earlier excavations promises



results of the greatest interest. By the time that this appears in print, the new Raymond and Beverly Sackler Gallery of Early Egypt will have been opened in the British Museum. As a forerunner to this event, a colloquium organized by the Department of Egyptian Antiquities on 22 July 1993 presented an impressive array of papers by scholars currently working on sites which are vital to our understanding of Pre- and Protodynastic Egypt.

The Society's long-held wish for a base to facilitate its activities in Egypt has become reality, thanks to the co-operation of the British Council: an office has been rented in the grounds of the Council's building in Aguza. It was opened by the Society's Assistant Secretary, Miss Sylvie Weens, in November 1992, and in February Miss Jihan Aguzis was appointed the first Secretary of the Cairo Office.

In London, too, much-needed space has been gained with the purchase of the house next door to the Society's office, no. 4 Doughty Mews, home of the late Professor Ricardo A. Caminos. This extension to the Society's premises will be named in memory of Professor Caminos, who died in May 1992, and an Appeal has been mounted to assist with the cost of adapting the house to its new function, and to help complete the publication of Professor Caminos's epigraphic work. His splendid library was dispersed at a sale in London in April 1993, but through the generosity of the Caminos family, many volumes from it have been added to the Society's library, which will be housed in the new extension. Details of the Appeal may be obtained from the Society's London Office.

Friends and colleagues of Ricardo Caminos joined members of his family at a simple ceremony on 6 July when his ashes were laid to rest in the Holywell Cemetery at Oxford. His links with Oxford, which began with his graduate studies at The Queen's College, are among the many facets of an academic career on both sides of the Atlantic and in Egypt, recalled by Mr T. G. H. James in this volume (pp. 226–35).

This year saw the death of another founder member of the Department of Egyptology at Brown University, Richard A. Parker, who died on 3 June 1993 at the age of 87. He was invited to become the first Charles Edwin Wilbour Professor of Egyptology at Brown in 1949 and served there until his retirement in 1972. A member of the Society for fifty-five years, he made notable contributions to some particularly complex areas of study—Egyptian chronology, calendars and astronomical texts—and his services to Egyptology in general included his role in the founding of the American Research Center in Egypt and the Annual Egyptological Bibliography.

The field of Nubian studies lost one of its most distinguished senior members with the death of Professor Fritz Hintze at the age of 77 on 30 March 1993. In the course of his career at the Humboldt-University of Berlin he founded the Institut für Ägyptologie (1957), later extending its activities to embrace Nubian archaeology and particularly Meroitic studies, which were his speciality. He conducted fieldwork in the Sudan, notably at Musawwarat es-Sufra, and in 1973 founded the journal *Meroitica*, of which he was editor until 1990.

As this goes to press, news reaches us of the death of another leading figure in German Egyptology, Professor Wolfgang Helck, who died on 27 August at the age of 78. He studied with Hermann Kees at the University of Göttingen, where he subsequently held his first appointment, moving from there to the University of Hamburg, where he remained until his retirement in 1979. The New Kingdom was his particular area of study, but he was an outstandingly wide-ranging and productive scholar, whose publica-

tions include many indispensable reference works. Above all we are indebted to him for the *Lexikon der Ägyptologie* (1975–92), of which he was co-founder with Eberhard Otto (who died in the year before the appearance of the first volume), and co-editor with Wolfhart Westendorf. The *Lexikon* has become a fundamental tool for Egyptologists, and Professor Helck will long be remembered with gratitude for his role in its creation and fulfilment.

We cannot end this first foreword by the new editors without tendering thanks on behalf of the Society, and Egyptologists in general, to Dr Anthony Leahy, editor of the *Journal* for the last seven years. In that time he has nurtured it through some difficult changes, but has never wavered in maintaining the highest standards, and has always acted in the best interests of Egyptology. His good governance has made his successors' task the easier. Happily for the Society, his formidable energy and abilities are still at its service in his new capacity as Honorary Secretary.

# THE TOMB OF INIUIA: PRELIMINARY REPORT ON THE SAQQARA EXCAVATIONS, 1993

By HANS D. SCHNEIDER, GEOFFREY T. MARTIN, JACOBUS VAN DIJK,  
BARBARA GREENE ASTON, RUTGER PERIZONIUS *and* EUGEN STROUHAL

This report outlines the results of the 1993 season of the joint EES-Leiden Museum Expedition in the New Kingdom necropolis of Memphis at Saqqara. Excavations were started in the area south of the tomb of Horemheb, where a group of mud-brick tombs of the late Eighteenth and early Nineteenth Dynasty are situated. One of these, the tomb of Iniuia, Overseer of the Cattle of Amun and High Steward in Memphis, was excavated. One of the chapels is decorated with wall-paintings, and is the first of its kind to be found in this part of Saqqara in a reasonably good condition. The main chapel was covered with a mud-brick pyramid, the lower part of which is still in place. A number of reliefs and fragments, partly deriving from this pyramid-chapel and betraying Amarna influence, were found. The substructure of the tomb consists of two burial chambers. Progress was made with the study of pottery and skeletal material excavated during former seasons in the tomb-complex of Maya and Meryt. The tomb of Iniuia was restored and chapels A and B of the tomb of Maya were reconstructed.

THE 1993 season lasted from 5 January to 11 March. The EES team consisted of Professor G. T. Martin (field director), Professor E. Strouhal (physical anthropologist), Dr J. van Dijk (philologist), Dr Barbara Greene Aston (pottery recorder) and Ms Julia van Dijk-Harvey (assistant pottery recorder). Dr D. A. Aston joined the expedition for part of the season to assist in the recording of the pottery. The team of the Rijksmuseum van Oudheden, Leiden, comprised Professor H. D. Schneider (site director), Dr W. R. K. Perizonius (physical anthropologist), Ms R. C. Dijkstra (artist) and Mr P. J. Bomhof (photographer). The expedition wishes to thank all colleagues in the Inspectorate of Antiquities at Saqqara, especially Mr Yehia Eid, for their cooperation and generous help. Mr Shaban Ahmed Mohammed, who worked with the expedition, greatly facilitated our efforts. We enjoyed the help and hospitality of Dr and Ms F. Leemhuis of the Netherlands Institute for Archaeology and Arabic Studies in Cairo.

## **The excavations** (H. D. Schneider)

The site selected for excavation this season is located immediately south of the boundary wall of the outer courtyard of the tomb of Horemheb. In starting its excavation project in 1975 the expedition had located here several mud-brick tombs, one of which is probably the tomb of Pay, Overseer of the Queen's Chambers in the King's Palace, dating to the end of the Eighteenth or early Nineteenth Dynasty.<sup>1</sup> In 1993 the expedition resumed investigations in this area by opening up a rectangle of *c.* 20 × 15 m. At a depth of *c.* 1 to

<sup>1</sup> For the discovery of two fragmentary columns from the tomb-chapel of Pay and four reliefs with the name of the lady Iuy (wife of Iniuia), see G. T. Martin, *JEA* 62 (1976), 13, n. 13. These pieces will be published in H. D. Schneider, *The Memphite Tomb of Horemheb*, II (forthcoming). Monuments from the tomb of Pay are published by H. de Meulenaere, *CdE* 50 (1975), 87-92, and J. Berlandini, *BIFAO* 77 (1977) 29-37.

1.5 m below the top level of Horemheb's boundary wall, the superstructure of a mud-brick tomb of New Kingdom date appeared (see pl. I, 1-2 and plan in fig. 1). This tomb is orientated east-west, measures 9.5 × 8.5 m and consists of two chapels in the west and a courtyard enclosed by boundary walls on the east. A forecourt lies in the east. In the courtyard a shaft (shaft i) descends to two burial chambers cut in the bedrock. Inscriptions on one of the reveals of the entrance to the courtyard, on the walls of one of the chapels as well as on reliefs found in the debris, gave the titles and name of the tomb-owner: the Scribe of the Treasury of Silver and Gold of the Lord of the Two Lands, Royal Scribe, Overseer of the Cattle of Amun, and High Steward in Memphis, Iniuia. Monuments from this tomb, mentioning Iniuia and his wife Iuy, are in several museum collections.<sup>2</sup> The tomb is built on the same level as the tomb-complex of Horemheb. From the architecture as well as from the style of the reliefs and other decorations, it can be inferred that its construction was started in the reign of Tutankhamun. At the eastern edge of the area excavated this season two other tombs, presumably of the same period, were located.

### *The tomb of Iniuia*

*Superstructure:* The chapel in the north-west corner of the tomb (chapel A) had a vaulted ceiling, parts of which are still in place or were found in the sand fill. These fragments show that the longitudinal axis of the ceiling was decorated with a yellow band inscribed with black hieroglyphs containing an offering formula for the tomb-owner. The walls are preserved to their original height, *c.* 2 m. They are covered with scenes painted, in a masterly hand, on a white-coated layer of mud-plaster. Large parts of these paintings are still in good condition, their contours being clear and the colours bright. The scenes are bordered by red and yellow bands. The latter are inscribed, in red outline, with offering formulae on behalf of the tomb-owner. The west wall has a double scene showing (on the left) Iniuia before Osiris, Lord of Ro-Setau and (on the right) the hawk-headed god of the necropolis, Sokar (pl. I, 3). The legends pertaining to Iniuia are in black and contain one of his main titles, Overseer of the Cattle of Amun. The north and south walls are decorated with scenes showing Iniuia and his wife Iuy before Osiris seated on a throne under a canopy, with Isis and Nephthys (pl. II, 1). On the south wall the couple are accompanied by their two sons and two daughters. A brightly painted frieze with fishes and lotus flowers and leaves runs below the scenes on all four walls of the chapel. The entrance is on the south. It was revetted with stone doorjambs (now lost); the doorsill of limestone is still in place. Inside there is one step made of mud-brick. The pavement is of mud.

The other chapel (B), in the south-west corner of the superstructure, is almost square. This was the central chapel where the cult for the deceased took place. It was covered by a mud-brick pyramid, which is still partly preserved. The sides of this pyramid slope downwards towards foundation level, so that the whole structure envelops the chapel instead of only covering its roof. When complete its total height may have been 6 to 7 m, including the pyramidion. The latter is in the Louvre. The eastern end of the south wall of

<sup>2</sup> A provisional list of monuments and objects known, to date, from the tomb of Iniuia, is presented below. For Iniuia see W. Helck, *Zur Verwaltung des Mittleren und Neuen Reiches* (Leiden, 1958), 490, and *Materialien zur Wirtschaftsgeschichte des Neuen Reiches*, 1 (Mainz, 1960), 31. For the expected location of Iniuia's tomb at Saqqara see PM III<sup>2</sup>, 707, 902.

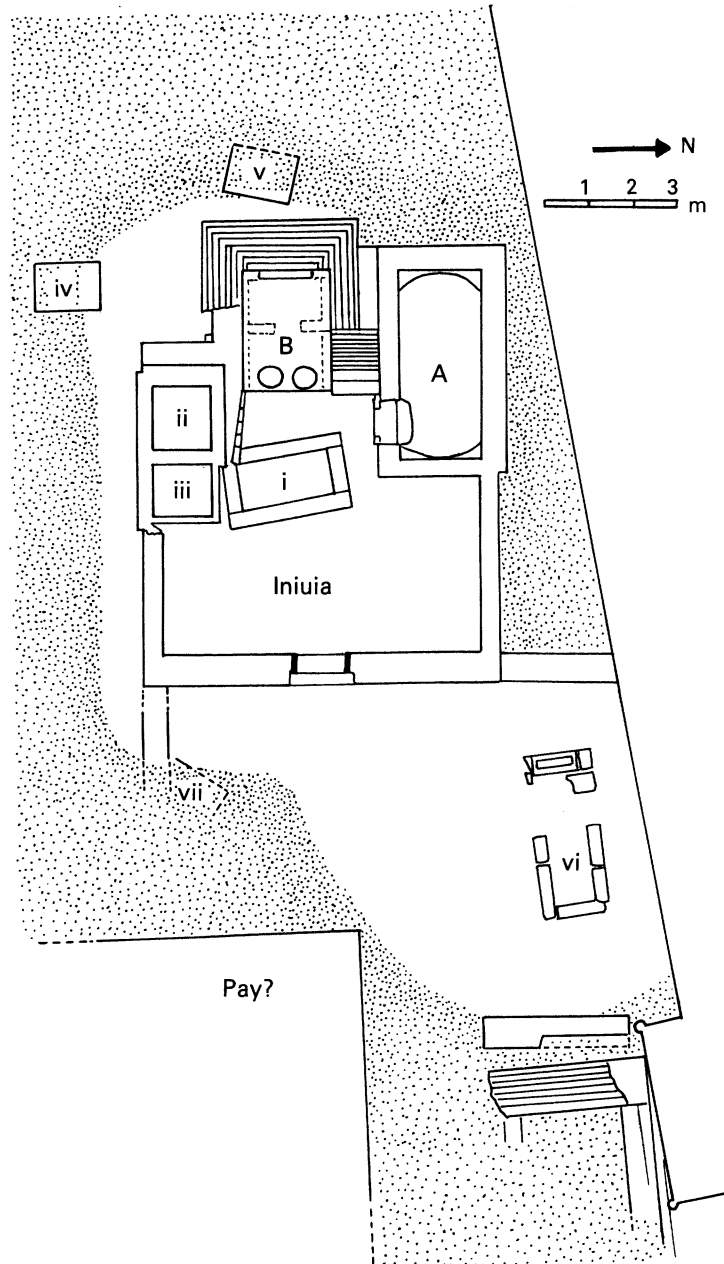


FIG. 1. Sketch plan of site excavated in the 1993 season.

the chapel was found broken away, with only the lowest two or three courses of bricks still *in situ*. The chapel is paved with limestone flagstones. The ceiling and roof were originally supported by two columns (now in Berlin). Two circles incised in the pavement indicate their precise location. The entrance of the chapel was covered with a lintel resting on the two columns. This lintel was found in three pieces in the shaft, but is complete. The front is inscribed and decorated with representations of Iniuia kneeling before Osiris and Re-Horakhte. The back is inscribed with two lines of offering formulae. Traces of cement plaster on both walls and pavement show that the side walls were

revetted with reliefs and also that the chapel was divided in two by screen walls,<sup>3</sup> both of which may have been adorned with a lintel with cornice. The specimen originally surmounting the south screen wall could well be the relief with cornice in Chicago, on which Iniuia (here called Scribe of the Treasury of Silver and Gold of the Lord of the Two Lands) and his wife Iuy are shown kneeling before Osiris and Isis.

The mud-brick thickness between chapels A and B shows the recessed or stepped eastern side of the pyramid. Against this thickness a large round-topped stela (now in Cairo) was originally placed. Another stela, many fragments of which were found by the expedition, was originally positioned against the east side of the south wall of the pyramid-chapel.

A series of intact reliefs, all carved in the sunk technique, and fragments of many others were found loose in the sand and marl (*tafl*) fill of the courtyard and forecourt. Most of these must have been part of the relief-decorated revetment of chapel B. In all, 118 pieces were collected, including a few Old Kingdom reliefs and several pieces emanating from other New Kingdom monuments. Some of the reliefs are in excellent condition, with their original pigment well preserved. A real masterpiece is a large scene in which Iniuia, and Iuy with three of their children, and a monkey—shown *en face*—are represented (pl. II, 2). In several cases the style is very reminiscent of that of the Amarna Period. The *pièce de résistance* of the collection, on which all members of the Iniuia family are depicted or mentioned, is a rectangular stela with cavetto cornice and torus moulding (pl. III, 1). It was originally placed against the west wall of chapel B, but was found together with other relief slabs in the debris *c.* 4 m south of the south wall of Horemheb's outer courtyard and *c.* 3 m west of the pylon of the same tomb. Only one relief was found lying almost *in situ* in the south-west corner of chapel B (pl. II, 3). The south boundary wall of the courtyard was partly broken away, presumably in the late New Kingdom or at the beginning of the Late Period. This wall was overbuilt for the construction of a shaft (ii). A second subsidiary shaft (iii) was sunk immediately east of shaft ii, presumably in the Late Period or early Ptolemaic Period. The entrance to the courtyard, in the east boundary wall, has reveals of limestone. The south reveal has a large representation in sunk relief showing the tomb-owner standing and adoring the rising sun. An inscription mentions his name and principal titles, High Steward and Overseer of the Cattle of Amun. The north reveal is undecorated.

The courtyard is paved with limestone flagstones, many of which are still intact. The northern part of the east boundary wall is secondarily extended to the south wall of Horemheb's outer court, thus fencing off the forecourt of Iniuia. The latter has been only partly excavated. It is paved with a layer of *tafl*.

The area immediately adjacent to the superstructure of the tomb on all sides has, at a later stage—presumably in the late New Kingdom—been covered and filled with a thick deposit of marl and rubble. In this layer several shafts were cut (shafts iv–vii). Near shaft vii, east of the north-east corner of the courtyard, the base slabs of a small chapel together with an unfinished stela of Ramesside date were found *in situ*.

*Substructure:* In the courtyard a shaft descends to the substructure of the tomb (shaft i). It is 7.10 m deep, and measures 2.60 × 1.75 m at its mouth. In the south side is an

<sup>3</sup> Spaces covered with chisel marks occurring between the scenes on two of the four blocks from the tomb, which were found during the 1975 season, indicate that these scenes were separated from each other by a block or dividing wall which was built against them.

entrance to two burial chambers on different levels. The upper chamber lies at a depth of 8 m and measures  $5.90 \times 3.75 \times 1.90$  m (length  $\times$  width  $\times$  height). In the north-west corner of this chamber an inner shaft, 2 m in depth, leads to a second chamber in the west, at a depth of 10 m below the pavement of the courtyard. The lower chamber is 4 m long, 3.15 m wide, and 1.90 high. Along the south side of the upper chamber is a podium, cut in the bedrock. On this podium may have been positioned the anthropoid sarcophagus of Iniua, which is in the Louvre. Both chambers have been recut and extended in the Late Period, in order to be used for mass burials. Niches were cut in the sides, and in the floor several mummiform depressions were carved. One of these loculi, in the lower chamber, still contained an intact skeleton. One of the covering slabs (still *in situ*) proved to be part of the doorjamb inscribed in sunk relief with the title (*sdꜣwtꜣ bity smꜣ wꜣty*) and the name (beginning with *Wꜥh-ib-rꜣ*) of an official of the Twenty-sixth Dynasty (pl. III, 3). Six green faience shabtis of a late type, inscribed with the name of a certain Pabes born of Tadytnehetaway, may have belonged to this burial (pl. III, 4). They seem to date to the end of the fifth century BC.

On the whole, objects were scarce compared with the quantity of reliefs found during the excavation. Of the objects of New Kingdom date found in the debris of both superstructure and burial chambers, some were of fine quality, but all were in a fragmentary condition; none could be identified as being part of the tomb equipment belonging to Iniua or other occupants of his tomb.

#### *Monuments in museum collections*

A list of monuments and objects in museum collections known, to date, to derive from the tomb of Iniua, follows here:<sup>4</sup>

1-2. Two papyriform columns: Berlin (Bode Museum) inv. 1627, 1628; acquired in 1845 (Lepsius Expedition).

Limestone, height 154 cm; inscribed for the 'Royal Scribe and Overseer of the Cattle of Amun'. See now K.-H. Priese, *Staatliche Museen zu Berlin, Museuminsel Berlin, Ägyptisches Museum und Papyrussammlung* (Berlin, 1992), Nr. 84.

3. Pyramidion: Louvre D 14 (N 355).

Pink granite, height 63 (orig. 67.5) cm, width 70 cm; two sides have a niche with images of Iniua (Royal Scribe and Steward (sic)) and Iuy (Songstress of Amun). A. Rammant-Peters, *Pyramidions égyptiens du Nouvel Empire* (Leuven, 1983), 54; Musée des Beaux-Arts, Calais, *Les cultes funéraires en Égypte et en Nubie* (1987), 40, no. 75 (with photograph).

4-6. Three relief blocks: Cairo.

T. 25.6.24.7 (S.R. 11935), Iniua (Royal Scribe and Overseer of the Cattle of Amun) supervising the unloading of boats; T. 3.7.24.13, height 62 cm, width 102 cm, Iniua seated with monkey under chair, two scribes, officials and storing of wine; T. 14.6.24.29 (S.R. 11725), height 68 cm, width 47 cm, Iuy offering bouquet to Iniua (Royal Scribe and Overseer of the Cattle of Amun).

<sup>4</sup>The author extends his gratitude to Christiane Ziegler and Guillemette Andreu (Musée du Louvre), Rita Freed and Peter Der Manuelian (Museum of Fine Arts Boston), Emily Teeter (The Oriental Institute Museum, Chicago), Mary Greuel and Karen Alexander (The Art Institute, Chicago), Dietrich Wildung and Karl-Heinz Priese (Staatliche Museen Berlin), for providing photographs and information on pieces in their care. For the monuments listed under nos. 1-9 see PM III<sup>2</sup>, 707, 902, with bibliography. Only publications which have appeared since this edition are added in the present list.

7. Stela: Cairo JE 10079; acquired in 1860.  
Limestone, height 187 cm. Titles: Overseer of the Cattle of Amun and High Steward.
8. Left part of lintel with cornice: The Art Institute of Chicago, inv. 1894.246 (in the care of the Oriental Institute from 1941–1992, inv. 17300).  
Limestone, height 24.5 cm, width 71.0 cm, thickness 5.5 cm. Title: Overseer of the Treasury of Silver and Gold of the Lord of the Two Lands. T. G. Allen, *A Handbook of the Egyptian Collection* (Chicago, 1923), 41–2 with figure.
9. Anthropoid sarcophagus of Iniua: Louvre D 2 (N 338); donated to King Louis XVIII by the son of M. Thédénat-Duvent, consul of France at Alexandria.  
Diorite, length 205 cm, width 65 cm, height at foot 72 cm. Title: High Steward in Memphis. M. Guentch-Ogloueff, *RdE* 4 (1940), 76; W.K. Simpson, *Bulletin du Centenaire IFAO* (1981), 326; N. Kanawati, *BSFE* 104 (Oct. 1985), 34; E. Brovarski, *LÄ* v, 480.
10. Lid of double shabti-coffin for Iniua and Iuy: Boston 1977.717 (William Francis Warden Fund).  
Limestone, length 31 cm. Titles of Iniua: Royal Scribe and High Steward in Memphis; of Iuy: Songstress of Amun. Simpson, *op. cit.* 325–9, and in E. Brovarski (ed.), *A Table of Offerings* (Boston, 1987), 44, 107; S. D'Auria et al., *Mummies and Magic: The Funerary Arts of Ancient Egypt* (Boston, 1988), 153.<sup>5</sup>

#### *Other investigations in the same area*

Finds of special interest, and at the same time adumbrating more discoveries of note in the same area, are the intact pyramidion of an official named Khay and fragments of other inscribed pyramidia (see below). The former was found 1 m west of another tomb-chapel which lies immediately south of the pylon of the tomb of Horemheb (pl. III, 2). The step-laid courses of bricks arranged slantwise along the north and west sides indicate that this chapel too was originally covered by a pyramid. The expedition partly cleared one of the chapels of the mud-brick tomb-complex east of the tomb of Iniua. The upper parts of scenes painted on mud-plaster on the south, west and north walls of this chapel were exposed. They show the tomb-owner officiating for an enthroned Anubis. This chapel may prove to be part of the tomb of Pay, but at the moment this is not certain.

#### *Conservation and restoration*

The decorated chapel in the tomb of Iniua was restored and a new mud-brick vaulted roof was constructed. The wall-paintings were conserved by Mr Yussef Hamadi, and were studied and drawn by Ms Dijkstra, the expedition's artist. A full set of photographs was made by Mr P. J. Bomhof. The walls of the courtyard and parts of the pyramid-chapel were built up to their original height and the limestone flagstones in the courtyard repaired. Chapels A and B in Maya's tomb were also restored with vaults of mud-brick.

<sup>5</sup> Possibly belonging to the tomb of Iniua are the reliefs Cairo T. 25.6.24.8 and 25.6.24.6 (PM III<sup>2</sup>, 755). The lady Iuy may be identical with the owner of a lotiform staff-pommel of wood in the Rijksmuseum van Oudheden, Leiden, from the Anastasi Collection (C. Leemans, *Description raisonnée des monumens égyptiens du Musée d'Antiquités des Pays-Bas à Leide* (Leiden, 1840), 103, l. 90), with an inscription *snt.f nbt-pr 'Iwy*. See, however, for two other women with the same name, also occurring on monuments from Saqqara, PM III<sup>2</sup>, 745, 746.



These will be of great use for the storage of pottery and skeletal remains in a good environment.<sup>6</sup> A cast of a small relief-fragment in Munich from the tomb of Horemheb was fixed in place on the east wall of the inner court of the tomb.

### Inscriptions (J. van Dijk)

Inscriptions occurred mainly on the relief blocks which originally decorated the central chapel of the tomb of Iniuia (or Nia, as his name is sometimes rendered, Ranke, *PN* 1, 170.27; *PM* III<sup>2</sup>, 707), and in the wall paintings in chapel A. The latter texts are extremely faded in places. Apart from the usual offering formulae, in this case often addressed to Ptah-Sokar-Osiris and to Hathor, Lady of the Southern Sycamore, a number of traditional sun-hymns were inscribed both in the central pyramid-chapel itself and on two large round-topped stelae set up against the walls flanking the entrance to the chapel. One of these is in the Cairo Museum (JE 10079). Its counterpart was smashed into a great many fragments, about two-thirds of which were recovered by the expedition.

The inscriptions reveal that Iniuia and his wife Iuy had two sons, Ramose and Penahori. The latter name, *P(ɜ)-n-in.n-hr(i)*, is a variant not recorded by Ranke, *PN* 1, 106.12. Iniuia also had two daughters, Merytre and Wiay. Merytre is twice shown adoring the gods with her parents, and a scene depicting an unnamed daughter kneeling by her parents and sharing the offerings presented to them may also represent her. This probably indicates that she had already died when the tomb was decorated. Iniuia's parents are also mentioned; they are the *sb* Iuny and his wife We[s]y. For the latter name see Ranke, *PN* 1, 84.17.

Iniuia's titles appear to reflect a major change in his career. In some scenes and on the central stela he is called Scribe of the Treasury of Silver and Gold of the Lord of the Two Lands (*sš pr-hd n hd nbw n nb t.t.wy*), but other elements of the tomb decoration display the titles Overseer of the Cattle of Amun (*imy-r ihw n 'Imn*) and High Steward (*imy-r pr wr*). The latter two occur not only in the central or pyramid-chapel, but also in the painted chapel, on the two stelae mentioned above, and on the reveal of the doorway leading into the courtyard. The *sš pr-hd* title is never found in combination with the other titles. On the central stela, for example, it is mentioned four times, whereas the *imy-r ihw* and *imy-r pr wr* titles are absent. In the painted chapel, on the other hand, Iniuia is called *imy-r ihw n 'Imn* throughout, and no reference is made to his function at the Treasury. Interestingly, blocks which give the *sš pr-hd* title appear to be in an 'earlier', more Amarna-like style. One of these depicts Iniuia with his wife and daughter, receiving the offerings 'which come forth upon the altar of Ptah-South-of-his-Wall, Lord of Ankh-tawy' from the hands of his sons, Penahori and Ramose, who are both called 'Scribe of the Treasury of the Temple of Aten', presumably in Memphis. Obviously Iniuia was promoted to the rank of 'Overseer of the Cattle of Amun' at some point in his career, though it remains unclear whether this occurred during the reign of Tutankhamun or during those of his immediate successors. Almost none of the blocks was found *in situ*, and it is hoped that the relocation of the various scenes to their original places will shed further light on this phenomenon. This juxtaposition of references to the Aten temple and prayers to

<sup>6</sup> The restoration of the tomb of Iniuia as well as that of the two Maya chapels was made possible thanks to a grant from the Dutch Ministry of Foreign Affairs (Directorate General for International Cooperation).

traditional gods like Ptah tends to confirm the impression gained from other sources that the Aten temple in Memphis was still functioning for a number of years after the death of Akhenaten.<sup>7</sup>

The Expedition also found blocks and other architectural elements from various neighbouring tombs. Among these are a fragment mentioning the scribe Iurufef, deriving either from the tomb of the Tias or from Iurufef's own tomb-chapel; and also two blocks from the south wall of Horemheb's outer courtyard. A late Eighteenth Dynasty lintel is inscribed for the 'Agent' (*rwdw*) Kha'emnetjer and his wife Sati. Two fragmentary and one complete pyramidion were also found. Of the former, one belonged to a 'Child of the Nursery' (*hrd n ksp*) Amenem[...], perhaps Amenemhab, the father of the harim official Pay, whose tomb is nearby. The complete pyramidion, also of late Eighteenth Dynasty date, belongs to the 'Chief of the Garden of the Garden of Pharaoh, Life-Prosperity-Health, in Memphis' (*ꜥ n š n š n pr-ꜥ nḥw wdꜣw snbw m Mn-nfr*) Kha'y, son of Hadad. The latter name, spelled in group writing *Hꜣ-dy-dy*, doubtless represents a Semitic hypochoristicon derived from the name of the god Hadad, a form of Ba'al.

#### Pottery (Barbara Greene Aston)

The focus of pottery study in the 1993 season was the completion of the recording of 150 crates of plain-ware pottery recovered from a deposit east of the south pylon-wing of Maya's tomb. After two seasons of work, a large sampling of forms has been reconstructed and drawn, and a numerical count of bases and rims will allow the original size of the deposit to be calculated. By far the largest number of vessels present are 'beer jars' and 'funnel-neck jars' for the presentation of liquid offerings. Of great value for pottery studies is the record of numerous variations of these vessel types from one contemporary assemblage.

Pottery excavated from the tomb of Iniua awaits detailed study next year. A small amount of New Kingdom pottery was recovered from the floor of the chapels and the courtyard of the tomb, and a relatively large assemblage from the Ramesside desert marl (*tafl*) pavement surrounding the tomb to the south and west and in the forecourt.

#### Palaeo-anthropological research (E. Strouhal and W. R. K. Perizonius)

Activities this season involved the systematic investigation of the human remains from the subsidiary shafts of the tomb of Maya and Meryt as well as the excavation and preliminary examination of skeletal material from the tomb of Iniua.

#### *Tomb of Maya and Meryt*

Human material from shaft x (mixed New Kingdom and Late Period), shaft xi (Late Period), shaft xii (Late Period), shaft xiii (Late Period), and shaft xv (New Kingdom) was studied. Only in shaft xi more or less complete skeletons, which could be studied as individuals (21 in total), were found *in situ* and still articulated. In all other instances bones of many persons were found disturbed, fragmented, and partly destroyed by the activities of tomb robbers in antiquity. This material could be studied only by the anatomical method and by calculation procedures developed in the 1992 season. In shaft xv, which contained New Kingdom deposits, bones were less often broken, but nevertheless mixed and scattered around.

<sup>7</sup> See B. Löhr, *SAK* 2 (1975), 146-7.

TABLE I. *Demographic data of the skeletal remains from the subsidiary shaft complexes of the tomb of Maya and Meryt studied in the 1993 season*

Date	Shaft complex	Non-adults	Adults		Total	% Non-adults	% Males among adults	
			♂	♀				
NK+LP	x	2	6	2	10	20.0	75.0	
LP	xi	<i>matched individuals</i>	4	11	6	21	19.0	64.7
		<i>remaining material</i>	7	14	10	31	22.6	58.3
	Total	11	25	16	52	21.2	61.0	
LP	xii	6	13	10	29	20.7	56.5	
LP	xiii	11	5	6	22	50.0	45.5	
LP	xv	11	14	7	32	34.4	66.7	

*Demography:* Preliminary results of our demographic determination of the individuals as well as of the remaining material are summarized in Table 1. The number of individuals determined ranged from 10 in shaft x to 52 in shaft xi. The total amounted to 145. Of the 109 adults 63 (60.6%) were males and 41 (39.4%) females. Within the individual shafts these frequencies range from 75% males and 25% females in shaft x, to 45.5% males and 54.5% females in shaft xiii (see the last column of the Table). Of the total 41 (28.3%) were non-adults. Their share in individual shafts varied from 20% in shaft x to 50% in shaft xiii (see the penultimate column of the Table). In our opinion the higher frequency of non-adults in shaft xiii better expresses the real living conditions of the population of Memphis in past ages than the data gained from the other shafts.

*Morphology:* The entire material was subjected to a detailed anthropometric and descriptive analysis in order to provide a basic physical anthropological characterisation of the population during the New Kingdom and in the Late Period. Because of the fact that certain anthropometric peculiarities and rarely occurring morphological anomalies yielded higher frequencies in certain shafts, we conclude, in a preliminary way, that each shaft was utilized by a different genetically-related group of people.

*Pathology:* As regards palaeopathology, degenerative diseases of the spine and extraspinal joints, traumatic lesions derived from fighting or from accidents sustained in daily life, as well as inflammations, were rare. On the other hand several benign and two suspected tumours were detected.

Material still remains to be dealt with from subsidiary shafts iii, iv, v, viii and xiv of the tomb-complex of Maya and Meryt.

### *Tomb of Iniua*

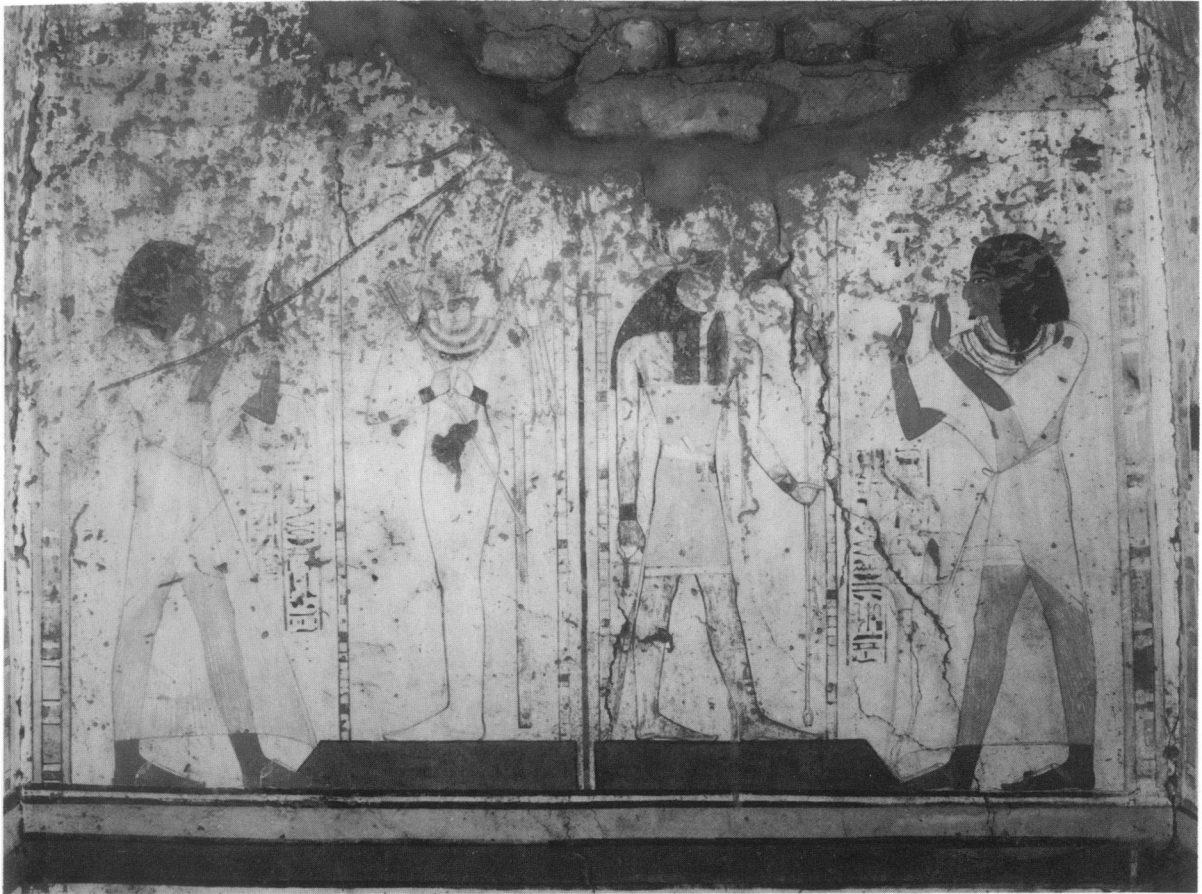
Human material from the tomb of Iniua was excavated and bone concentration numbers allocated. In most cases this material was found scattered and mixed by tomb robbers' activity. The mummified body in the loculus grave with covering slabs in the lower burial chamber was the only intact body found *in situ*. The wrappings were in an advanced state of disintegration. The skeleton (that of an adult male) was removed and prepared for further study.



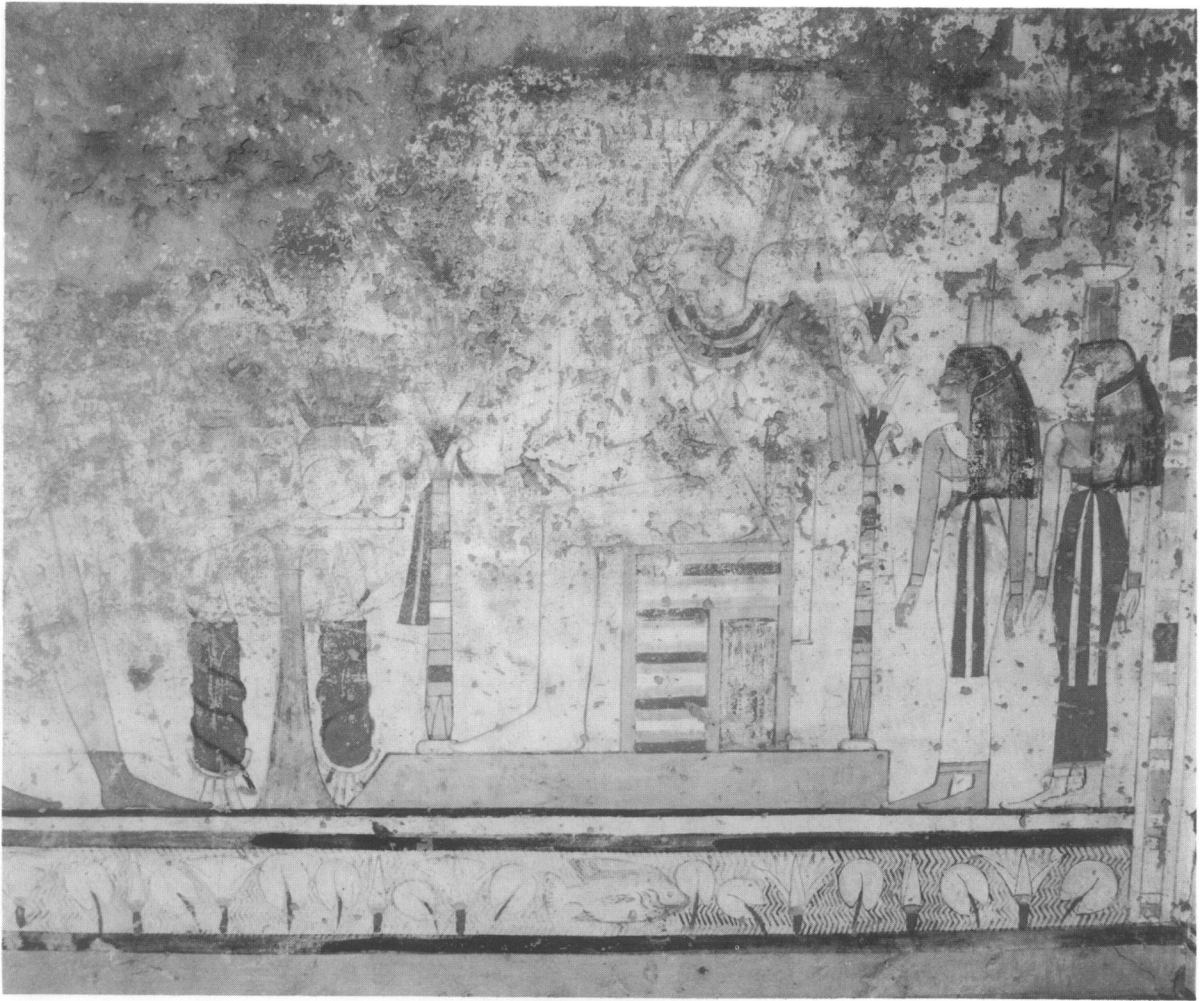
1. Tomb of Iniuia, looking west (p. 2)



2. Tomb of Iniuia, looking east (p. 2)



3. Chapel A, west wall with Iniuia before Osiris and Sokar (p. 2)



1. Chapel A, south wall with Osiris, Isis and Nephthys, and frieze with lotus and fish (p. 2)

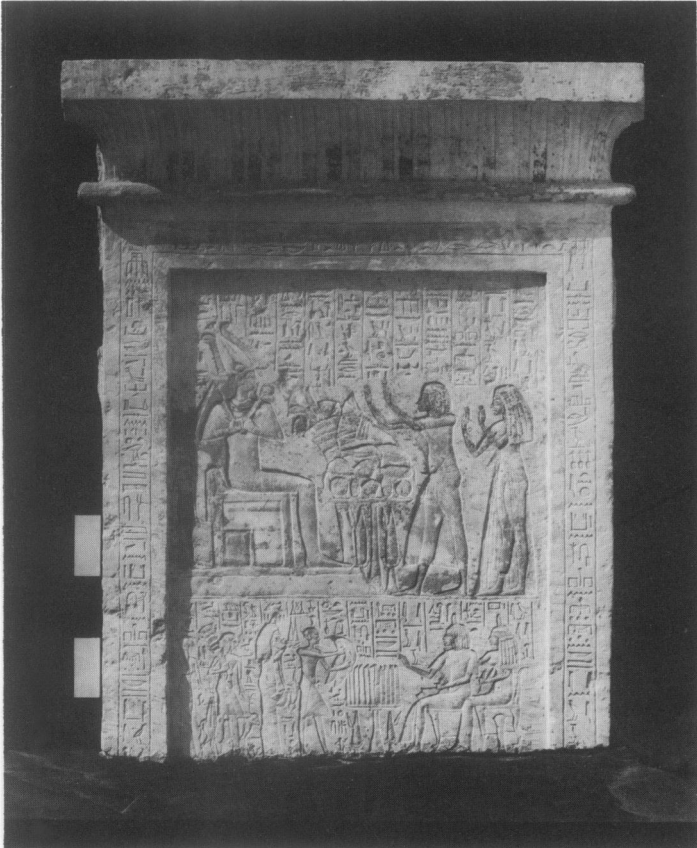


2. Relief with family scene. Height 76.5 cm (p. 4)

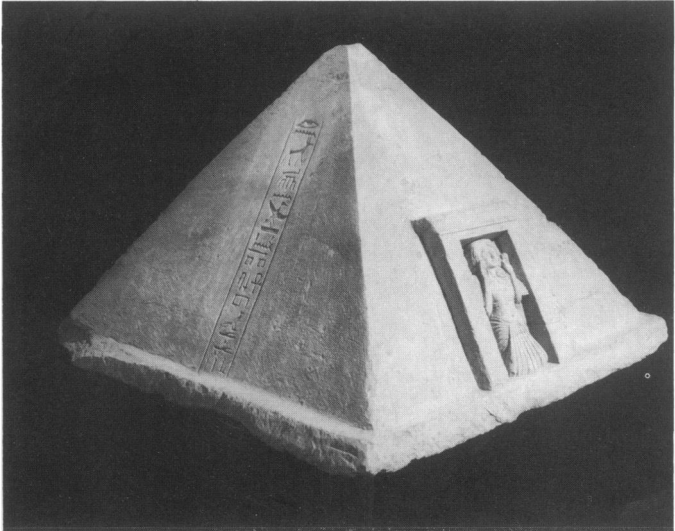


3. Relief with Iniuia and Iuy. Height 75 cm (p. 4)





1. Central stela from pyramid-chapel. Height 112 cm (p. 4)



2. Pyramidion of Khay. Height 48 cm (p. 6)



3. Late Period burial in lower burial chamber. Height of slab 79.6 cm (p. 5)



4. Shabti of Pabes. Height 8.4 cm (p. 5)

## MEMPHIS, 1992

By LISA GIDDY *and* DAVID JEFFREYS

The main work this season was the continued study of material recovered during excavations at Kom Rabi'a, including small finds, pottery, seeds and bones. In addition further geoarchaeological survey was carried out between the ruin field and the desert edge at Saqqara, and the epigraphic and archaeological survey of the Ptah enclosure west gate continued to investigate the possibility of companion pieces to the Middle Kingdom inscribed block reused in the Ramesside structure.

THE Society's survey of Memphis season took place from 2 October to 3 December 1992. Staff members were Janine Bourriau, Barbara Ditze, Kathryn Eriksson, Peter French, Dr Barbara Ghaleb, Dr Lisa Giddy, Irmgard Hein, Professor Basil Hennessy, David Jeffreys, Dr Jaromir Malek, Ian Mathieson, Mary Anne Murray, Dr Paul Nicholson, Will Schenck, Margaret Serpico, and Ana Tavares. The Egyptian Antiquities Organization was represented again by Mr Adil Mahmud, whom we thank for his continued help and cooperation. We also thank the following: the Head of the EAO Dr Muhammad Ibrahim Bakr, Dr Ali el Khouli, Director of Antiquities of the Cairo area Dr Zahi Hawass, the Chief Inspector of Saqqara Mr Yehia Eid, the Chief Inspector of Mit Rahina Mr Abdulla Mahmud and his deputy Mr Farghaly Alham. Among our Cairo friends and colleagues we are again indebted to the staff of the British Council; to Mrs Sue Hutchinson, who now organizes events for the Cairo Friends of the Society; Dr Fred Leemhuis of the Dutch Institute; and Dr Christian Décobert of the French Institute. This season we owe special thanks to Mr Hussein Eisa, Manager of the Saqqara Palm Club, for extending every help and facility to the team during the October earthquake. Professor Hennessy, who happily was able to join the staff this year and contribute to all aspects of the Survey, especially the ceramic studies, and Wong and Mayes (Chartered Accountants), Sydney, are thanked for ensuring Kathryn Eriksson's fare.

### Post-excavation work

*Small finds* (Lisa Giddy). Study continued on the hundreds of small finds from New Kingdom contexts, involving temporary removal to the EES workroom and checking and recording of the remaining 1984-88 seasons' finds; all registered objects were remeasured and where necessary redrawn to publication standard. Objects not registered by the EAO were regrouped and selected examples of each class drawn. Detailed listings and typologies were made of classes with numerous examples. Over 800 finds were treated this way, resulting in more than 300 publication drawings. Before being returned to the EAO store all objects were repacked for long-term storage.

*Pottery* (Janine Bourriau). Sherds from over 100 New Kingdom contexts were sampled and recorded. Computer analysis of the pottery record was carried out and the study of New Kingdom fabrics completed. Particular attention was paid to imported fabrics, from vessels probably used to carry olive oil and wine. Study of the Cypriote and Mycenaean

material continued, with sherds identified from approximately twenty-one vessels ranging in date from the early Eighteenth Dynasty to the Ramesside period. At the end of the season pottery from work in the Ptah temple (see below) was examined; of the few diagnostic sherds, most were of the late Eighteenth and the Nineteenth Dynasty; fewer were Old Kingdom, and the fewest were of the Middle Kingdom. The sample had probably been redeposited by Petrie during his work at the Ptah temple in the early 1900s.

*Archaeobotany* (Mary Anne Murray). The season was largely spent measuring, recounting, and rechecking species from the New Kingdom samples found in 1988 and 1990, although some Middle Kingdom samples were also analysed. Species lists for New Kingdom samples were made and several more weed species identified. Over 100 additional New Kingdom samples from earlier seasons were floated, sorted and identified; these smaller (1–2 litre) samples will be interesting to compare with the main collection and will complete the analysis of the full range of New Kingdom samples. At the same time a policy for the treatment of the massive collection of Middle Kingdom samples is being considered.

*Zooarchaeology* (Barbara Ghaleb). Data recording for analysis of the New Kingdom animal remains was completed and indicates the success of the bulk-sampling programme operated in 1988 and 1990, especially as it affected the recovery of fish and small mammal remains. Twelve samples from earlier seasons that were not bulk sampled also contained fish, but only five species were identified, whereas fifteen species were identified from the bulk samples, which contained up to 3,000 fish-bone fragments from one context alone, compared with a total bone count of fifty-four from the earlier hand-collected samples. These results are significant and the far larger bulk samples will provide evidence for the importance of fish in the local diet, the range of species eaten, fishing technology and season of capture, none of which could have been deduced from the smaller collections made by hand. Rodent and bird remains are also better represented in the bulk samples.

A more complete picture of the most important large mammals used for meat and/or daily products, or for material culture needs, can be formed from the hand-collected samples; based on the number of bone fragments identified per species, sheep/goat and pig are present twice as often as cow. Details of the age of the animals when slaughtered, patterns of butchery, and the body parts represented are all forthcoming and will help towards an understanding of patterns of exploitation.

In addition work has begun on the Middle Kingdom material; data recording of this assemblage is expected to be complete by 1993–4.

### Survey work

*Drill cores* (David Jeffreys). Nineteen cores were taken from west and north-west of the Memphis ruin field, covering in more detail the 1991 survey concession and extending northwards to include the town of Abusir (fig. 1). The massive sand dune identified last year<sup>1</sup> was reconfirmed in the southerly cores and was also recorded in the most northerly ones, but was conspicuous by its absence due east of the town (cores 100, 101). Cores from within the town itself (105, 107) showed two phases of dense occupation separated by the same coarse sterile desert sand that forms the dune. West of Abusir a core (103)

<sup>1</sup> JEA 78 (1992), 2–9.





FIG. 1.

from the former lake bed of Birket Mukhtar Pasha recorded pollen-rich recent lake deposits above 4 m of desert sand lying directly over the ancient rock surface of the low desert. In the far south of the concession, two cores (94, 95) from east of the Unas valley temple were blocked by impenetrable stone, which may be isolated areas of demolition rubble from the valley temple itself. All observations were directly compared with resistivity meter survey (see below).

*Geophysical survey* (Ian Mathieson, Ana Tavares). Investigation in 1991 of the buried silts east of the escarpment was extended this season to follow the drill core sites, and a 10 m<sup>2</sup> sample area was also selected for intensive sensing at 1 m grid intervals. Twenty-eight profiles (MEM9201–28) consisting of seventy-nine overlapping lines were observed, each line involving seventy readings at 2 m vertical intervals, giving a complete sub-surface profile down to 10 m.

East of the Unas valley temple, four profiles were observed to test the possibility of buried structures and to plot the existence of neighbouring clay and sand banks. Two profiles extending to the Shubramant Canal continue the sequence of lines observed in 1991; eight profiles in all were observed across two open squares in Abusir town; three more were observed in the small irrigation development west of the town (Birket Mukhtar Pasha). The ten-metre test area (near core sites 1991/75<sup>2</sup> and 1992/90) consisted of 960 data points to a depth of 6 m.

The raw data has now to be computer-processed, but already a crude cross-section or pseudo-section of the desert edge and possible presence of brick structures can be made from inspection of the field readings.

### Epigraphic survey (Ptah temple)

*Epigraphic work* (Jaromir Malek). The following eight new SCHISM corpus numbers were given to inscribed or decorated fragments found during cleaning of the area around the fourth statue pedestal against the south tower of the west pylon (fig. 2). Five of these are large blocks left on site; the other three (3872, 3873, 3878) are small pieces and are currently stored in the Society's magazine at Mit Rahina.

3871 Quartzite relief (part of column?) with head of deity, probably Ptah. No text.

3872 Small limestone fragment. Inscription in raised relief, probably reused Old Kingdom tomb relief: beginning of name *Pepy*[. . .].

3873 Fragment of limestone stela with part of unidentified scene, probably Eighteenth or Nineteenth Dynasty.

3874 Granite fragment with part of titulary and names of Ramesses II.

3875 Quartzite fragment with part of scene with Ramesses II and protective bird.

3876 Granite block with part of titulary of Ramesses III. This piece is of importance because it shows that this king added his inscriptions to the base course (dado?) of the western façade of the pylon in addition to the basalt linings of the doorways. This allows us to assign to him the partial inscription near the southern side entrance, which until now was regarded as being of Ramesses II.

3877 Basalt block with remains of three large hieroglyphic signs in sunk relief (from a building text on the façade of the pylon).

3878 Small calcite disk recut from a slab bearing finely incised inscription, perhaps part of a temple offering list of the Eighteenth Dynasty.

<sup>2</sup> JEA 78 (1992), 4 fig. 2.

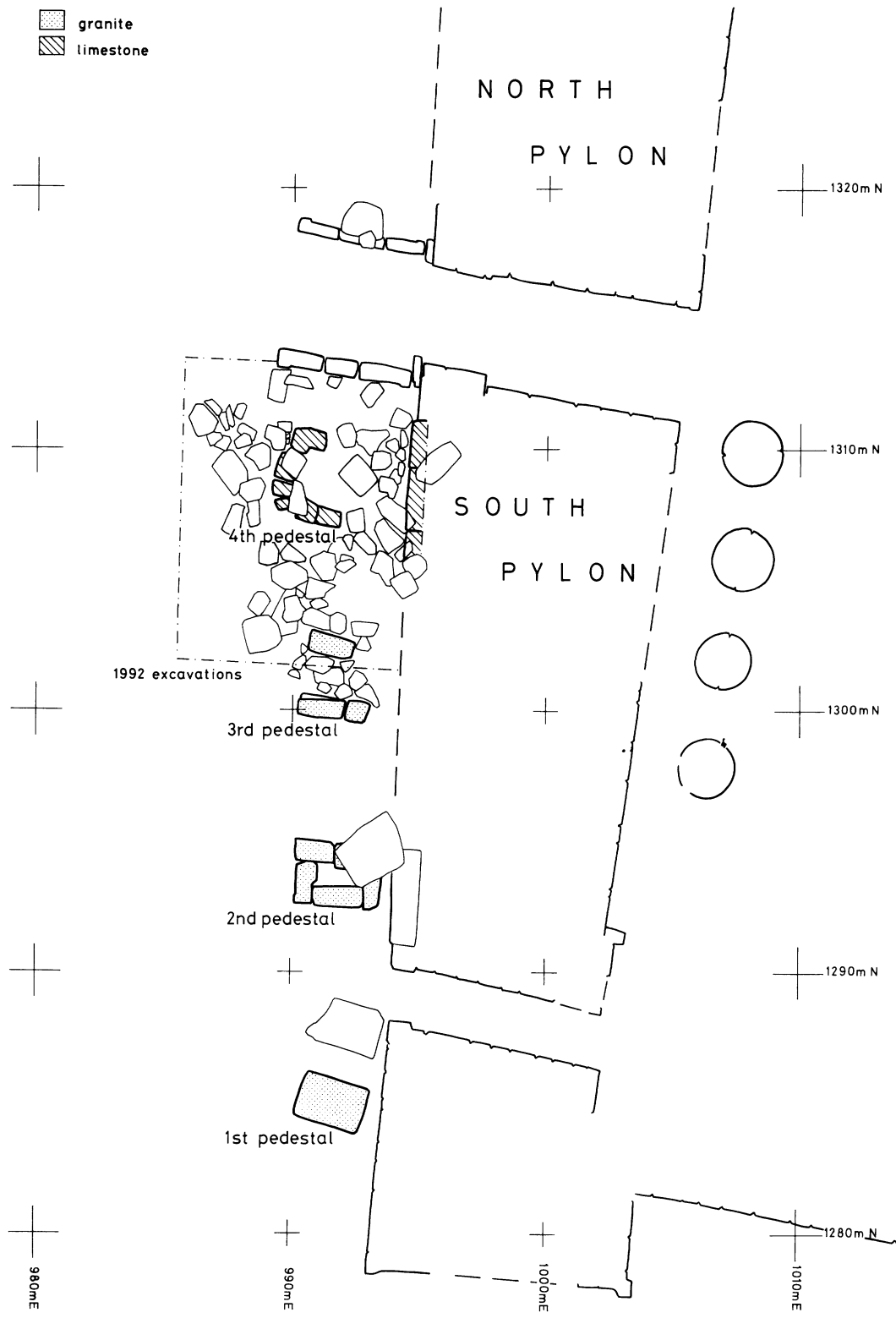


FIG. 2.

*Archaeological survey* (Lisa Giddy, Kathryn Eriksson). The area west of the south tower of the pylon was reinvestigated (fig. 2) with the specific object of studying in more detail the blocks comprising the four statue pedestals described by Petrie. These were planned by him in 1908,<sup>3</sup> and presumably all four supported colossal statues. The southernmost of these pedestals was capped by the block containing the Middle Kingdom inscription (copied by J. Malek and S. Quirke in 1991<sup>4</sup>) which lay directly beneath the base of the one statue remaining *in situ*. This block most probably came from a dismantled temple in the old city, perhaps to the west of the Ramesside Ptah temple enclosure. Our intension was to determine whether the other Ramesside pedestals also contained re-used Middle Kingdom blocks.

All vegetation was cleared from the west side of the south tower and all exposed granite slabs were cleaned, but no other Middle Kingdom texts were found. The remaining three granite pedestals were studied but none of them bore any visible inscriptions. The area immediately south of the axis of the central doorway was cleared to relocate the fourth pedestal shown on Petrie's plan. Several hardstone blocks (granite, basalt, quartzite) were plotted, four of which had Ramesside inscriptions (see above), but no trace of a pedestal was seen at this level. However, in clearing down to the level of the limestone bedding course of the pylon we exposed the limestone foundations of a box-like structure resembling Petrie's plan of the fourth pedestal base. Either the pedestal had been seen by Petrie but had subsequently been removed (witness the scatter of granite blocks at this position) or he simply inferred and restored the pedestal in his plan from the evidence of the rough limestone bedding blocks. Since none of the other pedestals seems to have suffered since Petrie's day, we assume the second explanation to be more likely. All the scattered blocks that could possibly be associated with this pedestal were thoroughly explored, but none showed any trace of Middle Kingdom inscriptions. The limestone bedding of both pylon and pedestal were planned at 1:50 and levelled. Several small finds recovered during the cleaning work were recorded and are now stored in the EES magazine at Mit Rahina.

<sup>3</sup> *Memphis*, 1 (London 1909), pl. ii.

<sup>4</sup> *JEA* 78 (1992), 13-18, pls. ii, iii.

# PRELIMINARY REPORT OF THE NATIONAL MUSEUMS OF SCOTLAND SAQQARA SURVEY PROJECT, 1990-91

By IAN J. MATHIESON *and* ANA TAVARES

The National Museums of Scotland Survey aims to produce an up-to-date archaeological and sub-surface geophysical map of the area known as the Abusir West-Saqqara Wadi. The work combines remote sensing investigation, field inspection and archival research into previous excavations and surveys with selected excavation exposures of targeted anomalies.

THE concession area allows for the investigation of the bed and sides of the dry water-course or wadi leading south-south-west from the edge of the remanent lake at Abusir—Birkhet Mukhtar Pasha—to the large rectangular enclosure known as the Gisir el Mudir or Great Enclosure (fig. 1).<sup>1</sup> Two field seasons have been undertaken—from 2 to 28 November 1990 and 16 November to 5 December 1991, the staff being David Jeffreys (archaeological advisor), Ian and Padi Mathieson (geoarchaeological surveys), Ana Tavares (survey and archival research), and Professor H. S. Smith (Egyptological advisor).

The National Museums of Scotland acknowledge with gratitude the help and co-operation of the Egyptian Antiquities Organization, with whose permission the work is carried out, especially the Officers at Abassiya, Chairmen Dr S. Tawfik and Prof. Dr Mohammed Ibrahim Bakr, Dr Ali Hassan, the members of the Committee and the Secretariat, Mr Ahmed M. Moussa and Mme Samia; Dr Abd al-Aziz Sadek, Documentation Centre; at Giza Dr Zahi Hawass; at Saqqara the Director of Antiquities, Mr Yehia Eid, and the EAO representatives, Mr E. M. Abd el-Salaam and Mr. Ahmed Mohammed Shaaban, all of whom have been most willing to give assistance at all times. Financial assistance from the British Academy and the Wainwright Fund and map reproduction by Survey and Development Services Bo'ness, West Lothian, are gratefully acknowledged.

## *Methodology*

Sub-surface sensing for archaeological purposes can be carried out by resistivity, proton-magnetometer, sonic profiling, ground penetrating radar, and thermal imaging. For large-scale initial exploration survey, the resistivity traverse method gives the fastest results and enables the concession area to be divided into a grid pattern for closer examination of any anomalies touched during the traverses. The electrical resistance method for sub-surface study was first developed by Schlumberger in France in 1912 as part of geophysical development in the pursuit of oil exploration. Since that time the method has proved itself to be among the most effective means for shallow sub-surface investigation.

<sup>1</sup> Also known as the Cattle Enclosure and De Morgan's Enclosure, PM III<sup>2</sup>, 417 E.

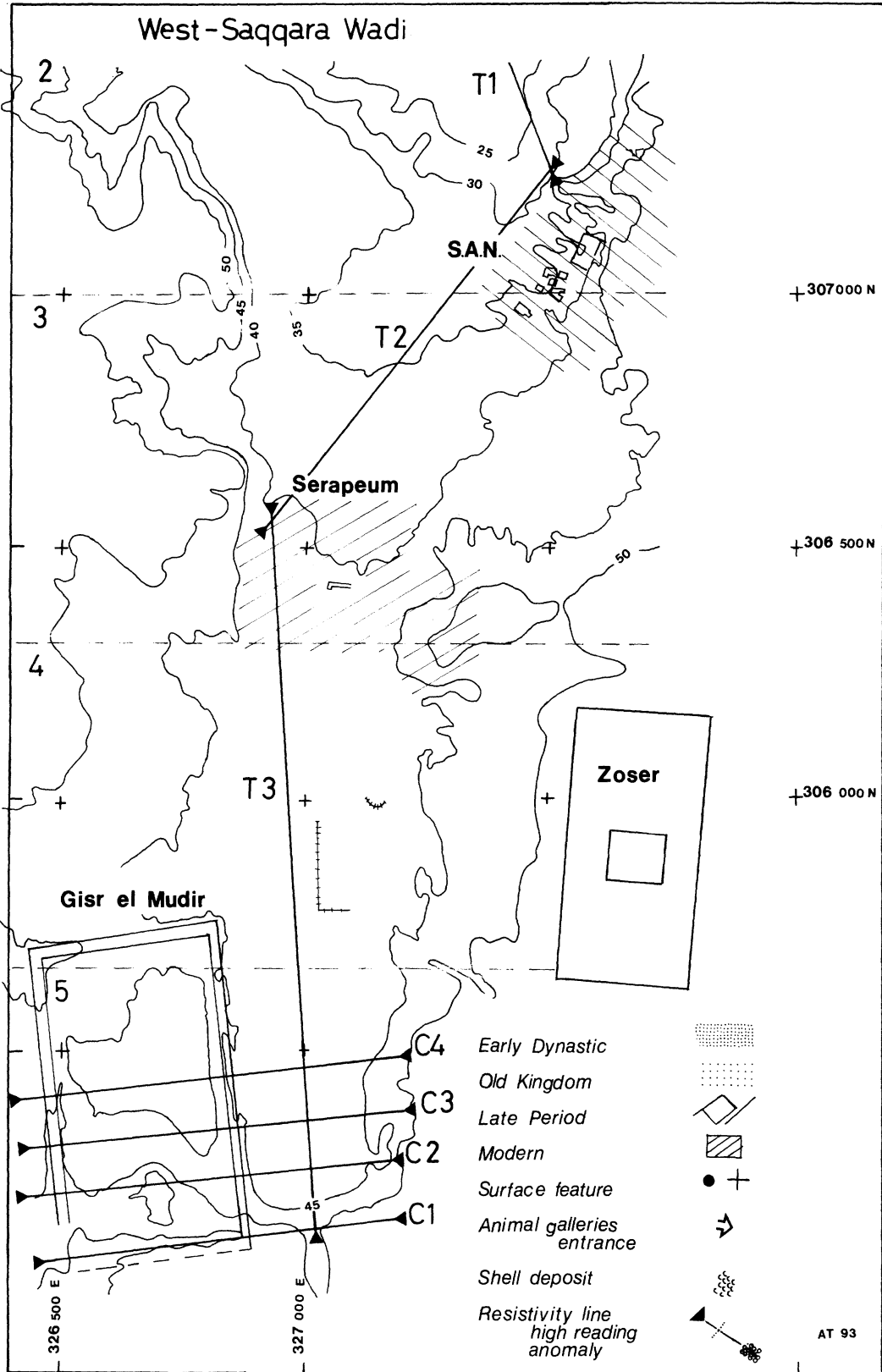


FIG. 1.

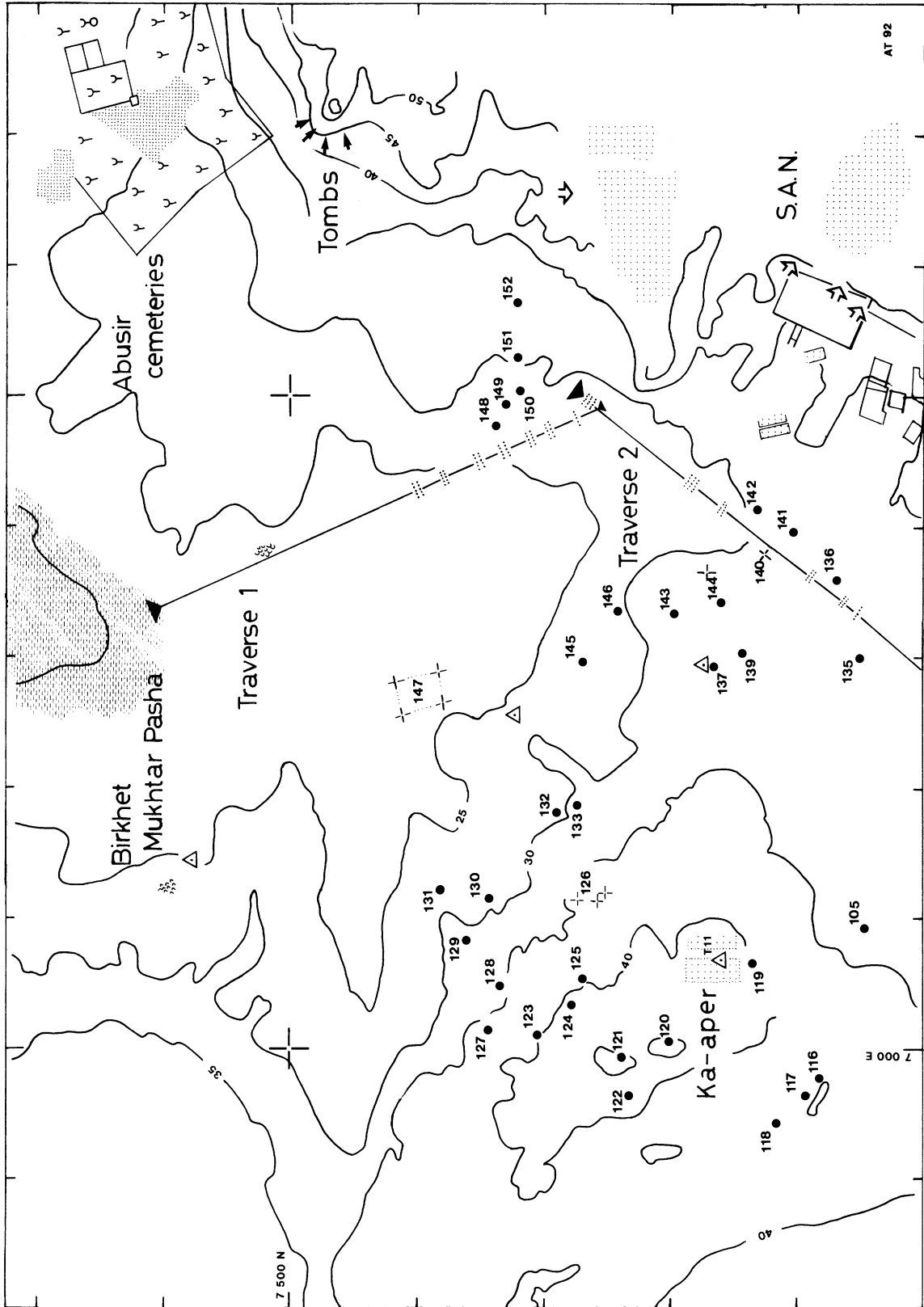


FIG. 2.

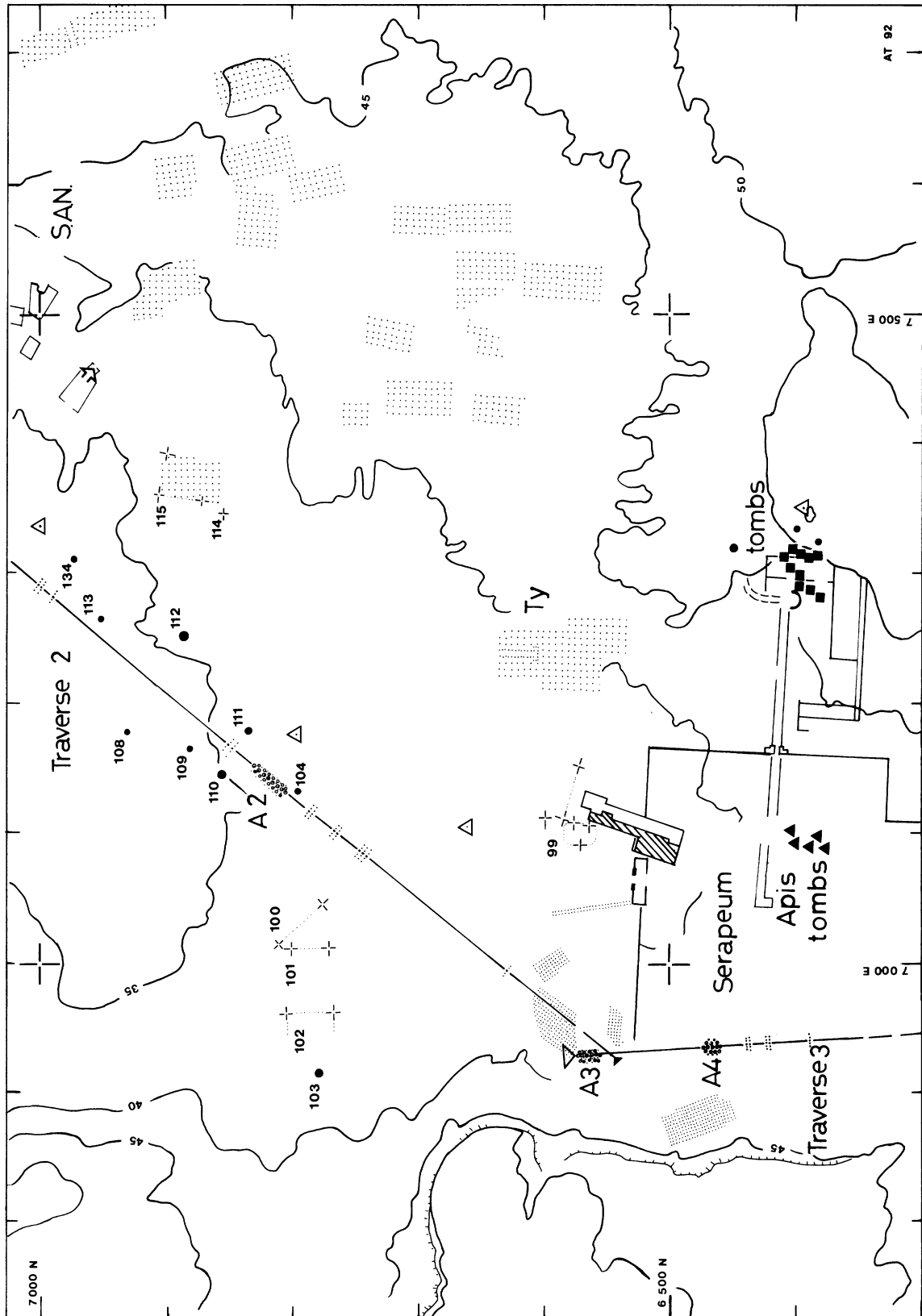


FIG. 3.



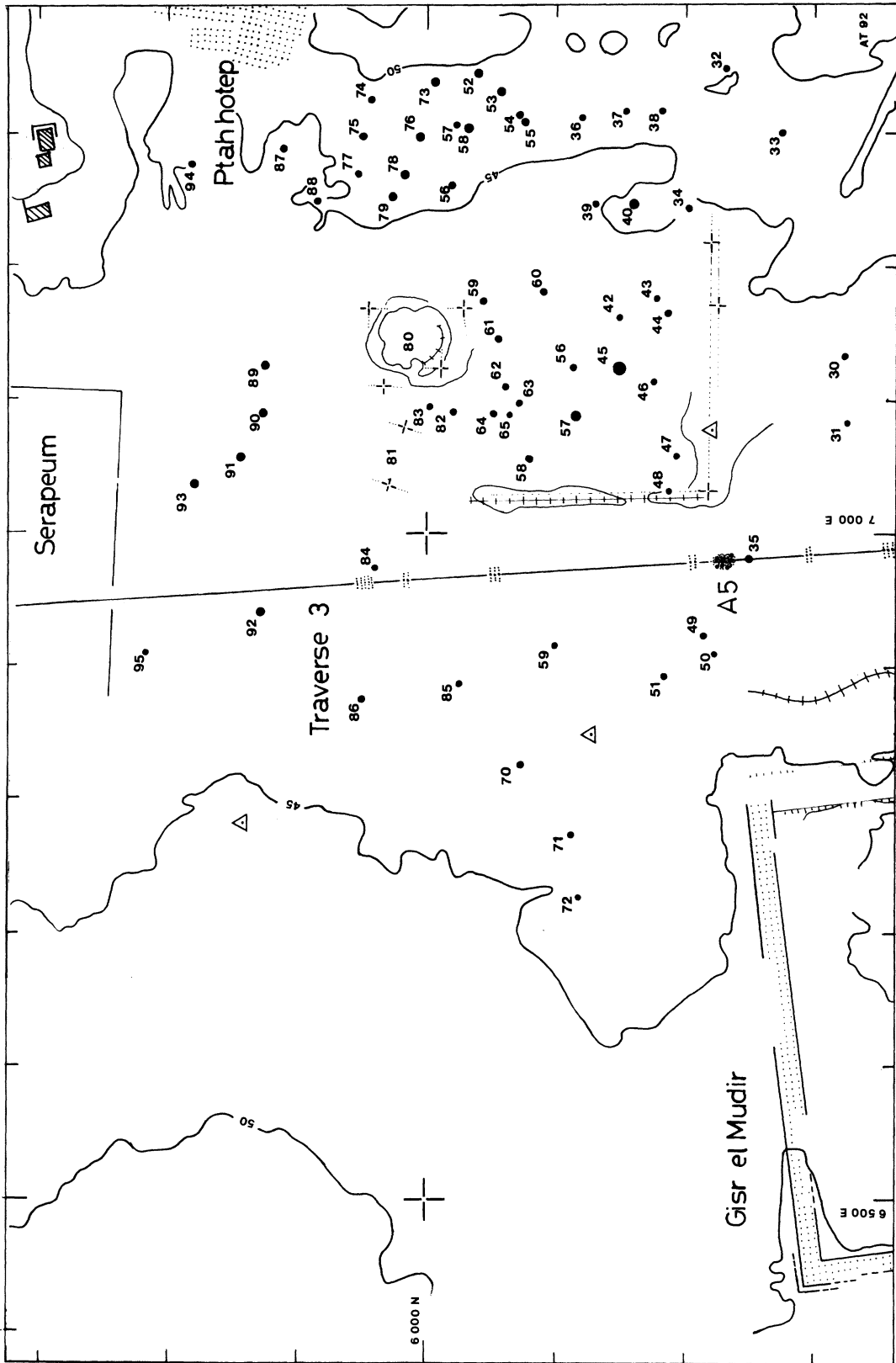


FIG. 4.

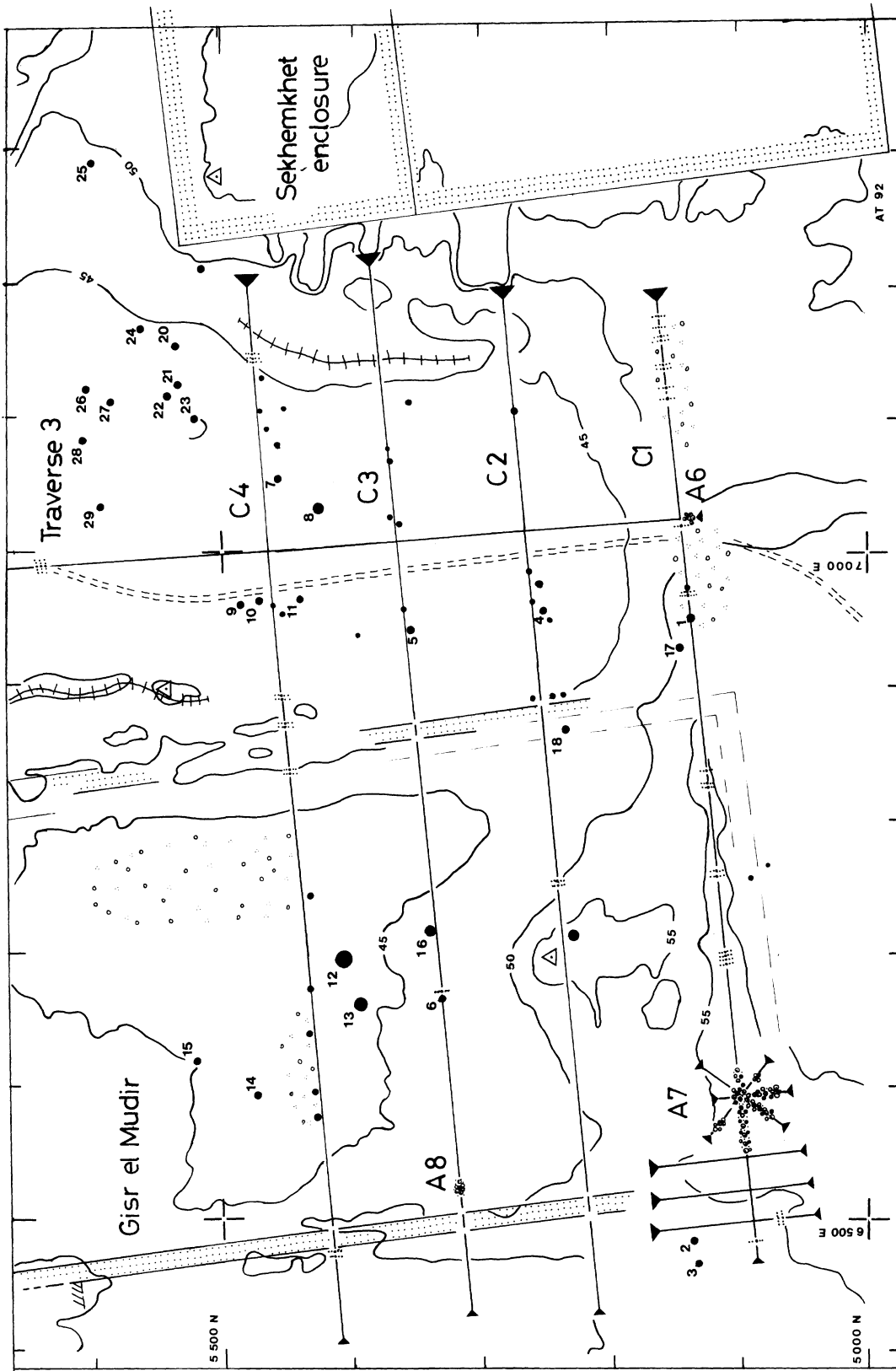


FIG. 5.

Resistivity surveys can distinguish types of sub-surface materials, and determine the composition of an overburden and the depth of the rock-head. Any intervening material or void gives an anomaly which can be plotted in depth and linear position. Resistance to an electrical current is a physical property that characterizes a material almost as definitely as its density and magnetic susceptibility.

The procedure relies on the principle that separate material deposits beneath the surface offer different resistances to the passage of an electric current, depending largely on the amount of moisture present in the material. A damp midden pit-fill will offer less resistance than the surrounding dryer soils, and a brick or stone structure a much higher resistance. The measuring device used consists of a source of electric current and a meter to measure the resistance. The particular instrument used for this survey project is a Strata-Scout analogue resistance meter connected to a linear array of twenty-four copper rods by a multi-core cable addressed by a multi-selection switching device. The copper rods are driven into the ground at two-metre intervals and the current passed through the rods in paired sequences, the configuration being called the Wenner method,<sup>2</sup> which provides a measure of depth and position at which the resistance is being measured.

Each array or profile is overlapped to give a continuous depth recording down to 8 m depth. Readings can be taken at 10, 12, and 14 m to gain further information when a structure is observed. The data are computerized for smoothing and removal of background 'noise' and then plotted in the form of crude cross-sections or pseudo-sections by software which gives maximum flexibility in scale and notation. As the resistivity data can range from zero to infinity within the space of a few metres, the ability to plot natural scales as well as logarithmic is greatly appreciated for clarity of presentation in graphic form.

### *Location surveys*

The locations of tombs, structures and survey lines are based on local triangulation schemes laid out by the Survey of Egypt, Cairo University Engineering Department and the Egyptian Exploration Society, all of which have been reduced to the UTM Grid (Universal Transverse Mercator Grid Projection-Hayford 1909 Int. Ellipsoid) which is the base for the topographic map sheets produced in 1978 for the Ministry of Housing and Reconstruction (MHR 1978) at a scale of 1/5000. It is from these map sheets that the basic topographic features used by the authors are obtained. The main traverses and cross-sections of the completed resistivity profiles along with all shafts, tombs and structures surveyed are shown on figs. 2-5.<sup>3</sup>

<sup>2</sup> F. Wenner, 'Method of Measuring Earth Resistivity', *NBS Scientific Paper no. 258*, vol. 12, no. 3 (USA, 1915-16), 469-78.

<sup>3</sup> Previous geophysical work at Saqqara has often not been part of an overall survey programme. Resistivity and magnetometer work was carried out in the area of the SAN (A. H. Moussa and L. T. Dolphin, *Applications of Modern Sensing Techniques to Egyptology*, (California, 1977)), and a magnetometer was used in the area immediately west of the Zoser enclosure by a mission of the Polish Centre of Mediterranean Archaeology in Cairo (J. Leclant and G. Clerc, *Or* 57 (1988), 329 h; *Or* 58 (1989), 360 k). For details of geophysical work at south Saqqara and subsequent excavation, see *Or* 58, 363.

*Birket Mukhtar Pasha or Birket Timsah (Abusir Lake)*

The survey begins at the remanent lake of Abusir (which still held water and harboured wildlife during the early years of this century) and runs south-east to the rocky bluff, north-west of the complex of buildings known as the Sacred Animal Necropolis (SAN). An area of mud-brick showing on the surface of the east side of the survey line extends to the foot of the bluff. On the east and west sides of the presumed edge of the lake deposits of small bivalve brachiopods in a compact mud-stone matrix are visible. This geological layer is distinctive from others found at Saqqara and occurs along the 23–26 m elevation line extending eastwards at the base of the North Saqqara bluff. The Early Dynastic cemeteries, excavated by Bonnet in 1900<sup>4</sup> and more recently by the EAO, are cut into this layer. The superstructures of the mastabas in this area have been badly eroded with only the substructures remaining.

Traverse 1 starts in the old cultivation founded on the silt deposited by the rise and fall of the lake waters until the control of the Nile inundations in modern times. The first 80 m of data is typical of the silt/sand/clay readings obtained in the Memphis surveys carried out over the last five years<sup>5</sup> and forms a good benchmark from which to study the readings from the windblown sands, occupation debris and other material encountered as the survey moves southwards. From the correlation of boreholes and the resistivity readings approximate OHMm values can be given to the sands, clays and silts as follows:

Sandy silt (upper layers)	25.0	OHMm
Sand silt (below water-table)	1.0–2.0	OHMm
Clay	8.0	OHMm
Silty-clay	8.0–12.0	OHMm
Silty-clay (below water-table)	0.5–1.5	OHMm

The desert area from the lake to the ‘North Ibis Bluff’ is virtually unexplored, despite references in early maps and accounts to animal cemeteries.<sup>6</sup> Late Period remains connected with the various sacred animal cults are likely to be found in this area.

At the 80 m mark there are signs of bedrock and material indicating the probable position of the ancient shoreline of the lake which might correlate with flint chippings showing on the surface. From this point to the foot of the bluff there are many signs of mud-brick on the surface and high readings sub-surface indicating galleries or structures crossing the traverse line.<sup>7</sup> At the bluff the survey line turns south-west in the direction of the Serapeum and in doing so crosses the Old Kingdom mastaba field.

<sup>4</sup> H. Bonnet, *Ein frühgeschichtliches Gräberfeld bei Abusir*, (Leipzig, 1928).

<sup>5</sup> *JEA* 74 (1988), 19–24; 75 (1989), 8–9; 76 (1990), 12–14; 77 (1991), 6; 78 (1992), 2–9.

<sup>6</sup> ‘Tombes des Boeufs’ and ‘Tombes des Oiseaux’ are marked in *Description de l’Égypte, Antiquités*, planches, V (Paris, 1822), pl. i; *Description de l’Égypte, Carte topographique de l’Égypte* (Paris, (1826)), Fll. 21; J. de Morgan, *Carte de la nécropole memphite*, (Cairo, 1897) 10. For a comprehensive bibliography of early visitors to the animal galleries, see G. T. Martin, *The Sacred Animal Necropolis at North Saqqara* (London, 1981), 4 n.2. For animal cults and structures associated with them, see D. Kessler, *Die heiligen Tiere und der König*, Teil 1 (Wiesbaden, 1989), 56–150.

<sup>7</sup> W. B. Emery excavated a Third Dynasty mastaba on the valley to the west of the SAN, indicating that the full extent of the archaic necropolis is still unknown (*JEA* 53 (1967), 141, fig. 1).

*The Old Kingdom mastaba field*

The Old Kingdom mastaba field excavated so far extends across the wadi and was partly cleared in the 1850s by Mariette.<sup>8</sup> In subsequent maps, such as those of de Morgan<sup>9</sup> and Smith,<sup>10</sup> various mastabas were noted but few were ever relocated or re-excavated.

Indications of shafts, excavation craters, surface debris, articulated mud-brick and limestone walls and corners have been located and plotted from the traverse line. Some of these coincide with the positions for tombs B15, 19, 20 and 21, while tomb 24 and the older mastaba to the east<sup>11</sup> actually show exposed limestone walls and corners. Tombs 1 to 4 are likely to be on the east edge of the Ka-aper/T11 mound where traces of structures are visible. However, no positive identification can be made without exposing part of the chapels or finding inscriptional evidence.

De Morgan alters somewhat the positions of the tombs excavated by Mariette and adds a large number of Old Kingdom mastabas across the wadi and in the area east and west of T11. No name or date is given for these, which perhaps indicates that most were not even partially cleared but inferred from surface finds. Our observations confirm that the mastaba field seems to extend in a crescent shape across the wadi and around the tomb of Ka-aper (recently excavated by the EAO and by the Czechoslovak archaeological mission in 1990–91). The density of the tombs is comparable to that in other areas of the necropolis and they extend further north and north-west than indicated on previous maps. In the vicinity of our anomalies A1 and A2, in the area where de Morgan shows a ‘Greek Tomb’,<sup>12</sup> traces of a structure were surveyed.

Several of the areas shown as ‘empty’ even on the de Morgan maps show clear evidence of structures. East of anomaly A1, there is a cluster of excavation craters and debris which coincides with a ‘New Kingdom’ tomb indicated on de Morgan’s map. Located on a gravel mound in the centre of the valley to the south-west of the tomb of Ka-aper (327060E 3307170N) there are surface indications of four shafts surrounded by a considerable quantity of animal bones.<sup>13</sup> More shafts and structures are evident across the valley to the west of the SAN temple platform where Emery cleared some Third Dynasty mastabas.<sup>14</sup> On the slopes of the wadi sides leading from the tomb of Ka-aper to the north-east and continuing down to the edge of the Abusir lake are surface deposits which might indicate the existence of stone and mud-brick mastabas and shafts. These have been surveyed and they indicate that the mastaba field extends across the wadi even this far north.

<sup>8</sup>A. Mariette, *Les mastabas de l’ancien empire* (Paris, 1884); see also PM III<sup>2</sup>, 448–89.

<sup>9</sup>De Morgan, op. cit. 8, 9, 10. De Morgan’s maps, which have no commentary, must be used with caution since there are serious discrepancies between them and contemporary sources: D. G. Jeffreys and H. S. Smith, *The Anubieion at Saqqara*, 1 (London, 1988), 54–8.

<sup>10</sup>W. S. Smith made his own topographic survey of the necropolis in the 1930s, relocating a number of tombs found by Mariette (G. Reisner, *The Development of the Egyptian Tomb down to the Accession of Cheops* (Cambridge, Mass., 1936), Appendix C).

<sup>11</sup>Smith, in Reisner, op. cit., 399.

<sup>12</sup>De Morgan, op. cit. 9. Emery has suggested that several Old and New Kingdom tombs to the south-west of the SAN have been deliberately levelled off in the Late Period to receive some kind of large temple platform, and an enigmatic rectangular structure of the same date was recorded, also well to the south-west of the SAN complex, by Edel. For his work in the area, see Leclant, *Or* 40 (1971), 231; 43 (1974), 180.

<sup>13</sup>Mostly immature bovids (field observation by Dr B. Ghaleb in 1992). For other animal galleries, as yet unexcavated but likely to be in the area, see J. Ray, *The Archive of Hor* (London, 1976), 150–1, 154 n.2.

<sup>14</sup>*JEA* 53 141–5.

### *The Serapeum*

On reaching the Serapeum, the survey concession turns due south to the direction of the ridge between the pyramid enclosure of Sekhemkhet and the Gisir el Mudir (the Great Enclosure). In the area of the Serapeum sub-surface data showed the presence of several anomalies and in the areas of MT<sub>3</sub> and MT<sub>4</sub> field observations confirm the presence of mud-brick traces on the surface. The overall surface of the Serapeum area is very disturbed and excavations have revealed intensive use throughout Egyptian history; any detailed discussion will require further sub-surface information from resistivity profiles.<sup>15</sup>

In the 1930s, R. Macramallah<sup>16</sup> partly excavated an Early Dynastic cemetery in the Serapeum area. Several small depressions in the desert surface are now the only indication of part of this cemetery which consisted of mostly shallow cist burials cut into the gravel surface. The presence of these Early Dynastic tombs and of near-contemporary mastabas on the wadi floor to the north suggests that the early use of the Saqqara plateau as a burial ground<sup>17</sup> centred on the Abusir lake and valley, and reflects the more northerly location of the settlement at that time. Later the city moved south and east, when the nucleus of activity at Saqqara also moved away from the region of Abusir, the valley, however, remaining important as an access route.<sup>18</sup> Macramallah also records nine simple rock-cut New Kingdom tombs whose presence is of interest in view of the pattern of use of the Serapeum at that time.<sup>19</sup> The Serapeum enclosure wall was wholly or partly cleared by Mariette while excavating the catacombs of the Apis bulls in 1852–54.<sup>20</sup> He described three sides of the enclosure as being of limestone lattice ('*claire-voie*') construction, while the west side, probably with no actual built wall, is defined by the line of the high desert which is in effect the west side of the main wadi.

To the north-west of the rest-house (fig. 3) there are traces of mud-brick walls and limestone masonry which are considered to be part of the north gateway of the Serapeum. This would alter the position of the northern enclosure wall and gate to 50 m further north and possibly further west than indicated in the Mariette and de Morgan plans. Resistivity profiles and further investigation may later make it possible to establish the actual location of the northern enclosure wall and therefore correctly position the north gate and define its relationship to the Sacred Animal Necropolis.

### *Southern limit of the wadi and the Gisir el Mudir (Great Enclosure)*

Moving to the end of the survey at the ridge joining the Gisir el Mudir and the Sekhemkhet pyramid enclosure and studying the data between the ridge, the Serapeum and the bluff at the end of Traverse 1, the following average OHM metre values can be

<sup>15</sup> For details of sonic research at the Serapeum, see Leclant and Clerc, *Or* 58, 361, and J. P. Piquet, H. Helaland, F. Iman, *La géologie de l'ingénieur*, 1 (1988), 154, 157–8, fig. 1. Work has also been carried out at the Serapeum under the direction of Dr M. Ibrahim: Leclant and Clerc, *Or* 57, 331; *Or* 61 (1992), 246–7.

<sup>16</sup> R. Macramallah, *Une cimetière archaïque de la classe moyenne du peuple à Saqqarah*, (Cairo, 1940). For an interesting discussion of this cemetery, see W. Kaiser, *MDAIK* 41, (1985), 47–60.

<sup>17</sup> A surface survey to the west of the Serapeum reported paleolithic tools (Leclant and Clerc, *Or* 58, 360 g).

<sup>18</sup> On the northern approach to Saqqara see H. S. Smith, *Bulletin du Centenaire* (Supplement to *BIFAO* 81, 1981), 338, and recent work of the survey of Memphis, see n. 5 above.

<sup>19</sup> Macramallah, *op. cit.* 71 ff. On the relationship of New Kingdom and earlier monuments at Saqqara, see J. Malek in *Studies in Pharaonic Religion and Society*, ed. A. B. Lloyd (London, 1992), 57–76.

<sup>20</sup> A. Mariette, *Le Sérapeum de Memphis, publié d'après le manuscrit de l'auteur par G. Maspero*, 1 (Paris, 1882), 36–7, 78–9.

given for the sub-surface materials in this area:

Bedrock	25-100 OHMm
Sand and gravel over bedrock	400-1,500 OHMm
Deep sand	400-5,000 OHMm
Mud-brick	750-2,500 OHMm
Disturbed debris	1,500-5,000 OHMm
Shafts and grave pits	2,500-8,000 OHMm
Stone- and debris-filled structures	10,000-infinity

These values enable the following sub-surface conclusions to be reached for this area of the survey.

Between the Gisir el Mudir and the Sekhemkhet enclosure, along the west-east slope of the desert plateau just north of cross-section C1, there are surface indications of a mud-brick wall or structure which extends eastwards over the anomaly recorded on Traverse 3 in 1990 (A6, figs. 4, 5). Parallel to this structure and north of the area of small pittings surveyed in 1990 are traces of disturbed tomb shafts. These extend over the north-south desert track and east towards the Sekhemkhet enclosure (fig. 5). On the east side of the main wadi near the Sekhemkhet enclosure a close inspection was made of the two north-south gravel mounds which have been suggested in the past as possible enclosure walls.<sup>21</sup> There are no indications of man-made structures on either mound, on the surface or in the sub-surface data; geologically speaking they appear to be homogeneous sand and gravel deposits over limestone intrusions in the wadi floor. As shown on figs. 4 and 5, there are many previously delineated tomb structures and robbed shafts on both sides of the north-south desert track. Three Old Kingdom mastabas are shown by de Morgan<sup>22</sup> and where clear indications of other features have survived, they have been incorporated to provide a more complete map of the area. Beyond the north-east corner of the Gisir el Mudir there are some surface indications of tombs or shafts on the west side of Traverse 3. De Morgan places three mastabas here which have been dated to the New Kingdom. No independent dating is possible at present. However, on the east side between Traverse 3 and the Zoser enclosure research into published material and the surface survey both show various Old Kingdom tombs and shafts.

#### *Possible enclosure to the west of Zoser*

On Traverse 3 there is a large anomaly (A5, 1990) with traces of mud-brick on the surface. This anomaly could be connected with an L-shaped mound some 25 m to the north-east. The mound extends north for 140 m and there are anomalies and tomb indications for some 400 m on the west side of this feature. Extending the southern arm of the L-shape to the east (MT41), it continues for approximately 200 m with various tombs and shafts located within the enclosed quarter of the feature. Field surface study indicates the composition of the L-shaped mound to be sand and gravel with mud-brick and limestone traces.<sup>23</sup> This feature can be clearly seen on aerial photographs<sup>24</sup> and the

<sup>21</sup> R. Stadelmann, *BdE* 97 (1985), 295-307.

<sup>22</sup> De Morgan, *op. cit.*, 9-10.

<sup>23</sup> Cf. A. J. Spencer, *Or* 43 (1974), 3. C. M. Firth is reported to have carried out trial excavations in the area but failed to find traces of a wall: N. Swelim, *Some Problems on the History of the Third Dynasty* (Alexandria, 1983), 33. Swelim assumes that the wall would be stone (*MDAIK* 47 (1991), 393); this has not so far been confirmed.

<sup>24</sup> Eg. Frame 5064 v. 13 RAF 0126 (3 August 1947).

south-west corner is indicated on the maps of de Morgan, Lepsius, and Vyse and Perring.<sup>25</sup> If reconstructed as a rectangular enclosure, the north-east corner would coincide with the Ptahhotep tomb group.<sup>26</sup> De Morgan's map shows a ridge forming a north-east corner enclosing a roughly square area. Within this area he positions a large number of tombs, some of which (shafts) he dates to the Greek period, while other structures (mastabas) are dated to the Old Kingdom. Within the enclosure de Morgan names the mastabas of Semnefer (Sixth Dynasty), Rahont and Ank Ten Sekhet. He also places a small 'Greek' shaft within a large crater near the north end of the enclosure. This circular feature is very clearly seen on the ground and lies in the centre of a large mud-brick rectangular structure (MT80) where there are also fragments of limestone. Mud-brick traces extend to the north and west of the main feature (MT80). Resistivity profiles are planned for the coming season to see if a signature (a plotted graph form of data repeated on each profile) for the enclosure wall can be derived and then traced around the assumed boundary to confirm its existence. Further profiles will be taken on the main central mound to delineate the extent of the mud-brick sub-surface structure.

To the north of this enclosure de Morgan shows various clusters of tombs and names the Old Kingdom mastabas of Pepitat-a, Hap-dua, Ankh-hapy (Fifth Dynasty), and Ptahhotep (Fifth Dynasty).<sup>27</sup> To the north-west of the L-shaped ridge and just south of the Serapeum enclosure wall (as shown in Mariette's map) de Morgan places the isolated Fifth Dynasty mastaba of Khyat-hotep-her. The distribution and grouping of tombs and shafts indicated by de Morgan seems to correspond roughly with those surveyed in 1991.

### *The Gisir el Mudir (Great Enclosure)*

The enclosure now known as the Gisir el Mudir was first observed by Perring, who shows numerous 'tombs' within the enclosure, and is clearly indicated both by Lepsius and by de Morgan, who places three tombs within the perimeter. Excavations by Abd el-Salam Hussein in 1947 revealed stretches of limestone masonry and are reported to have yielded pottery of the Third Dynasty.<sup>28</sup> When surveying cross-sections 1 to 4 in 1990, several clear exposures of the rough local limestone-built walls were observed. These, when plotted, give the width of the east and west walls and are now shown in fig. 4. The average width of the three known walls, that is the north, east and west walls, appears to be 15 m (figs. 4-5).<sup>29</sup>

<sup>25</sup> De Morgan, *op. cit.*, pls. 9-10; R. Lepsius, *Denkmäler aus Aegypten und Aethiopien*, I, (Berlin, 1849), Abt. I, Bl. 33; H. Vyse (and J. S. Perring), *Operations carried on at the Pyramids of Gizeh in 1837*, III (London, 1842), map ('Pyramids of Saccara', 1839) facing p. 37.

<sup>26</sup> The structure is reconstructed as a rectangular enclosure as large as the Gisir el Mudir by V. Maragioglio and C. Rinaldi, *L'architettura delle piramidi menfite*, II (Turin, 1963), pl. 7. See also J.-P. Lauer, *BdE* 97 (1985), 66; Swelim, *Some Problems*, 33-5. This area may be a likely location for the funerary complex of Menkauhor (A. M. Roth, *JARCE* 25 (1988), 213-14; J. Malek, *op. cit.* 75-6).

<sup>27</sup> De Morgan, *op. cit.* 10.

<sup>28</sup> Unfortunately, this work has not been published; information has been obtained from the EAO photographic archive held at Saqqara and from citations by Swelim, *Some Problems* 33; Spencer, *op. cit.* 3; Maragioglio and Rinaldi, *op. cit.* 53.

<sup>29</sup> Preliminary observations show no indications of 'crenellated walls', 'double walls' or entrance passages and corridors; cf. Swelim, *op. cit.* 33-5. For a more recent discussion of the topography of the Gisir el Mudir, see Swelim, *MDAIK* 47 (1991), 394-6. His conclusions are not altogether confirmed by our field observations, as detailed here.



*East wall*

Being the nearest wall to the rest of the Saqqara monuments, the east wall has suffered most from stone-robbing and perhaps for the same reason it appears to have a greater number of intrusive tomb structures. This condition has made the wall appear much wider than it really is, with the line and width obscured by excavation cuts and dumps. This had led some scholars to suggest that it was a double or even crenellated wall.<sup>30</sup> This is not proven when inspected in the field, and from our survey measurements we have been able to establish that the mean thickness of the wall is 15 m and it is located as shown (figs 4-5), indicating a slightly different position from that plotted from aerial photography on the Ministry of Housing and Reconstruction series of 1/5000 scale maps (i.e. a photogrammetric misinterpretation of shadows/highlights has occurred).

Surface observations and anomalies of sub-surface structures seem to indicate that intrusive burials were cut into the east wall. An EAO archive photograph of Hussein's excavation confirms this observation. It shows an intrusive burial within the east wall consisting of a wrapped body, somewhat disturbed, laid east to west with no cut or burial goods apparent.<sup>31</sup> Along the east wall, pottery and limestone blocks with reliefs are also present, particularly in the area of cross-section 4. These remains seem to have been robbed from Old Kingdom mastabas. A clear chronological and stratigraphical relationship between the mastabas in the area and the Gisir el Mudir has not yet been established.

*West wall*

The width and orientation of the west wall have been clearly ascertained, as both faces of the wall are visible and have been surveyed in several places. Construction techniques are still visible on the exposed sections of both the west and north walls. These show sections of roughly-built, coursed rubble masonry with thick marl clay mortar in both bedding and rising joints. EAO archive photographs show, in the west face of the west wall near the north-west corner, masonry in two tiers with courses sloping inwards.<sup>32</sup> The same stepped construction is apparent on the north wall but on a larger scale, so that the wall line is altered in places (fig. 4). These sections seem to resemble the masonry at the corners of the unfinished pyramids of Sekhemkhet and at Zawiyet el-Aryan. However, in this case the building technique is on a smaller scale, using smaller blocks which are laid out less regularly. Other construction devices are visible; on the west wall a small ramp (?) of rough masonry runs up to the west face (fig. 5) and the internal angle of the north-west corner shows irregularly laid brick and limestone rubble forming a small wall pushed against the east face of the west wall. The internal angle then seems to be roughly covered with coarse mud-plaster.

During the field-walking it was found that an area of limestone fragments and chippings situated to the west of the 'south-west corner' and assumed to be a stone-masons' work area is duplicated in the north-west corner in a similar position. There are no indications of tombs to the west of the enclosure; however, on the inside of the enclosure in the north-west quadrant and extending over a considerable area, there are fragments of limestone, red quartzite, red granite, and black basalt which suggest the

<sup>30</sup> Swelim, *Some Problems*, 33-5.

<sup>31</sup> EAO, Saqqara Photographic Archive, no. 206, folder 8 p. 36.

<sup>32</sup> EAO, Saqqara Photographic Archive, no. 205, folder 8 p. 36.

existence of a built structure in this area.<sup>33</sup> This area will be investigated by resistivity for the presence of a sub-surface structure.

### *North wall*

Although greatly disturbed, the north wall has sections of exposed masonry often surviving to a considerable height (fig. 4), and the inner and outer faces of the north-west corner are visible and have been surveyed to confirm a wall thickness of 15 m. The evidence seems to suggest that the walls were built of roughly coursed masonry with a rubble core, but the corners show solid masonry construction. Sections of the stepped construction of the north wall are visible in a cutting which may have been Hussein's attempt to find a gateway or access to the enclosure. Several resistivity cross-sections will be taken in this area in an attempt to clarify the design of the north wall and to search for any possible gate.

### *South wall*

Although the south wall is indicated both on archaeological maps and on the MHR 1978 series map sheet, there are no surface exposures of any actual wall. The line of the wall on archaeological maps is the line of the ridge which may or may not have been increased by the addition of sand and gravel. The line shown on the MHR map sheet is a photogrammetric interpretation of a shallow trench/ditch, now filled with fine sand. Further resistivity work will be required to establish the exact position of any wall if it exists. A search was made both on the surface and by resistivity for the position of a south-west corner and none was found to exist.<sup>34</sup> However, some 100 m east of the assumed position of any corner a large anomaly was indicated by the resistivity profile. Further cross-sections over this anomaly confirmed the approximate size to be some 50 m east-west and 75 m north-south with indications that it was a structure of some kind and existed down to 10 m below the surface at some points. This anomaly will be surveyed by a concentrated grid pattern of resistivity and proton-magnetometry to enable a three-dimensional graphic solution to be projected so that any further action can be decided upon.

It has often been assumed that any remains of a pyramid structure in this enclosure would be found in the centre and towards the south, where the ground rises steeply to form a high knoll or platform.<sup>35</sup> No indications other than two small trial-pits were found on the surface, and the resistivity profile of cross-section 2 (1990) only produced a small anomaly on the east slope of the knoll, which had no surface indications. The southern half of the enclosure covered by resistivity cross-sections C3 and C4 crosses two zones of shallow pittings in the gravel with a scattering of bone and limestone fragments which, combined with the sub-surface data, suggests that these may be from shallow graves and small shafts. The excavations of three tombs shown by de Morgan are clearly seen and have been surveyed (MT6, 12, 13) but at present no independent dating or comment on

<sup>33</sup> Also observed by Swelim, *Some Problems*, 34.

<sup>34</sup> Swelim notes the absence of the south-west corner and describes the south wall as 'two walls which do not line up' (*MDAIK* 47, 396).

<sup>35</sup> Swelim, *Some Problems*, 35.

layout is possible. The small anomaly (A8, fig. 5) shown in the 1990 survey had no surface exposure.<sup>36</sup>

### *Conclusion*

The programme for the forthcoming seasons is as follows:

1. To complete the resistivity survey by cross-sectioning the remainder of the concession area, paying particular attention to the northern half of the Gisir el Mudir enclosure, the L-shaped area to the north-east of the Gisir el Mudir and to the area of the Serapeum itself.
2. To make a detailed survey of particular anomalies using available non-destructive remote-sensing devices, resistivity, proton-magnetometry, sonic profiling and perhaps ground penetrating radar.
3. Excavation and clearance of certain anomalies to provide confirmation of the results obtained by the remote-sensing data.

Over the past ten years the potential of ground-based remote-sensing survey methods has been demonstrated in many countries, and it is accepted that no site should be excavated until a survey of this nature has been carried out. In Egypt the methods have been used in the survey of silts and the position of buried river beds (Amarna 1988, Memphis 1990 and 1991), shallow desert remains (Amarna 1982-92), deep occupation layers (Memphis 1982-89) and in deep sand and bedrock (Saqqara 1990-91). In all these cases satisfactory results have been obtained so that archaeological work can be properly planned. Large scale excavation is no longer feasible and in today's environmental climate is not always desirable. By using remote-sensing methods, the decision can be made on good evidence and the site can be pin-pointed should excavation be necessary. Very large areas can be investigated quickly and at a reasonable cost. The results of the two seasons, 1990 and 1991, have shown the value of taking a large archaeological site and subjecting it to a detailed surface, sub-surface and archival survey which is now producing the type of basic archaeological and topographic information required to enable archaeological missions to co-ordinate their work.

<sup>36</sup> At present the purpose of the enclosure remains unknown. Maragioglio and Rinaldi (op. cit. 53) suggest that the structure is a Third Dynasty unfinished pyramid complex. Swelim proposes an embankment which would hold a filling to raise a monument to a higher level (*Some Problems*, 33-5). J.-P. Lauer (*Or.* 35 (1966), 447) maintains that its position and lack of central structure make it unlikely to be a funerary monument. He compares the structure to the Shunet el Zebib at Abydos and suggests that it may be a camp or fortress to protect the necropolis from nomadic incursions. Stadelmann considers such enclosures to be valley-complexes, attributable to the kings of the Second Dynasty (*BdE* 97, 295-306). Swelim suggests that such monuments predate Zoser's complex (*Some Problems*, 33-5, 224) and W. Kaiser argues for a Third Dynasty date (*MDAIK* 41 (1985), 54, n.39). For other discussions of such enclosures see B. Kemp, *JEA* 52 (1966), 130-22, and D. O'Connor, *JARCE* 26 (1989), 51-86.

## A CONSIDERATION OF DIFFERENCES BETWEEN THE POTTERY SHOWING PALESTINIAN CHARACTERISTICS IN THE MAADIAN AND GERZEAN CULTURES

By SAVA P. TUTUNDŽIĆ

Recent publication of pottery finds from many years of excavations at Maadi and the latest relevant discoveries in Lower Egypt have made possible a more comprehensive typological comparison between pottery showing Palestinian features found in Maadian and Gerzean cultural contexts. This comparison shows that such pottery is different in character in the two cultures, and that the reason for this is primarily chronological. Examples found at Maadian sites correspond closely to the Early Proto-Urban period in Palestine, those at Gerzean sites to the Late Proto-Urban period.

UNTIL recently, the imports and influences from Proto-Urban Palestine identified in Egypt have been considered nearly *in toto* in the archaeological literature, and interpreted more or less uniformly, which created unnecessary confusion. It was not sufficiently taken into account that in prehistory those interrelations were with two different Egypts, Upper and Lower, not with the integral one which came into existence through—besides other factors—the process of direct Gerzean penetration into northern Egypt during Naqada IIc-d<sup>1</sup> and the gradual obliteration of the northern Egyptian cultural complex. Furthermore, since it has been widely believed that the Lower Egyptian settlement of Maadi chronologically overlapped the greatest part of Gerzean culture, and since Maadi was situated on the main or most convenient road connecting the Delta with Upper Egypt, and, through the ‘The Ways of Horus’, northern Egypt with Palestine, there was a view, not yet wholly abandoned, that the contact with Proto-Urban Palestine detected in the Gerzean sites of Upper Egypt must have passed by or through Maadi. This led to the conclusion that Maadi was a distribution centre of Proto-Urban goods and influence into Gerzean Upper Egypt. This is understandable given that, until recently, the only published vessels from Maadi with Proto-Urban characteristics were precisely those which bear the greatest similarity to the known vessels of Palestinian type from Gerzean Upper Egypt, while the Gerzean sites of Lower Egypt were unknown. However, although a greater number of imported vessels with clear characteristics of Palestinian Proto-Urban pottery have been excavated at Maadi, the above conclusion is wrong because those foreign vessels found at Maadi differ greatly typologically and, to a certain extent, in

<sup>1</sup>K. Kroeper and D. Wildung, *Minshat Abu Omar. Münchner Ostdelta-Expedition Vorbericht 1978–1984* (Munich, 1985), 92–3, 97, 98; K. Kroeper, in E. van den Brink (ed.), *The Archaeology of the Nile Delta. Problems and Priorities* (Amsterdam, 1988), 13–14, figs. 23–40, 57–72. Phase I of Minshat may partly correspond to the end of Naqada IIc, but certainly continues into IId, and the dating of Palestinian imports is in agreement with this (see n. 2). Cf. W. Kaiser, *ASAE* 71 (1987), 120 f. See also T. von der Way, *MDAIK* 43 (1987), 244 f., 255.

ware, from those found in Gerzean Egypt. In more recent literature there are clear data for the understanding of those differences,<sup>2</sup> which are mainly of a chronological nature, and for complete insight into the excavated material at Maadi.<sup>3</sup> Differences in the ways in which the Maadian and Gerzean cultures adopted and modified Palestinian models give an additional emphasis to the difference between the two Egyptian cultures.

There is another hypothesis which should be modified. We have argued previously that the differences noted between the pottery with Palestinian features in the two above-mentioned Egyptian cultures reflect contacts made directly between Gerzean Upper Egypt and Sinai via the Red Sea, and not through Lower Egypt. This hypothesis was offered in view of a number of other indicators leading to the conclusion that there were maritime connections on a small scale between Early Gerzean Upper Egypt and the southern part of the Sinai peninsula.<sup>4</sup> In our opinion, the latter can hardly be questioned for a number of reasons, including the fact that the Gerzeans must have inherited the art of sailing the Red Sea from their predecessors in Upper Egypt.<sup>5</sup> However, the view of those interconnections with southern Sinai based upon differences in the foreign, Palestinian pottery encountered in the Gerzean and Maadian cultures should be abandoned. It has been shown, partly by further study of the differing characteristics of vessels of Palestinian origin in the two cultures, and by comparison with the pottery of Proto-Urban Palestine, that a majority of those belonging to the sphere of Gerzean culture are later than the import to and influence upon Maadian culture, and that they generally belong to the second half of the Proto-Urban period.<sup>6</sup> Thus, the differences noted between the pottery of Palestinian origin in the two cultures are attributable to this chronological difference and also reflect cultural changes, both in Egypt and in Palestine.

New absolute chronology based upon controlled calibrated radiocarbon dating of Neolithic and Chalcolithic Egypt places the end of life in the Maadi settlement at about the end of Early Gerzean culture.<sup>7</sup> These dates can be somewhat more successfully compared to the revised calibrated dates of Palestinian finds (see below, p. 54 f.). It is also not without significance that the greater part of the Palestinian pottery from Maadi has been dated to the Early Proto-Urban period, particularly during its overlap with the last phase of the Ghassulian in southern Palestine.<sup>8</sup> However, the length of overlap between Maadi and the Gerzean culture has not yet been precisely determined and it is now known that the Gerzeans were present in Lower Egypt in greater numbers than previously thought. The obviously different relationship of Maadian culture—consisting of a series of sites, some of them still unexplored—and Gerzean via northern Sinai to Palestine has also not yet been definitely resolved. From the point of view of archaeology, the significance of particular imported forms and their imitations in Gerzean and Maadian settlements awaits additional clarification, which is necessary in view of the

<sup>2</sup> Cf. S. P. Tutundžić, in P. de Miroschedji (ed.), *L'urbanisation de la Palestine à l'âge du bronze ancien. Bilan et perspective des recherches actuelles*, Actes du colloque d'Emmaüs, octobre 1986 (Oxford, 1989), 423 f.

<sup>3</sup> I. Rizkana and J. Seeher, *Maadi I. The Pottery of the Predynastic Settlement* (Mainz, 1987), pls. 72-7.

<sup>4</sup> S. P. Tutundžić, in W. F. Reineke (ed.), *First International Congress of Egyptology, Cairo, October, 1976, Acts* (Berlin, 1979), 653.

<sup>5</sup> S. P. Tutundžić, in L. Krzyżaniak and M. Kobusiewicz (eds.), *Late Prehistory of the Nile Basin and the Sahara* (Poznan, 1989), 255 f.

<sup>6</sup> Cf. L. E. Stager, in R. Ehrich (ed.), *Chronologies in Old World Archaeology* (new edition: Chicago, in press); and see above, n. 2.

<sup>7</sup> F. A. Hassan, *The African Archaeological Review* 3 (1985), 105, 109 f., fig. 2.

<sup>8</sup> S. P. Tutundžić, *Recueil de travaux de la Faculté de philosophie* (Belgrade) 15/1 (1985), 11 f.

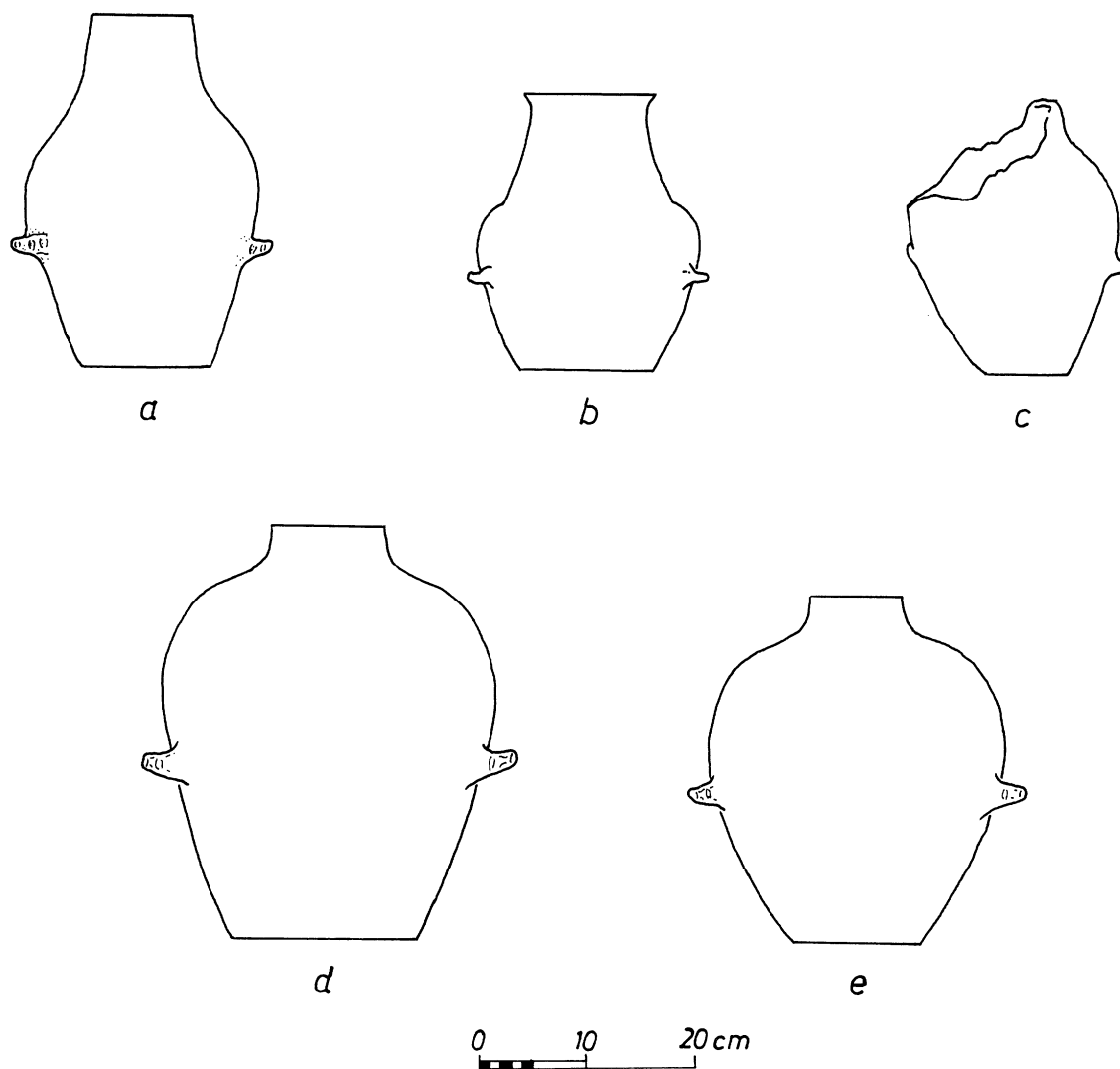


FIG. 1. Ledge-handled jars: (a-c) Maadi; (d) Naqada; (e) 'Ai.

a. Menghin and Amer, *op. cit.*, pl. xxxii, 3; b. Tutundžić, *Recueil* 15, fig. 1, 5; c. *idem*, in *L'urbanisation*, fig. 1,7; d. Hennessy, *op. cit.*, pl. xx, 2; e. *ibid.* pl. xx, 1.

imprecise synchronization of the Late Gerzean and Proto-Urban phases. Bearing this in mind, we offer some further observations, directly or indirectly related to this complex issue.

#### *Ledge-handled jars*

Jars with only ledge handles have so far occupied an outstanding position in Predynastic Egypt among the pottery imported from and inspired by that of Palestine, and also have an important role in their country of origin. One (fig. 1c)<sup>9</sup> of the three previously known

<sup>9</sup> O. Menghin and M. Amer, *The Excavations of the Egyptian University in the Neolithic Site at Maadi. First Preliminary Report* (Cairo, 1932), 26, pl. xxxii, 4.

intact jars of this type imported into Maadi (fig. 1a–b)<sup>10</sup> has already been compared with a similar, though not closely similar, jar W1 from Naqada (fig. 1d).<sup>11</sup> But it is indicative that this jar from Naqada II has parallels—closer than the Maadian one—with jars found in Palestine itself, at 'Ai (fig. 1e), Jericho K2 phase II, Tell Areini VI, and Megiddo VII–IV,<sup>12</sup> which means that none of these close parallels is from the early phase of the Proto-Urban period: these jars were produced in phase 3 of that period, and continued to be made in Early Bronze I (E.B. IC) and even in E.B. II.<sup>13</sup> It is now clear that the Maadian specimen in fig. 1c is only formally and indirectly similar to Naqada W1, partly because of its characteristically different, slightly conical, comparatively elongated neck. A fourth such jar (fig. 5d), imported to Maadi,<sup>14</sup> has not been explicitly compared with the relevant Palestinian pottery, and we shall mention it in relation to the pottery characterized by an upward-widening neck at Maadi. What is essential here is that it also has no parallel at Gerzean sites, either in Upper or in Lower Egypt. Naqada specimen W1 (fig. 1d), most probably imported, has been given the earliest sequence date within W-class pottery, but was not discovered *in situ* nor registered in any sure context.<sup>15</sup> It belongs to a group of scarce, heterogeneous vessels identified by Petrie, different in shape and ware from the large series of later vessels in the common W-class,<sup>16</sup> which first appears at the beginning of the Late Gerzean.<sup>17</sup>

### *Loop-handled jars*

The majority of Palestinian-ware vessels from Maadi belong to the category of jars with loop handles. Nineteen more or less whole ones have been published, and numerous sherds of such handles and ware have also been found.<sup>18</sup> The most common among them are those with an upward-narrowing neck; less frequent are those with an upward-widening neck, and the rarest are those with a straight, truly cylindrical one. The necks vary in length, but are never really short, nor are they truly concave (see below, pp. 43–6). Handles are sometimes grooved, that is, composed of multiple strips, and there are single-strip ones, with rounded or triangular cross-sections.<sup>19</sup> The placement of handles also varies—slightly above, below or, most often, symmetrically over the transi-

<sup>10</sup> Ibid. pl. xxxii, 3. Tutundžić, *Recueil* 15, 14–16, pl. ii, 3, fig. 1, 5. Jars excavated at Maadi with more or less high necks, with or without handles, are of foreign, i.e. Palestinian, ware. According to the pottery classification by Rizkana and Seeher (op. cit. 31, 52–3), they belong to their ware V (Palestinian).

<sup>11</sup> H. J. Kantor, *JNES* 1 (1942), 180, 202–3 D4, 6; J. B. Hennessy, *The Foreign Relations of Palestine during the Early Bronze Age* (London, 1967), 29; R. Amiran and J. Glass, *Tel Aviv* 6 (1979), 56, 58, fig. 1, 1.

<sup>12</sup> Kantor, op. cit. 202–3 DD9; Hennessy, op. cit., pl. xx, 1, 3; cf. his chart 1.

<sup>13</sup> For relative chronology, cf. also J. A. Callaway, *Pottery from the Tomb at 'Ai (Et-Tell)* (London, 1964), 53. See below n. 77.

<sup>14</sup> Rizkana and Seeher, op. cit., pl. 77, 1.

<sup>15</sup> E. J. Baumgartel, *The Cultures of Prehistoric Egypt* (London, 1955), 41.

<sup>16</sup> W. M. F. Petrie and J. E. Quibell, *Naqada and Ballas* (London, 1896), 38 f.; Petrie, *Corpus of Prehistoric Pottery and Palettes* (London, 1921), pl. xxviii.

<sup>17</sup> According to a critical re-examination by W. Kaiser, W-class vessels do not appear at the beginning of Naqada II, but in *Stufe* IIc (*ZÄS* 81 (1956), 93–5, 109). This does not contradict the assumption reached in a different way by Baumgartel, op. cit. 41–2. The beginning of Kaiser's Naqada II lasts from about SD 40/45 to 63, while Petrie dated Late Gerzean between SD 45–60 (*The Making of Egypt* (London, 1939), 31, 43). Cf. W. Needler, *Predynastic and Archaic Egypt in the Brooklyn Museum* (Brooklyn, 1984), 44, where she concludes that 'Kantor's Late Gerzean corresponds roughly to Kaiser's Naqada IIc, d'.

<sup>18</sup> Rizkana and Seeher, op. cit., pls. 72, 1, 5–9; 73, 1–4, 7–8; 74, 1–4, 7–8; 75, 1–3, 5–6, 8.

<sup>19</sup> S. P. Tutundžić, *Recueil de travaux de la Faculté de philosophie* (Belgrade) 13/1 (1976), 12–14.

tion of the shoulder into the neck. The shape of the body also varies within limits. It always has a large, flat base, except for globular specimens. Certain variations in ware also occur.<sup>20</sup> In addition, it is significant that these jars with loop handles at Maadi, in spite of being relatively numerous and variable in shape, have no direct analogy in any finds from Gerzean sites, at which jars of Palestinian origin with loop handles alone are, so far, rare. It is also significant and in agreement with our general conclusion regarding the chronological basis of such differences, that the Gerzean examples with only a pair of loop handles, probably imported, one from Gerzeh (W2d) and the other from Naqada (W2a), both have clearly determined parallels in the Proto-Urban period, specifically in E.B. I after its phase I,<sup>21</sup> and that this period, according to sequence dates, is clearly later than the Early Gerzean (see below).

#### *Vessels with combined handles of different kinds*

Jars with loop handles from the Gerzean culture have, however, been classified differently, so that the category of loop-handled jars with Palestinian traits from Gerzean sites should be clarified. Four jars from Upper Egypt (two from Naqada and two from Gerzeh) have long been known, two of them, with vertical loop handles, already mentioned above. Petrie classified all four as class W,<sup>22</sup> although only one from Gerzeh (W2c) and one from Naqada (W2b) have added ledge elements (fig. 2a and pl. IV, 1-2) and wavy ones (fig. 2b and pl. IV, 3). Kantor and Hennessy have studied the latter two in their subgroups of jars with loop handles, which is not without justification, and have defined their parallels from the later Proto-Urban period (see n. 21). Vessels with various handles combined can, after all, be taken as a separate group, with subgrouping according to the kind of combination. This subgroup of combined loop and ledge handles or their derivations has been supplemented recently by two specimens (fig. 2c-d) imported from Palestine, excavated in the Gerzean cemetery Minshat Abu Omar phase I, therefore dated in late Naqada IIc or, more plausibly, IId.<sup>23</sup> The two jars cited above, from Gerzeh and Naqada respectively, which have the same combination of handles, are most probably also imported.<sup>24</sup>

Vessels with combined handles have not so far been treated as integral and specific categories. The very idea of combining handles, which appears in Late Predynastic Egypt, is of Palestinian provenance. Early specimens of vessels with a pair of loop and a pair of ledge handles combined (fig. 2e) are found in stratum IX area D of Tell Areini,<sup>25</sup>

<sup>20</sup> For example, the damaged jar 5329, which is characterized by its comparatively compact ware: Rizkana and Seeher, *op. cit.*, pl. 73, 2.

<sup>21</sup> Kantor, *op. cit.* 192-3, 206-7 P1-4; Hennessy, *op. cit.* 30, pl. xxii, 3-4.

<sup>22</sup> Petrie, *Corpus*, pl. xxviii, 2a, 2b, 2c; W. M. F. Petrie, G. A. Wainwright and E. Mackay, *The Labyrinth Gerzeh and Mazghuneh* (London, 1912), 4, pl. xi, 2d.

<sup>23</sup> Kroeper and Wildung, *op. cit.* 92-3, figs. 208-9, 107-8. They are made from 'non-Egyptian', that is Palestinian, clay. (pp. 37, 69). See also n. 1.

<sup>24</sup> W2b has been described as a 'bona fide' import (Amiran and Glass, *op. cit.* 54, 56, 59, fig. 1), and later confirmed to be of Palestinian ware (J. Bourriau, *Umm el-Ga'ab. Pottery from the Nile Valley before the Arab Conquest* (Cambridge, 1981), 127. W2c was not explicitly stated to be an import, but it seems to be.

I should like to thank Professor H. S. Smith and Mrs Barbara Adams for letting me see pottery in the Petrie Collection at University College London.

<sup>25</sup> S. Yeivin, *First Preliminary Report on the Excavations at Tel 'Gat' (Tell Sheykh Ahmed el-Areyny). Season 1956-1958* (Jerusalem, 1961), pl. viii (top left). The same area and stratum produced a still-unpublished variant, with ledge handles placed higher than on the published one, but also elongated and shouldered. This



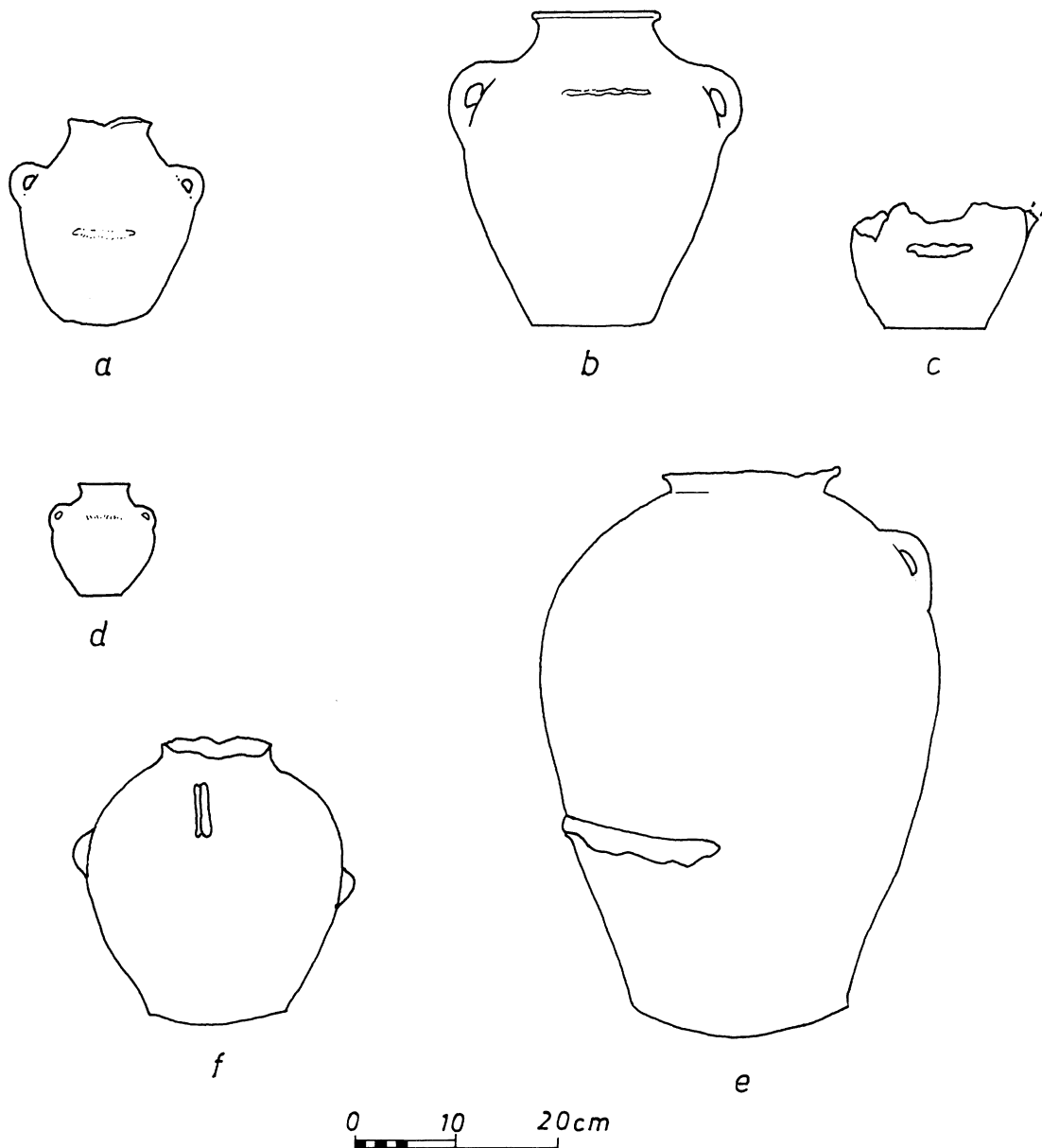


FIG. 2. Jars with combined ledge and loop handles: (a) Gerzeh; (b) Naqada; (c-d) Minshat Abu Omar; (e) Tell Areini; (f) 'Ai.

a. Petrie, *Corpus*, pl. xxviii, 2c; b. *ibid.*, pl. xxviii, 2b; c. Kroeper, in *L'urbanisation*, fig. 3a; d. *ibid.*, fig. 4a; e. Yeivin, *First Preliminary Report*, pl. viii, top left; f. Amiran, *Eretz Israel* 9, fig. 3.

which should correspond to the Early Proto-Urban period. These show an alternating combination of the two different kinds of handles. It is possible, as indicated by the present Palestinian evidence, that the vertical arrangement of such handles, one under the other (as a rule the ledge ones in the lower position) only came later. The known

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information is mentioned here by kind permission of the Director of the Israel Department of Antiquities and Museums and by Mr. B. Brandl, who is preparing the final report of the excavations with a re-examination of the material previously excavated by Yeivin. I am also grateful to Brandl for other useful data, and for detailed discussions.

Egyptian specimens show, so far, only this alternating arrangement (fig. 2a–d). Yet the above mentioned specimens with handles combined, from the Early Proto-Urban period (fig. 2e), have no analogies in Egypt as regards the shape of their bodies. The earliest parallel in body shape for this subgroup in Gerzean Egypt, including Minshat Abu Omar, originates from the Late Proto-Urban period of 'Ai (fig. 2f).<sup>26</sup> An example from Tell Areini is as late as stratum V of area D, but this has ledge handles under the lugs.<sup>27</sup> At the same time, the necks of both these vessels are similar to those of Gerzean examples with Palestinian traits, rather than to the necks of vessels of Palestinian origin at Maadi, which is logical in view of the chronological relationship.

Vessels with combined types of handles are not known from Maadi. It may be a coincidence, but of all vessels with Palestinian traits known from Upper Egypt, the nearest in shape to the Maadian vessels with similar features is the above-mentioned W2c (fig. 2a and pl. IV, 1–2).<sup>28</sup> This jar seems to reveal, at least formally, more archaic elements than all the aforementioned southern Levantine vessels excavated in Egypt—outside the northern Egyptian Chalcolithic complex—and its ware is closely related to several Palestinian jars at Maadi. Similar to it is, for example, the shorter jar with ledge handles from Maadi (fig. 1c). The ledge handles of this Gerzean specimen are, unfortunately, damaged; the loop ones each have one longitudinal groove (pl. IV, 2). Although handles with longitudinal grooves are found in the Early Proto-Urban period, they were also manufactured later, as, for example, on the aforementioned jar from 'Ai (fig. 2f). The grooves are usually oval, a result of the original joining of two or three cylindrical pieces of clay which comprise the handle. The groove on the Gerzean specimen has been angularly trimmed, and its similarity to the broken grooved handle from group 1503 at Lachish has been pointed out by Olga Tufnell.<sup>29</sup> She also pointed out its Palestinian analogies over a larger period of time. It is interesting that this fragmentary handle is from the same group as the nearest known parallel to the Maadian jar with loop handles below a narrowing neck.<sup>30</sup> However, the grooves on the Maadian loop handles are oval. Changes in the repertoire of pottery of Palestinian origin need not have followed the relatively short interregnum which seemingly existed between the end of the prominent role of Maadi and the beginning of activity at Minshat. Particular pottery variants, usually as a result of established traditions of manufacture, last longer than such an interregnum. The Gerzean specimen, on the basis of its parallels from Palestine and Maadi, is closest to the early part of phase 2 of the Proto-Urban period, and may be somewhat later than Palestinian pottery at Maadi. At any rate, this may be the earliest known Palestinian jar in Gerzean Egypt, at least from this subgroup, which is otherwise dated within the rather large span of SD 43–70. On the basis of typology alone, it might have a parallel in phase I of Minshat. The lower part of a jar (fig. 2c) from that cemetery could, by the ratio of the

<sup>26</sup>J. Marquet-Krause, *Les fouilles de 'Ay (Et-Tell) 1933–1935* (Paris, 1949), pl. lxii (unnumbered). Cf. R. Amiran (in Hebrew), *Eretz-Israel* 9 (1969), figs. 1–3.

<sup>27</sup>S. Yeivin, in *Fourth World Congress of Jewish Studies* 1 (Jerusalem, 1967), fig. 17, 6. We have already mentioned this example, going in reverse chronological order, in discussing Tell Areini jars with similar combinations of handles. Generally speaking, among ceramic ware from Yeivin's excavations at this site, I did not perceive clear parallels with Maadi, although they could in theory be expected in the lower layers (see n. 2).

<sup>28</sup>Petrie, Wainwright and Mackay, op. cit., pl. xi, 2c. The imprecise drawing of this vessel was reproduced later in some other publications, without correction. No photograph was published, so far as I know, until the article by Amiran, op. cit. 120, fig. 1, pl. 35, 5A–B.

<sup>29</sup>O. Tufnell et al., *Lachish*, IV (London, 1958), 155, 254–5, pl. 13, 72.

<sup>30</sup>Tutundžić, *Recueil* 13, 12, 14 f., fig. M2; id., *Recueil* 15, pl. i, 2.

height of its surviving loop handle to its ledge handles, belong to the same type of vessel.<sup>31</sup> But its upper part, also very important, has not survived. Its neck could have been concave, too, bearing in mind late Proto-Urban imports in Minshat phase I.

It is a characteristic of jar W2b from Naqada that its ledge handles are reduced to an ornament (fig. 2b, pl. IV, 3). This alone does not allow a dating to the Early Gerzean.<sup>32</sup> At least formally, it is much farther removed from the corresponding Maadian repertoire than the previously discussed Gerzean example, and is closely related to the Minshat Abu Omar jar (fig. 2d, pl. IV, 4), as already pointed out.<sup>33</sup> Generally speaking, the Naqada jar provides one of the closest parallels from Upper Egypt for the Palestinian vessels excavated at Minshat. On the other hand, the parallel between these two jars, one from Minshat, the other from Naqada, shows quite clearly, and thus directly corroborates the general conclusion, that in the Late Gerzean Minshat Abu Omar was a settlement through which, independently of Maadi, import went south. It should be borne in mind also that early Minshat was not, perhaps, the only Naqada II site in the Delta, but that there were a number of them.<sup>34</sup>

Finally, for the sake of completeness, the adoption of various handle combinations by Gerzean potters should be mentioned. Wavy handles are combined with indigenous tubular ones in Petrie's W-ware<sup>35</sup> and with lug handles in his D-ware.<sup>36</sup> Of these vessels from Naqada, Mahasna and Diospolis Parva, corpus no. 6 from Naqada (fig. 3a) has been assigned SD 46 and 53; corpus no. 2K (fig. 3b) has SD 52, and the existence of these types is confirmed for a later phase.<sup>37</sup> Foreign products, like luxury commodities, quickly find their way into prosperous neighbouring settlements, and if there already exists the ability to modify received models and ideas—which the Gerzeans certainly did not lack—such modifications may quickly come into existence. It is understandable that such elements

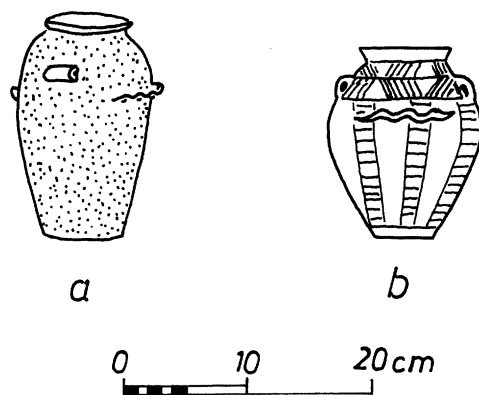


FIG. 3. Ledge handles combined with tubular and lug ones respectively, on W- and D-ware vessels: (a) Naqada; (b) Diospolis Parva.

a. Petrie, *Corpus*, pl. xxviii, 6; b. *ibid.* pl. xxxi, 2K.

<sup>31</sup> Kroeper and Wildung, *op. cit.* 71, fig. 107, 208; Kroeper, in *L'urbanisation*, fig. 3a.

<sup>32</sup> Cf. Bourriau, *op. cit.* 127–8.

<sup>33</sup> Kroeper and Wildung, *op. cit.*, fig. 108, 209; Kroeper, in *The Archaeology*, 13; *id.*, in *L'urbanisation*, 411, fig. 4a.

<sup>34</sup> Kroeper and Wildung, *op. cit.* 97; Kroeper, in *The Archaeology*, 18.

<sup>35</sup> Petrie, *Corpus*, pls. xxviii, 6, xxix, 45.

<sup>36</sup> *Ibid.*, pl. xxxi, 2D, 2K, 2S.

<sup>37</sup> Cf. Kaiser, *Archaeologica Geographica* 6 (1957), pl. 23, *Stufe* IIc–d2.

appear on more refined pottery artefacts, such as those in the W and D classes. Tubular handles themselves have their origin on precious stone vases, which also have wavy handles,<sup>38</sup> and the W-ware vessel from Naqada cited above (fig. 3a) is, in fact, an imitation of a stone vessel made in the manner familiar in D-ware. Vessels of D-ware were placed beside the dead, functioning as a form of magic and also as a token of piety. It is not yet known whether they were manufactured solely or primarily for the afterlife, because the settlements to which the Gerzean cemeteries belonged are generally destroyed.<sup>39</sup>

### *Lug-handled vessels*

Two damaged vessels with lug handles from Maadi, of the group with upward-narrowing neck, of Palestinian origin,<sup>40</sup> have no parallel in Gerzean Egypt. Neither do the two fragments from the upper part of vessels with lug handles,<sup>41</sup> differently placed right at the rim. No other surviving vessels with lug handles have been published.<sup>42</sup> The broken lugs of different types from Maadi<sup>43</sup> cannot be a sure indicator, either typologically or chronologically, of the forms of vessels they belonged to, and cannot therefore influence the final conclusion.

### *Vessels with one high loop handle*

Comparison of the rare specimens from Gerzean culture of vessels with one high loop handle with those excavated at Maadi is somewhat more specific than the previous typological comparisons, although it does not affect the final conclusion. Of the four known monochrome cups from Gerzean Upper Egypt,<sup>44</sup> each with one handle, the one from Hierakonpolis has parallels (with certain differences in details of the base and mouth) in Megiddo<sup>45</sup> from stage VII to stage IV,<sup>46</sup> that is, from the Proto-Urban period to E.B. II. But it has no analogy at Maadi among vessels with such handles (fig. 4a-b) which are of non-Egyptian, i.e. Palestinian, ware.<sup>47</sup> The other three cups, from Diospolis Parva, Badari (fig. 4d), and Mostagedda (fig. 4e),<sup>48</sup> are similar to one another, which is probably not a coincidence. The Badari cup is of Egyptian ware. The ware of the other two has not been

<sup>38</sup> Cf. A. A.-R. H. El-Khouli, *Egyptian Stone Vessels, Predynastic Period to Dynasty III*, I-III (Mainz, 1978), 162, 771, pl. 47. The author, however, calls similar handles 'serpentine', which obscures their origin.

<sup>39</sup> See Needler, op. cit. 232, 234.

<sup>40</sup> Tutundžić, *Recueil* 15, 12-13, fig. 1-2, pl. i, 4-5.

<sup>41</sup> Rizkana and Seeher, op. cit. 54, pl. 74, 5, 6.

<sup>42</sup> A jar from the third season of excavations at Maadi, published by O. Menghin (later also by M. Amer, *The Excavations of the Egyptian University at El Maadi. Some Results of the Excavations during the First Five Seasons in 1930-1934* (in Arabic) (Cairo, n.d.), fig. 11, right), and which Kantor compared to her group of vessels with lug handles (op. cit. 182-4, 204-5 F4) is in fact supplied with loop handles (cf. Rizkana and Seeher, op. cit. 74, 75, 110, pl. 75, 8), and also has no significant parallels in Gerzean Egypt.

<sup>43</sup> Menghin and Amer, op. cit. 30, pls. xxxviii, 5-6; xxxix, 6-7. They have been compared to lug handles on basalt vessels: cf. Kantor, op. cit. 182, n. 44.

<sup>44</sup> The fifth, newly-excavated, jug from Minshat with a high loop-handle is later, and dated to Naqada III—the beginning of the First Dynasty (D. Wildung, *Ägypten vor den Pyramiden* (Mainz, 1981), fig. 22, 40; Kroeper, in *L'urbanisation*, 417, fig. 10a). Plainly, it has no parallel at Maadi or in Upper Egypt.

<sup>45</sup> Kantor, op. cit. 184, 204-5 G5, GG2.

<sup>46</sup> R. M. Engberg and G. M. Shipton, *Notes on the Chalcolithic and Early Bronze Age Pottery of Megiddo* (Chicago, 1934), chart 24.

<sup>47</sup> Cf. Menghin and Amer, op. cit., pl. xxxii, 2; Tutundžić, *Recueil* 15, pl. ii, 4-5. For other vessels of Maadian ware, see Rizkana and Seeher, op. cit. pl. 32.

<sup>48</sup> Baumgartel, op. cit. 94-5, 42 n. 1, fig. 38, 13-15.

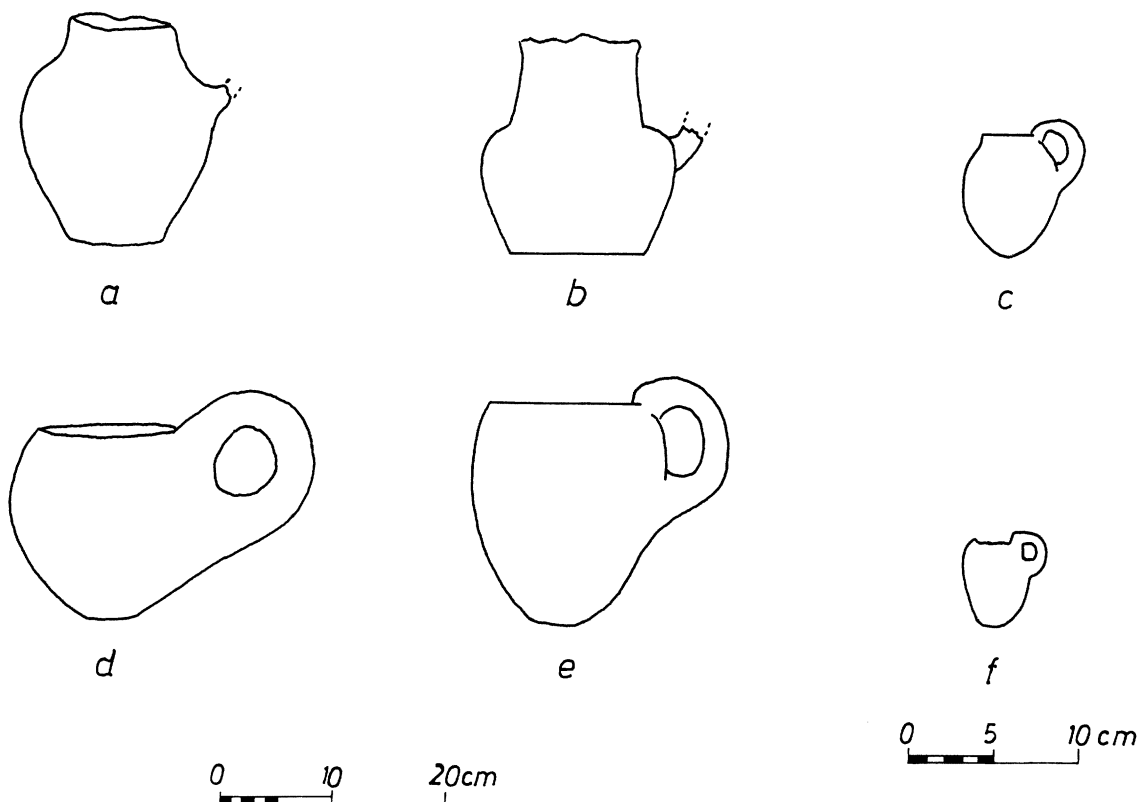


FIG. 4. Vessels with one high loop-handle: (a–c) Maadi; (d) Badari; (e) Mostagedda; (f) Tell Areini.  
 a. Menghin and Amer, *op. cit.*, pl. xxxii, 2; b. Tutundžić, *Recueil* 15, fig. 1, 6; c. *ibid.*, pl. ii, 6; d. Brunton and Caton-Thompson, *op. cit.*, pl. xlvi, 12; e. Brunton, *op. cit.*, pls. xxxii, 3900, xxxiv, 19; f. Yeivin, *Fourth World Congress*, fig. 20, 9.

defined, but they need not be imported.<sup>49</sup> The cup from Mostagedda (fig. 4e) has a noticeable analogy in one of its details, the upper junction of the handle with the rim, with a small cup from Tell Areini VII–VI (fig. 4f),<sup>50</sup> but it could be an accidental parallel. Although the three have not been more closely dated, it has been pointed out that they belong to the Gerzean period, but they do not display the elements which would place them in its early phase.

Vessels with one high loop handle were also produced in Sumer and Elam. They are known from the end of the Ubaid period through the Uruk, which corresponds to Susa B–C. Dothan related high loop-handled cups from Upper Egypt only indirectly with Mesopotamia;<sup>51</sup> Baumgartel saw in them a relationship with Susa II.<sup>52</sup> The latter's view of the influence of Sumer and Elam as widespread over a number of different products is in certain cases, such as this, too rash and has been contested, notably by Helene Kantor<sup>53</sup>

<sup>49</sup> Cf. M. Dothan, *PEQ* 85 (1953), 135. The Badarian cup is located in the Petrie Collection at University College London.

<sup>50</sup> Yeivin, in *Fourth World Congress*, 48, fig. 20, 9. According to Hennessy, Gophna, Callaway and Weinstein, and recently to Brandl, these strata belong to Late E.B.I. Cf. B. Brandl, in *L'urbanisation*, 364–5.

<sup>51</sup> Dothan, *op. cit.* 137.

<sup>52</sup> Baumgartel, *loc. cit.*, and cf. fig. 38, 12.

<sup>53</sup> H. Kantor, *AJA* 53 (1947), 78–9.

and later by Kelly,<sup>54</sup> although contact between Elamite Mesopotamian manufacture and Upper Egypt, manifested at the earliest in Naqada IIc or IIb, continues to receive new and various evidence and explanations.<sup>55</sup> In his important excavations at Tell el-Fara'in, which belongs to the Maadian culture, von der Way has recently discovered architectural applications of Mesopotamian origin in the earliest layer of the settlement, dated to Naqada IIb, which coincides, at least partly, with the time of the Maadi settlement. Yet vessels with one high loop handle are not attested in this stratum I, or in stratum II of the settlement, which contains material from Naqada IIc-d and evidence of relations with the Uruk culture.<sup>56</sup>

The body shape of the three Upper Egyptian cups has been related to the form of the African gourd.<sup>57</sup> Such a form, not uncommon among vessels of P-ware, is found particularly in B-ware, and sometimes also in R-ware.<sup>58</sup> These forms are thus mutually related. At the same time, they show only a general similarity to the ovoid vessels from Maadi (fig. 4c), which also have no analogy in Palestine but display a generally Egyptian, particularly Maadian, body-form.<sup>59</sup> The three cups obviously do not imitate Maadian shape directly. The tendency to narrow towards the base presumably reflects the practice of lodging them in the sandy and loose soil, and is universally adopted in Egypt. What such Gerzean and Maadian cups apparently have in common is, in fact, the idea of combining a foreign handle with the indigenous shape of the body, an idea which is spontaneous and local, occurring independently in the two parts of Egypt. Besides, to judge by the evidence here presented, these Upper Egyptian and Maadian cups are not synchronous. The prototypes of the high loop handle, as copied by both Maadians and Gerzeans, are to be found in Palestine, where such handles had a widespread use, and its adoption in Egypt may be explained by the known circumstances of relations with South-western Asia, as well as the phenomenon of pottery borrowing mentioned in this paper.

#### *Vessels with upward-widening and cylindrical necks*

Of the vessels of Palestinian origin at Maadi which display a more or less high, wide neck and relatively straight walls (classified under ware V by Rizkana and Seeher),<sup>60</sup> including both whole examples and those fragmentary ones which can be reconstructed with some certainty, about two-thirds have a prominent upward-narrowing neck, and the rest a prominent upward-widening neck or straight, cylindrical one. The greatest percentage of deviation from this prevalent form is to be found on vessels without handles. Among the vessels of this ware V, generally speaking, the majority are supplied with handles, and among these the most numerous are those with loop ones (see p. 36). Two jars (fig. 5a-b) with loop handles<sup>61</sup> and one (fig. 5d) with ledge handles<sup>62</sup> have widening necks. One with

<sup>54</sup> A. L. Kelley, *Newsletter SSEA* 4/3 (1974), 4-5.

<sup>55</sup> R. Boehmer, *AA* 98/4 (1974), 495, 514; id., *Archäologische Mitteilungen aus Iran* N.F. 7 (1974), 40; P. Podzorski, *JNES* 47 (1988), 263, 268.

<sup>56</sup> Von der Way, op. cit. 247 f., 255 f.; id., in *The Archaeology*, 248-9.

<sup>57</sup> G. Brunton and G. Caton-Thompson, *The Badarian Civilization* (London, 1928), 55; G. Brunton, *Mostagedda and the Tasian Culture* (London, 1937), 76.

<sup>58</sup> Cf. Petrie, *Corpus*, pls. i, 4A, 4G; v, 44S; vii, 76F; x, 33M; xli, 81L.

<sup>59</sup> Cf. Tutundžić, *Recueil* 15, 18-19, pl. ii, 6.

<sup>60</sup> Cf. Rizkana and Seeher, op. cit., pls. 72-7; pls. ix-x.

<sup>61</sup> *Ibid.*, pl. 74, 3, 8.

<sup>62</sup> *Ibid.*, pl. 77, 1.

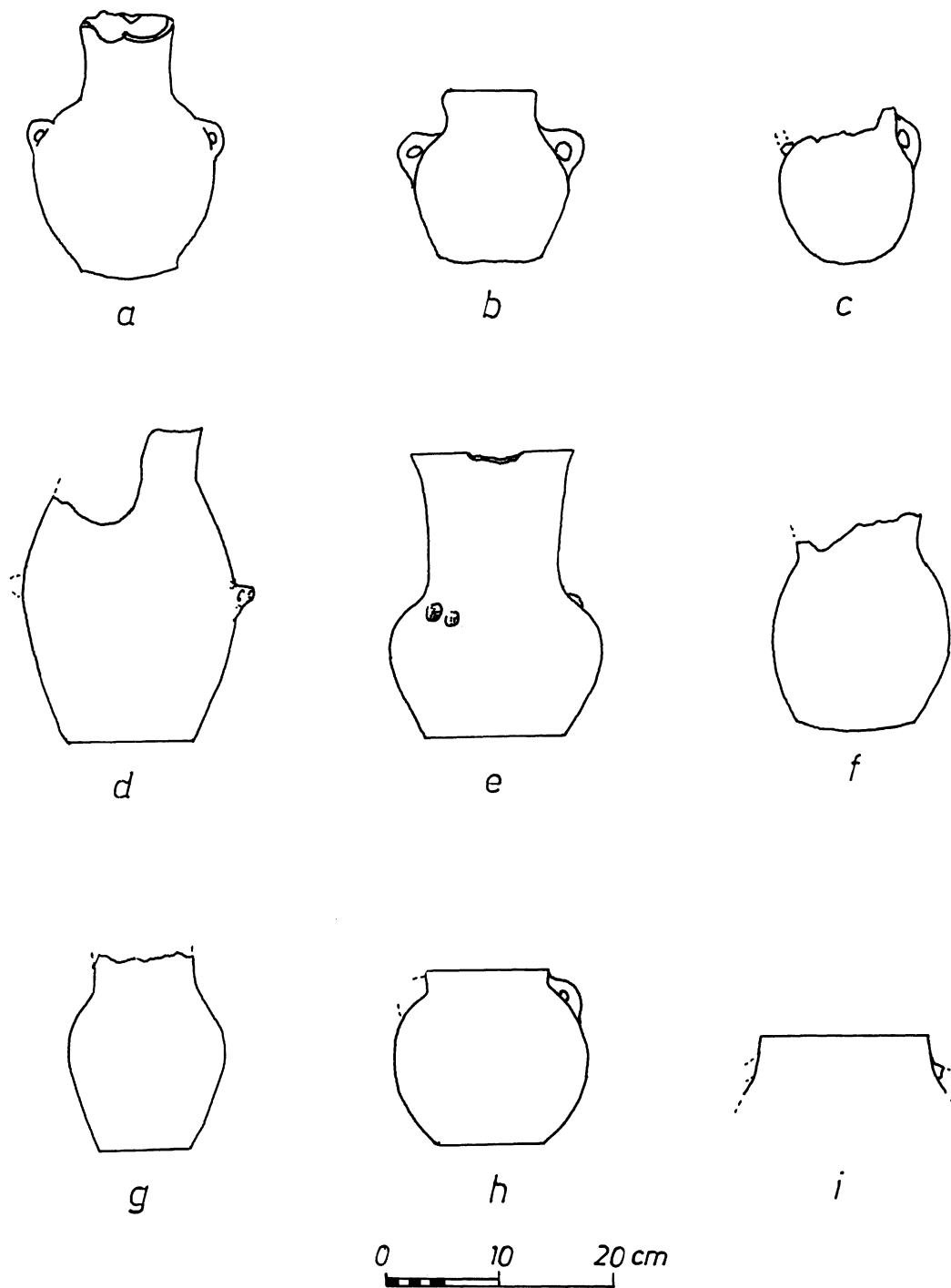


FIG. 5. Jars with upward-widening neck: (a-g) Maadi; (h) Meşer; (i) The Cave of the Pool.  
 a. Amer, op. cit., fig. 11, middle; b. Rizkana and Seeher, *Maadi* 1, pl. 74, 3; c. *ibid.*, pl. 75, 8; d. *ibid.*, pl. 77, 1; e. *ibid.*, pl. 76, 1;  
 f. Amer, op. cit., fig. 11, first; g. Rizkana and Seeher, *Maadi* 1, pl. 76,6; h. Dothan, *IEJ* 9, fig. 6, 10; i. Avigad, *IEJ* 12, fig. 3, 1.

loop handles and, seemingly, a cylindrical neck (fig. 5c) is exceptional at Maadi in the siting of its handles, which are largely placed on its relatively short neck.<sup>63</sup> One long neck (the body is missing)<sup>64</sup> is cylindrical, with two lug handles immediately under the rim, a position unique among the necks dealt with in this subgroup. Other vessels with handles have more or less narrowing necks. Of those with long necks, and clearly without handles, two (fig. 5e-f) have widening necks<sup>65</sup> and one (fig. 5g), a possibly cylindrical, if not slightly widening, neck.<sup>66</sup> One more neck of this ware is widening, but lacks its body.<sup>67</sup>

Wide tall necks are known from the Late Ghassulian culture in Jordan and Palestine; besides those which are upward-narrowing, there are also long, cylindrical and upward-widening ones.<sup>68</sup> Prominent necks with different angles of wall to body are also shown by the Ghassulian bird-vases.<sup>69</sup> Similar shaping of the neck continued in the latest phase of the Ghassulian (fig. 5h), when it overlapped the Proto-Urban period,<sup>70</sup> and some specimens can be found also at the Palestinian sites from which originate parallels to the jars with tall, upward-narrowing necks at Maadi, such as Lachish<sup>71</sup> in Shephelah and the Cave of the Pool in the Judean Desert (fig. 5i).<sup>72</sup> However, while the wide prominent necks with straight, upward-narrowing walls seem to have disappeared after the Early Proto-Urban period, the upward-widening necks with straight walls, though less tall, continue to be manufactured sporadically, in new combinations, in the Proto-Urban period. Particularly in the case of Maadi, narrowing and widening necks, linked with bodies of similar or identical shape,<sup>73</sup> indicate the same narrower provenance, even when such vessels are not supplied with handles. On some of the cited specimens with narrowing and widening necks, developed ledge handles are, of course, typical additions from the Proto-Urban pottery repertoire. Examples with knobs are also known from the early Proto-Urban period.<sup>74</sup> Jars at the settlement of Maadi with wide, tall, upward-widening or cylindrical necks with straight walls obviously have no specific chronological or cultural significance in relation to the jars with upward-narrowing necks. The fourth type of elongated neck of the transitional Ghassulian-Proto-Urban phase, which is also

<sup>63</sup> Ibid., pl. 75, 8, and n. 68.

<sup>64</sup> Ibid., pl. 74, 5.

<sup>65</sup> Ibid., pl. 76, 1, 3.

<sup>66</sup> Ibid., pl. 76, 6.

<sup>67</sup> Ibid., pl. 76, 2.

<sup>68</sup> Cf. J. R. Lee, 'Chalcolithic Ghassul: New Aspects and Master Typology', Ph.D. thesis (Hebrew University of Jerusalem, 1973, unpublished), 84, C14:c, f, j, l, m; 122, N1:a, N2:a, N3:a; H. de Contenson, *IEJ* 6 (1956), 230, fig. 10, 11-12; S. Hart, *Levant* 19 (1987), 34-5, fig. 5, 3 and 5.

<sup>69</sup> Cf. R. Amiran, *Ancient Pottery of the Holy Land* (Jerusalem, 1969) 33, pl. 7, 1-2.

<sup>70</sup> At Meşer II: M. Dothan, *IEJ* 9 (1959), fig. 7, 8 (churn), fig. 6, 10. The latter has a parallel in the vessel (fig. 5c) from Maadi, although that has a rounded base and somewhat longer neck. For a short, upward-narrowing neck, cf. also M. Dothan, *IEJ* 7 (1957), fig. 3, 12.

<sup>71</sup> Tufnell et al., op. cit. 262, 264, pl. 57, 40 and 49.

<sup>72</sup> N. Avigad, 'The Expedition to the Judean Desert, 1961', *IEJ* 12 (1962), 173, fig. 3, 1-2 and 5.

<sup>73</sup> Cf., for example, Rizkana and Seeher, op. cit., pls. ix, 2, 8, 10 and x, 2. While the aesthetic aspect of these bodies was neglected by potters, they made the necks very prominent.

<sup>74</sup> For example, in Wadi Ghazze, site H (A. F. Roshwalb, 'Protohistory of the Wadi Ghazze: A Typological and Technological Study, Based on the Macdonald Excavations', Ph.D. thesis (University of London, 1981, unpublished), fig. H.6, 18), or in some Early Bronze IA graves at Bab edh-Dhra, which seem to be earlier than the phase 1 of the Proto-Urban period grave A94 at Jericho (R. T. Schaub, *AASOR* 46 (1979), 76, 82, fig. 2, 3).



known in the developed Ghassulian culture, has a wavy-profiled neck, widening in the middle, but such vessels are not found in Egypt.

Tall, upward-widening and cylindrical necks on vessels are, in the late prehistory of the Near East, generally less specific than the upward-narrowing ones. On Upper Egyptian vessels both kinds occur, but they are rather scarce, and different in character. As a rule, they are narrower, of Egyptian ware, and found on particular types of vessels, such as bottles, twin vessels or spouted jars—in short, mostly in F-ware, and occasionally L-ware. Other long necks are usually concave, like the short ones. It goes without saying that none of them can be related to the large, tall, cylindrical and widening necks with straight walls, which in Maadi are integrally linked with the group with upward-narrowing necks.

Forms of the tall, cylindrical and widening necks in question do not occur among either the Palestinian pottery found at Gerzean sites or its imitations. As regards upward-narrowing necks, there may be only two clear exceptions, one of them the spouted vessel (fig. 8b) from Minshat Abu Omar (see n. 93). This is, however, a rather carelessly-modelled piece, without a clearly marked transition of shoulder to neck, and this carelessness is further indicated by the placement of its spout, which, as a rule, was never on the neck (cf. p. 49); in addition, part of its neck is missing and difficult to reconstruct with certainty. The other vessel, that with ledge and loop handles combined from Gerzeh, has been discussed above (fig. 2a). Within the framework of Gerzean culture, its gently upward-narrowing neck could also be an example, or a reflection, of the pottery-making practices familiar at the Maadi settlement. In view of the proximity of Gerzeh and Maadi, this possibility need not be unrealistic, taking into account the time of the foundation of Gerzeh.

### *Painted pottery*

There are three well-known painted vessels from Upper Egypt which are most probably imports from Palestine<sup>75</sup>—a cup with loop handle from Gerzeh itself and a vessel with two lug handles from Badari, both Late Gerzean, and a bottle with similar lug handles from Abusir el-Meleq, dated to the transitional phase into Dynasty I, from the northern Upper Egyptian group like the first one. None has a parallel at Maadi, which is to be expected in view of their late dating. With the advent of the developed Proto-Urban B phase, which is evidenced in Gerzean culture, sporadic general parallels with the Palestinian-type pottery at Maadi disappear.

However, there are at Maadi a few sherds of Palestinian ware painted with irregular vertical stripes which sometimes coalesce (fig. 6a–c) and which belong to ‘the crude stripe-painting of Proto-Urban A, which stands in contrast to the line group-painting of the Proto-Urban B period’.<sup>76</sup> This fits into the picture which we have of Maadi on the basis of its monochrome pottery from Palestine, and which corresponds to certain characteristics of indigenous Maadian products. In the source quoted above they are related to Megiddo XX, Lachish 1520 and Meşer II–I. Strata II–I of Meşer belong, according to Dothan, ‘to the first phase of the Late Chalcolithic period’ in the earlier

<sup>75</sup> See Hennessy, *op. cit.* 27–8.

<sup>76</sup> Rizkana and Seeher, *op. cit.* 75, pl. 77, 5–8.

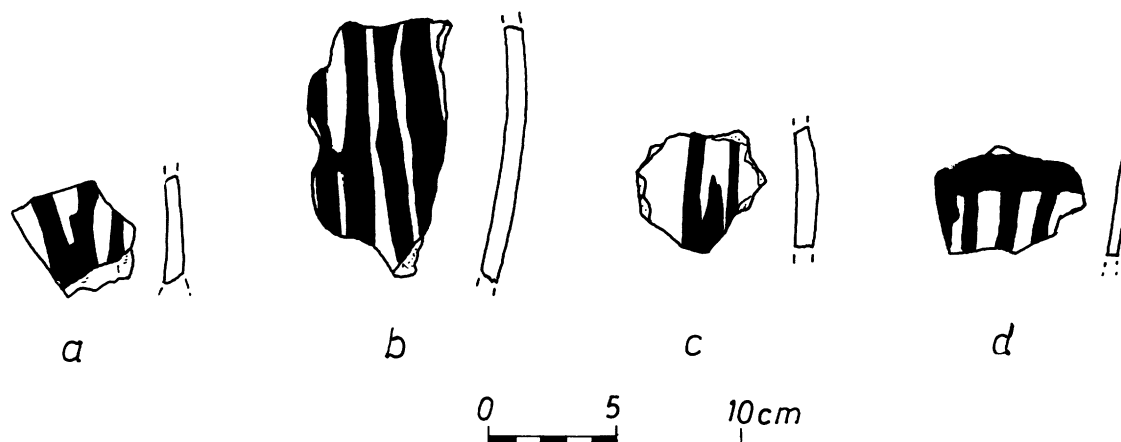


FIG. 6. Painted pottery: (a-c) Maadi; (d) Meşer.  
a-c. Rizkana and Seeher, *Maadi* 1, pl. 77, 5 and 7-8; d. Dothan, *IEJ* 9, fig. 7, 22.

terminology and correspond 'to the later phase of Megiddo XX'.<sup>77</sup> The latest stratum (I) 'does not differ very much' from the previous one,<sup>78</sup> which also contains parallels with Maadi.<sup>79</sup> However, Meşer I is largely placed by Miroschedji in phase 3 of the Proto-Urban period,<sup>80</sup> but is also assigned by Hennessy<sup>81</sup>—and this is critical for the discussion of Maadi—to his group Q-N (see n. 2). It seems more justified to compare these painted vertical stripes to Meşer II (fig. 6d),<sup>82</sup> in other words, to put them nearer to the earlier practice of such ornamentation in Palestine, in accordance with the dating of other typical parallels and imports.

The painted pottery at Maadi, therefore, does not show the influence of painted pottery from the Proto-Urban B period. It is possible that the Proto-Urban A painting of vertical stripes was occasionally imitated on indigenous painted pottery at Maadi.<sup>83</sup> Painted decoration of the Proto-Urban B group is common only after phase O square E III-IV of Jericho.<sup>84</sup>

#### *Knobbed bowls. Proto-Urban C Pottery*

Well-preserved bowls with various knobbed ornaments excavated in Upper Egypt<sup>85</sup> correspond to the Palestinian bowls of type 4, P-U. C group, with conical knobs

<sup>77</sup> Dothan, *IEJ* 9, 29. For the correlation of terms Late Chalcolithic—Proto-Urban—E.B. I, with subdivisions, see Callaway, op. cit. 111; Hennessy, op. cit., chart i; Stager, op. cit. (21-7).

<sup>78</sup> Dothan, *IEJ* 9, 26.

<sup>79</sup> Rizkana and Seeher, op. cit. 74, particularly the upper part of the vessel on pl. 75, 8; Tutundžić, *Recueil* 15, 21. Cf. Dothan, *IEJ* 9, fig. 6, 10.

<sup>80</sup> P. de Miroschedji, *L'époque pré-urbaine en Palestine* (Paris, 1971), 61 nn. 59 and 61, 62, 63, 71, fig. 19.

<sup>81</sup> Hennessy, op. cit. 9, chart i.

<sup>82</sup> Dothan, *IEJ* 9, fig. 7, 22.

<sup>83</sup> Cf. Rizkana and Seeher, op. cit. 75, 76, pl. 42, 1; cf. pl. 77, 5-8. The parallel from grave A94/IIa, which they give on p. 76 n. 254, could be misleading from the chronological point of view, because layer IIa in which that grave was found does not belong to the Early Proto-Urban period (cf. Callaway, op. cit. 53; Stager, op. cit. (24), t. 3). The examples (their n. 253), from trench II, stage XIV, phase XLVIIa and XLVIII of Jericho, also seem not to be close parallels, and are chronologically less precise because of some heterogeneous material there.

<sup>84</sup> Hennessy, op. cit. 9 and cf. pl. iii, 29.

<sup>85</sup> Kantor, *JNES* 1, 185-7, 204-5; I5-8.

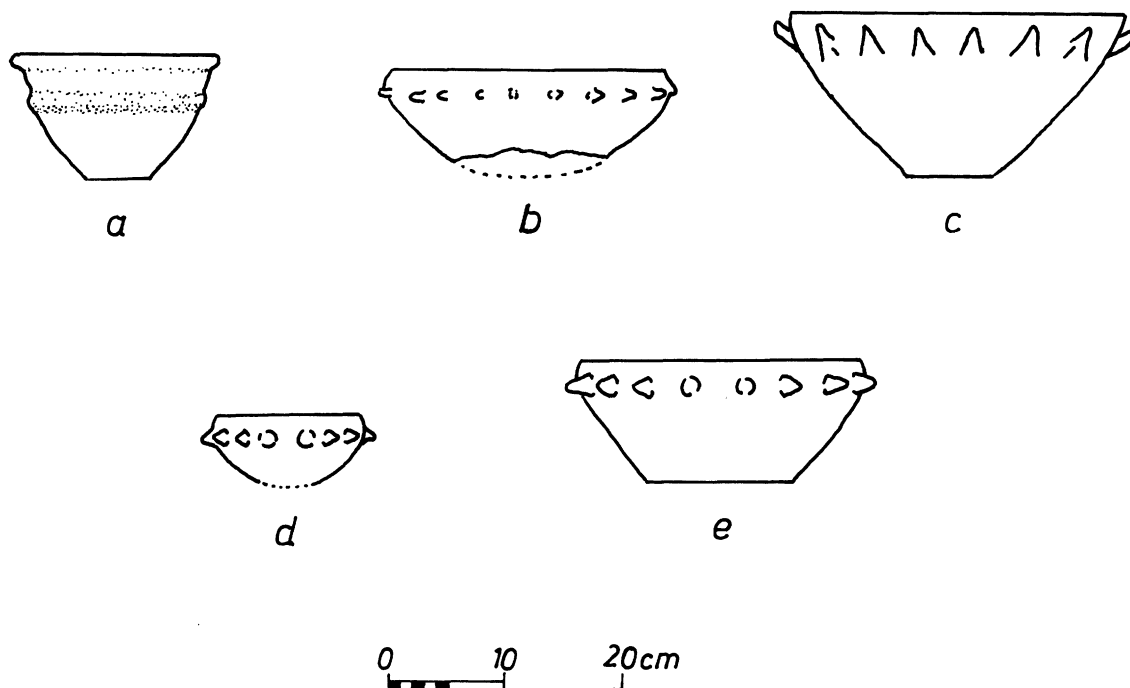


FIG. 7. Proto-Urban C-group pottery and Egyptian imitations: (a) Maadi; (b) Mostagedda; (c) Naqada; (d) Afula; (e) Megiddo.

a. Rizkana and Seeher, *Maadi* 1, pl. 55, 2; b. Brunton, op. cit., pl. xxxiv, 15; c. Petrie, *Corpus*, pl. xv, 5a; d. Amiran, *Ancient Pottery*, pl. 10, 9; e. Engberg and Shipton, op. cit., chart 18.

(fig. 7d–e). One known from Mostagedda (fig. 7b) and another from Abusir el-Meleq are similar to Palestinian products of this kind, and two others, local copies of the same type (fig. 7c), have been found at Naqada.<sup>86</sup> They have no parallels in the northern Egyptian cultural complex. The appearance in Gerzean Upper Egypt of the knobbed bowls—which do not belong, strictly speaking, to the Esdraelon pottery<sup>87</sup>—does not have precise chronological meaning, as this type was produced over a long period of time, as Hennessy has stated in the study cited above. The specimen from Abusir el-Meleq belongs to the very late Gerzean, or to Naqada III.

Copies of C-group pottery from Maadi (fig. 7a)<sup>88</sup> are imitations of the earlier, different types of carinated bowls. Their appearance in this settlement is not surprising from the chronological point of view. Vessels of the C-group are found from the beginning of the Palestinian Proto-Urban period, and J. Hanbury-Tenison has recently put the appearance of this group in Palestine much earlier than other characteristic Proto-Urban pottery groups.<sup>89</sup>

<sup>86</sup> Hennessy, op. cit. 28. Cf. Miroschedji, op. cit. 93; Petrie, *Corpus*, pl. xv, 5a, b.

<sup>87</sup> Stager, op. cit. (23).

<sup>88</sup> Rizkana and Seeher, op. cit. 41, 42, 77, pl. 55, 1–2.

<sup>89</sup> J. Hanbury-Tenison, *The Late Chalcolithic to Early Bronze I Transition in Palestine and Transjordan* (Oxford, 1986), 125, 253, fig. 23. This, however, does not mean that it is possible easily to agree with his 'post-Ghassulian Chalcolithic' phase, in which, however, from the chronological aspect, C-group appears in Palestine. Cf. E. Braun, *Mitkufat Haeven. Journal of the Israel Prehistoric Society* 20 (1987), 186 ff.

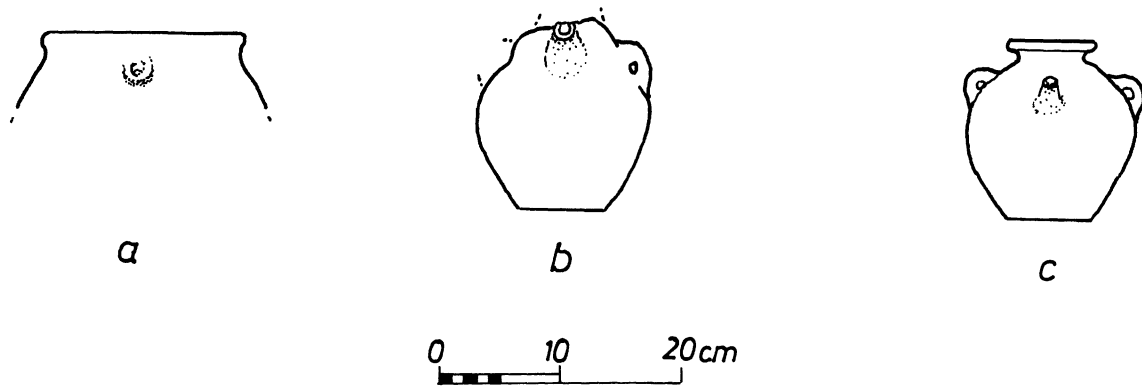


FIG. 8. Spouted vessels: (a) Maadi; (b) Minshat Abu Omar; (c) Megiddo.

a. Rizkana and Seeher, *Maadi* I, pl. 58, 3; b. Kroeper, in *L'urbanisation*, fig. 6a; c. Engberg and Shipton, op. cit., chart 23c.

### *Spouted vessels*

In Egypt, and in Palestine too, spouted vessels are ultimately foreign in terms of their primary origin, but not everyone agrees that their appearance in Egypt is a result of borrowing from Sumer,<sup>90</sup> rather than Palestine; the borrowing probably occurred through Antioch and Syria, as far as Palestine is concerned, and at least partly through Palestine in the case of Egypt.<sup>91</sup> A few spouted vessels from Upper Egypt have Palestinian parallels, while the majority clearly show local Gerzean combinations.<sup>92</sup> Recently, spouted vessels from Minshat phase I, which were imported from Palestine, have been published.<sup>93</sup> In addition to the spout, one had two loop handles (fig. 8b), thus showing the combination known to have existed over a longer time-span in Megiddo stages VII-IV (fig. 8c).<sup>94</sup> Of all the Palestinian vessels from Minshat so far published,<sup>95</sup> the partially preserved neck of this one, seemingly tending towards constriction, is the only feature by which it might be related to the area of origin of the Maadian vessels of Palestinian type with upward-narrowing necks (above, p. 46). For some of the Upper Egyptian jars, Hennessy offered parallels from the Proto-Urban period after its phase I (see n. 91). The Minshat imports are, on the one hand, possibly from the late *Stufe* IIc, or rather, II d; on the other hand, examples similar to them are well known in Palestine, also dating later than phase I of the Proto-Urban period.<sup>96</sup> In Upper Egypt they are dated relatively early (SD 38-40), though judging by all the facts mentioned here, they can hardly be earlier than phase IIc and the appearance of W-ware, unless they are native to Gerzean Upper Egypt or their influence came direct, via the Red Sea, from Sinai to Upper Egypt, for which there is no proof. They have not so far been found at Tell el-Fara'in. As a matter of fact, the parallels identified so far satisfy only partially the

<sup>90</sup> Baumgartel, op. cit. 91-3; B. A. Al-Soof, *Uruk Pottery. Origin and Distribution* (n.p., 1985), 133.

<sup>91</sup> Cf. H. J. Kantor, in R. W. Ehrich (ed.), *Chronologies in Old World Archaeology* (Chicago, 1965), 8-9; Hennessy, op. cit. 30-1, 39.

<sup>92</sup> Kantor, *JNES* I, 188-9, 191-2, 206-7 L-NN ff.; Hennessy, loc. cit.

<sup>93</sup> Kroeper and Wildung, op. cit. 69, 70, 92, figs. 102, 202 and 103, 203; Kroeper, in *L'urbanisation*, 412, figs. 6a, 7a.

<sup>94</sup> Engberg and Shipton, op. cit., chart 23C.

<sup>95</sup> See Kroeper, in *L'urbanisation*, 407 ff.

<sup>96</sup> Tutundžić, in *L'urbanisation*, 428-9.

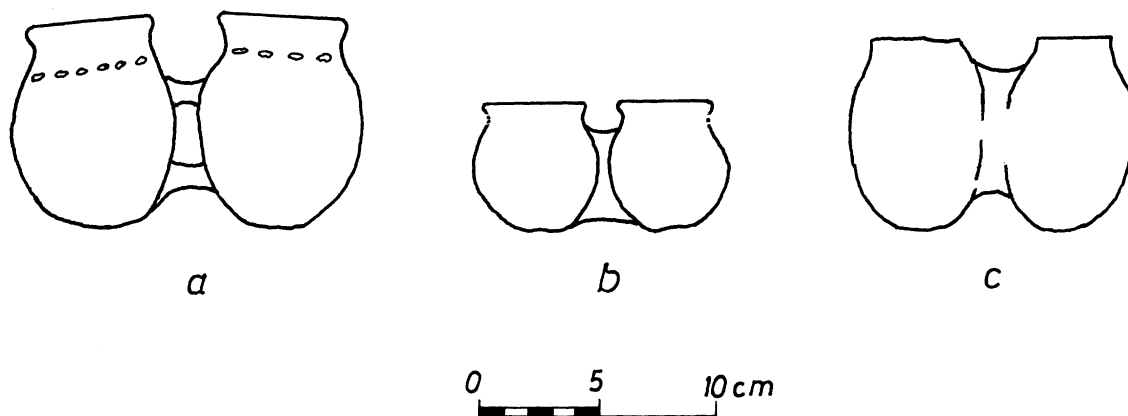


FIG. 9. Multiple vessels: (a–b) Maadi; (c) Naqada.  
 a. Rizkana and Seeher, *Maadi* 1, pl. 33, 26; b. *ibid.*, pl. 33, 27; c. Kantor, *JNES* 1, 205 H2.

comparisons made, leaving a still incomplete picture. Whatever the case might be, it is essential here that ‘the only kind’ of spout known at Maadi (fig. 8a) ‘is formed by a short lip, protruding from the vessel-wall’,<sup>97</sup> and that this kind has no connection whatsoever with the known spouts on the pottery from Gerzean Egypt. Its inspiration might have been the short Ghassulian spouts.

#### *Twin vessels*

The idea of producing multiple or twin vessels in the Nile Valley and Delta need not be non-Egyptian. The earliest multiple vessels appear at Merimde Benisalame,<sup>98</sup> earlier in Egypt than in Palestine.<sup>99</sup> This does not necessarily exclude later Palestinian influence on this kind of vessel. Some Amratian twin vessels of classes F and C,<sup>100</sup> joined by a common lower part, are more inventively modelled than northern Egyptian ones, and in their shape they are sometimes similar to the elongated vessels of S-profile, typical of this culture. Multiple vessels gradually become joined in more than one way,<sup>101</sup> and one of their basic differences is that between a single but complex body, with one or more openings, in which liquid can be mixed, and separate, joined bodies without an intermediate opening for the flow of liquid. It is not certain that the first kind is known in the north Egyptian Chalcolithic complex. Of one multiple pot from Gerzeh it is said that it might have been imported from southern Palestine, between SD 50 and 70.<sup>102</sup> No twin vessels from Minshat have been published. From Maadi there are a few miniature multiple vessels, joined in two ways (fig. 9a–b) but without an intermediate opening, and sherds which might have belonged to a group of multiple vessels joined in different ways.<sup>103</sup> These miniature vessels belong to two of the most frequent Maadian wares and

<sup>97</sup> Rizkana and Seeher, *op. cit.* 39, 50, pl. 58.

<sup>98</sup> Kantor, in *Chronologies*, fig. 2.

<sup>99</sup> Hennessy, *op. cit.* 31.

<sup>100</sup> E. G. Petrie, *Corpus*, pls. xvi, 39; xxiv, 84; xxv, 91.

<sup>101</sup> *Ibid.*, pls. xvii, 40–6P; xxxvii, 91b, C.

<sup>102</sup> Cf. Kantor, *JNES* 1, 185.

<sup>103</sup> Rizkana and Seeher, *op. cit.* 49, 72, pls. 33, 25–31; 62,3; 63, 1–2.

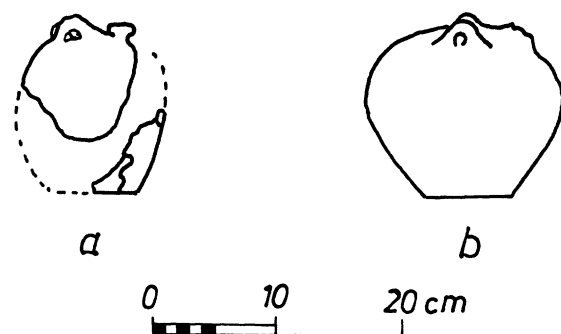


FIG. 10. Kettles: (a) Minshat Abu Omar; (b) Azor.

a. Kroeper, in *L'urbanisation*, fig. 9a; b. A. Ben-Tor, *Qedem* 1 (1975), fig. 10, 2. = Tutundžić, in *L'urbanisation*, fig. 1, 9.

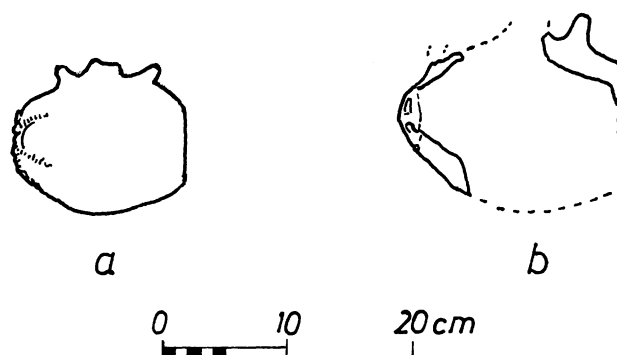


FIG. 11. Churns: (a) Minshat Abu Omar; (b) Azor.

a. Kroeper, in *L'urbanisation*, fig. 8a; b. Amiran, *'Atiqot* 17, fig. 1.

their forms are indigenous, so there is no reason why they and the sherds should not be related to Egyptian tradition and Maadian inventiveness. If a few Gerzean twin vessels (fig. 9c), for which parallels have been noted in Palestine,<sup>104</sup> were manufactured under the influence of that country, or the influence went the other way, obviously that is not a valid reason for attributing the Upper Egyptian twin vessels to the mediation of Maadi.

### *Kettles*

A Late Proto-Urban kettle (fig. 10a) from Minshat (phase I),<sup>105</sup> which has a close parallel (fig. 10b) from Ben-Tor's excavations at Azor (see n. 2), is unique in Egypt.

### *Churns*

Proto-Urban churns from phase I of Minshat<sup>106</sup> are also unique in Egypt (fig. 11a). They too have a clear parallel at Azor (fig. 11b),<sup>107</sup> but they have no relation to the so-called 'churn' at Maadi.<sup>108</sup>

<sup>104</sup> Kantor, *JNES* 1, 204-5 H-HH; Hennessy, loc. cit.

<sup>105</sup> Kroeper and Wildung, op. cit. 70, 93, figs. 104, 205; Kroeper, in *L'urbanisation*, fig. 9a.

<sup>106</sup> Kroeper and Wildung, op. cit. 72, figs. 109, 210; Kroeper, in *The Archaeology*, fig. 38; id., in *L'urbanisation*, 416, fig. 8a.

<sup>107</sup> R. Amiran, *'Atiqot* 17 (1985), 190 f., fig. 1.

<sup>108</sup> Rizkana and Seeher, op. cit. 50.

Finally, in connection with Maadi, it should be mentioned that a number of its vessels of different forms, with ornaments impressed and incised around the transitional point of shoulder into neck and/or under the rim, have been compared with Ghassulian and Proto-Urban pottery.<sup>109</sup> This topic will be discussed, in some detail, separately, but these vessels do not change the conclusions about Palestinian relationships treated in this paper.

### *Palestinian vessels at Heliopolis*

From the Maadian cemetery at Heliopolis, three vessels of Palestinian ware have been published.<sup>110</sup> No certain imitations were found. It is impossible to say anything more precise about the intensity of relations between Maadian Heliopolis and Palestine since the settlement is unknown, but it was situated on a route which was of importance for millennia and which was connected with the two main roads coming from Sinai,<sup>111</sup> which joined there and continued together towards Maadi. On the other hand, Maadi was a large settlement for its time, which is, by itself, indicative of its importance, even if it has been assumed that large settlements in general are a characteristic of Lower Egypt from the Neolithic period.<sup>112</sup> It is questionable whether two large settlements of the same culture could, in late prehistory, exist at least partly contemporaneously and in relatively close proximity.<sup>113</sup> Judging by the partially excavated Heliopolis cemetery, it is difficult to be sure about the real proportions of its settlement,<sup>114</sup> but it does not seem to have been small. Maadi probably surpassed Heliopolis in size, but it would not be unrealistic for a settlement associated with this size of cemetery to contain a certain quantity of Palestinian pottery, or to have a certain quantity travel through it. One thing is, however, sure: the Palestinian pottery excavated in the cemetery of Heliopolis has the same affinities with southern and western Palestinian shapes as those partly known from the settlement of Maadi.

A jar from grave 27 has been greatly damaged, its whereabouts are at present unknown, and there is no sufficiently large photograph or drawing of it to allow discussion in detail, but the type, with no handles but a tall, upward-widening neck (fig. 12a), has a close parallel among Palestinian pottery at Maadi, while the one from grave 37 (fig. 12b) clearly belongs to the group with upward-narrowing necks excavated at Maadi (see n. 110). Among the finds from the Heliopolis cemetery there are no parallels with the Palestinian goods known within Gerzean culture, nor is there any closer or more specific analogy with that culture. This is understandable, particularly when a cemetery is in

<sup>109</sup> Ibid. 76–7, pls. 40–1, 59 and *passim*.

<sup>110</sup> F. Debono and B. Mortensen, *The Predynastic Cemetery at Heliopolis* (Mainz, 1988), 30, 55, pls. 8, 13:1; 16, grave 27, 2; 17, grave 37, 2.

<sup>111</sup> The *Via Maris* is primarily meant here. The other is the 'Way of Shur'. The northern extension of Darb el Hagg is a third.

<sup>112</sup> W. C. Hayes, *Most Ancient Egypt* (Chicago, 1965), 103, 135.

<sup>113</sup> Kaiser is inclined to think that the differences between Maadi and Heliopolis, as well as among some other sites of the northern Egyptian cultural complex, result from specific regional developments, not simply from chronological differences (*MDAIK* 41 (1985), 67 n. 30). The different character of a settlement may, in any case, have been a cause of less intense connections with a particular foreign culture.

<sup>114</sup> Debono and Mortensen, *op. cit.* 40–1, 51. The figures there given of 100 to 150 people are, judging by the data at their disposal, correctly assessed.

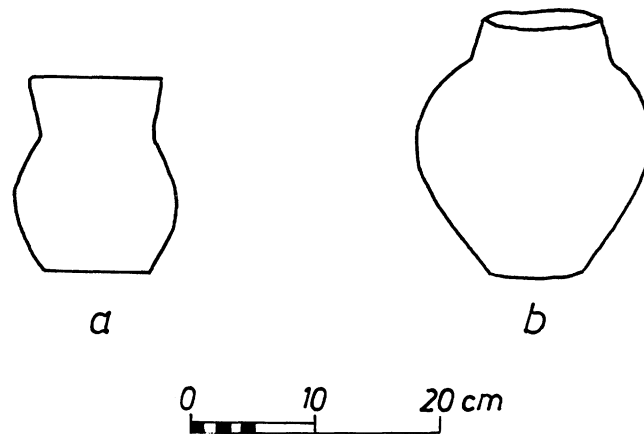


FIG. 12. Jars from Heliopolis with upward-widening and upward-narrowing necks.  
a. Debono and Mortensen, *op. cit.*, pl. 8, 13:1; b. *ibid.*, pl. 17, 4, grave 37, 2.

question. The cemetery has now been dated as earlier than Late Gerzean.<sup>115</sup> However, Heliopolis should, at least partly, be of a later date than the Maadi settlement, as has been argued.<sup>116</sup>

Maadian culture—taking the term here as referring to the period from the beginning of life in the settlement of Maadi onward, with no intention of implying its possible application to earlier phases<sup>117</sup>—is still known only incompletely. Excavations of great scope have been carried out only at Maadi (including parts of so-called Maadi South), and to a lesser extent at Heliopolis. The excavations at Tell el-Fara'in (Buto) can be called the first modern, systematic excavation of a Maadian settlement, and at the same time of a stratified site which does not belong solely to this culture.<sup>118</sup> The other Maadian sites are known only from very limited excavations, at Turah railway station and at a newly-discovered small cemetery near Merimde Benisalame.<sup>119</sup> Excavations in the Fayum have also yielded indications of Maadian presence in that depression,<sup>120</sup> and it has recently been shown that four jars found at Giza also belong to the Maadi culture.<sup>121</sup> On such meagre archaeological evidence of Maadian culture is based the present knowledge that Palestinian ceramics and Palestinian influence within the framework of Maadian culture existed only at Maadi, Heliopolis and Buto.

As already seen, Palestinian pottery at Maadi is related to the Early Proto-Urban period of Palestine, at least to the period of its overlap with the Ghassulian, about the time

<sup>115</sup> *Ibid.* 34 and *passim*.

<sup>116</sup> I. Rizkana, *Bulletin de l'Institut Fouad Ier du Désert* 2 (1952), 6 f.; I. Rizkana and J. Seeher, *Maadi, III. The Non-Lithic Small Finds and the Structural Remains of the Predynastic Settlement* (Mainz, 1989), 84.

<sup>117</sup> The question remains open of how long the term 'Maadian culture', in general use for the late northern Egyptian cultural complex, is appropriate to phases earlier than the foundation of the eponymous settlement. The primary reason for this is the hiatus between El Omari and Maadi. At any rate, this term could refer to a phase of the late Neolithic, too.

<sup>118</sup> Von der Way, *MDAIK* 42 (1986), 194 f.; *id.*, *op. cit.* 241–2, 244 f.

<sup>119</sup> A. Badawi, in J. Eiwanger, *MDAIK* 36 (1980), 75–6, pl. 25; Eiwanger, in J. Assmann and G. Burkard (eds.), *5000 Jahre Ägypten, Genese und Permanenz pharaonischer Kunst* (Nussloch, 1983), 71.

<sup>120</sup> Kaiser, *MDAIK* 41, 64; Rizkana and Seeher, *Maadi* 1, 61 and cf. 60.

<sup>121</sup> B. Mortensen, *MDAIK* 41 (1985), 145 f.



of the transitional phases at Lachish and Meşer. Maadi is now dated relatively earlier, from about the middle of the Amratian in Upper Egypt until the time of Naqada IIc.<sup>122</sup> Its duration through the Late Gerzean has not been ascertained. But it can be assumed that Maadi was particularly synchronous with Harageh and Gerzeh, which represent the well-known first phase of Gerzean penetration into the northern Egyptian cultural complex, and these two sites have been dated in Naqada IIc.<sup>123</sup> The noted loss of contact between Maadian culture and Gerzean at the beginning of the Late Gerzean period<sup>124</sup> could be a consequence of the beginning of Gerzean enmity towards the dwellers of Maadi and its surroundings, not simply the termination of its existence. Unfortunately, it is not known precisely enough when the first traces of Palestinian pottery appear in Maadi, nor when its import ceases; these are crucial questions for the synchronism of Chalcolithic Lower Egypt and Early Proto-Urban Palestine. Earlier than Maadi, neither the import of Proto-Urban pottery nor its influence upon the northern Egyptian cultural area has been determined, which is quite understandable from the chronological point of view. The Early Proto-Urban pottery in question could correspond, around the latitude of Maadi and Heliopolis, probably to the end of the Amratian period, certainly to the Early Gerzean, and possibly to Naqada IIc. It is not improbable that Palestinian pottery at Maadi does not last through Naqada IIc, but that in the manufacture of vessels, some elements remain under Palestinian influence.

It is also clear that Maadian culture did not end with the extinction of life at its eponymous site. Further north, particularly in the western Delta, which was outside the main Gerzean expansion north-east (Minshat Abu Omar), settlements of Maadian culture could have survived relatively longer (see n. 119), and even independently, without mixing with the Gerzeans. But the force of the Maadians in the Delta was definitely broken when Maadian independence in Buto ended, even if we suppose that independent Maadian culture outlived Maadi itself. With the disappearance of Maadian domination in Lower Egypt in Naqada IIc, the contacts between Maadian culture and Palestine vanished.

Even the newly-published results of earlier excavations at Maadi by the University of Cairo, and the present ones at Minshat, do not change the negative picture produced by comparing Palestinian and Palestinianized pottery in the Maadian and Gerzean cultures. On the contrary, the integral comparison carried out in this article has revealed even greater differences of quantity and quality. The basic reason for these differences is of a chronological nature.

Direct contacts between Palestine and the bearers of Gerzean culture are not earlier than the Late Gerzean period. They begin possibly in later Naqada IIc, and are certainly present in IID. It is clear that those first contacts did not occur in the earliest phase of the Proto-Urban period, that is, in the beginning of E.B. IA, but probably some time later, and they certainly became closer in the course of Late Proto-Urban period, that is, in E.B. IB.

According to statistically-controlled calibrated radiocarbon dates, discussed in the important studies of Hassan and Weinstein, the very beginning of the Proto-Urban

<sup>122</sup> Rizkana and Seeher, *MDAIK* 40 (1984), 252 and *passim*, *Maadi* 1, 78; L. Habachi and W. Kaiser, *MDAIK* 41 (1985), 45-6.

<sup>123</sup> Kaiser, *ASAE* 71, 119 n. 3, 122.

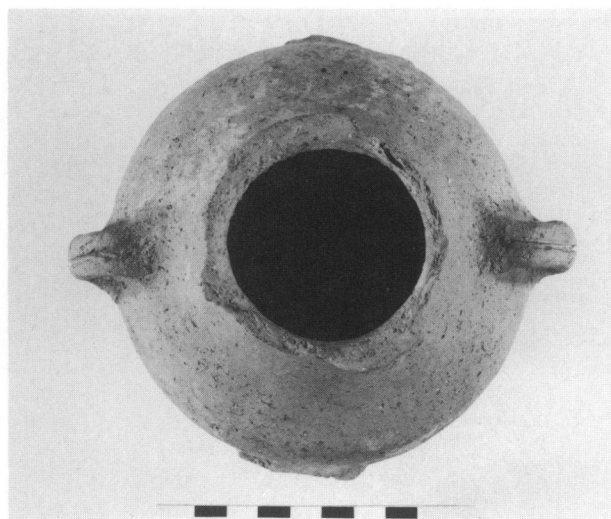
<sup>124</sup> All the evidence which points to connections between Maadi and the Gerzean culture belongs to the early part of the latter (cf. Rizkana and Seeher, *Maadi* 1, 66 f); this accords with absolute chronology based on CRD (Hassan, *African Archaeological Review* 3, 112). Cf. also Tutundžić, in *L'urbanisation*, 430.

period barely touches the end of the Early Gerzean. From the archaeological point of view, this does not seem probable. But one of Weinstein's conclusions, namely that there is 'a disturbed gap between the end of the Chalcolithic period and beginning of the Early Bronze age',<sup>125</sup> is significant. Further work on such synchronization, which also means arriving at more precise results leading to an absolute chronology of Egypt and Palestine in late prehistory, obviously awaits further excavations of stratified sites.

<sup>125</sup>J. M. Weinstein, *Radiocarbon* 26 (1984), 305-6.



1.



2.

Petrie's W2c (Gerzeh)  
(Courtesy University College London)



3. Petrie's W2b (Naqada)  
(Courtesy of the Ashmolean Museum, Oxford)



4. Minshat Abu Omar

# FINGERS, STARS, AND THE 'OPENING OF THE MOUTH': THE NATURE AND FUNCTION OF THE *NTRWJ*-BLADES<sup>1</sup>

By ANN MACY ROTH

In *JEA* 78, it was argued that the 'opening of the mouth' ritual of the Egyptian mortuary cult re-enacted the transitions of birth and childhood in order to render the reborn dead person mature enough to eat an adult meal. Here its central act, the opening of the mouth itself, is shown to mimic the clearing of a newborn's mouth with the little fingers. Originally, the gesture resembled that of anointing; later the fingers were replaced by the finger-shaped *ntrwj*-blades, and in the Sixth Dynasty the adze was imported from the statue ritual. As frequently happened in Egyptian religion, however, ritual texts and iconography continued to invoke the older implements along with the newer tools, in order to render the ritual more effective. The relationship between birth and statues is intriguingly paralleled in a Mesopotamian statue ritual.

In New Kingdom tombs and papyri, 'opening of the mouth' scenes often display a collection of the tools used in the ritual (fig. 1).<sup>2</sup> Prominent among them are adzes, the wood-carving tools that E. Otto identified as the principal instruments of the New Kingdom rite, which he saw as essentially a statue ritual.<sup>3</sup> Oddly, these otherwise comprehensive collections never include the instruments used in the earliest accounts of the 'opening of the mouth', the two blades cited in the Pyramid Texts of Unas and other Old Kingdom editions of the ritual.<sup>4</sup> The name of these two blades, *ntrwj*, does occur in the New Kingdom ritual, sometimes modified to *ntrtj*, but it is attached to one of the adzes.<sup>5</sup>

The blades are attested in four different contexts in the Old Kingdom. They are mentioned in the Pyramid Texts, where they are called *ntrwj*; in inventory texts from the mortuary temple of Neferirkare at Abu Sir, where they are called *sbrwj*;<sup>6</sup> and in several

<sup>1</sup> This article is a revised and expanded version of a talk presented at the Sixth International Congress of Egyptologists at Turin in September of 1991. I would like to thank Dr James P. Allen, who drew my attention to several of the most telling passages in the Pyramid Texts; Dr A. Cohen, who answered my questions on obstetric matters; and Prof. Edward Anders, who gave me useful references and suggestions about meteorites. I am especially indebted to Prof. Anne D. Kilmer for pointing out the Mesopotamian parallel to my reconstruction of the Egyptian ritual and for allowing me to quote some of her own unpublished work. Prof. Irene J. Winter also provided useful comments and references on the Mesopotamian connections. Dr Emily Teeter, Dr Maarten J. Raven, and a reviewer for the *JEA* also offered thoughtful critiques and suggestions. My arguments depend heavily upon the interpretation of the entire 'opening of the mouth' ritual that I proposed in *JEA* 78 (1992), 113-47, and the relevant conclusions of this article and the arguments supporting them are summarized here.

<sup>2</sup> For accessible colour photographs of these collections, see R. O. Faulkner, *The Ancient Egyptian Book of the Dead* (Austin, Texas, 1990), 38 (upper right of lower figure) and 54 (lower right of figure); T. G. H. James, *Ancient Egypt: The Land and its Legacy* (Austin, Texas, 1988), 151, fig. 107; R. E. Freed, *Ramesses the Great* (Memphis, Tennessee, 1987), 109 (upper figure); K. el-Mallakh and A. C. Brackman, *The Gold of Tutankhamun* (New York, 1978), colour pl. 2. This last example was redrawn as fig. 1 here.

<sup>3</sup> *Das ägyptische Mundöffnungsritual* (Wiesbaden, 1960), II, 2-3.

<sup>4</sup> Pyr. 30 b, attested in the pyramids of Unas, Pepi II, Neith, and Oudjebten.

<sup>5</sup> Otto, *Mundöffnungsritual*, II, 17-18.

<sup>6</sup> P. Posener-Kriéger and J. L. de Cenival, *The Abu Sir Papyri* (London, 1968), pls. 20.g, 21.o, and 22B. See also P. Posener-Kriéger, *Les archives du temple funéraire de Néferirkarê-Kakai* (Cairo, 1976), 173-4.



FIG. 1. The 'opening of the mouth' as depicted at the east end of the north wall of the burial chamber of Tutankhamun.

late Old Kingdom compartmental offering lists, where they are called either *ntrwj* or *sbrwj*.<sup>7</sup> Models of the blades also occur archaeologically, in sets of model implements placed in the recesses of special limestone platters, called 'opening of the mouth' sets or *psš-kf* sets, which are sometimes found in private tombs of the Fifth and Sixth Dynasties.<sup>8</sup>

<sup>7</sup> S. Hassan, *Excavations at Giza*, vi/2 (Cairo, 1948), pl. 131. Hassan lists six tombs in which this compartment of the offering list is at least partially preserved. In two lists, those of *Bjw* (Hassan's no. 135) and an unknown tomb owner (no. 139), the reading is clearly *sbrwj*; in three, of *Nj-hb-sd-Nfr-kr-Rc* (no. 137), *Sbkj* (no. 138), and *Jj-mrjj* (no. 142), the reading is clearly *ntrwj*; and in the sixth, *Mnj* (no. 136), the relevant signs are obscured by damage.

<sup>8</sup> R. van Walsem, *OMRO* 59 (1978), 224-5, to which can be added S. D'Auria et al., *Mummies and Magic* (Boston, 1988), 80-1 (parts of three such sets).

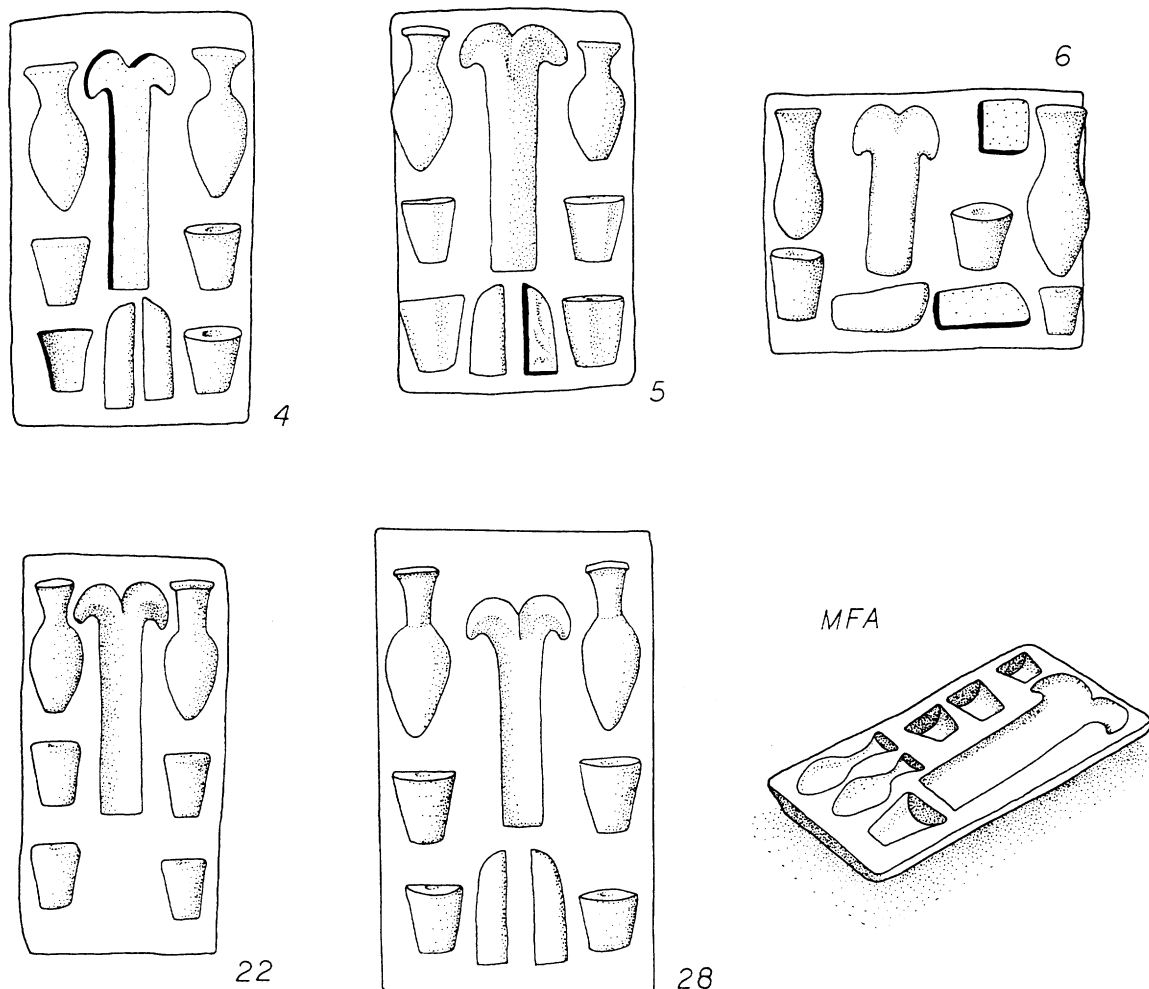


FIG. 2. Old Kingdom *psš-kf* sets from private tombs, showing symmetrical and asymmetrical arrangements and the presence and absence of the *ntrwj*-blades.

Despite the variation in name,<sup>9</sup> the blades in these sources are all clearly the same. They invariably occur as a pair, they are usually associated with Upper and Lower Egypt, they are said to be made of *bjj*, and they are roughly rectangular. Moreover, in all four contexts, they are consistently associated with the same assemblage of objects: the forked *psš-kf* knife, two *hstj*-bottles (one of black and one of white stone), and four or five straight-sided *hnt*-cups. This collection of implements, including the *ntrwj*-blades, was presumably the equipment required for a single ritual sequence.

In contrast to the *psš-kf*, which is attested both as a functional Predynastic flint knife and later as a blunt-edged model, no *ntrwj*-blades can be identified that are not parts of

<sup>9</sup>To avoid repeating the variant names, the term *ntrwj* is here adopted throughout, since it is presumably the original, formal name, as opposed to the vernacular *sbrwj*, and since it is attested in both the Old and New Kingdoms. Previous writers on the topic, myself included, have used the New Kingdom variant, *ntrj*, even in an Old Kingdom context. See, for example, Posener-Kriéger, *Néferirkarê-Kakaï*, 174; van Walsem, *OMRO* 59, 222-4; Roth, *JEA* 78, 117.

model sets. Our knowledge of their appearance thus depends exclusively on the models and the determinative signs used in texts. In model sets (fig. 2),<sup>10</sup> the blades are usually represented by flat black stones, although a few sets, probably early, have no blades and no recesses for them.<sup>11</sup> When they occur, the blades are roughly rectangular, but one outer corner of each is rounded so that they are mirror images of one another. The rounded edges are normally placed towards the top of the platter (as defined by the placement of the tops of the cups and the forked end of the *psš-ḫf* (knife), so they presumably represent the working ends of the implements rather than their handles.

In the Abu Sir papyri (fig. 3), the determinative sign used for the implement in the most carefully-written example (20,g) clearly has the same shape as the models: rectangular with one rounded corner. In the second example, both upper corners of the sign are rounded, although to differing degrees; and in the third writing, two implements are rendered simply as two horizontal lines. In contrast to the carefully drawn hieratic examples, the contemporary hieroglyphic determinatives show regular, symmetrical forms (fig. 4):<sup>12</sup> the blades are either rectangles or ovals or, in one example,<sup>13</sup> long narrow triangles with rounded tips. When held in the hands of the officiant, the rectangular form protrudes both above and below the hand, suggesting a length of about 15 cm.<sup>14</sup>

### The *ntrwj*-blades in the Pyramid Texts<sup>15</sup>

In JEA 78, I argued that the Pyramid Texts in which the *ntrwj* and the implements associated with them occur were part of a ritual that mimicked the birth and maturation of a child. Its purpose was to take the newly reborn deceased person through the transitions of birth and childhood, so that he or she could be nourished by the (adult) food provided in such profusion for Egyptian mortuary cults. The ritual therefore emphasized the aspects of the process that affect the way a child receives nourishment: the initial connection with the placenta, the severing of the umbilical cord, nursing, weaning, and teething. This ritual sequence coincides with the upper register of Pyramid Texts on the north wall of the burial chamber of Unas' pyramid and those of subsequent kings. The spells in all three registers on this wall are accompanied by offerings, which were presented along with the recitation of the spells to form the principal funerary offering ritual. All the offerings presented in the upper register were perishable (incense, natron,

<sup>10</sup>The numbers 4, 5, 6, 22, and 28 that identify the sets pictured in fig. 2 correspond to the list given by van Walsem, *OMRO* 59, 224–5; the unnumbered set is from the Museum of Fine Arts, Boston (accession no. 13.3144).

<sup>11</sup>Most sets are not well dated. However, in the Sixth Dynasty a fixed symmetrical arrangement for the implements seems to have prevailed; all the sets that can be clearly dated to that dynasty are symmetrical. The asymmetrical sets are perhaps somewhat earlier (none has a clear Sixth Dynasty context) and of the three asymmetrical sets known, two lack *ntrwj*-blades. The single symmetrical set that lacks these blades may also date earlier than the Sixth Dynasty.

<sup>12</sup>The numbers of the non-royal examples correspond to the examples given in the compilation of offering lists in Hassan, *Giza*, vi/2, pl. 131. Royal examples are from the Pyramid Texts, except the second example of Pepi II, which was taken from a fragmentary offering list found in his mortuary temple. Wherever possible, examples have been collated with the original publication.

<sup>13</sup>Hassan, *Giza*, vi/2, pl. 131, example no. 138.

<sup>14</sup>*Ibid.*, pl. 131, example no. 139, from G. Jéquier, *Tombeaux de particuliers de l'époque de Pepi II* (Cairo, 1929), 112.

<sup>15</sup>The analysis presented in this section is an outline of more extensive arguments in Roth, JEA 78, 118–22. I have taken the opportunity to add various corroborative details and interpretations.

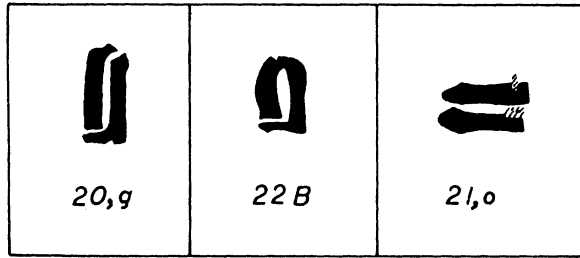


FIG. 3. Hieratic determinatives to the *sbw*j (= *ntrw*j) blades from the papyri found at the mortuary temple of Neferirkare at Abu Sir.

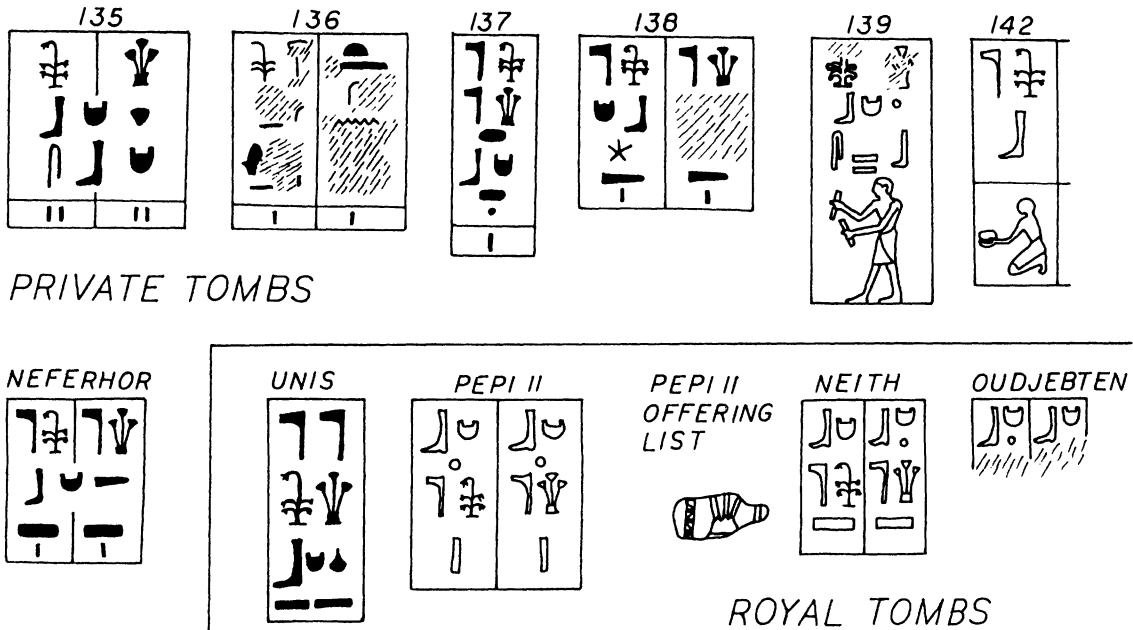


FIG. 4. Writings of the names of the blades in the Pyramid Texts and in offering lists in private tombs. The numbers are those assigned in Hassan, *Giza* VI/2; Neferhor's list is published in Jéquier, *Le Monument funéraire de Pépi II*, II (Cairo, 1938), 41.

food) with the exception of the *ntrw*j-blades, the *psš-*kf**, and various bottles and cups that can be identified with the bottles and cups of the model sets and inventories.

In the pyramid of Unas, this sequence began with protective spells that stressed the presence of Unas' *k* surrounding him (Pyr. 16-18). The *k* here was probably represented by the placenta, in the womb with Unas preparing for rebirth.<sup>16</sup> Unas was then told of a summons (*pr.tj n.k hrw*) to go forth to his son (Pyr. 22-3). Following the summons is a blank space that may mark the actual rebirth, since it is followed by purification spells and a clause comparing Unas' mouth to that of a calf on the day of his birth

<sup>16</sup> H. Frankfort, *Kingship and the Gods* (Chicago, 1948), 70-4, and A. M. Blackman, *JEA* 3 (1916), 241 n. 3, suggested the same equation, based mainly on cross-cultural parallels with contemporary African cultures. That the word *krw*, 'sustenance', is related to the word *k*, and that the placenta provides sustenance in the womb, is also suggestive. There is, however, no clear evidence that the Egyptians were aware of the placenta's function.



(Pyr. 26–7). Incense was burnt and all his limbs were cleaned (Pyr. 28). Then a *psš-*kf** knife was presented and said to make firm Unas' lower jaw (Pyr. 30a). This signalled to the newly reborn king that his umbilical cord had been cut and he now needed to nurse at his mother's breast.<sup>17</sup> At the same time, it magically ensured the rigidity of his jaw so he could do so, thus helping Unas to replace the nourishment that was previously supplied through the umbilical connection it had just severed. Unas' mouth was then opened with two *ntrw*j**-blades (Pyr. 30b) and two obscure substances were offered (Pyr. 31). In the next spells, two jars were presented, one full of milk and the other empty; these are explicitly called the breasts of Horus and Isis (Pyr. 32). The 'summons' (Pyr. 22–3) is repeated, again followed by a blank space that may here mark the birth of the placenta. A black and a white *h*ꜣ*t*s**-bottle were elevated in the next passage (Pyr. 33), perhaps signifying by their different colours the contrasting fates of the newborn and his placenta.<sup>18</sup>

The next sequence represented the reborn king's weaning and teething. A fresh (soft) cake was offered, and Unas was assured that offerings surrounded him (Pyr. 34); this may refer back to Pyr. 18, where the *k*ꜣ**, the previous source of nourishment, was also said to surround the deceased. The five cloves of garlic offered next were explicitly equated with teeth (Pyr. 35a). The king was then given a heavy cake (Pyr. 35bc) to cut his teeth against, while the wine that followed (Pyr. 36) would have dulled the pain of teething. After this, Unas could apparently chew adult food, and the remaining texts in the register (Pyr. 37–40) offered a complete funerary feast of bread, meat, wine, and beer.

The offering ritual, including this sequence and the spells in the two lower registers that follow it, seems to have grown by accretion. The offerings that accompany this longer ritual are identical to the sequence of offerings in Barta's type A/B offering list.<sup>19</sup> The offerings of the shorter sequence just described correspond to the type B list of offerings, which never occurs independently, but only followed by the type A list.<sup>20</sup> In private tombs, the type A/B list did not appear until the last reign of the Sixth Dynasty, but in royal contexts there is evidence to date it as early as the reign of Sahure.<sup>21</sup> Since *psš-*kf** sets also began to be placed in private tombs in the Fifth Dynasty, the ritual must have been performed in both royal and private cults at that period, although private tombs continued to display only the type A list which had become canonical in the late Fourth or very early Fifth Dynasty,<sup>22</sup> just before the earliest introduction of the type B sequence.

The offering ritual received yet another accretion in the early Sixth Dynasty. Fragments from the Pyramid Texts of Mernere show that a new version of the 'opening of the mouth' (Pyr. 11–15) was added, a sequence that involved the adze and the foreleg of a bull known from the New Kingdom edition of the ritual. The position of this addition is preserved in later pyramids: it was placed at the front of the A/B sequence. In the early

<sup>17</sup> The evidence for the use and purpose of this knife was the principal focus of the previous article, *JEA* 78, 113–47.

<sup>18</sup> A similar contrast may be indicated by the representations of Tutankhamun in a childlike posture with black and white faces on the double cartouche box found in his tomb: see the photograph in C. N. Reeves, *The Complete Tutankhamun* (London, 1990), 158.

<sup>19</sup> W. Barta, *Die altägyptische Opferliste*, MÄS 3 (Berlin, 1963), fig. 5.

<sup>20</sup> More precisely, it is followed by the type A list minus its first two offerings, which are identical with the first two of the type B list.

<sup>21</sup> H. Altenmüller, *MDAIK* 22 (1967), 17–18, has argued convincingly from fragments of offering lists in the mortuary temples of Sahure and Neferirkare that the type A/B sequence occurred in those temples.

<sup>22</sup> Barta, *Opferliste*, 47.

Fifth Dynasty and again in the early Sixth, then, a new sequence was inserted at the beginning of an older sequence which was left essentially intact; in the Sixth Dynasty, the addition clearly represented a reworking of the older ritual to which it was joined.

Supporting this model of growth by accretion are numerous passages in the lower registers of the Unas ritual (corresponding to the type A sequence) that anticipate offerings or concepts from the later B sequence. Pyr. 17–18 and Pyr. 22–3 are repeated a short way into the second register. A kind of bread which may be related to the shape of the *psš-ḳf* is offered in Pyr. 60c and Pyr. 73cd and 'mouth-washing' bread is offered in Pyr. 72ef. The 'lifted' bread and drink of Pyr. 61–2 are reminiscent of the elevation of the black and white *hṯs*-vessels of Pyr. 33. In Pyr. 79ab, onions said to be teeth are offered, again occurring just before an extensive list of meats. Still further along, milk (Pyr. 89) and the breast of Horus (Pyr. 91) are offered once again.

These spells are clearly the remnants of earlier versions of the metaphorical birth-and-maturation sequence, which was already present in the type A list. The two additions of the late Old Kingdom, the B sequence and the sequence including the adze and foreleg, were thus simply the latest examples of a long history of additions and revisions to the offering ritual, preserved because of the new custom of inscribing the ritual's text in royal burial chambers. Some form of this ritual probably dated back at least to the Nagada II period, when the *psš-ḳf* knife in burials began to be placed in front of the deceased rather than behind his head with the other knives.<sup>23</sup> This change presumably marked the beginning of its ritual presentation.

### The role and origin of the *ntrwj-blades*

The accompanying spell, 'Osiris Unas, I have split open for you your mouth', clearly indicates the function of the *ntrwj*-blades. Why should a newly reborn king need to have his mouth opened? At birth, a baby's mouth is obstructed by mucus that must be cleared before the baby can breathe. In modern births, the mouth is cleared using a bulb syringe,<sup>24</sup> but the physician's little finger is also put into the mouth to test for any abnormalities of the palate (fig. 5).<sup>25</sup> The small size, softness and sensitivity which make the little finger appropriate for this task would make it equally suitable for cleaning the mouth. Today, the clearing is normally done immediately before the umbilical cord is cut. Although the *ntrwj*-blades follow the *psš-ḳf* in the Pyramid Texts, they consistently precede it in the Abu Sir inventories,<sup>26</sup> suggesting that the real order of presentation was the same as in the procedure used today. In the New Kingdom 'opening of the mouth' ritual, too, the presentation of the *psš-ḳf* (Scene 37) follows the central mouth-opening scenes (Scenes 26–7 and 32–3).<sup>27</sup> The actions may have been seen as simultaneous.

The most likely prototypes for the *ntrwj*-blades are the two little fingers of the midwife. The model *ntrwj*-blades are shaped like fingers, with the single curved corner represent-

<sup>23</sup> Roth, *JEA* 78, 131–2.

<sup>24</sup> Dr A. Cohen, personal communication. If left to itself, the baby will normally swallow this mucus, although this can cause complications. In modern births, the mucus is cleared mechanically as a matter of course.

<sup>25</sup> This illustration is taken from J. R. M. Kuntz and A. J. Finkel (eds), *American Medical Association Family Medical Guide* (New York, 1987), 656 (figure).

<sup>26</sup> Posener-Kriéger and de Cenival, *Abu Sir Papyri*, pls. 20–2.

<sup>27</sup> Otto, *Mundöffnungsritual*, II, 9.



FIG. 5. Illustration from a modern medical reference book, showing the use of the little finger to check for abnormalities in the mouth.

ing the soft part of the finger behind the nail. If they represented the little fingers of the left and right hands of the midwife, both their consistent duality and the fact that they are mirror-images of one another would be explained. The hypothesis that the *ntrwj* were models of human little fingers also explains the occasional omission of the *ntrwj*-blades from model sets and the fact that no prototypes occur in Predynastic tombs corresponding to the functional flint *psš-kf* knives. Originally, the gesture was probably performed by the little fingers of the priest, mimicking the little fingers that would have been used at an actual birth. Such fingers would not have been considered part of the ritual 'equipment'.

The 'opening of the mouth' with the little fingers is, in fact, attested in the Pyramid Texts. In Pyr. 1329-30, preserved only in the pyramids of Pepi II and Queen Neith, the mouth of the deceased is said to be opened by a sequence of four implements. The first of these is obscure, but the second is the *dws-wr* adze, presented in the 'mansion of gold', where a version of the ritual was performed upon statues. Then, the mouth is opened by the 'two images (*twj 2*) foremost of the mansion of natron, (*hwt ntrj*)'. Since natron was used in mummification, these were presumably the appropriate tools for the dead. There is also clearly a pun on the name of the *ntrwj*-blades that the two images presumably represent.<sup>28</sup> Finally, the mouth is opened 'by the little finger of Horus, with which he split open the mouth of his father, with which he split open the mouth of Osiris'.

Horus and Osiris were the primeval participants in the 'opening of the mouth' rite. The Egyptians assigned the responsibility for performing this act to the son or heir, and made his participation a condition of inheritance.<sup>29</sup> The role of Horus and Osiris as prototypes and the use of the past tense *sdm.n.f* relative form to refer to Horus' opening of Osiris'

<sup>28</sup> In the pyramid of Neith, the word *twj* is followed by two divine determinatives. The *dws-wr* is also given a divine determinative, perhaps because the name of the goddess Neith is substituted for the word *dws*. Neither of the other implements has such determinatives: G. Jéquier, *Les Pyramides des reines Neit et Apouit* (Cairo, 1933), pl. 32.

<sup>29</sup> See T. Mersich, *LA* 1, 1248, and references therein. An illustration can be found in the tomb of Tutankhamun, where king Ay, the successor and hence theoretically the son of Tutankhamun, is depicted with an adze, opening the mouth of the mummy (see fig. 1).

mouth suggest that the little fingers were the original tools used in the rite. Like the offering ritual, where each new version was added to the beginning of the older sequence, the implements in this spell are named in the reverse order of their historical appearance: the recently introduced adze, the intermediate *ntrw**j*-blades, and, finally, the primeval implement, the little finger. The implement named before the adze is problematic. The text reads, 'I split open your mouth with the *šs*' (with the plow determinative), foremost of *Šnr* (a place name, again determined with a plow)'. This implement was perhaps a tool<sup>30</sup> that was borrowed from the statue ritual after the adze, but it apparently failed to survive in the mortuary context.<sup>31</sup>

A similar reference to the opening of the mouth of Osiris by Horus is used in Pyr. 13-14, the passage at the beginning the later editions of the offering ritual where the *mshtjw*-adze is offered. In the Old Kingdom, these spells occur only in the pyramids of Pepi II and Aba, but they are well paralleled in later sources. The relevant section reads:

Horus, open (*jwn*) the mouth of this Pepi!  
 Horus, split open (*w**p*) the mouth of this Pepi!  
 Horus has opened (*w**n*) the mouth of this Pepi, and  
 Horus has split open (*w**p*) the mouth of this Pepi,  
 with that with which he split open the mouth of his father,  
 with that with which he split open the mouth of Osiris, and  
 with the *bj*' that came forth from Seth,  
 the *mshtjw* of *bj*' that splits open the mouths of the gods.

The two phrases that refer to the implement with which Horus opened the mouth of his father Osiris are usually taken to apply to the *mshtjw*-adze of *bj*' mentioned in the following lines, but they can equally well refer to a separate implement. Like the essentially identical phrases in Pyr. 1330, they probably allude to the little fingers of the birth ritual, offered along with the adze of the statue ritual 'that splits open the mouths of the gods (= cult statues)'. The alternating use of the verbs *w**n* and *w**p* earlier in the spell may also indicate two parallel operations, although only *w**p* is used in the last four lines. Thus, the spell is probably another example of the use of historically successive implements to open the mouth.

The *ntrw**j*-blades, unlike the fingers they represent, are made of *bj*'. Fingers of *bj*' are mentioned in two passages of the Pyramid Texts.<sup>32</sup> In Pyr. 1983, they are used to open the mouth of Osiris by Horus' four sons, specifically identified to Osiris as *msw n msw. k*, 'the children of your children'.<sup>33</sup> Here again, the mythical setting is used to emphasize the schematic history of the rite. While Horus uses his little fingers to open Osiris' mouth in Pyr. 1330 and probably also in Pyr. 13, in Pyr. 1983 his sons, the next generation, use fingers of *bj*' to perform the ritual. Fingers made of *bj*' were a later development from the

<sup>30</sup> As suggested by *Wb.* IV, 543, 3.

<sup>31</sup> There is a possible later reference to this implement in Scene 32 of the New Kingdom ritual. There, the mouth and eyes are opened first with a *mddft* of *bj*' and second with a finger of *ḏm*. The *mddft* invariably has a chisel determinative, but in an offering list it is said to be made of ebony, *hbnj*, which is written with a plow (Otto, *Mundöffnungsritual*, I, 79-83). This might be the distant echo of the Pyr. 1329-30 passage, a possibility which is somewhat strengthened by the fact that, like this passage, Scene 32 would then also contain a sequence of implements given in the reverse order of their adoption.

<sup>32</sup> These spells were brought to my attention by J. P. Allen.

<sup>33</sup> The longer passage in which the mouth-opening occurs contains no references to birth, but instead describes the reconstitution of Osiris by Isis and Nephthys and his resurrection through the actions of his son Horus. The sons of Horus then wash his face, wipe his tears, and open his mouth with their fingers of *bj*', immediately before he goes forth to traverse the universe.

original little fingers, and assigning their use to a later generation presumably refers to this historical substitution. The significance of *bj* is discussed below (pp. 69ff.).

Equally interesting is another passage, attested only in the pyramid of Pepi II,<sup>34</sup> in which the goddesses Isis and Nephthys are said to wash the mouth of the deceased with their fingers of *bj*. It is these goddesses, with the aid of Heqat, who clean the newborn children in the P. Westcar story,<sup>35</sup> and whose presence among the better-known birth deities (Meskhenet, Heqat, and Khnum) has hitherto been somewhat puzzling. This passage alludes to their function as divine midwives, a role that is also evoked by the positions they take around the pregnant woman in P. Westcar and the similar positions they take at the head and foot of a coffin. The two principal roles of these sisters are thus symmetrical: to mourn death and to assist at rebirth. Their name as mourners, *drtj*, 'the two kites', may even be related to the word *drtj*, 'the two hands', which aid in (re)birth. They are presumably also to be identified with the two goddesses referred to by the name of the implements in a few late texts (*ntrtj*); the masculine form of the name probably referred to the fingers (*db*) themselves.

### Little fingers in the New Kingdom ritual

The New Kingdom 'opening of the mouth' ritual also mentioned earlier implements. In Otto's Scenes 14 and 33,<sup>36</sup> the mouth is opened not with a tool, but with the little fingers of the priest.<sup>37</sup> In a third scene in the New Kingdom ceremony, Scene 32, a 'finger of *dcm*' is used to open the mouth,<sup>38</sup> again reflecting the substitution of a metal finger-shaped implement; as in Pyr. 1329–30, the later form directly precedes the earlier. This golden finger, or perhaps even the human finger it represents,<sup>39</sup> is consistently included among the 'opening of the mouth' tools collected in New Kingdom scenes (fig. 1).

Scene 14 in the New Kingdom ritual, the first presentation of the little fingers, is located in the middle of the sequence that is most explicitly connected with statue carving and involves sculptors and painters. Correspondingly, the woodworking tool one would expect in such a sequence, the adze, is relegated instead to Scenes 26 and 27, in the sequence that contains many elements reminiscent of the birth-and-childhood progression in the Pyramid Texts. Neighbouring scenes include the *psš-kf*, a second scene in which little fingers are offered, the ostrich feather deriving from Pyr. 32b,<sup>40</sup> and possibly

<sup>34</sup> G. Jéquier, *Le Monument funéraire de Pépi II*, I (Cairo, 1936), pl. xviii, lines 1308 + 11 and + 12.

<sup>35</sup> P. Westcar, 10, 11; 10, 19; 11, 2.

<sup>36</sup> Otto, *Mundöffnungsritual*, II, 65–6 and 93–5.

<sup>37</sup> The text uses the dual in only one case: Otto, *Mundöffnungsritual*, I, 35, text no. 4. In at least some examples, the scene that illustrates it shows that both fingers were used (ibid. II, fig. 2a, reproduced here as fig. 8).

<sup>38</sup> Otto, *Mundöffnungsritual*, II, 91–3. The reason for the use of the metal *dcm* rather than *bj* here is not clear; possibly the alternation is due to the relationship of both metals with the god Seth. *bj* is said to come forth from Seth in Pyr. 14, and the *dcm*-sceptre is also probably related to Seth (H. te Velde, *Seth, God of Confusion*<sup>2</sup> (Leiden, 1977), 89–91).

<sup>39</sup> This finger is generally gold or white in colour, where one would expect the primeval finger of Horus to be red. It might be a finger of Isis or Nephthys, however.

<sup>40</sup> W. Helck, *MDAIK* 22 (1967), 40–1, has suggested that the ostrich feather entered the 'opening of the mouth' ritual through a misreading of Pyr. 32b, in which the breast of Isis is represented by the presentation of an empty jar, *mnzšw* (Helck read the phrase as 'den *mnzš*-Krug entleeren', however). This supposes that the ostrich feather used to write the word *šw* was reinterpreted as a separate offering and so made its way into the assemblage of ritual implements. Scene 39 is thus in origin part of the Old Kingdom sequence, as its placement in the New Kingdom ritual suggests.

the bricks of birth.<sup>41</sup> The use of obviously inappropriate tools in both these sequences suggests an intentional incongruity, meant to highlight the crucial scenes of the ritual and their meaning. The adze, a statue-making tool, was used in the central act of the funerary ceremony to stress the permanence of the mummy as a cult image; similarly, a gesture with the human little finger, taken from a human birth ritual, was incorporated into the statue ritual to emphasize the equation of the statue with the human being it represented. The compilers of the ritual exchanged the implements of the human rebirth ritual with the adze of the statue ritual to blur the boundaries between the statue of the deceased and his mummy in both environments.

One further example in which the implements of the New Kingdom ritual are related to the original use of fingers to open the mouth is the name of another adze, *dwn-ꜥ*, which is sometimes used in Scene 26. This name, which Otto translates 'Arm-ausstrecker',<sup>42</sup> represents a different metaphor for the gesture made by the hand of the midwife, and equates the entire adze with the outstretched arm, from which it follows that the active part of the implement, the blade at the end of the handle, represented the fingers at the end of the arm.

### The little fingers and the seven sacred oils

In one Sixth Dynasty tomb scene (fig. 6), the cult functionary extends his two little fingers towards the deceased, in a gesture very like the one that I have hypothesized as the original 'opening of the mouth' act.<sup>43</sup> This gesture, however, is used to perform the ritual of anointing. A similar gesture, in which one little finger is offered while the other hand holds the jar (fig. 7),<sup>44</sup> continues to be the typical gesture for anointing throughout Egyptian history.

The use of the same gesture in both these rituals might be explained by the hypothesis that the anointing ritual was yet another version of the 'opening of the mouth' sequence. In practice, however, the two rituals seem to have been carefully distinguished. In the Pyramid Texts, neither the spells accompanying the seven sacred oils nor those that follow, accompanied by offerings of eyepaint and cloth, make the slightest reference to the mouth of the deceased or contain any other elements that can be related to the birth sequence. Moreover, the oil rite was performed using a platter that was very like the platter used to hold the *ps̄-kf* set, but had seven round depressions for oils rather than recesses to hold ritual equipment. The occurrence in the archaeological evidence of

<sup>41</sup> Otto, *Mundöffnungsritual*, II, 96–7 (Scene 36). The four *ꜥbwt* offered here may represent the four bricks of birth. I hope to examine the role of these bricks in funerary rites in a subsequent article.

<sup>42</sup> Otto, *Mundöffnungsritual*, II, 19.

<sup>43</sup> W. K. Simpson, *The Mastabas of Qar and Idu* (Boston, 1976), 6–7 and fig. 25, captioned *wrh*, 'anointing'. G. Lapp, *Die Opferformel des Alten Reiches* (Mainz, 1986), 170, notes the apparent lack of parallel scenes in the Old Kingdom. I have also failed to find further clear examples, although the figure accompanying the caption *wrh* in a Sixth Dynasty offering list (following the presentation of the seven sacred oils) might also be making this gesture; as his lower arms are damaged, this is uncertain (Jéquier, *Tombeaux de particuliers*, fig. 127 on p. 112). More likely, however, the figure follows a closer parallel, where the hands are extended slightly, palms down, at hip level (Jéquier, *Pepi II*, II, 86). Perhaps significantly, both of these offering lists also contain the offerings that accompany the *ps̄-kf* sequence.

<sup>44</sup> The figure is taken from the temple of Seti I at Abydos: R. David, *A Guide to Religious Ritual at Abydos* (Warminster, 1981), 66, no. 14. This example is anomalous, in that the caption indicates that the king is wiping off the *md*-ointment; in other less well-preserved scenes, however, the same gesture is used for its application.



FIG. 6. Gesture used for anointing in the Sixth Dynasty tomb of Qar.

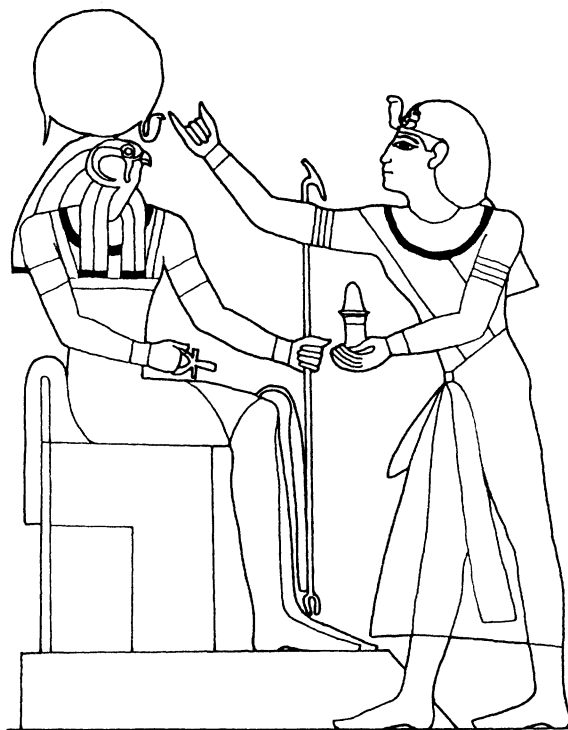


FIG. 7. Seti I anointing the uraeus of Re-Harakhti, from his cenotaph temple at Abydos.

complementary ritual platters for the two rites further demonstrates that the oil ceremony was performed along with the ‘opening of the mouth’ and was not replaced by it. The parallel relationship of the two rituals can also be seen in the Pyramid Texts and type A/B offering lists, where the anointing ritual directly follows the offerings made with the *ps̄-kf* set (list type B). In the pyramid of Unas, the second register of the offering ritual begins at this point, graphically emphasizing the parallel nature of the two rituals as well as the break between them.

The New Kingdom ritual of the ‘opening of the mouth’ excludes oils entirely, except in a single scene, Otto’s Scene 55.<sup>45</sup> The accompanying text normally includes only two sacred oils, *mdt* and *bꜣs*, neither of which is among the seven oils of the Old Kingdom rite; two texts, however, 6 and 7 in Otto’s enumeration, give a list of ten oils, including the seven sacred oils. A presentation of green and black eyepaint (Scene 56) follows the presentation of the oils just as it does in the Old Kingdom sequence. The accompanying texts make no reference to the opening of the mouth,<sup>46</sup> and Scene 55 normally occurs some distance from the *ntrwꜣ* (Scene 26) and the scenes involving other mouth-opening tools: the little fingers (Scenes 14 and 33), the gold finger (Scene 32), the *ps̄-kf* (Scene 37), and the ostrich feather (Scene 39).<sup>47</sup> Thus, the oils are again part of a sequence that

<sup>45</sup> Otto, *Mundöffnungsritual*, II, 120–6.

<sup>46</sup> Ibid. 120–4. The text that follows the offering of the oils and eyepaint in three editions of the New Kingdom ritual makes frequent references to the deceased having been born on this day, however, including an echo of the sequence involving the *kꜣ* as a placenta in the womb: ‘your *kꜣ* is before you, your *kꜣ* is behind you’ (ibid. 124–6, especially n. 7 to the translation).

<sup>47</sup> Ibid. 126–7.

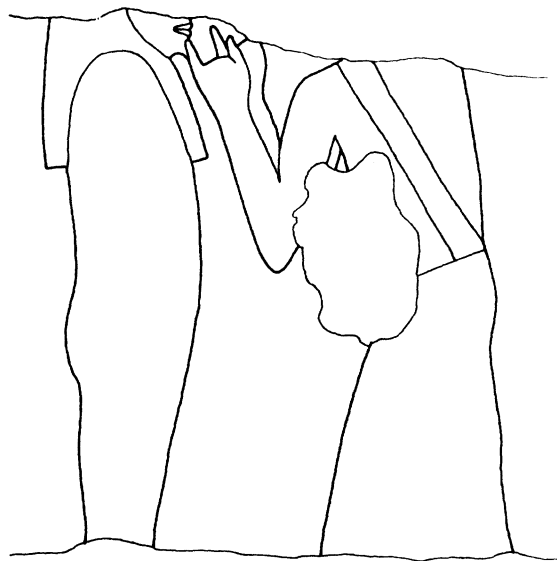


FIG. 8. The presentation of the two little fingers in the 'opening of the mouth' ritual from the tomb of Amenemhat (TT 53).

follows, and is clearly distinct from, the part of the ritual specifically dedicated to opening the mouth.

The gesture of offering either a single little finger or both is shown in some of the New Kingdom mouth-opening scenes (fig. 8).<sup>48</sup> It is clearly related to the gesture shown in New Kingdom anointing scenes, and almost identical to their Old Kingdom counterpart. Just as the same gesture was used in both spheres in the New Kingdom, so it seems likely that it was used in the parallel rituals in the Old Kingdom, possibly to stress their complementary roles and to lend unity to the actions of the priest through repetition.<sup>49</sup> When the human little finger in the mouth-opening ritual was replaced by the *ntrwj*-blades, and they in turn were replaced by the adze, the gesture remained the principal one in use in the anointing ritual. It was thus primarily associated with anointing in later periods, while in 'opening of the mouth' rituals it played a secondary and historical role, and was depicted only in the fullest versions.

#### *ntrwj*-blades and fingers of *bj*

A significant peculiarity of the *ntrwj* is their composition. They are said in all the textual sources to be of *bj*, which was clearly a material thought to be meteoritic.<sup>50</sup> Meteoritic iron has been found in Egypt in burials as early as the Predynastic period.<sup>51</sup> It was

<sup>48</sup> Otto, *Mundöffnungsritual*, II, fig. 2a (lower left of photograph). Although this scene is uncaptioned, its position adjacent to the presentation of the *ps-kf* (Scene 37) makes it almost certain that it is Scene 33 rather than Scene 55, which always occurs considerably later.

<sup>49</sup> There were also practical advantages. The little finger's softness and sensitivity suited it to delicate jobs, and its smaller diameter allowed the mouth of an oil jar to be correspondingly small, helping to protect valuable perfumes and oil from evaporation and spoilage.

<sup>50</sup> J. R. Harris, *Lexicographical Studies in Ancient Egyptian Minerals* (Berlin, 1961), 166-8; G. A. Wainwright, *JEA* 18 (1932), 3-15.

<sup>51</sup> E.g. W. M. F. Petrie, G. A. Wainwright, and E. Mackay, *The Labyrinth, Gerza and Mazghuneh* (London, 1912), 15-19.



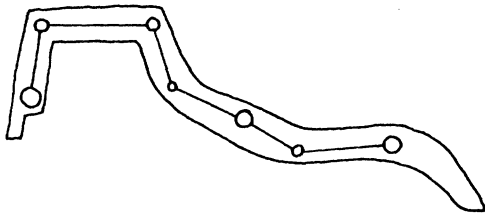


FIG. 9. The constellation *Ursus Major* interpreted as an adze.

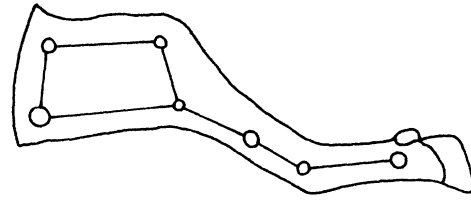


FIG. 10. The constellation *Ursus Major* interpreted as a foreleg.

thought to have magical significance, since the same word is used for 'marvel, miracle'.<sup>52</sup> That this material came from 'falling stars' was apparently well understood by the Egyptians, as evidenced by the frequent use of a star determinative with the word *bjj* and by the fact that the *ntrwj*-blades made of this substance are sometimes called *sbwj*, 'stars'. The context in which this name was used, in inventory documents rather than religious inscriptions, suggests that it was the vernacular name of the implements and that the mouth-opening implements were thus popularly thought of as fallen stars.

Except for the initial human little fingers, all the tools used in the 'opening of the mouth' ritual are associated with iron, meteoritic material or stars. Iron-bladed chisels found in the tomb of Tutankhamun resemble closely chisels shown in representations of 'opening of the mouth' tools.<sup>53</sup> The adze itself theoretically had a blade of meteoritic iron and was originally and most frequently called the *dwj-wr*,<sup>54</sup> a name that is written with a star and is clearly related to the *dwst*, the place where stars are. The constellation we see as a 'Great Bear' or a 'Big Dipper' was called *mshtjw* by the Egyptians, and was compared to both the adze (fig. 9) and the *hps*, the foreleg of an ox (fig. 10).<sup>55</sup> Both the foreleg and the adze were added to the offering ritual at the same time, in the Pyramid Texts of Mernere, and their association there was probably due to their common association with this constellation. This stellar element was presumably connected principally to the realm of the dead, which in some conceptions of the afterlife was clearly located in the region of the circumpolar stars.<sup>56</sup> The orientation of the stellar adze/foreleg towards the circumpolar stars is similar to the orientation of the mouth-opening implements towards the mummy/statue in depictions of the ritual.<sup>57</sup> Even before the adze and foreleg were introduced into the offering ritual of the Pyramid Texts, its text was placed on the north wall

<sup>52</sup> *Wb.* I, 439, 14-441, 12.

<sup>53</sup> Reeves, *The Complete Tutankhamun*, 194.

<sup>54</sup> Otto, *Mundöffnungsritual*, II, 5 and 18.

<sup>55</sup> Wainwright, *JEA* 18, 11 and 163. The figures are my own imposition of these objects on the present constellation. Egyptian 'zodiacs' of the New Kingdom show the Big Dipper as the head and body of a bull, although the name is often determined with a foreleg, as it is from the early Middle Kingdom (O. Neugebauer and R. Parker, *Egyptian Astronomical Texts*, I (Providence, 1960), 1-29, and III (Providence, 1969), 183.) The adze is clearly associated with the constellation by its name, which is attested as a constellation in Pyr. 458 in the pyramid of Unas ('the *mshtjw* of the unwearying stars').

<sup>56</sup> J. P. Allen, 'The Cosmology of the Pyramid Texts', in *Religion and Philosophy in Ancient Egypt*, ed. W. K. Simpson (New Haven, 1989), 1-10.

<sup>57</sup> An interesting contrast in the orientation of the *hps* under differing circumstances has been pointed out by H. G. Fischer, *The Orientation of Hieroglyphs. Part 1: Reversals* (New York, 1977), 119-27. When it is viewed as an offering, the cut thigh is seen as the front part, but when it is viewed as an emblem of royal strength, as in the title *nb hps*, the destructive hoof is generally foremost. That this orientation is most consistent in the offering mode may reflect the relationship between the constellation and the circumpolar stars.

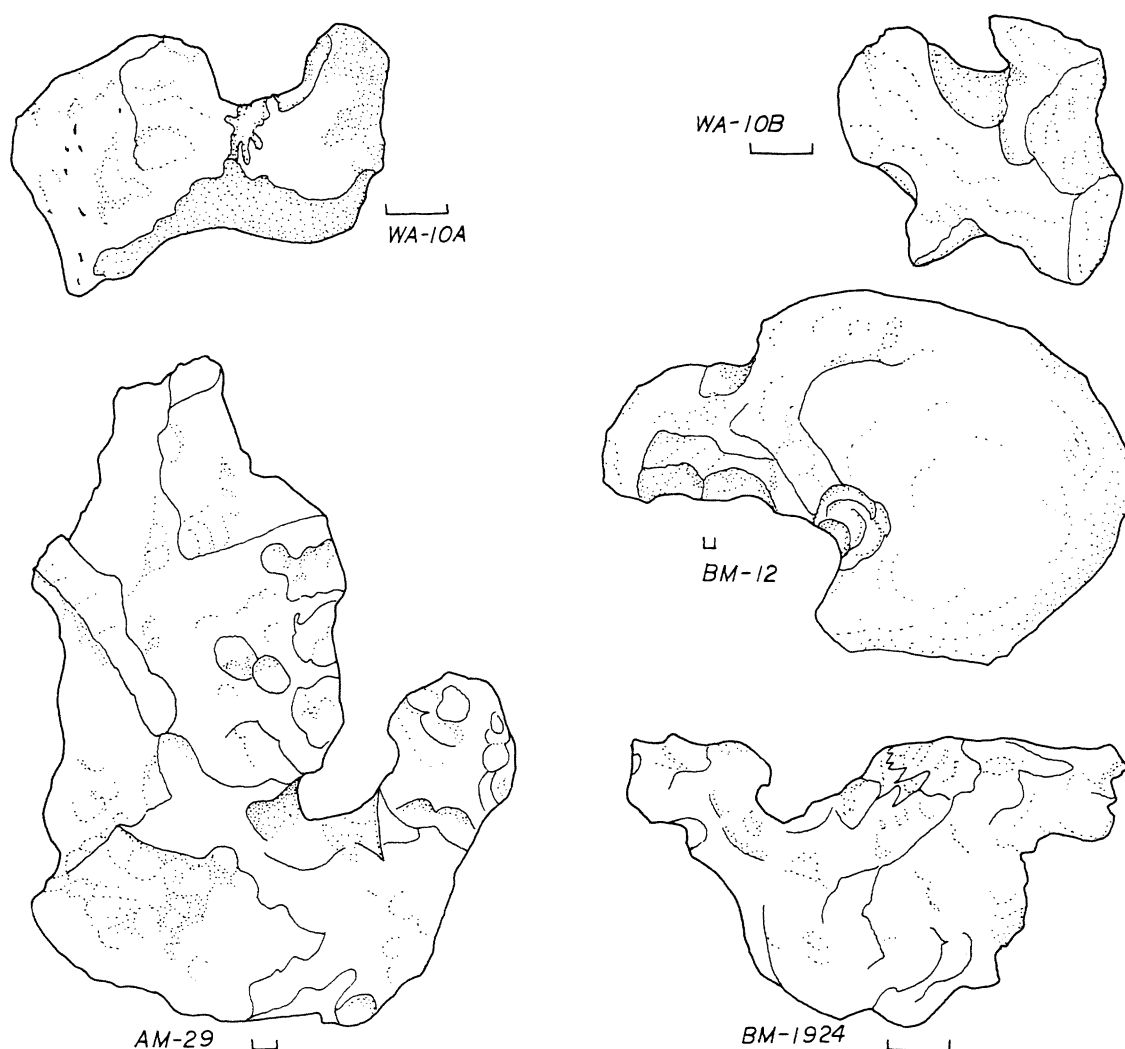


FIG. 11. Examples of meteorites with hand-like forms. The scale marking represents 1 cm.

of the burial chamber of Unas, hinting at the same relationship with the northern circumpolar stars.<sup>58</sup>

The substitution of meteoritic metal for fingers may have resulted from the odd shapes of some meteorite fragments. The Egyptians collected and treasured stones of odd shapes<sup>59</sup> and iron meteorites especially have a tendency to break into irregular shapes (fig. 11).<sup>60</sup> The connection with the spectacular appearance of falling stars would enhance the importance of any anthropomorphic fragments, which would have seemed to be 'hands from heaven' indeed. Meteoritic material may have been comparatively common

<sup>58</sup> The significance of this location was pointed out to me by Maarten J. Raven.

<sup>59</sup> B. J. Kemp, *Ancient Egypt: Anatomy of a Civilization* (London, 1989), 73, fig. 24.9, shows 'natural flint nodules in suggestive shapes', found with other votive objects.

<sup>60</sup> H. H. Nininger, *Meteorites: A Photographic Study of Surface Features. Part 1. Shapes* (Tempe, Arizona, 1977), 10 (WA-10A, WA-10B), 24 (AM-29), and 82 (BM-12, BM-1924) are drawn from the published photograph as fig. 11.

in ancient Egypt. Farouk el-Baz has suggested that a 4-kilometre-wide crater south-west of Dakhla Oasis is meteoritic in origin.<sup>61</sup> Such a crater, among the largest known, would yield thousands of kilograms of meteoritic iron, including many irregular fragments.<sup>62</sup>

But the *ntrwj*-blades need not always have been composed of meteoritic material; they may also have been made of material merely supposed to be meteoritic by the Egyptians. G. A. Wainwright argued that the word *bjꜣ* seems to have been applied to numerous apparently extra-terrestrial phenomena that were in fact terrestrial,<sup>63</sup> such as fossils and blackened hippopotamus bones, as well as to material that resembled actual meteorites in colour or weight, such as hematite or even red quartzite. His interpretation has largely been followed by J. R. Harris in his work on Egyptian minerals.<sup>64</sup>

Among these various materials, Wainwright stressed the supposed meteoritic origins of a conical fossil, up to 15 cm long, of the shellfish *Nerinea requieniana* which is found in great profusion around Letopolis, but nowhere else in Egypt.<sup>65</sup> A similar fossil, *Lithodomus*, is common in the region around Akhmim, and Wainwright identified these fossil shells as the conical elements that make up the emblem of Min, which was important at both sites. The connection of Letopolis with *bjꜣ* and the 'opening of the mouth' ritual is reinforced by several circumstances: the high priest at Letopolis was called *wn-r*, 'the opener of the mouth';<sup>66</sup> the standard of the Letopolite nome is the foreleg of a bull, which is used in the ritual and is associated with the mouth-opening adze through the constellation *mshtjw*; and Letopolis was the original home of the four sons of Horus, who open the mouth of their grandfather Osiris in Pyr. 1983. There is further support for Wainwright's arguments in a narrow triangular determinative  $\equiv$  used in the word *bjꜣ*. It occurs, for example, in an offering list as a determinative for a *hnt*-cup said to be made of *bjꜣ*,<sup>67</sup> suggesting that this was thought to be a natural form of the material, since the shape of the sign does not resemble the *hnt*-cup.

<sup>61</sup> *Science* 213 (1981), 439-40. The crater is just to the north-east of the Gilf Kebir. I am grateful to Prof. el-Baz for directing me to his article.

<sup>62</sup> E. Anders, personal communication.

<sup>63</sup> *JEA* 18, 3-15.

<sup>64</sup> *Lexicographical Studies*, 166-8.

<sup>65</sup> Wainwright, *JEA* 18, 172.

<sup>66</sup> The three Old Kingdom examples are *Urk.* 1, 6,17-7,1 (=K. R. Lepsius, *Denkmäler aus Ägypten und Äthiopien* (Berlin, 1849-56), II, pls. 3-4); H. Junker, *Giza*, II (Leipzig, 1934), 189; and Cairo CG 176. The translation of this title as 'opener of the mouth' has been disputed by Otto, *ZÄS* 81 (1956), 115, and by P. Kaplony, *MIO* 11 (1966), 137-63. Otto argued that the title was connected with cloth, on the basis of the thread determinative of the New Kingdom examples, while Kaplony dismissed this determinative as a meaningless analogy with the word *wnhꜣw*, proposing an alternative interpretation based on the rare verb *wnrw*, which occurs with a walking-legs determinative in Spell 820 of the Coffin Texts (CT VII 19m ff.). It describes the action of the Letopolite divinity, Khenty-irty, which Kaplony translates 'sich eilends aufmachen', relating it to *wnj*, 'hurry', and arguing that the passage refers to Khenty-irty's search for his sight. In support, he identifies a causative of the same verb in an Old Kingdom text in the tomb of Sabni at Aswan: 'I sent X with two dependents of my endowment *m swnrw* [+a seated man] bearing incense'. Neither of these passages is unambiguous, however, and there is no reason to take the walking-legs determinative more seriously than the thread. Moreover, in the same spell, Khenty-irty claims the title *wn-r* in both Upper and Lower Egypt. The duality of the office and these geographical associations suggest a connection with the *ntrwj*-blades, and support a suggestion that the title is related to the 'opening of the mouth' ritual. The confusion of the later texts (and the need for Spell 820 as a punning explanation of an inexplicable title) is probably due to the disappearance of the *ntrwj*-blades and their Letopolite associations at the end of the Old Kingdom. It may also be significant that the earliest known holder of this title was the Fourth Dynasty official Metjen, whose tomb also contains the first reference to *wpt-r* as a funerary ritual (Lepsius, *Denkmäler*, II, pls. 4-5).

<sup>67</sup> Hassan, *Giza*, VI/2, pl. 133, no. 138.

If the fossil shells were believed to be meteorites, their narrow shape and resemblance to fingers seem likely to have inspired their use in performing the 'opening of the mouth' ritual. This hypothesis would also explain the consistent association of the blades with Upper and Lower Egypt. While this association might have simply been the effect of their duality, the natron of Upper and Lower Egypt offered in surrounding spells is said to derive specifically from el-Kab and the Wadi Natrun, and the *ntrwj*-blades might have had similarly specific origins: the fossil beds of Akhmim in the south and Letopolis in the north.

Although the *ntrwj*-blades share the general shape and the right- and left-handed symmetry of human fingers, they differ from hieroglyphic representations of fingers, which are consistently bent at the tip (𓂏). No representations of the *ntrwj*-blades as models or determinatives show this bent shape, even when the shape of the *psš-ḳf* is rendered carefully.<sup>68</sup> Unless the little finger was thought to be different in shape from the index finger used as the hieroglyphic sign (and the determinatives accompanying the term 'little finger' would not support this assumption), the explanation for this difference must lie in the intervening objects, such as conical fossils and other materials, that modified the finger-like characteristics of the *ntrwj*.

The shape adopted in the models and the determinatives used in the Abu Sir papyri would preserve enough characteristics of fingers to make them recognizable (half-rounded tips and mirror-image shapes), while also making reference to the unnatural straightness of the heavenly fingers that rendered the rite effective. The varied determinatives shown in offering lists (fig. 4) support this theory more directly. The offering list of an anonymous tomb owner<sup>69</sup> shows a man carrying two rectangular objects that seem to be about 15 cm long. This would accord well with the length of the fossils described by Wainwright (and make the divine fingers somewhat more than twice the length of a human little finger). Most interesting is the list of *Sbkj*,<sup>70</sup> where the determinative is a cone resembling the fossil. The variety of shapes of the determinatives in other offering lists and Pyramid Texts probably reflects the various 'meteoritic' objects that were used in the actual rite: truly meteoritic material, conical shells, and rounded pieces of hematite.

When did the transition from little fingers to finger-like blades take place? A survey of the material found in Predynastic tombs reveals no convincing meteoritic blades or fossil shells.<sup>71</sup> In the valley temple of Menkaure, however, a collection of objects from a *psš-ḳf* set was discovered under an overturned bronze tray.<sup>72</sup> In addition to the model vessels and a polished flint *psš-ḳf* bearing the name of Khufu, traces of corroded metal were collected. They were found upon analysis to be iron but to contain no nickel,<sup>73</sup> which is invariably a component of iron meteorites. Since the Egyptians included many non-meteoritic materials under the designation *bj*, it is possible that these traces of iron were the remains of *ntrwj*-blades made of some iron-bearing terrestrial material thought by the

<sup>68</sup> I am grateful to R. van Walsem for raising the problem of this discrepancy.

<sup>69</sup> Hassan, *Giza*, vi/2, pl. 131, example no. 139; originally published in Jéquier, *Tombeaux de particuliers*,

112.

<sup>70</sup> Hassan, *Giza*, iv/2, pl. 131, example no. 138.

<sup>71</sup> Most shells in Predynastic tombs are either modified to be worn as jewelry or they are *Spatha rubens*, which seem to have been used as receptacles for ground malachite eye-paint. See R. Mond and O. H. Myers, *Cemeteries of Armant*, 1 (London, 1937), p. 190.

<sup>72</sup> G. A. Reisner, *Mycerinus: The Temples of the Third Pyramid at Giza* (Cambridge, Mass., 1931), 233.

<sup>73</sup> D. Dunham and W. J. Young, *JEA* 28 (1942), 57-8.

Egyptians to be meteoritic. Although the *ntrwj*-blades may thus have predated their first occurrence in texts and models, the lack of recesses for the blades in several private *psš-ḳf* sets suggests that fingers continued to be used sporadically, possibly because of differential styles of mummification. While it seems likely that the blades were adopted in tandem with improvements in mummification techniques, however, their existence cannot be shown with certainty before the late Fifth Dynasty.

### The statue ritual

The origin of the act of opening the mouth in a birth ritual that has been argued here does not preclude the use of the same or a similar ritual for statues. The caption *mst wpt-r m ḥwt-nbw*, 'fashioning and splitting open the mouth in the mansion of gold', occurs as part of a jubilee ritual in the Fifth Dynasty, but the earliest occurrence is probably a text from the valley temple of Snefru at Dahshur,<sup>74</sup> although both infinitives are restored ([*mst wpt-r*] *ṣp* 4 *m ḥwt-nbw*) on the basis of the phrases *ḥwt-nbw* and *ṣp* 4, 'four times'. This second phrase also occurs in a text relating to the 'opening of the mouth' in the contemporary private tomb of Metjen.<sup>75</sup> The scenes here clearly depict the mortuary ritual, however, since the rite was performed by a *wṯ*, 'embalmer', in conjunction with the action *ṣḥ*, 'causing to become an effective spirit'. The two references<sup>76</sup> to the 'opening of the mouth' in Metjen's tomb buttress the restoration of *wpt-r* in the Snefru valley temple text from the same period. An earlier instance has been proposed by E. Brovarski, who interprets two signs on a label of Aha as the phrase *wpt-r*, but his reading is questionable.<sup>77</sup>

In statue rites, the infinitive phrase *wpt-r*, 'splitting open the mouth', occurs parallel to and following the verb *mst*, which is normally translated 'fashioning' but literally means 'giving birth'. The verb for giving birth, like the activity it describes, clearly predated the fashioning of statues. Since the first half of the phrase is borrowed from the realm of human birth, it should not be surprising that the second half was borrowed from the same realm. In the clearest account we have of a birth, in P. Westcar, the newborn children are described as if they were cult statues,<sup>78</sup> possibly because of their divine origin and future kingship, but probably also reflecting a similarity in the way new cult statues and babies were treated. In other contexts, children and their *ḳs* are described as being of clay, like some early cult figures,<sup>79</sup> and formed by Khnum on his potter's wheel, a material and process that reinforce the same link.

<sup>74</sup> Otto, *Mundöffnungsritual*, II, 3, and references cited therein.

<sup>75</sup> Lepsius, *Denkmäler* II, pl. 5.

<sup>76</sup> Ibid. pls. 4-5.

<sup>77</sup> *Serapis* 4 (1977-8), 1-2. The group has generally been read *Tṣ-stj*, 'Nubia', and applied to the bound captive below them. This captive clearly cannot be 'the ideogram for *twṯ*', as Brovarski suggests, since the adjacent anthropomorphic *serekh* of Aha is aiming a mace at its head. The placement of *wpt(t)-r* before the verb *ms* rather than after it would also be unparalleled. Probably only the *ms*-sign is attached to the jackal, since *ms* frequently occurs alone with a deity's emblem on labels of this period (see W. M. F. Petrie, *Royal Tombs*, I (London, 1900), pl. xiv; idem, *Royal Tombs*, II (London, 1901), pls. x and xi), as well as on the earlier entries of the Palermo Stone. The Palermo Stone begins to augment *mst* with *wpt-r* only sometime during the first three reigns of the Fourth Dynasty.

<sup>78</sup> P. Westcar 9, 10-11; 9, 18-19; 9, 25-6. In these passages, the first three kings of the Fifth Dynasty, newly born, are described as having limbs of gold and headcloths of real lapis lazuli.

<sup>79</sup> Among the earliest such objects may be the female figurines of fired clay with birds' heads from the Nagada I and II periods. For an example, see R. Fazzini et al., *Ancient Egyptian Art in the Brooklyn Museum* (New York, 1989), cat. no. 1. Later figures and votive objects were made of clay or faience, a similarly malleable material. For examples, see Kemp, *Ancient Egypt*, 73 and 93.

Like a newborn child (or a newly reborn dead person), a cult statue must have been thought to pass through various developmental stages before it could function fully and partake of the food presented to it. Unfortunately, scenes of statues and the rites associated with them in the Old Kingdom never include the 'opening of the mouth' ritual,<sup>80</sup> and the textual sources give no indication of the implement used to perform it. If, like the verb *ms*, the rite was borrowed from the realm of human birth, it might be expected that at some early period the ritual tool was also the little fingers. On the other hand, the differences between the two types of 'birth' may have been marked from the very beginning of the ritual by the use of an analogous implement. Just as the hands of the midwife released the newborn child from the matrix of its mother before performing the 'opening of the mouth', so the adze released the newly fashioned statue from the matrix of surrounding wood. Hence the adze was an appropriate tool to be used in the corresponding ritual.

The use of birth rituals in the consecration of a cult statue and in rites ensuring the rebirth of a dead person were separate phenomena, however, despite the fact that both must have been performed before statues of dead people. Unlike its mortuary analogue, the rite of 'opening of the mouth' of a statue, like the 'fashioning' that preceded it, was performed only once, to infuse it with the identity of the divinity or person. M. Eaton-Krauss suggests that the statue ritual took place at the workshop, since incense was routinely offered during transport and would not have been effective had not the mouth been previously opened.<sup>81</sup> Her assumption that the 'opening of the mouth' ritual was related to the imbuing of the statue with the identity of the deity or person it represented would accord well with the theory that it mimicked a ritual marking the establishment of a newborn child's independent identity and existence.

By contrast, the funerary rite ensuring the rebirth of the dead occurred repeatedly, probably daily. It must have been performed in front of the dead body originally and, after interment, before a niche like those found at Tarkhan with two slots through which the body was magically made accessible.<sup>82</sup> In later periods the rite was performed before a funerary statue after the body had been interred. From the damage the implements sustained, according to the equipment inventories in the Abu Sir archives, they were clearly in regular use.<sup>83</sup> The use of rituals derived from the same birth metaphor both in the statue workshops and in mortuary rites performed before statues doubtless hastened the association of the two rituals. The simultaneous initial occurrences in the early Fourth Dynasty of the phrase *wpt-r* in both statue and funerary contexts with the identical

<sup>80</sup> The two 'opening of the mouth' scenes in the tomb of Metjen (Lepsius, *Denkmäler* II, pls. 4-5) show a man beating his chest. In later parallels, this action is normally captioned *sh*, a description that also occurs in the accompanying caption here, so it presumably represents this part of the ritual. The context here is in any case the funerary ritual rather than the statue ritual.

<sup>81</sup> *The Representations of Statuary in Private Tombs of the Old Kingdom* (Wiesbaden, 1984), 75-6.

<sup>82</sup> W. M. F. Petrie, *Tarkhan*, II (London, 1914), pls. xii-iv. These eye holes were vertical slits, like those of many later *serdabs*. One might even speculate that they were not originally intended for the two eyes of the deceased, but for the two *ntrwj*-blades; the later use of eyes of Horus in this position would then have been a reinterpretation. If the slots were regarded as eye-holes from the beginning, however, there may be a connection between the slots and the god Khenty-irty, whose name (*Hntj-jrty*) means 'who is in front of the two eyes'. The priestly title connected with this deity is *wn-r*, 'the opener of the mouth' (see above, p. 72).

<sup>83</sup> See n. 6. Only a single adze sign is preserved in the entire archive, used phonetically. The fact that the adze is not mentioned in these inventories supports Eaton-Krauss's contention that the statue rite took place in the workshop.

adjunct *ꜥp* 4 suggests that this association had begun long before the incorporation of the adze into the mortuary ritual in the early Sixth Dynasty. That the two different origins of the unified ritual continued to be recognized even after that adoption, however, is suggested by the switching of the crucial implements in the two parts of the New Kingdom rite, as discussed above.

One indication of this distinction is the use of the verb *wꜥ*, 'split open', in the earliest records of the statue ritual. The use of the gentler verb *wꜛn*, 'open', is limited to the Third Dynasty title of the priest of Khenty-irty at Letopolis,<sup>84</sup> one of the acts of Horus in Pyr. 13, and the 'opening of the mouth' ritual in Chapter 23 of the Book of the Dead. The use of a less violent verb may reflect the fact that the 'opening of the mouth' ritual recorded in the Book of the Dead is performed only on a mummy (although *wꜥ* is used later in the chapter). The word *wꜥ* is consistently employed in the Old Kingdom for statue rituals and in most of the Pyramid Texts, but the occasional use of *wꜛn*, especially in a spell dealing with Horus' act for Osiris, suggests that this was the verb originally used in the birth ritual and in funerary ceremonies.

Like a baby's mouth, the mouth of an untreated corpse could be opened physically, but as early as the Fourth Dynasty, attempts were made to give the features of the deceased a statue-like permanence and rigidity by padding them and moulding the details in resin-soaked linen. In the later Old Kingdom, the skull and sometimes the entire body were often covered and modelled in plaster for the same purpose.<sup>85</sup> In effect, these efforts transformed the body of the deceased into a cult statue. The mouths of such mummies, like those of statues, could only have been opened magically, and the growing similarity of mummies to cult statues, as well as the use of statues in mortuary cults, was probably responsible for the adoption of the implement used in opening the mouths of statues into the mortuary edition of the same ritual.

Although we have no information about the adze used in statue rituals, the stellar aspects of the 'opening of the mouth' ritual may have been limited to its mortuary applications. It was, after all, the dead who were reborn among the stars, while statues and children were born to take part in terrestrial society. Although the adze itself has a stellar connection through its association with the constellation *mshꜥꜣw*, this may have been secondary.<sup>86</sup> The adze with the meteoritic iron blade is probably a combination of an ordinary sculptor's adze with the *nꜥꜣꜣwꜥ*-blades substituted for its cutting blade. This type of duplicate symbolism, fusing different elements that have similar effects, is extremely common in Egyptian rituals, as is illustrated by the disparate elements included in the New Kingdom 'opening of the mouth' sequence itself. If the adze included the *nꜥꜣꜣwꜥ*-blades, it becomes clear both why the blades are never themselves depicted in the New Kingdom friezes of ritual implements, and why one of the adzes used in the New Kingdom is called the *nꜥꜣꜣwꜥ*. In some cases, both blades may have been attached to the handle of the adze;<sup>87</sup> in other cases, two adzes were used at once.<sup>88</sup>

<sup>84</sup> *Urk.* I, 6, 17-7, 1.

<sup>85</sup> S. D'Auria, 'Mummification in Ancient Egypt', in D'Auria et al., *Mummies and Magic*, 14.

<sup>86</sup> See above, p. 70. The adze is not used as a determinative of the constellation *mshꜥꜣw* until the late Old Kingdom. The foreleg is difficult to reconcile with either the statue ritual or the birth ritual.

<sup>87</sup> The blade of the adze shown in use in the tomb of Tutankhamun appears to have a dividing line down its centre (see fig. 1).

<sup>88</sup> Otto, *Mundöffnungsritual*, II, 17.

The Old Kingdom 'opening of the mouth' ceremony for statues, like that for the dead, probably originally derived from a ritual of birth. When the bodies of the dead began to resemble cult statues, the version of the rite used for statues was integrated into the mortuary realm and ultimately overshadowed the more human elements of the birth ritual, just as the adze of the statue ritual incorporated and obscured the presence of the *ntrwj*-blades. The occurrence of little fingers in Scene 14 of the New Kingdom 'opening of the mouth', amidst sculptors and painters in the most statue-centred part of the sequence, suggests the possibility that the mortuary rite had a reciprocal influence on the statue ritual at the same time.

### Mesopotamian connections

It has long been recognized that the Egyptian 'opening of the mouth' ritual has a parallel in early Mesopotamian civilization.<sup>89</sup> Just as in Egypt, a special ritual to open the mouth (*pit pi*) was performed on statues and other cult objects before they could take part in a cult. A. D. Kilmer has suggested that the Mesopotamian statue ritual was derived from customs surrounding childbirth,<sup>90</sup> just as the Egyptian ritual was according to the interpretation proposed here. The mouth-cleansing procedure which, Kilmer suggests, mimics the clearing out of the mucus from a child's mouth at birth, is reminiscent of the function suggested for the little fingers that are ritually supplanted by the rounded blades in the Egyptian 'opening of the mouth' ritual.

Further parallels with the Egyptian statue ritual can be seen in I. J. Winter's account of the Mesopotamian ritual.<sup>91</sup> A special verb meaning 'to give birth' is used for the creation of the statue, rather than the verb 'to make'. An 'opening of the mouth' took place before the statue was transported to the temple, which caused the spirit of the deity to 'enter the form', and allowed it to benefit from incense and offerings. After the installation of the statue, a slightly different form of mouth-opening, the *mis pi*, 'washing of the mouth', was performed. The 'opening of the mouth' was apparently repeated on occasion.

Beyond the birth-related elements in their statue rituals, Egyptian and Mesopotamian cultural views and practices surrounding birth itself seem to have some shared characteristics, notably the formation of the child and the placenta of clay, and the use of special bricks.<sup>92</sup> H. Frankfort even likened the emblem of the Mesopotamian goddess of birth, Ninghursag, to the emblem found on the head of the Egyptian goddess of birth, Meskhenet.<sup>93</sup> The use of the 'opening of the mouth' in the statue rituals of these two cultures may thus be part of a larger complex of shared metaphors.

<sup>89</sup> A. M. Blackman, *JEA* 10 (1924), 47-59.

<sup>90</sup> In 'Mesopotamian Creation Myths', a UCLA Extension lecture delivered on 12 July 1986, Prof. Kilmer suggested that 'statues, after being formed, were thought of as being "born"; like newborns, their mouths were washed out (*mis pi*) and they were laid in special bowered cribs'. I am very grateful to her for pointing out this parallel, for allowing me to quote from her unpublished manuscript, and for several helpful discussions on this subject. The same interpretation of the Mesopotamian statue ritual was apparently reached independently by P. Boden, in unpublished work cited by I. J. Winter, in *Journal of Ritual Studies* 6 (1992), 22.

<sup>91</sup> *Ibid.* 21-4. Winter's article gives references to recent work on the Mesopotamian ritual.

<sup>92</sup> This has been pointed out by A. D. Kilmer, Appendix C, in G. Azarpay, *JNES* 46 (1987), 213.

<sup>93</sup> *JNES* 3 (1944), 198-200, equating both these emblems with the bovine uterus. I have argued (*JEA* 78, 144-6) that Meskhenet's emblem is a stylized *pss-*kf** knife, used to cut the umbilical cord. Ninghursag's emblem is probably not a knife, although a knife is sometimes represented beside it; perhaps it was the umbilical cord itself, with a shape related to that of the Egyptian emblem.



The earliest references to the opening of the mouths of statues in Mesopotamia occur only in the Ur III period (c. 2050 BC),<sup>94</sup> but since that period is characterized by revivals of earlier Sumerian traditions, it may be far older, dating back into the early Sumerian period, when there were links of some sort with the Egyptian Nagada II culture. The metaphor of childbirth in the Egyptian mortuary ritual cannot have begun later than the Nagada II period, when the *psš-kf* knife is most often placed in front of the deceased, rather than behind the head with the other knives.<sup>95</sup> The fetal posture of human remains in burials of even earlier periods can also be related to birth. The birth metaphor is not associated with statues in Egypt until the First Dynasty, however, and the opening of the mouth is not attested until the Fourth Dynasty.

The use of rituals of 'opening of the mouth' to infuse life into an inanimate object in both cultures is already striking. That both these rituals take place in the context of metaphorical re-enactments of customs associated with birth suggests a borrowing from one culture to the other. Although the evidence is clearly inadequate to decide the question, the great age of this metaphor in the Egyptian record suggests that it is at least possible that in this case the Egyptians influenced their eastern neighbours rather than the reverse; if so, it would be characteristic that the first area where they excelled was in the sophistication of their religious and mortuary beliefs.

### Conclusion

In the ritual of 'opening of the mouth', the *ntrwj* were used in a metaphorical re-enactment of the midwife's clearing of a newborn child's mouth with her little fingers. The duality and curved edges of the *ntrwj*-blades are reflections of these fingers. The connection of the blades with the world of the dead is represented by their exotic material, thought to have come from the stars, and the perceived characteristic shape of this material influenced the shapes of the model fingers so that they differed from the normal hieroglyphic form. Despite their inappropriateness to the later statue ritual, disembodied fingers are regularly represented among the implements prepared for the New Kingdom 'opening of the mouth' ceremony, helping to explain the omission of the *ntrwj*-blades from such collections and suggesting that the historical connections of the rite with childbirth continued to be understood long after the adoption of the adze from the statue ritual as the principal tool in the mortuary rite. An investigation of the statue ritual itself demonstrates that the ritual's association with statues was also secondary, borrowed from a metaphorical birth sequence that was also used to describe the carving of the statue (*mst*, 'fashioning', literally 'giving birth') from a very early period.

Perhaps the most interesting consequence of this new understanding of these rituals, however, is the light which their evolution sheds on the mechanics of change in Egyptian religious beliefs and ceremonies. When Egyptian rituals or ritual texts make no sense to modern scholars, it is dangerously easy to conclude that they are corrupt versions of lost older forms, and that their original clarity and simplicity were garbled by confused priests who were ignorant of their true meaning. Corruption and misunderstandings did occur, of course, but much of the confusion probably stems from the incomplete cultural knowledge of modern scholarship. As both the 'opening of the mouth' and the larger

<sup>94</sup> Winter, *Journal of Ritual Studies* 6, 22.

<sup>95</sup> Roth, *JEA* 78, 130-3.

ritual that contained it illustrate, the Egyptians' reinterpretation of older rituals could be both subtle and historically conscious. Supplementary metaphors, either borrowed from related rituals or invented afresh, infused new meaning into older forms, forms that were themselves the result of an endless sequence of such infusions and reinterpretations. Old metaphors were rarely discarded; instead, they were embedded in successive new versions, intensifying the ritual's effectiveness, deepening and enriching its meaning, and preserving the authority conferred by its age.

Egyptian theologians were clearly conscious of these historical changes and the supplanting of one metaphor by another. They incorporated this history into the rituals themselves by arranging the successive versions in chronological or reversed chronological order, or by associating them with consecutive generations of divinities. The context in which these metaphors occur, both historically and in the historical record implied by such sequences, can suggest the constellations of meanings that attached to the ritual in various periods, as well as the general directions of its evolution. Only by an analysis of the history of its evolution can the 'real' meaning of a ritual sentence, gesture, or implement be approached. And only by crediting ancient theologians with an understanding of their own religious traditions and metaphors can we begin to appreciate the skill with which they manipulated them and the richness and resonance of the doctrines and rituals they created.

## AMETHYST MINING IN THE EASTERN DESERT: A PRELIMINARY SURVEY AT WADI EL-HUDI

By IAN SHAW *and* ROBERT JAMESON

The most important of the archaeological remains at Wadi el-Hudi are a series of amethyst mines of the pharaonic period. Inscriptions associated with the site were published by Ahmed Fakhry in 1952, but the Middle Kingdom settlement and fortress adjacent to the mines were only briefly described. A preliminary survey of the site, undertaken in November 1992, has provided sufficient new data to allow the archaeological significance of the Wadi el-Hudi mining settlements to begin to be assessed.

WADI el-Hudi, an extensive and geologically diverse region covering an area of some 300 sq. km in the Eastern Desert, lies approximately 35 km south-east of Aswan (fig. 1). In November 1992 the Cambridge University Egyptian Quarries Survey undertook a preliminary season of survey in the area, concentrating primarily on the remains dating to the Middle Kingdom. The initial aim of this survey was to enable comparisons to be made between the miners' settlements at Wadi el-Hudi and those of the alabaster quarry-workers at Hatnub.<sup>1</sup> Since the results of the Wadi el-Hudi survey are of interest in their own right, the present account is a straightforward survey report—detailed contrasts and comparisons with other pharaonic quarrying and mining settlements will form part of the final report on the Hatnub survey.<sup>2</sup> We would like to thank the officials of the Egyptian Antiquities Organization for their advice and assistance during the season at Wadi el-Hudi; we are particularly grateful to Mr Muttawa Balboush, as well as to the Director and Chief Inspector at Aswan and our Inspector Mr Ousamr Abd el-Latif. We would also like to thank the Wainwright Fund and the Seven Pillars of Wisdom Trust for their generous financial support of the Wadi el-Hudi survey, and Balfour Beatty Ltd., for their much-appreciated gift of an EDM total station.

The Wadi el-Hudi region is situated in the southern section of the Arabo-Nubian massif, which stretches from north-eastern Sudan up through the Eastern Desert to the Gulf of Suez. The Arabo-Nubian massif consists of a series of deformed and metamorphosed sediments with numerous igneous intrusions. Like many other parts of the Eastern Desert, the Wadi el-Hudi region includes deposits of auriferous quartz. The region has been exploited for its minerals (including mica, barytes, gold and amethyst)<sup>3</sup> since at least the early second millennium BC, and modern miners and quarriers are still extracting haematite and building stone from the immediate area.

<sup>1</sup> I. Shaw, 'A survey at Hatnub', in B. J. Kemp, *Amarna Reports*, III (London, 1986), 189–212; id., 'The 1986 survey of Hatnub', in B. J. Kemp, *Amarna Reports*, IV (London, 1987), 160–7.

<sup>2</sup> I. Shaw, *The Hatnub Survey* (EES Occasional Publication, forthcoming). For helpful comments on the present article before it went to press, we should like to thank Professor Harry Smith.

<sup>3</sup> Amethyst, known to the ancient Egyptians as *hsmn*, is a translucent form of quartz (silicon dioxide) in which the characteristic purple colour is produced by the presence of a manganese compound.

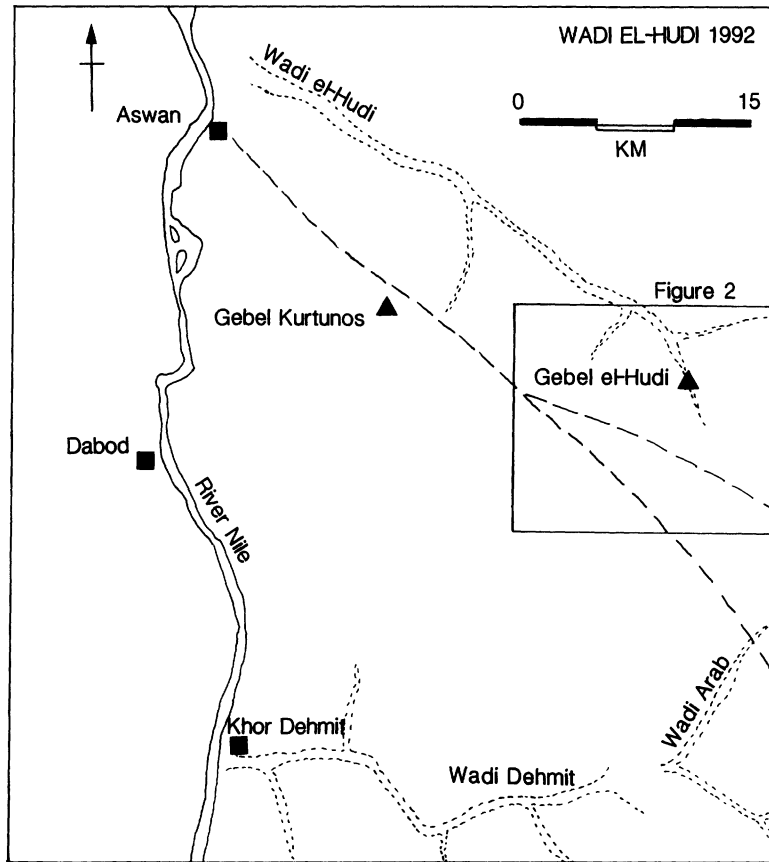


FIG. 1. Map of the Aswan region, showing the location of Wadi el-Hudi, Dabod and Khor Dehmit.

The ancient remains at Wadi el-Hudi were rediscovered by the geologist Labib Nassim in 1923,<sup>4</sup> but the first proper archaeological examination of the site did not take place until 1939, when it was visited by G. W. Murray and Ibrahim Abdel 'Al of the Egyptian Topographical Survey. At this time three stelae (WH143-5) were transferred from the Middle Kingdom area of Wadi el-Hudi (Fakhry's sites 5 and 6) to the Cairo Museum, and numerous other inscriptions were transported to the Aswan Museum.<sup>5</sup>

Between 1939 and 1944 as many as twenty inscribed objects were stolen from the unguarded site (possibly including two small obelisks and an offering table), according to Ahmed Fakhry, who undertook three brief seasons of archaeological and epigraphic survey at Wadi el-Hudi in 1944, 1945 and 1949. Fakhry recorded the majority of the inscriptions and graffiti and provided the first general description of the pharaonic and Graeco-Roman remains,<sup>6</sup> numbering the individual ancient 'sites' from 1 to 14 (see fig. 2).

<sup>4</sup> L. Nassim, 'Minerals of economical interest in the deserts of Egypt', *Congrès international de géographie, le Caire, April 1925*, III (1926), 167; A. Lucas, rev. J. R. Harris, *Ancient Egyptian Materials and Industries*<sup>4</sup>, (London, 1962), 389.

<sup>5</sup> A. E. Rowe, 'Three new stelae from the south-eastern desert', *ASAE* 39 (1939), 187-91.

<sup>6</sup> A. Fakhry, 'A report of the inspectorate of Upper Egypt', *ASAE* 46 (1946), 51-4; id., *The Inscriptions of the Amethyst Quarries at Wadi El Hudi* (Cairo, 1952).

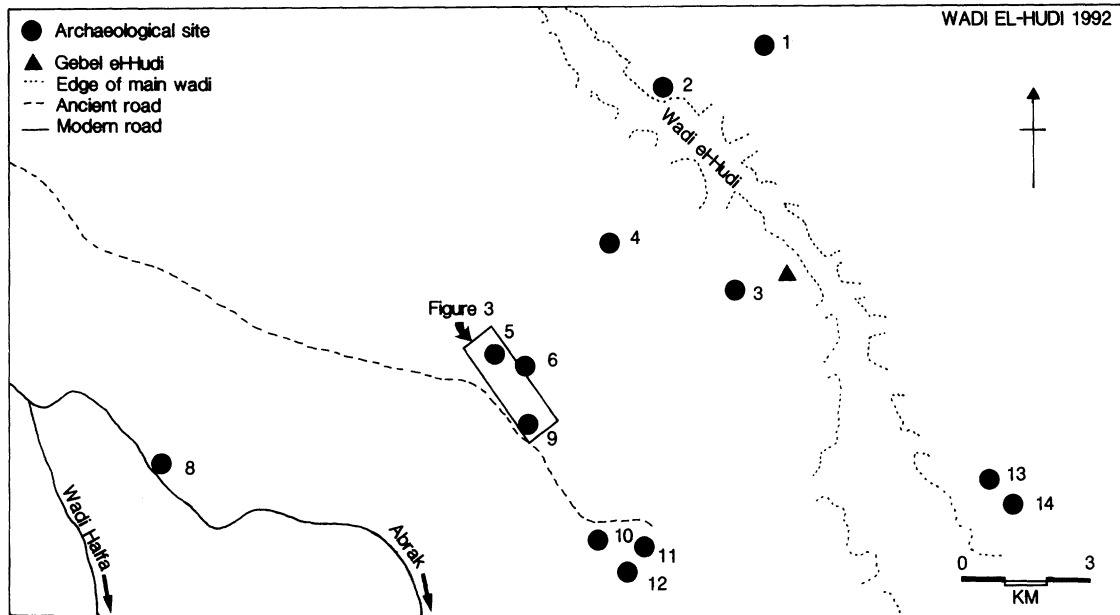


FIG. 2. Schematic map of the Wadi el-Hudi region, showing the principal sites (after Fakhry, *op. cit.*, fig. 2). The ancient road is as marked by Fakhry, although only a short section could still be identified in 1992.

Since then there has been no further archaeological work at Wadi el-Hudi, apart from three days of epigraphic study undertaken by Ashraf Sadek in 1975.<sup>7</sup>

In the 1940s the region of ancient mining activity at Wadi el-Hudi is said to have been easily accessible by car from Aswan via the old tarmac road to Abrak, which passes very close to the site of an ancient well and associated structures (Fakhry's site 8). Nowadays special permission is required to visit the wadi, since it is situated in a military area. Only a few sections of the old Abrak road remain intact, but the area can still be reached by car via the first 15 km of the modern tarmac road to Wadi Allaqi, followed by a distance of some 18 km along a desert track regularly used by modern quarrying companies.<sup>8</sup>

### General description of Wadi el-Hudi

The Wadi el-Hudi area is dominated by a large hill, the Gebel el-Hudi, which is located about halfway along the broad flat floor of the main wadi. The Wadi el-Hudi stretches for about 12 km from north-west to south-east, with a complex network of ridges and smaller wadis spreading out across the surrounding area to the west and the east. The

<sup>7</sup> A. I. Sadek, *The Amethyst Mining Inscriptions of Wadi el-Hudi*, I-II (Warminster, 1980-5).

<sup>8</sup> To visit Wadi el-Hudi it is necessary to head southwards through the suburb of Shellal, eventually—at a distance of about 6 km from the corniche—turning south-east along a road signposted to Wadi Allaqi. This road reaches a military installation at a distance of about 15 km from the Aswan corniche. At this point, having passed through a military road-block, turn left off the road onto a stony desert track heading eastwards. The ancient well (site 8) is reached on the left-hand side of the track after a distance of about 12 km. To reach the Middle Kingdom mining area (sites 5-7 and 9) it is necessary to continue for about 1.5 km after the ancient well and then turn left off the track; the Middle Kingdom sites—not visible from the main track—are about 4.5 km to the north-east.

traces of ancient mining and quarrying expeditions are scattered throughout this adjacent region of smaller valleys rather than on the floor of the main wadi itself.

*The eastern sites: barytes and gold mines*

There are five ancient sites in the eastern part of the region, and probably all of these date to the Roman period or later. From north to south they comprise a barytes mine (site 1), a small hill-fort dating to the Roman period (site 2) and two gold mines with associated settlement areas (sites 3, 4, 13 and 14). Fakhry describes site 1 as 'four trenches for working the barytes and the remains of a few huts for the workmen'. Site 3 is said to be a collection of workers' stone huts, grinding mills and pottery associated with a gold mine, while the supposedly contemporary settlement at site 4 is described by Fakhry as 'one of the largest sites in the neighbourhood which contains many remains of buildings carefully built, and some of the walls are of burnt bricks'. We were unable to examine sites 1, 3 and 4 in the 1992 survey, and a fuller discussion of these must await further fieldwork in 1993.

The small gold-mining encampment at the south-eastern end of the main wadi (site 13) consists of an unusual combination of stone-built huts and shelters partly formed by caves in the rock-face. There are also numerous remains of basalt hand-mills similar to those found in the vicinity of the gold mines in the Wadi Hammamat.<sup>9</sup>

*The western sites: amethyst mines*

On the western side of the Wadi el-Hudi there are a number of areas of archaeological interest, clustering together amid a succession of high rocky ridges and valleys. These include three mining settlements, two of which (Fakhry's sites 5 and 9) are dated both by inscriptions and pottery to the Middle Kingdom, while the other (site 11) appears to date primarily to the Roman period. There is also a site consisting of an ancient well and associated stone-built structures (site 8), which probably dates to the Roman period.

Sites 5, 6 and 9—respectively a hilltop settlement, a peak carved with inscriptions and drawings, and a fortress—constitute an area of intense Middle Kingdom mining activity. They were the main focus for the 1992 preliminary survey, the primary aim of which was to provide a map showing the spatial relationships between these three sites (fig. 3).

Site 5 consists of a hilltop settlement built to house the miners working at an adjacent amethyst mine. Incorporated into the walls of the settlement are numerous rock-carvings and inscriptions, several of which (WH1-5) are securely dated to the first two years of the reign of Nebtawyre Mentuhotep IV, the last ruler of the Eleventh Dynasty. The pottery, present in large quantities throughout the settlement, also dates mainly to the early Middle Kingdom. Site 9 is a large rectangular stone-built fort (see fig. 4 and pl. V, 1) the architectural style of which suggests that it was constructed in the Twelfth Dynasty and that it may be contemporary with the string of mud-brick fortresses built between the reigns of Sesostris I and Sesostris III in the area between the First and Third Cataracts. To the north-east of the fort are two amethyst mines, while to the north-west there is a

<sup>9</sup> R. Klemm and D. Klemm, 'Pharaonischer Goldbergbau im Wadi Sid und der Turiner Minenpapyrus', *Akten München* 1985, II, 73-87, Tf. 5-7.

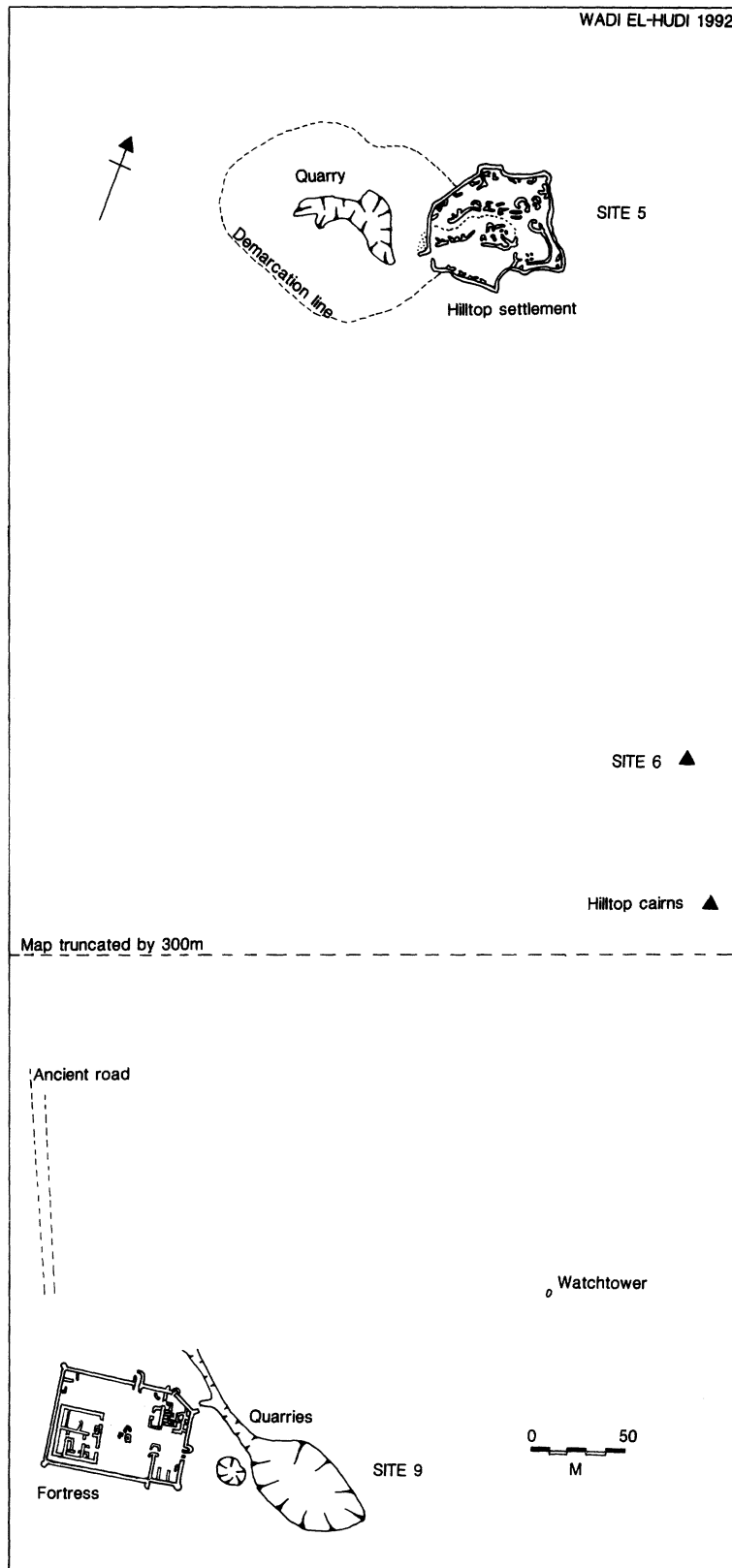


FIG. 3. Map showing the Middle Kingdom mines, settlement, fortress and hill of inscriptions (sites 5, 6 and 9). The external outlines of the main features and their relative positions were surveyed in 1992; the internal features were sketched *in situ*. The dotted line indicates that the distance between the two principal sites has been reduced here by 300 m.

short, well-preserved section of ancient road. Roughly midway between sites 5 and 9 is a conical hill, the summit of which is decorated with many inscriptions and rock carvings, mainly dating to the Middle Kingdom (Fakhry's site 6, see pl. V, 2). There were once many more inscriptions and rock-drawings on the peak but large numbers have been stolen or removed to the museums at Cairo and Aswan (see above, p. 82 and Dating Evidence, below).

About 3 km to the south of the two Middle Kingdom quarries is another hilltop settlement and a possible amethyst mining area surrounded on three sides by a low perimeter wall. The hilltop settlement (Fakhry's site 11) is similar in basic appearance to the Eleventh Dynasty settlement, although it is somewhat smaller and all the sherds examined proved to date to the Roman period.

The walled mining area at the foot of the hill (Fakhry's site 12) is enclosed to north, east and south but there is no wall on the western side, where the ground slopes steeply upwards to a ridge. Five stone shelters have been erected at regular intervals around the mine's circumference, as well as about twenty low stone windbreaks scattered throughout the enclosure. The site contains only a small number of potsherds, primarily along the northern edge of the enclosure and mostly Roman in date. The roughly D-shaped area enclosed by the wall appears to have been a working area around the mine rather than an actual settlement, since the houses of the workers were located further to the north, in the hilltop settlement (site 11). The spoil heaps from the mine are situated immediately outside the enclosure wall to the north and east.

A few hundred metres to the west of site 11 is a deep tunnel, about 1.6 m high, 1.1 m wide and penetrating horizontally into the hillside for a distance of at least 20 m (site 10). This was identified by Fakhry as a mica mine;<sup>10</sup> he postulated that both the mine and a small stone-built hut at the foot of the hillside must have been contemporary with sites 11 and 12. The 1992 re-examination of site 10, however, suggested that the mica mining and the associated stone hut may be much more recent in date, whereas sites 11 and 12 were clearly functioning as a mine and settlement at least as early as the Roman period.

The site of the ancient well (site 8) is at the far western edge of the Wadi el-Hudi region, about 8 km due west of the Twelfth Dynasty fort (site 9). The well-depression, now silted up, is surrounded by about seventeen stone structures, including one built on a low hill of debris which may have served as some form of watch-tower. The small quantity of associated pottery appears to date the site to the Roman period, despite Fakhry's suggestion that it belonged to the pharaonic period.<sup>11</sup>

### **The hilltop settlement (site 5)**

Site 5 is at the northern end of the zone of Middle Kingdom activity at Wadi el-Hudi. A large amethyst mine is situated immediately adjacent to an asymmetrical conical hill, upon which the ancient miners constructed a substantial walled hilltop settlement (see fig. 3).

<sup>10</sup> Fakhry, *Inscriptions*, 14, fig. 10.

<sup>11</sup> Fakhry, *Inscriptions*, 12-13, fig. 8.



*The amethyst mine*

The L-shaped amethyst mine at site 5—perhaps better described as an open-cast quarry—is located at the southern end of the hilltop settlement. The deposits of amethyst appear to have been completely worked out in the pharaonic period. The mine is surrounded by a low line of stones (loosely heaped together rather than built) which apparently acted as a simple demarcation line or boundary. Immediately to the north-east of the mine, and contained within the demarcation line, are four small stone-built windbreaks which were presumably used by the quarriers or their overseers. There are also remains of a few larger windbreaks outside the perimeter wall to the north. The mine itself is surrounded by spoil heaps along its edges; towards the eastern end, the spoil heaps have been pushed down into the excavation and levelled off to provide a gradual slope which would have acted as a path down into the mine.

At the south-western end of the hilltop settlement, bounded by a straight 1.5-m-high wall to the south, is a small natural platform just outside the enclosure wall. This area, covering about 15 sq. m, is filled with small fragments of translucent white stone (some of which show faint traces of amethyst colouring); it was evidently a sorting area in which the purple amethyst was separated from the worthless surrounding quartz. The location of the processing area, in a position directly overlooking the mine itself, would have been convenient in terms of ensuring a steady supply of material from the quarries below and perhaps also allowing a vantage point from which the sorters might simultaneously have been able to co-ordinate the mining activities. Alternatively, the location of the quartz-pebble heap may simply reflect the fact that sorting would have been the last stage of the process to take place within the settlement, before the amethysts began their journey across the Eastern Desert to the Nile Valley near el-Shellal.

*The settlement*

The drystone settlement enclosure wall, about 1 m thick on average and varying between 0.5 and 2 m in height, encloses a roughly oval area of some 3500 sq. m. The wall tends to follow the steeper contours of the hill so as to provide the best defence against external attack. At such steeper points large piles of stones have often been built against the outside of the wall in order to buttress it. The top of the wall undulates for most of its length, with the higher sections generally corresponding to the points where stone huts inside the settlement use the enclosure as their rear walls. At three corners of the enclosure wall (west, north and east) there are rough protruding piers, each provided with crudely constructed low platforms that would have enabled the defenders inside to gain the best view around the settlement and to maximize their height above any attackers. The northern pier has a definite entrance on its inner side, transforming it into a circular 'turret'. In its current partially collapsed state the perimeter wall of the settlement has no obvious entrance, although the logical position for the main settlement gateway would have been the south-western end, where the settlement is both lowest and closest to the amethyst mine.

Inside the settlement there are at least forty drystone shelters covering the slopes of the hill on all sides. Large boulders have frequently been incorporated into the rough rectangular shelters and semi-circular windbreaks. A 2-m-wide pathway, starting at a point about 15 m to the north of the sorting area, snakes up the hill to a substantial

structure at the very top, which must surely have been occupied by successive expedition leaders. In an area immediately to the east of this central room there is a second area of sorted fragments of quartz. Beyond the low wall surrounding this secondary sorting area is a wide flattish enclosure, sloping gradually down to the east and covering some 120 sq. m. This open area, which has a very substantial heap of potsherds in its southern corner, may perhaps have served as a meeting place or stone-working atelier. Its eastern wall runs parallel to the outer wall of the settlement, forming a corridor some 25 m in length with a width of about 1.2 m. Another smaller heap of sherds has accumulated about 10 m away on the steep slope outside the south-eastern outer wall of the settlement.

### **The Middle Kingdom fortress (site 9)**

In the bottom of the wadi, about 1 km from the hilltop settlement described above, is a large, well-preserved drystone structure, correctly identified by Fakhry as a small fortress of the Middle Kingdom (see figs. 3 and 4).<sup>12</sup> The fort has been built on an area of level ground immediately adjacent to a pair of amethyst mines; the builders thus provided a place of immediate refuge for the miners, eschewing any advantage that might have been gained by fortifying one of the nearby rises or hills.

#### *The outer defences: walls, towers and entrances*

The southern and western perimeter walls of the fortress are upstanding to about 2.1 m, which is evidently very close to their original height. Most of the eastern perimeter wall is similarly well-preserved, but large stretches of the northern wall have collapsed to a height of about 1 m. The walls are just over a metre thick at the base, narrowing slightly towards the top. Piercing the walls at slightly variable intervals are well-defined arrow slits, lined with rough slabs; these loopholes can be seen especially in the southern and western walls. The blocks of sandstone used to build the walls vary in size but are usually less than 0.5 m long and 0.25 m wide. However, some more massive blocks have been used to build particular elements, especially the entrances and the terminals of the wall that divides the interior.

Curved bastions project from the perimeter walls at the corners and elsewhere (see fig. 4). The plan of these bastions is not quite standardized but, as an example, Bastion A juts out from the main walls for a distance of about 3 m in a narrow-necked U-shape (see pl. V, 1). The bastions do not seem to have risen much above the height of the perimeter wall, and were built as solid entities with flat tops. Their functions were probably three-fold:

1. To serve as buttresses, strengthening the corners of the fort and making it more difficult for attackers to undermine or demolish them.
2. To provide a line of fire for defenders along the exteriors of the walls.
3. To act as watch-towers, giving sentries a line of sight along the perimeter wall. It is likely that sentries were posted on each of the towers continuously when there was danger of attack.

The fort has two entrances of differing design. The North Entrance is strengthened with massive blocks at the wall terminals, while two short low walls extend into the

<sup>12</sup>Fakhry, *Inscriptions*, 13-14, fig. 9.

interior of the fort. The exterior of this entrance is guarded by two rather wider walls, forming a passage; the shorter of the two walls extends straight out at 90° from the northern perimeter wall, while the other wall curves around towards it to form a simple 'baffle' entrance. The remains of what may be a low, narrow platform run along the inner edge of the north perimeter wall for about 8 m, starting about 7 m west of the entrance described above. If this is a genuine feature, rather than simply wall-tumble, it might represent a ledge designed to help the defenders of this entrance raise their heads and weapons above the level of the wall. The East Entrance is well built, with large flattish slabs forming strong vertical piers on either side; it is flanked on the exterior by two guard-rooms (one of which is now collapsed).

### *The interior*

The interior of the fort is occupied by a number of drystone rooms and buildings, which can be divided into three main sectors: Areas A, B and C (see fig. 4).

The most notable structure inside the fortress is Building A, which forms the nucleus of Area A. This structure has walls that are preserved to about the same height as the perimeter wall, and it seems to be the most carefully and substantially built of the interior buildings. Attached to it are a series of rooms with walls that are rather lower and less well-preserved. Most or all of these adjoining rooms belong to a second building phase, and this is clearly indicated at the join with Building A's southern wall.<sup>13</sup>

In Area B, the north-eastern sector beyond the dividing wall, there is another set of rooms built to about the same standard as the rooms that adjoin Building A. The third complex of rooms (Area C) is in the south-central sector; its walls are relatively low and of inferior construction.<sup>14</sup> In all three sectors most of the rooms are squarish or rectangular, but there are also occasional low walls forming curves or U-shapes, which are probably best thought of as wind-breaks. Apart from the three main sectors, there is also an enigmatic area of rubble and low walls, which is located just to the east of the south-west sector buildings. This seems to be of a different character to the other structural elements of the fortress interior, and the presence of small scatters of quartz fragments suggests that it may have served as an amethyst-processing area. The scatters, however, are not on the same scale as those at the hilltop settlement.

In the 1992 survey there was insufficient time to study the interior features of the fort in any detail, but four general observations can be made. Firstly, the distinctly well-built Building A may have been constructed at the same time as the perimeter walls. Both this building and the adjoining rooms (which were perhaps constructed in a later period) have been built well away from the perimeter wall. This creates a kind of corridor, or *pomoerium*, between these internal structures and the outer wall, which was surely designed to allow defenders to man quickly the entire circuit of the main wall in case of attack. This is in contrast to the rooms of Area B, which are built directly against the eastern wall in a way that reduces the labour involved but complicates any defensive operation. It is worth noting that the builders of the hilltop settlements at Wadi el-Hudi

<sup>13</sup> Although not marked on Fakhry's original plan (*Inscriptions*, fig. 9), there is in fact a definite angle here between the adjoining walls and Building A.

<sup>14</sup> Fakhry's sketch of this set of rooms (fig. 9) is misleading, and as we did not have time to amend his attempt adequately, these walls are not marked on our version of his sketch.

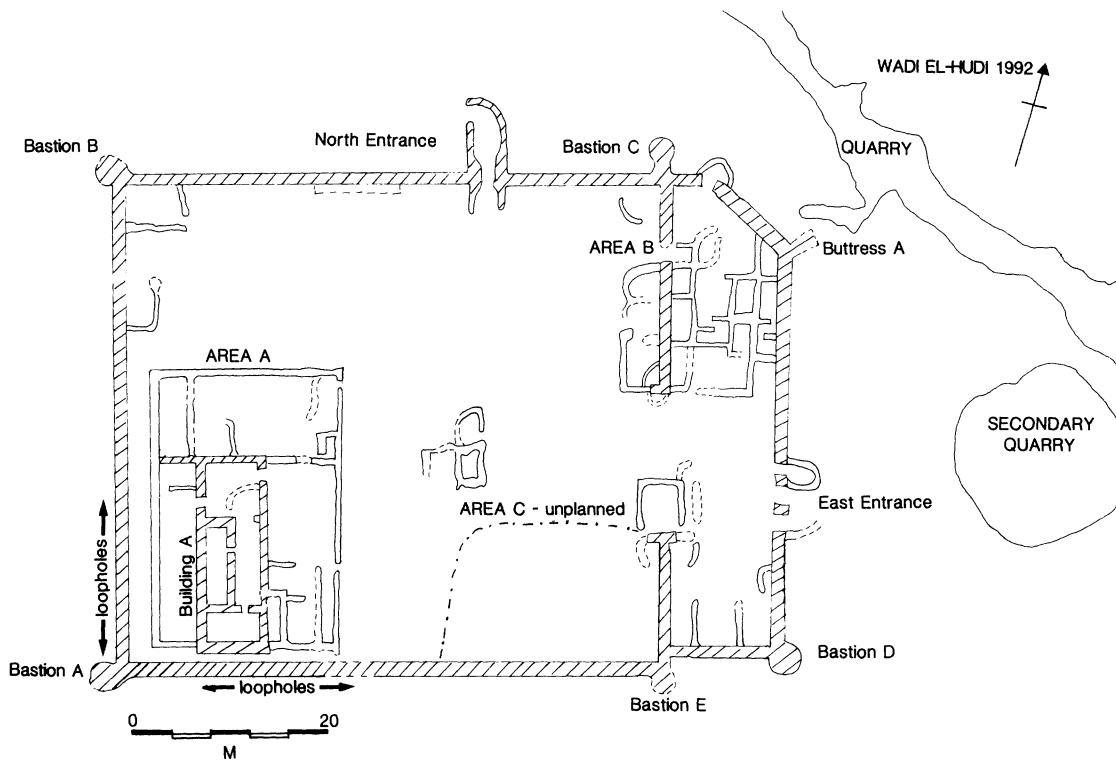


FIG. 4. Plan of the Middle Kingdom fortress, compiled using points surveyed in 1992 and an on-site revision of an earlier sketch-plan (Fakhry, *op. cit.*, fig. 9).

(site 5) and Wadi Maghara<sup>15</sup> in the Sinai were happy to compromise their defensive walls in a similar fashion.

Secondly, the rooms in Building A (as well as those adjoining it) are relatively large and well-defined, compared to those in the other two areas. Building A is also located in the sector of the fort that is furthest away from either entrance. It is tempting to think of Building A, and perhaps its adjoining rooms, as the original 'organizational centre' of the fort, perhaps consisting of a store-house for supplies, a strong-room for amethysts, and rooms for the leader of the expedition and associated staff. The other structures could then be thought of as *ad hoc* buildings, erected to give basic shelter to ordinary members of the expedition. Alternatively, Areas B and C may represent the more haphazard additions of later mining expeditions.

Thirdly, while the walls of Building A and some of the adjoining walls are high enough to have supported roofs under which a man might stand, most of the other buildings could only have supported extremely low roofs at best, or perhaps none at all. A few of the rooms in Areas B and C have no formal entrance, implying that the walls were unroofed and presumably low enough to step over, providing only minimal protection

<sup>15</sup> W. M. F. Petrie, *Researches in Sinai* (London, 1906), 38-40, 51-3, pls. 41-2, Map. 2. For more recent fieldwork at the Wadi Maghara miners' settlement see M. Chartier-Raymond, 'Notes sur Maghara (Sinai)', *CRIPEL* 10 (1988), 13-22.

from the sun and wind. Any roofing in the fortress would have been insubstantial—perhaps light poles and rafters supporting matting—since the necessary materials would have had to have been carried from the Nile Valley.

Fourthly, there appears to be a slight difference in the material used to build the high walls of the perimeter, the dividing wall, and Building A, as compared to the more insubstantial buildings of Areas B and C. The latter contain a greater proportion of crumbly, poor-quality blocks taken from the quarry spoil.

*Evidence for two phases in the fort's construction*

The fortress currently comprises three sets of high, well-built walls: (1) the perimeter walls, (2) the walls of Building A and (3) the northern and southern halves of an internal dividing wall. The latter can be seen in the sketch-plan (fig. 4) running across the fort from Bastion C on the north wall to a point about 14 m along the southern wall (Bastion E). Although various walls abut this dividing wall, it was clearly constructed independently of Areas B and C, and its appearance is very similar to that of the perimeter walls. In the centre of the dividing wall is a wide gap; the terminals of the wall on either side of this gap are strengthened with massive blocks. This wall may have been built at the same time as the perimeter walls, in order to divide the enclosure, but certain structural evidence suggests that it may actually have been the original eastern perimeter wall, so that everything to the east of it would represent a second-phase enlargement of the fort. The structural evidence is as follows:

1. The line of the southern perimeter wall has a distinct 90° kink at the point where the internal wall joins it (see fig. 4), as if the last section of the perimeter wall has been built in a separate operation. Just at the point of the kink are the possible remains of a structure—arguably a bastion (marked as Bastion E on fig. 4).
2. Bastion C lies at the other end of the dividing wall, where it joins the northern perimeter wall.<sup>16</sup> Bastions C and E might therefore have been the original corner towers of an almost square fort.
3. The basic plan of the fort is deliberately simple and regular. The only deviation from this is the north-east corner, which is sliced off by the perimeter wall. This complication is necessitated by the presence immediately beyond the perimeter wall of a narrow but deep extension of the amethyst mine; the angle of wall closest to this fissure has been buttressed against it. It seems likely that if the fort had all been laid out in one operation, the architect would have avoided all the building complications and defensive weaknesses of the present plan by simply placing the whole structure 10 m further to the west.

There would seem to be only two logical explanations for the apparent changes in the plan of the fortress. Either the fort was constructed as a rectangle, but at some point in its history a seam of amethyst was found to run underneath the north corner, which was then dismantled and rearranged as it is today in order to 'free' the seam; or the fort may have been originally built with an almost square plan, and then extended towards the quarry at a later date in such a way as to avoid an existing quarry extension.

The question will probably be settled when a more detailed plan of the fort is made and the method of drystone construction is examined more closely. At present it seems more likely that the dividing wall was originally the eastern perimeter wall, although it

<sup>16</sup> Bastion C is not recorded at all on Fakhry's original plan (*Inscriptions*, fig. 9).

now lacks the arrow slits that might be expected had it once functioned as part of the outer defences. Certainly the gap that now exists in the dividing wall is too wide ever to have been an entrance—instead it seems probable that this length of wall was dismantled and that the stone was used in building the southern part of the new length of perimeter walling.

*External features: road and sentry posts*

Associated with the fort is a short stretch of 'road' which leads away in a north-westerly direction towards the Nile Valley (see fig. 3). Like many pharaonic roads, this is not a built structure but simply a narrow strip of desert that has been cleared of pebbles. For this reason it simply disappears at both its ends, where the desert is naturally pebble-free, and it is similarly undefined where a very shallow dry watercourse cuts through its centre. This road may possibly be part of the ancient road mentioned by Fakhry<sup>17</sup> which, where it can be distinguished, leads away from the area of the mica mine (site 10) towards the fortress. The stretch of road beside the fortress, however, is very precisely cleared and relatively unworn. Although it is not oriented directly towards the north entrance of the fort, it seems likely to have been a formal 'fort approach'—a final touch by the builders of the fort walls.

A curious beehive-shaped structure built of solid drystone (about 2 m in diameter and 3 m high) is also associated with the fort. This structure is placed on a low rise on the far side of the larger mine, but can be seen from the fort. It might be identified as some kind of shrine—and indeed it faintly resembles the enigmatic solid masonry structures recorded at another quarry site situated further south in Nubia<sup>18</sup>—but its size, shape and solidity are very similar to the better-preserved corner towers of the fortress. It seems probable, therefore, that it acted as a free-standing sentry post or watchtower, from which a guard might overlook the amethyst mines while remaining visible from the bastions of the fort.

A hill lies between the fort and the hilltop settlement, so that sites 5 and 9 are not inter-visible. However, on top of this hill there are two cairns. It seems possible that the cairns were intended to mark the direction of each site from the other. There are further small cairns on the lower shoulder of the hill that comprises site 6 (i.e. the peak decorated with rock-drawings and inscriptions).

*Comparative evidence*

From the above description of the Wadi el-Hudi fortress it will be clear that any parallels should be sought in the Middle Kingdom fortifications of Upper Egypt or Nubia,<sup>19</sup> particularly those associated with quarrying or mining activities (such as Aniba and Kubban). This is not the place for detailed comparisons, but a few basic points can be made.

<sup>17</sup> See Fakhry, *Inscriptions*, 12, fig. 2, pl. ii.a, where the road is labelled as 'site 7'. According to Fakhry, the remains of the road 'can be seen in different places beginning south of Site 11 till Site 4, but its best preserved part is between 11 and 5'.

<sup>18</sup> R. Keating, *Nubian Rescue* (London, 1975), 127–8, ill. opposite p. 159.

<sup>19</sup> For detailed summaries of the fortified settlements in Lower Nubia, see A. W. Lawrence, 'Ancient Egyptian fortifications', *JEA* 51 (1965), 69–94; B. J. Kemp, *Ancient Egypt: Anatomy of a Civilization* (London, 1989), 166–78.

The intensive survey and excavation work preceding the construction of the Aswan High Dam provides a rich vein of comparative examples. However, in any comparison with the Second Cataract forts, perhaps the most important points are the negative ones. Firstly, the fort at Wadi el-Hudi is considerably smaller than the major Lower Nubian forts such as Buhen and Mirgissa, although it approaches the dimensions of lesser examples such as Semna South, Kumma or Shalfak. Even these last possess fortifications which are much thicker and stronger than the perimeter walls of the Wadi el-Hudi fortress.

Comparisons are complicated by the second major consideration—almost all the fortresses between the First Cataract and Semna are constructed of mud-brick rather than drystone walls. Wherever mud-brick was practical, the Egyptians seem to have employed it, and there is no doubt that it was the ‘first choice’ of their military architects. The fortified town at Kor is the only Egyptian site in Nubia defended by substantial drystone fortifications comparable to those at Wadi el-Hudi.<sup>20</sup> Fortifications II and III at Kor are described as ‘constructed of roughly hewn sandstone blocks, neither squared nor dressed, laid in horizontal courses’, and their curved bastions would have made them similar in appearance to the perimeter wall at Wadi el-Hudi. However, the fortified settlement at Kor, with its unusually elongated plan and its serpentine mud-brick outer wall, appears to have few other similarities to site 9 at Wadi el-Hudi.

It should also be remembered, when comparing the shape of the Wadi el-Hudi fort with those of the Second Cataract forts, that the plan of the forts most comparable in size—e.g. Semna South or Shalfak—was greatly influenced by their physical situation. The simple basic rectangles at Buhen, Aniba and Kubban apparently represent the preferred shape on a flat site.<sup>21</sup>

Having disposed of these qualifications, certain similarities between the Wadi el-Hudi fortress and its mud-brick counterparts stand out: a tendency for walls to be built in straight lengths; a preference for compact rectangular plans; the use of projecting rounded bastions to define the wall-angles; the provision of loopholes; and the construction of complex defended entrances. In respect of the bastions it is interesting to note that those at Wadi el-Hudi are similar to the *outer* defences of the major Egyptian forts in Nubia. The rounded bastions in the outer walls of the Second Cataract forts are often interpreted as a means of providing a line of fire over the encircling ditch (a feature entirely lacking at Wadi el-Hudi). This may well be the case, but the evidence at Wadi el-Hudi suggests that the outer wall with curved bastions should instead be regarded as one of the fundamental elements of Egyptian military architecture, regardless of the presence of ditches.

One might still ask why the ‘simplified’ fortlet at Wadi el-Hudi does not simply repeat the inner plan of the greater forts at a smaller scale, rather than reproducing a feature of their outer defences. The answer may perhaps lie in the role played by the distinctive rectangular piers and square towers that corrugate many of the high walls of the major fortresses. These towers were used to support a superstructure from which the defenders

<sup>20</sup> H. S. Smith, ‘Kor: report on the excavations of the Egypt Exploration Society at Kor, 1965’, *Kush* 14 (1966), 187–243. See also J. Vercoutter, ‘Kor est-il Iken? Rapport préliminaire sur les fouilles françaises de Kor (Bouhen sud), Sudan, en 1954’, *Kush* 3 (1955), 4–19.

<sup>21</sup> See Kemp, *op. cit.* 168–72, for a discussion of the so-called ‘plains type’ of Egyptian fortification in Nubia, of which Buhen is the classic example.

hurled stones and fired arrows; in other words, they are only useful in the case of walls that are manned from above. It is clear at Wadi el-Hudi that the only defenders above the level of the wall—which anyway never exceeded 2.5 m—were those positioned on the round bastions. The wall itself could not support defenders, who would have used the low-level arrow-slits to fire at attackers.

All the Second Cataract forts have a *pomoerium* between the fortified perimeter wall and the internal buildings. On a lesser scale this seems to be repeated in the corridor around Building A at Wadi el-Hudi, as described above. There are also parallels to this outer corridor in unfortified settlements of the Middle Kingdom, such as the rectangular quarry-workers' village at Qasr es-Sagha in the northern Faiyum, which was linked by road with the basalt quarries of Gebel Qatrani.<sup>22</sup>

Finally it is worth noting that the remains of the gold-mining settlements of various periods at Wadi Allaqi (currently under investigation)<sup>23</sup> may include drystone structures comparable with those at Wadi el-Hudi, although the major fortified structures at Wadi Allaqi appear to be post-pharaonic in date.

### Dating evidence

The Wadi el-Hudi region was the primary location for amethyst mining in Egypt from the Eleventh Dynasty until the end of the Middle Kingdom, during which time the use of amethysts in jewellery reached a peak of popularity. During the Old Kingdom the principal amethyst mines appear to have been located at Toshka in the Western Desert,<sup>24</sup> and while there is some evidence for the continued exploitation of Wadi el-Hudi after the Middle Kingdom, the principal amethyst mines of the Roman period appear to have been located elsewhere.<sup>25</sup> The dating evidence at Wadi el-Hudi consists of a combination of textual and archaeological evidence.

#### *The inscriptions*

Until the 1992 survey at Wadi el-Hudi, the main dating criteria for the various sites were the surviving inscriptions and rock-drawings, about half of which can be assigned to

<sup>22</sup> See J. Sliwa, 'Die Siedlung des Mittleren Reiches bei Qasr el-Sagha', *MDAIK* 48 (1992), 177–91. The plan shows four internal blocks separated from the perimeter wall by two-metre-wide paved corridors.

<sup>23</sup> See B. B. Piotrovsky, 'The Early Dynastic settlement of Khor-Daoud and Wadi-Allaki: the ancient route to the gold mines', in *Fouilles en Nubie (1961–1963)* (Cairo, 1967), 127–40. For the ongoing programme of survey and excavations in the Wadi Allaqi and Wadi Gabgaba, as well as the possible identification of the site with Berenice Pancrisia, see A. Castiglione et al., 'À la recherche de Berenice Pancrisia dans le désert oriental Nubien', *BSFE* 121 (June, 1991), 5–24.

<sup>24</sup> The Toshka diorite and amethyst quarrying area lies about 60 km north-west of Abu Simbel; in addition to well-attested exploitation during the Old Kingdom, the quarries may also have been used in later periods. See R. Engelbach, 'The quarries of the Western Nubian Desert and the ancient road to Tushka (survey expedition; February 1930, under the direction of Mr G. W. Murray, Director of the Topographical Survey)', *ASAE* 38 (1938), 370; G. W. Murray, 'The road to Chephren's quarries', *Geographical Journal* 94 (1939), 105; Lucas, *op. cit.* 389.

<sup>25</sup> In the New Kingdom amethysts were less commonly used for personal adornment, and it is even possible that there was a temporary dearth of known resources. However, by the Roman period they had apparently regained their popularity (or availability), and apart from sites 11 and 12 at Wadi el-Hudi there are Roman amethyst quarries in the Safaga region near Gebel Abu Diyeiba: G. W. Murray, 'Notes on Bir Kareim and amethysts', *Cairo Scientific Journal* 8 (1914), 179; Lucas, *op. cit.* 389.

In modern Egypt the natural reserves of amethysts appear to have been virtually exhausted, and they now have to be imported from South America.



specific sites within the region. The rest of the texts were either recorded or removed from Wadi el-Hudi without their precise provenance being recorded (see Appendix). One dated inscription (WH15) was found, probably re-used, in the barytes mining settlement (site 1), while virtually all of the rest were found at sites 5 and 6. Fakhry suggests that 'some of the inscribed stones' were also found near the northern entrance of the fortress (site 9),<sup>26</sup> but there appears to be no published record of which stelae these may have been. Consequently, the only ancient mining community at Wadi el-Hudi that can be directly dated by textual evidence is the hilltop settlement at site 5.

Many of the larger rocks in the hilltop settlement—particularly those near the summit or on the eastern side of the hill—bear carved geometrical shapes, figures and hieroglyphic inscriptions, seven of which include Middle Kingdom dates. The three earliest inscriptions (WH2-4) are dated to the first two years of the reign of the last ruler of the Eleventh Dynasty, Nebtawyre Mentuhotep IV, while three others (WH14 and 144-5) date to the reign of Sesostris I. It therefore seems highly likely that the amethyst mine at site 5 was in use for at least the period between Year 1 of Mentuhotep IV and Year 29 of Sesostris I.

It was at site 6 (the peak with inscriptions) that Murray found a large, finely carved limestone stele inscribed by a man called Hor, a high official in the reign of Sesostris I (WH143, Cairo JE 71901). Since the stone used for the Hor stele is not local, it has been suggested that this inscription may have been an extraordinary one brought to the site to mark the resumption of mining in the seventeenth year of Sesostris I's reign (or perhaps earlier), although Hor's text includes no year-date.<sup>27</sup> The only other dated inscription definitely assigned to site 6 is WH1, which was carved in the first year of the reign of Mentuhotep IV.

The unprovenanced inscriptions from Wadi el-Hudi—most of which probably derive from site 6—show that mining expeditions visited the area in the reigns of Mentuhotep IV, Sesostris I, Sesostris III, Ammenemes III, Ammenemes IV and Sobekhotep IV Khaneferre. There is also an amethyst-mining stele from the Nubian site of Dabod which is dated to the reign of Ammenemes II (WH148), although the connection between this stele and Wadi el-Hudi is not definitely proven—it may possibly refer to a different mining area.

The inscriptions provide a tentative chronological structure for the site, in which the site 5 mine would have been opened first (probably in the late Eleventh Dynasty), while the two mines associated with the fortress at site 9 might have been opened some time in the Twelfth Dynasty, possibly later than the reign of Sesostris I. If Sadek is correct in interpreting WH148 as a record of the opening of *fresh* mines at Wadi el-Hudi (rather than the continuation of work at an existing mine)<sup>28</sup> and WH21 as a reference to prospecting for new lodes of amethyst,<sup>29</sup> then it might even be possible to suggest that the two mines at site 9 were opened in the reigns of Ammenemes II and Ammenemes IV respectively. This would place the date of the fortress's construction well within the mid-Twelfth Dynasty, which would synchronize comfortably with its architectural style and associated ceramics (see below).

<sup>26</sup> Fakhry, *Inscriptions*, 14.

<sup>27</sup> Sadek, *op. cit.* 1, 87.

<sup>28</sup> Sadek, *op. cit.* 1, 95.

<sup>29</sup> Sadek, *op. cit.* 1, 44-5.

*The pottery*

In the 1992 preliminary survey the terms of the permission granted to us by the Egyptian Antiquities Organization did not allow us to collect potsherds, and a more thorough examination of the pottery is an important priority for any future expedition to Wadi el-Hudi. It proved possible, however, to reach a few basic conclusions concerning the quantity and dating of the ceramics in the Middle Kingdom zone (sites 5–9).

The hilltop settlement at site 5 contained large quantities of sherds, the vast majority of which appear to date to the Middle Kingdom. Although numerous sherds were also scattered within the walls of the fortress at site 9, there were far fewer concentrations compared with the hilltop settlement. The pottery scattered inside the fortress included pharaonic sherds (probably of late Middle Kingdom date) as well as some sherds considered to date to the Roman period, suggesting that there may have been a later re-use of the fortress.

The ceramic evidence so far obtained is therefore broadly in line with that of the inscriptions. There already appears to be a small amount of ceramic data to suggest that the hilltop settlement was in use earlier than the fortress, but this suspicion can only be corroborated by a much more detailed analysis of the ceramics at both sites.

**Discussion and future objectives**

The results of the 1992 preliminary survey at Wadi el-Hudi suggest that the site has considerable potential for the study of Egyptian mining and quarrying in the Middle Kingdom and the Roman period. The Middle Kingdom area of the site (fig. 3) incorporates a particularly rich blend of archaeological and textual evidence, providing the basis for a detailed account of amethyst mining over a period of two and a half centuries.

The Eleventh Dynasty hilltop miners' settlement at site 5 is reminiscent both of the turquoise miners' accommodation at Wadi Maghara and the fortified C-group settlements at sites such as Wadi es-Sebua in Nubia.<sup>30</sup> The fortress at site 9, on the other hand, appears to be a unique structure, in which the familiar features of the mud-brick fortresses of the Nile Valley have been transformed into a purely drystone complex, scaled down and adapted to the needs of a Twelfth Dynasty mining expedition in the Eastern Desert. Apart from the interest of the fortress as an unusual method of accommodating mining expeditions, it is also possible that it may represent an exceptional surviving example of a type of basic fortification which was once more common in the Nile Valley (and perhaps usually built in mud-brick). The preservation of the Wadi el-Hudi fortress is particularly fortunate, considering that the Second Cataract fortresses themselves have now vanished under the waters of Lake Nasser.

Future fieldwork at Wadi el-Hudi—which, like many other sites in the Eastern Desert, is under constant threat from the activities of modern quarriers—will ideally concentrate on the provision of detailed plans of the mines, settlements and surviving stretches of ancient road. Although the corpus of inscriptions at the Middle Kingdom sites has been copied and translated, they have not been properly mapped or photographed, and any future season at the site should give high priority to the recording of their archaeological

<sup>30</sup> Adams, *Nubia: Corridor to Africa*<sup>2</sup> (Princeton, 1984), 154, pl. v.a.

contexts. As far as the Middle Kingdom hilltop settlement and fortress are concerned, detailed planning and selective excavation, as well as the systematic study of the associated ceramics, will undoubtedly shed new light on the overall character and chronology of an unusual pharaonic mining site.

#### Appendix: Locations of inscriptions at Wadi el-Hudi

The numbering systems used for the inscriptions listed in this table (WH1-155) is that employed in A. I. Sadek, *The Amethyst Mining Inscriptions of Wadi el-Hudi*, 1-11 (Warminster, 1980-5).

##### *Hilltop settlement (Fakhry's site 5)*

2-5, 14, 26, 28, 41-66, 144-5  
 2 = Mentuhotep IV (yr. 1)  
 3 = Mentuhotep IV (yr. 1)  
 4 = Mentuhotep IV (yrs. 1 and 2)  
 5 = Mentuhotep IV  
 14 = Sesostris I (yrs. 20 and 24)  
 144 = Sesostris I (yr. 29)  
 145 = Sesostris I (yr. 29)

##### *Peak with inscriptions (site 6)*

1, 81-99, 104-8, 105-8, 110-11, 118, 120,  
 129, 135-6, 138-9, 142-3  
 1 = Mentuhotep IV (yr. 1)  
 143 = Sesostris I

##### *Barytes mine (site 1)*

15 (and an unscribed stele)  
 15 = Sesostris I, II or III (yr. 6, 7, 16 or 17)

##### *Provenance unknown*

6-13, 16-25, 27, 29-40, 67-79, 80, 100-3,  
 109, 112-17, 119, 121-8, 130-4, 137, 140-1,  
 146-7, 150, 152-5  
 6 = Sesostris I (yr. 17)  
 7 = Sesostris I (yr. 20)

8 = Sesostris I (yr. 20)  
 9 = Sesostris I (yr. 22)  
 10 = Sesostris I (yr. 22)  
 11 = Sesostris I (yr. 22)  
 12 = Sesostris I (yr. 24)  
 13 = Sesostris I (yr. 28)  
 146 = Sesostris I (yr. 28)  
 147 = Sesostris I (yr. 28)  
 16 = Sesostris III (yr. 13)  
 17 = Sesostris III (yr. 13)  
 18 = Sesostris III (yr. 11 [+ x?])  
 19 = Ammenemes III (yr. 20)  
 20 = Ammenemes III (yr. 28)  
 21 = Ammenemes IV (yr. 2)  
 22 = Sobekhotep IV Khaneferre (yr. 6)  
 23 = Sobekhotep IV Khaneferre  
 24 = Sobekhotep IV Khaneferre (yr. 6)

##### *Dabod*

148  
 148 = Ammenemes II

##### *Khor Dehmit*

149  
 149 = Ammenemes III (yr. 1)



1. View of the south-west corner of the Middle Kingdom fortress, showing Bastion A



2. Inscription WH1, incorporating the cartouche of Mentuhotep IV, situated on top of the 'hill of the inscriptions' (site 6)

# THE DEDICATION FORMULA 'IR.N.F M MNW.F\*

By EDWARD W. CASTLE

A study of the problems involved in the translation of the dedication formula *ir.n.f m mnw.f*. Previous theories attempting to resolve these problems are subjected to critical examination and a new theory proposed. The semantic direct object of the verb is found in the phrase *m mnw.f*, the direct object being coordinated with the preposition *m* in order to allow it to function within an emphasized adverbial adjunct as the emphasized semantic direct object of a nominal *ir.n.f*. Following infinitives are treated as substantives in apposition to this emphasized semantic direct object.

THE dedication formula *ir.n.f m mnw.f* appears with great frequency on Egyptian monuments, but its translation has long been problematical. Björkman<sup>1</sup> and Taufik<sup>2</sup> have discussed the interpretation and significance of the formula, but without addressing the grammatical difficulties associated with its translation. More recently, Vittmann,<sup>3</sup> Leahy<sup>4</sup> and Jansen-Winkeln<sup>5</sup> have focused attention directly on these problems.

The standard form of the dedication formula has the structure:

*nsw bity N*  
*ir.n.f m mnw/mnw.f n it.f...*  
*irt n.f...*  
*ir.f n.f di rnh... or ir.n n.f s R...*

As Vittmann points out,<sup>6</sup> translators have traditionally followed the interpretations of Gardiner or Erman, often inconsistently. The difference between these two interpretations stems from the problem of the syntactical relationship between *ir.n.f m mnw.f* and the following *irt*. Gardiner treated *irt* as the direct object of *iri* in *ir.n.f*, explaining the abnormal word order as arising from the lengthy nature of this direct object which frequently takes the form of a long list of accomplishments. He cited the obelisk of Thutmose III from Heliopolis, now in London:

- (1) *ir.n.f m mnw.f n it.f Hr-ihy s'hc n.f thnwy wrwy bnbnt m d'm*  
 He made as his monument to his father Harakhte the erecting for him of two great obelisks (with) the pyramidion of gold.<sup>7</sup>

\*The theory proposed here was originally formulated in a paper written in 1987. Anthony Leahy's article was subsequently brought to my attention by Lanny Bell, and Leahy, in turn, kindly drew my attention to the article by Karl Jansen-Winkeln. The paper has since been rewritten to accommodate the studies of these two scholars and to take advantage of helpful suggestions from two referees of the *Journal*. I would like to thank Profs Lanny Bell, John A. Brinkman and Edward F. Wentz for their comments during the preparation of this paper. However, responsibility for the ideas expressed herein and any errors remains mine alone.

<sup>1</sup> G. Björkman, *Kings at Karnak* (Uppsala, 1971), 22-48.

<sup>2</sup> S. Taufik, *MDAIK* 27 (1971), 227-34.

<sup>3</sup> G. Vittmann, *WZKM* 69 (1977), 21-32.

<sup>4</sup> A. Leahy, 'Multiple Adverbial Predicates in Ancient Egyptian: (The formula *ir.n.f m mnw.f*)', in J. D. Ray (ed.), *Lingua Sapientissima* (Cambridge, 1987), 57-64.

<sup>5</sup> K. Jansen-Winkeln, *MDAIK* 46 (1990), 127-56.

<sup>6</sup> *WZKM* 69, 22.

<sup>7</sup> A. H. Gardiner, *Egyptian Grammar*<sup>3</sup> (Oxford, 1957), 413, n. 6; *Urk.* IV, 590, 13-14.

Erman, on the other hand, treated *ir.n.f m mnw.f* as an integral unit with ellipsed pronominal direct object. The *Wörterbuch* (II, 70, 11) translates: 'Er hat es gemacht als sein Denkmal...'. According to Vittmann, the *Wörterbuch* implicitly understands *irt* as absolute in the sense of Gardiner, *Egyptian Grammar*<sup>3</sup>, §306. Without stating its reasoning, the *Wörterbuch* (II, 70, 16) translates *irt n.f* as 'indem er ihm machte...'. That Vittmann understands this to be an appropriate translation of an absolute infinitive is clear when, having explicitly stated that *irt* is to be so interpreted, he translates the stela of Amenhotep III from his funerary temple:

- (2) *wḥm mnw ir. n ḥm.f n it.f irt n.f mꜣrw*  
 Seine Majestät machte noch einmal ein *mnw* für seinen Vater, und zwar machte er ihm ein *mꜣrw* (oder: indem er ihm ein *mꜣrw* machte).<sup>8</sup>

However, if *irt* were an absolute infinitive of the type of Gardiner, *Egyptian Grammar*<sup>3</sup>, §306, it could not, by definition, be translated as the verbal element of a circumstantial or other subordinate clause.<sup>9</sup> The confusion perhaps arises from mistaking for the English present participle Gardiner's use of the gerund. Where the absolute infinitive (*wḥm*) does occur in this passage, it is not clearly recognizable in the translation. The basic structure of the passage is: absolute infinitive—substantive—relative clause—infinitive... 'Repeating (continuing) of the monument(s) which His Majesty made for his father: the making for him a *mꜣrw*...'

#### *Vittmann, contra Gardiner*

Vittmann brings two arguments to bear against Gardiner's interpretation of the formula. Firstly, he points out the extreme distance in this inscription between

- (3) *ir.n.f m mnw.f n it.f Ḳmn nb nswt tꜣwy*  
*irt n.f ḥwt-nꜣr špst ḥr imy-wrt n Wꜣst*<sup>10</sup>

and the following *irt n.f bḥnwy*<sup>11</sup> which would have to be considered a direct grammatical object in apposition to *irt n.f ḥwt-nꜣr špst*, etc., according to Gardiner's schema. It is difficult to see any compelling argument against Gardiner's interpretation here; the appositional relationship of two grammatical objects seems designed to acknowledge and sustain just such a wide separation of elements.

Vittmann's second objection rests on his acceptance of a position held by W. Schenkel. He points out that to accept Gardiner's interpretation of the formula is to accept a prepositional attribute in *mnw.f n it.f* ('his monument for his father'), which, as he says, Schenkel<sup>12</sup> considers impossible in this syntactical position.

#### *Vittmann, contra Erman*

Rejecting Gardiner's interpretation, Vittmann is left with Erman's ellipsed pronominal direct object or Anthes' intransitive use of *iri* (see below). In rejecting Erman's transla-

<sup>8</sup> WZKM 69, 24; *Urk.* IV, 1651, 7.

<sup>9</sup> J. Yoyotte, (*CdE* 28 (1953), 34, n. 4) suggests that *irt n.f* could be understood as an absolute infinitive used in an impersonal sense, and translates: 'il fut fait pour lui'. See Björkman, *Kings at Karnak*, 27.

<sup>10</sup> *Urk.* IV, 1648, 6-7.

<sup>11</sup> *Urk.* IV, 1650, 4.

<sup>12</sup> *JEA* 50 (1964), 9: 5b; id., *JEA* 52 (1966), 53-8.

tion, he cites the Nitocris Adoption Stela:

- (4) *ir. n. f m mnw. f n it. f 'Imn nb pt hq; psdt*  
*rdit n. f sst. f wrt mryt Nt-ìqrt rn. s nfr Šp-n-wpt r hmt-ntr*

which Caminos translated:

...he made as his monument for his father Amun, lord of heaven, ruler of the Ennead, the giving to him of his beloved eldest daughter Nitocris, her fair name being Shepenwepe, to be God's Wife...<sup>13</sup>

That Caminos should have translated according to Gardiner's model is explained by Vittmann as necessary to avoid the implication Vittmann sees, in a translation according to Erman's schema, of the princess Nitocris' being identified with 'monument' or 'endowment'.

This apparent identification arises, however, only from a misunderstanding of the syntactical function of the infinitive in Erman's interpretation, which causes the possibility of an appositional relationship between the infinitive *rdit* and Erman's postulated ellipsed pronominal object ('es') to be overlooked. Otherwise it might be possible to translate:

He made (it) as his monument for his father Amun ... the giving to him of his beloved eldest daughter Nitocris...

*Anthes/Vittmann: an intransitive use of iri*

Vittmann sees a solution to the difficulties associated with an ellipsed or postponed direct object in a suggestion of Anthes,<sup>14</sup> whereby *iri* is treated as intransitive and the formula translated:

Er handelte in seinen Denkmälern zugunsten seines Vaters = Er hat seine königliche Pflicht [*scil.* gegenüber seinem—meist göttlichen—Vater] erfüllt in seinen Denkmälern.<sup>15</sup>

At the same time he denies any direct identification of *mnw* with the following list of endowments or achievements, thereby denying any direct syntactical relationship between *iri* or *mnw* and the following *irt n. f*. He cites a boundary stela of Sesostris I from Karnak (Cairo JE 88802):

- (5) *ir. n. f m mnw. f*  
*irt ts' mhty-ìmnty Nhn rsy Swnyt*  
*ir. f di rnh dd wss mi R' dt*

and translates:

Er handelte in seinen 'Denkmälern'.  
 Die Grenze machen: Nordwesten—*Nhn*, Süden—*Swnyt*.  
 Möge er (deswegen) *dj rnh dd wss* machen wie Re ewiglich.<sup>16</sup>

<sup>13</sup> R. Caminos, *JEA* 50 (1964), 74.

<sup>14</sup> R. Anthes, *JEA* 54 (1968), 31-9; id., *JEA* 55 (1969), 41-54; cited in Vittmann, *WZKM* 69, 21, n. 5, 25, n. 23.

<sup>15</sup> Vittmann, *WZKM* 69, 25.

<sup>16</sup> Ibid. 29. See L. Habachi, *MDAIK* 31 (1975), 35, fig. 5.

But, in considering a back-construction from a one-membral nominal sentence with qualifying relative clause from the Dendereh chapel of Nebhepetre Montuhotep,<sup>17</sup> Vittmann is forced to admit that Anthes' schema cannot work in all cases, and has no option but to translate transitively:

- (6) *ḥwt-kꜣ irt.n.f m mnw.f n twt.f X < \*ir.n.f m mnw.f n twt.f X ḥwt-kꜣ*  
Er machte seiner Statue als sein Denkmal ein Ka-Haus.<sup>18</sup>

No argument is proposed here against Vittmann's back-construction of the Egyptian, but it is clear that, while he successfully avoids the prepositional attribute, his translation weighs against Anthes' theory of an intransitive use of *iri*. Moreover, the shortness of the proposed direct object in this inscription speaks against Gardiner's rationale for the abnormal word order required by his interpretation. Neither Anthes' nor Gardiner's interpretation can account for this construction.

Vittmann might have proposed instead a back-construction,

- (7) *< \*ir.n.f ḥwt-kꜣ m mnw.f n twt.f X*.

However, he avoids this, apparently in tacit acknowledgement of an absence of any examples within the present context to support it. I am not aware of a single example in the context of the dedication formula where a syntactical direct object, either nominal or pronominal, intervenes between *ir.n.f* and *m mnw.f*.

Vittmann acknowledges that Anthes' 'He acted in his monuments' requires a plural understanding of *mnw*, since a singular understanding would be too specific and might indicate a closer syntactical connection with the following designated object in the second part of the formula than his interpretation allows. But, since he recognizes a singular *mn.f* on a naos of Amasis:

- (8) *ir.n.f m mn.f n it.f Wsir*,<sup>19</sup>

he finds it necessary to stress that what should be understood is not the concrete object itself, but the action of its erection or its establishment. He considers that *mnw* is to be understood as the 'enduring' achievement through which the king fulfils his kingly duty.<sup>20</sup> However, if one considers a Kawa stela of Taharqa in which the second part of the

<sup>17</sup> Habachi, *MDAIK* 19 (1963), 20, fig. 5.

<sup>18</sup> Vittmann, *WZKM* 69, 31.

<sup>19</sup> A. Piankoff, *RdE* 1 (1933), 161–79, esp. 164, 167, 169; cited by Vittmann, *WZKM* 69, 25, n. 25.

<sup>20</sup> Björkman (*Kings at Karnak*, 22) observes that the expression *mnw* first occurs in royal inscriptions of the Old Kingdom, and does not appear in private contexts until the Middle Kingdom, contrary to *Wb.* II, 70, 12. She notes that, although Goedicke (*Königliche Dokumente aus dem Alten Reich* (Wiesbaden, 1967), 217, n. 11) considers the original meaning to have been 'monument', the concrete determinatives are later, so that if there were a development, the original meaning is more likely to have been 'Stiftung' and only later 'monument'. Taufik (*MDAIK* 27, 231 ff.) indicates that, in the overwhelming majority of dedications, *mnw* occurs in connection with buildings, their restoration, parts or furnishings. He observes that *mnw* might consist of perishable items when their supply is established as an enduring endowment. Vittmann (*WZKM* 69, 22) points out that, strictly speaking, in Taufik's examples it is the action of establishing a god's offering that constitutes the *mnw*. But constructions such as Ex. (9), which lack the infinitive, demonstrate that the semantic range of *mnw* has been extended to include the object of the infinitive itself. The *Concise Oxford Dictionary of Current English*<sup>6</sup> (Oxford, 1976), 706, defines 'monument' as 'written record; anything enduring that serves to commemorate or make celebrated, esp. structure or building...'; this appears to cover the general lexical range of *mnw*. However, while lacking the nuance of 'building', 'structure' shared by 'monument' and *mnw* (Ex. (40)), the more abstract 'endowment' or 'commemoration' may be appropriate in certain cases where *mnw* is clearly an action (Exx. (4), (35)).



formula consists of a concrete noun rather than an infinitive, it becomes clear that this approach to the syntactical problem really amounts to an attempt to supplant semantically a strong sense of syntactical relationship in the text:

- (9) *ir. n. f m mnw. f n it. f 'Imn-R<sup>c</sup> nb Gm-'Itn*  
*nbw hbs 1 iw tw(t) n nsz sš hr. f ir n dbn 5 qdt 1 hđ nbw đbr 1.*<sup>21</sup>

Taufik translates this according to Gardiner's schema:

...er machte als seine Geschenke (*mnw*) für seinen Vater, Amon-Re, den Herrn von Gematon:  
 1 Goldener Deckel, auf dem die Gestalt des Königs gemalt ist, beträgt 5 *deben* (und) 1 *kite*  
 1 Silbernes und goldenes Siegel, ...<sup>22</sup>

The objections to Anthes' interpretation of an intransitive *iri* can be augmented by the stela of Amenhotep III in Ex. (2) and by the following instances from private tombs in which the relative form of *iri* relates to a preceding *mnw*:

- (10) *mnw ir. n sn. f sš Hri-m-šht whm rnh*  
 the monument which his brother, the scribe Horiemakhet who lives again, made<sup>23</sup>  
 (11) *mnw ir. n s. f mr > r < . n. f*  
 the monument which his son whom he loved made.<sup>24</sup>

The absence of a resumptive pronoun shows that *iri* in these relative forms has an indisputably transitive sense. Further examples in which an intransitive translation of *iri* is not possible may be cited:

- (12) *r irt mnw n it. f Wsir*  
 ...to make monuments for his father Osiris<sup>25</sup>  
 (13) *r irt n. f mnw m hnw. s*  
 ...to make monuments for him within it.<sup>26</sup>

The royal epithet *ir mnw*, 'maker of monuments', occurs frequently in the context of the dedication formula.<sup>27</sup> Among the numerous examples of which I am aware, the sole example of *ir m mnw*, in an inscription of Sety I at Speos Artemidos,<sup>28</sup> has to be considered a mere error induced from *ir. n. f m mnw. f*.

The cases in which *mnw* appears without a preceding *m* argue a transitive use of *iri*, unless one is to assume a prepositional *m* assimilated to *mnw/mnw.f*. But this is precluded by the presence of a demonstrative in genitival relationship with *mnw* on a stela of Neferhotep I from the temple of Osiris at Abydos:

<sup>21</sup> M. F. L. Macadam, *The Temples of Kawa*, 1 (Oxford, 1949), pl. 6, 10.

<sup>22</sup> *MDAIK* 27, 229.

<sup>23</sup> *Urk.* IV, 51, 11.

<sup>24</sup> Cairo CG 20013; H. O. Lange and H. Schäfer, *Grab- und Denksteine des Mittleren Reichs in Museum von Kairo*, 1. CG (Berlin, 1902), 13; IV, Taf. II.

<sup>25</sup> Berlin 1204 (stela of Sesostri III): *Ägyptische Inschriften aus den Königlichen Museen zu Berlin*, 1 (Leipzig, 1913), 171.

<sup>26</sup> Akhenaten Boundary Stela S, line 7; Norman de Garis Davies, *The Rock Tombs of el Amarna*, v (London, 1908), pls xxvi-xxvii. M. Sandman, *Texts from the Time of Akhenaten* (Brussels, 1938), 123.

<sup>27</sup> See n. 108 below.

<sup>28</sup> *KRI* I, 44, 15.

- (14) *ist ir.n hm.i nn n > n < mnw*  
since My Majesty made these monuments.<sup>29</sup>

If the interpretations of Gardiner or Erman were correct, one might reasonably expect to find an occasional instance where a direct object, either nominal or pronominal, intervenes between *ir.n.f* and *mnw.f*, but, as stated above, I do not know of a single example where this occurs. Even if one were inclined, with Vittmann, to accept the abnormal word order involved, Gardiner's schema can be shown to be untenable in cases where a direct object, according to Gardiner's understanding, is altogether wanting. The following inscription appears on the outer doorway of the tomb of Wiu at Sheikh Said:

- (15) *ir.n.f m mnw.f n it.f in hsty-c 'Ih*.<sup>30</sup>

A longer form of this inscription records the attentions of the same official to the tombs of his ancestors; it occurs south of the entrance to the tomb of Imhotep at Sheikh Said:

- (16) *ir.n.f m mnw.f n itw.f imyw b[sh] in hsty-c imy-r; pr-nsz 'Ih*.<sup>31</sup>

Other instances in which the proposed direct object is wanting include a dedication by Hatshepsut to her father Thutmose I:

- (17) *ir.n.s m mnw.s n it.s Hr Mry-R<sup>c</sup>-h<sup>c</sup>-m-hdt nsz bity nb irt ht*  
*h-pr-k-R<sup>c</sup> mry 'Inpw tpy d<sup>w</sup>.f dt*<sup>32</sup>

an offering-table dedicated by the Great King's Wife Tiy to her husband, Amenhotep III:

- (18) *ir.n.s m mnw.s n sn(.s) mr.s ntr nfr Nb-Mst-R<sup>c</sup>*<sup>33</sup>

and an obelisk inscription of Thutmose III:

- (19) *ir.n[.fm] mnw.f n it.f [ 'Imn-R<sup>c</sup> ] ir.f di cnh dt*<sup>34</sup>

### *Preliminary conclusions*

From the preceding, it emerges that an adequate grammatical model should be able to satisfy the following conditions:

- (i) The verb *iri* must be capable of being translated transitively.
- (ii) The first part of the dedication formula (*ir.n.f m mnw.f n it.f*) must be able to stand independently of any following elements.

From (i) and (ii), it follows that the first part of the formula must contain a semantic direct object.

- (iii) Since the infinitive *irt* cannot function in the manner of an English present participle, the infinitive of the second part should be considered a substantive having the same function as the occasional concrete noun. This being so, the second part of the formula must be in apposition to the semantic direct object in the first part.

<sup>29</sup> A. Mariette, *Abydos. Description des fouilles exécutées sur l'emplacement de cette ville*, II (Paris, 1880), pl. 30, 39.

<sup>30</sup> Norman de Garis Davies, *The Rock Tombs of Sheikh Saïd* (London, 1901), 27 ff., 38, n. 3.

<sup>31</sup> *Ibid.* 38, n. 2, pl. xxix, E. Cf. Taufik, *MDAIK* 27, 231, n. 28, who mistakenly reads *m bsh(.i) > m bsh(.f)*.

<sup>32</sup> *Urk.* IV, 313, 14-15.

<sup>33</sup> *Urk.* IV, 1769, 11-12. Taufik (*MDAIK* 27, 233) omits *m mnw.s* in his translation.

<sup>34</sup> *Urk.* IV, 526, 5-6; cited in Gardiner, *Egyptian Grammar*<sup>3</sup>, 413, n. 6.

It is evident from the above that the interpretations of Gardiner and Anthes are inadequate. After modifying his treatment of the second part of the standard form of the formula, it might still be possible to accept Erman's interpretation:

He made (it) as his monument for his father..., the making for him...

Pronouns can be omitted in Middle Egyptian when the semantic value is either indeterminate or obvious, usually in the latter case, because the ellipsed referent is clear from earlier narrative.<sup>35</sup> The ellipsed pronominal object claimed for the present formula is not indeterminate, and the long lists which we frequently find dependent from it by apposition apparently constitute the major function, and certainly the major part, of many inscriptions. Furthermore, and perhaps most telling, the notion of an ellipsed direct object is embarrassed by the absence, complete so far as I can ascertain among the many and varied examples of the present formula, of any instance where it is written out. It seems preferable, therefore, to find an explanation which does not necessitate the supplying of elements apparently never written in the Egyptian.

*Vittmann and Leahy: a nominal ir.n.f*

Polotsky argued that a bare initial *sdm.n.f* is to be understood as a nominal ('emphatic') form of the verb providing for an emphasized adjunct.<sup>36</sup> Vittmann considers this possibility once in a statue inscription of Sobekhotep IV, in which *ir.n.f* is followed by an element which he sees as capable of carrying emphasis:

- (20) *ir <.n> .f m mnw.f n nsw bity Nb-hpt-Rc msc hrw*  
*m sm:(wy) irt.n nsw bity Hc-kꜣw-Rc msc hrw nsw bity Hc-hpr-Rc msc hrw itwy.fy*  
 Daß er für den König von Ober- und Unterägypten *Nb-hpt-Rc*, gerechtfertigt, in seinen 'Denkmälern' gehandelt hat, ist, indem er erneuerte, was der König von Ober- und Unterägypten *Hc-kꜣw-Rc*, gerechtfertigt, und der König von Ober- und Unterägypten *Hc-hprw-Rc*, gerechtfertigt, seine Väter, gemacht hatten.<sup>37</sup>

Vittmann places the emphasis on the phrase beginning *m sm:(wy)*..., but it is unusual for the infinitive in this position to be preceded by a preposition. He overlooks the fact that, except in the case of a 'Wechselsatz' construction, an emphasized adjunct is not merely optional, but required by a bare *sdm.n.f* form in initial position. In the context of the standard form of the dedication formula, therefore, *ir.n.f m mnw.f n it.f* must contain within itself not only a semantic direct object, but also an emphasized adjunct.

Leahy recognizes the nominal verb in this position and acknowledges the need to find a suitably emphasized adjunct. This he finds in the adverbial phrase *n it.f*, 'for his father'.<sup>38</sup> However, the boundary stela of Sesostri I cited by Vittmann in Ex. (5), above, shows that this element can be omitted from the formula:

- (21) *ir.n.f m mnw.f irt tsꜣ mhꜣty-ꜣmnty Nhn rsy Swnyt*<sup>39</sup>

<sup>35</sup> See, most recently, M. Collier, *JEA* 77 (1991), 36 ff. with n. 58.

<sup>36</sup> H. J. Polotsky, 'Egyptian Tenses', *The Israel Academy of Sciences and Humanities, Proceedings*, 2/5 (Tel Aviv, 1965), §§36 ff.

<sup>37</sup> *WZKM* 69, 28.

<sup>38</sup> Leahy, 'Multiple Adverbial Predicates', 61.

<sup>39</sup> *WZKM* 69, 29, n. 38.

In his study of the dedication formula, Leahy provides only a partial translation according to his understanding: 'It is for his father Y that he has made...'<sup>40</sup> leaving unresolved the vexing question of a grammatical object. In a later paper, however, he deals with the dedication formula on a stela from Abydos which had been usurped by Neferhotep I. The second part of the formula in this inscription consists of the text of a royal decree, and he translates:

(22) *ir.n.f m mnw.f n it.f Wp-wꜣwt nb tꜣ dsr*  
*hsbt 4 wd hm.ꜣ nh wdꜣ snb hwt mkt tꜣ dsr...*

It is for his father Wepwawet, lord of the necropolis, that he has made as his monument:  
 Year four, My Majesty, l.p.h., decrees the protection of the holy land...<sup>41</sup>

This translation is not to be understood as conforming to Gardiner's translation, with the text of the royal decree functioning as the grammatical object of a transitive *iri*. Leahy explains: 'the object of *iri*, semantically, is the act of protection enshrined in the whole text of the decree which begins with *hst-sp*; grammatically, *iri* is used "absolutely" or intransitively'.<sup>42</sup> I have some difficulty following his reasoning. If *iri* is to be understood as used intransitively, the choice of an English verb which is almost invariably transitive seems inappropriate. Intransitive English phrasal verbs such as 'make off', 'make away' are to be considered lexically distinct idioms. If the verbal element in an expression such as 'she made as if to depart' is not to be similarly analysed, one might propose to find in the verb 'to make' here a synonym of 'to act' or 'to behave'. But this only throws us back upon the difficulties associated with Anthes' and Vittmann's intransitive *iri*. Furthermore, it is difficult to see how a translation 'as his monument' can be semantically coordinated with an intransitive understanding of *iri* in the present context. I do not see how Leahy's remarks can be reconciled with his translation.

*Jansen-Winkeln: a relative ir.n.f with ellipsed antecedent*

In discussing the question of anticipatory emphasis in the standard form of the formula, Leahy states that the king's name which appears before the verb is a required element of the formula, since the suffix of *ir.n.f* would not otherwise be comprehensible.<sup>43</sup> Leahy's remarks appear to be focused on the standard form of the formula in royal context, and seem less categorical than the conclusion Jansen-Winkeln draws from them, 'daß der Königsname immer und ausnahmslos voransteht'.<sup>44</sup> In any case, Jansen-Winkeln makes this the basis of a new theory. Dismissing as anomalous the examples in which the verb is not preceded by a name,<sup>45</sup> he proposes to understand *ir.n.f m mnw.f* as a relative construction with ellipsed antecedent:

(Dies ist ein Werk) des Königs NN das er gemacht hat als sein 'Denkmal' für seinen Vater GN, (nämlich) das Machen...<sup>46</sup>

<sup>40</sup> 'Multiple Adverbial Predicates', 61.

<sup>41</sup> A. Leahy, *JEA* 75 (1989), 43.

<sup>42</sup> *Ibid.* 44, n. (b).

<sup>43</sup> 'Multiple Adverbial Predicates', 59.

<sup>44</sup> *MDAIK* 46, 127-56, esp. 146 ff. For his statement, see p. 147.

<sup>45</sup> *Ibid.* 148, n. 43. See Exx. (15) and (16).

<sup>46</sup> *Ibid.* 147.

This interpretation requires too much to be supplied by the reader and, as with Erman's schema, requires the appositional suspension of the sometimes long lists of accomplishments from a non-expressed element—here the proposed relative form's putative antecedent ('ein Werk')—which is, so far as Jansen-Winkeln is able to show, never expressed in writing. I postpone detailed discussion of this interpretation until after I have proposed a theory of my own, so that translations can be offered for the variants which Jansen-Winkeln leaves untranslated.

### Summary

Gardiner's schema, essentially weakened by its resort to abnormal word order, founders on examples where the presumed postponed direct object is non-existent. Erman's fails through requiring dependence of a frequently long list of appositional objects from a purportedly ellipsed prepositional direct object which is never found written. Vittmann's explanation, resting on Anthes' suggestion of an intransitive use of *iri*, is refuted by the numerous examples of participial, relative and infinitival forms of *iri* articulated with *mnw* where the verb is clearly transitive. On the question of the transitive or intransitive function of the verb, Leahy's schema seems to fall between two stools, while his proposal to find the emphasized adjunct in *n it.f* fails in those cases where no adverbial adjunct other than *m mnw.f* is present. Jansen-Winkeln's interpretation, essentially *ad hoc*, requires the supplying of too much in the interpretation which is not found in the text, and will be found to ignore substantial inclusions between the supposed relative verb and its proposed antecedent, which latter is occasionally lacking; it will also be found inadequate before several variants below.

### Emphasized semantic direct object

I have argued against the notion of an intransitive use of *iri* coordinated with *mnw* in the context of the dedication formula. It remains, therefore, to find the direct object of *iri*. Ironically, this elusive direct object may have been difficult to detect because it is emphasized. Silverman<sup>47</sup> draws attention to the occasional use of the preposition *m* to convert a direct object into an adverbial phrase, allowing the semantic direct object to be emphasized in connection with a nominal verb. He cites James,<sup>48</sup> who had already surmised an extended use of the *m* of predication to express emphasis. Further occurrences might be presented in support of those cited by Silverman; an inscription of Hatshepsut, from her temple at Deir el Bahri:

(23) *iry. i m wrt n nb nhḥ*

It is something great I shall do for the lord of eternity.<sup>49</sup>

<sup>47</sup>D. P. Silverman, *Orientalia* 49 (1980), 199–203.

<sup>48</sup>T. G. H. James, *The Hekanakhte Papers and Other Early Middle Kingdom Documents* (New York, 1962),

104.

<sup>49</sup>*Urk.* IV, 350, 6; Gardiner, *Egyptian Grammar*<sup>3</sup>, §96.2: 'I will do (something) which is (lit. as) great'; A. Burkhardt (ed.), *Urkunden der 18. Dynastie, Übersetzung zu den Heften 5–16* (Berlin, 1984), 27: 'Ich will es als etwas großes tun für den Herrn der Ewigkeit'. The form *iry* here is to be understood as a survival of the Old Egyptian Prospective (/Nominal) *sdmw.f*. See James Allen, *The Inflection of the Verb in the Pyramid Texts* (Malibu, 1984), §219, and Table 20 for the double reed-leaf ending of the *zae infirmae*.

two parallel examples from an inscription of Thutmose III at Karnak:

(24) *ir.n <.i> m mꜣwt šꜣ.n <.i> m nḥb n ir.i hr mnw n ky*

It was something new I made; it was a stipulation I ordained; I did not interfere with the monument of another.<sup>50</sup>

Although no morphological distinction can be expected in the *sdm.n.f* forms,<sup>51</sup> it is difficult to account for the construction of the latter passage otherwise, and the emphasis seems appropriate to context.

*Morphology: the verb rdi articulated with mnw*

On the subject of morphology, a number of sources cite instances of *rdi* coordinated with *mnw* in the context of the dedication formula. One or more of these examples appear problematical in terms of the morphology expected of a nominal verb. Blumenthal<sup>52</sup> records two occurrences with *dī*, but one of these is unlikely and the other non-existent. The one is transcribed as *dīX?.n.f m mnw n it.f*.<sup>53</sup> Most of the first sign is broken away and, from the photograph,<sup>54</sup> the remnant favours *ir* rather than *dī*. The other, *dī m mnw.f n Ḥwt-Ḥr nbt mfkꜣt*,<sup>55</sup> ignores an extensive lacuna between *dī* and *m mnw.f*.<sup>56</sup> Another instance gives *nsw bity Ḥr-nfr-Rꜥ dī nḥ dī.f m mnw.f n nsw bity Nb-ḥrw-Rꜥ*,<sup>57</sup> but Helck has merely perpetuated an error made by Naville,<sup>58</sup> who copied *dī* for Legrain's<sup>59</sup> original *ir*, which, in turn, appears to be an (ancient?) error for *ir.n*.<sup>60</sup> To the best of my knowledge, this disposes of all putative attestations of *rdi* coordinated with *mnw* in the context of the dedication formula.

As shown above (Exx. (5) and (21)), where the dedication formula contains but a single adverbial adjunct, Leahy's proposal to find the emphasized complement in *n it.f* is invalidated. We are obliged, then, to find both emphasized adjunct and semantic direct object integrated in *m mnw.f*:

(25) *ir.n.f m mnw.f irt tš mḥty-imnty Nḥn rsy Swnyt*

It is his monument that he made, the making of the border: North-west, *Nḥn*; South, *Swnyt*.

An inscription from the temple of Sesostris I at Tod runs:

(26) *ir.n.f m mnw.f sḥꜥ sbꜣ m mꜣt*

<sup>50</sup> *Urk.* iv, 835, 8 ff. Cf. Björkman, *Kings at Karnak*, 85.

<sup>51</sup> H. J. Polotsky, *RdE* 11 (1957), 109.

<sup>52</sup> E. Blumenthal, *Untersuchungen zum ägyptischen Königtum des Mittleren Reiches*, 1. *Phraseologie* (Berlin, 1970); cited in Björkman, *Kings at Karnak*, 25.

<sup>53</sup> Blumenthal, *Untersuchungen*, 116, C 1.20. See F. B[isson de la] R[oque], *Tod (1934-1936)* (Cairo, 1937), 70, with fig. 23 (Inv. 1171).

<sup>54</sup> B[isson de la] R[oque], *Tod (1934-1936)*, 71, fig. 23.

<sup>55</sup> Blumenthal, *Untersuchungen*, 130, C 3.9.

<sup>56</sup> Cf. A. H. Gardiner, T. E. Peet and J. Černý, *The Inscriptions of Sinai*, 1 (London, 1952), pl. xlvi; Černý, *The Inscriptions of Sinai*, II (1955), 128.

<sup>57</sup> W. Helck, *Historisch-biographische Texte der 2. Zwischenzeit und neue Texte der 18. Dynastie* (Wiesbaden, 1983), 36, no. 44).

<sup>58</sup> E. Naville, *The Eleventh Dynasty Temple at Deir el Bahri*, 1 (London, 1907), 58.

<sup>59</sup> G. Legrain, *ASAE* 7 (1906), 34.

<sup>60</sup> Cf. Vittmann, *WZKM* 69, 28, n. 35.

and we must translate:

It is his monument that he made, the erecting of a portal of granite.<sup>61</sup>

We may then translate the standard dedication formula:

*nsw bity N*

*ir. n. f m mnw. f n it. f...*

*irt n. f...*

The king of Upper and Lower Egypt, N:

it is his monument that he made for his father... ,

the making for him...

The emphasis provided to *mnw. f* supports the appositional nexus with the following infinitive treated as a substantive. It is irrelevant whether this appositional grammatical object be an infinitive or a concrete noun.

As noted above, the formula may contain a long list syntactically sustained by the appositional nexus. It may, as Leahy notes,<sup>62</sup> even consist of the verbatim text of a royal decree. The translations required by Erman's and Jansen-Winkeln's theses would require the suspension of these frequently long appositional lists from a non-expressed grammatical element in the first part of the formula, while Vittmann's theory would deny a direct syntactical nexus altogether.

#### *The subject in frontal extraposition*

In the standard form of the formula, two means are employed in the Egyptian in order to achieve emphasis. Firstly, the name of the king is put in frontal extraposition and resumed by the pronominal suffixes in *ir. n. f m mnw. f n it. f*. Secondly, the use of the nominal verb provides emphasis to *mnw. f* as the emphasized semantic direct object and, through apposition, any short or longer list which follows. By these means, both subject and object of the formula are provided with emphasis, albeit of different quality in each case. Leahy<sup>63</sup> remarks, in respect of the king's name in frontal extraposition, that 'its principal function is to identify the context, both chronological and religious, in which the act subsequently narrated takes place'. Although I would prefer another word than 'narrated' in this context, I otherwise agree with this statement, and for the further reason that it seems to accord well with those examples which have the name in rear extraposition.<sup>64</sup> The latter are non-royal inscriptions, and the function served by the king's name in frontal extraposition in royal inscriptions might appear inappropriate in non-royal context. In spite of Leahy's reservations,<sup>65</sup> it does not seem to me that anticipatory emphasis is incompatible with interpreting the following verb as a nominal form. This may, however, merely reflect a difference in understanding as to what constitutes 'anticipatory emphasis'. At any rate, it does not seem necessary to exclude the function described above by Leahy.

<sup>61</sup> B[isson de la] R[oque], *Tod (1934-1936)*, 109, fig. 62 (Inv. 1127).

<sup>62</sup> 'Multiple Adverbial Predicates', 60, n. 25.

<sup>63</sup> *Ibid.* 59.

<sup>64</sup> E.g. Exx. (15) and (16).

<sup>65</sup> 'Multiple Adverbial Predicates', 59.

As Vittmann observes of the statue inscription of Sobekhotep IV cited above (Ex. (20)), the second part of the formula can begin with the preposition *m*:

- (27) *ir. < n. > f m mnw.f n nsw bity Nb-hpt-R<sup>c</sup> m<sup>s</sup> hrw*  
*m sm:(wy) irt.n nsw bity H<sup>c</sup>-k<sup>s</sup>w-R<sup>c</sup> m<sup>s</sup> hrw nsw bity H<sup>c</sup>-hpr-R<sup>c</sup> m<sup>s</sup> hrw itwy.fy<sup>66</sup>*

In this example, he treats *m sm:(wy)* as the emphasized adjunct of a nominal *ir.n.f*. However, *m sm:(wy)* could be construed as a second emphasized semantic direct object parallel to *m mnw.f*, functioning analogously to the appositional bare infinitive of the second part of the formula. As support for this, examples can be cited in which *m sm:(wy)* functions in the first part of the formula as an emphasized semantic direct object. One such example appears in an inscription of Ramesses III on the small temple at Medinet Habu:

- (28) *ir.n.f m sm:(wy) mnw n it.f 'Imn-R<sup>c</sup>*  
 It is the renovation of monuments he carried out for his father Amun-Re.<sup>67</sup>

An inscription by Sety I on a lintel of Amenhotep II from Bubastis reads:

- (29) *nsw bity nb t<sup>s</sup>wy Mn-M<sup>s</sup>t-R<sup>c</sup> ir.n.f m sm:(wy) mnw n...* (sic)  
 King ... Menmaatre: it is the renovation of monuments that he carried out for...<sup>68</sup>

This information is more commonly conveyed by a one-membral nominal sentence with qualifying relative clause, such as the following from the Eighteenth Dynasty temple at Tod:

- (30) *sm:(wy) mnw ir.n s<sup>s</sup> R<sup>c</sup> Sty-Mr-n-Pth*  
 (It is) the renovation of monuments which the Son of Re, Sety Merenptah, carried out.<sup>69</sup>

Another example in which the infinitive of the second part of the formula is preceded by *m* may be cited from the inscriptions of Herihor in the Khonsu Temple at Karnak:

- (31) *ir.n.f m [mnw.f n it.f 'Imn R<sup>c</sup>///]*  
*m ir(t) n.f rwt<sup>y</sup> w[r] m [///]*  
 It is [his monument] that he made [for his father Amun-Re/////],  
 (it is) the making for him a pair of gre[at] gates in [///].<sup>70</sup>

Alternatively, one could interpret this as an example of the *m* of equivalence, and translate:

It is his monument that he made for his father Amun-Re,  
 namely the making for him a pair of gre[at] gates in...

This may, in fact, be the preferred translation, especially if, as Leahy suggests, the preposition *hft*, 'corresponding to', can occur in place of *m* in this position.<sup>71</sup> I am disinclined to translate *m* + infinitive in the second part of the formula by a verbal phrase such as 'by making for him...' on the grounds that this position is normally occupied by a simple substantive, either a bare infinitive or concrete noun. Additional justification for this point of view will be found in Ex. (40).

<sup>66</sup> Vittmann, *WZKM* 69, 28. Also cited below, Ex. (51).

<sup>67</sup> *KRI* v, 294, 5-8.

<sup>68</sup> *KRI* I, 227, 14.

<sup>69</sup> *KRI* I, 229, 12.

<sup>70</sup> *KRI* vi, 719, 5.

<sup>71</sup> 'Multiple Adverbial Predicates', 58. I have not been able to confirm this.



As mentioned above (Ex. (22)), Leahy observes that the second part of the formula may be occupied by a lengthy royal decree.<sup>72</sup> He cites a stela from Abydos usurped by Neferhotep I:

(32) *ir.n.f m mnw.f n it.f Wp-wꜣwt nb tꜣ dsr*  
*hsbt 4 wd hm.ì nh wdꜣ snb hwt mkt tꜣ dsr rsy sbꜣw n it.f Wp-wꜣwt nb tꜣ dsr mi ir.n Hr n it.f Wsir*  
*Wn-nfr...*

*ir.f n.f di nh dd wꜣs snb*  
*w ib.f hnc kꜣ.f hr st Hr mi Rꜣ dt*

It is his monument that he made for his father Wepwawet, lord of the sacred land:

Year 4: Just as Horus has done for his father Osiris Onnophris, My Majesty l.p.h. decrees setting apart and protecting the sacred land south of Abydos for his father Wepwawet, lord of the sacred land...

that he might effect for him 'given life, stability, dominion and health',

so that his heart and his *ka* might be joyous upon the throne of Horus like Re forever.<sup>73</sup>

A model of a temple from Heliopolis inscribed by Sety I bears an inscription which excludes the phrase *m mnw/mnw.f*:

(33) *ntr nfr ir mnw n it.f Rꜣ Hr-šty ir.n.f m hwt-ntr m inr nfr n bꜣst...*

The good god who made monuments for his father Re-Harakhty: it is the temple that he made of fine quartzite...<sup>74</sup>

This construction may be a 'collapsed' version of the dedication formula.<sup>75</sup> Although Kitchen regards *ir.n.f* in this example as irregular, it is grammatically consistent with the interpretation proposed here. The inscription occurs on a small model of a temple—an unusual context which perhaps accounts for the rarity of this particular equivalent of the formula. It appears that the manufacture of the model may have been considered too insignificant to warrant the status of *mnw*, this being reserved for the major building hinted at in the epithet *ir mnw*, and of which this may be the exemplar. Once again, the phrase *n it.f* is omitted.

*The construction ir.n.f mnw.f*

Cases occur in which *mnw/mnw.f* lacks the preposition *m*. In the temple of Medinet Habu where, it seems, the vast preponderance of these appear, *ir.n.f mnw n it.f* occurs six times on the southern flagpole inscriptions, parallel to *ir.n.f m mnw n it.f* on the northern, again six times.<sup>76</sup> Because of this arrangement, and the fairly numerous instances of *ir.n.f mnw n it.f* at Medinet Habu, I was initially inclined to consider these as intended to emphasize *n it.f*, parallel to those emphasizing *m mnw*, if they were not to be explained as mere errors or misunderstandings. But errors are not uncommon in the inscriptions of the dedication formula at Medinet Habu, and the latter conclusion may be inescapable, at least for that temple. A cursory search of *KRI* IV–VI (excluding Medinet Habu) yields but one example of this form (from the hypostyle hall of the Khonsu Temple at Karnak), and

<sup>72</sup> Ibid. 60, n. 25.

<sup>73</sup> D. Randall-MacIver and A. C. Mace, *El Amrah and Abydos: 1899–1901* (London, 1902), pl. xxix. See now A. Leahy, *JEA* 75 (1989), 41–60 and pls. vi–vii. The translation is mine; for Leahy's translation, in part, see Ex. (22).

<sup>74</sup> *KRI* I, 123, 4.

<sup>75</sup> Cf. Ex. (40) below.

<sup>76</sup> *Medinet Habu*, II (Chicago, 1932), pls. 103–4.

that also contains an erroneous *ir.n n.f* for *irt n.f*.<sup>77</sup> The inscriptions on the temple of Sety I at Abydos yield 174 examples of *ir.n.f m mnw.f* against a mere three of *ir.n.f mnw.f*. Of the latter, two (KRI I, 141, 1-5) occur in symmetrical proximity, while the third (KRI VI, 143, 2) contains an erroneous *ir.n.f* for *ir.n n.f*. Errors of this kind are much more common at Medinet Habu, and the higher incidence of *ir.n.f mnw/mnw.f* there may reflect greater carelessness and/or inferior understanding of the traditional grammatical form. Nims commented on the carelessness with which certain inscriptions at Medinet Habu were copied from the Ramesseum.<sup>78</sup> He further pointed out a radical difference in the understanding of the formula *ir.f di nh* in the two places.<sup>79</sup> Edgerton and Wilson were of the opinion that the preposition *m* had dropped out of the flagpole inscriptions mentioned above 'before the initial *m* of the following word'.<sup>80</sup>

There is, of course, no reason why the formula could not be modified to emphasize an element other than *m mnw.f*. If the instances of *ir.n.f mnw/mnw.f* at Medinet Habu were not merely careless omissions, they may have been influenced by a construction found there in which *mnw/mnw.f* is not emphasized:

- (34) *ir.n.f mnw m shw tnrw m ib mrw n it.f 'Imn-Rc-'Iwny hq; Wst irt n.f hwt nt hhw n rnpwt...*  
It was with excellent benefactions and with loving heart that he made a monument for his father Amun-Re-Uny, Ruler of Thebes: the making for him a temple of myriads of years...<sup>81</sup>
- (35) *ir.n.f mnw m shw tnr m ib mrw n it.f 'Imn-Rc smn sw hr ty.f nst  
qb hb hr wn m-b:h r shtp wtt sw  
ir.n n.f s; Rc Rc-ms-sw-hq;-'Iwnw*  
It was with excellent benefactions and with loving heart that he made an endowment for his father Amun-Re who set him upon his throne:  
the redoubling of the festival over what was before in order to gratify the one who begot him,  
which (redoubling) the Son of Re Ramessu-Hekaunu effected for him.<sup>82</sup>

### *Intransitive iri*

As demonstrated above, an intransitive use of *iri* coordinated with *mnw* is precluded by various grammatical constructions in dedicatory contexts where the verb is certainly used transitively.<sup>83</sup> Nonetheless, since the Egyptian verb can function both transitively and intransitively, occasional intransitive usage is to be expected in the large corpus of dedication inscriptions. An example occurs on a statue (Berlin 7702) dedicated by Sesostris II to his Third Dynasty predecessor, Djoser:

- (36) *in nsz bity Hc-hpr-Rc s; Rc S-n-Wsrt ir n it.f nsz bity Dsr*  
It was the king ... Khakheperre, Son of Re, Senwosret, who acted on behalf of his father, the king ... Djoser.<sup>84</sup>

<sup>77</sup> KRI VI, 705, 8-9.

<sup>78</sup> Charles F. Nims, in *Studies in Honor of George R. Hughes* (Chicago, 1977), 170.

<sup>79</sup> Ibid. 173. For discussion of *ir.f di nh*, see now Emily Teeter, *The Presentation of Maat*, Ph.D. dissertation, University of Chicago, 1990.

<sup>80</sup> W. F. Edgerton and John A. Wilson, *Historical Records of Ramses III. The Texts in Medinet Habu Volumes I and II* (Chicago, 1936), 116, n. 1a.

<sup>81</sup> KRI V, 306, 15.

<sup>82</sup> KRI V, 311, 3-4. This relative construction appears designed to allow the formula to begin and end with prenominal and nomen, and frequently supplants *ir.f (n.f) di nh* during the Ramesside period.

<sup>83</sup> See Exx. (10)-(14).

<sup>84</sup> *Ägyptische Inschriften* 1, 144 (statue Berlin 7702). Cf. D. Wildung, *Die Rolle ägyptischer Könige in Bewußtsein ihrer Nachwelt*, 1 (Berlin, 1969), 59.

This may be compared to a parallel from a non-royal context where *iri* is used transitively:

- (37) *in sꜣ > t < /// sꜣꜣwty bity imy /// ir nn n mwt.f ///*  
It was ... N ... who made these for his mother ///.<sup>85</sup>

In light of Ex. (36), an argument might be made for an emphasized *n it.f* on a stela of Ramesses II from Tell el-Hagar:

- (38) *ir.n.f n it.f 'Imn-Rꜥ nb Smꜣ-n-Bhdt*  
*dꜣ.f qnt r rsy nhꜣtt r mhꜣtt mi Rꜥ dt*<sup>86</sup>

It is, however, possible that the primary emphasis falls on the circumstantial clause, in which case the emphasis might be better rendered by transposition than by the English cleft sentence:

Rendering valour in the South and victory in the North like Re forever, he acted on behalf of his father Amun-Re, lord of Sma-Behdet.

However, a slightly later parallel in an inscription of Sety II from the west sphinx avenue at Karnak gives rise to the question of whether *m mnw/mnw.f* has not simply been omitted from the above example:

- (39) *ir.n.f m mnw n it.f 'Imn-Rꜥ ... mi rdꜣ.n.f qnt r rsy nhꜣtt r mhꜣtt*  
It is the monument that he made for his father Amun-Re ... as he had rendered valour in the South and victory in the North.<sup>87</sup>

This inscription demonstrates that the second part of the formula can consist of an adverbial clause. Where this begins with a preposition + infinitive, the only preposition I have been able to confirm in this position is *m*, and since this position is normally occupied by a simple infinitive or concrete noun, it seems best to consider this the so-called 'm of equivalence'. The smaller temple of Ramesses II at Abu Simbel yields an example of the 'm of equivalence' coordinated with a concrete noun in this position:

- (40) *ir.n.f m mnw.f n hmt nsꜣ wꜣt Nfr(t)-ir[y-mr(t)-n-]Mꜣwt m hꜣwt m šd m dꜣw wꜣb n tꜣ Sty m inꜣr hꜣ*  
*nfr n rꜣwd m kꜣt nhꜣ*  
It is his monument that he made for the Great King's Wife Nefertari, beloved of Mut, namely, a temple, something excavated from the pure mountain of Nubia, of fine white sandstone, as an everlasting work.<sup>88</sup>

While the question of transitive verbs construed with prepositions is part of a larger problem,<sup>89</sup> it is questionable whether *iri m* can have the semantic value 'to act in' proposed by Anthes and Vittmann. The *Wörterbuch* gives only equivalents of 'to make ... into' (I, 108, 8; 109, 16; 110, 11), 'to apply as (medication)' (I, 110, 8) or 'to amount to' (I, 111, 18) as a variant of *iri n* which occurs so frequently in account documents. R. Faulkner gives one instance of 'to act in accordance with'.<sup>90</sup> Although it occurs in a problematical passage (*Shipwrecked Sailor*, 20), this is a morphologically clear example

<sup>85</sup> *Ägyptische Inschriften* I, 119 (stela Berlin 9055).

<sup>86</sup> *KRI* II, 301, 10–11. See N. Farag, *ASAE* 39 (1939), 127 ff. and pl. xii.

<sup>87</sup> *KRI* IV, 251, 6–7.

<sup>88</sup> *KRI* II, 769, 2–4.

<sup>89</sup> Battiscombe Gunn, *JEA* 27 (1941), 147 f.; Silverman, *Orientalia* 49, 199, n. 1.

<sup>90</sup> *A Concise Dictionary of Middle Egyptian* (Oxford, 1962), 27, 9.

of a nominal/‘emphatic’ form (*irr*), so that here, too, a case might be argued for an emphasized semantic direct object.

*The position of emphasis*

Vittmann, in connection with the single case in which he treats *ir.n.f* as nominal,<sup>91</sup> refers to ‘der auch sonst zu beobachtenden Tatsache, daß in einer Reihe adverbialer Bestimmungen die letzte als betont zu verstehen ist’. In support he cites Junge<sup>92</sup> and Rainey.<sup>93</sup> This statement conflicts with the schema proposed here for the dedication formula since the latter requires the emphasis on the first adjunct. If one were to accept Vittmann’s statement, one might argue that it could well be necessary, in the case of an emphasized semantic direct object, to contravene any such rule in order to avoid violating the accepted word order of Egyptian. It can at least be said that, in the standard form of the formula, *m mnw/mnw.f* always occupies the position that would normally be occupied by a direct object. To the best of my knowledge, it is never separated from *ir.n.f*.

Vittmann’s statement is unproven. Polotsky stated that ‘the emphasized adverbial adjunct as a rule (with the exception of *n*- with suffixes) occupies rear position’.<sup>94</sup> It is unfortunate that he used the phrase ‘as a rule’, the idiomatic sense of which bears a strong concession to exception against its strict meaning. Leahy correctly characterizes ‘Polotsky’s statement that the emphasised part of the predicate *generally* occupies rear position unless it consists of *n* + suffix’ (my italics).<sup>95</sup> He observes that what has been demonstrated in individual cases has been ‘elevated to the status of a “rule” by Vittmann on the basis of a paper on “Mehrfache adverbiale Bestimmungen” by Junge’ in which the latter does not explicitly draw that conclusion.<sup>96</sup> Leahy also points out that Černý and Groll are of the opinion that the position of emphasis depends not on position, but on ‘analysis of inner logic’.<sup>97</sup> That Polotsky did not propose an inflexible rule seems evident from his statement that the emphasized adjunct can be expanded ‘to a very considerable extent’.<sup>98</sup> In examples which he translated, he placed the emphasis at either of two positions in the sentence: at the first adjunct through the last, or at the last alone.<sup>99</sup> The thesis proposed here, then, does not appear to be in conflict with Polotsky’s ideas as to position of emphasis. Where *ir.n.f m mnw.f* stands alone there can be no doubt about the intended emphasis. But, as Polotsky observed, the range of adverbial adjuncts can be extended:

<sup>91</sup> *WZKM* 69, 28–9. See Ex. (20).

<sup>92</sup> F. Junge, *ZDMG*, Suppl. 2 (1974), 33–41.

<sup>93</sup> A. F. Rainey, *Tel Aviv* 3 (1976), 38–41, cited in Vittmann, *WZKM* 69, 29, n. 37. He refers to Rainey’s translation of stela Kawa IV, 12 ff, which does not, however, advance his argument. The adverbial adjunct emphasized by Rainey is the last by virtue only of being the sole adverbial adjunct in the sentence. A more relevant passage might have been stela Kawa IV, 8 ff., where the last of a number of adjuncts is emphasized. However, Rainey cites no general principle regarding position of emphasis here, but justifies his decision from the context of the passage, so that Vittmann’s argument is not supported by his citation of Rainey.

<sup>94</sup> Polotsky, ‘Egyptian Tenses’, §18.

<sup>95</sup> Leahy, ‘Multiple Adverbial Predicates’, 59, n. 18.

<sup>96</sup> *Ibid.* 59–60.

<sup>97</sup> *Ibid.* 60, n. 23.

<sup>98</sup> Polotsky, ‘Egyptian Tenses’, §18.

<sup>99</sup> Polotsky, *RdE* 11, 111 ff.

- (41) *ir. n. f m mnw. f*<sup>100</sup>  
 (42) *ir. n. f m mnw. f m pr mwt. f Hwt-Hr*<sup>101</sup>  
 (43) *ir. n. f m mnw. f n it. f 'Imn nb nswt trwy hr imy-wrt Wst*<sup>102</sup>  
 (44) *ir. n. f m mnw. f n it. f 'Imn-Rc nb nswt trwy hr ib hwt-ntr ih (Sty-mr-n-Pth) m pr 'Imn hr imntt Wst*<sup>103</sup>

The final adjuncts in Exx. (42)–(44) do not contain what can be considered salient information. From a strictly grammatical point of view, all adjuncts may be considered as emphasized, although not necessarily equally, the relative degree of emphasis being determined from context. In the spoken language, the Egyptian construction would have allowed for stress upon one or other part of the extended range of adjuncts. In the written language, on the other hand, while the impending emphasis is signalled at the beginning of the sense unit by the verb's initial position, the reader would have been unable to determine where the emphasis lay until he reached the end of the sense unit and could decide from the context. In any case, context is the determining factor. In Exx. (43) and (44) the phrase 'on the west of Thebes' supplies incidental information which is only very occasionally appended to the first part of the dedication formula and which might be considered unnecessarily obvious to a reader standing in the temple at Qurneh.

Leahy, in support of *n it. f* as the emphasized adjunct, refers to 'the irreducible core of the formula, *ir. n. f m mnw. f n it. f Y*', and indicates that 'it seems ... that internal logic and the view that the emphasised part of the predicate stands last coincide here'.<sup>104</sup> But on this latter point, he otherwise notes that 'it has certainly not yet been established that a completely consistent practice existed for any phase of the language'<sup>105</sup> and that 'it is by no means immediately apparent where the stress falls in an Egyptian sentence'.<sup>106</sup> Thus, his argument rests entirely on the 'internal logic' of the sentence. Implicit in his argument is the notion that an emphasized element should contain new information,<sup>107</sup> and that only *n it. f* contains information which distinguishes the statement from other similar statements, namely, the identity of the particular god to whom the monument is dedicated. We have seen in Exx. (25) and (26) that, *pace* Leahy, *ir. n. f m mnw. f n it. f Y* is reducible to *ir. n. f m mnw. f*. But even where *n it. f Y* is present, it is doubtful whether the notion that it contains new information can be sustained in the contexts in which these inscriptions occur. Dedications on any particular temple may repeatedly name the same god as recipient of the dedication (for instance, Amun-Re at Medinet Habu). It is difficult to see this as new information. What distinguishes such dedications are the different elements occurring in the appositional second part of the formula, the providing of which by the king is commemorated in each inscription. Where the formula occurs upon or beside an architectural feature, this can be merely implicit in *mnw. f*. Any new information, then, is implicit in *mnw. f* and may or may not be explicitly described in a following phrase syntactically connected to it by apposition.

<sup>100</sup> Exx. (5) = (21) = (25) and (26) above.

<sup>101</sup> *KRI* II, 704, 9 (*hntw*-chapel of Ramesses II, Deir el-Medinah).

<sup>102</sup> *KRI* I, 220, 9 (temple of Sety I at Qurneh).

<sup>103</sup> *KRI* I, 215, 2 (temple of Sety I at Qurneh).

<sup>104</sup> Leahy, 'Multiple Adverbial Predicates', 61.

<sup>105</sup> *Ibid.* 60.

<sup>106</sup> *Ibid.* 61.

<sup>107</sup> *Ibid.* 63, n. 1.

The emphasis on king and monument provided by the formula appears to be intended to reinforce the image of the king as founder and restorer, as maker of monuments and commemorations. This concern accounts for the great frequency of the royal epithets *ir mnw*, 'maker of monuments',<sup>108</sup> *wr mnw*, 'great of monuments',<sup>109</sup> and the less common *smꜣw mnw*, 'restorer of monuments',<sup>110</sup> in these inscriptions. The epithet *wr mnw* appears with the names of Amenhotep III<sup>111</sup> on his stela already cited (Exx. (2), (3), (52)), and the epithet is elaborated by the insertion of background information after the king's names and epithets and before the dedication formula for the purpose of recording the king's determination to excel in the making of monuments:

(King's names and epithets): His Majesty's mind being settled on making very great monuments the like of which shall never have come to exist since the primal time of the Two Lands,  
it is his monument that he made for his father Amun, lord of the thrones of the Two Lands, the making for him of an august temple on the west of Thebes, etc. ...<sup>112</sup>

The inscription continues with a long list of details concerning the construction and provision of this and other temples. Such long lists elaborating on what has been dedicated are far more common and extensive than any concerning the recipient of the dedication. This suggests that the primary focus is on the relationship between the monument and its maker.

The Flaminian Obelisk of Ramesses II from Heliopolis similarly expounds the king's achievements as builder of monuments:

- (45) *Hr Kꜣ-nḥt-mry-Mꜣrt nsw bity Wsr-Mꜣrt-Rꜥ-Stp-n-Rꜥ sꜣ Rꜥ Rꜥ-ms-sw-mry-'Imn ir mnw.f mi sbꜣw nꜣw pt snsn irꜣwt.f hrt psd Rꜥ hꜣw hr.sn m pr.f n ḥḥw m rnꜣpt in ḥm.f snfr mnw pn n it.f n mrꜣwt dit mn rn.f m pr Rꜥ ir.n (n).f sꜣ Rꜥ Rꜥ-ms-sw-mry-'Imn mr(y) 'Itm(w) nb 'Iwnꜣw dꜣ ḥḥ dt*

The Horus Kanakht Merymaat, King of Upper and Lower Egypt Usermaatre Setepenre, Son of Re Ramessu Meryamun who made his monuments like the stars of heaven, whose deeds mingle with the sky when Re—who rejoiced over them in his House of Myriads of Years—is shining:

it was His Majesty who embellished this monument for his father in order that his name might be made to endure in the House of Re, which (monument) the Son of Re Ramessu Meryamun, beloved of Atum the lord of Heliopolis, given life, made for him.<sup>113</sup>

In Ex. (6) cited above, *m mnw.f* can be seen to have a non-emphatic function in a relative clause:

- (46) *ḥꜣwt-kꜣ irt.n.f m mnw.f n twt.f X<sup>114</sup>*

In this case, *m mnw.f* may be understood as a formal atavism from the regular 'emphatic' form of the dedication formula, here serving a different grammatical function. Vittmann translates: 'Ka-Haus, das er (Mentuhotep I.) seiner Statue als sein Denkmal gemacht

<sup>108</sup> E.g. *KRI* I, 59, 15; 70, 8; 71, 11; 123, 4 (= Ex. (33)); 137, 9; II, 563, 3; 572, 10; 601, 4; 648, 7, 8; 749, 9; 751, 2; IV, 58, 16 (*irr mnw*); 253, 7; 254, 10; 255, 12; 258, 7; V, 275, 1; VI, 327, 9; 450, 4, 9.

<sup>109</sup> E.g. *KRI* II, 563, 5; 565, 11; 583, 7; 599, 16; 600, 5; 646, 4; 716, 2; 748, 3; VI, 450, 3.

<sup>110</sup> *KRI* II, 511, 10-11 (inscription of Ramesses II on door thicknesses of Sety I's temple at Abydos).

<sup>111</sup> *Urk.* IV, 1647, 3.

<sup>112</sup> *Urk.* IV, 1647, 13-1648, 7. See Ex. (52) below.

<sup>113</sup> *KRI* II, 476, 14-16.

<sup>114</sup> *MDAIK* 19, 20, fig. 5.

hat'.<sup>115</sup> The inversion in the German is perhaps intended to avoid the prepositional attribute that might be suggested by the translation 'The *Ka*-chapel which he made as his monument for his statue X'. But both context and Vittmann's reservation can be satisfied by translating: 'The *Ka*-chapel which he made in his monument(s) for his statue X'.

While, in principle, any objection to a prepositional attribute in this syntactical position remains arguable,<sup>116</sup> it may well be the case that it is inadmissible here. Consider the following inscription of Ramesses II in the temple of his father, Sety I, at Qurneh:

(47) (s)mꜣꜣw(y) mnw ir. n nsꜣ bity Wsr-Mꜣꜣt-Rꜣ-stp-n-Rꜣ n it. f nꜣꜣ nꜣꜣ Mn-ꜣꜣty-Rꜣ m mnw n it. f nb  
trwy Mn-Mꜣꜣt-Rꜣ

The renovating of monuments which the king ... (Ramesses II) carried out for the father of his father, the good god (Ramesses I) in the monument of his father, the Lord of the Two Lands (Sety I).<sup>117</sup>

While this translation involves a grammatical interpretation which differs from that of the similar *m mnw n it. f* of the first part of the formula *ir. n. f m mnw/mnw. f n it. f*, the alternative would require:

The renovating of monuments which ... (Ramesses II) carried out for the father of his father ... (Ramesses I) as (or 'being') the monument for his father ... (Sety I).

This engenders a contextual problem, would allow the prepositional attribute and, by corollary, might suggest a possible translation of the first part of the formula as:

It is his monument for his father that he made.

This can be shown to be inadmissible in an unusual example on a stela of Ahmose I, where the appositional object appears to be inserted parenthetically between *m mnw. f* and *n it. f*:

(48) [ir. n.] f m mnw. f dꜣꜣꜣ m mꜣꜣwt n it. f Mnt[w]  
It is his monument that he [made]—a dꜣꜣꜣ, anew—for his father Mont[u].<sup>118</sup>

A phrase such as *m mnw. f*, therefore, while retaining formal similarity to the similar phrase in the emphatic form of the formula, can function quite dissimilarly in a different syntactical environment. It is important to stress that the tendency to translate all occurrences of *m mnw. f* indifferently by 'as his monument' is unwarranted, having arisen only from translations of the first part of the dedication formula which are here in dispute. While there may be nothing to prevent the occasional validity of such a translation outside of the normal emphatic form of the formula, I can point to no examples. If they exist, they are rare.

The relative construction *ꜣwt-kꜣ ir. n. f m mnw. f n twt. f X* cited above (Exx. (6), (46)) is designed to emphasize *ꜣwt-kꜣ*, that is, the building which is the subject of the inscription. In this sense, its purpose is similar to *ir. n. f m mnw. f* in that the object of the dedication, as the qualified predicate of a one-membral nominal sentence, is emphasized.<sup>119</sup> Further-

<sup>115</sup> WZKM 69, 30.

<sup>116</sup> W. Schenkel, JEA 50 (1964), 9-10.

<sup>117</sup> KRI II, 640, 8.

<sup>118</sup> A. E. Winlock, Ancient Egypt (1921), 15; P. Spencer, The Egyptian Temple (London, 1984), 131.

<sup>119</sup> Habachi (MDAIK 19, 21) translates: '(it is) a *ka*-chapel which he made as his monument for his statue...'

more, as the following inscription of an official from the reign of Amenhotep I demonstrates, the recipient of emphasis in this use of the relative can be *mnw*:

- (49) *mnw ir. n sn.f sš Hri-m-ḥt wḥm ḥnh*  
 (It is) the monument which his brother, the scribe Horiemakhet who repeats life, made.<sup>120</sup>

These constructions support the point of view argued in this paper that the object of the dedication is emphasized. The emphasis in this case results from the frontal position of the predicate and the reduction of the force of the verb to the relative as a qualifier.

#### *Problems associated with Jansen-Winkeln's interpretation*

As discussed above, Jansen-Winkeln<sup>121</sup> proposes to understand *ir.n.f m mnw.f* as a relative construction with ellipsed antecedent:

(Dies ist ein Werk) des Königs NN das er gemacht hat als sein 'Denkmal' für seinen Vater GN, (nämlich) das Machen...

Fundamental to Jansen-Winkeln's interpretation is his statement that the king's name always precedes *ir.n.f*.<sup>122</sup> Regardless of whether this is true in a royal context, the formula occurs in non-royal inscriptions where in several cases *ir.n.f* is initial. Examples have been cited (Exx. (15), (16)) in which any possible antecedent of such a relative form is wanting.<sup>123</sup> Jansen-Winkeln explains the omission of the name in frontal extraposition in these cases as exceptionally arising from the need to avoid the implication that '(dies ist das Grab) des NN [= des Restaurators]'.<sup>124</sup> However, instances of the construction *ir.n.f m smꜣwy mnw* cited above (Exx. (28), (29)) which explicitly record not the construction of a building but its renovation, have not suffered the same alleged transformation. See, for example, the restoration inscription of Sety I on a lintel of Amenhotep II from Bubastis (Ex. (29)):

- (50) *nsw bity nb tꜣwy Mn-Mꜣt-Rꜥ ir.n.f m smꜣwy mnw n ...* (sic)  
 King ... Menmaat: it is the renovation of monuments that he carried out for ...

The inscription of Sobekhotep IV on an anciently restored statue from Karnak is even more explicit:

- (51) *nsw bity Ḥꜥ-nfr-Rꜥ di ḥnh*  
*ir < . n > . f m mnw.f n nsw bity Nb-ḥpt-Rꜥ mꜣꜥ ḥrw*  
*m smꜣ(wy) irt. n nsw bity Ḥꜥ-kꜣw-Rꜥ mꜣꜥ ḥrw nsw bity Ḥꜥ-ḥpr-Rꜥ mꜣꜥ ḥrw itwy.fy*  
 King Khaneferre, given life: it is his monument that he made for King Nebhepetre, deceased, namely the restoration of what his ancestors King Khakaure, deceased, and King Khakheperre, deceased, had made.<sup>125</sup>

<sup>120</sup> *Urk.* IV, 51, 11; cited above as Ex. (10).

<sup>121</sup> *MDAIK* 46 (1990), 127–56, esp. 146 ff.

<sup>122</sup> *Ibid.* 147.

<sup>123</sup> Davies, *Sheikh Saïd*, 38, nn. 2–3, and pl. xxix E, to which add the similar examples cited by F. L. Griffith and P. E. Newberry, *El Bersheh*, II (London, [n.d.]), 10, n. 4; *LD* II, 112–13. Cf. also Ex. (53), below. Žabkar's proposal (Louis V. Žabkar, *Hymns to Isis in her Temple at Philae* (Hanover and London, 1988), 174, n. 24) to find a 'Noun + *sḏm.n.f* form' is invalidated by these same examples.

<sup>124</sup> *MDAIK* 46, 148.

<sup>125</sup> Legrain, *ASAE* 7, 33f.; Björkman, *Kings at Karnak*, 45; Vittmann, *WZKM* 69, 28. Cited above, Exx. (20) and (27).



Jansen-Winkeln sees no obstacle to his interpretation in the presence of an *ist* clause after the king's names and epithets and before the formula, although it is unclear how he would translate.<sup>126</sup> The function of such a clause in this position is to provide background information. Following Amenhotep III's names and lengthy epithets on the stela from his funerary temple at Thebes, there follows:

(52) (King's names and epithets): *ist htp ib n hm.f hr irt mnw rrw wrt nn sp hpr mitt dr pꜣ(t) tꜣwy*  
*ir.n.f m mnw.f n it.f 'Imn nb nswt tꜣwy*  
*irt n.f hꜣwt-nꜣr špst hr imy-wrt n Wꜣst...*

(King's names and epithets): His Majesty's mind being settled on making very great monuments the like of which shall never have come to exist since the primal time of the Two Lands, it is his monument that he made for his father Amun, lord of the thrones of the Two Lands, the making for him of an august temple on the west of Thebes, etc. ... (there follows a long list of accomplishments).<sup>127</sup>

The presence of an *ist* clause between the supposed relative and its antecedent is, in my opinion, compelling evidence that *ir.n.f* cannot be a relative form.

Jansen-Winkeln cites an offering-table (Cairo CG 23019) bearing an inscription which he dismisses as a speech or utterance influenced by the dedication formula; he does not translate. This inscription constitutes another serious impediment to his theory. It reads:

(53) *htp di nsw... n imꜣhw imy-rꜣ šnꜣ 'Imn-m-hꜣt mꜣr hrw*  
*ꜣꜣ(.i) ir.n(.i) m mnw.i r rꜣw n Wꜣp-wꜣwt nb tꜣ ꜣsr...*<sup>128</sup>

Here the dedication formula is introduced by *ꜣꜣ(.i)*. More convincing proof that *ir.n(.i)* is an initial *ꜣꜣm.n.f* form, and therefore nominal, would be difficult to find. Furthermore, the proposed relative form is distinctly denied an antecedent, and even were the names not part of the *htp di nsw* formula in the dative, and not separated from *ir.n(.i)* by *ꜣꜣ(.i)*, it would still be impossible to translate with Jansen-Winkeln here and maintain the first person of the inscription. We may translate instead:

A boon which the king gives ... to the blessed one, the overseer of the storehouse Amenemhat, justified. (I) say, 'It is my monument that (I) have made at the terrace of Wepwawet, lord of the Sacred Land...'

Dedication inscriptions are found which similarly follow the pattern Name + *ir.n.f* but which contain an obvious direct object. Since these cannot be translated as relative clauses, Jansen-Winkeln must interpret *ad hoc* in order to accommodate them. He interprets the verbal forms in these examples as adverbial, and translates: '(Dies ist ein Werk) des Königs/HPA NN, indem er gemacht hat das XY...'<sup>129</sup> Consistently with the understanding of the verb in the formula *ir.n.f m mnw.f*, these verbs are to be interpreted as nominal forms. The emphasis in such statements commonly falls on an adverbial phrase stressing the fact that the material of which the monument had been constructed was either previously unused or valuable, or that the undertaking was new and original, rather than a usurpation of another's accomplishment. At other times, the emphasis falls on a circumstantial or adverbial clause stressing the fact that, prior to restoration, a

<sup>126</sup> MDAIK 46, 149.

<sup>127</sup> Urk. IV, 1647, 13-1648, 7. Cited above in part in Exx. (2) and (3). For *mitt* with the semantic value of a resumptive, see Gardiner, JEA 34 (1948), 26, n. 3.

<sup>128</sup> Ahmed Bey Kamal, Tables d'offrandes, CG (Cairo, 1906-9) I, 17; II, pl. 10 (Cairo CG 23019).

<sup>129</sup> MDAIK 46, 150.

building had been found in dilapidated condition or constructed of inferior materials. All these are pertinent considerations in dedication inscriptions, the purpose in each case being to enhance the achievement recorded. The several examples cited by Jansen-Winkel<sup>130</sup> all fall into one or other of these categories. Occasionally, it was found desirable to stress some unusual feature of the monument, as in the following example from the façade of the smaller temple of Rameses II at Abu Simbel:

- (54) *nsw bity Wsr-Mꜣꜥt-Rꜥ-stp-n-Rꜥ*  
*ir.n.f hwt m šd m đw m kꜣt nhꜥ m tꜣ Sty*  
 King Usermaatre Setepenre:  
 it was by excavating from the mountain that he made the temple as an everlasting work in Nubia.<sup>131</sup>

To emphasize the final adjunct would seem pointless; the reader would have been well aware of his whereabouts. And while there was nothing unusual about the locating of a temple in Nubia, the method of working those at Abu Simbel is indeed remarkable.

### Conclusions

The advantage of studying a formulaic inscription such as *ir.n.f m mnw.f* lies in the opportunity for examining a particular grammatical problem in several variants and different syntactical environments. On the other hand, while the proliferation of occurrences has produced instructive variants, the formula, it seems, was sometimes reproduced mechanically, with less than adequate understanding of the underlying grammar and syntax. Consequently, errors and omissions are not wanting. In a number of cases, one finds errors in one part of the formula merely induced from another: *irt.n.f m mnw.f* for *ir.n.f m mnw.f* (KRI I, 138, 8; clearly influenced by the following *irt.n.f*);<sup>132</sup> *ir.n.f* for *irt.n.f* (KRI II, 493, 6; 727, 7; 762, 12; VI, 723, 16; 724, 12); *ir.n.n.f* for *irt.n.f* (KRI VI, 705, 9; 718, 14), and for *ir.n.f* (JEA 38 (1952), pl. XII, lines 34, 36); *ir.n.n* for *ir.n* (ibid.), perhaps under the influence of the common *ir.n.n.f sꜣ Rꜥ*.

While I hope to have shown that *mnw/mnw.f* when preceded by *m* bears the primary emphasis, in cases where the *m* is missing, it is not always certain whether the absence results from error or assimilation, or whether some other element is the intended target of primary emphasis. Here context and the general quality of the inscription are usually instructive.

The advantage of this approach seems to outweigh any disadvantages, and I believe that it has been possible to arrive at a correct understanding of the particular problem which has some general grammatical value. I have found no variant which could not be translated according to the interpretation laid forth here, or else dismissed as an obvious error. In each case, I believe, the sense is improved. In general, it can be observed that emphatic constructions are particularly common and appropriate to dedication inscriptions. This may be unsurprising, given the function of such inscriptions. It was found necessary to translate frequently in order to demonstrate the efficacy of the theory proposed here in a wide range of variants, and at the same time to counter the spurious 'as his monument' which has persisted so long in the literature.

<sup>130</sup> Ibid.

<sup>131</sup> KRI II, 765, 14.

<sup>132</sup> A similar example cited by Jansen-Winkel<sup>130</sup> (MDAIK 46, 148f.) involves special problems with which I intend to deal in a separate paper.

## NEW LIGHT ON THE RECARVED SARCOPHAGUS OF HATSHEPSUT AND THUTMOSE I IN THE MUSEUM OF FINE ARTS, BOSTON\*

By PETER DER MANUELIAN *and* CHRISTIAN E. LOEBEN

The royal sarcophagus Boston MFA 04.278 is of critical importance to the art historical, political and mortuary history of the early Eighteenth Dynasty, yet has been inadequately documented. This study provides new photographs and computer-generated line drawings of all decorated surfaces, new insights into alterations and recarvings, and translations of all texts. The sarcophagus, including its archaeological history and inscriptional evidence, is set in its historical context; it provides no evidence in favour of KV 20 being originally the sepulchre of Thutmose I. Descriptions of the decoration, prototype Book of the Dead texts and facial representational styles follow. Concluding remarks focus on the development of early New Kingdom sarcophagi. An appendix presents scientific analysis of the red paint and filling material used in the recarved inscriptions.

THE sarcophagus of Hatshepsut and Thutmose I in the Museum of Fine Arts, Boston (MFA 04.278) (pl. VI), is one of only three royal stone sarcophagi currently on display outside Egypt,<sup>1</sup> and is one of very few from the Eighteenth Dynasty to show multiple alterations and phases of decoration. It was originally prepared for Hatshepsut (1503/1498–1483 BC), then recut for her father Thutmose I (1524–1518 BC), in what became a shuffling of royal burials and reburials. The sarcophagus is an artistic masterpiece from a royal atelier, a prototype for funerary representations and traditions of the entire New Kingdom, and a pivotal piece in the complicated puzzle of early Eighteenth Dynasty political history.

Despite its art historical, archaeological and historical significance, the sarcophagus has not received the scholarly attention it deserves.<sup>2</sup> It has never been reproduced photographically in more than one or two general views. Its interior decoration, difficult of access since the lid is currently suspended above the box with little clearance, has never

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<sup>1</sup> The other two belong to Seti I (made of alabaster; in Sir John Soane's Museum, London) and Ramesses III (made of red granite; lid in the Fitzwilliam Museum, Cambridge, box in the Louvre Museum, Paris); see PM I<sup>2</sup>, 526, 643. For the full titulary of Hatshepsut, see J. von Beckerath, *Handbuch der ägyptischen Königsnamen* (Munich, 1984), 84, 226.

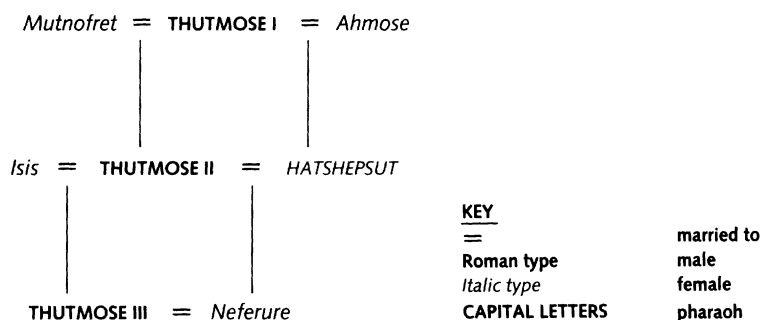
<sup>2</sup> W. S. Smith, *BMFA* 40 (1942), 48–9, fig. 10; K. Myśliwiec, *Le portrait royal dans le bas-relief du Nouvel Empire* (Warsaw, 1976), fig. 65 (figure of Nephthys on exterior head end); W. M. Whitehill, *Museum of Fine Arts, Boston. A Centennial History*, 1, Cambridge, Mass., 1970, 253, ill. on 254.

previously been studied or photographed. Furthermore, the original excavation report on the findspot of the sarcophagus, the tomb of Hatshepsut in the Valley of the Kings at Thebes (KV 20), is far from exhaustive.<sup>3</sup> Even the seminal work by William C. Hayes on royal sarcophagi<sup>4</sup> left much to be done. Hayes' book is useful for comparative study of the group of eight royal sarcophagi he described, but somewhat inconvenient as a primary source for the study of any single one of them. He dissected the early Eighteenth Dynasty sarcophagi on paper with such intensity that the resulting developmental *tour de force* leaves the reader searching vainly for a clear overview of individual monuments. Moreover, many of his hieroglyphic hand-copies of the inscriptions are inaccurate, over-standardized, and ignore the original arrangements of the hieroglyphic signs. His remarks on the manufacturing techniques used also require re-evaluation.

In the following pages the authors attempt to provide a more unified treatment of the Boston sarcophagus, with all surfaces represented either in photographs or a combination of hand-drawn and computer-generated line drawings.<sup>5</sup> The excavation history of the piece, its role in the history of the early Eighteenth Dynasty and the problems of royal succession, and the manufacture and decoration of the sarcophagus, with special emphasis on its multiple construction phases and alterations are examined. The issue of the original owner of KV 20 (Hatshepsut or Thutmose I) is also discussed. The reader will find translations of all the hieroglyphic texts, with remarks on their religious context, and on the art-historical significance of the sarcophagus as a whole. An appendix by Richard Newman, research scientist in the Research Laboratory of the Museum of Fine Arts, Boston, summarizes an analysis of the red paint and filling material found on the decorated surfaces.

### History and discovery

The history of the early Eighteenth Dynasty royal succession has been confused by differing scholarly theories formulated at the beginning of this century,<sup>6</sup> and by more recent reassessments of the tombs and tomb owners.<sup>7</sup> The family relationships are generally accepted to be as follows:



<sup>3</sup> T. M. Davis et al., *The Tomb of Hâtshopsîtû* (London, 1906).

<sup>4</sup> *Royal Sarcophagi of the XVIII Dynasty* (Princeton, 1935).

<sup>5</sup> Given the tight quarters inside the sarcophagus (c. 64 cm from side to side), and the fact that the modern posts holding the lid 30.5 cm above the sarcophagus are fixed in place, the photographic logistics have proved a major challenge. True facsimile drawings and extensive comparative remarks on the development of Eighteenth Dynasty royal sarcophagi lie outside the scope of this paper.

<sup>6</sup> See K. Sethe, *Das Hatschepsut-Problem noch einmal untersucht* (Berlin, 1932); W. F. Edgerton, *The Thutmosid Succession* (Chicago, 1933); Hayes, *Royal Sarcophagi*, 141-6; idem, in *CAH* II.1<sup>2</sup>, 315-22.

<sup>7</sup> See, for example, J. Romer, *JEA* 60 (1974), 119-33 (discussed below).

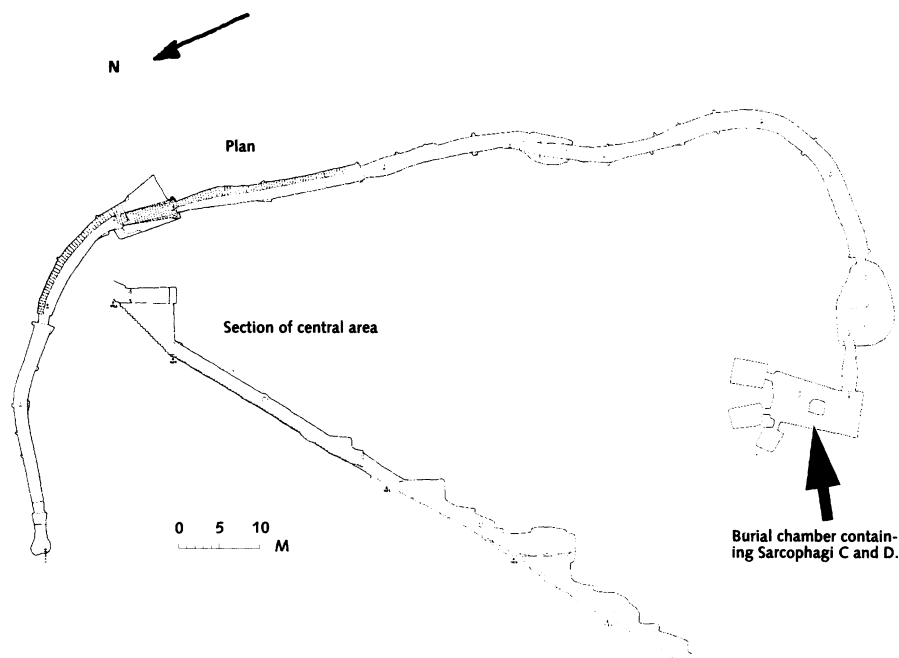


FIG. 1. Plan and partial section of KV 20 of Hatshepsut, Valley of the Kings, Thebes. (Drawing from K. Weeks, *The Berkeley Map of the Theban Necropolis*).

Against this complicated background, the Boston sarcophagus presents in microcosm the events and priorities of the rulers of the age.<sup>8</sup> It plays a critical role in the decipherment of funeral politics at the beginning of the Eighteenth Dynasty.<sup>9</sup> It became the second of no less than three sarcophagi prepared for Hatshepsut, and it is a peculiar irony that probably none of them in the end ever actually held her mummy.

<sup>8</sup> General references on the subject include the following works. On the important bibliographical inscriptions of Ineni, mayor of Thebes and first chief architect in the Valley of the Kings, cf. *Urk.* iv, 59.13-60.4 (= lines 16-17 of the ancient text); E. Dziobek, *Das Grab des Ineni; Theben Nr. 81* (Mainz am Rhein, 1992), 49-50, 54. For recent discussions on Senenmut, see P. F. Dorman, *The Monuments of Senenmut* (London, 1988); idem, *The Tombs of Senenmut* (New York, 1991); C. Meyer, *Senenmut: eine prosopographische Untersuchung* (Hamburg, 1982). On the royal succession, see R. Tefnin, *CdE* 48 (1973), 232-42; S. Schott, in *NAWG* 1, Phil.-hist. Klasse 6 (Göttingen, 1955), 195-219; J. Yoyotte, *Kêmi* 18 (1968), 85-91; Hayes, *MDAIK* 15 (1957), 78-80; B. J. Kemp, in B. Trigger et al. (eds.), *Ancient Egypt: A Social History* (Cambridge, 1983), 218-19. On the often ignored military activity during the reign of Hatshepsut, see D. B. Redford, *History and Chronology of the Eighteenth Dynasty of Egypt: Seven Studies* (Toronto, 1967), 57-87; W. F. Reineke, in Erika Endesfelder et al., *Ägypten und Kusch* (Berlin, 1977), 369-76. Concerning Thutmose III's erasure and/or usurpation of his aunt's monuments two decades after he had assumed sole rule, cf. C. F. Nims, *ZÄS* 93 (1966), 97-100; W. Seipel, *LÄ* II, 1051, n. 72; idem, in W. F. Reineke (ed.), *Acts of the First International Congress of Egyptologists* (Berlin, 1979), 581-2; Meyer, *Senenmut*, 268-70; idem, in H. Altenmüller and R. Germer (eds.), *Miscellanea Aegyptologica: Wolfgang Helck zum 75. Geburtstag* (Hamburg, 1989), 119-26. Dorman has successfully refuted the challenges of Seipel and Meyer to Nims' original interpretation of the Karnak evidence for the proscription of Hatshepsut dating after Thutmose III's Year 42 in *The Monuments of Senenmut*, 46-60, 180. For general reference works on the period, cf. S. Ratié, *La reine Hatchepsout. Sources et problèmes* (Leiden, 1979); Tefnin, *La statue d'Hatshepsout* (Brussels, 1979); idem, *CdE* 43 (1973), 232-42; Seipel, *LÄ* II, 1045-53; A. H. Gardiner, *Egypt of the Pharaohs* (Oxford, 1961), 181-9. A popular general introduction to the problems of the reign of Hatshepsut, removing some of the more romantic misinterpretations, has been recently provided by E. Teeter, *KMT* 1 (1990), 4-13, and 56-7.

<sup>9</sup> One of the first scholars to establish the history behind the evidence of the sarcophagi was H. E. Winlock, *JEA* 15 (1929), 56-68.

Before taking the throne, Hatshepsut had prepared a tomb for herself in the secret wadi cleft known as Wadi Sikkat Taqa el-Zeid, south of Deir el-Bahari. This tomb was investigated by Howard Carter in 1916.<sup>10</sup> Although it was neither completed nor used, it contained a finished, crystalline sandstone sarcophagus.<sup>11</sup> In the sequence of early Eighteenth Dynasty royal sarcophagi established by Hayes, this first sarcophagus of *Queen* Hatshepsut was designated sarcophagus 'A'. It is a rectangular box with the long sides divided into three panels, all of which are blank but for *udjat*-eyes incised on the left (east) side. Four vertical transverse bands of text adorn the long sides, and two the head and foot ends. A cartouche is carved on the top of the lid, encircling one vertical column of text. With the exception of a representation of the goddess Nut on the top of the lid, there are no figures on the sarcophagus.

After seizing power for herself, *King* Hatshepsut clearly felt that a new royal tomb was in order, this time in the Valley of the Kings. The cleft tomb was abandoned, and excavation work began to create KV 20 (fig. 1).<sup>12</sup> This unique and impressive sepulchre was cut over 960 m below the surface and over 2,133 m into the cliff side, on the same axis as Hatshepsut's mortuary temple of Deir el-Bahari. Unfortunately, the poor quality of the stone necessitated a change in the tomb plan, so that it curved around and doubled back on itself. No decoration survives on the walls today, although fifteen wall casing blocks with religious texts were found there.<sup>13</sup>

The new tomb was provided with a new quartzite sarcophagus for its occupant. This sarcophagus, Hatshepsut's second, is Boston MFA 04.278, now known in Hayes' sequence as sarcophagus 'C'. The piece was cut, decorated, inscribed and completely prepared for Hatshepsut. At this early point in her sole reign, she may have experienced difficulty in legitimizing her claim to the throne. While a twinge of sentiment towards her father, the long deceased Thutmose I, furnishes a romantic explanation of the events that followed, it is more likely that purely propagandistic motivation resulted in a change in Hatshepsut's mortuary plans. Probably between Years 4 and 7,<sup>14</sup> she decided to remove the body of Thutmose I from his own tomb in the Valley of the Kings (KV 38), and rebury him next to her sarcophagus in her own second tomb (KV 20), still under construction.<sup>15</sup> She relegated her second sarcophagus ('C') to her father, and ordered it to be refitted to house his mummified body and its original wooden anthropoid coffin. As we shall see, this required a complete resizing and redesign of the Boston piece. Now two sarcophagi the richer, but still lacking one for her own eventual mummification and

<sup>10</sup> *ASAE* 16 (1916), 179-82; idem, *JEA* 4 (1917), 107-18.

<sup>11</sup> Hayes, *Royal Sarcophagi*, pl. 1. The sarcophagus is now in Cairo (JE 47032). Both A. Dodson (*ZÄS* 115 (1988), 116, 120-3) and L. Bradbury (*JARCE* 22 (1985), 91, 94) have argued that Hatshepsut's first sarcophagus ('A') found in this tomb, was made after sarcophagus 'B' (belonging to Thutmose II), that is, after the death of Thutmose II, but before Hatshepsut assumed sole rule.

<sup>12</sup> PM II<sup>2</sup>, 546-7; Davis et al., *The Tomb of Hâtshopsîtû*, 77-80, pl. 8; E. Thomas, *The Royal Necropoleis of Thebes* (Princeton, 1966), 75-7; J. Romer, *Valley of the Kings* (New York, 1981), 192-5; E. Hornung, *The Valley of the Kings* (New York, 1990), 185, 209, 211; C. N. Reeves, *Valley of the Kings. The Decline of a Royal Necropolis* (London, 1990), 13-17. The best plan and section of KV 20 to date is in K. Weeks et al., *NARCE* 113 (1980), 38-9.

<sup>13</sup> See PM I<sup>2</sup>, 547 ('finds'); E. Hornung, *Texte zum Amduat*, (Basel, 1987), x.

<sup>14</sup> Cf. Hayes, *Royal Sarcophagi*, 146-9. This makes sarcophagus 'C' one of the earliest monuments of Hatshepsut as sole ruler.

<sup>15</sup> See text below for Romer's interpretation of KV 20 as being originally built for Thutmose I.

burial, Hatshepsut ordered yet a third sarcophagus for herself, labelled 'D' by Hayes,<sup>16</sup> a similar, though larger and more elaborate piece than 'C'.<sup>17</sup>

Eventually, the excavation of KV 20 was deep enough to accommodate both Hatshepsut and Thutmose I in the innermost chamber.<sup>18</sup> Both sarcophagi may have been placed in the tomb at the same time (the staircases show steps on one side only, to allow for the sliding descent of the sarcophagi; see fig. 1). At some point during the reinterment of Thutmose I's mummy, it was discovered that its original anthropoid wooden coffin was too large to fit inside Hatshepsut's newly altered sarcophagus 'C'. With apparent haste, the interior head and foot ends of the sarcophagus were cut back from the inside, obliterating the decoration added there for Thutmose I and damaging the texts on the tops of the sarcophagus walls, also recently altered. Decoration was hastily reapplied to the interior head and foot ends, the king's wooden coffin was placed inside, and the lid was closed over him.

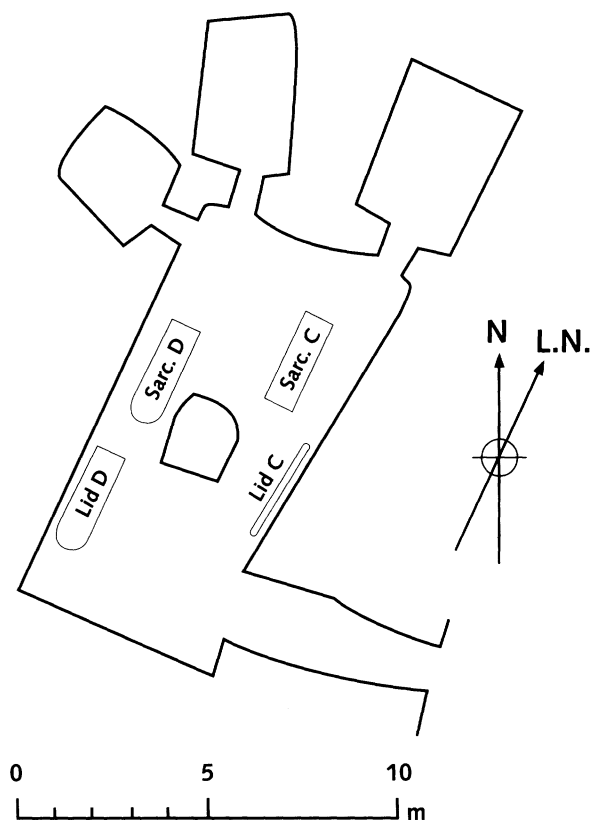


FIG. 2. Sketch plan of the burial chamber of KV 20, showing the locations of sarcophagi 'C' and 'D' with their lids as discovered.

<sup>16</sup> See *Royal Sarcophagi*, pl. v.

<sup>17</sup> For a colour photograph of the exterior foot end and a succinct description of sarcophagus 'D', see M. Saleh and H. Sourouzian, *The Egyptian Museum Cairo, Official Catalogue* (Mainz, 1987), No. 131.

<sup>18</sup> For Hapuseneb, architect of Hatshepsut's tomb (KV 20), whose statue is now in the Louvre, see P. E. Newberry, *PSBA* 22 (1900), 31-6, and J. H. Breasted, *ibid.* 94; *BAR* II, 160-2, esp. §389.

In modern times, KV 20 was first examined by James Burton in 1824. Then, in 1903, Howard Carter, working on behalf of Theodore M. Davis in the Valley of the Kings, cleared it.<sup>19</sup> The largest finds were the two quartzite royal sarcophagi 'C' and 'D' and the queen's canopic box. Sarcophagus 'C' had been tipped over and lay on its east side against one of the burial chamber's three pillars, while its lid had been carefully left leaning against the wall (fig. 2). The larger 'D' was right side up, with its lid flipped on its back on the floor several feet away. Both sarcophagi were empty, and both were removed from the tomb by Carter. While the third and final sarcophagus of the queen, 'D', went to the Cairo Museum, Maspero presented the recarved 'C' of Thutmose I to Davis. He in turn donated it in 1904 to the Museum of Fine Arts, Boston, along with numerous finds from another season's work in KV 43, the tomb of Thutmose IV.<sup>20</sup> The sarcophagus was shipped to Boston, and has remained on view in the Museum of Fine Arts ever since. For ease of reference, it is listed in the following table along with the other sarcophagi which bear on the present study:

Letter	Owner	Maker	Provenance	Present Location
Sarcophagus 'A'	Hatshepsut as queen	Hatshepsut	Wadi Sikkat Taqa el-Zeid	Cairo Museum JE 47032
'B'	Thutmose II	Thutmose II	Valley of the Kings, tomb KV 42	Valley of the Kings, tomb KV 42
'C'	<b>Thutmose I</b>	<b>Hatshepsut</b>	<b>Valley of the Kings, tomb KV 20</b>	<b>Boston MFA 04.278</b>
'D'	Hatshepsut	Hatshepsut	Valley of the Kings, tomb KV 20	Cairo Museum JE 37678
'E'	Thutmose I	Thutmose III	Valley of the Kings, tomb KV 38	Cairo Museum JE 52344
'F'	Thutmose III	Thutmose III	Valley of the Kings, tomb KV 34	Valley of the Kings, tomb KV 34

Recent scholarship has suggested that KV 20, traditionally taken as Hatshepsut's tomb, actually originally belonged to Thutmose I from the beginning, rather than KV 38. This would mean fewer moves for the much-travelled mummy of Thutmose I, for under this scheme, he would have lain in KV 20 originally, to be moved merely to a new chamber in the same tomb, added by Hatshepsut, and provided with a new sarcophagus ('C').<sup>21</sup>

<sup>19</sup> Davis et al., *The Tomb of Hâtshopsîtû*. Carter included a watercolour in the publication showing sarcophagus 'D' as found (ibid., pl. 9, facing p. 78), reproduced in black and white in Romer, *Valley of the Kings*, 193.

<sup>20</sup> See the anonymous note in *BMFA* 3 (1905), 13.

<sup>21</sup> Romer, *JEA* 60, 119-33. Support for this interpretation may be found in Reeves, *Valley of the Kings*, 13-17, 244-5; in Dodson, *ZAS* 115, 116, 120-3; and in F. Abitz, *MDAIK* 45 (1989), 1-2, who disputes the orientation of KV 20 to the mortuary temple at Deir el-Bahari. Interpretations which follow the attribution of KV 20 to Hatshepsut include Hayes, *Royal Sarcophagi*, 146-51; Winlock, *JEA* 15, 66-7, and H. Altenmüller, *SAK* 10 (1983), 25-38.



KV 38 would then not have existed until after the reign of Hatshepsut, when Thutmose III created it for his grandfather. At this time Thutmose III would have decided to provide Thutmose I's mummy with the new sarcophagus 'E'. In support of this interpretation, it is true that very few of the objects discovered inside KV 38 demonstrate that the tomb was in existence before the reign of Thutmose III. However, it poses problems regarding Hatshepsut's intentions in the Valley of the Kings. First, it necessitates explaining away the presence of Hatshepsut's foundation deposit at the entrance to KV 20, normally a typical and conclusive indication of a structure's original builder and owner. Second, it assumes that Hatshepsut, newly arrived at the Valley of the Kings, would have been content for two decades with merely adding a second burial chamber (and a smaller one at that) to the tomb of her father.<sup>22</sup> Hatshepsut was constantly concerned with upgrading and expanding her funerary equipment and provisions, most likely in order to reinforce her claim to kingly status, and rather than be satisfied with occupying an already existing KV 20, she probably spent many years of her reign having the tomb excavated herself. We thus prefer to opt for the older interpretation of KV 38 as Thutmose I's original resting place, and KV 20, with its apparent orientation to the mortuary temple of Deir el-Bahari, as the original tomb of Hatshepsut. New in both the monarchy and the Valley of the Kings, Hatshepsut would most likely have been determined to make her own unique statement there, bringing her father's mummy to her, rather than simply joining him in his tomb.

What became of the mummified bodies of Thutmose I and Hatshepsut? Neither was found in KV 20. Thutmose I's travels did not end after his reburial in KV 20 by Hatshepsut. Thutmose III, finally in complete control of the country after Hatshepsut's death, was not content to let his grandfather rest in the tomb of his aunt, and had his agents reopen KV 20, remove the mummy of Thutmose I from sarcophagus 'C', and rehouse it in its original tomb, KV 38. Rather than use 'C' for Thutmose I's reburial, Thutmose III ordered another stone sarcophagus to be made for his grandfather (sarcophagus 'E'),<sup>23</sup> similar to his own sarcophagus ('F'), which had already been prepared in the same workshop.<sup>24</sup> Thutmose III then returned Thutmose I to his original tomb (KV 38). But the king was moved again, and was eventually discovered by Maspero in 1881 on the other side of the cliffs from the Valley of the Kings, in the royal cache of Deir el-Bahari.<sup>25</sup> Thutmose I's body came to light here placed within two anthropoid wooden coffins that had been usurped by King Pinodjem I of the Twenty-first Dynasty. A partial reconstruction of the original Thutmose I decoration of the outer coffin (CG 61025), based on study and collation in the Cairo Museum, may be found in fig. 3. Both of these anthropoid coffins were probably too large to have fitted inside the Boston sarcophagus, so Thutmose I's original coffin was either lost in the shuffle or survived only in the wooden fragments discovered in KV 20 by Carter.<sup>26</sup> The body of Hatshepsut, however,

<sup>22</sup> Romer's arguments (*JEA* 60, 124) on the burial chamber plan and its resemblance to the Mentuhotep temple module square remain unconvincing.

<sup>23</sup> Hayes, *Royal Sarcophagi*, pl. VII.

<sup>24</sup> Note that, *contra* Hayes' interpretation, the completion of sarcophagus 'F' predates that of 'E'; cf. C. E. Loeben, in preparation.

<sup>25</sup> G. Maspero, *Les Momies royales de Déir el-Baharî* (Paris, 1889), 581–2, pls. VII B, VIII B; G. E. Smith, *The Royal Mummies* (Cairo, 1912), 25–8, pls. XX–XXII. See also J. R. Harris and E. F. Wente, in C. N. Reeves (ed.), *After Tutankhamun. Research and Excavation at the Royal Necropolis at Thebes* (London, 1992), 2–20; Reeves, *Valley of the Kings*, 183–92.

<sup>26</sup> Carter, in Davis et al., *The Tomb of Hâtshopsîtû*, 80.



FIG. 3. Partial reconstruction of the original decoration of the outer coffin of Thutmose I, Cairo CG 61025. (Preliminary drawing by Christian E. Loeben.)

has yet to be definitively identified.<sup>27</sup> The evidence suggests that the lid of Hatshepsut's sarcophagus 'D' may never have been put in place, for it bears no signs of having been forcibly prised off by tomb robbers, as was the case with so many of the royal sarcophagi.

### Decoration of the Boston sarcophagus

The Boston sarcophagus 'C' is currently exhibited with its lid propped up on modern metal pillars 30.5 cm off the base to reveal the interior (pls. VI, VIII, X; figs. 4-5). The lid measures 2.25 m in length by 82 cm in width and is 12-13 cm thick. The base measures 2.25 m in length by 82 cm in width and 76.5-76.9 cm in height.<sup>28</sup> With the exception of the long sides of the lid and the exterior bottom of the sarcophagus, low sunk relief decoration covers all surfaces of both lid and base, including the interiors and exteriors, the top and underside of the lid. Even the tops of the walls, which would have been covered by the lid, are inscribed. There is no interior detail carved in the hieroglyphs. The sarcophagus box weighs 1.4 tons, and the lid 0.65 tons. The corners are slightly bevelled, and the overall workmanship and precision of the flatness appear flawless, a fact that is all the more impressive when one considers that the piece went through several carving stages.

The material is brownish quartzite, one of the harder stones to carve. First used in the Middle Kingdom,<sup>29</sup> quartzite became the stone of choice for Eighteenth Dynasty royal sarcophagi, although granite came to be preferred at the end of the dynasty. One solid

<sup>27</sup> On the female occupant of KV 60, cf. D. B. Ryan, *KMT* 1 (1990), 58-9.

<sup>28</sup> In 1985 several fragments of the sarcophagus were restored by Jean-Louis Lachevre, assistant conservator in the Museum of Fine Arts' Research Laboratory. Two fragments were added to the right side of the top of the sarcophagus wall (beginning of Text 52), three to the juncture of the right and head end, and six to the undecorated left (east) side of the lid.

<sup>29</sup> Hayes, *Royal Sarcophagi*, 31. See also A. E. Lucas and J. R. Harris, *Ancient Egyptian Materials and Industries*<sup>4</sup> (London, 1962), 60, 62-3, 65, 418-19.

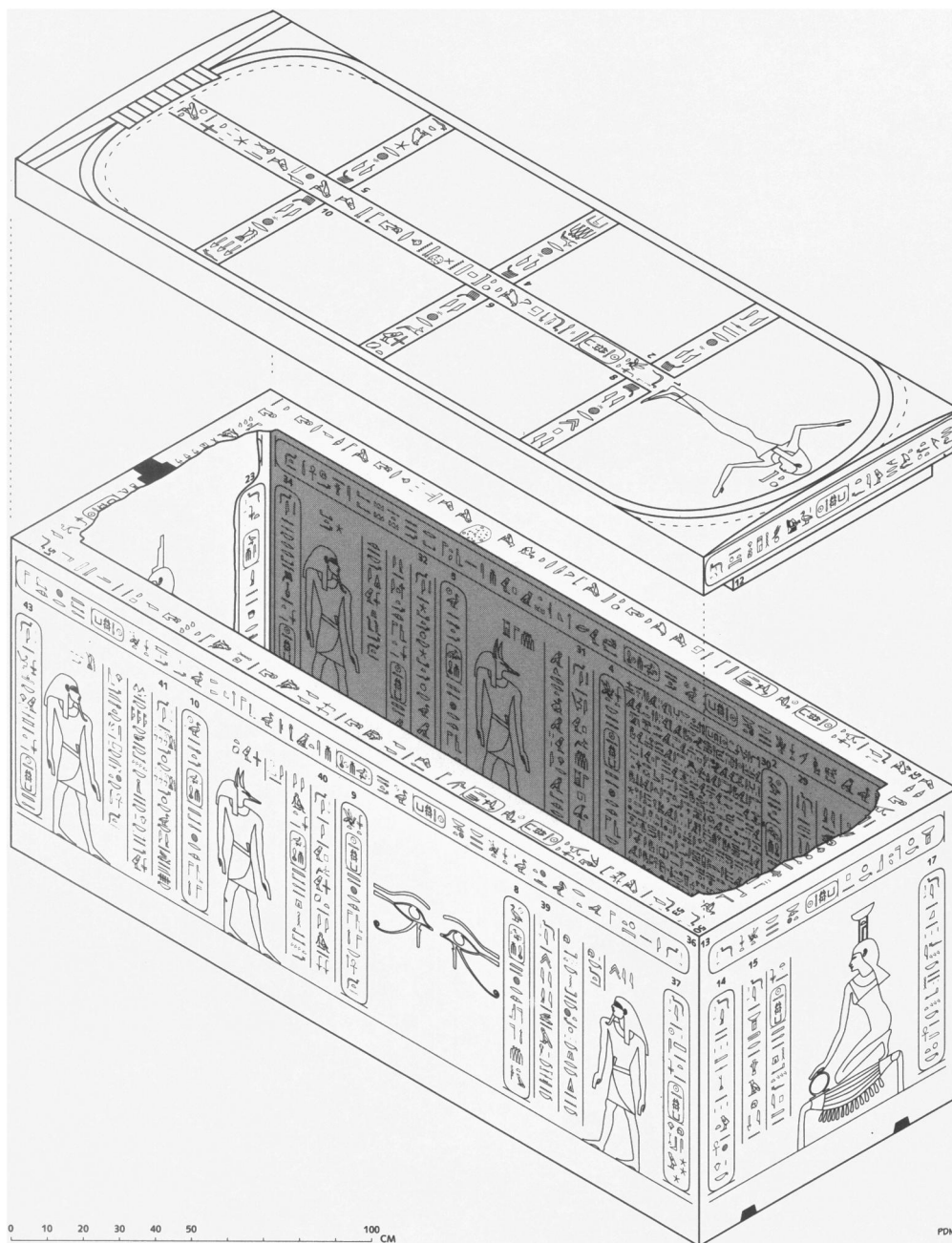


FIG. 4. Computer-generated isometric rendering of the sarcophagus, showing the left exterior, the head end, right interior, and the top of the lid.

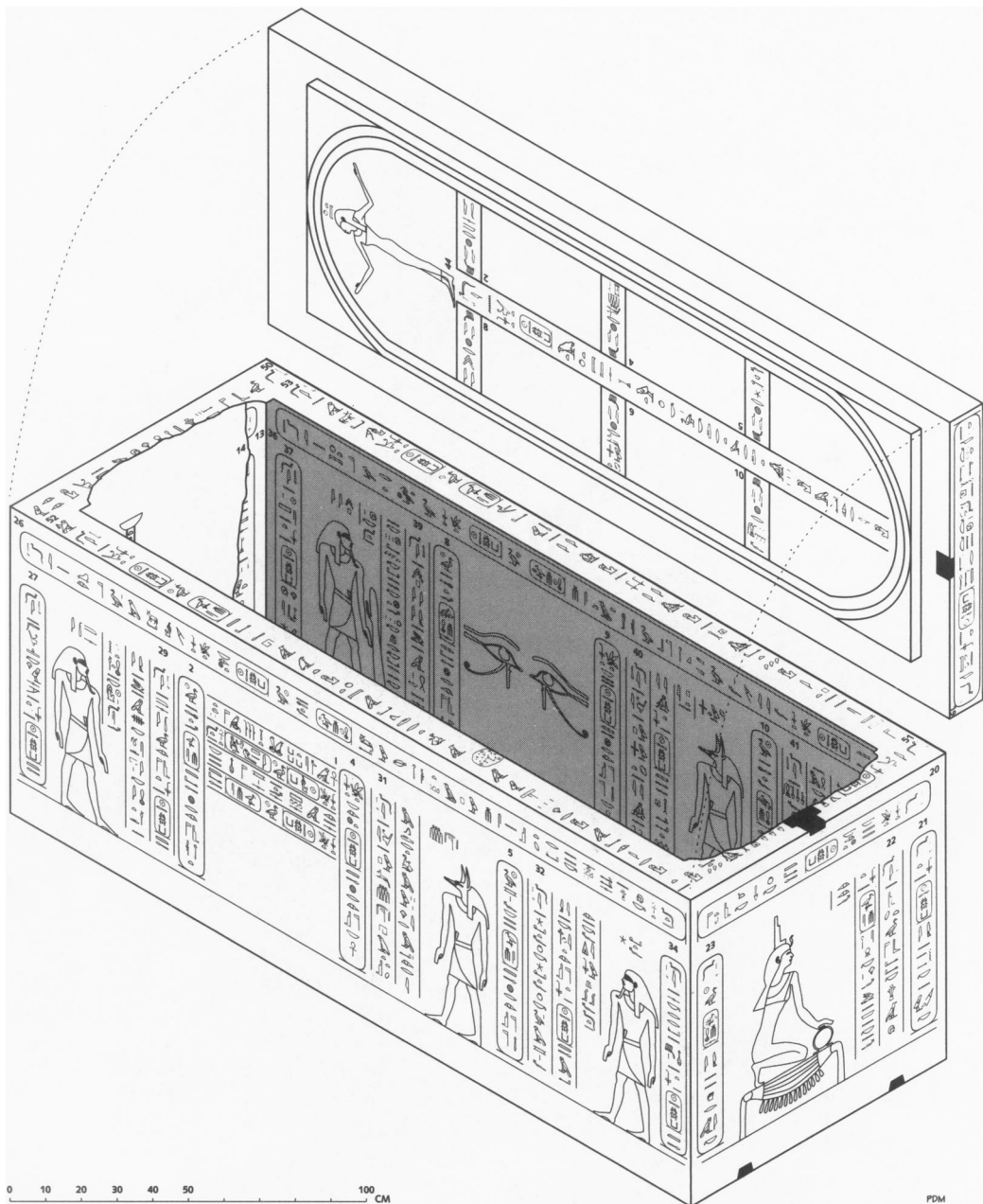


FIG. 5. Computer-generated isometric rendering of the sarcophagus, showing the right exterior, the foot end, left interior, and the underside of the lid.

piece was employed for the lid, and another for the box.<sup>30</sup> Copper tools, picks, scrapers and stone abrasives were used to complete the decoration. Flaws in the stone were often filled with resin. Most of the sarcophagi in this series were equipped with lugs on the short ends of the lid for ease of placement. These were shaved off once the lid was permanently in place; the only sarcophagus of this group to retain its lugs is the unfinished 'B', belonging to Thutmose II.<sup>31</sup> The Boston sarcophagus does, however, show a pry-bar hole on the foot end of the lid, whose location is matched by a similar slit on the top of the sarcophagus wall (pl. X, 2). In addition, the short ends of the box have two slits towards the bottom for leverage beams to lift the piece off the ground (pl. X, 1-2).

Hatshepsut's order for the alteration of the sarcophagus to accommodate the coffin of Thutmose I resulted in some surfaces being shaved back and completely reinscribed, while other (formerly blank) surfaces were inscribed for the first time. Still others needed only royal name changes and conversion of the grammatical endings from feminine to masculine (discussed below). Four distinct decoration phases may be distinguished; fig. 6 illustrates which changes occurred where. Fig. 7 charts all the modifications from feminine (Hatshepsut) to masculine (Thutmose I) forms. The major change resulted in the removal of a full 3 cm from the exterior side walls and lid (note how Texts 52-53 no longer occupy the center of the tops of the sarcophagus walls on fig. 14), 1 cm from the foot end, 0.5 cm from the head end, and 3.5 cm from the interior head and foot ends. The last-minute enlargement of the interior head and foot ends for Thutmose I's unexpectedly large, wooden, anthropoid coffin called for the removal of an additional maximum 6 cm from the interior, destroying parts of the inscriptions and figures.

The dominant colour of the sarcophagus is a reddish hue, particularly visible inside the sunk relief decoration. Earlier descriptions attributed this colour to a reddish or pink wash applied by the Egyptians in order to darken the quartzite from yellow to red, since red quartzite was apparently deemed more valuable than yellow.<sup>32</sup> However, the wash was actually added to highlight the polish of the sarcophagus. The Egyptians completed the carved decoration, added the wash, and then polished the stone with abrasives. The removal of the wash then revealed which areas had been suitably polished. This is why the wash is especially visible in the cracks and carved sunk relief decoration, indicating that the hieroglyphs were cut before the wash was added.<sup>33</sup>

The layout of the decoration on the sarcophagus reflects the fundamental Egyptian concern with proper orientation, i.e. the west side is associated with funerary subjects, and the east with secular subjects. This orientation appears here in the assignment of specific deities to the east and west sides of the sarcophagus. The east side generally belongs to the sun-god and the realm of the living, while the west contains speeches by the god(s) of the underworld and spells from the Book of the Dead. The placement of such sarcophagi in their tombs generally also followed suit, with the head end to the north, and east and west sides oriented accordingly—in every case except that of KV 20 and its two sarcophagi, 'C' and 'D'. Their head ends faced south, and their 'mortuary'

<sup>30</sup> Dieter Arnold (*Building in Egypt* (Oxford, 1991), 51, fig. 2.29) has suggested that these may have been hollowed out by contiguous bow drillings.

<sup>31</sup> Hayes, *Royal Sarcophagi*, pl. II.

<sup>32</sup> Hayes' assumption (ibid. 35-6). For remarks on the analysis of natural substances used on the sarcophagus, see the appendix to this article by Richard Newman.

<sup>33</sup> The hieroglyphs may once have been painted yellow, in accordance with Egyptian painting conventions (cf. C. E. Loeben, *MDAIK* 42 (1986), 101, n. 23), but no traces are visible today.

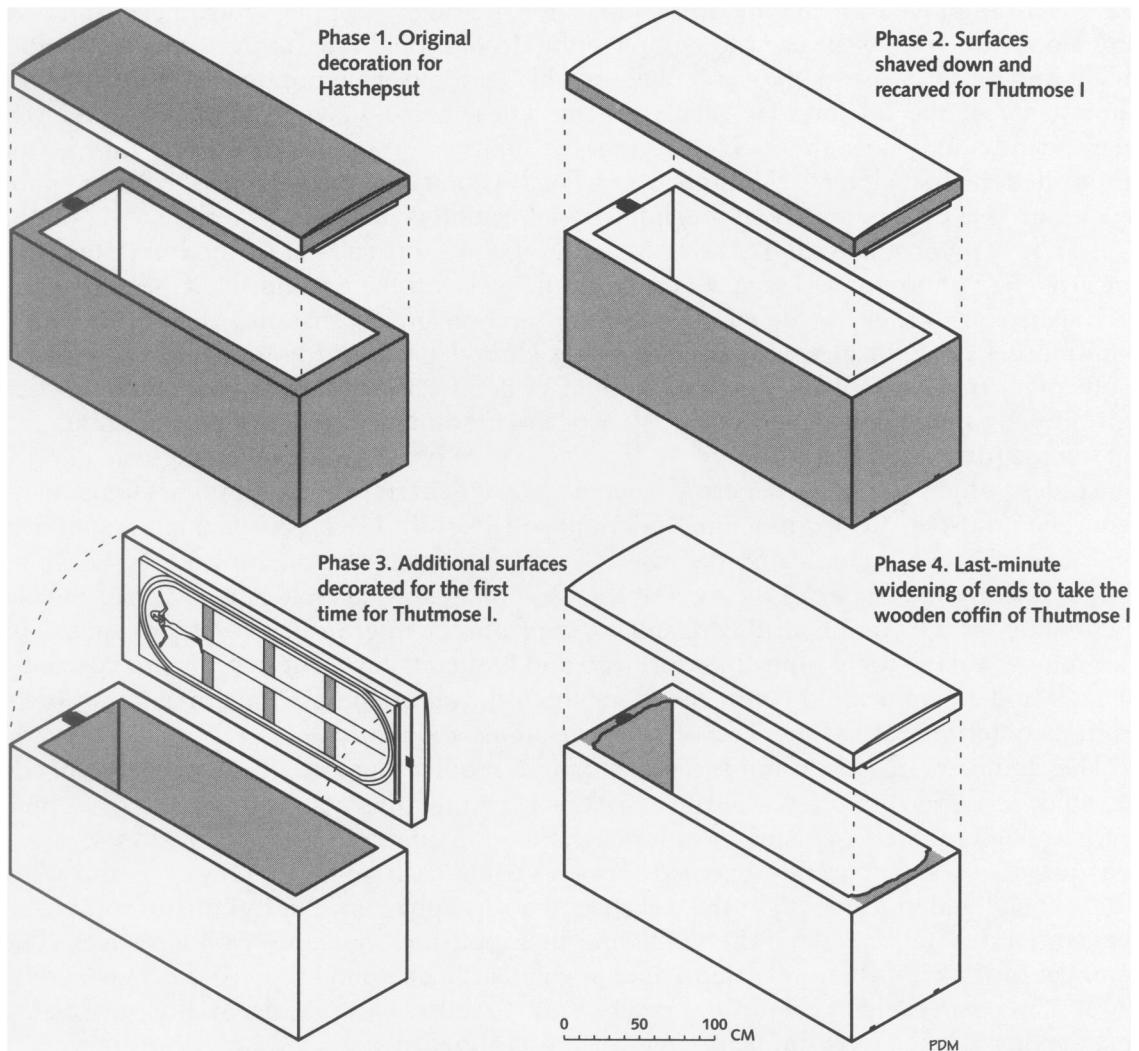


FIG. 6. Four phases of decoration of the Boston sarcophagus.

(west) sides faced east (see figs. 1–2). Far from indicating a break in Egyptian funerary traditions, however, this aberration may be explained by the plan of KV 20 itself. Although the craftsmen were probably compelled to carve the sepulchre with a sharp curve due to the poor quality of the bedrock, they nevertheless seem to have treated the tomb as if it continued straight along its originally intended axis towards Hatshepsut's mortuary temple at Deir el-Bahari. If this is the case, then the placement of sarcophagi 'C' and 'D' actually conformed to standard orientation practices.

The inscriptions covering the sarcophagus fall into three categories: dedications by the deceased on behalf of specific deities, prayers for protection made by the deceased to specific deities, and speeches by specific deities promising such protection for the deceased. The early Eighteenth Dynasty series of royal sarcophagi plays a critical role in the development of early New Kingdom mortuary literature, that is, the evolution of the Theban version of the Book of the Dead. Sarcophagus 'C' provides some of the earliest versions of certain spells, particularly the long Text 30 on the right interior side, one of

Text number	Original version (Hatshepsut)	Recarved version (Thutmose I)
1, 53		
44		
51		
53		
53		
52, 53		
52, 53		
53		
52		
1, 54		
1		
2, 4, 5, 8, 9, 10,		
2, 4, 5, 8, 9, 10		
44		
54		
54		
54		

FIG. 7. Table of inscription alterations from feminine (Hatshepsut) to masculine (Thutmose I).

the first complete editions of Chapter 72, the 'Book of going forth into the day and opening up the tomb' (figs. 10, 13; pl. IX, 2). In fact, the layout of the entire sarcophagus decoration, with the standing figures of the four sons of Horus and kneeling goddesses Isis and Nephthys, may even be termed a graphic representation of Chapter 151 of the Book of the Dead.<sup>34</sup>

Many of the exterior columns and horizontal bands of inscription are framed by long cartouches. In multi-columned texts, the first column is enclosed, while subsequent columns stand within column dividing lines. This is typical of several of the royal sarcophagi of the Eighteenth Dynasty, up until the reign of Amenhotep II.<sup>35</sup>

### Text translations

The numbering system used below for the texts was originally devised by Hayes, who laid out parallel texts side by side in his treatment of the early Eighteenth Dynasty royal sarcophagi. It is retained here for the sake of consistency. Since the Boston example does not contain all the texts, some of the numbers are absent from the list. While the resulting system makes somewhat difficult reading due to non-sequential numbers, it was nevertheless considered a lesser evil than devising an entirely new system at odds with that already in use in the literature.

Before turning to the religious inscriptions which cover the rest of the sarcophagus, there is one extremely important historical text to consider on the right exterior side (Text I). This dedication inscription tells us that Hatshepsut was responsible for 'creating' ('reinscribing' would, of course, be more accurate) the sarcophagus for her father (pl. IX, 1; figs. 8, 10). This and the final sarcophagus prepared for Thutmose I by Thutmose III ('E')<sup>36</sup> are the only ones in the sequence to bear historical dedication inscriptions.

Text I<sup>37</sup> (dedication inscription); pl. IX, 1; figs. 8, 10c

(1) *ḥnh Hr wsrt-kꜣw nbty wꜣdt rnpwt Hr nbw nꜣrt ḥꜣw* (2) *nswt bit Mꜣt-kꜣ-rꜣ sꜣ Rꜣ Ḥꜣt-šꜣswt ḥnm(t)-'Imn ḥnh.ti dt* (3) *ir.n=s m mnw=s n it=s mr=s nꜣr nꜣr nb trwy* (4) *nswt bit ḥꜣ-hꜣr-kꜣ-rꜣ sꜣ Rꜣ Dḥwtꜣ-ms mꜣr-ḥꜣw*

(1) May the Horus, Weseret-kau, the Two Ladies, Wadjet-renput, Horus of gold, divine of appearances live, (2) King of Upper and Lower Egypt, Maat-ka-re, son of Re, Hatshepsut who joins with Amen. May she live forever. (3) She made (it; i.e. the sarcophagus) as her monument to her beloved father, the perfect god, lord of the Two Lands, (4) King of Upper and Lower Egypt, Aa-kheper-ka-re, son of Re, Thutmose (I), justified.

### The sarcophagus lid

The lid of 'C' was discovered leaning against the wall of the burial chamber. This fact prompted Hayes to posit that it had been carefully opened by Thutmose III's agents for the removal and reburial of Thutmose I, because tomb robbers would have simply

<sup>34</sup> Hayes, *Royal Sarcophagi*, 92-3, fig. 25.

<sup>35</sup> Ibid. 69-70.

<sup>36</sup> The dedicatory inscription on 'E' is anonymous, stating that 'It is his son who causes his name to live in establishing the monument of his father for the length of eternity', and 'It is his son who causes his name to live, who made this monument for him, enduring for the length of eternity'. See *ibid.* 204, Text IIa-b.

<sup>37</sup> While Hayes assigned Arabic numbers to most texts, he reserved roman numerals for the special historical inscriptions unique to individual sarcophagi. Hence sarcophagus 'C' contains both a Text I and a Text 1.



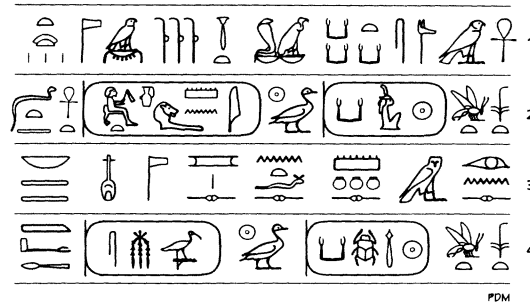


FIG. 8. Historical dedication Text I of Hatshepsut (right exterior side).

flipped the lid onto the ground next to the sarcophagus.<sup>38</sup> The slightly convex top bears a large cartouche which surrounds the entire decoration (pls. VI, VII, 1; figs. 4, 9). In the original scheme, the cartouche was double-banded, but the outer band was lost when the sarcophagus was shaved down for recarving. The artists have erased the curve of the double line at the head and foot ends as well, in order to keep the new decoration consistent. They were forced to erase the inside line at the foot end and the outside line at the head end (see fig. 9). Within the cartouche at the head end stands a figure of Nut (mirrored on the underside). She heads a central vertical inscription (Text 1) which shows alterations from Hatshepsut to Thutmose I. Alterations also appear on the transverse bands of text which begin on the lid and continue onto the long sides of the sarcophagus. On the lid the feminine *.t* ending of the word *imshyt* has consistently been filled in with resin to change it to the masculine form *imshy*.

The underside of the lid underwent two decoration phases (pl. VII, 2; fig. 9). For Hatshepsut, it originally bore a standing figure of Nut plus a single band of inscription down the centre (Text 44). During the refit for Thutmose I, it was given the transverse band texts naming the protective sons of Horus, matching and mirroring the texts on the top of the lid. Proof of this lies in the recarving of the cartouche on the central vertical Text 44, for the *msr*-goddess hieroglyph of Hatshepsut's prenomen is visible beneath Thutmose I's *sr*- and *hpr*-signs, while the *imshy*-texts in the transverse bands are clearly masculine and show no filled-in *t*-signs from *imshyt*, as they do on the top side of the lid. They therefore could not have belonged to the original decoration scheme for Hatshepsut, but were added later for Thutmose I. The underside of the lid of Hatshepsut's third and final sarcophagus ('D') confirms our reconstruction of the original appearance of the lid of 'C' with the central Text 44 only: it shows the figure of Nut and a single, central column of inscription (likewise Text 44) without transverse bands.<sup>39</sup>

The lid also bears inscriptions with recitations by Nut on the exterior sides of the head and foot ends (Texts 12 and 19). Hatshepsut's sarcophagi 'C' and 'D' are the only ones in the early Eighteenth Dynasty sequence to have short end inscriptions on their lids; the long sides remain uninscribed. The text on the head end of the lid reads:

Text 12 (lid: head end); pl. X, 1; fig. 11

*dd mdw in Nwt hry. t-tp hwt-hnw sr=(i) sr-hpr-ks-r' it Šw mrr mwt=f Tfnwt mrr. t=f*

Recitation by Nut, mistress of the house of the bark of Sokar: (My) son Aa-kheper-ka-re, whose father is Shu, (is) one whom his beloved mother Tefnut loves.

<sup>38</sup> Ibid. 11-12.

<sup>39</sup> Ibid., pl. XIX (sarcophagus 'D', lid underside).

Top of lid

Bottom of lid

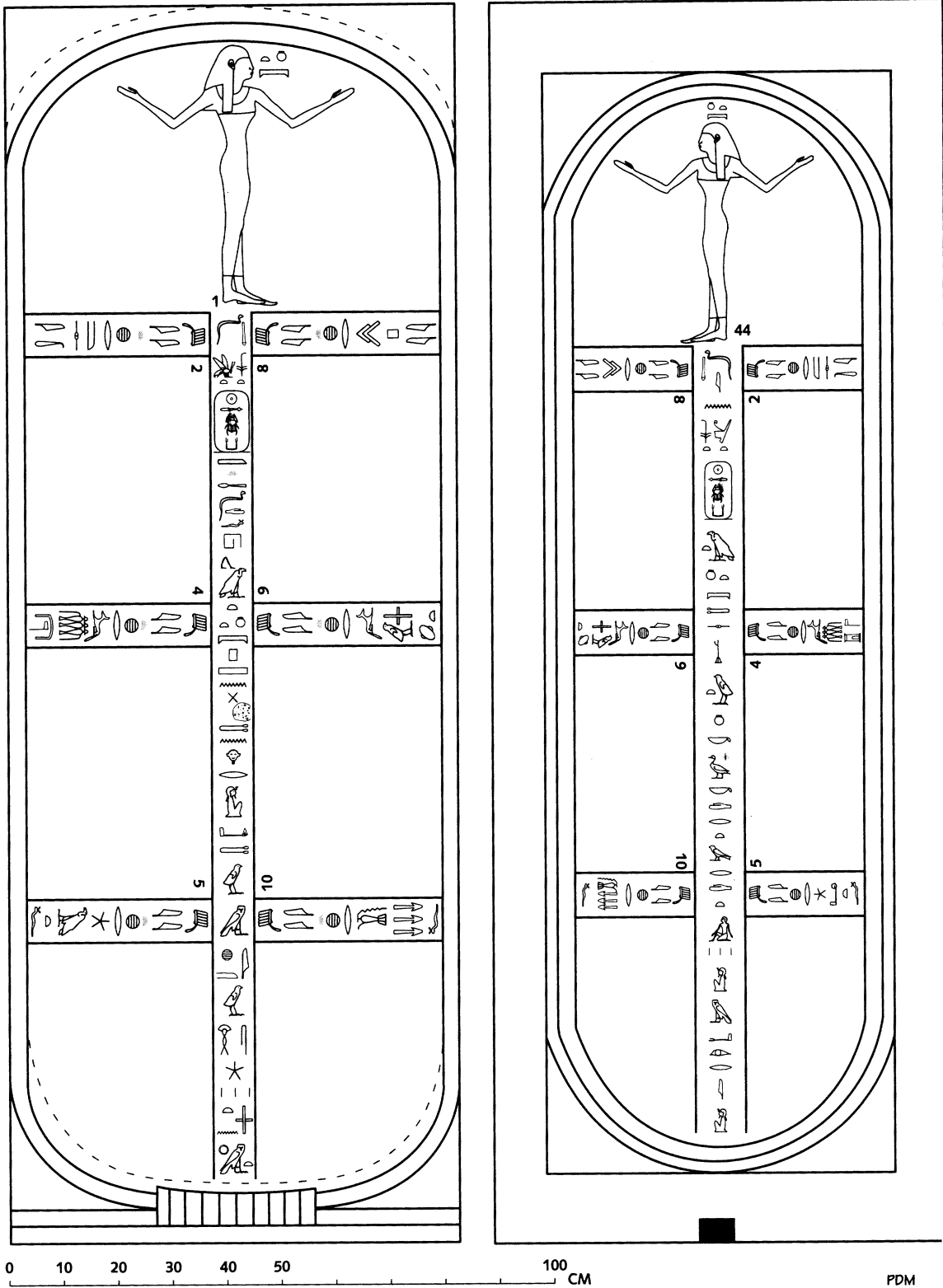
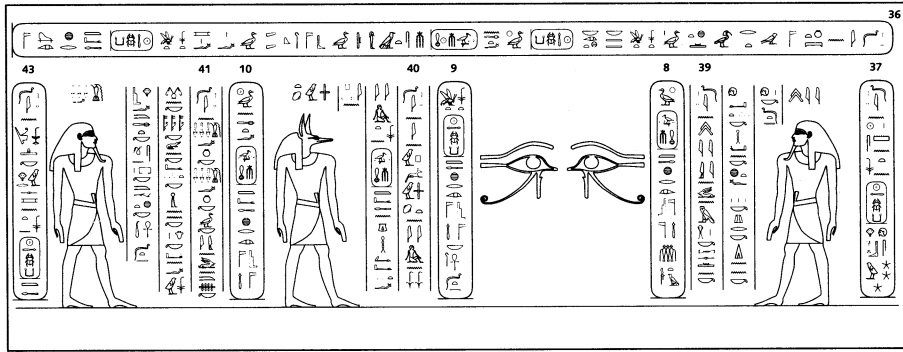
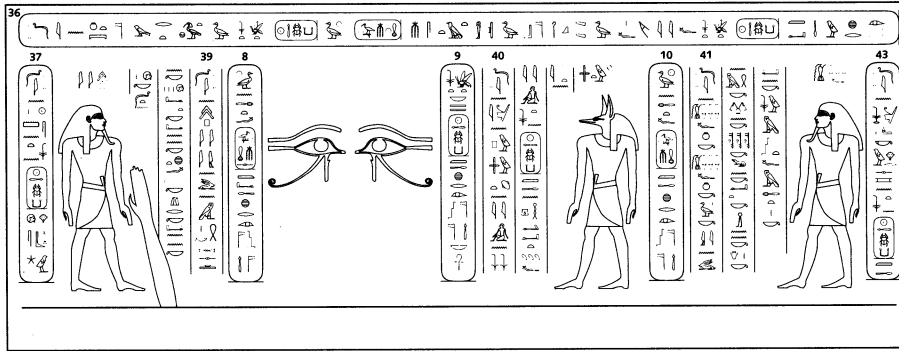


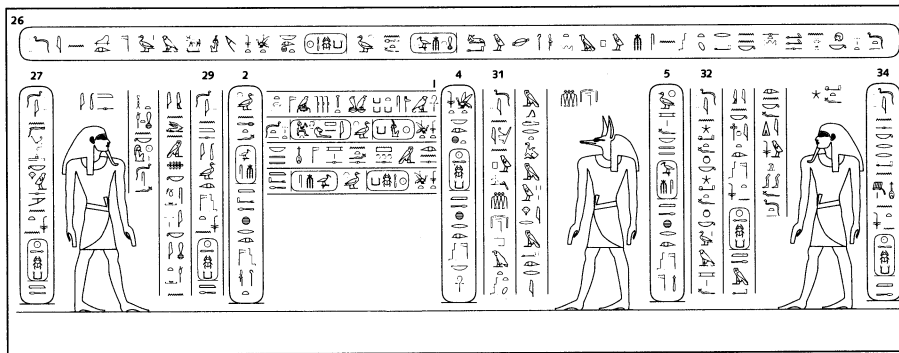
FIG. 9. Layout of the decoration of the top (left) and underside (right) of the sarcophagus lid.



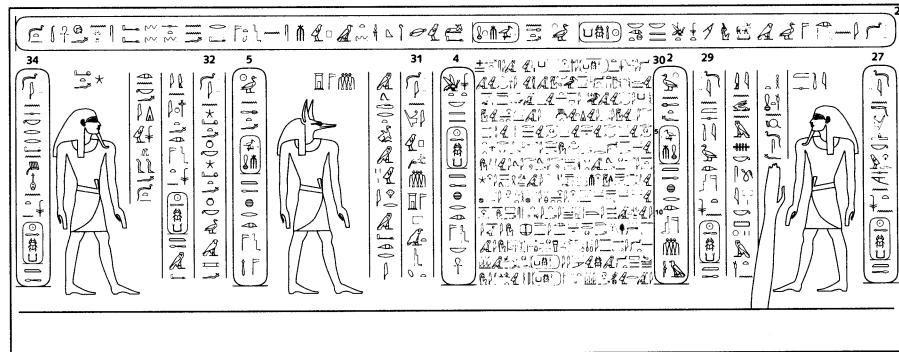
a Left (east) exterior



b Left (east) interior



c Right (west) exterior



d Right (west) interior

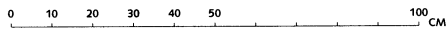


FIG. 10. Layout of the exterior and interior decoration of the long sides of the sarcophagus.

A similar inscription fills the lid's foot end:

Text 19 (lid: foot end); pl. X, 2; fig. 111

*ḏd mdw in Nwt nswt ʿḳ-hpr-kḳ-rʿ mḳʿ-hrw rdi. n=(i) n=k tp=k dt=k n g(i)h ʿwt=k iptn*

Recitation by Nut: O King Aa-kheper-ka-re, justified, I have given you your head and your body; these limbs of yours will not be weary.

The central vertical inscription down the top of the lid contains a speech by the queen that has been modified and assigned to the king:

Text 1 (lid: exterior); pl. VII, 1; fig. 9

*ḏd mdw nswt bit ʿḳ-hpr-kḳ-rʿ<sup>40</sup> mḳʿ[t]-hrw ḏd=fhḳ mwt Nwt pšn tn hr=i di=t w(i) m ihmw-skw imy=tn tm=(i) mwt*

Recitation by the King of Upper and Lower Egypt, Aa-kheper-ka-re, justified. He says: O mother Nut, stretch yourself over me, that you might place me among the Indestructible Stars<sup>41</sup> which are in you, and I will not perish.

An interesting comparison of texts on the top and undersides of the lid presents itself between Text 1 (top) with its complementary Text 44 (underside). While the top of the lid relates to Nut's function as the protective sky-goddess stretched out in the heavens above the king in the land of the living, the complementary text on the underside focuses on more funerary and rebirth aspects. On the underside, the king asks the goddess for resuscitation:

Text 44 (lid: interior); pl. VII, 2; fig 9

*ḏd mdw in nswt bit ʿḳ-hpr-kḳ-rʿ mwt=(i) Nwt ts=t w(i) ink sḳ=k dr=t wrdwt=i m-ʿ ir r=i*

Recitation by the King of Upper and Lower Egypt, Aa-kheper-ka-re: O (my) mother, Nut, raise me up. I am your son. Remove my weariness along with him who acts against me.

The transverse bands of inscriptions perpendicular to Text 1 continue down the exterior sides of the sarcophagus, where each is encircled by a tall cartouche, representing either the wooden cross pieces of Middle Kingdom sarcophagi or the bandage wrappings wound around the mummy itself. In the translations that follow, texts which continue from the lid down onto the exterior and interior sides (Texts 2, 4, 5, 8, 9, and 10) have a dash (—) to indicate the change of surface from horizontal to vertical. Note that the top and underside of the lid, as well as much of the sarcophagus, bear inscriptions which mirror each other, as if they penetrate through the thickness of the sarcophagus walls.<sup>42</sup> In the translations, attention focuses on the exterior texts; variations provided by the interior versions are noted in footnotes.

Text 2 (exterior and interior: lid and right side); pls. VII, 1, VIII, 2; figs. 9–10

*imshy[t] hr 'Imsti—sḳ Rʿ n ht=f Dhwtj-ms mḳʿ-hrw hr Wsir ḥqḳ imnt(t)<sup>43</sup>*

Revered before Imseti—bodily son of Re, Thutmose, justified before Osiris, ruler of the west.

<sup>40</sup> The original version for Hatshepsut has *Mḳʿt-kḳ-rʿ*.

<sup>41</sup> I.e. the circumpolar stars.

<sup>42</sup> For general remarks on the layout of coffins and sarcophagi, see H. G. Fischer, *The Orientation of Hieroglyphs*, 1: *Reversals* (New York, 1977), esp. 38–40.

<sup>43</sup> The interior version has *Wsir ḥnty imntyw*, 'Osiris foremost of the westerners'.

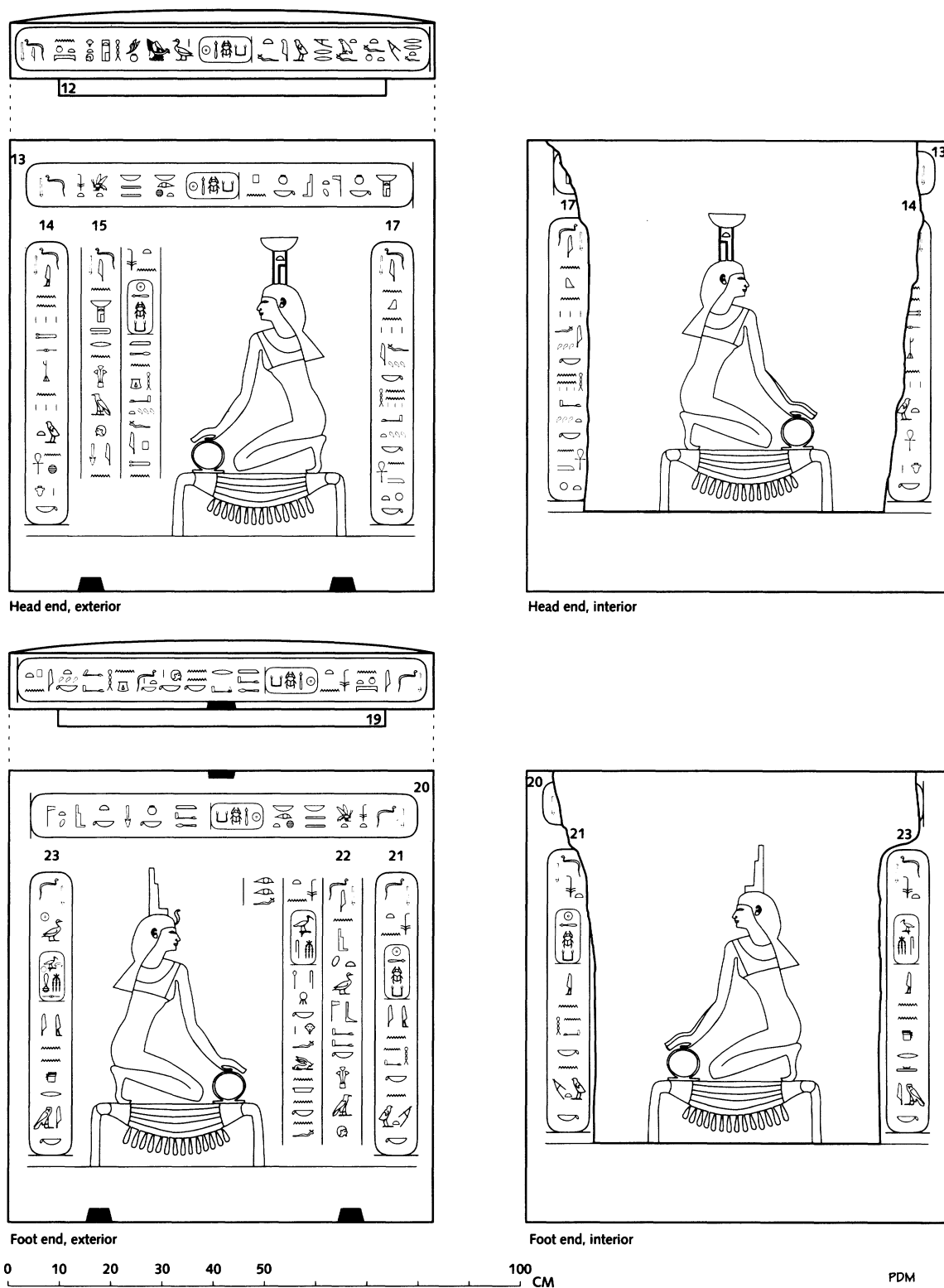


FIG. 11. Layout of the decoration of the exterior and interior head and foot ends of the sarcophagus.

Text 4 (exterior and interior: lid and right side); pls. VII, 1, VIII, 2; figs. 9–10

*imšhy[t] hr 'Inpw hnty sh-ntr—nswt bit nb ir(t) ht<sup>44</sup> ʕ-hpr-kʕ-rʕ mʕ-hrw hr Wsir nb ʕnh*

Revered before Anubis foremost-of-the-divine-booth—King of Upper and Lower Egypt, lord of the ritual, Aa-kheper-ka-re, justified before Osiris, lord of life.

Text 5 (exterior and interior: lid and right side); pls. VII, 1, VIII, 2; figs. 9–10

*imšhy[t] hr Dwʕ-mwt=f-sʕ Rʕ mr=f nb trwy<sup>45</sup> Dhwtʕ-ms mʕ-hrw hr Wsir ntr ʕ*

Revered before Duamutef—beloved son of Re, lord of the Two Lands, Thutmose, justified before Osiris, the great god.

Text 8 (exterior and interior: lid and left side); pls. VII, 1, VIII, 1; figs. 9–10

*imšhy[t] hr Hʕpy—Dhwtʕ-ms hʕ-mi-Rʕ mʕ-hrw hr Wsir ntr ʕ hnty imntyw*

Revered before Hapy—son of Re, Thutmose who-appears-in-glory-like-Re, justified before Osiris, the great god, foremost of the westerners.<sup>46</sup>

Text 9 (exterior and interior: lid and left side); pls. VII, 1, VIII, 1; figs. 9–10

*imšhy[t] hr 'Inpw imy-wt—nswt bit<sup>47</sup> ʕ-hpr-kʕ-rʕ mʕ-hrw hr Wsir ntr ʕ nb ʕnh hqʕ dt<sup>48</sup>*

Revered before Anubis who-is-in-the-embalming-place, King of Upper and Lower Egypt, Aa-kheper-ka-re, justified before Osiris, the great god, lord of life, ruler of eternity.

Text 10 (exterior and interior: lid and left side); pls. VII, I, VIII, 1; figs. 9–10

*imšhy[t] hr Qbh-snw=f-sʕ Rʕ n ht=f Dhwtʕ-ms hʕ-mi-Rʕ mʕ-hrw hr Wsir ntr ʕ*

Revered before Qebah-senuf—bodily son of Re, Thutmose who-appears-in-glory-like-Re, justified before Osiris, the great god.

The interior and exterior long sides of the sarcophagus bear the same basic scheme: four panels interspersed with vertical bands of inscriptions, and all surmounted by one long horizontal text (fig. 10). Three panels are filled with standing figures of the four sons of Horus, Hapy, Imseti, Duamutef, and Qebah-senuf, accompanied by recitation speeches and by two forms of the jackal-headed Anubis, foremost-of-the-divine-booth, and who-is-in-the-embalming-place.<sup>49</sup> Each deity sports a long wig, ceremonial beard, and a short, wrap-around kilt. The panel without a deity is occupied either by an inscription (right, west side) or by *udjat*-eyes (left, east side) allowing the deceased a view out eastwards onto the land of the living. In addition, the interior sides each bear an outstretched arm of Nut, the rest of whose body is represented on the sarcophagus floor. Nut thus once literally ‘embraced’ the wooden coffin placed inside (fig. 12).

### The left (east) side

Texts 8, 9 and 10 are the three central inscriptions within tall cartouches which continue inscriptions from the top of the lid (see above). The long horizontal band across the top of the left side reads:

<sup>44</sup> The interior has *nb trwy*, ‘lord of the Two Lands’, in place of *nb ir ht*.

<sup>45</sup> The interior has *n ht=f*, ‘of his body’, in place of *mr=f nb trwy*.

<sup>46</sup> The interior version ends with *ntr ʕ*, ‘the great god’.

<sup>47</sup> The interior has *nb trwy*, ‘lord of the Two Lands’, before the king’s prenomen.

<sup>48</sup> The interior version omits *hqʕ dt*. The exterior version seems to have corrected an error of omission: the *hqʕ*-sign has been added off-centre, to the left of the *ʕnh*-sign.

<sup>49</sup> For an interpretation of the heads as some type of dog, rather than a jackal, see Hayes, *Royal Sarcophagi*, 87.

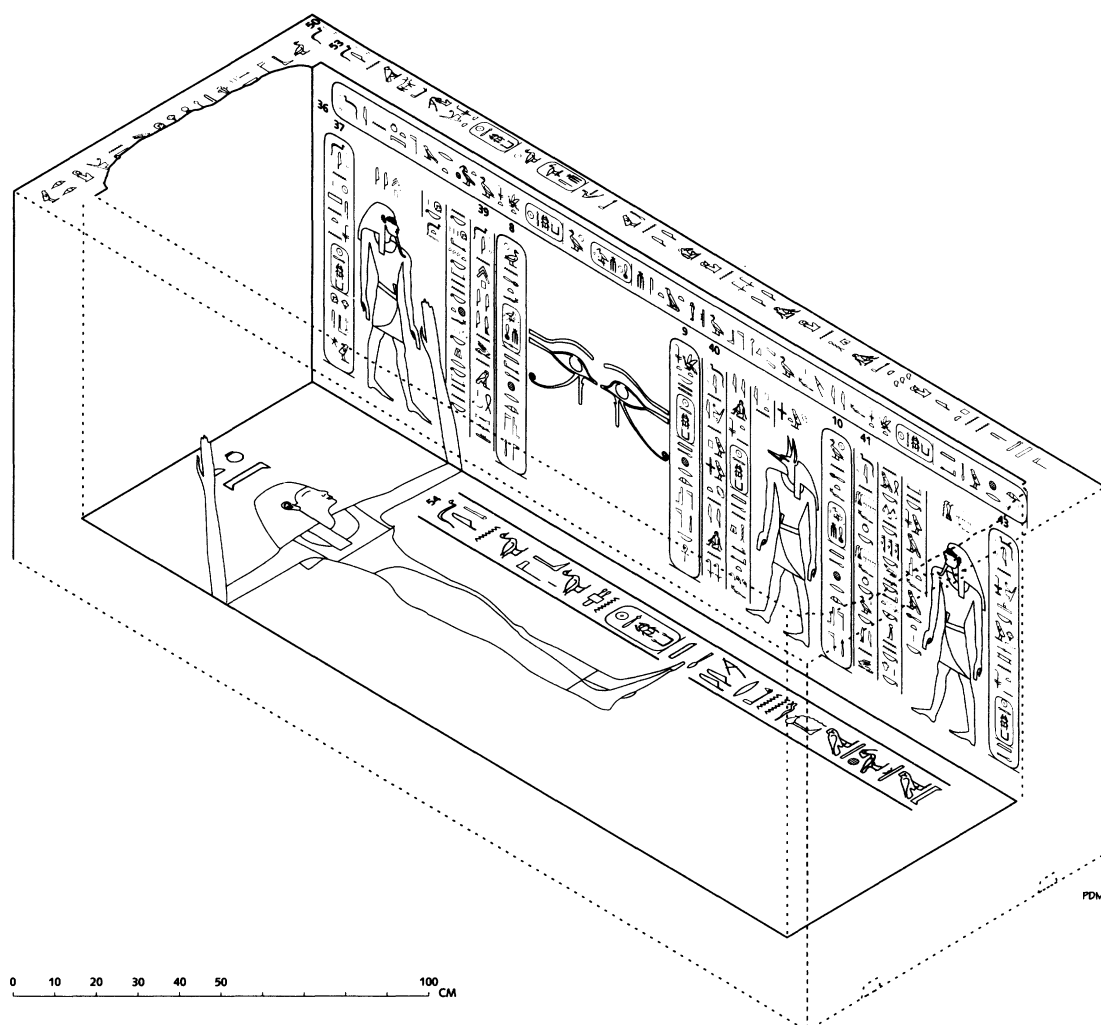


FIG. 12. Computer-generated isometric rendering showing the decoration of the floor and left interior side.

Text 36 (exterior and interior: left side); pl. VIII, 1; fig. 10

*dd mdw in Nwt wrt šht sꜣ=(i) nswt bit nb tꜣwy nb ir(t) ht<sup>50</sup> ꜣ-hꜣr-kꜣ-rꜣ sꜣ Rꜣ n ht=f<sup>51</sup> Dhwtꜣ-ms hꜣ-mi-Rꜣ mstꜣ<sup>52</sup> Gb hꜣ idb. wy sꜣ=f mr=f nswt bit ꜣ-hꜣr-kꜣ-rꜣ mꜣ-hꜣrw hr Wsir*

Recitation by Nut, great of beneficence: (My) son, King of Upper and Lower Egypt, lord of the Two Lands, lord of the ritual, Aa-kheper-ka-re, bodily son of Re, Thutmose who-appears-in-glory-like-Re, offspring of Geb, ruler of the two banks, his beloved son, King of Upper and Lower Egypt, Aa-kheper-ka-re, justified before Osiris.

Since the well-proportioned *udjat*-eyes mark the location of the deceased's head, all texts and figures on this side of the sarcophagus are oriented towards them (pl. VIII, 1; fig. 10).

<sup>50</sup> The interior version omits *nb tꜣwy nb ir(t) ht*.

<sup>51</sup> The interior omits *n ht=f*.

<sup>52</sup> The interior version includes an additional *t* in *mstꜣt*, but this is not unusual; cf. *Wb.* II, 151.10–14.

Thus, Hapy faces south at the head end, while Anubis who-is-in-the-embalming-place and Qebah-senuf, on the other (southern) side of the eye-panel, face north.

The first vertical text at the head end of the left exterior side contains a speech by the sun-god Re:

Text 37 (exterior and interior: left side); pl. VIII, 1; fig. 10

*dd mdw in R<sup>c</sup> smn. (n)=(i) nswt r<sup>c</sup>-hpr-k<sup>c</sup>-r<sup>c</sup> hry-tp h<sup>c</sup>bsw*

Recitation by Re: I (have) established King Aa-kheper-ka-re over the stars.

Next comes the figure of Hapy, whose speech reads:

Text 39 (exterior and interior: left side); pl. VIII, 1; fig. 10

*dd mdw in H<sup>c</sup>py ii. n=(i) wn=(i) m s<sup>c</sup>=k ts=(i) n=k tpw-<sup>c</sup>wt=k h<sup>c</sup>w=(i)<sup>53</sup> n=k hftyw=k hr=k di. n=(i) n=k tp=k dt*

Recitation by Hapy: I have come that I might be your protection, that I might bind (it) for you on<sup>54</sup> your limbs, that I might smite for you your enemies beneath you, when I have given you your head for eternity.

The second panel is filled with the *udjat*-eyes; a similar pair of eyes carved on the left interior side occupies the same relative position. The black pigment on the pupils is much better preserved on the exterior than on the interior. On coffins from the Middle Kingdom, the eyes occupy the first panel at the head end; by Hatshepsut's time they have been moved one panel closer to the foot end.<sup>55</sup> In the earlier Middle Kingdom coffins, the mummy lay on its side, with its head turned directly to the carved or painted *udjat*-eyes, but by the New Kingdom, with its larger coffins, it lay on its back. Thus, it was less important which panel contained the *udjat*-eyes, as long as they were on the east side.

The third panel contains the figure of Anubis who-is-in-the-embalming-place, facing north, or towards the eyes and head end. His speech reads:

Text 40 (exterior and interior: left side); pl. VIII, 1; fig. 10

*dd mdw in 'Inpw imy-wt ny=(i) nny nswt Dhwt<sup>c</sup>-ms h<sup>c</sup>-mi-R<sup>c</sup> m<sup>c</sup>-hrw n g(i) h<sup>c</sup> <sup>c</sup>wt=f iptn<sup>56</sup>*

Recitation by Anubis who-is-in-the-embalming-place: I have driven off the weariness of King Thutmose who-appears-in-glory-like-Re, justified, that these limbs of his will not be weary.

Before the standing figure of Qebah-senuf in the fourth and final panel, is his speech, which reads:

Text 41 (exterior and interior: left side); pl. VIII, 1; fig. 10

*dd mdw in Qbh-snw=f ink Qbh-snw=f ink s<sup>c</sup>=k ii. n=(i) wn=(i) m s<sup>c</sup>=k dmd=(i) n=k qsw=k s<sup>c</sup>q=(i) n=k <sup>c</sup>wt=k in=(i) n=k ib=k di=(i) n=f sw<sup>57</sup> hr st=f m ht=k<sup>58</sup> srwd. n=(i)<sup>59</sup> pr=k m-ht=k <sup>c</sup>nh. ti dt*

Recitation by Qebah-senuf: I am Qebah-senuf; I am your son. I have come that I might be your protection, that I might unite your bones for you, that I might assemble your limbs for you, that

<sup>53</sup> The interior version reads *di. n=(i) n=k hftyw=k*, 'when I have given you your enemies'.

<sup>54</sup> On the preposition *tpw-<sup>c</sup>*, see *Wb.* v, 285.3.

<sup>55</sup> Hayes, *Royal Sarcophagi*, 64–6, figs. 16–19.

<sup>56</sup> The interior version writes *iptn*.

<sup>57</sup> The interior has the more correct *di=(i) n=k sw*, 'that I might place it for you'.

<sup>58</sup> The interior version ends here.

<sup>59</sup> It is doubtful whether the *n* is to be taken seriously here as indicating a past tense, and is not a mistake for the book-roll determinative. Additional versions of this text on the other early Eighteenth Dynasty sarcophagi vary as to their inclusion or omission of *n*; see Hayes, *Royal Sarcophagi*, 200 (Text 41).



I might bring you your heart, and put it for him in its (proper) place in your body. I have strengthened your house after you. May you live forever.

At the foot end of the left exterior, behind Qebah-senuf, is the final inscription of this side, a speech by the Southern Saite Shrine:

Text 43 (exterior and interior: left side); pl. VIII, 1; fig. 10

*dd mdw in rsy htp=kw(i) hr=s mr.n=(i) nswt ʕ3-hpr-k3-rʕ m3ʕ-hrw*

Recitation by the Southern Saite Shrine: I am content because of it, since I have loved King Aa-kheper-ka-re, justified.

It is noteworthy that Texts 32 and 41 seem to be more correctly written on the interior of the sarcophagus than on the exterior; this could reflect the work of a more competent scribe, or a better copy of the papyrus text from which he worked.

### The right (west) side

The cartouche-enclosed Texts 2, 4, and 5 in the centre of the right side have already been translated as part of the transverse band texts which begin on the top of the lid. Similarly, the historical dedication inscription (Text I) was covered above, (p. 134). The long horizontal text at the top of the side reads:

Text 26 (exterior and interior: right side); pl. VIII, 2; fig. 10

*dd mdw in Wsir s3=(i) Hr k3 nht mr M3ʕt nswt bit<sup>60</sup> nb ir(t) ht ʕ3-hpr-k3-rʕ s3 Rʕ n ht=f Dhwtwy-ms hʕ-mi-Rʕ iwʕw hq3 imntyw pw ms n ʕst rdi. n=(i) n=k swt ʕ.wy=sn h3=k<sup>61</sup> ʕnh.ti dt*

Recitation by Osiris: (My) son, victorious bull, beloved of Maat, King of Upper and Lower Egypt, lord of the ritual, Aa-kheper-ka-re, bodily son of Re, Thutmose who-appears-in-glory-like-Re, heir of the ruler of the westerners, born of Isis. I have given you the necropolis, its two arms being behind you. May you live forever.

The first vertical text at the head end of the right exterior side contains a speech by the Northern Saite Shrine:

Text 27 (exterior and interior: right side); pl. VIII, 2; fig. 10

*dd mdw in mh(w) htp=kw(i) hr=s mr.n=(i) nswt ʕ3-hpr-k3-rʕ m3ʕ-hrw*

Recitation by the Northern Saite Shrine: I am content because of it, since I have loved King Aa-kheper-ka-re, justified.

Next comes the figure of Imseti, whose speech reads:

Text 29 (exterior and interior: right side); pl. VIII, 2; fig. 10

*dd mdw in 'Imsti s3=(i) Wsir nswt ʕ3-hpr-k3-rʕ m3ʕ-hrw ii.n=(i) wn=(i) m s3=k srwd=i pr=k<sup>62</sup> mi wd.t.n Pth mi wd.t n=Rʕ ds=f*

Recitation by Imseti: O (my) son, Osiris, King Aa-kheper-ka-re, justified, I have come that I might be your protection, and that I might strengthen your house, according to what Ptah has commanded, and according to what Re himself has commanded for you.

<sup>60</sup> The interior version adds *nb twy*, 'lord of the Two Lands', after *nswt bit*.

<sup>61</sup> The interior version uses the third person singular instead of the second person: *rdi.n=(i) n=f swt ʕ.wy=sn h3=f*, 'I have given him the necropolis, its two arms being behind him'.

<sup>62</sup> The interior version reads *mn sp sn m wd.t Pth*, 'very firmly established by command of Ptah'.

On the other side of the dedication inscription of Hatshepsut (Text I) stands Anubis foremost-of-the-divine-booth, accompanied by the following text:

Text 31 (exterior and interior: right side); pl. VIII, 2; fig. 10

*dd mdw in 'Inpw<sup>63</sup> hnty sh-ntr h(ꜣ) mwt ꜣst mi dr-t tꜣmw hr=i m-ꜣ ir r=i*

Recitation by Anubis foremost-of-the-divine-booth: O mother Isis, come that you might remove the bandages upon me along with him who acts against me.

Duamutef is the final figure standing towards the foot end of the right side. Before him is his speech:

Text 32 (exterior and interior: right side); pl. VIII, 2; fig. 10

*dd mdw in Dwꜣ-mwt=f ink Dwꜣ-mwt=f ink sꜣ Hr mr=f ü.n=(i n)=k<sup>64</sup> nd=i it=(f)<sup>65</sup> Wsir nswt ꜣ-hpr-kꜣ-rꜣ mꜣ-ꜣrw m-ꜣ ir nk(n)=f di=(i) sw hr rd. wy=f dt*

Recitation by Duamutef: I am Duamutef, beloved son of Horus. I have come to you(?) that I might protect his father, the Osiris, King Aa-kheper-ka-re, justified, from him who does him harm, and that I might place him under his (i.e. the king's) two feet forever.

Finally, the cartouche-enclosed text at the extreme right (south/foot) end is a speech by Sokar, reading:

Text 34 (exterior and interior: right side); pl. VIII, 2; fig. 10

*dd mdw in Skr rdi. n=(i) imꜣh nfr n nswt ꜣ-hpr-kꜣ-rꜣ mꜣ-ꜣrw*

Recitation by Sokar: I have given a perfect beneficence to King Aa-kheper-ka-re, justified.

The longest and most important religious text occurs inside the sarcophagus, on the interior right side. One of the earliest versions of New Kingdom mortuary literature is preserved here in the form of Chapter 72 of the Book of the Dead. On most of the royal sarcophagi from the Eighteenth Dynasty, this spell appears on the *exterior* right side, so that there is good reason to believe that it was once in that position on the original Hatshepsut version of the Boston sarcophagus decoration as well. After the sides had been shaved down and their inscriptions erased, Hatshepsut decided to use the exterior for her dedication inscription (Text I), the historical text stating her devotion to her father and her 'creation' of this sarcophagus for him. Therefore, the Book of the Dead spell had to be moved. The originally blank interior walls were inscribed in the recarving, when Chapter 72 was moved inside, accompanied by additional scenes of protective deities. The spell is cramped, with its fourteen horizontal lines carved in hieroglyphs that are much simpler, smaller and more densely packed than those elsewhere on the sarcophagus (see pl. IX, 2; fig. 13). There was not even room to include horizontal lines dividing one line of text from the next, as was done for the dedication inscription on the right exterior (Text I). The spell reads:

Text 30 (interior: right side); pl. IX, 2; fig. 13

<sup>63</sup> The exterior shows one *n* too many.

<sup>64</sup> Some telescoping of the *ns* may have occurred here; the interior version shows more correctly *ü.n=(i) nd=(i) it=f Wsir*.

<sup>65</sup> This passage seems corrupt; note the telescoping of two *ns* here. The interior bears the more correct reading omitting the datival *n=k*: *ü.n=(i) nd=i it=f*, 'I have come that I might protect his father'.

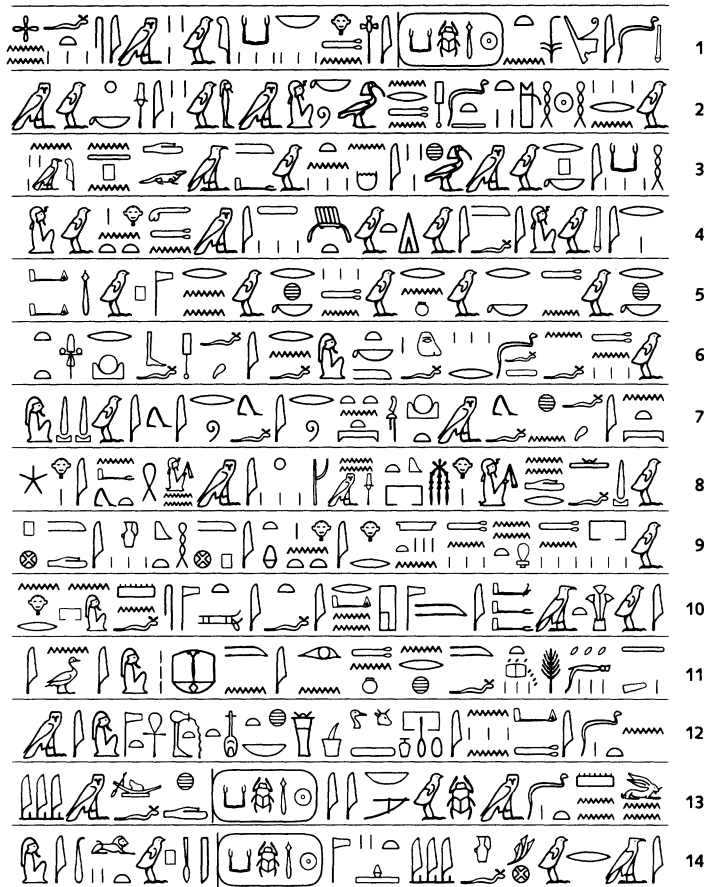


FIG. 13. Book of the Dead Chapter 72 inscribed on the right interior side of the sarcophagus (Text 30).

(1) *dd mdw in nswt ꜥ-hpr-kꜣ-rꜥ ind hr=tn nbw kꜣw šꜣw m isft wnn-(2) w r nhh hnty dt wbs.n=(i) r=tn  
 šh=kꜣw m hprw=i shm=kꜣw(i) m (3) hkꜣw=i irp=kꜣw(i)<sup>66</sup> m šhw=i nhm=tn w(i) m-ꜥ id n tꜣ.pn n šꜣwtꜣw  
 (4) rꜣ=i mdw=i im=f iw di.tw rwt=i m-bꜣh=tn hr-ntt wi (5) rh=kꜣw(i) tn r(h)=kꜣw(i) rnw=tn rh=kꜣw(i)  
 rn n ntr pw ꜥ dd-(6) w=tn n=f dfꜣw r fnd=f Tkm rn=f iw=f wbs=f r šht isbt (7) nt pt iw=f hn=f m  
 šht imntt nt pt rwi=f rwi=i wdꜣd,<sup>sic</sup> (8) wdꜣ=f nn dr=i hr msqt nn shm sbiw im=i nn šnꜥ.t(w)=i hr  
 sbꜣ-(9) w=tn nn htm=tn ꜣw=tn hr=i hr-ntt t=i m P hnqt=i m Dp (10) iw hꜣꜥꜥꜥ ꜣwꜣ=i m hꜣwt-ntr rdi. n n=  
 i it=i 'Itm smn=f n=i pr n hr(t?) (11) tꜣ it mh bty m=f n rh=tnw ir.n=i im<sup>67</sup> n hbw=i in sꜣ=i (12) n dt=i  
 di=tn n=i prt-hꜣw t hnqt kꜣ ꜣpd sntr mrht ht nb nfrt wꜣbt ꜣnh.t ntr im (13) wnn mn n dt m hprw nb mry  
 ꜥ-hpr-kꜣ-rꜥ hd=f m šht (14) iw hnm=f shꜣy htp-ntr ꜥ-hpr-kꜣ-rꜥ mꜣꜥ-hꜣw pw rwtꜣ*

(1) Recitation by King Aa-kheper-ka-re: Hail to you, owners of *kas*, who are free of evil and who exist (2) forever to the end of eternity. I have gained access to you, for I am a spirit in my (own) form, and powerful in (3) my magic, and reckoned among my spirits. Rescue me from the aggression of this land of the righteous (4) and (give me?)<sup>68</sup> my mouth, that I might speak with it. My offerings are placed in your presence, because I (5) know you, I kn(ow) your names, and I know the name of this great god (6) to whose nostrils you give offerings—his name is Tekem—as he gains access to the eastern horizon (7) of heaven, and as he alights in the western horizon of heaven. As he departs, so do I depart, and I flourish (8) as he flourishes. I will not be driven from the Milky Way.<sup>69</sup> Rebels will have no power over me. I will not be turned back from your gates. (9) You will not seal your doors against me, because my bread is in Pe and my beer is in

<sup>66</sup> The *r* in *irp* is intrusive; read *ip*.

<sup>67</sup> Two *i* reed-leaf signs may have been telescoped here. An intrusive *n* is also present.

<sup>68</sup> Cf. R. O. Faulkner, *The Ancient Egyptian Book of the Dead* (New York, 1985), 72.

<sup>69</sup> On this heavenly and funerary place name, see *Wb.* II, 149.15–16.

Dep. (10) The excess of my arms(?) is in the temple, (the excess) which my father Atum has given to me, that he might establish for me an earthly house, (11) with barley and emmer therein without number. My festivals will be made for me there by my (12) bodily son, and you will give me invocation offerings, incense, unguent, and every good and pure thing by which the god lives, (13) to exist and be established forever, in every form beloved of Aa-kheper-ka-re, that he might travel downstream in the Fields of (14) Reeds, and that he might reach the two fields of divine oblations. Aa-kheper-ka-re, justified, is the Double Lion (Ruty).

Among the interesting philological points are the full writing of the first person singular, both as divine determinative and as a reed-leaf; the negatival use of two water signs instead of the hanging arms; and good Middle Egyptian use of resumptive pronouns.

### The head and foot ends

The short ends of the sarcophagus are decorated with inscriptions accompanying the typical kneeling figures of the goddesses Nephthys (head) and Isis (foot). Each wears a tight-fitting dress and a *khat*-headdress. The goddesses kneel on the beaded collar *nbw*-sign, and each holds a protective *šn*-ring. The Isis figure on the exterior foot end is the only one on the sarcophagus to bear a royal uraeus on her brow.

The interior head and foot end figures are actually a 'second edition', since the first 'edition' was destroyed when the interior was hastily enlarged for Thutmose I's coffin (pls. XI, 1-2). Haste may be seen in the quality of the figures; they are by far the crudest on the entire sarcophagus, coarsely incised towards the top and merely painted towards the bottom (see pls. XII, 1-2; fig. 11). However, the best colour on the sarcophagus survives on these figures, no doubt because being on the inside, they were better protected. Traces of red outlines, white headdresses and cartouches, and blue collars, eyes, and eyebrows are still visible. The interior figures also show the mark of a different artist (or workshop?) in that two hands are visible, whereas only one appears on the exterior figures (pls. X, XII, 1-2; fig. 11). Perhaps a different crew or individual was involved in this last-minute alteration, since it probably took place inside KV 20 itself, far from the original atelier.

The texts on the head end are as follows. The horizontal band above Nephthys reads:

Text 13 (exterior: head end; interior destroyed); pls. X, 1, XII, 1; fig. 11

*dd mdw nswt bit nb trwy nb ir(t) ht ʕ-hpr-k3-r ʕ pn ink ʔst ink Nbt-hwt*

Recitation: O this King of Upper and Lower Egypt, lord of the Two Lands, lord of the ritual, King Aa-kheper-ka-re, I am Isis; I am Nephthys.

In front of Nephthys at the east side is a tall vertical cartouche containing:

Text 14 (exterior and interior: head end); pls. X, 1, XII, 1; fig. 11

*dd mdw ʔi.n=n ʔs=n tw ʕnh ʔb=k*

Recitation: We have come that we might raise you up, and that your heart might live.

The speech directly attributed to Nephthys fills two vertical columns in front of her:

Text 15 (exterior: head end); pls. X, 1, XII, 1; fig. 11

*dd mdw ʔn Nbt-hwt phr.n=(i) h3 sn=i nswt ʕ-hpr-k3-r ʕ m3ʕ-hrw n g(ʔ)h ʔwt=f ʔptn*

Recitation by Nephthys: I have encircled my brother, King Aa-kheper-ka-re, justified; these limbs of his will not be weary.

The western edge of the head end closes with a second cartouche-enclosed speech:

Text 17 (exterior and interior: head end); pls. X, 1, XII, 1; fig. 11

*dd mdw inq=n iw=f=k hn=n cwt=k cnh m mt=k*<sup>70</sup>

Recitation: We unite your flesh, we put your limbs in order. Live! You will not die.

The foot end is adorned with similar inscriptions:

Text 20 (exterior: foot end; interior destroyed); pls. X, 2, XII, 2; fig. 11

*dd mdw nswt bit nb trwy nb ir(t) ht G-hpr-k3-r c m3-c-hrw ink snt=k 3st*<sup>71</sup>

Recitation: O King of Upper and Lower Egypt, lord of the Two Lands, lord of the ritual, Aa-kheper-ka-re, justified, I am your sister, Isis.

Text 21 (exterior and interior: foot end); pls. X, 2, XII, 2; fig. 11

*dd mdw nswt G-hpr-k3-r c ii.n=(i) hn c=k n mrwt=k*

Recitation: O King Aa-kheper-ka-re, (I) have come with you<sup>72</sup> through love of you.

Text 22 (exterior: foot end); pls. X, 2, XII, 2; fig. 11

*dd mdw in 3st Gb c wy=k h3 nswt Dhwtj-ms shd=k hr=f wn.n=k n=f ir.ty=f*

Recitation by Isis: O Geb, your two arms are around King Thutmose. You illuminate his face. You have opened his eyes for him.

Text 23 (exterior and interior: foot end); pls. X, 2, XII, 2; fig. 11

*dd mdw s3 R Dhwtj-ms h c-mi-R c<sup>73</sup> ii.n=(i) ndr=i m=k*

Recitation: O son of Re, Thutmose who-appears-in-glory-like-Re, I have come that I might hold you fast.

### The sarcophagus floor

The interior floor bears the largest figure on the entire sarcophagus. A standing image of the goddess Nut, 96 cm tall, stretches her arms out in such a wide embrace around the (missing) coffin of the deceased that her arms change planes, extending up the left and right interior sides (see pl. XII, 3; fig. 12). A single vertical column of text is placed so close to her body that her front foot interrupts the vertical column line. Appropriately for the sarcophagus floor, the earth god Geb pronounces the recitation:

Text 54 (floor); pl. XII, 3; figs. 12, 14

*dd mdw in Gb s3 [t](=i) pn [tn] G-hpr-k3-r c m3-c-hrw mry[t](=i) rdi.n=(i) n=f [s] wcb m t3<sup>74</sup> sh m pt*

Recitation by Geb: As for this son of mine, Aa-kheper-ka-re, justified, whom I love, I have given him to be pure on earth and effective in heaven.

<sup>70</sup>The passage shows a reversed *m* in *mt*, 'die' (correct Hayes' *m* in Text c, to be reversed). The interior version omits the final pronoun =*k*, but writes the *m* in the correct orientation.

<sup>71</sup>Except for the initial *mdw*, the interior version of this text has been destroyed by the enlargement of the sarcophagus cavity.

<sup>72</sup>The only variant in this phrase occurs on Hatshepsut's sarcophagus 'A', which reads *hc=kw(i)*, 'rejoicing', for *hn c=k*.

<sup>73</sup>The interior version reads simply *Dhwtj-ms* in the cartouche. The exterior version contains one of the few cartouches to write out the horizontal —.

<sup>74</sup>Because this sign is so thin, Hayes construed it as a mistaken carved bolt *s*, and claimed the same mistake had been made on sarcophagus 'D', providing a common *Vorlage* for both sarcophagi (*Royal Sarco-*

### The tops of the sarcophagus walls

The tops of the walls are among the more interesting areas of the sarcophagus (fig. 14). Since these surfaces did not have to be shaved down in the redecoration process, they bear the Hatshepsut version of the inscriptions, complete with 'overwritten' cartouches and word endings modified from feminine to masculine. In addition, the head and foot ends display texts mutilated by the widening of the sarcophagus interior (pl. XIII, 1; fig. 14). These texts (50–51) read:

Text 50 (top of sarcophagus wall: head end); pl. XIII, 1; fig. 14

*dd mdw Gb ꜥwy=k ḥꜣ=(i) shꜣ=(k):<sup>75</sup> ḥr=(i) wn=k n=i ir.tyw=(i)*

Recitation: O Geb, your arms are around me. May you illuminate (my) face and open (my) eyes for me.

Text 51 (top of sarcophagus wall: foot end); pl. XIII, 1; fig. 14

*dd mdw in nswt ꜥ-hꜣr-kꜣ-rꜥ phꜣr(w) ḥꜣ=i<sup>76</sup> snw [n] g(ꜣ)ḥ ꜥwt=(i) tn*

Recitation by King Aa-kheper-ka-re: Surround me, brothers! These limbs of mine will not become weary.

The drastic reduction of the thickness of the sarcophagus is most apparent on the long sides, for Texts 52–53 no longer occupy the centre of the tops of the walls (fig. 14). So much has been shaved off that the texts now hug the 'new' exterior edges. As for the modification of the inscriptions, pl. XIII, 2 shows the left side prenomen and nomen cartouches of Hatshepsut, with the signs filled with a black resin, beneath those of Thutmose I (Texts 52–53). The two versions have been spatially separated in fig. 15. The long side Texts 52 and 53 read as follows:

Text 52 (top of sarcophagus wall: right side); fig. 14


*dd mdw in Hr nswt bit ꜥ-hꜣr-kꜣ-rꜥ sꜣ[t] Rꜥ Dhꜣwy-ms mꜣꜥ[t]-ḥrw ḥꜣ mwt=i Nwt mi dr=t tꜣmw ḥr=i m-ꜥ iri r=i*

Recitation by the Horus King of Upper and Lower Egypt, Aa-kheper-ka-re, son of Re, Thutmose, justified: O my mother Nut, come that you might remove the bandages upon me along with him who acts against me.<sup>77</sup>

Text 53 (top of sarcophagus wall: left side); fig. 14

*dd mdw in Hr[.t] kꜣ nḥt mr Mꜣꜥt nswt bit ꜥ-hꜣr-kꜣ-rꜥ<sup>78</sup> sꜣ[t] Rꜥ Dhꜣwy-ms mꜣꜥ[t]-ḥrw ny=i nny=i n g(ꜣ)ḥ ꜥwt=i iptn n St*

Recitation by the Horus, victorious bull, beloved of Maat, King of Upper and Lower Egypt, Aa-kheper-ka-re, son of Re, Thutmose, justified: I have driven off my weariness; these limbs of mine will not become weary because of Seth.

*phagi*, 100–2). Although the sign is thinner than a typical *t*-sign, there is no trace of the two 'bumps' in the middle of the sign which form part of the door bolt ; conclusive proof that this is the bolt *s* is lacking. Sarcophagus 'D' has yet to be collated on this point.

<sup>75</sup> The second person singular pronoun =*k* was destroyed when the sarcophagus was widened.

<sup>76</sup> Some signs were damaged or destroyed in the widening.

<sup>77</sup> The same inscription is found in Text 31.

<sup>78</sup> Traces of the cartouches in these texts betray the prenomen and nomen of Hatshepsut under the recarving of the name of Thutmose I.

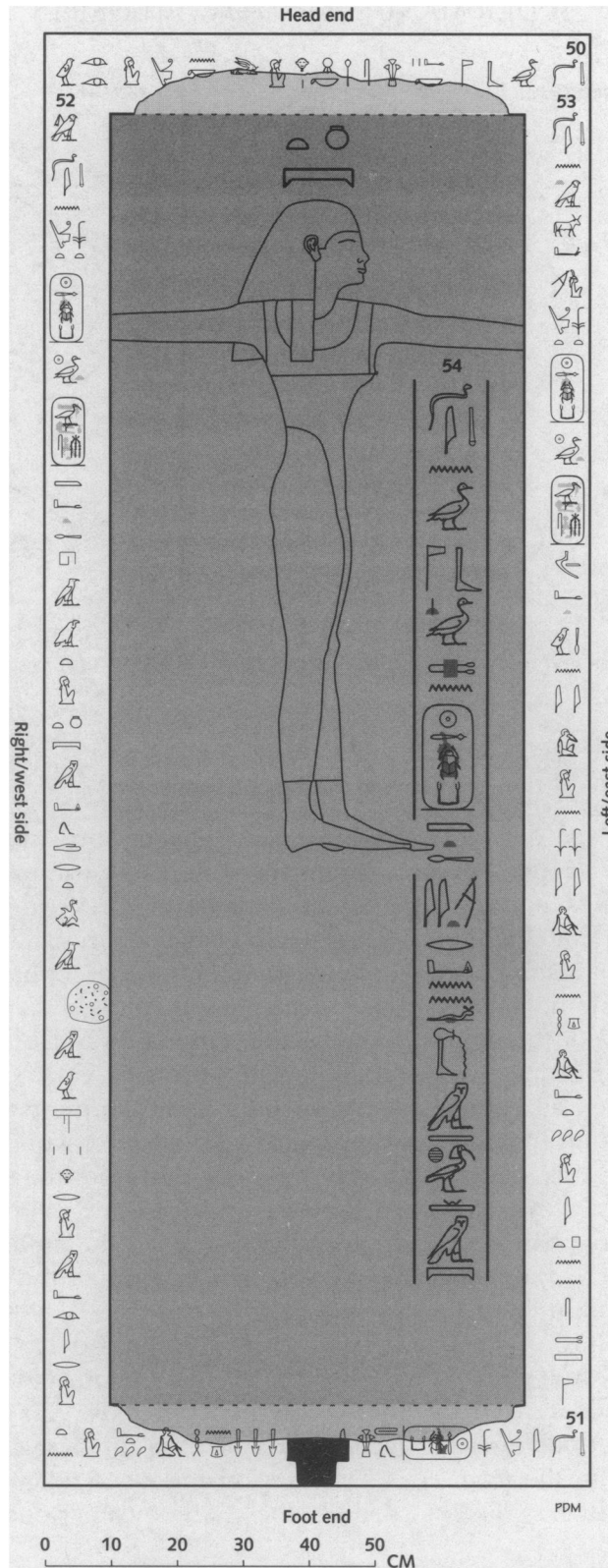


FIG. 14. Plan of the tops of the sarcophagus walls and floor decoration (shaded dark grey). The lighter grey at the head and foot ends represents the area cut away to take the coffin of Thutmose I.

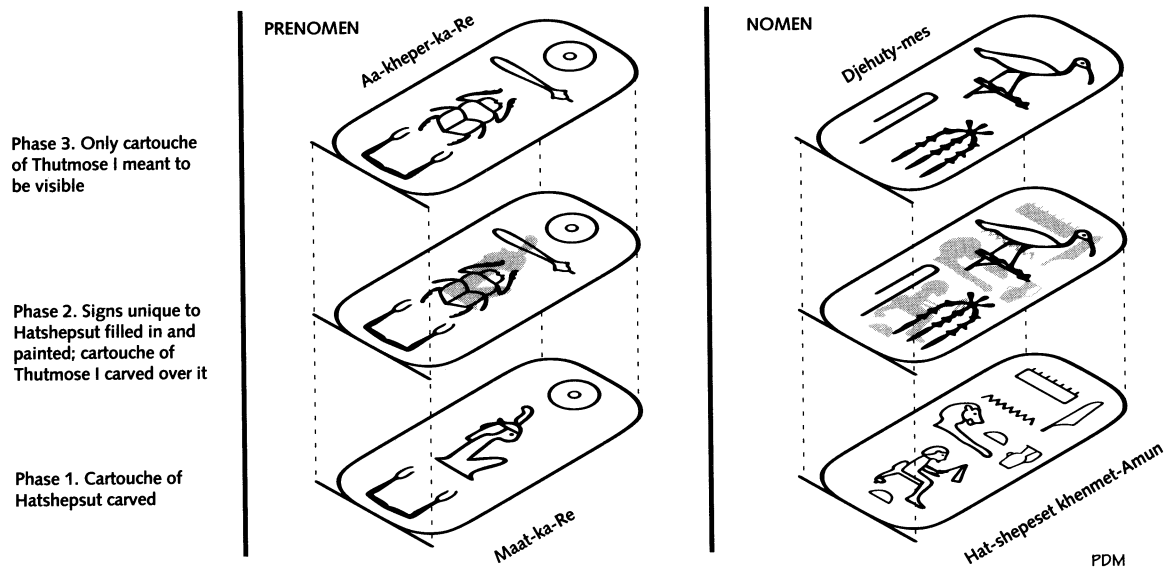


FIG. 15. Three phases involved in altering the cartouches of Hatshepsut into those of Thutmose I.

### The sarcophagus form

Some comments on the development of the sarcophagus form might serve to put the Boston piece in its proper context. Egyptian sarcophagi came to emulate different elements and structures at various periods in their history. Several of these elements are conflated for the first time in the early Eighteenth Dynasty corpus, with the Boston sarcophagus of Hatshepsut setting a development trend. These sarcophagi evolved out of the form of Middle Kingdom wooden coffins, rectangular boxes seen as houses or shrines for the spirit. By the end of the dynasty they had developed away from the simple exterior box concept and grown closer to being immediate containers for the body, incorporating elements from anthropoid coffins. Like their anthropoid counterparts, the earliest royal coffins of the Eighteenth Dynasty were probably also made of wood. The original sarcophagus of Hatshepsut as queen ('A') was possibly the first stone sarcophagus of the series, and represents a translation of the form from one medium (wood) to another (stone). The transverse bands of inscriptions derive from the anthropoid coffins of the Seventeenth and early Eighteenth Dynasties, and represent the bandage wrappings wound around the mummy.<sup>79</sup>

Sarcophagus 'C' shows several innovations over 'A' (and over the unfinished sarcophagus 'B' of Thutmose II). First, the transverse lid inscriptions continue down the sides of the sarcophagus, and second, the once empty panels between the vertical bands on the long sides of the exterior now bear decoration. This decoration takes the form of one of the four sons of Horus, the *udjat*-eyes, or longer historical or religious inscriptions. The lid is rectangular, but bears, like its predecessor 'A', an oval cartouche on top (the lid of

<sup>79</sup> Tutankhamun's mummy wrappings actually contain the recitations translated above; see H. Carter, *The Tomb of Tut-Ankh-Amen*, II (New York, 1927), 83-4, pl. xxvii A; Hayes, *Royal Sarcophagi*, 80-1, fig. 14.



'B' is blank). The rounded shape of the head end eventually takes over in subsequent sarcophagi to reflect the cartouche shape more thoroughly, and 'C' may foreshadow this development further in the rounded widening of the interior short ends to fit the wooden anthropoid coffin of Thutmose I (pl. XIII, 1; fig. 14). In addition, the lid of 'C' is the first to have a convex top, a feature developed and exaggerated to a pronounced rounding in subsequent lids.

The preparation of sarcophagus 'D' began when Hatshepsut ordered 'C' to be recarved. It is larger than 'C',<sup>80</sup> and the standing deities are 54 cm high, compared to only 46 cm high on 'C'. The texts on 'D' show some fuller spellings, since there is more room on the surfaces for decoration. Sarcophagus 'D' is also the first in the series to show a fully rounded head end. The only area in which 'C' surpasses 'D' is in the number of inscriptions and figures, since its interior is fully decorated, whereas that of 'D' is only partially so. Sarcophagus 'C' has 69 inscriptions with nineteen divine figures, while 'D' has only 50 inscriptions with thirteen divine figures. Otherwise, both monuments contain 36 different magical recitations each; twenty tutelary divinities are mentioned, and nine different divinities are represented.<sup>81</sup>

The development of Hatshepsut's three stone sarcophagi betrays her growing concern with bolstering her legitimacy on the throne. Each monument shows ever-increasing numbers of titles and epithets, a feature absent from the later sarcophagi of the early Eighteenth Dynasty. Sarcophagus 'A' (from Hatshepsut's cleft tomb at Wadi Sikkat Taqa el-Zeid) lists seven titles for her as queen. Sarcophagus 'C' bears all of these except 'lady of the Two Lands', which was eliminated in favour of six kingly epithets. On 'D' these six kingly epithets are joined by five more.<sup>82</sup>

It remains only to touch upon the stylistic features of the faces carved on the sarcophagus. The best-preserved female faces of Isis and Nephthys (from the exterior head and foot ends) may be seen on pl. XIII, 3. While these are, strictly speaking, not portraits of the queen (in either male or female form), such figures nevertheless do tend to take on the prevailing representational styles of the reigning monarch.<sup>83</sup> Often a style cannot be distinguished from that of the preceding pharaoh until some years into a new reign. Pl. XIV shows details of all the male deities present on the interior and exterior of sarcophagus 'C'. They display a long cosmetic line and pronounced, arching eyebrow. The modelling of the ears is well defined, and the lips are full. The ceremonial beard and long wig adorn each figure. The noses take a pug shape typical of the early Eighteenth Dynasty. Later representations of Hatshepsut and Thutmose III tend to show a more pronounced bulge on the bridge of the nose.<sup>84</sup> There is apparently no discernible pattern

<sup>80</sup> The measurements of sarcophagus 'D' are: l. 245 cm; w. 88 cm; total h. with lid in place 100 cm; h. of sarcophagus: 86.5 cm. These measurements were taken by Hayes, who gives additional dimensions in *Royal Sarcophagi*, 162.

<sup>81</sup> Ibid. 102-3. The smashed and fragmentary sarcophagus of Hatshepsut's chief steward Senenmut from his upper tomb (TT 353) was also manufactured in the same atelier, and bears a close resemblance to 'D'. This sarcophagus is in the Metropolitan Museum of Art (nos 31.3.95, 65.274, 1971.206) and has been recently reconstructed; see Dorman, *The Monuments of Senenmut*, 106-8, 154-5, 173; idem, *The Tombs of Senenmut*, 70-6, pls. 30-4; Hayes, *JEA* 36 (1950), 19-23.

<sup>82</sup> See Hayes, *Royal Sarcophagi*, 102-3.

<sup>83</sup> For the physiognomy of Hatshepsut's husband and predecessor, Thutmose II, see L. Gabolde, *SAK* 14 (1987), pls. 2-3, and G. Dreyer, *Festschrift W. Helck, SAK* 11 (1984), pls. 19-22.

<sup>84</sup> See Myśliwiec, *Le Portrait royal dans le bas-relief du Nouvel Empire*, pls. xviii-xxxi for early Thutmoseid representations with similar pug noses.

to the occurrence of different artistic hands working on individual faces, either between left and right sides or between the interior and exterior of the sarcophagus. The exterior figures are somewhat better carved and better preserved; in all likelihood, more effort was expended in finishing and polishing the exterior surfaces. Only a few faces present any anomalies, notably the interior representation of Hapy on the left side, due to its damaged condition, and those of Imseti on the right interior and exterior sides, whose eyes and eyebrow modelling seem either worn away or less pronounced.

Hayes spoke of sarcophagus 'C' as representative, not of a reign, but of a period.<sup>85</sup> Perhaps no other monument embodies the politics of the early Eighteenth Dynasty as well as the Boston sarcophagus of Hatshepsut and Thutmose I. With its superlative craftsmanship, complex political history, and developmental and religious significance, the sarcophagus is indeed a microcosm for a dynasty on the rise to an era of prosperity and prominence.

### Appendix: Analysis of red paint and filling material

by Richard Newman

#### *Red paint*

The reddish colour of the sarcophagus exterior is due to red-coloured paint. Thick deposits can be seen in hieroglyphs and other recessed areas, while only thin washes occur on polished stone surfaces. Six samples from the left side were analysed by electron microprobe,<sup>86</sup> Fourier transform infrared microscopy (FTIR),<sup>87</sup> and gas chromatography/mass spectrometry (GC/MS),<sup>88</sup> to identify the pigments and binder(s). The analyses indicate that the red paint, which is of similar, if not identical, composition in all of the samples, contains red earth (or ochre), the only red pigment that has been found to date in ancient Egyptian paints. Kaolinite (a clay mineral) and quartz are components of this earth pigment, as indicated by the FTIR spectra (fig. 16). The spectra also suggest that the pigment was bound with a plant gum, a type of binder which was probably common in ancient Egypt.<sup>89</sup>

<sup>85</sup> Hayes, *Royal Sarcophagi*, 136–7.

<sup>86</sup> The elemental compositions of small portions of the samples were analysed by qualitative energy-dispersive X-ray fluorescence in a Cameca MBX microprobe (Dept. of Earth and Planetary Sciences, Harvard University).

<sup>87</sup> Samples were pressed in a diamond anvil cell and analysed on a Nicolet 510P FT-IR spectrometer with an attached Nic-Plan infrared microscope at a resolution of 8 wavenumbers; 300 scans were co-added.

<sup>88</sup> Samples were hydrolysed and derivatised following the procedure described by D. Erhardt, W. Hopwood, M. Baker, and D. von Endt, ('A systematic approach to the instrumental analysis of natural finishes and binding media', *American Institute for Conservation: Preprints of papers presented at the sixteenth annual meeting, New Orleans, Louisiana, June 1–5, 1988* (Washington, D.C., 1988), 67–84), except derivatisation was carried out with 30 microlitres of a lab-prepared oxime reagent (8.5 mg hydroxylamine hydrochloride/ml in pyridine) and ten microlitres of trimethylsilylimidazole. Analyses were carried out on a Hewlett Packard 5890 capillary gas chromatograph with an HP 5971A mass selective detector. Split sampling was utilized, with a non-polar column. The mass spectrometer was operated in selected ion monitoring mode, using a programme that included the five major ions of each of eight common simple sugars. Identifications were made on the basis of retention time and mass spectra with reference to simple sugar and gum standards prepared and analysed by the same procedures.

<sup>89</sup> Lucas and Harris, *Ancient Egyptian Materials and Industries*<sup>4</sup>, 5–6; C. Vieillescazes and D. Lefur, *BSEG* 15 (1991), 95–100.

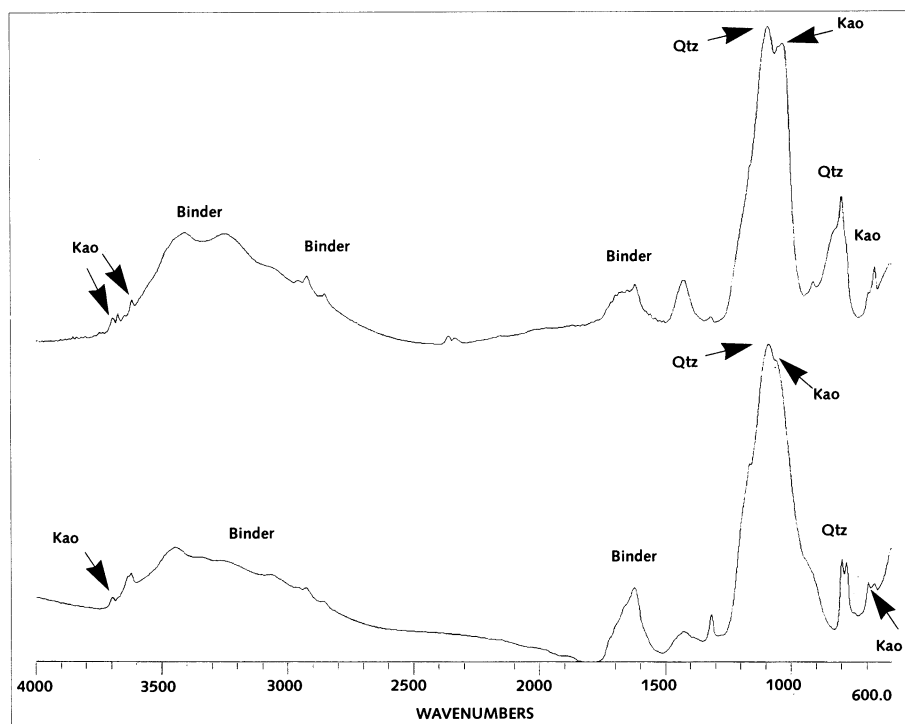


FIG. 16. Fourier transform infrared absorption spectra of two red paint samples from the sarcophagus exterior. Peaks marked 'Kao' are due to kaolinite, those marked 'Qtz' to quartz, both of which are components of the red pigment. Peaks due to the paint binder are also marked.

Plant gums can be hydrolysed to yield simple sugars, the types and relative amounts of which vary somewhat from one type of gum to another.<sup>90</sup> Two samples of paint were analysed for simple sugars by GC/MS. The samples gave virtually identical results, showing the presence of large amounts of xylose and glucose, and smaller amounts of fucose, rhamnose, galactose, and possibly arabinose (fig. 17). These results suggest that more than one sugar-containing material is present in the paint. One component may be gum tragacanth, a gum that could have been available in ancient Egypt (xylose and fucose are important sugars in it). Glucose is not usually found in plant gums, although it is present in honey, plant juices, sugar, and some seeds; perhaps some sugar (in the form of plant juice or honey) was added to make the paint stickier.

Exactly why this red paint is present on the surface is not certain. As suggested above (p. 131), it may simply have been brushed or smeared over the surface as a guide for the stoneworkers polishing the stone. Thus, the thicker deposits in the hieroglyphs and other recessed areas of the design may be fortuitous, rather than indicating intentional filling of these elements with red paint. There are no indications of other colours anywhere on the exterior of the sarcophagus, although paint does remain on the figures on the inside ends which were added during alteration.

<sup>90</sup> See, for example, J. Twilley, 'The analysis of exudate plant gums and their artistic applications: an interim report', in *Archaeological Chemistry* III, ACS Advances in Chemistry Series, No. 205 (Washington, D.C., 1984), 357-94.

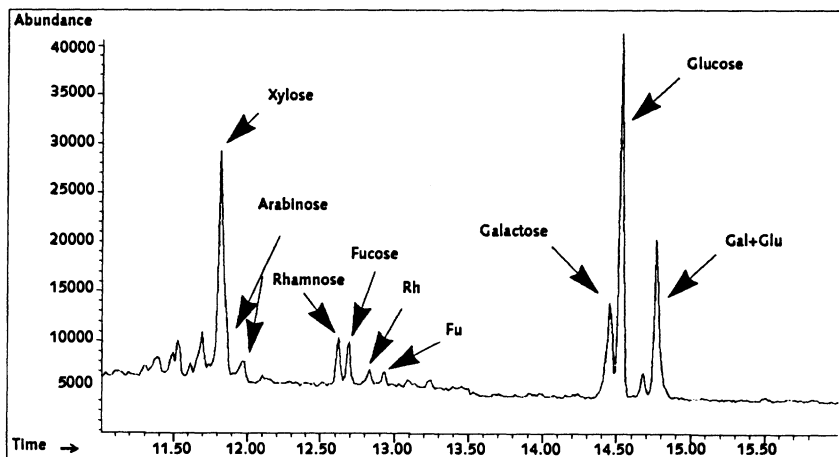


FIG. 17. Portion of total ion chromatogram from hydrolysed sample of red paint from a recessed area of the design on the sarcophagus exterior. Simple sugars, analysed as oxime-trimethylsilyl derivatives, are labelled (most give rise to two separate peaks, as indicated).

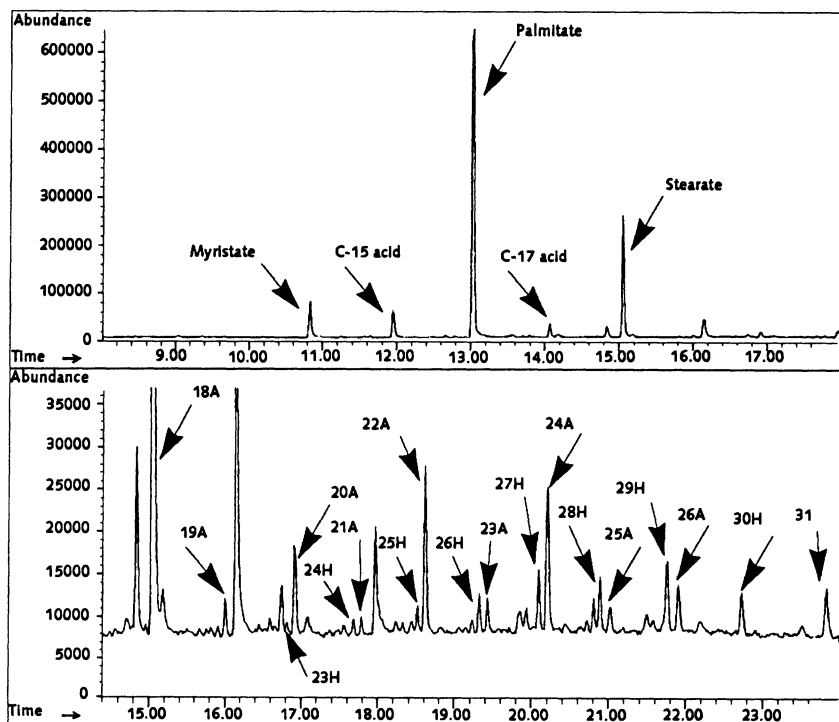


FIG. 18. Portions of total ion chromatogram from methylated methylene chloride extract of a sample of fill from an altered inscription. Upper trace shows major peaks, all due to fatty acids, as indicated. Lower trace is an expanded portion of the chromatogram, showing some of the less abundant compounds detected, which mainly consist of straight-chain hydrocarbons (labelled 'H', preceded by number of carbon atoms) and fatty acids (labelled 'A', again preceded by number of carbon atoms).

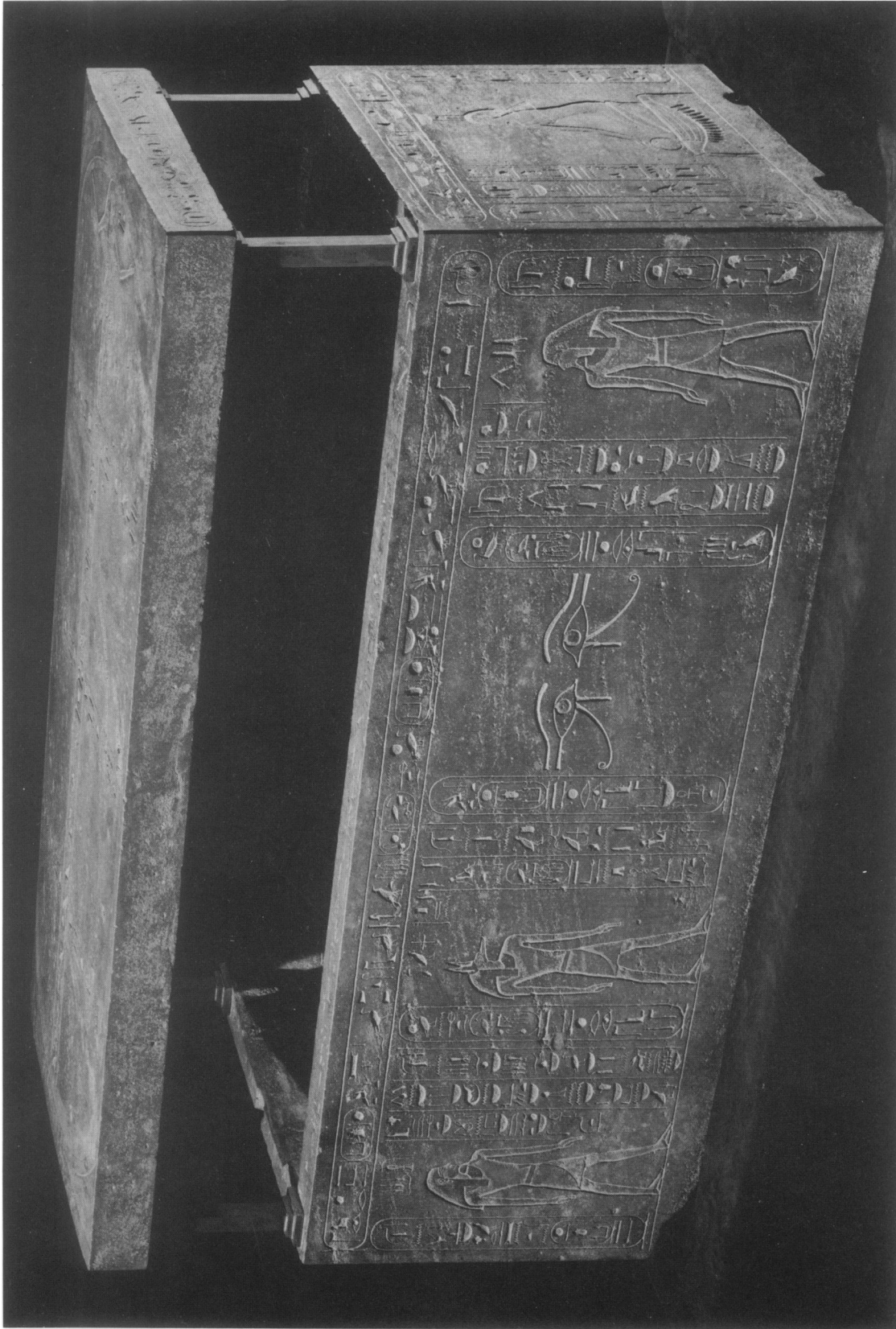
*Filling material in altered inscriptions*

During the alteration of the sarcophagus, portions of many inscriptions were filled with a brownish-black material. One sample from a character on the top edge of the left side was analysed by a combination of the same techniques used with the red paint. The sample is mostly organic and contains little or no inorganic filler (a very small amount of calcium carbonate was detected). The principal compounds detected by GC/MS were fatty acids (fig. 18, top). These are present as free fatty acids in the sample, rather than in the form of triglycerides, the form in which they occur in vegetable oils.<sup>91</sup> These fatty acids may have an animal source, given the relative abundance of myristic acid.

Among the minor peaks in the chromatogram is a series due to the hydrocarbons (fig. 18, bottom). The source of these is not clear, but it does not appear to be a plant wax or beeswax, nor does the pattern resemble that of the hydrocarbons found in bitumen or asphaltum. GC/MS analysis detected traces of two compounds indicative of mastic resin, a type of resin which would have been available in ancient Egypt.<sup>92</sup> No sugars were detected by GC/MS in another portion of the sample, so that no gum is apparently present. The FTIR spectrum suggested that a protein-containing material, such as animal glue, could also be present. Thus, the fill was made from a mixture of materials, which included mastic resin and a fatty substance, perhaps animal fat.

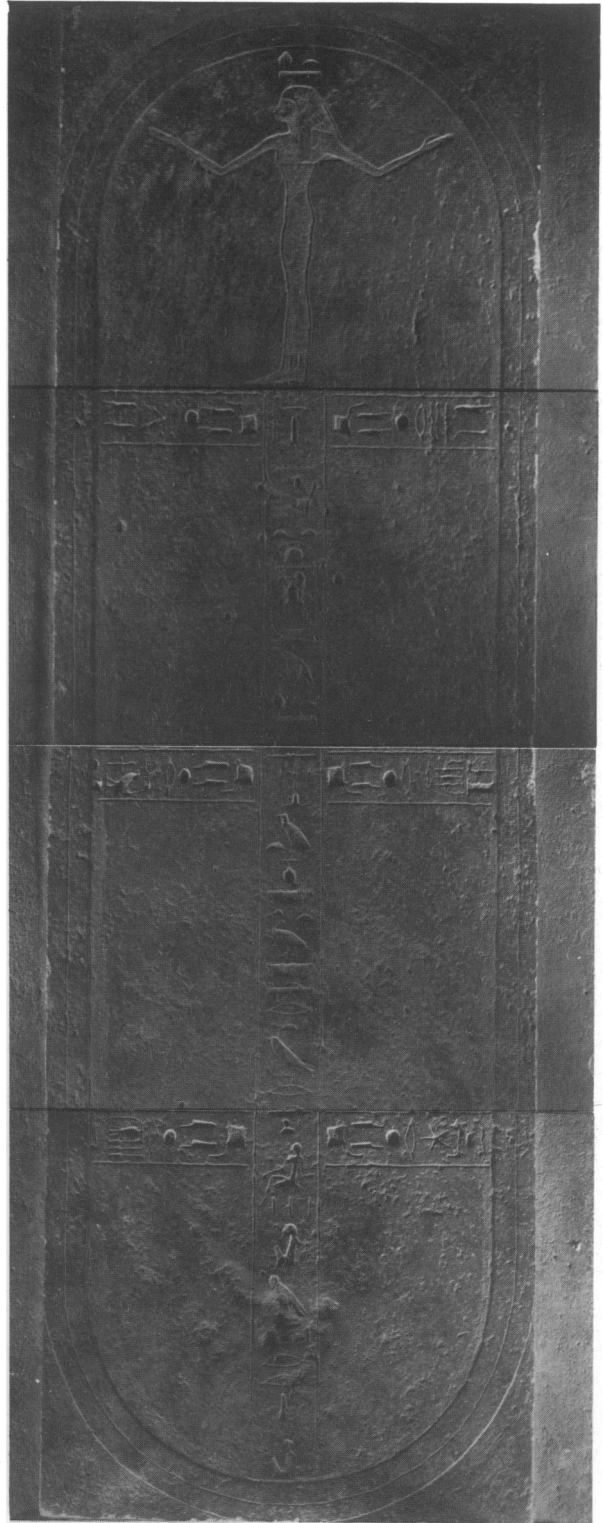
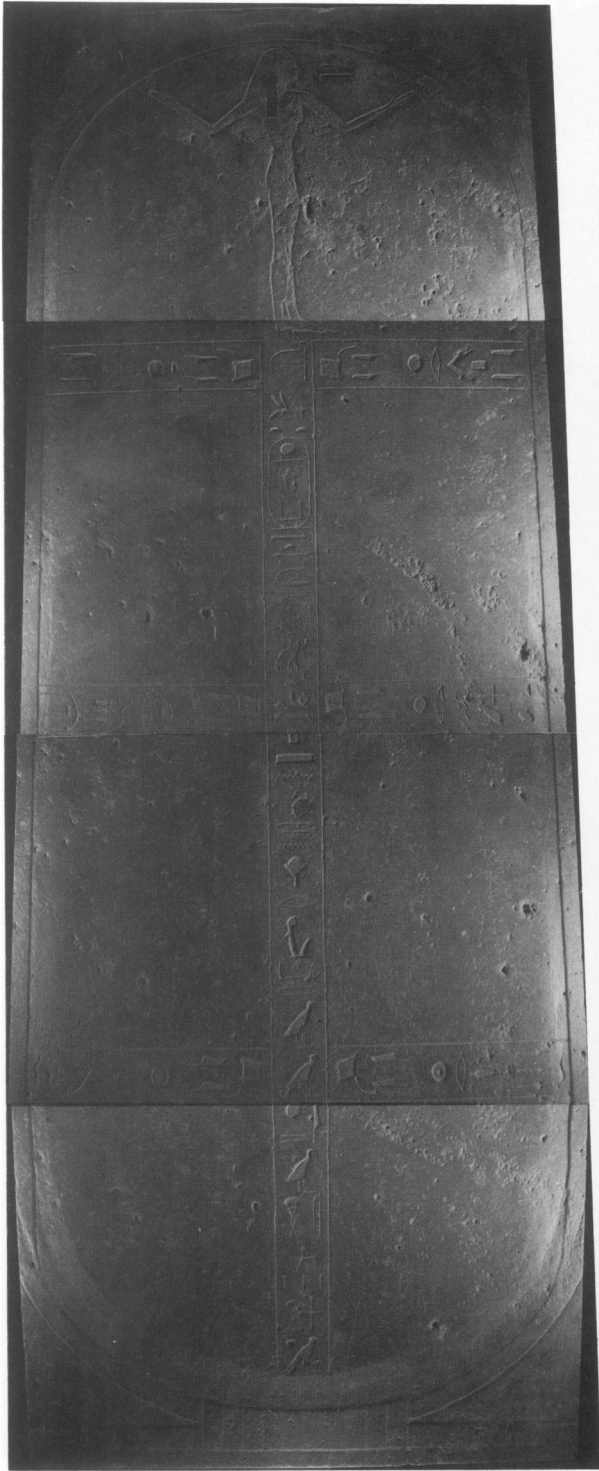
<sup>91</sup> A crushed sample was saponified and extracted following a procedure described by D. Erhardt et al. (note 88). Methylation was carried out with ten microlitres of dimethylformamide dimethyl acetal. GC/MS analysis was carried out both with the mass spectrometer in scan mode (50–500 amu) and selected ion monitoring mode, utilizing a programme that includes characteristic ions for fatty acids, wax hydrocarbons, hopanes of asphaltum and bitumen, and some of the compounds found in pine and mastic resins. A second portion of the sample was extracted by heating in methylene chloride and then methylated before analysis by GC/MS. The profiles of fatty acids in the saponified sample and methylene chloride solution were essentially identical, indicating that the fatty acids are not present in the form of esters (as in triglycerides), which the FTIR spectrum also indicated.

<sup>92</sup> The compounds, detected by selected ion monitoring in the methylated methylene chloride extract, were methyl moronate (base peak,  $m/z$  189; molecular ion,  $m/z$  468) and methyl oleanonate (base peak,  $m/z$  203; molecular ion,  $m/z$  468). For a discussion of the source(s) of this resin in antiquity, see J. Mills and R. White, *Archaeometry* 31 (1989), 37–44.



1. Sarcophagus of Queen Hatshepsut, recarved for King Thutmose I  
(*Courtesy Museum of Fine Arts, Boston*)

THE RECARVED SARCOPHAGUS OF HATSHEPSUT (pp. 121-155)



1. Composite photograph of the top of the lid

2. Composite photograph of the underside of the lid





1. General view of the left exterior side of the sarcophagus (pp. 140-3)  
(Courtesy Museum of Fine Arts, Boston)



2. General view of the right exterior side of the sarcophagus (pp. 138-44)  
(Courtesy Museum of Fine Arts, Boston)





1. Historical dedication Text I of Hatshepsut; right exterior side (pp. 134-5)



2. Book of the Dead Chapter 72 inscribed on the right interior side of the sarcophagus (Text 30)  
(pp. 144-6)

THE RECARVED SARCOPHAGUS OF HATSHEPSUT



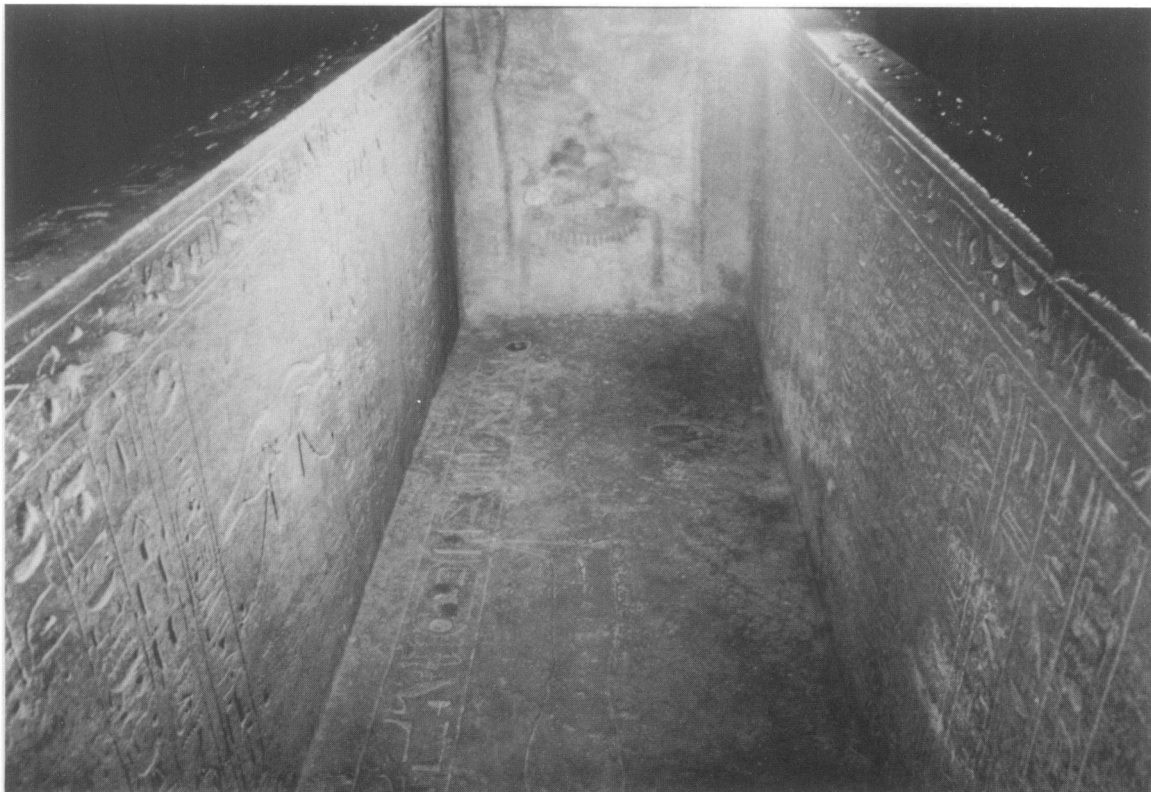
1. Head end of the sarcophagus (pp. 135, 146-7).  
(*Courtesy Museum of Fine Arts, Boston*)



2. Foot end of the sarcophagus (pp. 138, 146-7)  
(*Courtesy Museum of Fine Arts, Boston*)



1. General view of the sarcophagus interior, including the head end (p. 146)



2. General view of the sarcophagus interior, including the foot end (p. 146)

THE RECARVED SARCOPHAGUS OF HATSHEPSUT





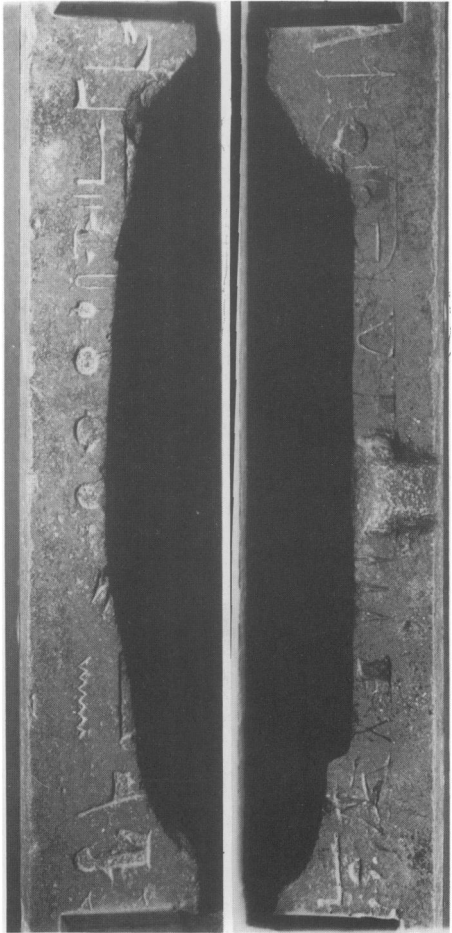
1. Interior head end of the sarcophagus, with surface cut back to make room for the coffin of Thutmose I, and a crudely incised figure of Nephthys (pp. 146-7)



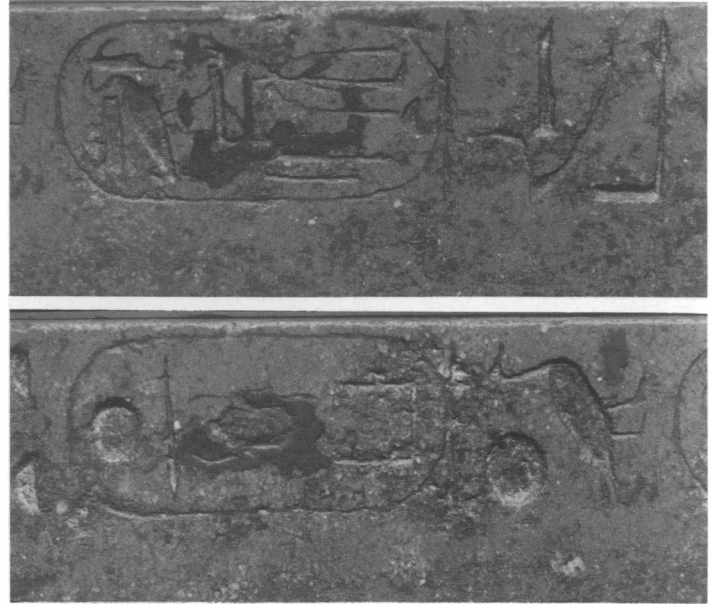
2. Interior foot end of the sarcophagus, with surface cut back to make room for the coffin of Thutmose I, and a crudely incised figure of Isis (pp. 146-7)



3. Detail of the sarcophagus floor showing the figure of Nut (p. 147)



1. Inscriptions at the head and foot ends of the top of the sarcophagus walls (Texts 50-51), partially destroyed during enlargement of the interior cavity to take the coffin of Thutmose I (p. 148)

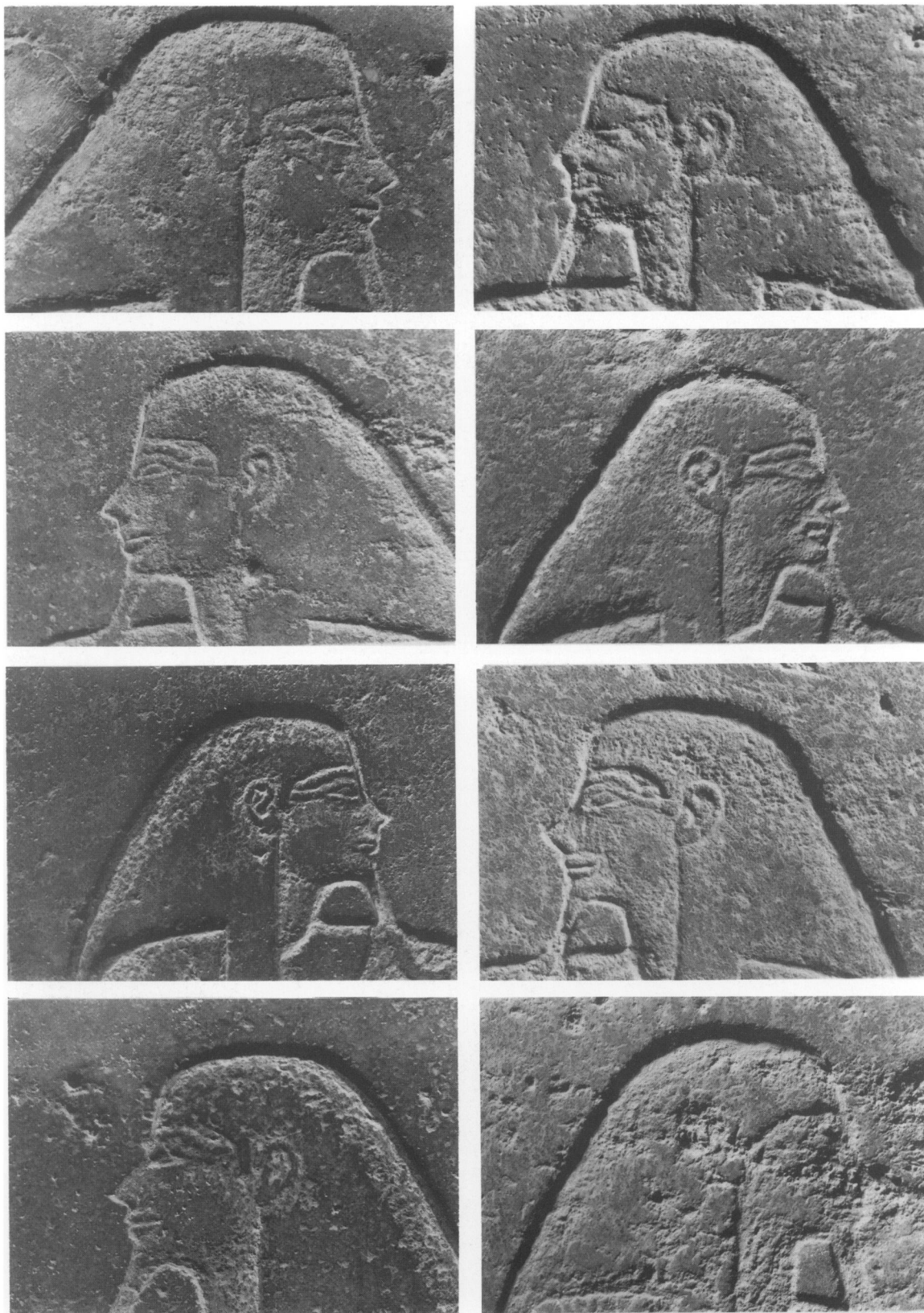


2. The recarved prenomen (left) and nomen (right) of Hatshepsut and Thutmose I, from the left side top of the sarcophagus wall (Text 53) (p. 148)



3. Details of the face of Nephthys (top) and Isis (bottom), from the exterior head and foot ends respectively (p. 151)

THE RECARVED SARCOPHAGUS OF HATSHEPSUT



1. Details of human-headed deities. Exterior faces are in the left column, while interior faces are in the right. The figures shown are, from top to bottom: Imseti (right side), Duamutef (right side), Qebah-senuf (left side), and Hapy (left side) (p. 151)

## LE *nbi* ET LE CANON DE PROPORTIONS

By CLAIRE SIMON

A re-examination of the corpus of length-measuring instruments reveals the existence of standardized tools and apparently unstandardized ones. It is shown that the latter are inscribed with different scales of the canon of proportion which were intended to draw the preparatory grids for decorated walls. Some of them, found at Kahun, have previously been wrongly interpreted as foreign standards. The word *nbi* is studied anew and the author demonstrates, with the help of the plan of Senenmut's tomb (TT 71) sketched on an ostrakon, that the *nbi* is a linear measure of 70 cm (divided into seven units of 10 cm), i.e. a wooden rod inscribed with the canon at full scale. In use possibly as early as the Old Kingdom, the *nbi* was certainly employed from the Twelfth Dynasty onward in several parts of Egypt, until the reform of the canon during the Twenty-sixth Dynasty made this implement obsolete.

LA rédaction d'une thèse concernant l'outillage utilisé pour la construction en pierre dans l'Égypte ancienne m'a amenée à étudier les instruments de mesure. La classification qu'a donnée Adelheid Schlott comprend des coudées votives, personnelles et utilitaires.<sup>1</sup> Seuls ont été retenus les objets utilitaires.<sup>2</sup> Le corpus d'outils fonctionnels conservés est constitué, à ma connaissance, de douze règles qui se présentent comme des bâtons de bois, anépigraphes, portant des incisions qui déterminent des intervalles. Ces règles ne méritent pas toutes le nom de 'coudée'.

En effet, six instruments sont étalonnés et six ne le sont apparemment pas. Je définis la coudée comme un étalon de mesure linéaire dont la longueur, de 52,5 cm (divisée en sept 'paumes' de 7,5 cm, elles-mêmes subdivisées en quatre 'doigts' de 1,875 cm), a été déterminée par la moyenne des longueurs des exemplaires connus.<sup>3</sup> En ce sens, il faut différencier la coudée-étalon (théorique), qui ne varie pas, des coudées-outils (pratiques), qui varient. En effet, leurs longueurs totales, d'un exemplaire à un autre, de même que leurs divisions—sur un même outil—ne sont jamais exactement égales, bien qu'elles soient très similaires. Par conséquent, seuls devraient être appelés 'coudées' les outils qui mesurent environ 52,5 cm et dont les sept divisions ont à peu près 7,5 cm de longueur. Les autres instruments sont seulement 'étalonnés', c'est-à-dire que leur longueur et leurs divisions sont multiples du doigt, de la paume ou de la coudée. C'est le cas, par exemple, de la 'petite coudée' (six paumes-étalon) ou de la double-coudée (deux coudées-étalon). Les coudées-outils possèdent une arête biseautée, mais pas les double-coudées.

Seuls vont retenir notre attention les six instruments apparemment 'non-étalonnés' et un étrange outil étalonné, soit sept règles. Celles qui ne sont pas basées sur la coudée possèdent, le plus souvent, une section quadrangulaire sans biseau, voire circulaire. Leurs divisions varient beaucoup plus fortement que celles des coudées-outils. En effet, si l'irrégularité des divisions n'excède pas 0,4 cm sur les coudées, elle peut atteindre

<sup>1</sup> A. Schlott, *Die Ausmaße Ägyptens nach altägyptischen Texten*, Dissertation (Tübingen, 1969), 62 sq.

<sup>2</sup> Le matériau des objets des deux premières catégories (e.g. pierre, matières précieuses) exclut qu'ils aient servi sur des chantiers.

<sup>3</sup> W. F. Reineke, *MIO* 9 (1963), 145–63 (156–7); E. Iversen, *Canon and Proportion in Ancient Egyptian Art* (Warminster, 1957), 17.



jusqu'à 3,5 cm sur des outils dont les unités ont une dizaine de centimètres de long. Les règles 'non-étalonnées' sont souvent usées. Leurs longueurs actuelles ne sont donc pas significatives. Pour pouvoir interpréter ces instruments, il faut calculer la longueur moyenne de leurs unités respectives d'après celles qui sont intactes, et retrouver leur dimension d'origine à partir de cette moyenne. Tous ces calculs sont reportés en fin d'article, dans le catalogue (pp. 172-7).

Voici les principales caractéristiques des outils présentés dans cette étude (cf. fig. 1):

**A** (fig. 2), **B** et **C** sont trois règles de 66 à 70 cm, plus ou moins bien conservées, divisées en sept sections et munies d'une marque centrale. A cause de l'usure des extrémités, il est rare que cette dernière soit rigoureusement centrée aujourd'hui. La moyenne des longueurs totales restituées des trois outils est 69,28 cm. Cette valeur dépasse largement celle de la coudée. La longueur moyenne de leurs divisions intactes est, selon la méthode de calcul, 9,82 ou 9,89 cm. Trois unités de ces instruments atteignent près de 30 cm (quatre paumes).

**D** est une règle de 66,4 cm divisée en deux parties de 34,3 et 32,1 cm. La première est vierge, la seconde porte huit divisions irrégulières. La longueur totale restituée de **D** est 68,6 cm. Petrie, intrigué par un instrument de mesure portant des intervalles très irréguliers, les a regroupés par addition en quatre divisions régulières d'environ 8 cm. Je préfère les réunir en trois unités et demi, irrégulières, en rétablissant la longueur que **D** a probablement perdue par usure (fig. 3).

**E** est une règle de 19,5 cm, sur laquelle subsistent sept intervalles de 2,59 cm en moyenne et, à une extrémité, une unité de 1,32 cm. Celle-ci peut être un 'talon', une demi-division ou bien une huitième division, usée, qui restituerait à **E** une longueur de 20,72 cm.

**F** est une règle de 37 cm, divisée en deux parties de 17,49 et 19,3 cm. La première porte six divisions assez régulières (sauf celle de l'extrémité, visiblement usée), longues de 3,25 cm en moyenne, la seconde est vierge (fig. 4). La longueur restituée de **F** est 38,92 cm.

**G** est un instrument étalonné incomplet. Il est divisé en quatre paumes (7,7 cm en moyenne), la dernière étant suivie, 4,2 cm plus loin, d'une incision, au-delà de laquelle l'outil est brisé.

Aux règles de 66 à 70 cm peut être rattachée une dalle de calcaire trouvée par Petrie à Memphis, remontant, selon l'archéologue anglais, au premier siècle av. J.-C., et conservée au Science Museum de Londres.<sup>4</sup> Longue de 68,1 cm, large de 32,4 cm et épaisse de 6,35 cm, elle est divisée par des lignes en sept intervalles dont la moyenne est de 9,8 cm.

Les outils 'non-étalonnés' ont intrigué Petrie qui s'est attaché à trouver une origine à **B**, **C** (environ 69 cm) et **D** (environ 66,5 cm),<sup>5</sup> qu'il avait découverts et qui ne se référaient pas au système de mesure linéaire connu en Égypte antique. Il a suggéré qu'ils auraient

<sup>4</sup> Science Museum 1935-462. Prêt du University College. W. M. F. Petrie, *Weights and Measures* (Londres, 1917), 40, §91.

<sup>5</sup> Petrie ignorait l'existence de **A**.



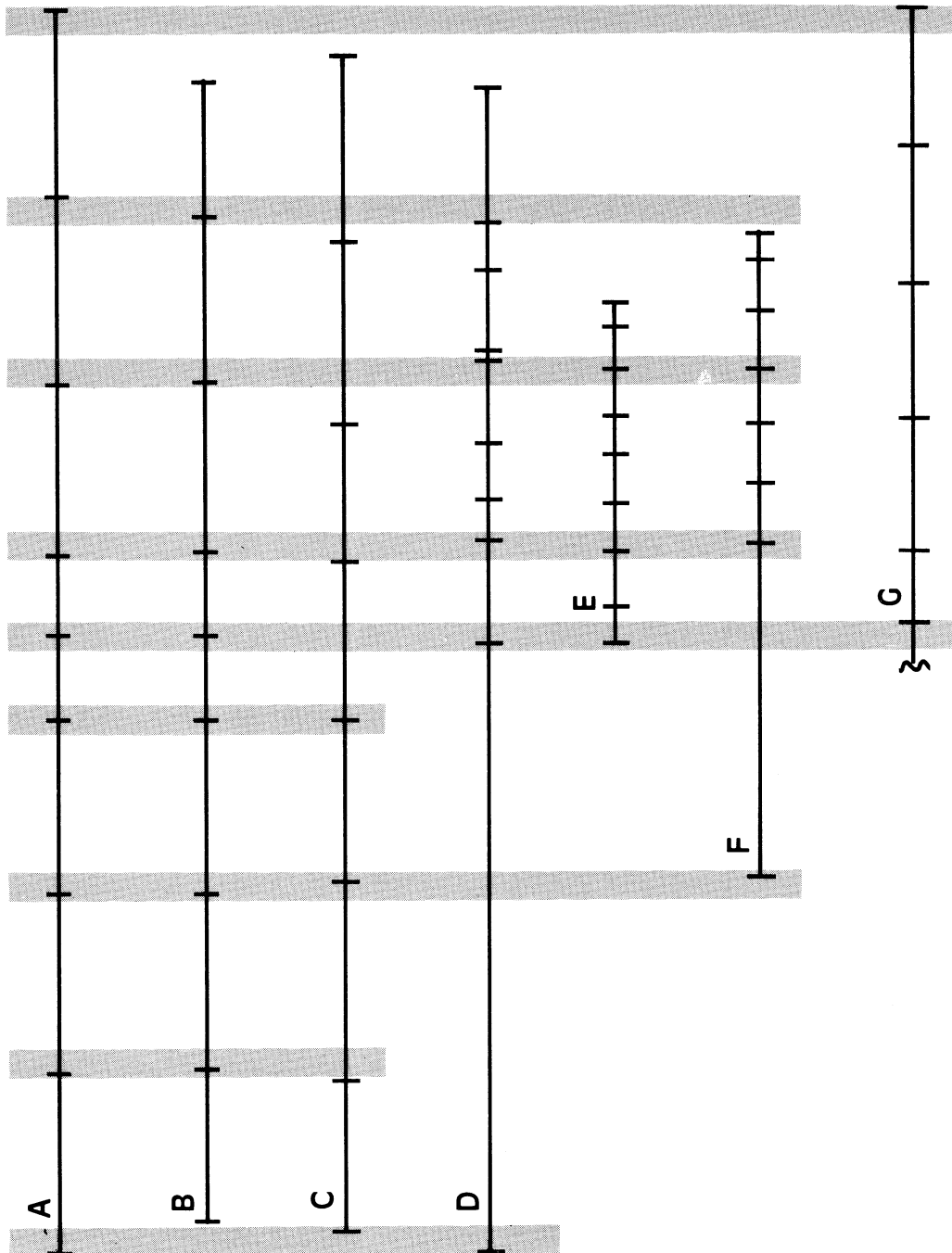


FIG. 1 Graduations de A, B, C, D, E, F et G. Les verticales grises indiquent les recouvrements entre chacune des règles. Les correspondances ne sont par toujours parfaites car les instruments ont été fabriqués par des méthodes empiriques d'une part, et car leurs extrémités sont souvent usées d'autre part. Echelle 1/4.



FIG. 2 Règle A, trouvée à Licht; MMA 15.3.1.128. L = 70,1 cm (échelle 1/4).

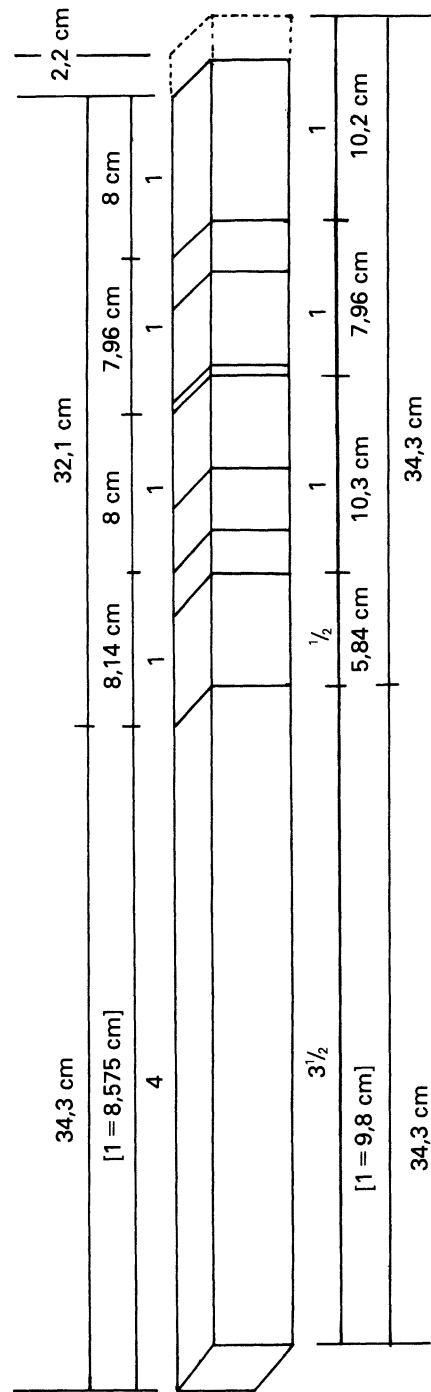


FIG. 3 Reconstitution théorique de la règle D, trouvée à Dechacheh. Elle est représentée avec une section quadrangulaire, mais elle possédait peut-être une arête biseautée. *En trait plein: D* telle qu'elle est décrite par Petrie. *En pointillés: longueur restituée pour équilibrer les deux moitiés.* *En haut:* interprétation de Petrie: deux moitiés inégales, dont une est divisée en quatre intervalles réguliers de 8 cm environ. *En bas:* interprétation de l'auteur: deux moitiés égales, dont une est divisée en trois intervalles et demi irréguliers (échelle 1/4).



FIG. 4 Mesure F, trouvée à Licht; MMA 22.1.678. L = 37 cm (échelle 1/4).

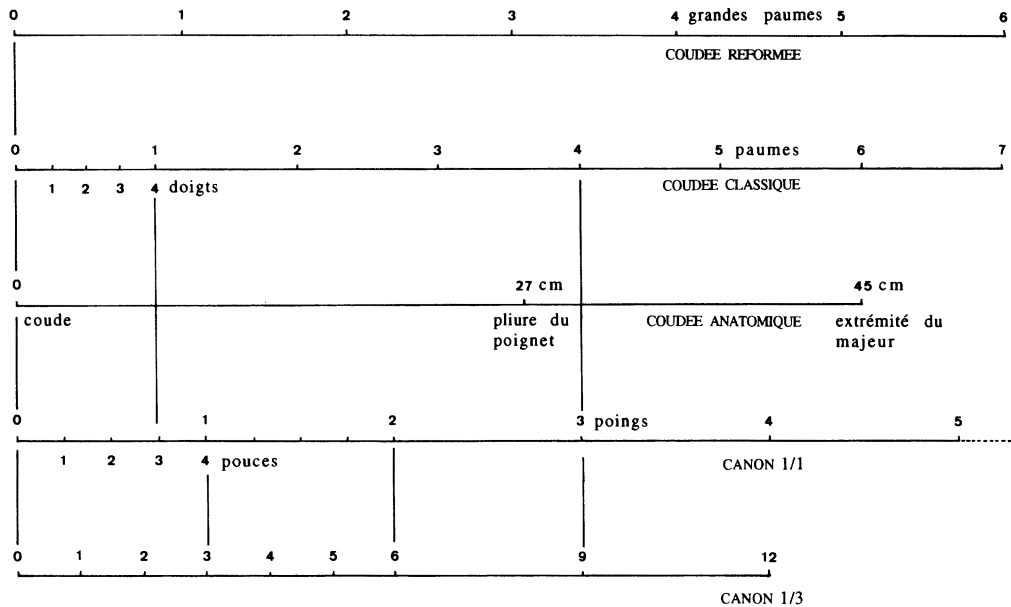


FIG. 5 Correspondances entre l'étalon et le canon (échelle 1/4).

appartenu à des étrangers se trouvant dans la région de Kahoun.<sup>6</sup> Je n'ai pas réussi, pour ma part, à trouver quelle population, géographiquement proche du Double Pays et contemporaine de ces règles (douzième dynastie), aurait pu les utiliser comme étalon.

Il est difficile d'interpréter **B** et **C** (et **A**) comme des étalons étrangers. En premier lieu, ces trois règles forment un groupe. Or, le corpus complet d'outils de mesure fonctionnels montre que chaque instrument est seul dans sa catégorie, à l'exception de ceux-ci et des double-coudées, dont je ne connais que deux exemples. En second lieu, le catalogue compte autant d'outils étalonnés que 'non-étalonnés'. Il serait curieux que le type d'instrument de mesure illustré par le plus d'exemplaires soit un type étranger d'une part, et que des règles non égyptiennes aient subsisté en nombre égal à celui des instruments basés sur la coudée-étalon, d'autre part.

Or, il existe une explication valable non seulement pour **A**, **B** et **C**, mais aussi pour **D**, **E** et **F**. Elle leur confère une origine égyptienne et s'appuie sur le canon de proportions. Il est donc utile de rappeler les théories d'E. Iversen et G. Robins à son propos. Iversen a démontré que le carroyage—utilisé en peinture comme en sculpture pour proportionner les différentes figures et les agencer les unes par rapport aux autres—était une expression du canon égyptien.<sup>7</sup> Il a constaté que, dans les dessins inachevés mis au carreau, la figure humaine, debout, des pieds à la ligne des cheveux sur le front, est insérée dans une hauteur de dix-huit carreaux (pour le canon classique), qui peut être divisée en trois séries de six carreaux, partageant le corps en trois tiers. Il a également mis en valeur le

<sup>6</sup> Petrie, *Illahun, Kahun and Gurob* (Londres, 1891), 14: 'The various examples of the Asiatic foot would give a double varying between 26.2 and 26.9; and it is of importance to find it with the foreign inhabitants of Kahun, to the exclusion of the regular Egyptian cubit'. Petrie, *Deshasheh* (Londres, 1898), 38: 'There are then three examples of this cubit [**B**, **C**] and this [**D**], divided into two feet, I proposed to connect with the Asia Minor foot of 13.2 or cubit of 26.4. It is significant that Kahun contained foreigners, and here this cubit lay in the tomb which had foreign pottery'.

<sup>7</sup> *Canon and Proportion*.

fait que le canon et la métrologie sont indissociables.<sup>8</sup> Son postulat est logique: puisque le corps humain sert à définir l'étalon (une coudée est la longueur allant de la pointe du coude à l'extrémité des doigts, c'est-à-dire du majeur) et ses subdivisions (largeur de la paume), comment l'étalon ne servirait-il pas, ensuite, à déterminer le canon nécessaire au dessin du corps humain? Iversen a établi des correspondances entre la coudée anatomique et la coudée-étalon (52,5 cm). La principale 'division' d'une coudée anatomique étant la pliure du poignet, il a supposé qu'il y avait quatre paumes de la pointe du coude à cette dernière, six paumes (petite coudée) jusqu'à l'extrémité du pouce et sept jusqu'à celle des doigts (coudée royale). Il s'attendait donc, dans le carroyage, à voir quatre carreaux dans la longueur de l'avant-bras. Or, il n'en a observé que trois. Par conséquent, il a opposé le canon à l'étalon, qui entretient avec ce dernier les liens suivants: en divisant une paume (quatre doigts) en trois, et en créant une unité formée par quatre de ces subdivisions, on obtient un carreau du canon (fig. 5). Ainsi, une unité du canon mesure cinq doigts et un tiers (10 cm); un quart de cette unité mesure un doigt et un tiers (2,5 cm); trois unités font quatre paumes (30 cm); cinq unités et un quart font une coudée royale.

A partir de la vingt-sixième dynastie, comme l'a montré Hanke,<sup>9</sup> le canon n'est plus de dix-huit carreaux des pieds à la ligne des cheveux sur le front mais de vingt-et-un carreaux (3 × 7) des pieds au départ de l'arête du nez. Par ailleurs, à une date mal connue, la coudée-étalon est réformée. Elle conserve sa longueur de 52,5 cm mais elle est divisée en six au lieu de sept. Ainsi sont créées des 'grandes paumes' de 8,75 cm de longueur.<sup>10</sup> L'emploi de la coudée comme unité de mesure n'est pas modifié puisque sa longueur est maintenue. Seules ses subdivisions changent (fig. 5). Iversen pense que la réforme de l'étalon est contemporaine de celle du canon et que les grandes paumes égalent le côté des carreaux du nouveau canon à l'échelle 1/1. Selon lui, c'est à cette époque que la petite coudée de six paumes cesse d'être l'unité de mesure habituelle.<sup>11</sup>

Si Robins s'accorde avec Iversen, et l'objective observation des grilles sur les dessins inachevés, pour reconnaître que le corps s'insère dans dix-huit carreaux et l'avant-bras seul dans trois carreaux, elle réfute les liens qu'il a établis entre l'anatomie et l'étalon. S'appuyant sur l'analyse de momies égyptiennes appartenant à différentes époques, elle souligne le fait que le stature moyenne d'un homme bien bâti est plus proche de 1,70 m que de 1,85 m—taille que suppose le côté des carreaux définis par Iversen—et que la coudée chez un homme de 1,70 m est de 45 cm environ (petite coudée) et non de 52,5 cm (coudée royale).<sup>12</sup> En conséquence, les carreaux du canon à l'échelle 1/1 mesurent 9 cm pour Robins, soit une paume et un cinquième et non 10 cm, soit une paume et un tiers, comme le pense Iversen. En ce qui concerne la réforme du canon à la vingt-sixième dynastie, Robins nie qu'elle se soit accompagnée de celle de l'étalon, arguant qu'aucune coudée royale divisée en six grandes paumes n'est connue à une époque aussi haute.<sup>13</sup> Observant que, dans le nouveau canon, la coudée anatomique contient six carreaux (au lieu de cinq dans le canon classique), elle déduit que le nouveau

<sup>8</sup> Iversen, *MDAIK* 46 (1990), 113-25.

<sup>9</sup> R. Hanke, *ZÄS* 84 (1959), 113-19. Iversen a repris récemment la question (*MDAIK* 46, 113-25).

<sup>10</sup> Par exemple, la coudée d'Osoroëris (52 cm). Turin 6349. D. Senigalliesi, *La Rivista (RIV)* 11 (mars 1961), 23-52, fig. 32-4, 36.

<sup>11</sup> Iversen, *Canon and Proportion*, 16-17.

<sup>12</sup> G. Robins, *GM* 59 (1982), 61-75; idem, *GM* 61 (1983), 17-24.

<sup>13</sup> *SAK* 12 (1985), 106.

carreau mesure cinq sixièmes de l'ancien.<sup>14</sup> Si je ne m'abuse, puisque, à l'échelle entière, l'ancien carreau a, selon elle, 9 cm de côté, le nouveau mesure 7,5 cm, soit une paume.

Si je reconnais que Robins a raison de souligner la trop grande taille que le canon à l'échelle 1/1 confère à un individu moyen, et si je pense—comme elle—que les liens établis par Iversen entre l'étalon et la coudée anatomique sont erronés,<sup>15</sup> j'adhère pourtant aux résultats d'Iversen, c'est-à-dire aux rapports qu'il a déterminés entre le canon et l'étalon, à savoir que le carreau du canon à l'échelle 1/1 mesure 10 cm, soit une paume et un tiers.

Les carreaux qui subsistent mesurent en grande majorité 10 cm de long ou des fractions de 10 cm (environ 5 cm au 1/2, 7,5 cm au 3/4, 2,5 cm au 1/4, 3,33 cm au 1/3, 6,66 cm au 2/3, 1,7 cm au 1/6)<sup>16</sup> et non 9 cm ou des fractions de 9 cm. Il est vrai que, plus on aborde les fractions, plus les écarts sont minimes entre les canons proposés par Iversen et Robins. De plus, ces écarts peuvent être imputés aux quadrillages eux-mêmes, qui sont irréguliers (en pratique, l'empirisme des méthodes de carroyage produit des carrés ayant un peu plus ou un peu moins de 10 cm de côté, quand ce ne sont pas des rectangles), et dans lesquels l'épaisseur du trait pose toujours le problème de savoir où prendre la mesure. Pour départager les deux théories, il faut observer un grand nombre de grilles à l'échelle entière. Or, les grilles encore visibles se trouvent le plus souvent dans des tombes de particuliers et, curieusement, ceux-ci sont rarement représentés grandeur nature, de sorte que les échelles des quadrillages dans lesquels ils s'insèrent ne sont que des fractions du canon.<sup>17</sup> Par conséquent, étudier exclusivement le dessin de la figure humaine ne peut pas être concluant. En revanche, les décors de plafond s'inscrivent aussi dans des grilles et leurs motifs géométriques, organisés en lignes, sont fréquemment espacés suivant l'échelle 1/1 du canon, même lorsque le quadrillage a disparu sous la peinture.<sup>18</sup> A ce propos, on peut lire sous la plume de Jéquier:

Quelques lignes de construction verticales et horizontales, tracées en rouge sur les parois, suffisaient pour mettre en place les personnages des scènes même les plus développées; de même pour les plafonds, un simple quadrillage de lignes rouges tracées à la règle sur la surface blanche de l'enduit était tout ce qu'il fallait au décorateur, car c'est en somme à une série de carrés juxtaposés que peuvent se ramener tous les motifs ornementaux des Egyptiens. Nous voyons dans plusieurs tombes inachevées ces quadrillages, qui ont toujours environ dix centimètres de côté.<sup>19</sup>

Son ouvrage n'est pas daté, mais les planches portent un copyright de 1911. A cette époque, ni Iversen ni Robins n'avaient émis leurs hypothèses.

L'artiste égyptien, ayant besoin de proportionner les éléments du corps humain les uns par rapport aux autres, a trouvé commode d'utiliser une grille, à condition que les

<sup>14</sup> *SAK* 12, 109.

<sup>15</sup> Iversen n'a pas fait la distinction entre la coudée anatomique et la coudée telle qu'elle est dessinée par l'Égyptien. Or, cette dernière est déjà une interprétation de la réalité, non par ses proportions, mais par sa taille à l'échelle 1/1.

<sup>16</sup> E. Mackay, *JEA* 4 (1917), 74-85.

<sup>17</sup> Je ne connais pas de particulier représenté à l'échelle 1/1 du canon, que ce soit celui d'Iversen (1,85 cm) ou de Robins (1,70 m). Le personnage le plus grand que j'ai pu repérer mesure environ 1,50 m sur la paroi. J'espère pouvoir approfondir cette question dans une étude ultérieure, car je suppose que l'échelle entière du canon est réservée à la figuration du roi et des dieux.

<sup>18</sup> Par exemple: G. Andreu, *BFAO* 85 (1985), 1-21, fig. 5, pl. IV, b; R. A. Caminos et T. G. H. James, *Gebel es-Silsilah. 1. The Shrines* (Londres, 1963), pl. 12, 5; J. Osing, *Das Grab des Nefersecheru in Zawyet Sultan* (Mainz, 1992), pl. 21-2.

<sup>19</sup> G. Jéquier, *Décoration égyptienne. Plafonds et frises végétales du Nouvel Empire thébain* (Paris, [1911]), 8.

horizontales et les verticales passent par des points remarquables des membres (coude, poignet, extrémité des doigts, par exemple), ou par des points permettant de diviser le corps en trois tiers (genoux, taille, ligne des cheveux sur le front). Si quatre paumes passaient effectivement, comme le soutient Iversen, à la césure que marque le poignet sur la coudée anatomique, la création du canon de proportion n'aurait pas été nécessaire. En effet, il eût été plus simple d'utiliser la paume comme carreau: les six carreaux jusqu'aux genoux auraient été exprimés par huit paumes, les douze jusqu'à la taille par seize paumes et les dix-huit de la ligne des cheveux sur le front par vingt-quatre paumes. Or, le dessinateur a utilisé un canon, différent de l'étalon. Est-ce parce que les lignes obtenues par l'utilisation de la paume comme carreau ne passaient pas par des points remarquables du corps? Comme les analyses de Robins l'ont montré, la taille moyenne d'un homme dans l'Égypte antique était d'environ 1,70 m et la distance correspondante du coude au poignet plutôt de 27 que de 30 cm (mesure impliquée par la théorie d'Iversen).<sup>20</sup> Or, 27 cm ne passe à aucun point commode de l'étalon: un peu plus de trois paumes et demie mais moins de quatre paumes (fig. 5). La longueur de la main est proche de 18 cm ( $27 + 18 = 45$  cm), de sorte que les *proportions* entre l'avant-bras et la main sont de  $3/5$  et  $2/5$ . En d'autres termes, sur cinq carreaux égaux, deux doivent être affectés à la longueur de la main, et trois à celle de l'avant-bras. En conséquence, pour respecter les proportions naturelles du corps, l'artiste a dû créer des carreaux un peu plus longs que la paume, tels que trois d'entre eux tiennent dans la longueur de l'avant-bras. Pour que ce carreau soit conforme à l'anatomie (27 cm), il aurait fallu répartir un peu plus d'une demi-paume sur chacune des trois paumes entières que celui-ci contient. Hélas, il n'est guère aisé de diviser en trois 'un peu plus d'une demi-paume'! D'ailleurs, la fraction la plus pratique à répartir sur *trois* paumes est un *tiers* de paume, ce que l'Égyptien a choisi, comme le prouve l'utilisation de quadrillages dont les carrés ont environ 10 cm de côté. Cependant, ces carreaux étirent artificiellement la longueur réelle de l'avant-bras, qui passe de 27 à 30 cm. Par respect des proportions, il est nécessaire d'allonger aussi la main et de porter la longueur de la coudée anatomique à 50 cm, valeur plus proche de 52,5 cm que de 45 cm. Peut-être pour arriver à la coudée royale, un quart de carreau est ajouté aux doigts. Pour des raisons identiques, les autres parties du corps doivent subir le même traitement, et l'individu moyen doit 'grandir' de 1,70 m jusqu'à environ 1,85 m.

Si les preuves manquent pour dater la réforme de l'étalon de la même époque que celle du canon, expliquer l'autre par l'une paraît convaincant, comme on le verra par la suite. En revanche, si la théorie des carreaux de 9 cm émise par Robins était juste, il faudrait admettre que la réforme du canon à la vingt-sixième dynastie produit des carreaux de 7,5 cm à l'échelle 1/1 (égalant les divisions de l'étalon classique). Or, si les divisions de l'étalon avaient convenu pour servir à un système de proportion, l'Égyptien s'en serait servi beaucoup plus tôt, comme on l'a vu, et n'aurait pas créé des carreaux plus grands que la paume. Par ailleurs, à partir de cette époque, la figure humaine s'inscrit dans vingt-et-un carrés. Si ces derniers ont 7,5 cm de côté, un individu moyen mesure seulement 1,57 m des pieds au départ de l'arête du nez. Enfin, la théorie de Robins impliquerait que, après avoir désormais accordé entre elles les unités du canon et de l'étalon, l'Égyptien réformerait ce dernier (grandes paumes de 8,75 cm), rompant une unité nouvellement acquise.

<sup>20</sup> Robins, GM 59, 68; idem, GM 61, 18.

La petite coudée semble être pour Iversen comme pour Robins l'unité de mesure par excellence. Or, le corpus d'outils fonctionnels ne comprend qu'une seule coudée de six paumes. Le terme-même 'petite coudée' ne se rencontre—à ma connaissance—que dans les inscriptions des coudées votives. Il n'apparaît jamais dans les textes de construction, qui expriment en paumes les subdivisions de la coudée.<sup>21</sup> Enfin, toujours pour la construction, lorsque les documents égyptiens emploient le mot 'coudée' comme unité de longueur, ils font référence à sept paumes. Pour ne donner que deux exemples, des monuments de l'Ancien Empire ont conservé des lignes de nivellement. Celles-ci sont cotées: une coudée, deux coudées etc. La mesure, variant de 50 à 54 cm, montre que ce terme 'coudée' recouvre la coudée royale.<sup>22</sup> Il en est de même des mesures de la tombe de Ramsès IV qui figurent sur un papyrus de Turin. Le mot 'coudée', sans spécification, désigne bien sept paumes, comme une vérification de terrain l'a prouvé.<sup>23</sup>

Une discussion plus complète sur le canon serait trop longue et s'écarterait du thème développé ici. En résumé, le canon permet de systématiser le dessin. A cet effet, les grilles de mise au carreau assument un double rôle. Le *nombre* des carrés détermine les *proportions* relatives des différents éléments de la représentation les uns par rapport aux autres, tandis que leur *taille* fixe l'*échelle* générale de la composition. Seules les proportions peuvent être rapprochées de l'anatomie puisque l'échelle masque la taille réelle des personnages. En ce sens, on remarquera que si les proportions se répètent d'individu en individu au mépris de la nature qui fait les êtres si inégaux, l'échelle varie d'une image à une autre. Quelle importance alors si la figure humaine est magnifiée à l'échelle 1/1 par des carreaux d'une paume et un tiers de côté? Cette échelle entière a servi à fonder les principes du dessin, mais le commun des mortels ne semble pas en avoir eu le privilège, alors que les figures royales colossales ont pu aller jusqu'à la multiplier par seize.<sup>24</sup>

Le système du canon souffre d'une nomenclature mal choisie: le carreau—qui est au canon ce que la paume est à l'étalon—est appelé 'poing', tandis que son quart—qui est au canon ce que le doigt est à l'étalon—est appelé 'pouce'. Or, pour Iversen, du point de vue métrologique, le carreau est un poing.<sup>25</sup> C'est inexact, car l'examen des coudées votives montre clairement que la succession des six premiers doigts (coudée d'Amenemipet par exemple)<sup>26</sup> est comprise de la manière suivante: un doigt, deux doigts, trois doigts, quatre doigts (une paume, c'est-à-dire la main étendue, privée du pouce), cinq doigts (une main étendue, soit quatre doigts et le pouce), six doigts (un poing, c'est-à-dire la main fermée). Iversen a souligné l'ambiguïté du pouce anatomique qui, de profil, mesure un doigt, mais de face, un doigt et un tiers.<sup>27</sup> Ainsi, le 'poing de l'étalon' est la réunion de cinq doigts plus

<sup>21</sup> Par exemple, dans les comptes de Kahoun, la taille des briques est décrite par 'cinq paumes, six paumes' et non par *rmn* ou *mḥ nḏs*. Voir F. LI. Griffith, *Hieratic Papyri from Kahoun and Gurob* (Londres, 1898), pl. xxiii: pKahoun III. 1 A recto, l. 38 (cinq paumes), l. 39 (six paumes).

<sup>22</sup> Par exemple: L. Borchardt, *Das Grabdenkmal des Königs Ne-user-re* (Leipzig, 1907), 154, fig. 129; G. A. Reisner, *Mycerinus. The Temples of the Third Pyramid at Giza* (Cambridge, Mass., 1931), 77 et plan XII.

<sup>23</sup> H. Carter et A. H. Gardiner, *JEA* 4 (1917), 130-58.

<sup>24</sup> D. et R. Klemm (*SAK* 7 (1979), 116-17) ont repéré dans une carrière une statue colossale inachevée figurant un roi assis. Le bloc a 22 m de haut, taille équivalente à celle des colosses de Memnon. Les mailles du quadrillage incisé subsistant ont 1,5 à 2 m de côté. Ces mesures sont peu précises, mais en rappelant qu'une figure assise mesure quatorze carreaux de haut, on peut déduire que le côté des mailles est environ 1,57 m (22 m: 14 = 1,571 m). Outre le fait que 1,57 m égale trois coudées (0,525 × 3 = 1,575 m), on constate que le carreau d'origine (10 cm à l'échelle 1/1) a été multiplié par 16 (0,1 m × 16 = 1,60 m).

<sup>25</sup> *MDAIK* 46, 121.

<sup>26</sup> K. R. Lepsius, *Die altägyptischen Elle und ihre Eintheilung* (Berlin, 1865), pl. I. b.

<sup>27</sup> *MDAIK* 46, 118.

le pouce vu de profil, soit six doigts, alors que le 'poing du canon', ou carreau à l'échelle entière, réunit quatre doigts plus le pouce vu de face, soit cinq doigts et un tiers. Par conséquent, il faudrait trouver un autre terme que 'poing' pour désigner l'unité du canon. Bien qu'il ne soit pas parfaitement adéquat, je le conserverai. En effet, le canon est utilisé pour proportionner les figures, quelles que soient leurs échelles respectives. Si le corps humain debout s'insère toujours dans dix-huit carreaux (pour le canon classique), la taille de ces derniers peut varier selon les échelles auxquelles les personnages sont figurés. Par conséquent, le terme 'carreau' n'a pas de signification métrologique, alors que le terme 'poing'—lorsqu'on évoque le canon—désigne une longueur constante de cinq doigts et un tiers, soit 10 cm.

Ces rappels permettent de comprendre le rapport du canon avec les instruments 'non-étalonnés'. Sept poings faisant 70 cm, les trois instruments **A**, **B** et **C** s'expliquent. Ils ne matérialisent pas un étalon étranger mais le canon égyptien à l'échelle entière. Leurs utilisateurs ne sont pas des architectes et leurs maçons, mais des dessinateurs, qui les emploient pour tracer les grilles de mise au carreau. Il n'est plus possible de leur appliquer l'épithète 'non-étalonné', puisqu'ils offrent des conversions avec l'étalon par leurs divisions (quatre paumes font trois poings) et par leur longueur totale (une coudée et un tiers).

**D** reste inexplicquée si on la comprend telle qu'elle est interprétée par Petrie. Cependant, la partie inscrite est la plus courte, et si l'on restitue à sa division extrême, amputée par l'usure, la longueur qui lui manque pour que les deux parties de **D** soient égales, on peut réunir les unités de cette moitié de la règle en trois intervalles et demi (fig. 3). **D** est alors irrégulière,<sup>28</sup> mais elle s'intègre à la série de **A**, **B** et **C** (fig. 1).

Il est possible que **E** soit un outil divisé en pouces. En effet, son unité moyenne (2,59 cm), bien qu'un peu plus grande, s'approche de 2,5 cm. **E** ne serait donc pas divisé en sept ou sept et demi, mais, comme l'hypothèse en a été émise, en huit, et l'une des divisions serait usée. **E** mesurerait alors deux poings (20 cm). En l'état, sa longueur est 19,5 cm mais ses divisions extrêmes ne mesurent que 2,13 et 1,32 cm. En lui restituant une longueur de 20,72 cm ( $2,59 \times 8$ ), il faut répartir 1,22 cm ( $20,72 - 19,5$ ) sur ces deux divisions probablement usées, c'est-à-dire les ramener à 2,35 et 2,32 cm. Ces chiffres paraissent en deçà de la moyenne (2,59 cm), mais ils se justifient si l'on rappelle qu'une des divisions 'internes' (elle ne peut avoir perdu de la longueur par usure) ne mesure que 2,18 cm. **E** permettrait de dessiner des personnages à l'échelle un, un-demi et un-quart, puisque chaque unité mesurerait un pouce, soit un quart du carreau d'origine (fig. 1).

Dans le cas de **F**, l'opération menée sur la paume pour créer le canon a été effectuée une deuxième fois: en divisant le poing en trois, on obtient des unités de 3,33 cm qui sont, à mon sens, les subdivisions de **F** (3,24 cm). Du point de vue métrologique, cette unité vaut 1 doigt  $\frac{7}{9}$  et redevient entière lorsqu'elle est multipliée par neuf, c'est à dire portée à quatre paumes (fig. 5). Multipliées par douze, les unités de **F** égalent 40 cm (quatre poings du canon). Or, **F** n'a plus sa longueur d'origine. Celle-ci doit être restituée aux alentours de 39 cm. **F** permet de représenter des individus à l'échelle  $\frac{1}{3}$ , puisque le carreau d'origine a été divisé en trois (fig. 1). C'est aussi un outil de dessinateur. Iversen fait remarquer que le carroyage du papyrus de la chapelle de Gouroub<sup>29</sup> est une expres-

<sup>28</sup> Le plus grand écart entre deux divisions de **D** est de 2,34 cm. Pour **A**, il est de 1 cm, pour **B** de 0,8 cm et pour **C** de 3,56 cm.

<sup>29</sup> Petrie, *Ancient Egypt* (1926), 24-7; H. S. Smith et H. M. Stewart, *JEA* 70 (1984), 54-64.



sion du canon et non de l'étalon.<sup>30</sup> Ses carreaux mesurent en moyenne 3,43 cm. Leur échelle est donc un tiers du canon. Théoriquement, F a pu servir à tracer le carroyage du papyrus de la chapelle de Gourob. Les rapports entre les coudées (étalon), les règles de 70 cm (canon à l'échelle 1/1) et F (canon à l'échelle 1/3) ont été mis en valeur sur la figure 5. Il est visible que leur division commune est 'quatre paumes'.

Tous ces instruments sont donc égyptiens et ne sont pas, à l'origine, des instruments de mesure. Par ailleurs, il existe dans le lexique une unité de mesure autre que la coudée, appelée *nbi*. Voici les sources principales qui la font connaître:

- (1) Textes littéraires: 'The hardships of a soldier's life':  
 — P. Chester Beatty IV (BM 10684), v° 5, l. 4: *in.tw.f m nḥnw n nbi*: 'il [= le soldat] est pris quand il est "un jeune d'un *nbi*" (i.e. qui mesure un *nbi*)'.<sup>31</sup>  
 — P. Anastasi III (5,6-5,7): *in.tw.f iw.f m nḥnw n nbi*.<sup>32</sup>
- (2) Textes relatifs aux chantiers de construction:<sup>33</sup>  
 — O. Sénenmout n° 62 (l. 3,6); n° 69 (l. 2); n° 73 (l. 3-5); n° 75 (l. 4) (*nbiw*) (époque d'Hatchepsout).<sup>34</sup>  
 — O. Caire 25501, recto, col. I, l. 5 (première moitié de la dix-neuvième dynastie).<sup>35</sup>  
 — O. Osireion n° 1, l. 8 (époque de Séthi Ier).<sup>36</sup>

Le *Wörterbuch* (II, 243 entre (14) et (15)) note le mot *nbi* mais sans lui donner de sens et renvoie à *nbꜣ* et *nbꜣt*, mots écrits avec les mêmes composantes vocaliques, et toujours déterminés par le bois:

*nbꜣ*: 'barre de portage'. *Wb.* II, 243 (5-9). (9) 'Et aussi l'expression: *mḥ.f pꜣ nbiniw.f*'. *ALex.* 77. 2064; 78. 2057; 79. 1513. Lesko, *Dictionary*, II, 14.<sup>37</sup> R. O. Faulkner, *A Concise Dictionary of Middle Egyptian* (Oxford, 1962), 130. Voir aussi *nbjnꜣw* (*Wb.* II, 245).

*nbꜣt*: 'piquet' (cérémonie de fondation). *Wb.* II, 243 (10). *ALex.* 78. 2058: piquet.

On note encore:

*nbw*: 'sorte d'outil en bois'. *Wb.* II, 242 (12).

*nbj*: *Wb.* II, 244 (2). Néo-égyptien, dans l'expression considérée comme peu claire: *nḥn n nbi*.

Différents auteurs ont développé l'analyse du mot *nbi*: Thompson est le premier à évoquer cette mesure.<sup>38</sup> Publiant des ostraca démotiques, il rencontre le terme *nbe*, qui est selon lui un équivalent du mot grec *ναύβιον*. Il en cherche l'origine et propose que *ναύβιον* dérive de l'égyptien *nbi* par le démotique *nbe*. Le *ναύβιον*, mot absent du

<sup>30</sup> *MDAIK* 46, 123.

<sup>31</sup> A. H. Gardiner, *Hieratic Papyri in the British Museum*, 3rd Series, (Londres, 1935), I, 42 et n. 8; II, pl. 20.

<sup>32</sup> Gardiner, *Late Egyptian Miscellanies* (Bruxelles, 1937), 26, l. 5.

<sup>33</sup> D'autres ostraca inédits, où figure le mot *nbi*, sont conservés au Metropolitan Museum of Art de New York. Voir W. C. Hayes, *Ostraka and Name Stones from the Tomb of Senmut (no. 71) at Thebes* (New York, 1942), 36 sq.

<sup>34</sup> *Ibid.*, 21 (n° 62), 22 (n° 69, 73, 75). Trouvés dans la TT 71 de Sénenmout.

<sup>35</sup> J. Černý, *Ostraca hiératiques*, CG (Cairo, 1935), I, 1\*, pl. I. Trouvé à Biban el-Molouk.

<sup>36</sup> H. Frankfort, *The Cenotaph of Seti I at Abydos* (Londres, 1933), 92, pl. XC, I, XCII, I.

<sup>37</sup> L. H. Lesko, *A Dictionary of Late Egyptian*, I (Berkeley, 1982); II-V (Providence, 1984-1990).

<sup>38</sup> Voir son développement dans A. H. Gardiner, H. Thompson et J. G. Milne, *Theban Ostraca* (Londres et Oxford, 1913), 26, n. 3, 146 sq.

vocabulaire grec classique, était une mesure de capacité de deux coudées de côté servant à estimer le volume de terre manœuvré au cours de la réparation des digues, travail effectué comme corvée. Thompson pense que les piquets de fondation—que désigne le mot *nbi/nb;(t)*—avaient toujours la même longueur. Pour lui, puisque le *ναύβιον* grec, mesure de capacité, possède deux coudées de côté, le *nbi*, mesure de longueur, fait aussi deux coudées.<sup>39</sup>

Gunn a publié un ostracon trouvé à Abydos et daté du règne de Séthi Ier, où sont rapportés des travaux effectués sur une digue.<sup>40</sup> Le travail, désigné par un *hapax*, est mal identifié. Cependant, les dimensions (longueurs ou volumes ?) sont précisées: 25 *nbi*, trois coudées de large et deux coudées de profondeur. Gunn se rallie à la filiation proposée par Thompson entre le *nbi* et le *ναύβιον*. A cause de cette parenté, et contrairement à Thompson, il comprend le *nbi* comme une mesure de capacité et non de longueur. Pour lui, le *nbi* vaut huit coudées cubiques et les indications suivantes servent à préciser la forme du travail exécuté. Les mesures citées plus haut signifieraient que deux cents coudées cubiques ont été excavées (25 × 8), selon les trois directions suivantes: trente-trois coudées et un tiers de long, par trois coudées de large et deux de profondeur.

Pour Hayes, qui a publié les ostraca trouvés dans la tombe de Sénenmout (TT 71), le *nbi* est clairement un bâton ou un instrument de bois—peut-être le manche d'un pic de carrier—utilisé par les ouvriers pour estimer la quantité de travail fournie chaque jour.<sup>41</sup> Il tente d'en trouver la longueur, grâce aux données d'un ostracon, relatif à la porte du couloir de cette sépulture.<sup>42</sup> Elles indiquent sept *nbi* pour sa hauteur et trois pour sa largeur. Dans son état actuel, l'ouverture mesure 4,58 m par 2,32 m, ce qui permet de déduire que la longueur du *nbi* est comprise entre 65 et 77 cm. Soulignant l'importance de cet écart, Hayes a pensé qu'il était dû au dressage final des parois. En effet, la largeur du passage aurait été plus importante après la finition des murs que juste après le creusement du couloir. Par conséquent, il a supposé que la longueur du *nbi* était plus proche de 65 que de 77 cm. Hayes ne doute pas que le mot grec *ναύβιον* dérive effectivement du mot égyptien *nbi*. Il remarque cependant que les deux coudées proposées par Thompson sont trop grandes pour les résultats qu'il a obtenus. Concernant l'ostracon d'Abydos, il pense qu'ou bien le texte se réfère à une mesure plus grande que celle de la dix-huitième dynastie, ou bien Gunn fait fausse route en croyant que le *nbi* a la même taille que le *ναύβιον* grec. Il conclut en interrogeant, 'Is it not probable that in line 8 of this ostrakon all the measurements given are linear, "25 naubia" being the length of the masses measured, 3 cubits their width and 2 and 1½ cubits their depths?'<sup>43</sup>

Gardiner cite le mot *nbi* et souligne qu'il apparaît aussi en composition dans un nom propre: *Mh.f-p;-nbi*, 'il mesure le *nbi*'.<sup>44</sup> Il se rattache à l'analyse de Gunn, et s'il ne tient pas pour acquise la longueur de deux coudées, il exprime clairement son idée selon laquelle il s'agit d'une mesure de longueur et non de capacité. Dans sa grammaire, il

<sup>39</sup> C'est la longueur que cite Lesko (*Dictionary*, II, 14).

<sup>40</sup> Dans Frankfort, *Cenotaph of Seti I*, 92, pl. XC, 1, XCII, 1.

<sup>41</sup> *Ostraka*, 36-7.

<sup>42</sup> *Ostraka*, 22, n° 75.

<sup>43</sup> Hayes, *Ostraka*, 37.

<sup>44</sup> Gardiner, *Ancient Egyptian Onomastica* (Oxford, 1947), I, 67, n. 1. Cf. H. Ranke, *PN* I, 163, 21: nom masculin, attesté à la vingtième dynastie (pAmherst, 29, 36, 37, pl. XI = pHarris A, IV, 10). Ce nom apparaît aussi dans le pBrooklyn 16.205, daté de Chéchanq III; voir R. A. Parker, *A Saite Oracle Papyrus from Thebes in the Brooklyn Museum* [*Papyrus Brooklyn 47.218.3*] (Providence, 1962), 49, 51, pl. 19 (IV, 2).

donne au *nbi* une longueur de une coudée et un quart ou une coudée et un tiers, probablement à partir des mesures (65 à 77 cm) déterminées par Hayes.<sup>45</sup>

Les textes de construction sont les plus explicites sur le sens de mot *nbi*. En effet, les minutes de chantier qui décrivent le travail de creusement des tombes indiquent le volume de pierre excavé par la multiplication de trois mesures (longueur, largeur, hauteur) exprimées en coudées. C'est le cas, par exemple, de l'ostrakon de Sénenmout n° 76: 'Le travail de Kay: largeur deux coudées, profondeur deux coudées, par sept coudées. Autre travail: [largeur] cinq coudées, profondeur quatre coudées, par sept coudées'.<sup>46</sup> Les ostraca de même provenance qui font connaître le mot *nbi* sont rédigés de façon similaire. Par exemple: 'un *nbi* de profondeur,<sup>47</sup> par six *nbi* de large, contre une coudée en allant vers l'intérieur'.<sup>48</sup> Le *nbi* est donc nécessairement, comme la coudée, une mesure linéaire.

Avant de tenter de déterminer la longueur du *nbi*, résumons deux articles, qui lui ont été récemment consacrés. Naguib Victor a noté, dans les relevés de tombes qu'il a effectués, des multiples de 2,5 cm, 5 cm, 10 cm et ainsi de suite jusqu'à 70 cm.<sup>49</sup> Il en a déduit l'utilisation d'une unité de mesure de 70 cm possédant sept divisions de 10 cm. Parallèlement, il a rappelé l'existence d'une mesure linéaire appelée *nbi*, dont la longueur précise restait à déterminer. En conséquence, il a proposé une égalité entre le *nbi* et la mesure de 70 cm dont il a observé l'emploi, puisque celle-ci s'intègre entre 65 et 77 cm. Cependant, il n'a pas démontré cette égalité. De plus, bien qu'il ait établi les rapports entre l'étalon et sa mesure de 70 cm, il n'a pas expliqué l'origine de cette dernière.

Elke Roik<sup>50</sup> pense que les mesures de la tombe de Taousret n'ont pas été prises avec une coudée mais avec un *nbi*. Elle a, en effet, relevé des mesures de 16, 32 et 48 cm, multiples les unes des autres, et constaté que la largeur des piliers de cette tombe était de 65 cm. De là, sachant qu'il existe une mesure linéaire appelée '*nbi*' et dont la longueur est comprise entre 65 et 77 cm, elle octroie au *nbi* 65 cm de long et huit divisions de 8,125 cm ( $8,125 \times 2 = 16,25 \times 2 = 32,5 \times 2 = 65$  cm). Elle cite les huit divisions de la règle de Dechacheh (D) pour appuyer son argumentation. Puis, afin d'illustrer le fait que la tombe de Taousret n'est par l'exemple unique de l'emploi du *nbi* tel qu'elle le définit, elle applique ses résultats à trois documents de l'Ancien Empire, montrant qu'ils ont été fabriqués grâce à des dimensions égales à, ou multiples de, 8,125 cm.

Je ne suis pas convaincue par les méthodes et les résultats d'Elke Roik: la division en huit du *nbi* est justifiée par les huit divisions de la règle (non convertie) de Dechacheh (D). Or, ces huit intervalles sont restitués par Petrie. Les seules divisions que D portait effectivement sont: 34,3//5,8/2,3/3,2/4,8/0,5/4,8/2,66/8 cm. Une moitié est vierge, l'autre est graduée de huit intervalles très inégaux (fig. 1, 3). Ce chiffre 'huit' reste donc très discutable. Même si l'objet offre, par l'addition de ses divisions, une répartition en: 34,3 + 8,1 + 8 + 7,96 + 8 cm, la marque médiane n'est pas bien centrée (34,3 cm + 32,1 cm) et cette règle est imprécise. Mesurant 66,4 cm en son état actuel, sa longueur totale restituée d'après la moitié vierge est de 68,6 cm ( $34,3 \times 2$ ), ce qui s'éloigne des 65 cm proposés. Choisir trois exemples qui pourraient convenir à une théorie

<sup>45</sup> Gardiner, *Egyptian Grammar*<sup>3</sup> (Oxford, 1957), §266/2. Voir aussi Faulkner, *Concise Dictionary*, 327.

<sup>46</sup> Voir Hayes, *Ostraka*, 22-3, n° 76.

<sup>47</sup> Dans le sens 'vertical', donc la hauteur.

<sup>48</sup> Hayes, *Ostraka*, 21, n° 62.

<sup>49</sup> *GM* 121 (1991), 101-10.

<sup>50</sup> *GM* 119 (1990), 91-9.

comme le fait Roik, ne constitue pas une démonstration. De plus, ceux-ci datent de l'Ancien Empire, ce qui pose problème puisque le *nbi* n'a encore aucune attestation lexicale à cette époque. Enfin, l'existence d'un système de mesure linéaire parallèle à coudée, c'est-à-dire privé de toute possibilité de conversion, est difficile à concevoir.

Concrètement, on ne peut accepter un *nbi* qui ne soit pas convertible par rapport à l'étalon-coudée. En effet, dans les rares textes qui le font connaître, celui-ci est multiplié par des coudées. Pour obtenir un résultat, il faut qu'il puisse se convertir. Conceptuellement, la coudée est la mesure de Thot,<sup>51</sup> la mesure de l'exactitude.<sup>52</sup> A Edfou, à la période tardive, elle repousse l'ennemi du temple par l'emploi de ses multiples dans les longueurs des différents murs du bâtiment.<sup>53</sup> Il est donc difficile de croire qu'une mesure de longueur, étrangère à la coudée, puisse être appliquée à l'architecture égyptienne, tant funéraire que religieuse.

Le *nbi*, donc, ne peut être qu'une mesure linéaire offrant une possibilité de conversion avec l'étalon. Plus grand que la coudée (Hayes a montré qu'il était compris entre 65 et 77 cm), il pourrait mesurer neuf paumes (67,5 cm), dix paumes (75 cm) ou encore, une coudée et un tiers (70 cm). Neuf paumes conviendraient pour expliquer les mesures de la tombe de Taousret. Comme Hayes l'a envisagé pour la tombe de Sénenmout, les parois des piliers par exemple (65 pour 67,5 cm), auraient perdu de l'épaisseur au dressage. Aucun argument ne vient appuyer l'hypothèse de dix paumes, si ce n'est le fait que cette longueur s'intègre dans la fourchette calculée par Hayes. Si le *nbi* mesurait une coudée et un tiers, il s'agirait des règles de dessinateur présentées plus haut (A, B, C, et D). Il serait alors connu non seulement par les textes, mais également par les outils et par les monuments.

Il est possible de choisir parmi ces hypothèses, grâce à l'ostrakon représentant le plan de la tombe thébaine n° 71, de Sénenmout.<sup>54</sup> Le couloir esquissé est accompagné de deux chiffres écrits en hiéroglyphes, qui sont orientés selon la dimension à laquelle ils se rapportent (longueur: '25';<sup>55</sup> largeur: '3'). Ces cotes ne sont pas suivies d'une unité de mesure. D'après le plan et la coupe publiés,<sup>56</sup> le corridor mesure 17,66 m de long pour 2,18 m de large. Le calcul montre que les valeurs obtenues en multipliant les cotes par la longueur de la coudée-étalon (52,5 cm) sont trop petites pour les dimensions réelles du couloir (13,12 m × 1,57 m). Or, ce dessin a été trouvé en même temps que la majorité des ostraca qui font connaître le mot *nbi*. Il est donc plausible que ces données expriment des *nbi* et non des coudées, ce qui permettrait de déterminer la valeur métrique de cette mesure. Les résultats obtenus en multipliant les cotes par les différentes longueurs proposées fournissent les résultats suivants: par neuf paumes (67,5 cm), ils sont plus petits que les dimensions réelles (16,87 × 2,02 cm), par dix paumes (75 cm), ils sont trop grands (18,75 × 2,25 m). En revanche, par une coudée et un tiers (70 cm, règle de dessinateur matérialisant le canon à l'échelle 1/1), ils sont de 17,5 × 2,10 m pour les 17,66 m et 2,18 m attendus. Par conséquent, je ne doute pas que le mot *nbi* désigne une

<sup>51</sup> A. Zivie, *BSFE* 79 (juin 1977), 22-41.

<sup>52</sup> Plusieurs interprétations du signe *mn*, 'vérité-justice', existent. Il s'agirait d'une coudée, dont la longueur est dessinée de profil et le biseau en coupe (voir Petrie, *Medum*, (Londres, 1892), 32) ou bien d'un socle, d'une base de statue (voir W. Helck, *LÄ* III, 1111, n. 1).

<sup>53</sup> P. Bargaet, *BSFE* 72 (mars 1975), 23-30.

<sup>54</sup> Hayes, *Ostraka*, 15, n° 31-2.

<sup>55</sup> Hayes avait lu '15' (*Ostraka*, 15, pl. VII).

<sup>56</sup> P. F. Dorman, *The Monuments of Senenmut: Problems in Historical Methodology* (Londres et New York, 1988), 84-95, pl. 15-19.

unité de mesure linéaire dérivant de règles de dessinateur longues de 70 cm, divisées en sept unités de 10 cm et matérialisant—à l'échelle entière—le canon antérieur à la vingt-sixième dynastie.

Il faut revenir à l'instrument **G** du corpus. En effet, l'incision subsistant juste avant la cassure détermine un trop grand intervalle pour une demi-paume (4,2 cm). En additionnant les divisions jusqu'à cette marque, on obtient 34,9 cm, qui, multiplié par deux, vaut 69,8 cm soit la longueur d'un *nbi*. Pourtant, les divisions qui la précèdent sont indubitablement des paumes et non des poings (7,675 cm en moyenne). La longueur d'un demi-*nbi* aurait-elle été gravée sur **G** (fig. 1)?

Apparemment, par le biais des règles de dessinateur, le canon a été utilisé parallèlement à l'étalon, à la fois comme outil et comme unité de mesure, au moins dans la construction. Plusieurs indices le prouvent: les minutes de chantier, dans lesquelles des coudées sont multipliées par des *nbi*; le fait que le corpus d'outils d'instruments de mesure fonctionnels comporte autant de matérialisations du canon que de l'étalon;<sup>57</sup> enfin, l'instrument étalonné **G**, si les deux systèmes y coexistent réellement. Cependant, plus encore qu'un parallélisme, il est possible qu'une véritable concurrence se soit exercée entre les deux systèmes. Elle ne serait guère étonnante: quand un décor mis au carreau occupe toute la longueur d'un mur, il comprend à peu près un nombre entier de carreaux du canon, les dimensions pouvant s'exprimer aussi bien en *nbi* qu'en coudées.

Par cette rivalité, la réforme de l'étalon prendrait tout son sens si elle accompagnait celle du canon à la vingt-sixième dynastie. Désormais, simplifiant la tâche des artisans, le même instrument servirait à la prise de mesures (architectes) et à la mise au carreau des œuvres en cours d'exécution (dessinateurs). La réforme unifierait les deux systèmes, en faisant se ranger le canon sur l'étalon. Selon cette explication, le mot '*nbi*' (au sens de mesure linéaire) comme l'instrument ne pourraient survivre à la vingt-sixième dynastie. Le changement de canon offre également une possibilité de repère chronologique: par exemple, la dalle de Memphis ne peut plus dater du premier siècle av. J.-C. puisque, témoin d'un canon abandonné à la vingt-sixième dynastie, elle ne peut être postérieure à cette époque. Il s'agirait d'une ébauche, peut-être pour une stèle, sur laquelle seule une partie du quadrillage aurait été tracée. Ce critère de datation peut s'appliquer à tout objet portant un carroyage où le carreau est l'entier ou une fraction de 10 cm (canon ancien), ou de 8,75 cm (canon postérieur à la vingt-sixième dynastie).

En résumé, le *nbi* est un bâton en bois, mesurant 70 cm de long et divisé en sept unités de 10 cm. Conçu pour que les dessinateurs puissent aisément carroyer les parois destinées à être décorées, il est devenu un instrument et une unité de mesure linéaire. Jusqu'à plus ample documentation, le mot lui-même n'est attesté, dans le sens de 'mesure de longueur', que ponctuellement, au Nouvel Empire.<sup>58</sup> S'il a été peu écrit, les attestations sont trop nombreuses et trop réparties dans le temps pour être qualifiées de rares. De plus, le terme devait être répandu puisqu'il ne se limite pas aux textes de construction. Du langage technique, il est passé à la littérature, où il apparaît dans une comparaison. Par conséquent, le *nbi* devait être assez connu pour évoquer sans ambiguïté la réalité qu'il désignait. Il a même été utilisé en composition dans un nom propre.<sup>59</sup> L'objet, quant à lui, est connu à partir de la douzième dynastie (**B** et **C** dateraient du Moyen Empire, **D** du

<sup>57</sup> Sur les douze instruments que comporte le corpus complet, six sont basés sur l'étalon et six sur le canon.

<sup>58</sup> Il subsiste au-delà du Nouvel Empire, dans l'onomastique; cf. n. 44.

<sup>59</sup> Cf. note précédente.

Nouvel Empire) et ne peut survivre à la vingt-sixième dynastie puisque le canon est réformé à cette époque (A peut recevoir une date allant du Moyen Empire à la Troisième Période Intermédiaire). Géographiquement, des exemplaires ont été trouvés à Kahoun, à Dechacheh et à Licht. Son usage a également été noté à Thèbes (ostraca de la tombe de Sénenmout) et à Abydos (O. Osireïon n° 1). Si l'on ne connaît avec certitude l'objet et son nom qu'à partir de la douzième et de la dix-huitième dynastie respectivement, et sur les sites rappelés plus haut, l'emploi du *nbi* a probablement été plus large. En effet, l'utilisation du canon de proportions est attestée dès l'Ancien Empire, si ce n'est par l'intermédiaire de grilles, au moins sous l'aspect de lignes-repères.<sup>60</sup> Sept poings du canon sont également employés comme unité de mesure au moins à partir de la fin de l'Ancien Empire puisque Naguib Victor a relevé son usage dans la tombe M 43 de el-Hawawish<sup>61</sup> qui, d'après Kanawati, date du début de la sixième dynastie.<sup>62</sup>

En conclusion, il faut souligner que l'emploi du *nbi* comme instrument de mesure n'a, pour l'heure, été signalé que dans des tombes privées.<sup>63</sup> Mais peut-être de nouveaux documents ou de nouvelles observations révéleront-ils son utilisation également pour d'autres types d'aménagements architecturaux. Les édifices d'Abydos du Nouvel Empire réservent peut-être des surprises en ce sens, comme le montre l'existence de l'ostracon Osireïon n° 1.

### Catalogue des instruments de mesure linéaire fonctionnels

Bien que Schlott<sup>64</sup> ait rassemblé les références bibliographiques concernant les instruments de mesure, dont la majeure partie a été découverte par l'archéologue Flinders Petrie,<sup>65</sup> le corpus est difficile à établir car les références se recoupent. Grâce à l'aide du British Museum, du University College, du Science Museum (Londres) et du Metropolitan Museum of Art (New York),<sup>66</sup> il m'a été possible de rétablir les correspondances entre les objets et les publications. Seuls sont présentés ici les instruments décrits dans l'article. Les mesures des divisions, données selon chacune des publications de l'objet, permettent de justifier les équivalences bibliographiques.

A New York, MMA 15.3.1128 (fig. 1, 2)

*Datation*: Moyen Empire à Troisième Période Intermédiaire.

*Forme*: Section circulaire (diamètre = 2,1 cm).

*Longueur*: 70,1 à 70,6 cm.<sup>67</sup>

<sup>60</sup> E. Feucht, *LÄ* II, 1201-6; Iversen, *Canon and Proportion*, 60.

<sup>61</sup> GM 121, 101-10. Il a établi ses résultats à partir de cent-cinquante tombes appartenant à huit sites différents datés de l'Ancien au Nouvel Empire mais ne donne pas d'autre exemple précis que celui de el-Hawawish.

<sup>62</sup> N. Kanawati, *The Rock-Tombs of el-Hawawish: The Cemetery of Akhmim*, v (Sydney, 1985), 8-10.

<sup>63</sup> Dans les tombes privées, le *nbi* est utilisé comme unité de longueur à la fois pour mesurer les éléments architecturaux (hauteur et largeur de l'ouverture du couloir de la TT 71, par exemple) et pour évaluer le cubage de roche excavée. En revanche, dans les tombes royales thébaines, il n'a pas été employé—à ma connaissance—pour déterminer la longueur des éléments architecturaux, mais il a peut-être servi à évaluer le cubage de débris de calcaire résultant du creusement. En effet, l'ostracon Caire CG 25501 a été trouvé à Biban el-Molouk. Le recto fournit une liste d'ouvriers qui s'achève par la mention 'total des hommes: 10, ce qui fait [chiffre perdu] *nbi* [perdu]'.  
<sup>64</sup> Cf. n. 1.

<sup>65</sup> *Weights and Measures*, 38-42.

<sup>66</sup> Pour leurs renseignements et leur obligeance, je remercie vivement C. Andrews, B. Adams et P. Tomlinson, ainsi que D. Arnold qui, de surcroît, m'a autorisée à publier les dessins de A et F.

<sup>67</sup> La double série est due au fait que les incisions ne sont pas parallèles à l'axe de l'objet. Si l'on additionne les chiffres donnés pour les divisions, on obtient en réalité 69,6/70,2 cm.

*Matériau*: Bois (jujubier).

*Divisions*: 7 divisions + une marque centrale.

*Provenance*: Licht, près de la pyramide nord (fouilles 1915).

*Bibliographie*: W. C. Hayes, *The Scepter of Egypt*, I (New York, 1953), 297.

*Détail des divisions*: 10,3-10,4/10,1-10,2/9,7-9,8/4,7-4,8//<sup>68</sup>4,7-4,7 (9,4-9,5)/9,6-9,6/10,4-10,5/  
10,1-10,2 cm.

*Marque centrale*: 34,8 cm.

*Division moyenne*:<sup>69</sup>9,98 cm.

*Commentaire*:

A ne possède pas la forme des coudées; elle est plus grande qu'elles et n'est pas étalonnée. Les divisions sont assez régulières,<sup>70</sup> et la marque centrale est correctement placée. Elle correspond à un peu plus de dix-huit doigts, et la division moyenne est de presque dix centimètres soit un doigt et un tiers. L'addition des divisions réelles fournit la série suivante:<sup>71</sup> 10,3/20,4/30,1/34,8//39,5/49,1/59,5/69,6 cm. L'addition des divisions moyennes fournit cette série: 9,98/19,96/29,94/39,92/49,9/59,88/69,86 cm.

**B** Londres, Science Museum (ScM.1935.461; prêt du University College Londres depuis 1935) (fig. 1)

*Datation*: Douzième dynastie.

*Forme*: Petrie, *Illahun*: usure en pointe aux deux bouts?

Petrie, *Weights and Measures*: coudée grossièrement rectangulaire avec arête biseautée. Les extrémités sont indubitablement plus courtes; l'une est brûlée.

Science Museum: barre grossièrement rectangulaire avec arête biseautée.

*Longueur*: 25,67 in. = 65,2 cm (identique dans les deux publications et d'après le Science Museum).

*Matériau*: Bois (essence non déterminée).

*Divisions*: 7 + marque centrale.

*Provenance*: Kahoun (voir Petrie, *Illahun*, 14, §31).

*Bibliographie*: Petrie, *Illahun*, 14, § 31; idem, *Weights and Measures*, 40, n° 14; Hayes, *Scepter* I, 297.

*Détail des divisions*: Petrie, *Illahun*: 2,96/3,7/3,87/1,88//1,89(= 3,77)/3,92/3,9/3,55 in. = 7,5/9,4/9,8/4,8//4,8(= 9,6)/9,95/9,9/9 cm.

Petrie, *Weights and Measures*: marque centrale sur la face supérieure et la face biseautée. Les incisions sont bien formées et perpendiculaires aux arêtes. 3,53/3,90/4/3,67/3,89/3 in. = 8,9/9,9/10,1/9,3/9,8/9,3/7,6 cm.

Science Museum: 3,5/3,93/3,9/3,77<sup>72</sup>/3,86/3,71<sup>73</sup>/3 in. = 8,89/9,98/9,9/9,57/9,8/9,42/7,62 cm.

*Marque centrale*: Petrie, *Illahun*: 12,41 in. + 13,26 in. (31,52 cm + 33,86 cm).

*Division moyenne*:<sup>74</sup> Petrie, *Illahun*: 3,84 in. (9,75 cm); idem, *Weights and Measures*: 3,82 in. (9,7 cm); Science Museum: 3,834 in. (9,738 cm).

*Longueur restituée 1*:<sup>75</sup> Petrie, *Illahun*: 68,3 cm; idem, *Weights and Measures*: 67,9 cm; Science Museum: 68,16 cm.

*Longueur restituée 2*:<sup>76</sup> Petrie, *Illahun*: 67,36 cm.

*Commentaire*:

L'équivalence des trois sources n'est pas évidente a priori: si les longueurs totales sont identiques dans les trois cas, les divisions de *Illahun* ne semblent pas du tout correspondre aux deux autres

<sup>68</sup> // indique la marque centrale.

<sup>69</sup> L'outil semble être conservé dans son intégralité et la moyenne des paumes peut être calculée sur la totalité d'entre elles.

<sup>70</sup> Le plus grand écart s'enregistre entre 9,4 et 10,4 cm.

<sup>71</sup> En prenant à chaque fois la première valeur.

<sup>72</sup> Avec marque médiane.

<sup>73</sup> Avec une incision pour un 'doigt'.

<sup>74</sup> Calculée d'après les divisions internes, nécessairement intactes.

<sup>75</sup> Calculée d'après la division moyenne.

<sup>76</sup> Calculée d'après la plus grande moitié de l'outil.

séries qui, elles, sont similaires. Petrie n'a pas donné les mesures des intervalles en partant de la même extrémité. La dernière mesure de la première publication correspond à la première mesure de la seconde et ainsi de suite. Cette règle, malgré sa forme biseautée, n'est pas étalonnée puisque, plus grande que l'étalon, elle possède le même nombre de divisions. Celles-ci sont assez régulières,<sup>77</sup> et l'unité restituée vaut environ cinq doigts et un cinquième (9,75 cm). La marque centrale, d'après la longueur restituée 1 se trouve à 34,15 cm soit un peu plus de dix-huit doigts. L'addition des divisions réelles (Science Museum) se présente comme suit: 8,89/18,87/28,77/38,34/48,14/57,56/65,18 cm. L'addition des divisions restituées offre cette série: 9,738/19,47/29,21/38,95/48,69/58,42/68,16 cm, et 29,21 cm s'approche de 30 cm, par défaut.

C Londres, UC 16747 (fig. 1)

*Datation*: Douzième dynastie.

*Forme*: Petrie, *Kahun, Gurob, and Hawara* (Londres, 1890): forme usuelle des coudées avec arête biseautée.

Petrie, *Weights and Measures*: Règle grossièrement rectangulaire 1,1 × 0,65 in. (2,8 × 1,65 cm), extrémités en pointe.

*Longueur*: 26,43 in. = 67,13 cm (publications); 67,3 cm (musée).

*Matière*: Bois?

*Divisions*: 7 + marque centrale.

*Provenance*: Kahoun.

*Bibliographie*: Petrie, *Kahun*, 27 (48); idem, *Illahun*, 14,<sup>78</sup> idem, *Weights and Measures*, 40, n° 13; Hayes, *Scepter* 1, 297.

*Détail des divisions*: Petrie, *Kahun*: 3,41/4,47/3,65/3,53/3,07/4,08/4,23 in. = 8,66/11,35/9,27/8,96/7,79/10,36/10,74 cm (marque centrale à 12,74 in. = 32,35 cm).

Petrie, *Weights and Measures*: 3,41/4,49/3,68/3,52/3,11/4,08/4,21 in. = 8,66/11,4/9,34/8,94/7,89/10,36/10,69 cm. (talon + marque centrale).

*Marque centrale*: 32,35 + 34,77 cm.

*Division moyenne*:<sup>79</sup> 9,749 cm.

*Longueur restituée 1*:<sup>80</sup> 68,243 cm.

*Longueur restituée 2*:<sup>81</sup> 69,54 cm.

*Commentaire*:

La règle C, comme B, et malgré son biseau, est, avec ses sept divisions, trop longue pour être étalonnée. Les divisions sont très irrégulières.<sup>82</sup> La division moyenne est presque de cinq doigts et un cinquième (9,75 cm) et la marque centrale n'est pas rigoureusement centrée (32,35 + 34,78 cm), probablement parce qu'une des divisions est amputée par l'usure. Elle devrait se trouver à 34,12 cm si l'on se basait sur la longueur restituée 1. L'addition successive des valeurs des divisions réelles fournit la série suivante: 8,66/20/29,28/38,24/46,03/56,39/67,13 cm. La même succession, basée sur la valeur moyenne de la division, est la suivante: 9,74/19,5/29,24/38,99/48,74/58,49/68,24 cm, et 29,24 cm s'approche de 30 cm (quatre paumes).

<sup>77</sup> En excluant les divisions extrêmes (usées, donc non significatives) le plus grand écart entre deux unités s'enregistre entre 9,4 et 9,95 cm (0,55 cm) d'après Petrie, *Illahun*, et entre 9,3 et 10,1 cm (0,8 cm) d'après Petrie, *Weights and Measures*.

<sup>78</sup> Les règles B et C ont été trouvées par Petrie en 1890 et 1891; il publia C dans *Kahun* en 1890 et B en 1891 dans *Illahun* où il rappela la découverte de C pour les comparer.

<sup>79</sup> En excluant les divisions des extrémités, usées.

<sup>80</sup> Calculée d'après la division moyenne.

<sup>81</sup> Calculée d'après la plus grande moitié de l'outil.

<sup>82</sup> Le plus grand écart entre deux divisions (sans tenir compte de celle de l'extrémité usée) se situe entre, 7,79 et 11,35 cm (soit 3,56 cm).



**D** (fig. 1, 3) Ne s'est pas conservée.<sup>83</sup>

*Datation*: Dix-huitième/dix-neuvième dynastie.

*Forme*: Non précisée.

*Longueur*: 26,15 in. = 66,42 cm.

*Matière*: Bois (essence non déterminée).

*Divisions*: Divisée en deux parties. L'une est vierge, l'autre est subdivisée en huit intervalles très inégaux.

*Provenance*: Dechacheh, tombe n° 44.

*Bibliographie*: Petrie, *Deshasheh*, 37.<sup>84</sup>

*Détail des divisions*: 13,5//2,3/0,9/1,25/1,9/0,2/1,9/1,05/3,15 in. = 34,3//5,84/2,3/3,2/4,8/0,5/4,8/2,66/8 cm.

*Marque centrale*: 34,3 + 32,1 cm.

*Division moyenne*: —

*Longueur restituée 1*: —

*Longueur restituée 2*:<sup>85</sup> 68,6 cm.

*Commentaire*:

La moitié de cette règle (Petrie ne précise pas sa forme exacte) ne porte pas de division. L'autre moitié porte des intervalles irréguliers. Cette règle n'est pas étalonnée, et sur la partie incisée, Petrie a restitué quatre divisions ainsi formées: 13,5//3,2 (2,3 + 0,9) + 3,15 (1,25 + 1,9) + 3,15 (0,2 + 1,9 + 1,05) + 3,15 in., soit 34,3//8,12 + 8 + 8 + 8 cm. Cela pose un problème, car si la moitié vierge compte également quatre divisions, celles-ci ont en moyenne 8,575 cm. La marque centrale n'est pas bien placée car on obtient: 13,5 + 12,65 in. = 34,3 + 32,13 cm. A partir de la longueur de ces deux moitiés, la longueur totale restituée de cet instrument est 68,6 cm (34,3 × 2) ou 64,26 cm (32,13 × 2). La valeur 68,6 cm rapproche **D** des règles **B** et **C**, mais il est alors difficile de s'expliquer les huit divisions de l'outil (quatre sur la partie divisée en huit intervalles très inégaux, et quatre restituées sur la partie vierge), là où l'on en attendrait sept. Manquerait-il 2,2 cm (34,3 - 32,1 cm) à la moitié la plus courte, c'est-à-dire celle portant des subdivisions? Si c'était le cas, cette moitié pourrait présenter trois divisions et demi de la manière suivante: 2,2 + 8 = 10,2/2,66 + 4,8 + 0,5 = 7,96/4,8 + 3,2 + 2,3 = 10,3/5,8 (× 2 = 11,6)//34,3 cm (total 68,56 cm). On retrouverait ainsi les instruments de sept divisions (**A**, **B** et **C**) sous la forme d'un exemplaire irrégulier. Le plus grand écart entre deux divisions serait de 2,34 cm (entre 7,96 et 10,3 cm), écart plus faible que celui qui existe entre les valeurs les plus éloignées de **C** (3,56 cm). La division moyenne serait de 9,47 cm, d'après les trois divisions de la partie inscrite ou de 9,8 cm, d'après la longueur totale restituée (68,6 cm).

**E** Londres, UC 7093 (fig. 1)

*Datation*: Douzième dynastie?

*Forme*: Barre plate, encoches larges et peu soignées. la: 0,5 in. (1,27 cm), ép: 0,3 in. (0,76 cm) (Petrie, *Weights and Measures*, 39, n° 3).

*Longueur*: 18, 23 cm + talon = 19,5 cm.

*Matière*: Bois?

*Divisions*: 7 + talon (ou 7½ ou 8 dont une usée).

*Provenance*: Kahoun.

*Bibliographie*: Petrie, *Kahun*, 27 (48); idem, *Weights and Measures*, 39, n° 3.

<sup>83</sup> Petrie indique (*Deshasheh*, 37): 'All of this wood was so much rotted by lying in the air of the chamber that it could not be lifted in lengths of more than two or three inches, as any longer piece broke with its own weight. Before exposing the pieces of the cubit to shrinkage, by losing the slight moisture of the rock, it was measured at once'.

<sup>84</sup> Cf. n. 6.

<sup>85</sup> Calculée d'après la marque centrale.

*Détail des divisions:* Petrie, *Kahun*: 0,84/1,24/1,06/1,08/0,86/1,05/1,03/0,52 in. = 2,13/3,14/2,69/2,74/2,18/2,66/2,61 cm + talon de 1,32 cm.

Petrie, *Weights and Measures*: 0,85/1,23/1,07/1,10/0,86/1,08/1 in. = 2,15/3,12/2,71/2,79/2,18/2,74/2,54 cm + talon.

*Marque centrale:* Aucune.

*Division moyenne:*<sup>86</sup> 2,59 cm.

*Longueur restituée:*<sup>87</sup>  $2,59 \times 7 = 18,13$  cm ou bien  $2,59 \times 8 = 20,72$  cm.

*Commentaire:*

Les divisions de E sont irrégulières<sup>88</sup> et leur nombre est difficile à définir. La première est-elle un talon (sept divisions)? Est-elle une division usée (huit divisions)? Est-elle une demi-division? E n'est pas étalonnée. Aucune mesure de cet instrument n'est un multiple de la paume ou du doigt, et la longueur totale réelle est plus conforme à la restitution avec huit divisions (20,72 cm) qu'à celle avec sept divisions (18,13 cm).

La longueur réelle s'approche de la demi-longueur de F (19,5 pour 19,3 cm), de deux unités de A ( $9,98 \times 2 = 19,96$  cm), et de deux paumes et demi de l'étalon ( $7,5 \times 2,5 = 18,75$  cm).

F New York, MMA 22.1.678 (fig. 1, 4)

*Datation:* Moyen Empire à Troisième Période Intermédiaire.

*Forme:* Section quadrangulaire sans biseau.

*Longueur:* 37 cm.

*Matériau:* Bois (essence non déterminée).

*Divisions:* Une marque centrale. Six divisions sont gravées sur une moitié, l'autre est vierge.

Chaque division varie entre 3,15 et 3,3 cm.

*Provenance:* Licht, près de la pyramide nord (fouilles 1920-1922).

*Bibliographie:* Aucune.

*Détail des divisions:*<sup>89</sup> 1,27/2,87/3,38/3,21/3,38/3,38//19,3 cm.

*Marque centrale:* 17,49 + 19,3 cm.

*Division moyenne:*<sup>90</sup> 3,244 cm.

*Longueur restituée 1:*<sup>91</sup> 38,92 cm ( $3,244 \times 12$ ).

*Longueur restituée 2:*<sup>92</sup> 38,6 cm.

*Commentaire:*

La règle F n'a pas la forme des coudées (non biseautée). Elle est plus petite. Ses divisions ne sont pas étalonnées, et la première division ne mesure plus que 1,27 cm, alors que les autres font plus de 3 cm. C'est sûrement pourquoi la marque centrale ne paraît pas correctement placée. Les divisions intactes conservées sont relativement régulières puisque l'écart maximum se situe entre 2,87 et 3,38 cm soit 0,51 cm. La moitié de la longueur restituée à partir de la division moyenne est de 19,46 cm. Comme elle est plus grande que la moitié la mieux conservée de l'outil, il est clair que chaque extrémité est usée. L'addition des divisions réelles fournit la série suivante: 19,3/22,68/26,06/29,27/32,65/35,52/36,79 cm, et l'addition des divisions moyennes fournit les séries: 19,46/22,7/25,94/29,19/32,43/35,68/38,92 cm; 3,244/6,488/9,732/12,976/16,22/19,464/38,928 cm. Aucune de ces valeurs de F, réelle ou restituée, ne recoupe le système étalonné. Pourtant, il existe une valeur commune entre A, F et l'étalon, il s'agit de 30 cm (29,27 pour F et 30,1 cm pour A).

<sup>86</sup> En excluant la division de 1,32 cm.

<sup>87</sup> Calculée d'après la division moyenne de l'outil.

<sup>88</sup> Ecart maximum entre 2,18 et 3,12 cm, soit 0,94 cm.

<sup>89</sup> Mesuré sur la photographie gracieusement envoyée par Dieter Arnold, que je remercie.

<sup>90</sup> Calculée à partir de la partie portant des divisions et en excluant la première, beaucoup plus petite, probablement à cause de l'usure.

<sup>91</sup> Calculée d'après la division moyenne.

<sup>92</sup> Calculée d'après la plus grande moitié de l'outil.

G Londres, UC 27902 (fig. 1)

*Datation*: Nouvel Empire.

*Forme*: Coudée (faite dans un ancien meuble: des chevilles sont encore visibles).

Petrie, *Kahun*: la = 1,2 in. (3,1 cm), ép = 0,6 in. (1,6 cm).

Petrie, *Weights and Measures*: la = 1,25 in. (3,175 cm), ép = 0,6 in. (1,524 cm).

*Longueur*: Incomplète: brisée à une extrémité, après la marque centrale. 37,9 cm en l'état.

*Matière*: Bois (essence non déterminée).

*Divisions*: 4 + une demi-division.

*Provenance*: Gourob.

*Bibliographie*: Petrie, *Kahun*, 34 (67); idem, *Weights and Measures*, 40, n° 12;<sup>93</sup> A. P. Thomas, *Gurob: A New Kingdom Town* (Warminster, 1981), n° 69, pl. 5.

*Détail des divisions*: Petrie, *Kahun*: 3,02/3,07/3,07/2,90/1,65 in.//puis brisée = 7,67/7,79/7,79/7,36/4,19 cm.

Petrie, *Weights and Measures*: 3,02/3,1/3,06/2,91/1,65 in.//puis brisée = 7,67/7,87/7,77/7,39/4,19 cm.

Thomas, *Gurob*: 7,7/7,8/7,8/7,4/4,2 cm//puis cassure, 3 cm plus loin.

*Division moyenne*:<sup>94</sup> 7,657 cm.

*Commentaire*:

G est un instrument étalonné. En effet, ses divisions correspondent à peu près à la paume égyptienne (leur moyenne est 7,675 cm pour les 7,5 cm théoriques) et sont assez régulières. Le plus grand écart entre deux divisions est de 0,4 cm (entre 7,4 et 7,8 cm). La longueur totale de cet instrument devait être, d'après la division moyenne de 53,725 cm, ce qui est un peu grand pour une coudée. Si on multiplie par deux la demi-division, on obtient 8,4 cm, ce qui est trop élevé pour une paume. La succession des divisions propose la série suivante: 7,7/15,5/23,3/30,7/34,9 cm.

<sup>93</sup> A. Thomas n'avait pas repéré cette équivalence, mais elle est certaine par les dimensions de l'objet et de ses divisions. C'est par erreur que Petrie l'a placée à la fin d'une série de quatre coudées assyriennes et juives de six paumes. B. Adams a accepté cette équivalence.

<sup>94</sup> Calculée d'après les quatre divisions conservées: la première ne semble pas usée.

# THE MUMMY OF BAKET-EN-HER-NAKHT IN THE HANCOCK MUSEUM: A RADIOLOGICAL UPDATE\*

By ELIZABETH J. WATSON *and* MICHAEL MYERS

Re-publication of the mummy of Baket-en-her-nakht (Twenty-second Dynasty) in the Hancock Museum, Newcastle upon Tyne. Results of recent investigation with X-ray and C.A.T.-scan techniques are presented and compared with the previous radiological examination of 1964.

A re-examination of all the mummified human tissues in the Egyptian collection of the Hancock Museum, Newcastle upon Tyne, was carried out in 1991 using radiography.<sup>1</sup> Because the museum is part of Newcastle University, with its excellent medical school, access to the most up-to-date radiographic equipment is very easy. The research was designed to re-evaluate the findings of Dr P. H. K. Gray, who had examined the mummy of Baket-en-her-nakht in 1964 using portable X-ray equipment.<sup>2</sup> This paper contrasts the findings of Gray with those of this latest research and illustrates the advances in non-invasive medical techniques which have occurred in the intervening quarter of a century. The mummy (Reg. No. Aregypt605), still in its cartonnage, is otherwise known as the Coates Mummy and is described with special reference to embalming techniques and materials.

## Introduction

The mummy was purchased in 1820 at Gournah and presented to the Literary and Philosophical Society of Newcastle upon Tyne in 1821 by Thomas Coates of Haydon Bridge, Northumberland.<sup>3</sup>

The body lies within a cartonnage mummy-case painted with hieroglyphs, symbols of rebirth and winged divinities (pl. XV, 1). The iconography suggests a date in the Twenty-second Dynasty.<sup>4</sup> The face and white areas are covered with a honey-coloured

\*On behalf of the Hancock Museum I wish to extend my grateful thanks to Dr M. I. Lavelle, head of the radiography department at the Royal Victoria Infirmary in Newcastle, who allowed us free rein of the X-ray facilities for this research; Dr R. I. Macleod, oral pathologist, for the dental report and his opinion of the nasal damage; Dr J. Taylor, of the British Museum, for the translation of the inscription on the cartonnage and his kind help and advice; Mr D. R. Hall, graphic designer, for his interpretation of my sketch and graph; Mr A. M. Tynan, curator of the Hancock Museum, for his benevolence and support; Mr C. C. Brewer; Mr P. S. Davis, deputy curator of the Hancock Museum, for his guidance in the preparation of this paper.

<sup>1</sup> Reports on the rest of the mummies in the collection will probably be ready for publication in 1993. Meanwhile, all unpublished material is available in the museum upon request.

<sup>2</sup> *JEA* 53 (1967), 77-8, pls. xv-xvi.

<sup>3</sup> G. T. Fox, *Synopsis of the Newcastle Museum, late the Allan Collection, formerly the Tunstall or Wycliffe Museum* (London, 1827), 251. For Thomas Coates, see W. R. Dawson and E. P. Uphill, *Who Was Who in Egyptology*<sup>2</sup> (London, 1972), 66 (as Coats).

<sup>4</sup> John Taylor, personal communication.

glossy material that adheres firmly to the underlying paint and is assumed to be resin. The lower part of the cartonnage is modelled to follow the outline of the legs from the knees. The outer anthropoid coffin, also in the Hancock Museum, is of sycamore wood (50 cm thick) (pl. XV, 2) without decoration, apart from the carved female face; comparable cases can be found in the British Museum.<sup>5</sup>

In 1821 the body was lifted from the outer coffin and the cartonnage was examined by a subcommittee of the Literary and Philosophical Society (members unknown). This is the only written account of the cartonnage compiled to date. The original lacing in the back of the cartonnage, described as having 'the thickness of a raven's quill', passed through holes spaced at regular distances of about an inch and covered by a strip of canvas-like cloth.<sup>6</sup> The material of the cartonnage was described as 'comprising several layers of coarse cloth agglutinated by some adhesive substance to the thickness of cow-hide'. The interior was coated with 'coarse earthy matter' which effervesced and dissolved in dilute nitric acid, showing the composition to be calcareous. The exterior had been smoothed over with a fine coat of plaster on which the paintings were applied. The foot of the cartonnage was opened and the wrapped feet of the mummy could be felt within the 'many folds of fine cloth, which was pale brown from the effects of soaking in some liquid'. Toes could be felt through the cloth on both feet.

A translation of the central panel of the cartonnage made in 1992 by John Taylor reads:

An offering which the King gives to Re-Horakhty, Chief of the Gods, [to] Atum, lord of the Two Lands, [and to] Osiris, Foremost of the Westerners, so that he [*sic*] may give offerings and provisions to the Osiris, the Lady of the House, Baket-en-her-nakht, daughter of the God's Father Nakhtefmut, justified.

He confirmed the date of the cartonnage as Twenty-second Dynasty, but was unable to link the lady or her father with any known Theban family of that time.<sup>7</sup>

The cartonnage was X-rayed in 1964 by Dr P. H. K. Gray, who determined that the body within was that of a young adult female, with a body length of 5 ft. 2 in.<sup>8</sup> The examination revealed no fractures or artificial eyes, but a string of non-metallic amulets was hung about the neck. Partial calcification was found in some of the inter-vertebral disks. A winged pectoral lay over the sternum and a second rectangular amulet was found close by. A flank guard covered the embalming incision. The bones of the legs showed no fractures, dislocations or Harris lines.<sup>9</sup> The cavities of the thorax, abdomen and pelvis were tightly packed with a mixture thought to be mud, sawdust and resin, similar to a female mummy in the Royal Scottish Museum (Reg. No. 1911.399/I/C).<sup>10</sup>

<sup>5</sup> V. Foulkes, 'Report on the Examination of the Cartonnage of a Mummy in the Hancock Museum' (unpublished, 1964).

<sup>6</sup> Newcastle Literary and Philosophical Society, 'Minute of Subcommittee Appointed to take the Mummy out of the Coffin, October 22nd, 1821' (unpublished, 1821). No detailed study of the cartonnage has been published.

<sup>7</sup> Personal communication. He also provided the reading of the lady's name, 'Baket-en-her-nakht'.

<sup>8</sup> JEA 53, 78.

<sup>9</sup> Ibid.

<sup>10</sup> E. G. Smith and W. R. Dawson, *Egyptian Mummies* (London, 1924), 58.

### Methods

The two techniques we used in the most recent investigation were conventional X-ray and Computerized Axial Tomography (hereafter C.A.T.), both non-invasive examinations which allow a detailed analysis through the distinction of inner structures; the second technique was not available to Gray. Two areas of inquiry were of particular interest. The primary research was especially focused on the identification of damage to the nasal passage and cribriform plate which might be directly attributed to excerebration. The second aim was to determine the contents of the cranial cavity and the possible filling of other cavities, (orbits, oral and nasal passages, thoracic and abdominal cavities) and to identify any subcutaneous packing. To obtain comparative Attenuation Values (relative absorption coefficients; hereafter AV), samples of substances likely to be used in packing were also scanned (Table 1).<sup>11</sup> Details and parameters of the radiographic equipment used are given in the Appendix.

### Results

#### *The X-ray macroscopic appearance*

The body is wrapped and extended within the cartonnage (pl. XV, 3). The mummy wrappings around the outline of the body can be clearly seen as loose corrugated laminations. The top of the head lies level with the shoulders of the cartonnage; the space above is empty. Adhering to the interior are areas of very high density and of variable size which correspond to remnants of clay left from the mud core about which the cartonnage was formed. A solid object (110 × 40 × 60 mm) lies at the level of the sternal notch. A high density plate or plaque lies across and to the left of the sternum. A second rectilinear plate of high density lies over the xiphoid process. The shoulders are raised. The arms are extended and the palmar aspect of the hands covers the iliac fossae. The legs are extended and the wrappings of the feet are in contact with the base-board of the cartonnage.

#### *C.A.T. analysis: Axial section*

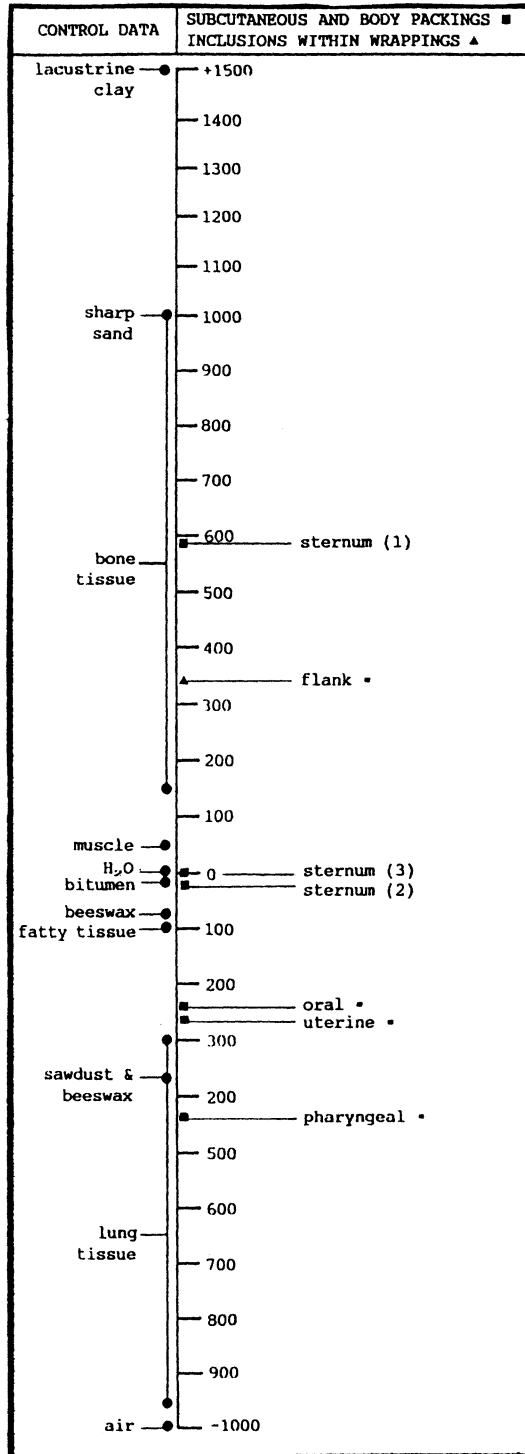
The wrappings around the head appear as loose corrugated laminations and desiccated facial tissues are discernible between the bony structures and the wrappings. Within each of the orbital margins there is an opaque disk; the eyelids are closed. The ears are pressed close to the head and hair can be seen at the back of the head.

The cribriform plate is broken, the cranial cavity is empty and there are no residual fluid levels. The nasal bone appears to be compressed, and there is an apparent lack of any soft nasal tissue. There are no nasal tampons.

A packing material (AV - 244) fills the oral cavity and protrudes between the teeth, forcing apart the maxilla and mandible. The composition of the substance cannot be directly correlated with any of the AV control data. There is a full dentition and no obvious trauma or fractures.

<sup>11</sup>O. H. Wegener, *The Whole Body Computerized Axial Tomography* (London, 1983), 24.

TABLE I. Attenuation Mean Values (Hounsfield Units)



A large amount of subcutaneous packing distends the skin of the neck (fig. 1). This extends from the hyoid bone for some 18 cm and ends at the level of T<sub>3</sub>;<sup>12</sup> it shows an AV of -430. The larynx, trachea and oesophagus are missing. The cervical vertebrae are undisturbed and there is no incision in that region.

The clavicles lie at an acute angle. There are twelve pairs of ribs with no obvious trauma or fracture. Within the thoracic cavity there are no discrete packages, the upper right quadrant is empty, and the pericardium and heart adhere to the anterior wall. Amorphous and opaque shapes appear on the left, level with T<sub>4</sub>, growing more substantial and dense until the entire space becomes filled level with the xiphoid process. Individual organs are not identifiable and the forms are convoluted.

There is an incision in the left flank 120 mm long, partially covered by the distal radius, ulna, carpus and metacarpals of the left arm. There is no plate covering the incision but a packet (AV 380) measuring 60 × 20 mm can be seen under the metacarpals. Lying over the sacrum, within the pelvic cavity, is a solid substance (AV -260) which has a level fluid line. This fills an area, probably the uterus, which is pressed against the posterior wall. There are no vaginal or anal tampons.

The arms are extended but slightly flexed at the elbows and are not individually wrapped. The hands lie palmer aspect to the iliac fossae, with the fingers extended. No obvious trauma or fractures are present.

The legs, knees firmly together, are extended and individually wrapped. The ankles are flexed and bound to accommodate a standing posture within the cartonnage. There is no evidence of fracture, degenerative disease or Harris lines; this agrees with Gray's findings.

#### *Dental assessment (based on C.A.T. investigation)*

A complete, permanent dentition is present, although it is not possible to see the left upper third molar (wisdom tooth) completely. It may be that the crown of this tooth is either diminutive or buccally displaced and is missing from the section slice. The resolution of the C.A.T. scans does not allow a detailed survey for caries, but it is evident that there is no gross decay in any of the teeth. The degree of attrition is difficult to assess from the scans, but the lateral 'pilot' views show good occlusal coverage of enamel on the second and third molar teeth. There is an imbrication of the lower and, to a lesser degree, the upper anterior teeth, suggestive of dental crowding, and an overbite is clear. It is difficult to ascertain the age at death with any degree of accuracy from the dentition. Compared to a western twentieth century data group, the age would be over 21 years. Tooth wear due to attrition is greatest on the first molars and apparently absent (as far as can be ascertained) on the third molars, which would suggest an age at death within the range 25 to 35 years.<sup>13</sup>

#### *Inclusions within the wrappings (fig. 1)*

An amorphous package (110 × 40 × 60 mm) lies within the layers of wrapping at the level of the sternal notch at an angle to C7-T1, with AVs of 94, -16 and 0 ± 7.7. At an oblique

<sup>12</sup> T and C indicate Thoracic and Cervical.

<sup>13</sup> R. I. Macleod, 'The Dental Report on the Mummy Bakt-Hor-Nekht Based on CT Investigation, for the Hancock Museum', (unpublished, 1991).



angle from the second rib on the left down to the fourth rib on the right and between the breasts is an opaque plate or plaque (60 × 20 mm) bearing a curious, swirling snake-like pattern. It is flanked above by two smaller lozenge-shaped items resting upon the second ribs at either end. A second opaque plate (30 × 20 mm) bearing no discernible marks, lies across the xiphoid process.

### Discussion

Entry into the cranium for excerebration appears to have been via the broken cribriform plate, although this feature is not mentioned by Gray. The interior is completely empty, no membranes adhere to the walls and there are no residual fluid lines. The widely accepted technique of removal of the brain through the nostrils<sup>14</sup> seems to have been employed.

The compression of the nasal bone and the apparent lack of soft nasal tissue raises an interesting question. If these were the results of constriction by the bandages, tissue would still be present, albeit squeezed, and the wrappings about the face would be tight, but neither is the case. Two possible causes may account for this. The injury may be ante-mortem, although it is not considered to be a contributing factor in the cause of death, or it could be due to post-mortem trauma, which may or may not be related to the excerebration process.

Gray reported no radio-opaque eyes, but in this latest examination implants are clearly visible behind the closed lids. A pointed ellipse lies within each orbit but no details (perhaps formed by an iris of a different material) can be seen. The implants are certainly not metallic or cloth, nor do they appear to be pasted onto linen rolls, as is sometimes found elsewhere.<sup>15</sup> The material is in all probability stone.

The mouth is open and the maxilla and mandible are wedged apart by the oral packing which protrudes between the teeth (pl. XVI, 1). The material (AV - 240) filling the cavity falls within the range delimited by the densities of sawdust and beeswax, and extends as far as the hyoid bone.

The subcutaneous throat packing fills out the neck tightly. The undisturbed cervical vertebrae are all that remains of the contents of the throat. The larynx is normally situated between the base of the tongue and the upper air passage and the trachea extends from the lower part of the larynx level with C5 and ends at T3, where it divides for the lungs. Removal of the throat contents must have been from below, through the body cavity, as the hyoid bone and tongue are in place. Whether removal was by intent or by accident during the evisceration is indeterminable. While throat packing was practised during the Twenty-first Dynasty, no comparative information with particular reference to the removal of throat contents is available, although reference is made to the trachea and oesophagus being pushed aside (usually to the right) and the larynx pushed up beyond the hyoid bone.<sup>16</sup> The C.A.T. slices of 5 mm would have allowed these cartilaginous

<sup>14</sup> Cf. F. F. Leek, *JEA* 55 (1969), 112-16.

<sup>15</sup> E. Strouhal and L. Vyhnanek, 'Egyptian Mummies in Czechoslovak Collections', *Sborník Národního Muzea v Praze* 35B (1979), 160.

<sup>16</sup> Cf. E. G. Smith, 'A Contribution to the Study of Mummification in Egypt', *Mémoires présentés à l'Institut égyptien et publiés sous les auspices de S. A. Abbas II Khédive d'Égypte* (Cairo, 1906), 21.

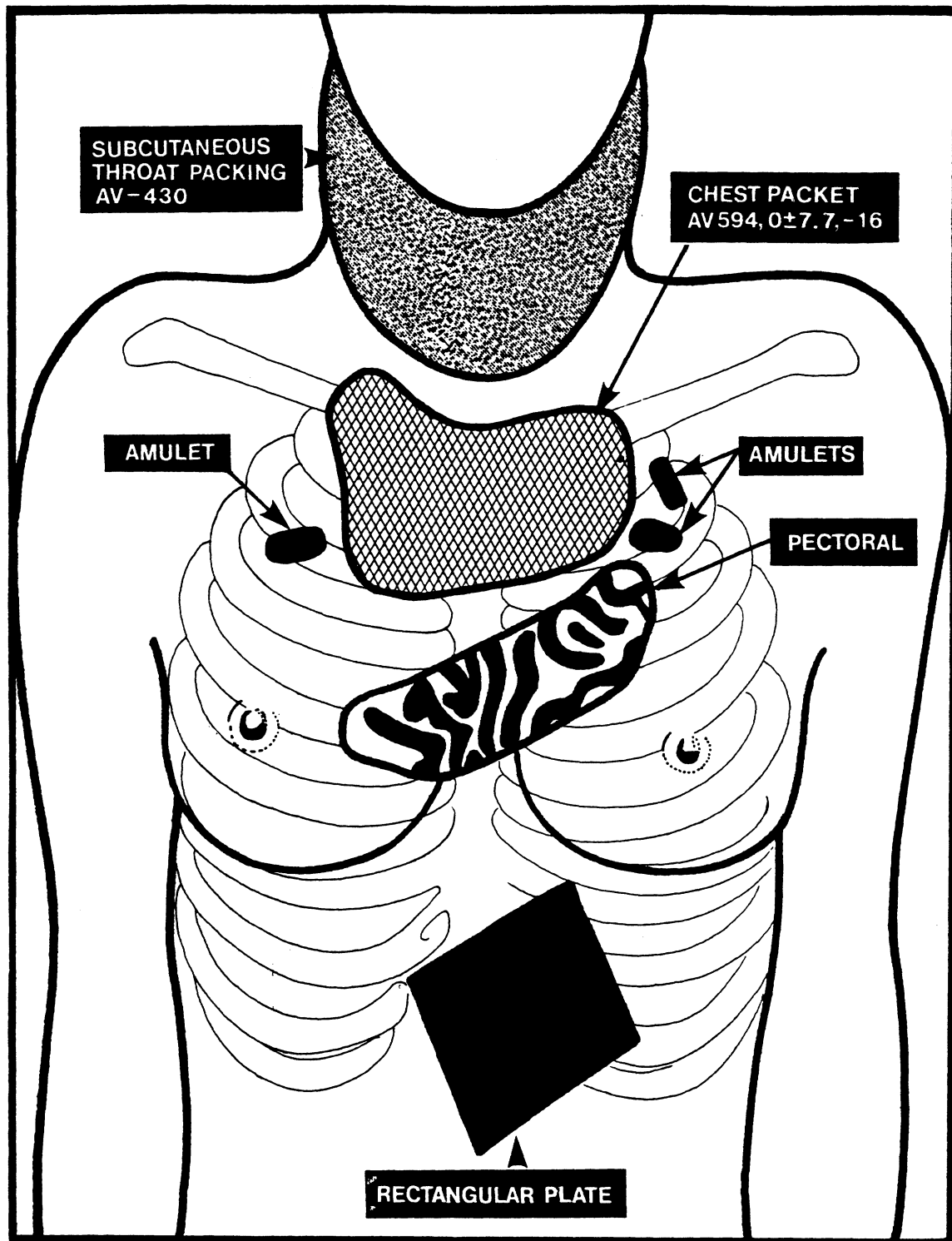


FIG. 1. Position of the amulets and packings.

structures to be distinguished had they been present. The throat-filling material is less dense than that of the mouth, but still falls within the beeswax/sawdust range. The distension of the lower portion of the neck just above the sternal notch may be the feature which Gray mistakenly identified as a non-metallic necklace.<sup>17</sup> It is not clear that an incision was made in that area through which the packing may have been introduced, but this might be obscured by the chest packet that overlies the sternal notch. This type of cosmetic subcutaneous packing does not appear in any other area.

The acute angle of the clavicles indicates that the shoulders are raised, resulting in a shrug-like posture. The right upper quadrant of the thorax is empty but the heart and pericardium adhere to the anterior wall in a relatively normal position. The contents of the thorax lie on the left, level with T<sub>4</sub>. The shapes of the viscera are drawn out and amorphous, gradually becoming more substantial and dense towards the xiphoid process.<sup>18</sup> There are no discrete packages and the materials are homogeneous. The lower forms are convoluted and may be either the small intestine or strips of linen. The contents of the pelvis are very disturbed and only the uterus could be identified with any certainty. This is filled by a solid substance (AV - 260). A fluid line indicates the horizontal position of the body when this material was introduced and set. Although vaginal and anal tampons were not found, some mechanism must have been used to retain the uterine filling during its liquid state.

The materials of the packings and parcel are of a polymorphic nature and are not identical. The closest grouping is the oral-pharyngeal-uterine, which falls comfortably within the range formed by beeswax (AV - 68) and sawdust/beeswax (AV - 350). The difference in values is probably accounted for by the differing proportions of one or the other in the 'mixture'. These three are homogeneous, unlike the composition of the sternum packet, which reveals areas of differing densities ranging from the highest reading found in the body, AV 594, down to AV  $0 \pm 7.7$  (pl. XVI, 2). These findings are entirely consistent with those of Strouhal and Vyhnánek.<sup>19</sup>

The embalming technique used in the preparation of Baket-en-her-nakht accords well with the style of the cartonnage and is almost entirely consistent with practices which appear from the Twenty-first Dynasty onwards and are found on mummies already documented.<sup>20</sup> There is nothing outstandingly different or of particular significance in the funerary preparation of the body, with perhaps the exception of the missing throat contents. Nonetheless, the recent investigation has been invaluable to our understanding of the funerary preparation of this lady and, by extension, her contemporaries, as the mummy of Baket-en-her-nakht provides a well-preserved example of the 'normal' mummification practices of her social class. This fresh analysis, which shows the success of new radiographic technology in augmenting identification and allowing the distinction

<sup>17</sup> JEA 53, 78, pl. xv.2.

<sup>18</sup> There is no evidence of the tight packing in the thorax, abdomen and pelvis previously described by Gray (JEA 53, 78, pls. xv.2, xv.1-2), who drew a parallel between this mummy and one (1911/399/I/C) in the Royal Scottish Museum, which he highlights in his report to the Hancock Museum but does not mention in his published work.

<sup>19</sup> Strouhal and Vyhnánek, *Sborník Národního Muzea v Praze* 35B, 160.

<sup>20</sup> This accords with Gray's observation (JEA 53, 78).

of delicate internal structures, illustrates the improvements in medical techniques achieved since Gray's time. Computerized Axial Tomography is a valuable process and a potentially useful aid in this particular area of Egyptology. The enhanced degree of sophistication which is now applicable to the interpretation of the embalming techniques of wrapped mummies has much to contribute in the re-evaluation of previous research, and the techniques employed by the Hancock Museum might be more widely utilized with confidence.

### Appendix: parameters of the radiographic equipment

#### X-ray parameters

##### PARAMETERS: PHILIPS SUPER 80 CP GENERATOR

Fine focus.

Amplimat kV 70-80.

Direct kV 50.

Conventional floating-top Bucky table and erect Bucky.

Quanta Fast

┌  
└ Cronex 10s

Quanta Detail

ck 130 Processor Dupont Chemistry.

##### PARAMETERS: SHIMADZU 3000TX

kV 120.

mA 150.

Scantime: 4.5 sec—5 mm

3.0 sec—10 mm.

Slice thickness: 10 mm initial axial scans

also coronal on AREGYPT312

5 mm follow-up axials

plus coronal scans.

Slice interval contiguous: 10 mm for 10 mm slices

5 mm for 5 mm slices.

Scan area: 250 mm.

Gantry tilt: vertical for 10 mm slices

11° cephalad for 5 mm slides

16° caudal for 10 mm coronal

5° cephalad for 5 mm coronal.

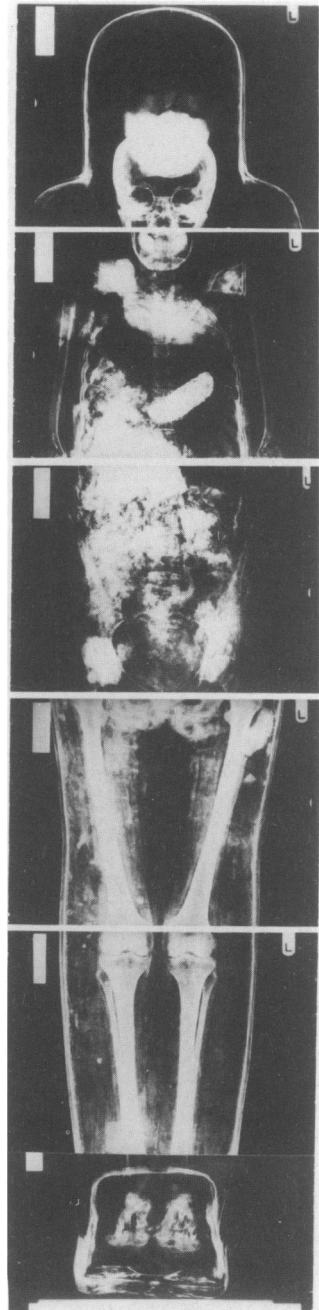
Reconstruction kernel 5—Bone algorithm.



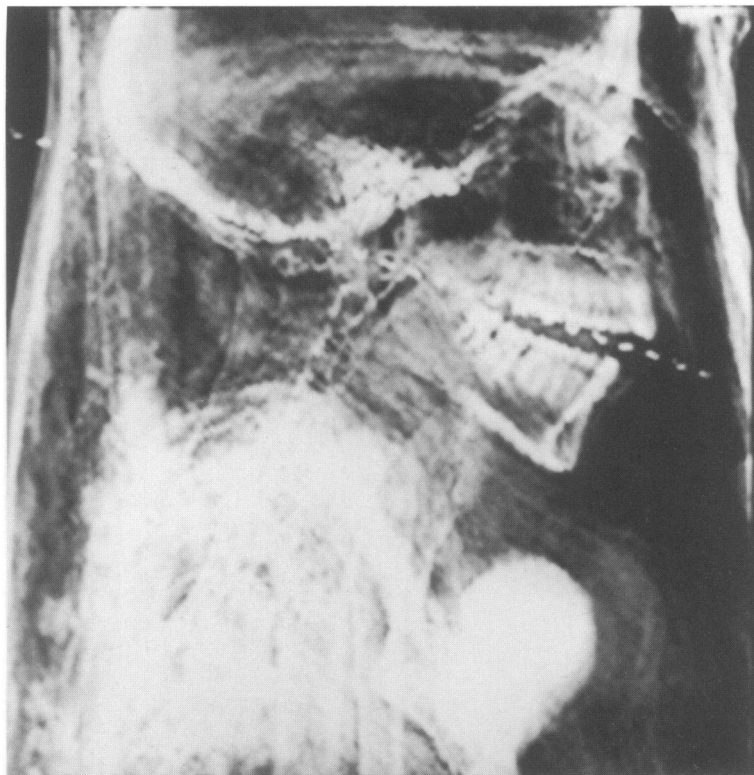
1. Full length view of the cartonnage



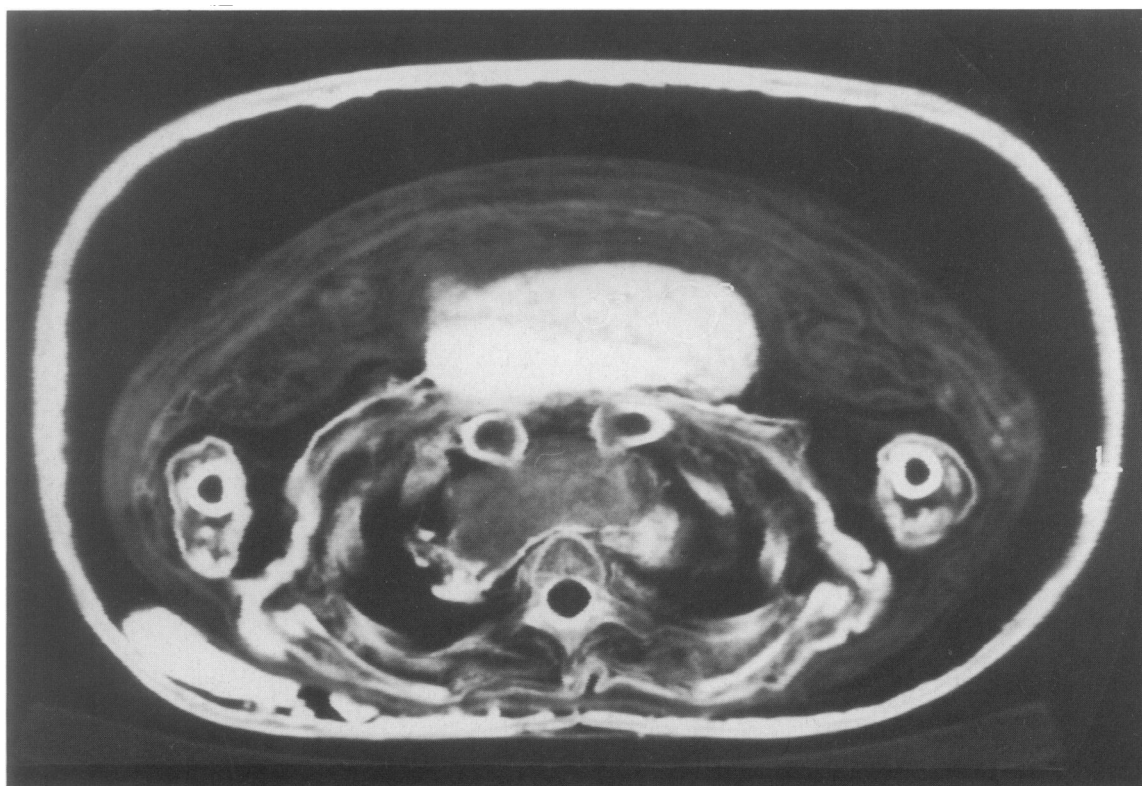
2. Outer anthropoid coffin lid



3. Conventional full length X-ray



1. Sagittal scan of the head and upper chest showing the mouth wedged open and the chest packet in profile



2. Axial scan of the sternal packet showing the heterogeneous nature of the interior

## A PAIR OF ORACLE PETITIONS ADDRESSED TO HORUS-OF-THE-CAMP

By KIM RYHOLT

Edition of a complementary pair of oracle petitions in the Boston Museum of Fine Arts, dating to the late Twentieth or early Twenty-first Dynasty and addressed to the obscure god Horus-of-the-Camp. Although oracle petitions written upon papyrus are known from this period, these two are the only ones which have actually been preserved. An appendix on the god Horus-of-the-Camp is included.

FROM 1901 to 1905 the Hearst Expedition of the University of California excavated at Nag' el-Deir under the direction of George A. Reisner.<sup>1</sup> In the course of the excavations a number of papyri were unearthed. These are now in the Boston Museum of Fine Arts and the best preserved—the four Reisner Papyri and two Letters to the Dead—have been published by W. K. Simpson.<sup>2</sup> The rest consists of fragments, and the two papyri here published (pl. XVII) I restored from fragments said to have come from tomb 5002. I have failed to find any information as to the state and description of this burial;<sup>3</sup> neither the tomb itself nor any of its contents has ever been published. The only context for our papyri is, therefore, the other papyrus fragments with which they were found.<sup>4</sup> According to its numbering, the tomb should be located in Cemetery 5000 of the area of Nag' el-Deir which is called Sheikh Farag.<sup>5</sup> This cemetery dates from the Eighth to Twelfth Dynasty and is not contemporary with our papyri, which are of much later date.

The two papyri constitute a pair of complementary oracle petitions addressed to Horus-of-the-Camp, a rather obscure form of Horus which appears only to have existed during the late Twentieth and early Twenty-first Dynasty (see Appendix). This dating is confirmed by the palaeography and our petitions may be dated accordingly. Only two of the four names found in the texts are otherwise attested, both for a period including the Twenty-first Dynasty.<sup>6</sup> Horus-of-the-Camp was the deity of el-Hiba, and the papyri

<sup>1</sup> I should like to thank Dr Rita Freed, curator of the Egyptian Department in the Boston Museum of Fine Arts, for permission to publish these papyri and Peter Der Manuelian, assistant curator, for providing me with photographs. Further thanks go to Dr John Tait, Prof. Jürgen Osing, Prof. W. K. Simpson and my teacher Paul John Frandsen for various comments. Last, but most particularly, I owe a great debt of gratitude to Prof. J. R. Harris, whose work in editing this article has been truly admirable.

<sup>2</sup> *Papyrus Reisner*, I-IV (Boston, 1963-1984); id., *JEA* 52 (1966), 39-52, pls. 9-9a; id., *JEA* 56 (1970), 58-64, pls. 46-46a.

<sup>3</sup> During the Nag' el-Deir excavations, Reisner had not yet begun to keep object registers, although tomb-cards were made. Relevant tomb-cards could not be located in Boston.

<sup>4</sup> These fragments were mounted in ten frames, c. 20 × 25 cm. Apart from the two papyri here published, a letter addressed to the high priest of Amun has been singled out and restored as far as possible. It mentions a Paiankh (the high priest?), el-Hiba (*tr-dhnt*), and the temple of Horus-of-the-Camp.

<sup>5</sup> For the location and history of this cemetery, see E. Brovarski, *LÄ* IV, 298 with plan (cemetery labelled S. F. 5000).

<sup>6</sup> 'Teuhrai' is attested for the Twenty-first Dynasty (H. Ranke, *PN* I, 128, 22) and its masculine counterpart 'Peuhrai' for the New Kingdom (*PN* I, 376, 9). 'Pameshem' is attested for the Twenty-first Dynasty and the Late Period (*PN* I, 105, 12-14).

would therefore have been presented to him at that place. How the papyri then came to be in what was by that time an ancient tomb at Nag' el-Deir, no less than 325 km away from el-Hiba, is difficult to explain.<sup>7</sup> A somewhat similar case is the papyrus find in the tomb of Surere in Khokha, where a group of papyri dating from the reign of Amenophis III to Ptolemaic times was found.<sup>8</sup> Other forms of Horus that functioned as oracles are, for example, Harphenesis, Harpebekis, and Harpokrates,<sup>9</sup> and Herodotus (II 83) also mentions an oracle of Horus (Apollo).

The total number of published oracle petitions is limited and falls mainly into two groups: a New Kingdom group written in hieratic on ostraca,<sup>10</sup> and a Graeco-Roman group written on papyrus in either demotic or Greek. A few Coptic oracle petitions are somewhat later in date.<sup>11</sup> The significance of the two examples here published lies in the fact that they belong to the period in between, from which only the pair of oracle petitions quoted in the monumental inscription of Djehutymes has otherwise been published.<sup>12</sup> The composition of our pair differs considerably from that of other oracle petitions and, for the analysis which follows, it is of importance that they are a complementary pair. It is to be noted that these are the earliest written on papyrus that have yet come to light; they date to about eight centuries before those from the Graeco-Roman period.

### Description

Petition A was restored from two fragments and petition B from ten. In their reconstructed state both papyri are virtually complete, except for the anciently torn right margins (pl. XVII). They were evidently cut from the same papyrus, since the fibres of the top of petition A and the bottom of petition B join precisely. It is clear that a rectangular piece (15.3 × 8.5 cm) was first cut from the roll, and that this was subsequently cut into two slips of approximately the same size. Both petitions have part of the original edge of the damaged right margin preserved and the measurements (cm) are 8.0 h. × 8.4 w. (text A) and 7.3 h. × 8.5 w. (text B). The papyrus is thick and still strong, though not very flexible.

<sup>7</sup> One possibility which might account for this anomaly is that the papyri were brought in from outside during Reisner's excavations and were not originally found in the tomb. Such a practice was not uncommon, since workers were usually recompensed for the objects they found to discourage theft from the excavations. In this case, the papyri might not have been found at Nag' el-Deir at all.

<sup>8</sup> A. H. Gardiner, *JEA* 21 (1935), 140.

<sup>9</sup> A. Bülow-Jacobsen, *ZPE* 57 (1984), 91-2; G. Rosati, in M. Manfredi (ed.), *Trenta testi greci da papiri letterari e documentari* (Florence, 1983), 45-8, no. 14.

<sup>10</sup> J. Černý, *BIFAO* 35 (1935), 41-58; id., *BIFAO* 41 (1942), 13-24; id., *BIFAO* 72 (1972), 49-70; S. Sauneron, *Ostraca hiératiques non-littéraires* (Cairo, 1959), 5-6, pl. 12 (572-6).

<sup>11</sup> For convenient references, see Rosati, op. cit. 45 n. 6 (demotic) and n. 7 (Greek and Coptic); add P. Oxy. 3590 and 3700, P. Köln. 201-12 (all Greek). The composition of the demotic oracle petitions is outlined and discussed in comparison with that of Greek and Coptic petitions by G. Botti, in *Studi in memoria di Ippolito Rosellini*, II (Pisa, 1955), 17-22; see further E. Bresciani, L. Paolini, E. Bedini, and F. Silvano, *EVO* 2 (1979), 57-68. Greek oracle petitions are discussed by A. Hendrichs, *ZPE* 11 (1973), 115-19, pl. IV (a-b); L. Papini, in M. Capasso et al. (eds.), *Miscellanea papyrologica in occasione del bicentenario dell'edizione della Charta Borgiana*, II (Florence, 1990), 463-9; id., *Analecta Papyrologica* 2 (1990), 11-20. Coptic oracle petitions are discussed by L. Papini, in *Acts of the 2nd International Congress of Coptic Studies* (Rome, 1985), 245-55.

<sup>12</sup> J.-M. Kruchten, *Le grand texte oraculaire de Djéhoutymose* (Brussels, 1986), 49-115 (Text A). Hans-Werner Fischer-Elfert (Würzburg) kindly informs me that he is presently preparing two oracle petitions from the Berlin collection for publication. These can be dated palaeographically to the same period as the pair published here. The palaeography is, in fact, remarkably alike. Internal evidence further suggests that the group of papyri to which these oracle petitions belong may also have come from el-Hiba (cf. n. 29 below). Both oracle requests are addressed to Horus-Khaw (*hrw-hrw*).



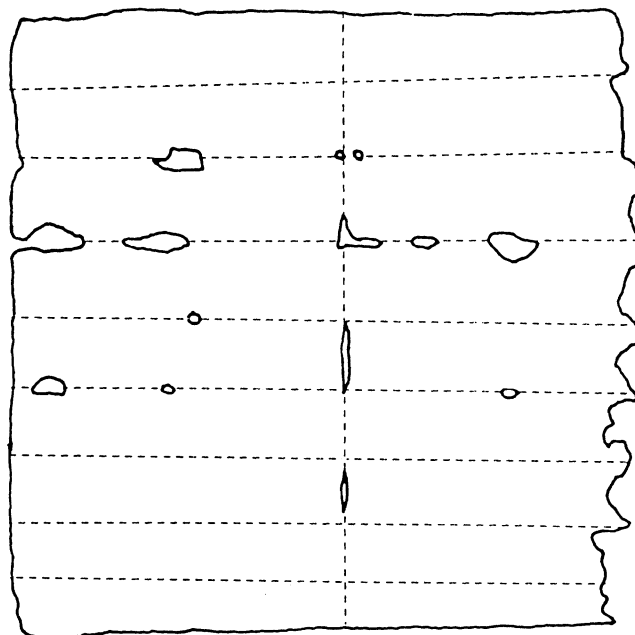


FIG. 1. Folding-marks of petition A.

The papyri have clear marks of having been folded separately into small 'packets' (fig. 1). They were folded by being rolled vertically and then pressed flat. Afterwards they were bent over once. Possibly they were then tied with a piece of string to keep them neatly tight, as letters were sometimes bound. In their folded condition they measured  $1.1 \times 4.4$  cm (text A) and  $1.0 \times 4.7$  (text B). Since only the right edge of the papyri is damaged, they cannot have been folded up at the time when this happened, for, if so, the left edge too would have been injured. The damage could be explained if the papyri had been rolled up at a later date and stored in a small jar with their tops protruding from it. If something had hit the top of the jar, or if the jar was dropped upside down on the ground, such damage could have occurred. For what purpose the papyri might have been stored is not clear, however, since in themselves they hardly amount to a legal claim. Perhaps they were kept as an 'enclosure' together with other documents concerning the sale of the cow to which they relate.

The handwriting of the two petitions is identical. As is customary, they have writing on one side only and the writing runs parallel to the fibres. The hand is rather small and somewhat cramped, and the scribe left no room for margins. From the way in which certain signs were squeezed in at the end of the lines, it is clear that the scribe first cut the two slips from the papyrus roll and only afterwards wrote on them. He wrote carefully insofar as all the signs were readable and not in the least cursive. He used the usual ligatures but avoided 'sloppy' endings (strokes). He was also careful to give the verbs their correct forms, although he was less concerned with the writing of the nouns. The word *ihw* (A, 2; B, 2) is written with masculine ending, but the demonstrative *ty* and possessive *ty=f* reveal it to be feminine, while the word *hd* (passim) is randomly written both with and without the  $\text{ⲓ}^{\text{ⲟ}}$  determinative. Nor did it bother him to split a word between lines.

The scribe made some errors which he corrected. In three places smeared ink is visible, indicating that something has been erased. In petition B, the scribe miswrote almost an entire sentence after *bwꜣw ꜣꜣ-ms-ꜣm* (B, 6–7). In A he miswrote a word or two after *ꜣꜣy=st=ꜣd* of line 5, and some words after *n=f* of line 8. Whereas corrections were made in the two former cases, none was made in the latter; *n=f* itself was certainly not a correction since it is faintly written and must have been among the last two or three strokes to be made with a dip of the pen. A correction would always have been made with a fresh dip, as we see in the two former cases, because the ink on the rush would have dried out by the time the erasure was made. In all three cases the text is erased so thoroughly that hardly a trace of the original writing remains, and nothing can be made out of it. Apparently these errors were not considered to have any influence on the efficacy of the petitions since they were not re-written—or perhaps the scribe just did not bother. For the most part the scribe dipped his pen on beginning a new sentence, or otherwise when the writing became faint or when he made a mistake. The grammar is straightforward Late Egyptian and presents no problem.

Petition A has eight lines of text and petition B has seven lines, all written in black ink. Petition A, however, has further been underscored with red ink, which is of considerable interest. There can be no doubt that these red underlinings are not preliminary guidelines, since they do not occur on the other petition and the lines are in any case quite irregular. Moreover, the part of line 7 beneath which there is a gap has been underscored thrice, thus effectively blocking the end of the final line 8. I have consulted John Tait about this matter and he informs me that he is unaware of any such use of red in Egyptian or Greek material. It is well known that the Egyptians considered the use of red as precarious and avoided the writing of certain words with this colour.<sup>13</sup> Beside simple rubrication, red was used to differentiate bad from good, for instance, in the dream-books and calendars of lucky and unlucky days, where black was used for a good prognosis and red for a bad one.<sup>14</sup> In view of this, it seems reasonable to suppose that the petition underscored in red was the unacceptable one. A further question which then arises, and is directly connected with the interpretation of the red underlining, is why both texts are preserved. The assumption must be that both were in fact given back to the petitioner—but why? Would it not have sufficed to read out the verdict aloud and/or to hand back the petition containing the verdict? Other pairs of petitions are also preserved,<sup>15</sup> and it may not have been altogether unusual for both to be given back. What may have happened in this case is that the petitioner, Teuhrai, did not herself participate in the consultation, but had someone else handle it for her. There could have been several reasons for her not having chosen to do so; perhaps she simply did not have the time to undertake the several days of purification required to enter the temple. In this case it may have been necessary for the priest(s) who performed the consultation to mark the rejected petition and then re-fold and perhaps seal the pair with the seal of the god. With such verification, Teuhrai could be confident that, although she had not been present at the actual consultation, the marked petition was actually the rejected one (and vice versa), as the god had decided.

<sup>13</sup> G. Posener, *JEA* 35 (1949), 77–81.

<sup>14</sup> Posener, *op. cit.* 78. But red and black were also used simply to differentiate, and in such cases the red has no untoward connotation: Posener, *JEA* 37 (1951), 75–80.

<sup>15</sup> References to four pairs (one demotic, two Greek, and one Coptic) are found in M. Gronewald and D. Hagedorn, *ZPE* 41 (1981), 289–90 n. 2.

### Translation

#### *Petition A:*

Horus-of-the-Camp, my good lord!<sup>a</sup> Concerning this cow of which Teuhrai said:<sup>b</sup> 'Karsasi<sup>c</sup> son of Hartenu<sup>d</sup> gave it to Pameshem in return for its price, and Pameshem paid him the first instalment<sup>e</sup> of its price, and (he) withheld the remainder'. You say:<sup>f</sup> 'Pameshem is right!<sup>g</sup> He completed the payment of the price for this cow of Karsasi to him'.

#### *Petition B*

Horus-of-the-Camp, my good lord! Concerning this cow of which Teuhrai said: 'Karsasi son of Hartenu gave it to Pameshem in return for its price, and Pameshem paid its price likewise (*sc.* in part).<sup>h</sup> You say: 'Karsasi is right! Pameshem did not pay him the (full) price in return for his cow'.

### Notes

- (a) The petitions are introduced by the invocation of the god's name, followed by the common New Kingdom invocation *pry=i nb nfr*, 'my good lord'; cf. Kruchten, *op. cit.* 43-4. This is sometimes found in the New Kingdom oracle petitions, but always without the name of the god. In fact, none of the New Kingdom petitions names the particular god to whom they were addressed—perhaps because all were presented to one and the same oracle of the deified Amenophis I at Deir el-Medina.
- (b) The subject of the dispute is introduced by the particle *ir* + subject + relative form. This formulation is known from some of the New Kingdom petitions and outlines the background of the case upon which the god is required to judge. This is the only significant similarity to the New Kingdom petitions, and the two closest parallels—the only ones to combine the invocation *pry=i nb nfr* and this introductory formula—read 'My good lord! Concerning the skin and the *hin* of oil which I gave to Hori (etc.)'<sup>16</sup> and 'My good lord! Concerning the barley (as barley) which the water-carrier Bakenmut brought to me (etc.)'.<sup>17</sup>

It is of some interest that our two formulae do not have simply '\*Concerning the cow which Karsasi gave to Pameshem', but stress that Teuhrai is involved. There are two possibilities as to her role. The more convincing was put to me by J. R. Harris, who suggests that Teuhrai had somehow acquired the cow and was trying to settle the question of its original ownership. Such a situation could have arisen if, for example, Teuhrai had bought or inherited the cow from Pameshem, and Karsasi had then come forward with a claim that the cow had never been fully paid for. Had Pameshem been dead, it might have been almost impossible for a court (*qnbt*) to establish whether he had in fact paid the whole of the price or not, and the case could then have been settled only by means of an oracle. A problem somewhat along these lines is recorded in P. Bulaq X.<sup>18</sup>

Another possibility, and one which I first considered, is that Teuhrai was an intermediary. It is well attested that petitions were often, if not always, presented to the oracle through an intermediary, and the fact that Teuhrai was a woman did not preclude such a role; at least one other case is known of a woman serving in this capacity.<sup>19</sup> It would, however, be somewhat odd for this to be written down in the petition.

- (c) Karsasi (*Ka-ar-sa-si*) is a syllabic spelling of a foreign name. The name is not recorded in Ranke, *PN*. H.-W. Fischer-Elfert suggests to me that on account of the heart-determinative, it

<sup>16</sup> Černý, *BIFAO* 72, 67 (91).

<sup>17</sup> Sauneron, *op. cit.* 6, pl. 12 (576).

<sup>18</sup> Jac. J. Janssen and P. W. Pestman, *JESHO* 11 (1968), 146-7.

<sup>19</sup> I. E. S. Edwards, *Oracular Amuletic Decrees of the Late New Kingdom* (London, 1960) 1, xvii.

seems almost imperative to interpret the name as Hittite *kardūiāš*, ‘That of the heart’ meaning ‘Wish’,<sup>20</sup> despite the unexpected change *d* > *s*. The man would thus have been a Hittite. That his father bore an Egyptian name is no obstacle to this interpretation since foreigners often had both a foreign and an Egyptian name.

- (d) Hartenu, ‘Horus-the-weak’, is not recorded in Ranke, *PN*. The verb *tnw* means ‘weak’, ‘debilitated’, rather than ‘old’, as *Wb.* v 310; cf., in particular, P. Harris 500 vs. 4, 11; Gardiner, *LES* 2 (11). The present use of the verb in a theophorous name seems unique. J. R. Harris has made the suggestion that this is a reference to Horus as the immature child Re claims him to be in the story of Horus and Seth by calling him a child (*‘dd*) who is (still) weak (*hwrw*) in his limbs and for whom kingship is (yet) too great a task; see Gardiner, *LES* 40 (10–11). See also Harpocrates, prematurely delivered and weak in his lower limbs: Plutarch, *De Iside et Osiride*, Ch. 19 (358D).
- (e) The ‘verdict’ of the god is introduced by the words *tw.k* (*hr*) *dd*, and given the context, there can be no doubt that *tw.k* refers to the god. This is evident, too, from the divine determinative. The same phrase also occurs in the oracle petitions of Djehutymes as quoted in his inscription, there taking the impersonal form *tw.tw* (*hr*) *dd*, ‘one says’.<sup>21</sup> That a Present I construction was employed for these two variant phrases poses no problem; the god’s reply would emerge automatically with the selection of one petition, and the action of speaking the verdict would thus be contemporaneous. A good parallel may be afforded by the letter formula *NN* (*hr*) *dd n NN*.<sup>22</sup>
- It is interesting that the god was presented with a choice of two predetermined verdicts to be announced, depending on which petition was chosen. The phrase may further help us to understand how some oracles functioned. In two records of oracle consultations by a certain Ikeni (Twenty-second Dynasty) we hear that ‘they went before Hemen of Hefat, and Hemen said to their oracle petitions: “Ikeni is right! He paid (etc.)” and “They made two oracle petitions, and they placed them before Khons-in-Thebes, and he said: “Ikeni is right! He gave (etc.)”. So Hemen spoke before all the witnesses’.<sup>23</sup> Correspondingly, we find in the record of the oracle consultation of Nesubast (Twenty-second Dynasty) that ‘The great god Seth said: “Nesubast is right! This floodwater (etc.)”’.<sup>24</sup> It is quite likely that we have here consultations in which a pair of petitions similar to ours was presented to the gods and where in each case the statement said to have been made by the god is one of the two alternative ‘verdicts’ appended to the petitions.
- (f) *mꜣt* is used as a technical expression in juridical cases and denotes the person found to be right in a dispute. The most recent discussion is A. McDowell, *Jurisdiction in the Workmen’s Community of Deir el-Medīna* (Leiden, 1990), 23–5.
- (g) *hꜣt* clearly means ‘first instalment(s)’. This particular meaning is unknown to the *Wörterbuch*, but would fall under the heading ‘Anfang von etwas’ (*Wb.* III 19–22). The verb *qn*, ‘to complete (the payment)’, confirms that we have to do with a price to be paid in instalments. This explains why the cow was handed over before the full price had been paid. J. R. Harris has pointed out to me another example of this specific meaning of *hꜣt* in P. Harris 500 vs. 2, 12, *ptr hꜣt bꜣkw=sn*, ‘See, the first instalment of their tribute’: Gardiner, *LES* 84 (5–6).
- (h) The traces appear to suit *m-r-ꜣ*, but the interpretation is difficult. One would expect a pair of petitions to offer a simple choice, either by making alternative statements or by appending alternative verdicts concerning the matter in hand. What seems to be needed here is a statement that corresponds roughly to that in petition A, i.e., that Pameshem paid only a part of the price, as alleged—otherwise we have two propositions and two contradictory verdicts. The position of *m-r-ꜣ* would indicate that it qualifies *dit*, and ‘likewise’ (or ‘similarly’) may thus be a reference to what had already been stated in full in petition A. An alternative might be to read the traces not as *m-r-ꜣ*, but as a somewhat unusual writing of *hꜣt*, with the stroke misplaced.

<sup>20</sup> Johannes Friedrich, *Hethitisches Wörterbuch* (Heidelberg, 1952), 103.

<sup>21</sup> This phrase was misinterpreted by Kruchten, op. cit. 107, as ‘une manière d’exposer les rumeurs contradictoires que répandaient chacun des deux partis, sans citer leur provenance’.

<sup>22</sup> Abd el-Mohsen Bakir, *Egyptian Epistolography* (Cairo, 1970), 48.

<sup>23</sup> P. Brooklyn 16.205, cols. II 4–7, III 9–10: R. A. Parker, *A Saite Oracle Papyrus from Thebes* (Providence, 1962), pls. 17 (4–7), 18 (8–10).

<sup>24</sup> Dakhla Stela, ll. 8–16: Gardiner, *JEA* 19 (1933), pls. VI (3)–VII (6).

The translation would then be straightforward, referring again to 'the first instalment', but without adding 'and (he) withheld the remainder'. There have to be some reservations, however, in that the writing of *hjt* in petition A is of the normal form.

### Commentary

Our two petitions relate to an oracle consultation to settle a dispute over a cow. Cattle are known to have been the most expensive 'commodity' in the Ramesside period, and other cases are known where disputes over them were settled by oracles. These are O. IFAO 682, 884 and 1016, all oracle petitions from Deir el-Medina.<sup>25</sup> The first two read simply 'Is the ox good, so that I may accept it?' and 'Concerning the oxen which the woman claims, is there a share for her thereof?'

The following may be inferred from our pair of petitions: the events took place at the end of the eleventh century BC. Karsasi, apparently of Hittite origin, had sold a cow to Pameshem. In return for this he was supposed to receive a settled price, to be paid in instalments. Pameshem acquired the cow, but, according to Karsasi, he paid only the first instalment(s) of the price and withheld the remainder, thus failing to fulfil his part of the bargain. Pameshem denied this and the dispute was brought before the oracle of Horus-of-the-Camp at el-Hiba. The oracle appears to have decided in favour of Karsasi, but this depends on the interpretation of the red underscoring on petition A.

A contemporary inscription illustrates how such a consultation might have taken place.<sup>26</sup> The consultation began with the procession of the god in his bark. The intermediary went before him for permission to act as such. When this was approved, two petitions were drawn up in the presence of the god<sup>27</sup> and he was asked to separate them, i.e. to choose the petition with the correct claim and to discard the other. Again the god signified his approval, and the petitions were then placed before him. One of the two petitions was somehow chosen and the god, through the intermediary, declared the verdict contained in the chosen petition.<sup>28</sup>

### Appendix: Horus-of-the-Camp

To say that Horus-of-the-Camp is obscure is to put it mildly. No temple or other monument that can be directly related to this god has so far been published, although a temple of his once stood in his residence of el-Hiba. Part of an archive of two scribes belonging to this temple has come to light.<sup>29</sup> The archive is dated to the Twenty-first

<sup>25</sup> Černý, *BIFAO* 41, 15 (25); id., *BIFAO* 72, 56 (54); id., *A Community of Workmen at Thebes* (Cairo, 1973), 282.

<sup>26</sup> The record of the oracle consultations of Djehutymes: Kruchten, op. cit. 49-115 (Text A). We must distinguish between two kinds of oracle consultations: those where the question was presented verbally (e.g. the Banishment Stela) and those where it was presented in writing. Ours belong to the latter category. Discussions on ancient Egyptian oracles are: Černý, in Parker, op. cit. 35-48 (general); Kruchten, op. cit. 337-54 (oracle of Amun); McDowell, op. cit. 107-41 (Deir el-Medina). A monograph on oracles is forthcoming from Malte Römer.

<sup>27</sup> We know from P. Louvre 25359 (see n. 29 below) that the temple was sometimes informed of the matter in advance. The drawing up of the petitions may therefore have been a formality, part of the ritual.

<sup>28</sup> There is actually no pretence that the god in fact 'spoke' in the record of Djehutymes. It is simply stated that the god took 'the petition which read (so and so) and [rejected] the other petitions which read (so and so)'. In other cases, however, it is said that the god speaks (see p. 194(e)).

<sup>29</sup> These papyri have suffered the same fate as the Late Ramesside Letters and are today dispersed throughout various museums. I know of five lots in Berlin, the British Museum, the Louvre, Moscow and Strasbourg respectively. Berlin: H.-W. Fischer-Elfert, in FsHelck: *Miscellanea Aegyptologica* (Hamburg, 1989), 62-5, pl. III (P. Berlin 23098), 40-62, pls. I-II (P. Berlin 14.384); another is referred to by Černý, in *CAH*<sup>3</sup> 11.2,

Dynasty by the mention of the high priests Masaharta and Menkheperre.<sup>30</sup> As Černý observed, el-Hiba apparently served as the residence of the high priest of Amun.<sup>31</sup> It is therefore less of a surprise that we find the high priest of Amun in charge of the local temple of Horus-of-the-Camp, and not a high priest of Horus-of-the-Camp as such.<sup>32</sup> Otherwise, Horus-of-the-Camp had his own temple staff.<sup>33</sup>

Apart from what we are told in the letters from this archive which have so far been published, little of any substance is known of el-Hiba and Horus-of-the-Camp at this period.<sup>34</sup> Some seventy-five years ago, Spiegelberg published the first of these letters,<sup>35</sup> including the first mention of Horus-of-the-Camp. Only once in these letters is the god actually called 'Horus-of-the-Camp' (P. Strasbourg 39); in the rest he is simply 'He-of-the-Camp' (*pꜣ-n-pꜣ-ihꜣy*). Spiegelberg, doubting the reading of Horus in this particular case, suggested that 'He-of-the-Camp' was an epithet of Amun, who is found as the deity of el-Hiba in later times, and referred to a form Amun *pꜣ-ihꜣy*. This identification has been repeated uncritically down to the present but is incorrect. First, Horus appears with the epithet 'He-of-the-Camp' in the two oracle petitions here published, and there can thus be no doubt that 'He-of-the-Camp' was an epithet of Horus. The form of Amun referred to by Spiegelberg is written *pꜣ-ihꜣy*, whereas 'He-of-the-Camp' is invariably written *pꜣ-n-pꜣ-ihꜣy* in the archive. In fact, Amun *pꜣ-ihꜣy* is not found in connection with el-Hiba. It is also clear that 'He-of-the-Camp' does not refer to Amun since the temple scribes of 'He-of-the-Camp' sometimes use the greeting 'In the favour of Amun-Re, king of the gods, your good lord'.<sup>36</sup> The words 'your good lord' are added only when the god invoked in the greeting is not identical with the god of the writer;<sup>37</sup> thus Amun-Re was not the god of this temple scribe who served 'He-of-the-Camp'. It should also be noted that both the known temple scribes of 'He-of-the-Camp' bear theophorous names—Harpenese and

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653 n. 4 (P. Berlin 8527). For the Berlin papyri, see further G. Burkard and H.-W. Fischer-Elfert, *Katalogisierung Orientalischer Handschriften in Deutschland* (KOHd 19 IV, in press), nos. 1-69. British Museum: J. Bourriau, *JEA* 77 (1991), 161 (P. BM EA71509). Louvre: J.-L. de Cenival, *Naissance de l'écriture* (Paris, 1982), 285-6 (241) with fig. (P. Louvre 25359). Moscow: Posener, *JEA* 68 (1982), 134-8, pl. 14; E. Wente, *Letters From Ancient Egypt* (Atlanta, 1990), 208-9 (P. Moscow 5660). Strasbourg: W. Spiegelberg, *ZAS* 53 (1917), 1-30, pls. 1-7 (P. Strasbourg 21, 22 I, 22 II, 23 I, 23 II, 24 I, 24 IV, 24 V, 25, 26, 31, 32, 33, 39, 43 and 59); S. Allam, *Hieratische Ostraka und Papyri aus der Ramessidenzeit* (Tübingen, 1973), 307-8 (no. 274), pls. 104-5 (P. Strasbourg 39); P. Vernus, in *Tanis. L'or des pharaons* (Paris, 1987), 106 (P. Strasbourg 33, incorrectly referred to as P. Strasbourg 31); Wente, *op. cit.* 206-8 (P. Strasbourg 21, 25, 26, 31, 33, 39). This archive can reasonably be ascribed to the two temple scribes Harpenese and Haremkebe, in view of the fact that they are mentioned in the vast majority of the documents. Harpenese: P. Strasbourg 23 IV, 24 IV, 25, 26, 27, 31, 33, 36, 37, 40, 43, 44, 49. Haremkebe: P. Strasbourg 39, P. Louvre 25359 and P. Berlin 23098.

<sup>30</sup> Masaharta is mentioned in P. Strasbourg 21. Although this Masaharta is untitled, Černý (*op. cit.* 653) has plausibly suggested that the petitioner is the high priest Menkheperre and that Masaharta was his brother of that name and his predecessor in the office of high priest. Menkheperre is mentioned in P. Louvre E 25359, P. Moscow 5660 and P. Berlin 8527.

<sup>31</sup> Černý, *op. cit.* 652-3.

<sup>32</sup> In the letter P. Louvre E 25359, it is the high priest of Amun who orders the temple scribe of Horus-of-the-Camp to bring a general and his brothers before the oracle of Horus-of-the-Camp.

<sup>33</sup> Cf. Spiegelberg, *op. cit.* 29 (66).

<sup>34</sup> For a brief historical outline of el-Hiba, see R. J. Wenke, *Archaeological Investigations of el-Hibeh 1980: Preliminary Report* (Malibu, 1984), 7-9.

<sup>35</sup> *Op. cit.* 1-30, pls. 1-7.

<sup>36</sup> P. Strasbourg 24 IV, 24 V, 25, 31, 33.

<sup>37</sup> Cf. Bakir, *op. cit.* 61.

Haremkhebe—compounded with Horus and not Amun. It was only at a later date (late Twenty-first or Twenty-second Dynasty) that Amun became the deity of el-Hiba, and then with the epithet Amun ꜥ *hmhm*, 'great of roaring'.

The earliest reference to Horus-of-the-Camp, and the only representation of him, is to be found on the façade of the pylon of the temple of Khons in Karnak.<sup>38</sup> This façade is decorated with a large-scale composition of offering-scenes, in one of which Herihor stands as king before the hawk-headed Horus-of-the-Camp. That Horus-of-the-Camp was included in a list so far from el-Hiba, and among the highest-ranking gods of Egypt, would suggest that he was a god of some renown at the time.<sup>39</sup>

This representation is not the earliest reference to a form of Horus at el-Hiba, which is found in the Book of the Dead (Ch. 168) where *hrw nb tꜥ-dhnt*, 'Horus, lord of el-Hiba', is mentioned. In the Book of the Dead, however, he does not bear the epithet 'He-of-the-Camp', which is important for the discussion that follows. A clue to the nature of this local form of Horus is offered by his particular epithet 'He-of-the-Camp'. In view of the presence of military installations at el-Hiba,<sup>40</sup> it would seem likely that 'The Camp' refers to these.<sup>41</sup>

From the references cited above, it is possible to present an outline—admittedly rather tentative—of the rise and fall of Horus-of-the-Camp. A local form of Horus existed at el-Hiba before the pontificate of Herihor, but it was only in his time that this Horus acquired the epithet 'He-of-the-Camp'. It seems reasonable to suggest that it was in connection with the building of military installations at el-Hiba that the local Horus was given this epithet and became its patron god. This work would then have been started late in the Twentieth Dynasty, when Herihor made the first attempt to promote Horus-of-the-Camp by including him in his large-scale building programme at the Khons temple. These were, indeed, the major building activities at a time when little appears to have been undertaken. Work on the military installations at el-Hiba was evidently continued into the Twenty-first Dynasty by the succeeding high priests Pinudjem, possibly Masaharta, and Menkheperre. In the course of some conflict, perhaps between the Tanite and Theban rulers, whose northern boundary el-Hiba was, these installations and the cult-place of Horus-of-the-Camp were destroyed and, since they were not restored, the cult of Horus-of-the-Camp disappeared, and the god with it. Indications of military action may be deduced from a letter (P. Strasbourg 33)<sup>42</sup> to a captain named Shaputa. This

<sup>38</sup> *The Temple of Khons*, I (Chicago, 1979), 4, pl. 14.

<sup>39</sup> For the list of these gods, see *ibid.* xxiii.

<sup>40</sup> Cf. Černý, *loc. cit.*

<sup>41</sup> A similar conclusion was reached by Spiegelberg (*op. cit.* 3, 5, 25 (11)), although he distinguished *pꜥ-ihꜣy* from the epithet 'He-of-the-Camp' and took it to be the name of the fortification of el-Hiba. This idea seems to derive from his incorrect translation of *it-nꜥr sꜥ-hꜣw.t-nꜥr hrw-pꜥ-is.t (n) pꜥ-n-pꜥ-ihꜣy* as 'Gottesvater (und) Tempelschreiber Harpaese von dem Lager' (*op. cit.* 25 (11, b)), followed by Vernus (*loc. cit.*). However, the title occurs twice with an indirect genitive before the following *pꜥ-n-pꜥ-ihꜣy*, so that there can be no doubt that the phrase reads 'The god's father and temple scribe, Harpenese, of He-of-the-Camp'; so too Allam (*op. cit.* 307) and Wente (*op. cit.* 206–8). *pꜥ-ihꜣy* is never found distinguished from *pꜥ-n-pꜥ-ihꜣy* in connection with el-Hiba, and in the epithet it is never determined by the town-determinative, so that there is no reason to consider 'The Camp' as a proper name of el-Hiba (as e.g., Černý, *loc. cit.*). El-Hiba was, in fact, called *tꜥ-dhnt*, 'The Crag'. For *pꜥ-ihꜣy* in geographical names, see J. Yoyotte, *MDAIK* 16 (1958) 418–19.

<sup>42</sup> See Spiegelberg in n. 29.

mentions that repulsed (?—*nšw*) soldiers were dwelling in el-Hiba and were to be treated with severity. It also reveals that a form of curfew was imposed so that nobody was allowed out to the countryside, not even soldiers. Lastly it is clear that the arrival of horses was expected; these may have been destined for warfare.

The hypothesis put forward here would account for the fact that the sanctuary of Horus-of-the-Camp in el-Hiba is completely lost and that Horus-of-the-Camp is attested only for the short period from the end of the Twentieth Dynasty to the beginning of the Twenty-first Dynasty, and so remains utterly obscure. One may hope that the publication of further documents from this archive will clarify the situation at el-Hiba during this period.





## LES BANDELETTES DE MOMIE DU MUSÉE VLEESHUIS D'ANVERS

By ALBERT DE CALUWE

Publication of the mummy bandages belonging to the Egyptian collection of the Vleeshuis Museum at Antwerp. Several specific problems of the late Book of the Dead are discussed, as are also prosopography and onomastics of the Late Period and the Ptolemaic era.

Le Musée Vleeshuis d'Anvers conserve neuf bandelettes de momie dans sa collection égyptienne. Leur provenance exacte n'est pas connue. C. De Wit les a présentées très sommairement dans un des catalogues du musée, publié en 1959.<sup>1</sup> Avant cette date, il n'y a aucune trace de ces objets dans l'inventaire du musée. Leur absence dans le catalogue de P. Génard de 1894 pourrait indiquer qu'elles ont été acquises après la publication de celui-ci.<sup>2</sup>

La collection du Vleeshuis n'est pas comparable aux grands ensembles de bandelettes conservés dans plusieurs musées d'Europe. Néanmoins, elle donne la possibilité d'examiner une grande partie des problèmes qui concernent les bandelettes de momie. En publiant des fragments exemplaires, on se fait une idée précise de leur place spécifique dans l'étude du Livre des Morts tardif. Leur intérêt se situe également dans le domaine de la paléographie hiératique, de l'onomastique et de la prosopographie, sans oublier leur importance dans la tradition des textes et des vignettes.<sup>3</sup>

Avant de commencer la description de chaque objet, nous devons rappeler qu'un Livre des Morts sur toile se composait de plusieurs bandelettes, parfois numérotées. Depuis le siècle dernier, ces bandelettes ont été coupées en petits morceaux afin d'augmenter leur valeur commerciale. La collection du Vleeshuis fournit plusieurs exemples de ce procédé.

Dans la publication du Livre des Morts de *N-n.f-Bstt*, conservé aux Musées royaux d'Art et d'Histoire de Bruxelles, nous avons essayé de distinguer quatre groupes de

<sup>1</sup> C. De Wit, *Stad Antwerpen, Oudheidkundige Musea, Vleeshuis. Catalogus*, VIII: *Egypte* (Anvers, 1959), 51 n° 272-9.

<sup>2</sup> P. Génard, *Musée d'Antiquités d'Anvers. Catalogue de la collection d'antiquités égyptiennes* (Anvers, 1894). Renseignements aimablement communiqués par Madame J. Lambrechts-Douillez, conservateur adjoint au Musée Vleeshuis d'Anvers, que nous tenons à remercier tout particulièrement pour son autorisation de publier les bandelettes du musée. L'information de M.-P. Vanlathem ('Hiëroglifische opschriften in Antwerpse verzamelingen', dans *Handelingen van het XXXIe Vlaams Filologencongres, Brussel, 14-16 april 1977* (Bruxelles, 1977), 209), affirmant que le musée obtint les bandelettes en 1949, n'a pu être confirmée.

<sup>3</sup> Voir Cl. Traunecker, *Kêmi* 19 (1969) 71-8; A. Gasse, *BIFAO* 82 (1982), 205; L. Limme, 'Trois "Livres des Morts" illustrés des Musées royaux d'Art et d'Histoire à Bruxelles', dans *Artibus Aegypti. Studia in honorem Bernardi V. Bothmer a collegis amicis discipulis conscripta quae edenda curaverunt H. De Meulenaere et L. Limme* (Bruxelles, 1983), 96; S. Pernigotti, *Saqqara* II, 1. *Tomba di Boccari. Il 'Libro dei Morti' su bende di mummia* (Pise, 1985), 1. L'intérêt des Livres des Morts sur bandelettes n'a pas toujours été reconnu par les égyptologues; voir p. ex. Chr. Ziegler, *La Revue du Louvre et des musées de France* 29 (1979), 256.

bandelettes, en nous basant principalement sur la disposition des textes et des vignettes.<sup>4</sup> Toutes les pièces du Vleeshuis, à l'exception du fragment 3, se rapportent à la première catégorie, qui rassemble les Livres des Morts dont les textes hiératiques sont rangés en 'pages' (*selides*). Au cours de notre exposé nous aurons l'occasion de spécifier les particularités de chaque fragment.<sup>5</sup>

*Fragments 1 et 2* (Pl. XVIII, 1 et 2; figs. 1, 2)

Les deux premières bandelettes sont destinées à la joueuse de sistre parfaite de Ptah *st-m-ḥ-bit*, fille du père divin et prophète *Pḏi-Wsir* et de la joueuse de sistre parfaite de Sokaris *Tḏ-nt-'Imn*.<sup>6</sup>

Nous ne possédons à présent que peu d'informations pour identifier la propriétaire de nos bandelettes. Cependant, une joueuse de sistre parfaite de Ptah, nommée *st-m-ḥ-bit*, est mentionnée sur une stèle du Sérapéum comme la femme de *Ns-nwnw-wr* et la mère de cinq fils, dont le premier porte le nom de son grand-père paternel, *Wnn-nfr*, et le second le même nom, que le père de notre *st-m-ḥ-bit*, c'est-à-dire *Pḏi-Wsir*.<sup>7</sup> Le premier fils, *Wnn-nfr*, est également attesté sur une autre stèle du Sérapéum en compagnie d'un nommé *'Iḥ-ms*. Ce personnage, connu par d'autres sources qui ont été réunies par E. Otto,<sup>8</sup> était fils de *Tḏ-nt-'Imn*, une joueuse de sistre parfaite de Sokaris de *Rwt-ḥwt*, portant le même nom et le même titre que la mère de notre *st-m-ḥ-bit*. De plus, *'Iḥ-ms* était le grand-père de *Psmḥk*, que nous connaissons par son papyrus funéraire et ses bandelettes de momie.<sup>9</sup> Somme toute, les données présentées ci-dessus incitent plutôt à identifier les deux personnes nommées *st-m-ḥ-bit* et seront reprises plus tard dans le paragraphe où nous discuteront sur la provenance et la datation des pièces.

Le premier fragment (n° 4943 2/2, 36 × 13.5 cm)<sup>10</sup> représente une vignette qu'on retrouve souvent au début d'un Livre des Morts tardif. La défunte, habillée de ses vêtements typiques de 'prêtresse' et tenant deux sistres en main, marche à la rencontre du dieu Osiris, assis sur son trône. Entre les deux figures se trouve un autel chargé d'offrandes. Toute la scène se déroule dans une chapelle, dont l'espace vide est entièrement rempli de deux inscriptions hiéroglyphiques, indiquant les épithètes du dieu de la mort (*ḏd mdw in Wsir ḥnty imntt ntr ʿ nb R-stꜣw mꜣ-ḥrw nb ḥḏw nb ḏḏw nb nhḥ ḥqꜣ ḏt*) et le nom et le titre de la défunte et de ses parents (*ḏd mdw in Wsir ḥyt nfrt nt Pth st-m-ḥ-bit mꜣ-ḥrw st ḥt-ntr ḥm-ntr Pḏi-Wsir mꜣ-ḥrw ms n ḥyt nfrt Skr Tḏ-nt-'Imn mꜣ-ḥrw mn sp snw ḏt nhḥ*).<sup>11</sup>

<sup>4</sup> A. De Caluwe, *Un 'Livre des Morts' sur bandelette de momie* (Bruxelles, 1991), xvii-xx.

<sup>5</sup> En ce qui concerne les toiles, nous regrettons de ne pas avoir eu la possibilité de soumettre les bandelettes à un examen spécialisé. Néanmoins, nous constatons que toutes les pièces sont d'une bonne qualité, sauf le fragment 8. Pour l'aspect matériel des bandelettes de momie en général, voir R. Caminos, *JEA* 56 (1970), 123 n. 4, 126 n. 2, 128 n. 2; id., *JEA* 68 (1982), 146 n. 4.

<sup>6</sup> *Prosopographia Ptolemaica*, IX (Louvain, 1981), 217 n° 7104b. Pour le nom *st-m-ḥ-bit*, voir H. Ranke, *PN I* (Glückstadt, 1937), 4 n° 3 et E. Lüddeckens, *Demotisches Namenbuch*, I, 2 (Wiesbaden, 1981), 78.

<sup>7</sup> E. Otto, *ZAS* 81 (1956), 127-8 (Text 10).

<sup>8</sup> Ibid. 109-29.

<sup>9</sup> De Caluwe, *Un Livre des Morts*, xviii n. 37.

<sup>10</sup> De Wit, *Catalogus VIII: Egypte*, 51 n° 274.

<sup>11</sup> Comparer la lecture du nom de la mère avec la version de la stèle du Sérapéum (Otto, *ZAS* 81, 119); voir également Caminos, *JEA* 68, 149 et D. Kurth, *Der Sarg der Teuris* (Mayence, 1990), 5 n. (n). Pour le reste de l'inscription, il convient de noter les deux lectures de *ḥyt nfrt* et celle du dieu Sokaris avec une inversion des deux derniers signes.

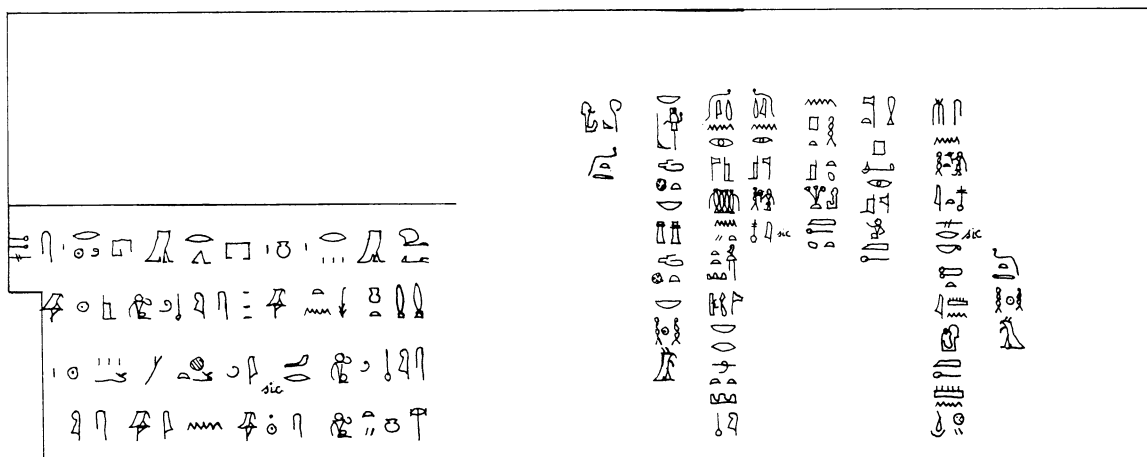


FIG. 1. Fragment 1, n° 4943 2/2

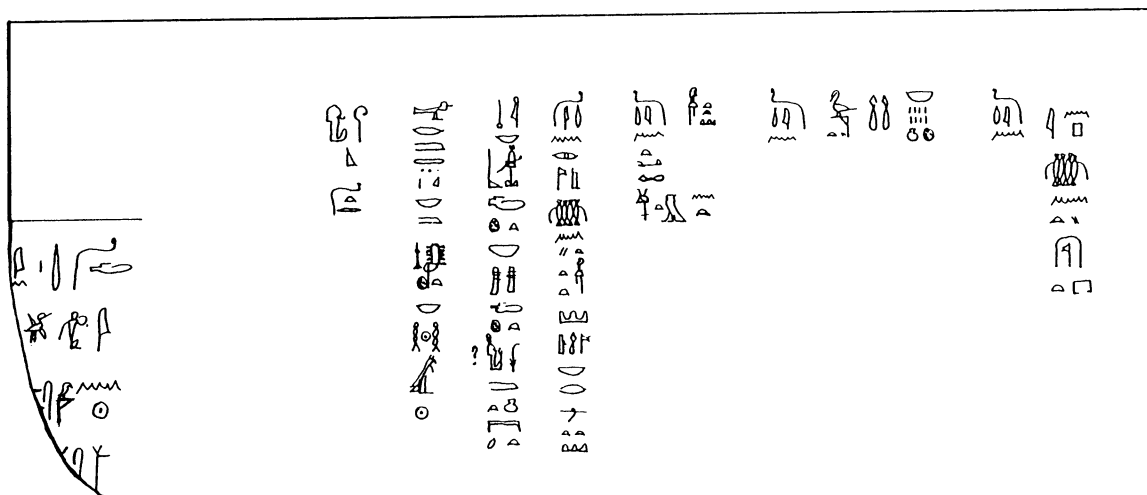


FIG. 2. Fragment 2, n° 4943 1/2

L'usage d'une vignette initiale figurant l'adoration d'Osiris date du Nouvel Empire,<sup>12</sup> mais connaît un grand succès durant la 21<sup>e</sup> dynastie.<sup>13</sup> Aux l'époques tardive et ptolémaïque, la tradition est maintenue notamment dans les Livres des Morts d'origine memphite. Plusieurs bandelettes de cette région débutent par ce tableau d'adoration,

<sup>12</sup> Voir la liste de I. Munro, *Untersuchungen zu den Totenbuch-Papyri der 18. Dynastie* (Londres, 1988), 351 (A.d.O.).

<sup>13</sup> Voir p. ex. E. Naville, *Papyrus funéraires de la XXI<sup>e</sup> dynastie. I: Le papyrus hiéroglyphique de Kamara et le papyrus hiératique de Nesikhonsou au Musée du Caire* (Paris, 1912), pl. xi; II: *Le papyrus hiératique de Katseshni au Musée du Caire* (Paris, 1914), pl. i. La tradition subsiste également dans les *Mythological Papyri* et les papyrus qui contiennent des grandes parties de l'*Amdouat* (A. Piankoff, *Mythological Papyri* (New York, 1957), pl. i, 4-15, 18-20, 23-5; A. Sadek, *Contribution à l'étude de l'Amdouat* (Göttingen, 1985), 318-22 et pl. 10, 13, 16-19, 24, 25, 31, 32, 34, 41, 42).

procurant des renseignements indispensables, comme les noms et les titres du ou de la propriétaire et de ses parents. Les exemples sont très variés et constituent la partie la plus originale des Livres des Morts.<sup>14</sup>

À gauche du tableau initial commence le titre général du recueil funéraire, suivi du premier chapitre.<sup>15</sup> Le texte, écrit à l'encre noire comme sur toutes les bandelettes du Vleeshuis et bruni par les produits d'embaumement,<sup>16</sup> est noté à l'aide de caractères hiératiques lisibles mais anguleux. Au-dessus de ces signes, qui révèlent une écriture très personnelle, on distingue trois prêtres du cortège funèbre, formant le début de la première vignette du Livre des Morts.<sup>17</sup>

Le second fragment (n° 4943 1/2, 31,5 × 13,5 cm)<sup>18</sup> présente une partie de la vignette du chapitre 125, c'est-à-dire l'acte de la pesée du cœur. Ce tableau donne une bonne idée de la qualité raffinée du dessin.

Comme dans le fragment précédent, la scène se passe dans une chapelle, dans laquelle Osiris est assis sur son trône. Son iconographie ressemble à celle de quelques papyrus memphites; surtout sa couronne *atef* avec les cornes de bélier et son revêtement de momie losangé sont dignes d'attention.<sup>19</sup> La même remarque s'applique à la légende placée entre le dieu de la mort et l'autel: *dd mdw in Wsir hnty imntt ntr ʕ nb R-stꜣw mꜣr-hꜣrw nb ʔbdw nb Ddw nswt m pt wr m tꜣ nb m 'Inb-hꜣ nb nhh hꜣ dt.*<sup>20</sup> Viennent ensuite la dévorante, accroupie sur un piédestal (*dd mdw in Tꜣ-m-mwt nt imntt*),<sup>21</sup> le dieu Thot, écrivant sur une feuille de papyrus (*dd mdw imn Dhꜣwty ʕ ʕ nb Hmnw*),<sup>22</sup> et le dieu Anubis (*dd mdw in 'Inꜣw hnty sh-nꜣr*), qui contrôle la balance. Le début de la vignette a disparu; nous n'avons donc aucune raison de traiter notre version de *Kurzfassung*, comme Chr.

<sup>14</sup> P. ex. les bandelettes de *Pꜣ-šri-tꜣ-ihꜣt* (Pernigotti, *EVO* 3 (1980), 108), de *Wnn-nꜣr* (Ziegler, *La Revue du Louvre* 29, 254), de *ʕnh-wꜣh-ib-Rꜣ* (Pernigotti, *EVO* 4 (1981), 141), de *Psmꜣk* (inédites, voir A. Fabretti, *Catalogo generale dei Musei di Antichità. Regio Museo di Torino. Antichità Egizie*, 1 (Turin, 1882), 236 n° 1870) et de *Hꜣ* (inédites, BM 10265). Voir également les bandelettes, dont l'origine n'est pas sûre, de *ʕnh-Mꜣ-rw* (E. A. Akmar, *Les bandelettes de momie du Musée Victoria de Upsala*, 1 (Uppsala, 1932-1939), 84-5), de *Ns-Nbt-hꜣwt* (ibid. 65) de *Hꜣ-mnh* (inédites, New York MMA o.c. 3570) et la bandelette anonyme (S. Aufrère, *Collections égyptiennes. Collections des Musées départementaux de Seine-Maritime* (Rouen, 1987), 152 n° 315).

<sup>15</sup> Nous notons la lecture *nd*, le premier mot de la ligne 4; comparer De Caluwe, *Un Livre des Morts*, 1 l. 13 et 2 n. i.

<sup>16</sup> L'emploi de l'encre rouge dans les textes des bandelettes de momie est rare; voir Pernigotti, *EVO* 3, 103 n° 8 et De Caluwe, *Un Livre des Morts*, xviii. Comparer Limme, dans *Artibus Aegypti*, 83.

<sup>17</sup> Comparer Ziegler, *La Revue du Louvre* 29, 254, fig. 5; De Caluwe, *Un Livre des Morts*, xx-xxi.

<sup>18</sup> De Wit, *Catalogus VIII: Egypte*, 51 n° 274.

<sup>19</sup> P. ex. les papyrus de *Nꜣr-ib-Rꜣ* (Louvre N. 3084; P. Barguet, *Le Livre des Morts des anciens Égyptiens* (Paris, 1967), 159), de *Psmꜣk* (Leyde T 17, inédit; voir C. Leemans, *Description raisonnée des monuments égyptiens du Musée d'Antiquités des Pays-Bas à Leide* (Leyde, 1840), 247) et de *Dꜣr* (Chr. Seeber, *Untersuchungen zur Darstellung des Totengerichts im alten Ägypten* (Munich, 1976), pl. 26). Comparer les remarques de Kurth, *Der Sarg der Teüris*, 47-8.

<sup>20</sup> Dans notre version le déterminatif de *nswt* n'est pas très net! Comparer la version de notre bandelette avec celle du papyrus de *Nꜣr-ib-Rꜣ* (Barguet, *Le Livre des Morts*, 159: *dd mdw in Wsir hnty imntt ntr ʕ nb ʔbdw nswt n pt ity m tꜣ wr ʕ m tꜣ-dꜣr nb nhh dt*), d'une bandelette anonyme (Aufrère, *Collections égyptiennes*, 152 n° 315: *dd mdw in Wsir hnty imntt ntr ʕ nb ʔbdw nswt n pt wr m tꜣ ity ʕ m spꜣt... ʔr pt bꜣ (?) tꜣ m ʔrw. f*) et de la bandelette de *ʕnh-wꜣh-ib-Rꜣ* (Pernigotti, *EVO* 4, 141: *dd mdw in Wsir hnty imntt ntr ʕ nb Ddw nb ʔbdw... m pt m tꜣ ity ʕ m tꜣ-dꜣr hꜣ nhh*); voir aussi K. Kuhlmann, *Das Ammoneion* (Mayence, 1988), pl. 34b et 39.

<sup>21</sup> Nous notons la lecture particulière *Tꜣ-m-mwt*. Pour les différentes versions du nom de la dévorante, voir Seeber, *Untersuchungen*, 167-75.

<sup>22</sup> Les différentes formes d'épithète *ʕ ʕ* de Thot ont été étudiées par J. Quaegebeur ('Thot-Hermès, le dieu le plus grand!', dans *Hommages à Fr. Daumas* (Montpellier, 1986), 525-44).

Seeber l'avance dans son livre sur le tribunal des morts.<sup>23</sup> Puisque notre bandelette a été coupée en plusieurs morceaux, il n'est pas exclu que l'autre partie de la vignette du chapitre 125, contenant la confession négative avec les quarante-deux juges, soit conservée dans une collection privée ou dans les réserves d'un musée.

À gauche de la vignette, on note la présence de quelques signes hiéroglyphiques du chapitre 126, accompagnés en haut de la vignette appropriée, figurant quatre babouins, qui gardent le lac de feu.<sup>24</sup>

Un troisième fragment du recueil funéraire de *ist-m-ih-bit* (25 × 7 cm) est conservé à l'University College de Londres. La pièce, sans numéro d'inventaire,<sup>25</sup> est très endommagée; la partie inférieure du texte a presque entièrement disparu, sauf quelques signes hiéroglyphiques, qui révèlent les mêmes caractéristiques que celles des bandelettes d'Anvers. Sur la partie supérieure sont dessinés des génies et des démons couteliers de la vignette du chapitre 149.

Les bandelettes de *ist-m-ih-bit* proviennent de Memphis; les titres de la défunte et de la mère et l'épithète d'Osiris, *nb m 'Inb-ḥd*, mentionnée dans les textes du second fragment, en constituent la preuve. En ce qui concerne leur date, les données énoncées au début de notre description, aident à nous orienter de façon plus ou moins précise. *Wnn-nfr*, un des fils de *ist-m-ih-bit*, figure sur une stèle du Sérapéum en compagnie d'un certain *'Ih-ms*, qui est décédé en 183 av. J.-C.<sup>26</sup> Si nous acceptons l'identité des deux *ist-m-ih-bit*, comme nous l'avons proposé ci-devant, la mort de la défunte doit être située au début ou dans la première moitié du second siècle av. J.-C. Nous tenons également à souligner une évolution dans l'iconographie des vignettes représentant le dieu Osiris sur son trône. Nous nous basons sur quelques bandelettes memphites et particulièrement sur le papyrus de *Nfr-ib-R* (Louvre N. 3084), daté de la seconde moitié du 3<sup>e</sup> siècle av. J.-C. et sur le papyrus de *Psmḥk* (Leyde T 17) du 2<sup>e</sup> siècle av. J.-C.<sup>27</sup> Finalement, les dessins des bandelettes, qui sont d'une qualité remarquable et rarement atteinte sur du tissu de lin, et l'écriture hiéroglyphique soignée et très caractéristique nous empêchent de proposer une date plus récente.<sup>28</sup>

### *Fragment 3* (pl. XVIII, 3; fig. 3)

Le troisième fragment (n° 4944, 26 × 9 cm),<sup>29</sup> anonyme, est original à plusieurs points de vue. La pièce est la seule de la collection du Vleeshuis qui présente son texte sur une seule ligne. Les exemples de ce type de Livre des Morts sur bandelettes ne contiennent habituellement pas de vignettes et sont beaucoup moins larges. Le document ne se range donc pas dans la typologie que nous avons présentée dans notre étude sur la bandelette

<sup>23</sup> Seeber, *Untersuchungen*, 58.

<sup>24</sup> Comparer R. Lepsius, *Das Todtenbuch der Ägypter nach dem hieroglyphischen Papyrus in Turin* (Berlin, 1842), pl. li (ch. 126).

<sup>25</sup> Voir W. Flinders Petrie, *The Funeral Furniture of Egypt* (Londres, 1937), 7 n° 83-181. Nous tenons à remercier Mmes B. Adams et R. Janssen-Hall de leur aide précieuse pendant nos recherches à l'University College.

<sup>26</sup> Otto, *ZÄS* 81, 111.

<sup>27</sup> Voir note 14, 19 et Limme, dans *Artibus Aegypti*, 95 n. 68.

<sup>28</sup> Comparer les remarques de C. De Wit (*Catalogus VIII: Egypte*, 51 n° 2784 (époque romaine), de Chr. Seeber (*Untersuchungen*, 232 (époque ptolémaïque-romaine) et de M.-P. Vanlathem (*Handelingen van het XXXIe Vlaams Filologencongres*, 209 (100 av. J.-C.).

<sup>29</sup> De Wit, *Catalogus VIII: Egypte*, 51 n° 277.

de Bruxelles.<sup>30</sup> De plus, le texte, qui reproduit un fragment du chapitre 1,<sup>31</sup> ne convient pas aux dessins superposés; la première vignette de gauche, qui représente un lotus portant une tête humaine et remontant à la surface d'une prairie marécageuse,<sup>32</sup> concorde normalement avec le chapitre 81 et le dessin du milieu avec le chapitre 82, qui donne la formule 'pour prendre l'aspect du dieu Ptah'.<sup>33</sup> Nous ignorons l'appartenance du personnage figuré à droite. Le fait que les vignettes se développent de gauche à droite, là où le texte court de droite à gauche, marque également le caractère particulier de la pièce. Le dessinateur a probablement orné la toile de vignettes avant que le scribe eût écrit son texte hiéroglyphique;<sup>34</sup> celui-ci aurait dû être composé en 'pages' (*selides*), comme la plupart des bandelettes contenant des vignettes identiques.<sup>35</sup>

Le fragment est écrit en hiéroglyphique à grands caractères fins et lisibles, mais plutôt négligés.<sup>36</sup>

En l'absence de toute indication valable, nous ne savons rien sur la provenance ni la date exacte du document.

#### *Fragments 4, 5 et 6* (pls. XIX, 1, 2 et XX, 1; figs. 4-6)

La quatrième bandelette (n° 4945, 35 × 8 cm)<sup>37</sup> est destinée au père divin et prophète (*it-ntr hm-ntr*) *Iw.f-rw*, fils de *ist-wrt*, qui est inconnu par d'autres sources.

Le texte est une version assez correcte des chapitres 87 et 88, faisant partie des formules des transformations.<sup>38</sup> Nous notons les trois différentes lectures de *st-tj* dans le premier chapitre et une confusion de la première personne du pseudo-participe et le déterminatif figurant une momie. Par contre, le texte du chapitre 88 est très lacunaire au début: *<ink msh hry-ib nrw.f> ink msh <m> ii bxf <m rmt.f> ink sbk ini m rwy*.<sup>39</sup>

Il est remarquable que les vignettes, dessinées l'une après l'autre et composant un ensemble,<sup>40</sup> ne soient pas placées au-dessus des textes, mais au milieu. La largeur réduite de la toile pourrait être la cause de cette disposition, mais une autre explication s'impose. Nous avons déjà avancé qu'un Livre des Morts sur toile contenait plusieurs bandelettes, dont quelques-unes mesuraient entre 2 et 3 mètres. Toutefois, il n'est pas exclu qu'on ait 'fabriqué' aussi des moins longues.<sup>41</sup> Notre fragment en fournit peut-être un exemple.

<sup>30</sup> Voir De Caluwe, *Un Livre des Morts*, xviii-xix (le troisième groupe) et xvii n. 27.

<sup>31</sup> Comparer Lepsius, *Das Todtenbuch*, pl. i, l. 15-16.

<sup>32</sup> Barguet, *Le Livre des Morts*, 119; Munro, *Untersuchungen*, 87-8.

<sup>33</sup> Munro, *Untersuchungen*, 88-9; comparer T. G. Allen, *The Egyptian Book of the Dead. Documents in the Oriental Institute Museum of the University of Chicago* (Chicago, 1960), pl. lxviii. Pour l'histoire du chapitre 82 au Nouvel Empire, voir H. Milde, *The Vignettes in the Book of the Dead of Neferrenpet* (Leyde, 1991), 183-4.

<sup>34</sup> Comparer les notes de Th. Devéria (*Catalogue des manuscrits égyptiens* (Paris, 1874), 73), de J.-Cl. Goyon (*Le papyrus du Louvre N. 3279* (Le Caire, 1966), 6 n. 6) et de L. Limme (*Artibus Aegypti*, 83 et n. 14).

<sup>35</sup> Voir De Caluwe, *Un Livre des Morts*, xvii (le premier groupe de la typologie).

<sup>36</sup> Comparer les bandelettes publiées par Caminos, *JEA* 68, 145-55 et pl. xv-xvii.

<sup>37</sup> De Wit, *Catalogus* VIII: 51 n° 278. Pour le nom du défunt, voir Ranke, *PN* 1, 4 n° 3. Le nom de la mère est très fréquent aux époques tardive et ptolémaïque (Ranke, *PN* 1, 4 n° 1; Lüddeckens, *Demotisches Namenbuch*, 1, 2, 76-7).

<sup>38</sup> Pour des parallèles des chapitres, voir Lepsius, *Das Todtenbuch*, pl. xxxii-xxxiii et Allen, *The Egyptian Book of the Dead*, pl. xxvii.

<sup>39</sup> Il convient de souligner les différents mots indiquant le crocodile (*hnty, msh, sbk*).

<sup>40</sup> Pour ce phénomène, voir Milde, *The Vignettes*, 194-6 et Munro, *Untersuchungen*, 91-2. On retrouve la même forme hybride du crocodile sur une bandelette de Liverpool (National Museums and Galleries on Merseyside M11158, inédite; voir C. Gatty, *Catalogue of the Mayer Collection* (Liverpool, 1879), 39 n° 191).

<sup>41</sup> Voir De Caluwe, *Un Livre des Morts*, xvii et n. 29. Pour la 'fabrication' des bandelettes, voir p. ex. Caminos, *JEA* 56, 123 et n. 4 et Akmar, *Les bandelettes de momie* 1, 9-11.

Est-il conçu comme une petite bandelette de deux textes, accompagnés de leurs vignettes? En tout cas, la partie gauche s'avère être la fin de la toile, si nous tenons compte de la manière originale de ranger les dernières phrases du chapitre 88.<sup>42</sup> Cette disposition démontre vraisemblablement que les textes ont été ajoutés sur le tissu après les vignettes.<sup>43</sup>

Le numérotage démotique (*mh* 18.t),<sup>44</sup> noté dans le coin gauche du haut, indique que notre document était la 18<sup>e</sup> bandelette du Livre des Morts de 'Iw.f-rw.

Les grands signes hiéroglyphes très lisibles, qui les caractérisent, sont à présent le seul élément décisif pour rapprocher deux autres bandelettes du Vleeshuis,<sup>45</sup> qui ne mentionnent pas le nom du propriétaire.




Les deux fragments se raccordent à un ou deux centimètres de près. Le premier (n° 4946 2/2, 38,5 × 11 cm)<sup>46</sup> reproduit une version assez corrompue des légendes qui accompagnent les vignettes du chapitre 146 (section a-e); le second (n° 4946 1/2, 40,5 × 11 cm) continue avec le même chapitre (section e-i), surmonté des vignettes des chapitres 146 et 147.<sup>47</sup> Les textes des deux pièces ont les particularités suivantes en commun: additions (ch. 146b l. 4 et ch. 146d l. 4: indication du pluriel dans le mot *iry*; ch. 146c l. 1: *shm-ds* emprunté au ch. 146d l. 1; ch. 146d l. 2: *hft* [*n nb-dr*] *n wrd-ib*), omissions (ch. 146b l. 3: *tmw* <*tnw r bw nb*> *qm* <*hr nb*> *bw nb*,<sup>48</sup> l. 4: *nb* <*rn.s*> *rn n*; ch. 146c l. 3: *im.s* <*hrw*> *hnty*, l. 4: *ibdw* <*rn.s*> *rn n*; ch. 146d l. 4: *iwt* <*rn.s*> *rn n*; ch. 146f l. 1: *sbht* *sismwt* <*nbt ksw ky dd nbt*> *snkt*,<sup>49</sup> l. 4: *tnw.sn* <*ms.n.tw.fhr*> *hst*,<sup>50</sup> *wrd-ib* <*rn.s*> *rn n*; ch. 146g l. 3: *hprw* <*rn.s*> *rn n*, l. 3-4: *iry.s* <*iknt*>; ch. 146h l. 1-2: *bs* <*iwt*> *hm*, l. 2: *dfit* <*spd prw*> *hh*, l. 3: *sh* <*hr.s n*> *sd*, l. 4: *hmhm* <*rn.s*> *rn n*), corruptions (ch. 146b l. 2: *sbht ntr* (?) pour *sbty*,<sup>51</sup> ch. 146g l. 1: *igy* (?) pour *igyp gry*),<sup>52</sup> variante (ch. 146c l. 2: *ir sbwt* à la place de *sbwt*), haplographie (ch. 146f l. 4: *iry.s* <*s*>*m*), correction du scribe (ch. 146f l. 4: *š* corrigé en *nw*), signes hiéroglyphes de forme spéciale (ch. 146b l. 4: *ms*; ch. 146d l. 4: det. de *hw*), confusion de signes hiéroglyphes (ch. 146h l. 1: le *r* pour *k* dans *rkhw*, sorte de dittographie), lecture incertaine (ch. 146g l. 3: *mri*).

Les vignettes du chapitre 146 comptent 15 portes dans les versions tardives.<sup>53</sup> Notre première bandelette en illustre onze et la seconde, une seule. L'iconographie des portes,

<sup>42</sup> Ce manque de place est très fréquent dans les Livres des Morts sur bandelettes (p. ex. Caminos, *JEA* 68, 150) et résulte dans des versions incomplètes comme dans notre fragment 9. Voir également Limme, dans *Artibus Aegypti*, 83, 86 n. b.

<sup>43</sup> Voir note 34.

<sup>44</sup> W. Erichsen, *Demotisches Glossar* (Copenhague, 1954), 172 (*mh*), 694-5 (18.t). L'emploi des numérotages hiéroglyphes et démotiques sur les bandelettes de momie est assez fréquent (De Caluwe, *Un Livre des Morts*, xvii et n. 28; Devéria, *Catalogue*, 73). R. Caminos ne semble pas avoir saisi l'usage réel des numéros indiquant la succession des bandelettes d'une Livre des Morts, à en juger les remarques obscures qu'il leur consacre dans ses articles, mentionnés dans notre contribution citée ci-dessus.

<sup>45</sup> Comparer les signes caractéristiques  (fragment 4, l. 4, 5 et fragment 6, col. 2 l. 1),  (fragment 4, l. 1, 5; fragment 5, col. 4 l. 3 et fragment 6, col. 2 l. 4) et  (fragment 4, l. 2, 3 et fragment 5, col. 4 l. 2).

<sup>46</sup> De Wit, *Catalogus VIII: Egypte*, 51 n° 279.

<sup>47</sup> Pour des parallèles du chapitre, voir Lepsius, *Das Todtenbuch*, pl. lxxv-lxxvi et Allen, *The Egyptian Book of the Dead*, pl. xliii.

<sup>48</sup> Voir J. Assmann, *Das Grab der Mutirdis* (Mayence, 1977), 59-60.

<sup>49</sup> Voir Allen, *The Egyptian Book of the Dead*, 245 n. r.

<sup>50</sup> Ibid. 245 n. u.

<sup>51</sup> Voir Assmann, *Das Grab der Mutirdis*, 60.

<sup>52</sup> Ibid. 61; Allen, *The Egyptian Book of the Dead*, 245 n. v.

<sup>53</sup> E. Hornung, *Das Totenbuch der Agypter* (Zürich-Munich, 1979), 503.



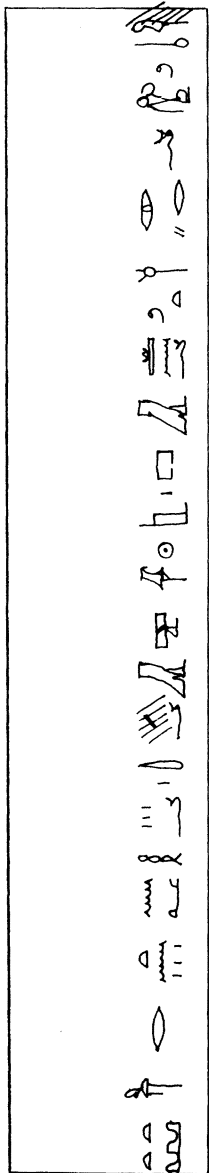


FIG. 3. Fragment 3, n° 4944.

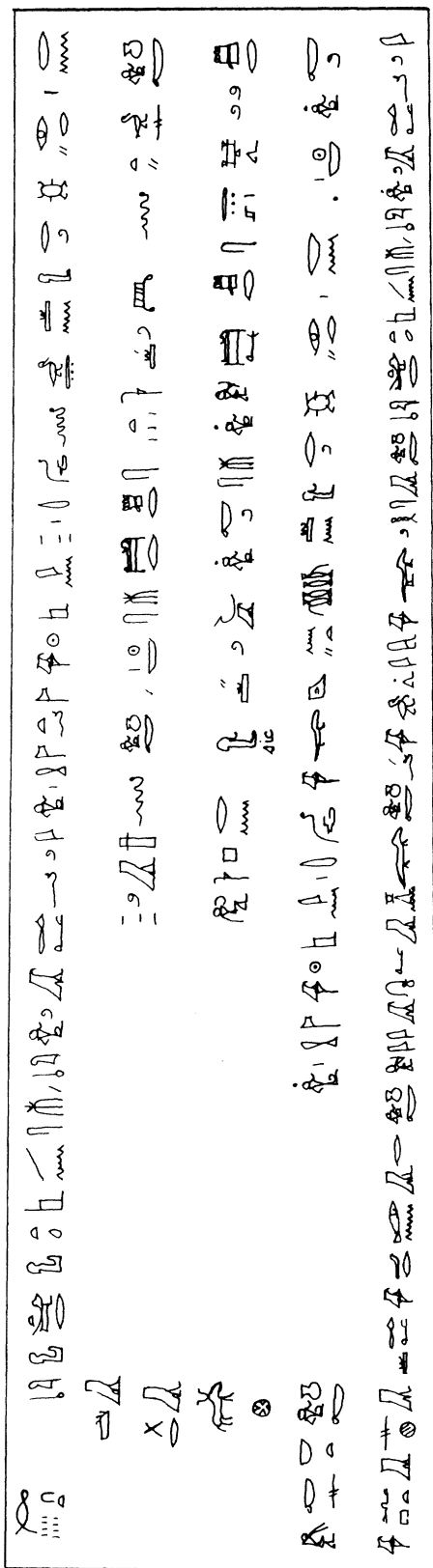


FIG. 4. Fragment 4, n° 4945.

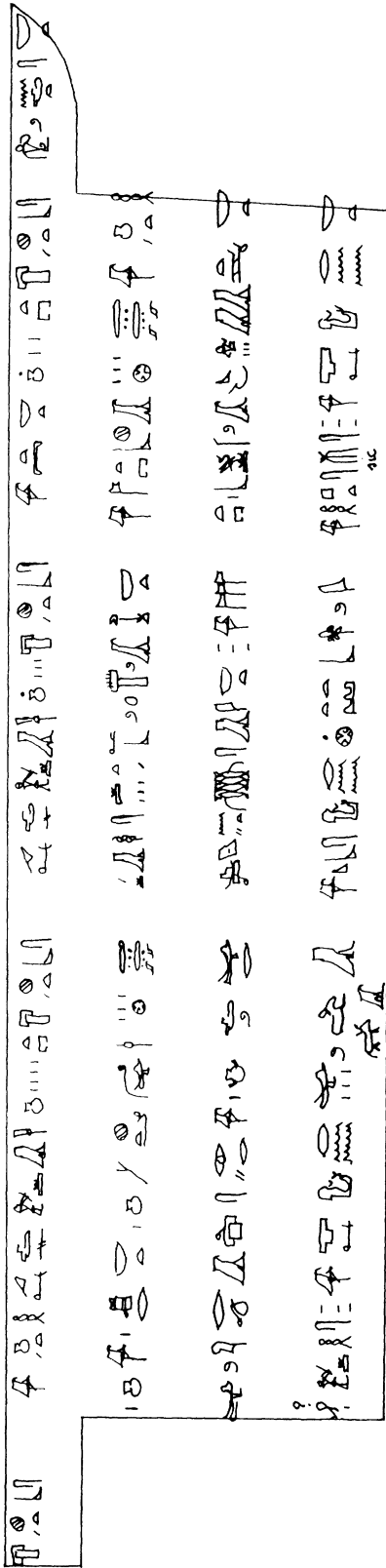


FIG. 5. Fragment 5, n° 4946 2/2.

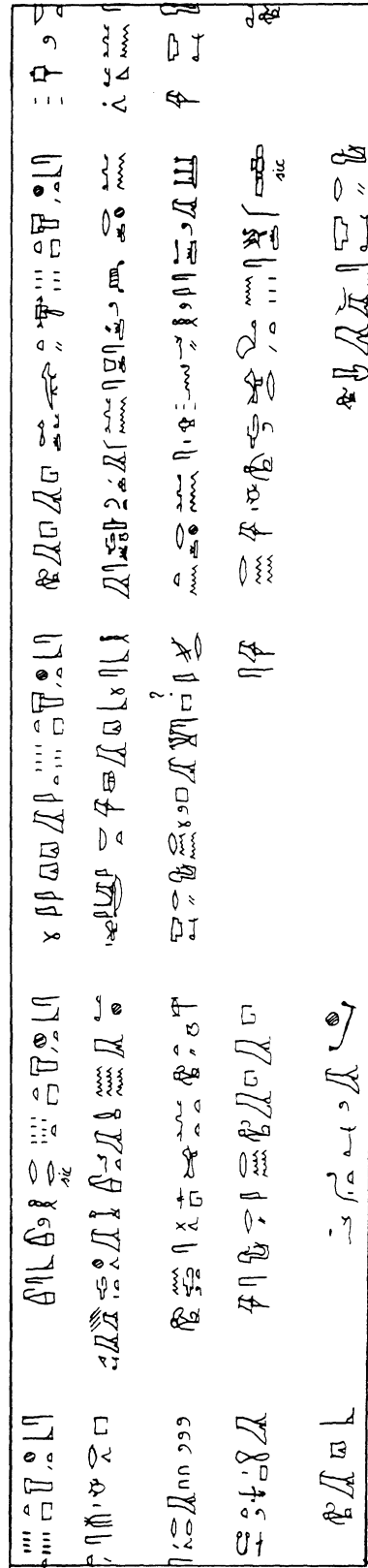


FIG. 6. Fragment 6, n° 4946 1/2.

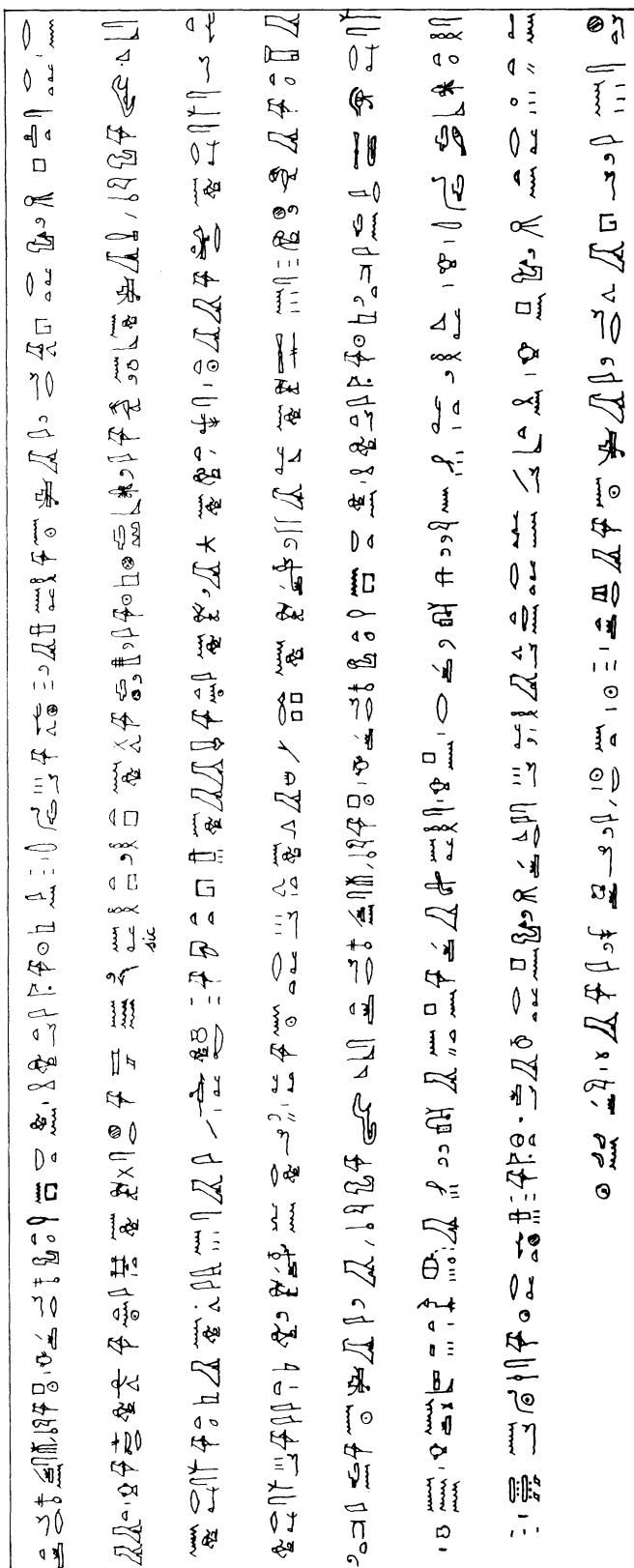


FIG. 7. Fragment 7, n° 4941 2/2.

décorées de serpents, de chats, de têtes de taureau, d'emblèmes *hkr*, etc., et des gardiens à tête humaine, à tête de lion, de taureau, de crocodile, de serpent, de faucon, d'ibis, de bélier, de singe, de lièvre, d'hippopotame, diffère dans chaque Livre des Morts,<sup>54</sup> caractéristique qui remonte à la 18<sup>e</sup> dynastie.<sup>55</sup> Les six représentations du mort en adoration devant un être divin à tête de singe, qui couvrent la seconde bandelette, appartiennent au chapitre 147.<sup>56</sup>

Les trois fragments montrent très nettement que les bandelettes d'un seul Livre des Morts pouvaient avoir des largeurs différentes.<sup>57</sup>

En ce qui concerne la provenance et la date, les remarques citées à propos du troisième fragment s'appliquent de la même façon à l'ensemble des bandelettes de *'Iw.f-rw*.

#### Fragment 7 (pl. XX, 2; fig. 7)

La pièce suivante (n° 4941 2/2, 36 × 7 cm)<sup>58</sup> est le restant d'une des bandelettes au nom du père divin et prophète du Temple de la Dame du sycomore (*it-ntr hm-ntr n pr n nbt nht*) *Nfr-ib-pi-Rr*, fils de *Nfr-Sbk*. Le titre du défunt, connu par d'autres documents, révèle une provenance memphite.<sup>59</sup>

Le texte du chapitre 100, dont la version est correcte,<sup>60</sup> est copié d'une écriture très fine et petite, mais d'une autre nature que celles des fragments précédents. C'est un modèle parfait de l'écriture hiéroglyphique de la plupart des bandelettes du premier groupe et de plusieurs papyrus tardifs.<sup>61</sup>

La vignette de droite appartient au chapitre 100 et celle de gauche au chapitre 102.<sup>62</sup> Elles sont placées à la fin de leurs textes respectifs.

#### Fragment 8 (pl. XXI, 1; fig. 8)

Le huitième fragment (n° 4942, 15 × 7 cm)<sup>63</sup> est un exemple typique d'une bandelette coupée en morceaux uniquement pour conserver la vignette; les textes n'avaient pas de valeur pour ceux qui les trafiquaient.

<sup>54</sup> P. ex. Allen, *The Egyptian Book of the Dead*, pl. xliii et xc; comparer également la disposition des textes et des vignettes du chapitre 146 sur une bandelette de Copenhague (Pernigotti, *EVO* 4, 140 n° 2).

<sup>55</sup> Munro, *Untersuchungen*, 121-3.

<sup>56</sup> Comparer Lepsius, *Das Todtenbuch*, pl. lxvii-lxviii.

<sup>57</sup> Voir Akmar, *Les bandelettes de momie*, I, 45, 50; II, 24, 37; III, 16, 20; Gasse, *BIFAO* 82 (1982), 205-6, 209; Pernigotti, *Saqqara* II, I, 15.

<sup>58</sup> De Wit, *Catalogus VIII: Egypte*, 51 n° 272. Le nom *Nfr-ib-pi-Rr*, qui constitue une forme tardive de *Nfr-ib-Rr*, n'est pas enregistré dans le répertoire de Ranke (*PN*); comparer *Wsh-ib-pi-Rr* (Lüddeckens, *Demotisches Namenbuch* I, 113) et *Hnm-ib-pi-Rr* (G. Botti, *Testi Demotici*, I (Florence, 1941), 83, 90). Pour le nom de la mère, voir Ranke, *PN* I, 199 n° 19.

<sup>59</sup> H. Schneider, *Shabtis*, II (Leyde, 1977), 164.

<sup>60</sup> Il convient de noter sur la troisième ligne la variante *ii.n.i m ist wsr.n.i m Nbt-hwt (?) m shw.sn* pour *ir.n.i 2-nw n ist 3-nw n Nbt-hwt wsr.n.i m shw* (Lepsius, *Das Todtenbuch*, pl. xxxvii l. 3; voir aussi Allen, *The Egyptian Book of the Dead*, 175 n. g) et l'omission du mot *wid* après *hmt* à la ligne 6.

<sup>61</sup> Pour les bandelettes, voir p. ex. Akmar, *Les bandelettes de momie* I, 84, 85; II, 49-78; Aufrère, *Collections égyptiennes*, 153 n° 318, 154 n° 319, 156 n° 329, 157 n° 332, 158 n° 341, 159 n° 343 et notre fragment 9. Pour les papyrus, voir p. ex. le papyrus Ryerson (Allen, *The Egyptian Book of the Dead*, pl. xiii-xlix) et le papyrus de *Dd-hr* (E. De Rougé, *Rituel funéraire des anciens Egyptiens; texte complet en écriture hiéroglyphique publié d'après les papyrus du Musée du Louvre* (Paris, 1874), pl. v-xx).

<sup>62</sup> Comparer Lepsius, *Das Todtenbuch*, pl. xxxvii (ch. 100)-xxxviii (ch. 102). Pour le chapitre 100, voir également Pernigotti, *Saqqara* II, I, 33-4 n° 17 et pl. xxv.

<sup>63</sup> De Wit, *Catalogus VIII: Egypte*, 51 n° 273.

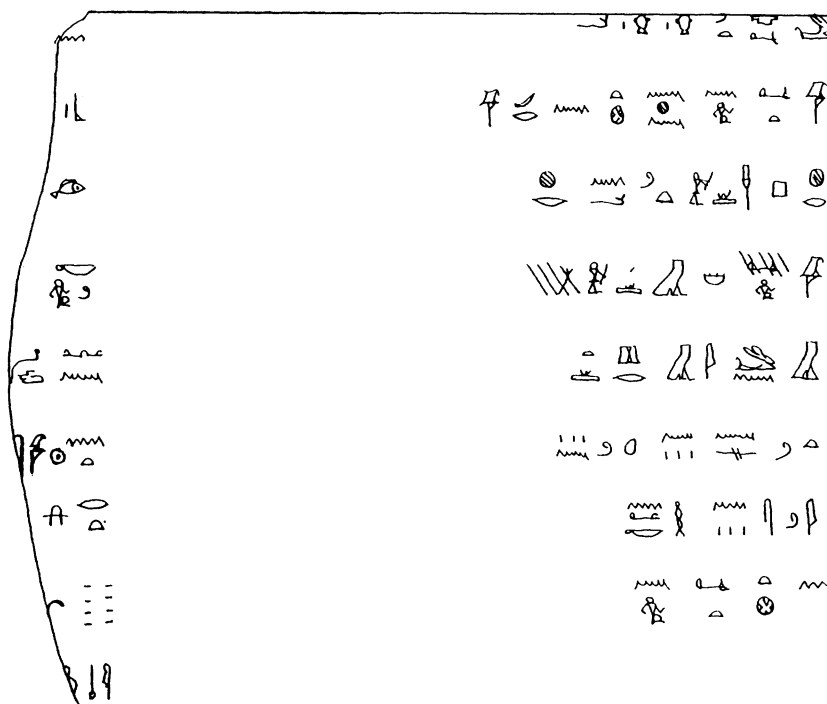


FIG. 8. Fragment 8, n° 4942.

On distingue à droite quelques phrases du chapitre 113 et à gauche des bribes du chapitre 114, tous les deux appartenant aux formules 'pour connaître les Âmes des lieux sacrés'.<sup>64</sup> Dans la vignette du chapitre 114 figure le mort en adoration devant les dieux Thot, Sia et Atoum.<sup>65</sup>

L'écriture hiéroglyphique est peu soignée et difficile à lire, principalement à cause de la mauvaise qualité de la toile.

Les textes ne livrent ni le nom ni le titre du propriétaire.

#### Fragment 9 (pl. XXI, 2; fig. 9-10)

Le dernier fragment (n° 4941 1/2, 35 × 11 cm) est au nom du père divin (*it-ntr*) *Mn-k3-Rc*, né de *T3-sr3it-nt-t3-ih3t*.<sup>66</sup> Il fait partie d'un Livre des Morts que se partagent quatre musées:

(1) Angers, Musée Pincé, MA IV R 476-2 (27 × 10 cm): chapitres 25, 26 et 28 avec vignettes;<sup>67</sup>

(2) Rouen, Musées départementaux de Seine-Maritime, AEg. 388 (16 × 9 cm): chapitre 52 avec vignette;<sup>68</sup>


<sup>64</sup> Lepsius, *Das Totdenbuch*, pl. xliii (ch. 113 l. 4-8 et ch. 114 l. 1-3).

<sup>65</sup> Hornung, *Das Totdenbuch*, 486-7; Milde, *The Vignettes*, 200-4.

<sup>66</sup> De Wit, *Catalogus VIII: Egypte*, 51 n° 272. La bandelette a été présentée à l'occasion d'une exposition au Musée de Mariemont en 1981 (voir Quaegebeur, dans *Artisans de l'Égypte ancienne* (Musée royal de Mariemont, Morlanwelz, 1981), 116-17, n° 132). Pour les noms, voir Ranke, *PN* 1, 150 n° 20 et 370 n° 3.

<sup>67</sup> B. Affholder-Gérard et M.-J. Cornic, *Angers, musée Pincé. Collections égyptiennes* (Paris, 1990), 89 n° 69.

<sup>68</sup> Aufrère, *Collections égyptiennes*, 156 n° 329. Nous remercions tout particulièrement Madame G. Sennequier, conservateur aux Musées départementaux, pour sa collaboration lors de notre séjour à Rouen.

- (3) Rouen, id., AEg. 391 (39,7 × 9 cm): chapitre 79 avec vignette et chapitre 81;<sup>69</sup>  
 (4) Uppsala, Victorianum, sans numéro (31 × 16 cm): chapitre 125;<sup>70</sup>  
 (5) Uppsala, id., (35 × 15 cm): chapitres 126, 127, 129 et 130 avec vignettes des chapitres 125, 126 et 129;<sup>71</sup>  
 (6) Uppsala, id., (44 × 10 cm): chapitres 138, 137, 140 et 141 avec vignette du chapitre 140;<sup>72</sup>  
 (7) Anders, Musée Pincé, MA IV R 476-1 (35 × 12 cm): vignette du chapitre 148; l'appartenance de cette pièce au Livre des Morts de *Mn-kꜣ-Rꜥ* n'est pas tout à fait sûre, vu l'absence de texte;<sup>73</sup>  
 (8) Sur le fragment du Vleeshuis figure une version incomplète,<sup>74</sup> pleine de variantes et parfois très corrompue du chapitre 149 (section *k-o*).<sup>75</sup> Les textes se distinguent par les particularités suivantes: addition (ch. 149o l. 3: *hꜣpy* [*hr*] *hꜣy*), omissions (ch. 149k l. 3: *wꜣnm* <*wꜣd*>,<sup>76</sup> l. 4: *iwꜣy shꜣm m swꜣt* <*sn nnyw*> *wꜣd*, l. 9: *sꜣt* <*sqr n.ꜣ wꜣnꜣwt*> *qrs.ꜣ*;<sup>77</sup> ch. 149l l. 5: *im.s* <*n* ou *m*> *ꜣb.f*;<sup>78</sup> ch. 149m l. 4: *m* <*hr.s*> *hr hꜣtm*; ch. 149n l. 8: *idꜣw* <*mꜣ*-> *ntt mꜣw*; ch. 149o l. 5: *iw hfꜣ pn* <*im.s*> *m*, l. 10: *nꜣtr* <*imꜣy*> *Hꜣry.ꜣhꜣ*), corruption (ch. 149n l. 2: *imꜣy.s swꜣr.s m* pour *imꜣy.s iw mꜣw.s m*),<sup>79</sup> variantes (ch. 149k l. 10: *ꜣst n hr.ꜣ Nbt-hꜣwt n hꜣ.ꜣ*;<sup>80</sup> ch. 149o l. 6: *ꜣbw m ꜣpꜣt* pour *ꜣbw r rꜣ ꜣpꜣt*, l. 10: *twꜣt tw m ib m hꜣꜣꜣw*),<sup>81</sup> lecture incertaine (ch. 149k l. 3: *hmhm*),<sup>82</sup> le signe , réduit à un simple point (ch. 149l l. 4: *im.s n ꜣ*).<sup>83</sup>

Chaque texte est accompagné d'une vignette qui ne correspond pas toujours à la partie illustrée; c'est le cas de la deuxième vignette, représentant un lion couché et une déesse (?), qui appartient normalement au chapitre 149e (la 5<sup>e</sup> butte).<sup>84</sup> Le reste des vignettes suit l'ordre des autres sources.<sup>85</sup> La ligne verticale à l'extrémité gauche de la dernière 'page' marque vraisemblablement la fin de la bandelette.

L'écriture hiéroglyphique peu soignée est petite, ce qui ne facilite pas sa lisibilité. Elle est comparable à l'écriture du 7<sup>e</sup> fragment au nom de *Nfr-ib-pꜣ-Rꜥ*.

Les divers textes ne fournissent pas de renseignements sur la date ou la provenance de ce Livre des Morts.<sup>86</sup>

<sup>69</sup> Aufrère, *Collections égyptiennes*, 156-7 n° 332.

<sup>70</sup> Akmar, *Les bandelettes de momie* 1, 81.

<sup>71</sup> Ibid. 82.

<sup>72</sup> Ibid. 83.

<sup>73</sup> Affholder-Gérard et Cornic, *Angers*, 88 n° 68.

<sup>74</sup> A. Gasse (*BIFAO* 82, 211) note la même particularité sur une des bandelettes du Musée de Besançon.

<sup>75</sup> Pour des parallèles du chapitre, voir Lepsius, *Das Todtenbuch*, pl. lxxii-lxxiii et Allen, *The Egyptian Book of the Dead*, pl. xlvi.

<sup>76</sup> Voir Allen, *The Egyptian Book of the Dead*, 262 n. fr.

<sup>77</sup> Ibid. 262 n. ge.

<sup>78</sup> Ibid. 262 n. go.

<sup>79</sup> Comparer Gasse, *BIFAO* 82, 210.

<sup>80</sup> Voir Allen, *The Egyptian Book of the Dead*, 262 n. gf. et gg.

<sup>81</sup> Ibid. 264 n. kl et km.

<sup>82</sup> Ibid. 262 n. ft; Gasse, *BIFAO* 82, 210.

<sup>83</sup> Comparer De Caluwe, *Un Livre des Morts*, xxv.

<sup>84</sup> Voir Lepsius, *Das Todtenbuch*, pl. lxxi et Allen, *The Egyptian Book of the Dead*, pl. xlvi et xciii.

<sup>85</sup> Pour l'histoire de la vignette du chapitre 149, voir Milde, *The Vignettes*, 113-26.

<sup>86</sup> La remarque d'E. Akmar que le Livre des Morts de *Mn-kꜣ-Rꜥ* date du début de la domination de l'empereur Auguste (*Les bandelettes de momie* 1, 46), est sans fondement. L'égyptologue suédois se réfère probablement au stratège de ce nom, qui a vécu au 1<sup>er</sup> siècle av. J.-C. et qui est connu depuis longtemps dans la littérature spécialisée; voir *Prosopographia Ptolemaica*, I (Louvain, 1950), 35 n<sup>os</sup> 283-4; VIII (Louvain, 1975), 40 n<sup>os</sup> 283-4 et H.-J. Thissen, *ZPE* 27 (1977), 181-91. Affholder-Gérard et Cornic (*Angers*, 88) proposent l'époque ptolémaïque, une date plus plausible, bien que peu précise.

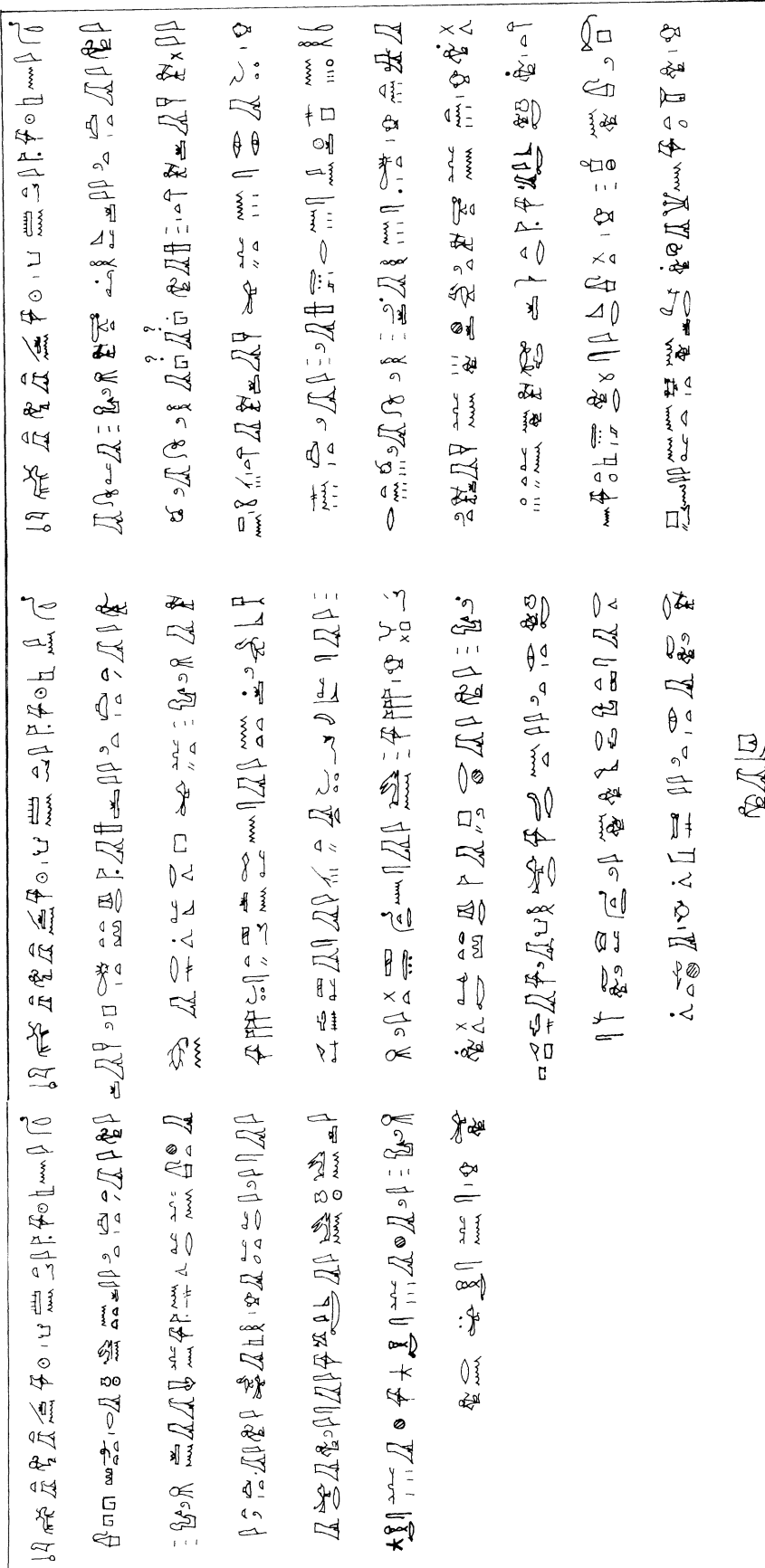


FIG. 9. Fragment 9, n° 4941 I/2, i-iii

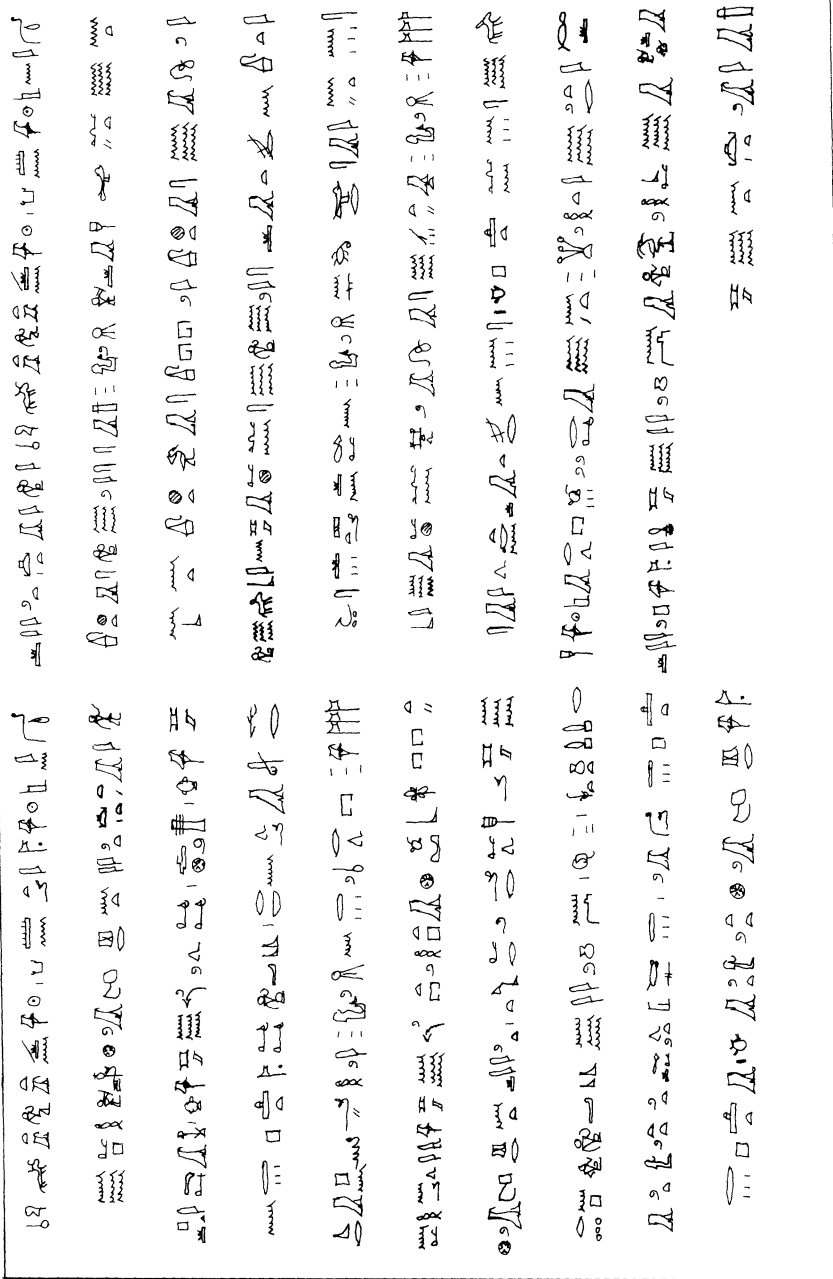


FIG. 10. Fragment 9, n° 4941 I/2, iv-v



Pour terminer cet inventaire, évaluons la collection du Vleeshuis en résumant les données acquises.

Les neuf fragments appartiennent à six Livres des Morts différents, dont quatre portent les noms et les titres du ou de la propriétaire. Deux des titres indiquent une origine memphite, ce qui correspond à l'analyse établie dans notre publication de la bandelette de Bruxelles.<sup>87</sup> En ce qui concerne la datation, la période du 4<sup>e</sup> au 2<sup>e</sup> siècle av. J.-C., proposée dans notre livre, semble pouvoir convenir provisoirement comme hypothèse de travail.<sup>88</sup>

Des recherches ultérieures sur la paléographie et l'iconographie des Livres des Morts datés, comme les bandelettes trouvées à Saqqara et celles de *Psmṯk*,<sup>89</sup> et complétées par quelques papyrus,<sup>90</sup> seraient de nature à nous procurer des critères plus nets pour l'établissement d'une chronologie relative. Cette étude devrait aussi tenir compte d'autres sources tardives, comme les sarcophages,<sup>91</sup> les stèles et les objets funéraires,<sup>92</sup> qui mentionnent les mêmes noms et les mêmes titres que ceux des Livres des Morts.

Quoi qu'il en soit, la modeste collection du Vleeshuis méritait une publication, ne serait-ce que parce qu'elle illustre plusieurs aspects des problèmes spécifiques que présentent les Livres des Morts sur bandelettes. Sa valeur se concrétise dans la variété des écritures hiéroglyphiques et dans la belle qualité de quelques vignettes. En outre, elle ajoute deux exemples de *membra dispersa* au corpus du Livre des Morts tardif.<sup>93</sup>

<sup>87</sup> De Caluwe, *Un Livre des Morts*, xix-xx.

<sup>88</sup> Ibid. xix.

<sup>89</sup> Pernigotti, *EVO* 3, 99-115; id., 'Le bende di mummia', dans E. Bresciani, *Saqqara* 1. *Tomba di Boccori. La galleria di Padineit visir di Nectanebo I* (Pise, 1983), 93-102; id., *Saqqara* 11, 1. Voir également De Caluwe, *Un Livre des Morts*, xviii et n. 37.

<sup>90</sup> Limme, dans *Artibus Aegypti*, 95 n. 68.

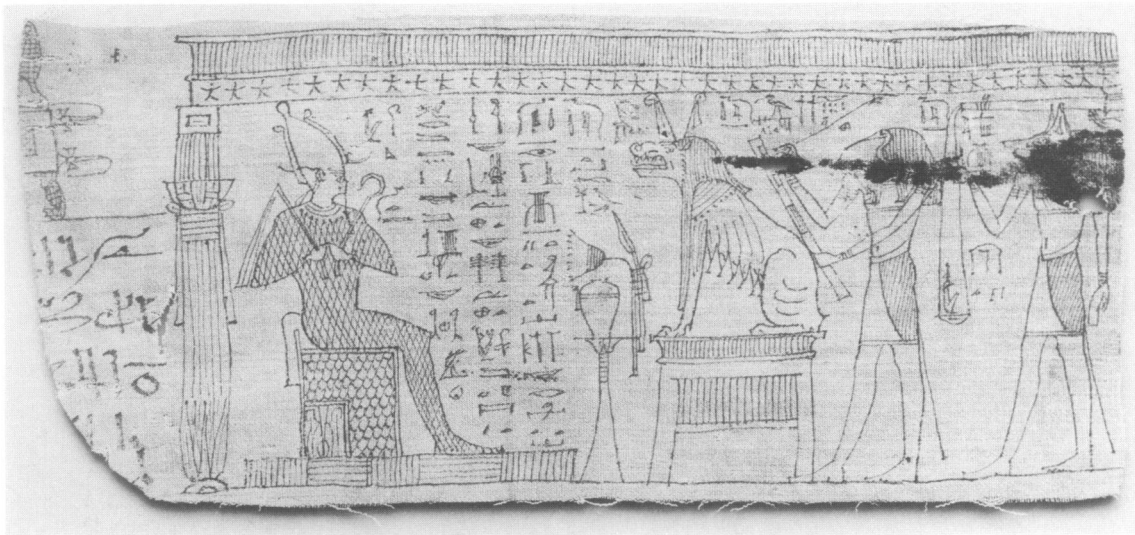
<sup>91</sup> L'exemple le plus manifeste est celui de *Hr-î-îr-ç*, publié par S. Pernigotti (*Saqqara* 11, 1, 7-45). Voir également le sarcophage de *Pṯ-di-Wsir* (H. Stechow, *Die Fürstengräber von Qâw* (Leipzig, 1936), 59-62 et pl. 27), dont les bandelettes sont conservées au Victorianum d'Uppsala (Akmar, *Les bandelettes de momie* 111, 5-16, 51-8); le sarcophage de *Wnn-nfr* (Berlin 46: L. Kákósy, 'Ein Sarkophag aus der Ptolemaerzeit im Berliner Ägyptischen Museum', dans *Festschrift zum 150jährigen Bestehen des Berliner Ägyptischen Museums* (Berlin, 1974), 113-18), dont les bandelettes de momie et un papyrus sont conservés à Paris (*Prosopographia Ptolemaica*, 111 et 1X, 52 n° 5366a). Pour les bandelettes de *Psmṯk*, voir note 14.

<sup>92</sup> P. ex. les bandelettes de *Tṯ-šrit-nt-Mnw* retrouvées dans le tombeau de *nh-Hr* à Thèbes (M. Bietak et E. Reiser-Haslauer, *Das Grab des Anch-Hor, Obersthofmeister Nitokris*, 11 (Vienne, 1982), 253 n. 480 et H. De Meulenaere, *CdE* 59 (1984), 238-41).

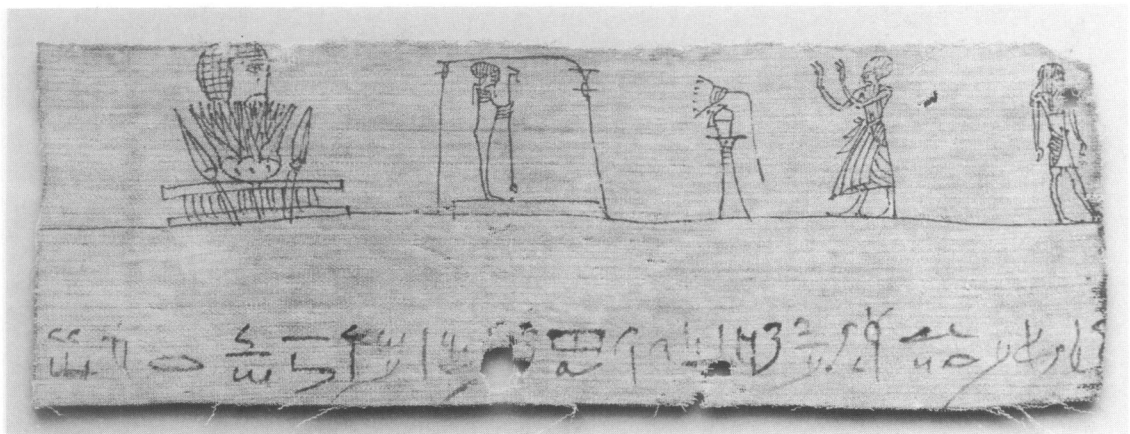
<sup>93</sup> Les fragments 1-2 et 9. Pour quelques exemples de *membra dispersa*, voir p. ex. Pernigotti, *EVO* 4, 128-9 et De Caluwe, *Un Livre des Morts*, xvii n. 25, n. 29 et xviii n. 38.



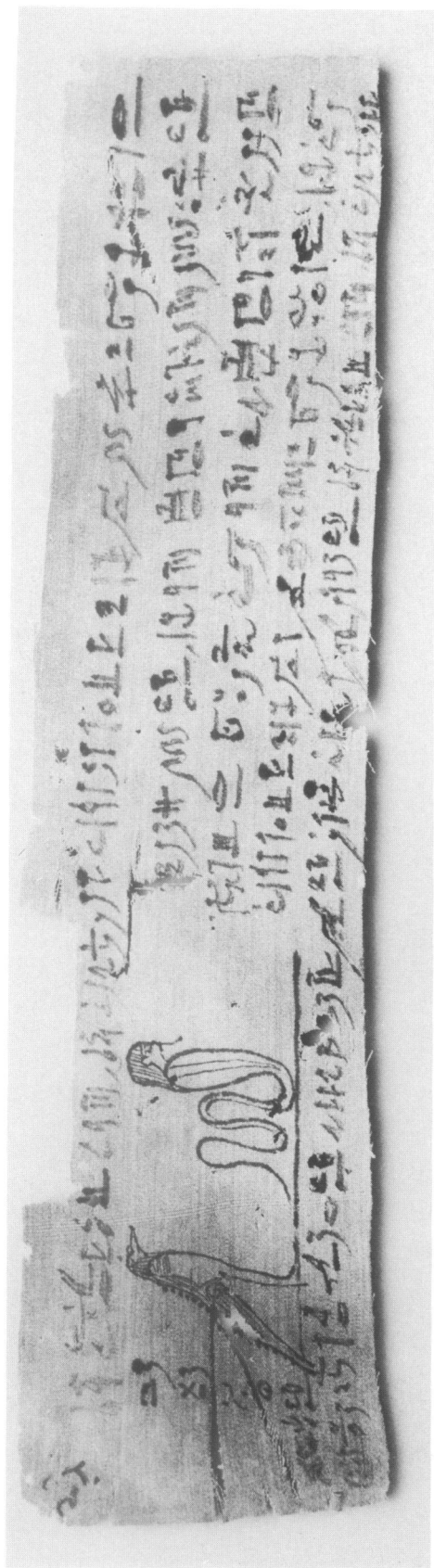
1. Fragment 1, n° 4943 2/2 (pp. 200-3)



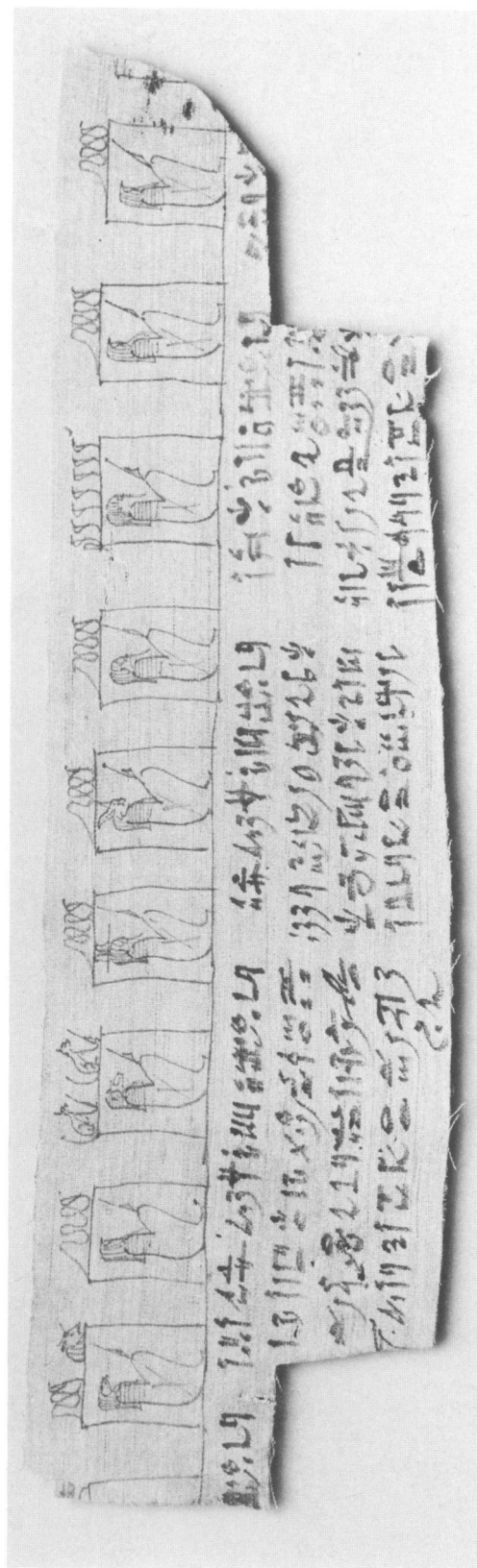
2. Fragment 2, n° 4943 1/2 (pp. 200-3)



3. Fragment 3, n° 4944 (pp. 203-4)

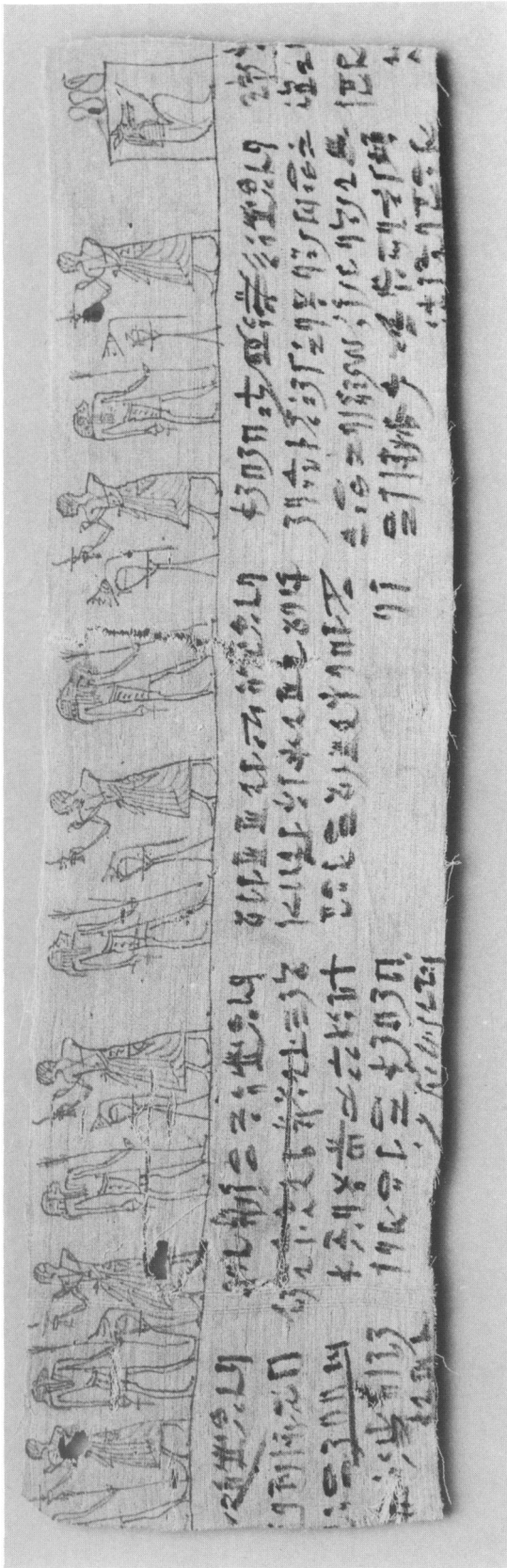


1. Fragment 4, n° 4945 (pp. 204-9)

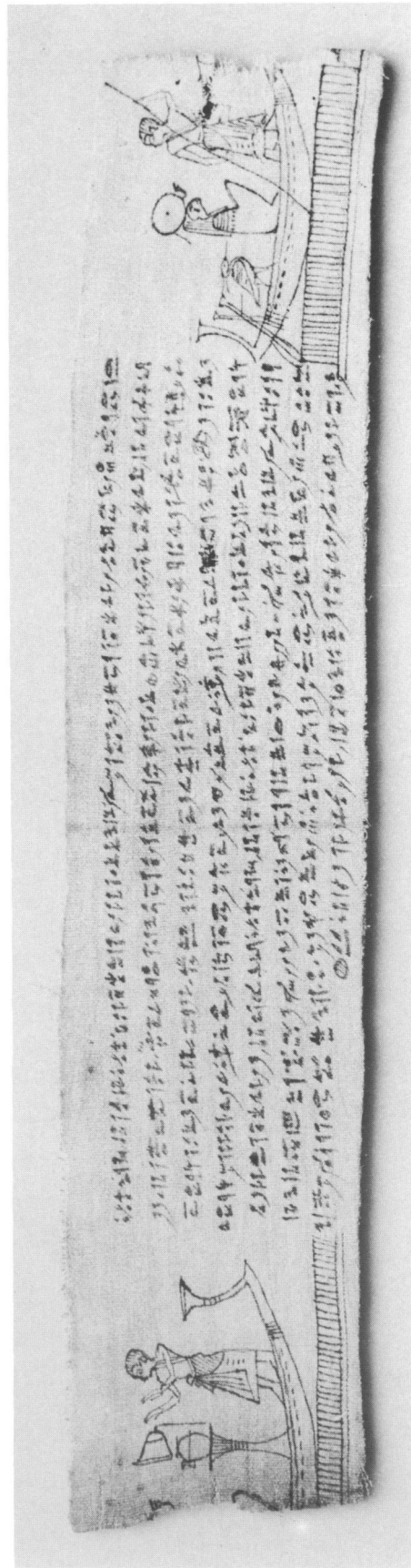


2. Fragment 5, n° 4946 2/2 (pp. 204-9)

LES BANDELETTES DE MOMIE DU MUSÉE VLEESHUIS



1. Fragment 6, n° 4946 1/2 (pp. 204-9)

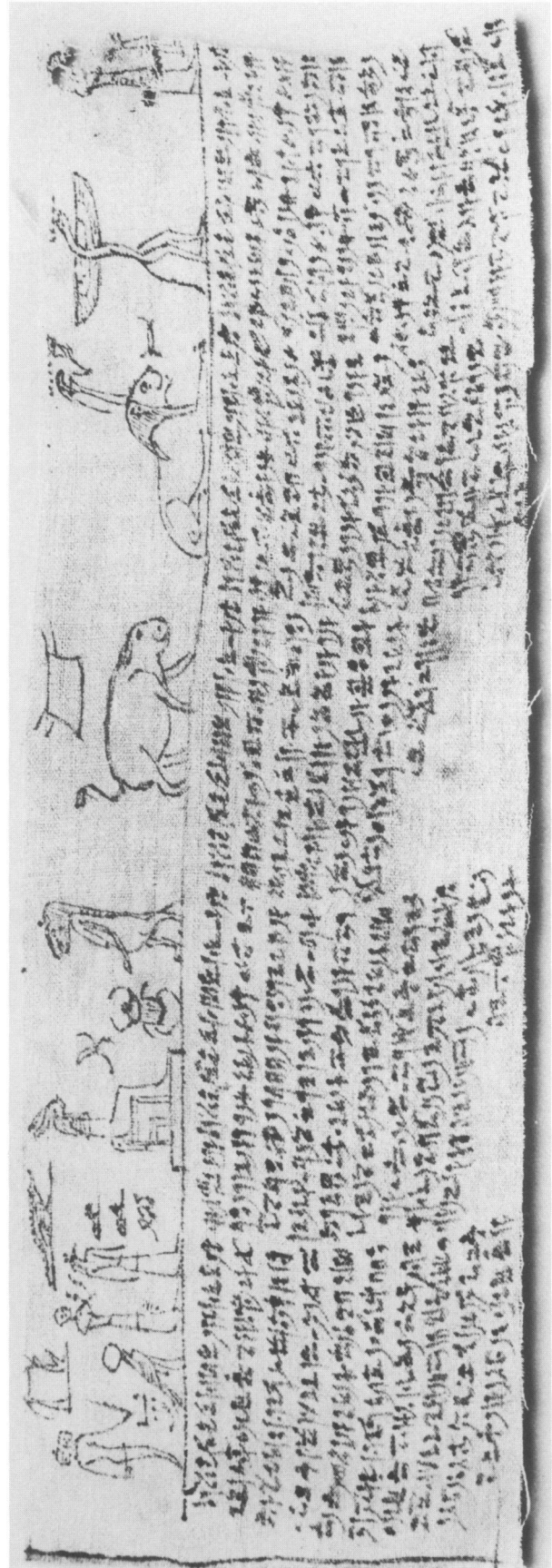


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## THE REPRESENTATION OF YOUNG MALES IN 'FAYUM PORTRAITS'\*

By DOMINIC MONTSERRAT

This article discusses the symbolism used on the mummy portraits of adolescent boys from Roman Egypt. The social implications of these symbols and representational modes are examined, with particular reference to their links with contemporary constructs of puberty, male sexuality and rebirth.

'PORTRAITS reflect social realities. Their imagery combines the conventions of behaviour and appearance appropriate to the members of a society at a particular time, as defined by categories of age, gender...social and civic status and class. The synthetic study of portraiture requires some sensitivity to the social implications of its representational modes, to the documentary value of art works as aspects of social history, and to the subtle interaction between social and artistic conventions.'<sup>1</sup>

Richard Brilliant was talking about portraiture in general, but here I shall examine only one category within a well-defined corpus of portraits: that of the one thousand or so funerary images painted at different places all over Egypt between the early first and the fourth centuries A.D., conventionally (and rather misleadingly) referred to as 'Fayum portraits' or 'mummy portraits'. Recent scholarship on these paintings typically pays little attention to their social context or their status as products of the multi-cultural society of imperial Egypt: the debate has tended either to centre on art historical questions, such as dating and the possibility of isolating specific artists and schools, or on the function of the portraits within contemporary cultic and religious practice. For example, Klaus Parlasca's magisterial works<sup>2</sup> on the portraits discuss them without any reference to contemporary historical sources from Egypt, and a recent German dissertation on the subject,<sup>3</sup> which proposes an extensive redating based on the hair-styles, says comparatively little about the social aspects of the paintings, in spite of the analysis of their 'kulturelle Bedeutung' implicit in the thesis title. Instead of looking at them *in vacuo*, an appreciation of the broader context in which the 'Fayum portraits' were created might help to answer some of the unresolved questions about their usage and iconography. Here I want to examine what one particular type of portrait, that of the adolescent male, might have to tell us about social constructs of puberty and masculinity in Roman Egypt, and what the appearance of such

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<sup>1</sup> R. Brilliant, *Portraiture* (Harvard, 1991), 11.

<sup>2</sup> K. Parlasca, *Mumienporträts und verwandte Denkmäler* (Wiesbaden, 1966), henceforward Parlasca (1966), and the three volumes of *Repertorio d'arte dell'Egitto greco-romano, Serie B, 1: Ritratti di mummie* (Palermo, 1969-80, with a fourth volume in press), henceforward Parlasca 1-III.

<sup>3</sup> B. E. Müller (now Borg), *Mumienporträts: Ihre Datierung und kulturelle Bedeutung im kaiserzeitlichen Ägypten* (PhD thesis, Göttingen, 1990).

iconography on a funerary portrait might imply. This is intended as a sort of test case for Brilliant's reflected 'social realities' and 'social implications of...representational modes' which might be applied usefully to other portrait types within the genre. What 'social realities,' if any, do these paintings actually reflect?

To represent their subjects, the artists of the 'Fayum portraits' used a narrow repertory of iconography and forms, within which there was comparatively little variation of type: child with youth-lock, young bejewelled woman, soldier with studded buckler, etc. These painters had an extremely limited amount of space to convey much important information about their subjects—only the extent of the head and shoulders, on a piece of wood roughly 15 × 30 cm. The painters' task was not merely to create a recognisable likeness of a person, but also to create a likeness that would define the position of the deceased within the familial ancestor-cult and ensure his vitality for rebirth and life in the next world. It seems likely that in the Roman period mummies could be kept on display for some time after death,<sup>4</sup> and were visited on certain days as part of the cult of the dead.<sup>5</sup> The departed continued to play a part in society: the Egyptians did not shut out their dead from the society of the living by rituals of exclusion, and so funerary portraits would need to express, among other things, the social role played by the deceased person in his lifetime. Hence it would have been necessary for the portraits to display an array of visual symbols immediately comprehensible to somebody looking at the painting on the mummy (perhaps several generations after death, when the deceased person had been forgotten as an individual) as it was stored upright in a funerary chapel. The decoration and symbolism employed in the chapel and on the mummy itself, of which the portrait likeness was only one element, worked together to provide the most appropriate and effective setting for the rebirth of their owner into the next world. Because 'the social body constrains the way the physical body is perceived',<sup>6</sup> these symbols would primarily need to express sex, social status and age category. The latter was particularly important for males who had died at liminal stages in their lives: the pre-adolescent, 'untimely dead' (*ἄωρος*), and the adolescent, dead at the peak of his physical and sexual vigour 'just with his first beard, about to summon Love to his nuptial chamber' (*ἄρτι γενειάσκων... ἄρτι δ'ἔρωτας ἐς θαλάμους καλέων*).<sup>7</sup>

Therefore it is unsurprising that one of the most clearly differentiated portrait types is that of the adolescent<sup>8</sup> male, post-pubertal and with a slight downy moustache, sometimes little more than 'peach fuzz',<sup>9</sup> sometimes rather fuller (pl. XXII, 1 = Parlasca 1, no. 53).

<sup>4</sup> Herodotus (II.86.7) and Polybius (I 93.10) both refer to bodies being stored upright in a special *οἶκημα*, perhaps a room in a funerary chapel. Other writers mention the Egyptian custom of keeping their dead alongside them: see, for instance, Xenophon of Ephesus, *Ephesiaca* V.1.9; Athanasius, *Vita Antonii* 24 (= *Patrologia Graeca* XXVI 968–9); Plutarch, *Moralia* 159b. Papyri, such as P. Fouad I 75 and P. Princ. III 166, also suggest that bodies were kept around to be viewed by the family. The archaeological data for the practice given by W. M. F. Petrie, *Hawara, Biahmu and Arsinoe* (London, 1889), 15 and idem, *Roman Portraits and Memphis (iv)* (London, 1911), 6–8 are not to be discounted.

<sup>5</sup> See the bibliography given by D. Montserrat, *JEA* 78 (1992), 304 nn. 14–17.

<sup>6</sup> M. Douglas, *Natural Symbols: Explorations in Cosmology* (London, 1973), 93.

<sup>7</sup> *Anth. Pal.* VIII 122, 3–4.

<sup>8</sup> In this article, the terms 'adolescence' and 'adolescent' are used purely in a physical sense to express bodily maturation, without any psychological implications. The most recent discussion of adolescence and its social meaning in the ancient world is by M. Kleijwegt, *Ancient Youth: The Ambiguity of Youth and the Absence of Adolescence in Graeco-Roman Society* (Amsterdam, 1991), esp. 51–73.

<sup>9</sup> For the basic type, see Parlasca 1, nos. 51–4, 56, 59, 154, 158–63, 191. I am including the following portraits as a sub-corpus of portraits of adolescent boys: Parlasca 1, nos. 41, 50, 51, 53–7, 59, 64, 154–5,

About fifty such portraits in encaustic and tempera are known, though some damaged or heavily-restored paintings may also belong to the corpus. The subjects are usually clothed in plain white tunics (pl. XXII, 2 = Parlasca I, no. 59),<sup>10</sup> but are sometimes shown bare-shouldered, perhaps implying total nudity (pl. XXII, 3 = Parlasca I, no. 163).<sup>11</sup> On their heads, they often wear leafy garlands, some of which are painted as part of the original portrait, others stencilled on in gold leaf after painting (pl. XXII, 4 = Parlasca I, no. 54).<sup>12</sup> These images constitute a group of portraits quite distinct from those showing males in the two age categories on either side of puberty: those which depict much younger, pre-adolescent boys (sometimes difficult to differentiate from females) wearing the lock of youth and other symbols of childhood,<sup>13</sup> and those of older, fully adult males in their twenties who are frequently bearded. The ages of these juvenile, post-pubertal males seem to range from about fourteen to the very early twenties, with a slight predominance towards the upper age limit, and this has been confirmed by X-ray examination carried out on two mummies from Hawara equipped with portraits of moustached, garlanded young men. The body of a man now in the Manchester Museum (Inv. No. 1768 = Parlasca I, no. 160) was estimated to be aged about twenty,<sup>14</sup> and Artemidorus, whose famous mummy is in the British Museum (EA 21810 = Parlasca I, no. 162) died when he was between nineteen and twenty-one.<sup>15</sup> Not only on the mummy portraits, but also in the funerary epigrams from Roman Egypt composed to commemorate young males, is the deceased's state of hirsuteness used to express the stage in life he had reached. For example, the second century inscription of Sarapion<sup>16</sup> says 'death's destructive destiny led the young Sarapion down to Hades, when he had just completed twenty-two years and was bearded for the first time, he who was charming and gentle to all men'. Sarapion's epitaph is particularly interesting, because his age is specified in relation to the extent of his facial hair. The term translated as 'bearded for the first time' (*ἀρτιγένειον*) certainly refers to a full beard rather than a small incipient moustache on the upper lip. If this inscription is to be taken literally, we may infer that a full beard was the sort of facial hair that a twenty-two-year-old man in Roman Egypt would have been expected to have. It is possible, therefore, that the portraits of young moustached men are idealisations of individuals who died at a specific time in their lives, when they were members of an important, socially-recognised age category.

In Roman Egypt, as in many cultures which practise infanticide, the mere fact of having being born into the society was not an immediate assurance of social membership of it; an individual had to be transferred from his unsocialised 'natural' state to culture by

157-8, 160-3, 166, 168, 172, 190; Parlasca II, nos. 287-8, 290-6, 324 (a 'shroud'), 352, 356, 470, 491, 495-6; Parlasca III, nos. 509, 540-3, 611-12.

<sup>10</sup> E.g. Parlasca I, no. 162; Parlasca II, nos. 470, 491, 495-6; Parlasca III, nos. 540-3.

<sup>11</sup> E.g. Parlasca I, nos. 51, 56, 163.

<sup>12</sup> E.g. Parlasca I, nos. 154-5, 162.

<sup>13</sup> E.g. Parlasca II, nos. 473-5; Parlasca III, nos. 621, 654-6, 658-65, 669-72.

<sup>14</sup> A. R. David (ed.), *The Manchester Museum Mummy Project* (Manchester, 1980), 32.

<sup>15</sup> W. R. Dawson and P. H. K. Gray, *Catalogue of Egyptian Antiquities in the British Museum*, I: *Mummies and Human Remains* (London, 1968), 35. Of course, there is sometimes very little correlation between the portrait and the mummy inside the wrappings: see D. L. Thompson, *Mummy Portraits in the J. Paul Getty Museum* (Malibu, 1982), 14-15 and n. 16.

<sup>16</sup> Published in *Archiv für Papyrusforschung* 5 (1913), 166: τὸν δύο πληρώσαντα καὶ εἰκοσι πρόσθ' ἐνιαυτοὺς Σαραπίωνα νέον τε καὶ ἀρτιγένειον ἔοντα μοῖρ' ὅλοη θανάτοιο κατήγαγεν εἰς Αἴδαο μελεΐχεον πάντ[εσσ]ι καὶ ἥπιον ἀνθρώποισι.



ceremonies of social inclusion. These typically include rituals of initiation at puberty, which can involve ‘cultural work upon the body, and their effect is to transform the natural body into a social entity with rights and status.’<sup>17</sup> For the teenaged sons of the Hellenised élite in provincial Egypt, these rituals revolved around a public status declaration, in effect an affirmation of their membership of the paternal kin-group. This public status declaration or ‘scrutiny’ (*ἐπίκρισις* or *εἴσκρισις*) confirmed the boy’s lineage and his inclusion in one of several privileged groups eligible for fiscal and other privileges: the ‘metropolitan twelve drachma class’ (*μητροπολίται δωδεκάδραχμοι*), ‘the gymnasium members’ (*οἱ ἀπὸ τοῦ γυμνασίου*), or the ephebate (*ἐφηβεία*). Written declarations of *ἐπίκρισις* or *εἴσκρισις* were usually made in the year when the declarant reached the age of thirteen or fourteen, thus becoming liable to pay the full rate of capitation tax. They state that the boy ‘has entered into the class of thirteen (or fourteen)-year-olds’ (*προσβάντος εἰς τρισκαιδεκαετείς/τεσσαρεσκαιδεκαετείς*) in a given year.<sup>18</sup> I have argued elsewhere<sup>19</sup> that these status declarations signify more than a mere bureaucratic formality to gain tax relief, and that they were one component of an entire *rite de passage* system whose other elements could include ‘cultural work upon the body’ in the form of shearing off hair to mark transition, and also celebratory garlanding and banqueting. The *epicrisis* festivities could take place in important public buildings, such as the Capitolium, the traditional scene of Roman *rites de passage*.<sup>20</sup> Formal enumeration of the boy’s ancestry may also have played a part. Some *epicrisis* declarations, such as P. Oxy. XVIII 2186, list forbears going back as far as seven generations, and these lists may well have been read out aloud at the time the document was drawn up or submitted. Reading out aloud would have served to underscore the boy’s own name, (which characteristically followed that of a grandfather),<sup>21</sup> and thus his standing and affiliation in the paternal kin-group, ‘since having a name is an institutional mark of social membership.’<sup>22</sup>

The exact function and organisation in Roman Egypt of the other élite group for adolescents, the ephebate, is still unclear, as is its relationship to the Athenian body of youths with the same name,<sup>23</sup> and to the other selected social groups. As P. Oxy. IV 705 tells us, some boys of the gymnasial class could be enrolled into it after a further examination of suitability. The length of a boy’s ephebic service is uncertain, but was

<sup>17</sup> B. S. Turner, *The Body and Society* (Oxford, 1984), 204.

<sup>18</sup> The formulae vary, depending on the city where the declaration was made. For the status declaration in general, see C. A. Nelson, *Status Declarations in Roman Egypt* (Amsterdam, 1979); for the various documentary formulae, *ibid.* 13–22.

<sup>19</sup> D. Montserrat, *BASP* 28 (1991), 45–7 and 49.

<sup>20</sup> Servius, commenting on Vergil *Écl.* IV.49, suggests that *ad Capitolium ire* was equivalent in meaning to donning the *toga virilis* and relinquishing the *bulla*, that is, giving up the attributes of childhood at a formal induction. In an unpublished third-century dinner invitation from Oxyrhynchus, forthcoming in a volume of P. Oxy., the celebratory banquet following a boy’s *epicrisis* is to be held in the Capitolium. P. Oxy. XVII 2147, an invitation to a feast celebrating the garlanding (*στέψις*) of a son in the gymnasium at Oxyrhynchus, may be connected with a *rite de passage* such as an *epicrisis*, though A. K. Bowman has suggested (P. Oxy. XLIV 3202 introd.) that the coronation here marks a gymnasiarch’s accession to office.

<sup>21</sup> For this practice, see D. Hobson, *BASP* 26 (1989), 167.

<sup>22</sup> Turner, *op. cit.* 204–5.

<sup>23</sup> For the significance of entry into the Athenian ephebate as a *rite de passage*, see S. G. Cole, *ZPE* 55 (1985), 233–6. Nelson, *op. cit.* 47–59, analyses the documentary evidence for the enrolment of youths on the *γραφὴ ἐφήβων*. On the basis of epigraphic evidence from Greece, Kleijwegt, *op. cit.* 101, surmises that ‘during the Hellenistic-Roman period the ephebeia was an aristocratic institution deploying activities which introduced the ephebes into the world of citizens (= adults)’, which is what seems to have been the case in Roman Egypt.

probably about two years, and the age at which he was inducted apparently varied. Most of the boys seem to have been enrolled when they were about fourteen, the age that traditionally demarcated the onset of male puberty in antiquity,<sup>24</sup> though P. Tebt. II 316 ii, 17-18 suggests that boys could be registered as ephebes when they were as young as seven or even three years old. This papyrus may suggest that membership of the ephebate was an honorific rank, and required little active participation; alternatively, registering a boy as an ephebe at the age of three may have had the same sort of function as putting down an infant boy for admission to a public school in contemporary England. We do know that at Oxyrhynchus the members of the ephebate engaged in gymnastic or athletic contests established by Septimius Severus and Caracalla,<sup>25</sup> which recall the kind of military education received by the boys in the Attic ephebate. Whatever the duties of the ephebes may have been after their induction, the act of their joining must have had a similar significance to the official reception of boys into the metropolitan twelve-drachma and gymnasial classes. Both marked a specific stage in the maturation process of individual boys and prepared the participants for gender-specific roles and tasks of importance to their own status and to the civic life of their metropolis. Both centred around a formal public declaration of lineage as an affirmation of inclusion, because of the responsibilities and privileges carried by the adult male role. Its importance is demonstrated by the fact that even after their ephebic service had finished, young men who had been members still identified themselves in terms of their former status (P. Tebt. II 316 ii, 1-9). If all these are among the 'social realities' of reaching manhood in Roman Egypt, how are such categories of age and civic status reflected in the portraits that were painted of this élite group?

### Moustaches

The mummy portraits of young males draw attention to the most obvious external sign of maturation in males—the growth of facial hair. In Graeco-Roman antiquity, the first growth of hair on the chin and upper lip was taken as an indication of incipient puberty: the observation of Shakespeare's Beatrice, 'he that hath a beard is more than a youth, and he that hath no beard is less than a man'<sup>26</sup> would have been entirely comprehensible. A youth's slight moustache was a strong erotic focus for both male and female *inamorati* in Greek love poetry and Alexandrian epigram, and praise of youths with 'their first down more golden than cassidony' (Theocritus II.78) was a well-used literary topos.<sup>27</sup> Numerous epigrams from the *Anthologia Palatina* celebrate the dedication of offerings of hair at puberty. For example, in *Anth. Pal.* IV 156 a boy named Charixenus offers his first shaven stubble to the nymphs of Amaranthus, and is compared to 'a foal who has shed his first downy coat' (ὡς ἵππος χνοῦν ἀποσεισάμενος). Other Greek epigrams express the hope that by offering up their first beards, the donors will escape going grey, and thus retain a youthful, virile appearance into maturity.<sup>28</sup> For the writers of homosexual love epigrams in the *Anthologia Palatina*, the growth of the first beard and other body hair was

<sup>24</sup> See E. Eyben, *Latomus* 31 (1972), 683 and 695-7, with references.

<sup>25</sup> See P. Oxy. IV 705, 45-21 and P. Oxy. IX 1202, 5-7.

<sup>26</sup> *Much Ado About Nothing*, II, i.

<sup>27</sup> See the discussion and references in F. Buffière, *La pédérastie dans la Grèce antique* (Paris, 1980), 609-16, esp. nn. 13-19.

<sup>28</sup> *Anth. Pal.* VI 198 and 242.

a standard topos, signifying the end of the boy's availability for non-reproductive sex and his entry into the world of reproductive heterosexual relations.<sup>29</sup>

Roman perceptions of adolescent facial hair seem to have been rather different, however: its appearance still signified adulthood, but a stronger emphasis was placed on its removal (only by shaving, not by depilatories, which were considered effeminate). The *depositio barbae* sometimes formed part of a maturation ceremony associated with the formal assumption of the *toga virilis*, but the emperors who formally shaved off their first beards and made dedications of them seem to have been well past the age of puberty. Augustus was aged 23 (Cassius Dio 48, 34.3), and Nero was 21 when the occasion of his first shave was marked by an athletic competition watched by the Vestal Virgins, his shorn hair being placed 'in a gold box studded with pearls, dedicated to the Capitoline Jove' (Suetonius, *Nero* 12.4). Caligula, however, deposited his first beard at nineteen (Suetonius, *Caligula* 10) and Augustus' nephew Marcellus 'first shaved his golden beard, having returned from the western war ... his country's wish was to send him forth as a boy and take him back as a man.'<sup>30</sup> Marcellus was then about sixteen and had just completed a term as a military tribune in Spain: the association of first military service with manhood and shaving to mark transition is interesting.<sup>31</sup> In portrait busts of the early third century AD, the youthful emperors Elagabalus and Alexander Severus both appear with wispy moustaches and/or immature beards.<sup>32</sup> Both acceded when they were about fourteen years old, Elagabalus in 218 and Alexander in 222. It is interesting that Elagabalus is shown moustached, since the ancient sources place much emphasis on this hairlessness to stress his androgyny.<sup>33</sup> Exactly the same kind of moustaches that appear on the statues of these two young emperors appear in contemporary funerary portraits from Egypt.

Conversely, there do not seem to be any purely Egyptian attestations of the wearing of moustaches by adolescents, which is unsurprising given the traditional Egyptian emphasis on hairlessness as a manifestation of physical and spiritual cleanliness. Furthermore, it would have been very difficult to indicate precise age categories within the representational canons of dynastic Egyptian art. The depiction of adolescent facial hair, therefore, suggests that we are dealing with a milieu in which the dominant cultural influence is Greek rather than Roman. This does not mean, however, that hair lacked symbolic potency in Pharaonic Egypt, or that rituals surrounding its shearing and preservation were Hellenistic innovations. At least as early as the New Kingdom, hair appears in contexts strongly suggestive of life-crisis rites.<sup>34</sup> The showing of slight facial hair on the portrait of a young man, therefore, had a far wider symbolic value than might at first appear. It indicated that the deceased had died at a stage in his life when he was at his

<sup>29</sup> E.g. *Anth. Pal.* XII, 10, 12, 24-7, 30, 31, 35, 36, 191, 195, 220, 229; see also *Anth. Pal.* VIII 122, 3-4.

<sup>30</sup> *Anth. Pal.* VI 161: see also R. Syme, *The Augustan Aristocracy* (Oxford, 1986), 348.

<sup>31</sup> The relationship between maturation and military service in the Roman empire is discussed by T. Wiedemann, *Adults and Children in the Roman Empire* (London, 1989), 113-18.

<sup>32</sup> See, for example, the head of Alexander Severus in the Cairo Museum (JE 27480: pl. 220 in Z. Kiss, *Études sur le portrait impérial romain en Égypte* (Warsaw, 1984)) and the heads of Elagabalus and Alexander in the Museo Capitolino, Rome (illustrated respectively in S. Wood, *Roman Portrait Sculpture 217-260* (Leiden, 1986), pl. xi and in W. Schindler, *Römische Kaiser* (Vienna, 1986), pl. 70.

<sup>33</sup> See SHA, *Antoninus Elagabalus* V.5; Dio LXXX 14.2; Herodian V6.10.

<sup>34</sup> The range of symbolic uses to which hair could be put in the New Kingdom is well illustrated by finds from the tomb of Tutankhamun: see my article on the treatment of human hair in the tomb of Tutankhamun (*GM*, forthcoming).

optimum sexual vitality and attractiveness, at least according to Hellenistic perceptions. It also made a statement about the social standing of the dead man as a Graeco-Egyptian who followed some Greek traditions associated with hair and puberty. Showing the moustache would have been one of the visual elements which helped to both idealise and eroticise the dead man so that he could be reborn in a perfect and vital form, in just the same way that Pharaonic tomb paintings can show a quintessential image or *simulacrum* of the deceased surrounded by erotic references.<sup>35</sup>

A variant set of symbols indicative of the connection between male physical vitality and bodily resurrection is found on the so-called 'tondo of the two brothers', found at Antinoöpolis and now in Cairo (pl. XXIII, 1 = Parlasca 1, no. 166). The two men, both lightly moustached, ungarlanded and fully clothed, are flanked by golden figures of two syncretistic gods both associated with death and renewal: Hermanubis on the viewer's right and Osirantinous on the left. Osirantinous is crowned and naked: as Hugo Meyer has suggested, his nudity is neither incidental nor erotic, but characteristic of the ephebe that he had been in life, and perhaps has further associations of the renaissance of Hellenism and Hellenic culture in Egypt under Hadrian.<sup>36</sup> At the edge of the panel, by the pedestal of the Osirantinous statue, is the date 15 Pachon (early May). The younger-looking man on the viewer's left wears a white tunic, its right shoulder ornamented with a *gammadion* or swastika-like symbol composed of four Γ-shaped elements. This was later appropriated as a symbol of the trinity, the resurrection and of Christ himself,<sup>37</sup> but in pre-Christianity it also had phallic connotations,<sup>38</sup> making it an appropriate symbol for a context associated with death and rebirth. All in all, the Antinoöpolis tondo is an anomaly within the corpus of funerary portraits, and one wonders whether its unique format and array of symbols might commemorate something unusual about the two deceased men, such as the circumstances of death.<sup>39</sup>

### Naked torsos and garlands

There have been several interpretations of the naked torsos and garlands sported by certain male portrait subjects, whose ages vary. There are examples of fully-bearded mature males depicted with bare chests, such as the man in the Petrie Museum (UC 19610 = Parlasca 1, no. 211) and the complete mummy in Berlin (Äg. Inv.

<sup>35</sup> For a good summary of the function of erotic references and symbolism in Pharaonic tomb painting, see G. Robins, *DE* 11 (1988), 61–64.

<sup>36</sup> H. Meyer, *Antinoos: Die archäologischen Denkmäler unter Einbeziehung des numismatischen und epigraphischen Materials sowie der literarischen Nachrichten* (Munich, 1991), 255–8.

<sup>37</sup> On the *gammadion* in the portraits, see Müller, op. cit. 171–2, who concludes that it is merely an ornament; for its significance in Christian iconography, see A. Quacquarelli, *Vetera Christianorum* 18 (1981), 5–32 and 21 (1984), 5–25.

<sup>38</sup> M. Thorn, *Taboo No More: The Phallus in Fact, Fantasy and Fiction* (New York, 1990), 94.

<sup>39</sup> In the ancient world, the tondo seems to have been the format *par excellence* for portraits of the living, and the Antinoöpolis tondo probably did not start out as a funerary portrait as such, although it is supposed to have been found in a tomb and the gods depicted on it certainly suggest that its subjects are dead. One might speculate that Osirantinous appears on it not as a god of the dead or as a *deus loci*, but as tutelary deity of the 'blessed drowned'. The date on the portrait, 15 Pachon, does not correspond with any known Antinous festival, so it may refer to a date of death, as on a mummy label. Maybe both men were drowned on 15 Pachon and the portraits painted as a substitute for their bodies, which may never have been recovered. The tondo may then have been intended to hang in a house or a shrine to the family cult. The role of Antinous in the Egyptian cult of the drowned is interestingly discussed by J. Lindsay, *Men and Gods on the Roman Nile* (New York, 1968), 297–309.

11673 = Parlasca I, no. 204), but these men are never shown wreathed. Juxtaposed with nudity, the garland, with all its other connotations of athleticism and youthful vitality, would be inappropriate for an adult man. In her thesis,<sup>40</sup> Lorelei Corcoran argued convincingly that the nudity apparently indicated by the bare chest was consistent with the 'heroisation' of the deceased: in other words, the giving of divine/heroic attributes to the dead man in order to expedite the process of his rebirth. Parlasca had rejected the possibility that the nudity of males in this group of portraits could be an attempt at heroic idealisation,<sup>41</sup> because he believed that the portraits were painted from life, which would preclude a posthumous deification. Corcoran was attempting to prove that the portraits had a commemorative cultic function, 'perhaps the initiation of the living individual into the [Isiac] cult and his resultant assimilation to the sun-god', and suggested that male nudity was 'an allusion to the rebirth which the individuals had experienced as a result of initiation into the Isiac cult.'<sup>42</sup> I would suggest a different interpretation: that garlands in conjunction with nakedness could be another reference linking the deceased with the ephebate. In Greek literature of the Roman period garlands, along with the chlamys and petasus, are the ephebic symbols *par excellence*. Heliodorus, for instance, (*Aethiopica* 1.10) refers to them being worn by processions of ephebes, and both Plutarch (*Pelopidas* 33.5.2) and Polybius (*Hist.* 30.25.12) mention golden garlands as being part of ritual ephebic dress. Young garlanded ephebes were also the subjects of erotic elegies (e.g. *Anacreontea* 1.42, 3-5, *Ath. Pal.* XII 8). One is immediately reminded of the gilded wreaths added to some of the mummy portraits of young men (see pl. XXII, 1, 4). As part of her theory that 'the iconographic elements that decorate these mummies can be "read" in a logical and coherent sequence from bottom to top', Corcoran saw the garlands as having a closer connection with the crown of justification, 'the crowning touch to the visual statement that the deceased has become transformed and justified.'<sup>43</sup> I believe that this is too narrow an interpretation. Corcoran is undoubtedly right to say that 'the iconographic scheme of portrait mummies embodies traditional pharaonic concepts about the afterlife',<sup>44</sup> but what of the iconography of the portraits themselves? They incorporate elements alien to Pharaonic representational concepts, such as vestigial moustaches. Her hypothesis does not allow for the polyvalency of symbolism: a wreath on the head of a deceased boy in a portrait could quite conceivably have represented an ephebic garland, the Egyptian 'crown of justification', or the wreath of a symposiast enjoying his funerary repast all at the same time. Similarly, gold leafy garlands appear on other types of mummy portrait, including those of older, fully-mature men and young females, where they must have had different connotations. The iconographic scheme of the mummy has to be considered as an entity, not as disparate elements.

Comparable ideas of divinisation and heroisation are found on the carved niche decorations of tombs from Oxyrhynchus and Heracleopolis Magna, where male divinities appear representing the idealised characteristics of the male tomb owner. Men were not defined by marital status, as was the case with women, but by notions of manliness

<sup>40</sup> Lorelei H. Corcoran, *Portrait Mummies from Roman Egypt* (PhD thesis, Chicago, 1988), 165-6.

<sup>41</sup> Parlasca (1966), 41.

<sup>42</sup> Corcoran op. cit. 175 and 165-6.

<sup>43</sup> L. H. Corcoran, 'A Cult Function for the so-called Faiyum Mummy Portraits?', in J. H. Johnson (ed.), *Life in a Multi-Cultural Society: Egypt from Cambyses to Constantine and Beyond* (Chicago, 1992), 58.

<sup>44</sup> Corcoran, *ibid.*

(*εὐανδρία*), and thus Apollo, Dionysus and Heracles, the gods associated with the gymnasium, are the only ones who appear.<sup>45</sup> This idea finds some confirmation in contemporary Egyptian funerary inscriptions: for instance, the stela of the teenage Dioscorus describes him as a 'son of Greece, skilled in music, a youthful Heracles' ('Ελλάδος υἱόν, τὸν σοφὸν ἐν Μούσαις καὶ νέον Ἡρακλέα).<sup>46</sup> The accompanying carving shows a well-developed, naked man praying with outstretched arms. The same iconographic reasoning might be applied to the bare-shouldered, gold-wreathed adolescents of the 'Fayum portraits', just as the attributes on Dioscorus' stela identify him with athletic young manhood generally, but more specifically with the gymnasium. Portraying the deceased with athletic or ephebic attributes would define him as a member of an élite social group at his physical peak, and thus in the best state to be reborn.

All this discussion of symbolism and élite groups prompts the question of whether the portraits of boys with the attributes of burgeoning manhood were actually prepared for high-status individuals. Which stratum of society in Roman Egypt employed artists to paint portraits of their deceased sons? This is not easy to establish with any certainty. Of course, the portrait was only one part of the whole funerary ensemble, which in its fullest form would have required the preservation of the body, enormous quantities of linen for the wrappings, a tomb, a funerary procession with hired mourners, sacrifices and a funerary banquet, among other things. As the accounts of Herodotus (II.87) and Diodorus Siculus (I.91) show, money determined the different standards of burial, and would presumably also have dictated the quality of the mummy portrait. SPP XXII 56, a third-century account of burial expenditure from Socnopaïou Nesos, suggests that the portrait was not a particularly expensive commodity: in this case, only half as much money (64 drachmas) was spent on the portrait as on linen for the wrappings (136 drachmas 24 obols), which represents nearly a third of the total cost of the funeral (440 drachmas 16 obols).<sup>47</sup> The greatest outlay on any single item of burial equipment was probably on the cloth for bandages, and the elaborate external wrappings, wound into layered lozenge patterns and adorned with gilded studs, would have been an effective way of showing off the family's purchasing power. Few people could have afforded to buy up to 380 metres of high-quality cloth to envelop a body and then pay for the labour of three or more skilled bandagers to wind it around the corpse. The lavishness of the wrappings might well have been a better indicator of the income of the family than the mummy portrait. Most of the portraits of young males are now separated from their wrappings, but the two that still preserve them (Artemidorus in the British Museum and no. 1768 in Manchester, both from Hawara) are evidently expensively-produced mummies, and the wrappings of the Manchester mummy are of particularly good-quality fine linen. The demotic texts from the Hawara embalmers' archive distinguish between *νωρυ*, 'fine linen (burial) raiment' of superior quality, usually provided by the family of the

<sup>45</sup> For an excellent analysis of the symbolism of male divinities, especially Heracles, on Egyptian tomb sculpture, see T. K. Thomas, *Niche Decorations from the Tombs of Byzantine Egypt: Visions of the Afterlife* (PhD thesis, Institute of Fine Arts, New York University, 1990) I, 242–52.

<sup>46</sup> SB I 3990 (late third-early fourth century AD).

<sup>47</sup> It is uncertain, however, exactly what the items of burial equipment in this text are. The word often thought to indicate a portrait, *πρόσωπον*, more usually means a mask: but in line 23 a *προσωπίδιον* is mentioned, costing 14 drachmas, and one wonders why one individual would require two similar items. Maybe SPP XXII 56 lists expenditure on a double funeral (cf P. Oxy. XII 1535), or *πρόσωπον* is a term for some other commodity, perhaps another fabric item: a 'cover'? For the cost of portraits in general, see Müller, *op. cit.* 184–91.

deceased, and *hbs*, ‘mortuary raiment’ in general, presumably of poorer quality.<sup>48</sup> It is unlikely that the same quality of linen was used further down in the bandaging,<sup>49</sup> but there can be no doubt that a considerable amount of time, labour and expenditure went into preparing the young man now in Manchester for eternity.

The symbolic triad of moustache, garland and bare chest to indicate post-pubescent males finds its converse in the range of attributes used by the portrait painters to denote pre-adolescent boys. These boys are invariably round-faced and childishly chubby, they never have any trace of facial hair, and they wear one or both of the youth-lock and a cylindrical amulet on a cord around the neck.<sup>50</sup> These signs reinforce the status of the sitter as pre-pubescent and sexually immature, and thus socially marginal: a potential but unrealised adult. The youth-lock or Horus-lock was worn by children of both sexes and ritually shorn off at puberty, perhaps at a ceremony called the *mallocouria* or ‘cutting off of the tress’.<sup>51</sup> The amulet is reminiscent of the protective *bullā* and other apotropaic charms worn by freeborn Roman boys till the onset of puberty,<sup>52</sup> but may well have closer links with the amulets of ‘oracular amuletic decrees’ in hieratic.<sup>53</sup> These texts, dating from the late New Kingdom, contain extensive invocations to protect the child’s body from every kind of magic, disease and malevolent being: ‘we shall keep healthy her abdomen. We shall keep healthy her pudenda. We shall keep healthy her rectum’.<sup>54</sup> They are written on long strips of papyrus and were worn rolled up inside some kind of amuletic case<sup>55</sup> that was presumably relinquished at puberty, since the spells promise to ‘provide everything that is good for her ... and a happy childhood’ and only later to ‘conceive male and female children’.<sup>56</sup> We do not know the exact nature of the amulets or amulet-cases shown on the mummy portraits of pre-pubescents, particularly whether they contained any protective texts, though a portrait in the National Museum, Dublin (inv. 1902:4 = Parlasca III, no. 621) shows a small boy wearing a cylindrical amulet with a now illegible inscription on it. If the Roman Period amulets did contain some kind of spell, their inclusion in the portraits of pre-pubescents may serve both to illustrate the immaturity of the deceased and to provide symbolic magical protection.

### Conclusions

‘Ego adulescens, ego ephebus, ego puer’<sup>57</sup> says Catullus of the life stages of Roman élite youths; and the ‘Fayum portraits’ place their subjects in precisely this taxonomy which is,

<sup>48</sup> E. A. E. Reymond, *Catalogue of Demotic Papyri in the Ashmolean Museum*, 1 (Oxford, 1973), 63–4.

<sup>49</sup> It was standard practice to recycle old linen for embalming purposes: see SPP XXII 56, 16, where the other wrappings are padded out with an old tunic.

<sup>50</sup> E.g. Parlasca III, nos. 621, 654 and 672. For instances of this type of pre-adolescent portrait, see note 13 above.

<sup>51</sup> For the *μαλλοκούρια* see note 19 above. Müller op. cit. 193–201, interprets the *Jugendlock* as a purely religious symbol connected with devotion to the Isiac cult.

<sup>52</sup> On the *bullā*, see Wiedemann, op. cit. 116.

<sup>53</sup> Corpus of texts by I. E. S. Edwards, *Hieratic Papyri in the British Museum, Fourth Series: Oracular Amuletic Decrees of the Late New Kingdom* (London, 1960).

<sup>54</sup> Edwards, op. cit. 9.

<sup>55</sup> For an interesting discussion of these cases generally, see J. J. and R. M. Janssen, in I. Gamer-Wallert and W. Helck (eds), *Gegengabe. Festschrift für Emma Brunner-Traut* (Tübingen, 1990), 161–4, with useful bibliography in nn. 23–36.

<sup>56</sup> Edwards, op. cit. 8 and 12.

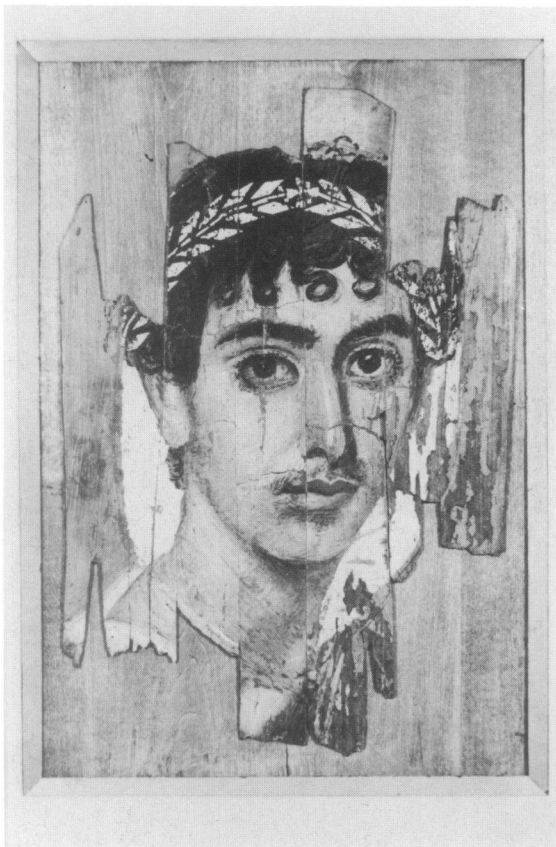
<sup>57</sup> Catullus 63.63.

as Richard Brilliant says, 'defined by categories of age, gender...social and civic status and class.' The portraitists used a fixed repertory of symbols to indicate pre-pubescent males, adolescents up to the age of about twenty (of whom some may have been epebes), and males over twenty. Thus, if the social milieu in which these portraits were created is taken into account, the attributes used in the portraits of young men may be seen as reflecting the system of age categories operating in Roman Egypt, the dynamics of moving between those categories, and the extent to which the categories were defined by both the body itself and social perceptions. Taken *in toto*, the three most common attributes of post-adolescents in the portraits—the slight moustaches, the wreaths and nakedness—would have been seen in Roman Egypt as strongly connotative of the thirteen/fourteen to twenty age category, the age when males were conceived as being at the apogee of their sexual desirability, and also the age at which elite youths underwent their formal social integration. These symbols would also have removed any ambiguity over the sexual status of the deceased. The moustache in particular represented these young boys unequivocally as post-pubescent males, and thus ready for fruitful, procreative sexual relations.

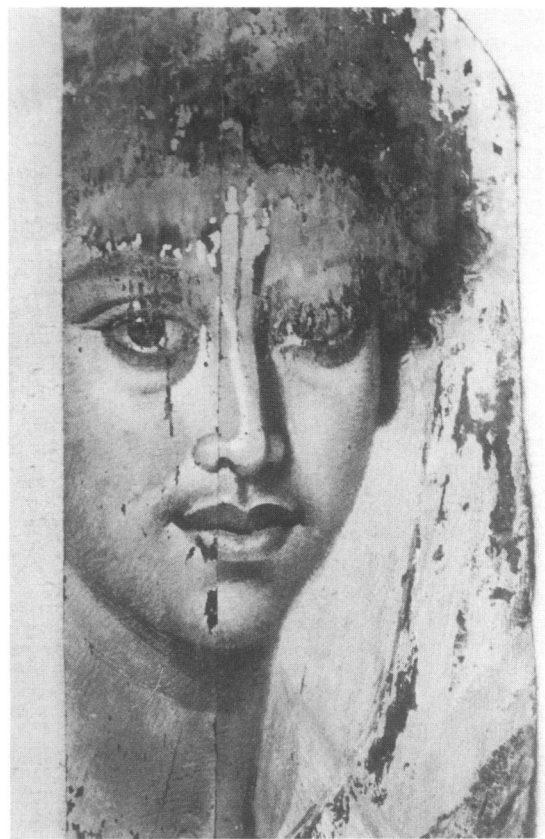
This article has deliberately refrained from addressing the vexed questions of whether 'Fayum portraits' had any function other than a funerary one, and whether or not they were painted from life.<sup>57</sup> In a sense, whether or not the young men actually wore moustaches is immaterial: this article has tried to prove that the social conventions of Roman Egypt rendered them an iconographic necessity on a funeral portrait. Depicting the deceased man thus would have helped in the process of ensuring that he survived after death to be reborn within the protective carapace of his mummy.

<sup>58</sup> A representative range of thought on these questions may be found in Parlasca (1966), 59–91, with older bibliography; Müller, *op. cit.* 152–7 and 192–232; Corcoran, 'A Cult Function', 59; D. L. Thompson, *op. cit.* 8–10, 14–15.

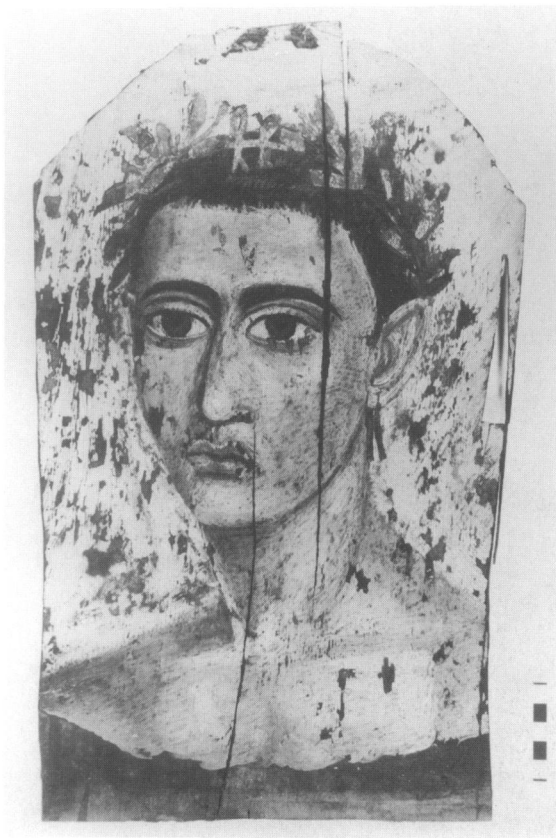




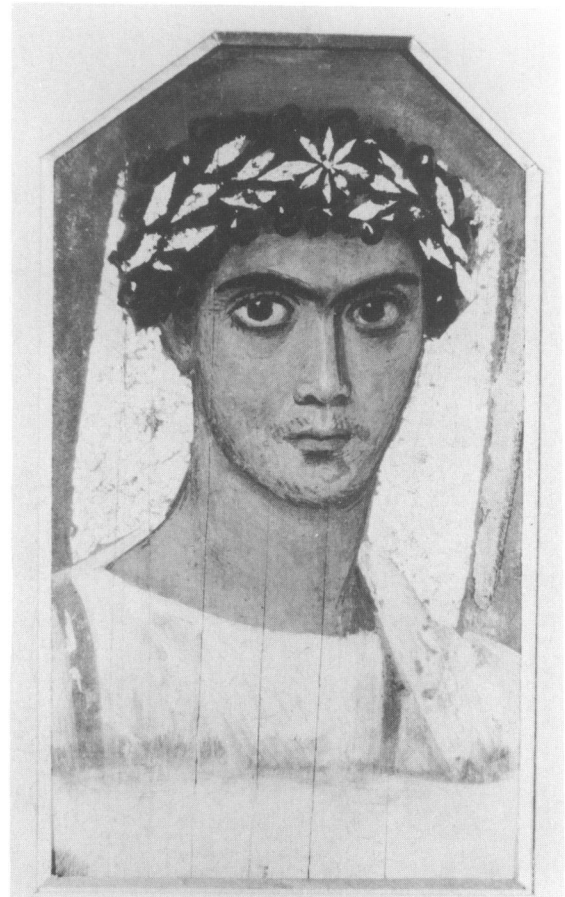
1. Moscow, Pushkin Museum, Inv. 5780



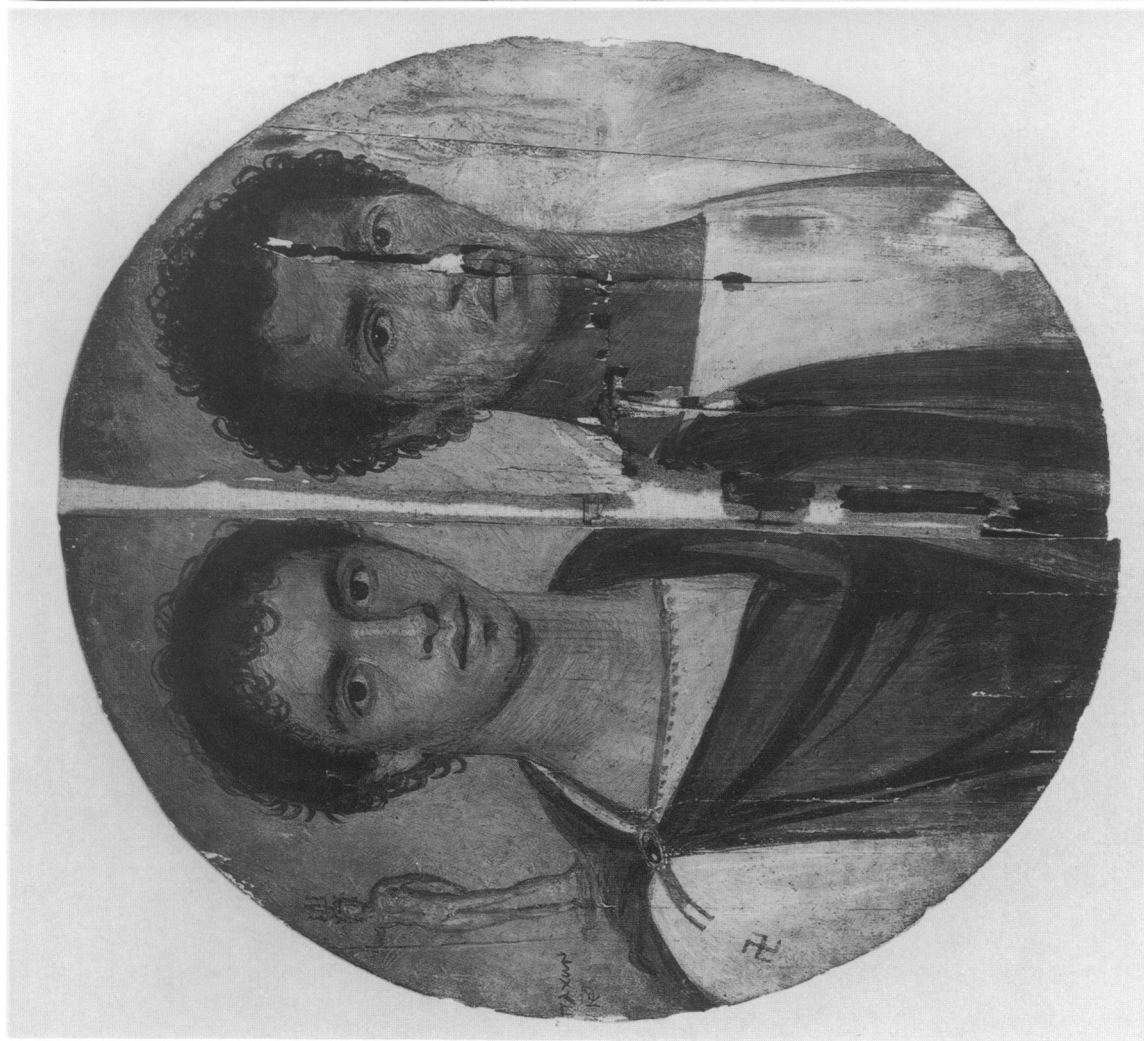
2. Cairo, Egyptian Museum, CG 33232



3. London, Petrie Museum, UC 19613

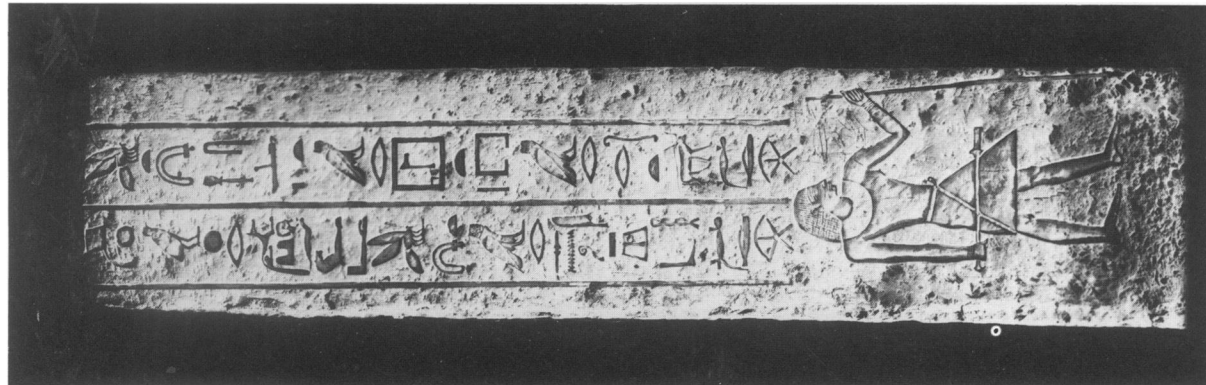


4. Moscow, Pushkin Museum, Inv. 5776



1. Cairo, Egyptian Museum, CG 33267

THE REPRESENTATION OF YOUNG MALES IN 'FAYUM PORTRAITS'  
(pp. 215-25)



2. Left jamb



3. Right jamb

BLOCKS FROM THE TOMB OF SHED-ABED (pp. 243-8)

## RICARDO CAMINOS

By T. G. H. JAMES

'FOR aye austerity and single life', might seem a wholly appropriate epigraph on the mode of living chosen by Ricardo Caminos. He conducted his daily activities, it seemed, according to a code of anchoritic severity which was unremitting and not willingly modified as occasional circumstances might require. He rose very early in the morning, exercised gymnastically until his last days, took cold baths and showers (except in hot weather), ate frugally, and wasted no time during the day. His regular and vigorous daily walks were equally prescribed, as was the period set aside at the end of the day for the reading of literature outside his chosen field of Egyptology. To what extent this monkish existence was determined by inclination or choice, may be difficult to decide. Austerity and the single life offered as a stark alternative for the future by Theseus, Duke of Athens, to Hermia for her refusal to marry her father's chosen suitor,<sup>1</sup> may not have been the deliberate choice made by the young Ricardo Caminos when he turned seriously to the study of ancient Egypt in his late teens. But he certainly found the solitary manner of living suited him, and his life-long devotion to his strict regimen undoubtedly enriched our studies with a notable series of important publications.

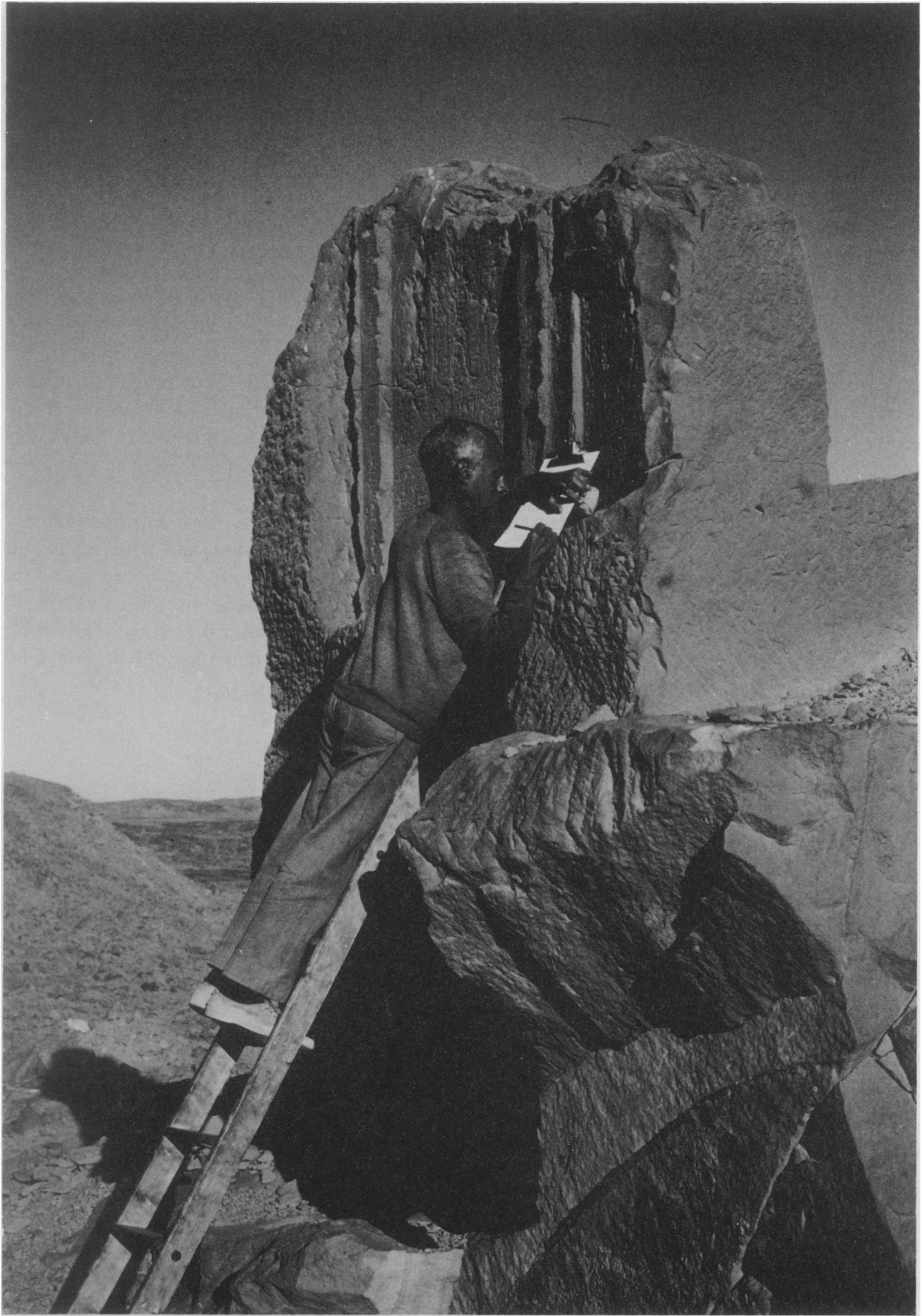
Yet, in a sense he developed his own myth of hard work and single-minded devotion to the idea that considerable virtue resided in the number of hours (often precisely specified) spent at his desk, or at the wall of a temple. Not untypical were his words on the copying of the texts in the Buhen temple: 'I worked steadily from 16 November 1960 to 23 March 1961, with no other interruptions than a day off to explore the epigraphic possibilities of Semna-Kumma, and then half a day to partake of the Christmas *fantaziya*.'<sup>2</sup> There was, happily, much more to the life of Ricardo Caminos than relentless hard work. Many colleagues and friends can testify to the excellence of his company when he could be diverted from his careful timetable. But unlike Jaroslav Černý, another scholar of austere habits and strict devotion to his studies, Caminos did not appreciate the unexpected interruption, or easily accommodate his mind to an *ad hoc* invitation. With proper warning time could usually be found for some diversion, even one with some frivolity.

His literary and scholarly inclinations were fostered during a childhood passed in a family exceptionally devoted to things of the mind. An environment dominated by books and literature, in which cultural considerations seriously mattered, formed the significant ambience which, in a sense, he attempted to recreate wherever he lived, and which he most successfully achieved in his years of retirement in London.<sup>3</sup> His father, Carlos Norberto Caminos, was a lawyer, passionately interested in literature, and a writer of

<sup>1</sup> W. Shakespeare, *A Midsummer Night's Dream*, 1, i, 90.

<sup>2</sup> *The New-Kingdom Temples of Buhen*, 1 (London, 1974), v.

<sup>3</sup> I am deeply grateful to Dr Hugo Caminos, Ricardo's brother, for providing information about his early years.



Ricardo Caminos recording the stela of Hapy at Silsila East, 24 February 1980  
(Photo: *Jürgen Osing*)

RICARDO CAMINOS 1915-1992



elegant *belles-lettres*. The essential Hispano-American character of the Caminos household was enriched by a very positive Italian contribution provided by Carlos Norberto's wife, Maria Etelvina Caminos (*née* Crottogini) whose family were from the rugged terrain of the Dolomites in Northern Italy. It delighted Ricardo to discover, many years later, that this little-trodden region had been explored in the mid-nineteenth century by Amelia B. Edwards, the prime mover in the foundation of the Egypt Exploration Fund.<sup>4</sup>

Born in Buenos Aires on 11 July, 1915, Ricardo Augusto Caminos spent his early years, and obtained his early education, in that cosmopolitan city. His initial training was as an historian, at school, the Instituto Nacional del Profesorado Secundario, and in the University of Buenos Aires, where he completed his B.A. degree and then achieved his M.A. in 1938. From an early age he began buying books, building up a small library of wide literary and linguistic character. The ivory tower, however, was yet to claim him, and he showed an interest in the theatre and in music, which in later life he neglected to the point of convincing his friends that he was indifferent to them. As a young man, he also enjoyed mixed company, pursued (with complete propriety) girl friends, was devoted to Argentine popular music, and became an exponent of the tango, in the mastery of which he provided an early example of his capacity to pursue a matter with single-minded purpose.

At what point Ricardo Caminos decided to pursue scholarship and the solitary way of life cannot be precisely determined. The change seems to have coincided with his departure from Argentina for Chicago. In the years following the completion of his university studies he worked for the Railway Pension Fund, and coincidentally was encouraged in his early Egyptological studies by Professor Abraham Rosenvasser in the Instituto Nacional del Profesorado Secundario. He was, however, largely self-taught in Egyptology, and, with characteristic determination, abandoned his unfocused life in Argentina and immersed himself, with the support of a scholarship from the Institute of International Education, New York, into the discipline of graduate studies in the Oriental Institute of the University of Chicago.

It was war-time (1941), and both the teaching and the field activities of the Oriental Institute were restricted by the circumstances of the time. Nevertheless, the facilities which he found in Chicago provided him with the first real opportunity to pursue a study in depth. In due course he took as the subject of his dissertation the historical texts on the so-called Bubastite Gate in the Karnak Temple. Professor John Wilson, Director of the Institute, allowed Caminos to work on the records prepared before the war by the Epigraphic Survey in Luxor, and his submitted thesis earned him a Chicago Ph.D. in February, 1947. In the meanwhile he had been able to spend a year in the University of Oxford, at The Queen's College, with the help of a Rockefeller Foundation Scholarship (1945-6).

This initial Oxford experience was crucial to his development as a scholar. The European war had finished before he arrived, but Oxford retained most of its war-time austerity and was not superficially very welcoming. Still, more than adequate compensation was provided by the intellectual warmth offered by Professor Batiscombe Gunn and by Dr Alan Gardiner, who had only recently moved into Court Place, Iffley (a mere step from college for one who walked so briskly as Caminos). Gunn was immensely impressed by his new pupil's knowledge and energy, and he derived curious pleasure

<sup>4</sup> Her travels are described in *Untrodden Peaks and Unfrequented Valleys* (London, 1873).

from contemplating the huge daily pile of books removed from the Peet Memorial Library in Queen's, to be demolished nightly by Caminos in his chilly rooms. Gardiner was delighted to welcome to the small circle of Egyptologists still to be found in Oxford, someone who showed the devotion to Egyptology, and in particular to the establishment of reliable texts, which marked his own scholarship. The informal Oxford manner of instruction, and the intimate relationships established so quickly with Gunn and Gardiner, set a standard for a fruitful scientific environment which remained Caminos's ideal, and which brought him back to Great Britain at the end of his life. His disdain for his country of early training, of his adoption, and of his professional career, could be understood, although scarcely excused. It was far more a matter of sentiment than of reason, and it dated back to that heady year at Oxford when he first felt that he formed part of a true community of scholarship.

He had first been appointed a Research Assistant in the Oriental Institute in March 1944, and he returned from Oxford as a Research Fellow for 1946–7.<sup>5</sup> For the next three years he served as a Research Assistant on the Epigraphic Survey in Luxor under Richard Parker, enjoying his first experience as an epigrapher at Chicago House. While Gunn had developed his understanding of precise scholarship, and Gardiner his appreciation of clarity and style, he learned most of his skills in copying texts at the cliff-faces of Theban temples. In later years, when he developed his own procedures in epigraphy, he never privately failed to acknowledge the importance of what he had learned through participation in the exacting methods of Chicago House epigraphy. Sadly, as a junior member of the faculty at the Oriental Institute, he found it difficult to work within the hierarchic restraints of Chicago. In consequence, although much of his time at Chicago House was spent working on the final preparation of the publication of the texts on the Bubastite Gate, when he concluded his own treatment of the texts—the subject of his Ph.D. dissertation—he had it published not by Chicago, but by the Pontifical Biblical Institute in Rome, as *The Chronicles of Prince Osorkon* (1958).

In his treatment of the Karnak texts, Ricardo Caminos demonstrated the form of most of the work he undertook in nearly forty years of publication. The establishment of as accurate a text as possible was his first aim; whether he studied an inscription or a hieratic text, he spared no effort in worrying away at damaged areas and incomplete signs, to produce a result which satisfied his exacting standards. Secondly, he was deeply committed to lexicography, to the elucidation of obscure words; much of his laborious scholarship was devoted to the search for parallels and the establishment of meanings. Like Gardiner, ever his mentor, he aimed at good texts and accurate, elegant, translations. Unlike Gardiner, he was not deeply interested in the minutiae of grammar, and modern linguistic debates, while not ignored, occupied a modest position in his Egyptological interests. From the first he modelled his English style (he published almost exclusively in English) on that of Gardiner and, perhaps subliminally, that of Charles Dickens. He took infinite trouble in writing clearly and stylishly. The result might seem ponderous to those who cared little for how a thing might be written; but a mandarin quality was what he aimed for, and he rejoiced in the use of unusual words and phrases. Editors who dared to question one of his usages would be bombarded with precedents culled from the great battery of dictionaries and reference books he possessed.

<sup>5</sup> John Larson, Museum Archivist of the Oriental Institute, has kindly provided details of Caminos's early career in Chicago.

Although *The Chronicle of Prince Osorkon* represented the fruits of his earliest essay into scholarship, by the time of its appearance in 1958 it had been preceded by two other important publications. The first, *Late-Egyptian Miscellanies* (1954), resulted from a second stay in Oxford from 1950 to 1952. Gunn had tragically died in 1950, but Gardiner (by then Sir Alan Gardiner) readily supervised Caminos's preparation of a thesis for an Oxford D. Phil. The subject was a translation and commentary on the texts Gardiner had published in transcription only in 1937 under the same title as Caminos's subsequent volume. These lexicographically-rich texts provided wonderful opportunities for careful and imaginative scholarship, which were enthusiastically pursued in a remarkable scientific onslaught which earned the student his degree in under two years.

Sir Alan Gardiner found in Ricardo Caminos someone who not only satisfied his own high standards of scholarship, but could be directed benevolently into undertaking tasks which he (Gardiner) considered highly desirable, or as scholarly obligations no longer within his own ability to complete. The latter category included the study of a group of fragmentary papyri formerly belonging to V. S. Golenischeff, over which he had taken the responsibility for conservation, publication, and, ultimately, return to the Pushkin Museum in Moscow. It was not difficult for him to persuade Caminos to complete the mounting of the texts (previously worked on by Ibscher, Gardiner himself and John Barns), and to prepare them for publication. The texts were literary in character, some belonging to known compositions like *Sinuhe*, *Merikare* and *Ptahhotpe*. Substantial, but sadly damaged, fragments of three unknown pieces provided important additions to the meagre corpus of Egyptian literature, *The Pleasures of Fishing and Fowling*, *The Sporting King*, and a mythological story. The handsome volume which appeared in 1956 under the title *Literary Fragments in the Hieratic Script*, was distinguished by first-class commentaries, and by fine plates which showed for the first time the elegance of Caminos's hieroglyphic handwriting. It also displayed the exceptional attention to detail in production which characterized all his subsequent publications. Gardiner's concern for such matters was wholly matched by Caminos's own love for books and natural punctiliousness.

In his passion for ensuring the fine appearance of all his publications Ricardo Caminos could be something of a tyrant, and he was not commonly sympathetic to the constraints of time and the necessities of economy. It was enough to invoke the example of Gardiner to justify extra expense. Problems arising from his perfectionist approach to some extent bedevilled his even more important publication of the papyrological text, also in the Pushkin Museum, containing the difficult epistolary composition now known by the title of his volume, *A Tale of Woe* (1977). This much-neglected text had again been drawn to his attention by Sir Alan Gardiner, who had transcribed it many years earlier. His recommendation that no good publication could be made without a careful recollection of the original delayed serious work on the papyrus until 1970 and 1973-4 when Caminos made extended and very fruitful visits to Moscow and Leningrad. On the first occasion he forged long-lasting scholarly and friendly links with Soviet Egyptologists and began his serious study of the Pushkin papyrus, working closely with Professor M. A. Korostovtsev, who had in the meanwhile produced the *editio princeps* of the text in 1961. Much remained to be done in order to solve the many *crucis* in the transcription, translation and elucidation of the composition, and Caminos greatly appreciated the readiness with which he was welcomed and helped by Korostovtsev, and by Mrs Svetlana Hodjash and

her colleagues in charge of the Egyptian collections in the Pushkin Museum. His longer second stay as a visiting professor at the University of Leningrad and to the U.S.S.R. Academy of Sciences in Moscow, allowed him time to complete his exhaustive examination of the text, and the publication which finally appeared in 1977 brought great satisfaction to his Russian hosts, and introduced a remarkable composition into the mainstream of Egyptian literature. Additionally, the volume was recognized to be a fine example of book-production, and was included in the British Book Design and Production Awards for 1978. It was recognition of a kind specially dear to Caminos's heart; but it was not achieved without much effort and special consideration on the part of the Oxford University Press and the publication staff of the Ashmolean Museum (for the Griffith Institute); it was, appropriately, financed in part by a grant from the Sir Alan Gardiner Settlement for Egyptological Purposes.

Gardiner would undoubtedly have welcomed the fulfilment of one more of his scientific obligations, and applauded the quality of the resulting volume. He was not, sadly, able to appreciate the publication of the first part of an epigraphic enterprise which again he had proposed to Ricardo Caminos during those years of help, advice and scholarly exploitation in the early 1950s. The site of Gebel es-Silsila, between Edfu and Kom Ombo, a quarry region for fine sandstone, was rich in monuments, including shrines of well-known Theban officials, a small rock-temple of King Horemheb, important royal Nile stelae, and many incidental inscriptions and graffiti. It was a site badly in need of comprehensive publication, and it was shrewd of Gardiner to see in Caminos someone who could undertake the work with determination and success. There was no difficulty in persuading the Egypt Exploration Society to adopt the project as part of the Archaeological Survey, and in 1955 Caminos with the writer of this memoir spent a first season at Silsila working principally on the shrines. So was launched that part of Caminos's life-work for which he will probably be best remembered. The epigraphy of standing monuments as an exercise of individual endeavour (with occasional help from others) became for him a passion which satisfied both his scientific interests and also his natural inclination to solitary activity in remote places. On the latter point one may note the scarcely disguised satisfaction in a letter from the Sudan in 1963: 'Semna West is the end of the world. I've never left camp since my arrival and my contacts with Halfa and the outside world by means of messengers and such are exceedingly rare and far between.' A year later from Semna East he wrote: 'The location is *dramatic*, and last night in the moonlight it was beautiful beyond words. The bathing facilities among the rocks of the gneiss barrier that here cuts clear across the river are splendid. Only the food is a bit dull...'<sup>6</sup> What he did not mention was that the very occasional visitor to Semna found there the best wine cellar in Lower Nubia, and a very generous hermit ready to dispense suitable hospitality.

At the outset of his individual epigraphic career Caminos realized that there was no possibility of following the working procedures of Chicago House, and he adopted the method of tracing from rubbings which had been used in other recent work of the Archaeological Survey at Meir (by Blackman and Apted) and at Saqqara (by James and Apted). It is not clear who first devised this process of facsimile copying (possibly used occasionally by Amice Calverley at Abydos), but it was Ricardo Caminos who exploited

<sup>6</sup>The letters, in the possession of the writer, are dated 22 December, 1962, and 1 November, 1963.



its possibilities to the full. It is worth recording his best statement of his *modus operandi*, presented in a lecture given in Cairo in January, 1975.<sup>7</sup> Using the general term 'background image' as a term for a rubbing, he says of the epigraphist's method of work:

He makes his drawing upon the background image, which he pencils over much as if he were filling a mould, in front of the original and with constant reference to it. To ensure accuracy, the drawing is meticulously gone over and compared with the wall. The checking or collation is exhaustive and repeated many times under different light conditions by day and, specially, at night with a movable light, and always at the closest range. All through this process (as in any other mode of copying, for that matter), careful consideration is given to all relevant work done in the past; for that purpose a compilation of previous published and unpublished copies and studies if any, will have been prepared in advance; taken to the field, the dossier will enable the epigraphist to check the work of his predecessors in the site; the drawing is thus made with full knowledge of what previous copyists saw, or thought they saw, or failed to see, upon the wall.

It is generally agreed that a facsimile drawing is a highly satisfactory mode of recording... such a facsimile should adequately meet the normal requirements of scholarship.

So he himself mostly worked in his field campaigns. It would be difficult to question convincingly his final claim about meeting 'the normal requirements of scholarship'. What may be missing is the element of artistic quality which informs the best of Egyptian monumental relief and inscription, and which is lost in the process of inking-in, even when carried out by accomplished epigraphic artists, but necessarily working away from the original monument. Still, among the publications of the few epigraphers of serious achievement, whose purpose has been to serve 'the normal requirements of scholarship', Ricardo Caminos's work is outstanding. Its complete measure is yet to be revealed, for many volumes remain to be completed and published from his work at Gebel es-Silsila and Semna-Kumma.

The good beginning of work at Silsila in 1955 was subsequently frustrated by political events. A solo season in 1959 devoted mainly to copying the record in the Speos of Horemheb, was followed by the long intervention of the Nubian rescue campaign. Serious work at the Upper Egyptian site was not resumed until 1975; then and later in a succession of seasons up to 1982 Caminos completed (with the help of Professor Jürgen Osing in 1979, and of Dr Mark Smith in 1981-2) the recording of all Pharaonic epigraphic material at West and East Silsila. At the end of his report on the 1981-2 campaign he announced that 'he also makes his bow to epigraphic field work in the Nile Valley in which he has been intermittently engaged since 1948'.<sup>8</sup> He wrote too soon, for he was back in the early months of 1983 with Jürgen Osing to comb the Wadi el-Shatt el-Rigal, a few miles to the north of Silsila, to record the important rock texts and graffiti there. At last indeed the line could be drawn beneath his field achievements. It would have been good to have included in this memoir a list of the volumes containing the fruits of all his many seasons at Silsila. One volume, *Gebel es-Silsilah*, 1. *The Shrines*, was published in 1963. Work on the volume to contain the record of the Speos of Horemheb occupied much of his time during his last years, but was left unfinished at the time of his death. This and other volumes containing the texts and graffiti remaining from West and

<sup>7</sup> It was published, along with a lecture presented in Cairo at the same time by Henry G. Fischer, in *Ancient Egyptian Epigraphy and Palaeography*, by the Metropolitan Museum of Art (New York, 1976); for the quotation, see p. 17ff.

<sup>8</sup> The brief report to the Society is entitled 'Gebel es-Silsilah December 1981-January 1982'.

East Silsila, and the Wadi el-Shatt el-Rigal, await assembling from his meticulous records.

Between 1960 and 1965 Caminos was actively engaged in the campaign to rescue the monuments of Nubia, threatened by the construction of the High Dam and the creation of Lake Nasser. He was generously supported by his head of department at Brown University, Richard Parker, and allowed by his University's authorities to suspend his teaching activities during the emergency. His field-work was undertaken within the Nubian campaign of the Egypt Exploration Society, largely funded from American sources, with the obligation to publish being accepted by the Society. He worked at Buhen in the Sudan (1960–61), at Qasr Ibrim in Egyptian Nubia (1961), and at Semna East (Kumma) and Semna West at the southern end of the Second Cataract in Sudanese Nubia (1962–4). The work, all of it carried out single-handedly in arduous conditions, and through long seasons mostly of three to four months, was concentrated and intense, and would surely have damaged the health of one who did not keep himself in such good physical trim as Caminos. Greater sympathy might have been felt for him had he not so clearly relished the solitude, the long hours and the privations of daily life in remote circumstances. At Buhen and Qasr Ibrim he actually formed part of the Egypt Exploration Society expeditions directed by Professor Walter Emery, but the opportunities of daily contact with colleagues scarcely diverted him from his punishing programme. At Semna, as noted already, his lonely existence was tempered by a wonderful situation, a good supply of wines and spirits, and a solid-fuel refrigerator.

The New Kingdom monuments at Qasr Ibrim were published with exemplary speed in 1968, as *The Shrines and Rock-inscriptions of Ibrim*; and the Eighteenth Dynasty temples at Buhen in 1974 in two splendid volumes, *The New-Kingdom Temples of Buhen*. Two further substantial volumes on the temples at Semna and Kumma were essentially completed at the time of his death. They will shortly crown his remarkable contribution to the Nubian rescue campaign. With his first Silsila volume and, it may be expected, his further Silsila volumes, Ricardo Caminos's publications for the Egypt Exploration Society will in all represent the most impressive individual epigraphic achievement of the Archaeological Survey, in terms of textual accuracy, excellence of presentation and richness of commentary.

In addition to his major publications, Caminos produced a steady stream of important articles, dealing mostly with texts on stone and papyrus. He also became a master at reading the very difficult religious texts written on mummy bandages, on which writing survives often as a kind of burnt etch on the linen.<sup>9</sup> To spend many hours on such texts, which have generally deterred most scholars, was for him a challenge and a delight. Such painstaking work dominated his scientific career, and through its positive results Egyptology has been greatly enriched. Teaching, on the other hand, did not occupy a high place among his academic priorities. He was a foundation member of the Department of Egyptology of Brown University in Providence, Rhode Island, and he spent the greatest part of his career as a university teacher, advancing through the academic grades from Assistant Professor to full Professor in 1964, and Chairman of the Department from 1971 to his retirement in 1980. For much of his time he was the right-hand man of

<sup>9</sup> E.g. 'Fragments of the *Book of the Dead* on linen and papyrus', *JEA* 56 (1970), 117ff; 'Ancient Egyptian Mummy Bandages in Madrid', in *Homenaje al Prof. Martin Almagro Basch*, IV (Madrid, 1983), 223ff.

Professor Richard Parker, the first Wilbour Professor of Egyptology, and he had substantial responsibilities for undergraduate and graduate teaching; but he never disguised his dislike of spending (or, as he would have said, 'wasting') his time with partially interested students. Unlike his first, and much revered, mentor, Batiscombe Gunn, he took little pleasure in instructing. It can properly have been said that Gunn's devotion to teaching seriously diminished his scholarly output, and that the reverse was the case with Ricardo Caminos. The position, however, was not quite simple, and Caminos was the first to admit that he responded very positively to good students. He once wrote: 'I have been, and still am, teaching ten hours a week... Four students all told. One is a graduate, a quiet young man, dull as a Boeotian...but extremely industrious—a perfect drudge. Then three young ladies who are brilliant and hard-working and very promising indeed; I call them the three Graces, for they are charming really... Ten solid hours a week of actual teaching, plus correcting exercises and preparing for my classes take up practically *all* my time—but I don't mind much giving my present students a lot of attention because, as I say, they are extremely good and keen and I don't have the feeling of wasting my time and energies on blockheads.'<sup>10</sup> Such enthusiasm was rare, and it cannot be denied that especially in his last years at Brown he did little to attract students, even positively discouraging enrolments.

Although he did not in his professional life seek involvement in the many activities which substantially reduce the time available to scholars for scientific work, Caminos was unusually generous in answering enquiries from colleagues in many countries. His well-organised working methods and a very retentive memory enabled him to answer many questions with little difficulty; but if he did not know the answer immediately he would spare no effort in the pursuit of solutions, whether in a matter of lexicography or in the reading of a difficult passage in an inscription or a hieratic text. At home in most European languages, he forged strong links with colleagues in all countries where Egyptology was studied. He was welcomed at small conferences and often invited to present special lectures, in particular in Italy and Spain. He spared no effort in his preparation for such events. For one who was so jealous of his time, he yet maintained a lively correspondence with special friends, and was particularly helpful to those whose circumstances made the practice of their studies difficult. Many Russian scholars greatly appreciated his acts of professional generosity.

From his youth Ricardo Caminos bought and cherished books. In Providence, although he tended to live a kind of nomadic existence, his life being centred on the Egyptological library in Wilbour Hall, he substantially increased his buying of books in the fields of European literature, travel and history, indulging his passion for excellent bindings. His growing collections were stored away, in effect unseen, waiting for the time when he could settle himself in a suitable house. This aim he achieved after his retirement, for which he purchased a run-down property next door to the Egypt Exploration Society in London. The shell of the building was transformed into a house of eccentric character, just as he wanted, with a library on the ground floor and a good working area above. There were, almost incidentally, spaces for sleeping and bathing, and a kitchen. There was nothing cosy about 4 Doughty Mews, but its severity was mitigated by the presence of his magnificent collections of books (general downstairs, professional

<sup>10</sup> A letter in the possession of the writer, dated 11 April, 1965.

upstairs), at last visible in their entirety for the first time. It was a proud moment when all was settled to his satisfaction, and his treasures could be sampled late at night. Seated in a rocking chair—a rare concession to comfort—and with something suitable in a glass, he could read across the wide range of European literature and contemplate what he had achieved, enjoying some part of what he had built up over a lifetime of strict economy and devoted collecting.

There was no room in his life for radio or television, or usually for newspapers. Yet he always seemed well-informed about what was happening in the world. His deliberate isolation inevitably made him somewhat selfish. He had much kindness and charity in his character, but could show unreasonable fury in the face of some minor set-back. He understood human weaknesses, but could not always tolerate them, especially when they affected the conduct of his expeditions, the treatment of his field records, and the production of his books. He did not always measure his priorities as others might have wanted: to pack a parcel carefully might take several hours for him, and he counted it as work almost equally with the writing of a scholarly article, or the dusting of his books. But, he had only himself to satisfy, and in the disposition of his time he rarely considered the convenience or requirements of others. Those who understood him could adjust matters accordingly.

In his last years in London a general contentment allowed him to entertain a little and to join in social activities as rarely previously. He did not quite become clubbable, but he was not nearly as monk-like as he had perhaps wanted people to think. Living next door to the offices and library of the Egypt Exploration Society, he made himself an excellent neighbour, acting often as a kind of supernumerary caretaker. The Society's library he used as an extension of his own. He participated readily in events organised by the Society, and in those of other Egyptological institutions in London, in the British Museum and University College London (of which he was delighted to be appointed an Honorary Research Fellow). He never regretted his move to London, and never failed to celebrate his good fortune in finding for his retirement such an ideal home, where he could work, supervised photographically by his revered Gunn and Gardiner. It is good that this place, devoted so passionately to scholarship, has been acquired by the Egypt Exploration Society, and that part of his Egyptological library has been donated to the Society by the Caminos family.

For someone who had looked after himself physically so well, and appeared to be in such good health, death did not seem appropriate. It came, very unexpectedly, on 26 May, 1992, a sunny day, during an uncharacteristic break from work—a heart attack while sunbathing on the roof of the Society. Some who knew him well had noted changes in his appearance and behaviour in the months before. He himself may have suspected something, but characteristically would never have talked of it. In his desk lay a piece of paper on which he had written out the last words of Sophocles' *Oedipus Rex*:<sup>11</sup>

Therefore, while our eyes wait to see the destined final day, we must call no one happy who is of mortal race, until he hath crossed life's border, free from pain.

Ricardo Caminos was a very private person.

<sup>11</sup> Ll. 1528–1530. The translation is that of R. C. Jebb, *Sophocles Plays and Fragments*, 1. *The Oedipus Tyrannus* (Cambridge, 1883), 277; but not taken by Caminos from that edition.

**MUSEUM ACQUISITIONS, 1991**  
**EGYPTIAN ANTIQUITIES ACCESSIONED IN 1990 BY**  
**MUSEUMS IN THE UNITED KINGDOM**

*Edited by* ELENI VASSILIKA

The list does not include newly registered objects in the Petrie Museum, University College London.

**Predynastic Period**

1. Ivory bracelet, British Museum EA 73878. Ex Pitt Rivers Museum, Dorset.

**Early Dynastic Period**

2. Two piriform limestone maceheads, British Museum EA 73961, 73963. Ex Pitt Rivers Museum, Dorset.
3. Ivory gaming-piece with convex top, British Museum EA 73966.

**Old Kingdom**

4. Granite feet from statue, British Museum EA 73960.

**First Intermediate Period**

5. Pottery from Qau and other Middle Egyptian sites, British Museum EA 73882-73958. Principally of the First Intermediate Period. Ex Pitt Rivers Museum, Dorset.

**Middle Kingdom**

6. Wooden tipcat, Lahun town site ('Kahun'), British Museum EA 73877. Late Middle Kingdom.
7. Green glazed composition turtle with a magic rod, British Museum EA 73986.
8. Copper alloy beaker with a flaring mouth and a single mechanically-attached lug, Fitzwilliam Museum E. 13.1991. Late Dynasty XII (?). Bequeathed by H. S. Reitlinger.

**Second Intermediate Period**

9. Pan-grave vessel, British Museum EA 73875.

**New Kingdom**

10. Papyrus fragments: Book of the Dead of Ahmose, with BD 27, 30B, 38A, 39, 41 (?), 64, 65, 99, 102, 119, 149, and unidentified chapters, British Museum EA 73669. Early Eighteenth Dynasty. Ex Northumberland Collection.
11. Papyrus, letter of Meh, British Museum EA 73666. Nineteenth Dynasty. Ex Northumberland Collection (Barns 'T').

12. Papyrus, literary phrases, British Museum EA 73667. Nineteenth Dynasty. Ex Northumberland Collection (Barns 'III').
13. Papyrus, bread ration account, British Museum EA 73668. Nineteenth Dynasty, reign of Sety I. Ex Northumberland Collection (Barns 'II').
14. Funerary linen with vignette of man Qenia seated at offering-table, British Museum EA 73704. Late Eighteenth or Nineteenth Dynasty. Ex Michailides Collection.
15. Green glazed steatite human-headed scarab, British Museum EA 73880. Eighteenth Dynasty.
16. Glazed steatite scarab, Ashmolean Museum 1991.128. Ex Piet de Jong Collection.
17. Pottery, British Museum EA 72319-26. Gift of the Scandinavian Joint Expedition.
18. Terracotta funerary cone of Ny-ta, scribe of offerings in the Temple of Amun, Ashmolean Museum 1991.64. Eighteenth Dynasty. Type: Davies and Macadam, *Corpus*, no. 605.
19. Limestone relief fragments from Deir el-Bahri, British Museum EA 73962. Early Eighteenth Dynasty. Ex Pitt Rivers Museum, Dorset.
20. Limestone relief fragment, reign of Akhenaten, British Museum EA 73881.

### Third Intermediate Period

21. Papyrus, Amduat fragments (two), British Museum EA 73982-3.
22. Papyrus, Book of the Dead of Pamer, with BD 23-26 and 28, British Museum EA 73665.
23. Limestone land donation stela with hieratic inscription, Year 7 of Sheshonq V, British Museum EA 73965. c. 750 BC.

### Late Period

24. Funerary linen with texts in abnormal hieratic, British Museum EA 73784-6. Twenty-fifth Dynasty. Ex Michailides Collection.
25. Funerary linen with Books of the Dead in hieratic, British Museum EA 73674-90, 73707-11. Thirtieth Dynasty and later. Ex Michailides Collection.
26. Stucco and linen hypocephalus, British Museum EA 73705. Ex Michailides Collection.
27. Blue glazed composition offering-table fragment with hieroglyphic inscription in black, British Museum EA 73966.
28. Green glazed composition shabti of Ankhneferibra, son of Hetepbastet, British Museum EA 73987. Thirtieth Dynasty.
29. Blue frit plaque inscribed with the name of Apries, Ashmolean Museum 1991.293. Sixth century BC. Ex Brummer Collection.
30. Terracotta 'Osiris bed', Ashmolean Museum 1991.18. Sixth century BC. Published: Ashmolean Museum, *Annual Report* 1990-91, 22, pl. i.; A. M. J. Tooley, 'He Who is the Grain of the Gods', *The Ashmolean* 21 (Christmas 1991), 6-9.
31. Bronze figure of Anubis with pantheistic attributes, British Museum EA 73876.

### Ptolemaic Period

32. Papyrus, Book of the Dead of Tadineferhotep, daughter of Sheshonq, with BD 59, 68 and unidentified chapters, British Museum EA 73664. Ex Northumberland Collection.

33. Papyrus, Book of the Dead of Taperet, daughter of Nehemsukhons, with BD 89, 90, 72, unidentified chapters and vignettes of BD 110 and 125, British Museum EA 73670. Ex Northumberland Collection.
34. Papyrus, Book of the Dead of Padikhons, with BD 1 and 125 vignette, British Museum EA 73671. Ex Northumberland Collection.
35. Papyrus, Book of the Dead chapter 100 (twice) as amulet, of Tasheretenmin, British Museum EA 73672. Ex Northumberland Collection.
36. Papyrus, funerary fragments, British Museum EA 73673. Ex Northumberland Collection.
37. Funerary linen with demotic and hieroglyphic texts, British Museum EA 73691-703, 73712-83. Ptolemaic or Roman. Ex Michailides Collection.
38. Terracotta fish bowl, British Museum EA 73879. Ptolemaic or Roman.

### Roman Period

39. Small fragments (two) of funerary papyrus, British Museum EA 73983-4.
40. Fragment from a painted linen shroud, British Museum EA 73706. Ex Michailides Collection.
41. Iron sword with wooden scabbard, British Museum GR 1991.5-11.1.
42. Pottery ostrakon: Greek letter, British Museum GR 1991.7-16.2. Found near Esna. Published: P. J. Sijpesteijn, *TAAANTA* 5 (1973), 77.
43. Clay lamp with a vulvate handle, decorated with palmettes, British Museum GR 1991.12-18.20. Early first century AD. Given by Dr E. H. Walker and Mrs C. Marchionne.

### Coptic Period

44. Pottery ostrakon with thirteen lines of Coptic, a poll-tax receipt, British Museum EA 73959. Eighth century AD.
45. Painted textile, British Museum EA 73964. Sixth-seventh century AD.
46. Linen with Greek or Arabic funerary texts, drawings or marks, British Museum EA 73787-805. Coptic or later. Ex Michailides Collection.
47. Eleven wool tapestries on linen: central roundel of man on horseback surrounded by roundels with hares, lions and vases of flowers, Fitzwilliam Museum, E.1.1991; cross in a patterned medallion E.2.1991, E.3.1991; human figure flanked by cocks (?), extremely stylized, E.4.1991; vine leaf border, E.6.1991; vine leaf border with figures in medallions, E.5.1991; poppies (?) and circle motifs, large applied palmette with human figure, E.7.1991; four trees arranged as a cross, E.8.1991; tree, E.9.1991; Greek key design within circle, E.10.1991; stylized humans and animals, E.11.1991. Seventh-ninth century AD. All ex Gayer-Anderson Collection. Bequeathed by H. S. Reitlinger.
48. Twenty-two embroidered wool fragments of textiles, Fitzwilliam Museum, E.12.1991. Sixth-tenth century AD. Bequeathed by H. S. Reitlinger.

### Sudanese Antiquities

49. Pottery and small finds, Soba East excavations, British Museum EA 73995-74065. Sixth-fourteenth century AD.

## BRIEF COMMUNICATIONS

### The identification of Tomb B1 at Abydos: refuting the existence of a king \*Ro/\*Iry-Hor

The epigraphic and ceramic evidence from Tomb B1 at Abydos is re-examined, yielding a date for the tomb of the reign of Narmer. The identity of the owner of B1 as a king is refuted; the group of signs previously identified as the name of a king \*Iry-Hor is reinterpreted as a mark of the royal treasury.

THE identification of Tomb B1 in the royal cemetery at Abydos has generally followed Petrie's own conclusions, as stated in *Abydos* I.<sup>1</sup> The tomb contained several large pottery vessels inscribed with a device consisting of a Horus-falcon standing on the mouth hieroglyph (*r/Ro*).<sup>2</sup> Petrie interpreted this device in the following way: 'Considering that this group is... formally cut on a seal, and often drawn on pottery, I think we are justified in seeing in it... the *ka* name of a king, Ro'.<sup>3</sup>

This interpretation, largely unchallenged,<sup>4</sup> ignores a crucial fact: nowhere is such a 'royal name' found enclosed in a *serekh*; in contrast, the names of the other known kings before Aha (Scorpion,<sup>5</sup> Ka, Narmer) are generally found enclosed in a *serekh*, particularly when incised on pottery vessels.<sup>6</sup> Indeed, the *serekh* as a symbol of royalty is attested for anonymous kings, perhaps even earlier than those of Dynasty 0 already mentioned (e.g. the inscriptions on jars from el-Beda,<sup>7</sup> the rock-cut inscription from Gebel Sheikh Suleiman<sup>8</sup>). It would therefore seem very strange indeed to find a king's name, on inscriptions from a tomb supposed to be that of the king himself, written consistently without a *serekh*. Yet, in accepting Petrie's identification of the inscriptions and thus of Tomb B1, that is precisely what has to be believed.

In accepting the existence of a king \*Iry-Hor (their preferred transliteration of the falcon-and-mouth device), Kaiser and Dreyer explain the absence of the *serekh* by placing \*Iry-Hor before the other known kings of Dynasty 0;<sup>9</sup> they thus implicitly put forward the theory that the *serekh* did not

<sup>1</sup> W. M. F. Petrie, *Abydos*, I (London, 1902), 4-5. The position of the grave is shown on Petrie's plan: id., *The Royal Tombs of the Earliest Dynasties*, II (London, 1901), pl. lviii: Tomb B1 is situated just above the final letter of the word BENERAB; also pl. lix. For recent plans of Cemetery B, and its relationship to Cemetery U, see W. Kaiser and G. Dreyer, *MDAIK* 38 (1982), 211-69, fig. 1; G. Dreyer, *MDAIK* 46 (1990), 53-90, fig. 1.

<sup>2</sup> Petrie, *The Royal Tombs of the First Dynasty*, I (London, 1990), pl. xlv, 2-4, 7-9.

<sup>3</sup> Petrie, *Abydos* I, 4.

<sup>4</sup> Although Sethe accepted only Narmer and Aha as kings; Reisner specifically excluded 'Sema', Ka and 'Ipuw' but made no mention of \*Ro/\*Iry-Hor. See Kaiser and Dreyer, *MDAIK* 38, 212, nn. 8-9.

<sup>5</sup> The identification of the *serekhs* painted on cylinder jars from Tarkhan as those of Scorpion is disputed by Dreyer ('Horus Krokodil, ein Gegenkönig der Dynastie 0', in R. Friedman and B. Adams (eds.), *The Followers of Horus* (Oxford, 1992), 259-63). Nevertheless, an incised *serekh* on a pottery vessel from Minshat Abu Omar is almost certainly that of Scorpion: see Kaiser and Dreyer, op. cit. 267 n.(u). This *serekh* is illustrated in K. Kroeper and D. Wildung, *Minshat Abu Omar: Münchner Ostdelta-Expedition. Vorbericht 1978-1984* (Munich, 1985), 74 fig. 213, top row second from left; also Kaiser and Dreyer, op. cit., fig. 14. 34.

<sup>6</sup> For an incised *serekh* of Scorpion, see n. 5. Incised *serekhs* of Ka from Helwan graves 1627 H.2 and 1651 H.2: Z. Saad, *Royal excavations at Saqqara and Helwan (1941-1945)* (ASAE Supplement 3; Cairo, 1947), pl. lx; also Kaiser and Dreyer, op. cit., fig. 14. 23-4. Incised *serekhs* of Ka from the Umm el-Qa'ab: Petrie, *Royal Tombs*, II, pl. xiii; also Kaiser and Dreyer, op. cit. fig. 14. 25-33. For incised *serekhs* of Narmer see Kaiser and Dreyer, op. cit., fig. 14. 35-41.

<sup>7</sup> J. Clédat, 'Les vases de El-Béda', *ASAE* 13 (1914), 119 figs. 3-4, 120 fig. 6, pl. xiii.

<sup>8</sup> W. J. Murnane, 'The Gebel Sheikh Suleiman Monument: Epigraphic Remarks', *JNES* 46 (1987), 285 fig. 1A.

<sup>9</sup> Kaiser and Dreyer, op. cit. 233-5.



come into general use for royal names until after the reign of \*Iry-Hor.<sup>10</sup> However, this placing of the owner of Tomb B1 runs completely contrary to the internal evidence from the tomb, which, it must be remembered, is the only source of the so-called 'royal name' of \*Iry-Hor. Three independent pieces of evidence led Petrie to date Tomb B1 after the reign of Ka (whose name is always found enclosed in a *serekh*):<sup>11</sup>

- 1) 'the presence of a great jar,<sup>12</sup> which is usual later, but does not occur in the tomb of Ka';
- 2) 'the style of the sealing [with the falcon-and-mouth device], which is more like those of Narmer or Mena [i.e. Aha] than like the very simple one known of Ka';<sup>13</sup>
- 3) 'the clay [of the sealing], which is yellow marl like later sealings, and not black mud like the Ka sealing'.

From evidence in the tomb of Ka, it is reasonably certain that Narmer was Ka's immediate successor.<sup>14</sup> If Tomb B1 is dated after the tomb of Ka, as seems probable in light of the above evidence, then there is no room left for its owner to have been a king.<sup>15</sup> Further evidence to reject the identification of the falcon-and-mouth device as a royal name is the total absence of such a 'name' from anywhere other than Tomb B1 at Abydos.<sup>16</sup> Even Ka, who is a fairly obscure king in the contemporary records, is attested by name from Tarkhan and Helwan. A sealing from a tomb at Zawiyet el-Aryan has been identified by some as showing the name \*Iry-Hor;<sup>17</sup> the style of the sealing, however, clearly dates it to the reign of Narmer or later, and Kaplony interprets the sealing as bearing the name of an official *Wer-ra*.<sup>18</sup>

A crucial piece of evidence, which would seem to prove that Tomb B1 does indeed date to the reign of Narmer, seems to have been overlooked by Kaiser and others: a fragmentary inscription from Tomb B1<sup>19</sup> quite clearly shows a *serekh* containing the catfish—i.e. the name of Narmer. As Petrie himself commented on the inscription, 'this tail of a fish seems to be part of a *ka* name'.<sup>20</sup> The presence of Narmer's name in Tomb B1 makes it impossible that the tomb belonged to an earlier king.

The pottery from Tomb B1 also confirms such a dating. The 'great jar' mentioned by Petrie<sup>21</sup> is of type 76b in his *Protodynastic Corpus*. As was shown by Kaiser in his comparison of pottery associated with early *serekhs*,<sup>22</sup> and as recent evidence from Minshat Abu Omar confirms,<sup>23</sup> this

<sup>10</sup> However, in apparent contradiction of this, Kaiser and Dreyer place the anonymous *serekhs* incised on jars from el-Beda, etc., earlier than \*Iry-Hor. We are thus asked to accept the unlikely hypothesis that the *serekh* was introduced to denote the royal name before the reign of \*Iry-Hor, abandoned during his reign, and subsequently re-introduced by his successor.

<sup>11</sup> Petrie, *Abydos* 1, 5.

<sup>12</sup> Illustrated in Petrie, *Royal Tombs* 1, pl. xxxix. 2.

<sup>13</sup> Illustrated in Petrie, *Royal Tomb* II, pl. xiii. 8g.

<sup>14</sup> The only dated object in Tomb Bg at Abydos, one of two chambers comprising Ka's funerary installation, was a sealing of Narmer (illustrated in Petrie, *Royal Tombs* II, pl. xiii. 91). (A sherd bearing the incised *serekh* of Ka was found recently in the area to the east of B7/9: illustrated in Kaiser and Dreyer, op. cit., pl. 58d.) From the epigraphic and ceramic evidence, Kaiser (*ZAS* 91 (1964), 95) firmly established the sequence Ka-Narmer-Aha. Kaiser originally placed Scorpion before this sequence of Thinite kings (ibid. 104) but more recently (*MDAIK* 46, 289 fig. 1) places Scorpion between Ka and Narmer, in apparent contradiction of his own arguments.

<sup>15</sup> See n. 14. Consideration of the pottery directly datable to each king confirms the sequence Ka-Narmer-Aha.

<sup>16</sup> This fact is remarked upon by Kaiser and Dreyer, op. cit. 261.

<sup>17</sup> D. Dunham, *Zawiyet el-Aryan: The Cemeteries Adjacent to the Layer Pyramid* (Boston, 1978), pl. xvi b; also illustrated in P. Kaplony, *Die Inschriften der Ägyptischen Frühzeit* (Wiesbaden, 1963), III, fig. 13.

<sup>18</sup> Kaplony, op. cit. II, 1092.

<sup>19</sup> Petrie, *Royal Tombs* 1, pl. xlv, 1; the left half of this inscription was found recently by the German expedition (Kaiser and Dreyer, op. cit., fig. 14. 40) in the adjoining chamber B2, which seems to have formed, with B1, a single funerary installation.

<sup>20</sup> Petrie, *Royal Tombs* 1, 29.

<sup>21</sup> See nn. 11, 12.

<sup>22</sup> Kaiser, *ZAS* 91 (1964), 95.

<sup>23</sup> K. Kroeper, 'The excavations of the Munich East-Delta Expedition in Minshat Abu Omar', in E. van den Brink (ed.), *The Archaeology of the Nile Delta: Problems and Priorities* (Amsterdam, 1988), 11-46. Type 76

type 76 does not appear before the reign of Narmer. In contrast, it is one of the most characteristic forms of vessel in the First Dynasty from the reign of Narmer onwards. The presence of a type 76 vessel in Tomb B1 (indeed, it is this vessel that bears one of the clearest examples of the falcon-and-mouth device) thus precludes a dating before the reign of Narmer. The other vessel found in Tomb B1 is of Petrie's type 75 (decorated with moulded or lightly incised bands of semicircles). This is found in association with *serekhs* earlier than Narmer, but disappears from the repertoire after Narmer's reign.<sup>24</sup> The combination of these two pottery types in Tomb B1 thus strongly suggests a date contemporary with the reign of Narmer.

If Tomb B1 at Abydos dates to the reign of Narmer, as I believe has been clearly demonstrated,<sup>25</sup> what should be the interpretation of the falcon-and-mouth device, and who was the likely owner of the tomb? I see no reason why the device should not be interpreted merely as a mark of the royal treasury. The inscriptions on the pottery jars would, therefore, indicate the royal provenance of the supplies contained therein.<sup>26</sup> The tomb owner would thus have been an important member of the royal court of Narmer, who was granted the honour of royal supplies for his or her burial. The extensive court cemetery associated with the tomb of Aha at Abydos may be cited as a parallel. This simpler explanation of the ownership of Tomb B1 at Abydos fits the evidence from the tomb itself, and dispels the theory of a King \*Ro/\*Iry-Hor altogether.

TOBY A. H. WILKINSON

### Blocks from the tomb of Shed-abad at Saqqara

Publication of two door jambs originally found by Firth and Gunn near the pyramid of Tety, and recovered again in 1987. The jambs are inscribed with the titles of an official named Shed-abad who must have served the Memphite king and the funerary cult of King Tety during the early First Intermediate Period.

CLEARANCE around the Office of the Inspectorate at Saqqara in the spring of 1987 uncovered a number of inscribed blocks including door jambs with the titles of an official named Shed-abad (pl. XXIII, 2, 3). These two particular blocks had been discovered originally near the pyramid of Tety by Firth and Gunn, along with a matching lintel, but were never published.<sup>1</sup> According to Gunn's notes, another set of jamb fragments with a lintel, and another separate jamb piece, were found with them.<sup>2</sup> In all, then, blocks from three doorways from the tomb of Shed-abad are known, although the tomb itself has never been found.

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appears for the first time in Group 4, the latest group of graves at Minshat, dated to the reign of Aha onwards.

<sup>24</sup>This distinctive type is found in Groups 3a-c, but not in Group 4, at Minshat Abu Omar.

<sup>25</sup>Kaiser and Dreyer themselves point out (op. cit. 232 n. 76) that in some of the examples of the falcon-and-mouth device, the sign under the falcon looks more like a ring than a mouth; the combination of falcon and ring is attested on an inscribed sherd from Zawiyet el-Aryan, where the device occurs above the *serekh* of Narmer (illustrated in Kaplony, op. cit. III, fig. 721; Kaiser and Dreyer, op. cit. fig. 14. 37). The close association of Narmer with the falcon-and-mouth/ring device is thus confirmed.

<sup>26</sup>The likely use of potmarks for this purpose is discussed by Kathryn Bard, 'Origins of Egyptian writing' in Friedman and Adams (eds.), op. cit. 297-306.

<sup>1</sup>Gunn, MSS, R.1.13, 14; R.6.1; xiv. 62; Notebook 9, no. 29. Dr J. Málek of the Griffith Institute kindly supplied me with copies of Gunn's notes and permission to publish them. Listed in PM III,<sup>2</sup> 566.

<sup>2</sup>Gunn, op. cit. xv 40-1; Notebook 9, no. 30; 12 no. 116.

The two rediscovered jambs are limestone inscribed with hieroglyphs.<sup>3</sup> No traces of paint remain. The now lost lintel was similar: limestone, inscribed, with no traces of colour.<sup>4</sup> The inscriptions on this set of lintel and jambs are as follows (fig. 1):

#### Lintel

1. 'A boon which the king gives,<sup>a</sup> and Anubis, on top of his mountain, the one who is in the place of embalming, lord of the sacred land, the invocation offerings of<sup>b</sup> the count, the revered, Shed-abad.<sup>c</sup>
2. A boon which the king gives, and Osiris, lord of Busiris, foremost of the westerners, lord of Abydos, (that) he be buried [well(?)]<sup>d</sup> in the necropolis, the count,
3. (that) he may travel upon the beautiful ways,<sup>e</sup> (that) he be accompanied by his *kas*,<sup>f</sup> (that) he ascend to the great god,<sup>g</sup> the treasurer, Shed-abad.'

#### Notes

(a) This is the most common way of grouping these signs in the Old Kingdom and First Intermediate Period: see W. Barta, *Aufbau und Bedeutung der altägyptischen Opferformel*, (Glückstadt, 1968), infra.

(b) Use of the indirect genitive instead of the dative. Also found, for example, at Dara (R. Weill, *Dara* (Cairo, 1958), 90, and n. 33).

(c) For the name, see H. Ranke, *PN*, (Glückstadt, 1935 and 1952) 1, 330, 11, who quotes one example from A. Mariette, *Mastabas* (Paris, 1885), 367–9. Mariette describes and depicts a false door stela belonging to a *Šd-ibd*. He lists the monument as from D 69 Saqqara (south), but gives no further information. The false door inscription has seven *hṯp-di-nsw* formulae invoking Osiris and Anubis, and seven lines beginning *imḥw hr*. Shed-abad's name appears at the bottom of each line, but absolutely no titles are given. Also listed in PM III<sup>2</sup>, 689.

(d) Only part of a vertical sign is visible: [*nfr?*]. For a similar phrase and writing, see J. J. Clère and J. Vandier, *Textes de la Première Période Intermédiaire* (Bruxelles, 1948), §3; and cf. Barta, op. cit. 39, Bitte 4b and 47, Bitte 4d.

(e) For variations on mortuary formulae with the verb *hṯi*, see J. A. Wilson, *JNES* 13 (1954), 251, n. 1.

(f) For this phrase, *ibid.* 253.

(g) See Barta, op. cit. 30, Bitte 31a. This same phrase is found twice on the Shed-abad false door published by Mariette, see n. c above. See Wilson, op. cit. 252, and H. Junker, *Giza*, VIII (Vienna, 1947), 146, for a discussion of these statements as referring to events of the actual funeral and the deceased's reaching the fields of the afterlife.

#### Right jamb

1. 'Inspector of the prophets of "The Pyramid of Tety, Most Stable of Places", count, treasurer, sole companion,<sup>a</sup> Shed-abad.
2. Revered under the great god, lord of the west, praised of his lord, the count, Shed-abad.'

#### Note

(a) Overseers of priests of the Eighth Dynasty hold the title *hṯty-ꜥ* (H. G. Fischer, *Dendera* (Locust Valley, 1968), 72, n. 291). 'It is usual for the nomarchs to have the titles *sd.wṯty-bity* and *smr wꜣty* as well' (*ibid.*, 72).

#### Left jamb

1. 'Count, treasurer, sole companion, overseer of the temple,<sup>a</sup> overseer of the *strt*-cattle (?),<sup>b</sup> Shed-abad.
2. Revered under Anubis upon his mountain, the count, treasurer, overseer of the door(?),<sup>c</sup> the lector priest, Shed-abad.'

<sup>3</sup>The right jamb measures 196 × 37 × 38 cm, the left jamb 196 × 37 × 47 cm. Gunn noted some roughly carved figures on the left side of the right-hand jamb: a man, rudely carved hieroglyphs perhaps giving his name, and the figure of a king with *Tty* in a cartouche, *ibid.* Notebook 9, no. 29. These are still visible.

<sup>4</sup>Gunn gives the lintel measurements as 58 × 171 × 30 cm, *loc. cit.*

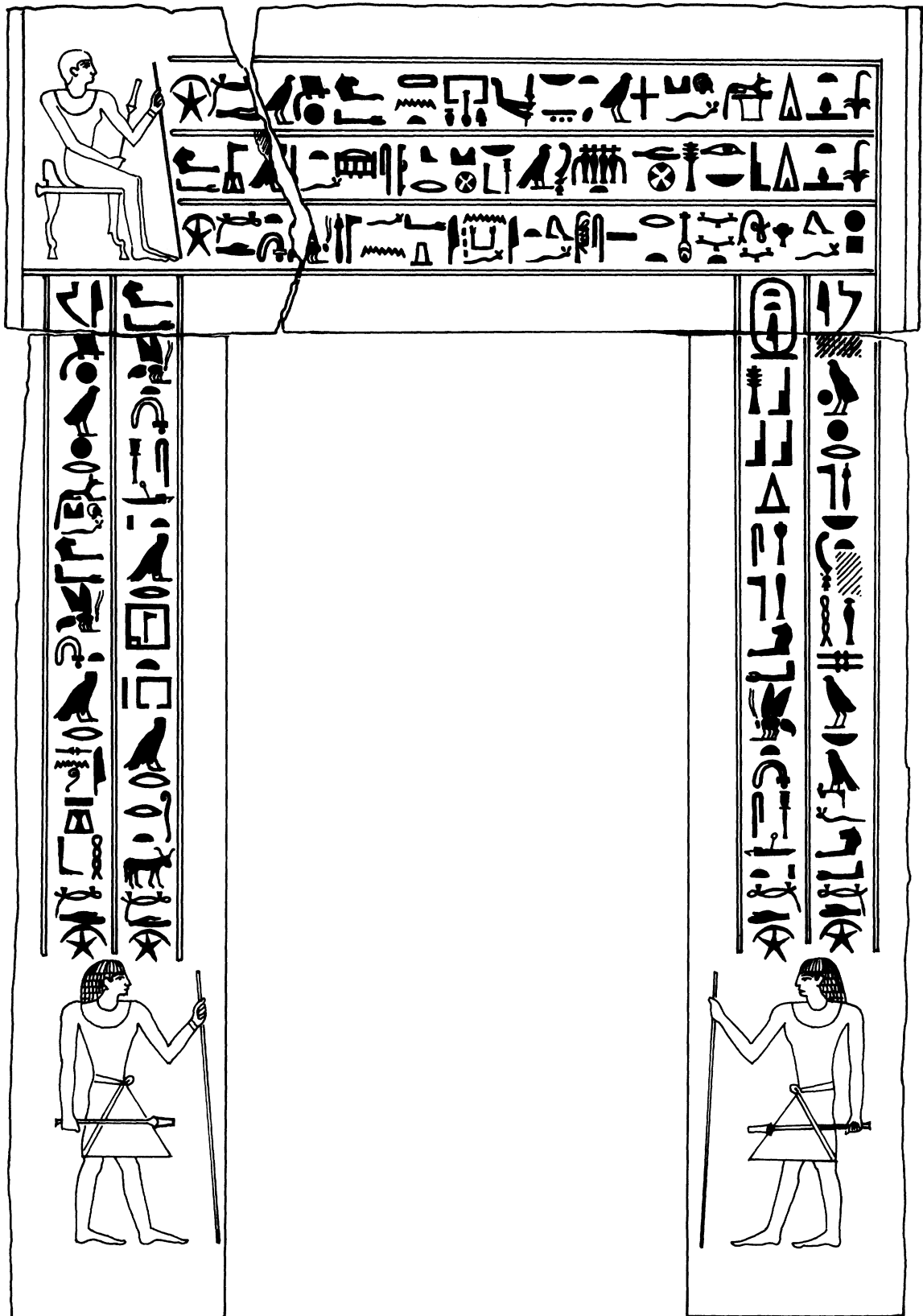


FIG. 1. Reconstruction of the rediscovered jambs and now lost lintel based on the original drawing by Gunn.

## Notes

(a) For the few Old Kingdom examples of this title, see Junker, *op. cit.* (1943) vi, 10. It is much more common in the Middle Kingdom (W. Ward, *Essays on Feminine Titles of the Middle Kingdom* (Beirut, 1986), 124; *id.*, *Index of Egyptian Administrative and Religious Titles of the Middle Kingdom* (Beirut, 1982), 34, no. 250).

(b) The only other example of this title may be one given by K. Baer, *Rank and Title in the Old Kingdom* (Chicago, 1960), 250, from Giza 2352, the unpublished mastaba of *Hjgy*. In this case the title is written with the cow's skin pierced by an arrow (Gardiner Sign List F 29) for *st*. It is followed by an *r*, *t*, and the *nsw*-pot (W 24), and a cow determinative (E 1). In the second example of this title from Shed-abad's tomb (fig. 4), *strt* is also followed by a pot sign. *strt* undoubtedly signifies a particular herd of cattle, perhaps belonging to a cult. *ntt*-cattle were tied to the cult of Hathor (S. Allam, *Beiträge zum Hathorkult* (Berlin, 1963), 36-7; and Fischer, *op. cit.* 26-7). *kmt*-cattle were connected with the cult of Onuris at This (H. G. Fischer, 'Three Stelae from Naga ed-Deir', *Studies in Ancient Egypt, the Aegean, and the Sudan* (Boston, 1981), 60-1; *id.*, *JAOs* 74 (1954), 29).

(c) *isn*, from *sn*, *Wb.* III, 3, 454, 'to open a door', written with prefixed *i* as in PT 1408-11. These examples have the stone slab determinative (Gardiner Sign List o 39), but not the coiled rope (V 1). J. Vandier, *Mo'alla* (Cairo, 1950), 192f., discusses, on the basis of one Eleventh Dynasty usage, whether the verb in an extended sense could have the general meaning 'to move a door', and therefore mean 'to close' and well as 'to open'. Only the meaning 'to close' is listed by G. Andreu and S. Cauville, *RdE* 29 (1977), 6, and D. Meeks, *Année Lexicographique*, 1 (Paris, 1980), 46, 77.0459. In the PT examples the meaning of *isn*, 'open' is clear: 'May the doors of the firmament be open for Horus of the gods that he may go forth' (PT 1408).

Gunn provides a sketch and description of the second fragmentary doorway from the tomb (fig. 2).<sup>5</sup> Although broken into two pieces, the lintel block is complete. Of the jambs, however, only the lowest part of the right and the uppermost part of the left remain.<sup>6</sup> Like the first doorway, all the blocks are limestone with incised inscription, and no trace of colour. The inscription is as follows:

*Lintel*

'Ins[pector of the prophets] of "The Pyramid of Tety, Most Stable of Places", [coun]t, treasurer, the revered, Shed-abad.'

*Right jamb*

At the very top, 'Count [...]'. Then the bottom block reads: 'overseer of the *strt*-cattle, the lector-priest, Shed-abad.'

Just the head of the figure of Shed-abad can be seen below his name. On the left side of the vertical column of inscription three *nsw*-signs were written.<sup>7</sup>

On the left-hand edge of this block is a further inscription (fig. 3):

'... whom he [lo]ves, sole ornament of the king, priestess of Hathor,<sup>a</sup> the revered, *Hbyt*.<sup>b</sup>

## Notes

(a) These two titles are most often held together in the First Intermediate Period: see M. Galvin, *The Priestesses of Hathor in the Old Kingdom and the First Intermediate Period* (unpublished dissertation, Brandeis University, 1981), 16f., who does not list *Hbyt*.

(b) There is one other Old Kingdom example of this name: *PN* I, 425, 13.

Gunn comments that the *mr*-sign and the *di*-sign to the left and right of *hm(t)-ntr*, as well as the cartouche surrounding the two reed leaves and *t* of *Hbyt*'s name 'are meaningless later additions'.<sup>8</sup> At the bottom of this inscription can just be seen the head and hand of a woman smelling a lotus.

<sup>5</sup> Gunn, MSS, xv 40; Notebook 9, no. 30.

<sup>6</sup> Each jamb was originally three blocks. The left block measures 60 × 36 × 95 cm, the right block 69 × 36 × 14 cm. *Ibid.* no. 30, over.

<sup>7</sup> Gunn, MSS, xv 40.

<sup>8</sup> Gunn, *loc. cit.*

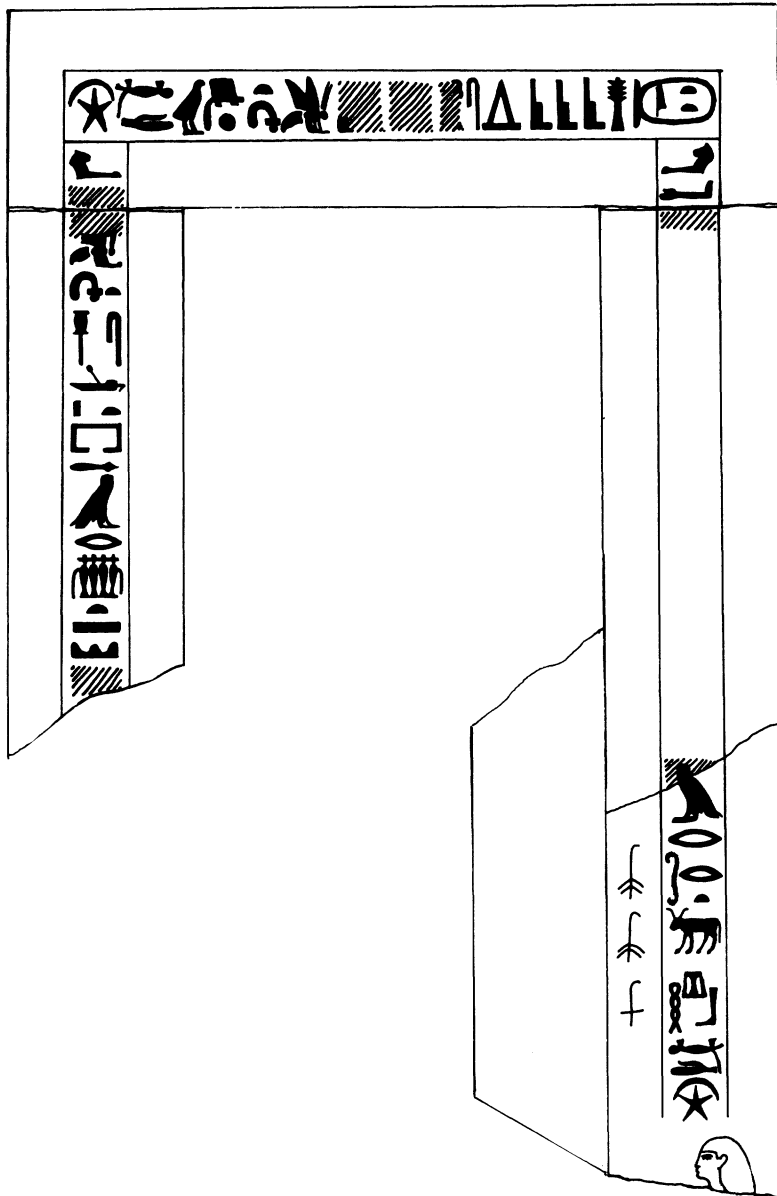


FIG. 2.

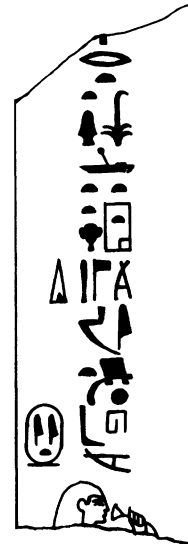


FIG. 3.

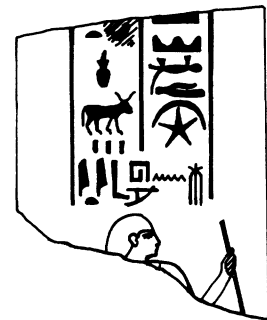
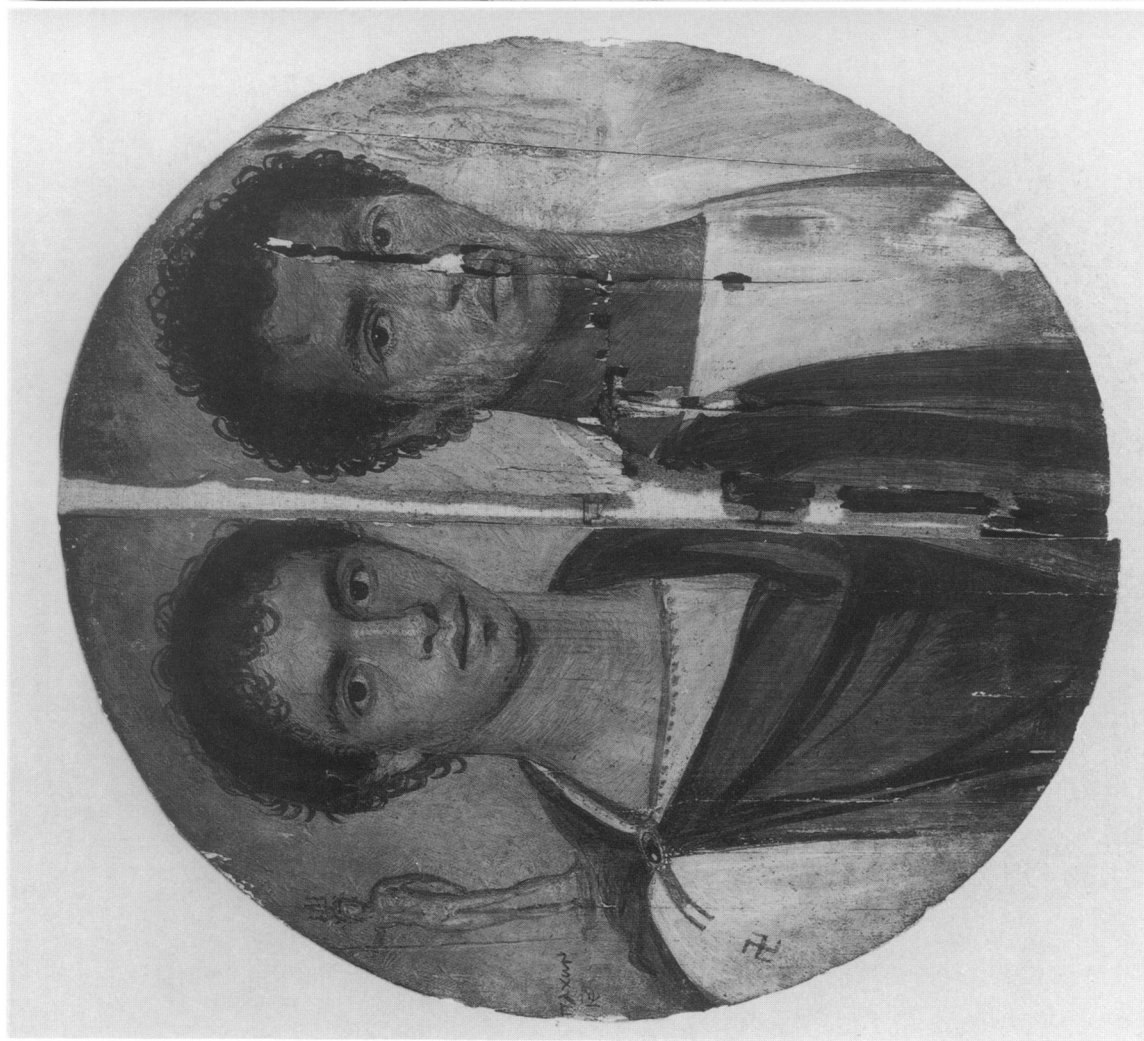


FIG. 4.

FIG. 2. Reconstruction of the second Shed-abed doorway based on the original drawing by Gunn.

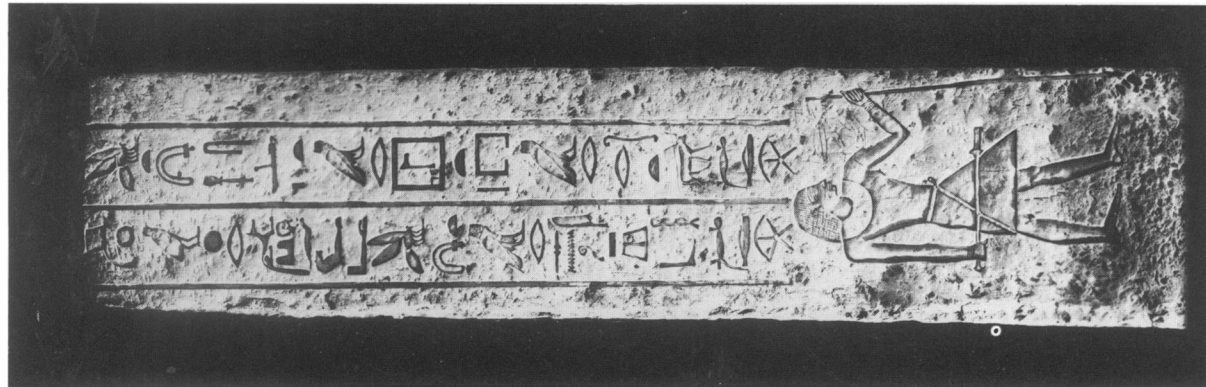
FIG. 3. The inscription on the left-hand side of the bottom jamb block of the second doorway, after the sketch by Gunn.

FIG. 4. Fragmentary jamb block of Shed-abed, after the sketch by Gunn.

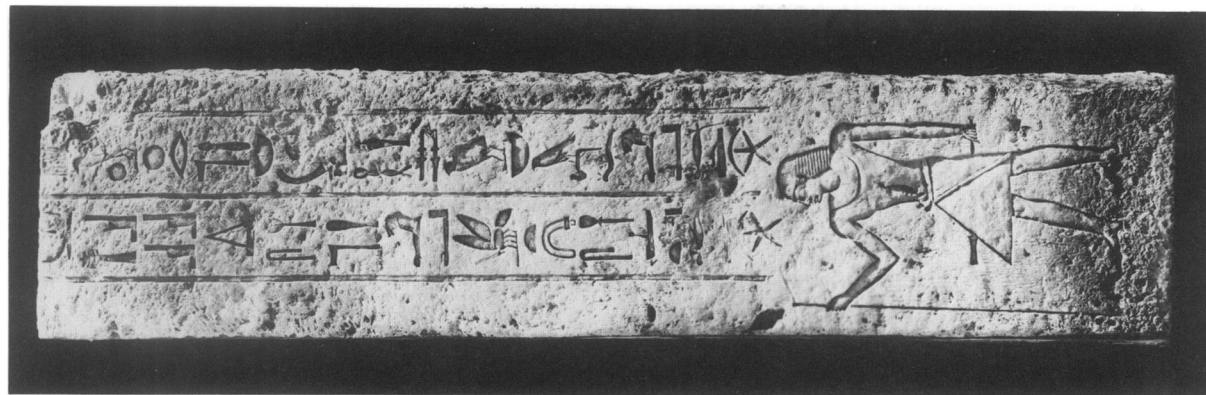


1. Cairo, Egyptian Museum, CG 33267

THE REPRESENTATION OF YOUNG MALES IN 'FAYUM PORTRAITS'  
(pp. 215-25)



2. Left jamb



3. Right jamb

BLOCKS FROM THE TOMB OF SHED-ABED (pp. 243-8)

*Left jamb*

'The coun[t], treasurer, sole companion, overseer of the tenant landholders of the Great House<sup>a</sup> [.....]'

*Note*

(a) For this title, see Junker, *op. cit.* 15ff.; W. Helck, *Untersuchungen zu den Beamtentiteln* (Glückstadt, 1954), 107ff.; P. Posener-Krieger, *Les archives du temple funéraire de Néferirkarê-Kakai* (Cairo, 1976), II, 577ff.; Fischer, *Dendera*, 170-1.

Gunn also provides a description and sketch of a fragment of the bottom part of a left door jamb (fig. 4).<sup>9</sup> There are two vertical columns of inscription ending with one short horizontal one. Preserved below this is Shed-abed's head and raised left hand holding a staff.

The columns read:

'[Overseer of] the tenant landholders [of the Great House], Shed-abed.'

[Overseer of] the *strt*-cattle.<sup>a</sup>

(a) In his short description of this piece Gunn clearly restores a *st*-bow. He makes no comment on the odd pot determinative. See the discussion above, p. 246, left jamb, n. b.

Below these two vertical columns is a short horizontal inscription: 'Born of *Hbyt*.'

The phrases in Shed-abed's *htp-di-nsu* formulae are most compatible with those from the end of the Old Kingdom.<sup>10</sup> Parallels to his titles are best found on First Intermediate Period monuments from Upper Egypt. The provincial officials *Mhi* and *Iti* both have the title sequence *sdꜣwty-bity smr wꜣty imy-r krw* on their false-door from Dara.<sup>11</sup> On a Ninth Dynasty stela from Dendera, *Mrrri* is *hꜣty-ꜣ sdꜣwty-bity smr wꜣty hry-hb imy-r hm(w)-ntr sꜣw tntt*, 'Count, treasurer, sole companion, lector priest, guardian of the *tntt*-cattle'.<sup>12</sup> This sequence of titles is perhaps the closest to that of Shed-abed.

Shed-abed's titles *hꜣty-ꜣ*, 'count', *sdꜣwty-bity*, 'treasurer', and *smr wꜣty*, 'sole companion', place him at court. His other titles, *shd hm(w)-ntr*, 'inspector of prophets', *imy-r hwt-ntr*, 'overseer of the temple', *imy-r strt*, 'overseer of the *strt*-cattle', and *hry-hb*, 'lector priest', tie him to the cult, specifically that of the funerary temple of King Tety of the Sixth Dynasty. Shed-abed was possibly an Upper Egyptian who served the Memphite king in the Seventh or Eighth Dynasty and was granted a mastaba near the pyramid of Tety.

ABDUL-FATTAH EL-SABBAHY

### Two Monuments of Eleventh Dynasty date from Dendera in the Cairo Museum

Primary publication of Cairo JE 46048, Serial Reg. 15381, the architrave of Hornakhte, with an autobiographical text, and of Cairo JE 46049, Serial Reg. 15591, the family stela of Iteti. Both date to the Eleventh Dynasty.

CLARENCE Fisher, the curator of the Egyptian Section of the University Museum of Philadelphia, was the director of the Eckley B. Coxe Jr. Expedition to Egypt. He excavated the cemetery of Dendera, situated at the back of the temple enclosure, for three successive seasons beginning in the winter of 1915 and ending in 1918. The results of his excavations have not been fully published.<sup>1</sup> He discovered many objects, dating from the early Dynastic Period down to end of the

<sup>9</sup> Gunn, MSS, xv 41, and notebook 12, no. 116. The jamb (limestone, incised, with no trace of colour) measured 48 × 39 × 14.5 cm.

<sup>10</sup> Barta, *op. cit.* 21-35, esp. 25 (the epithets of Anubis and Osiris).

<sup>11</sup> Weill, *op. cit.* pl. xlii.

<sup>12</sup> Fischer, *op. cit.* fig. 27; W. M. F. Petrie, *Denderah* (London, 1900), pl. viii.

<sup>1</sup> R. A. Slater, *Expedition* 12/4 (1970), 18.



Graeco-Roman Period,<sup>2</sup> among which are the two monuments discussed here: the architrave of Hornakhte and the stela of Iteti, both of which are now in the Egyptian Museum, Cairo. These were given the excavation numbers D. 3128 and D. 3480 respectively. Their exact find spots are not known, but both monuments date to the First Intermediate Period, and they seem to have come from the richer tombs of the period in this cemetery. These tombs consist mainly of a deep shaft at the bottom of which is the burial chamber. The superstructure of such tombs takes the shape of a rectangular mud-brick mastaba typically measuring about 43 m in length and 25 m in width. In the east side of the superstructure there is typically a recess in which the stela of the deceased was placed. One corner of the mastaba was set apart as an offering room inside which was usually placed the false door.<sup>3</sup>

*The architrave of Hornakhte*<sup>4</sup>

This architrave (pl. XXIV, 1; fig. 1) carries the Journal d'Entrée number 46048 and its Serial Registration number is 15381. It is a rectangular block of limestone that measures 1 m in length and 33.5 cm in width and is carved with six lines of hieroglyphs which are framed by a sunk border. Each line is separated from the other by a deeply cut broad line, and the text is carved in sunk relief. The top left part of the architrave is broken away as well as the top right edge. The entire left edge of the inscription is also broken away. The amount of loss is uncertain, but it is probably no more than two groups of signs for the most complete lines. On the lower part of the right side there is the lightly incised outline of the standing figure of a man with raised right arm. This figure has the appearance of a later addition, even a graffito, and there can be no certainty that it is a contemporary representation of Hornakhte himself. He holds a lotus in his right hand and his left arm is held at his side, probably holding an *ankh*-sign.<sup>5</sup> This architrave may have surmounted a false door or the actual entrance to the burial chamber of his tomb.

The horizontal text reads:

- (1) The sole companion, Hornakhte says:<sup>a</sup> I built the house of my father, that I had found consisting of rooms of bricks [.....]
- (2) every door of 5 cubits. I erected 50 columns there (in it). This tomb was built in the second<sup>b</sup> year of building this house by the same builders who belonged to him<sup>c</sup> and 30 craftsmen(?).<sup>d</sup> The herdsman was beside his [herd of cattle.....]<sup>e</sup>
- (3) The herdsman was beside ⟨his⟩ swine,<sup>f</sup> the washerman was washing. I gave grain to Dendera to its full extent and its entirety<sup>g</sup> during 56 years, 400 sacks of grain every year regularly(?)<sup>h</sup> at the time of hostility with Abydos. I have constructed [many/big]<sup>i</sup> *mhꜣw*-boats for [.....]
- (4) every *mhꜣw*-boat with 46 oars. I made 12 great boats and 8 small boats. I gave bread to the one who came hungry, beer to the one who came thirsty. I gave sandals to the one who came bare-foot(?), water to the one who came hot (? i.e. parched).<sup>j</sup> I gave corn to the one who asked for corn. I gave [clothes.....]
- (5) to the one who asked for clothes. I gave copper<sup>k</sup> to the one who asked for copper. I gave yarn, I gave flax, never did I exact<sup>l</sup> it from them. Now I gave young women<sup>m</sup> to husbands. I fashioned them as people<sup>n</sup> from 24 individuals; 12 men for 12 women from top to bottom (completely ?).<sup>o</sup> More[over.....]

<sup>2</sup> Fisher, *The Museum Journal* 8/4 (1917), 230. For more on Fisher's work, see Slater's unpublished dissertation, *The Archaeology of Denderah in the First Intermediate Period* (University of Pennsylvania, 1974), 5-20.

<sup>3</sup> Poorer tombs of this period form a separate class. These typically consist of a relatively shallow shaft with simple burial chamber, and a superstructure that takes the shape of a miniature mastaba: Slater, op. cit. 15-16.

<sup>4</sup> This architrave has not been previously published but Fischer, using unpublished notes by Clère, refers to some parts of its text (H. G. Fischer, *Dendera in the Third Millennium B.C. down to the End of the Theban Domination of Upper Egypt* (New York, 1968), 230), as perhaps also does Vandier: see the commentary above.

<sup>5</sup> The depiction of a private person holding an *ankh*-sign in this way is rare, but is otherwise attested at this period: see Fischer, *ZÄS* 100 (1973), 23-4

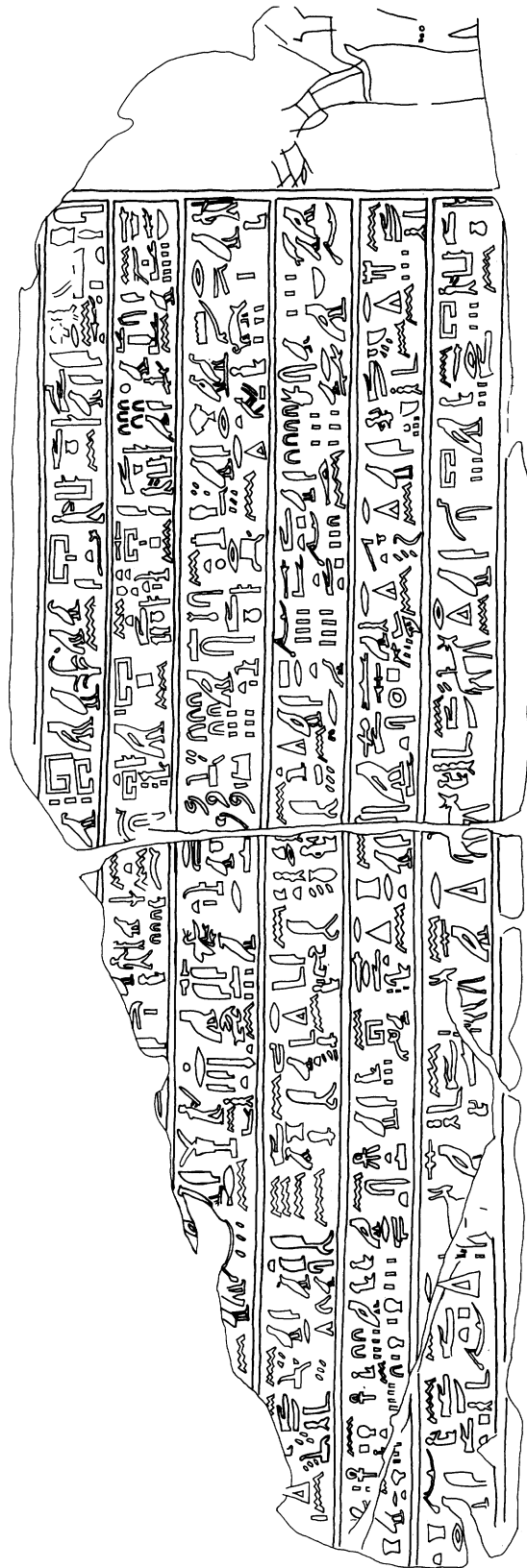


FIG. 1. The architrave of Hornakhte.

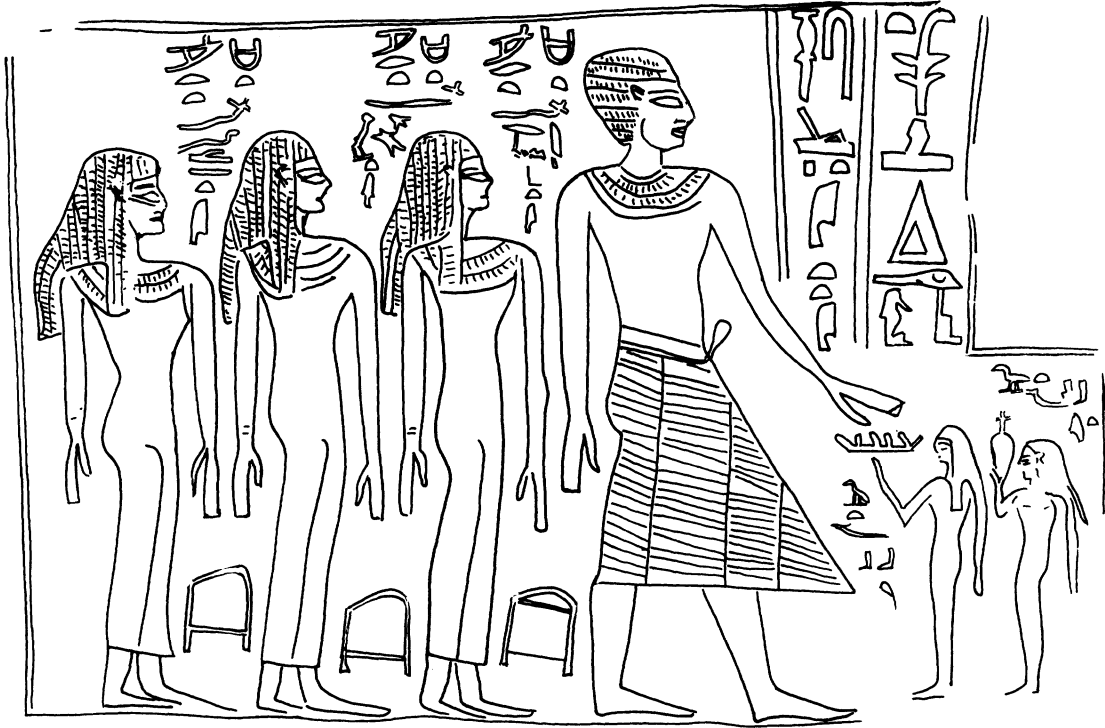


FIG. 2. The stela of Iteti

(6) I built houses for young women as their own houses. I gave a team of oxen to one who asked for a team of oxen.<sup>p</sup> I gave donkeys<sup>q</sup> to the one who asked for donkeys. I gave a boat to the one who asked for a boat.<sup>r</sup> Now (I have) established<sup>s</sup> [.....].

#### Commentary

(a) The sign  $\text{𓂏}$  is perhaps to be read with the following verb *dd.i*. *dd* is used as a writing of the circumstantial form of the *sdm.f*: see E. Doret, *The Narrative Verbal System of Old and Middle Egyptian* (Geneva, 1986), 30–1. Another possibility is that the sign  $\text{𓂏}$  is used as a determinative instead of the normal sign  $\text{𓂏}$  after the name of Hornakhte. For this usage see Fischer, *Dendera*, 129 n. 571, 162; id., *Inscriptions from the Coptite Nome, Dynasties VI–XI* (Rome, 1964), 124–5; W. Schenkel, *Frühmittelägyptische Studien* (Bonn, 1962), 39, 42–4; D. B. Španel, *Or* 58 (1989), 313–14.

(b) The word  $\text{𓂏𓂏}$  is to be read as  $\text{𓂏𓂏}$  *snmwt*, ‘second’: see Fischer, *Dendera*, 146 n. 641, following the reading of Clère.

(c) I take the phrase *m iqdw ds nt(y) n.f* ‘with the same builders who belonged to him’ to mean that Hornakhte employed the same builders who were employed for the work on his father’s house, with suffix *f* agreeing either with *it*, ‘father’, or *pr*, ‘house’. Fischer, *Dendera*, 145, k, and 158, gives other examples for the columns, with comments on palaeography; 146, m, comments on the contrast between ‘house’ and ‘tomb’; and 81–2 notes that the form of the seated-man determinative used in *iqdw* and throughout the text is typical for a group of Eleventh Dynasty texts from Dendera.

(d) I take the writing here to be an unusual form for the word *hmww* ‘craftsmen’.


(e) A possible restoration of the text is *mnw [r]-gs i[dr.f]*.

(f) The sign  $\text{𓂏}$  is to be taken as the sign  $\text{𓂏}$  in the word *šši*, ‘swine’; cf. Fischer, *Dendera*, 157. For pigs, see R. L. Miller, *JEA* 76 (1990), 125–40.

(g) The sign is the hieratic form of the sign  $\text{𓂏}$  *mi*: see G. Möller, *Hieratische Paläographie* 1 (Leipzig, 1927), 48 no. 509.

(h) The translation is no more than a guess; see also Fischer, *Dendera*, 132 n. 580. The bird sign seems clearly to be  $\text{𓂏}$ , and no word *(r-)tš* or *(r-)tšy* is attested in the *Wb*. If read as a miswritten *pš*, *Wb*. 1, 499, 2–3 records an obscure word *pšs* from the Pyramid Texts, referring to some sort of suffering.

(i) The possible restoration of the broken text is *iw ir.n.i mhꜣsw* [ꜣ]ꜣꜣ 'many' or [ꜣ]ꜣꜣ 'big/great'. Compare the similar phrase in l. 4, *iw ir.n. (i) dpt ꜣ 12 dpt šrt* 8. For the *mhꜣsw*-boat, see D. Jones, *A Glossary of Ancient Egyptian Nautical Titles and Terms* (New York, 1988), 139 n. 40.

(j) The reading *tr*, 'hot', is no more than a guess, assuming that the following signs are a miscopy from . A word *trsw* seems otherwise unattested, and a reading *tqꜣsw* seems implausible.

(k) Copper is sometimes included in the wages given to craftsmen as part of their salaries. Also it is occasionally included in the accounts of the gifts of the nobles to the needy people. Fischer, *Dendera*, 95–6 n. 430.





(l) The sign in the word *šdi*, 'exact', is the Old Kingdom hieratic form: Möller, op. cit. 49 no. 517.

(m) There can be little doubt that, despite its form, the crucial sign here should not be read ꜣ, to give a word *ꜣrdwt*, but as *h* to give *hrdwt*, 'young women', for which cf. G. Daressy, *ASAE* 18 (1917), 185–6 no. VII; also J. Vandier, *Mo'alla. La tombe d'Ankhtifi et la tombe de Sébekhotep* (Cairo, 1940), 223 (g), who seems to be quoting this passage, although giving a different JE number, 46848. As a possible alternative translation Vandier suggests 'my daughters'. For the unusual determinative of *hiw*, 'husbands' cf. Spanel, *Or* 58, 311, n. 47.


(n) The literal meaning of *ms{t}.n.i st m rmt*, 'I fashioned them as people', is open to a range of understanding. Most probably it implies the independent adult status associated with marriage and the creation of an independent family household, while stressing the role of Hornakhte as ruler in promoting family life and the bringing up of children; cf. the formulaic phrase *šhꜣr qꜣmw*, 'bring up youths/generations' (*Wb.* v, 523, 15–16) used in a similar way.





(o) Reading *m tp 24 n tp 12 nꜣw n tpt 12 nꜣw n hrt phw*. The phrase *n hrt phw*, literally something like 'from top to bottom', is presumably an idiom with the sense 'completely', perhaps comparable with commoner phrases such as *r-dr.sn*, or perhaps in the sense that he provided each couple with everything they needed. However a similar phrase *hꜣrw-phw*, literally 'those who are on the end', occurs with the meaning 'successors'; see further Vandier, op. cit. 189. At the end of the line perhaps read [*iw*] *g[rt]*.

(p) Reading *htr*: *Wb.* iv, 199, 8–10; cf. H. J. Polotsky, *Zu den Inschriften der 11. Dynastie* (Leipzig, 1929), 35; Fischer, *Dendera*, 180.

(q) *sm* is either an unknown word for 'donkey' or more likely a miscopy of ꜣ;  for  and  for , presumably through carelessness by the craftsman in transcribing from hieratic forms.

(r) The context of this section is the provision of the expensive resources necessary for agricultural work and transport: for similar examples see Fischer, *Dendera*, 181. The unusual phraseology with *dbh* seems to be limited to Eleventh Dynasty texts from Dendera: see Fischer, op. cit. 181, e, who knows only four examples.

(s) The upper part of the sign  is still visible; [*s*] *mn* 'establish' is a possible restoration. There is no reason to believe that there is substantial loss at the end of this line. The ending seems abrupt, but this is not unusual in texts of the period.

The text of the architrave of Hornakhte is interesting for its palaeographic features, with many of the sign forms showing a direct influence from cursive and hieratic forms, and attesting to a degree of uncertainty in the mind of the responsible craftsman about correct hieroglyphic form. Of particular interest, beyond the signs noted above in the commentary, one might note the form of  (l. 1, in *smr wꜣty*), of  (l. 1; l. 2 bis; l. 6, in *qd*), both with and without the building man;  (l. 2 end; l. 3 beginning, in *r-gs*), and  (line 5). In this, and in its sometimes original phraseology, it fits into the small, but well known and distinctive group of hieroglyphic inscriptions from Dendera in the Eleventh Dynasty.<sup>6</sup> It has, however, a special historical importance because it includes a unique reference to hostilities between the nomes of Thinis and Dendera, and so throws further light on the complex political situation in Middle and Upper Egypt that was the context in which the struggle between the north (Heracleopolis) and the south (Thebes) took place.<sup>7</sup> The text also refers

<sup>6</sup> For the palaeography of this specific group see Fischer, *Dendera*, 130–6; id., *ZAS* 100, 18–20; Polotsky, op. cit. 10–15, and note also Spanel, *Or* 58, 309–12 for contemporary Asyut.

<sup>7</sup> For further discussion see Fischer, *Dendera*, especially 114 n. 500, 132 n. 580, 203 n. 807. See also H. E. Winlock, *JNES* 2 (1948), 249–83; id., *The Rise and Fall of the Middle Kingdom in Thebes*, 8–57; the thesis of C. N. Peck, *Some Decorated Tombs of the First Intermediate Period* (Ann Arbor, 1958), 133–4. See also J. J. Clère and J. Vandier, *Textes de la Première Période Intermédiaire et de la XIème Dynastie* (Brussels, 1948); W. Schenkel, *Memphis. Herakleopolis. Theben. Die epigraphischen Zeugnisse der 7.–11. Dynastie Ägyptens* (Wiesbaden, 1965); M. Lichtheim, *Ancient Egyptian Literature*, 1 (London, 1975), 83–93; G. Gabra, *MDAIK* 32 (1976), 45–56; Farouk Gomaa, *Ägypten während der Ersten Zwischenzeit* (Wiesbaden, 1980); B. J. Kemp, in B. G. Trigger et al., *Ancient Egypt. A Social History* (Cambridge, 1983), 113–16. And note also the unpublished thesis of E.


to the prosperity, peace and stability which the Denderite nome enjoyed under the authority of Hornakhte during this period of turmoil.<sup>8</sup> It may also indicate that Hornakhte died in his late sixties, at the earliest, and more likely in his late seventies or early eighties.<sup>9</sup>

### *The stela of Iteti*

This limestone stela (Pl. XXIV, 2; fig. 2) carries the Journal d'Entrée number 46049, and its Serial Registration number is 15591. It is of rectangular shape, measuring 50 cm in length and 30 cm in width, and is framed by a sunk border. It depicts the standing figure of a man, wearing a pleated kilt and extending his left arm towards an offering table. His right arm is held at his side. Before him are two small female figures, described as his daughters. Each one of them is dressed in a long tight-fitting robe, raising her right arm towards her father with her other arm held at her side. Opposite the face of the male figure there are two bands of hieroglyphs, giving the *htp-di-nsw* formula, with his name and title. Behind him, but on a smaller scale, are three female figures with both arms held at their sides. The texts above their heads describe them as his beloved wives. They are dressed in long tight-fitting robes. Above the feet of each woman there is a box, known as either *st-w'rb*, 'house of purification', or as *pr-w'rb*, 'house of resurrection'.<sup>10</sup> This kind of box is usually used to contain the instruments used in the 'Opening of the Mouth' ritual.<sup>11</sup> The hieroglyphic texts read:

- A) A boon which the king gives to Osiris.
- B) The sole companion Itet(i).<sup>a</sup>
- C) His daughter Beb(i).<sup>b</sup>
- D) His daughter Bebet.<sup>c</sup>
- E) His beloved wife Ir-Nebt.<sup>d</sup>
- F) His beloved wife Thaout.<sup>e</sup>
- G) His beloved wife Djedet.<sup>f</sup>

### *Commentary*

(a) H. Ranke, *Die ägyptischen Personennamen*, I (Glückstadt, 1935), 52 no. 16. It should be noted here that the sign  after the names of all figures is used as a determinative replacing the normal determinatives of a man or woman.




(b) Ranke *PN* I, 95, no. 8. The significance of the final sign in this name, which looks like the flesh determinative, is unclear to me, unless it is a miswriting of the *i* of *Bbi* (*PN* I, 95, no. 16), or even a *t*. The names *Bb* and *Bbi* are perhaps identical, since the *i* may simply be a 'diminutive' ending, which is sometimes omitted at this date: see Fischer, *op. cit.* 143 (a). Of the other known extensions of the name *Bb* none appears to fit here.

(c) Ranke *PN* I, 96 no. 10.

(d) Less likely the reading of the name is *šd-(w)i-nbt*, 'The Mistress (i.e. Hathor) secures my salvation'; the carving of the first sign is not clear. For names beginning with *šdi* from the same period see D. Dunham, *Naga-Ed-Dêr Stelae of the First Intermediate Period* (Oxford, 1937), 115 nos. 103-4. However neither name is attested in Ranke.

(e) Ranke *PN* I, 389 no. 5.

(f) The name is not to be found in Ranke, but for a similar name see *PN* I, 413 no. 6.

As with the stela of Hornakhte, the palaeography and iconography<sup>12</sup> seem to place this stela in the Eleventh Dynasty. Signs of particular interest here are the , the , and . The stela shows that

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Brovarski, *The Inscribed Material of the First Intermediate Period from Naga-ed-Dêr* (University of Chicago, 1989).

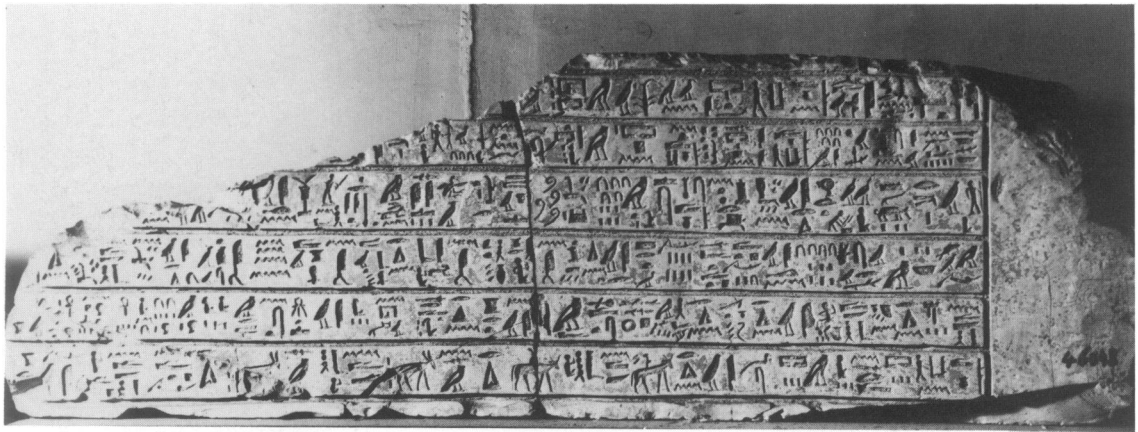
<sup>8</sup> Compare the words of *Ipw-wr* (*Admonitions* 1, 2): 'the washerman has not agreed to carry his load', as he describes a period of trouble. Hornakhte says 'the washerman was washing' in describing a similar period of instability that he is able to mitigate: cf. Fischer, *op. cit.* 157.

<sup>9</sup> Assuming that Hornakhte was at least in his early twenties when he started supplying Dendera with grain for 56 years.

<sup>10</sup> M. G. Jéquier, *Frises d'objets des sarcophages du Moyen Empire* (Cairo, 1921), 325.

<sup>11</sup> Jéquier, *op. cit.* 248.

<sup>12</sup> Of particular value for comparison of the rendering of the human figures is the material collected in the exhibition catalogue by Gay Robins (ed.), *Beyond the Pyramids* (Atlanta, 1990).



1. The architrave of Hornakhte, Cairo JE 46048 (pp. 249-53)



2. The stela of Iteti, Cairo JE 46049 (pp. 253-4)

TWO MONUMENTS FROM DENDERA

Iteti married three wives. It is impossible to determine which wife was the mother of his two daughters because neither one of the daughters has her mother identified. This may be a case of polygamy or simply a case of a man who married three successive wives, each one following bereavement or, less likely, a divorce. The presence of the *st-wrb* boxes, which are of a funerary nature, above the feet of each woman, may indicate that the three wives were already dead at the time of the carving of this stela; in other words, they died before him and thus he was again a widower at the time of his death.<sup>13</sup>

These monuments are presented here in the spirit of a primary publication, to increase knowledge of the corpus of highly distinctive Eleventh Dynasty material from Dendera and Upper Egypt as a whole, and to make them available for more general and comparative studies of the palaeography, iconography and history of this most interesting and problematic period.

ALY ABDALLA

### Some *de visu* observations on P. Hermitage 1115

*De visu* investigation of P. Hermitage 1115, which bears the only copy of the *Tale of the Shipwrecked Sailor*, gives new information on the history of this papyrus. It is a palimpsest, with some sheets glued together after the original text had been washed off, which can presumably be explained by the necessity to cut away damaged areas. A narrow papyrus strip is preserved, which is glued along the right (initial) edge of P. Hermitage 1115, and which partly overlaps one of the signs in col. 1. To the author's mind it is the only remnant of a lost previous sheet which must have contained the beginning of the *Shipwrecked Sailor*. Thus, the only known manuscript of the *Shipwrecked Sailor* is incomplete, and the introduction of the tale is lost. This reconstruction of the history of P. Hermitage 1115 is not beyond debate, but it may be of service for future interpretations of the *Shipwrecked Sailor*.

AN Egyptologist can hardly doubt that the analysis of any text should include, besides purely philological considerations, the study of the object on which it is written. However, although this methodological principle is constantly applied to inscriptions carved on the walls of tombs and temples, on statues and coffins, and on minor objects, it is usually not extended to papyri. Psychologically this is understandable: only the text appears to be of self-sufficient value, while the papyrus itself seems to be but a neutral substrate for writing, being, in contrast to the monuments just mentioned, of no importance apart from the text on it. Attention is rarely paid to the papyrus itself except, for example, when it is badly damaged and special fibre analysis is necessary to reassemble the fragments.<sup>1</sup> Such disregard of information encoded in the papyrus can adversely affect the interpretation of the text, especially when it is known from a single manuscript.


This is the case with the *Tale of the Shipwrecked Sailor* preserved on P. Hermitage 1115, of which no other copies are known. The perfect condition of the papyrus, the legible handwriting and the high quality of the photographs published in Golénischeff's *editio princeps*<sup>2</sup> make a new *de visu* study seem of no urgent necessity. Besides, such a study would have been difficult, since only a few western Egyptologists could work in the Hermitage during the seven decades after the revolution of 1917. However, although the *Shipwrecked Sailor* is often the first literary text a student of Egyptology reads, it is far from being exhaustively interpreted. Some problems are of a philological, historical and ideological nature, but some lie in P. Hermitage 1115 as a material

<sup>13</sup> This stela should be added to the list of cases of possible polygamy collected by W. K. Simpson, *JEA* 60 (1974), 100–5; see also N. Kanawati, *SAK* 4 (1976), 149–60. For the most recent discussion see C. J. Eyre, *JEA* 78 (1992), 211–12, and n. 22.

<sup>1</sup> J. W. B. Barns, *Five Ramesseum Papyri* (Oxford, 1956), xi–xiv.

<sup>2</sup> W. Golénischeff, *Les papyrus hiératiques N°N° 1115, 1116A et 1116B de l'Ermitage Impérial à St.-Petersbourg* (St. Petersburg, 1913), pls. i–viii.

artifact. The latter are obvious to the museum curator who can work with the original, but not to those who know the *Shipwrecked Sailor* only from the publication. As curator of the Egyptian collection in the Hermitage I feel obliged to make some *de visu* observations on the papyrus, which may be important for interpreting the tale.

The comprehension of the tale depends to a considerable extent on the interpretation of its first words: . For more than a century, the interpretation as a *sdm.jn.f* form, which goes back to Golénischeff,<sup>3</sup> has prevailed. However, J. Baines suggested recently in Vol. 76 of this journal that it is not a *sdm.jn.f* form, but an infinitive with the preposition *jn*; the sentence in question is then to be read 'Speech by the worthy companion', rather than 'Then the worthy companion spoke'.<sup>4</sup> In Baines' reading, these words are the introduction to the text and, so to say, the 'title' of the tale. This would alter our analysis of the *Shipwrecked Sailor* and would mean a great step forward in our understanding of one of the most popular, but nevertheless mysterious, Egyptian literary texts.

The new interpretation may appear attractive due to its novelty, but, unfortunately, it is questionable. The infinitive can be found used absolutely with the subject introduced by *jn* 'in headings to scenes, titles to parts of books and the like',<sup>5</sup> in the introductory formulae of some Middle Kingdom letters,<sup>6</sup> etc.; the phrase *dd mdw jn NN*, beginning the spells of religious texts, should also be mentioned. However, *dd jn smsw*, as Baines himself admits, 'is not identical with regular written introductions to speeches',<sup>7</sup> and his explanation that the associations of the traditional *dd mdw* 'were perhaps too solemn for use here'<sup>8</sup> cannot quiet all doubts. Moreover, the solemn tone attributed to the absolute use of the infinitive is characteristic only of royal texts and of references to a king in other genres but is quite untypical of Middle Kingdom literary texts.<sup>9</sup> In addition, I feel that the introduction postulated by Baines is too brief, since the first columns of P. Hermitage 1115 contain no description of the situation in which the narrative develops.<sup>10</sup>

On the other hand, a *sdm.jn.f* form (indicating mainly sequential action) is somewhat unusual in the initial sentence of the text.<sup>11</sup> Thus, neither of the interpretations can be given preference from the point of view of grammar and the textual context: both are possible, but each is problematic. Metrical analysis is also of little help here, and the extent of its applicability to such an early text is disputable. Some extralinguistic methods should be used to solve the problem, and the study of the papyrus as a material artifact can provide the most important, if not the decisive, evidence.

There is an alternative analysis, in which the opening phrase is merely the first to be preserved on P. Hermitage 1115, after the original beginning was lost. This idea was recently expressed by W. K. Simpson in rather a resolute way: 'Although the preserved text appears to be complete, the absence of a heading and introduction suggests that the papyrus was cut just before the first

<sup>3</sup> W. Golénischeff, 'Sur un ancien conte égyptien' (Notice lue au Congrès des orientalistes à Berlin, 1881), 4; id., *Inventaire de la collection égyptienne de l'Ermitage Impérial* ([St. Petersburg], 1891), 177; id., *Rec. Trav.* 28 (1906), 3; id., *Le conte du naufrage* (Cairo, 1912), 25, 231.

<sup>4</sup> J. Baines, *JEA* 76 (1990), 58.

<sup>5</sup> A. H. Gardiner, *Egyptian Grammar*<sup>3</sup>, (Oxford, 1957), §306. 1.

<sup>6</sup> E.g. T. G. H. James, *The Hekanakhte Papers and Other Early Middle Kingdom Documents* (New York, 1962), 120.

<sup>7</sup> Baines, op. cit. 58.

<sup>8</sup> Ibid.

<sup>9</sup> For the latter observation the author is indebted to Prof. O. D. Berlev who also made some other valuable comments on the ideas stated in the present paper.

<sup>10</sup> Of course, the introduction to the *Tale of Sinuhe* is brief (apart from the list of his titles), but there the mention of the death of Amenemhat I in the opening phrase places the following narrative in a historical context which would be quite obvious to the reader, other explanations being unnecessary. One might object that the *Shipwrecked Sailor* is intentionally timeless and impersonal (in contrast to Sinuhe's story), but one would expect some description of the situation at the beginning of the tale. Despite the possible assertion that the situation in question would have been quite clear to the contemporaries of the tale and that no explanations would have been necessary, how can we imagine the earliest known narrative text beginning with only a clue about the hero? This is a stylistic feature of the twentieth century AD, not BC.

<sup>11</sup> Compare, however, the opening words of the *Quarrel of Seqenenre and Apophis*: A. H. Gardiner, *Late Egyptian Stories* (Brussels, 1932), 85.



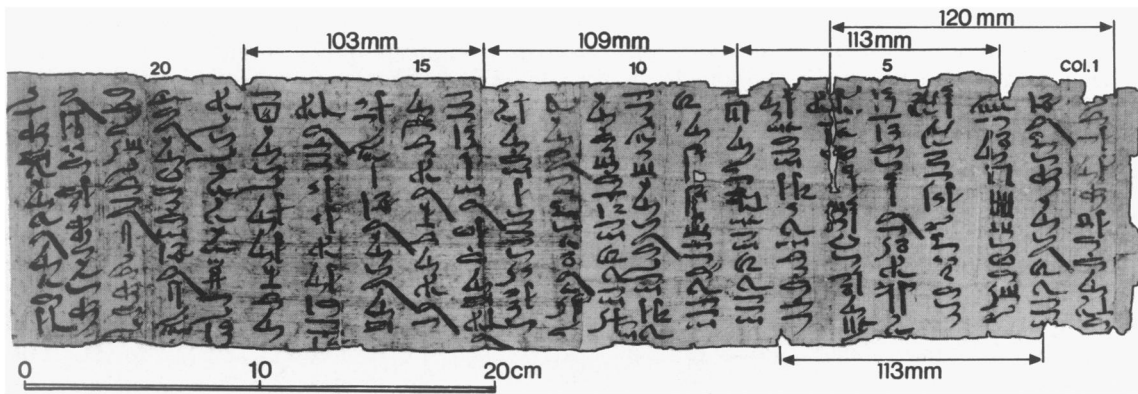


FIG. 1. P. Hermitage 1115, right edge.

columns and that the original text had a more conventional beginning'.<sup>12</sup> The present writer agrees with this assertion, with the exception of the statement that the text 'appears to be complete'. It may seem so in the published photographs, but even a cursory acquaintance with the original proves that the case is more complicated.

Baines' opinion is based on the fact that 'a substantial blank leading edge is preserved' in front of the first column of text, which allegedly indicates that we are dealing with the original beginning of the tale.<sup>13</sup> There is indeed a space of 10–15 mm before col. 1, but it is by no means simply 'a blank leading edge'—a narrow papyrus strip is glued on here (pl. XXV, 1). It is quite conspicuous in slanting light, especially when enlarged, but even in Golénischeff's photograph<sup>14</sup> the lack of fibre correspondence can be observed.<sup>15</sup> Moreover, the *šms* sign in col. 1 is partly overlapped by the papyrus strip. Only the very end of the tail of the sign (not more than 1 mm) is covered, and although that can hardly be seen in the publication, it is clear in pl. XXV. Investigation with a binocular microscope shows that this is due to the upper sheet of papyrus overlapping the sign, and is not the result of capillary ink percolation between the sheets when the reed pen touched the join.

Three different interpretations of this strip can be proposed. It can be (1) the sole remnant of a previous lost sheet of the roll (sheet  $\emptyset$ ) with the beginning of the *Shipwrecked Sailor*, (2) the remains of a blank sheet which was glued to the roll in order to protect it from injury, or (3) a completely preserved protective strip stuck to the original outer edge of the roll.<sup>16</sup> Though the second and the third possibilities may seem easier and more natural, I believe the first to be preferable, and therefore I shall begin with it, leaving the discussion of the alternatives aside for some time.

The strip covers the space of 15 mm between col. 1 and the present right edge of the papyrus and bears no complete signs or any traces. This may seem to argue against its being a fragment of the written sheet  $\emptyset$ —it is too wide for an interval between the columns. Does this of itself mean that sheet  $\emptyset$  remained blank and was added to the main body of the papyrus as a protection? Doubtless a negative answer should be given to this question. Although the scribe Ameni usually tried to

<sup>12</sup> W. K. Simpson, *LÄ* v, 619.

<sup>13</sup> Baines, *op. cit.* 59, n. 21.

<sup>14</sup> Golénischeff, *Les papyrus*, pl. i.

<sup>15</sup> One should note that Ameni stuck the sheets together just in this way, with the next sheet underneath the previous one (except for the join before col. 177 which is clear in the original: but cf. Golénischeff, *Les papyrus*, pl. viii).

<sup>16</sup> Any idea that the supposed protector could have been made some time later (for example in the process of repairing the roll) is to be rejected, as the quality, texture and colour of the strip are exactly the same as those of the rest of P. Hermitage 1115.

make regular small intervals between the columns, there is a much larger distance of 15–25 mm between cols. 36 and 37,<sup>17</sup> which is comparable with the space before col. 1.

How then could it be that the join in front of col. 1 was made *after* copying the text, while the text was written *over* the joins in all other cases? It is most probably due to the little-known fact that P. Hermitage 1115 is a palimpsest. Traces of the washed-off original text are visible all over the papyrus surface,<sup>18</sup> but they are too slight to reconstruct even a single sign with certainty. However, careful microscopy proves that the traces remaining on both sides of the sheet joins do not match up (this can be seen on both sides of the joins of sheets 0 and 1, 2 and 3, 6 and 7, 7 and 8, 8 and 9).<sup>19</sup> The only possible explanation of the phenomenon is that Ameni did not simply use an old papyrus, but assembled the new roll by recutting and rejoining at least some of the sheets—apparently in order to remove damaged areas. As a result, the sheet length varies in P. Hermitage 1115 greatly (measured along the upper edge):

sheet 1 (cols. 1–11).....	227 mm
	(apart from the space covered by the strip of sheet 0)
sheet 2 (cols. 12–19).....	172 mm
sheet 3 (cols. 20–36).....	311 mm
sheet 4 (cols. 37–99).....	1036 mm
sheet 5 (cols. 99–123).....	370 mm
sheet 6 (right edge after col. 123, left edge across ll. 124–32).....	117 mm
sheet 7 (right edge across ll. 124–32, left edge across ll. 161–9).....	862 mm
sheet 8 (right edge across ll. 161–9, left edge in front of col. 177).....	379 mm
sheet 9 (cols. 176–89).....	305 mm <sup>20</sup>

Thus, we can suppose that for some reason (perhaps haste?) the scribe began copying the text on loose sheets 0 and 1 *before* the roll was assembled (the following sheets might have still been wet after the text was washed off). All the sheets, including 0 and 1, were then glued together to form a roll, the *šms* sign in col. 1 being partly covered. After the roll was reassembled, Ameni cut its upper and lower edges in order to make them even; the traces of the cut-off signs of the original text can be seen above the following columns: 56, 58, 64, 72, 81, 83–4, 87, 92–4, 98–9, 109–13, 123, ll. 124, 133, 143, 152, 161, 170; and below the following columns: 15–17, 21–2, 24, 34–6, 54, 58–60, 61–4, 66, 76, 83–7, 90–6, 99–101, 107, 112, 115, 119, ll. 132, 142, 151, 160, 169, 176. This would explain the unusual narrowness of P. Hermitage 1115 (12 cm), which has no parallel amongst Middle Kingdom literary papyri.

I shall now turn to the two alternative interpretations. The proposal of a blank protective sheet 0 is very implausible. First of all, it would be quite absurd to begin writing from the very edge of sheet 1, and only later add the protective sheet—Ameni would simply ‘indent’ the text from the edge, leaving some space approximately equal to the length of the outer coil of the roll; such an estimate would pose no difficulty for the ‘scribe excellent of his fingers’ (col. 188). The matter is very different if, as suggested above, the text had been written on loose sheets—in that case the discomfort of writing along the very edge of a sheet would have been unavoidable. Secondly, I can hardly imagine that a whole sheet of papyrus would have been wasted by the thrifty scribe in order to make a protector. And as far as I know, such protective sheets were never used.

The possibility that the papyrus strip itself was a complete and sole protector may seem more likely. Some papyri have such protective strips,<sup>21</sup> but in the case of P. Hermitage 1115, serious

<sup>17</sup> Golénisheff, *Les papyrus*, pl. ii.

<sup>18</sup> These are discernible even in Golénisheff’s publication, but on the black-and-white plates they can easily be misinterpreted as natural darkening of the papyrus.

<sup>19</sup> Noticeable only in the original.

<sup>20</sup> The figures listed in Golénisheff’s *Inventaire*, 182, do not give the lengths of the sheets, but the lengths of the sections of the papyrus mounted in glass frames.

<sup>21</sup> L. Borchardt, *ZÄS* 27 (1889), 119; J. Černý, *Paper and Books in Ancient Egypt* (London, 1952), 19. I was

objections can be raised against this interpretation in spite of its attractive simplicity. First of all, almost all of the protected papyri are much later than the *Shipwrecked Sailor* (mainly Late Period and Ptolemaic religious texts).<sup>22</sup> Secondly, texts never begin immediately after such protectors, but are separated from them by margins of several centimetres. Thirdly, protectors are wider<sup>23</sup> than the quite uselessly narrow strip of P. Hermitage 1115, which exerts extra pressure on the next coil and crushes it, and which is, thus, not a protector but a destroyer (see below). Furthermore, in contrast to the case in P. Hermitage 1115, it is much more natural to paste the protector on prior to writing.<sup>24</sup> Finally, a protective strip makes sense only if it does not project beyond the right edge of the sheet it is glued onto, and thus forms a thick and firm outer end to the roll; otherwise its projecting part would itself become tattered. The strip preserved on sheet 1 of P. Hermitage 1115 does project beyond its edge and, as a result, its right part is broken off (pl. XXV, 1)—how then can it be regarded as a protector?

Thus, the supposition that a sheet  $\emptyset$  once bore the beginning of the *Shipwrecked Sailor*, although rather complicated and based on some assumptions, is preferable to the view that the layer of papyrus is a protective strip, or the remains of a protector.

One more circumstance relating to the problem of the beginning of the *Shipwrecked Sailor* should be mentioned. Several small lacunae along the upper and lower edges of sheet 1 (above cols. 18–19, 13, 8 and 3, below cols. 7 and 2) are placed regularly, at intervals of 103–13 mm (fig. 1); these allow the length of the outer coils of the roll to be determined. The space between a large crack over col. 6 and the join with sheet  $\emptyset$  is approximately 120 mm. So this crack must have appeared at the place where the relatively thick join was pressing the next coil of the papyrus. This could happen only when the previous sheet ( $\emptyset$ ) was lost—until then the pressure would have been distributed more evenly by the outer coil(s). Thus the papyrus must have been in use for some time without the initial sheet  $\emptyset$ .<sup>25</sup> I think we cannot suppose that it was lost in modern times, while the papyrus was in the hands of its discoverers: if it had been handled so carelessly that an entire sheet disappeared, some lacunae would inevitably have appeared in the coil that became the outermost one after the loss of the previous one(s). Apart from the crack over col. 6 and the small lacunae at the edges, the damage is quite insignificant. Thus, it seems that the papyrus was treated very carefully even after the disappearance of sheet  $\emptyset$ , and this suggests that the loss occurred in antiquity.

Finally, it should be mentioned that Golénisheff did not reproduce the left end of P. Hermitage 1115,<sup>26</sup> where a papyrus strip of the same quality remains glued underneath the edge of the last sheet (pl. XXV, 2). As a result, it is not generally known that the papyrus once had one or more sheets which went beyond the end of the *Tale of the Shipwrecked Sailor*. When Golénisheff unrolled the papyrus, those sheets were already absent<sup>27</sup> and one must suppose that they had been cut off in antiquity. The last sheet(s) could have contained the end of the original (palimpsest) text that was longer than the *Shipwrecked Sailor*; after the reuse of the papyrus it/they were useless and

able to work with the originals of the papyri mentioned by Borchardt and Černý thanks to the kindness of Dr Ingeborg Müller, Curator of the Berlin Papyrussammlung.

<sup>22</sup>G. Möller (*Hieratische Paläographie*, 1 (Leipzig, 1927), 5, Anm. 6) and J. Černý (op. cit. 19) refer to the Ramesseum manuscript of the *Eloquent Peasant* and *Sinuhe* (P. Berlin 10499) as the only Middle Kingdom papyrus with a protective strip. However, I could not see any strip when working on the papyrus in 1992. Could it have disappeared when Hugo Ibscher mounted the papyrus on celluloid in 1909? Anyway, we now lack the only evidence chronologically comparable with P. Hermitage 1115.

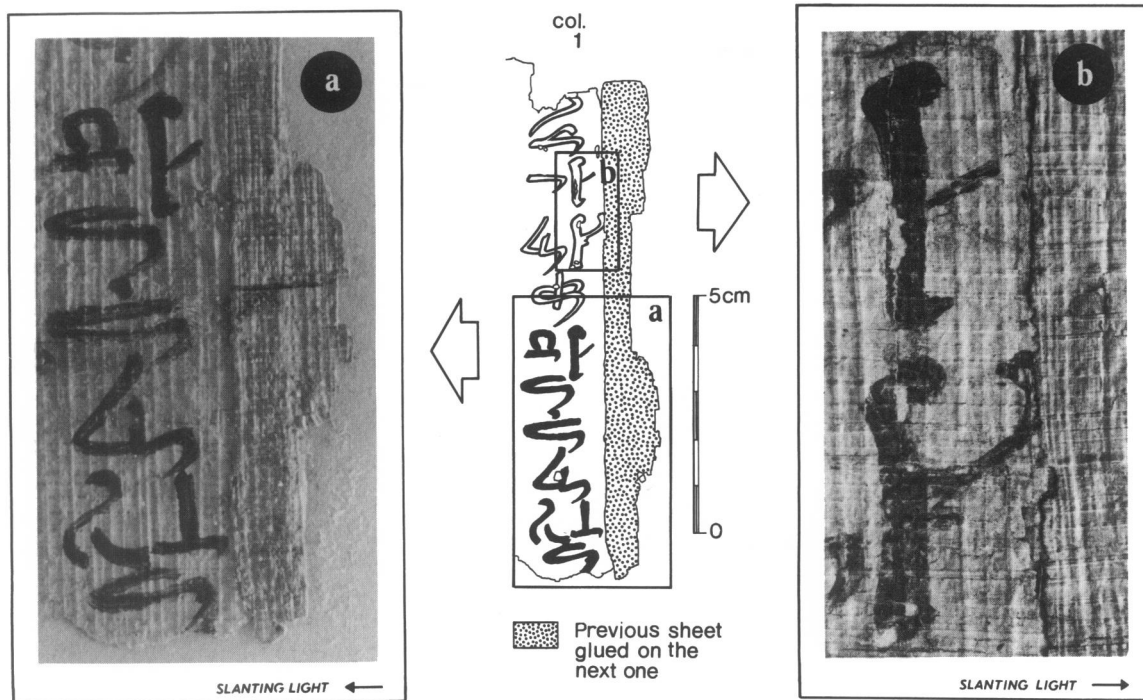
<sup>23</sup>From 2 cm (P. Berlin 3028) to 9 cm (P. Berlin 3013).

<sup>24</sup>The border of a vignette is drawn over the join of the protector and the first sheet of P. Berlin 3013.

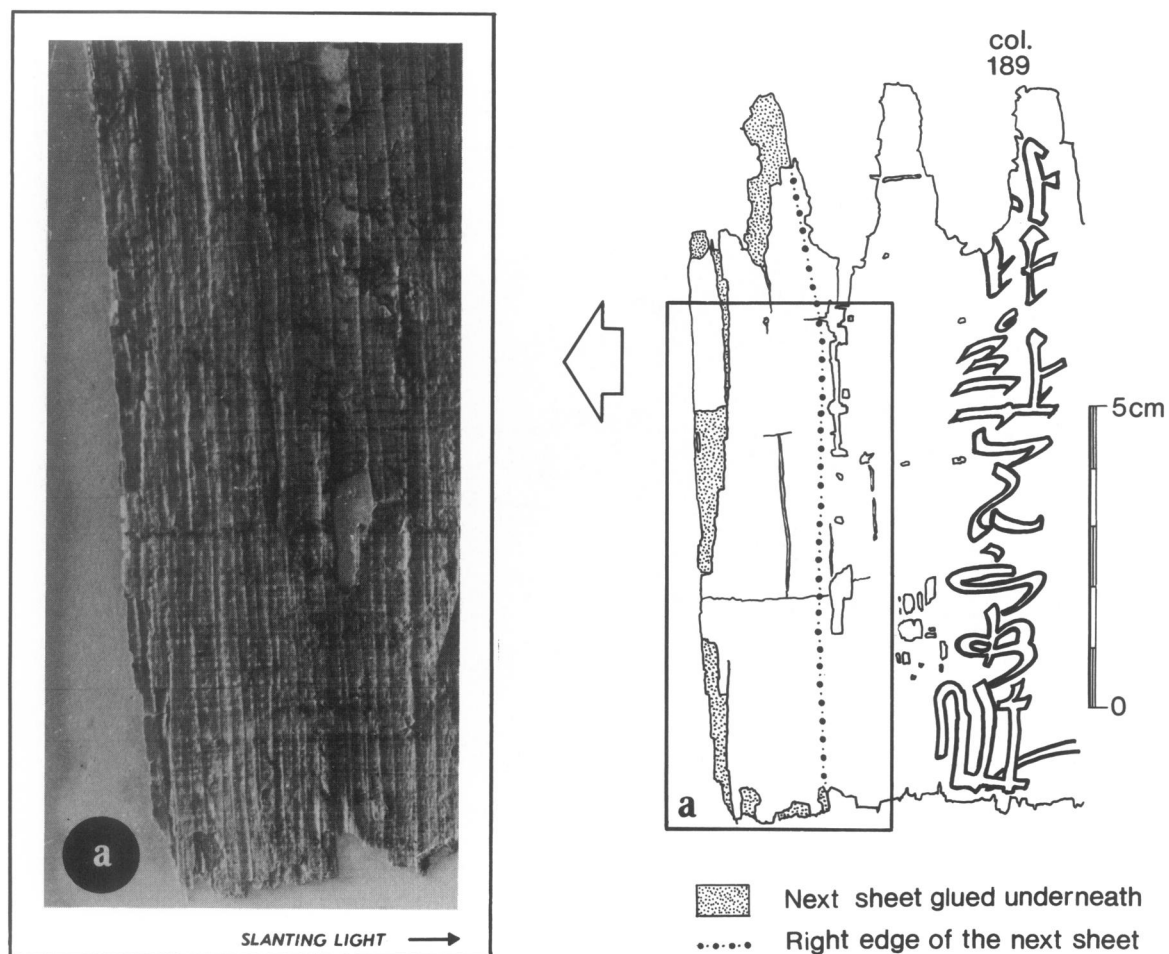
<sup>25</sup>One might object that the same pattern of damage could have arisen from a protective strip, and that a sheet  $\emptyset$  need not have existed at all (see above). However, the simplest explanation is not necessarily the best. I suggest that as Egyptian scribes would have had great experience in handling papyri, Ameni would never have used such a harmful 'protector'.

<sup>26</sup>Golénisheff, *Les papyrus*, pl. viii.

<sup>27</sup>To judge by the intervals between the lacunae above cols. 177–89 the diameter of the first (i.e. the innermost) coil of the papyrus was approximately 7–8 mm, which means that there were no additional sheets when the scroll was rolled up for the last time in antiquity.



1. Placement of the lacunae on the first sheets of P. Hermitage 1115



2. P. Hermitage 1115, edge of the last sheet

were cut off. This supposition gains some support from the rather straight present left edge of the papyrus.

In short, the history of P. Hermitage 1115 can be reconstructed in the following way: a certain text, longer than the *Shipwrecked Sailor*, was written on the original roll. The scribe Ameni washed this off and disassembled the papyrus to remove the damaged areas, and then began to copy the *Shipwrecked Sailor* on the unjoined sheets  $\emptyset$  and 1. Then he reassembled the roll, cut its upper and lower edges, completed copying the tale, and cut the unused last sheet(s) off. Later on the initial sheet ( $\emptyset$ ) was lost, but the roll still remained in use for some time. Subsequently, the papyrus was most probably put into the burial chamber of a tomb,<sup>28</sup> where it lay untouched until its discovery in the late eighteenth or the early nineteenth century. Unfortunately, the way in which the papyrus arrived at the Hermitage remains uncertain.

The reconstruction proposed above may, of course, seem too bold, but it is based on the data provided by the papyrus itself;<sup>29</sup> however, I do not pretend to have solved the problem once and for all. Nobody can know what information will be necessary for future scholarship, and our task is, thus, to collect it as thoroughly as possible.

ANDREY O. BOLSHAKOV

### The Ashburnham ring and the burial of General Djehuty\*

Publication of British Museum EA 71492, suggesting its probable association with the burial of Djehuty, the 'hero of Joppa', brought to light by local inhabitants at Saqqara in 1824.

THE Ashburnham ring, now British Museum EA 71492<sup>1</sup> (pl. XXVI, 1), is one of the most spectacular pieces of Egyptian jewellery to be added to the national collection for many years. By its probable association with one of the great military heroes of the reign of Tuthmosis III, it is also among the most historically interesting.

According to tradition, the ring was acquired by the Earl of Ashburnham (then Viscount St Asaph)<sup>2</sup> in Cairo in 1825, a probable stray from work carried out by Bernardino Drovetti<sup>3</sup> at

<sup>28</sup> This supposition is based on the extremely good preservation of the papyrus, typical of rolls found in tombs, but unattainable under other conditions.

<sup>29</sup> Unfortunately the papyrus is gummed onto a paper backing, which for the foreseeable future deprives us of any information encoded on its recto.

\*A version of this note was originally published (in Russian) in *Vestnik Drevnej Istorii* 3 (1991), 225-9. Thanks are due to my former colleagues in the Department of Egyptian Antiquities at the British Museum and particularly to the Keeper W. V. Davies.

<sup>1</sup> For the piece, see B. E. Pote, *Inquiry into the Phonetic Reading of the Ashburnham Signet, in Reference to the Patriarch Joseph, with Doubts as to the Value of Egyptian Authorities* (London, 1841) (not seen); J. Bonomi, *Trans. Royal Soc. of Lit.* (2nd ser.) 1 (1843), 108-12; MS entitled 'Copy [by J. R. Bickersteth] of a note made by Bertram 4th Earl of Ashburnham, 15 March 1856' (photocopy preserved in the Department of Egyptian Antiquities, British Museum); W. M. F. Petrie, *A History of Egypt During the XVIIth and XVIIIth Dynasties* (London, 1896), 99; P. E. Newberry, *Egyptian Antiquities. Scarabs. An Introduction to the Study of Egyptian Seals and Signet Rings* (London, 1906), 94, fig. 110; B. Jaeger, *Essai de classification et datation des scarabées Menkheperrê* (Göttingen, 1982), 108, fig. 250 (from Newberry); *British Museum Society Bulletin* 62 (winter 1989), 47, ill.

<sup>2</sup> Born Bertram Ashburnham, 23 November 1797; Viscount St Asaph 7 June 1813; fourth Earl of Ashburnham 27 October 1830; died 7 June 1878. See G. E. Cokayne, *The Complete Peerage of England, Scotland, Ireland, Great Britain and the United Kingdom, Extant, Extinct or Dormant* (new edition, revised and enlarged by the Hon. Vicary Gibbs; London, 1910), 274.

<sup>3</sup> W. R. Dawson and E. P. Uphill, *Who Was Who in Egyptology*<sup>2</sup> (London, 1972), 90.

Saqqara in 1824 (see below). Shortly after its acquisition by Ashburnham, the piece is said to have been looted by pirates during shipment from Alexandria to Smyrna, to be sold with other booty on the island of 'Syra'.<sup>4</sup> The ring eventually found its way via a Greek merchant to Istanbul. From Istanbul it passed into the hands of Giovanni d'Athanasii,<sup>5</sup> an agent of Henry Salt,<sup>6</sup> and was later offered to the British Museum. The Museum's Egyptologist, Samuel Birch,<sup>7</sup> doubting the authenticity of the ring, declined the purchase. Acquired by Joseph Bonomi,<sup>8</sup> the ring was subsequently purchased—for a second time—by Lord Ashburnham. It then passed to a family retainer, from a descendant of whom it was at last acquired for the national collection in 1989.

Both the rectangular swivel bezel of the ring, which measures 2.1 cm long, 1.6 cm wide and 0.4 cm in thickness, and the round-section shank (0.45 cm maximum diameter), to which the bezel is wired in the usual manner, are fashioned from massive yellow gold.<sup>9</sup> The weight of the whole is 35.8 gm. Each face of the bezel is deeply chased with a portion of the royal titulary: (1) 'He of the Two Ladies, Great of terror in all lands'; (2) 'Menkheperre, beloved of Ptah-radiant-of-face'.<sup>10</sup>

About its origins, Bonomi<sup>11</sup> writes:

In the winter of 1824 a discovery was made in Sakkara, of a tomb enclosing a mummy entirely cased in solid gold, (each limb, each finger of which, had its particular envelope inscribed with hieroglyphics,) a scarabæus attached to a gold chain, a gold ring, and a pair of bracelets of gold, with other valuable relics.

This account was wrested from the excavators *à coups de bâton* administered by Mohammed Defterdar Bey; by which means were recovered to Sig<sup>r</sup>. Drovetti, (at whose charge the excavation was made,) the scarabæus and gold chain, a fragment of the gold envelope, and the bracelets, now in the Leyden Museum, which bear the same name as this ring.

From the circumstances of the bracelets bearing the same name as this ring, and from the word Ptah, the name of the tutelar divinity of Memphis, (of which city Sakkara was the necropolis,) being also inscribed upon it, there is little doubt it was found in that place, and, from the confession of the Arabs, a great probability that it came out of the same excavation.

The scarab and one of the bracelets referred to in this passage are evidently Leiden AO 1a and AO 2b respectively.<sup>12</sup> The former carries the usual extract from Spell 30 of the Book of the Dead on the base, with the name of the owner, 'the Overseer of northern foreign lands, Djehuty', on the back.

Christine Lilyquist, in her recent study of the gold bowl of Djehuty in the Louvre, has gathered together the evidence relating to this man, and concludes that it is likely he was buried, not at Thebes, as is usually stated, but at Saqqara.<sup>13</sup> Bonomi's article on the Ashburnham ring not only lends support to this conclusion, but suggests that the ring formed a part of his burial equipment.<sup>14</sup> If so, it represents a particularly appropriate addition to a collection which boasts the only known

<sup>4</sup> Presumably the Greek island of Siros.

<sup>5</sup> Dawson and Uphill, *op. cit.* 13.

<sup>6</sup> *Ibid.* 258.

<sup>7</sup> *Ibid.* 27–8.

<sup>8</sup> *Ibid.* 33.

<sup>9</sup> British Museum Research Laboratory report no. 5639 (14 December 1987). Optical microscopy shows the surface of the bezel to have over sixteen silvery coloured metallic inclusions, mainly towards one corner, while the shank itself has several inclusions along its length. Analysis by means of scanning electron microscope shows these inclusions to be of similar osmium/iridium/ruthenium ternary alloy composition. Such 'platinum group metal' inclusions are associated with ancient gold placer deposits and pass unmelted into cast objects made from unrefined gold. Although the bezel and the two wires are of the same composition, that of the shank is a little, but significantly, different: 94.5% Au for the latter as compared with 95.6% Au for the former. There is no indication, however, that the shank and bezel are not contemporary, or that they were not assembled in antiquity.

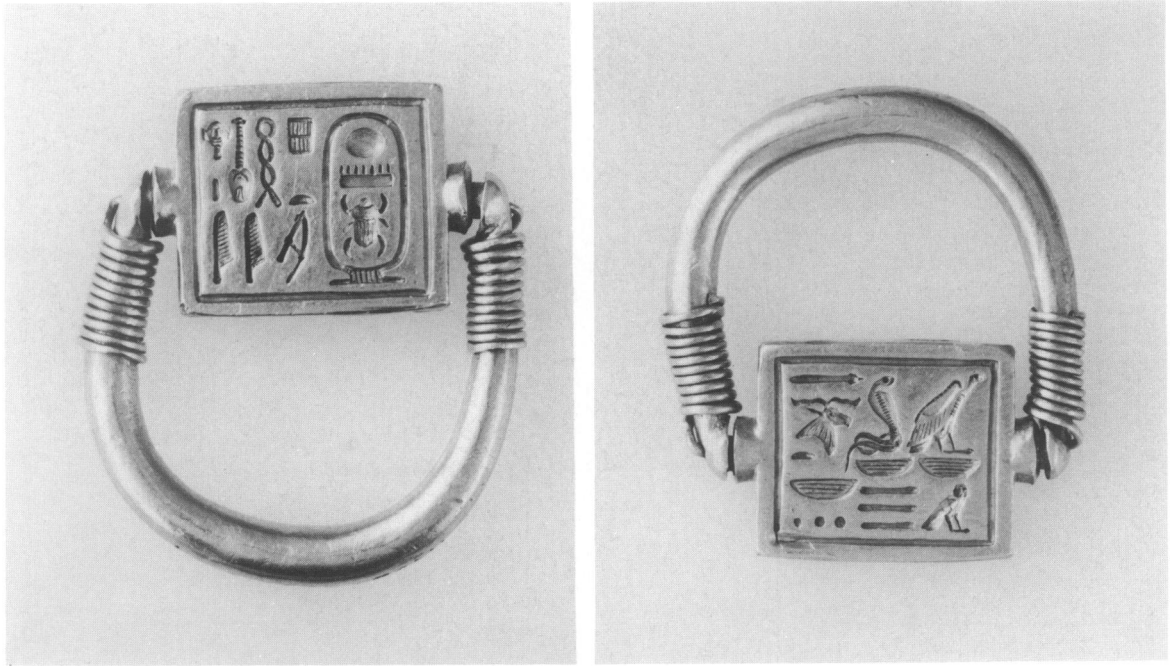
<sup>10</sup> For similar rings of gold and silver, inscribed for Amenophis II, see Roemer- und Pelizaeus-Museum, Hildesheim, *Ägyptens Aufstieg zur Weltmacht* (Mainz, 1987), 236, no. 167 (Louvre AF 2276 [gold]); 237, no. 169 (Boston MFA 1985.433 [silver]).

<sup>11</sup> See n. 1.

<sup>12</sup> Christine Lilyquist, *MMJ* 23 (1988), 59 (14), 60 (II).

<sup>13</sup> *Ibid.* 5–68.

<sup>14</sup> A suggestion independently made, I understand from W. V. Davies, by Beatrix Gessler.



1. British Museum EA 71492 (*Courtesy of the Trustees of the British Museum*)

THE ASHBURNHAM RING AND GENERAL DJEHUTY (pp. 259-61)



2. The stela of Inu . . . from Saqqara

AN EARLY RAMESSIDE STELA (pp. 261-5)



copy of 'The Capture of Joppa',<sup>15</sup> in which General Djehuty played such a prominent part, as well as the only extant (albeit headless) statue of this man to have come down to us.<sup>16</sup>

NICHOLAS REEVES

### An early Ramesside stela of a chief of hour watchers in the Memphite temple of Ptah\*

Publication of a fragment of a Ramesside tomb stela of Inu..., chief of hour watchers and chief of the offering bearers in the temple of Ptah. The stela was found at Saqqara, next to the tomb of Horemheb. The lexicography of the titles and the name are discussed in detail.

In December 1989 I was directed by the Egyptian Antiquities Organization to clear sand to the south of the tomb of Horemheb at Saqqara in order to find out why the reverse side of the reliefs in the inner courtyard of that monument was being affected by humidity and salt deposits. The area cleared was close to the exterior of the southern outer mud-brick wall<sup>1</sup> and measured some 2 by 2 m. The most interesting discovery was the upper part of an early Ramesside tomb stela found in the debris of a destroyed later building, although there is no reason to believe that the stela originally belonged to that structure (pl. XXVI, 2). The limestone fragment is 38 cm high, 63 cm wide, and 10 cm thick. It is decorated in sunk relief and bears the remains of an incised hieroglyphic text. No traces of paint remain. Some of the *tafl* (hard sand) spots adhering to the surface of the stela have been removed but others have been left to avoid damage. The right side of the stela's cornice is lost and the relief is damaged in the top right corner and along the break. The stela bears a standard representation of the seated god Ptah,<sup>2</sup> facing right and holding the combined *dd*-, *nh*-, and *ws*-symbols (pl. XXVII, 2). Before him stands a man presenting two small offering stands (pl. XXVII, 1). There is enough space between the two figures for a now-lost table with offerings.<sup>3</sup> Above and between them is a hieroglyphic text in ten vertical columns. The lintel and jambs are uninscribed, although the left jamb bears three roughly incised graffiti. The first two can be identified as *sdm*- and *w*-signs but the third is unclear (pl. XXVII, 3).

#### Text (fig. 1)

(1) *hṭp dī nsw* <n> *Pth* (2) *nb mꜣt nsw trwy* (3) *hr nfr* (4) *hry st-wr* <t> (5) *n kꜣ n hry wnꜣwy* <w> (6) *smn hry ms* (7-8) *wꜣnw* (9) *n pr Pth* (10) 'Inw [...].

(1) 'An offering which the king gives <to> Ptah, (2) Lord of Maat,<sup>a</sup> King of the Two Lands,<sup>b</sup> (3) the one with the beautiful face,<sup>c</sup> (4) he who is upon the great throne,<sup>d</sup> (5) to the *ka* of the chief of hour watchers,<sup>e</sup> (6) appointed <as><sup>f</sup> chief of the offering (7-8) bearers,<sup>g</sup> (9) in the temple of Ptah, (10) Inu...'<sup>h</sup>

#### Commentary

(a) Sandman Holmberg, *The God Ptah*, 75-9, translates this as 'right', 'justice'. See also for interpretations of Maat: J. Assmann, *Maat. Gerechtigkeit und Unsterblichkeit im alten Ägypten* (München, 1990); *Wb.* II, 18-20,

<sup>15</sup> British Museum EA 10060: cf. W. K. Simpson, R. O. Faulkner and E. F. Wente, *The Literature of Ancient Egypt* (New Haven and London, 1972), 81-4, with references.

<sup>16</sup> British Museum EA 69863. For the piece, see Lilyquist, *op. cit.* 15-16, 59.

\*I am very grateful for the help and advice of Prof. G. T. Martin, Dr J. Malek, Dr Y. Harpur and the staff of the Griffith Institute. This paper was prepared during my stay in Oxford as a holder of the A. H. Gardiner Travel Scholarship.

<sup>1</sup> G. T. Martin, *The Memphite Tomb of Horemheb, Commander-in-Chief of Tutankhamun* (London, 1989), pl. 5.

<sup>2</sup> M. Sandman Holmberg, *The God Ptah* (Lund, 1946), 12-14; *HTBM*, VII, pl. 41.

<sup>3</sup> E.g. W. M. F. Petrie, *Memphis*, I (London, 1909), pls. xiv (31-5), xv (36-7); *HTBM*, VII, pls. 40-1; X, pl. 72.





FIG. 1. The text of the stela of Inu...

'Wahrheit'; C. J. Bleeker, *De beteekenis van de Egyptische godin Ma-a-t* (Leiden, 1929), 34; H. Kees, *Götterglaube im alten Aegypten* (Leipzig, 1941), 248-51, 'Richtigkeit, Wichtigkeit, Ordnung'; W. Helck, *LÄ* II, 1110, 1119, 'Ordnung, Gerechtigkeit'; R. Anthes, *JNES* 13 (1954), 37; id., *JAOC* 14 supplement (1952), 8-9, 'Peace, order'.

(b) Sandman Holmberg, op. cit. 83-6; *Wb.* II, 327.12; Kees, op. cit. 380; U. Luft, *Beiträge zur Historisierung der Götterwelt und der Mythenschreibung*, (Budapest, 1978), 143-5.

(c) Sandman Holmberg, op. cit. 108-11; for *hr nfr* see Ph. Germond, *BSEG* 4 (1980), 39-43.

(d) H. te Velde, *LÄ* IV, 1179-80. Although Ptah is not the only god who receives the epithet *hry st wrt*, it is accorded to him with great regularity; see A. H. Gardiner, *The Wilbour Papyrus*, II (Oxford, 1948), 13 n. 1; id., *JEA* 34 (1948), 21 n. 4. He proposed on the basis of the demotic mythological text of Memphis that 'the great seat' was the sacred place where Ta-tjenen first appeared as 'Ptah upon the great seat', so that the name and epithet would refer to the earliest form in which Ptah materialized, prior even to his forms as Nun and Naunet, the primeval ocean deities who were the parents of Atum. Gardiner also offered a further possible definition for 'the great seat', suggesting that it was a land-owning institution, presumably representing the raised floor or the dais in the innermost sanctuary in the temple. J. Bergman (*Ich bin Isis* (Uppsala, 1968), 93 n. 5), discussing the Ptolemaic Period, claims that *st wrt* refers to the place in the temple of Ptah at Memphis where kings were crowned. D. Arnold (*Wandrelief und Raumbfunktion in ägyptischen Tempeln des Neuen Reiches* (Berlin, 1962), 24-7), however, assumes that *st wrt* is the barque sanctuary, while H. Junker, (*Die politische Lehre von Memphis* (Berlin, 1941), 19, 40) suggested that *st wrt* simply referred to Memphis itself.

(e) I am unable to find another instance of the word *wnwtj* followed by the sign of a squatting nobleman with a flagellum, presumably a generic determinative.<sup>4</sup> The writing of *wnwtj* varies a great deal. The following list gives examples from the Middle Kingdom onwards.

#### Middle Kingdom:

𓏏𓏏\*, 𓏏𓏏\*, 𓏏\*

(Cairo CG 20140, 20524, 20725)

\*𓏏

(Cairo CG 482)

𓏏

(G. T. Martin, *Egyptian Administrative and Private-Name Seals* (Oxford, 1971), 30 (321), pl. 33 (17))<sup>5</sup>

#### Eighteenth Dynasty:

𓏏𓏏𓏏

(Theban Tomb 52)<sup>6</sup>

<sup>4</sup> For a similar, although not identical use of the sign, see R. A. Caminos, *MDAIK* 16 (1958), 23.

<sup>5</sup> See also A. C. Mace, *JEA* 8 (1922), 14, pl. III (11).

<sup>6</sup> N. de G. Davies, *The Tomb of Nakht at Thebes* (New York, 1917), 49 n. 1.

\*𓏏, \*

(Florence 6371)<sup>7</sup>

## Ramesside Period:

𓏏𓏏 \*𓏏

(P. Leiden, I 350 verso iv. 25)<sup>8</sup>

𓏏𓏏 \*𓏏

(P. Hood, 2.12)<sup>9</sup>

𓏏𓏏 𓏏𓏏 \*𓏏

(P. Golenischeff, 2.11)<sup>10</sup>

## Late Period:

𓏏𓏏 \*

(Florence 2502)<sup>11</sup>

𓏏𓏏 \*

(Martin, *The Tomb of Hetepka* (London, 1979), 50 (162), pl. 45 (162))

\*𓏏

(Copenhagen, Nationalmuseet 3547)<sup>12</sup>

## Graeco-Roman Period:

𓏏

(É. Chassinat, *Le Temple d'Edfou*, vi (Cairo, 1931), 346)

𓏏

(S. Sauneron, *Le Temple de Esna*, III (Cairo, 1968), 9, 195, 197, 284)<sup>13</sup>

The title occurs in connection with various deities, for instance, the *wnwty n'Imn*,<sup>14</sup> the *wnwty (n) ist*,<sup>15</sup> and the *wnwty n Nmty*.<sup>16</sup> There is also reference to an *ꜥ* of the *wnwty n pr-ꜥ*,<sup>17</sup> as well as an *iry-ꜥ* of the *wršw* and *wnwty(w)*,<sup>18</sup> and a *wnwty hry tp hwt-ḥ* ( \*𓏏𓏏𓏏𓏏 ).<sup>19</sup> According to Wild<sup>20</sup> and others,<sup>21</sup> the title *wnwty*, attested in the Middle Kingdom, was replaced by *imy wnw*t ( +𓏏𓏏𓏏𓏏 ) during the Ramesside period<sup>22</sup>

<sup>7</sup> E. Schiaparelli, *Museo Archeologico di Firenze. Antichità egizie* (Rome, 1887), 491; S. Bosticco, *Museo Archeologico di Firenze. Le stele egiziane del Nuovo Regno* (Rome, 1965), 42-3, pl. 35; H. Wild, *BIFAO* 69 (1971), 124.

<sup>8</sup> J. Janssen, *Two Ancient Egyptian Ship's Logs* (Leiden, 1961), 15 (iv. 25), 44, 46.

<sup>9</sup> A. H. Gardiner, *Ancient Egyptian Onomastica* (Oxford, 1947) III, pl. xv.

<sup>10</sup> *Ibid.*, pl. viii.

<sup>11</sup> Schiaparelli, *op. cit.* 372-3; Bosticco, *Museo Archeologico di Firenze. Le stele egiziane di Epoca Tarda* (Rome, 1972), 21-2, pl. 11.

<sup>12</sup> M. Mogensen, *Inscriptions hiéroglyphiques du Musée National de Copenhague* (Copenhagen, 1918), 85-7, pls. xxvii-xxviii.

<sup>13</sup> See also Sauneron, *Kémi* 15 (1959), 37-41.

<sup>14</sup> Davies, *op. cit.* 49 n. 1.

<sup>15</sup> Martin, *The Tomb of Hetepka*, 50 (162), pl. 45 (162).

<sup>16</sup> *KRI* II, 812.15.

<sup>17</sup> Schiaparelli, *op. cit.* 491-2; Bosticco, *Museo Archeologico di Firenze. Le stele egiziane del Nuovo Regno*, 42-3, pl. 35.

<sup>18</sup> Berlin 7286 (*Aegyptische Inschriften aus den Staatlichen Museen zu Berlin*, I (Leipzig, 1913), 192); Cairo CG 20140. See also R. J. Leprohon, *JARCE* 15 (1978), 35-6, discussing Louvre C. 33.

<sup>19</sup> Schiaparelli, *op. cit.* 491-2; Bosticco, *Museo Archeologico di Firenze. Le stele egiziane del Nuovo Regno*, 42-3, pl. 35; J. Černý, *JEA* 49 (1963), 173, who read the title *sbry* and not *wnwty*; W. Spiegelberg, *Rec. Trav.* 26 (1904), 157-8.

<sup>20</sup> H. Wild, *BIFAO* 69 (1971), 121-5.

<sup>21</sup> E.g. Gardiner, *Ancient Egyptian Onomastica* (Oxford, 1947), I, 61\*, 62\*; J. Vergote, *Joseph en Égypte* (Louvain, 1959), 87. P. Posener-Kriéger, *Les Archives du temple funéraire de Néferirkarê Kakai* (Cairo, 1976) I, 33 n. 2, suggests that the duties of *wnwtyw*-priests, who are not known until the Middle Kingdom, were undertaken by *hnty-š*-priests during the Old Kingdom.

<sup>22</sup> There is an uncertain instance of *imy wnw*t dated to the Middle Kingdom, quoted by Martin, *Egyptian Administrative and Private-Name Seals*, 30 (321), pl. 33 (17); W. A. Ward, *Index of Egyptian Administrative and Religious Titles of the Middle Kingdom* (Beirut, 1982), 9.25.

(Berlin 14084-5,<sup>23</sup> P. Golenisheff 2.11; P. Hood 2.3),<sup>24</sup> by  $\dagger \star$  in the Late Period (Copenhagen, Nationalmuseet 3547),<sup>25</sup> and by  $\dagger \star$ ,  $\dagger \star$ ,  $\dagger \star$ ,  $\dagger \star$ ,  $\dagger \star$  in the Graeco-Roman period (Chassinat, *Edfou* VI, 346 and Esna 197, 265, 284).<sup>26</sup>

*hry wnwty(w)* or *hry imy(w) wnwwt* presumably represents a higher rank—a man in charge of a group of *wnwty*-priests—but it is mainly known from the Late Period, as, for instance, *hry imy(w) wnwwt n Wsir m ibdw* ( $\dagger \star$ ) (Florence 2502),<sup>27</sup> *hry imy(w) wnwwt n'Imn-Rc* ( $\dagger \star$ ) (Copenhagen, Nationalmuseet 4537),<sup>28</sup> and *hry imy(w) wnwwt n Hr-Bhdty*.<sup>29</sup> Another priest held the same office in the temple of Amun, as the *hry imy(w) wnwwt n'Imn*.<sup>30</sup>

These titles may have been held by priests engaged in astronomical observation. This is suggested by the occurrence of the title *imy wnwwt* on a pair of astronomical instruments (Berlin 14084-5)<sup>31</sup> used for observing the stars and their movements.<sup>32</sup> As a result, this title has been translated 'astronomer, astrologer, hour-watcher'.<sup>33</sup> Norman de G. Davies accepted the explanation as 'astronomer', and suggested that the *wnwty*-priests were members of a rota of lay priests and that their period of service was fixed to certain hours of day or night.<sup>34</sup> Their duties were so general that their presence on the rota was the most salient feature of their office. However, Sauneron and Derchain-Urtel have both suggested that the duties of the *wnwty*-priests included observing the stars and arranging the daily rites before the main god of the temple.<sup>35</sup>

(f) *smn* seems to connect the titles *hry wnwty(w)* and *hry ms wdnw*. Since *smn* with the meaning 'appoint' is usually followed by the preposition *m*,<sup>36</sup> either we have to add it in order to obtain the meaning 'appointed as' or we have to assume that *smn* is a participle which describes the office of *hry wnwty(w)* as a fixed post.<sup>37</sup>

(g) The title 'chief of the offering bearers' is exclusively Ramesside.<sup>38</sup> It occurs at least three times, as:

$\dagger \star$  (K. Sethe, *ZÄS* 44 (1907), 40-1)

$\dagger \star$  (P. Abbott, 2.14)<sup>39</sup>

$\dagger \star$  (*Wb.* II, 135.23)

The following instances of the title *ms wdnw*, 'offering bearer',<sup>40</sup> may be cited:

$\dagger \star$  (Theban tomb 54)<sup>41</sup>

$\dagger \star$  (P. Hood, 2.3)<sup>42</sup>

<sup>23</sup> L. Borchardt, *ZÄS* 37 (1899), 10-11; Gardiner, *AEO* I, 61\*; *Aegyptische Inschriften ... Berlin*, II (Leipzig, 1924), 309.

<sup>24</sup> Gardiner, *AEO* III, pls. VIII, XV.

<sup>25</sup> Mogensen, op. cit. 85-7, pls. XXVII-XXVIII.

<sup>26</sup> Sauneron, *Esna* III, 9, 162, 195.

<sup>27</sup> Schiaparelli, op. cit. I, 372-3; Bosticco, *Museo Archeologico di Firenze. Les stele egiziane di Epoca Tarda*, 21-2, pl. 11.

<sup>28</sup> Mogensen, op. cit. 85-7, pls. XXVII-XXVIII.

<sup>29</sup> Spiegelberg, loc. cit.

<sup>30</sup> Spiegelberg, *ZÄS* 50 (1912), 44-5.

<sup>31</sup> See n. 23.

<sup>32</sup> M. T. Derchain-Urtel, *Priester im Tempel* (Wiesbaden, 1989), 178-9; W. Sloley, *JEA* 17 (1931), 169, pl. xvii, fig. 1; Sauneron, *Kêmi* 15, 36-41.

<sup>33</sup> *Wb.* I, 317.9; L. H. Lesko, *A Dictionary of Late Egyptian*, I (Berkeley, 1982), 116; *ALex* III, 69 (79.0683); Spiegelberg, *Rec. Trav.* 26, 158.

<sup>34</sup> Op. cit. 49; see also Kees, *Orientalia* 17 (1948), 316-17.

<sup>35</sup> Sauneron, *Les Prêtres de l'ancienne Egypte* (Paris, 1988), 70-1; Derchain-Urtel, op. cit. 178-9.

<sup>36</sup> *Wb.* IV, 133.6.

<sup>37</sup> *Wb.* IV, 131; Lesko, *DLE* III, 50-1; *Alex* III, 253 (79.2565).

<sup>38</sup> Gardiner, *AEO* I, 63\*, who says that 'offering bearer' is uniquely Ramesside and gives an example of a 'chief of offering bearers'.

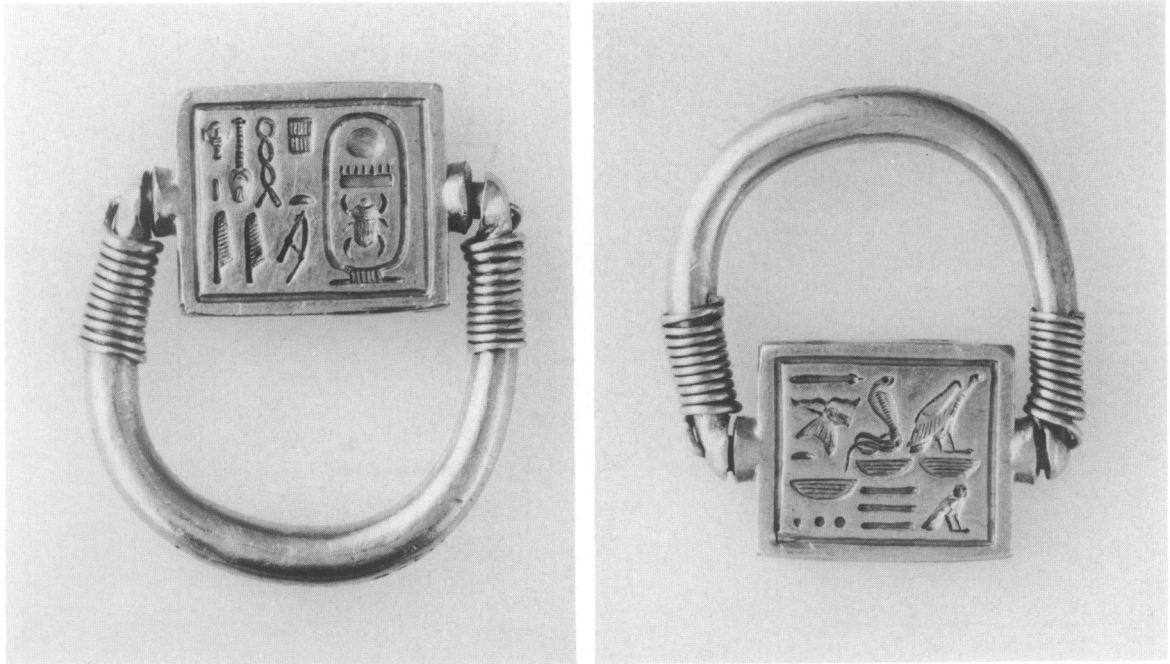
<sup>39</sup> E. Peet, *The Great Tomb Robberies of the Twentieth Egyptian Dynasty*, II (Oxford, 1930), pl. I.

<sup>40</sup> A. Erman, *ZÄS* 48 (1910), 39.

<sup>41</sup> PM I<sup>2</sup>, 104.

<sup>42</sup> Gardiner, *AEO* III, pl. xv.





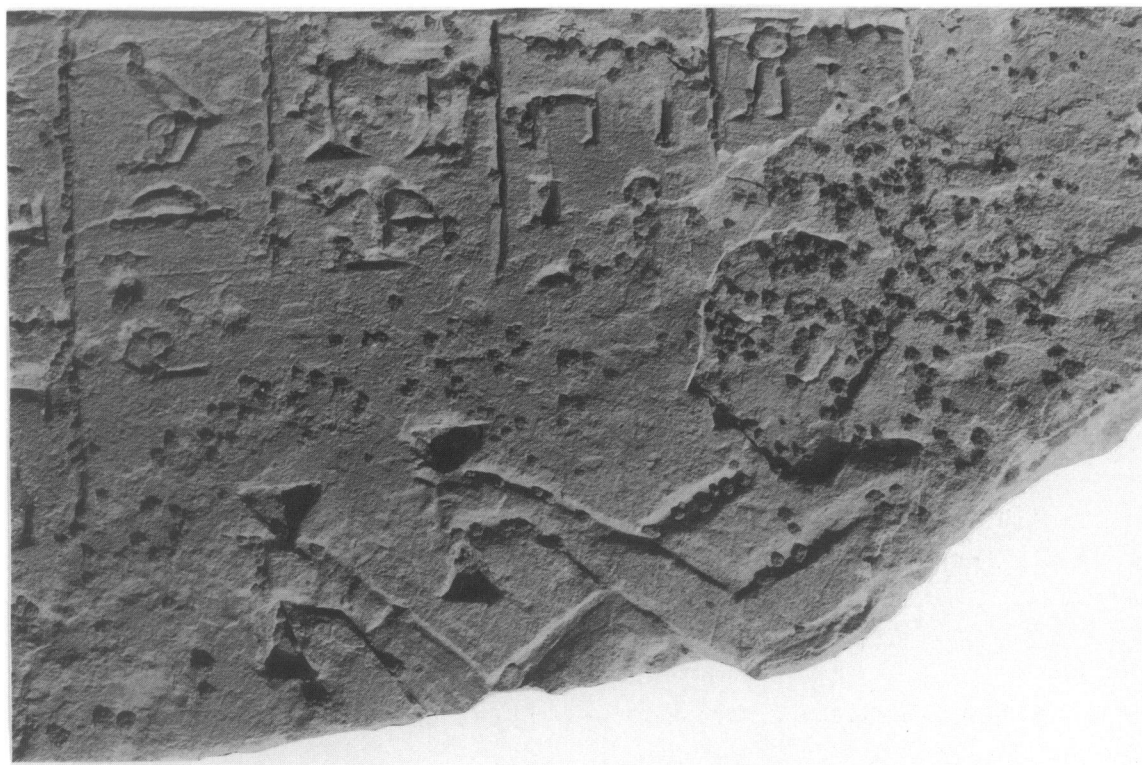
1. British Museum EA 71492 (*Courtesy of the Trustees of the British Museum*)

THE ASHBURNHAM RING AND GENERAL DJEHUTY (pp. 259-61)

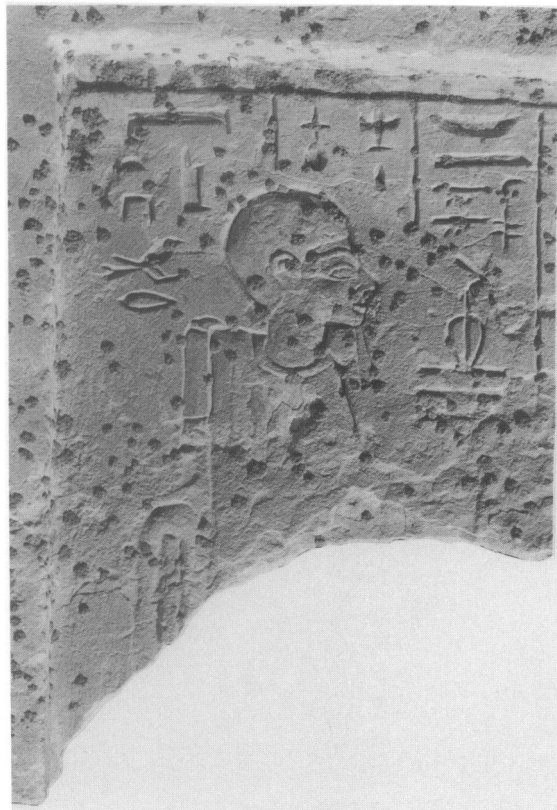


2. The stela of Inu . . . from Saqqara

AN EARLY RAMESSIDE STELA (pp. 261-5)



1. Detail of Inu ...



2. Detail of Ptah



3. Graffiti on the left jamb of the stela

*m-mjtt bnw* (pAnastasi I 4, 5)

The meaning of the wish for transformation 'like the *benu*-phoenix' in pAnastasi I has not hitherto been explained. The author suggests that *benu* may here stand for the planet Venus, as in New Kingdom astronomical texts; the wish may thus refer to the planet's changing phases.

In der Einleitung von pAnastasi I heisst es gegen Ende einer langen Liste guter Wünsche: *tw.k jrj.k hprw.k m mrwt n.k m-mjtt bnw, kj.k nb m ntr hft ///.k* (4, 5). Gardiner übersetzte 1911: 'mayest thou make thy transformations as thou listest like the Phoenix, every form of thine being a god when thou ...'<sup>1</sup> Ein Jahrzehnt später übersetzte Erman: 'Mögest du dich verwandeln in das, was du gerne möchtest gleich dem Phönix, indem deine Gestalt die eines Gottes ist...'<sup>2</sup> Noch 1969 gab Bresciani die Passage so wieder: 'possa tu far le tue trasformazioni che voi come le Fenice, ogni tua forma essendo un dio quando tu (...)'.<sup>3</sup> Diese Stelle übersetzte Fischer-Elfert in seiner 1986 erschienenen Bearbeitung von pAnastasi I, bei Ergänzung einer Präposition *m* zwischen *m-mjtt* und *bnw*: 'Mögest du deine (Verwand)lung vornehmen entsprechend deinem Wunsche, ebenso (in) die eines Phönix. All deine Wesensarten als Gott seien gemäss deinem (Wunsche?)'.<sup>4</sup>

Diese Interpretationen unterscheiden sich darin, dass einmal eine Verwandlung gewünscht wird in einen Benu und das andere Mal eine Verwandlung entsprechend der eines Benu. Fischer-Elfert beruft sich für seine Interpretation auf TB 83 mit der Überschrift *jrj hprw m bnw*: 'Gestalt anzunehmen als Phönix'. Die älteren Übersetzer haben sich nicht dazu geäussert, was sie unter der Verwandlung eines Menschen analog der Verwandlung eines Benu verstehen wollten. Sieht man von der bekannten Fabel Herodots ab,<sup>5</sup> so scheint kein altägyptischer Text über den sich regenerierenden Benu-Phönix zu berichten. Mithin haben zwar die älteren Übersetzungen den Vorzug wörtlich zu sein und auf die Ergänzung eines *m* zwischen *m-mjtt* und *bnw* verzichten zu können, bieten aber den Nachteil einer sachlich unerklärt bleibenden Textaussage.

Zugunsten der älteren Auffassung verweise ich auf eine Parallele, nach der sich eine Person in Analogie zu einem Gott verwandeln soll. In der mit pAnastasi I zeitgleichen Rahmeninschrift der astronomischen Decke im Ramesseum richten die Götter und Göttinnen des südlichen Himmels unter anderem folgende Worte an Ramses II.: *jrj n.k Rrw, hprw.k mj j'ch*: 'Re ist es der für dich schafft, deine Verwandlung ist wie die des Mondes'.<sup>6</sup> Demnach gilt hier die Verwandlung des Mondes als Modell für den König. Mit der Verwandlung des Mondes ist nach aller Wahrscheinlichkeit die monatliche Erneuerung gemeint, die sich im Zu- und Abnehmen und in zeitweiliger Unsichtbarkeit manifestiert.

Die Sargtexte und das Totenbuch bieten keine direkten Hinweise darauf, dass sich der Benu analog dem Mond oder sonstwie verwandelt. Aber die seit dem Beginn des Neuen Reiches belegte ausdrückliche Gleichsetzung des Benu mit dem Planeten Venus impliziert die Möglichkeit entsprechender Verwandlungen.<sup>7</sup> Bekanntlich erscheint Venus entweder als Morgenstern oder als Abendstern für jeweils über ein halbes Jahr, wobei zwischen diesen Sichtbarkeitsphasen kürzere oder längere Unsichtbarkeitszeiten liegen.<sup>8</sup> Wie die Mondphasen können auch die Venusphasen

<sup>1</sup> A. Gardiner, *Egyptian Hieratic Texts* (Leipzig, 1911), 8\*.

<sup>2</sup> A. Erman, *Die Literatur der Ägypter* (Leipzig, 1923), 274.

<sup>3</sup> E. Bresciani, *Letteratura e poesia dell'antico Egitto* (Torino, 1969), 327.

<sup>4</sup> H.-W. Fischer-Elfert, *Die satirische Streitschrift des Papyrus Anastasi I* (Wiesbaden, 1986), 37, 46.

<sup>5</sup> Herodot II 73; vgl. A. B. Lloyd, *Herodotus Book II. Commentary 1-98* (Leiden, 1976), 317-22.

<sup>6</sup> *Medinet Habu*, vi (Chicago, 1963), pl. 478 = O. Neugebauer and R. A. Parker, *Egyptian Astronomical Texts*, III (London, 1969), pl. 5. In der einzigen Übersetzung, die mir von dieser Stelle bekannt ist, fasste H. Brugsch, *Thesaurus*, I (Leipzig, 1883), 189, *jrj n.k* offensichtlich als indirekten Genetiv auf.

<sup>7</sup> Vgl. Neugebauer und Parker, *EAT* III, 182. Hier kann die Frage offen bleiben, ob unter Benu sowohl Venus-Morgenstern als auch Venus-Abendstern zu verstehen ist. Möglicherweise sind für diese Frage die von Neugebauer-Parker a.a.O. nicht herangezogenen, sehr spärlichen Belege für die 'Zwei Benu' von Bedeutung, vgl. E. el-Banna, *BIFAO* 85 (1985), 164-71. Für die Beziehungen des Benu zu anderen kosmischen Gottheiten wie z. B. Re, s. L. Kákosy, *LÄ* IV, 1032-4.

<sup>8</sup> Zur älteren Ausdeutung der Venusphasen als wiederholtes Erscheinen (*whm hrw*) des Sterns und zwar in Gestalt des Horusauges, siehe z.B. CT IV 100g-h; zur Beziehung zwischen Horusauge und Venus s. R. Krauss, *BSEG* 14 (1990), 49-54.



als *hprw* aufgefasst worden sein und unter einer solchen Voraussetzung lässt sich der Wunsch nach Verwandlung analog der Verwandlung des Benu verstehen.<sup>9</sup>

ROLF KRAUSS

### Psusennes II and Shoshenq I\*

The publication of a text naming both Psusennes II and Shoshenq I, copied in Theban Tomb A.18 by Sir John Gardner Wilkinson, and now lost.

THE end of the Twenty-first Dynasty and its transition into the Twenty-second is one of the more obscure parts of the notoriously opaque Third Intermediate Period. It saw the eclipse of the Tanite-Theban line of Pinudjem I and Psusennes I, and its replacement by kings of Libyan origin, firstly in the person of Osochor,<sup>1</sup> and definitively in that of Shoshenq I. The final king attributed to the Twenty-first Dynasty by Manetho is a Psusennes, almost universally identified with Tyetkheperre (Hor-)Psusennes.<sup>2</sup> Two kings Psusennes certainly reigned during the dynasty, this personage and the far better-known Akheperre Psusennes (I). The existence of a putative third bearer of the nomen *Pi-sbꜣ-hꜣ-niwt* is also sometimes mooted.<sup>3</sup> He is alleged to have borne the prenomen 'Hedjheqa...re', on the basis of a pair of cartouches published by Sir John Gardner Wilkinson in 1828.<sup>4</sup>

In 1988, reasons were given for doubting the existence of such a monarch, but with the proviso that any definite conclusions were hampered by a lack of knowledge as to exactly where, and in what inscriptional context, Wilkinson had found the cartouches.<sup>5</sup> This has now been remedied by the location of the original copy amongst Wilkinson's notebooks, owned by the National Trust and preserved in the Bodleian Library, Oxford.<sup>6</sup> The copy of the full text is reproduced on pl. XXVIII, 1, together with a second rendering of the last cartouche from the opposite page of Wilkinson's notebook (pl. XXVIII, 2). The latter is interesting in being rather more extensively hatched and showing the principal signs rather closer together.

The inscription lay 'at the doorway' of 'Piccinini's tb.', a Ramesside monument on Dira Abu'l-Naga now lost from view, although known to a number of early field workers. Owned by the Prophet of Amunresonther, Amenemopet, the number TT A.18 was allocated to it by Porter and Moss.<sup>7</sup> From the text's stated location and unequivocal Twenty-first or Twenty-second Dynasty date, there can be no real doubt that it represents a graffito.

A glance confirms that the two cartouches in the text belong to different kings. Comparison with the copyist's printed versions shows that these were largely faithful to the originals, so that little

<sup>9</sup> Zu *hprw*-Verwandlung s. W. Barta, *ZÄS* 109 (1982), 81-6, und H. Buchberger, *LÄ* VI, 1023-32.

\*My thanks go to John Tait and a *JEA* referee for comments that materially contributed to the final form of this paper.

<sup>1</sup> Osorkon the Elder—see J. Yoyotte, *BSFE* 77-8 (1976-77), 39-54; M.-A. Bonhême, *Les noms royaux dans l'Égypte de la Troisième Période Intermédiaire* (Cairo, 1987), 83-7.

<sup>2</sup> The material attributable to this king is summarized in A. M. Dodson, *RdE* 38 (1987), 49-51; cf. Yoyotte, *BSFET* 1 (1988), 41-53. See also Bonhême, op. cit. 60-3, and J. von Beckerath, *GM* 130 (1992), 17-19.

<sup>3</sup> E.g. by W. M. F. Petrie, *A History of Egypt*, III<sup>2</sup> (London, 1918), 225; H. Gauthier, *LR* III, 299 (1); D. Rohl, *JACF* 3 (1989-90), 69 n. 66. Cf. K. A. Kitchen, *The Third Intermediate Period in Egypt*<sup>2</sup> (Warminster, 1986), 12 n. 46; Yoyotte, *ibid.* 46 n. 1; Bonhême, op. cit. 63.

<sup>4</sup> *Materia Hieroglyphica* (Malta, 1828), pl. v.

<sup>5</sup> Dodson, *GM* 106 (1988), 15-18.

<sup>6</sup> MS Section B: 17 v, 150-1, utilised with acknowledgments to the owning institution. Cf. J. Thompson, *JEA* 78 (1992), 273-4.

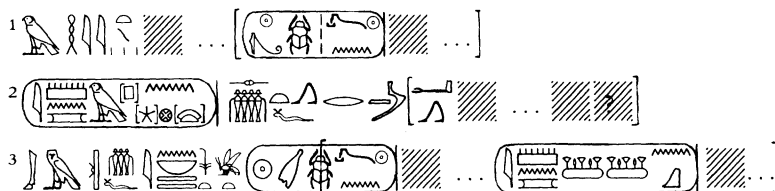
<sup>7</sup> PM I<sup>2</sup>, 452-3; L. Manniche, *City of the Dead* (London, 1987), 76-7. Dr Manniche informs me that she is in the process of preparing the full publication of the records relating to this tomb.



can be added to my previous discussion of them.<sup>8</sup> The first cartouche can hardly be read as other than that of Psusennes II: the central hawk is unique to him, with the hatching behind it clearly concealing the □. As copied, there seems little space above the ~~~~ for the expected \*⊕; perhaps they flanked the centred ⊕.<sup>9</sup> Little can be gleaned of the make-up of the second cartouche, except for traces in the right lower part that might conceal a ⊕, and a possible vertical stroke to its left. In contrast to the printed version, however, the supposed reversed ↑ is shown wholly hatched, making it even more likely that Wilkinson had made a mistake, confounding a damaged, probably cursive, ⦿ with the *hqj*-sceptre. Accordingly, I remain satisfied that 'Hedjkheperre' is the most likely reading,<sup>10</sup> the traces at the bottom suggesting that the complement was the common 'Setpenre'. That the king named is Shoshenq I is not, I think, open to question.<sup>11</sup>

The text is incomplete, and therefore presents difficulties. So much of the first column is missing that any attempt at restoration would be unwise, except to infer that it may have ended in Hor-Psusennes' prenomen, Tyetkheperure-setpenre.<sup>12</sup> While its beginning is clear, the second column exhibits problems at its end. Although not hatched in Wilkinson's copy, it is clearly incomplete, and it is difficult to ascertain how much is lost. Much depends on whether its length matched that of the third column; if so, up to five or six groups could have been present, on the assumption that, since the nomen of Psusennes II is included, the same was true of that of Shoshenq I.

The most that can be reasonably restored of the second column is the last incomplete word—most probably *mr*, 'present, offer' or 'lead, guide, direct; send, despatch'.<sup>13</sup> The preceding *shnt*, 'promote',<sup>14</sup> is, however, clear enough, as is its suffix pronoun. The text may accordingly be partially restored thus:



As far as a translation is concerned, nothing can realistically be made of column 1. The central part of the text records someone's promotion, with his further honour commemorated in the final column: 'He was rewarded again, by the Lord of the Two Lands, the Dual King, Hedjkheperre...'

Some time ago, I suggested that the evidence might point to Psusennes II having been a nominal co-regent of Shoshenq I, in a situation analogous with that of Pinudjem I under Smendes and Harsiese under Osorkon II.<sup>15</sup> Since it follows the common pattern of texts commemorating an official who had served more than one monarch, the text presented here does not provide any further evidence in this matter, other than confirming the relative order of these kings, and that their rules fell within one man's lifetime. Although incomplete, the text from TT A.18 is not without significance. The rediscovery of Wilkinson's copy allows us finally to lay to rest the aged phantom 'Hedjheqa...re Psusennes', and provides further, if flawed, data for work on the interface between the Twenty-first and Twenty-second Dynasties.

AIDAN DODSON

<sup>8</sup> Dodson, loc. cit.

<sup>9</sup> Although no precise parallel to this latter arrangement is known, the orthography of this king's name is distinctly variable; cf. von Beckerath, *Handbuch der ägyptischen Königsnamen* (Munich, 1984), 98, 254.

<sup>10</sup> Dodson, op. cit. 17-18.

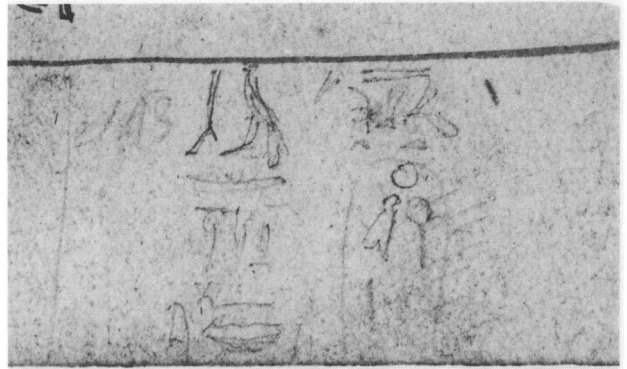
<sup>11</sup> After Smendes I, there seem to have been four bearers of the prenomen Hedjkheperre: Shoshenq I, Takelot II, Harsiese, and a Tanite ruler following Shoshenq III, provisionally dubbed 'Shoshenq Ia'. For this latter figure, see Dodson, *The Canopic Equipment of the Kings of Egypt* (London, 1993), 93-4. Only the first has any chronological or other links with Psusennes II (Dodson, *RdE* 38, 50).

<sup>12</sup> Von Beckerath, loc. cit.

<sup>13</sup> R. O. Faulkner, *A Concise Dictionary of Middle Egyptian* (Oxford, 1962), 102; *Wb.* II, 22.1-23.6.

<sup>14</sup> *Wb.* IV, 255, 12-13.

<sup>15</sup> Dodson, *RdE* 38, 51-4. This thesis has been adversely commented on by Yoyotte, *BSFET* I, 41-57, and von Beckerath, *GM* 130, 17-19.



1. From Wilkinson MSS, Section B: 17 v, 15

2. From Wilkinson MSS, Section B: 17 v, 151

(Courtesy the Bodleian Library, Oxford, and the National Trust)

PSUSENNES II AND SHOSHENQ I (pp. 267-8)



3. Shabti of Udjarenes  
(British Museum EA 68986)



4. Gordon's shabti of Udjarenes

UDJARENES REDISCOVERED (pp. 274-5)

### The date of Piye's Egyptian campaign and the chronology of the Twenty-fifth Dynasty

This paper examines the chronology of the Nubian kings Piye, Shabaka, and Shabataka. The status of 712 BC as an 'anchor date' for the period is challenged and a 'minimal chronology', based on the highest known regnal dates of these kings, is presented, yielding the dates 728–706 BC for the reign of Piye, 706–692 BC for that of Shabaka, and 692–690 BC for that of Shabataka. It is suggested that the absence of evidence positively refuting the minimal chronology, which is shorter than any dating ever accepted or assumed for the earlier part of the Twenty-fifth Dynasty, shows how uncertain the period's chronology remains and that there may be room for a lower chronology.

THE aim of chronology as an auxiliary discipline of Egyptian history is to determine the amount of time—ideally the number of days—that has elapsed from events in Egyptian antiquity down to the present day.<sup>1</sup> In order to calculate this span of time, ancient Egyptian dating systems need to be converted successfully into Julian or Gregorian dates. In practice, this can only be done if Egyptian dating systems can be linked to Roman chronology. When this link is absent, the margin of error in dating events of Egyptian history rapidly increases as one recedes in time.<sup>2</sup>

It is widely agreed that the earliest event in Egyptian history that can be dated with relative precision is the accession to the throne of Taharqa, last king of the Twenty-fifth Dynasty, in 690 BC.<sup>3</sup> In fact, if the day of Taharqa's accession according to the Egyptian calendar were known, the number of terrestrial revolutions or solar days separating us from that day could be calculated. With 690 BC, the explorers of Egyptian chronology have reached the edge of familiar territory on their journey into the past and are overlooking a vast unmapped area into which it is possible to make expeditions, but of which no precise measurements can be obtained. It is the objective of the present paper<sup>4</sup> to cast a look from this limit of 690 BC into the first stretch of uncertain terrain, the period encompassing the reigns of the Nubian pharaohs Piye, Shabaka, and Shabataka.<sup>5</sup> Proposals for the combined length of the three reigns range from about forty-five to about sixty-five years.<sup>6</sup> One of the first historians to publish an opinion on this matter was the Graeco-Egyptian Manetho, whose work survives as excerpts quoted by other ancient authors. Depending on who was excerpting, Africanus or Eusebius, Manetho assigned either 22 or 24 years to the combined reigns of Shabaka and Shabataka<sup>7</sup> (he did not mention Piye). But these numbers must be considered with caution. For example, regnal dates higher than the number of years assigned by Manetho to Shabaka—that is, 8 or 12—are attested for this king's reign (see below).

<sup>1</sup> Cf. E. J. Bickerman, *Chronology of the Ancient World* (London, 1991), 9.

<sup>2</sup> *Ibid.* 80–91.

<sup>3</sup> R. A. Parker first pushed back the limit to 664 BC (*MDAIK* 15 (1957), 208–12), and then to 690 BC (*Kush* 8 (1960), 267–9). For new evidence regarding 610 BC as the end of the reign of Psammetichus I, see M. Smith, *OLP* 22 (1991), 101–9. Cf. also J. Leclant, *L'Ä* vi, 167 n. 3. Before 690 BC, fixed dating is to a limited extent possible with the help of astronomical dates. For the role of such dates in Egyptian chronology, see, for example, Parker, *RdE* 9 (1952), 101–8.

<sup>4</sup> An abridged version was read on 28 April 1991, at the Annual Meeting of ARCE in Boston. I am grateful to A. Leahy and three referees for this journal for their valuable comments. The paper grew out of a seminar on the Libyan and Nubian dynasties taught at Yale University by W. K. Simpson.

<sup>5</sup> The most comprehensive survey of the Twenty-fifth Dynasty to date is found in K. A. Kitchen's *The Third Intermediate Period in Egypt (1100–650 BC)*<sup>2</sup> (Warminster, 1986).

<sup>6</sup> For the chronology of the Twenty-fifth Dynasty, see, in addition to studies cited above and below, K. Baer, *JNES* 32 (1973), 4–25; W. Barta, *RdE* 32 (1980), 3–17; S. M. Burstein, *JSSSEA* 14 (1984), 31–4; E. Hornung, *ZAS* 92 (1965), 38–9; Kitchen, *Journal of the Ancient Near Eastern Society of Columbia University* 5 (1973), 225–33; Leclant, *ZAS* 90 (1963), 74–81 and *L'Ä* iii, 893–901; iv, 1045–52; v, 499–520; vi, 156–84; Parker, *The Calendars of Ancient Egypt* (Chicago, 1950) and *ZAS* 93 (1966), 111–14; K.-H. Priese, *ZAS* 108 (1981), 49–53; C. Schedl, *VT* 12 (1962), 116–17; G. Schmidt, *Kush* 6 (1958), 121–30; D. E. Schwab, *ZAS* 104 (1977), 131–41.

<sup>7</sup> That is, 8 years for Shabaka and 14 for Shabataka according to the tradition of Africanus, or 12 years for each king according to the tradition of Eusebius. Cf. A. H. Gardiner, *Egypt of the Pharaohs* (Oxford, 1961), 450; W. G. Waddell, *Manetho* (Cambridge, Mass., 1948), 166–9.

The most reliable evidence for the chronology of the kings of the Twenty-fifth Dynasty preceding Taharqa (690–664 BC) undoubtedly consists of regnal dates inscribed on monuments and documents. This evidence is obviously limited in scope, since it only provides minimum lengths for reigns. On the basis of the regnal dates, the lengths of the reigns of Piye, Shabaka, and Shabataka are as follows. Additional high regnal dates placed between parentheses support the veracity of the highest dates.<sup>8</sup>

Piye	24 + (21 and 22 are also attested) <sup>9</sup>
Shabaka	15 + (10, 12, 13, 14 are also attested)
Shabataka	3 + (only this date is attested) <sup>10</sup>

In addition to these minimum lengths, one maximum can perhaps be established. If Taharqa was Piye's son,<sup>11</sup> Shabaka's reign cannot have lasted longer than twenty years, since inscriptions from the temples at Kawa in Nubia mention that when Taharqa was twenty years old, he was summoned by king Shabataka to Egypt.<sup>12</sup> On the one hand, Shabaka's reign began after Taharqa, son of Piye, was born. On the other hand, Shabaka's reign ended before the twenty-year-old Taharqa was summoned to Egypt, as Taharqa was summoned by Shabaka's successor Shabataka. Shabaka's reign therefore falls within the span of the twenty years of Taharqa's life.

If it is assumed, for argument's sake, that the highest regnal dates coincide with the lengths of the reigns, the dates for the reigns of Piye, Shabaka, and Shabataka would be as follows:

Piye	c. 732–708 BC
Shabaka	c. 708–693 BC
Shabataka	c. 693–690 BC

In theory, this chronology could even be shortened if one accepts, with Redford, 'that the regnal year dating system had, by the 24th Dynasty, reverted from the "free-floating" practice of the New Kingdom in which a regnal year was dated from the day of the king's accession, to the "predating" mechanism in vogue in earlier times, and that regnal years were once again co-terminus with the calendar year'.<sup>13</sup> 'Predating' means that the first part of years in which one pharaoh succeeds another is counted as the deceased king's last, the second part as the new pharaoh's first. Such years, therefore, count as two regnal years of two different kings, each regnal year being shorter than 365 days.

Applying the 'predating' mechanism to the chronology given above for Piye, Shabaka, and Shabataka—which means, taking Year 24 of Piye and Year 1 of Shabaka, Year 15 of Shabaka and Year 1 of Shabataka, and Year 3 of Shabataka and Year 1 of Taharqa as parts of the same Egyptian civil year—would yield the following dates:<sup>14</sup>

<sup>8</sup> For complete lists of attested regnal years, see Leclant, *L'Égypte* v, 1045–6 (Piye); v, 505 n. 9 (Shabaka); v, 516 n. 1 and 518 n. 35 (Shabataka).

<sup>9</sup> The evidence procured by the date on the mummy bandage BM 6640, which also bears the name of Piye, is ambivalent. First, it is not certain how the date is to be read. The readings 40 [+X] and 30 [+X] have been proposed; recently D. B. Redford, in a detailed discussion and after carefully examining the piece, suggested 20 [+X] (*JARCE* 22 (1985), 9–11). Second, as Redford points out, it is not even certain from the layout that the date pertains to the royal name.

<sup>10</sup> The alleged regnal year 10 for Shabataka (Leclant, *L'Égypte* v, 516 n. 1 and 518 n. 35; also adopted elsewhere) is based on a misinterpretation of a Roman numeral of 'x' used as the equivalent of 'unknown number' by D. Meeks in Edward Lipiński (ed.), *State and Temple Economy in the Ancient Near East* (Louvain, 1979), II, 673 (for additions to this list, see A. Leahy, *JEA* 74 (1988), 186 n. 3). The donation stela in question is MMA 65.45, acquired by the Metropolitan Museum in 1965 (F. Gomaà, *Die libyschen Fürstentümer des Deltas vom Tod Osorkons II. bis zur Wiedervereinigung Ägyptens durch Psametich I* (Wiesbaden, 1974), 98 n. 27). The portion of the stela where the date was probably once inscribed is missing.

<sup>11</sup> M. F. L. Macadam, *The Temples of Kawa* (London, 1949–55), I, 121. Cf. Priese, *ZÄS* 98, 52; Leclant, *Recherches sur les monuments thébains de la XXV<sup>e</sup> dynastie dite éthiopienne* (Cairo, 1965), 341 n. 1.

<sup>12</sup> Macadam, *Temples of Kawa* I, 28 (Inscription 5, line 17).

<sup>13</sup> Redford, *JARCE* 22, 5.

<sup>14</sup> This hypothesis would be shown to be false, not only if higher regnal dates emerge, but also if day and month dates of the last year of Piye, Shabaka, or Shabataka come to light that are *later* than day and month dates of the first years of Shabaka, Shabataka, and Taharqa respectively.

Piye	728–706 BC (Egyptian campaign: 709 BC)
Shabaka	706–692 BC
Shabataka	692–690 BC

According to this chronology, which is the shortest possible for this part of the Twenty-fifth Dynasty, the total length of the three reigns would be 38 years, considerably less than the shortest chronology thus far proposed. Piye's Egyptian campaign, which he undertook in his twentieth year according to the victory stela erected in the Amun temple in Napata, would then have taken place about 709 BC.<sup>15</sup>

The basis on which the minimal chronology is established is solid but narrow. The chronology cannot be lowered, but it can be raised as new regnal dates or other firm evidence surface.<sup>16</sup> The minimal chronology does, however, contradict what has been considered an 'anchor date' for the early Twenty-fifth Dynasty, namely Shabaka's conquest of all of Egypt in 712 BC, in the second year of his reign.<sup>17</sup> Piye's Egyptian campaign in his Year 20 had not resulted in the conquest of Lower Egypt, although Piye seems to have been firmly in control of Upper Egypt after that time. The 'anchor date' is obtained through synchrony with Assyrian sources.<sup>18</sup> For the earlier part of the first millennium, up to 690 BC, no fixed astronomical dates can be derived from Egyptian sources. But in Mesopotamian chronology, a solar eclipse of 15 June 763 BC mentioned in the list of eponyms of Assur makes it possible to date the entire series of eponyms from that city from 911 BC down to 666 BC as well as many other events absolutely.<sup>19</sup> One of these events is the revolt of the city of Ashdod against Sargon of Assyria (722/21–705 BC).<sup>20</sup> According to inscriptions found at Sargon's palace in Khorsabad, a usurper called Yamani came to power in Ashdod at the end of 713 BC or the beginning of 712 BC.<sup>21</sup> Yamani contacted neighbouring cities and countries,

<sup>15</sup> See N.-C. Grimal, *La stèle triomphale de Pi(rankh)y au Musée du Caire* (Cairo, 1981). The text of the stela must have been written in Thebes because, in line 29, motion *towards Thebes* coincides with motion *towards the speaker* (T), as expressed by *jj*, 'come': *ꜥbd 1 ꜥht sw 9 jjt ꜣw jr.n hm.f m ꜥd r Wst*, 'First month, first season, day 9: His Majesty *came* sailing northwards to Thebes' (cf. Priese, *ZÄS* 98, 31–2). Moreover, *jj* refers to Piye's *departure from Napata*. According to line 25, Piye was still in Napata on the first day of the month; if *jj*, an event dated to the ninth day, referred to the arrival at Thebes, he would have had to travel from Napata to Thebes in about a week (Priese, loc. cit.). It is also important to note that *jj*, which has Napata as starting point and Thebes as end point, refers to a movement that has *just begun*. This instance of *jj*, therefore, challenges H. Satzinger's observation (*Neuägyptische Studien* (Vienna, 1976), 139) that *jj* 'präzise das Ankommen bedeutet und nicht den Verlauf des Herankommens'. P. Vernus (*Future at Issue* (New Haven, 1990), 152) uses this observation to establish a semantic distinction between *m jjt* and *hr jjt*—and hence between *m* + infinitive and *hr* + infinitive in general. The verb *jj*, 'come', never, I believe, refers to any section of a movement, but expresses direction towards the speaker or hearer, as opposed to *šm*, 'go', which does not, as proven by the fact that phrases such as 'to me' and 'to you' *never* occur with *šm* (Depuydt, in James P. Allen et al., *Essays on Egyptian Grammar* (New Haven, 1986), 22–30).

<sup>16</sup> A. Leahy, *JEA* 78 (1992), 235 n. 79, uses synchronisms between the Twenty-fourth and the Twenty-fifth Dynasty to argue that Piye reigned at least thirty years. *Sed*-festival scenes featuring Piye in the Amun temple at Gebel Barkal as well as ambitious building projects undertaken there by him after his Egyptian campaign may be adduced in support of this number (T. Kendall, personal communication; for this and other Napatan evidence, see Kendall, 'The Origin of the Napatan State', to appear in *Meroitica*). If Piye did not celebrate his *sed*-festival before thirty years had passed, the length of his reign would be 30+, or have lasted from c. 734–705 BC according to the minimal chronology.

<sup>17</sup> Redford, *JARCE* 22, 6.

<sup>18</sup> Cf. Kitchen, *RdE* 34 (1982–83), 64.

<sup>19</sup> Cf. Bickerman, *Chronology*, 67, 86–7.

<sup>20</sup> For the chronology of Sargon's campaigns, see H. Tadmor, *JCS* 12 (1958), 22–40, 77–100 and *BA* 29 (1966), 90–5.

<sup>21</sup> The event is narrated three times in the Khorsabad inscriptions, in the 'Annals' (see D. D. Luckenbill's translation in *Ancient Records of Assyria and Babylonia*, II (Chicago, 1927), 13–14 §30), in the 'Display Inscription' (op. cit. 31–2 §§ 62–3), and in the 'Display Inscription of Salon XIV' (op. cit. 40–1 §§ 79–80). A very fragmentary account of the same event is also found in a prism inscription from Niniveh (op. cit. 105). For a more recent translation of these accounts by A. L. Oppenheim, see *ANET*<sup>3</sup>, 285a ('Display Inscription of Salon XIV'), 286b ('Annals'), 286a–b ('Display Inscription'), and 287a (Prism A from Niniveh). For a transla-

including Egypt, to win their support against Sargon, and he fortified his city against an Assyrian attack. However, when the Assyrians approached the city in 712 BC, Yamani fled to Egypt, and thence to Nubia.<sup>22</sup> There he was captured by the Nubian king and sent back in shackles to Niniveh.

It has been inferred from this report that Egypt was not yet entirely under Nubian control around 713/12 BC, since Yamani contacted an Egyptian pharaoh at that time. The date 713/12 BC is therefore a *terminus post quem* for the conquest of Egypt by Shabaka.<sup>23</sup> But more has been inferred from the same Assyrian source. Since Yamani contacted an Egyptian pharaoh while still in Ashdod but is not said to have met one on his flight through Egypt to Nubia several months later, it has been suggested that the Egyptian king must have disappeared from the scene in that short interval.<sup>24</sup> Or, Egypt must have been conquered by Shabaka in the short period between Yamani's contact with Egypt and his flight. Shabaka's conquest could therefore be dated to 712 BC.

It must be kept in mind, however, that the Assyrian author is narrating the events from a Mesopotamian perspective. This writer must have been aware that Yamani was seized and returned by a Nubian delegation because he was able to witness the outcome of these events at Niniveh. But the details of Yamani's sojourn in Egypt would not necessarily have been known to the Assyrian scribe and, indeed, no details regarding Yamani's stay in Egypt are mentioned in the cuneiform report. Nor does it explicitly mention that there was no longer an Egyptian pharaoh when Yamani travelled up the Nile Valley. It is reasonable to suppose, for example, that when he received no support for his cause at the Egyptian court in Lower Egypt, Yamani decided to continue on to Nubia, unaware of the unpleasant surprise awaiting him there. The absence of references to an Egyptian pharaoh in the cuneiform account of Yamani's flight, therefore, does not compel one to assume that Shabaka had just conquered Egypt.<sup>25</sup>

It appears, then, that the year 712 BC is not as firm an 'anchor date' as is widely assumed. Yet, it remains valid, in my opinion, as a *terminus post quem* for Shabaka's conquest. According to the minimal chronology, this would have happened only seven years later, in 705 BC,<sup>26</sup> and the Nubian king who sent Yamani of Ashdod back to Niniveh would have been Piye.

tion of the report in the 'Annals', see also A. G. Lie, *The Inscriptions of Sargon II, King of Assyria* (Paris, 1929), 39-41.

<sup>22</sup> An Assyrian basalt stela commemorating Sargon's victory was found on the archaeological site of Ashdod (Tadmor, *BA* 29, 95).

<sup>23</sup> See, most recently, Redford, *JARCE* 22, 6-9.

<sup>24</sup> A. Spalinger, *JARCE* 10 (1973), 99-100. Cf. also Kitchen, *Third Intermediate Period in Egypt*<sup>2</sup>, 552 § 464. The much discussed phrase *ana itê Muşri ša pâţ Meluḥḥa*, '(Yamani fled) to the border of Egypt of the territory of Kush', a chain of four nouns connected by three genitival relations, including two construct states, has been translated as 'to (the border of) Egypt which belongs to the territory of Kush' (see, for instance, *ANET*<sup>3</sup>, 285a and 286b), and used to argue that Egypt was already under Nubian control when Yamani fled to Nubia. However, the translation 'which belongs to', if not erroneous (Spalinger, *JARCE* 10, 97 n. 17; cf. Redford, *JARCE* 22, 7), is certainly not the only one possible.

<sup>25</sup> Remarkably, F. H. Weissbach (*ZDMG* 72 (1918) 179 n. 2) argued on philological grounds that in the 'Display Inscription' and the 'Display Inscription of Salon XIV', not Yamani, but the Nubian king himself—Weissbach suggests Piye—is said to be fettered and brought to Assyria, for too many lines separate the mention of Yamani's name and the third person singular pronoun referring to the person who is taken prisoner in Nubia. I have found no echoes of this view in Egyptological literature, but the reasonableness of Weissbach's argument demonstrates how cautious one must be in extracting information about Egyptian history from the Assyrian accounts. A fresh examination and comparison of the versions of those sources, using new editions of the texts, would probably shed light on the degree of their significance for Egyptian chronology.

<sup>26</sup> This year would have afforded an opportunity for Shabaka to conquer Egypt since the Assyrian empire did not pose a threat at the time. It was enveloped in considerable turmoil after Sargon had died on the battlefield and was succeeded by Sennacherib (Tadmor, *BA* 29, 95-6). On the other hand, Piye's Egyptian campaign of his Year 20 might also be connected with the unrest created in the Assyrian empire by Yamani's usurpation of Ashdod in 712 BC; there seems to be some evidence for contact between Piye's soldiers and Asiatic troops (Redford, *JARCE* 22, 12). This conjecture would place Piye's campaign about three years earlier than the minimal chronology's 709 BC.

What follows is a discussion of a few items in the light of the minimal chronology. They are not intended as arguments in favour of this chronology, but they do concern the types of source material historians need to evaluate, and do not seem to harm the plausibility of a minimal chronology. They pertain to 705 BC as the possible beginning of Shabaka's reign and to the short reign assigned to Shabataka.

(1) It has been suggested that Sargon's Khorsabad inscriptions were composed around 707 BC.<sup>27</sup> In these texts, the Nubian king is described as living 'in an inapproachable region... whose fathers never—from remote days until now—had sent messengers to inquire after the health of my royal forefathers'.<sup>28</sup> The expressions 'in an inapproachable region' and 'until now', if at all meaningful and not just stock phrases, are noteworthy. It seems curious that, if Shabaka had conquered Egypt in 712 BC, he would still be described as living 'in an inapproachable region', without any reference to his subsequent rise in political stature, rivalling that of Sargon. Shabaka did maintain diplomatic ties with Sargon's successor Sennacherib (705–681 BC), as evidenced by clay seal impressions found at Nineveh bearing Shabaka's name,<sup>29</sup> and one might have expected the same in the case of Sargon. Moreover, if the phrase 'until now' means 'until this point in time, that is, 707 BC (when the author presumably composed the text)', and not 'until this point in the account, that is, the episode of Yamani's flight in 712 BC',<sup>30</sup> it seems peculiar that there had been no diplomatic contacts between the two rulers, especially if Shabaka had ruled Egypt since 712 BC.

(2) Also worthy of note is a set of three regnal dates mentioned in the papyrus Louvre E3228c, written in abnormal hieratic,<sup>31</sup> and pertaining to a single legal case. The three dates are Year 7 of Shabaka and Years 2 and 6 of Taharqa. According to the minimal chronology, these events would be dated to c. 699 BC, c. 689 BC, and c. 685 BC. But if Shabaka conquered Egypt in 712 BC, the sequence would be c. 706 BC, c. 689 BC, and c. 685 BC. In this document, 6 *deben* are paid for the slave 'Irt.w-r-try by a certain Petubastis, 4 *deben* in Year 7 of Shabaka and 2 *deben* in Year 2 of Taharqa. According to the minimal chronology, ten years elapsed between these two payments, seventeen years if Shabaka ruled Egypt since 712 BC, and even longer for longer chronologies. We will briefly return to these dates below.

The document pertains to the sale of 'a man of the north' sometime before Year 7 of Shabaka. It has been argued that 'Irt.w-r-try was a prisoner of war because of the absence of filiation in his name.<sup>32</sup> Moreover, as a 'man of the north', he was either an inhabitant of the Delta or a foreigner.<sup>33</sup> If 'Irt.w-r-try was a foreigner, the minimal chronology, according to which he was sold sometime before 699 BC, would make it possible to relate his being taken prisoner to the clashes between Sennacherib and the Ethiopian king of 702/1 BC reported in the Bible.<sup>34</sup>

(3) Two centuries after the end of the Twenty-fifth Dynasty, Herodotus (II 137) mentioned a tradition that Ethiopians ruled Egypt for fifty years.<sup>35</sup> In fact, about fifty years separate 705 BC, the date of Shabaka's conquest according to the minimal chronology, from 656 BC, when Tanwetamani's rule over Upper Egypt ended. On the other hand, this number may not bear much weight, since the figure '50' is attributed to a single king and Herodotus, who relied mainly on northern sources, may not have included Tanwetamani, who received recognition only in Thebes.<sup>36</sup> In general Herodotus is disputable at best on matters of Egyptian chronology.

<sup>27</sup> Tadmor, *BA* 29, 94.

<sup>28</sup> *ANET*<sup>3</sup>, 286b (from the 'Display Inscription').

<sup>29</sup> BM 84527 and 84884. See A. H. Layard, *Discoveries in Ninive and Babylon* (London, 1853), 156.

<sup>30</sup> The translation 'from remote days until now' is Oppenheim's in *ANET* (already so in the edition of 1950), correcting Luckenbill's 'since the far-off days of the moon-god's time' (*Ancient Records of Assyria and Babylonia* II, 32 § 63) and J. J. Lewy's 'since the distant days of the age of Nannaru' (*HUCA* 19 (1945–46), 461). For the text, see H. Winckler, *Die Keilschrifttexte Sargons* (Leipzig, 1889).

<sup>31</sup> It has been edited by M. Malinine, *RdE* 6 (1951), 157–78. The Louvre papyrus belongs, together with seven other papyri, to the archives of a certain Petubastis, studied by B. Menu, *RdE* 36 (1985), 73–87.

<sup>32</sup> Malinine, *RdE* 6, 169–70.

<sup>33</sup> Malinine, *RdE* 5 (1950), 128 and 6, 165 n. 19.

<sup>34</sup> For this episode, see, for instance, F. J. Yurco, *Serapis* 6 (1980), 221–40.

<sup>35</sup> Cf. Leclant and J. Yoyotte, *BIFAO* 51 (1952), 27.

<sup>36</sup> A. Leahy (personal communication).

(4) An important feature of the minimal chronology is the shortness of Shabataka's reign—about two years long, and about five times shorter than the reign of Shabaka. Very little can be assigned with certainty to the reign of Shabataka,<sup>37</sup> whereas archaeological remains from the reign of Taharqa are much more plentiful. There are abnormal hieratic texts dated to the reigns of Piye, Shabaka, and Taharqa, but none to the reign of Shabataka, although accidents of survival are even more likely with papyri than with monuments.<sup>38</sup> Even if correlating lengths of reign with numbers of surviving monuments is a hazardous undertaking, the lack of monuments attributable to the reign of Shabataka is noteworthy.

(5) Chronological contiguity between Shabaka and Taharqa, Shabataka's predecessor and successor, is suggested by the fact that a pylon in front of the small temple at Medinet Habu was begun by the former and finished by the latter.<sup>39</sup>

In conclusion, this paper has challenged the status of 712 BC as an 'anchor date' for the earlier part of the Twenty-fifth Dynasty. It seems to me that there are no facts among the known evidence positively contradicting the minimal chronology,<sup>40</sup> although the chronology might be criticized by the use of reasoned inferences derived from facts. This shows that there is at least room for a lower chronology. It also shows how uncertain the chronology of the period remains. However, it should be remembered that it took only a single Serapeum stela to establish the length of Taharqa's reign. Perhaps similar documents will one day emerge allowing us also to date the reigns of Piye, Shabaka, and Shabataka more precisely. To realize how close the available documents have come to providing the opportunity of pushing back the limit of absolute chronology into the eighth century BC, one need only consider the papyrus Louvre E3228c discussed above. Here, two payments of 4 *deben* and 2 *deben* are made for a slave in Year 7 of Shabaka and Year 2 of Taharqa. It would have been simple for the author to clarify with a few additional strokes of the pen for which period the first 4 *deben* were valid or after which period the second 2 *deben* were necessary, for the author must have been aware of the time that had elapsed between the two dates. But as the modern historian scans the papyrus with pleading eyes, the ancient text remains silent, refusing to yield the best kind of evidence—regnal dates of different kings related to one another by explicitly mentioned spans of time. And consequently, for the time being, 690 BC must remain the limit of absolute dating in ancient Egyptian chronology.

LEO DEPUYDT

### Udjarenes rediscovered

Publication of the upper portion of a shabti of Udjarenes, wife of Montemhat, now in the British Museum, and its identification with a similar piece published in 1737.

In 1980 the Department of Egyptian Antiquities in the British Museum acquired the upper portion of a green serpentine shabti (pl. XXVIII, 3) which had been found twenty-six years earlier as an

<sup>37</sup> 'Only two royal figures in relief inscribed for this king are known so far. Both of them are works of the Karnak centre' (E. R. Russmann, *The Representation of the King in the XXVth Dynasty* (Brussels and Brooklyn, 1974), 38). K. Myśliwiec provides a third in his *Royal Portraiture of the Dynasties XXI-XXX* (Mainz am Rhein, 1988), 38b. See also PM II<sup>2</sup>, 205 (5), II, 1.

<sup>38</sup> For a survey of the documents, see S. P. Vleeming, *OMRO* 61 (1980), 1-17.

<sup>39</sup> Leclant, *LA* v, 501.

<sup>40</sup> For example, potentially relevant items such as the quay inscriptions at Karnak (J. von Beckerath, *JARCE* 5 (1966), 43-55), the inscriptions at Kawa (D. Dunham and M. F. L. Macadam, *JEA* 35 (1949), 139-49; Macadam, *Temples of Kawa*), and hypothetical coregencies (W. J. Murnane, *Ancient Egyptian Coregencies* (Chicago, 1977), 188-93, 235-6) do not, in my opinion, provide information disproving the minimal chronology.



ornament in a garden in Bournemouth.<sup>1</sup> The object, now EA 68986, had been extensively battered on its lower portion and chin and is worn and lightly cracked on the surface, perhaps as a result of its sojourn in the garden. The underside, where not damaged on the right side, is smooth. There is a small hole, 0.5 cm in diameter and 1 cm in depth, which is 1.5 cm from the right edge of the shabti. It was probably drilled for an attachment to a base, along with a second parallel hole on the left side, now lost. The text consists of the first line and remains of the second, naming the original owner as the lady Udjarenes. She can be identified as Udjarenes, wife of the fourth prophet of Amun Montemhat, who flourished at the end of the Twenty-fifth Dynasty and the beginning of the Twenty-sixth.<sup>2</sup> Several complete shabtis of this lady are known although none has been published—two in Cairo, at least one in Berlin (10663), one of black serpentine in the British Museum acquired in 1893 (EA 24715), and one sold at Sotheby's in 1959.<sup>3</sup> Most, if not all, presumably came from the tomb of her husband Montemhat in western Thebes (TT 34), but her shabtis are relatively rare in comparison with those of her husband.

The interest of EA 68986 lies in its probable history. In 1737 Alexander Gordon published engravings of Egyptian objects in British collections (pl. XXVIII, 4). His plate XII no. 7 depicts the upper portion of a shabti of the lady Udjarenes.<sup>4</sup> That figure has three lines of text preserved and no battering to the face and lower area. Although the texts on the Gordon plate and EA 68986 are identical, the placing of the hieroglyphs does not exactly match. However, the hieroglyphs on the engraving are overlarge, and it seems probable that the eighteenth century copyist misjudged the spacing. The 1737 drawing shows that the shabti fragment depicted is about 12.3 cm high, as opposed to the British Museum fragment, which is a maximum of 10.7 cm high, a difference which is consistent with the loss of one and a half lines of text. It is extremely unlikely that there should be two upper portions of the rare shabtis of Udjarenes in Britain, one lost and one found. It is more economical to assume that one and the same shabti fragment is indicated. The shabti would appear to have suffered two phases of damage. Firstly, the bottom line of text and part of the line above were lost, and the bottom was then smoothed and drilled with two holes for an attachment, possibly when it went into the garden, unless the holes were already in place prior to 1737, when it is shown on a base. Then the shabti was battered on the face and bottom, losing most of the smoothed underside and the presumed second drilled hole on the left side.

The question remains as to how a shabti fragment from a Theban tomb reached England by 1737 when the majority of antiquities from that era stem from the sites near Cairo and Alexandria. Gordon gives no clue, merely indicating that the piece was in a private collection in London. Some of the objects on his pl. XII are from the Sloane collection, but this one and some of the others are definitely not. The plate was dedicated to Sir Hugh Smithson, who probably paid for it, and signifies nothing as far as the provenance is concerned. The piece could have been brought back to Europe by one of the rare travellers to the south, usually Catholic priests, or, as it was easily portable, could have been brought to Cairo or Alexandria by a native and sold there. A Deir el-Medina statuette, seen in Cairo in 1777, made a similar journey in the hands of an Italian monk; it too disappeared and reappeared in Malta in the nineteenth century, also after suffering subsequent damage.<sup>5</sup>

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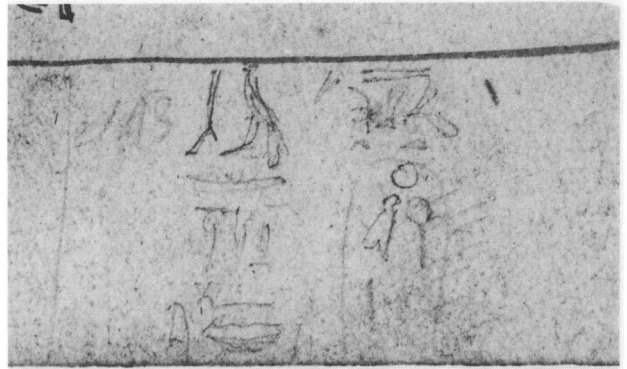
<sup>1</sup> J. Bourriau, *JEA* 69 (1983), 148 no. 516.

<sup>2</sup> J. Leclant, *Montouemhat* (Cairo, 1961), 264–5.

<sup>3</sup> Leclant, op. cit. 264 n. 3; J. Aubert, *Statuettes égyptiennes* (Paris, 1974), 200–1, who indicates two shabtis in Berlin, although only one was seen by Miss C. Andrews when examining shabtis there; Sotheby Sale Catalogue 16 Nov. 1959, lot 15.

<sup>4</sup> A. Gordon, *An Essay towards Explaining the Ancient Hieroglyphical Figures on the Egyptian Mummy in the Museum of Doctor Mead* (London, 1737), pl. xii.

<sup>5</sup> C. S. Sonnini, *Travels in Upper and Lower Egypt* (London, 1800), 470 and pl. xviii; R. Moss, *JEA* 35 (1949), 132–4; M. L. Bierbrier, *The Tomb-Builders of the Pharaohs* (London, 1982), 125–6.



1. From Wilkinson MSS, Section B: 17 v, 15

2. From Wilkinson MSS, Section B: 17 v, 151

*(Courtesy the Bodleian Library, Oxford, and the National Trust)*

PSUSENNES II AND SHOSHENQ I (pp. 267-8)



3. Shabti of Udjarenes  
(British Museum EA 68986)



4. Gordon's shabti of Udjarenes

UDJARENES REDISCOVERED (pp. 274-5)

### The demise of the Demotic document: when and why

The decline of the Demotic business document after the Roman annexation of Egypt is attributed to the legal and administrative exclusivity of Greek under the new regime.

PUBLISHED papyrus documents written in the Demotic script<sup>1</sup> number more than 600 from the Ptolemaic period, but from the Roman period, even including Greek documents with brief Demotic notations or signatures, fewer than 60.<sup>2</sup> A discrepancy of such magnitude—it is even greater when we add on unpublished material<sup>3</sup>—is not likely to be accounted for by the hazard of the finds, the more so as:

- (1) the Demotic inscriptions at Philae continue to AD 452;
- (2) non-literary Demotic ostraca, while most numerous in the first century, are found as late as 232/3;<sup>4</sup> and
- (3) the production of literary, religious and scientific texts continued unabated (and may even have increased) well into the third century, most notably in Upper Egypt.

In other words, the Egyptian language and culture survived without interruption in the subclass, i.e. the native masses, of Roman Egypt. But after less than a century of Roman rule it is clear that contracts written in or containing Demotic have become a thing of the past. After AD 50 only fifteen relevant papyri can be cited, and of those, eight are Greek documents with one to three lines of Demotic (identified as signatures in three instances; the rest remain untranslated) written at the foot of the Greek text. The latest securely dated document of this latter type is P. Teb. II 313 = W. Chr. 86, of AD 210/1.<sup>5</sup> The latest documents written entirely in Demotic are P. Tebt. Botti 2 and 3, contracts dated in AD 130 and 175/6, respectively. Not surprisingly, most of the latest Demotic documents, and even of the Greek documents with Demotic notations, stem from an Egyptian priestly milieu.<sup>6</sup>

<sup>1</sup> Willy Clarysse and Janet H. Johnson answered some of my questions about Demotic studies, *terra mihi incognita*. Roger S. Bagnall and Robert K. Ritner generously provided both information and detailed criticism of the first version of this paper. In recording here my thanks for their help, I remind the reader that what I have done with their help is my own doing, not theirs.

<sup>2</sup> For the statistical data presented in this and the next paragraph the principal resource remains P. W. Pestman, *Chronologie égyptienne d'après les textes démotiques* (= P. Lugd. Bat. XV, 1965); I have added P. Brem. 32 and counted as two the discrete documents of BGU III 910. The Ptolemaic-Roman ratio is not materially altered by the Demotic papyri published since 1965; of Roman date I have found only the four Berlin papyri published by K.-T. Zauzich, *Enchoria* 1 (1971), 29-42 and 2 (1972) 65-84.

<sup>3</sup> For example, as W. Clarysse observes, *CdE* 63 (1988), 140 n. 1, '... la publication des documents démotiques provenant du Fayoum est à peine entamée... Les papyrus Petrie grecs par exemple ont été publiés presque intégralement entre 1899 et 1905, tandis que les textes démotiques sont conservés depuis le début de ce siècle dans l'Ashmolean Museum à Oxford sans que personne ne les ait jamais regardés de près'. According to A. E. Samuel, quoting R. J. Williams, 'The Demotic corpus of the Ptolemaic period may approach the size of the Greek corpus... Newly excavated material is in the process of publication, and the numbers of texts in collections vastly exceeds those already published' (*From Athens to Alexandria* (Studia Hellenistica xxvi; Louvain, 1983), 109 and n. 130).

<sup>4</sup> It is noteworthy that as early as 2 BC Demotic ostraca begin to show some names or notations written in Latin or Greek. On Demotic ostraca, some with such notations, see most recently K.-T. Zauzich, *Enchoria* 12 (1984), 67-90; K. A. Worp, *ZPE* 80 (1990), 243-56. The ostraca published by Zauzich are reprinted as SB xviii 13565-75; see also 13607, 13630 and 13794.

<sup>5</sup> There may be two fourth-century examples, SB VI 4436 *m* and *n*, but see the doubts expressed by R. S. Bagnall, *Enchoria* 8 (1978), 148 n. 21. Pestman, *op. cit.* (above, n. 2), omits these.

<sup>6</sup> From the Ptolemaic period onward (and probably much earlier) most property contracts (like property ownership) were confined to members of the native elite, whose wealth derived from accumulated positions within the various temple hierarchies. Virtually all wealthy families in Egypt had (multiple) priestly connections, and there was no distinction between "lay" and "priestly" upper and middle classes. Lower classes were illiterate, without property, and had little need for documents' (Robert K. Ritner, *per epist.* 12 April 1992).

The ineluctable fact, then, is that Demotic papyrus documents dwindle and eventually disappear altogether after the advent of Roman rule. But there is no consensus on why that happened when it did; indeed, the question of causality has rarely been addressed (cf. below, p. 281). Obviously, the practice ended when, or because, it ceased to serve a useful purpose; but that truism does not explain why it ceased to have a useful function.

Papyrologists concerned with Greek documents have traditionally viewed the disappearance of Demotic as a case of ‘a largely non-alphabetic system, difficult to acquire and confined almost exclusively to priests and professional scribes, [being] allowed to slip into the oblivion toward which it had been headed for a long time’.<sup>7</sup> Accuracy aside,<sup>8</sup> this ‘explanation’ does not touch on etiology, unless it be implied in the reference to the nature of the script and to its professional associations. But that combination of factors had for centuries actually fostered the use of Demotic. Why did the Demotic business document, alone of the spectrum of uses of the script, lose its élan in the first century of Roman rule?

Another aspect of the change was recently remarked on by W. J. Tait: ‘By the second century after Christ, the [Greek] reed pen has completely replaced the [Egyptian] rush, and is even employed for hieratic and hieroglyphic texts. At the same time, we see major modifications in the demotic script... The original cause of this may have been the decline of the professional demotic scribe, as Greek became more and more the language and script for purposes of daily life’.<sup>9</sup> The observation is keen and apt. But, again, this observation does not answer the underlying question: what causes, or circumstances, led to Greek so completely usurping the field?

The following pages will marshal evidence from Greek papyri and inscriptions to support the proposition that Egyptians stopped writing their business documents in Demotic because the Roman reorganization of the administration of Egypt denied such documents the recognition, or status, they had previously enjoyed. In other words, Demotic documentation was a victim, or casualty, of the Roman annexation of Egypt. Or, to put it in homelier language, the Demotic document did not just wither and fade with age, it was starved to death.

It will be up to Demotists to say whether evidence can be found in Egyptian texts to support this hypothesis. The evidence that I find in the Greek documents is, to be sure, largely inferential. But it is also cumulative, and the totality is replete with clamorous silences that cannot simply be dismissed as accidental. They bespeak a governmental policy, not of persecution or active repression (the evidence contains no ‘smoking gun’), but of indifference or neglect.

The Greek evidence can be subsumed under several headings.

### 1. *Public pronouncements*

Starting with the discovery of the Rosetta Stone in 1799 and continuing to the present, finds of inscriptions and papyri of Ptolemaic date have revealed more than a dozen documents that are either (1) policy decisions by rulers and high officials concluding with an order that they be inscribed for public display in Greek and Demotic characters: *τοῖς Ἑλληνικοῖς καὶ ἑγχωρίοις (οἱ Αἰγυπτίους) γράμμασιν*, or (2), marked \* in the Table below, resolutions by priestly synods

<sup>7</sup> H. C. Youtie, *ZPE* 17 (1975), 203.

<sup>8</sup> ‘The difficulty of Demotic is perhaps much overstressed; for the trained reader it is a quick and serviceable script. I find ligatured Greek paleography far more distressing and infinitely slower to read. My eyes are trained to look for clear word divisions and sense markers (determinatives)—all lacking in Greek. The continued success of Chinese, Japanese, etc. shows that there is no inherent superiority in alphabetic scripts. Further, Egyptian literacy had always been confined to the “priests and professional scribes”; Demotic literacy is no exception and represents no retrenchment in terms of class. Most importantly, the assessment that Demotic had been headed into oblivion “for a long time” is an argument incorrectly based on hindsight. Youtie presumes that because Demotic died out, it must have been headed in that direction all along. Your own conclusions show the dynamic nature of Demotic throughout the Ptolemaic Period followed by the abrupt change in documentary Demotic in the Roman Period. This does not suggest an inevitable, logical development but precisely the opposite. Had Roman policy not intervened, there is no reason why Demotic should not have continued. Indeed, it did continue in literary, religious and scientific fields among the same individuals who had previously used it for contracts’ (Robert K. Ritner: see above, n. 6).

<sup>9</sup> *Proc. XVIII* [1986] *Int. Congr. Papyrology* (Athens, 1988), II, 481.

BC	Greek document (S = SEG XVIII)	Also known as the
259	P. Rev. Laws = W. Chr. 258, ix	
247-221	*S 630	
c. 245	*S 628, 629, JEA 70 (1984) 150	
238	*OGIS I 56 = SB V 8858 = S 631 + a,b	Canopus decree
221-203	*S 632	
217	*S 633 = SB III 7172	Raphia decree
196	*OGIS I 90 = SB V 8299 + S 634	Memphis decree; Rosetta Stone; later reissues = Philae I, II
165	PUG III 92	
100	P. Yale I 56 = C. Ord. Ptol. 90-1	
99	UPZ I 108	
95	IGFay III 152 = SB III 7259 = SEG VIII 466	
42	OGIS I 194	
41	SB IV 7337 = C. Ord. Ptol. 75	

that were, or are assumed by analogy to have been, inscribed in hieroglyphics (*ιεροις γραμμασιν*), Demotic and Greek, in that sequence.<sup>10</sup>

The question arises whether there should be included in this list the trilingual inscription—hieroglyphic, Latin and Greek—displayed on a temple wall at Philae in 30 BC by Cornelius Gallus, the first Roman prefect of Egypt.<sup>11</sup> I omit it for the following reasons. While it resembles the documents of the Table in form, its content and purpose are very different. Gallus' vainglorious and hyperbolic recitation of his military and political exploits is not a proclamation of policies or decisions. It is but a prelude to the dedicatory purpose expressed in the final words of the inscription. Also dedicatory or religious in nature are a few bi- and trilingual inscriptions and graffiti, extant in whole or in fragmentary condition, dating from Augustus at least to Vespasian. All through the Principate the emperors continued the traditional associations with the Egyptian temples in their role of successors to the Pharaohs, but there is no bi- or trilingual inscription or papyrus of Roman date that is comparable in nature or content to the documents of the above Table.<sup>12</sup>

A glance at the Table suffices to show that the practice of including Demotic versions in public displays of important pronouncements began early in and continued all through the Ptolemaic period. No such publicity in the Egyptian language is found in the Roman period. In theory, of course, that kind of silence of the sources may be shattered at any time by a new find. In the present case, however, after nearly two centuries of accumulating documentation, that theoretical

<sup>10</sup> In addition to the principal (best preserved) text cited in the Table, fragments have been found of other copies or later reissues of Canopus, Raphia and Memphis: see F. Daumas, in *Textes et langages de l'Égypte pharaonique: hommage à Jean-François Champollion*, III (Bd'E74/3; Cairo, 1974), 41-5; additional bibliography is given by W. J. Tait, JEA 70 (1984), 150 n. 1.

<sup>11</sup> OGIS II 654 = IGPhilae II 128. Gallus' aping of Ptolemaic royalty, exemplified by this inscription, may have been a, or even the prime, reason for his recall to Rome and subsequent suicide. There is no need (fortunately) to enter here into this recurrent debate, condemned in any case to futility by inadequate evidence.

<sup>12</sup> The inscriptions of Roman date are tabulated in F. Daumas, *Les Moyens d'expression du grec et de l'égyptien* (Cairo, 1952), 274 (only one may be as late as the second century, if the date assigned to it by its editor is correct). Those issued under Augustus are discussed, most recently, by A. K. Bowman and D. Rathbone, JRS 82 (1992), 107-27. On the Roman emperor as Pharaoh see, e.g., N. Lewis, *Life in Egypt under Roman Rule* (Oxford, 1983), 233; Bowman, *Egypt after the Pharaohs* (London, 1986), 36, 38, 170.

possibility has surely approached the vanishing point. The Ptolemaic-Roman contrast is too striking, one might almost say too absolute, to be dismissed as merely the result of chance.

### 2. *Registration facilities*

Presumably already under Ptolemy I, certainly from the time of Ptolemy II on, private contracts written in Demotic could be registered in official archives. In exchange for the fee charged for that service, the parties to the contract received what amounted to a certification of authenticity. A royal decree (*πρόσταγμα*), probably of 146 BC, emphasized that ‘unrecorded Demotic contracts are invalid’. Scholars have differed on just what that laconic precept implies. The prevailing view is that only Demotic documents registered in the archives had legal standing; in other words, registration was not obligatory but was patently advantageous, *a fortiori* for documents recording important transactions.<sup>13</sup>

Above and beyond such details, the essential fact is that the Ptolemies accorded Demotic documents the same status, recognition and validity that Greek documents enjoyed. The offices that served as registries of documents in the Roman period—the *βιβλιοθήκη ἐγκτήσεων*, and the others<sup>14</sup>—all operated only in Greek.<sup>15</sup> This would, quite obviously, cause increasing numbers of Egyptians to switch their business from Demotic to Greek scribes.

### 3. *Lawcourts*

One of the obvious advantages of registering a document in official archives was its automatic authentication in the event of a lawsuit.

Ptolemaic Egypt maintained separate courts for Egyptian and Greek lawsuits. The venue in any given civil suit was determined according to a principle enunciated (or reaffirmed) in a royal decree of 118 BC:

<sup>13</sup>The decree is referred to in a by now famous decree of 117 BC, UPZ II 162 (=C. Ord. Ptol. 71) iv. 13–15: *προστάματος ἀντίγραφον περί τοῦ μὴ ἀναγεγραμμένα Αἰγύπτια συναλλάγματα ἄκυρα εἶναι*. U. Wilcken’s assignment of the cited decree to 146 BC remains generally accepted: cf., e.g., H. J. Wolff, *Das Recht der griechischen Papyri Aegyptens*, II (=Handb. d. Altertumswiss. x.5.2; Munich, 1978), 38–9, 169. Still useful, and eminently readable, is the examination of the implications by C. Préaux, *L’Economie royale des Lagides* (Brussels, 1939), 320–4.

<sup>14</sup>Did the scribal bureau (*γραφεῖον*) of the village or metropolis also serve as a registry? When A. E. R. Boak published the *grapheion* records of Tebtynis he concluded that they did: cf. P. Mich. II, pp. 2–3. This long remained the accepted view: cf. Wolff, *op. cit.* (above, n. 13), 51, 54; W. E. H. Cockle, *JEA* 70 (1984), 110–12, with bibliography. However, in her recent study of ‘Archives locales et archives centrales en Egypte romaine’, *Chiron* 20 (1990), 191–216, F. Burkhalter points out that the evidence is at best ambiguous: see esp. 198 n. 26.

<sup>15</sup>‘...communications addressed by Roman officialdom to the people of Egypt were always in Greek, as were petitions, declarations, complaints, land registers, tax registers... Those are literate who are able to write Greek, those who are illiterate are not able to write Greek. These labels take no such account of any similar accomplishments in Egyptian.’ This succinct summary is by H. C. Youtie, *Harvard Stud. Class. Phil.* 75 (1971), 162. In similar vein, more recently, A. E. Hanson: ‘The judgment that a man or a woman was semiliterate... was also made on the basis of their ability to write Greek’ (*Literacy in the Roman World* (JRA Suppl. Series 3; Ann Arbor, 1991), 164, with bibliography).

In the case of the Greek translations of Demotic documents of Augustan date (below, no. 3), the notation of registration clearly applies to the Greek version. There was no registry for Demotic documents.

Six Demotic documents were found with the records of the Tebtynis *grapheion*: P. Mich. V 249, 250, 253, 308, 342, 347. Also, one of the records includes two payments to two men for writing Demotic: P. Mich. II 123 verso ii. 25 and ix. 28. Boak understood those entries to mean that ‘there were clerks employed at the *grapheion*, including... others able to write Egyptian’ (*ibid.*, p. 4). In reality, the implication of the record is just the reverse, because P. Mich. 123 verso is a list, some 380 lines long, of moneys paid out for goods and services that the *grapheion* needed from outside sources. In other words, the *grapheion* did not serve the public to the extent of including in its staff writers of the Egyptian language. The above payments to the Demotic writers are 1 obol (the cost, also, of a loaf of bread) and 7 obols (for writing seven documents?).

I am indebted to Ann E. Hanson for checking details of the *grapheion* records at the University of Michigan.

They have likewise decreed with regard to lawsuits in which Egyptians and Greeks are opposed, that is, suits brought by Greeks against Egyptians or by Egyptians against Greeks...that Egyptians who have entered into contracts with Greeks in the Greek language shall sue and be sued before the *chrematistai* [Greek circuit-judges], but those who, even though enjoying Greek status, have entered into contracts written in the Egyptian language [Demotic] shall be sued before the *laokritai* ['people's judges'] in accordance with the law of the country.<sup>16</sup>

A sidelight on the operation of this principle is shed by a group of Greek documents captioned *ἀντίγραφον συγγραφῆς (aut sim.) Αἰγυπτίας μεθηρομηνευμένης κατὰ τὸ δυνατόν*.<sup>17</sup> The extant examples date from 146 BC to AD 11.<sup>18</sup> As early as 1909 P. M. Meyer understood that these translations were made so that the documents could be introduced in evidence before Greek-speaking judges, and U. Wilcken twice took the occasion to emphasize the point.<sup>19</sup>

The Roman administration of Egypt abolished that bipartite organization of the judiciary; it is surely no accident that there is no mention of the courts of the *laokritai* in any source of Roman date.<sup>20</sup> Presented with arguments from different legal traditions,<sup>21</sup> the courts nevertheless, like other organs of government, operated exclusively in Greek, the *lingua franca* in which the Roman government dealt with the (to it) unintelligible peoples of its eastern provinces.

#### 4. P. Oxy. XLVI 3285

This by now famous document, published in 1978, is part of a Greek translation of what was at first called 'The Demotic Legal Code of Hermopolis West'.<sup>22</sup> With greater precision achieved through subsequent analyses by several scholars, the original is now seen to have been not a code but a vademecum, 'un coutumier sacerdotal démotique', that is, one of a number of Demotic collections which 'fournissaient aux juges et aux notaires des recettes pratiques pour la rédaction d'actes juridiques et des sentences; pour les cas rares ou controversés, ils indiquaient la meilleure solution à adopter'.<sup>23</sup>

The possible relevance of P. Oxy. 3285 to the subject of the present paper resides in its date. It is now generally agreed that the Greek version of the Demotic law-book(s) was produced, like the Septuagint, in the time of (and doubtless by order of) Ptolemy II. The utility, not to say necessity, of such a translation in the bipartite court system of the Ptolemies (above, no. 3) is obvious.

P. Oxy. 3285 is written 'in a careful documentary hand' on the back of previously used and discarded papyrus; this suggests that 3285 is a private (lawyer's?) rather than an official copy. The

<sup>16</sup> The royal decree is P. Teb. I 5 = C. Ord. Ptol. 53, lines 207-17. Much discussed in the literature since its initial publication in 1902, this legislation finds its definitive elucidation in the paper of J. Modrzejewski, in *Le Monde grec: hommages à Claire Préaux* (Brussels, 1975), 699-708 (interpretation endorsed and incorporated by C. Préaux, *Le Monde hellénistique* (Paris, 1978), 596; N. Lewis, *Greeks in Ptolemaic Egypt* (Oxford, 1986), 171). *Inter alia*, he interprets this legislation as benefiting the native population, enhancing the legal recognition of their Demotic contracts by prohibiting the *chrematistai* from expanding their jurisdiction into that area.

<sup>17</sup> List in CPR XV 1.1n. In some instances the Demotic original is also extant. The restoration *κατὰ δὲ* [ναμν in UPZ II 175a.2, contrary to both formula and idiom, is surely but an oversight for *δὲ* [νατόν, or, à la rigueur, <τὸ> δὲ [νατόν.

<sup>18</sup> There are references in P. Giss. I 36 (135 BC). 18-24 to contracts, not further identified, of 165-161 BC.

<sup>19</sup> P. Giss. I.ii, 4 (similarly Jur. Pap., p. 82); UPZ I (1927), 602, II (1957), 129: '... die griechischen Gerichte den begreiflichen Anspruch erhoben, dass demotische Urkunden ihnen in griechischen Uebersetzungen vorgelegt wurden'. G. M. Savorelli concurs, CPR XV 1.1n.

<sup>20</sup> Wolff, in a rare lapse from his inveterate caution, declares that 'das...Gericht der Laokriten...im 2. Jh. v. Chr. ... zu funktionieren aufgehört hat' (op. cit. 170). It is the latest known reference to the courts of the *laokritai* that dates from the late second century BC (UPZ II 162 = M. Chr. 34 = Jur. Pap. 80 or P. Ryl. IV 572). The great likelihood is that those courts continued to function in the first century BC, but did not survive the advent of Roman rule.

<sup>21</sup> See J. Modrzejewski, 'La règle de droit dans l'Égypte romaine', *Proc. XII* [1968] *Int. Congr. Papyrology* (= *Am. Stud. Pap.* 10, 1970), 317-77.

<sup>22</sup> G. Mattha and G. R. Hughes, *The Demotic Legal Code of Hermopolis West* (B d'E 45; Cairo, 1975).

<sup>23</sup> The quotations are from the excellent *mise au point*, with bibliography, by J. Méléze-Modrzejewski, *Proc. XVIII* [1986] *Int. Congr. Papyrology* II, 383-5.

editor, John Rea, makes the case for dating this copy in the second half of the second century AD.<sup>24</sup> That is precisely the time when contracts written in Demotic disappear completely from the extant documentation. It surely does not strain the imagination to see that disappearance as the motivation for the continuing production of copies of Greek versions of Demotic law manuals: Egyptians continued to document transactions in the traditional way, except that those documents were now indited in Greek, and consequently judges and lawyers needed, now more than ever, to have access to Egyptian legal principles and practices in the language in which they now operated.

### 5. *Perspective*

In conclusion, it may not be otiose to recall that the demise of the Demotic document was not an isolated phenomenon. It was related directly to, or congruent with, other aspects of the Roman governance of Egypt. There was, overall, the widespread Roman disdain of the Egyptians and their 'barbaric' ways—a set of attitudes that continued in a direct line from Octavian's venomous anti-Cleopatra propaganda.<sup>25</sup> Then, too, as has been emphasized increasingly in the papyrological literature of recent decades, there were fundamental administrative changes, wherein Rome broke, usually to the detriment of the native population, with pre-existing Ptolemaic practices.<sup>26</sup> Roger Bagnall sees particular relevance in the Romans' decreased funding of the native temples, a policy which shrank the independent power and influence of the Egyptian priesthoods; and they were the principal repository of Egyptian culture, including writing in the native language.<sup>27</sup>

With Demotic contracts deprived of the official recognition and validation that they had enjoyed under the Ptolemies, Egyptians needing to record business transactions turned perforce to the scribes who would produce the requisite papers in the officially recognized Greek. Unsurprisingly, Egyptian resentment shines forth in Demotic writings of other kinds. Just as that segment of the population which, under the Ptolemies, had enjoyed the ethnic cachet of 'Hellenes', but now *déclassés* under Roman rule,<sup>28</sup> found a vicarious vengeance in the creation of a tendentious, anti-imperial literature,<sup>29</sup> so too among the Egyptians there was a 'change in attitude in the so-called prophetic or apocalyptic literature (from anti-anyone who doesn't do things in the proper [i.e. Egyptian] fashion to anti-Rome as such)'.<sup>30</sup>

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<sup>24</sup> P. Oxy. XLVI, p. 31.

<sup>25</sup> Roman disdain for the 'effeminate' ways of Ptolemaic Egypt, and especially of its royal court, began long before Octavian, but it was he who introduced the exacerbated note of pure hatred. The best known example is no doubt Juvenal's Satire 15, its 174 hexameter verses describing how in 'demented Egypt' the absurd animal-worshipping religion engendered internequine savagery that did not stop short of cannibalism. (Egyptian also is Juvenal's personal *bête noire*, Crispinus: 1.27, 4.24.) Even the more level-headed Tacitus dispenses the common stereotypes when he speaks of Egypt as 'a province difficult of access, prolific in grain, contentious and mercurial because of superstition and license, knowing no restraints of laws, having no experience of magistrates' (*Hist.* 1.11).

<sup>26</sup> See, notably, G. Geraci, *Genesi della provincia Romana d'Egitto* (Bologna, 1983); id., in L. Criscuolo and G. Geraci (eds), *Egitto e storia antica dell'ellenismo all'età araba* (Bologna, 1989), 55–88, a complete historical survey of the changing interpretations in modern scholarship, with exhaustive bibliography. M. Amelotti's paper in *JJP* 20 (1990), 19–24, entitled 'L'Egitto augusteo tra novità e continuità', purports to be a revision of Geraci's *Genesi della provincia Romana* but is in reality only a nuance: his emphasis on 'il pragmatismo Romano' accords with the consensus that the Roman reorganization of Egypt preserved and continued Ptolemaic elements found to be congenial. To the bibliography add now A. K. Bowman and D. Rathbone, *JRS* 82 (1992), 107–27.

<sup>27</sup> See Bagnall, *Ktéma* 13 (1988), 285–96, and *Egypt in Late Antiquity* (Princeton, 1993). For the restriction of the temples' authority and independence early in the Roman period, see, for instance, Lewis, *Life in Egypt under Roman Rule*, 91–2.

<sup>28</sup> *Macedones... in... Aegyptios degenerarunt*, as Livy remarks (38.17) in another context.

<sup>29</sup> The standard work is H. A. Musurillo, *The Acts of the Pagan Martyrs* (Oxford, 1954).

<sup>30</sup> Janet H. Johnson, *per epist.* 3 March 1992.



### For the sake of ογωϣ, 'love': an exception to the Stern-Jernstedt Rule and its history

A historical explanation is offered for the exceptional behaviour of the Coptic verb ογωϣ 'love, wish' in relation to the Stern-Jernstedt Rule. It is argued that, at the time when the Stern-Jernstedt Rule took effect, in early Demotic, there were two constructions *whj n* 'seek' and *whj* 'wish' and that the verb *whj* in the latter meaning was barred from the indirect connection of the direct object because *whj n* meant 'seek' in all its conjugations.

COPTIC possesses two direct object constructions. First, a direct object can be attached immediately to the verb form. In this case, the infinitive assumes special forms, the *status nominalis* ('nominal state') before nouns and the *status pronominalis* ('pronominal state') before suffix pronouns. I will call this the *immediate connection*. Second, the preposition *n-* (before nouns)/ *mmo-* (before pronouns) can intervene between the infinitive and the direct object. This will be called the *indirect connection*.

The distribution of the two direct object constructions is described by the so-called Stern-Jernstedt Rule, first observed by Ludwig Stern in 1880, and rediscovered and refined by P. Jernstedt about fifty years later.<sup>1</sup> The principal component of the Rule dictates that the indirect connection is required in the bipartite conjugation, that is, the present tense (the 'First Present') and its satellites.<sup>2</sup> The preposition *n-/mmo-*, which introduces the direct object, is in all probability to be understood in a partitive sense as 'from, of'. The rationale underlying this use seems to be that, in the immediate present, actions only apply to *part of* their direct objects.<sup>3</sup>

For example, in 'He is eating bread', the act of eating applies only to *part of* the bread in the immediate present, as bread is also being eaten in the moments preceding and following the present point in time. Accordingly, an example such as *σεογωμ μπεγοεικ*, 'They are eating their bread' (Mark 7:2), in origin literally means 'They are eating *from* their bread'.

But the Rule comes with well-defined exceptions. All but one of these exceptions pertain to the direct object. For example, nouns without articles used as direct objects can be attached directly to the infinitive in the bipartite conjugation: *νεγδν οεικ αν πε* 'They were not finding bread' (Acts 7:11).

The one exception in which the verb is decisive concerns ογωϣ 'wish': ογωϣ is the only Coptic verb whose nominal state ογεϣ- appears before nouns with an article in the bipartite conjugation and whose pronominal state ογαϣ= can be found at all in the bipartite pattern.<sup>4</sup>

ΟΥ ΠΕΤΕΤΝΟΥΑΩϣ ΕΤΡΑΑϩ ΝΗΤΝ

'What do you want me to do for you?' (Mark 10:36).

ΕΙΟΥΕΩ ΟΥΝΑ ΕΖΟΥΕ ΟΥΘΥΣΙΑ

'I desire mercy more than sacrifice' (Matthew 9:13).

Medieval Scholastics might have been tempted to interpret the conspicuous absence of a direct object marker with ογωϣ semantically, as an expression of the directness of the relation between lover and object of desire. In modern times, however, we are deprived of such uncomplicated explanations.

<sup>1</sup> L. Stern, *Koptische Grammatik* (Leipzig, 1880), 318-19; P. Jernstedt, *Doklady Akademii Nauk SSSR* 1927, 69-74; cf. H. J. Polotsky, *Grundlagen des koptischen Satzbaus: Zweite Hälfte* (Atlanta, 1990), 216-21; for the direct object construction in Shenute's Coptic, see A. Shisha-Halevy, *Coptic Grammatical Categories* (Rome, 1986), 105-27.

<sup>2</sup> For the terms 'bipartite conjugation' and 'satellite', see Polotsky, *Or* 29 (1960), 392-422 (reprinted in *Collected Papers* (Jerusalem, 1971)).

<sup>3</sup> See Polotsky, *Grundlagen* II, 221.

<sup>4</sup> 'Die augenfälligste Ausnahme ist *lexikalisch*: das Verbum *ouôš* "wollen, wünschen" genießt das rätselhafte Privileg, dass sowohl seine pränominalen (*oueš-*) wie seine präsuffixalen (*ouaš=*) Form im Präsens unbeschränkt zugelassen ist' (Polotsky, *Grundlagen* II, 218).

Two questions are in order regarding  $\sigma\gamma\omega\psi$ .

- (A) What property caused it to be an exception to a firm rule of Coptic grammar?  
 (B) Why is it distinct from all other Coptic verbs in this respect?

(A) The explanation offered here is diachronic, not synchronic. The behaviour of  $\sigma\gamma\omega\psi$  can be explained, in my opinion, as a vestige of earlier Egyptian by assuming the following historical scenario.<sup>5</sup>

### 1. Late Egyptian $wh_3$ c. 1100 BC

Late Egyptian  $wh_3$  is the etymological predecessor of Coptic  $\sigma\gamma\omega\psi$ . But  $wh_3$  differs in meaning from  $\sigma\gamma\omega\psi$ , 'wish, desire'. Translational equivalents of  $wh_3$  are 'seek', 'require', 'search for', 'demand', and 'look for'.<sup>6</sup> 'Seek' presupposes or encompasses 'wish'. In addition, it involves *actively* going out to satisfy the emotional state expressed by 'wish'. The evolution from 'seek' to 'wish' may therefore be characterized as a loss of the active semantic component. In the transitional phase of the evolution from 'seek' to 'wish',  $wh_3$  had both meanings, as will be seen below.<sup>7</sup>

### 2. Late Egyptian $wh_3$ c. 1000 BC

It has been observed that, in the Decree of Amonrasonther promulgated around 1000 BC, all the instances of  $wh_3$  can be translated as 'wish'.<sup>8</sup> Even if it is assumed that  $wh_3$  did not mean 'wish' in each single case, it may still be concluded from this observation that the semantic evolution of  $wh_3$  from active 'seek', or the like, to passive 'wish' had in all probability begun around this time. It would take several centuries, however, before  $wh_3$  had entirely shed its active semantic component.

### 3. Demotic $wh_3$ c. 500 BC

Since the Stern-Jernstedt Rule was firmly in place in Papyrus Rylands IX, dated to 514 or 513 BC,<sup>9</sup> but did not exist in Late Egyptian, it must have taken effect sometime between 1000 and 600 BC. It is a reasonable supposition that the cause of the remarkable behaviour of Coptic  $\sigma\gamma\omega\psi$  must be sought in this formative period of the Rule, about a millennium before the emergence of full-fledged literary Coptic. As suggested above,  $wh_3$  had two meanings at that time, being about halfway in a semantic evolution that would take it from 'seek' to 'wish'.

At the latest by early Demotic, then, an important development took place. The two meanings of  $wh_3$ , 'seek' and 'wish', became polarized in two different constructions,<sup>10</sup> as can be seen from examples in Papyrus Rylands IX and the Story of Setne Khamwas and Naneferkaptah (see below). The verb  $wh_3$ , when it means 'wish', is used transitively, whereas  $wh_3$  'seek' is constructed with the preposition *m* (Demotic *n-*). The preposition *m* was used in Middle and Late Egyptian to introduce the object of certain verbs, for example *mḥ* 'seize'. In fact, the construction  $wh_3 m$  'seek' is attested already in Late Egyptian.<sup>11</sup>

<sup>5</sup> For alternative explanations, see Shisha-Halevy, *Coptic Grammatical Categories*, 115 and n. 30, who concludes that the matter is 'as yet unexplained'.

<sup>6</sup> L. H. Lesko, *A Dictionary of Late Egyptian*, 1 (Berkeley, 1982), 126.

<sup>7</sup> A similar evolution affected Late Egyptian *nw*, which means 'look (at)', that is, 'actively employ the faculty of sight', while its Coptic descendant  $\pi\alpha\gamma$  'see' refers to the faculty of sight only. In the transitional phase the verb had both meanings, 'see' and 'look'. See Depuydt, *RdÉ* 36 (1985), 35-42 and *Or* 57 (1988), 1-13.

<sup>8</sup> B. Gunn, *JEA* 41 (1955), 90-1.

<sup>9</sup> According to R. A. Parker, 'the operating rules [of direct object constructions are] nothing more nor less than those set forth by Jernstedt for Coptic and, far from being a mere beginning, the system in Rylands IX was already complete' (*JNES* 20 (1961), 180). As far as Demotic is concerned, the Stern-Jernstedt Rule may therefore justifiably be called the 'Stern-Jernstedt-Parker Rule' (cf. A. Shisha-Halevy, *JAOs* 109 (1989), 425a). For Demotic, see also J. H. Johnson, *The Demotic Verbal System* (Chicago, 1976), 9 and n. 25, 55ff.

<sup>10</sup> As already suggested, tentatively, by Parker, *JNES* 20, 183 (see also n. 14 below).

<sup>11</sup> See W. Helck, *JARCE* 6 (1967), 146,9. I owe this reference, as well as the one to the instances of  $wh_3$  in the Papyrus Vandier (see below), to Professor Edward Wente. Perhaps it is no coincidence that *m* intro-

Now, *m* (Demotic *n-*) happened to be the preposition usurped for the expression of the indirect connection of the direct object when the Stern-Jernstedt Rule was born. It is therefore reasonable to assume that *wh* 'wish' was exceptionally *barred* from the direct object construction with *n-/n-jm* = in the bipartite conjugation because *wh* *n-/n-jm* = meant 'look for'. Since both constructions and meanings coexisted for some time in Demotic, *wh* 'wish' became permanently anchored to the immediate expression of the direct object in all its conjugations.<sup>12</sup>

There are five instances of *wh* in Papyrus Rylands IX. That at 1,5 cannot be used as evidence because of the lacuna immediately following the infinitive. In three instances—12,15, 12,19, and 14,3—the object is a person and is preceded by *n-/n-jm* = ; 'look for' is the obvious meaning. The third example, 14,3, is usually transcribed without the preposition *n-*. However, there is a damaged area between the verb form and its object, and though *n-* is not visible on the facsimile, it is difficult to see what else could belong in the lacuna.

'Go and circulate in the nome of Permedj' *jw=k wh n n rmt Try=w-djt* 'while seeking the men of Teudjo' (12,14-15).

*j jr p hry M<sup>c13</sup> wh n-jm=n r djt jr=w n=n md t bjnt* 'It is to cause an evil to be done to us that the Chief of Police is seeking us' (12,19-20).

*dj=f wh=w [n] p hl 2* 'He had them seek the two boys' (14,3).

In the fifth example, *wh*, like Coptic ⲟϣⲱϣ, means 'wish' and the immediate connection is used.

*jn wn nkt jw=k wh=f* 'Is there a property that you want?' (10,15).<sup>14</sup>

duces the object of both *mh* 'seize' and *wh* 'seek, look for'. The two verbs have closely related meanings: *mh* means 'get hold of', whereas *wh* means 'try to get hold of'.

Nor is it surprising that the more active of the two meanings of *wh* is used with a preposition. This also characterizes the parallel case described in n. 7: verbs meaning 'look' are as a rule constructed with a preposition, whereas verbs meaning 'see' are transitive.

On the possible use of *m* with verbs before Demotic see, for instance, T. G. H. James, *The Hekanakhte Papers* (New York, 1962), 104; C. F. Nims, *JEA* 54 (1968), 163 n. 6; D. P. Silverman, *Or* 49 (1980), 199-203.

<sup>12</sup> Though *wh* may occasionally have retained the meaning 'seek' when constructed transitively, as a vestige of its original use, the opposite—that *wh* could ever have meant 'wish' when followed by the preposition *m* (Demotic *n-*)—is improbable.

<sup>13</sup> For this reading, instead of the traditional *hry Mdw*, see R. K. Ritner, *Enchoria* 17 (1990), 105-6.

<sup>14</sup> Parker, *JNES* 20, 183 suggests two possible explanations for the immediate connection in this example. The first explanation is that 'a distinction was made between *wh*, "to seek" ... and *wh*, "to wish"' (see n. 10 above). This explanation is preferred in the present paper.

The second explanation is that the pronoun *f* resumes a noun that has no article (*nkt*). In Coptic, nouns without an article can be attached directly to an infinitive as direct objects, as an exception to the Stern-Jernstedt Rule. However, it might be objected against this explanation that the fact that a pronoun *refers to* an indefinite noun does not make it indefinite. Pronouns are, it would seem, by definition always definite, regardless of what they refer to. And the pronouns that resume articleless antecedents in relative clauses are no exception: though they may seem to 'stand in for' such an antecedent, the Egyptian idiom is that they refer to that antecedent, like any other suffix pronoun referring to an articleless or indefinite noun.

On the other hand, Parker is able to adduce two additional examples in which a suffix pronoun referring to a noun without an article is attached directly to the infinitive, not of *wh* but of *jr* 'do', in the bipartite conjugation, and for this reason he prefers the second explanation.

These two examples are indeed remarkable. The first is Papyrus Rylands 1,11: *jn wn r djt... p nty jw.k jr.f* 'Is it opening to cause... what you are doing?' Parker notes that *djt* has no article. However, because (1) this example and the one cited below stand so isolated in the era of Egyptian in which the Stern-Jernstedt-Parker Rule (see n. 9) was valid, and because (2) it remains difficult to accept on the basis of only these two examples that suffix pronouns can be indefinite in Egyptian, one feels compelled to seek another interpretation.

I would therefore suggest interpreting Papyrus Rylands 1,11 as containing a future tense: ... *p nty jw.k (r) jr.f* '... what you are going to do?' (*r* is also not written, for instance, at 19,3). The preposition *r* is written in another example of this same construction at 2,15-16: *jn hdb rmt pry nty jw.tn r jr.f*.

In the hieratic Papyrus Vandier, dated by the editor to the end of the sixth or the fifth century BC,<sup>15</sup> and written in what seems to be early Demotic with some Late Egyptian features,<sup>16</sup> there are two instances of the sentence *jn wn grt mdt jw=k wh; n-jm=s*, at 2,9 and 3.15; a third instance has to be restored in all probability in the lacuna at 2,5. In this sentence, *wh;* is used in the bipartite conjugation with the indirect connection of the direct object. Because of the construction, one expects the verb to mean 'seek' or 'look for'. However, the sentence can easily be translated using 'want': 'Is there something that you want?' Nevertheless, I would argue that *wh;* includes the notion of seeking to fulfil one's desire in these examples. At 2,5, *jn wn grt mdt jw=k wh; n-jm=s* is Pharaoh's reply to Meryre's statement, 'May Pharaoh do for me that which I will tell him (to do)'. It is clear that Meryre not only desires something, but is also actively out to get it. In that sense, Pharaoh's reply *jn wn grt mdt jw=k wh; n-jm=s* may be paraphrased as 'What are you trying to obtain?' or 'What are you out to get from me?' This English translation 'Is there something that you want?' may still be valid, since 'want' can in certain contexts include the notion of being actively engaged in fulfilling a wish.

#### 4. Demotic *wh;* in Ptolemaic and Roman times

In the earlier part of this period, the opposition between *wh; n-/n-jm=* 'look for' and *wh;* 'wish' still existed, as the contrast between the following two examples of *wh;* in the bipartite conjugation from the Story of Setne Khamwas and Naneferkaptah (Setne I) suggests.<sup>17</sup>

('look for'; indirect connection) *nry=k hrdw st wh; n-jm=k* 'Your children, they are looking for you' (5,33).

('wish'; immediate connection) *jw=f hpr jw=k wh;s n jr p; nty mr=k st* 'If you desire (it) to do what you wish...' (5,19).

But by the end of the same period, *wh; n-/n-jm=* 'look for' seems to have become obsolete. The use of *wh;* in the Demotic Magical Papyrus of London and Leiden dating to the Roman period already remarkably resembles that of its descendant  $\sigma\gamma\omega\omega$  in Coptic.

With the disappearance of *wh; n-/n-jm=* 'look for', which had prevented the verb *wh;* 'wish' several centuries earlier from harmonizing with the Stern-Jernstedt Rule, the traces of the circumstances that led to the exceptional behaviour of *wh;/\sigma\gamma\omega\omega* were partly obscured. In Coptic, 'seek' is rendered by verbs with prepositions such as  $\omega\text{INE NCA-}$  and  $\kappa\omega\text{TE NCA-}$ .

#### 5. Coptic $\sigma\gamma\omega\omega$

When grammars describe the unique behaviour of  $\sigma\gamma\omega\omega$  with regard to the attachment of the direct object, it is usually made clear that  $\sigma\gamma\omega\omega$  *exceptionally allows* the direct object connection in the bipartite conjugation. But the converse is not always sufficiently emphasized, namely that the indirect connection is *entirely prohibited*. In other words,  $\sigma\gamma\omega\omega$   $\text{N-}/\text{MMO} =$  does not exist in Coptic. If the indirect connection had existed, as it did in Demotic in the form of *wh; n-/n-jm=*, one might have expected it to mean 'look for'.

The total absence of the indirect connection with  $\sigma\gamma\omega\omega$  is an important argument in favour of the historical scenario outlined above. It supports the contention that the indirect connection was for some reason *avoided*.

The behaviour of  $\sigma\gamma\omega\omega$  would not in fact be the only peculiarity of direct object constructions in Coptic requiring a historical explanation. The object of the verb *mh* 'seize' was already in

The second example, Papyrus Rylands 21,6-7, would then be the preterite conversion of this same construction: *djt j.jw rmt m-s; pry.f nkt pry (=p; r-) wnw jw.f (r) jr.f r hn r hst-sp 44* 'What he was going to do up to year 44 (of Amasis) was to send a man after his property'. In this example, the future is regarded from a point of view in the past.

<sup>15</sup> G. Posener, *Le Papyrus Vandier* (Cairo, 1985), 11. For *wh;*, see p. 53.

<sup>16</sup> For a detailed discussion of the language of the Papyrus Vandier, see Shisha-Halevy, *JAOs* 109 (1989), 421-35, and for the direct object construction, *ibid.* 425a.

<sup>17</sup> These examples are quoted by Johnson, *The Demotic Verbal System*, 58-9 (E51A and E55A).

Middle and Late Egyptian introduced in all conjugation patterns with the preposition *m*. As a consequence, when the opposition between the immediate connection and the indirect connection with *m*, the Stern-Jernstedt Rule, came into the language in early Demotic, *mh* was not affected and retained the preposition *m* (Demotic *n-*) in front of its object in all its conjugations. As a consequence, its Coptic successors, for instance  $\lambda\mu\alpha\lambda\tau\epsilon/\lambda\mu\alpha\lambda\tau\epsilon$  in Sahidic and  $\mu\epsilon\lambda\iota$  in Faiyumic, are constructed in all verb forms, both bipartite and tripartite, with  $n-/m\mu o =$ . In fact, the absence of the immediate connection with  $\lambda\mu\alpha\lambda\tau\epsilon$  in the tripartite conjugation is as striking as the absence of the indirect connection with  $\sigma\gamma\omega\omega$  in the bipartite conjugation. It is maintained here that both features have related historical origins.

In conclusion, the behaviour of  $\sigma\gamma\omega\omega$  is a legacy of several related events, the most important of which are (1) the semantic shift of *wh* from 'look for' to 'wish' from Late Egyptian to Coptic, (2) the fact that *wh* had two meanings in the formative phase of the Stern-Jernstedt Rule, and (3) the double use of the preposition *m* (a) as an object marker with all tenses of certain verbs in Middle and Late Egyptian and onward in Demotic and Coptic, and (b) as direct object marker, with partitive meaning, in the bipartite conjugation pattern starting in early Demotic.

**(B)** Perhaps the most intriguing feature of the verb  $\sigma\gamma\omega\omega$  as an exception to the Stern-Jernstedt Rule is that it is the only verb of its kind. Yet if one considers the conditions that need to be fulfilled for a verb to behave as  $\sigma\gamma\omega\omega$  does in Coptic, it appears less surprising that there are no others like it. The following conditions ought to apply:

- (1) The verb has survived from Late Egyptian through Coptic.
- (2) The verb has two distinct meanings.
- (3) These two meanings are kept apart by two distinct constructions.
- (4) In the first construction the object is headed by *n-* (Late Egyptian *m*).
- (5) In the second construction the verb is transitive.
- (6) The verb possesses these two meanings and two constructions at the time when the Stern-Jernstedt Rule takes effect, that is, in early Demotic.
- (7) The construction with *n-* becomes obsolete before the emergence of Coptic.

This set of conditions is so specific that it is understandable that only a single verb meets them. It may be concluded, then, that, from a historical point of view, the peculiar case of the Coptic verb  $\sigma\gamma\omega\omega$  is not one of privileged uniqueness but rather of accidental only-ness.

LEO DEPUYDT

## REVIEWS

*Their Bones Shall Not Perish: An Examination of Predynastic Human Skeletal Remains from Naga-ed-Dêr in Egypt.* By PATRICIA V. PODZORSKI. 215 × 150 mm. Pp. xii + 166. New Malden, SIA Publishing, 1990. ISBN 1 8 72561 00 4. Price £30.

During the 1902 and 1903 field seasons members of the Hearst Egyptian Expedition of the University of California excavated 635 numbered tombs containing an estimated 853 individuals from the Predynastic (3900–3300 BC) cemetery of N 7000 at the site of Naga-ed-Dêr, which is located 420 km south of Cairo on the east bank of the Nile. The skeletal and mummified remains were shipped to Cairo for study by G. Elliot Smith, but his leaving Egypt soon after their arrival precluded the planned analysis. Several crates containing some portion of 150 individuals (including 32 skulls) from this cemetery were shipped in 1914 to the University of California. Over the years numerous researchers including Smith, Jones, Derry, Ruffer, Leigh, Brothwell, Strouhal, and Castillos have made some contribution to our knowledge of this cemetery sample. Podzorski's monograph is a descriptive analysis of the remains curated in the Lowie Museum of Anthropology and a compilation of 'as much information as survives pertaining to the collection' (p. 1).

This revised Master's thesis is organized into five chapters and seven appendices. The introduction includes a description of the site, dating information, a history of remains and a listing of publications on the cemetery and associated human remains. The methodology is an all too brief account of the procedures employed in analysis. The paleopathological evidence chapter provides specimen-specific detailed descriptions of the following categories of osteological data: traumatic lesions, congenital anomalies, non-metric traits, porotic hyperostosis, dental pathology, infectious lesions, arthritis, and neoplasms. The descriptions are derived from observation of the curated specimens, examination of field photographs, and the published and manuscript literature concerning the site. Despite the absence of photographic documentation, the lesion descriptions are of sufficient detail that readers can make their own diagnoses. For example, the author (p. 20) interprets the healed fractures of the ulnae and radius to be associated with interpersonal violence (i.e. parry fractures), but I considered the frequency to be too high. Sufficient detail is provided to determine that 50% of the ulna fractures and the one fractured radius are all located in the distal region, thus suggesting the possible designation of Colles' fractures (i.e. associated with catching oneself during a fall). The paleodemography chapter provides the age and sex data from all 853 excavated individuals in a life table format. These data derive from a composite of curated specimen analysis and field observations. Comparison of Naga-ed-Dêr survivorship curves and life expectancies at fifteen years are made with Near Eastern data provided by Hassan (1981). The final chapter attempts to provide 'a profile of the population, its age and sex distribution, and the physical condition of the people as reflected by ... the pathological conditions noted among the deceased' (p. 14). The seven appendices provide listings of some categories of pathology data, recording forms, corrections to the 1965 publication of Lythgoe's field notes, and a concordance of museum catalogue and excavation grave numbers.

J. C. ROSE

*The Rock Tombs of El-Hawawish. The Cemetery of Akhmim.* Vol. VII (1987), Vol. VIII (1988), Vol. IX (1989). By NAGUIB KANAWATI *et al.* 216 × 290 mm. Vol. VII, pp. 58, pls. 20, figs. 41. Vol. VIII, pp. 64, pls. 14, figs. 35. Vol. IX, pp. 65, pls. 11, figs. 37. Sydney, The Ancient History Documentary Research Centre, Macquarie University. ISBN 0 85837 608 3, 0 85837 627 X, 0 85837 662 8. Price not stated.

*Quseir El-Amarna. The Tombs of Pepy-ankh and Khewen-wekh.* By ALI EL-KHOULI and NAGUIB KANAWATI, with contributions and drawings by A. MCFARLANE, E. THOMPSON, N. CHAROUBIM and N. VICTOR. The Australian Centre for Egyptology, Reports 1. 219 × 290 mm. Pp. 57, pls. 46. Sydney, The Australian Centre for Egyptology, 1989. ISBN 0 85837 663 6. Price not stated.

Naguib Kanawati's work at el-Hawawish began in 1979, and Volume IX is the last of the site reports on this cemetery. In Vol. I, 3, Kanawati estimated a total of more than 300 tombs, shafts and pits in the mountain of el-Hawawish. Since then, 56 decorated or inscribed tombs (less than 20 per cent) and 105 undecorated and uninscribed tombs are published, i.e. about 53 per cent of the total. This calculation gives an impression of what the ratio between decorated and undecorated tombs in other provincial cemeteries might be. Kanawati and his excavation team from the Macquarie University of Sydney undertook the first attempt of our time to record a cemetery as completely as possible. It is a pity that even in this research only 'a good representative sample of the undecorated' tombs was recorded (Vol. IX, 3). The earliest tombs are dated to the reign of Djedkare of the Fifth Dynasty (tombs M23, M22, H23, M21, L6, L8), there are 17 decorated or inscribed tombs dated to the end of the Sixth Dynasty or later, and the latest ones are from the Heracleopolitan period of the Ninth/Tenth Dynasty (C3 = Bekhen of Vol. I, H15, G66, I49, BA17, BA14, B7 and B6, J2; dates of the author). There seem to be no tombs from the Eleventh and Twelfth Dynasty onwards.

For the moment, it does not seem useful to begin with an evaluation of the mass of information published in the nine excavation reports. To assess the interpretations, and especially the datings, of Kanawati is sometimes difficult. Often the arguments for dating tombs are correlative and would be much more comprehensible if a general map of the cemetery was at hand, which is announced for a final synthesis study. I also would like to know more about the traces of a causeway (?) leading to a building on top of the mountain (noted in Vol. I, 6). Could this be the *Ka*-chapel of Pharaoh Pepi (I?), mentioned in tombs K5, C9, K1 and perhaps C3, a mountain-temple like that of Mentuhotep III on the so-called 'Thoth-Mountain' at western Thebes (PM II<sup>2</sup>, 340), or is it a much later building?

The overall emphasis given to the recording of undecorated and uninscribed tombs is very much appreciated. I hope that the final study will include a thorough examination of the phenomenon of multiple tombs in the forecourt of larger rock tombs (e.g. M23, M21, M22, M43, H26, H24, G22). The focus of simple, mostly uninscribed forecourt-tombs seems to be the tombs of the Fifth and early Sixth Dynasty, decreasing in number for later tombs such as M8, H26 and H24. There are also tomb-groups such as N13-16, G1-4, F11-15 (F11 is not published!), H2-4 and H58 (unpublished), K4 and K5 and G95-98. These architectural and topographical features are reflections of specific social relations in space and time, which should be investigated further.

Volume VII (reviewed already by G. Martin, *DE* 15 (1989), 103 ff.) includes the publication of nine decorated or inscribed tombs and two undecorated tombs, G22 being the focus of fourteen subsidiary tombs (only G23 is inscribed). Most of the decorated or inscribed tombs have been published summarily by Newberry before.

The decoration of tomb G23 (built in the forecourt of the large uninscribed tomb G22) was directed by the son for his father, as in tombs H26, F1, B12, G95, K5; cf. also N20. Tomb G42 is connected through some features with the tombs of his colleagues in BA48, GA11, and B12. For the title *ḫmj-rꜥ wp(w)t* cf. E. Martin-Pardey, *SAK* 11 (1984), 231ff., and R. Müller-Wollermann, *Krisenfaktoren im ägyptischen Staat des ausgehenden Alten Reiches* (Tübingen 1986), 82 ff. *ḫmj-rꜥ wp(w)t ḫt mrt m prwꜥ*, 'Overseer of commissions concerning the fields and serfs of the two houses (the government)', is recorded for seven officials at el-Hawawish. For bullfighting scenes as in tomb G42 see now N. Kanawati, *Bulletin of the Australian Centre for Egyptology (BACE)* 2 (1991), 51 ff.

Tombs C9, BA17 and BA14 are important for their autobiographical inscriptions. BA17 and BA14 (dated to the Tenth Dynasty) in particular use a similar phraseology (unfortunately there is neither transcription nor translation of the rest of the inscriptions on the west wall of Bawi's chapel in fig. 17b). Kanawati (Vol. VII, 26, cf. p. 9) suggests that BA17 shows stylistic influences of the 'same school of art (?) responsible for the decoration of B12, BA48 and G42', which are all dated by him to the reign of Pepi II. I see no problems in dating BA17 and BA14 before the Tenth Dynasty; perhaps they are Eighth Dynasty. The 'Formula of begging (*dbh*)' is used at Dendera in the Eighth Dynasty for the first time, as far as we know. Kanawati offers a rather dramatic interpretation of the formula 'when the great ones [had gone] to their *kas* (*wr.w [zby.w] n k2.w-sn*) in BA17 (fig. 16). He thinks that they 'died fighting the Thebans' as partisans of the Heracleopolitan kings (p. 24), but to my eyes this formula is merely a variation of the normal formula for death 'when he had gone to his *ka*' (*zby(.w) n k2-f*) used in tombs C9 and B12 (cf. also N20, F1, and stela Hildesheim 1875). Rehu-rausen (the 'two companions' (*rh.wj*) in the name are of course the two gods Horus and Seth, who are also alluded to in the common name *B.wj* at Akhmim) is speaking here of the death of his masters, presumably the 'Great overlords' of the nome, but there is no reason to suppose that their death was not natural. On the whole, Kanawati's late datings are sometimes influenced by his (personal) view of the First Intermediate Period and of the fights between Heracleopolis and Thebes, which are perhaps later than most of the tombs under consideration. This holds true also for Kanawati's dating of Bekhen (C3, Vol. I), who is—among other reasons—dated late because he has the title 'overseer of troops' on his coffin Cairo CG 28012.

Ten stelae, two coffins, an offering box (Berlin 12708) belonging to Seni, the son of the owner of tomb B12, and twelve statues and statuettes supposed to come from Akhmim complete the volume.

An interesting instance of the way Kanawati uses different criteria for dating objects is his study of the Hildesheim stela 1875 (p. 50f.). His argumentation concerning the priming material (white plaster on limestone) and the technique (painted) is not valid, because he compares things which are difficult to compare: techniques of making stelae and of decorating rock tombs, a stela which is only painted and stelae which are incised with relief and then painted. Painted stelae on plaster are, for example, a late feature used at Thebes in the Eleventh Dynasty. The only reliable dating criterion is the title *Hrj-tp nswt pr-ḳ*, which is indeed in favour of a date in the reign of Pepi II.

Volume VIII contains thirteen decorated or inscribed tombs, seventeen undecorated and uninscribed tombs, five stelae, a fragment completing the architrave belonging to tomb M8 (Vol. III; a photographic layout is published now in Chr. Ziegler, *Catalogue des stèles, peintures et reliefs égyptiens de l'Ancien Empire et de la Première Période Intermédiaire* (Paris 1990), 272) and the headrest of Tjeti. At least the beginning of the autobiography of Tjeti/Kai-Hep is now complete. He was probably a provincial-born boy, who made the first steps of his career at the Memphite residence, and came back to Akhmim as nomarch in the time of Merenre or Pepi II. Tomb M8 and tomb Q15 (dated to Pepi I) are the only securely dated tombs of the whole cemetery.

CA1 (Newberry's No. 19) is a vizier's tomb, dated to Pepi I. There are autobiographical inscriptions in tombs G95, H41 and K5. The autobiographical inscription in tomb H41 is only mentioned, but not translated. It seems to me of the highest interest, because I think on fig. 12b, line (x + 9), I can restore [*hrj*]-*tp* [*ḳ*] *nj tp-šmḳw*, 'Great overlord of the (Department) "Head of the South"'. This title is otherwise unattested, and the writing with sign Gardiner T8 instead of D1 is quite unusual. The inscription should be checked again. But if my reading is correct, it is perhaps an allusion to the early Eleventh Dynasty rulers of Thebes, who called themselves 'Great overlords of Upper Egypt', as did Kheti of Assiut tomb IV, l.23. There is a mention of 'fighting' (*ḥ*) in l.(x + 11), but the context is incomplete.

Tomb I49 (p. 26 ff.) belongs to an 'overseer of the gate (of the nomarch's residence or the temple) Tjeti, who has a son named Tjet-iqer, to whom is ascribed the coffin Cairo CG 28020 (re-published in Vol. IX, 61, fig. 35), where he has the titles *Hstj-ḳ*, *Htmj-Bjt*, *Smr-wḳtj* and *Hrj-ḥb*. Of course names with Tjet(i) are not rare at Akhmim, but isn't it possible that this Tjet(i)-iqer is the homonymous 'overseer of priests' mentioned on a stela in the collection of the Università di Roma? This stela of unknown provenance is published by A. Roccati under the heading 'La stele di un falegname', in: *Atti della Accademia Nazionale dei Lincei*. Classe di scienze morali, storiche e filolo-



giche. *Rendiconti*, ser. 8, XL (1985[1986]), 225–33, pls. i–ii). It is the extraordinary autobiography of the craftsman and wood-carver Nakhti, who obviously came from outside the nome, but who worked for the overseer of priests Tjet(i)-iqer. Nakhti says that he had ‘erected 180 coffins (*sḥr drjt*) in this town’, and that he was also responsible for their decoration. This gives us an idea of the extent of the output of a single carpenter’s atelier. The stela is later than the Eighth Dynasty, by stylistic and palaeographic considerations, so Nakhti’s master Tjet(i)-iqer cannot be the Tjeti-iqer of tomb H26, who is dated to the reign of Pepi II.

In Vol. IX there are published eleven decorated and fourteen undecorated tombs, supplemented by three stelae, one false door, and ten coffins (see the review by G. Martin, *DE* 18 (1990), 93 ff.).

Tombs B7 and B6 are undecorated, but have two roughly cut causeways and share a pillared portico. Only three pillars and the entrance jamb of B7 display inscriptions and reliefs. The door jamb shows part of an autobiographical inscription, mentioning benefits for the ‘great ones’ (*wr.w*) and the provisioning of the ‘little ones’ (*nds.w*) by the vizier Bawi, who was also ‘overseer of troops’. I see no problem in reading his title *ḥmj-rḥ ḥntj-šj pr-ḥ* on fig. 17b, and the title left unread between *Tjtj* and *ḥmj-rḥ zḥrw ḥ nswt* as *Ḥrj-tp nswt*. A date in the Tenth Dynasty for Bawi seems too late, and I would suggest—from a comparison with the titles of Shemai and Idi of Coptos—a date in the Eighth Dynasty.

Addenda and Corrigenda to tombs H26, H27, H24 and M8 close the volume, together with the publication of two additional burial chambers below tomb H26, which were found undisturbed. H26A contained the burial of a woman, on whose body two fine pleated linen garments were found lying (cf. A. McFarlane, *BACE* 2 (1991), 75 ff.).

The remaining volume to be reviewed here is by Ali el-Khouli and Naguib Kanawati. This is the publication of two decorated tombs at the cemetery of Quseir el-Amarna on the east bank of the Nile, hitherto only partially known, through reports by M. Chaban and J. Quibell, *ASAE* 3 (1902), 250ff., and A. Kamal, *ASAE* 12 (1912), 136ff., cf. PM IV, 239ff. Unfortunately, there is no general map of the site, so one wonders if there are also more and/or uninscribed tombs. For the cemeteries on the west bank, called Meir, we have only the rough sketch of D. Kessler, *LÄ* IV, 15–16.

The authors offer a revised sequence and chronology of the overseers of priests at Qusiya, maintaining that the cemetery of Quseir el-Amarna was used before those of Meir D and A. This is challenged in a review by Robyn A. Gillam, (*DE* 20 (1991), 75–87), who has prepared a dissertation on the 14th Upper Egyptian nome.

I can see no fundamental objections against Kanawati’s and El-Khouli’s proposal that the cemetery of Quseir el-Amarna predates that of Meir. I would also follow the argument that we should believe the assertion in the autobiography of Pepi-ankh-heri-ib (‘the middle’) in Meir, tomb D2, that he opened up a new cemetery. But considering the incomplete publication of both cemeteries, there is no proof. Until further evidence and arguments are offered, I am inclined to follow the authors’ dating and sequence of cemeteries of Qusiya. It does not seem to me very convincing to suppose that one or two priests and officials left the cemetery used by their contemporaneous colleagues at Meir (D, E and A) and built their tombs on the east bank. On the other hand, the cemeteries of Akhmim at el-Hagarsa (west bank) and el-Hawawish (east bank) do at least seem to have been used at the same time.

What is questionable is the sequence of the two tombs at Quseir el-Amarna, which could easily be reversed. Pepi-ankh (tomb 1) could well be contemporary with Khewen-wekh, who was perhaps his successor as ‘overseer of priests’ for a short time; both of them are to be dated to the end of Pepi I to early Pepi II.

The problem of dating the tomb of Khewen-wekh at Quseir el-Amarna is a test for the validity of our dating criteria. It is dated by the authors to the reign of Pepi I, but Gillam opts for a date later in the Sixth Dynasty. Gillam is probably right in pointing out that Khewen-wekh’s rank was originally lower than that of the other overseers of priests at Qusiya. He comes from a different social stratum. This explains the small size of his tomb and his extraordinary assembly of titles. Basilophoric names give us only a *terminus ante quem non*. The name of an ordinary herdsman Ni-ankh-Merire in Khewen-wekh’s tomb, which could not be a court-name in this case, indicates that

he probably was born in the reign of Pepi I or later. Khewen-wekh's own second name Tjetji is merely a variant of the name Teti, probably indicating a date of birth not before King Teti. Khewen-wekh's titles link him with ritual roles in serving the king (cf. V. A. Donohue, *JEA* 74 (1988), 114 ff.), but he must not have performed these role(s) at the Memphite residence. As Gillam (loc. cit. 81) suggests, his titles are probably to be connected with his duties in a royal *ka*-chapel at Qusiyā. However—*pace* Gillam—I would ascribe this *ka*-chapel to Pepi I (following H. G. Fischer), if there was a *ka*-chapel at Qusiyā at all (cf. E. Martin-Pardey, *Untersuchungen zur ägyptischen Provinzialverwaltung* (HÄB 1; Hildesheim, 1976), 140). In any case, I would prefer to connect Khewen-wekh's extraordinary titles with the local celebration of Pepi's *sed*-ceremony in the 'Year after the 18th counting' (see *Urk.* 1, 91 ff.). The palaeographic features Gillam adduces are to be found in the time of Pepi I and in the late Sixth Dynasty as well, as she herself admits (loc. cit. 83): for the jackal upon the tall stand and the writing of *jmj-wt*, compare T. G. H. James and M. R. Apted, *The Mastaba of Khentika called Ikhekhi* (London 1953), pl. VII. Palaeography offers unfortunately little help here. For the decoration-scheme of the tomb, see Y. Harpur, *Decoration in Egyptian Tombs of the Old Kingdom* (London and New York, 1987), 120, 447, plan 142.

Among Khewen-wekh's titles is a hitherto unattested one: *ht Hrw jtj Qjs*, 'Follower of Horus, the father of Qusiyā', which is not mentioned by A. McFarlane, *GM* 121 (1991), 84ff., in her assembly of titles beginning with *zmj-* and *ht-*. Unfortunately this reading, like some others, cannot be verified in the photographs, which are too few and not always clear. Horus 'the father' could be a local variant of Haroeris (or *Hrw smsw*), venerated at Qusiyā as the consort of Hathor (incidentally a mistake in Bonnet *ÄRG*, 412, should be corrected: if there was a 'heros eponymos' *Qjs* at all—which I would doubt—he is never called the son of Horus. The relevant inscription at Philae is clearly to be translated as 'his enemies are bound by the son (of Osiris) Horus').

For the name of the daughter of Khewen-wekh, which is read as *\*r[n]š*, I suggest *ʿ(j)n∞[.t]* 'the beautiful one' (considered also by Ranke, *PN* 1, 61,9 against 69,1), later an epithet of the goddess Hathor (*Wb.* 1, 190, 19). The only painted scene on the right door thickness (pl. 36b) is quite unusual. If this really shows a gesture of adoration, this could be a late feature (H. Goedicke, *ASAE* 55 (1958), 48f.; H. G. Fischer, *JEA* 60 (1974), 247 n. 3, and *BES* 9 (1987-8), 16 n. 7; Harpur, *Decoration*, 126 n. 79, 132). Gillam, op. cit. 85, maintains that Khewen-wekh is holding 'beribboned objects, probably sistra' in his hands, which would connect the scene with that in the Middle Kingdom tomb Meir B1 (A. M. Blackman, *Meir* 1, pl. II).

I congratulate Kanawati and El-Khouli for the liberating words on p. 18f. concerning the value of Baer's ranking charts (K. Baer, *Rank and Title in the Old Kingdom* (Chicago 1960), 276 ff.). For the provincial administration in the Sixth Dynasty they should not only be revised, but they should be abandoned. If one tries to check and update Baer's sources for periods VD-VIG (Unas—end of the Eighth Dynasty), there is not much left: period VIB disappears, and distinctions between periods on the basis of about two sources alone are not significant. Thus, these charts are quite useless for dating purposes (although they are sometimes used by Kanawati in his publications of el-Hawawish).

Let me conclude with some general remarks. Kanawati's datings are often in disagreement with the seemingly established view of the Egyptological community. This is a challenge, and not a bad one. It shows how insecure and hazy our criteria and methods of dating are. In particular, the difficulties of dating inscribed objects by palaeographic criteria alone are obvious. The *oldest known* evidence should not be regarded as the *earliest* ever existing. The different dates offered by various scholars for the same objects clearly show that there are still no fixed rules for dating to the period from the Sixth to the Eleventh Dynasty, especially when we allow for different local styles. For el-Hawawish the same material is dated very differently by Kanawati and E. Brovarski, *Mélanges Mokhtar*, 1 (Cairo, 1985), 117ff. The differences in palaeography and style between rock tombs and coffins from that area are suspicious. For 'early' vs. 'late' features, typical examples include: tomb M8 (Vol. III) and coffin Cairo CG 28004; tomb CA1 (Vol. VIII) and the coffin ascribed to the son of the owner of CA1, Baef-Min/Bawi (Oxford AM 1911.477 = Vol. IX, 58f., pl. 9, fig. 30). Do these differences embody a difference in time, or merely different artistic traditions and rules of decorum used by two (or more) local workshops? The ceramics found at el-Hawa-

wish, often a good touch-stone for dating, are not of much help in this case (cf. the remarks of S. Seidlmayer, *Gräberfelder aus dem Übergang vom Alten zum Mittleren Reich* (SAGA 1; Heidelberg, 1990), 356f.). This is certainly a field where further studies would be welcome. Kanawati has given us a vast amount of material and stimulation.

Some of the remarks of Robyn Gillam concerning the publication of Quseir el-Amarna cast some doubt upon the reliability of the drawings. I myself sometimes would have liked reassurance that there was not something overlooked or wrong in the drawings, as in some of the autobiographies at el-Hawawish; cf. the case of tomb C3 (Vol. I, fig. 24), or M45a (Vol. V, fig. 10b): is there a mention of the 'little ennead' *psdt nds(.t)*? Especially when there are no photos or only bad ones, the reader is left with a rather unsatisfactory feeling.

The volumes under review have been published with remarkable rapidity, perhaps previously surpassed only by Flinders Petrie, and with the same layout and organization as the older publications of el-Hawawish. Although I have to admit that I am not always happy with the presentation of the material and especially with the way in which the books are bound (having completed this review, I have a nice collection of loose-leaves), I can only admire the mass of information collected.

These remarks are meant to encourage N. Kanawati to continue his work and, as far as possible, to improve it. Perhaps the aim of a quick publication should be more balanced in favour of quality—especially because after the publication of a cemetery, nobody in the near future will record the tombs again. The work should be done with the idea in mind that it will result in the *final* publication. Kanawati's work is clearly an invaluable enrichment of our knowledge. It marks the end of a period of neglect of provincial cemeteries.

DETLEF FRANKE

*Gebel el-Zeit, 1: Les mines de galène (Égypte, IIe millénaire av. J.-C.).* By G. CASTEL and G. SOUKIASSIAN. Fouilles de l'Institut Français d'Archéologie Orientale, XXXV. 245 × 320 mm. Pp. vi and 144, pls. 137, figs. 180. Cairo, Institut Français d'Archéologie Orientale, 1990. ISBN 2 7247 0090 2. Price FF 120.

Gebel el-Zeit, the site of a group of galena mines and associated settlement, was surveyed and excavated by a team of French archaeologists in five seasons between 1982 and 1986. The region lies about 50 km to the south of Ras Gharib on the western shores of the Gulf of Suez, and its name (literally 'mountain of oil') refers to the fact that some of the earliest modern Egyptian exploitation of oil reserves took place in this part of Egypt. The area therefore has an extremely long history of mineral extraction. The funding of the work by the French petrol company Total-CFP (who have an operational base at Ras Gharib) has allowed the Institut Français d'Archéologie Orientale to produce a detailed and copiously illustrated first publication of this unusual site. The first volume concentrates on the mines themselves; a second volume (not yet published) will discuss the associated settlement and sanctuaries.

Until the last twenty years, the study of ancient Egyptian quarrying and mining was very much the domain of epigraphers, consisting primarily of copying, collation and publication of inscriptions and graffiti from sites such as Wadi Hammamat and Wadi el-Hudi. The surveys of various nineteenth- and twentieth-century geologists have supplemented this epigraphic work with piecemeal descriptions of ancient mining and quarrying sites, while some early archaeological publications, such as Petrie's Sinai expeditions, provide accounts of the material remains associated with certain sites. But in most cases the emphasis—as in many other aspects of Egyptology before the 1950s—was placed on the procurement of textual evidence. As a result, the traditional data concerning Egyptian quarrying and mining have tended to be lexicographical, literary or anecdotal

rather than empirical and scientific in nature. Now, however, a few programmes of modern survey and excavation at some of these sites (such as Mons Claudianus, Wadi Gerrawi, Hatnub and Tura) have begun to build up a substantial body of purely archaeological data, establishing the basis for a more objective assessment of ancient Egyptian prospection and extraction of minerals.

For most of the second millennium BC (c. 1900–1300 BC) the Gebel el-Zeit mines were among the Egyptians' primary sources of galena (Pb-Zn), which was used to make kohl, an important ingredient in their cosmetics. The survey concentrates on two regions of ancient activity at Gebel el-Zeit: Sites 1 and 2. Site 1 is a network of more than 30 gallery-mines spread over the north-western slope of Wadi Kabrit (which runs along the western side of Gebel el-Zeit itself) with a New Kingdom sanctuary at the centre. Site 2, covering a larger area in the southern part of Wadi Kabrit, consists of hundreds of mine-shafts, as well as numerous stone shelters and votive structures. Most of the settlement remains (in the form of dry-stone huts) are in the region of Site 1. They date primarily to the Second Intermediate Period and they are often built over the blocked-up entrances to disused mine shafts.

It is an indication of the paucity of published material on pharaonic mining techniques that the only comparable Egyptian material on which Castel and Soukiassian can draw consists of Petrie's work at the Wadi Maghara turquoise mines (*Researches in Sinai*, London 1906) and Rothenberg's more recent work at the Timna copper mines (*Timna*, London 1972). In a well-researched introduction to the report, the Gebel el-Zeit remains are discussed not only in the context of the history and geographical distribution of Egyptian mines but also with regard to prehistoric sites outside Egypt, such as the Bronze Age copper mines at Rudna Glava (eastern Serbia), Mount Gabriel (Ireland) and various sites in southern Spain, as well as the Greek mines at Laurion and the imperial Roman mines in the Iberian peninsula. They point out that the mining methods at Gebel el-Zeit lie firmly within the tradition of the 'archaic' pre-Ptolemaic method of mineral extraction, characterized by the exploitation of clearly visible seams of material without recourse to systematic prospecting methods; proportionately less building work as opposed to mining activity; and the extensive use of stone tools supplemented by a few bronze and copper artefacts. Whereas the pharaonic mines at Gebel el-Zeit and elsewhere tended simply to follow surface (and immediately subsurface) deposits until they ran out (rarely reaching any greater depth than 30 m), the Graeco-Roman mines in Egypt were more sophisticated and operated on a much larger scale, consisting often of shafts drilled down through sterile deposits in order to reach deeply buried mineral deposits, sometimes as much as 200 m below the surface.

The book is primarily a photographic and diagrammatic description of pharaonic mining techniques. The maps are supplemented with photographs, plans and cross-sections of the mines, allowing the technical achievements of the pharaonic miners to be examined in great detail. There are two types of mine in use at Gebel el-Zeit: vertical shafts following seams and horizontal or sloping passages roughly parallel with the ground surface. At every stage in the examination of Gebel el-Zeit, the excavators have made the most of the evidence, even providing an extensive corpus of the various types of stone tools used by the workers (many of which were found lying at the bottom of the mine shafts or in heaps of debris on the surface).

The Gebel el-Zeit publication includes a map and inventory listing over a hundred definitely attested ancient mines (mainly of gold, copper, turquoise and galena) in the Eastern and Nubian deserts and the Sinai region. If further quarries and mines can be surveyed and excavated with the same thoroughness as the work of Castel and Soukiassian at Gebel el-Zeit (and perhaps with similar financial and logistical support from companies involved in modern prospection) it should be possible to build up a clearer picture of the many different strategies employed by Egyptian miners to cope with varying geographical and geological conditions.

*The Family in the Eighteenth Dynasty of Egypt.* By SHEILA WHALE. The Australian Centre for Egyptology Studies 1. 210 × 146 mm. Pp. x + 308, pls. 13. Sydney, The Australian Centre for Egyptology, 1989. ISBN 0 85837 670 9. Price not stated.

The aim of this book is to study the family in the Eighteenth Dynasty up to the end of the reign of Thutmose IV, using material from private tombs, mainly at Thebes, but also at el-Kab and Edfu. Evidence that relates to the owners of these tombs taken from the shrines at Gebel es-Silsila and from statues and stelae is also considered where relevant. Family groups known only from monuments other than tombs are not considered. Presumably information gained from such monuments alone would be similar to, but more limited than, that from tombs, and would have swollen the corpus of material beyond what was manageable in one volume. As it is, three quarters of the book is used to present the evidence in the form of 93 cases, each consisting of a description of the scenes in one tomb and an examination of the family relationships recorded therein.

Although much shorter, part 2 draws the material together and presents an analysis of the family relationships and family structure found in the tombs. Despite the problems presented by the unfinished or damaged state of some tombs, and the fact that many of them are not properly published, the author has done a thorough job and produced a number of interesting results. While few readers will probably make their way through every case in part 1, the analysis of material in part 2 well repays careful reading. In particular, the author draws a number of tentative conclusions concerning various aspects of marriage and related issues, while the material so meticulously gathered and analysed also has much to say about the status of women within the scheme of tomb decoration, presumably reflecting the ideals of the elite male tomb owners.

With regard to marriage, there has never been any doubt that multiple marriages existed in ancient Egypt, but it is often difficult to distinguish between concurrent marriages and consecutive ones, where remarriage takes place after divorce or death. If more than one wife is depicted in a tomb, it is unlikely that one of them was divorced, for she would almost certainly have been excluded from the tomb (p. 247). It is possible, nevertheless, that one died before the tomb owner married the other. The author favours two instances in which she believes polygamy probably occurred (cases 6 and 87). Because concurrent marriages would be expensive, they were probably not very common (p. 273). She also argues that there are instances where it seems that the tomb owner had children by other women of his household (cases 1, 10, 15 and 68; p. 273), and she suggests that an additional meaning of the kinship term *snt* was to indicate a concubine (pp. 268–9). She quotes the statement of Amenemhat, high priest of Amun, 'I knew not the handmaid of his [my father's] house, I lay not with his maidservant', and posits that Amenemhat's denial could mean that such acts were common practice (pp. 272, 277 n. 17). One might also read it that these women were considered the 'sexual property' of the father, the senior male in the household, and that the son was not permitted access to them. Either way, the text seems to show that men might have sexual relations with the women of their household in addition to their wives.

The author uses the terms 'minor wife' and 'concubine' without fully defining them, but there is the implication that a minor wife would be a second concurrent wife, while a concubine would have a lesser status (p. 249). There is, however, the problem that we know little enough about the formal aspects of what constituted a marriage between a man and his principal wife, let alone the forms that a simultaneous association with another woman could take. The use of culturally loaded terms such as 'minor wife' or 'concubine' obscures this fact, and should if possible be avoided.

We know that women, too, could make more than one marriage in a lifetime, though I do not think there is any question here of concurrent marriages. I would deduce that multiple marriages for women would be less likely to show up in tomb decoration, because the husband, as tomb owner, would hardly include a former husband of his wife. The only way to trace such marriages would be for the same woman to appear in two tombs as the wife of each tomb owner, although if an earlier marriage had ended in divorce, the woman would almost certainly be excluded from that husband's tomb. Whale does not report any cases of one woman appearing in two separate tombs as the wife of the tomb owner.

There is no obvious evidence concerning preferred marriage partners in ancient Egypt; although couples may give filiation to their parents, there is usually no indication concerning the parents' families. Whale, however, suggests that both cross and parallel cousin marriage was more

common than is usually supposed (p. 253). Since property was divided equally among all children, this would be a way to keep it in the family. The evidence, as the author admits, is not decisive. It is based on the use of similar names or elements of names common to the families of both husband and wife, which might suggest that they belong to one family (pp. 253-4). However, given the widespread use of some Egyptian names, this is possibly shaky ground. Nevertheless, I think it would be far from surprising to find a close web of relationship linking the top official families of Egypt, who, after all, formed a tiny elite percentage of the whole population. In addition to cousin marriage, the author suggests that it was not uncommon for a second wife to be the sister of the first (p. 253). Although she does not specifically state this, the purpose of such a marriage would presumably be to maintain the alliance between two families or two branches of one family set up by the first marriage.

Until the reign of Thutmose III, the usual way to refer to a wife was *hmt*. By the reign of Thutmose IV this has been replaced by the use of *snt* (p. 253). The author believes that the first occurrence of *snt* referring to a 'wife' is slightly earlier than previously thought, in the tomb of Senemioh, which was probably decorated in the reign of Hatshepsut and Thutmose III (p. 251 and n. 36). She suggests that *snt* was not originally synonymous with *hmt*, but signified a different relationship. As a kinship term *snt* indicates collaterals, including FBD, FZD, MBD and MZD, and also sister-in-law, and it would have been used when a wife stood in one of these relationships to her husband (p. 253). Gradually, however, it would have come simply to mean 'wife' and to replace the use of *hmt* on the monuments.

Although it is usually assumed that marriage was the ideal state for both men and women, there are some tombs where the owner is apparently unmarried, since neither wives or children are depicted (cases 10, 11, 18, 27, 38 and 70; pp. 244-5). Although it is possible that the wife was excluded from the tomb for some reason, one would still expect to find children. However, in TT 125, for instance, it is a brother, not a son, who offers to the tomb owner, suggesting that there was no son to conduct the funerary rites. In other tombs, there are reasons for thinking that a wife has been excluded (p. 245). For example, Amenemhat, owner of TT 82, shows only one wife, Baketamun, in his tomb, but if he is the owner of the statue Berlin 2316, as seems likely, he mentions there another wife, Meritamun. The exclusion could possibly be because the wife died young, but it could also be because of divorce, perhaps for barrenness or adultery by the wife, both of which would affect the viability of the next generation. In these cases, divorce would presumably be initiated by the husband, but equally, if the divorce were initiated by the wife, this would surely lead to her exclusion.

In a few tombs, offerings to the tomb owner are made by a brother rather than a son, although the tomb owner is married (p. 266). In TT 81 and 127, no children are depicted at all, despite the fact that the owner of TT 127 was twice married. In TT 84, the owner may have had a son who died young (p. 116). Given the high rate of infant mortality, it is probable that a number of tomb owners had no living offspring at the time of their death. There must have been others who were simply incapable of fathering children.

When we turn to the question of the status of women in the tomb decoration, we are almost certainly looking at a male ideal because, as the author points out, tombs with chapels were owned by men not women (p. 273). The tomb owner took the dominant role in the decoration and texts, and the scenes revolved around his activities and interests, not those of the female members of his family.<sup>1</sup> It seems to me interesting that although women could accumulate assets in their own right through inheritance or business transactions, it appears that they could not usually commission their own tombs. Could this be because, at this period at least, the right to own a tomb of this sort was dependent on holding bureaucratic office? This raises the problem of what happened to divorced women, and the author has to conclude that they were either buried with their fathers or with a second husband if they remarried (p. 240).

The types of tomb scenes in which women normally appeared were fairly limited. Commonly they were shown with their husbands or sons seated before a table of offerings or receiving offerings (pp. 241, 262). In only two of the 93 tombs examined was the wife shown with her

<sup>1</sup> G. Robins, in B. Lesko (ed.), *Women's Earliest Records from Ancient Egypt and Western Asia* (Atlanta, 1989), 106-7.

husband when he was carrying out his official duties (p. 242), and apart from one dubious example, the mother never appears with the son in such scenes (pp. 48, 262). While the tomb owner may be shown hunting in the desert, in only two tombs is he accompanied by his wife (p. 242), suggesting that the ideal Egyptian woman did not take part in these outdoor activities. By contrast, both wife and children appear with the tomb owner in fishing and fowling scenes. The author says that it is not surprising that they 'are shown participating in the leisure pursuits of the tomb owner' (p. 241). It has been shown, however, that these scenes are almost certainly more than a family outing in the marshes, and that they encode a symbolic meaning relating to the rebirth of the tomb owner,<sup>2</sup> a meaning which probably goes back to the Old Kingdom.<sup>3</sup> The presence of the wife representing the female principle, at least on one level, and of the children who are the concrete results of male-female interaction, has a symbolic purpose, and we cannot read these scenes simply as depictions of a 'leisure pursuit'.

Another type of scene where the wife appears with the tomb owner is on the journey to Abydos. It may be 'not surprising that she and her husband are pictured together in the funerary scenes' (p. 241), but, in fact, in almost all cases the representation of the burial procession itself and the funerary rites at the tomb concerns the owner's mummy only. Once again the male tomb owner is dominant.

In a quarter of the cases examined there are scenes where the wife is represented without her husband at her side (p. 244). Only in rare instances, however, does she play an individual or high status role, offering to the king or nursing a royal child. In the majority of scenes she is shown in an inferior role, offering to her husband, or to her husband and his mother, or mourning at her husband's funeral (p. 244). She is not shown engaged in activities of her own as the equivalent of the tomb owner's overseeing activities concerned with his office or estates (p. 273).

The author shows that there was a change from a passive to a more active role in the tomb for the wife during the reign of Thutmose III (p. 241). Up until then, the wife mainly appears seated with her husband as a recipient of offerings or in banquet scenes. When the tomb owner adores or offers, he does so alone. However, during the reign of Thutmose III, the wife begins to accompany her husband in these types of scenes, and from the end of Thutmose III's reign to the end of that of Thutmose IV, during which time ritual scenes become increasingly common, it is usual for the wife, and often the children too, to be shown in them with the tomb owner. This change effects the representation of daughters also (p. 257). They, too, tended to have a passive role up to the reign of Thutmose III, when they began to be shown more actively, offering to their parents or participating with their parents in ritual scenes. However, I would add that although female members of the family may be included in ritual scenes, they usually appear more passive than the man, who is normally the one who performs the rite, while the woman simply stands by him.

There are only two examples of a wife who is given a *hṯp dj nsw* formula of her own (p. 273), but the author argues that the offering formula was in fact addressed to both partners when the wife was shown 'as co-recipient of the funerary offerings' (p. 273). This seems to me convincing, particularly as on other types of monument, for instance statues, the *hṯp dj nsw* formula is found addressed to women. Women may take second place to the man in the scheme of decoration in his tomb chapel, but as far as we know they shared equally in the afterlife.

While there is no doubt that these tombs present a coherent picture of the position of women in relation to the tomb owner, the emphasis put on wives differs in different tombs, from those where no family members were shown (TT 67, 97) to those where a wife was shown in most scenes (TT 96; pp. 242-3). Three wives were found who seemed to be exceptional and outside the general pattern expected in the tombs (p. 243). In TT 85, the wife of the tomb owner is shown in one scene with her husband and Amenhotep II before Osiris, in another scene offering a bouquet to the king, and in three others suckling a prince. In TT 88, the wife offers a bouquet to Amenhotep II. In TT 367, the owner with his wife and daughter offers a bouquet to Amenhotep II. While we have no title for the wife in the third case, in both the others the wives are 'great royal nurses', which may well explain why they appear in scenes connecting them to the king. While this association with the king must surely represent great honour for the wife, I would assume that it

<sup>2</sup> P. Derchain, *SAK* 2 (1975), 55-74; G. Robins, *DE* 11 (1988), 61-3, *DE* 17 (1990), 49-51.

<sup>3</sup> J. Baines, *Orientalia* 54 (1985), 468 with n. 31.

also enhanced the status of the husband, making the scenes suitable for inclusion in his tomb decoration. In the same way, in TT 93 the tomb owner's mother is depicted with the young Amenhotep II on her knee. She is *mn't nsw*, and no doubt her high status reflected on that of her son.

Because the mother sometimes seems to be more important than the wife and because the tomb owner often gives filiation only to his mother, it has been suggested that Egypt was a matriarchal society with the mother heading the household, and that there was matrilineal descent. The author sets out to disprove these suppositions, although, 'the royal marriages of this period are used as an argument for this type of society' (p. 261). In fact, there is no reason to believe that the royal family of the Eighteenth Dynasty was either matriarchal or practised matrilineal descent.<sup>4</sup>

Whale's analysis of the material shows that there are cases where the mother is more prominent than the father in the tomb, but it is because the woman has high-ranking titles like *h'krt nsw* or *mn't nsw* which gave her a position at court (p. 262). She does not, however, take precedence over the wife in her son's tomb (pp. 262-3). As for matrilineal descent, the author argues that giving filiation to the mother alone is due to quite other reasons. The son may want to claim relationship to a mother with a high-ranking title. Even more, he needs to establish his position within the family and relate himself to his father's *nbt pr* to distinguish himself from children by other women (p. 264).

Another important point to emerge from this study relates to the meaning of *s'ib* (pp. 260-1). Various scholars have suggested that when the tomb owner's father is simply called *s'ib* with no other titles, it was because he did not hold any titles. They therefore assume that the tomb owner rose to his position from a humble background. Whale, however, analyses the word's use and shows that there are cases where it is followed by other titles, and, more importantly, there are cases where the user is known from elsewhere to have other titles. It cannot, therefore, simply be an honorary title for men who have no other titles. Furthermore, people who are *s'ib* in their sons' tombs are not *s'ib* on their own monuments, so it is not a part of their titulary. Whale concludes 'that it was used as a form of reverence of a son for his dead father, which is why it is never used of the son by his father and never used by a man as part of his own titulary' (p. 261). She further suggests that it may have been customary not to list a father's titles in the tomb of his own, 'so as not to detract from the distinction of the son' (p. 261), who as tomb owner was the central and most important figure in the tomb. We may, therefore, have to revise our picture of officials who rose from humble backgrounds.

The following brief remarks may be made:

p. 28 Senenmut and Senimen are no longer thought to be brothers: Roehrig and Dorman, *Varia Aegyptiaca* 3 (1987), 127-34.

p. 85 The author dates TT 21 to the reign of Thutmose III instead of Thutmose I with convincing reasons (see also appendix 4). I wonder whether one might add to the argument the name of his daughter *W'it-rnpwt*, which might suggest that she was born while Hatshepsut was king.

p. 242 The wife of Puemre in TT 39 has the title *dwst ntr* which Whale says is 'a unique title for the wife of a commoner in the Eighteenth Dynasty', but there is also a *dwst ntr* Huy on a statue in the British Museum, EA 1280: Robins, *GM* 56 (1982), 82.

p. 229 n. 161 The tomb of Nakht, TT 52, is dated by Porter and Moss to Amenhotep III(?), but by Wegner to Thutmose IV, whose dating Whale follows. See now A. Kozloff, in L. M. Berman (ed.), *The Art of Amenhotep III: Art Historical Analysis* (Cleveland, 1990), 62, for a date in the reign of Amenhotep III, but nearer to the reign of Thutmose IV 'than toward the end of Amenhotep III'.

GAY ROBINS

<sup>4</sup>G. Robins, *GM* 62 (1983), 67-77.



*Karnak-Nord VI. Le Trésor de Thoutmosis Ier. La Décoration.* By H. JACQUET-GORDON. 2 vols. Fouilles de l'Institut Français d'Archéologie Orientale du Caire, XXXII. 320 × 250 mm. Vol. 1, pp. vi + 301, figs. 34, 1 colour pl. Vol. 2, pp. xii, pls. 74. Cairo, Institut Français d'Archéologie Orientale du Caire, 1988. ISBN 2 7247 0073 2. Price not stated.

The Treasury of Thutmosis I is a building of vital importance to our understanding of the architectural development of Karnak in the early Eighteenth Dynasty, the evolution of temple festivals, and the activities of the king. Jean Jacquet outlined the architectural development of this monument in a volume which appeared in 1983.<sup>1</sup> These companion volumes, one devoted to text and the other to plates and drawings, contain a reconstruction and analysis of its decoration.

Following an introduction, the text volume is divided into three parts. The first describes the decoration of architectural support elements, the second, wall decoration, and the last contains conclusions. Briefly, the Treasury consisted of a barque shrine and multi-roomed sanctuary to the west of a colonnade fronting six magazines.<sup>2</sup> The entire construction was surrounded by an enclosure wall and lay to the north of Karnak in an area which was largely administrative and residential at the time it was built.

Although the author describes her work all too modestly in the introductory section, the reader realizes immediately what enormous difficulties Helen Jacquet-Gordon faced in her efforts to reconstruct the decoration. Begun by Ahmose,<sup>3</sup> the building was rebuilt,<sup>4</sup> modified,<sup>5</sup> reinscribed,<sup>6</sup> defaced,<sup>7</sup> and finally restored,<sup>8</sup> before it became a quarry during the reign of Ramesses II. The author calculated that she had approximately 6 per cent of the total wall decoration (and that much only due to her and her husband's meticulous excavation) on which to base her reconstruction of the scenes. This 6 per cent consisted of approximately 10,000 fragments, each between one and fifty centimetres in size. The fragments were divided into 450 groups by location, based on the premise that when they were dislodged from larger blocks in the dismantling process, they fell close to their original place. Location, material (mainly limestone with granite used for ceilings and architraves, and bits of alabaster possibly from a barque stand), and style of decoration formed the bases for the reconstructions. That anything at all could be reconstructed is a tribute to the patience and detective work of Jacquet-Gordon.

In the first part of the book, which is devoted to the decoration of the 29 doorways, 39 columns, and approximately 130 metres of architraves, many fascinating construction techniques, architectural details and stylistic influences which would not otherwise be known are revealed by virtue of the methodology employed. For example, the author noted that when the builders erected the colonnade surrounding the sides and back of the barque shrine and sanctuary, they painted the columns blue. Later in the same reign, the construction of the magazines dictated the moving of a few of the columns, and these were repainted yellow. Accordingly, Jacquet-Gordon reconstructed the original arrangement based on the repainted columns (4.1.1). With regard to the order of decoration, she notes that the architraves must have been completed *in situ*, because they are cut back and smoothed except for the area where they touch the walls (5.2).

Important historical information is also revealed by the fragments. For example, Thutmosis I's reverence for Sesostris I is demonstrated by the presence of Sesostris I's name inscribed inside a leaf of the *ished*-tree in a scene originally located on the east face of the west wall of the court (13.2.2). There is also a similarity between the deeply sunk and intricately detailed hieroglyphs

<sup>1</sup> J. Jacquet, *Le trésor de Thoutmosis I<sup>er</sup>, étude architecturale* (Cairo, 1983).

<sup>2</sup> This is outlined in the companion volume cited in n. 1.

<sup>3</sup> Blocks showing the name and style of Ahmose are described in Jacquet-Gordon, *Trésor*, 1, 90-1.

<sup>4</sup> I.e. by Thutmosis I, who largely demolished his predecessor's work: Jacquet-Gordon, *Trésor*, 92.

<sup>5</sup> Hatshepsut appears to have added her name and representations beside those of her father: Jacquet-Gordon, *Trésor*, 165-6.

<sup>6</sup> Thutmosis III removed, most likely, Hatshepsut's cartouches and images and replaced them with Thutmosis I's: Jacquet-Gordon, *Trésor*, 165-6.

<sup>7</sup> The name of Amun was defaced throughout the building during the reign of Akhenaten, undoubtedly: Jacquet-Gordon, *Trésor*, 2, 171.

<sup>8</sup> Sety I restored Amun's name and added his own in addition: Jacquet-Gordon, *Trésor*, 6, 171.

found around the doors of the barque shrine and those of the Twelfth Dynasty king's 'White Chapel' barque shrine (3.4.4).<sup>9</sup>

Analysis of the Treasury's wall decoration comprises the second part of the text volume, and the meticulous methods described above here too brought great rewards. Reconstruction of entire scenes from precious few fragments was made possible to a great extent through knowledge of similar scenes on other monuments.

From this area also came some of the most unimposing yet perhaps most significant fragments of all, namely a few fragmentary hieroglyphs containing elements of the titulary of Ahmose I. In their naivety the author noted that they were unlike others from the area but similar to the signs found on the Ahmose stela from Abydos. That led her to conclude that the inscription was contemporary with the Eighteenth Dynasty's founder rather than later and commemorative. Other uninscribed fragments showing the king offering to a god under a winged sun disk were tentatively added to this group. Jacquet-Gordon is undoubtedly correct in her suggestion that Thutmose I's Treasury must have incorporated a structure of Ahmose's (6.2.5). This hypothesis is also supported by architectural anomalies, discussed in the first volume, which point to the presence of a pre-existing structure in the Treasury area.<sup>10</sup> This fascinating information, which adds another component to our understanding of Karnak and its environs at the dawn of the New Kingdom, would undoubtedly have been lost forever had it not been for the excavators' meticulous methodology and keen eyes.

The significance of Thutmose I's Treasury is outlined in the third and final part of the text volume, where it is noted that the structure is the first of its type to be reconstructed in detail, and one of the few extant. As such, it provides us with a clearer idea of the nature and function of a treasury. It also adds another element to our understanding of the early development of Karnak and the area surrounding it, and it reinforces the link between the early New Kingdom generally, and Thutmose I specifically, and Sesostris I, Karnak's early patron. In addition to these and other significant contributions, it bears eloquent testimony to the rewards of careful archaeology.

One minor change should be mentioned. Jacquet-Gordon cites the bound prisoners surmounting oval enclosure walls containing names of conquered territories (10.2.1) in the Treasury as the first occurrence of this iconography, although she admits the motif could well date back to the Middle Kingdom. Such an example may be found on a stela of Sesostris I from Buhen<sup>11</sup> celebrating that king's military victory.

One additional aspect of this two volume set must be noted. Given the fragmentary nature of the pieces upon which reconstructions were based, the drawings which comprise the second volume are critical to our understanding of the text. Here the artist, Pierre Laferrière, clearly and concisely elucidates many details. He sets a new standard for archaeological draughtsmanship which all of us involved in the publication of archaeological material are challenged to match.

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<sup>9</sup> Whether the 'White Chapel' and other monuments of Sesostris I were the direct sources of inspiration for this style, or whether it came either indirectly or in addition through the similarly-decorated works of Amenhotep I at Karnak is unclear. The latter are currently being prepared for publication by Philippe Martinez of the Centre Franco-Égyptien at Karnak, to whom I am indebted for showing me the material.

<sup>10</sup> Jacquet, *Le trésor de Thoutmosis I<sup>er</sup>, étude architecturale*, 30.

<sup>11</sup> Florence 2540 A and B, illustrated in S. Bosticco, *Museo Archeologico di Firenze. Le stele egiziane*, 1 (Rome, 1959), 31-3 and pl. 29A.

*The Royal Tomb at El-Amarna*, II. *The Reliefs, Inscriptions, and Architecture*. By GEOFFREY THORNDIKE MARTIN. With plan and sections by MARK LEHNER. *The Rock Tombs of El-Amarna*, VII. Archaeological Survey of Egypt Memoir 39. 320 × 254 mm. Pp. xxii + 71, pls. 91. London, Egypt Exploration Society, 1989. ISBN 0 85698 107 9. Price £72.

In the second and final volume of *The Royal Tomb at El-Amarna* (hereafter: *RTEA*), Geoffrey Martin publishes the architecture and the remains of the decoration and inscriptions. The introduction provides a history of the tomb's desecration, beginning with the attack in antiquity on the decoration of room E where Akhenaten was in all probability buried. By contrast, the destruction of the reliefs in rooms  $\alpha$  and  $\gamma$  resulted from a feud between rival Antiquities Service guards in 1934, only about fifty years before Martin first worked to document the tomb in 1980. For the publication, he has supplemented his own record by referring to older copies (those made by Fairman and Lavers in 1935, as well as the renderings, incomplete and often inaccurate as regards detail, published by the French mission in 1903) and photographs (including a number made by S. R. Sherman for the EES expedition in 1935 illustrated among the plates); all are cited in detail in the list of sources on pp. xxi–xxii. Martin modestly describes the results he obtained as more a 'patchwork' than true facsimiles.

The reliefs of the Royal Tomb were cut for the most part in a layer of plaster applied on the surface of the stone walls. Because of time limitations, Martin was not able to carry out a projected study of the method used by the ancient sculptor to execute the decoration. Analysis of a plaster sample from the tomb showed the material to be identical in composition to that used in the city proper.

Plans and sections of the tomb published as pls. 11, 11A, and 12, are the work of Mark Lehner who contributed an analysis ('The Tomb Survey') and tabulation of over 270 different measurements of architectural features (the 'Dimension Schedule'), all taken using the metric scale, not ancient Egyptian units of measure. Cubit measurements cited in the text, like those included on the plan pl. 11A, were arrived at mathematically and calculated to hundredths of a cubit, rather than expressed in fingers, palms, etc.

Lehner suggests that the ancient architect planned a drop in depth from the initial cutting for the tomb's entrance to the burial chamber E of 28 cubits: 8 cubits over stairway A + 12 cubits along corridor B + 8 cubits down stairway C. But his actual measurement amounted to 14.17 m which converts to approximately 27, not 28, cubits, suggesting that the intended measurements were 8 + 11.5 + 7.5 cubits. Here as elsewhere in his survey, Lehner should have been prepared to find ancient subdivisions of the cubit in use, not just whole cubit lengths.

Lehner hypothesizes that the tomb's architect used the 'golden section' to determine the placement of the doorway from stairway C to chamber  $\alpha$ , although the actual position of the entry does not correspond exactly with his calculation. Even if it had, the occurrence would have been unique in the tomb's plan, suggesting that the supposed correspondence is coincidental.

It is Lehner's opinion that the Royal Tomb was planned with a straight axis—i.e. without a 90 degree/right angle change of axis documented in the earlier royal tombs of the Eighteenth Dynasty—and he speculates that if the descending passages were open, sun beams could have penetrated the tomb to the middle of E, the intended burial chamber in his view (cf. pl. 12A). To what purpose (practical, religious, or ideological) either before or after the use of the tomb for the king's burial? Furthermore, Lehner does not follow up on the implications of his own remark that the height of the cliff opposite the entrance would probably have prevented the sun from ever casting its rays at a low-enough angle. Why did he neglect to test his hypothesis by measuring the angular height of the *gebel*?



In the main text, Martin remarks that his search for foundation deposits in front of the tomb was unsuccessful,<sup>1</sup> and he proceeds to describe in succession entrance A, corridor B and stairway C with their architectural details. The entrance was apparently concealed following the burial(s) in the tomb, but there is no evidence that the corridor and stairway were purposefully filled with chips, as was the case in KV 55 and KV 62 at Thebes. The doorways C:D, D:E, and C: $\alpha$  seem

<sup>1</sup> For the paucity of foundation deposits at Amarna see James Weinstein, *Foundation Deposits in Ancient Egypt* (dissertation, University of Pennsylvania, 1973), 141–3.

to have been blocked at one time. On the floor of the 'well' or shaft room D, stone blocks were found of the kind used for the blocking to burial chamber E (a single course was still in place within the doorway). Whereas the walls of A, B and C were undecorated, shaft room D bore the ubiquitous Amarna scene of the royal family worshipping the Aten. Because Maketaten is present here, Martin concludes that D was decorated early on, before her death.

Martin considers it 'theoretically quite possible' that Akhenaten planned a sepulchral hall to the north-east, beyond E, and that the niche-like cutting F, opening from the north corner of E, might well represent the first stage of cutting a passage at that point to accomplish a change of axis, in accordance with tradition. In conformity with this hypothesis, Akhenaten's death would have necessitated the adaptation of E, which was to have functioned as an antechamber, to accommodate his burial. It is thus possible that two of an original four piers were removed from E to facilitate lowering the floor at the far end to create a 'crypt', and a plinth prepared in the 'crypt' for Akhenaten's sarcophagus.

Regardless of whether E was intended from the first as the sarcophagus chamber or adapted to that purpose, there is little doubt that the hall received the king's burial. The chamber's decoration was attacked with a vengeance; the meagre remains of the original reliefs are discernible primarily at the tops of the walls just below the ceiling, and these minimal traces are now endangered by salt incrustations. Under the circumstances, it is remarkable how much of the original scheme Martin could discern and record.

In the burial chamber, both piers and walls A, C and D bore conventional scenes of Aten worship, while walls B and E retain minimal traces of scenes of mourning. Martin wonders if a preserved  on wall C might just possibly be the remains of *mrr.tj* as the group occurs in the titulary of Kiya, Akhenaten's 'other wife'. But the traces do not fit well with .

The meagre remains of decoration on wall E do not allow any more precise description than a mourning scene, though Martin makes the persuasive suggestion that the tableau, in direct proximity to the king's sarcophagus, depicted the obsequies for Akhenaten himself. By contrast, the traces on wall B could be deciphered as belonging to a representation of a deceased royal lady mourned by the royal couple accompanied by a number of princesses in the singular role of offering bearers. It is noteworthy that the legs of the first princess were recut in antiquity; in the initial version, the knees were decidedly concave while in the second this is less so. In other words, the recutting would seem to document a stylistic alteration. Martin convincingly identifies the deceased woman as Queen Tiy who, it seems, may well have been interred in the Royal Tomb.<sup>2</sup>

Walls A and C in room  $\alpha$  bear closely similar offering scenes associated with a temple precinct, apparently the Great Aten Temple. Bouriant believed both scenes rendered the same rites, whereas Martin suggests that one depicts offerings at sunrise and the other at sunset.<sup>3</sup> It escaped Bouriant's notice that the two scenes have been reworked. The modifications, both in style and content (princesses were added and the royal regalia altered), are remarked by Martin. He is also the first to note the existence of four niches for amuletic figures cut into the walls of the chamber after the reliefs had been completed.<sup>4</sup> Walls B, D, and E depict attendants, foreign delegations, etc. in association with the offering scenes on A and B, while wall F shows a scene of mourning (see further, below).

Room  $\beta$  is undecorated; could it have served as a storeroom? From its floor Martin gathered up more sherds than from any other chamber of the tomb.

Walls A and B in  $\gamma$  are decorated with the large tableaux of Maketaten's funeral; additional mourners are found on C, while D shows tomb equipment.

<sup>2</sup> At the 1990 annual meeting of the American Research Center in Egypt Inc., in Berkeley, California, Edwin Brock presented a paper plausibly arguing that the fragmentary second sarcophagus from the Royal Tomb was made for Tiy (not for Princess Maketaten as has been generally presumed), providing an additional argument in support of the queen mother's interment with her son in the Royal Tomb.

<sup>3</sup> Note, however, that the sun disk is depicted in both scenes to the east of the temple towards which the king in each scene is oriented.

<sup>4</sup> C. N. Reeves, *Valley of the Kings: The Decline of a Royal Necropolis* (London and New York, 1990), 58 n. 157, has noted that amuletic bricks found in such niches are not equipment associated exclusively with a king or royal consort.

Martin suggests that the scene at F in  $\alpha$  need not be understood as another version of the scenes at A and B in  $\gamma$ .<sup>5</sup> He believes, rather, that the deceased woman in  $\alpha$  may be Kiya (and the child, her putative son Tutankhaten). The burial of this particular Amarna lady in the Royal Tomb seems to me to be very unlikely since her funerary equipment was found elsewhere used for another person and her inscriptions and depictions were regularly usurped in favour of Akhenaten's daughters. For the analogous scenes in  $\gamma$ , Martin withdraws his earlier suggestion that the child depicted in proximity to Maketaten could be Tutankhaten. Martin notes that I had also made this suggestion which I retain with the following modification. The idea that Princess Maketaten died in childbirth is not mandatory since the child carried by a nurse need not be a newborn baby; the scene could also be interpreted as documenting the last visit of the child at the bedside of its dying mother.

Because A and C in  $\alpha$  have been iconographically and stylistically reworked, these two walls may have been decorated early in the tomb's history. There are no indications of early style or content in the reliefs of wall F which therefore could be a later addition. Thus, I consider the traditional interpretation the likelier, namely that the mourning scene at F represents another version of the 'events' depicted in  $\gamma$ , rather than a different occasion altogether.

As far as the unfinished and undecorated room series 1-6 is concerned, projection of the plan on a straight axis demonstrates its analogy to the plan of a royal tomb. Otherwise the purpose and ownership of the 'suite' remain moot.

*RTEA* II concludes with a list of additional bibliography for the objects published in *RTEA* I, addenda and corrigenda to the same volume, and a supplement with 56 new objects (ushabtis, sarcophagus fragments, etc.) attributable to the Royal Tomb, followed by two appendices (on pottery, by P. J. Rose, and on the remains of textiles, by G. M. Vogelsang-Eastwood). *Inter alia* Martin notes that the two pieces glued together to compose the ushabti in the Metropolitan Museum of Art (1982.50, his cat. 87) do indeed join perfectly; it is therefore the only completely preserved specimen.

Almost a century has elapsed between the official discovery of the Royal Tomb at Amarna by Barsanti in 1891 and the appearance of this final volume of *RTEA*. Martin's salvaging of what remains of the reliefs and inscriptions and his astute analysis of the documentation represent an outstanding contribution to Amarna studies. His personal dedication to the realization of the project to publish the Royal Tomb has increased the already substantial debt owed him by his colleagues.

ROLF KRAUSS

*Rameside Inscriptions, Historical and Biographical*, VII, VIII. By K. A. KITCHEN. 290 × 205 mm. Vol. VII, fascs. 1-16, pp. xxxii + 464. Vol. VIII, fascs. 1-10, pp. viii + 264. Oxford, Basil Blackwell Ltd., 1986-90. ISBN 0 946344 43 4. Price £4 each fasc. except VII, fasc. 15 and VIII, fascs. 9-10, £2 each.

At long last a project, whose first fascicle appeared in 1969 and whose inception went even further back, has produced its final volumes. Volume VII consists of the addenda, which cover all the Rameside reigns, and is followed by a brief addenda to the addenda. Much new material is added from Deir el-Medina. Of note is the Liverpool statue base of Amenmesses, on p. 235, which was restored from a plate in a nineteenth-century sale prospectus. Similar sources for other lost

<sup>5</sup> Martin suggests that the offering tables shown upside down in the register immediately below the room (shown in plan) with the body on wall F in  $\alpha$  (pl. 58) were knocked over by the mourners in their grief (cf. the similar detail of a single preserved offering table in the analogous context at A in  $\gamma$  pl. 63). Alternatively, the draftsman may have simply intended to depict their location to the left of the mourners; cf. the discussion of depictions of trees and bushes 'on their sides' and 'upside down' around pools in ancient Egyptian painting in Heinrich Schäfer, *Principles of Egyptian Art* (trans. J. Baines, reprinted, with revisions; Oxford, 1986), 247-50 with figs. 262-3.

inscriptions may not yet be exhausted. The article by Bierbrier mentioned on p. 109 has now appeared in *CdE* 63 (1988), 213–20, and the reference under 487 on p. 169 should be amended to *BMHT* XII (not XI), now in press. This volume is completed by a list of corrigenda to the previous fascicles. Volume VIII consists of detailed indexes to the preceding volumes covering museums and collections, papyri, ostraca, graffiti, jar docketts, regnal years, key-plans, king-lists, topographical gazetteer, periodicals, authors of periodicals, books cited, unpublished manuscripts cited, and unpublished photographs cited. Such detailed indexes will enable the volumes to be used with greater ease and depth.

Professor Kitchen deserves the congratulations of the Egyptological community for seeing this extensive project through to a successful conclusion. Every student of the Ramesside era will be in his debt. Hopefully such an endeavour will never be complete, for new discoveries will continue to add to the records of the Ramesside period or even subtract from them (such as the excavation of the tomb of the high priest Wennefer at Thebes which suggests that he flourished at the end of the Eighteenth Dynasty and not under Ramesses II). However, after addenda to the addenda, Professor Kitchen deserves a well-earned respite from Ramesside inscriptions.

M. L. BIERBRIER

*Les monuments du roi Merenptah.* By HOURIG SOUROUZIAN. Deutsches Archäologisches Institut, Abteilung Kairo, Sonderschrift 22. 305 × 230 mm. Pp. ix + 237, pls. 43, figs. 36. Mainz am Rhein, Verlag Philip von Zabern, 1989. ISBN 3 8053 1053 6. Price DM 180.

This superbly produced volume comprises three main sections. First is an Introduction on 'Merenptah, his family, his career', outlining this king's dynastic origins, and reviewing his own immediate family and the course of his ten-year reign. Second comes the heart of the book, an annotated list of the 'royal', official monuments of the reign, treated on two levels: namely, fuller detail (drawings, photo(s), the full texts if unpublished) for those originating in Merenptah's own reign, and a more summary account of his additions to previous works (i.e. 'usurpations' and such). The arrangement is geographical but based on Memphis. That is to say, the author begins with remains at Memphis, then (via Heliopolis) covers the Delta, Upper Egypt, Nubia and finally items from outside the Nile valley (Western Asia, etc.). Thirdly, we have a chapter entitled 'Merenptah and the Exodus', and brief Conclusions, indexes and plates close the volume. It should be noted that the terms of reference, 'monuments of king Merenptah', are adhered-to in the strict sense; no space is assigned to the mass of private monuments or to Deir el-Medina administrative ostraca, and allusions to these in the course of the work are minimal, despite their potential value for the history of the reign.

In the Introduction, we first have the attestations of the queen-mother Istnofret (I), where two new documents can be welcomed (p. 4, pl. 3c:8; p. 5, n. 21, pl. 3d), with hints of more, entombed in Cairo Museum's notorious 'sous-sol' (p. 5, n. 21). The estimates quoted (p. 6) for the date of death of this Istnofret (e.g. after Edel: before Year 21) are based on grounds too inconclusive to sustain them. That Ramesses II was only 80 at death (p. 7, citing Stadelmann) is all but impossible, in the light of his third son Prehirwonmef's incidental role at the Battle of Qadesh in Year 5, and the presence of even infant sons before his accession in the Nubian razzia of the Beit el-Wali reliefs (dismissing these as fiction is too easy a way out). A teenage Ramesses at Qadesh could not then have already had a teenage son able to drive a chariot. All this bears on the ages of Merenptah at accession and death—a matter of some flexibility, ranging realistically from 50/60 to 60/70, as Sourouzian notes. She gives careful consideration to Merenptah's place in Ramesses II's reign; on balance, it would seem that Merenptah was in fact the effective ruler of Egypt in his aged father's last few years. One must emphasize here that *s3 nsw smsw* marks the heir presumptive, while *s3 nsw tpy* merely denotes the eldest surviving son of a given queen. The existence of a prince Merenptah, son of Merenptah (pp. 22–5), still seems rather shadowy. Dealing with Merenptah's reign, Sourouzian still uses the old 1224 BC accession-date, based on 1290 for Ramesses II, regardless of

the evidence for dates 11 years lower (1279, 1213). The point is that both Egyptian and Mesopotamian dates have been lowered side-by-side, and more work has been done since the essential treatments by Brinkman and Bierbrier; cf. Kitchen, in P. Åström (ed.) *High, Middle and Low*, Part 1 (Gothenburg, 1987), 38–40 (and Part 3, 180), besides others' contributions to that series. As for Merenptah's accession-day, the absolute limits can be set as 1st Akhet 29 to 2nd Akhet 13; see Kitchen, in F. Junge (ed.), *Studien... Westendorf*, 1 (Göttingen, 1984) 549–50 with n. 23, dispensing with previous guesswork. In giving Merenptah's titulary, Sourouzian unaccountably abbreviates his regular Golden Horus name; it should read *snht-Kmt dr pdt 9*, with the optional addition of *rdit htp ntrw m mr(t).sn*, already noted in von Beckerath's *Handbuch der ägyptischen Königsnamen* (Munich and Berlin, 1984), 91.239 which she cites, and commented on by me, in *ASAE* 71 (1987), 134. As for events early in the reign and Canaan see below; the 'normality' of Year 3 (p. 28) has no bearing on what may have happened earlier. After Year 3, to say that 'almost nothing happened until the summer of Year 5' (p. 29) is a misleading formulation. Under present conditions of knowledge, we are only entitled to say that 'nothing more of note is known to us until the summer of Year 5'. As in many other cases (and not only in Egyptology), our current ignorance is never the true measure of ancient historical fact.

In chapters 1–15, the annotated survey of Merenptah's monuments constitutes the bulk and the real value of this book. The well-known palace at Memphis may have been a ceremonial building, not the king's personal residence (so, Sourouzian and O'Connor). In her publication of a small sphinx (p. 48f.), do the cartouches of Ramesses II really have *ws* instead of *wsr*? A point of some interest raised by Sourouzian concerns the Heliopolis column of Merenptah and its Cairo parallel fragment (pp. 56–60). Starting from the rectangular base and top socket in the Heliopolis example, the author establishes the attractive probability that these had been freestanding monuments, individual or a pair, each bearing some kind of royal figure on their top, just like the column from Nebesheh (itself illustrated for the first time). So far, apart from artistic parallels, this type of monument seems peculiar to Merenptah. For the standard-bearer statues of Merenptah found at Tanis, more complete texts are given (pp. 81–7) than was possible for either Petrie or the reviewer. It is needless here to go through the mass of monuments in detail; they are throughout clearly and well presented and ably discussed.

All of this, as with most of the book, is positive gain. Much more questionable is Sourouzian's treatment of the controverted authorship of the war-scenes flanking the Hittite Treaty on the west face of the west wall of the *Cour de la cachette* (p. 150); here, she is over-brief, superficial, hence somewhat misleading. First she claims that F. Le Saout has 'clearly demonstrated that the style in all these scenes is certainly that of Ramesses II', referring the reader to Le Saout, in *Cahiers de Karnak* 7 (1982), 229 and n. 98. The latter cites the head of the pharaoh smiting his foes in the now destroyed triumph-scene, (i) asserting that it is very different from that of Merenptah in the preserved scene on the east wall, and (ii) referring back to p. 215, n. 18, where Ramesses II is claimed to be distinguished by two neck-wrinkles under his chin and a collar with only upper edge carved, plus heavily marked eyes. Unfortunately, none of this is true. For comparative purposes, the photograph printed as pl. VIII with Kitchen and Gaballa in *ZÄS* 96 (1969) is too coarse-grained to be anything but misleading. Consultation of the original and of much better prints (including the Seif/Gaddis series) reveals that there is considerable similarity between the Merenptah head on the east wall and the head from the west wall scene (for a photograph of the latter, see F. Yurco, *JARCE* 23 (1986), 207, fig. 24a). On both can be seen the same heavily-outlined eye and brow, the same elaborately folded uraeus, the same basic facial profile (so far as it is preserved on the east wall). Remarkably, the alleged Ramesses II 'double wrinkle' does not occur on the west wall block, but only on the indubitable relief of Merenptah on the east wall! In such conventionally-executed reliefs, we frankly cannot use such random details as reliable guides to dating. 'Style' is never a reliable substitute for explicit evidence for dating. The same applies to the collar, where the Ramesses II type recurs in the east wall Merenptah relief. Thus, closer scrutiny is completely in favour of the west wall reliefs being Merenptah's, not of Ramesses II. Secondly, Sourouzian does not venture to tackle the delicate epigraphic problem of the usurped cartouches in these scenes. As the reviewer was able to verify closely for himself in 1962–3, and as (wholly independently) Yurco and Murnane likewise did in 1976–7, there is no definite surviving trace of the names of Ramesses II to be seen in any of these cartouches (least of all in those of the

binding scene, *pace* Redford, *Israel Exploration Journal* 36 (1986), 193 and pl. 23A. Cf. on these, Yurco, *op. cit.* 201, fig. 15). Thirdly, the present lack of other evidence for a prince Khaemwaset II is neither here nor there; as with the alleged prince Merenptah II, it is very difficult to find much independent evidence for lesser princes in available sources. Fourthly, a textual point has been omitted by all concerned: the texts of the two triumph-scenes of the east and west walls of the *Cour* were remarkably close in wording—which makes sense if they belong to the same reign, and are almost contemporaries; cf. *KRI* II, 167, n. 11a. Fifth, the name of the chariot-span *Mry-'Imn*, 'Beloved of Amun', is of no value as evidence (despite both Sourouzian and Redford). Such names were used in reign after reign—e.g. 'Nakhtamun', or 'Amun-dief-pakhopesh', from Sethos I right through to Ramesses III. The *Mry-'Imn* used by Ramesses II and Merenptah likewise stayed in use under Ramesses III (cf. *KRI* V, 8:9, 14; 12:10; 30:15; 44:2). Thus, we have no solid grounds for reassigning these scenes to Ramesses II. Sourouzian also appears not to have appreciated the full force of Yurco's arguments, from which Ascalon, two forts/towns and a group of people in these reliefs correspond well with the listing of Ascalon, Gezer and Yenoam and the (non-city) Israelites in the exordium of the 'Israel Stela'. The exemplary and careful exposé by Yurco is to be preferred to the brief and superficial treatment by Sourouzian, which is over-dependent on the unreliable statements by Le Saout.

On the 'Israel stela', the author's notes are also less than convincing. The places named are highly specific, not traditional—Ascalon and Gezer are very rare (almost unknown) in topographical lists, and Israel wholly absent; Yenoam had earlier featured not just in lists but also in military action under Sethos I. Therefore, we have here a reflex of real events. This is clinched by the arrangement of epithets on the Amada stela: 'binder of Gezer' in strict parallel with 'vanquisher of Libu', hence the fall of Gezer was a historical occurrence like the Libyan war, a point not grasped by Sourouzian. A brief punitive campaign under (not by) Merenptah, led perhaps by the crown prince, the future Sethos II, fits the case perfectly. The logical moment for revolt would be at the death of Ramesses II; a brief 'strike' in Year 1 would lead to 'normality' in Years 2, 3 and later. Or if it happened in Year 4 (Yurco), then 'normality' would have reigned until Year 3. Participation by the future Sethos II would go a long way towards explaining his penchant for a remarkably militaristic titulary once he became king, based on his triumphs under his father's rule. It would also serve to justify his usurpation of the Canaanite war-scenes, whether Amenmesses' name was engraved there (so Yurco) or not. 'Israel' on the Israel stela is to be taken directly as the early Israel, the tribal group of Exodus to Judges, precisely as Egyptian Moab, Edom, and Seir are the Moab, Edom and Seir of the Biblical records, the evasions attempted by some Old Testament scholars notwithstanding.

In fact, the penultimate chapter ('Merenptah and the Exodus') has little to do with the main content of the book. It betrays some misconceptions, in some cases on the part of others as much as Sourouzian. There is no ground for supposing that the pharaoh of the Exodus was considered drowned in the Re(e)d Sea. This is not claimed in either the prose of Exodus 14 or the poem of Exodus 15; the generalizing poetic allusion in the much later Psalm 136:15 cannot be used to prove the contrary. So, looking for drowned royal mummies is a waste of time. The summary dismissal (p. 211) of Merenptah's Canaanite campaign has been refuted above. In no way are the west wall reliefs a simple repetition of those on the south wall of the great hypostyle hall; the scenes of conflict nearly all have two forts each, not one (only three, so), and there is no scene of conflict without a fort there. The couplet on Israel and Khurru (Syria) (p. 213) was not omitted by the Karnak version of the 'Israel stela', but is lost in a lacuna, cf. my parallel edition in *KRI* IV where omissions are marked by ↔ arrows. Omission of any mention of a Canaanite campaign in the great Libyan war-text proves nothing; the Israel stela provides the reference, as does Amada. And lack of mention on the 'Israel stela' of crushing the Nubian revolt does not prove that this event never happened. No pharaoh was obliged to mention everything on every monument, and, as so often, negative evidence is no evidence. For refutation of a merely generalizing 'Nine Bows' interpretation of the 'Israel stela' (p. 214), see above. The geographic sequencing in that text clearly places Israel in Canaan, and not still in Egypt (an old error of Drioton's).

The book ends with summary conclusions overall, brief but useful indexes of monuments and museum numbers, and the splendid plates. The attention given above to the more contentious historical issues (west wall reliefs; 'Israel stela') should under no circumstances be allowed to



detract in any way from the main value of this work as an elegant and indispensable source-book for any study of the reign of Merenptah. One can agree warmly with Sourouzian that Merenptah's reign has been underrated in the past, and one may most warmly recommend her undertaking to all potential users.

K. A. KITCHEN

*Two Ramesside Tombs at El Mashayikh, Part 1.* By BOYO G. OCKINGA and YAHAYA AL-MASRI. 290×215 mm. Pp. vi+79, pls. 66. Sydney, The Ancient History Documentary Research Centre, Macquarie University, 1988. ISBN 0 85837 632 6. Price £33.50.

Naga el-Mashayikh (ancient *bḥdt j;bt*) is a village about 45 km to the south of Sohag, just up-river of the better-known site of Naga ed-Deir. In fact, the Mashayikh cemeteries are a continuation of those at Naga ed-Deir and thus part of the cemetery of This; some of the stelae published as part of the corpus of material from Naga ed-Deir actually come from Mashayikh.

There are some virtually uninscribed tombs of the Old Kingdom at this site, and the remains of some tombs in which the First Intermediate Period stelae originated, but the two major monuments at Mashayikh date to the Ramesside period and are being published by Ockinga and al-Masri in the present project. These are the tombs of Anhurmoose and Imiseba, and the volume under review consists of the publication of part of the former.

The tomb of Anhurmoose has been very little published before the present work. Mariette seems to have been the first Egyptologist to visit it, and the major prior contribution to our knowledge was made by Kees who published a study of the autobiographical text in *ZÄS* 73 (1937), 77–90.

The publication is arranged in a form appropriate to the study of such monuments. It begins with a discussion of the site and previous work on the tomb, and then moves to an architectural description. The decorative programme of the chambers is then discussed, as are the titles of the tomb owner. The abundant material provided by the tomb enables the authors to build up a detailed picture of the owner's career. The remainder of the volume is devoted to a description of the scenes in the tomb, accompanied by transliteration and translation of the numerous texts.

Anhurmoose's most important office was that of 'overseer of all the priests of all the gods of the Thinite nome'. He does not, however, seem to have been a native of This. Evidence from some of his titles, and from a statue in Cairo (CG 582), is suggestive of a Theban connection. It is probable that he, as a favoured priest or official, perhaps in Thebes, was appointed to his position in the Thinite nome by the king as a mark of favour. From the mentions in the tomb, this king was clearly Merenptah. Anhurmoose seems also to have had a prior military career; the authors make the plausible case that this was also in the reign of Merenptah, rather than in that of Ramesses II, since it is unlikely that there was much military activity in the latter years of that ruler. Like a number of other officials, Anhurmoose seems to have married twice, his first wife having almost certainly predeceased him.

The tomb is located near the bottom of the impressive rock formations which overlook the village. The authors have searched for traces of the superstructures which are now becoming more and more evident in Theban tombs of the same period, but have found none. The chapel consists of two rectangular chambers, with four pillars and two niches in the front hall, and the burial shaft and two niches in the rear room. The shaft is vertical, 4.5 m deep, with a burial chamber running off to the north of the shaft, at 1.5 m above the bottom. No attempt was made to create the complex twisting shafts seen at Thebes. The Preface states that no finds other than much later pottery sherds were uncovered when this shaft was excavated; some account of the excavation of the shaft would not go amiss.

The major portion of this volume is devoted to the description of the wall scenes. The scenes themselves are described in a reasonable amount of detail. The range is not unlike that seen in the tombs at Thebes—offering scenes, many scenes of a 'religious' nature, including the tree-goddess and funeral scenes, and many scenes of the deceased praying to gods, whether depicted or not. The 'daily life' scenes of the preceding dynasty are absent here as elsewhere. To accompany this section, there is a useful short section on the decorative programme of the tomb. The authors note, for example, that the wife of Anhurmoose is unusually prominent for a tomb of this date. Although

we should, of course, be cautious in our conclusions because of the relative rarity of decorated tombs outside the centres of Memphis and Thebes, nonetheless, the affinities of this tomb with the major tombs of this epoch in those centres is such that there can be little doubt that their influences were paramount.

The most striking feature of the decoration is the sheer quantity of accompanying text. The unusually long autobiography has been referred to, and is doubtless the most important element of the tomb, but there are also many hymns and other texts. The authors have provided detailed commentaries on these inscriptions, and should be congratulated on their handling of some difficult material. I am glad to note that some attention has been paid to the colours of the hieroglyphs (pp. 9–10).

The wall decoration is illustrated in a combination of black and white photographs and line drawings; line drawings may be found of almost everything, supplemented by very good photos of the better or more important parts. In particular, the drawings of the damaged parts demonstrate how essential this medium is to a good publication. I have compared a few of the drawings with the photos and find them overall to be very accurate. I would quote one example of a slight discrepancy, comparing the left-hand illustrations of the pillar face on pls. 54 and 55. At the end of the third column of text from the right, that in front of the face of the deceased, part of the steering oar, that which would be held by the steersman, has been omitted from the drawing of the determinative of the *bik*-boat. Also, the first sign below that, while undoubtedly  $\text{𓂏}$ , has a very unusually curved top which is not shown in the drawing.

The following are more specific comments on the volume:

- p. 4, n. 20: specific plate references would enable rapid checking.
- p. 10: the fact that Anhurmoise has the short name of Mose is omitted (e.g. p. 23, l.6).
- pp. 10–11: the order of the titles is not immediately apparent; references to their occurrences in the plates would be helpful (in n. 38, this would enable the reader quickly to verify for himself).
- p. 16: the reference near the top the page should be to n. 36.
- pp. 19–20: the text refers to the layout of the texts as 'West' and 'East' while in pl. 10 they are referred to as 'right' and 'left'.
- p. 23, pl. 6: Part of the address to the goddess is omitted from the translation. In l. 1, after 'Sekhemnefret justified' it should read: 'Praise to you, mistress of the living, the ruler of those who are in Eastern Behdet'.
- p. 25: last paragraph, 'pl. 9 (e)' should read 'pl. 10 (e)'. It is not clear to me why this paragraph is here when the frieze as a whole is discussed on p. 55.
- p. 26: VII.1.4.3 Jamb: it would help to remind readers of the plate number (9).
- pp. 27–8: I cannot agree that this scene shows Anhurmoise being given flowers by his wife, since Egyptian art would show this properly. It would seem to me that Anhurmoise has been given the bouquet and is in turn passing it on. Compare perhaps scenes in TT 23 and 254, N. de G. Davies, 'The Town House in Ancient Egypt', *MMS* 1 (1929), figs. 6, 7. See also the scene of Anhurmoise and Sekhemnefret in pl. 18 of the present work.
- p. 29 and pls. 16–17: there are more figures (14) in the bottom row than the top (13).
- p. 30, text 16: the word *wsir* has been omitted before the titles.
- p. 34, line 26 of text:  $[\text{w}^{\text{r}}]\text{b}$  for  $[\text{w}^{\text{r}}]\text{b}$ .
- p. 38, n. 161: the use of  $\text{𓂏}$  after the word *mwt* may perhaps be due to some association (or confusion) between the words for 'mother' and 'children', or emphasizes the child-bearing role of the mother.
- pp. 38–9, nn. 161 and 163: inconsistent use of 'Eloquent Peasant' and 'Peasant'.
- p. 55: 'heker' for 'kheker'.
- p. 57: some strange hyphenations, in particular 'th-em'.
- pls. 1–4: A sketch-plan of the site might have been useful. I find understanding the sections and plans of the shaft a little difficult, although from my own experience I know that representing such information is a major problem. I also wonder whether the walls in pls. 2–4 are really quite as straight as shown.
- pl. 17: I cannot find the commentary on the large text at the right; the titles and epithets do not appear to be in the list on p. 11.
- pl. 36: The text numbers in the caption should be transposed with those of pl. 38.

This book is a solid piece of scholarship marred somewhat by a lack of attention to making it easy to use. I refer to the lack of an index (although one may be due in the second volume), the lack of precise cross-references (far too many instances of 'see below' without a page, plate, or text number), and also the lack of simple things like a key to relate the plates quickly to their location on the walls. Tomb publications are one of the scholar's primary sources of material, and everything should be done to facilitate his access to the contents, particularly when they are as well-done as in this book. There are also a number of careless errors which could have been trapped in proof, accompanied by some poor typography.

I would also question the wisdom of splitting the account of one tomb over two volumes not published together; the second, which I understand bears the date 1990, is still not readily available to me in mid-1993. No doubt there are irresistible practical reasons for this, but it may inconvenience readers, and leaves this review incomplete. Nonetheless, Ockinga and al-Masri are to be congratulated on the publication of this useful volume. The appearance of Part 2 is eagerly awaited.

NIGEL STRUDWICK

*Les annales des prêtres de Karnak (XXI-XXIII<sup>èmes</sup> Dynasties) et autres textes contemporains relatifs à l'initiation des prêtres d'Amon.* By JEAN-MARIE KRUCHTEN, avec un chapitre archéologique par THIERRY ZIMMER. *Orientalia Lovaniensia Analecta* 32. 245 × 180 mm. Pp. xii + 305, pls. 32. Louvain, Peeters, 1989. ISBN 90 6831 170 0. Price BF 1980.

This work is dedicated to a group of texts superficially well-known to all students of Egypt's 'Third Intermediate Period', yet fragmentary and very inadequately published and studied hitherto. It is the fruit of collaboration by Kruchten on the main study of these texts with Zimmer, who had been engaged in the Franco-Egyptian Karnak Centre's excavations in the so-called Middle Kingdom court in the temple of Amun where these fragments were found, at the time when Legrain's original squeezes of almost the entire corpus were themselves suddenly re-discovered. Apart from a few pieces in the museums at Cairo and Cambridge, most of the original stones now appear to be lost.

Chapter 1 is Zimmer's presentation of the archaeology; these texts may have been engraved on pillars of Tuthmoside date that were subsequently broken up and used as foundation material in a late remodelling of this part of Karnak temple. In Chapter 2, Kruchten begins the examination of the texts themselves, pointing out their common basic pattern: dateline, then 'Day of the induction of PN', the place, the agent, and an inaugural speech by PN. For Kruchten, the keyword is *bs(i)*, 'introduction'.

Chapter 3 is the longest, containing a translation, text-notes and full commentary on each of the 46 fragments. With these, we have two sets of plates: 1-14, selected facsimiles, and 15-32, photographs of the Legrain squeezes and of the available surviving originals. This is the first time that these texts have been given the full treatment that they merit. Not infrequently, their vagaries of spelling invite emendation, sometimes drastic but for the most part justifiable. Use has been made of copies of texts formerly made by Gardiner and James. The results are illuminating and fascinating. New historical gains are few; in No. 12 (p. 94), the vizier Rudpamut is probably to be abolished in favour of a Pa[di]mut, which corrects my *Third Intermediate Period*, p. 483. As for No. 23, the reference surely should be to some priest whose claim to fame was to have been son of 'Istweret, King's Daughter of the Lord of the Two Lands, Harsiese'. The latter worthy was a contemporary of Osorkon II, c. 860 BC; his daughter would have flourished then and later, and her son may have been Djedkhonsefankh C, son of Harsiese C, husband of this very lady (*TIP*, p. 219).

The most fascinating feature of these texts is their record of the 'inaugural lectures' given by these various priests at their induction. Few are sufficiently preserved for us to sample their flavour. In No. 7, the aspirant is very concerned to be assured of his share in the offerings and

temple-service—thus seeming more materialistic than spiritual—but as a nominee of the often-absent Prince Osorkon, he had grounds for his fears. Nos 1 and 2 are rather more spiritual in tone, as befitted such occasions, attesting their devotion to Amun. The edition offered of these texts seems faithful; on p. 36, the *hm*-sign has been omitted in the title *hm-ntr-tpy*, as the plates show.

Chapter 4 is devoted at length to the word *bsi*. Overall, the points made are pertinent, if occasionally over-pressed. Thus, pp. 161f., Horus is treated as archetype for king and priest, and on the basis of Louvre C. 286, the seclusion of Horus is treated as 'the theme of solitude, which strengthens and is conducive to illumination, common to many systems of thought'. But not here, it should be stated—Isis brought up Horus in the depths of the Khemmis marshes simply to keep him safe from Seth until he was old enough to face his adversary—meditation simply does not enter into this allusion! In pp. 167 ff., induction of four different grades of person is distinguished: pharaoh, priests, viziers, and sculptors of the more sacred images (as for Ramesses IV, reference to Gardiner, *Egypt of the Pharaohs* (1961), is rather outmoded now; cf. rather Kitchen, *JEA* 68 (1982), 116 ff.). A major point advocated by Kruchten is that the initiation of these texts was to the rank of *it-ntr* or *hm-ntr*, with access to the area of the Akh-menu temple, forbidden to mere *wacab*-priests, which contained the ultimate cult-statue of Amun and was deemed coterminous with the heavenly realm, not to be spoken of to non-initiates. The section on 'transmutation' of initiates seems over-pressed, on too slender a basis; Neo-Platonist writers are a far cry from the milieu of the Theban priesthoods of the New Kingdom and its aftermath.

Chapter 5 offers a prosopography of the texts, and Chapter 6 a chronological conspectus (cf. above, for No. 23). In Chapter 7, Kruchten seeks to bring out the hierarchical division in the Amun priesthood, and resulting inner rivalries between the *wacab*-priests and the *it-ntr* and *hm-ntr* higher groups in the tenth century BC. The work closes with a full vocabulary of the texts, and indices. This is a useful volume, indispensable for all further study of this hitherto-neglected series of texts.

K. A. KITCHEN

*Studies on the Illustrated Theban Funerary Papyri of the 11th and 10th Centuries BC.* By ANDRZEJ NIWIŃSKI. *Orbis Biblicus et Orientalis* 86. 235 × 155 mm. Pp. xxxii + 402, figs. 90, tables xvii, pls. 78. Freiburg, Schweiz, Universitätsverlag; Göttingen, Vandenhoeck and Ruprecht, 1989. ISBN 3 7278 0613 3 (Universitätsverlag); 3 525 53716 6 (Vandenhoeck and Ruprecht). Price DM 170.

In this book the author tackles a range of fundamental subjects that have received little concerted research recently and devotes to each a comprehensive analysis that it would be difficult to fault. Although the core of the work concerns the funerary papyri of the Third Intermediate Period, the author takes in the New Kingdom background (Chapter 1, pp. 1–45) as well as the history of the discovery and study of Third Intermediate Period manuscripts (Chapter 2, pp. 47–72) and the question of their manufacture in the funerary workshops (Chapter 3, pp. 73–109). The core section comprises a typological review of Books of the Dead for the period (Chapter 4, pp. 111–57) and of papyri labelled *Amduat* (Chapter 5, pp. 159–211), with some concluding remarks on the social and historical milieu that produced this extraordinary and undervalued corpus (Chapter 6, pp. 213–38). The second half of the book offers a list of over four hundred manuscripts scattered across the collections of four continents, and the book ends with a rich selection of photographs, many of unpublished items. Each section can be recommended for research in all the relevant fields.

The typology for the funerary manuscripts revolves around the Third Intermediate Period custom of placing two papyri with the body at burial, one for the 'Formulae of going out (of the tomb) by day' (the Book of the Dead) and the other a 'Book of what is in the Underworld' (the Egyptological *Amduat*, now also called the 'Book of the hidden chamber of the Underworld'). In many groups one papyrus was placed inside an Osiris figure (these are not called Ptah-Sokar-Osiris figures until the Late Period when they were no longer used as papyrus containers), but both manuscripts might be placed on the body. An example of the latter custom is the mummy of

Osorkon, the grandson of king Osorkon I, unwrapped in 1799 before members of the French expedition. The account by Denon is worth citing again from the original publication, for this is said by him to be the first time that Europeans saw an Egyptian (as opposed to Greek, Latin, Coptic or Arabic) papyrus:

Je voulois quereller ceux qui, malgré mes instantes prières, avoient violé l'intégrité de cette momie, lorsque j'aperçus dans sa main droite et sous son bras gauche le manuscrit de papyrus en rouleau, que je n'aurois peut-être jamais vu sans cette violation; la voix me manqua; je bénis l'avarice des Arabes, et sur-tout l'hasard qui m'avoit ménagé cette bonne fortune; je ne savois que faire de mon trésor, tant j'avois peur de le détruire; je n'osois toucher à ce livre, le plus ancien des livres connus jusqu'à ce jour; je n'osois le confier à personne, le déposer nulle part; tout le coton de la couverture que me servoit de lit ne me parut pas suffisant pour l'emballer assez mollement; étoit-ce l'histoire du personnage? l'époque de sa vie? le regne du souverain sous lequel il avoit vécu y étoit-il inscrit? étoient-ce quelques dogmes, quelques prières, la consécration de quelque découverte? (Vivant Denon, *Voyage dans la Basse et la Haute Égypte* (Paris, 1802), 333).

This excerpt marks the entry of papyri into Egyptological research, and also places Denon at the centre of the episode, although we now know that the papyri first became the property of one Antoine-Romain Hamelin. Hamelin showed the papyri to Napoleon in France in 1801, but the Emperor took them without recompense and gave them to Denon. The discovery is highlighted by L. J. J. Dubois in his *Description des objets d'art qui composent le cabinet de feu M. le baron V. Denon* (Paris, 1826), 45–6, no. 228, with the text 'ce manuscrit, qui est en fort bon état, est le premier objet de ce genre découvert pendant l'expédition de l'armée française en Égypte' (the description applies to the *Amduat*, whereas no. 229 would be BD). H. de Meulenaere has now restored Hamelin to his place in the story by republishing excerpts from the Hamelin journal from the 1926–27 editions of *La Revue de Paris* (*CdE* 64 (1989), 60): 'Un jour, je découvris, pêle-mêle avec des débris de momies, un fragment de manuscrit égyptien sur papyrus. Aussitôt je promis une récompense à ceux de mes Grecs qui me trouveraient un de ces précieux manuscrits. Il en coûta la vie à plus d'une belle momie! Mais je recueillis trois beaux papyrus roulés, enveloppés d'un linge enduit de bitumine consacré. On les avait trouvés placés entre les cuisses du mort ou de la morte. Je reconnaisais le sexe féminin aux colliers et bracelets en grains d'émail, dont il était paré. Je conservai tout cela précieusement, sans en faire part aux savans que j'avais pris en antipathie'. The two Osorkon papyri were bought by one Divow, an agent collecting for the Tsar; they are now in the National Library of Russia, St. Petersburg (formerly the Saltykov-Shchedrin State Library, Leningrad). The exact modern history of these papyri shows how the narratives of early travellers can prove both useful and misleading. The 1826 catalogue of the Denon collection mentions five funerary papyri, one set of six fragments and two demotic contracts; of these, three funerary papyri came from Hamelin and the others are of unknown source, perhaps collected directly by Denon (the third papyrus from Hamelin is a *Book of Breathing* now in The Hague).

From his research the author divides the BD and the *Amduat* into three types each, with a seventh section of unillustrated manuscripts. His BD.I consists of manuscripts in which the main portion is text, with a single vignette at the start showing the owner before a deity. The type is divided into BD.I.1 in hieroglyphs (pp. 112–13) and BD.I.2 in hieratic (pp. 113–18) with respectively two and ninety-nine examples. The second set of BD are those with vignettes, with the text in hieroglyphs, BD.II.1 (pp. 118–28, 30 exx.) or in hieratic, BD.II.2 (pp. 129–31, eleven exx.). The group BD.III comprises papyri with a very high proportion of illustrations and including compositions not attested in New Kingdom sources. This group breaks down into BD.III.1a, with colour vignettes and hieroglyphic text (pp. 132–51, 31 exx.), BD.III.1b, with colourless vignettes and hieroglyphic text (pp. 152–5, thirteen exx.) and BD.III.2, represented by a single example, the magnificent hieratic papyrus of Nestanebetasheru (pp. 155–7). Controversially, the author dates the BD of Anhay to the Twenty-first Dynasty and classes her papyrus BD.III.1a, on the grounds that two vignettes derive from the New Kingdom Books of the Underworld, reserved before the Twenty-first Dynasty for the wall decoration of the tombs of kings. I prefer to follow the conventional stylistic dating to the mid-Twentieth Dynasty, particularly in view of the title of the husband of Anhay 'stablemaster of the Residence'. In at least one case a vignette papyrus draws on the *Amduat*, but carries the title 'going out by day' (cf. p. 149). This problem of classification recurs

with the A.III group *v.i.* The first papyri with the title *imy-dwst* derive not from the *Amduat* but from the *Litany of Ra*. The author divides these into two groups, those with figures of the creator (A.I.1, pp. 152–68, twelve exx.) and those adding other vignettes (A.I.2, pp. 169–73, two exx.). A.II consists of papyri with this title but with vignettes from the *Amduat* itself and is divided into four groups, all of which seem to take as their model the east wall of the burial chamber in the tomb of Amenhotep II, where the ninth to twelfth hours are depicted. It is unlikely to be a coincidence that this chamber was the resting place for one of the two final caches of royal mummies in the complicated history of their movement for security (cf. p. 179). The groups are those reproducing the original scheme in three registers (A.II.1a, pp. 174–80, 40 exx.) or in one or two registers (A.II.1b, pp. 180–4, 28 exx.), and those modifying the original in three registers (A.II.2a, pp. 184–6) or in one or two registers (A.II.2b, pp. 186–8, twelve exx.). A fifth group consists of combinations of *Amduat* and BD vignettes (A.II.3, pp. 188–92, seven exx.); one of these contains as much BD as *Amduat* material (p. 189). The A.III papyri are those in which the title is *Amduat* and the vignettes are drawn from BD or the New Kingdom kingly Books of the Underworld; A.III.1a have BD motifs in the layout of the *Litany of Ra* (pp. 192–6, twelve exx.), A.III.1b have BD and new vignettes (pp. 197–203, 30 exx.), A.III.2a have BD, new and royal Underworld Books motifs with hieroglyphic text (pp. 203–9, 28 exx.) and A.III.2b have *Amduat* vignettes and hieratic text (pp. 209–11, two exx.). The final group of papyri is denoted U (unillustrated) by the author, and comprises BD.I.2 papyri without opening vignette, papyri with hieratic texts of defence ('magical' papyri), deification decrees of Amun, and the papyrus Berlin 3051, which seems to be a BD mastercopy (pp. 214–16).

This classification scheme provides a source-critical framework for further research into the papyri. It is weakest at the point where the manuscripts draw on different sources for compositions, in the categories BD.III, A.II.3 and A.III. Here the author provides the most reasonable typology taking into consideration the texts and vignettes, and the title given by the Egyptians themselves to particular manuscripts (cf. pp. 192–6 on A.III.1a). He moves toward establishing particular families of texts with similar layout and contents, and this may provide the firmest grounds for future study. The titles of the manuscripts provide the strongest indication that the burial equipment of the Theban nobility from the mid-Twenty-first to early Twenty-second Dynasties included two manuscripts, one a BD and the other an *Amduat*. From the known pairs of manuscripts, reconstructed from the names and titles on the originals where there is no excavation record, it is possible to deduce the approximate history of the development of the papyri. To this end the author notes all instances where papyri belong to a pair of surviving manuscripts, and attempts to ascertain the dates at which each type of BD or *Amduat* came into vogue and then disappeared. It is important here to distinguish between inferred dating criteria (such as the dating of coffin types or burials proposed by the author in his works on the Twenty-first Dynasty) and absolute dating criteria (the occurrence of a cartouche or datable personal name on the manuscript or its associated material, such as a coffin or the other papyrus in a pair); this is not generally difficult because the author gives references for his suggested dating of types. It is clear from his work that the early standard pairing consisted of a *Litany of Ra*, entitled *Amduat*, and a hieroglyphic or vignette-dominated BD; these pairs are attested from the time that Masaharta was High Priest of Amun down to his successor Pinedjem (II), i.e. from c. 1050 to 975 BC (cf. pp. 231–3). This pairing was superseded about the time of High Priest of Amun Pinedjem (II) by a new standard pairing of *Amduat* with hieratic BD, known from the late Twenty-first Dynasty until the Twenty-second Dynasty. After these the custom of placing papyri among the grave goods disappears for at least two centuries (the next known funerary papyrus is the BD of Nespasef in Tübingen and Marseilles, dated prosopographically to c. 650 BC; see E. Brunner-Traut and H. Brunner, *Die ägyptische Sammlung der Universität Tübingen* (Mainz, 1981), 293 with pls. 126–7). The example cited by the author on p. 237 n. 30 from Denon seems to me as likely to be of early Twenty-second as of late Twenty-second or Twenty-fifth Dynasty date. This chapter on the history of funerary texts concludes with the papyri of Osorkon, the grandson of king Osorkon I, the very manuscripts that opened the chapter of discovery and study of Egyptian papyri.

Between the two standard combinations of *Litany* with hieroglyphic or figured BD and of *Amduat* with hieratic BD there are intermediate groups such as the BD with hieratic texts and many vignettes (BD.II.2), dated to the reign of king Amenemipet; the type BD.II.2 forms a perfect

bridge between the hieroglyphic BD.II.1 and hieratic BD.I.2 manuscripts. Most striking, though, is the range of texts that began to appear in the late years of the High Priest of Amun Menkheper, corresponding to the reign of Amenemipet in the north. The author notes that this expansion of the compositional repertoire occurs at a time when the king at Tanis was not only a child but, more importantly, the nephew of Menkheper, by then a senior figure in years of rule at Thebes (cf. pp. 234–5). Although the author distinguishes a mid and late Twenty-first Dynasty phase, the floodgates open in the reign of Amenemipet, and it is tempting to see the precise dating of two BD.II.2 manuscripts to that reign as a strategy to secure the blessing of Tanis for the relaxation of rules on the production of funerary papyri. The fifty years between the reign of Amenemipet and the return of royal power under Sheshonq I at the start of the Twenty-second Dynasty are marked by the profusion of compositions that make classification so difficult even when using the Egyptian titles *prt m hrw* and *imy-dwst*. It is possible that the assertion of Tanite control over Thebes under the early Twenty-second Dynasty kings led directly to the reduction in types of funerary text to the second straightforward pairing, *Amduat* with hieratic BD, but in the absence of criteria to differentiate late Twenty-first and early Twenty-second Dynasty manuscripts this would be speculative. Similarly the disappearance of the funerary papyrus from burials after c. 850 BC may reflect a general trend in favour of simpler grave goods and less ornate coffins, perhaps as a result of changes in taste or economic pressures in the Theban area as much as of political pressure from a king such as Osorkon II. It should also be remembered that the Delta rarely preserves papyri, and that our picture for this period is largely confined to Thebes, as is emphasized in the book's title.

The achievement of the author in this book rests on his listing of all Third Intermediate Period papyri known to him; it is doubtful if any other scholar could have achieved such a comprehensive and lucid list which is itself an indispensable tool of research. The addenda and corrigenda below serve not to criticize but to supplement the core work by the author that he has so masterfully laid out before Egyptology and, it is to be hoped with the *OBO* series, the wider audience that it deserves.

#### AVIGNON

The papyri of the Musée Calvet are cited in M.-P. Foissy-Aufrère (ed.), *Égypte et Provence* (Avignon, 1985), 107–11, from which it seems that A.71 (the papyrus of Nesqashuty) and A.73 (the BD of Nestanebettawy) (Chapters 23–8) should be added to the list. The collector associated with the Avignon museum is not Cazati (as spelt by Champollion and the author), but F. Casati, as noted from a graffito at Abu Simbel by M. Dewachter (*BIFAO* 69 (1970), 182–3); the French orthography for this Italian name occurs in the *Lettre à M. Dacier*, 4 n. 2, where Champollion says that 'ce manuscrit démotique est du nombre des papyrus en diverses langues que la bibliothèque du Roi vient d'acheter de M. CAZATI'. The M. Lunel who bought the Casati papyri, now in Avignon, was a noted art dealer in that town at the time (cf. *Égypte et Provence*, 257, 259).

#### BERKELEY

As noted by W. Helck in *LÄ* IV, 682, the Lowie Museum preserves an *Amduat* published by L. Lesko in *Studies in honor of George R. Hughes* (Chicago, 1976), 133–8. On p. 133 Lesko notes that the *Amduat* was presented in 1905 by Mrs Hearst; in the same group of material came two pages of the BD in an unspecified script, giving Chapters 146 and 149, as well as braces with the names of Osorkon II and Amun-Ra. If the items belong together, they would form a standard Third Intermediate Period pairing of *Amduat* with (hieratic?) BD; if the name on the braces is indeed Osorkon II, the group would become, with the Leningrad papyri of Osorkon grandson of Osorkon I, the latest of the papyri produced before c. 650 BC. The name on the BD, if it survives, is not cited.

#### BOLOGNA

Bologna I is now published in colour in Museo Civico, Bologna, *Il Senso dell'Arte nell'Antico Egitto* (Bologna, 1990), 228–9, from which *n pr'Imn* should be added to the title.

## BOSTON

An unregistered papyrus of unknown provenance on display in the Boston Museum of Fine Arts seems to be a Third Intermediate Period hieratic BD papyrus for a god's father of Mont lord of Thebes, Nesamun.

## COLMAR

To be added to the list is a pair of papyri in the Musée d'Histoire Naturelle de Colmar, published by C. Traunecker and M. Jehl, *Bulletin de la Société d'Histoire Naturelle* 52 (1965-66), 3-7. Upon the unwrapping of a mummy in the coffin of one Panehsy, two papyri were found, one an *Amduat* in three registers for the chantress of Amun Neskhnospakhered, daughter of the *hry tḥw*, chief brewer, Djedhoriufankh, and the other a BD, with single opening vignette and Chapters 23, 30, 5, unidentified, for the chantress of Amun Ikaiu. Since the two papyri were found in the wrappings of the same mummy, I presume that they belonged to the same woman, Neskhnospakhered Ikaiu, and that the mummy was deposited in a coffin to which it bore no original relation, simply for safe transport to Europe. The pairing follows the standard pairing of *Amduat* with hieratic BD documented by the author for the late Twenty-first to early Twenty-second Dynasties. The items were brought from Egypt in 1836 by a French consular attaché called Steyert.

## DARMSTADT

The opening vignette of a funerary papyrus of the lady of the house and chantress of Amun Iusenhesutmut is cited in *Landesmuseum Darmstadt, Kunst- und historische Sammlungen, Verzeichnis der ägyptischen Sammlung* (Darmstadt, 1923), 15 no. 104. Ranke, *PN* II, 261, 25 cites as sole source for the name 'Iusenhesutmut' a Brooklyn papyrus; there is also a shabti of one I(u)senhesutmut in the British Museum (BM 33966). The coffin of a lady of the same name, with the additional title 'singer (?) of Mut', is in Swansea, for which see now K. Bosse-Griffith, *DE* 19 (1991), 5-12, where the coffin is said to have come to Swansea from Exeter Museum, to which it was presented by Fitzherbert Fuller in 1819.

## DUBLIN

The papyri presented by Viscount Kingsborough to Trinity College in the 1830s (?) form one of the principal groups of material not studied from the originals by the author. From the cursory inspection of the papyri, thanks to the kind assistance of the librarians during a brief visit to the city in April 1991, and from the exemplary inventory by E. Hincks (*Catalogue of the Egyptian Manuscripts in the Library of Trinity College, Dublin* (Dublin, 1843)), the papyri of the Third Intermediate Period may be identified as the following:

- 1665 *Litany of Ra*, anonymous,  $46 \times 8\frac{1}{2}''$  (= Dublin 1 of Niwiński)
- 1666 BD vignette papyrus of the treasury scribe of Amun, Amenmes,  $63 \times 9''$  (not in Niwiński)
- 1667 *Amduat* coloured vignette papyrus of the chief of the reach of Amun-Ra king of the gods, Pashedkhons,  $59 \times 9''$  (not in Niwiński)
- 1668 hieroglyphic BD with vignettes of Chapter 148, seven seated animal-headed deities and adoration of the phoenix in the disk, of scribe of the Amun domain Nespautyherhat (?),  $40 \times 10''$  (not in Niwiński)
- 1671 hieratic BD of priest of Amun, Shedsukhons, in two frames,  $9\frac{1}{2} + 122\frac{1}{2} \times 9\frac{1}{2}''$  (not in Niwiński)
- 1673 hieratic BD of priest with access of Amun in Ipetsut, Djedkhons,  $155 \times 5''$  (= Dublin 2 of Niwiński)
- 1674 hieratic BD of ..(?) of Amun, Asetnefret (determined with the man sign),  $70 \times 6''$  (= Dublin 3 of Niwiński)

Also to be added to the list is a Third Intermediate Period hieratic BD papyrus of the god's father of Amun-Ra king of the gods, acolyte of the Amun domain, Patjau(em)deretmut, with Chapters 28, 6, 5, 105, 12, 31, 102, the 'formula for seizing a dead spirit', and 38?, for which no initial vignette now survives (if there ever was one). This papyrus is preserved in the collections of the Chester Beatty Library, Dublin.



## KAZAN

According to the catalogue to the Pushkin Museum of Fine Art exhibition *Drevneegipetskie Pamiatniki iz Muzeev SSSR* (Moscow, 1991), 66 no. 275, the Kazan *Amduat* (Kazan 2 in the list by the author) was presented in 1868 by Prutchenko to Kazan University and now bears the inventory number 10925 in the State Regional Museum of the Republic of Tatarstan. I have no further information on Prutchenko; there is no illustration of the papyrus in the catalogue.

## LENINGRAD (St. Petersburg)

Nos. 4 and 5, often denoted papyri Denon, belonged first to Hamelin and reached Denon via Napoleon; they were purchased for the Tsar by his agent Divow at or before the sale of the Denon collection in 1827 (cf. above).

## LONDON

As a hieraticist in the British Museum the reviewer has been able to regain some of the acquisition details unavailable to the author. This allows the list to be completed, and the nature of acquisitions to be clarified; such information may help to avoid future misunderstandings, and is thus included here. One possible misunderstanding would be to take numbers after papyri as numbers in an original collection. Although this might perhaps be true of the Harris papyri (London 52 and 53 of the author), it misrepresents the character of much nineteenth-century acquisition and sale. The number simply denotes the lot number of the item in auction in the cases of the sales of the collections amassed by Anastasi in 1857 (London 3), Athanasi in 1836 (London 45) and 1845 (London 48), Barker in 1833 (London 1, 2, 24, 25, 28, 30, 33, 35, 37, 38), Burton in 1836 (London E), Lavoratori in 1833 (London 3, 7) and Salt in 1835 (London 19, 32, 34, 54). In the cases of the purchase of whole collections by the British Museum, the numbers attributed to papyri refer to inventory lists designed to double-check the arrival of items or to estimate their value before sale, as with the 1839 purchase of the second collection of Anastasi (London 11, 14, 50), or they refer to registration lists of the incoming papyri, as those purchased from Sams in 1834 (London 21, 26, 27, 29, 41, 42, 43) and from Hay in 1868 (London 23). A more complicated case is the arrival of papyri in 1821 as part of the first Salt collection, which was eventually purchased in 1823 after bitter negotiation (London 6, 12, 16). Salt drew up his own list of the papyri to be sent, with numbers up to about 30, but this list has survived only in an incomplete abstract, and the numbers generally associated with papyri from the first Salt collection refer to the plate-numbers of the first two plate volumes of the *Description de l'Égypte* inside which the papyri were sent from Egypt to London. After this caution on our reading of numbers attached to items in nineteenth-century collections, there are the following more specific observations to be made.

LONDON 4: purchased from Wilkinson in 1852.

LONDON 5: The Libri papyri were purchased through the dealer Boone (not Boene, as is falsely written on some departmental records).

LONDON 6: from the first Salt collection.

LONDON 9: On the basis of the prevalence of the hieroglyphic script and the inclusion of *nb tswy* in the title of the owner, I would date this to the New Kingdom rather than the Third Intermediate Period.

LONDON 17: from the first Salt collection. The papyrus includes a fuller writing of the name of the owner as Djedkhonsiusankh.

LONDON 18: from not Salt but the second Anastasi collection, bought in 1839.

LONDON 28: The papyrus was lot 215 in the Barker sale of 1833. The reference to Sams appears to be an old mistake.

LONDON 34: To my eyes this hieroglyphic BD with colour vignettes is not in the category BD.III.1a, but rather in the more regular group BD.II.1; this is an area of possible disagreement where the categories may eventually need more explicit statistical differentiation, (for example, what proportion of vignette to text is required before a papyrus moves from BD.II.1 to BD.III.1a, etc.).

LONDON 36: one of the papyri bought from Murray in 1861.

LONDON 47: one of the papyri from the first Salt collection.

LONDON 48: The papyrus was lot 169 in the Athanasi 1845 sale.

LONDON 55: The papyrus was bought from Lane in 1842.

LONDON 56: one of the papyri bought from Anastasi in 1839.

LONDON 57: one of the papyri bought from Anastasi in 1839.

LONDON C: from the Rhind collection, sold to the British Museum by Bremner, his executor.

LONDON D: one of the papyri bought from Anastasi in 1839.

To add to the list are the following six papyri:

10084, hieratic BD of Asety, bought from Joscelyne in 1863. No opening vignette survives (if there ever was one).

10743, BD.I.2 of Asetemakhbit, from Zouche (Robert Curzon), who visited Egypt in the 1830s. The opening vignette is black and red.

10747, BD.I.2 of Serdjehuty, from Zouche. The opening vignette is black.

10988, hieratic BD of Pashebmutwebkhet, recently reassembled from fragments and of unknown provenance. With the 'magical texts papyrus' Berlin 3031 (Berlin A, from Passalacqua) and BM 10007 (London 29, from Sams) this brings the group to three, but the atypical Berlin papyrus may be considered supplementary to the standard late Twenty-first Dynasty grouping of two papyri, a BD in hieratic (BM 10988) and an *Amduat*, in this case a vignette papyrus (BM 10007).

73665, hieratic BD of Pamer, acquired in 1991 with the other papyri in the Alnwick Castle collection of the Dukes of Northumberland. Two Dukes had visited Egypt, one in the 1820s as Lord Prudhoe, the second in the 1890s as Lord Warkworth. The papyrus as it survives has no opening vignette.

74135, hieratic BD of Djedkhonsiufankh born of Nesirty, from an Osiris figure in the Belmore collection. The papyrus has no opening vignette, suggesting that it may have been placed in the Osiris figure to enhance its value in the last century, although that may have been its ancient state.

#### OXFORD

Oxford 1 is not anonymous, but bears the name of its owner the untitled Amenemipet son of Aset, visible on the photograph in the guidebook cited by the author; the photograph also reveals an old collection or sale number 1006 (cf. Salt 1835 or Anastasi 1857?).

#### TALLINN

According to the catalogue *Drevneegipetskie Pamiatniki iz muzeev SSSR*, 39 n. 11, the officer Butenev was not collecting on his own initiative but on behalf of a friend in Tallinn, one Burchardt; details are to be published by H. Kink.

#### LOCATION UNKNOWN

Papyrus no. 6, the fine BD. I.2 of Ankhefenkhons, has reappeared in the sale in 1989 of the Garden collection at Sotheby's, New York. The colour vignette is reproduced in colour in the catalogue, *The collection of the Garden Ltd, magnificent books and manuscripts, conceived and formed by Haven O'More, founded by Michael Davis* (Sotheby's, New York, Nov 9th-10th 1989). The frame is said to be French c. 1900, and the text to contain BD Chapters 130, 134 and 136. A ticket-label on the back gives the number N. 4635 and the catalogue suggests that it passed from the Napoleonic expedition to a small French museum before passing from Hearst to Marshall in the 1960s, then to Quaritch in 1972 and through various dealers up to the time of the Garden sale. The earlier part of this history is, however, quite uncertain.

*Ptolemaic Philae*. By ELENI VASSILIKA. *Orientalia Lovaniensia Analecta* 34. 250 × 185 mm. Pp. xxiv + 403, pls. 44, numerous catalogue figs. Louvain, Peeters, 1989. ISBN 90 6831 200 6. Price BF 3800.

This substantial study begins with a translated quotation from 'Lucretius, *De Rerum Naturum (sic)*', but the error is by no means typical, although the end of the same page mentions 'rights to translate (*sic*)'. The work is described as 'an art historical study' and it has been conducted under sound auspices; it was supervised by Bernard Bothmer and successfully submitted as a doctoral thesis at the Institute of Fine Arts in New York University. Erich Winter provided expert aid at Trier, including some of his personal photographs. Seven months were spent in 1985 'at the site of Philae' (now perhaps more correctly termed Philae-Agilkia). After a Select Bibliography and a Chronological Table, the book proceeds to a General Introduction followed by chapters on 'Decoration Principles', 'The Architecture of Philae and its Decoration', 'The Ptolemaic Attributes of Royalties and Deities at Philae', 'The Ptolemaic Image at Philae', 'The Work Methods of the Artisan at Philae', and 'Conclusions'. Then comes a List of Tables—'Records of Scenes and their Elements (Database)', 'Deities Depicted at Philae', 'Crowns Worn by Kings at Philae', 'Skirts Worn by Kings at Philae', 'List of Offerings at Philae', and 'Concordance of Berlin Photos with Database Records'. The tables themselves (the database) occupy pp. 214–91. In the concluding section we are given the Catalogue with its numerous line-figures, the list of plates, and the forty-four plates.

It will be readily seen from my sketch of the contents that Vassilika has been assiduous and thorough in her approach. If Chapters 1 and 2 might seem to overlap in theme, there is really a distinction in that the first chapter discusses the general principles of the design system used in temples, while in the second chapter the principles are applied to individual monuments. Attention is given to the possible use of pattern books and sketch-plans or cartoons. It is Winter who has pioneered this question and he has argued for the use of textual pattern books, but not of sketch-plans. V. disagrees with him on the second point. One must accept that the artisan was always aided by material which guided him in his work. A lesser official might well have accompanied him with a pattern book; such papyrus rolls could easily be manipulated as the location demanded. A smaller papyrus sheet with rough plans cannot be ruled out, but it is a question whether the texts could be fully conveyed in this way. On p. 11 V. remarks that 'neither pattern books nor cartoons have been preserved'; she duly notes, however, (p. 7 n. 43) the publication by Winter of a Ptolemaic papyrus from Dime in the Fayûm, in which is given the plan for inscriptions on a doorway, perhaps for a small temple in Dime (*Nachr. Göttingen* (1967), 59–80). Chapter 2, on the architecture, naturally presents details of the various temples, and with the following chapter provides valuable material on religious iconography. A section on offerings (pp. 98 ff.) discusses the views of H. G. Fischer and H. Beinlich on the evolution and use of the armlike censer. Beinlich doubts whether the bronze censer was actually used 'as it would have become too hot to hold' and he suggests that the burning incense was transferred to the armlike object. V. rightly remarks (p. 105 n. 87) that the censer is shown as being held by priests in apparently long-lasting processions. A dichotomy between traditional forms and actual practice seems to be implied.

A feature of the detailed discussions is the use of the abbreviations which appear in the Catalogue and the Database. The latter is a formidable and lengthy affair, and although explanations are supplied in the course of the discussions, it is not at all easy to find one's way around. For instance, we are told on p. 99 that 'in the *AUT* or authority scenes, the deity faces the king and presents him with a scepter...' Reference is made to *AUT* 3, and the catalogue on p. 291 gives three instances which are duly reproduced on p. 351. The sources of the instances are not given; at least, the reviewer was not able to find them in spite of the help given on pp. 114 ff. (an alphabetic order of abbreviations would have been a boon). But from p. 274 no. 116 *AUT* 3 it emerges that the king involved is Ptolemy XII and that the goddess is Isis. It is said on p. 204 that the system of Database and Catalogue 'has permitted the publication of a vast amount of information that would have been unwieldy to handle in any other form' and that 'manipulation of this data has confirmed iconographic conventions and revealed new ones'. The phrase 'this data' calls for a protest, but perhaps it is too late in the computer's day to claim 'data' as a neuter plural. One must however agree that 'a vast amount of information' is available here and that the catalogue enables a con-

venient survey of types of crowns, skirts (male and female), dados and so on. The table on pp. 265 f. allows one a concise conspectus of 'deities depicted at Philae', noting the appearances of each deity in the various reigns. Nor does V. neglect to draw the proper conclusions in her main text; here we have also relevant references to the admirable plates. Discussing the work methods of the artisan, V. remarks (p. 183) on the fact that 'the artisan was sometimes sloppy, particularly in the areas that tended to be decorated last'. Errors may also have arisen through the use of separate sketches, one for imagery and one for text (p. 158), and other contingencies led to areas that remained unfinished, such as the Hathor temple, where 'the exterior of the Pronaos was first decorated in the time of Augustus' (p. 167).

This last point reminds one that to some degree the book's title is rather misleading, albeit in a welcome way. While its main theme relates to the Ptolemaic Period, it includes much information about Philae in both the Pharaonic and Roman eras. In 'The Buildings of Nectanebo I' (pp. 22 ff.) we have a systematic *exposé*. Less systematic are the many references to developments in the Roman era, but they contain lively insights into differences of style, as in the remark (p. 209) that 'all the features of the reign of Ptolemy XII are exaggerated in the Roman reliefs at Philae' or the dictum (p. 210) that 'essentially, the artisan work methods remained the same in the Roman Period as they had in the Ptolemaic Period'. To this combined phase we should add a part of the Pharaonic Period, going back to a tradition initiated at Philae by Taharqa: see J. Leclant, *LA* VI, 160 and L. V. Žabkar, *Hymns to Isis in Her Temple at Philae* (Hanover and London, 1988), 1 with fig. 1. We are dealing with an artistic and religious continuum which transcends dynastic changes, and V. has wisely gone beyond the confines of her title. She certainly merits congratulation on the successful conclusion of an exacting task.

J. GWYN GRIFFITHS

*Corpus dei Papiri Filosofici Greci e Latini (CPF): testi e lessico nei papiri di cultura greca e latina. Parte I: Autori noti*, 1\*. 240 × 170 mm. Pp. lv + 479. Florence, Leo S. Olschki, 1989. ISBN 88 222 3638 6. Price not stated.

*CPF* was sired by Francesco Adorno. It had a long, and at times anxious, gestation. Numerous scholarly obstetricians and midwives were in attendance. It is now emerging from the breech—and it looks to be a robust and bonny baby.

The guiding aspiration behind *CPF* was the desire 'to collect into a single "corpus" all the papyrus texts<sup>1</sup> ... which can contribute to a systematic delineation of the history of philosophical culture and of its changing and dynamic "lexicon"' (p. ix). Ambition enough—but *CPF* is no mere collection of texts: it translates and it annotates; and—what is far more—it constitutes, in the proper sense of the word, a new edition of the papyri, almost all of which have been freshly inspected by trained papyrological eyes.<sup>2</sup>

*CPF* will be a giant. Of its four constituent Parts, I will contain fragments of and testimonies to named authors; II will embrace adespota and gnomes; III will present papyrus commentaries; and IV will hold the necessary indexes and glossaries and tables. Part I itself subdivides, the first subdivision dealing with philosophers in the narrow sense and the second with 'culture and philosophy'. Each subdivision will occupy several volumes. The first volume to appear—the volume here under review—is thus in effect fascicle A of subdivision 1 of Part I of *CPF*. It takes us alphabetically from the Academics to the Cyrenaics.

Although it aims in principle at completeness,<sup>3</sup> *CPF* felt constrained to exclude numerous relevant texts. Thus no philosophical papyri of Judaeo-Christian tincture have been admitted (p. x).

<sup>1</sup>The term 'papyrus' is used generously, to include parchment, ostraca, wax tablets, and so on (p. vii); and there is the hope of including epigraphical material in an Appendix (p. ix).

<sup>2</sup>The chief exception is the collection of Didymus texts in P. Tura: see p. xix n. 1.

<sup>3</sup>Thus it deliberately includes—expressly on grounds of completeness—various non-philosophical texts written by philosophical authors (e.g. Antiphon's *Apology* and Critias' *Pirithous*—the latter occupying some 25 pages of the volume).

Again, the most famous of all philosophical papyri—Aristotle's *Constitution of Athens*—has been deliberately left out in the cold (p. lv).<sup>4</sup> Moreover, no Herculaneum papyrus is present (p. xi).<sup>5</sup> The last omission is a disappointment. True, the editing of P. Herc. is a specialist business, and one already in more than capable hands. True, too, the inclusion of P. Herc. would double the length of *CPF*. Yet without P. Herc. the title '*CPF*' is a bad misnomer; and were *CPF* able to collect and reprint the latest editions of the Herculaneum papyri, which are not everywhere easily accessible, scholars would surely consider it the greatest of boons.

The texts in Part I are arranged alphabetically by author. Within each authorial segment, fragments precede testimonies; and the segment may end with a group of *dubia* or *spuria*.<sup>6</sup> The entries are usually set out on a standard pattern: a bibliography; a papyrological description of the text; the text itself, equipped with a full critical apparatus; an Italian translation; and a commentary or set of notes. Some of the texts will appear more than once: thus *CPF* 7 1T is a short excerpt from the anonymous commentary on the *Theaetetus* [P. Berol. inv. 9782], which will appear in full in Part III. In such cases the standard presentation is sensibly abridged.

Everything is clearly and legibly set out. The Greek text, even when it is pocked with the dots and dashes of papyrological scholarship, is a pleasure to the eye. There are very few misprints.<sup>7</sup> The textual work—so far as I can judge—has been done with scholarly sense and sobriety. As for the commentaries, they vary. The best of them are excellent, and none is less than helpful. Some editors however, have been allowed to indulge in lengthy speculations which some might think inappropriate to a standard work of reference.

Of the 140 odd texts in this volume, almost all are *testimonia*. Most of the fragments come from extant works.<sup>8</sup> These are chiefly of negative interest—I mean that they are interesting inasmuch as they tell us nothing at odds with the later manuscript tradition. Thus the fragments of Aristotle's *Posterior Analytics* (*CPF* 24 1) and *Categories* (*CPF* 24 2) deliver no new readings worth considering.<sup>9</sup> Fragments of lost works are always more arresting. There are seven or eight such texts in the present volume, and of these only four are strictly philosophical in content. One is P. Ant. 61. Strictly, this is an adespoton; but it is printed as *CPF* 30 6(?), and the editors make out a case for ascribing it to Chrysippus—it may indeed be a fragment from one of his shockingly 'cynical' works which the sensitive Pergamene librarian, Athenodorus Cordylion, felt obliged to bowdlerize.<sup>10</sup> The other three texts form the familiar fragments of Antiphon's *On Truth*. Although two of these texts have been much studied since their first publication (as P. Oxy. 1364 and 1797) in 1915 and 1922, new light has recently been thrown on them by the publication of a third papyrus, P. Oxy. 3647. This new fragment contains barely half a dozen letters, but it fits directly to the top of column II of P. Oxy. 1364 and its adjunction outlaws one standard interpretation of the general drift of Antiphon's argument. The papyri appear as *CPF* 17 1–3, with a long and excellent commentary.

<sup>4</sup> Chambers' 1986 Teubner text was deemed to make a re-edition superfluous. Note, however, that four papyrus *testimonia* to the *Ath. Pol.* are printed as *CPF* 24 42T–45T.

<sup>5</sup> The volume, however, begins with 75 pages of *Testimonia Herculansia*, which list, with full citations, all the philosophers whose names have thus far been found on the Herculaneum rolls. The list is a vivid reminder of how ignorant we are of most ancient philosophers. It should also check the temerity of scholars who like to play the identification game: the Herculaneum texts know at least ten different philosophers called 'Aristo'.

<sup>6</sup> There are a few questionable judgements here. Thus I should have expected the Ai Khanum papyrus to have been mentioned at the end of segment 24, since it has been tentatively ascribed to Aristotle. Conversely, *CPF* 24 17T (from P. Tura III) seems to me to have no connexion with Aristotle at all: the distinction between *μέλλον* and *ἐσόμενον* which Didymus there ascribes to *τινες* is quite different from the Aristotelian distinction at *GC* 337b4. But these are quibbles.

<sup>7</sup> The only error which initially foxed me occurs on p. 102: in line 22 of the text read *γ(ίνεταί)* for (*γίνεταί*).

<sup>8</sup> Note the useful introductory essay by Antonio Carlini on 'Philosophical Papyri and the Mediaeval Manuscript Tradition'.

<sup>9</sup> Nonetheless, the editors are right to reproach Ross, Minio-Paluello, Colli, Mignucci and Barnes for overlooking the papyrus.

<sup>10</sup> See *DL* VII 34, and the texts collected as *SVF* III 743–56 (not *SVF* II, as *CPF* p. 426 has it).

*CPF* is dotted with smaller delights. Thus there is a new and tantalizing reference in *CPF* 10 1T (P. Oxy. 1012): where earlier editors had read ]ασοκ[.]λνομε, a new look reveals ]ασοκ[.]αζομε—hence, of course, 'Αναξαγόρας ὁ Κ[λ]αζλμέ[νιος. Or there is the clear distinction between νόημα and λεκτόν made by Didymus, who quotes Aristotle on the former and implicitly adverts to the Stoics on the latter (*CPF* 24 18T, from P. Tura V). I liked *CPF* 5 (P. Getty Mus. acc. 76.AI.27), which shows that books by Epicurus and his followers were being mailed about Egypt in the first century AD. I also liked *CPF* 6 (P. Mil. Vogliano 11), where we find another Egyptian sending half a dozen Stoic books to a friend, with the assurance that they will do him a great deal of good. And so on.

At the end of his passionate preface, Adorno expresses the modest hope that *CPF* will be a useful 'strumento di studio'. There is no doubt of that, and all ancient philosophers owe Adorno and his team gratitude and congratulations. But while *CPF* is 'aere perennius', it is no dull monument; for it offers glittering goodies enough to tempt the laziest magpie.

JONATHAN BARNES

*Les archives de Marcus Lucretius Diogenes et textes apparantés.* Edited by PAUL SCHUBERT. Papyrologische Texte und Abhandlungen, Band 39. 270 × 190 mm. Pp. xviii + 278, pls. 24. Bonn, Rudolf Habelt, 1990. ISBN 3 7749 2418 X. Price DM 124.

This volume contains the edition of 68 documentary texts from Roman Egypt, all except seven of which are published here for the first time. They belong to the second and third centuries AD, the dated limits being AD 127 to AD 226. The editor is a newcomer among papyrological scholars, who has produced an excellent edition on which he is to be warmly congratulated.

The title may be slightly misleading, since, as the editor remarks on p. 2, 'dans bien des cas il n'est pas possible d'établir un rapport plus direct entre les documents et la famille de Marcus Lucretius Diogenes'. In fact only some twenty texts certainly pertain to the family and the reason for publishing this group of texts together is that, with four exceptions, they form part of a job lot purchased by the British Museum in the 1920s and now catalogued as inv. nos. 2498–2542 in the British Library. The exceptions are 1, a wooden tablet with ink writing, and 18, 27 and 37, which form part of the Rendel Harris collection; Schubert has very properly republished these here as all relate to Diogenes' family. The history of this family forms the first part of his introduction (pp. 7–18), the most important members being M. Lucretius Clemens, an *equus* of *Cohors I Thracum*, his grandson, M. Lucretius Minor, and his great-grandson, M. Lucretius Diogenes II, after whom the archive has been named. The last two were both Roman and Antinoopolite citizens and the next section of the introduction discusses this subject; it includes a good suggestion (pp. 32–3) on why veterans so frequently possess Antinoopolite citizenship. The introduction concludes with a comment on the use of red ink in papyri and gives a useful list of the thirty or so examples which Schubert has noted (pp. 34–5).

Many of the texts are mere fragments, but some twenty to thirty are more substantial and very varied in content, as a few examples will illustrate. 1 and 10 are in Latin, the former (= CPL 159) a kind of birth certificate, the latter (= P. Coll. Youtie 64) the opening of a will; note the small but important corrections to the readings. 2–4 are ἀπαρχαί, registrations of Antinoopolite citizens, while 5–8 concern the ἐπικρίσεις of such citizens. 3 has very important notes on αἰωνογυμνασίαρχοι and on the office of πρυτανικός (cf. 19 4n.), and 5 is especially interesting, not least because it gives us a new consular name. 11 and 12 are two copies of what is apparently a *donatio mortis causa*, but which has several anomalies. In 13 and 14 an ἀσχολούμενος ἐπιστατεῖαν Σχεδίας καὶ Ἰουλιοπόλεως occurs for the first time. 16 incorporates a request to the exegetes of Alexandria for the appointment of a guardian for an ἀστή; the document acknowledges discharging of a debt through παραμονή by a slave. It is particularly annoying that 17 should be so fragmentarily preserved, since it is potentially a very interesting petition concerning a property dispute (see below); there is a good note to lines 12–13 on μονάρταβος (showing

good reason to reject the existence of a noun *μοναρχαβία*). There are numerous legal contracts of the usual kinds (leases, loans, etc.), some tax receipts, and one private letter (48).

S. has a thorough knowledge of the relevant bibliography and quotes parallel documents extensively. He also makes a number of very good suggestions for corrections to published texts, which are conveniently listed on pp. 242–3. There are the usual indexes and a generous ration of 24 plates which cover 26 documents; unfortunately many show the documents at a reduced scale and the quality of some of the photographs is not good enough to serve as a control. One quibble: as S. well knows (see p. 2), all the papyri were found at Philadelphia; it is therefore misleading to record at the head of each document where it was written as though this were its provenance.

A few minor comments. The transcription of 1 does not indicate the use of interpunct in the original. In the introduction to 8 for 'trois jours' read 'treize jours' *bis*. At 9 6–8n. correct to P. Oxy. XXXVIII 2857, 7–9. In 17 1–4 the diplomatic is odd and the restoration of *βιβλιδίοις* and of *κολλημάτων* in l. 4 bold (but even if *κολλημάτων* is wrong, *ἡγε[μόνι* in ll. 1–2 guarantees that the petition was addressed to the prefect). At 27 11 the scribe has surely made some mistake: between *ἐὰν δὲ μὴ ἀποδώμεν* and the *praxis*-clause we expect at least *καθὰ γέγραπται* and *ἀποτείσομεν/ἐκτείσομεν μεθ' ἡμιολίας*. At 30 9 (no plate) parallels, e.g. P. Col. VII 178,5, strongly suggest the reading *ἔχειν καί* before *μεμετρήσθαι*. In the introduction to 31–32 for *πράσσω* read *πιπράσκω*.

J. DAVID THOMAS

*Corpus Papyrorum Raineri*, Band XIV: *Griechische Texte X*. Edited by GEORGINA FANTONI. 2 vols. 295 × 210 mm. Pp. 121, pls. 50. Vienna, Hollinek, 1989. ISBN 3 85119 233 8. Price not stated.

The work under review consists of fifty-five documentary papyri from the later Byzantine period (fifth to eighth centuries AD), all but nine of which are edited here for the first time. As is usual in recent publications from Vienna, plates of all papyri are provided in a separate volume, a very helpful feature for the user; in the present instance, plates of the versos are also included in almost all cases. The work contains a great many texts with unusual features which make them the more interesting, and at the same time the more difficult, to edit. Dr Fantoni, who is a new name among editors of Greek papyrus documents, is to be congratulated on the way in which she has handled this often very difficult material.

Among the more interesting texts are the following. 1, an undertaking to collect corn for the *embole*, addressed to a known pagarch of Arsinoe; 3, a concession to sell fish; 11, which provides the first posthumous dating formula for Justinus II; 13, an exchange of inherited property (the editor does not refer to the best parallel I have noted, P. Stras. 556); 17, a deed of surety addressed to Flavius Athanasius, a *domesticus* and *ἐκδικος* of Arsinoe; 32, a receipt from a guild of *σελλοποιοί* (saddlers?); 39, an important text listing officials who may well, as the editor suggests, have been employed in the office of the *praeses*; 41, with the new word *ἀργενταρίτ(ης)*; 47, sent by the *ἐργασία τῶν ἀνδρεοπλαστῶν* [*sic*] (the editor reasonably supposes this relates to a guild of sculptors); 48, a petition to acting-*riparii*; and two letters of more than routine interest: 54, where the writer says he has given a certain person a beating as instructed but failed to get him to pay his taxes, and 55, in atrocious Greek, which refers to a journey *εἰς τοῦ διμίου στανροῦ* [*sic*] which the editor takes to refer to the Holy Cross at Jerusalem (though her introduction says it was removed to Constantinople in 636 and the letter could well be later than this).

Apart from these interesting texts, the editor's comments contain a great many useful notes: e.g. 1 12 on *κόκκος* and 16 on *ἀπομένω*, 5 10 on *σιππουργός*, 18 introd. on *ἐνεργεσία* as an official's *sportula*, 31 1 on *ὀφείλω* with the infinitive, 32 32 on *θυγ* [*sic*], 33 introd. on *veredarius*, 39 generally on the officials mentioned, 45 introd. on *ἐνοικολόγος*, 49 1 on *π(αρά)* at the head of letters, 50 introd. on *σιτεύσιμον* and on the saltire pattern on the back, 51 2 on *ἄπα Σίριος*, 51 3 on *διπλοῦν* and *λάη*. The bibliographical information is usually good and wide-ranging, but one misses any reference to El-Abbadi's articles on taxation in the early Arab period (especially for 30

and 46) and to Lallemand for the irenarch (34). Much less good are the critical notes, which often do not adequately indicate what the papyrus actually reads: e.g. it is noteworthy that the writer of 52 took the trouble in line 8 to correct *ἐπεὶ* to *ἐπειδή* by inserting *δη* over the line, but the edition does not indicate this.

The reliability of the editor's readings can to a large extent be judged from the adequate plates which are provided. Naturally, there is hope of some advances, especially since so many of the texts are of exceptional difficulty. I offer a few suggestions. 3 4: the correction of *πάσας* to *πάσης* seems unnecessary; in line 7 read *ὀφειλομένας οἰωδήποτε* [τρόπω. 5 5-6: perhaps *δ]ι[ὰ]/Ποῦσι ... υἱοῦ* (before this *γε[ωργός]* is highly questionable). 6 11: *χειρόζ'*. 9 9: *μεταξὺ ἡμῶν καὶ τῶν ἀπὸ ἐποικίου*. 10 9: *ὁμολογοῦμεν* is in fact written; the names of the dyers must surely have stood in the lost part of line 13 (not 14), with line 14 being centred. 12: the gap between lines 3 and 4 is not indicated; more seriously, we can hardly supply the dative in line 2 in view of the nominative *ὑπογο]άφων* in line 3, and we should consider correcting *ἐξκέ]πτωρ* in line 1 to the dative, making him the lessor. 13 has two lines of Biblical Greek inserted (no doubt after the contract was abandoned) which the editor has failed to identify; they are, in fact, very close to Daniel 3.73 (LXX); in line 6 reject the new name *Λιφο[υ]ρίου*—the supposed lambda is probably part of epsilon from the line below. 17 13-14: read *παρὰ τῆ ὑμετέρα μεγαλοπρεπεία*. 41 8: for *Κοσμᾶς τρακτ(ευτής)* I suggest *Κοσμᾶ στρώτ(ης)*, cf. e.g. P. Oxy. 1951. In 48 the square brackets at the ends of some lines should be deleted—we have no way of knowing the amount lost at the right; in line 9 *θηλυκά* may refer to animals, almost certainly so if *ἀπήγαγο[υ]* can be read at the end of line 10; for lines 16-18 it is worth comparing P. Oxy. 1885.15-16. At 51 8 there may not be a grammatical blunder (*ἵνα* with infinitive); we may have a true diaeresis, reading some such word as *ἐλά]/ἵνα* or *ιτέ]/ἵνα*. *ἀμοιρία*, in 53 10, is not new to papyri, see P. XV Congr. 22 V 32.

A disappointing feature is the rather large number of misprints. Most are trivial, but those in the texts are more serious. I have noted the following: 2 21: *ὡς πρόκ(ειται)*; 7 1: *Ἀρσινουιῶ(ν)* (cf. cr.n.); 8 5: *χίρ ὀλογο[άφος]*; 16 14: *μισθωτικ(ή)*; 37 1: [*δ(ιὰ)*]; 39 7: *πρωξ(ίμω)*; 52 21: *ξύλων*; 52 28: *πρεσβύτερος*; 54 5: *ἀ(δε)λφῶ*.

Many of the texts are of special palaeographical value since they bear an exact or approximate date, a fact of which the editor is fully aware. She often has extensive and valuable palaeographical comments, especially to 3 (although I should not myself describe this as an 'inexpert, laboured script'), 15, 35, 36, and 53. There is a useful discussion (pp. 31-2) on the dates of sales in advance of wine, and an interesting appendix (pp. 41-8) which discusses the relationship of the Arsinoite and Lower Theodosiopolite nomes (although I suspect few will accept her suggestion that Theodosiopolis was a new name for Tebtynis). All in all, the texts here published have a great deal of interest to contribute and will repay further study.

J. DAVID THOMAS

*Old Nubian Texts from Qaṣr Ibrīm II*. By GERALD M. BROWNE. Texts from Excavations, Tenth Memoir. 315 × 250 mm. Pp. vi + 86, pls. 4. London, Egypt Exploration Society, 1989. ISBN 0 85698 108 7. Price £44.

This volume is the sequel to the first volume of Nubian texts from Qaṣr Ibrīm, which was published by the Society in 1988 (see the review in *JEA* 77 (1991), 234-5), and it continues the high standard set by its predecessor. In this volume, Gerald M. Browne publishes seventeen new texts from this important site. Preliminary editions of some of these texts have appeared over the past decade in *Sudan Texts Bulletin*, but it is clear that in almost every case the editor has gone far beyond his earlier efforts. This in itself is a sign that the study of Old Nubian is progressing rapidly, a state of affairs for which Browne himself must take the credit. The first two texts are extracts from the Psalms; note the appearance of Ps. 86:5, with its reference to the Ethiopians,



here rendered as 'the peoples of blackness'. On a Nubian site, is this purely coincidence? A notable feature of these texts is that the Greek is interleaved line-by-line with the Nubian equivalent, as if they were intended for a Nubian who was working steadily through the Greek original. If so, they are interesting evidence for the level of literacy in the Nubian community, at least in the priesthood. There follows an extract from Mark's Palm Sunday narrative, and part of the Epistle of Jude, detailing the Archangel Michael's struggle against the Devil. This is one more indication that the archangels were given some prominence in the Nubian church. This may or may not be reflected in the following text (Text 16), which contains the opening of, and several extracts from, Cyril of Alexandria's encomium on the four beasts of Revelation. A passing reference to archangels occurs in Text 17, and Text 19 is an extract from a liturgical text on Michael himself. The reason for this emphasis is unknown, certainly to this reviewer.

The following texts (nos 20-9) are in many ways the most important. Certainly they are the most difficult, since they are documentary texts whose Greek originals are either unknown, or never existed. The editor's achievement in making sense of this material is remarkable, especially as no hint of the difficulty of these texts is contained in the commentary. Text 20 is part of a horoscope, or rather the sort of astrological prediction-book which was common in Hellenistic Egypt, both in Greek and demotic. Apart from the existence of such a text in Old Nubian, the main points of interest are that the names of the zodiac signs are taken neither from Egyptian or Greek, but are translated (for the general reluctance of the language to resort to loan-words see *JEA* 77 (1991), 235), and the fact that the Egyptian months, as regularized in the Roman calendar, do not coincide with the signs of the zodiac ascribed to them here. Either this is a peculiarity of the Nubian calendar, or the *Vorlage* goes back into the Hellenistic period before the Roman reform. Whatever the explanation, this discrepancy is worth considering. Text 21 is a legal deposition, with all the difficulties that a legal text can present, and the final seven texts are letters. Letters, even in a well-known language, are full of ephemeral references and obscurities. To have shed such light on material which has no Greek or Coptic original is a major achievement. It is a cliché to remark that the editor has placed all students of the subject in his debt. Even those who will never redeem this debt can still acknowledge his scholarship.

J. D. RAY

## Other books received

1. *A Hieroglyphic Vocabulary to the Book of the Dead*. By E. A. WALLIS BUDGE. 210 × 135 mm. Pp. iv + 522. London, Constable Publishers, 1991. ISBN 0 486 26724 5. Price £8.95 (paperback).
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