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EDITORIAL FOREWORD

FOUR expeditions have worked in the field this year. In a new venture in which the Society is collaborating with the Universities of Southampton and Exeter, a first season of work took place at Mons Porphyrites from 26 February to 31 March 1994. As well as preparing a general map of the area and plans of individual features, the team of nine, directed by Prof. D. Peacock and Dr V. Maxfield, studied surface pottery scatters and made an epigraphic survey; the mapping process revealed a quarry for black porphyry, apparently unvisited since Roman times. A second season of survey work is planned before embarking on selective excavations. At Memphis, Dr D. Jeffreys and Dr L. Giddy directed a study season from 6 September to 21 December 1993, processing the material from the 1984-90 excavations at Kom Rabia; a pottery team headed by Janine Bourriau brought the sampling and recording of New Kingdom ceramics to a virtual conclusion, and processing of archaeobotanical and zooarchaeological samples was completed prior to their detailed analysis. At Saqqara, the joint EES-Leiden expedition continued its work on the New Kingdom Necropolis from 4 January to 4 March 1994, after which the field director remained on site for three weeks to carry out epigraphic work on the monuments uncovered this year, and to supervise preparations for the planned reinstallation of the painted reliefs from the substructure of the tomb of Maya in three new chambers below the outer court of the tomb. Of this year's expedition, Prof. G. T. Martin writes:

The staff comprised Prof. G. T. Martin, Dr E. Strouhal, Mr K. J. Frazer, Dr J. van Dijk, Mrs J. van Dijk-Harvey, Dr B. Aston, and Dr D. A. Aston (representing the EES), Prof. H. D. Schneider, Dr W. R. K. Perizonius, and Mr P.-J. Bomhof (representing Leiden). The Organisation of Egyptian Antiquities was represented by Mr Orban Eisa Abou el-Hassan, and for part of the season by Mr Sabri Moheiddin Farag, both Inspectors of Antiquities. Other Egyptian friends and colleagues greatly facilitated the excavation and restoration programme, especially Dr Abd el-Halim Nur ed-Din (Chairman of the EAO), Dr Aly Hassan, Mr Ahmed Moussa, and Mr Yahya Eid (Director of Saqqara).

Excavations. The expedition excavated, planned, and substantially recorded the superstructure of the tomb of Pay, located immediately east of the tomb of Iniuia which was found last year. In addition the tomb of Raia, built onto the east side of his father Pay's tomb, was also completely excavated. Pay, who held a number of important posts including Overseer of the King's Private Apartments in Memphis, those of the Queen, and those of Gereg-Waset, Overseer of the young Females of the Lord of the Two Lands, Overseer of Works of all the Monuments of His Majesty, and Overseer of the Cattle of Amun-Re, functioned between the reigns of Tutankhamun and Horemheb, like his colleague Iniuia. Raia was Stable Master and Overseer of Horses, and eventually succeeded to his father's post as Overseer of the Royal Apartments in Memphis. He survived into the Ramesside era. Other family members are named in Pay's tomb, including Nebre, apparently the eldest son of Pay, also depicted and named in the tomb of Maya, thus establishing an important chronological link between the two monuments.

The tomb of Pay consists of a colonnaded courtyard entered from the east, with a stone-revetted antechapel and chapel on the west, flanked by vaulted mud-brick chapels. Opposite, on

the east, are two more vaulted chapels (another in the south-east corner of the court is totally destroyed), their doorways unusually facing inwards towards the courtyard, furnishing us with yet another architectural type for the Memphite New Kingdom necropolis. Extensive traces of wall-paintings on mud-plaster survive in the vaulted chapels, some of which appear to have been reworked for Raia in the Ramesside Period. The pyramidion originally positioned at the apex of the brick pyramid over the offering-chapel of Pay has been in the Louvre Museum since the nineteenth century. Lepsius removed two small stelae from the chapel of Raia, otherwise there is little material from either monument in public collections. Some fine reliefs of Pay were found *in situ* and in the debris of his monument. Their content is mostly conventional (depiction of the owner and his family, and processions of offering-bringers), but the material is lifted out of the banal by the quality of the workmanship and by the iconographical detail, not least the representation of figs, which are emphasized to an unusual degree in this tomb. The large central stela, a magnificent specimen of its type with extensive remains of paint, was found overturned in the main chapel. The scenes in the subsidiary chapels are largely concerned with the bringing of offerings, but one contains a long, if almost illegible, text painted in alternate columns of blue and green hieroglyphs, consisting apparently of a hymn to Osiris in 21 columns, the first nine of which end with the refrain: 'Horus is upon his throne'. The most important text from the tomb is a long hymn to Re, inscribed on a stela, of which three large fragments have so far been recovered. The hymn is traditional in that it is addressed to the morning and evening sun and also mentions the god Thoth, but it opens with the phrase, 'Oh Aten', and the rays of the determinative of the word *stwt* end in hands. It is therefore a document of some importance, illustrating the period of transition between the Aten cult and the return to orthodox religion.

Raia's small tomb is provided with inscribed doorjambs, but was otherwise undecorated save for the stelae removed to Berlin by Lepsius. Neither is it provided with a substructure, so the assumption is that Raia and his family were buried in the shaft of Pay, which remains to be excavated in a future season.

Several pieces from other tombs were found during the season. Among these is a large fragment which probably derives from the tomb of Maya. The titles on it refer to the restoration of the traditional cults after the Amarna Period. The text informs us that the tomb-owner 'entered face to face with the Lord of the God's words', i.e. Thoth, and that he was connected with the House of Life and with the *neshmet*-barque of Osiris. Another title he held was Overseer of the *wab*-priests of Sakhmet of the King, 'who pacifies Her Majesty every day'. Another small piece proved to be part of the 'Opening of the Mouth' text in the tomb of Horemheb. It was repositioned by the expedition.

Epigraphy. Full-scale drawings of most of the reliefs, texts, and paintings were prepared, but some work remains for the 1995 season. In addition, colour and black and white photographs of all the material were made, as well as general views of the double tomb and details of the architecture.

Pottery. Assemblages of both New Kingdom and Coptic material were excavated during the 1994 season. A layer of debris containing many fragments of bones and New Kingdom sherds was discovered in the south half of the courtyard of Pay's tomb, sloping down towards the burial shaft, and seems likely to derive from the subterranean complex of the tomb. Pottery associated with the eastern extension of the tomb for Raia was found on the pavement of Raia's courtyard in the north-west corner and around the eastern entrance underneath later mud-brick walls. Six complete late New Kingdom pots were found *in situ*, connected with burials along the south wall of Raia's courtyard.

Two deposits of Coptic pottery were uncovered within the debris filling the courtyard of the tomb of Pay. One deposit of ash and burned pottery was found in the east half of the court, and a second containing ash, straw, pieces of rope and linen and much Coptic pottery, was uncovered on the south side of the courtyard, extending over the south wall of the tomb.

Work continued on recording the large assemblage of pottery from the tomb of Maya, which is now nearing completion. A number of new and unusual forms have been reconstructed from the blue-painted sherd material, including three large barrel-shaped *nemset*-vases and a jar with projecting wing-like handles.

Physical anthropology. Material from subsidiary shaft XIV of the tomb of Maya was studied in detail. This dates to the Late Period and early Ptolemaic era, fourth to third centuries BC.

A minimum of sixty-seven persons was buried in the shaft complex. Of these fifty-seven were adult and only ten immatures, with a conspicuous under-representation of small children. With the collaboration of the EAO, certain bones exhibiting pathologies were X-rayed with interesting results in the field laboratory of the National Research Centre on the EAO premises at Giza. Skeletal remains were also found during the course of the current excavations, including undisturbed material (four burials of the late New Kingdom) adjacent to the double tomb of Pay and Raia.

Restoration and conservation. At the request of the EAO plans and costings were prepared for a full restoration of the reliefs from Rooms H, K, and O of the second level of the substructure of Maya. Work on the project will be carried out during the spring and summer of 1994, and it is anticipated that the reinstallation of the reliefs can begin in 1995. Two of the mud-brick chapels in the tomb of Pay were fully restored and provided with doors, and all reliefs and wall-paintings were conserved.

Work at Amarna was divided into two seasons, between 3 and 27 September 1993, and 23 February to 15 April 1994. The field director, Barry J. Kemp, reports:

For the September 1993 season, staff comprised S. Cole (archaeologist), Penelope and Phyllida Mills (architects), Dr Paul Nicholson (director of the glassworks excavation), and Prof. Michael Tite (glass expert); in spring 1994, expedition members were Dr Delwen Samuel and Katherine Wendy Smith (archaeobotanists), Mary Alexander, Duncan Schlee, Anthony Thomas and David Wicks (archaeologists), Richard Inglis and Michael Mallinson (architects), Simon Bradley (architectural sculptor), Andrew Boyce (artist), Willemina Wendrich (basketry), Ian Mathieson (electronic surveying), Dr Anthony Leahy (ostraca), Irene Mitchell and Dr Pamela Rose (pottery), Jane Faiers and Gillian Pyke (Byzantine pottery), Ann Cornwell (registrar) and Margaret Serpico (resins). Inspectors Atta Makramallah Michail and Halim Georgy Bebawi represented the EAO, and their assistance, together with that of their colleagues in the Minia Inspectorate, Mahmoud Hamza and Adel Hassan, was much appreciated.

The expedition's work was considerably furthered by generous support: in Cairo, from Richard Keen of Keminco (loan of scaffolding and field welder for erecting column casts, and donation of plastic sheeting and voltage stabilizer), Amr Rayed of BP (supply of propane), Rosalind Phipps and the Friends of the EES, and Howard Thompson and the British Council; in Britain and the USA, from Jim Merrington of Scottish and Newcastle Breweries, Alf Baxendale and Cementone Beaver Ltd (donation of plastic containers and food processor), Robert Hanawalt and Edward Henderson, and the McDonald Institute for Archaeological Research and the Thomas Mulvey Fund, both of Cambridge University (South Tombs photography). The glassworks excavation was funded by the G. A. Wainwright Fund of Oxford University, and Dr Rose's pottery research by the British Academy.

Kom el-Nana. Excavations in 1994 concentrated on the north end of the site, continuing previous work on both the Amarna Period and Byzantine levels; a strip of ground 150 m from west to east and up to 20 m deep was examined. The eastern part comprised the flat ground containing one of the buildings within the large enclosure of the time of Akhenaten; from the results of the 1988 and 1990 seasons we know that it was used for processing cereals into bread or beer. It consists of a series of parallel rectangular chambers, each equipped with ovens and partially filled with fragments of pottery bread moulds. This season further material was sought for the cereal-processing research, by examining the ground to the west of the previous work to see how far the chambers extend in this direction, and by a more intensive collection of soil samples for the extraction of plant remains. An investigation was made of the rear half of two chambers and one complete chamber in the northern row, next to those previously excavated. Only the easternmost resembled these: the other two contained less debris and differently placed ovens. Soil samples from each individual context and each part of the chambers were floated. Those from the easternmost

chamber produced quantities of cereal grain which await detailed study and comparison with the soil samples retained from the previous work, also floated this year.

Further west, a link between this part of the site and the Byzantine mound was sought by exposing areas of the intervening ground. Contrary to expectation, the bakery chambers end well before the ground starts to rise, and are followed by a broad open space or street, then a resumption of buildings of a different kind, the traces of which begin to vanish as they approach the edge of the Byzantine settlement, leaving only a few wall fragments and the foundation of a brick pier. This means that a significant part of the Amarna Period site along the northern edge, between the eastern enclosure wall and the Byzantine mound, has now been adequately sampled. Despite the loss of this part of the Amarna Period enclosure, work on the mound itself has shown that a good deal of the Amarna brickwork has been retained in one way or another. The condition of this sector has been much affected by the fact that, in the past, trees had been cultivated over it. Abundant traces of roots, spreading thickly over the ground as far as the boundary wall of the Byzantine settlement but no further, suggest that trees and settlement were contemporary. This accords with the preliminary results of the study of the botany from these levels.

Last year's work on the Byzantine settlement was divided between the areas around the brick towers at the southern and northern edges; attention was concentrated on the latter this year, extending the limits of the ground already opened so that we could see as large as possible an area of the settlement site continuously exposed. Again we found that some walls still stand to the base of the roofing vaults, so preserving areas of plaster and architectural features above floor level. The sector is dominated by the North-East Tower, surrounded by a huge quantity of rubble; a section of the northern part was exposed last year, showing that the tower's deep foundations, which descend to the original level of the desert plain, had been filled with earth to bring the lowest floor level up almost to the roof height of the adjacent buildings. This year we have probably found the southern edge, but neither here nor in the other sides is there a sign of an external doorway. Instead, a thick block of brickwork added to the southern wall might be the base of an external staircase to first-floor height, which would have left the ground floor as a kind of basement. This block had covered and preserved an area of lime plaster decorated in colour, and has been left in place until such time as we have the resources to conserve and remove the plaster.

Further exploration was made of the range of installations on the low ground against the north side of the tower, exposed last year. Prominent is a series of well-preserved ovens, perhaps for cooking since they seem not to have been fired to a particularly high temperature. They form part of a complicated stratigraphic sequence of alterations to the appearance and use of this part. Along the eastern side of the tower clustered a labyrinth of well-preserved rooms (the North-East Sector), where the Byzantine occupants had reused standing Amarna Period walls, covering them with brick vaults and, in places, inserting brick benches with one raised end. The full extent of this complex has yet to be determined, and the interrelationship of the rooms and the tower awaits elucidation. A good starting-point was provided by the uncovering at the end of the season of one corner of an area paved with well-cut limestone flags, close to the south-east corner of the tower. It may have been an open court; it was provided at one end with a high shelf of brick coated thickly with lime plaster. A door in the east wall led to a corridor, the walls of which bore Coptic graffiti, painted in red or scratched with a point. On the right a door led to a room which probably also communicated directly with the paved courtyard through an unusually wide doorway. Two round-topped niches had been built into its south wall. A doorway closer to the middle of the north wall led to the large oblong chamber dug last year; further examination has shown that this had also originally been paved with stones and red bricks and provided with benches along both long sides. A second chamber parallel to it and on the west remains to be dug, but we can already see that it communicated both with the cleared chamber and also with an alley which must have run between the complex and the east wall of the tower. We noted the tops of more Coptic graffiti at this point, but had to rebury them.

The east-west corridor led to a narrow annexe running the length of the east side of the complex, subdivided into several parts and generally at a higher floor level than the main chambers. Over the lifetime of the buildings, floor levels had gradually risen as the original floors, sometimes of stone, became covered with earth, but in the annexe there had been substantial remodelling in which many elements of the initial layout had been buried and thus preserved. The

purpose of many of the features and their chronological interrelationships are uncertain, but generally the annexe looks as though it was providing food, perhaps specifically to the long chamber which we should therefore see as a refectory. The centre of the annexe, opposite the door from the corridor, contained an oven; northwards lay a small grid of bricks which, when the space was remodelled, was packed with pottery vessels, many of them amphorae. Beyond lay a white-plastered room fitted with benches, with red painted decoration actually on the floor. A pottery hob lay in one corner. The annexe ended at the south with a distinctive room, originally domed, in the middle of which lay a circular underground cistern made from red bricks and concrete. This belonged, however, to a late phase, by which time other parts of the annexe had been floored over and made simpler. Investigation of the cistern-room's earlier form will require some demolition, although where a pit had been cut into the floor, a brick bench from a lower level is apparent.

Bounding the east side of the annexe, and thus the building complex as a whole, was a narrow street, on the far side of which lay an irregular walled area containing small brick bins (possibly for animal food) and one or two ovens; next to this was a tiny room with sleeping platforms and stairs to the roof. These outbuildings were themselves bounded by an enclosure wall which runs southwards beyond the limits of the excavations, and also marks the limit of tree roots. It seems likely that, in Byzantine times, we should see on the east of the site a substantial area given over to the cultivation of trees, so forming an artificial oasis. Further to the south a linear ridge breaks the surface of the present ground and, having turned westwards, seems to enclose the southern tower partially dug last year. An excavation over the place where the buried wall seemed to turn established that an enclosing wall did indeed turn a corner here and, to judge from its width and direction, it must be the continuation of the eastern enclosure wall of the North-East Sector. Thus, the two parts of our current excavations belong to a common enclosure to which it is likely that all the major elements of the Byzantine settlement belong. This excavation also brought to light further evidence for ancient cultivation: once the wall had been built and plastered, the desert inside was dug out to form a basin which was then filled with alluvial soil, which contained evidence that trees had grown there.

One of the puzzling features of Kom el-Nana is the relationship between the two periods of building, separated by at least seventeen centuries. On flat ground to the west of the North-East Tower, Amarna Period walls, distinguishable by their brickwork and alignments, break the present surface. Some lengths were brushed clean and planned last year, and this year a small part was excavated, revealing that some of the walls were still standing at least 1.5 m high in Byzantine times, and were then repaired and the rooms brought back into use. The group of rooms uncovered, unlike some other parts so far excavated, showed few signs of prolonged use and none of modification. The principal surviving features were more of the ubiquitous benches with raised heads. The Byzantines had here chosen a sturdy block of rooms which had survived well. Outside it, however, it emerged that the Byzantine walls are a good deal shallower, for they run over the top of Amarna Period rubble without, it seems, having penetrated it. This enhances the prospect of encountering Amarna Period deposits less disturbed than they have so far been in the vicinity of the Byzantine settlement.

During the course of excavating both this group of rooms and the North-East Tower, a number of burials of children and young persons were uncovered, dating to a time when the buildings were in ruins. Two of the bodies wore bracelets, one of them in multicoloured glass. After pottery, the most frequent class of objects is glass vessels, sherds from which derive from a range of delicate shapes, some with decoration. Flotation has yielded a substantial collection of well-preserved botanical material from the Byzantine levels which will form the basis for a study of the food sources of the community and the local agricultural economy. Amongst the material identified so far is a piece of dessicated orange peel from an unquestionably Byzantine deposit.

Small Aten Temple. In September 1993, the two brick towers of the third pylon were brushed clean of sand and planned in detail. In spring 1994, attention was focused on the south side of the Sanctuary court, where the removal of more of the Pendlebury dumps freed the remains of two brick buildings planned at a small scale in the 1930s. These were replanned, together with the building in the south-east corner of the temple enclosure. Ready-prepared casts were erected to form a column rising to the full original height beside the part-column already set up. Conserva-

tion work was carried out on the brickwork of the buildings on the south side of the Sanctuary, the so-called Priest's House in front of the third pylon, and a length of the rear enclosure wall.

House Q44.1. In September 1993 several of the brick floors were relaid with newly-made bricks. A glass-fibre mould was used to cast nine column bases from a mixture of white cement and alabaster chippings, and these were set on the floors in positions suggested by the 1923 excavations. Outside the house the granary court was recleared and replanned. It was found that the granaries had been built from bricks cast in a curved mould, ideal for making a domed roof.

Glassworks excavation. At a site immediately south of the modern water-tower (building O45.1), previous examination of the surface, assisted by magnetometer survey, had located an industrial area thought likely to have been one of the glass factories reported by Petrie. A trial excavation in September 1993 over four five-metre squares revealed two separate phases of use within the Amarna Period. The later phase was represented by walls from a large building constructed over a series of kilns and associated deposits of industrial waste. Two kilns were partially cleared; the associated debris implies that glass and faience were being manufactured, and part of a pottery workshop was also revealed.

Photography. Gwilym Owen completed his record of the decoration in the South Tombs. A series of successful flights with the photography balloon was made over Kom el-Nana towards the end of the excavations.

Magnetometer survey. Ian Mathieson worked at both Kom el-Nana and the glassworks excavation.

Research projects. Considerable progress was made with the study of both the Eighteenth Dynasty and Byzantine pottery from Kom el-Nana, special attention being paid to the large buried deposit from the eastern garden pit of the South Pavilion, which contains an unusual range of types. The value of the Byzantine material was greatly enhanced by the number of vessels found in sealed deposits in the living-quarters of the North-East Sector. Vessel contents were routinely submitted for flotation, and further resin samples were taken from jars stored in the expedition's magazine; export permission for study of some of these has been obtained from the EAO. Further study and recording was carried out for the projected publications of wooden objects and basketry from the Workmen's Village.

The flotation machine was kept running through the whole season and large samples were processed from virtually all the significant contexts excavated; the resulting record includes fine material of all kinds, not only botanical, and should help with the functional interpretation of the site. A parallel strategy for the bakery/brewery chambers was also highly productive. Further experimentation was carried out to clarify Pharaonic techniques of cereal processing, particularly beer manufacture, and some work was also done on visible residues, concentrating on the detection of starch.

Reports of the second season of survey work at Gebel el-Haridi and the first in Wadi Abu Had will be found in this volume (pp. 11-22 and 23-44), together with a report of the new investigation of the Sacred Animal Necropolis at North Saqqara, undertaken in 1992 (pp. 1-10). Such is the number of the Society's current expeditions that the next volume of the Journal will introduce a new format for the initial publication of their results: a consolidated section of short reports, similar to those which have appeared previously in the Editorial. We hope that in this way we shall keep abreast of the essential information coming in from the field, and that both our excavators and our readers (who can now also consult the handsomely-illustrated articles in the Society's bulletin *Egyptian Archaeology*), will be well served by the provision of up-to-date information. For the publication of final reports, it is hoped that the trend begun by Barry Kemp's 'Amarna

Reports' (see the Editorial of *JEA* 74) will continue to grow, and that the regular appearance of detailed reports from the wide range of surveys and excavations now taking place will maintain the Society's fine record of publication.

The Cairo office has quickly established itself as a vital element in the Society's field-work, and this year we have welcomed Mrs Rosalind Phipps as its new Secretary, in succession to Mrs Aguz, whose pioneering work in this post is gratefully acknowledged. In London, Dr John Taylor has succeeded Dr Morris Bierbrier as the Society's Honorary Librarian, a duty which he combines with the editorship of *Egyptian Archaeology*. The Librarianship in its own right carries with it the office of Reviews Editor of this Journal, and we offer Dr Bierbrier our thanks and appreciation for carrying out this task with patience and skill over the past eight years.

At University College London, Professor G. T. Martin has retired early from the Edwards Chair of Egyptology. The name of Professor Martin, one of the Society's busiest field directors, has rarely been absent from the pages of this Journal over the last two decades, and in his commitment to archaeology in Egypt he has lived up to the expectations of the founder of the Edwards Chair. Our good wishes go with him for what will undoubtedly be a very active retirement. At a time when the disappearance of academic posts is the more familiar news, it is pleasing to report that the College has not only appointed a new Edwards Professor but has also created a new Chair of Archaeology named after the Department of Egyptology's first professor, Flinders Petrie. The new holder of the Edwards Chair, who will also serve as Head of Department, is Dr W. J. Tait, who has been a Lecturer in the Department since 1988; as a leading Demotic scholar whose expertise extends to many other aspects of Egyptology, Dr Tait is the latest representative of a distinguished tradition in this country, and we offer him our congratulations on this well-deserved appointment. To the new Petrie Chair we welcome Professor Fekri Hassan, from Washington State University; known particularly for his work on Predynastic Egypt, Professor Hassan is an experienced field archaeologist with a breadth of interests which reflects his early training in anthropology and geology as well as archaeology. The Department is indeed fortunate in these two appointments, and, just over a century after its foundation, it stands at the beginning of a significant new phase, in which it has become part of the Institute of Archaeology of University College London. Its staff are now housed in the Institute's building in Gordon Square, although the collections of the Petrie Museum, that unique resource, remain with their curators in the College building.

We report with sadness the deaths of some distinguished senior figures in American Egyptology in the course of the last year. Nora E. Scott died in Pennsylvania on 4 April 1994, at the age of 88; her career was spent in the Egyptian Department of the Metropolitan Museum of Art, of which she was head for the last two years prior to her retirement in 1972. In her 41 years of curatorial work at the museum, she represented the highest standards of scholarship and service in her profession. On 26 March, Professor Edith Porada, doyenne of cylinder seal studies, died in New York at the age of 81, after a career which spanned both teaching, at Columbia University, and excavation. Though her field was the ancient Near East, she made occasional forays into Egypt, in particular in search of interconnections between its early culture and that of Mesopotamia.

Finally, we record the loss of one of this century's greatest historians of Egyptian art: Bernard V. Bothmer died in New York on 24 November 1993. Born in Berlin in 1912, he

studied there and at Bonn, and began his professional activity working under Heinrich Schäfer at the Egyptian Museum in Berlin. But as an opponent of National Socialism, he was constrained to make his career elsewhere, and he fled via Switzerland to the United States at the outbreak of the Second World War. After military service, his Egyptological work resumed with successive appointments at the Museum of Fine Arts in Boston, the American Research Center in Cairo and, in 1954, the Brooklyn Museum, where his curatorial work was marked by a pursuit of the best that could be achieved in display and presentation. He gladly shared this expertise by collaborating with the EAO on the installation of the new Luxor Museum. On his retirement from Brooklyn in 1982, he became the holder of an endowed chair of Egyptian Art at the Institute of Fine Arts of New York University, where he had taught since 1960; despite a long and wearying illness, he continued to teach there until the last few weeks of his life. Eleni Vassilika writes:

His zeal and relentless pursuit of sculpture of the Late Period (the chronological definition of which he would argue) are legendary. He spared no effort to study, record and photograph works of Egyptian art of all periods in public and private collections and on the market all over the world, and his rigorous and well-organized manner of work enabled him to 'marry' fragments in different collections. His connoisseurship was the result of a lifetime devoted to art, and his many years of service as a museum curator. Under his aegis, ground-breaking exhibitions were held at Brooklyn, with published catalogues which have become handbooks on their subjects; the first, *Egyptian Sculpture of the Late Period* (1960), launched a new field of research. His photographic archives and the Corpus of Late Egyptian Sculpture are part of his legacy to Egyptology; another part of that legacy is a generation of students whom he trained as historians of ancient Egyptian art. As a teacher, Bothmer was demanding—he was known to show as many as 175 slides in a two-hour lecture and to expect his students to remember all the details (including present whereabouts) of the pieces at their examination—but he was also infinitely generous.

With the passing of Professor Bothmer, and the death three years ago of his friend and colleague Cyril Aldred, who worked with him so fruitfully on the 1973 Brooklyn exhibition *Akhenaten and Nefertiti*, we seem to have come to the end of an era in our subject. They opened new fields and set new standards in the study of Egyptian art, confirming the importance of art history in the wider field of Egyptology, an importance which has sometimes been overlooked in this country. Their students, collaborators, and those whom they have inspired, have a formidable tradition to maintain.

Saddest of all for the Society, as we go to press news has come of the death of Professor A. F. Shore on 27 November, not long after his seventieth birthday. In 1990, a year before his retirement from the Chair of Egyptology at Liverpool, he became our Chairman. He worked for the good of the Society with enthusiasm, and with that honourable notion of duty which characterized his whole professional life. Despite the onset of a cruel illness, he had continued to discharge his duties as Chairman until very recently; we wish that he could have been with us for many more years. We mourn the loss to his family, to the Society, and to all of us for whom Peter Shore was a friend and colleague of exceptional integrity, kindness, and generosity. A full obituary notice will appear in the next volume of the Journal, and a collection of studies in his honour will be published shortly; happily, he was able to see the volume in proof before his death, and he was gladdened by it.

PRELIMINARY REPORT ON WORK AT THE SACRED ANIMAL NECROPOLIS, NORTH SAQQARA, 1992

By PAUL T. NICHOLSON

Outline of the work undertaken at the Sacred Animal Necropolis at North Saqqara in 1992. The purpose of the project was to supplement information recorded by previous EES missions to the site and to apply recently developed analytical methods, particularly metrical analyses. Although the work represents a new study, it is also intended to facilitate the publication of the site currently being undertaken by H. S. Smith.

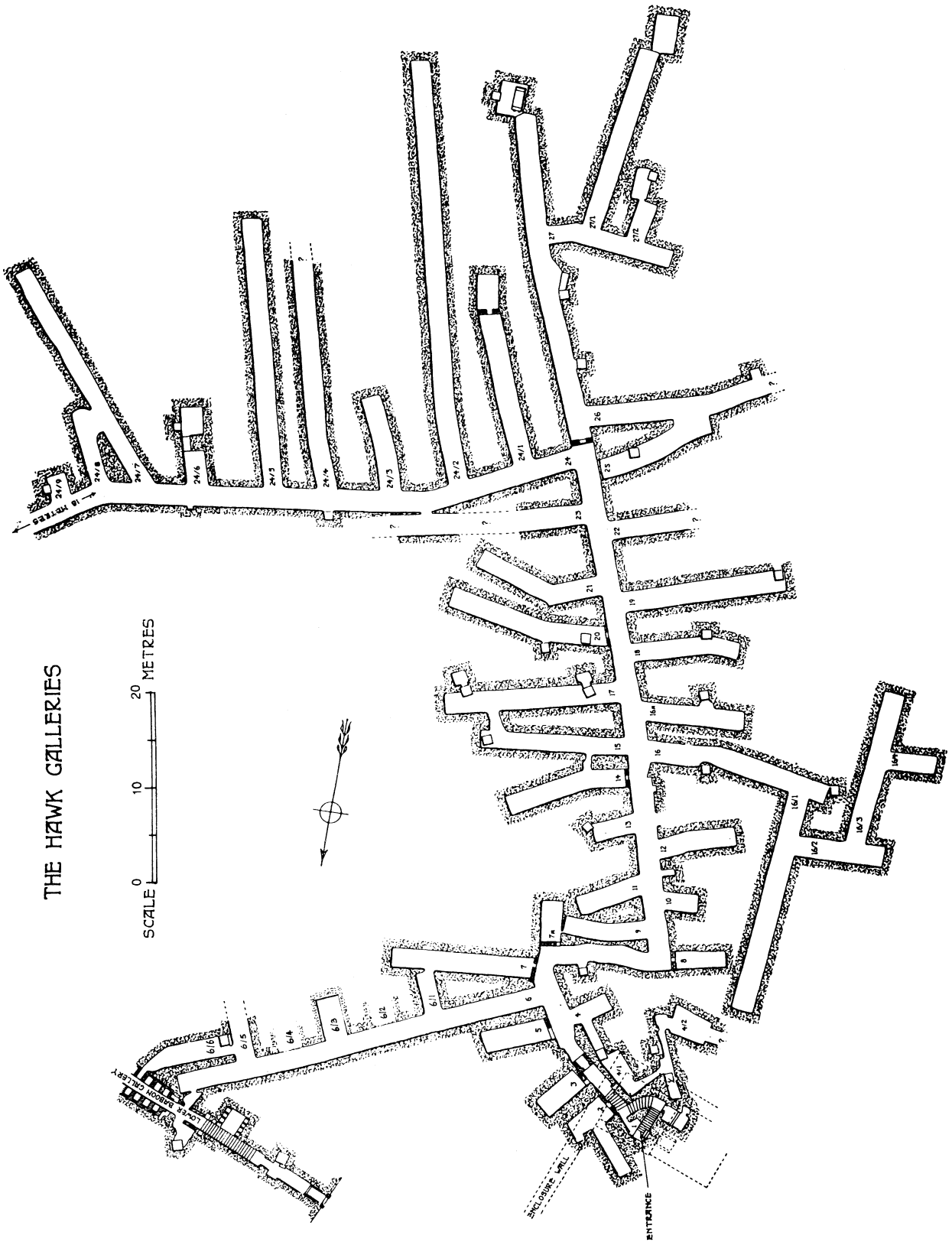
THE EES mission at the Sacred Animal Necropolis, North Saqqara, began on 25 November and continued until 20 December 1992, work at the site itself being conducted between 2 and 19 December. The team comprised Janine D. Bourriau (ceramicist), Dr Kathryn Eriksson (draughtsperson), Dr Nicholas R. J. Fieller (archaeological statistician), Peter J. French (ceramicist), Dr Barbara Ghaleb (animal bone analyst) and Dr Paul T. Nicholson (director). Professor Basil Hennessy was a guest of the project and his presence at the dig house contributed greatly to the success of the work.¹ Professor Harry Smith kindly supported the project and advised at the planning stage, as well as subsequently, and his assistance is greatly appreciated. David Jeffreys and Dr Lisa Giddy generously allowed us to use the Saqqara dig house during the last few days of, and subsequent to, the Memphis project; this assistance and their general advice are gratefully acknowledged. Permission for the work was granted by the Committee of the Egyptian Antiquities Organisation, to whom we are indebted. Work at the site was enhanced through the assistance of Gamal Abd Allah Salem, Inspector of the project, and by Yehia Eid, Chief Inspector of Antiquities at Saqqara. The help of Dr Zahi Hawass is also gratefully acknowledged.

Aims of the project

The aims of this project were additional recording and analysis. Since the discoveries made at the Sacred Animal Necropolis during the 1960s and 1970s, there have been significant advances in archaeological methodology, particularly in the area of ceramics and animal bone analysis. The objective of this first season was to establish the feasibility of such a project while at the same time extracting as much information as possible in the short time available. In order to facilitate the publication of work done at the necropolis during these decades, it was felt that a series of short seasons should be dedicated to additional systematic examination of the skeletal remains and to the pottery as well as the fuller examination of certain areas of the site, particularly the underground structures.

The work this season concentrated on two main areas of the site: the Hawk (or Falcon) Catacomb and the South Ibis Catacomb. Two subsidiary areas, the Mothers of Apis Catacomb and the Baboon Catacomb, were also examined.

¹ I am grateful to the members of the team for summaries of their results, and to Dr Fieller for providing fig. 2 and its caption.



NORTH SAQQARA

FIG. 1. Plan of the Hawk Catcomb, North Saqqara. After Emery, JEA 57 (1971).

The Hawk Catacomb

Sand was cleared from the entrance to the Hawk Catacomb (fig. 1) and an inspection made of its condition. The ceiling of the Catacomb was in generally good condition and no further shoring was necessary. In only one gallery, 26, was there evidence of mummy pots having slumped and their contents spilled. However, reference to photographs of the same gallery taken by the writer in 1989 showed that this was the result of poor stacking rather than of the earthquake of 12 October 1992.

Initial work comprised an examination of the vessel stacks (pl. I, 1) and gallery blockings in the Catacomb, so that galleries preserving some original stacking could be identified, and any obvious differences between galleries in terms of their form or content noted. A series of photographs showing various galleries, their method of blocking and other features was then made. The purpose of these photographs is to supplement the extant archive, particularly with colour transparencies, and to document those areas in which work was undertaken.

With the arrival of Dr Fieller on 6 December work on the vessels and their contents began (a typical vessel shape is shown as pl. I, 2, see also Table 1). Several galleries were selected on the basis of the provisional examination and vessels from these were measured. It was known that the contents of some of these galleries had been re-stacked during the work conducted by Emery on behalf of the EES, after their examination for bronzes,² and that the vessels were not necessarily in their original galleries. However, in many cases the order of re-stacking is known from field notes made by Emery's team, and it seems that the entire contents of one gallery were moved into another gallery, rather than being distributed among several.

The first vessels selected were in gallery 24, one of those furthest from the entrance. Here twenty vessels were opened and measured. The parameters used were:

- (1) Length from rim to angle change at base. This was measured from the point of maximum rim diameter along the vessel wall.³
- (2) Circumference at the point of angle change near the base.
- (3) Maximum rim diameter.
- (4) Minimum rim diameter.
- (5) Wall thickness at rim at point of maximum diameter.

The vessels are sealed by a lid held in place with gypsum plaster. Where we opened vessels to examine their contents, this plaster was carefully removed and the lid taken off. The measurements made on the lid were:

- (1) Maximum diameter of knob or boss.
- (2) Minimum diameter of knob or boss.
- (3) Maximum diameter of rim if complete, otherwise minimum preserved diameter.
- (4) Minimum diameter of rim if preserved.
- (5) Wall thickness at rim.
- (6) Maximum height of lid when stood on its boss.⁴

²C. Green, *The Temple Furniture from the Sacred Animal Necropolis at North Saqqâra* (London, 1987).

³In theory these vessels are circular. In practice, however, vessels made using traditional technology are somewhat elliptical. Maximum and minimum 'diameter' are therefore the longest and shortest axes of the rim.

⁴In form the lids are virtually indistinguishable from bowls. When stood on the boss, which would form the base of a bowl, a few have a horizontal rim and most slope markedly, hence the measurement of the maximum height.

All measured vessels were given a unique number identifying them to their gallery. They were also examined for technological features, most notably whether or not the rim of the lid had been chipped to fit or whether it was complete. Lids often have a larger diameter than would seem possible given the diameter of the vessel opening into which they were fitted. This is because they are usually threaded in at an angle and then plastered into place; they do not fit neatly onto the rim of the vessel.

Attention was then focused on gallery 6/3 nearer to the entrance of the Catacomb, the purpose being to establish whether two geographically distant galleries might show significant differences in vessel measurements. Analyses of the preliminary results by Dr Fieller indicated that the measurement system could be simplified, and vessels were subsequently measured only on rim circumference, length to angle change, circumference at angle change (effectively the base circumference) and wall thickness. Lids were measured for maximum diameter and height only. The galleries examined are listed in Table 1.

TABLE 1. *Galleries and vessels examined in the Hawk Catacomb*

Gallery	Vessel numbers	Number sampled	Re-stacking details
6/3	101-120	20	Believed <i>in situ</i>
13	501-520	20	Some <i>in situ</i> , others to 16A (entrance to 16)
15	201-220	20	Re-stacked but not known from where
16/1	701-850	150	16 (i.e. not moved)
16/3	401-420	20	16 (i.e. not moved)
21	301-320	20	Believed <i>in situ</i>
24	001-020	20	Believed <i>in situ</i>
27	601-620	20	Most in 27, few in 20

Preliminary analysis of the metrical results (fig. 2), taking into account what is known of the re-stacking of galleries, suggests that vessels from galleries 21 and 27 are more similar in length to one another than to vessels from galleries to their north. This is significant because they lie to the north and south respectively of a limestone doorway in the axial aisle. This might suggest that the southern part of this axial aisle, and those galleries beyond the doorway (26, 27—including 27/1 and 27/2), were in some way different from those sections to its north (see below). Examination of galleries 22 and 23 may help to clarify this. More significant, however, is the fact that gallery 24, immediately to the north of the limestone doorway, is not like either 21 or 27. Vessels from gallery 6/3 are different to those from anywhere else in the Catacomb, but have length similarities with vessels from the South Ibis Catacomb (see below).

As yet we can only hypothesise about the meaning of these findings, and no firm conclusions can be drawn until vessels from additional galleries have been measured next season and until the structural evidence from the galleries has been considered alongside these measurements. However, it is tempting to speculate that the Catacomb was originally laid out as a long aisle (running from gallery 8 to where an Old Kingdom tomb shaft is encountered at the southern end beyond gallery 27). The entrance to the Catacomb is on a different alignment, apparently making use of earlier tombs as galleries (this section extends from the entrance to where gallery 7 was later added). A short spur to the west (between the mouths of the later galleries 7 and 8) facilitated construction of the long

Lengths of Pots in Each Gallery

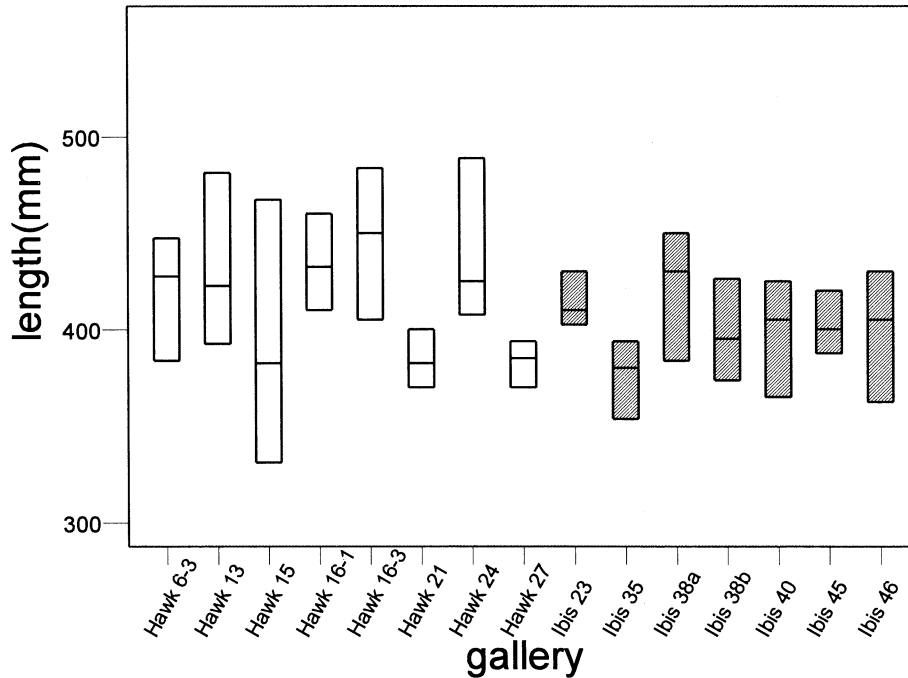


FIG. 2. Summary of the lengths of pots in each of the galleries examined. The lengths of pots from a single gallery are represented as a box with a bar indicating the value of their median length. The top and bottom of the box indicate the upper and lower quartiles of the sample, so that the complete box covers the 'middle half' of the sample. Longer boxes reflect a wide range of lengths, short ones emphasise consistency in size in that gallery. Ibis gallery 38 is treated as two parts, (a) at the foot of shaft 3508, (b) the southern chamber. (Figure and text courtesy of N. R. J. Fieller.)

aisle. This spur may have originally been intended as a gallery, but was converted into part of the main axial aisle; hence the main north-south aisle runs from its end rather than following the original alignment suggested by the entrance (which would be where gallery 7a was eventually built).

We suggest that the southern end of this aisle, along with galleries 26 and 27 (and possibly 25, which meets 26), was then filled to capacity. A doorway then sealed off this section. To make more effective use of space north of the doorway, a series of side galleries was cut, the precise sequence of which will be difficult to ascertain. Two of these galleries, 24 and 6, seem to have been designated as secondary axial galleries, 24 perhaps being the earlier. That 6 and its side galleries (from which our evidence is drawn) are later than some of the other side galleries is suggested by the cutting of 6/1 into gallery 7.

From those vessels selected for measurement, a sample was taken for examination of their contents by Dr Ghaleb. Her work is necessarily slower than the vessel study, but she was nonetheless able to examine all twenty mummies from gallery 6/3, four from gallery 15, one from gallery 21 and one from gallery 13. She was able to confirm the findings of Emery's team, namely, that some of the so-called 'hawk' mummies were not hawks or birds of prey; indeed, they were not birds at all. These pseudo-hawk mummies

are of various kinds. Some include parts of birds of prey, the bulk being made up of packing, sticks, or other bones; others contain large rodents, such as the Egyptian giant musk shrew. Ibis bones were sometimes used to supplement or substitute for the birds of prey, and in one instance ibis mandibles were used longitudinally to make a kind of frame around which linen was wrapped to form the mummy shape. However, there were a number of genuine mummies, and among these, Lanner's falcon has been positively identified. As work progresses the proportion of pseudo-hawk mummies to real mummies will become clearer, as will the question of whether the proportions vary among galleries.

Work on the mummification techniques was also begun. It is clear that several different methods were used. In the simplest, the linen-wrapped mummy (or pseudo-mummy) seems to have been dipped into some kind of resin, probably bitumen. In some cases this seems to have been very viscous, and runnels of this resin are found adhering to the insides of the mummy pots, having partially drained from the wrappings after burial, perhaps partly as a result of the heat in the galleries. In other cases the mummy, although black, seems to have been dipped in a more dilute resin, so that the packet is powdery to the touch, and gives the impression of having been burned. We also have examples of well-wrapped mummies, without any indication of bitumen, and with painted details. In the best example discovered (which has not been unwrapped) the facial details were modelled in linen as well as painted. Here and in similar cases, the mummy has only one modelled eye, with the other left as an empty socket (pl. I, 3). This is not the result of loss during opening the vessels, but presumably refers to the loss of one of Horus' eyes in his conflict with Seth. However, which eye is missing is not consistent. One of the egg packets from gallery 6/3 was also examined (pl. II, 1).

Peter French and Janine Bourriau concentrated on the non-mummy pottery, a cache of which had been left in gallery 11 by Emery's team, while other remains were scattered in spoil heaps outside the galleries. The aim of this work is ultimately to date the galleries more closely, since the mummy pots themselves are presently of little use for this task. Their work is not yet completed, but much of the pottery can be dated to between 425 and 330 BC. Both mummy and non-mummy pottery was drawn for publication by Dr Eriksson.

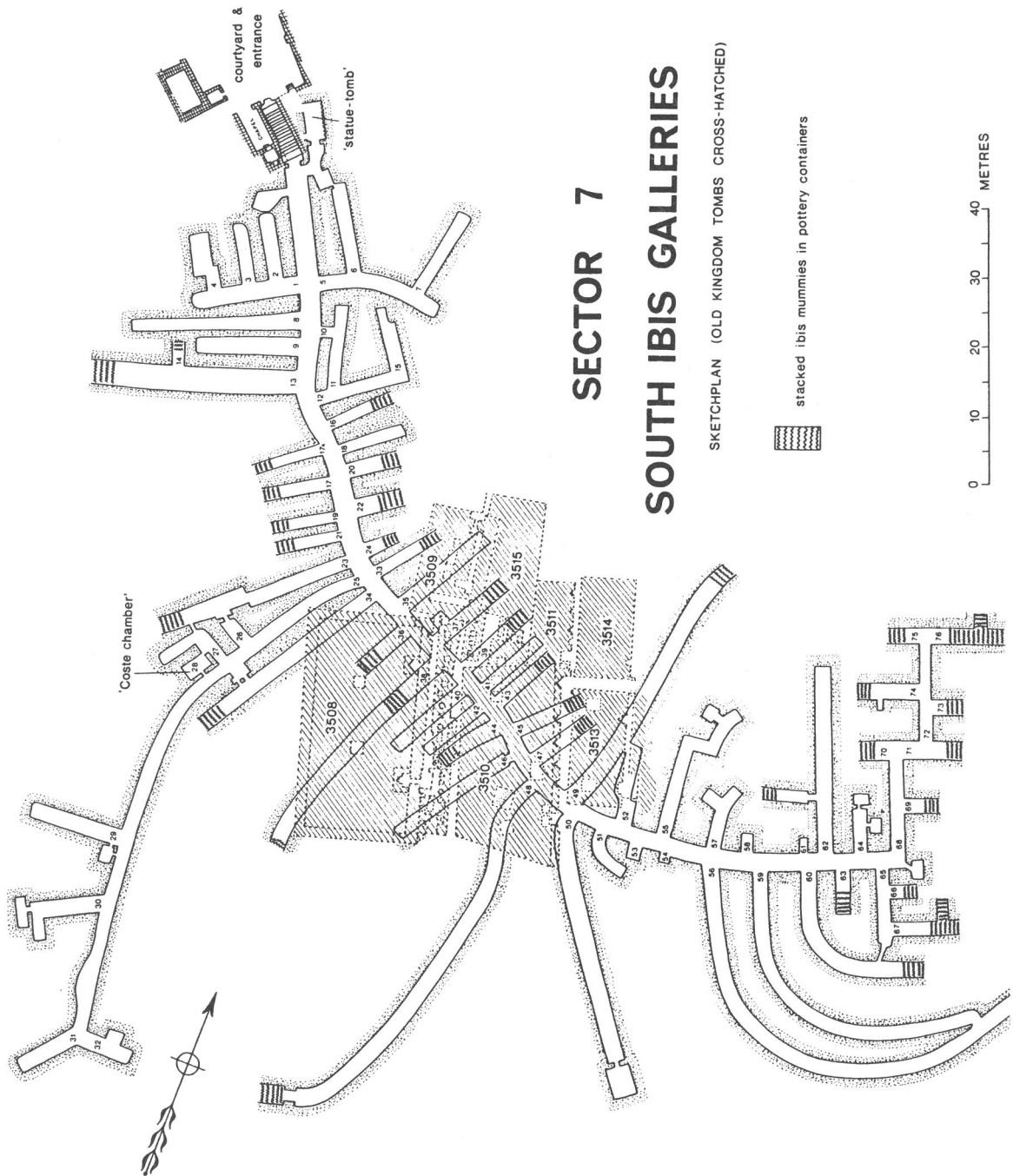
The South Ibis Catacomb

In the nearly thirty years since the South Ibis Catacomb was last opened, a large quantity of sand has built up over the original entrance (fig. 3).⁵ Entrance this season was therefore gained via the southern shaft of mastaba 3508, which descends immediately to the side of gallery 38 (pl. II, 2). A descent of this kind had been anticipated and suitable caving equipment had been acquired.⁶ Unlike the Hawk Catacomb, no mains electric lighting was available for this work, so all lighting was provided by helmet-mounted torches, which proved to be more than adequate for the task.

Inspection of the Catacomb proved that it had not suffered any adverse effects from the recent earthquake, but revealed that parts of it had become inaccessible due to sand

⁵ G. T. Martin, *The Sacred Animal Necropolis at North Saqqara* (London 1981), 7-13.

⁶ We are especially grateful to the Sheffield University Spelaeological Society for the loan of caving ladders, and for training in their use, and to 'Hitch and Hike' of Bamford, Derbyshire, for supplying safety line and harness and for giving instructions on its use, as well as supplying some of the helmet lamps and other equipment needed.



(gallery continues)

FIG. 3. Plan of the South Ibis Catacomb, North Saqqara. After Martin, *Sacred Animal Necropolis* (1981).

TABLE 2. *Galleries and vessels examined in the South Ibis Catacomb*

Gallery	Vessel numbers	Number sampled	Re-stacking details
23	1301-1305	5	<i>In situ</i>
35	1401-1410	10	<i>In situ</i>
38 (S end)	1001-1050	50	Believed re-stacked in same gallery
38 (foot of shaft 3508)	1101-1150	50	Believed re-stacked in same gallery
40	1201-1231	30	<i>In situ</i>
45	1501-1510	10	<i>In situ</i>
46	1601-1605	5	<i>In situ</i>

encroaching from gaps between the concrete covers of the mastaba tomb shafts. These sand cones confined us to the middle section of the Catacomb, galleries 23 to 47 (pl. II, 3). Conditions in the South Ibis Catacomb are considerably more cramped than those in the Hawk Catacomb, and in many galleries a great deal of broken mummy pottery is strewn around, so that some of the galleries and passages are now only 0.5 m high. However, this Catacomb has the great advantage that extensive re-stacking has not been carried out, so that many vessels remain in their original galleries, some still plastered in place. Measurements of these vessels were carried out in the same way as for the Hawk Catacomb. The galleries investigated are listed in Table 2.

Other accessible galleries were also examined, including the long gallery 25, which gives access to the Coste chamber, so called from a large graffito of the name 'Coste' on its ceiling. Access to this from gallery 27 is currently prevented by sand, although a 0.5 m high opening above the sand in the main gallery allows entry. Though little pottery remains visible in this gallery (it may be covered by sand or have been completely removed), a large quantity of bones is present at the southern end of the chamber. Gallery 25 can be followed, with some difficulty, to where it enters galleries 31 and 32, which are filled with sand almost to their ceilings.

During general study of the galleries it was noted that there was some misalignment between the surface and sub-surface features of the Catacomb as planned. This is unsurprising given the extreme difficulty of surveying in such cramped conditions, and it says much for the original survey that the plans generally proved to be accurate.⁷ It was also found that certain galleries have somewhat different lengths and alignments, particularly galleries 38 and 40. Gallery 40 was entered via a break in the wall between it and 38, the thickness there being only some 0.15 m. Through a break in a similarly thin wall, it was possible to see vessels stacked in a gallery running alongside 38 beyond its point of entry at shaft 3508. This is either a continuation of 40 or is another gallery opening off the small chamber at the end of 38. The east side of this chamber has a rubble blocking, which we believe to be the blocking of an Old Kingdom shaft, but it could perhaps be one end of an otherwise unrecorded gallery.

In the time available it was not possible to do more than record those vessels listed in Table 2 and make a reconnaissance of the rest of the galleries, along with a photographic record. Some excellent photographs, especially in black and white, were taken by Emery's

⁷Martin, *op. cit.*

team, but with recent advances in photographic technology we have been able to supplement this record, particularly in colour.

Analysis of the vessel lengths suggests that there are differences between the galleries, but a larger sample is needed before any real conclusions can be drawn. Nonetheless, there are similarities between vessels from the South Ibis Catacomb and gallery 6/3 of the Hawks.

Eleven mummies from the Catacomb were examined by Dr Ghaleb, as a preliminary to further work in future seasons. She was able to determine that most of the mummies here did contain bones, and that they were mostly ibis, rather than substitutes. Similarly, where skeletal material was found, more of the bird was represented than was the case with the hawks. These preliminary findings accord well with what is known of the breeding habits of ibis and birds of prey. The former breed readily in captivity, and would have been easily available for mummification. Birds of prey, on the other hand, are extremely difficult to breed in captivity, and it is likely that many of the specimens were trapped for mummification. The difficulty in obtaining birds of prey is probably responsible for the inclusion of only parts of many birds in the mummies, a single bird being divided among several mummies. The mummies discovered in the South Ibis Catacomb are not resin coated in the same way as those in the Hawk Catacomb. The wrappings are clearer and generally not blackened, except by dust from the decay of the bandages and pottery. We discovered no examples of appliqué work on the few mummies investigated, nor on those observed lying among the broken pottery, although some well-wrapped examples were evident.

The non-mummy pottery from around the South Ibis Catacomb includes some sherds of the Ptolemaic and Roman periods. Janine Bourriau has not so far had time to examine this area in detail, but it is possible that use of this Catacomb extended beyond the main period of use for the Hawk Catacomb.

It is hoped that in future seasons access to other parts of the South Ibis Catacomb can be gained and samples of both mummies and vessels supplemented and enlarged.

The Mothers of Apis Catacomb

Work here was confined to clearing away sand from the entrance so that access could be more readily gained in future seasons, and more especially, to allow the cataloguing of those animal remains left in the Catacomb. Dr Ghaleb was able to catalogue the cow remains and will consequently be able to plan her more detailed work for future seasons.

The Baboon Catacomb

Work in this Catacomb was confined to examining it for caches of pottery left from the Society's earlier work, and to checking its condition subsequent to the 1992 earthquake. Since this Catacomb is connected, via a break in its walls, with the neighbouring Hawk Catacomb, it was felt that it might provide useful access should any difficulty be encountered in clearing sand from the entrance to the Hawk Catacomb. In the event, this was not necessary.

No caches of pottery were discovered in the Baboon Catacomb, but the condition of its westernmost upper gallery had deteriorated, probably due to the earthquake, and conservation measures were required. The mission therefore provided for it to be shored up using surplus timbers originally purchased for shoring in the Mother of Apis Catacomb.

No examination of the faunal remains was made since this is the work of a separate mission concerned with DNA analysis.⁸ To prevent contamination of the remains by modern DNA, a small hole used by owls had to be blocked.

Conclusion

This short preliminary season of work at the Sacred Animal Necropolis has yielded interesting and valuable results. In particular, a floating chronology of the galleries is starting to emerge as a result of the statistical examination of mummy pots, while their contents are yielding valuable information on the species represented. With further work it is hoped that information on the relative proportions of birds of prey to pseudo-mummies will emerge, along with some indication of whether these proportions changed over time. In the longer term, it may be possible to say more about the population and breeding habits of these birds. Studies of the non-mummy pottery are already providing valuable chronological evidence, and in future seasons it should be possible to obtain more precise information on the main periods of use of the galleries.

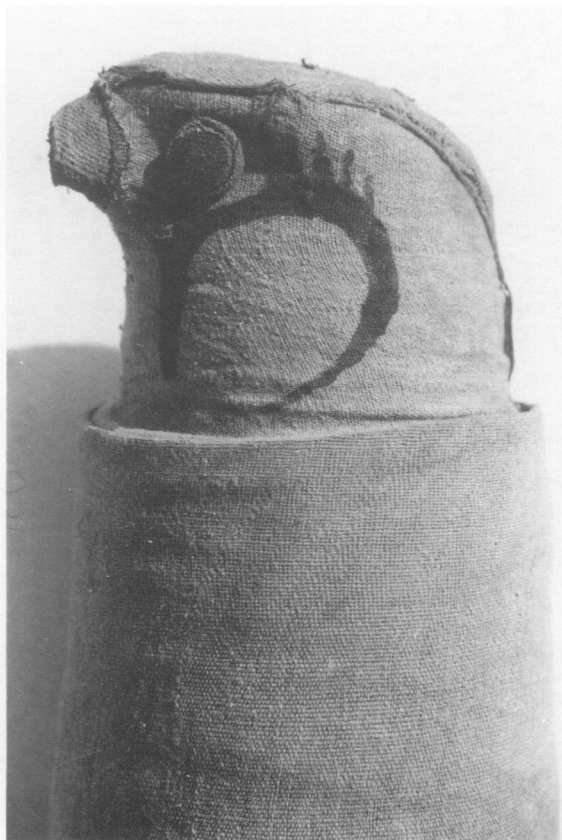
⁸R. Perizonius et al., 'Monkey mummies and North Saqqara', *Egyptian Archaeology* 3 (1993), 31-3.



1. Re-stacked vessels in Hawk gallery 25 (p. 3)



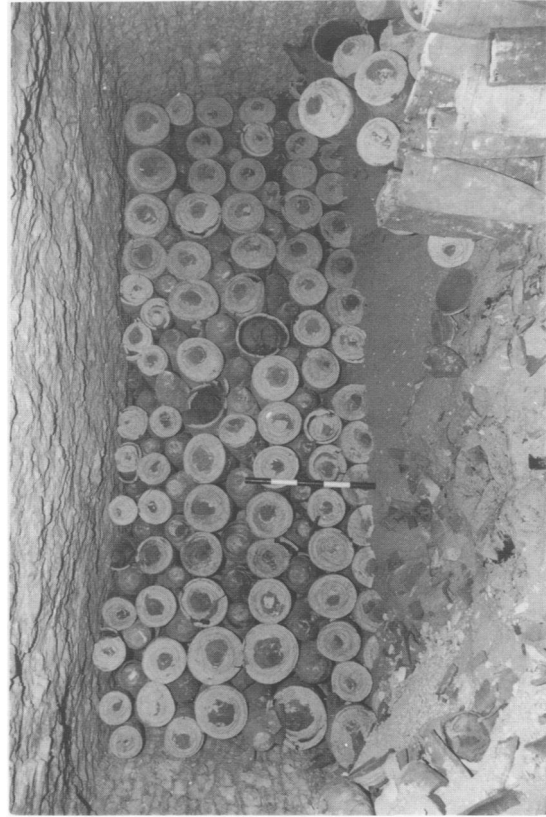
2. Vessel no. 203 from Hawk gallery 15, one of the relatively few inscribed vessels (p. 3)



3. Hawk mummy no. 402 from Hawk gallery 16/3: width at shoulder 65 mm (p. 6)



1. Packet of ibis eggs from Hawk gallery 6/3 (p. 6)



2. The southern end of South Ibis gallery 38 (p. 6)



3. South Ibis gallery 23. The vessels to the right of the 0.5 m scale are still in their original position. Some of the mud plaster sealing for the gallery is visible immediately to the left of the scale. The sand is from a shaft which has been truncated by the axial aisle of the Catacomb (p. 7)

PRELIMINARY REPORT OF THE SECOND SURVEY SEASON AT GEBEL EL-HARIDI, 1993

By CHRISTOPHER J. KIRBY

The second survey season at Gebel el-Haridi concentrated on a series of mud-brick ruins and rock-cut features near the north end of Abu el-Nasr. The results of an extensive mapping project and pottery survey revealed an enclosed settlement and cemetery with surface material dating from the second and the sixth centuries AD. This settlement has been tentatively identified as a monastery. Preliminary analysis was also undertaken on building remains in front of Quarry E at the south end of Gebel Abu el-Nasr. Both architecture and surface material were distinctly different to those of the enclosed settlement on the lower slopes, with well-preserved terrace platforms and thicker mud-brick superstructures.

THE second season of survey work under the auspices of the EES took place at the site of Gebel el-Haridi from 6 to 30 June 1993.¹ The team was comprised of Dr Salima Ikram (administrator and survey assistant), Christopher Kirby (field director and surveyor), Jacqueline Miller (pottery assistant) and Dr Sara Orel (pottery specialist). Thanks must once again go to the members of the Permanent Committee of the EAO for giving us permission to work at Haridi. Our gratitude also goes to the Inspectorates of Sohag and Akhmim and their Directors, Dr Yahya Salah Sabr Al-Masri and Mr Zein respectively, to the two inspectors assigned to our project, Mr Ahmed and Mr Hassam, and to all the antiquity guards at Haridi, in particular Mr Abdul-Al.

The survey

The survey work centred on a group of mud-brick ruins lying on the lower slopes of Gebel Abu el-Nasr at the southern end of the Haridi headland. These were only briefly noted by Wilkinson and Hay as crude brick ruins.²

It was clear that two distinct areas of ancient debris existed. The first was situated at the northern end of Abu el-Nasr and to the south of the modern village of Nazlet el-Haridi. It consisted of shallow mounds discoloured by decayed mud-brick and covered by pottery sherds, fragments of frit or glass and some stone rubble. This area was about 300 m long and no more than 50 m wide and was situated on lower-lying slopes which ran to the edge of the canal. At the southern end of this first area, the surface terrain rose up distinctly to a higher level and became much rockier with exposed limestone out-

¹The second season of survey work at Gebel el-Haridi was made possible by the generous contributions of the following institutions: the British Academy, the Wainwright Fund (Oxford), the Egypt Exploration Society, and the Mulvey Fund (Cambridge). The project also acknowledges the help of Keith Rowland and his colleagues working for Texaco Oil in providing vital maps for the survey, and the Rider Camera shop, Kirksville, Missouri, for supplying film. The author would like to express his gratitude to Dr Barbara Ghaleb, Donald Bailey and Andrew Clary for their help in the writing of this article.

²R. Hay, MS 29857 (c. 1830): '...down the mountain we find remain(ing?) ruins of wall brick and brick walls, perhaps they may be the ruins of a convent(?) or habitations of the early Christians in times of trouble(d) persecution...'; J. G. Wilkinson, *Modern Egypt and Thebes* (London, 1843), 96.

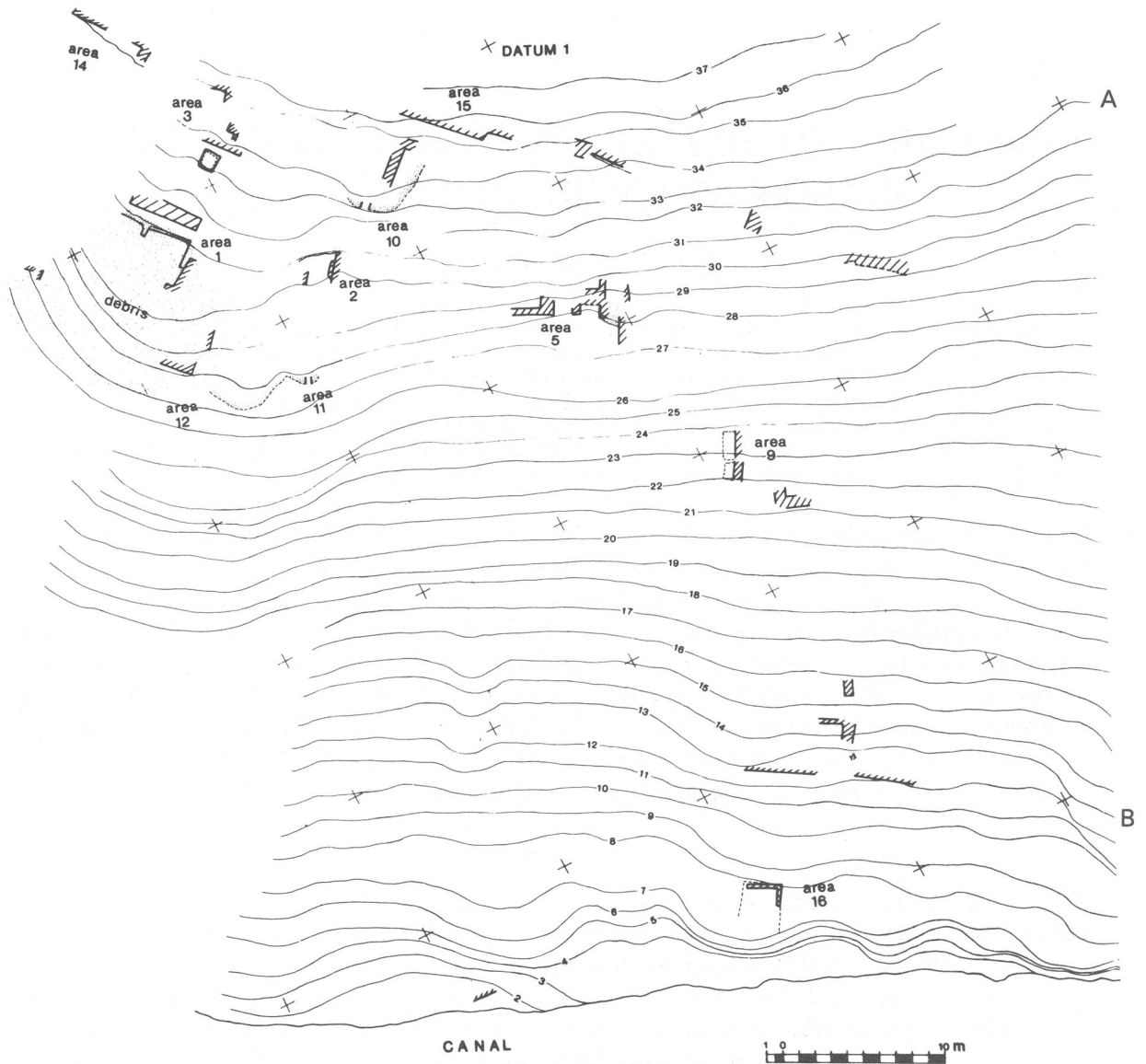


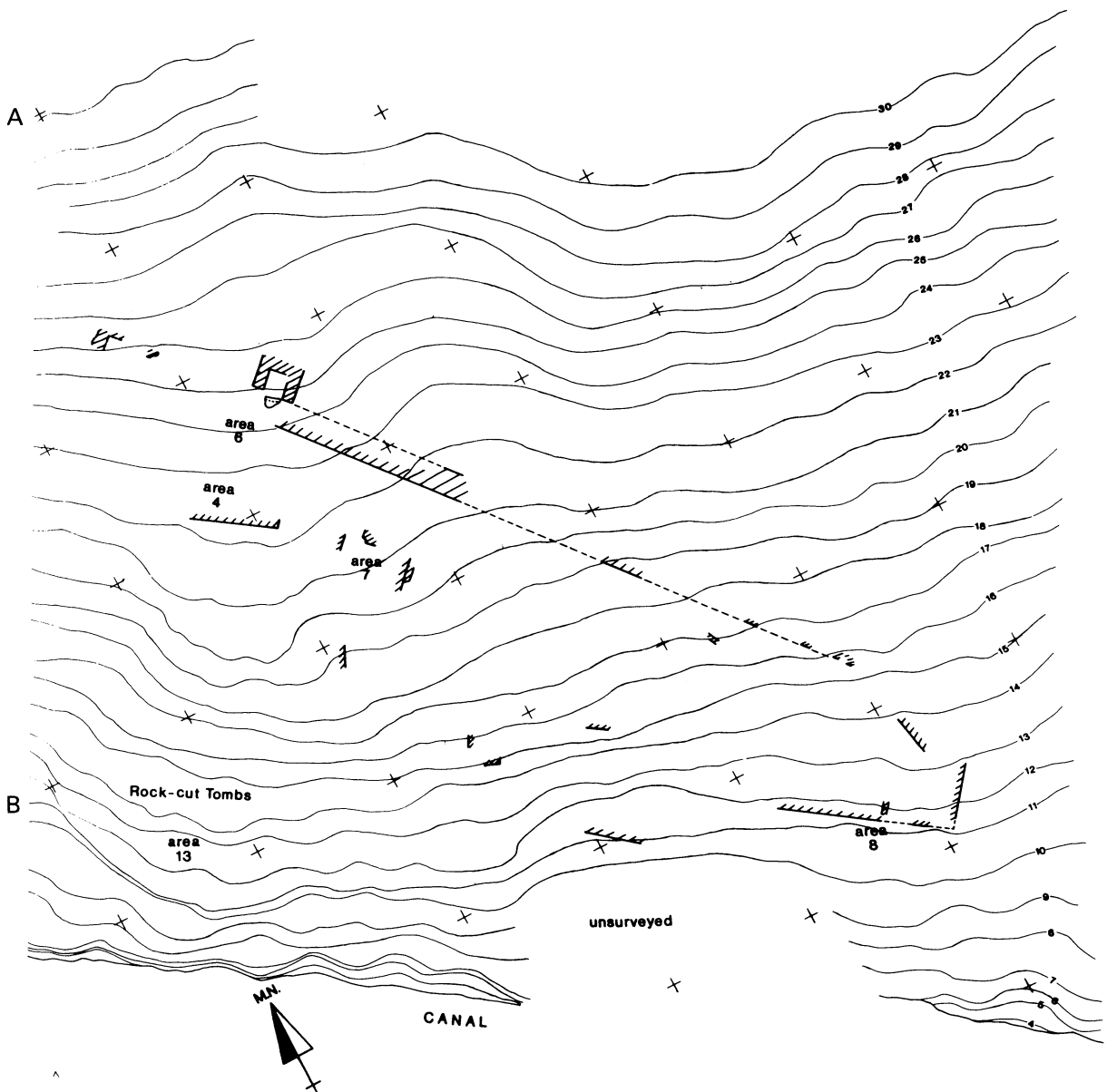
FIG. 1. The mud-brick complex at Gebel Abu el-Nasr.

(Contour heights refer to a bench-mark at the bottom of the slope with a nominal value of 0 m. Cf. Kirby, *JEA* 78, 20.)

(Continues on facing page)

crops; the angle of the slope also became much steeper (a gradient, in parts, of 3:5). Mud-brick ruins interspersed with rock-cut features covered this area as well as mounds of decayed mud-brick and large numbers of pottery sherds.

It was apparent that this second area had undergone substantial erosion and weathering; parts of the site, presumably containing buildings, had slid down the side of the mountain leaving sections of exposed sand and gravel in steep scree slopes. However, a substantial amount of mud-brick still remained, much of it partially buried beneath sand and gravel deposits which had slid down the mountain. A section cut through the moun-



(Continued from previous page)

tain by the el-Tura el-Farouk (a canal constructed in 1933)³ revealed a section of solid mud-brick walling over a metre high.

One of the main reasons why we chose to survey this particular site was that a good proportion of mud-brick walling had been partially exposed by both natural erosion processes and illicit digging. It was felt that a survey of this area could provide a good idea of the overall plan of the mud-brick features and of the nature or use of the buildings, without the expense of full excavation.

³The canal is marked on modern maps as the el-Isawiya or el-Khazindariya canal, but is still known to the local villagers by its former name.

Methodology

The survey of the mud-brick area consisted of two main projects. The primary aim was to record all the extant walls and other features that could be seen over the site using the EES's electronic distance metering theodolite (Topcon 'Guppy'). In addition, a full contour survey covering the area of the mud-brick was planned to give a topographical context to the plotted features. It was hoped that the plan constructed would give us a general idea of the architecture of the site.

One important aspect of this ground survey was to impose a grid over the site that could be used as a reference network for any future work done in the area. It was decided to impose the grid lines on the axis of magnetic north, partly for convenience, but also to keep the grid system used in the planning of the rock-cut terrace from our first season of survey (fig. 1).⁴

The grid system became an essential element of our second major project of work on the site, the pottery survey, which will be discussed by Dr Orel below. The main purpose of this study was to produce a broad, datable typology of pottery wares, but it was also hoped that datable sherd material could be tied in with architectural elements on the site to give a range of dates for the occupation or use of the mud-brick structures and, more specifically, could help to identify patterns of pottery groupings in defined areas of the survey site.

It was understood that the results of both the planning and pottery survey would be greatly affected by the pattern of preservation of surface features and the redistribution of surface material through erosion processes on the steep mountain slopes. It could be anticipated, for example, that a concentration of the pottery material would be found at the base of the mountain where it had not already been removed by the cut of the canal. Even though processes of weathering, decay, sporadic digging and vandalism had affected the pattern of surface remains, it was felt that the results of a broad archaeological survey could still produce meaningful data concerning the nature and date of the site and would, ultimately, form the foundation to any future excavation.

The mapping survey

A preliminary analysis of surface pottery and specific small finds provided a range of dates for use of the site between, at least, the second and the sixth centuries (see below).

Quarry K

Immediately to the north-west of the main mud-brick area was a large, open-cast, limestone quarry which had cut through an exposed rocky mantle protruding out of the upper part of the Abu el-Nasr slope. The maximum dimensions of this quarry, which was oval in shape, were 27 m by 26 m. The interior area was completely covered with mounds of small chippings, suggesting, perhaps, that stone blocks were dressed *in situ* for possible use in buildings within the mud-brick enclosure. The quarry's contemporary use with the occupation or use of the mud-brick area was suggested by its close proximity to the north boundary wall of the site (see below).

⁴ C. J. Kirby, *JEA* 78 (1992), 19–27.

The enclosure wall (pl. III, 1; fig. 1)

Even before the exposed walls were plotted on a plan it was clear from observation that a wall, or series of walls on the same general alignment, formed the eastern side of the site. This wall ran at an oblique angle to the line of the slope on an alignment of (true) north to south. The extent of the wall was at least 130 m and was shown in one segment to be 1.70 m thick. It was apparent that the wall(s) formed the eastern border to the mud-brick complex, as surface debris of mud-brick and pottery was generally confined to the area west of the feature as it ran down towards the base of the slope. The southern third of the eastern boundary could be traced as one straight wall (fig. 1) but the rest, although extremely patchy, fluctuated from this line by following ridges of limestone to ensure a good foundation (see wall in areas 14 (pl. III, 1), 15).

In the southern third of the wall on its outside (eastern) edge was a projecting room 2.5 m wide by at least 3 m long (the length of the wall disappeared under sand and gravel debris). In front of this room, lying on the line of the enclosure wall, was a large boulder (area 6). The room may represent a tower or look-out position and may have been a feature repeated at other parts of the enclosure. The large boulder may indicate the use of natural stone material within the matrix of the enclosure wall construction as it is unlikely that natural processes could have placed it in its present position. It would appear that the other sides of the enclosure wall were either lost through erosion or had been removed by the cut of the canal.

Internal features and buildings (fig. 1)

The area contained within the eastern boundary wall had been disturbed by both natural and made-made forces, producing a rather denuded appearance. In the case of the latter, trenches and pits found dug into the site were probably produced by treasure-hunters⁵ rather than *sebbakhin*. Some of the trenches, in fact, were to prove useful in illustrating both the depth of walls and the construction of their foundation levels (pl. III, 2), such as area 4. The features on this site may be separated into two groups—rock-cut and mud-brick.

The rock-cut features

Some of these clearly had a funerary use: several square-sectioned, vertical shafts cut into the rock were noted (areas 3, 14, (pl. III, 1), area in front of area 13).⁶ One had been partly quarried away, the other was completely filled with debris.

At the southern end of the site was a large, rocky knoll which extended to the edge of the canal (area 13, pl. IV, 1). Rectangular-shaped rooms, some of which interconnected or led back to further rooms, were cut at different levels into this semi-circular projection. The funerary purpose of these chambers was indicated by the deep, horizontal slots cut into the walls (usually the north and, therefore, the niches were aligned east-west, typical for Christian burials), which were of adequate dimensions to hold a human body.

⁵ The villagers of Abu el-Nasr tell stories of treasure-hunters who dug into the site over a hundred years ago looking for caches of coins.

⁶ These shafts may be of pharaonic date although such vertical shaft burials are typical on Coptic sites, for example, at Antinoe: cf. A. Badawy, *Coptic Art and Archaeology* (London, 1978), 97.

Just below one of the vertical shafts was a partly exposed rock-cut portal with triangular projections (area 1). This feature, which was noted last season and tentatively identified as a tomb (Tomb 6), is the only apparent example on the site of a rock-cut feature combined with mud-brick superstructure. A thick, mud-brick wall layer directly above the entranceway and a second wall ran down the side of the doorway on the sloping ramp of the rock projection. In construction, Tomb 6 recalled the architecture of the Nomarchs' tombs of Qaw el-Kebir, 19 km to the north of the site. As with Tomb 6, the Nomarchs' tombs had large rock-cut doorways with wall projections on each side and associated mud-brick superstructure and were similarly situated on the lower part of the gebel slope.⁷ However, thus far, no pottery of Middle Kingdom date has been found around Tomb 6 to make a historical link with the Qaw tombs. A steep mound of debris, consisting primarily of decayed mud-brick and sherd material, lay in front of the stone doorway of the tomb (see plan). Its presence suggests that a substantial building superstructure originally existed in front of the rock portal.

The other types of rock-cut features noted on the site were partially-quarried chambers in exposed rock outcrops (areas 10 and 11) and a larger underground cavern (area 14, pl. III, 1). The feature in area 10 looked only partly finished as the internal room was very narrow. The cut in area 11 seemed to have been quarried away in blocks and may, therefore, have been the remains of a localized quarry. The cavern in area 14, perhaps an underground quarry, ran under the northernmost extent of the enclosure wall (pl. III, 1). Above the quarry was the entrance to the open-cast quarry (Quarry K) which lay directly beyond the limit of the enclosure wall. There was, however, no direct evidence that the use of either quarry had been contemporary with that of the mud-brick area.

The mud-brick walling

The patches of mud-brick preserved in localized parts of the site indicated that the buildings within the enclosure wall were aligned more to the slopes of Abu el-Nasr than the eastern boundary wall had been. Although the exposed mud-brick was not comprehensive enough to illustrate complete building plans, it gave important information concerning the nature of the architecture and, more specifically, the techniques used to build on the steep and irregular terrain of Gebel Abu el-Nasr. It was more difficult, however, to determine to what extent the mud-brick remains represented the foundation courses of buildings, such as terrace platforms or cellars, rather than actual superstructures. Remains of a mud floor were only found in area 4 abutted to a wall three brick courses above natural rock.

As the internal buildings stretch from 2 m to 35 m above the canal edge, it may be assumed that such structures were built up in terraces.⁸ No obvious terraces could be seen on the surface although three almost parallel walls lying at the 11/12 m contour line near the bottom of the site might represent the remains of such terrace platforms.

The structural features in area 5 revealed how mud-brick structures were fitted into the natural topography: the area contained the remains of a series of rooms built around the core matrix of a limestone outcrop which had been quarried away on each side to

⁷ A. Steckeweh et al., *Die Fürstengräber von Qâw* (Leipzig, 1936), 10-42, pl. 1, plans 1-7.

⁸ Note the well-preserved example of terracing at the Monastery of St. Simeon: cf. Badawy, *Coptic Art*, 55.

create faceted stone blocks. Mud-brick walling had been built directly on top of this rock or abutted to its side, and on the eastern face of the main part of this wall, which ran north to south, was the beginning of a barrel-vaulted chamber. The example in area 5 showed that the obstacle of irregular rock outcrops was not only overcome but cleverly exploited to form part of the construction matrix of the building. The features in area 9 revealed the same pattern: a ridge of natural rock was carved into two rectangular blocks and a mud-brick wall abutted to the southern face, both running steeply down the face of the slope.

Some mud-brick features close to the base of the cliff were placed within cuts in the natural rock, presumably to give them better foundational support on a particularly exposed part of the site (area 16 and walling revealed in the cut of the canal).

The top of a barrel-vaulted chamber which protruded out of the ground in area 7 demonstrated the depth of preservation of some of the slope deposits. On the outside face of the chamber vault was a mud-plaster lining suggesting that this was a finished surface and, therefore, the original top to the vault. A similar vaulted chamber was found in the south-east area of shallow mounds on the lower slopes at the north end of Abu el-Nasr. Isolated barrel-vaulted chambers of the Coptic Period (for the dating of the site, see below) are common on other sites of similar date and often functioned as funerary chambers.⁹ If either of these vaulted chambers proves to be a tomb, this will indicate some overlap in the funerary function of mud-brick and rock-cut structures on the site.

Only one area gave any idea of the size and dimensions of the mud-brick buildings, area 8. Two sides of a rectangular building at least 11 m long by 4.5 m wide were preserved in the westernmost part of the site, near the bottom of the slope.

The complete depth of the walls was revealed in area 4 and by a wall near area 8. These examples showed that although the walls were regularly laid with alternate rows of header and stretcher bricks, the foundation courses were often poorly constructed with pieces of mud-brick and fragments of rock thrown together (pl. III, 2). In area 4, where the bottom course of brick had been revealed, the wall lay directly on natural rock without any mortar layer. To help compensate for such inadequate foundations, some walls had buttress supports (areas 2, 7).

Pottery survey and preliminary typology (by Sara Orel)¹⁰

Methodology

The mud-brick area had been examined and some surface pottery collection was carried out during the 1991–2 season, but the goal of this season's work was to obtain more structured information about the area than had been achieved previously. The preserved settlement area (70 × 100 m) was gridded to produce 7000 1 × 1 m squares. A randomly-generated 1% sample (69 squares)¹¹ of the whole area was identified for further study. A smaller area of 30 × 40 m in the north-west section of the area was selected for more intense study (2% of 1200 squares which, with the previously generated squares in this

⁹ For example, see T. E. Peet, *Cemeteries of Abydos*, II (London, 1914), pl. xxii, 4. See also A. Khater, *Le Monastère de Phoebammon dans la Thébàide*, I (Cairo, 1981), pl. xvi: the tomb is that of the monastery superior.

¹⁰ My personal thanks to Helen Whitehouse and Michael Vickers of the Ashmolean Museum, and to Donald Bailey of the British Museum for their help in this study.

¹¹ The random sample was generated by using the selection process of playing cards to determine grid coordinates.

area, meant that 33 squares (2.75%) were examined). Each unit was studied intensively and a 1:10 scale plan was drawn of any features. The general character of the square was described; this included a discussion of slope steepness, any nearby features of significance (proximity to quarries, tombs, major walls, etc.), the surface characteristics (presence of mud, baked or burnt brick, either in walls or as scattered fragments, charcoal flecks or larger fragments, and so on) as well as any bones or bone fragments, pottery, and other small finds. The pottery was collected and described and all the diagnostic sherds were drawn. The description of sherds included the total number and a general discussion of the character and size of the fragments, this latter information to be used as a guide to the quality of preservation of the area. The goal for conducting such a random survey was to get a less biased analysis of the site than would be obtained from a discussion of the apparent surface concentration of habitation, which naturally emphasizes the larger and more dramatic walls—those that would be best preserved.

Preliminary results

As expected, there were fewer sherds in those areas where the terrain was quite steep. Taking into account variation from steepness, the random sampling confirmed the observation made when walking the site in the first season that the most intensive occupation was in the north-easternmost area of the survey, in the vicinity of Tomb 6 (area 1). Among the squares surveyed in this area (30 × 14 m), the average number of sherds per square was 40.4, while the overall average including these squares was 33 and excluding these squares was only 27.5 (or only 70% of the average within the smaller survey area). The percentage of squares with no pottery at all was roughly comparable both within the smaller area (6 of 33 squares, for 18%) and over the whole site (21 of 92, for 23%). There was no greater concentration of sherds among those squares furthest downslope. Those squares in the lowest 20% of the slope averaged only 26.7 sherds per square, very close to the overall average. The north/south variation was slightly greater, however, with a clear end to the site (certainly in part as the result of a steeper slope) in those squares in the southern 10%, where 9 of 10 squares produced no sherds whatsoever. The greatest concentration of pottery on the whole site (including the north-eastern section) was near the centre of the survey area. Here an area of 10 by 18 m held six squares, averaging 96 sherds apiece, largely on the basis of two squares with 225 and 275 sherds respectively (these two lay around 10 m to the south-east of area 15).

The pottery was very homogeneous and, with very few exceptions (less than 1% of the fragments collected), the fabric could be classified as Nile silt B2 with inclusions of sand and vegetable temper from 2–5 mm in diameter, some with slightly larger inclusions of straw. There were only two fragments of marl recovered from the survey area. The silt pottery was wheel-made with vessel walls 5–7 mm thick and evenly-fired. Because many of the sherds were damaged from long exposure on the surface, it was difficult to determine if the surface was treated at all, but it seemed that the majority of the sherds were left with untreated surfaces, or with a simple red wash.

The place of manufacture of the pottery is not known, but there is no reason to think that any great amount of the ceramic material on the lower slope at Abu el-Nasr was imported. No clear evidence of a kiln on the site was found, but vitrified bricks and fragments of melted clay on the north side of the survey area and a fragment of over-fired

pottery to the north of Tomb 6 (beyond the survey area on the lower mounds) may indicate an industrial area in that part of the site.

The majority of sherds were fragments of smallish bowls, with diameters between 10 and 20 cm. Also found in the area were several vertical handles and a few non-diagnostic sherds lined on the interior with pitch or tar, indicating the presence of amphorae, probably used, at least in part, for wine storage.¹² Two bases of pots for use on the *saqiya* (known as the *qadus*), were found on the lower slopes in 1993, both on the northern portion of the survey area.¹³ It is worth noting again¹⁴ that in type and quality the pottery from the lower slope is significantly distinct from that on the upper slope. With reference to fabric and ware, on the upper slope there are more examples of what are probably local imitations of Late Roman red-slipped ware, including some stamped examples, and fragments of imported pottery, including the distinctive orange Aswan fabric. There are several examples of painted vessels, including bowls, platters and amphorae from the area around Quarry E. In addition, the distribution of vessel shapes is different, with double-handled water jars and large, ribbed amphorae, both of which were absent from the lower-slope pottery assemblage.

Dating analysis of the sherds on both the lower slope and the area in front of Quarry E is still in its initial stages although most of the pottery from the mud-brick complex appeared to be of around sixth-century date and the material from the Quarry E area about a century later.

The upper slopes around Quarry E will be the focus of pottery study in the next season, and an intensive comparative analysis of the pottery from Abu el-Nasr will be made after this next season.

Pottery lamps from the mud-brick area

In the pottery survey a fragment of moulded pottery lamp was recovered from the northern end of the upper slopes and on the last day of the survey a complete pottery lamp was found lying close to the rock-cut tombs in area 13. Both the fragment and the complete lamp were of the same type: the top rim was decorated with palm-branches on either side of the rear legs of an animal. The nozzle of the complete lamp was flanked by volutes with chevrons in the middle and the base was plain except for a circular incision in the centre.¹⁵ Bailey originally dated this type to the third to fourth century but has recently suggested, by personal communication, a second-century date. These lamps represent the earliest objects found on the surface of the mud-brick complex.

¹² Black pitch on the interior of the amphorae stops up the pores of pottery and makes it airtight. This in turn preserves wine from air-caused deterioration: c.f. H. E. Winlock and W. E. Crum, *The Monastery of Epiphanius at Thebes*, I (New York, 1926), 79.

¹³ For a recent brief discussion of pottery for use on the water wheel, see D. M. Bailey in A. J. Spencer et al. *British Museum Expedition to Middle Egypt: Ashmunein (1982)* (British Museum Occasional Paper 46; London, 1983), 43-4.

¹⁴ Cf. Kirby, *JEA* 78, 26.

¹⁵ D. M. Bailey, *A Catalogue of Lamps in the British Museum*, III (London, 1988), 256 (Q2107 EA). For an example from Qaw el-Kebir, cf. Steckeweh et al., *Fürstengräber von Qâw*, pl. 30, 122.

The identity of the mud-brick complex

One of the main objectives of the survey of the mud-brick area was to reveal its identity and purpose. The preliminary dating of the surface pottery and small finds indicated that the complex was probably used, at least, between the second and sixth centuries and thereafter abandoned. Other clues to the site's identity lie in the fragmentary architectural remains: a walled enclosure and look-out tower with internal rectangular and square buildings (areas 8, 16) and barrel-vaulted chambers (areas 5, 7), interspersed with rock-cut features (areas 1, 3, 10, 11, 13). Several of the rock-cut features may have been originally part of the early pharaonic necropolis that our survey team discovered last season (Tomb 6, shafts in areas 3, 14) that were reused, but other features were probably constructed at the time of the occupation of the settlement (area 13, pl. IV, 1). The overall impression of the mud-brick complex from these remains suggests that it was a domestic settlement¹⁶ of a somewhat insular character, an observation suggested by the presence of its cemetery within the enclosure wall.

The insular nature of the complex is also suggested by its geographic location: the mud-brick settlement lay on steep, rocky slopes, impractical for building, cut off from arable land by the river Nile (although this was slightly different in antiquity),¹⁷ and in a fairly inaccessible position on the Haridi headland.

The geographical, architectural and historical dating aspects of the site may suggest that the mud-brick complex was a fortified monastery. Such a conclusion would coincide with the findings from the first season of work, which showed that Coptic hermits occupied and reused the ancient quarries (D, E, and I)¹⁸ and tombs (2, 3, and 4) of Abu el-Nasr, as well as natural caverns of the vertical cliff. These features showed evidence of wall plaster, lamp niches, tethering holes for animals, plaster-lined storage bins and Coptic graffiti. The reforms of the Coptic church under Pachomius (AD 276/292–346) brought together such hermits into organized communities within walled enclosures ('Deirs')¹⁹ and it is possible that this process took place at Haridi.

The identification of the mud-brick complex as a walled monastery may also help to explain the unwalled settlement to the north of the site. This pattern of walled and unwalled complexes also existed at the monastery of Epiphanius, built around the tomb of Dagi in Western Thebes.²⁰ Here, the excavators suggested that the unwalled buildings were a loose chain of hermit cells ('lauras') which were gathered around the 'leader' cell of the main walled enclosure. The same arrangement may have existed at Abu el-Nasr.

¹⁶ Surface finds included fragments of glass rod, pieces of frit, a stone platter, oil lamps and utilitarian pottery wares. These finds appear more indicative of domestic occupation than funerary use.

¹⁷ K. W. Butzer, *Early Hydraulic Civilization in Egypt* (Chicago, 1976), fig. 1. This geological cross-section through the Nile Valley near Tahta shows that in antiquity the river Nile was 2 km west of its present course and, therefore, a cultivation strip (on the east side of the river) would have existed directly below the mud-brick enclosure, giving the area of Abu el-Nasr a much less isolated appearance than it has today.

¹⁸ S. Clarke, *Christian Antiquities in the Nile Valley* (Oxford, 1912), 171–5, mentions examples of ancient quarries and tombs with added mud-brick walls being used as Coptic churches. One example of this is Dêr el-Adra, Ganâdle, south of Asyut (ibid. pl. lii).

¹⁹ Pachom, a native Egyptian, reorganized monasticism on the model of the military, enclosing monastic groups in walled settlements to undertake a self-sufficient, cenobitic existence in a regulated manner. Eleven monasteries are known to have been spread between the Thebaid and Akhmim. For details of his life, see F. Halkin, 'Une vie inédite de saint Pachome', *Analecta Bollandiana* 87 (1979), 5–55, 241–79.

²⁰ Winlock and Crum, *Monastery of Epiphanius*, 39. The excavators suggested that the pattern of loose cells around the main monastery represented an intermittent stage in the evolutionary development from hermit dwellings to a fully enclosed monastery.

Possible identification of the site in documentary sources

At the time of writing, no explicit reference to a monastery in the area of Gebel el-Haridi is known. Amélineau refers to a church dedicated to a Copt called Anba Bimin which is mentioned in the list of famous churches of Egypt compiled by the Armenian Abu Salih (AD 877–940). This church was apparently situated in the village of Pouhit, which is rendered by the Arabic el-Khazranieh, a name which, Amélineau pointed out, is similar to that of el-Khazindariyah, a village at the north end of the Haridi headland.²¹ However, Evetts pointed out in his translation of the Abu Salih text that Amélineau failed to notice that 'Khazranieh' is placed by the author close to Giza.²² The Abu Salih list does, however, refer to a monastery near 'Al-Jawaliyah' without giving its location in the country.²³ 'Al-Jawaliyah' is very similar to the village name el-Galawiya, a settlement which lies 2.5 km to the south of the site. The evidence of the pottery at Abu el-Nasr suggests that the site was abandoned by the seventh century, so a reference to Abu Salih's work, three centuries later, would not necessarily be expected.

An earlier toponym reference may be found in the work of Greek writer Ptolemy (c. AD 100–178). He refers to the site of Passalon²⁴ which, according to Wilkinson,²⁵ would have existed close to the modern village of Galawiya, the southern point of our concession. The mud-brick complex, as has been said, lies close to modern el-Galawiya and could, therefore, be possibly identified with Passalon or Pasalos.

Buildings in front of Quarry E (pl. IV, 2)

Part of the second season was also dedicated to a preliminary analysis of the ruins in front of Quarry E situated over 300 m further to the south of the mud-brick settlement at the top of the slope (see pottery survey above).

Covering a much smaller area than the mud-brick complex, these building remains consisted of mud-brick platforms, terrace walls and well-preserved superstructures: one wall was preserved to over 2.5 m in height. The solid construction of these walls resulted in better preservation than the exposed walls of the enclosure even though they were situated on the steepest part of the Abu el-Nasr slope. The different character of this site from the lower mud-brick area was also noted in the pattern of surface finds: more imported pottery wares were detected of a generally higher quality and consistently earlier in date (see above). A finely-made iron ring was also found inscribed with a classical-style figure with wings.²⁶

²¹ E. Amélineau, *La géographie de l'Égypte à l'époque copte* (Paris, 1893), 363.

²² B. T. A. Evetts (trans.), *The Churches and Monasteries of Egypt and Some Neighbouring Countries attributed to Abu Salih the Armenian*, with notes by A. J. Butler (Oxford, 1895), 178.

²³ Ibid. 315: '(the monastery) stands at the extreme edge of Al-Jawliyah and bears the name of the martyr Mercurius...'

²⁴ Ptolemaeus, *Geographia* III, ed. C. Muller and C. T. Fischer (Paris, 1901), 723.

²⁵ Wilkinson, *Modern Egypt*, 96–7: he suggests that Passalon may be identical to Selinon, mentioned in the 'Itinerary of Antoninus'. See also Abraham Ortelius, *Aegyptus Antiqua* (Amsterdam, 1595). This map, based on the ancient classical sources, places, 'Pasalos' between 'Antei metropolis' (Antaeopolis—modern Qaw el-Kebir) and 'Chemnis' or 'Panopolis' (modern Akhmim) and opposite 'Hysopis', perhaps modern-day Tahta.

²⁶ Conversations with Catherine Johns of the Prehistoric and Romano-British Département and David Buckton of the Medieval and Later Department at the British Museum proved that the image on the ring conforms to both pagan Roman and early Christian iconographic tradition.

The objective of our next season at Gebel el-Haridi will be to survey the area in front of Quarry E to clarify further the nature of its architecture and pottery material, and also to elucidate its relationship with the mud-brick enclosure, the possible home of a monastic community. It is also hoped that a greater understanding of the mud-brick enclosure will be obtained through the excavation of test pits which may yield more specific evidence of its historical occupation and role as a monastic commune.



1. View of area 14 looking east, showing enclosure wall and underground quarry and tomb shaft



2. Wall at southern end of enclosure, showing foundation courses on natural rock

GEBEL EL-HARIDI, 1993 (pp. 11-22)



1. View of area 13, terraced rock-cut tombs, looking north-east (*photo by G. Allaby*)



2. View of terrace walls in front of Quarry E, looking west
GEBEL EL-HARIDI, 1993 (pp. 11-22)

PRELIMINARY SURVEY IN THE WADI ABU HAD, EASTERN DESERT, 1992

By ANN BOMANN *and* ROBERT YOUNG*

A report of the preliminary archaeological survey carried out during 1992 in the Wadi Abu Had in the Eastern Desert. Its main objective was to discover a secondary route in the less well-known areas of the Eastern Desert that could provide a link between Egypt and the Near East. The topographical layout of the region was examined and evidence sought on inhabitants, either itinerant or semi-nomadic, who might have occupied this area at various stages of prehistoric and historic Egypt. Large scatters of flint and knapping sites were discovered, dating from the Lower Palaeolithic to the Holocene. Additionally, stone structures varying from desert hearths, road markers, and small cairns to rock shelters were sighted, together with Bedouin remains and sherd scatters.

IN 1992 the Egypt Exploration Society carried out a preliminary archaeological survey of the Wadi Abu Had in the Eastern Desert. The survey team, comprising Ann Bomann and Robert Young, left Cairo for the Red Sea on 16 August and returned on 12 September.

Our thanks and appreciation go to the Egyptian Antiquities Organization and the Egyptian Military Command for granting permission to work in the Eastern Desert. Special thanks go to the former Chairman of the EAO, Dr Mohammed Ibrahim Bakr, and his officers, in particular Dr Mutawwa Balboush, Dr Ahmed Moussa and Mme Samia. Locally, our thanks for all their assistance during the course of the season go to Rabia Hamdan, Director of Qena and the Red Sea, Ahmed Jaber Abd el-Latif, Chief Inspector of the Red Sea, Abd er-Rigal Abu Bakr, Inspector of the Red Sea, and Helal Mahmoud Ahmed, the EAO representative for the mission. The project was generously financed by the Wainwright Fund, Oxford. At Leicester University we would like to thank Deborah Miles, Deborah Moore and Dr A. McWhirr for help in producing this paper.

The topography of the area and its surroundings

The Wadi Abu Had lies between North latitudes $27^{\circ} 38'$ and $27^{\circ} 47'$ and East longitudes $33^{\circ} 08'$ and $33^{\circ} 23'$ (fig. 1). It is 70 km north of Hurghada on the Red Sea, and its easternmost edge lies approximately 22 km west of the main coastal road to Suez, inside the Eastern Desert. To reach the Wadi Abu Had, a track leads off the main road across the coastal plain within the same latitude as Gebel el-Zeit and Zeit Bay, which is situated near the Strait of Gubal, between the Gulf of Suez and the Red Sea. In this region the plain averages approximately 12 km east to west and dates to the Pleistocene,¹ consisting mainly of sand and gravel. It is here, at approximately latitude $27^{\circ} 43'$, that the mouth of the Abu Had debouches onto the coastal plain.

*Ann Bomann wrote the main text and Robert Young the discussion of the flint material.

¹T. Barron and W. F. Hume, *Topography and Geology of the Eastern Desert of Egypt: Central Portion* (Cairo, 1902), 79-82, pl. ii.

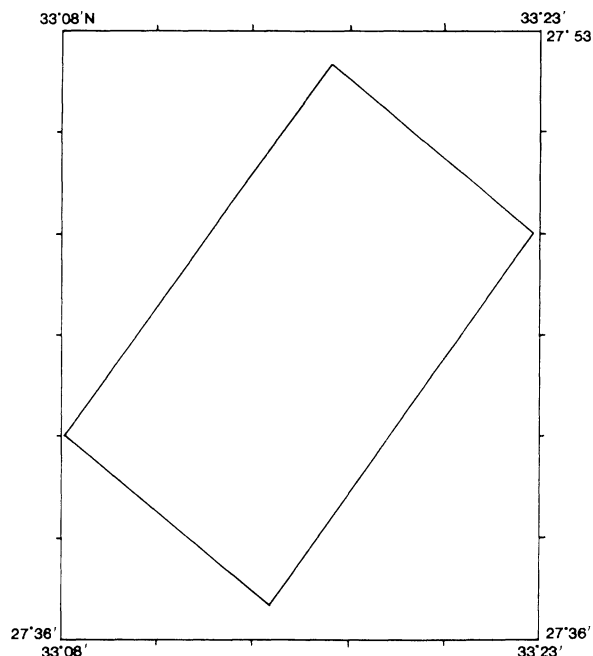


FIG. 1 Location of the Survey Area.

Progressing westward across the plain, a narrow band of Miocene coral reef fringing a series of low-lying dolerite/basalt hills is reached.² The best route for a vehicle is via the Wadi Abu Masannah, which passes through the mountain range that abruptly separates the coastal area from the desert. The summit of the basalt chain consists mostly of a series of rounded domes, averaging between 230 m to 325 m above sea level. In some instances dykes of red granite appear. The surface of the rock is permeated with multiple fractures, as a result of weathering processes caused by moisture and thermal conditions.³ Drift sand also fills numerous small valleys within the hills.

From east to west, the basalt range averages about 5 km. At this point, red granite mountains, the Hamrat el-Girgab, intrude, with peaks rising 448 m above sea level. This chain forms part of the confines of the eastern flank of the Wadi Abu Had, situated 4 km westwards. The granite has been subjected to the same weathering conditions as the basalt. The rock surface is friable and granulated, with examples of exfoliation. Nevertheless, three small modern granite quarries operate here during various times of the year. The underlying rock is hard, producing large blocks of granite. Numerous wadis within the granite mountains have beds of steeply rising boulder tumble deposited by flash flooding⁴ and other natural processes. Within the chain, drift sand and alluvial wash fill lower wadis, which drain onto the Wadi Abu Had plain. Midway within the granite range, the ground level begins to slope gradually downwards towards the west, as the vast plain of the Wadi Abu Had is reached (pl. V, 1).

The overall plain of the Wadi Abu Had averages between 20 to 25 km from east to west, and 20 km from north to south. From the plain of Abu Had, looking eastward to the

² Ibid.

³ W. F. Hume, *The Cairo Scientific Journal* 77/vii (1913), 37.

⁴ Ibid. 35.

granite and basalt mountains that define the eastern edge of the wadi, a stretch of terrain, the Khalig (Canal) Abu Had, lies in the foreground (fig. 2). This is approximately 7 km long and 2.5 km wide. Its surface is covered with detritus issuing from the two distinctive mountain chains, composed of desiccated granite granules, basalt chips, occasional quartz pebbles, and fragments of epidote,⁵ overlying hard packed sand and gravel. East of Khalig Abu Had is a pass, some 150 m wide with a loosely packed sand floor. This divides the granite mountains from the basalt range. As a result, the picture created on the plain by the surface deposits shows two distinct zones of red and black. The Khalig Abu Had acts as a channel at various times for strong winds which sweep through it.

The Wadi Abu Had forms the southern arm of a natural crossroads within the Eastern Desert. In the north it joins the Wadi Dib, which in turn opens onto the coastal plain in the east and leads to the Wadi Qena in the west. Wadi Usum, the northern arm, gives access to the copper and gold mines of Gebel Darah, El-Urf and Mongul⁶ further north. To the south, the Abu Had joins the Wadi Mellaha, where 50 km beyond is Gebel Dukhan (Mons Porphyrites). At the junction of these two wadis, the Abu Had curves south-east and cuts through the basalt hills, finally disappearing into the Red Sea coastal plain, opposite Zeit Bay. The western limits of Abu Had are defined by the andesite mountains of Gebel Ladid el-Gidan,⁷ some jagged peaks of which reach 1,131 m above sea level. Finally, the plain of Abu Had is bisected longitudinally into western and eastern zones by a central range of Upper Cretaceous and Eocene limestone,⁸ the Gebel Safr Abu Had, rising between 202 m and 290 m above sea level (fig. 2; pl. V,2).

On the eastern plain of Abu Had, a fairly distinct track runs north to south down the middle, east of which is Khalig Abu Had, and west of which are beds of Nubian sandstone. These appear as scarps and outcrops in the southern part of the wadi,⁹ while in the north the sandstone emerges as ridges and plateaux cut by lateral wadis. In some places, blocks of sandstone have tumbled in heaps into adjacent wadis below. The array of colours ranges from deep rust brown to tawny yellow and tan. A scattering of small quantities of deep yellow and dark red ochre (iron oxides) lie dispersed within the sandstone region.¹⁰

The ground lying before the eastern face of the Gebel Safr Abu Had is covered with flint. Shallow wadis cut through the plain at this point, some containing petrified tree trunks (fig. 2, WAH 9, 16), possibly of the Upper Cretaceous epoch.¹¹ Near the base of the gebel are several mounds covered in fossil marine oysters (fig. 2, WAH 10, 17) of the Upper Cretaceous epoch.¹² The eastern face of the Safr Abu Had rises obliquely above the plain. In some areas limestone blocks have broken away and tumbled into the wadis

⁵ I am grateful to Gary Jones of the Department of Mineralogy, Natural History Museum, London, for discussions, observations, and identification of some of the rock and mineral formations in Wadi Abu Had. These include: barytes, yellow and red iron oxides, a form of jasper (silica quartz with iron precipitation).

⁶ M. Abdel Tawab et al., *BIFAO* 90 (1990), 359-64.

⁷ Barron and Hume, *Topography*, 79-82.

⁸ *Ibid.*; Hume, *The Cairo Scientific Journal* 67/vi (1912), 160-1.

⁹ Barron and Hume, *Topography*, 79-82.

¹⁰ Gary Jones (see n. 5).

¹¹ I am grateful to Noel Morris of the Department of Palaeontology, Natural History Museum, London, for suggesting the probable epoch for the petrified wood and also suggesting that they could be conifers. The observation was made from photographs.

¹² The identification of these oysters was made from photographs by N. Morris (see n. 11); they were recognized as *Pycnodonte*(?): *species vesicularis*, Upper Cretaceous.

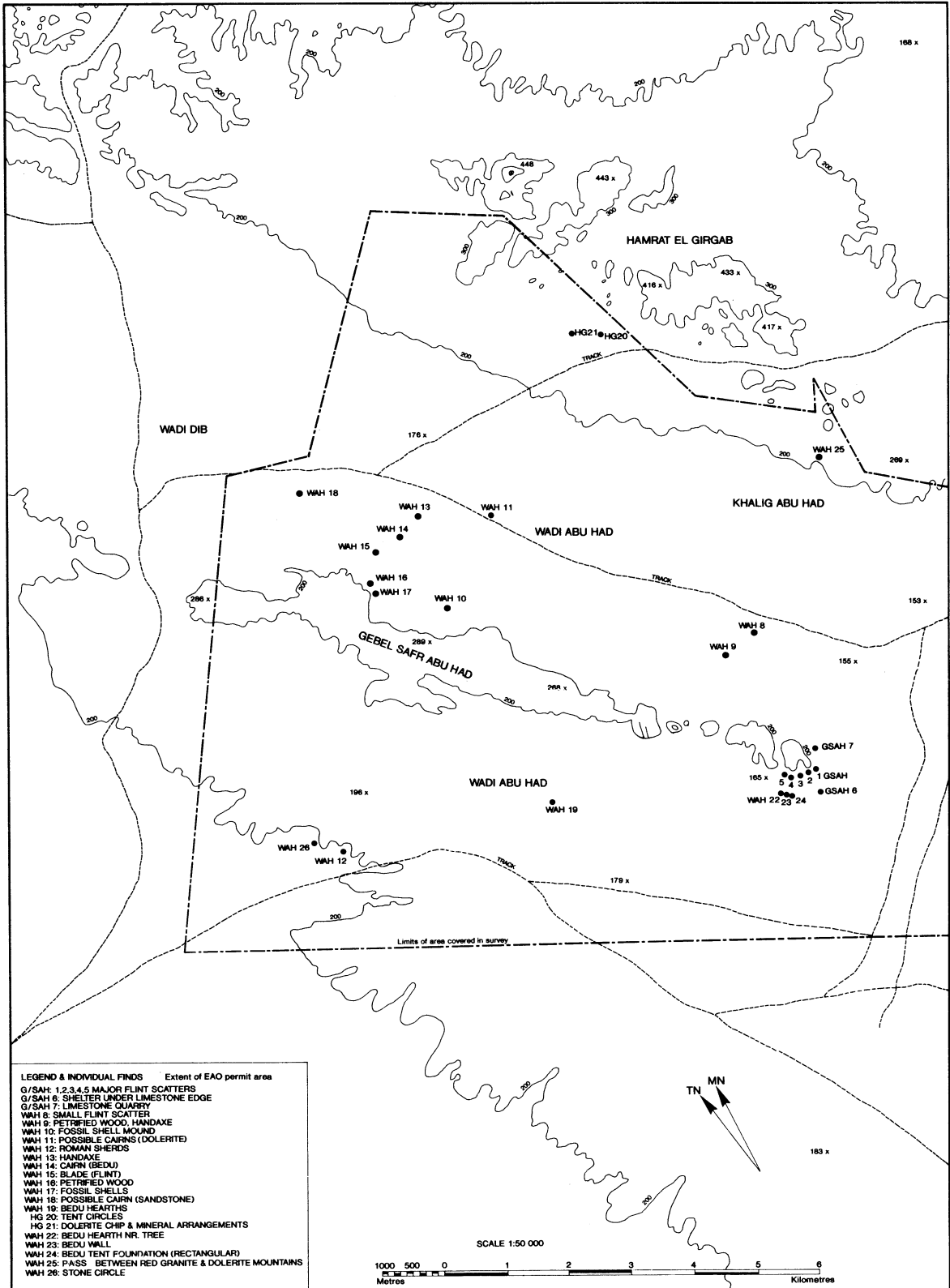


FIG. 2. Survey Map of Wadi Abu Had.

below, leaving horizontal galleries along the escarpment. Thick deposits of flint line the slopes of wadis cutting down into the limestone. Some nodules have a diameter of at least 20–30 cm. Among the flint are quantities of grey shale.¹³ In contrast to the eastern side, the western face of the limestone hills slopes gradually until it joins the western plain of Abu Had. Likewise, its surface is covered in a mixture of flint and shale.

The western plain is a Pleistocene deposit of hard-packed sand and gravel. Across the broad plain, low terraces have been carved out by numerous shallow wadis with beds filled with loose sand. The plain continues until it reaches the Gebel Ladid el-Gidan. To the north-west of the plain, Gebel Abu Had at 768 m stands sentinel at the junction of the Wadis Abu Had and Dib.

The limestone hills of Gebel Safr Abu Had are grouped into a northern and a southern mass with a gap of some 3 km between them. A few hillocks of limestone outcrops lie within the intervening space. The gravel and sand extend from the western plain into this region as well. At the southern end of the northern mass lie the remains of a temporary rainwater basin or shallow lake. The golden brown deposit of silt, remaining after water evaporation, has become a dry crust with multiple cracks, creating polygonal patterns.¹⁴

The main flora within Wadi Abu Had is the 'camel-thorn' tree (*Acacia seyal*).¹⁵ Stands of the white-barked variety tend to be concentrated in a series of lines and groups, centring over underground water streams. These stands are in the lower levels of the wadi, ranging between 133 m, 153 m and 179 m above sea level. One or two of the red-barked variety grow in the higher levels near the foothills of the Hamrat el-Girgab, where they are able to subsist with the minimum of moisture. Small desert bushes with either thorny or succulent leaves are dispersed intermittently throughout the desert.

Among the fauna present are camels¹⁶ and gazelles. Narrow pathways crisscross the plain and the summit of Gebel Safr Abu Had.¹⁷ Two fairly distinct tracks run longitudinally through the eastern and western plains. Tracks run also laterally between the gap in the Gebel Safr Abu Had.

The aim of the survey

The aim of the survey is to attempt to discover a secondary route within the less frequented region of the Middle Eastern Desert that might have served: (1) as a trade route between the Nile Valley and the Red Sea coast during prehistoric and historic times; (2) to provide access to outlying mines in the desert; and (3) as a point of contact between Egypt and the Near East, not only via a land route, but as a link to a possible port of embarkation for the Red Sea.

Evidence for this is being sought in traces of ephemeral settlements, lithic implements, sherds, petroglyphs, and other relevant objects. Additionally, geological and environ-

¹³ Barron and Hume, *Topography*, 79–82.

¹⁴ Hume, *Cairo Scientific Journal* 77, 36 discusses at least three types of desert lake formations.

¹⁵ O. N. and E. K. Allen, *The Leguminosae* (University of Wisconsin, 1981), 5–8; M. A. J. Williams and D. A. Adamson, *A Land between Two Niles* (Rotterdam, 1982), 37.

I am grateful to Caroline Cartwright of the Department of Scientific Research, British Museum, London, for identifying the varieties of acacia in the region of the Wadi Abu Had. These are the *Acacia seyal* var. *seyal* (red-barked) in water-receiving sites, and *Acacia seyal* var. *fistula* (white-barked) in wetter areas. She also suggests that there may be stands of *Acacia tortilis*.

¹⁶ Camels roam freely in the desert. One was observed eating the leaves from the 'camel-thorn' tree.

¹⁷ The bare footprints of both adult human and child were seen on the pathways, as well as those of camel and gazelle.

mental resources are to be studied, as well as topographical features that could attract human activity.

The primary routes traversing the eastern Delta, North Sinai, and the Eastern Desert in Lower and Upper Egypt are well known. These include Tell Abu Sefa to el-Arish (the 'Way of Horus'), the Wadi Tumilat, the Wadi Gasus to Safaga, the Wadi Hammamat to Quseir, and the Wadi Abbad to Berenice. Probably a main route during the New Kingdom and earlier on the border of Middle Egypt was the Wadi Araba,¹⁸ whose estuary opens onto the Gulf of Suez at Zafarana, opposite Abu Zenima on the west coast of Sinai.

Of significance is the negative evidence within the Middle Eastern Desert. For instance, there are no major routes crossing laterally from the Nile Valley to the Gulf of Suez and the Red Sea. The major thoroughfare is the extensive Wadi Qena that stretches longitudinally from Qena in Upper Egypt where it eventually links up with the laterally-cut Wadi el-Tarfa in Middle Egypt.¹⁹ This latter wadi terminates a few kilometres north of Minya. West and east of Wadi Qena, lateral wadis have cut valleys in the large Eocene limestone plateau in the centre of the Eastern Desert.²⁰ Of note to the west is Wadi el-Asyuti, whose estuary opens into the Nile Valley before the town of Asyut. Progressing eastwards, it joins the Wadi Gurdi, which links with the Wadi Qena. Likewise, east of Wadi Qena, numerous lateral wadis emanating from a watershed wind their way towards the Red Sea. Wadis of note among this group are the Abu Had and Dib. Although by circuitous routes, as described above, a connection can be made between the Red Sea and the Nile Valley within the region of Middle Egypt, it was not until the second century AD, when the Romans built a highway, the Via Hadriana, that a direct link was created between Middle Egypt and the Red Sea.²¹ This route started at Antinoopolis (Sheikh Ibada), cut across the Eastern Desert, turned south near the Gulf of Suez between north latitudes 28° and 29°, and continued along the Red Sea coast south of Abu Sha'ar, and then onwards to three major Red Sea ports—Philoteras (Wadi Gawasis), Leukos Limen (Quseir), and finally Berenice.

The Wadi Abu Had and its surroundings appear to lie in a strategic position within the Middle Eastern Desert, since it makes up a component of a crossroads, discussed above. To the north are the copper and gold mines of Gebel Darah, El-Urf and Mongul that were mined during the Early Dynastic Period and the Old Kingdom, and possibly during the end of the Predynastic. The copper mines at Darah West were re-occupied during late Roman and Byzantine times, and the gold mines at El-Urf and Mongul South were mined by the Arabs around the ninth century AD.²² The imperial porphyry mines at Gebel Dukhan, about 50 km south of Wadi Abu Had, were opened up by the Romans, and worked from the first to the fourth centuries AD.²³

To the east lies the natural harbour of Zeit Bay at the base of Gebel el-Zeit where two galena mines are located. These were probably mined before the Middle Kingdom, but

¹⁸ J. G. Wilkinson, MS xxxv 30, 'Eastern Desert 1823' and MS xxxvi 33, 'Eastern Desert + Bahnesa 1823' (Bodleian Library, Oxford); id., *Journal of the Royal Geographical Society* 2 (1823), 29–33.

¹⁹ M. S. Abu al-Izz, *Landforms of Egypt* (Cairo, 1971), 233–50.

²⁰ Ibid. 246–9.

²¹ *Tabula Imperii Romani, Coptos*, Sheet N.G.36 (The Society of Antiquaries of London, 1958).

²² Abdel Tawab, *BIFAO* 90, 359–64.

²³ A. Lucas and J. R. Harris, *Ancient Egyptian Materials and Industries*⁴ (London, 1962), 416–18. Porphyry is also found at El-Urf near Wadi Dib (ibid. 417).

were exploited intensively between 1800 and 1450 BC, until they were exhausted in the New Kingdom around the reign of Ramesses II.²⁴ Further east, beyond Gebel el-Zeit and along the same parallel, are the southern tip of Sinai and the Wadi Aynunah on the north-west coast of Hejaz, landmasses providing potential connections with the Near and Middle East (see below). The western arm of the crossroads which eventually links with the Wadi Qena and other wadis mentioned above provides a route to numerous Predynastic and later sites, among them Badari, Hemamieh, Mostagedda and Deir Tasa, then Minya, el-Amarna and Asyut.

Geomorphological and climatological considerations and their effects obviously play a major role in the question of the demography of this region. It could be concluded that the Middle Eastern Desert has few mines of importance, and that with little moisture and a landmass the greatest distance between the Nile Valley and the Red Sea, it could be regarded more as an 'empty quarter' through which nomadic peoples occasionally passed.²⁵ An alternative view is that a 'sub-life' may have existed in these desert regions, coincident with the urban agricultural communities in the Nile Valley during various periods throughout Egyptian history. One question is the size of population able to subsist in this part of the desert. Hoffman believed that the Eastern Desert could have supported a population denser than the Western Desert during Predynastic and Early Dynastic times.²⁶ During the Neolithic Sub-Pluvial or Makalian Wet Phase, c. 5500–2500 BC, the climate was moister than now.²⁷ Butzer claimed that a large part of the low desert and the higher desert uplands was occupied by various species of fauna, together with hunters and pastoral people.²⁸ Additionally, Desmond Clark stated that movements of people from south-west Asia into Lower Egypt would have helped the spread of Neolithic culture westwards and southwards.²⁹ In fact, by investigating the relatively neglected areas of the Eastern Desert from a demographic and ethnographic point of view, a different perspective could be gained.³⁰

Among the early inhabitants of the desert, decades before the infiltration of Arab Bedouins during the time of Cambyses,³¹ were the trogodytes.³² Eight groups were known, two of which were the Therothoae ('those who run down wild beasts'), ancestors to the Ababda and the Bisharin, collectively known as the Beja, and the Ichthyophagi, ('fish eaters').³³ This latter group lived near coastal areas along the Red Sea. Some of these trogodytes are represented in the Twelfth Dynasty tomb of Senbi at Meir.³⁴ Murray suggests that these Hamitic peoples may have roamed from south of Arsinoe (Suez) to the Abyssinian escarpment.

²⁴ G. Castel et al., *Gebel el-Zeit*, 1 (Cairo, 1989), 8, 9, 138, 140.

²⁵ H. Kees, *Ancient Egypt: A Cultural Topography* (London, 1961), 118.

²⁶ M. A. Hoffman, *Egypt Before the Pharaohs* (London, 1980), 247.

²⁷ J. Desmond Clark, in A. J. Arkell and P. J. Ucko, *Anthropology* 6 (1965), 158.

²⁸ K. W. Butzer, *CAH*³ 1.1 (Cambridge, 1976), 63.

²⁹ Clark, *Anthropology* 6, 158.

³⁰ Clark, *ibid.*, suggests that areas east of the Lower Nile and west of the Gulf of Suez should be investigated to trace the origins of the Neolithic and Predynastic phases. One of the first and most recent to investigate the prehistoric industries in the Middle Eastern Desert is C. Montecat, *BIFAO* 86 (1986), 239–55.

³¹ G. W. Murray, 'Trogodytica: The Red Sea Littoral in Ptolemaic Times', *The Geographical Journal* 133 (1967), 24–33.

³² *Ibid.* 24. Murray explains the reason for the preferred spelling of *trogodyte* as opposed to *trogolyte*.

³³ *Ibid.* 25–33.

³⁴ A. M. Blackman, *The Rock Tombs of Meir*, 1 (London, 1914), 15, 28, 29, 32, 33, pl. x. The Hadendoweh were also ancestors to the Beja herdsmen.

Apart from indigenous groups of people inhabiting the Eastern Desert during various periods of its history, nomadic types or foreigners undoubtedly, at intervals, infiltrated it, possibly residing there for short periods before moving on to other destinations. Looking abroad, peoples contemporary with the Predynastic and Early Dynastic periods could have travelled from Sinai into the northern part of the Eastern Desert. According to Rothenberg, the central and southern regions of Sinai had been inhabited since Palaeolithic times, mostly by peoples derived from the Arabian peninsula, the north-eastern part of Asia and Egypt.³⁵ The chronological phases for Sinai during the prehistoric and historic periods—Elatian, Timnian I and II—correspond to the Badarian, Naqada II and Early Dynastic periods in Egypt.

Within these cultures of Sinai, Rothenberg recognizes contacts with Egypt. During the Timnian period, southern Sinai was mining and smelting copper ore as early as 3800 BC.³⁶ During Timnian II more advanced smelting and furnace techniques, evidently acquired from the Egyptians, were employed c. 2955–2635 BC.³⁷ Since some Egyptian metalworkers appear to have been working in the copper mines in Sinai, a reciprocal arrangement could have existed with Timnians working, for instance, at Darah West, north of Wadi Abu Had, where they could have learned new techniques.

Other peoples inhabiting Sinai at this period were the Nabi Sala, caravan traders in Red Sea shells.³⁸ These people and other itinerant traders may have trafficked in these goods. Red Sea shells are known from earlier periods, examples appearing at Badari, el-Omari, and as far west as Merimde Beni Salama and the Fayum.³⁹

In the historic period, during the Middle Kingdom the nomarchs of Middle Egypt held among other offices that of 'Administrator for the Eastern Desert', implying that this area was of some importance. The hunting of large numbers of wild game as portrayed on the tomb walls at Beni Hasan⁴⁰ was, no doubt, one reason. Another could be indicated by the nomarchs' employment of special police made up of desert huntsmen to patrol the Eastern Desert. Their presence suggests that marauders or itinerants could have been infiltrating this region of the desert, crossing from the coast to the Nile Valley.⁴¹ They may also have been employed for the surveillance of the galena mines at Gebel el-Zeit, and for securing the transportation of its produce across the desert. The well-known representation of Abesha and a group of Asiatics in Tomb 3 (Khnumhotep) at Beni Hasan⁴² may depict this very activity. It is noteworthy that Gebel el-Zeit, near the Strait of Gubal and Wadi Abu Had, lies nearly opposite Minya (Menat Khufu), the seat of the nomarchs of the sixteenth Upper Egyptian nome.⁴³ Goedicke interprets the group of *ꜥmw* (Asiatics), who are either from North Sinai or Moab and are bringing *msdmt* (black eye-paint)⁴⁴ to the nomarch's court, as foreign workers in the Eastern Desert.⁴⁵

³⁵ B. Rothenberg, *Sinai: Pharaohs, Miners, Pilgrims and Soldiers* (Berne, 1979), 109–11.

³⁶ *Ibid.* 139; *id.*, *Palestine Exploration Quarterly* 102 (1970), 13–15.

³⁷ Rothenberg, *Sinai*, 149 and Chronological Table, 238.

³⁸ Rothenberg, *Sinai*, 151.

³⁹ Arkell and Ucko, *Anthropology* 6, 150–6; W. C. Hayes, *Most Ancient Egypt* (Chicago, 1965), 95, 116, 119.

⁴⁰ P. E. Newberry, *Beni Hasan*, 1 (London, 1893), 58, 69, pl. xxx.

⁴¹ *Ibid.* 69; Kees, *Ancient Egypt*, 118–20.

⁴² Newberry, *Beni Hasan* 1, 69, pls. xxx, xxxi.

⁴³ J. Baines and J. Málek, *Atlas of Ancient Egypt* (Oxford, 1980), 14.

⁴⁴ Lucas and Harris, *Ancient Egyptian Materials*, 80–4, 196–7.

⁴⁵ H. Goedicke, *JARCE*, 21 (1984), 203–10.

The artefacts discovered near the Gebel el-Zeit galena mines included Tell el-Yahudiyeh ware, sherds from Pan graves, and Syro-Palestinian cylinders of the Late Bronze Age,⁴⁶ which confirms that foreigners were present here from the Middle to Late Bronze periods, or at least that there was contact with these people in this area. If Asiatics were employed in the turquoise mines of Sinai during the Middle Kingdom,⁴⁷ they may well have mined the galena at Gebel el-Zeit, just south across the Gulf of Suez.

In the New Kingdom, Akhenaten set up a series of guard houses and patrol routes near the escarpment of the Eastern Desert, surrounding his city, Akhetaten.⁴⁸ This was to ensure protection from attacks by Bedouin and infiltration into the city by spies and assassins.⁴⁹ Akhetaten lies on a direct line opposite Wadi Abu Had and Zeit Bay and is in the fifteenth Upper Egyptian nome, just south of Beni Hasan.

The above points suggest that both indigenous and foreign peoples were occupying the Middle Eastern Desert in a nomadic or semi-nomadic way. Some of the wadis may have served as secondary routes for bringing in trade goods. Trigger suggested that with the increase of trade with south-west Asia, the early rulers were intent on having centralized control over the trade routes and still unconquered independent rulers.⁵⁰ The well-known ivory label from Abydos shows Den, fifth king of the First Dynasty, smiting a bearded captive in a desert and mountainous region, possibly the Eastern Desert. The inscription reads, 'First occasion of smiting the East'.⁵¹ This suggests that rulers or chiefs probably still resided in the Eastern Desert and were strong enough to challenge the developing urban communities in the Nile Valley. On the label the king's standard bears the god Wepwawet ('Opener of the Ways'). Kees suggested that Wepwawet might have been a political rival at the beginning of the Dynastic Period,⁵² who later became the local god of Asyut. The scene on the label may show the subduing of the remaining people whose emblem once was Wepwawet and who were centred near Asyut and the Middle Eastern Desert. Asyut means 'sentinel' or 'watcher', its meaning underscoring the importance of this site; whoever held this strategic position along the Nile also controlled Middle Egypt.⁵³ Although Den was probably gaining control over routes in Upper Egypt and those leading to Sinai,⁵⁴ he may have wished to control Middle Eastern Desert routes as well, such as the Wadis el-Tarfa and Asyuti mentioned above. Thus he or earlier kings were probably still clearing this remoter part of Egypt whose fetish may have been Wepwawet, later adopted by Asyut.⁵⁵

Most peoples entering Egypt either from the Near East or from Nubia during the early periods used overland routes in the north and the south. By Naqada II, people from Mesopotamia were sailing to the western shore of the Red Sea and entering Egypt via the

⁴⁶ Castel et al., *Gebel el-Zeit* 1, 138.

⁴⁷ J. Bottéro, *CAH*³ 1, 2 (Cambridge, 1971), 355; Rothenberg, *Sinai*, 163.

⁴⁸ Norman de G. Davies, *The Rock Tombs of El Amarna*, iv (London, 1906), pls. xxii, xxiv, xxv, xxvi, xli; B. J. Kemp, *Amarna Reports*, iv (London, 1987), 12, 13; personal observation of patrol routes.

⁴⁹ Davies, *El-Amarna* iv, 15-18.

⁵⁰ B. G. Trigger, *The Cambridge History of Africa*, 1 (Cambridge, 1982), 526-8.

⁵¹ A. J. Spencer, *Catalogue of Egyptian Antiquities in the British Museum*, v (London, 1980), 460, pls. 49, 53, 65.

⁵² See discussion by E. Hornung, *Conceptions of God in Ancient Egypt*, trans. J. Baines (London, 1983), 234 n. 66.

⁵³ Kees, *Ancient Egypt*, 99-100.

⁵⁴ Rothenberg, *Sinai*, 151; Bottéro, *CAH*³ 1.2, 352.

⁵⁵ A. Moret, *The Nile and Egyptian Civilization* (London, 1927; re-issued 1972), 38-53.

Wadi Hammamat.⁵⁶ Apart from the known ports on the Red Sea, could the natural harbour of Zeit Bay have been used during later Predynastic times or at various intervals throughout historic times? Its strategic position in relation to the southern tip of Sinai and the north-west coast of Hejaz has been noted already.

Sidebotham, who has excavated the Roman fort at Abu Shaʿar, 50 km south of Zeit Bay, queried the identification of this site as the port of Myos Hormos, an identification now abandoned. He tentatively proposed that Zeit Bay might be a possible location, on the basis of local reports of a nearby Roman town and a theory of the harbour being a protected beach where ships could temporarily anchor and unload.⁵⁷ However, through lack of any substantial evidence, he discarded the theory.

The main reason for searching elsewhere for this harbour is that the descriptions of its approach and shoreline given by ancient historians⁵⁸ do not resemble these features at Abu Shaʿar today.⁵⁹ Agatharchides of Cnidus (170–100 BC), one of the first to write about the Eastern Desert, described the port as having a winding entrance with three large islands opposite it.⁶⁰ These were probably Shadwan, Tawila, Gubal or Qeisum. The port has been described also as having two winding entrances.⁶¹ Shadwan is the only island that lies in relative proximity to Abu Shaʿar, while the others are closer to Gemsa Bay and Zeit Bay.

The important point concerning these speculations, as well as the local rumours regarding the siting of Myos Hormos, is that Zeit Bay has been considered a potential harbour. This problem should be solved by making a series of sondages around the shoreline as well as carrying out underwater explorations in the bay area.

Taking the hypothesis that Zeit Bay could have been a port at one time, a reciprocal harbour might be identified at El-Markha,⁶² just south of Abu Zenima on the west coast of Sinai. Undiscovered ports of a temporary nature possibly lie on both the western and eastern coasts of Sinai. Naval expeditions may have sailed to Sinai from the Middle Kingdom port at Wadi Gawasis, about 140 km south of Gebel el-Zeit.⁶³ Another port is Leuke Kome, believed to have been located at the mouth of the Wadi Aynunah, a large natural harbour near the Gulf of Aqaba on the north-west coast of Hejaz.⁶⁴ Its position was strategic to trade routes penetrating into the Near and Middle East, in both a north-western and an eastern direction.

Although the currents are treacherous within the two gulfs converging in the Red Sea, the latter can be navigated in all seasons.⁶⁵ The Red Sea was being crossed by Graeco-Roman times,⁶⁶ and possibly much earlier, during the Eighteenth Dynasty.⁶⁷ Pliny

⁵⁶ Trigger, *Cambridge History of Africa* 1, 514–16.

⁵⁷ S. E. Sidebotham et al., *JARCE* 26 (1989), 128 fig. 1, 131.

⁵⁸ Diodorus Siculus, iii. 39. 1–4; Strabo, *Geography* xvi, 769–70; G. W. Murray, *JEA* 11 (1925), 138–50.

⁵⁹ L. A. Tregenza, *The Red Sea Mountains of Egypt* (London, 1955), 93.

⁶⁰ Murray, *JEA* 11, 141.

⁶¹ L. P. Kirwan, *Studies in the History of Arabia*, II: *Pre-Islamic Arabia* (Riyadh, 1984), 57.

⁶² Rothenberg, *Sinai*, 151, 161; Bottéro, *CAH*³ 1.2, 355 and see Map 1 on p. 2.

⁶³ A. M. A. H. Sayed, *JEA* 64 (1978), 69–71; id., *RdE* 29 (1977), 138–78. Although Mersa Gawasis served Bia-Punt (*Bis-n-Pwnt*), confirmed by textual evidence and believed by Sayed to be one land instead of two (Sinai and Punt), as thought by Gardiner, *JEA* 4 (1917), 36, n. 4, expeditions to Sinai should not be ruled out. However, to reach Sinai it would have been more expedient to sail from either Zeit Bay or Zafarana at the mouth of the Wadi Araba further north.

⁶⁴ Kirwan, *Studies*, 55–9.

⁶⁵ J. R. Wellsted, *Travels in Arabia*, II (London, 1838), 300; L. Bradbury, *JARCE* 25 (1988), 127–56.

⁶⁶ L. Casson, *The Periplus Maris Erythraei* (Princeton, 1989), 11, 46, 61, 143–4.

⁶⁷ P. J. Parr, in D. T. Potts (ed.), *Araby the Blest. Studies in Arabian Archaeology* (Copenhagen, 1988), 82–5.

describes how the trogodytes built rafts to convey cinnamon from Ethiopia across the Straits of Bab el-Mandeb. These rafts had neither rudders, nor oars, sails, or any other helpful devices.⁶⁸ Additionally, Strabo relates how the Arabs, at the mouth of the Gulf of Aqaba, built rafts to plunder vessels sailing from Egypt.⁶⁹ Although these tales are from a later period, there is no reason to believe that the trogodytes and groups of people across the Red Sea from Egypt could not have employed the same ingenuity at an earlier period, either sporadically or fairly consistently.

Methodology

The survey area encompassed a 20 by 15 km rectangle (figs. 1, 2) which lies on an axis stretching from north-east to south-west across the wadi floor. The aim was to cover as much of this territory as possible in order to become familiar with the topographical layout and distribution of artefacts and sites.

The map used was the most recently published (1989), produced by the Egyptian General Survey Authority in co-operation with FINNIDA (Finland), at a scale of 1:50,000. The survey was conducted from four arbitrary points lying between 1, 2, and 4 km apart along the track running north to south on the eastern plain of Wadi Abu Had (fig. 2). No vehicular survey was undertaken, to avoid missing less obvious details. The procedure for the survey consisted of walking a series of transects, running in straight and diagonal lines which formed triangles covering from 4 to 10 km, starting with the shorter distances first, then expanding further out from the initial starting points.

The mapping of the relative positions of sites was carried out on the small-scale map of 1:50,000 using a prismatic compass to obtain bearings. No bench marks exist within the area. There are only trigonometric stations: one on the Gebel Safr Abu Had at 289 m, and four on the highest peaks of the Hamrat el-Girgab at 448 m, 433 m, 417 m, and 416 m (fig 2).⁷⁰

The sites mapped fall into two categories. The first is the ephemeral site consisting of stone piles, small installations, knapping sites, rock shelters, camps and hearths. These were established over a short period of time or intermittently over long periods, or re-used, for instance, by Bedouins. The second type is the drop site with an occupation length of no more than a few minutes. This category includes mainly sherd scatter, where a vessel was dropped and broken.⁷¹ Samples of flint implements and sherds from both types of site were drawn and photographed. Stone groupings were photographed and in some cases planned.

The point selected for commencing the survey was 6 km south on the eastern longitudinal track (fig. 2), opposite the southern end of the northern mass of Gebel Safr Abu Had. The sites recorded here before the Gebel Safr Abu Had included WAH 8 and 9. The discovery of flint scatters led the survey further west around the base of the southern end of the gebel (pl. V, 2), where sources of flint were more concentrated. Here the sites GSAH 1, 2, 3, 4 and 5 were located. While approaching this part of the limestone range, a cut in the face of the gebel was noted at GSAH 7, apparently a small quarry. South of the flint sites were smaller outcrops of limestone lying near a dried silt basin,

⁶⁸ Murray, *The Geographical Journal* 133, 32.

⁶⁹ Ibid.

⁷⁰ A GPS receiver will be used in the second season.

⁷¹ S. A. Rosen, *Journal of Field Archaeology* 14 (1987), 29-41. Rosen's terminology has been adopted to describe and define various types of desert sites.

which seemed ideal for some form of settlement. Here GSAH 6 and WAH 22, 23 and 24 were discovered; these included a re-used rock shelter and a Bedouin camp and well.

Later the station was shifted a kilometre south from the 6 km point. Transects were made over this part of the gravel plain and the eastern wadi floor stretching towards the basalt/granite range.

Another point was established to the north, 2 km south of the turn-off point. Here a series of small piles of basalt, WAH 11, were grouped along a subsidiary pathway leading off the main track. These features were planned at a scale of 1:50. Transects were walked west towards the northern reach of Gebel Safr Abu Had, where sandstone terraces dominate. In this region, fossil remains were noted at WAH 10, 16 and 17. The summit of the gebel was then crossed, leading to a more desolate zone of the western plain. Here shallow sandy wadis contained several Bedouin hearths at WAH 19. Westwards a drop site of late Roman sherds at WAH 12 was noted on the surface of a gravel-covered terrace. North of the sherds and on the same terrain a singular cobbled hearth was located at WAH 26.

The last station was established at 1 km along the main track south of the junction. A few flint artefacts were noted at WAH 13 and 15, and another stone installation at WAH 14. North, near the Wadi Dib, a sub-circular sandstone pile, WAH 18, was noted along a track leading onto the eastern plain.

The survey was then extended to the foothills and subsidiary wadis within the Hamrat el-Girgab. The main objective was to attempt to discover traces of petroglyphs and unimpeded passes through the mountain range. In the former case, nothing was found.⁷² In the latter, a well-defined pass stretched through the hills at WAH 25. The same process was carried out north of the track, but again no petroglyphs were apparent. Remains of tent circles and fragments of minerals extracted from the area by an Egyptian geological mission were noted at HG 20 and 21.

The distribution of sites and finds reveals a pattern. The southern region offers more potential for temporary encampments and industry, that is for flint working, whereas the northern area appears to be a place of transit, as witnessed by the variety of stone formations.

Results of the survey

The results of the survey are important, since no previous archaeological work has been done in the Wadi Abu Had and its immediate surroundings. One of the first Europeans to travel through this part of the Eastern Desert was Wilkinson in 1823.⁷³ Murray and Tregenza probably passed through here, but they do not specifically mention it in their reports.⁷⁴ The first to carry out substantial archaeological work in the Middle Eastern Desert were the French during the 1980s,⁷⁵ but their sites lay outside the immediate surroundings of the Wadi Abu Had. Early geological surveys which included Wadi Abu Had were made by Schweinfurth and Barron and Hume.⁷⁶ The most recent geological

⁷² This does not mean that petroglyphs did or do not exist in this region. In the former case, they may have existed but have disappeared during the course of rock erosion. In the latter, more time needs to be devoted to searching the wadis in the mountain ranges.

⁷³ See above, n. 18.

⁷⁴ Murray, *Geographical Journal* 133, 24-33; Tregenza, *Red Sea Mountains*.

⁷⁵ Tawab et al., *BIFAO* 90, 359-64; Castel et al., *Gebel el-Zeit* 1; Montecat, *BIFAO* 86, 239-55.

⁷⁶ G. A. Schweinfurth, *Aufnahmen in der östlichen Wüste von Ägypten*, Part 2, Sheet 5 (Berlin, 1901); Barron and Hume, *Topography*, 79-82.

work carried out in this vicinity is that done by the Egyptian Geological Survey and Mines Authority (EGSMA) during the last few years.

Stone features

Stone features or structures are referred to in fig. 2 (see legend) as 'cairns'. However, in this report none of the features can be shown to be burials, which this term often implies, though they may have been set up as memorials. These stone alignments are better classified as stone piles or installations.

WAH 11: A series of four stone outcrops on the eastern plain of Wadi Abu Had. They stand prominently on the north side of a subsidiary track running west to east towards the Hamrat el-Girgab. The basalt rock consists of boulders and large chips. Among this deposit, three groups are distinguished as having been rearranged into formations. The westernmost group (fig. 3 no. 1, pl. V,1) resembles a miniature dolmen, 65 × 50 cm and approximately 45 cm high. A flat stone surmounts another set on its edge and a wider stone with a level surface. Murray discusses similar structures set up in the desert by the Bedouin.⁷⁷ These consist of three flat stones set on edge to form a shrine said to be associated with a serpent. The serpent represents a *weli*, the spirit of a holy man who can intercede for the petitioners to God.⁷⁸

The other two formations (fig. 3 nos. 2 and 3, pl. V,1) consist of stones laid in a sub-circle east of the 'dolmen'. The diameters of these measured respectively 1.75 m and 2.50 m. These could form a group of road markers, or stones marking an event.⁷⁹ This type of structure is usually undatable, and could be ancient or modern.

WAH 14: A loosely-packed circle of boulders one course thick, situated on the summit of a foothill east of Gebel Safr Abu Had. The diameter is 1.80 m with a height of 30 cm. The boulders consist of small sandstone blocks, limestone and a flint nodule, set onto a flint surface. The sandstone blocks were collected from a wadi below and purposely brought to the summit. The structure resembles the storage platforms seen in the desert of eastern Jordan,⁸⁰ connected with Bedouin campsites. It appears to be recent, and the site was chosen probably as a lookout point.

WAH 18: A sub-circular mound of sandstone blocks 5.00 × 4.50 m and 58 cm high, situated near the edge of the estuary of a subsidiary wadi opening onto the eastern plain. This feature could be natural rather than artificial.

WAH 26: A compact circle of flint cobbles approximately 60 cm in diameter and 10 cm high. It sits isolated on an extensive flint-covered terrace in the western plain. Tregenza mentions the Ababda breadstones which frequently appear dotted in the Eastern Desert: these are little stone circles which mark a resting place or meal left by one or more persons.⁸¹ These circles are accumulated over long periods of time.

⁷⁷ G. W. Murray, *Sons of Ishmael* (London, 1935), 158.

⁷⁸ *Ibid.* 150 n. 1. The description of the little desert rock shrine set up in honour of the serpent (*weli*) has some parallels with the small stone cubicle shrines placed by the workmen of Deir el-Medina on the mountain slope overlooking the Valley of the Kings. These were dedicated to the goddess Meretseger who took the form of a serpent: B. Bruyère, *Mert Seger à Deir el Médineh* (Cairo, 1930).

⁷⁹ Botiéro, *CAH*³ 1.2, 351; Murray, *Sons of Ishmael*, 195. An event could be someone's death, an argument, or some other occurrence of note. (Discussions with S. Gibson of the Palestine Exploration Fund.)

⁸⁰ A. Betts et al., *Levant* 22 (1990), figs. 15, 18.

⁸¹ Tregenza, *Red Sea Mountains*, 140; M. Stékélis, *Les Monuments mégalithiques de Palestine* (Paris, 1935), 46-51 and fig. 8x. Small stone hearths closely resembling WAH 26, but associated with tumuli, appear at El-Adeimeh, north-east of the Dead Sea. They lie either under the tumulus or outside it, and date from the Neolithic/Chalcolithic with a final general use in the Early Bronze Age (provisional dating provided by S. Gibson).

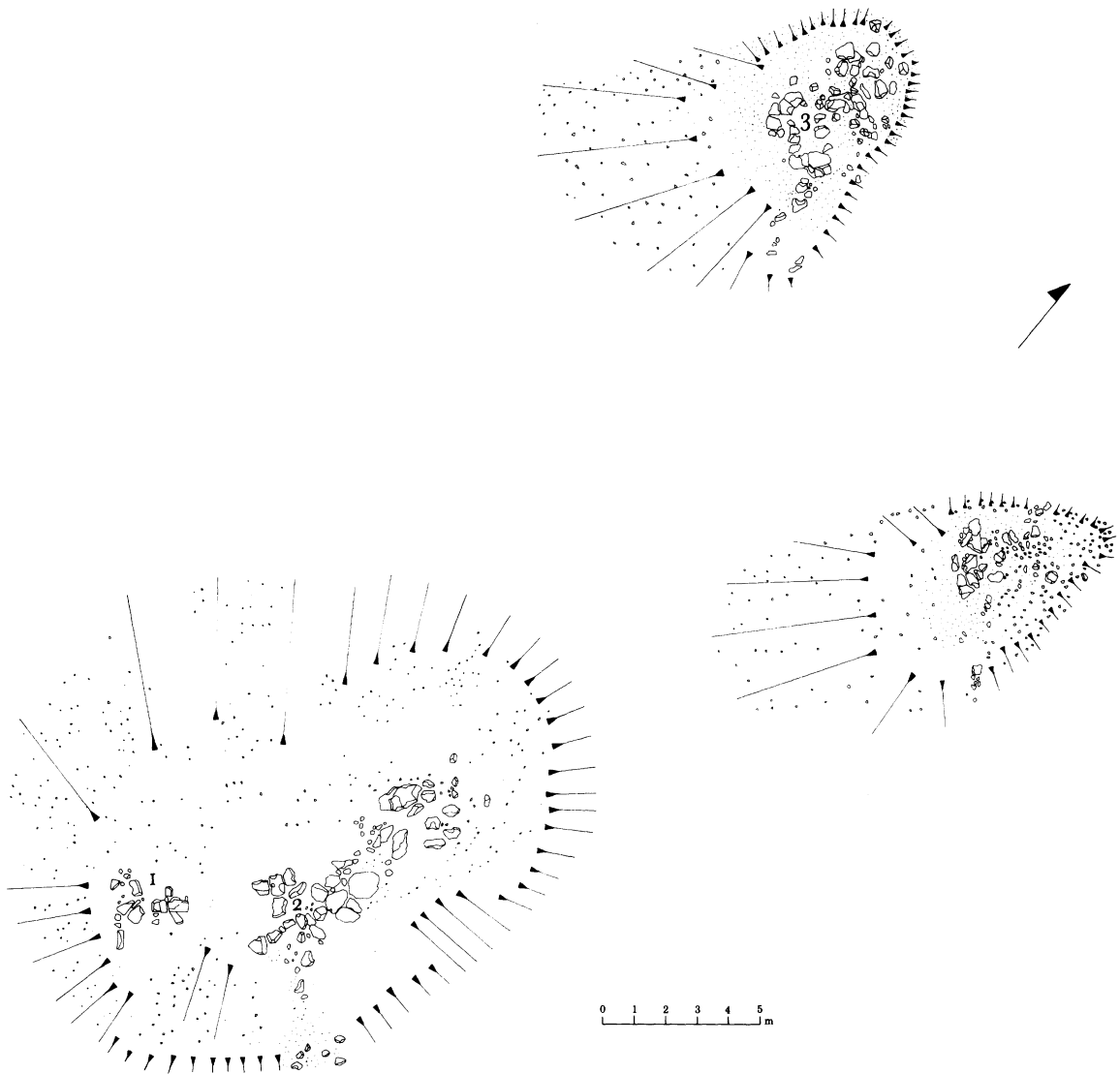


FIG. 3. Stone groups beside a desert track.

Rock shelter

GAH 6: A rock shelter in one of the limestone outcrops lying in the gap in Gebel Safr Abu Had. It is located under an overhang in the limestone which had been undercut by water and wind erosion. A low wall of limestone boulders stretches for approximately 8 m under the shelf. The wall is 1 m high at the southern end. In the centre, the boulders are a scattered line.⁸² Behind the wall were three scooped-out hollows in the sand floor, used as sleeping quarters for Bedouin.⁸³ Before the wall were the skull and forefoot of a gazelle.

⁸² Rosen, *J. Field Archaeology* 14, 35. He remarks on numerous rock shelters seen in the Negev. While in Oman with the British Museum excavations at Ras el-Had, I observed a rock shelter in the mountains. However, it was more extensively constructed. The enclosing wall extended to the overhang, leaving only a small doorway through which to enter.

⁸³ Tregenza, *Red Sea Mountains*, 178; Wellsted, *Travels in Arabia* II, 105.

Limestone quarry

GSAH 7: A possible quarry indicated by a series of shallow rectangular cuts in the south-eastern face of Gebel Safr Abu Had; there may be natural rock-fall as well. A pathway lined with shale and limestone boulders rises gradually from the bottom of the plain to the base of the gebel. Large blocks of limestone lay at the base. Body sherds from two *zirs* lay under an overhang nearby, and two body sherds and the base from another vessel were trapped in skree. A hole had been drilled through one sherd.

Bedouin encampments

WAH 19: The Bedouin⁸⁴ establish hearths in the desert, at points where they stop for a meal or set up a tent. One hearth was discovered in the loose sand floor of a wadi near the western face of Gebel Safr Abu Had. It was a semi-circle composed of three medium-sized long stones, measuring 60 cm wide and 29 cm deep. Twigs from acacia trees had been used as fuel, remnants of which were lying around the outside of the hearth. Two similar hearths were situated near an acacia tree a short distance away.

WAH 22, 23, 24: A Bedouin encampment, consisting of a hearth, a well, and a tent foundation, situated south of Gebel Safr Abu Had and west of the rock shelter (WAH 6). The hearth (WAH 22) lay beneath an acacia tree, and was typical of those seen at WAH 19. It was composed of a series of medium-sized stones and contained fragments of charcoal.

A well (WAH 23) was dug 15 m east of the hearth. It was about 10 m deep, and the spoil from the excavation encircled the mouth of the shaft. It was dry. However, at one time water was available, since the remains of a water-hauling device with a bucket lay at some distance northwest of the well.

East of the well were the foundations of a rectangular tent (WAH 24), 6.60 m × 4.50 m. Stones were set around the perimeter which had been crudely banked with scoops of earth. Part of a rope lay in the interior, and a hearth was set in the south-east corner.

Sherds

Apart from the modern sherds mentioned under section GSAH 7, a drop site of Late Roman sherds (WAH 12) (fig. 4) was sighted on the surface of a flint-covered terrace in the western plain. The vessel was an amphora. Fragments of a rim, two handles, and 31 ridged body sherds showing differential weathering were recorded. The fabric was a dark grey-brown with gold flecks similar to that described for wares at Abu Sha'ar,⁸⁵ and the vessel has been dated late fourth to fifth century AD.⁸⁶

A possible reason for the vessel's appearance in such an isolated position is that it was dropped on the way to the copper mines at Darah West, which were re-opened in the Late Roman/Byzantine period.⁸⁷

⁸⁴ Murray, *Sons of Ishmael*, 1. 'Bedouin' in Arabic is *badawy*, meaning 'one who inhabits the desert', and is not synonymous with 'Arab'. Bedouin can be Hamitic or Semitic and probably had a common origin in prehistoric times. In Egypt Bedouin tribes include the Beja and their ancestors, as well as Arab tribes who arrived later.

⁸⁵ Sidebotham et al., *JARCE* 26, 152.

⁸⁶ I am indebted to D. M. Bailey of the Greek and Roman Department of the British Museum, London, for identifications and dating. Wares comparable to WAH 12 are found in M. Egloff, *Kellia*, II (Geneva, 1977), pl. 58, 8; pl. 60, 2; pl. 99, 181. See also Sidebotham, *JARCE* 26, 153, fig. 16.3.

⁸⁷ Tawab et al., *BIFAO* 90, 361, 363-4.

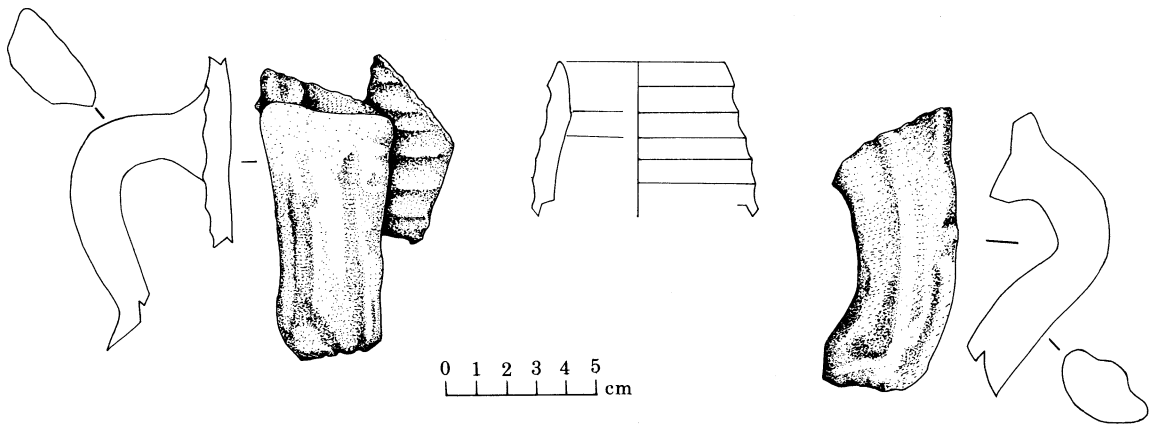


FIG. 4. Late Roman sherds.

The flints

Hand-struck lithic material was recorded at nine locations within the survey area: WAH 9, 13 and 15, which were stray, individual finds, GSAH 1 and GSAH 2, which were small groups of flint implements, and WAH 8 and GSAH 3, 4, and 5, which were larger flint scatters (see fig. 2).

When fresh this material is of an opaque grey colour and it seems to be good quality flint which knaps easily, giving sharp edges. Nodular cortex in the fresh state ranges from a soft, fawn colour to grey-brown. Eroded and abraded flint chunks occur in profusion on both sides of Gebel Safr Abu Had, forming a significant part of the hillwash that may well cover any potential settlement sites in the flatter, valley bottom areas of Wadi Abu Had.

In the main the recovered lithic material has been subjected to varying degrees of desert erosion, mainly sand/wind blasting, the development of rock varnish, and various levels of algal growth. Almost all the exposed flint recovered from the various locations ranges from buff-grey to dark grey-brown in colour.

It must be remembered in what follows that no detailed programme of lithic collection determined the recovery of samples from any of the larger flint scatters. Time and labour constraints meant that only a 'grab' sample could be obtained, and while every attempt was made to show the range of material visible on the desert surface, the samples may, of necessity, be biased in favour of larger elements. All the material was returned to its respective findspots, in accordance with the directions of the Egyptian Antiquities Organization.

Individual finds and small groups of artefacts

(i) *Handaxes*: Two definite examples were recovered, both showing the classic twisted 'S' cutting edge that is indicative of a broadly Acheulian or Lower Palaeolithic date. Fig. 5, no. 1 shows the exceptionally well preserved handaxe from WAH 9, $103 \times 100 \times 62$ mm, and fig. 5, no. 2 a heavily eroded example from WAH 13, $145 \times 98 \times 42$ mm. Both handaxes indicate that their cutting edges were created by alternate flaking using soft hammer, direct percussion, techniques.

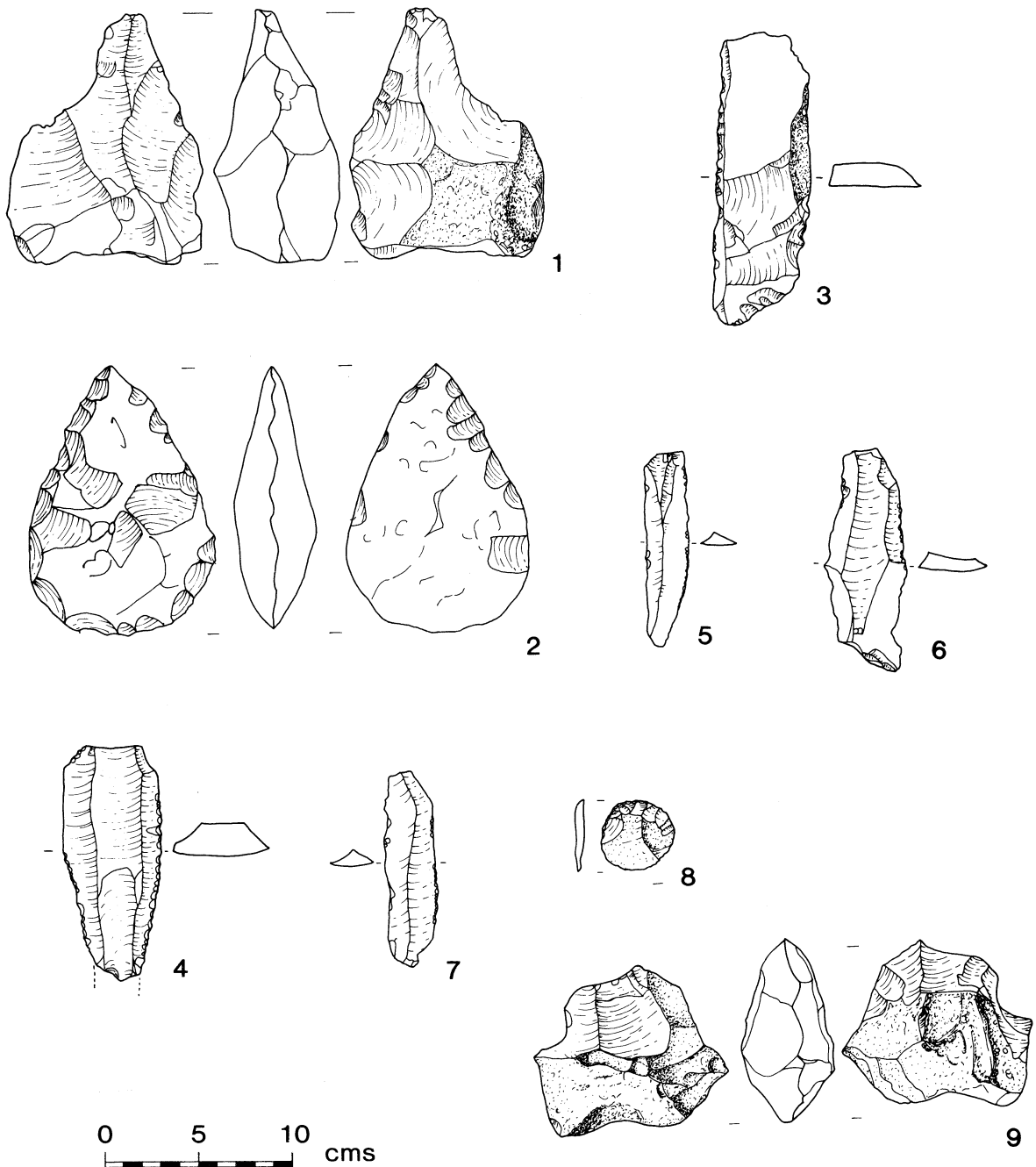


FIG. 5. Selected lithic material from WAH 9 (no. 1), WAH 13 (no. 2), GSAH 1 (no. 3), GSAH 2 (nos. 4-6), WAH 15 (no. 7), WAH 8 (nos. 8-9).

(ii) *Blades and flakes*: Two large blades/flakes were found together at GSAH 1, three at GSAH 2, and a further single example at WAH 15. Of the two at GSAH 1, one example (fig. 5, no. 3) is retouched and one is not. The three at GSAH 2 have all been utilized (fig. 5, nos. 4-6) and the heavy example from WAH 15 is retouched down both edges (fig. 5, no. 7). It is difficult to suggest a broad date for this isolated material, but Diane Holmes (Institute of Archaeology, London) has

suggested that some of the stray finds and some of the material on the larger flint scatters may belong in the Holocene period (personal communication). This would put it fairly late in the sequence of prehistoric cultural development in the region.

Larger flint scatters

Four sites can be placed under this heading: WAH 8, on an outcrop of Nubian sandstone to the north-east of Gebel Safr Abu Had and GSAH 3, 4, and 5, all located at the base of the mountains, on the southern slopes, below areas of flint outcrop. It seems likely that the flint being exploited was derived from the skree material in these locations.

WAH 8: Thirty pieces were recorded of which twenty-three retained nodular cortex. Among the artefacts identified were one scraper (fig. 5, no. 8), one handaxe (fig. 5, no. 9), two cores, and three flakes which showed edge damage/utilization. The rest of the sample was classified as waste flakes. The main knapping technology seems to have involved hard hammer direct percussion. All the pieces are in various shades of grey-brown flint and it may be that the sample shows a mixture of material of different dates. The potential handaxe may be of Lower Palaeolithic date while the scraper form may be much later. Of the waste flakes in the sample, all, with two exceptions, are short and squat, not reaching the proportions of blades (i.e. length = twice the breadth). This is in direct contrast to the material from GSAH 3, 4 and 5 which shows a preponderance of blade-like flakes.

GSAH 3: Seventeen pieces were recovered from this location; again, all are in various shades of grey-brown flint. Eight pieces retain some nodular cortex. Among the artefacts identified are six cores of various types (see below), one knife with a denticulated blade and ten flakes that exhibit edge damage/utilization/retouch. As with WAH 8, hard hammer direct percussion technology seems to dominate.

Of the six cores, four are single platform examples, with flakes removed around part of the circumference (fig. 6, no. 1), one is a keeled core, with flakes removed from at least three directions, and the sixth is a large tortoiseshell-like core on a large flint cobble (fig. 6, no. 2).

The knife is a particularly fine piece (fig. 6, no. 3). It has a pronounced bulb of percussion and a faceted butt. The right edge has very clear, fresh denticulations created by hard hammer direct percussion; however, the piece is broken transversely at its distal end. The presence of the tortoiseshell core and the knife suggest a possible Mousterian (Middle Palaeolithic) date for this material. The retouched/edge-damaged flakes range in length from 51 mm to 106 mm, with a mean length of 90 mm, and in breadth from 27 mm to 56 mm, with a mean breadth of 45 mm. The emphasis here seems to be on the production of more blade-like flakes.

GSAH 4: Twenty-five pieces were recorded from this location, of which thirteen retain hard pitted nodular cortex. Nine cores, eight edge-damaged/utilized flakes and eight waste flakes were identified. The nine cores are classified as follows:

TYPE	QUANTITY
Single platform, worked part way around circumference	4 (fig. 6, nos. 4, 5)
Single platform, worked around all circumference	1
Discoidal	1 (fig. 6, no. 6)
Two opposed striking platforms	2 (fig. 6, no. 7)
Core fragment	1
TOTAL	9

As with the sites discussed above, no primary flakes from core preparation were recorded from this location and only two examples have been recorded from the much larger lithic scatter at GSAH 5 (below). This raises the question of how striking platforms were originally prepared on the cores. A majority of the cores from the sites are on large chunks of flint which have been shattered from much larger nodules and, as will be seen for GSAH 5, over a quarter of the flakes recorded have cortical butts. It may be that the nodules in the limestone were simply broken by

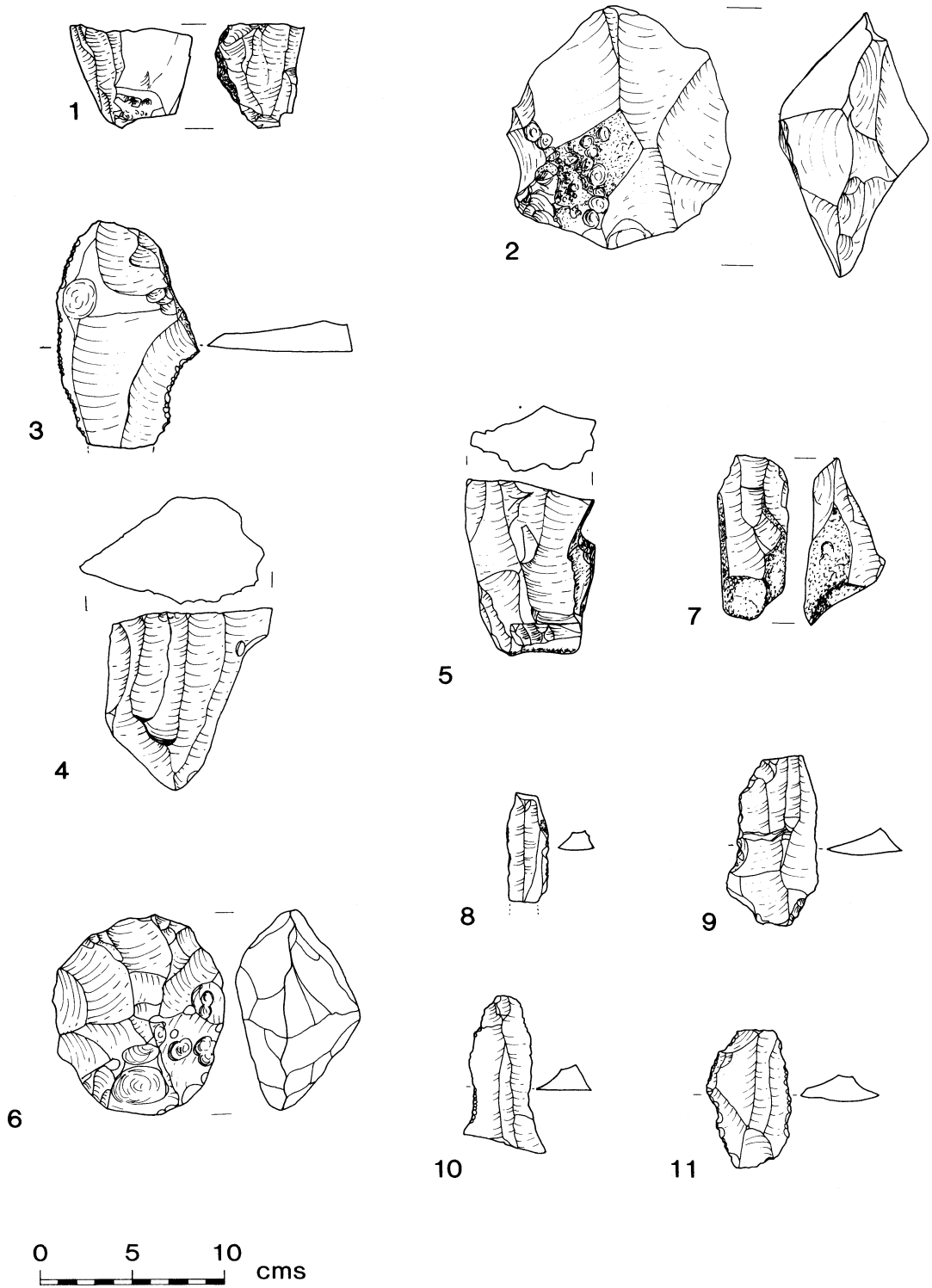


FIG. 6. Selected lithic material from GSAH 3 (nos. 1-3), GSAH 4 (nos. 4-11).

basic direct percussion and large usable lumps were then selected. The striking platforms of some cores may have been cortical and the worked faces cortex-free, thus negating the need for detailed core preparation. This kind of wanton consumption of the flint resource is exactly what one might expect in an area like the one under study, where flint is so prolific.

Taken together, the complete edge-damaged/utilized flakes and the waste flakes range in length from 71 mm to 128 mm, with a mean length of 92 mm, and from 28 mm to 63 mm in breadth, with a mean breadth of 42 mm. Four examples of the edge damaged/utilized flakes are illustrated (fig. 6, nos. 8-11).

GSAH 5: This was the largest sample of flint material collected in the course of the survey, with 168 pieces being recorded. All are in varying shades of grey-brown flint and 92 pieces retain hard, pitted nodular cortex. The artefacts recorded can be classified as follows:

TYPE	QUANTITY
Cores	18
Denticulated blades	6
Notched blades	1
Edge damaged/utilized flakes/blades	89
Waste flakes	54
TOTAL	168

The eighteen cores can be further classified as follows:

TYPE	QUANTITY
Single platform, worked part way around circumference	12 (fig. 7, nos. 1, 2)
Two opposed striking platforms (oblique angles)	2 (fig. 7, no. 3)
Two platforms at right angles	1
Three platforms	1
Core fragments	2
TOTAL	18

The majority of the cores are on pieces shattered from larger nodules and bear out the observations made above about core preparation.

The general lack of recognizable tool types from this sample and, indeed, from the others noted above, raises a very interesting point about resource use and artefact procurement generally. It may well be the case that the locations around the foot of Gebel Safr Abu Had served simply as 'quarries' to which people may have come at certain times when they needed new flint tools. As a result, all we may be seeing in the collected material is what was left behind after the tool manufacturing process or rough-out preparation had been completed. Finished artefacts may have been removed from the site or carried out as rough-outs to be completed at other settlement locations. The six denticulated blades and the single notched flake (fig. 7, nos. 4-6) are a poor range of tools from so large a collection.

A further point should be made here about the flakes and blades which show edge damage (fig. 7, nos. 7-11). Much of this may be the result of very small flakes and chips having been removed from flake edges by natural processes. This would be particularly the case if the material had gradually rolled down the skree face by force of gravity at times of flash flood and heavy rain. The edge-damaged and waste flakes range in length from 26 mm to 152 mm, with a mean length of 79 mm, and in breadth from 13 mm to 65 mm, with a mean breadth of 32 mm.

In terms of broad general date this material is very similar in morphology to material in the Museum of Antiquities in Cairo which is described as Mousterian. However, Diane

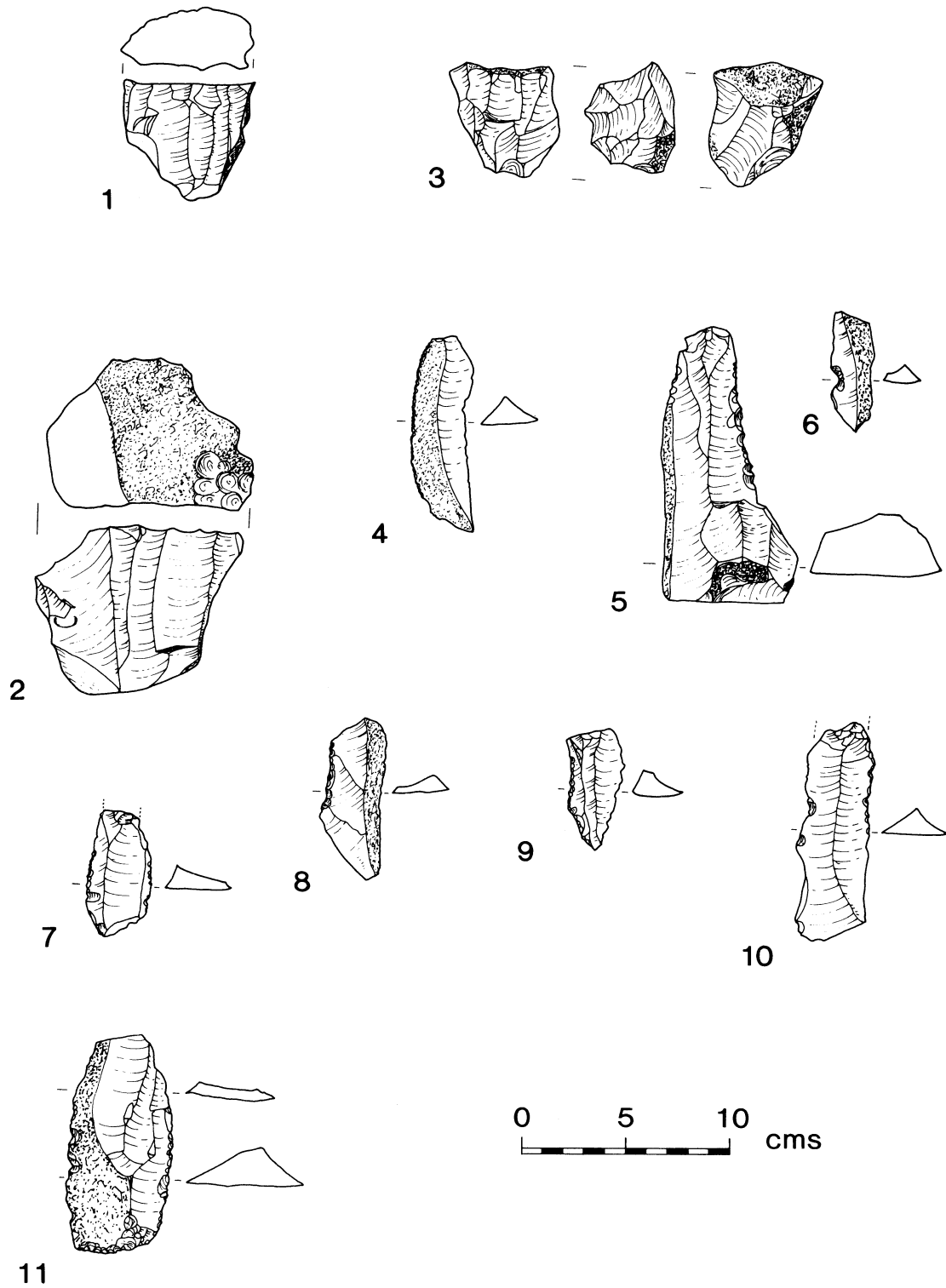


FIG. 7. Selected lithic material from GSAH 5.

Holmes, on the basis of her work with Badarian flint further west in Egypt, suggests that some of it may belong to the Holocene period.

In the course of preparing this report on the lithic material recovered in the survey, it was striking how little work had been done on the prehistoric archaeology of this part of the Eastern Desert. Indeed, I was able to find only one recent report of work in the area, that produced by Christian Montenat in 1986.⁸⁸ Here the French team was involved in geological survey work, and they skirted around the Wadi Abu Had area. Some of the Lower Palaeolithic and Levallois material that they discovered is directly comparable to that from our survey. However, they identified nothing that they considered datable to the Upper Palaeolithic, Mesolithic or Neolithic periods.

What the material described above has clearly demonstrated is that the Eastern Desert could be a very fruitful area for prehistoric research. That archaeologists have neglected its prehistory for so long is, ultimately, their loss. A full publication of the lithic material from Wadi Abu Had will appear in a separate report on the prehistory of the area.

Summary and conclusion

The Wadi Abu Had survey is among the few carried out in the Middle Eastern Desert. Within the concession it has identified a natural crossroads in this region, strategic to mines both in the north and south, a potential harbour in the east at Zeit Bay, and in the west a link-up with major wadis leading to ancient townships and settlements along the Nile Valley.

The first season has produced evidence of nomadic/semi-nomadic life within this region, dating from the prehistory to the present day. This is confirmed by stone alignments, temporary campsites, and artefacts—the main body of which are flint scatters and knapping sites ranging from the Lower Palaeolithic to the Holocene. Earliest pottery remains from the first season date to the Late Roman period.

The southern area offers more potential for temporary settlements. This is borne out by the flint-producing limestone of Gebel Safr Abu Had with its concentration of flint implements. The fact that water is searched for in this region today suggests that moisture was greater here during the Neolithic Sub-pluvial. The northern area of the concession appears to be a transit region with stone features serving as markers, memorials, or hearths.

The second season will extend into Wadi Dib and further south and south-east into Wadi Abu Had to achieve a greater picture of the area and to locate numerous sites suspected to exist in those regions.

⁸⁸ *BIFAO* 86, 239–55.



1. Eastern plain of Wadi Abu Had with Hamrat el-Girgab in the background and stone groups in the foreground (see fig. 3)



2. The western plain of Wadi Abu Had looking east towards Gebel Safr Abu Had
WADI ABU HAD SURVEY, 1992 (pp. 23-44)

A FRAGMENTARY MONUMENT OF DJOSER FROM SAQQARA

By ZAHİ HAWASS

Publication of a monument discovered at Saqqara, belonging to Djoser and, specifically, to his pyramid complex. This limestone piece with reliefs on three of its sides and an unfinished rough-cut back and top had been broken into two parts. The decoration is composed of snakes, jackals, lions/lionesses, *serekhs* and the Horus name *Ntry-ht*. Three locations for the original emplacement of the monument are suggested: the *heb-sed* court, the north side of the pyramid complex, and within a ceremonial gateway. This unique monument has no parallel in the Third Dynasty. Its discovery may change suggestions for the reconstruction of the pyramid complex of Djoser.

DURING the course of the 1992–3 excavations conducted under the auspices of the Egyptian Antiquities Organization at the funerary temple of Queen Iput I of the Sixth Dynasty, two interesting pieces of limestone were uncovered.¹ The pieces were found reused in the pavement of room ‘E’, north of the offering hall in the innermost portion of the mortuary temple of the queen (pl. VI, 1).

When connected, the two parts form a unique doorjamb dating from the time of Djoser. (The name Djoser is not attested before the Middle Kingdom; on contemporaneous monuments the king is named Horus *Ntry-ht*.) The shape of the fragments when joined and the relief decoration and hieroglyphs lead to the conclusion that the monument might have been an architectural element carved for one of King Djoser’s buildings within his funerary complex. Sometime after its initial placement, this extraordinary piece was taken from its original location and reused among the building materials that composed the floor of Queen Iput I’s storage room.

Material and measurements

The two large fragments are carved from fine, white limestone. Their condition is relatively good even though there is no colour nor remains of colour on the pieces. Their dimensions are:

Upper fragment (pl. VI,2; fig. 1):

Height	108.3 cm
Maximum width	26.9 cm
Thickness	24.9 cm

¹The excavation was carried out by Mr Mahmoud Abou el-Wafa, Chief Inspector of Saqqara, assisted by Khaled Abou el-Ela and Orban Abou el-Hassan under the supervision of the author and Mr Yahia Eid, Director of Saqqara. I would like to thank my dear friend Dr Miroslav Verner, Director of the Czech Republic expedition at Abusir, for permitting the photographer from his expedition, Mr M. Zemina, to take the excellent photographs, and my friend, Ms Noel Sweitzer, for editing this paper. My thanks are also due to Dr Mark Lehner for the original drawings from which figs. 3 and 4 have been made.

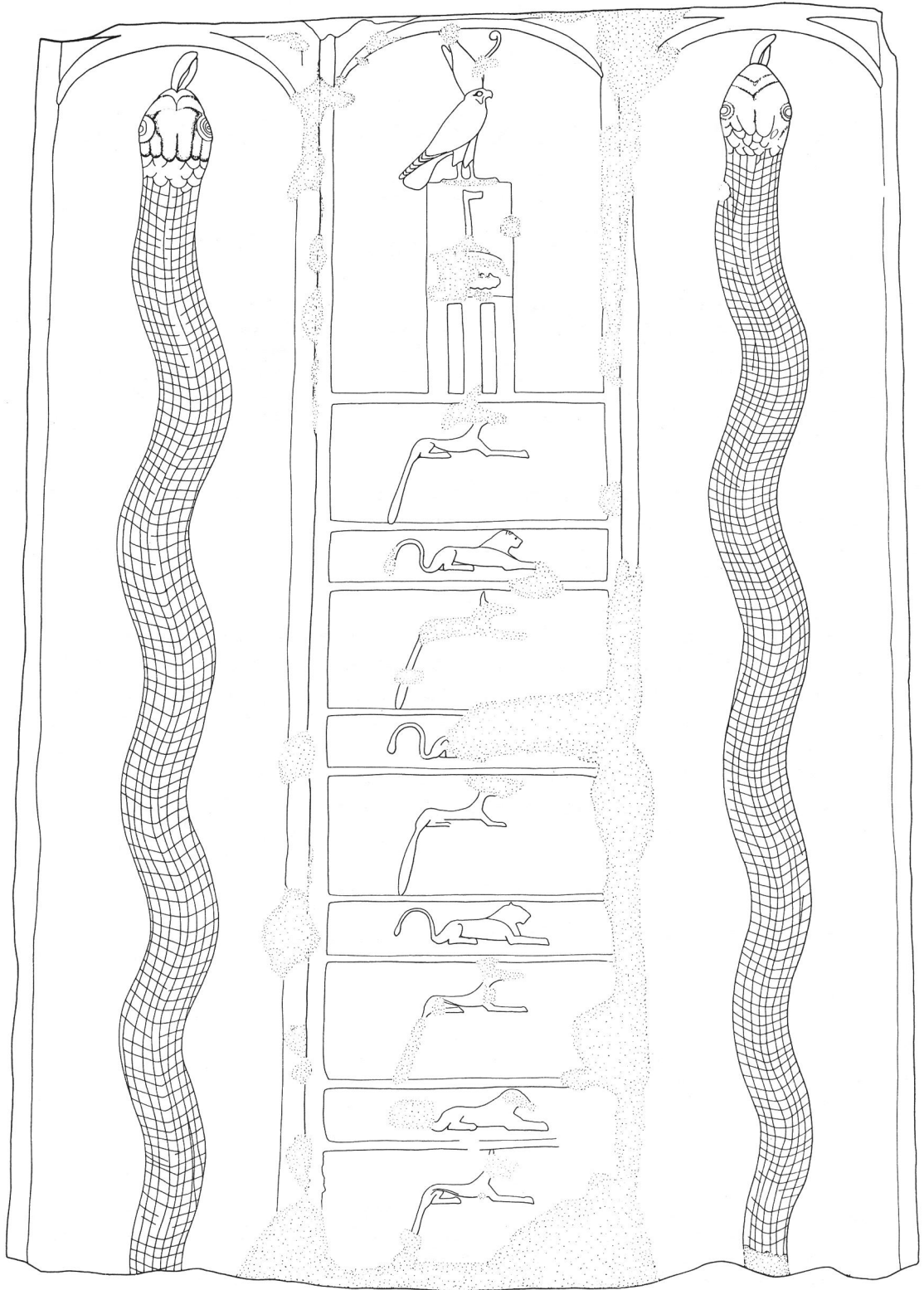


FIG. 1. The upper fragment.

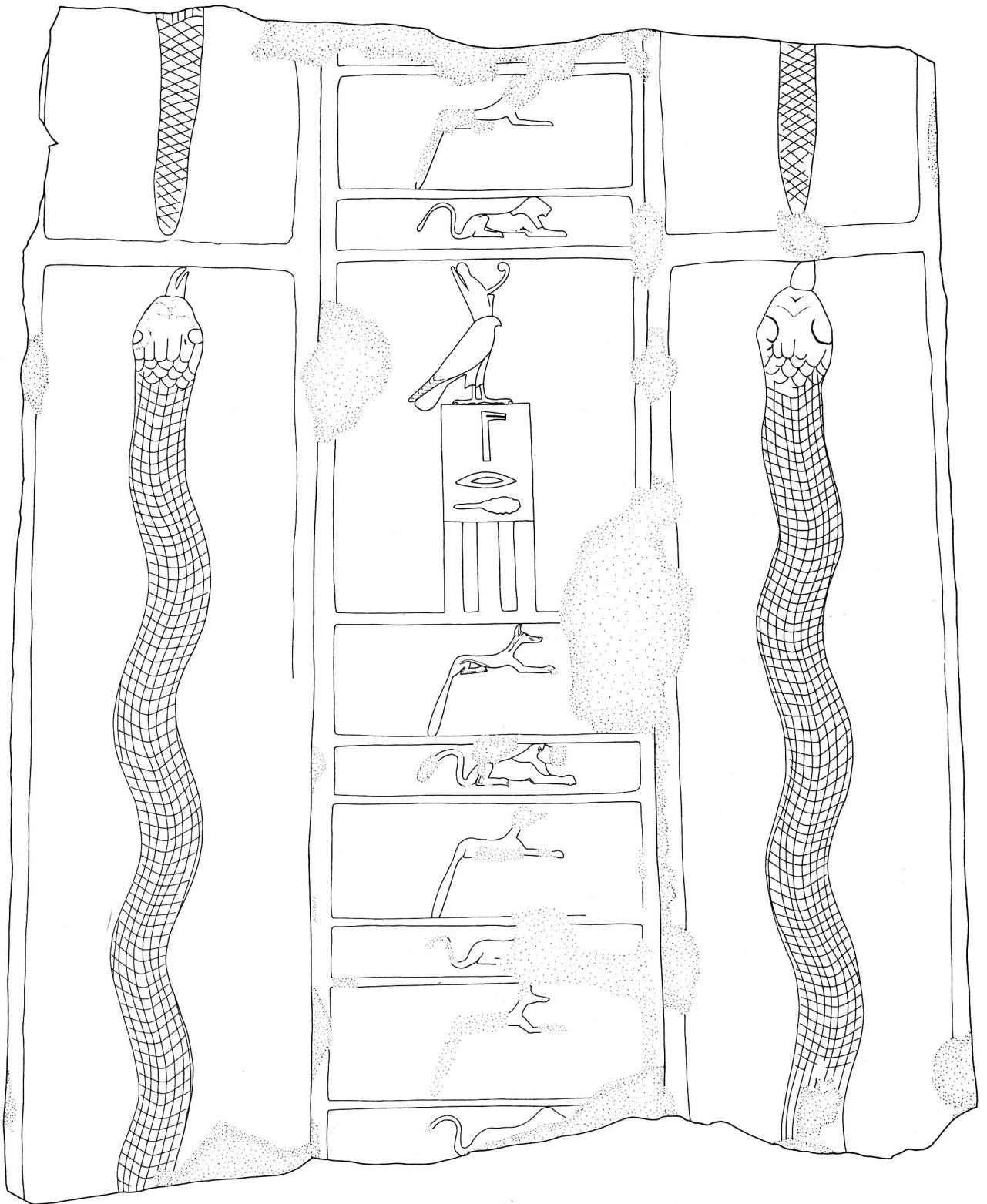


FIG. 2. The lower fragment.

Lower fragment (pl. VI₄; fig. 2):

Height	103.0 cm
Maximum width	30.5 cm
Thickness	25.4 cm

Combined Monument (pl. VII):

Height	211.3 cm
Maximum width	30.5 cm
Thickness	25.4 cm

Description

It is easier to describe the monument than it is to interpret its meaning. The combined block formed by the two pieces is to be viewed vertically. The upper surface is flat. The block is decorated on the front and two sides, while the back has been left blank. The front of the stone has been divided horizontally into eighteen compartments capped by a large lunette and separated into two sections by another large panel. There are twelve compartments running down the upper section (the tenth being largely lost in the break) and six down the lower.

In some places, the edges of the monument are chipped off and the decorated faces eroded. The upper part is more damaged than the lower. This damage is the result of surface exposure to climatic conditions.

The lunette surmounting the monument has a carved *serekh* upon which sits a falcon representing the god Horus, and wearing the double crown of Upper and Lower Egypt. Within the *serekh*, Djoser's Horus name, *Ntry-ht*, is written. The sign '*ht*' in the name of the king is almost completely obliterated and identifiable only through traces. The twelve compartments that follow contain alternating recumbent jackal and lion or lioness figures (the missing tenth would presumably have contained a lion/lioness). The *serekh* with the Horus name, *Ntry-ht*, is repeated in the panel at the start of the second section, and again it is followed by compartments alternating the jackal and lion or lioness design. But the lower fragment of the monument is broken at the bottom so that only six compartments remain, compared with the pattern of twelve on the upper section of the design (pl. VI, 2 and 4). Given the Egyptian dedication to balance and symmetry, it is likely that this second section also contained twelve cells. In fact, the size of the monument may have been even greater than the present remains suggest, if we posit the addition of a third identical section.

As the eye moves down the relief, it is noticeable that the compartments containing the recumbent jackal and lion or lioness figures are thoughtfully arranged. These are of different heights for each animal, and are tailored by the artist to fit the shape of the animal depicted. The lion or lioness is positioned slightly off centre in each of his/her compartments. The tail is represented in an inverted 'u' fashion which seems to connote more action than the recumbent body, which is placed in a resting pose with the head touching the top of the compartment and the belly positioned above, not on, the bottom line.

The jackal seems slightly more centred than the lion or lioness because its rump is carved just to the left of the end of the body of the animal below. Also, the jackal's front

paws are aligned with the head of the lion or lioness whose front paws extend beyond its head. The tail of the jackal is a strong feature in the artist's concept: it extends from the rump like an inverted baseball bat, ending on the bottom line of the jackal's compartment. The ears of the jackal touch the top line. The result is a continuous jagged line connecting the jackal with the frame of its compartment. This theme is not paralleled by the lion or lioness in that animal's compartment.

Each of the side panels of the monument has two long, vertical cells that begin with a crescent-shaped carving followed by a snake in a stretched, but slightly undulating, position. The bodies of the snakes have nine winding bends in each representation. The length of the lower part of the monument can be validated by measuring the size of the complete snakes in the upper cells of the side panels.

The snakes on the panels at the sides of the monument are important details. The artist emphasized their presence for anyone looking at the piece by executing them in expressive low relief. The depth of cutting into the stone increases the dramatic effect, and the relief work is deeper than that on the front compartments and the lunette. The body of each snake is cross-hatched to give the appearance of its actual skin. The hood and the eyes are clearly defined and the tongue is protruding, which means the snake is in an attack position. The undulating bodies of the snakes portray them as if they were slowly sliding across the sand. Each has its own vertical cell to emphasize the individual, significant role of the feature (pl. VI, 3).

Approximately one-third of the snakes' bodies are left on the lower portion of the fragment. Adding on the snake's linear dimensions from the upper panels to the remains in the bottom panels would permit the inclusion of a like number of compartments on the front of the monument, i.e. twelve, and provide for a narrow border at the base of the piece.

Interpretation of the monument

The monument cannot be considered as a free-standing artefact. The rough cutting of the rear part indicates that it was attached to another section. The similarly unfinished surface above the introductory lunette also supports the contention that the top of the monument was attached to something else, possibly a lintel.

The representation of the *serekh* and Horus on the front face of the monument is similar to that on the reliefs inside the king's southern tomb and on the passages below the Step Pyramid. Also, on the base of the statue of Djoser in the Cairo Museum, there is an exact parallel for the *serekh* as found on this piece, i.e. Horus with the double crown. This base belongs to the Djoser statue that includes the name of Imhotep.²

The occurrence of the jackal is not unusual for a royal monument. It undoubtedly represents the god Anubis, an important deity from the First Dynasty on. The jackal was assimilated with the gods of both Abydos (Khenti-Amentiu) and Saqqara (Sokar).³ It

²J.-P. Lauer, *Saqqara. The Royal Cemetery of Memphis* (London, 1976), pl. 89; the *serekh* also occurs inside the southern tomb of Djoser, where one can see the frame of Djoser's dummy door with the king's titles above and Horus upon the *serekh* below.

³The following references to sealings and labels are selective: Abydos: Petrie, *The Royal Tombs of the First Dynasty*, I (London, 1900), pl. xxix. 86, and II (London, 1901), pls. xi. 1, xii. 5, xvii. 134, xxv. 27; Saqqara: W. B. Emery, *Great Tombs of the First Dynasty*, II (London, 1954), 121 no. 30, 126 no. 50, and III (London, 1958), pls. 38.11 and 16, 83. 12, 162. 65.

would not be unusual for the king to wish to include this element in his funerary monument.

Traditionally, a feline animal such as that on the monument discussed here is considered to be a lion. However, it may be well to reconsider that traditional identification. The feline figure on the Djoser monument clearly has the shaggy mane of a lion. But as the eye moves along the animal's back to the tail, a question arises. A lion's tail as depicted in ancient Egyptian art is shown curled around the lion's body: the typical representation shows the lion in a crouched position with head erect and the tail curled around its right flank.⁴ If this figure is considered to be a lion, it would be the attested manifestation of the king himself and the royal symbol *par excellence*.⁵ While representations of the lion as king began in Predynastic times, the most familiar work of this nature is the Old Kingdom sphinx, i.e. a human-headed lion.⁶

However, it is interesting to suggest that the figure may, in fact, be a lioness. The identification rests upon the evidence of the carving of the tail. The lioness, in Egyptian tradition, has a non-tufted, standing tail, as in the Third Dynasty panels of Hesy-ra.⁷ Moreover, in the animal kingdom, the lioness is fierce in protecting her young. She kills when she perceives a threat to her offspring and does not wait for overt signs of danger. Transferring the sense of protection to Egyptian mythology, one finds the lioness connected with Egyptian goddesses such as Hathor, Shesmetet of Saft el-Henna, Sekhmet of Memphis, Bastet of Bubastis, Mehit of This, and Matet of Deir el-Gebrawi.⁸ Prior to the discovery of these Djoser fragments, the earliest known representation of a lioness (setting aside the lioness hieroglyph in the Hesy-ra panels) is found in the Fourth Dynasty valley temple reliefs of Senefru at Dahshur and in the Fifth Dynasty reliefs of Sahure and Ne-woser-ra.⁹

It is possible to quote Pyramid Text 248 in support of a parallel between the functions of the goddesses Sekhmet and Shesmetet and the Djoser relief lionesses.¹⁰ This text mentions the goddesses as the nurse and mother of the king. Old Kingdom reliefs also show the lioness divinities suckling the king. Other representations of the lioness equate her with the goddess Hathor. As such, the lioness could be the guardian of the sky.

Therefore, it may be concluded that in her appearance on the Djoser find, the lioness represents the mother who nurses and protects the king. Taken further, in her association with Hathor, the lioness could be the guardian of the sky who sits in conjunction with the jackal figure who guards the netherworld. This conjunction of the two animal gods'

⁴ W. C. Hayes, *The Scepter of Egypt*, 1 (New York, 1953), 30.

⁵ U. Rössler-Köhler, in *LÄ* III, 1080-90; U. Schweitzer, *Löwe und Sphinx im alten Ägypten* (AF 15; Glückstadt, 1948); C. de Wit, *Le rôle et le sens du lion dans l'Égypte ancienne* (Leiden, 1951).

⁶ Z. Hawass, 'The Great Sphinx at Giza: Date and Function', *Sesto Congresso Internazionale di Egittologia. Atti*, II (Turin, 1993), 177-95; id., 'History of the Sphinx Conservation': EAO (1993).

⁷ Lauer, *Saqqara*, 54-5, pls. 26-7; the lioness is represented three times, and may be compared with the lions on a carved rod of glazed steatite dated to the Twelfth Dynasty by Hayes, *Scepter* 1, 228, fig. 143; see also A. H. Gardiner, *Egyptian Grammar*³ (Oxford, 1957), 460, sign list E22, 23; and J. E. Quibell, *Excavations at Saqqara (1911-1912). The Tomb of Hesy* (Cairo, 1913), 20, pl. xi.

⁸ Rössler-Köhler, *LÄ* III, 1081. See also the possible identification of the lioness goddess with Mafdet, Matyt and Mehit, in W. Westendorf, 'Die Pantherkatze Mafdet', *ZDMG* 118 (1968), 248-56; Norman de G. Davies, *The Rock Tombs of Deir el Gebrawi* (London, 1902), I, 34-5; and II, 43-4; L. Kákósy, in *LÄ* IV, 6.

⁹ Rössler-Köhler, *LÄ* III, 1080-90; A. Fakhry, *The Monuments of Sneferu at Dahshur*, II. 1. *The Valley Temple* (Cairo, 1961), 126, fig. 141; L. Borchardt, *Das Grabdenkmal des Königs Sahu-Re*, II (Leipzig, 1913), 35-6; id., *Das Grabdenkmal des Königs Ne-user-Re* (Leipzig, 1907), 40-1, figs. 21-3.

¹⁰ R. O. Faulkner, *The Ancient Egyptian Pyramid Texts* (Oxford, 1969), 60.

characteristic functions would also bring together the upper and lower parts of the earthly realm, as well as alluding to the protection given to the king who sits in the *serekh* watched over by his two guardians. In addition, the *serekh*'s symbolic representation of the king in his palace on earth, and the pyramid's sheltering and locating his body within the tomb, also connect the eternal aspects of life and death, material and netherworld kingdoms.

If it is agreed that the figure on these Djoser reliefs is a lioness, it then becomes the earliest known example. Its location in combination with the jackal beneath the *serekh* provides another eternal, cyclical device to permit the king everlasting existence.

The representations of snakes on this monument are similar to those at the south end of the open court of the Djoser complex.¹¹ The snakes are poised in an attacking position, which is perfectly in harmony with the meaning of the lioness and the jackal.

The piece in its entirety shows a varying state of preservation of the reliefs. Even though there are parts missing from the animals' bodies throughout the piece, and only traces of the name of Djoser on the upper part, enough of the whole is visible to reconstruct the sense of the artist's concept when creating this work.

Date and location of the monument

The style of the *serekh* and the name of *Ntry-ht*, as well as other representations on the monument, alluded to above, have parallels within Djoser's pyramid complex. A date of other than the Third Dynasty, during the reign of Djoser, does not seem tenable.

The original location of the monument within the Djoser complex is more problematic. The undecorated rear face suggests that the fragments were attached to a wall or served as a jamb at the entrance to a building. Further analysis and, possibly, excavation need to be done before the function and location of the piece can be determined with certainty, because a large portion of the Djoser complex remains unexcavated. What is clear is that the monument once belonged to the pyramid complex of Djoser.

Some hypothetical placements may, however, be suggested.

1. The *heb-sed* court

In considering a possible placement of the Djoser monument within the *heb-sed* court, Wildung's analysis of pairs of *Schlangensteine* stelae has been taken into account.¹² The four erect serpents on the sides of this monument suggest a relationship with the round-topped stela on a base in the tomb of Khafre-ankh at Giza.¹³ Although the Khafre-ankh representation of a stela is badly damaged, it seems to include an undulating snake similar to those on the Djoser monument. Furthermore, at the base of the Step Pyramid at Saqqara along the east face, Lauer found and pieced together two tall, narrow stelae (31 and 39 cm in height). These were not found in their original location, but were resting against the base of the pavement of Mastaba 3, amongst a series of bases which Lauer suggests served as the bases for a group of stelae.¹⁴ Like the stelae analysed by Wildung

¹¹ Lauer, *La Pyramide à degrés*, II (Cairo, 1936), 10–11, pls. 52, 54; I. E. S. Edwards, *The Pyramids of Egypt* (rev. edn., Harmondsworth, 1992), 49.

¹² D. Wildung, in *LA* v, 655–6.

¹³ *LD* II, 9.

¹⁴ Lauer, *Pyramide à degrés*, I, 2.190, and II, pls. 101, 103.1.

and distinct from the subject of this article, Lauer's stelae had rounded tops. It is well to remember that to achieve the rounded feature at the top of the Djoser monument, the sculptor carved the lunette into the rectangle rather than shaping the top of the stone into a curve. But the overall shape of Lauer's stelae and the Djoser monument are similar, i.e. rectangular, tall and narrow.

Neither Lauer's nor Wildung's stelae had inscriptions or reliefs on the front, although it is possible that they were originally inscribed in the manner of the Djoser find, and that subsequent to their initial positioning, something occasioned the removal of the inscriptions.

Wildung's suggestion that stelae of this type came in pairs is worth attention. Furthermore, he believes that the *Schlangensteine* were instruments for the rejuvenation of the king during the *sed* festival. Such stelae would be closely associated with the state sanctuaries of Upper and Lower Egypt, the *per-wer* and the *per-nu*.¹⁵ The present monument may have been one of two, placed within the *sed* festival court, bordered to the east and west by sanctuaries which imitate the shrines of the north and south.¹⁶ This theory would place the Djoser fragments squarely within the *heb-sed* court.¹⁷

2. The north side of Djoser's pyramid

The northern side of Djoser's pyramid extending to the enclosure wall is a tempting location in which to place mysterious objects. It is relatively unexcavated with the exception of Djoser's *serdab* and mortuary temple.¹⁸

The iconography of this recent discovery supports the funerary concept of providing the dead king with aspects of the living king, thus creating an eternal existence for Djoser. The jackal represents the god of the dead, Anubis. Anubis is the watchdog of the tomb and he presides over the burial; he is associated with the Saqqara cemetery because of its connection with Sokar. It would not be unusual for the king to wish to protect his burial by invoking the support of Anubis.

The aspect of the king as Horus wearing the double crown represents the unification of the two kingdoms. By standing on the *serekh*, this Horus symbolizes the king in his palace as a living being while his appearance thus on a funerary monument makes a connection with his eternal resting place, i.e. the tomb within the pyramid. It is possible to consider that the king standing on the *serekh* alludes to his placement in his tomb, i.e. the Step Pyramid, and that the interior of the *serekh* is the interior living space of the palace. Representations of the *serekh* are known from the First Dynasty at Abydos, where they were found in front of the tombs of the royal kings. For example, the stela of Djet (serpent

¹⁵ Wildung, in *LÄ* v 655; for more discussion of the *Schlangensteine* see H. Kees, in *ZÄS* 57 (1922), 120–36.

¹⁶ See J. Vandier, *Manuel d'archéologie égyptienne*, 1, 1 (Paris, 1952), 920–5.

¹⁷ One might suggest on first glance at this monument that it could be part of the decoration of Djoser's enclosure wall; this kind of decoration is not unusual in Egyptian architecture—it can be found within the pyramid complex of Sesostri I at Lisht, where the enclosure wall is covered both with scenes of a palace façade and a priest carrying offerings: L. Grinsell, *Egyptian Pyramids* (Gloucester, 1947), 29–30, fig. 25; J.-E. Gautier and G. Jéquier, *Mémoire sur les fouilles de Licht* (MIFAO 6; Cairo, 1902), 11–12. However, the reconstruction of the enclosure wall cannot accommodate this monument; see C. M. Firth, 'Preliminary Report on the Excavations at Sakkara (1925–1926)', *ASAE* 26 (1926), 87–101; Lauer, *Pyramide à degrés* II, pls. xxxviii, xlvi.

¹⁸ Lauer, *Saqqara*, 91–2.

king), the fourth king of the First Dynasty, found in front of his tomb, had his name written within the *serekh*, as on the monument of Djoser. The representation here shows that the king is the incarnation of Horus.¹⁹

Since the north side of the Djoser pyramid complex remains partly unexcavated, there are several possibilities for its reconstruction. For instance, R. Stadelmann has suggested that the platform on the north side is an altar like that to the south of the pyramid of Djoser;²⁰ an alternative suggestion is that an obelisk once stood there.²¹ If the Djoser fragments are considered to represent one part of a pair of doorjambs belonging to a feature that might have been a symbolic entrance or a kind of false entrance, then such a feature could be located at many places within the area of the northern Djoser complex. The iconography of a lion or lioness and a jackal and the various unification elements discussed above would make its protective qualities appropriate to many architectural features (fig. 3).

3. *Ceremonial entrance-way into the Djoser complex*

The previous two hypotheses follow the traditional practice of relating a find to what is known from other excavations and circumstances. However, this Djoser monument may provide an opportunity to trace the origin of the pyramids and their complexes to the Third Dynasty.

It is known that the Old Kingdom pyramids are one part of a complex which includes, amongst other things, the king's pyramid, the causeway from the valley into the enclosed area of the king's last resting place, and a ceremonial entrance at the beginning of the causeway. So far at Djoser's complex, neither the ceremonial causeway nor its entrance gate (valley temple) has been found.

The entrance from the valley into the Djoser complex would have been on the eastern side of the enclosure wall, ending at the doorway before the pillared hall restored by Lauer. Much of that ground is presently used as a parking lot and has never been excavated. The estimated size of the reconstructed gate, 4 m, accords with the proper dimension required by a ceremonial gate.

If Wildung's and Lauer's ideas, that this type of monument came in pairs, are accepted, then the companion monument to this serpent-sided Djoser piece could have been repeated on the opposite side of the gateway.²² The pyramid complex of Djoser has

¹⁹ W. S. Smith, *The Art and Architecture of Ancient Egypt*², rev. by W. K. Simpson (Harmondsworth, 1981) 39–44.

²⁰ 'Das vermeintliche Sonnenheiligtum im norden des Djoserbezirkes', *ASAE* 69 (1983), 373–8.

²¹ H. Altenmüller, 'Bemerkungen zur frühen und späten Bauphase des Djoserbezirkes in Saqqara', *MDAIK* 28 (1972), 1–12, esp. 8ff.

²² Instead of the other side of the entrance-way being a mirror image of the present monument, it may have included the vulture goddess Nekhbet. The combined symbolism would dictate the placement of the snake pillar on the northern side of the ceremonial gate. The northern placement recognizes the snake as Wadjet, symbol of Lower Egypt (Buto) and the king in his aspect as ruler of that land. That would leave the missing, hypothetical vulture pillar to serve as the southern anchor in a ceremonial gateway representing the goddess Nekhbet, symbol of Upper Egypt (El Kab) and the king in his aspect as ruler of that land. Nekhbet was the goddess who was in charge of the king's divine birth.

This suggestion not only reinforces the dual relationship between Upper and Lower Egypt; the two goddesses are in the king's tutelary pantheon and their presence within the complex protects the funerary buildings as well as the king. The duality of buildings representing the north and south can be seen in Djoser's complex, and also at the lower temple of Khafre of the Fourth Dynasty, where the north is

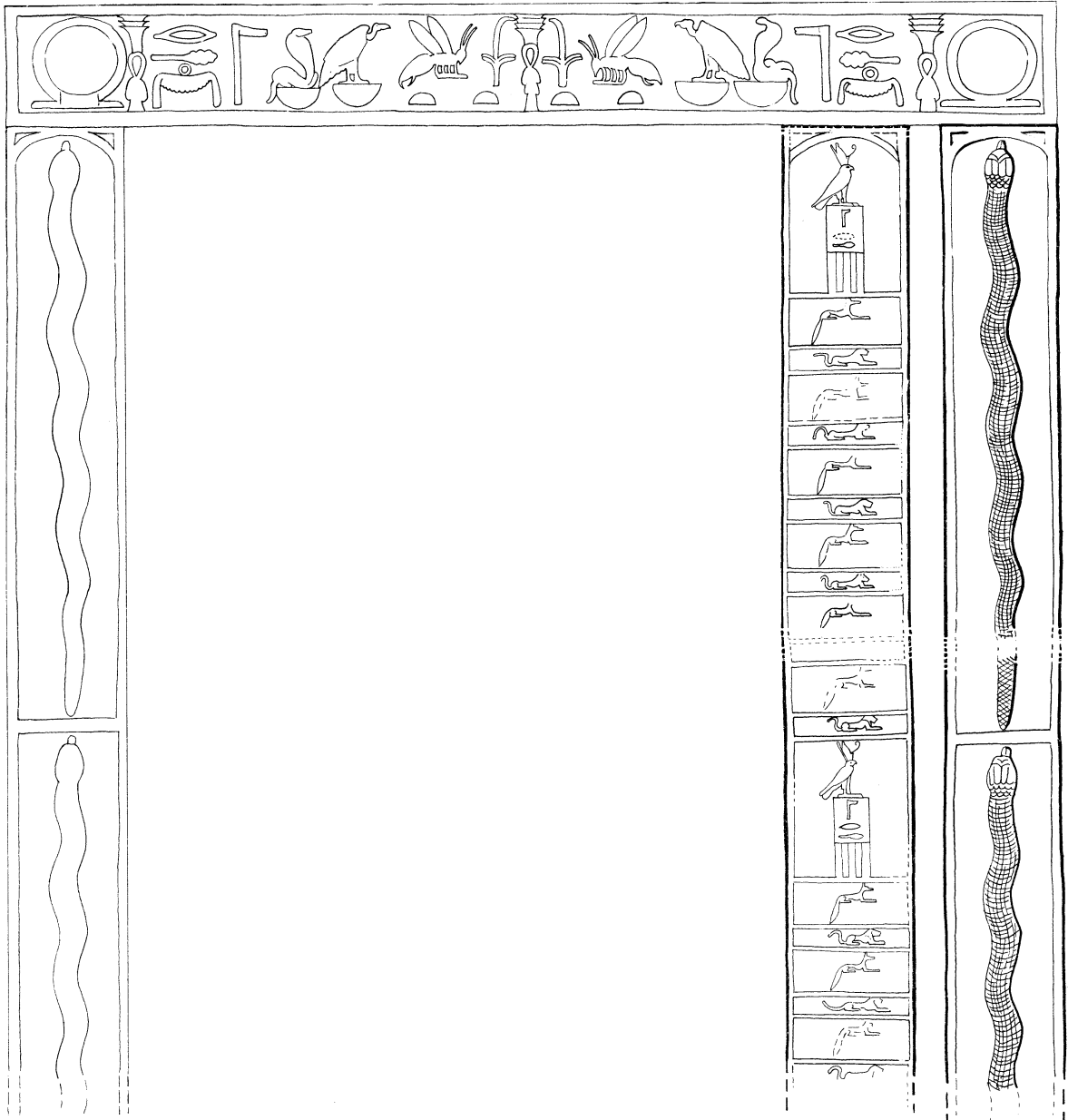


FIG. 3. Hypothetical reconstruction of the monument as an entrance. The two fragments are shown joined and serving as a jamb, with a corresponding jamb on the other side. The lintel bearing Djoser's name and titles is based on the panel above the false-door stela in the southern tomb.

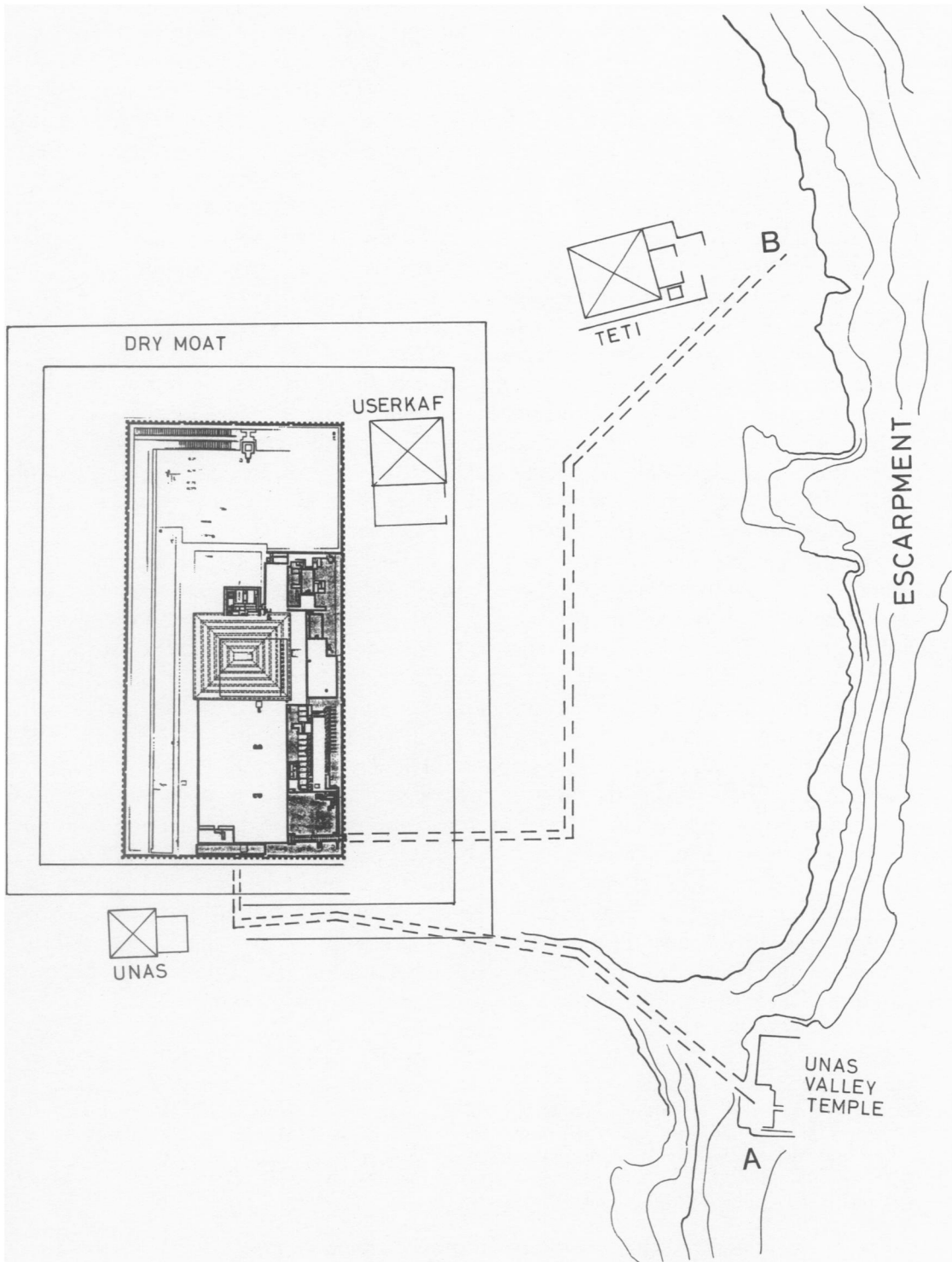


FIG. 4. Suggested locations for Djoser's ceremonial way.

most of the architectural components identified more clearly in the Fourth Dynasty complex of Khufu. Besides the pyramid, Djoser's complex includes the upper temple, a *serdab*, the south tomb, one house of the north and south, the *sed* festival buildings and court. With the addition of the postulated ceremonial gateway and causeway, the entire Djoser complex could be the prototype for the later Fourth to Sixth Dynasty pyramid areas. Many of the later architectural inferences are drawn from wall reliefs in various extant temples. This can also be seen when comparing details of the funerary complex of Djoser's father, Khasekhemwy, at Shunet el-Zebib.²³

The Djoser ceremonial gateway may have been located in the valley outside what is today identified as a dry moat.²⁴ Two potential locations may be suggested: (fig. 4). (A) The stepped entrance giving access to the area enclosed by the dry moat lies to the south of the Djoser complex. This would place Djoser's entrance very close to the Second Dynasty royal tombs, destroyed by Unas when he built his mortuary temple.²⁵ It is possible that Djoser would have wished to have his funerary monuments near the remains of his ancestors. If that is correct, it means that Djoser's ceremonial way would have been the same as that prepared for the Second Dynasty royal tombs. That would place the path directly from the east, somewhere near the present causeway of Unas. However, it does not seem likely that these Djoser blocks, found near the Teti complex, could have come from such a distant place. But there is another, more intriguing, thought that may better define the original location of this Djoser material.

(B) The findspot of this reused monument, in the Teti complex, may indicate that it was taken directly from its original place within the Djoser ceremonial way. This means that the direction of the ceremonial way would have been from the north-east. The symbolism that Djoser might have wished to represent is his connection with the First Dynasty tombs on the north-east side of Saqqara. This reaffirmation of his ancestry would have supported his continuity and legitimacy in the eternal rule of Egypt. Furthermore, at the time of Djoser, the capital of Egypt, *'Inb-ḥd*, was located to the north of Kom el-Fakhry, north-east of the pyramid complex of Djoser.

In concluding these thoughts on the newly-excavated Djoser monument, I would favour the latter hypothesis. The Egyptians were among the most logical and methodical people of antiquity. There was rarely a haphazard design or executed work. The iconography of the Djoser monument, the lack of a ceremonial gate and causeway for Djoser, the placement of the Teti pyramid complex over what could have been Djoser's sacred ground, and the discovery of this Djoser piece in the flooring of Queen Iput I's mortuary temple,²⁶ all combine to lend credence to the monument as a diagnostic element in considering the Djoser complex as the prototypical pyramid plan.

represented by Bastet and the south by Hathor (U. Hölscher, *Das Grabdenkmal des Königs Chephren* (Leipzig, 1912), 16–17). The pyramid complex is not only funerary, it is believed to have included the palace of the living king and his temple to ensure the perpetuation of his cult after death: see Hawass, *The Funerary Establishments of Khufu, Khafra and Menkaura During the Old Kingdom* (Ph.D. thesis, University of Pennsylvania, 1987; University Microfilms, Ann Arbor), Chapter 5.

²³ D. O'Connor, 'Boat Graves and Pyramid Origins', *Expedition*, 33/3 (1991), 5–17.

²⁴ N. Swelim, in J. Baines et al. (eds), *Pyramid Studies and Other Essays Presented to I. E. S. Edwards* (London, 1988), 112–22.

²⁵ S. Hassan, *ASAE* 38 (1938), 503–21.

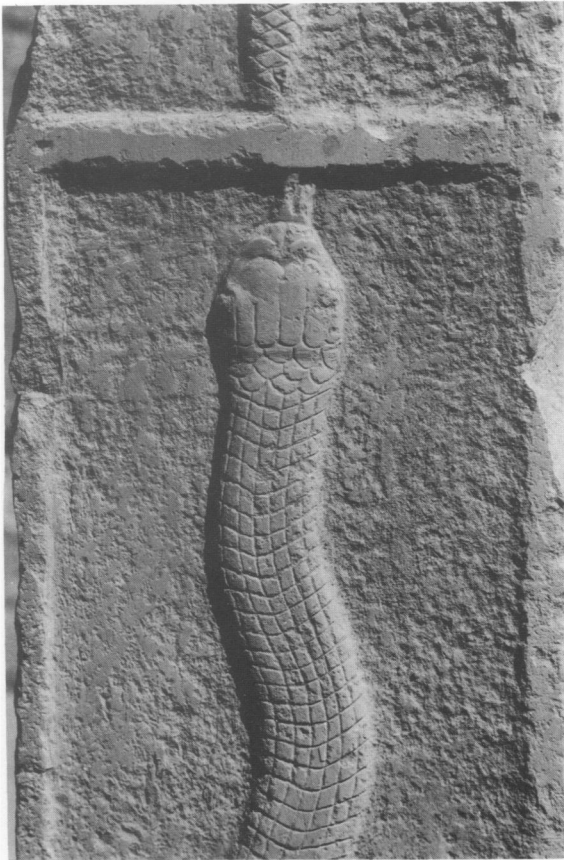
²⁶ There is extensive evidence that Teti's pyramid is composed of artefacts taken from earlier monuments.



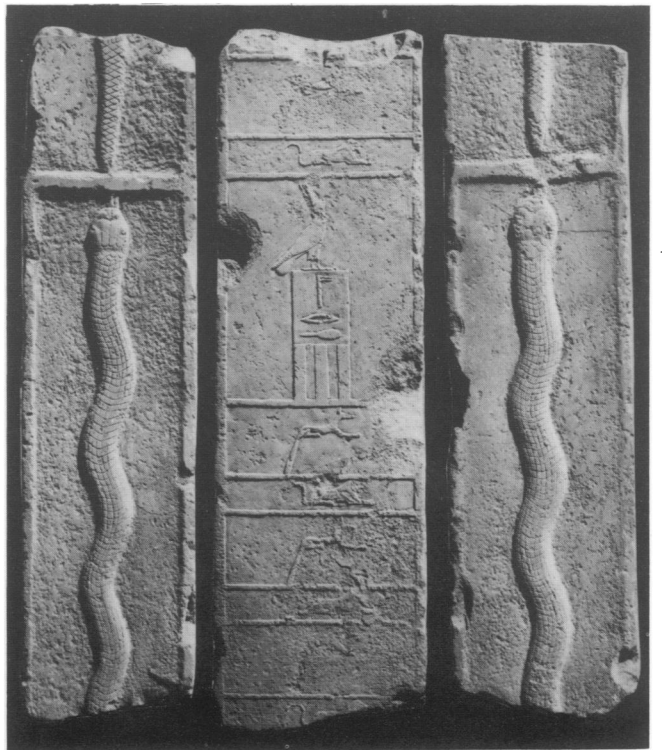
1. Excavation at the mortuary temple of Queen Iput I



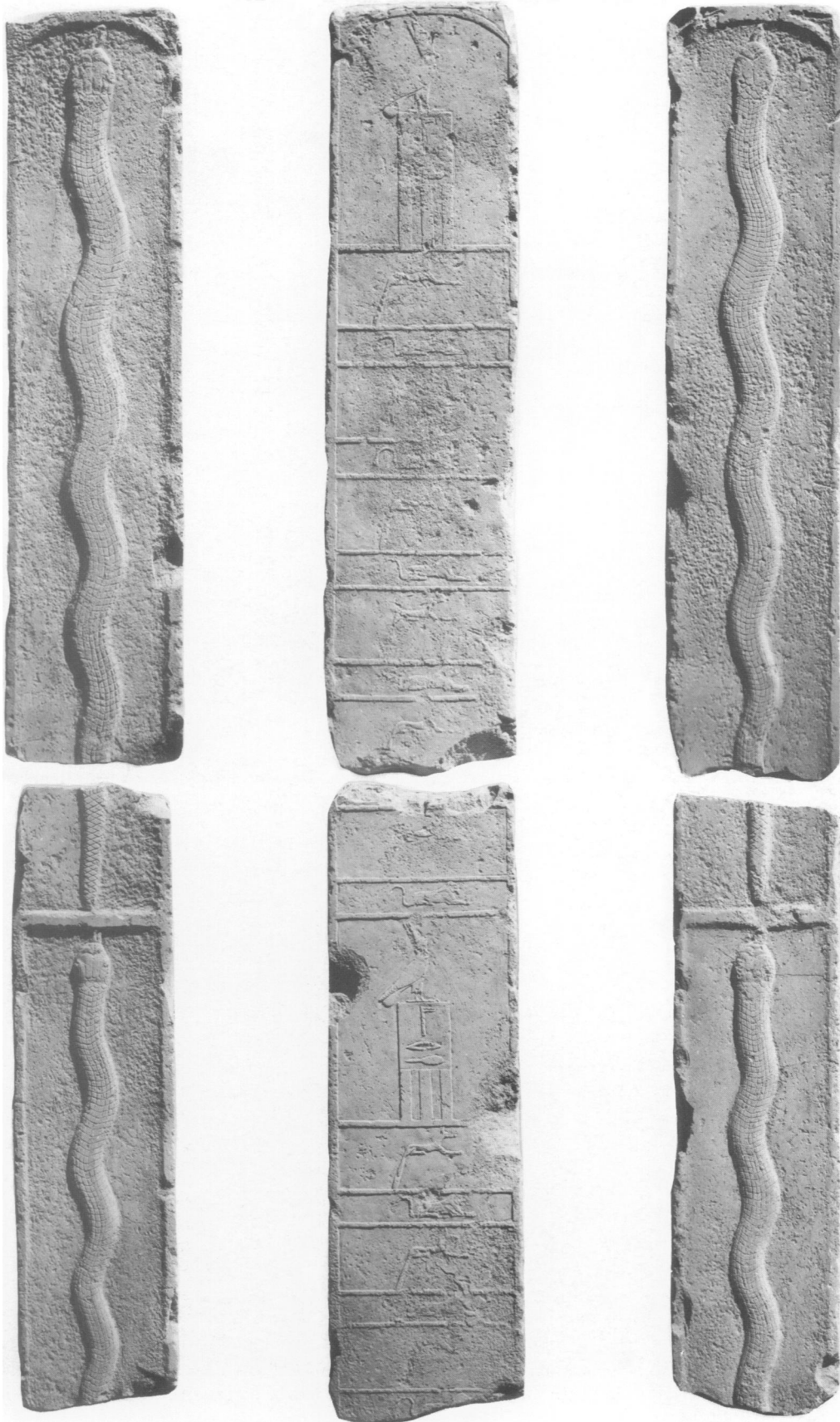
2. The upper fragment, front and side views



3. Detail of the snake on the left side of the lower fragment



4. The lower fragment, front and side views



The two fragments combined
A FRAGMENTARY MONUMENT OF DJOSER (pp. 45-56)

THE WATER REGIME FOR ORCHARDS AND PLANTATIONS IN PHARAONIC EGYPT

By C. J. EYRE

Plantation agriculture differed from annual arable farming because of the need for investment in land development and for a perennial water supply. The typical orchard, a small walled plot containing a standing water source, is widely attested in the textual and pictorial record at all periods of Egyptian history. Differences in water management between plantation and seasonal crop cultivation are important for the history of irrigation and water control in ancient Egypt. Changes in the terminology for types of land in the New Kingdom may reflect the development of large-scale plantation agriculture in the Fayum and the Delta, which implies the use of seasonal, canal-fed rather than basin flooding of the land. It may also reflect the expansion of fully-controlled basin irrigation into previously under-developed areas. In appearance, organization, working practices, and economic role, the individual orchard changed little between the Old Kingdom and the Roman period. However, the development of plantation districts and the associated habits of water control provide a model for land development in general during the pharaonic period, and the basis for perennial irrigation in the post-pharaonic period.

ORCHARDS and plantations formed a special sector of Egyptian agriculture, characterized by controlled, regular and perennial irrigation, especially from reservoirs and wells. They filled a distinctive niche in both the ecology and the socio-economic organization of the Egyptian countryside. An understanding of their role is necessary for any attempt to reconstruct the physical appearance of the agricultural landscape, to investigate the nature and extent of capital investment in the countryside, or to consider issues of water ownership or water rights. An historical perspective also provides focus on the development of water control in Egypt.¹

The evidence is uneven. Substantial textual data survive from the Graeco-Roman period, when, for instance, irrigation clauses appear much more frequently in contracts for plantations than for arable lands, witnessing the comparative importance of perennial water installations.² The pharaonic period provides a greater variety of pictorial and archaeological evidence, but limited textual data. This imbalance demands an eclectic approach. Data from different periods and of different types must often be treated as

¹ K. W. Butzer, *Early Hydraulic Civilization in Egypt* (Chicago, 1976), esp. 18-21; M. Atzler, *Untersuchungen zur Herausbildung von Herrschaftsformen in Ägypten* (Hildesheim, 1981), 32-47; W. Schenkel, *GM* 11 (1974), 42-3; id., *LÄ* I, 775-82, s.v. 'Be- und Entwässerung', and *LÄ* VI, 1157-8, s.v. 'Wasserwirtschaft'; id., *Die Bewässerungsrevolution im alten Ägypten* (Mainz am Rhein, 1978), esp. 21-4; E. Endesfelder, *ZÄS* 106 (1979), 37-51; H. Goedicke, *LÄ* VII, 15-43, s.v. 'Wasser', esp. nn. 48-61, 72-7; M. Bietak, *Tell el-Daba*, II (Vienna, 1975), esp. 49-58 for the Delta. For a general treatment see H. Kees, *Ancient Egypt: a Cultural Topography* (London, 1961). For comparative data see *Bulletin on Sumerian Agriculture* 4 (1988) and 5 (1990), esp. M. P. Charles, in *BSA* 4, 1-39. See also now D. Bonneau, *Le régime administratif de l'eau du Nil dans l'Égypte grecque, romaine et byzantine* (Leiden, 1993).

² D. Bonneau, *SAK Beihefte* 4 (1990), 204-5; cf. 198-9. Note, e.g., A. S. Hunt and C. C. Edgar, *Select Papyri*, 1 (London, 1952), no. 52 = P. Ryl. 157: the division of a vineyard between sisters, discussing common wall maintenance, irrigation by water-wheel from a common reservoir outside the plot, shared expenses in maintenance of the water system, and specified rights of access for harvest work and if necessary for additional (manual?) watering.

complementary, in order to give context to isolated or incomplete evidence. Yet the same data must also be used to detect historical change. There is an essential continuity in the pattern of life in rural Egypt, and so a natural tendency on the observer's part to underestimate change.

The ordered landscapes of modern Egypt depend on perennial irrigation. In antiquity the landscape was more varied, with patchy cultivation. Arable lands were fed entirely by the gravitational flow of seasonal inundation water to grow the staple winter crop. Dykes and canals simply modified the natural overflow channels and flood-basins of the Nile valley. The modern system of canals in Upper Egypt is based on ancient, natural, but seasonal branches of the Nile.³ These ran parallel to the river, near the western edge of the flood plain. They filled in the summer as the water rose, and acted as the major conduit of flood waters to the valley. They provided seasonal transport routes,⁴ and then had a limited value as reservoirs through the winter. Perennial canals for low-water irrigation were impracticable, nor did the technology exist to lift water for arable farming.⁵ Yet manual water-lifting was always used for high-value or intensive vegetable⁶ and orchard crops.

To some extent, out-of-season crops could and did follow the water. Vegetables or summer crops might be planted on late-draining land low on the Nile banks. Special criteria apply, however, to high value perennial crops: palms, trees, and vines.⁷ Uncontrolled or free flooding would damage a vineyard or orchard;⁸ its water needs were continuous and sensitive; and medium to long-term investment was required in the land. The very existence of plantation agriculture implies perennial water,⁹ and the irrigation of land not subject to natural flooding. Under a fully developed system of perennial irrigation, as in ancient Sumer or more modern Egypt, any irrigable land can be developed as a plantation. Typically in Sumer the best-draining higher land along the river and canal banks was used, since this provided the best and least saline soil environment, and not just the easiest water supply.¹⁰ Such plots were watered by gravitational flow from a feeder canal that stood above the level of the field. In contrast, Egyptian orchards required manual watering. This was the archetypal back-breaking labour of the Egyptian gardener.¹¹

³ Butzer, op. cit. 16–17; H. E. Hurst, *The Nile. A General Account of the River and the Utilization of its Waters* (rev. ed., London, 1957), 46–7, also 49, on the difficulty of maintaining perennial canals; see also Bietak, *Tell el-Daba II*, for the Delta.

⁴ G. Goyon, *RdE* 23 (1971), 137–53; id., in *Hommages à Serge Sauneron*, 1 (Cairo, 1979), 43–50; Eyre, in M. A. Powell (ed.), *Labor in the Ancient Near East* (New Haven, 1987), 11, 15–16; Butzer, op. cit. 46–7; B. J. Kemp and D. O'Connor, *IJNA* 3 (1974) 101–36; Schenkel, *LÄ* III, 310–12, s.v. 'Kanal'.

⁵ Cf. Butzer, op. cit. 16–17, 46–7.

⁶ W. F. Moens, *SAK* 12 (1985), 67–9, 72.

⁷ For surveys of evidence for gardens, see D. Wildung, *LÄ* II, 376–8, s.v. 'Garten'; W. Helck, *LÄ* II, 378–80, s.v. 'Gartenanlage'; J.-C. Hugonot, *Le jardin dans l'Égypte ancienne* (Frankfurt am Main, 1989); Moens, *OLP* 15 (1984), 11–53; L. Klebs, *Die Reliefs und Malereien des Neuen Reiches* (Heidelberg, 1934), 22–62; Kees, *Ancient Egypt*, 77–86; J. R. Baines and H. Whitehouse, in G. and S. Jellicoe et al. (eds.), *The Oxford Companion to Gardens* (Oxford, 1986), 155–8. For viticulture, see C. Meyer, *LÄ* VI, 1169–82, s.v. 'Wein'; A. Lerstrup, *GM* 129 (1992), 61–82. For trees see N. Baum, *Arbres et arbustes de l'Égypte ancienne* (Louvain, 1988) esp. 28–36, 135–48, 237–63.

⁸ The rarity or even complete absence of the olive from Old and Middle Kingdom Egypt may be a significant indication of limited artificial watering: the soil and water regime for the olive is impossible to create in areas of natural inundation. Similarly, the vine and the date palm are not native to Egypt.

⁹ Cf. Hugonot, *Jardin*, 5 and 170–4.

¹⁰ See Charles, *BSA* 5 (1990), 57–9. For the limitations of data for the study of Sumerian fruit cultivation see also Charles, *BSA* 3 (1987), 1–5; J. N. Postgate, *BSA* 3, 116, 122, 125–7; Powell, *BSA* 6 (1992), 107, 120.

¹¹ E.g., *Satire on the Trades*, P. Sallier II, 6, 5–8; *Eloquent Peasant* B1, 294–6 (formerly 263–5); H. G. Fischer, *Dendera in the Third Millennium B.C.* (Locust Valley, 1968), 154–5.

The banks of an Egyptian water-course were typically built up, by the natural deposit of silt and then by artificial reinforcement, into levées that stood above the natural flood. These levées have always been dotted with trees, palms, and vegetable plots.¹² Tree roots could draw naturally on sub-soil water and manual watering was convenient.¹³ However, the inundated land began very close behind the riverbank. Agricultural scenes show trees at the edge of the field, providing shelter and a place of rest for the workers.¹⁴ Available space would be limited along the riverbank,¹⁵ and trees difficult to protect from animals.¹⁶ This is schematically represented, for instance, in the Louvre Mastaba of Akhethotep, where one wall provides a coherent sequence of scenes that can be interpreted as a landscape. Two top registers show the harvest. To their left, and beyond the intervening door, are scenes that belong to the marsh and scrub-land at the margins of the valley. The harvest belongs to normally inundated land. The registers below the harvest show the transport, processing, and registration of the crop. The bottom register of the wall shows rowing boats. Between this and the agricultural scenes, a split register shows fruit trees with bird-scaring on one side, herdsman with goats on the other.¹⁷ This register should represent the high land adjoining a water-course, partly developed as an orchard, and partly left undeveloped as scrub for pasturing flocks. The grain cultivation is beyond, on lower land flooded by the inundation. Beyond that are the margins of wild marsh and natural forest scrub. This wall shows, in schematic form, a cross-section of the Nile valley, with the high land near the river as the site for limited fruit cultivation, but also for the processing and storage of the grain harvest.

Orchard development: siting and economics

The developer of an orchard required land free from full inundation. The riverbank levée provided only limited opportunity. Other sites might be found on the desert margin, or on a natural island of higher land in the flood plain. Orchards also take several years to reach profitability. Mesopotamian law codes envisage a rent moratorium to develop agricultural land as a date garden.¹⁸ In early Egypt, development land would typically be

¹² E.g., P. Rainer 53, 7 = *LEM* 138, 2, and for illustration see, e.g., E. Edel and S. Wenig, *Die Jahreszeitenreliefs aus dem Sonnenheiligtum des Königs Ne-user-Re* (Berlin, 1974), 8 and 22; B. Gessler-Löhr, *Die heiligen Seen ägyptischer Tempeln* (Hildesheim, 1983), 81, fig. 5 (TT19 Amenmose), 87, fig. 6 (TT51 Userhet), 116, fig. 19 (TT138 Nedjemger); Hugonot, *Jardin* 220-1 (TT1 Sennedjem and TT3 Pashed); J. Vandier, *Manuel d'archéologie égyptienne*, v (Paris, 1969), 549.

¹³ For the natural ecology, see Butzer, *Early Hydraulic Civilization*, 18-19, 20-1, 50; D. Bonneau, *La crue du Nil* (Paris, 1964), 51.

¹⁴ Klebs, *Reliefs des N.R.* 1-9.

¹⁵ Cf. *Eloquent Peasant* B1, 24-31 (old P. Amherst I, 11-18) = R7, 3-8, 3.

¹⁶ For walling around individual trees, see J. Černý, *RdE* 22 (1970), 201-3; Hugonot, *Jardin*, 160-1.

¹⁷ PM III², 2, 2, 635-6 (3); C. Ziegler, *Le mastaba d'Akhethotep* (Paris, 1993), 126-43. For the layout see Y. Harpur, *Decoration in Egyptian Tombs of the Old Kingdom* (London, 1987), 432, no. 122 = 438, no. 133. For individual scenes see Vandier, *Manuel* v, pls. i [3], xviii [142], xxxvi [277], xli [306], for the goats, birds and boats; *Manuel* vi, pls. xii, xiv-xvii for the harvest, processing and accounting scenes. For the association of the fruit harvest with bird trapping cf. H. Altenmüller, *MDAIK* 38 (1982), 10-13; R. A. Parker, *JEA* 26 (1941), 86.

¹⁸ E.g., Laws of Hammurapi §60 allow four years for development, and in the fifth year the landlord and gardener divide the developed orchard. For Ptolemaic Egypt cf. W. L. Westermann, *JEA* 12 (1926), 41-5; C. Préaux, *L'économie royale des Lagides* (Brussels, 1939), 165-71. See also D. P. Kehoe, *Management and Investment on Estates in Roman Egypt during the Early Empire* (Bonn, 1992), 136-7, discussing P. Oxy. IV, 707, for a six-year planting and development lease, rent-free for four years, and cf. p. 152, on P. Kron 25.

uncultivated, requiring clearance of the natural scrub vegetation.¹⁹ It might need improvement by the addition of manure, compost, or even soil from the inundated land.²⁰ A standing permanent water source was necessary, and it was natural to wall such a plot, more to keep out stray animals than to create an atmosphere of privacy.²¹ A mix of trees and vines was the norm in Egypt,²² of greater ecological sensitivity than the date palm monoculture typical of Sumer. Calculations of profitability for ordinary arable land in Egypt seem to be based on a harvest value of 2 to 3 times the cost of labour and expenses, while leases were typically for a single year, since they were only finalized when the prospects for the inundation of the individual plot became clear.²³ The capital investment in developing a plantation was large in terms of the economics of the Egyptian countryside.

The earliest coherent body of textual evidence for this agricultural regime comes from the Graeco-Roman Fayum. In the third century AD the Heroninos Archive provides detailed information about the estates of Appianus in the north-west Fayum.²⁴ His holdings were extensive but piecemeal, scattered through a number of villages in which he was never sole landlord. They were typically managed by local men, who were themselves substantial but also resident land-holders.²⁵ They lay in an agriculturally marginal area at the end of the feeder-canal system, where natural scrub and grazing was interspersed with the cultivation. Grain was cultivated only to ensure the self-sufficiency of the estate. A high proportion of the land was given over to vineyards and olive groves: small walled enclosures, of a size that could be run by one man, usually employed on the sort of labour-lease or profit- and risk-sharing arrangement typical of rural Egypt until modern times. These plots might be watered in season by the feeder canals, but typically they possessed an ox-driven water-wheel, generally exploiting the water of a stone-built well. Artificial fertilizing with dung, and the spreading of canal silt, were normal practices,

¹⁹ P. Vernus, *RdE* 29 (1977), 179-93; Moens, *OLP* 15, 35. Note possibly *LRL*, 55-6, no. 36.

²⁰ Cf. the late Demotic text O. Medinet Habu 4038, A28-34, D19 = Parker, *JEA* 26, 84-113. Manuring and composting were not normal on the inundated land, but necessary on the raised land: cf. Butzer, *Early Hydraulic Civilization*, 89-90; L. Störk, *LÄ* 1, 1152, s.v. 'Düngung'; R. L. Miller, *JEA* 76 (1990), 135; N.S. Hopkins, *Agrarian Transformation in Egypt* (Cairo, 1988, repr. from Boulder, 1987), 119. The working of organic (plant) material into the ground is one of the most clearly visible practices in modern projects extending the cultivation.

²¹ Hugonot, *Jardin*, 157, 196-7; D. Devauchelle, in *Cahiers du Musée Champollion* 1 (1988), 11; Lerstrup, *GM* 129, 63-4; H. Wild, in *Hommages Sauneron* 1, 312-15; Parker, op. cit. lines C32-6, D4-8, D28-9; H.-W. Fischer-Elfert, *Die satirische Streitschrift des Papyrus Anastasi I. Übersetzung und Kommentar* (Wiesbaden, 1986), 212-13, 218. The terms 't nt ht, 'orchard' (see Hugonot, *Jardin*, 11) and kṛmw, 'vineyard' (see Mahmud Abd er-Raziq, *MDAIK* 35 (1979), 239) are typically determined with the 'house' sign.

²² Cf. the New Kingdom sources collected by Hugonot, *Jardin*, 132-47; Moens, *OLP* 15, 12, 22-32; and especially the list of trees, palms and vines in the 'garden (hnt-š) of the West' of Ineni: *Urk.* IV, 73; Hugonot, *Jardin*, 162; Baum, *Arbres et arbustes*, passim.

²³ Cf. K. Baer, *JARCE* 1 (1962), 25-45; Eyre, in Schafik Allam (ed.), *Grund und Boden in Altägypten* (Tübingen, in press), 50-1, 58, 65-6. For the crucial early Demotic evidence see also S. P. Vleeming, *The Gooseherds of Hou* (Louvain, 1991), 82-3, and note Préaux, *Écon. royale*, 134. The basic economics remained the same into early modern times: see W. Willcocks, *Egyptian Irrigation*² (London, 1899), 19, 93, 390, 425; G. W. Vyse, *Egypt: Political, Financial and Strategic* (London, 1882), 114-15, 137-41; Hamed Ammar, *Growing Up in an Egyptian Village* (London, 1954), 33.

²⁴ D. Rathbone, *Economic Rationalism and Rural Society in Third-Century A.D. Egypt* (Cambridge, 1991), esp. 16, 33, 186-94, 213, 219-28, 247-64. For comparable data see M. Rostovzeff, *A Large Estate in Egypt in the Third Century B.C.* (Madison, 1922), 93-106, for the Ptolemaic Zenon archive, and D. J. Thompson, *Memphis under the Ptolemies* (Princeton, 1988), 36-43, for Ptolemaic Memphis. See also Kehoe, *Management and Investment*, passim. This pattern of walled orchards remained the norm until the end of basin irrigation: see Hopkins, *Agrarian Transformation*, 30-4, 128.

²⁵ Cf. Eyre, in Allam (ed.), *Grund und Boden*, 50-5, 66-9, on piecemeal holdings and management patterns in the Pharaonic Period, and Kehoe, *Management and Investment*, for the Roman period in general.

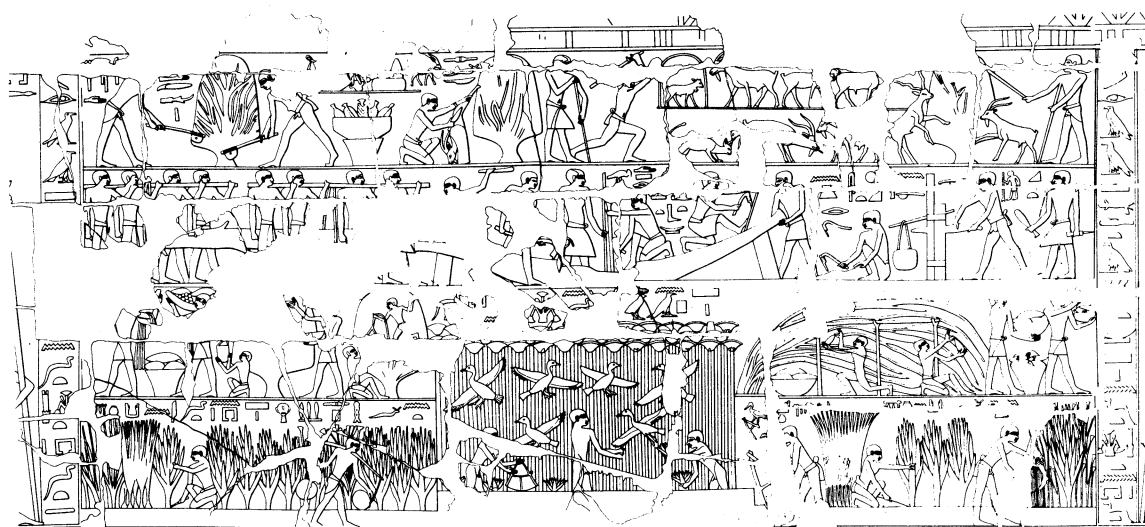


FIG. 1. Landscape with plantations, Tomb of Two Brothers, Fifth Dynasty, Saqqara. After A. M. Moussa and H. Altenmüller, *Das Grab des Nianchnum und Chnumhotep*, Fig. 8 (courtesy of the German Institute of Archaeology Cairo).

but there is no evidence of the intercultivation of vegetables. The estate also ran a centralized transport system, based at Arsinoe, to move its crops and produce.

Here are all the characteristics of an efficient plantation economy, for cash profit from the production and sale of wine, and to a lesser extent of olives. This regime provides a context within which to analyse high-investment plantation agriculture as far back as the Old Kingdom. There were technical advances in the water supply, but the basic imperatives of the Egyptian countryside, physical and economic, did not change. For Appianus, as for Zenon and his master Apollonius in the Ptolemaic period, the investment policy and the management decisions for running a great estate were not so different from those of a great official of the Fifth Dynasty controlling the estates that made up his *pr dt*.²⁶

The best depiction of an early plantation landscape appears in the Fifth Dynasty Tomb of Two Brothers at Saqqara (fig. 1).²⁷ In the centre of the scene is the 'Bird and papyrus pool (*š*) of the estate': a pool full of papyrus in which men are collecting lotus and catching birds. To the left the scene shows 'Watering the vegetable plot on the pool of the estate by the gardener', along with its harvest. Above this are trees and the fruit harvest. To the right, 'gardeners' are digging with the mattock and harvesting vegetables. Above them is the grape harvest. A complete upper register shows boat building. Finally the top register shows the exploitation of woodland: the felling of trees and pasturing goats. The entire wall can be interpreted as the cross section of a landscape. High value plantations are situated in a marginal non-arable area. They are dependent on a pond, but are not inundated. Nearby is scrub and natural 'forest' vegetation, with the herds from which gardens need to be protected. The neighbourhood of water and natural timber provides a site for boat building.

²⁶ Cf. Eyre, in Powell (ed.), *Labor*, 33–6; J. Málek and W. Forman, *In the Shadow of the Pyramids* (London, 1986), 79–82, 91.

²⁷ A. M. Moussa and H. Altenmüller, *Das Grab des Nianchnum und Chnumhotep* (Mainz am Rhein, 1977), 75–7 and fig. 8. For the topographical context cf. Wild, *Hommages Sauneron* 1, 312–15; Altenmüller, *MDAIK* 38, 10–14; Lerstrup, *GM* 129, 62–3.

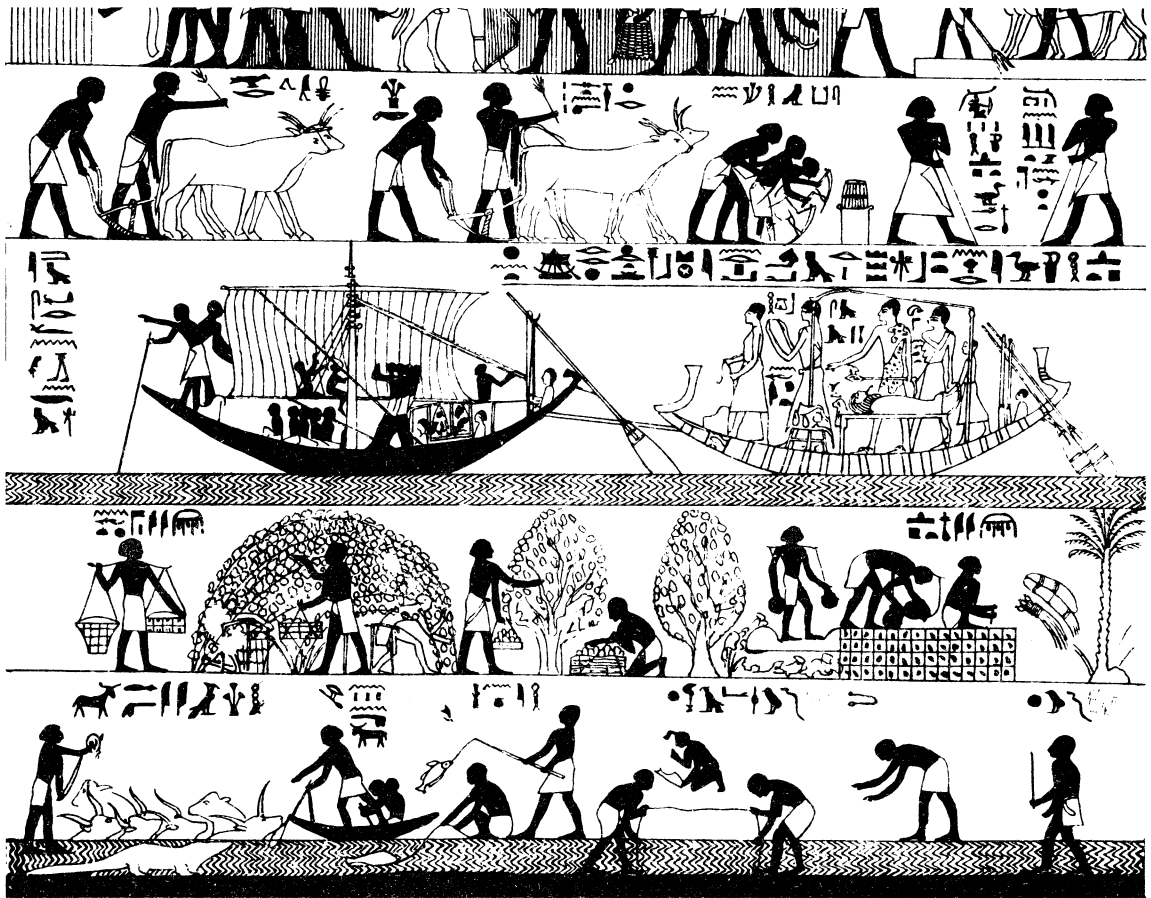


FIG. 2. Landscape with plantations, Tomb of Khnumhotep, Twelfth Dynasty, Beni Hasan. After P. E. Newberry, *Beni Hasan* 1, pl. xxix.

A variant layout of scenes appears in the Middle Kingdom tomb of Khnumhotep at Beni Hasan (fig. 2).²⁸ Here a single long register shows gardening scenes in sequence: palm-trees, vegetable picking, watering a vegetable plot, fruit picking, and the grape harvest. The workers are labelled as 'gardeners'. The register above shows boats, and that below scenes of fishing, so the gardening sequence is situated along a water-course.²⁹ Orchards and vegetable gardens filled a similar ecological niche: they would occupy adjoining plots, and tend to overlap, while the professional 'gardener' looked after vines, trees and vegetables.³⁰ The ground under trees or vines can be used for vegetable crops, and indeed vines can be grown under trees. Although on the face of it an efficient use of resources, this can be detrimental to the valuable trees and vines. It is impossible to say

²⁸ P. E. Newberry, *Beni Hasan*, 1 (London, 1893), pl. xxix; cf. Newberry, *El Bersheh*, 1 (London, n.d.), pl. xxiv, where additionally a row of plants (including small trees) in pots(?) may represent a nursery, for which cf. Thompson, *Memphis*, 39.

²⁹ Similarly P. Duell et al., *The Mastaba of Mereruka*, 1 (Chicago, 1938), pls. 20-1.

³⁰ E.g., *Satire on the Trades*, P. Sallier II, 6, 5-8; Fischer, *Dendera*, 154-5; Mahmud Abd er-Razik, *MDAIK* 35, 227-47; Baum, *Arbres et arbustes*, 249-63; Hugonot, *Jardin*, 245-6, 253-67; for a survey of the range of work, cf. also Parker, *JEA* 26, 84-113.

whether these scenes illustrate true intercultivation of this sort, which was probably limited outside the domestic or pleasure garden.³¹

Water sources in orchards

The ordering of scenes on a tomb wall must be treated with caution as evidence for topography, but it is significant that plantation scenes appear in closer association with herding and with water or marsh activities than with scenes of arable farming. The stress in depictions of arable farming lies on ploughing and the harvest. The inundation of the fields is never shown, and no pattern of relationship to water is discernible, presumably because no special water installations were required. In contrast, there is a regular association between trees and standing or perennial water; the one is unthinkable without the other.³² The Twenty-second Dynasty *Stèle de l'apanage*³³ provides isolated textual documentation. An endowment of 556 aroura was purchased from a variety of owners, with 'their wells (*šđjt*), trees, flocks, and herds' (lines 3-4). Considerable portions of the land were classed as *šh štrw tnj*: apparently land above the level of the inundation, covered with brush.³⁴ No doubt this provided pasturage for the flocks and herds, which are not enumerated. The trees and wells only belonged to the two largest plots:³⁵ 236 aroura with a well, 8 *nht*-trees and 6 *ndmt*-trees (lines 8-9), and 71 aroura, with 3 wells, 26 *ndmt*-trees, 50 small *ndmt*-trees and 3 *nht*-trees (line 10).

Manual watering made gardening expensive on labour, and restricted the scale of plantations. The trees stood within a narrow radius, close enough for the gardener to carry water in pots to the individual trees.³⁶ Watering was closely directed, and not general for the plot. Trees and vines were planted in specially dug pits, which not only created the right soil environment, but also minimized run-off and held water in the root area. This was general practice,³⁷ and not just for desert margin plantations.³⁸ A weed-free, carefully tended micro-environment around the tree roots is good orchard practice everywhere.³⁹ The use of the shaduf, first attested in the early New Kingdom, has only limited implications for irrigation technique.⁴⁰ The shaduf itself is a cheap and simple

³¹ Cf. Kehoe, *Management and Investment*, 84, 143, 147; Rathbone, *Economic Rationalism*, 245, 249; Rostovtzeff, *Large Estate*, 96-8, 179.

³² Moens, *OLP* 15, 37-8; Hugonot, *Jardin*, 132-47, for a collection of scenes.

³³ G. Legrain, *ZĀS* 35 (1897), 12-16; A. Erman, *ZĀS* 35, 19-24; B. Menu, 'La stèle dite de l'Apanage', in M.-M. Mactoux and E. Geny (eds.), *Mélanges P. Lévêque*, II (Besançon, 1989), 337-57.

³⁴ Menu, *ibid.* 351. For *štrw*, see Vernus, *RdE* 29, 179-93. For *tnj*, see below n. 89.

³⁵ Other purchases were of 69, 45, 37, 30 aroura, and the rest between 1 and 15 aroura.

³⁶ Illustrations are conveniently collected in Hugonot, *Jardin*, 222, 227, 228, 250; specifically from river, 110-11; from canal, 236; from pond, 137, 138, 141-2, 229, with discussion of the watering, 255-7. For vines see Lerstrup, *GM* 129, 61-82.

³⁷ Hugonot, *Jardin*, chapter 2, and 159-61. Typical depictions show the fruit tree (e.g., N. de G. Davies, *The Rock Tombs of El-Amarna*, I (London, 1903), pl. xxv) or vine-stock (e.g., J. J. Tylor and F. Ll. Griffith, *The Tomb of Paheri at El Kab* (London, 1894), pl. iv) growing in a mound of the shape of the *dw* hieroglyph. Examples with manual watering from pots: Mohammed Nasr, *SAK* 15 (1988), pls. 13 and 15 = E. Mackay, *JEA* 3 (1916), 125-6 (TT260/261) (vines); Newberry, *El Bersheh* I, pls. xxiv, xxvii (trees).

³⁸ E.g., at Deir el Bahri: Hugonot *Jardin*, 68-73; at Medinet Habu: U. Hölscher, *The Mortuary Temple of Ramesses III*, II (Chicago, 1951), 19-21.

³⁹ Cf. Rathbone, *Economic Rationalism*, 249-52, 260-3, on manual soil-working in the plantation.

⁴⁰ Butzer, *Early Hydraulic Civilization*, 43-8; Schenkel, *Bewässerungsrevolution*, 65, 67; Hugonot, *Jardin*, 257; Butzer, *LÄ* v, 520-1, s.v. 'Schaduf'.

machine,⁴¹ but associated labour costs are high, and only a very small area can be watered directly.⁴² However, trees and vines were planted in straight rows, and the construction of small runnels along the rows, to feed individual tree-pits in turn, was an obvious technique when water was raised from a well or using a shaduf.⁴³ Such small feeder channels are likely to have been more common, from an early period, than either the archaeological⁴⁴ or textual⁴⁵ evidence shows. Nevertheless, the introduction of the water wheel (*saqia*) in the Graeco-Roman period⁴⁶ was necessary for the mechanical watering of substantial areas of land.

The nature of the water source itself is crucial. Small ponds and cisterns are typical for the pharaonic record: decorative, semi-decorative, or merely symbolic, filled artificially or seasonally, and of very restricted value as storage for watering.⁴⁷ More significant are ponds dug sufficiently deep to tap the sub-soil water, and ensure a permanent self-feeding water supply.⁴⁸ This was typical for a temple sacred lake,⁴⁹ which symbolized the primeval ocean Nun rather than the inundation Hapy,⁵⁰ and drew on sub-soil water rather than the flood. A particularly elaborate example occupied the forecourt of the Eighteenth Dynasty temple of Amenhotep son of Hapu. The excavation report describes a stepped central basin, lined with sandstone and plastered brick. This was surrounded by a higher platform, with staircases leading higher up to courtyard level, and with trees planted around.⁵¹ It was clearly dug sufficiently deep to fill from the water-table.

⁴¹ And so rarely documented at any period, see Bonneau, in D. H. Samuel (ed.), *Proceedings of the Twelfth International Congress of Papyrology* (Toronto, 1970), 46. See Willcocks, *Egyptian Irrigation*², 106, for an estimate of the numbers in use in the late nineteenth century.

⁴² H. W. Fairman, *JEA* 39 (1953), 123; Willcocks, *Egyptian Irrigation*², 370, 374-5. Labour costs would eat up all profit from summer grain cultivation, although for a Ptolemaic example see P. Cairo Zen. 59155, discussed by A. K. Bowman, *Egypt after the Pharaohs* (London, 1986), 103-4. For an illustration of watering grain (*bd*) by hand, in a bed next to onions, see M. Verner, *Abusir*, 1. *The Mastaba of Ptahshepses. Reliefs*, 1 (Prague, 1977), 66-75 and pl. 35.

⁴³ Illustrated in TT49 Neferhotep = Hugonot, *Jardin*, 84, fig. 65; Butzer, *Early Hydraulic Civilization*, 44; perhaps also in the tomb of Nedjemger, see Gessler-Löhr, *Heiligen Seen*, 116, fig. 19. The Roman period gardening agreement O. Medinet Habu 4038, A8-11 = Parker, *JEA* 26, 84-113 stresses maintenance of the water channels, possibly for watering from a shaduf.

⁴⁴ Cf. Hugonot, *Jardin*, 29 (Karnak dromos), 31 (Karnak-Luxor avenue of sphinxes), 94 (Tell el-Daba palace gardens), 160-1, 231 (private plot at Amarna), 238-9 (Roman period garden at Baqaria, Armant). Note also B. J. Kemp, *Amarna Reports*, v (London, 1989), 13-14, 31, for stone conduits supplying a pottery workshop from a well, probably shaduf-fed.

⁴⁵ As possibly in the Dahshur decree of Pepi I, quoted below n. 81.

⁴⁶ For the date of introduction, which might have been as early as the second century BC, see M. S. Venit, *JARCE* 26 (1989), 219-22. For the economic and ecological context see Bonneau, in Samuel (ed.), *Proc. Twelfth Int. Cong. Pap.*, 45-62. For technical and economic data, see L. Ménassa and P. Lafferrière, *La saqia* (Cairo, 1975), and for the area watered by a wheel, Willcocks, *Egyptian Irrigation*², 374, and 476-7 for the numbers in use. For the parallel development of bath-houses associated with the water-wheel, see S. Wiedler, *GM* 132 (1993), 75-84.


⁴⁷ See A. H. Bomann, *The Private Chapel in Ancient Egypt* (London, 1991), chapter 7 and pp. 101-17. Cf. also Hurst, *The Nile*, 37-8, for seasonal ponds left by the retreating inundation, and their potential value for limited watering before they dried out.

⁴⁸ Cf. Hugonot, *Jardin*, 158-9; Moens, *OLP* 15, 37-8.

⁴⁹ Gessler-Löhr, *Heiligen Seen*; id., *LÄ* v, 791-804, s.v. 'See, hlg.'

⁵⁰ Gessler-Löhr, *Heiligen Seen*, esp. 187-8, 207-11, 217-18.

⁵¹ Hugonot, *Jardin*, 73-5; Gessler-Löhr, *Heiligen Seen*, 101-6; C. Robichon and A. Varille, *Le temple du scribe royal Amenhotep fils de Hapou*, (Cairo, 1936), 35, pls. iii-v, x, xi, xx, xxi, xxvii, xxviii. The excavators' conclusions are probably over-elaborate: Hölscher, *Mortuary Temple of Ramesses III* II, 20, n. 58, remarks that 'on further excavation [it] has proved to be a well hole'.

In such a basin, dug in the flood-plain, the water level would rise and fall seasonally.⁵² This is well illustrated by the water cavity in the Old Kingdom offering table of an Overseer of Scribes Setju.⁵³ Shown as a rectangular basin, surrounded by trees, this pond is stepped in different levels, and marked for the three seasons: twenty-five cubits for the inundation; twenty-three cubits for *peret*; twenty-two cubits for *shomu*. New Kingdom painting represents the effects of this seasonal rise and fall of water in a slightly different way. The British Museum's paintings from the Eighteenth Dynasty tomb of Nebamon⁵⁴ show a garden with rectangular blue pond, full of fish, birds and plants. This is surrounded by a larger rectangle of grey, with aquatic plants, beyond which are the trees. The theme is developed more fully in the slightly later Book of the Dead of Nakhte.⁵⁵ Here the blue pond is surrounded by an area of grey-brown, and a yet larger area of white, at the edge of which trees and vines are growing, each in its individual tree-pit. The basic theme is that of the 'pool' hieroglyph  .

The perennial pond had the advantage that it could be used for fish, duck and flowers.⁵⁶ In a tomb garden or temple lake these had ritual and symbolic value,⁵⁷ but their presence reflected practical reality. Standing water was a common resource for the fisherman-fowler as well as the gardener, while orchards might be stocked with domesticated or caged water-fowl. Geese in particular will not harm the trees, but will rapidly destroy a grain crop on the open field.⁵⁸ The Eighteenth Dynasty garden of Sennefer—Mayor of Thebes, Overseer of the Orchard (*rt nt ht*) of Amon, Overseer of the Gardens (*hntyw-s*) of Amon—regularly produced a pair of geese for the offering table.⁵⁹ This garden was depicted in his tomb as a walled compound with monumental door facing onto the river. Four separate ponds, each with water-fowl and papyrus plants, were surrounded by their own carefully ordered rows of fruit trees and palms. The centre of the garden was a vineyard. At the rear was a private house, while kiosks stood by two of the pools.

⁵² For variation in the water-table and for infiltration see Willcocks, *Egyptian Irrigation*², 14-15, 85-6; C. Traunecker, *Kémi* 20 (1970), 195-211; Bonneau, *La crue*, 63-5; A. B. Lloyd, *Herodotus Book II. Commentary 1-98* (Leiden, 1976), 379-80.

⁵³ CG 1330; L. Borchardt, *Denkmäler des Alten Reiches*, 1 (Berlin, 1937), 14 and pl. 5; Maha M. F. Mostafa, *Untersuchungen zu Opfertafeln im Alten Reich* (Hildesheim, 1982), 125 and pl. xiii; Hugonot, *Jardin*, 191-3. For the offering table basin as a motif and its relation to the garden pond cf. H. Junker, *Arch. Or.* 20 (1952), 185-9; Mostafa, op. cit. 114-16, 124-7; Bomann, *Private Chapel*, 106-7 and pl. 67; Gessler-Löhr, *Heiligen Seen*, 71; Fischer, *MDAIK* 47 (1991), 127-33.

⁵⁴ EA 37983; PM 1², 2, 818 (h); L. Manniche, *Lost Tombs* (London, 1988), 152-3; M. Stead, *Egyptian Life* (London, 1986), 8; Hugonot, *Jardin*, 134-5. For a series of comparable depictions of the period, see *ibid.* 133-45.

⁵⁵ BM EA 10471; Stead, op. cit. 13; Hugonot, *Jardin*, 146-7.

⁵⁶ Moens, *OLP* 15, 33-4. Cf. Shipwrecked Sailor 47-52: although a pond is not mentioned, the island was in reality the snake's cultivated garden: 'I found figs and grapes there; all luxury vegetables; sycamore-figs, and notched sycamore-figs; cucumbers, like they are cultivated; fish were there, and poultry. There was nothing that wasn't in it.'

⁵⁷ Gessler-Löhr, *Heiligen Seen*, 469-76.

⁵⁸ For wild geese as pests, see P. Lansing 3, 5-8 = *LEM* 102, 5-11. For domestic geese, see Vleeming, *Gooseherds*, 19-69, and cf. Thompson, *Memphis*, 45, 63, 236. For an illustration of a pond with goose stalls, see Klebs, *Reliefs des N.R.*, 70 = Wreszinski, *Atlas* 1, 395.

⁵⁹ *Urk.* IV, 1417, 14 - 1418, 3; TT96, PM 1, i, 198 (4); C. G. van Siclen III, *Two Theban Monuments from the Reign of Amenhotep II* (San Antonio, 1982), 10-18 and figs. 5-9; Gessler-Löhr, *Heiligen Seen*, 181-3; Hugonot, *Jardin*, 10.

A limestone model orchard in the British Museum⁶⁰ shows a similar walled compound (pl. VIII, 1-3). The wall has a crenellated top, with monumental entrance in the front wall and a side door in the right wall. A central basin contains steps that give access to a small rectangular pond. Within this pond is a small hole, perhaps intended to take a model shaduf. Separate from this is a large round pit of uncertain purpose, although the two are connected by a hole, apparently cut deliberately through from the corner of the rectangular basin. The floor of the model is dotted with small holes, presumably to take lost model trees, while shallow incised chequer-board lines might represent runnels for water distribution. These lines form a series of sectional grids. This is clearest to the right of the basin, where the grid has a very shallow rectangle (a pond?) at its centre, with another deeper and rather small square next to it. In the rear left corner, a staircase to the top of the wall seems to be built over a small house or storeroom. In each of the other corners there is an identifiable square marked on the floor, the front ones with a larger than normal hole serving as focus. The detail is insufficient to attempt serious reconstruction of a water distribution system, but the impression is that of a large compound with perennial well, and perhaps a series of shallow holding pools as focus to each section of trees. As with the garden of Sennefer, the image is precisely the same as the walled orchard-plot of the Graeco-Roman period.

There is a direct comparison with the orchard shown in the tomb of Meryre at Amarna (fig. 3).⁶¹ Here the walled compound has a deep square basin, with staircase down, and at the bottom a square pool with shaduf. Such installations are known from excavations at Amarna, both as large public wells⁶² and from the garden compounds of large villas.⁶³ Dug wide and deep enough to allow men to descend by a staircase, they were really just deep water-holes from which water was drawn directly and manually. The technical distinction between a well and a deep pond is not clear cut in the pharaonic period.⁶⁴ This is very different from the Graeco-Roman period, with its extensive use of animal power and wheels to raise water from deep wells.

The common theme is the avoidance of water transport. It seems to have been more effective to excavate a pond,⁶⁵ and to water an orchard of restricted size by hand. This was only sensible for high value crops, and only feasible for a large agricultural enterprise with considerable resources in capital and labour. The property of any institution or any official of substance included a pond and its associated plantations. In the Twelfth Dynasty Hapdjefay says: 'See, I have endowed you with fields, with people, with flocks,

⁶⁰ EA 36903. Cf. Hugonot, *Jardin*, 196-7. Maximum dimensions are 26.1 × 17.2 × 7.3 cm, and internal wall height 3.5 cm. I have no grounds for dating this piece, other than the comparisons made here to New Kingdom pictorial evidence. The model was acquired from the Revd Greville Chester in 1876. He had purchased it locally, and gave the provenance as Tell Atrib. My thanks are due to Dr Morris Bierbrier of the Museum for his assistance.

⁶¹ Davies, *Amarna* 1, pls. xxv, xxxii; Gessler-Löhr, *Heiligen Seen*, 201-5; Hugonot, *Jardin*, 51.

⁶² Kemp, *Amarna Reports* v, 1-14 (with discussion of the role of the shaduf); id., *Ancient Egypt: Anatomy of a Civilization* (London, 1989), 291-2. Cf. also Gessler-Löhr, *Heiligen Seen*, 375-7, on the Sacred Lake at Tod; Waseda University, The Committee of the Archaeological Survey in Egypt, *Malkata South* [IV] (Tokyo, 1992), 41-9, 325-35, 405, on a well at Malkata.

⁶³ Kemp, *Ancient Egypt*, 291-8; cf. Gessler-Löhr, *Heiligen Seen*, 205-7.

⁶⁴ For the variation in architectural form compare the small stepped basin of the Valley Temple of Mycerinus and the pit with staircase attached to the tomb of Khentkaues, both conveniently illustrated by Gessler-Löhr, *Heiligen Seen*, pl. 1.

⁶⁵ The same was evidently the case for domestic water supplies: cf. for instance, the profusion of wells at Amarna, even though the town was relatively close to the Nile.

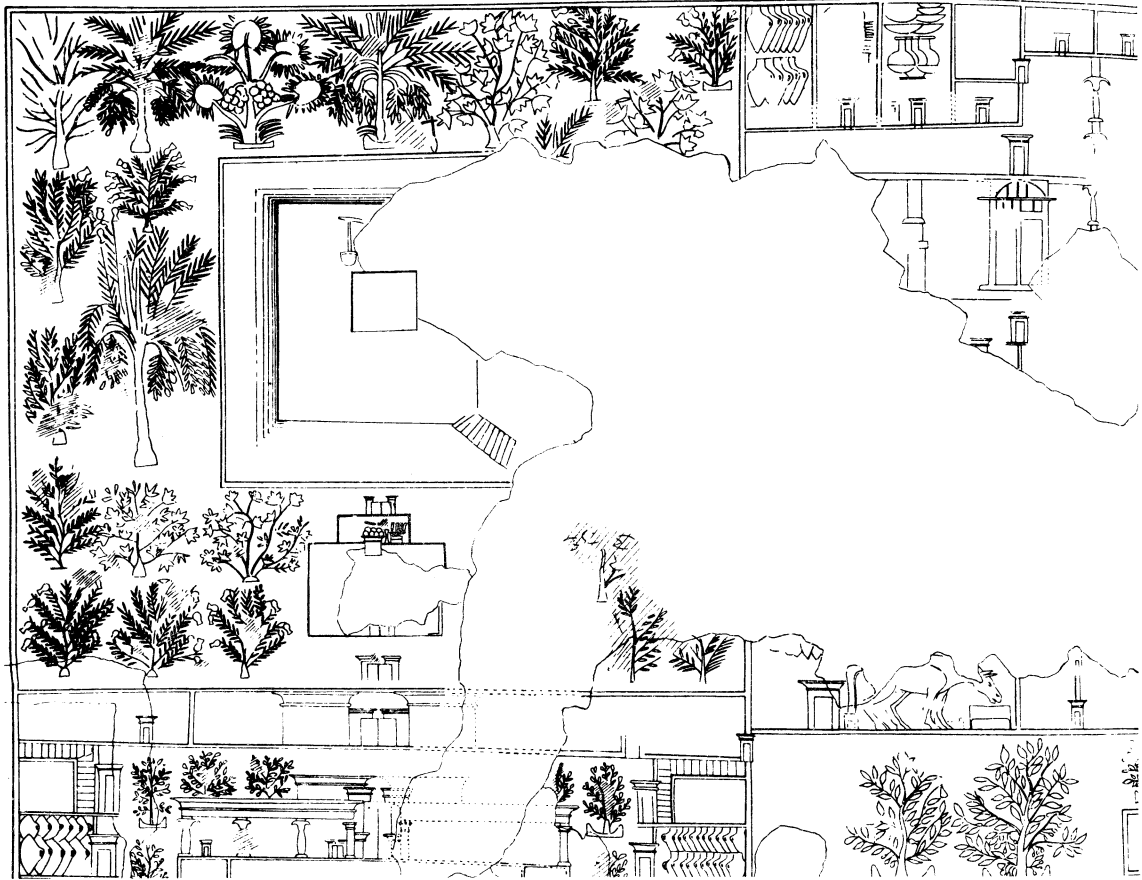



FIG. 3. Walled orchard with well, Tomb of Meryre, Eighteenth Dynasty, Amarna. After N. de G. Davies, *The Rock Tombs of El-Amarna* I, p. xxxii.

with \check{s} (), with everything, like any official of Siut.⁶⁶ The excavation of this \check{s} is a formulaic element in Old Kingdom autobiography.⁶⁷ The most circumstantial description is that of Metjen, who erected:⁶⁸ 'A *pr*, long 200 cubits, broad 200 cubits, walled, equipped, good tree(s) planted, a very great pool made in it, fig(s) and vines planted. It has been written down onto a royal document, their (estate) names onto a royal document. Very many vine-stocks were planted and very much wine was made from them. There was made for it a vineyard, (being) a plot 1 *h* 2 *t* inside the wall, planted with trees.' New Kingdom autobiography more often stressed, in lyric form, the pleasures of the garden and the regenerative symbolism of the pond and vegetation.⁶⁹ Charac-

⁶⁶ *Aeg. Les.* 92, 19 = Siut 271.

⁶⁷ Edel, *MDAIK* 13 (1944), 49-50; Fischer, *Dendera*, 154-5; 160-1; Hugonot, *Jardin*, 129-31. For the specific association between digging ponds, planting trees, and building a house, see also *CT* II, 134; III, 94; VI, 171, 173, and *Admonitions* 13, 12-13.

⁶⁸ *Urk.* I, 4, 10-5; H. Goedicke, *Die privaten Rechtsinschriften aus dem Alten Reich* (Vienna, 1970), 8-17 and pl. ii; K. B. Gödecken, *Eine Betrachtung der Inschriften des Meten im Rahmen der sozialen und rechtlichen Stellung von Privatleuten im ägyptischen Alten Reich* (Wiesbaden, 1976), 12, 363-4.

⁶⁹ Hugonot, *Jardin*, 130-1, 166-7. Note particularly the extensive and popular Eighteenth Dynasty prayer, wishing to take pleasure, water and food from the lake and garden, *Urk.* IV, 1525, 8-1527, 10 (quoted by Hugonot, *Jardin*, 170).

teristically Old Kingdom tomb scenes place gardens in the economic context of the productive cycle, while New Kingdom scenes stress the pleasant environment.⁷⁰ In contrast, royal and official inscriptions focus on digging the lake and planting the orchard as temple endowment.⁷¹ Yet the underlying material context remains the same: not merely the pleasure garden, nor the mortuary estate, nor temple surrounds, but luxury production.⁷² The official supplied his extended household. The temple had extensive needs for the offering table and for its staff. These needs were satisfied by local plantations, fed by perennial water, often from a private water source.

A clear picture emerges of an archetypal orchard: its situation, its working practices, and even to an extent its economic role. The basic parameters are constant throughout antiquity, as indeed through mediaeval and into early modern Egypt. Even so, and despite the limitations imposed by the ideological context of pharaonic data, it is possible to speculate on the relationship between gardening practice and the development of the Egyptian landscape through greater control of the water regime. In the background are issues of population growth, settlement patterns, land ownership, and the market for agricultural produce, but in the forefront is the question of land development in areas that were too high for ordinary inundation, or so low as to be waterlogged or swampy.

Terminology and land categories

Philology is a vital but treacherous tool in this context. We know too little of the ecological and fiscal distinctions that mattered to the Egyptian countryman to be clear how these were reflected in his use of words.⁷³ Land may be classed according to its fiscal or legal status, topographical situation, or ecological type. We can rarely know which classification is primary, or how technical the usage might be in a particular context. For instance, the term *š*, 'pond', basically means no more than an area of standing water. The *š*-pond could be either natural or artificial. At all periods the term could also be used for a 'garden', and the garden implied the pond.⁷⁴ Yet the term seems also to be used for the 'lake' temporarily held in a flood basin,⁷⁵ and indeed as a name for the Fayum.⁷⁶ The reference varies according to context.

⁷⁰ Hugonot, *Jardin*, 7, 223-4; Moens, *OLP* 15, 11. The two distinct contexts can perhaps be seen in a small number of New Kingdom tomb scenes, e.g., TT81 Ineni = Hugonot, *Jardin* 141-2, fig. 114; TT85 Amenemheb = Hugonot, *Jardin*, 135-6, fig. 107.

⁷¹ E.g., from different periods, *Urk.* IV, 28, 1-9; 1668, 19; 1795, 15-16; *KRI* I, 109, 16; M. F. Laming Macadam, *The Temples of Kawka*, 1 (Oxford and London, 1949), pl. 8, 24-5; statue Louvre A93, Jelinková-Reymond, *ASAE* 54 (1957), 276, line 4.

⁷² Hugonot, *Jardin*, 3, 6, 165-8.

⁷³ See, *AEO* I, 7*-12* for the lexicographic problems.

⁷⁴ *Wb.* IV, 398; *CDME* 260; Hugonot, *Jardin*, 17-18; Baum, *Arbres et arbustes*, 28-36; Fischer, *MDAIK* 47, 129-31.

⁷⁵ Abbas Bayoumi, *Autour du Champ des Souchets et du Champ des Offrandes* (Cairo, 1941), 1-12, for *š* apparently used in the Pyramid Texts for the fields/basins when flooded; *Urk.* IV, 1737 = C. Blankenberg-van Delden, *The Large Commemorative Scarabs of Amenhotep III* (Leiden, 1969), 18, 134-45, where opening the *š* probably refers to breaking the dykes to release the water onto or off the basin: see J. Yoyotte, *Kêmi* 15 (1959), 23-33; Sauneron, *Kêmi* 15 (1959), 34-5; Fairman and Blackman, *JEA* 36 (1950), 68-9; Schenkel, *Bewässerungsrevolution*, 62. The Memphis protection decree of Apries (B. Gunn, *ASAE* 27 (1927), 222, lines 7-9; cf. H. D. Schneider, *Shabti*s (Leiden, 1977), I, 13-14) protects against work in the (plural) *š*, as the Dahshur decree of Pepi I does against work in the *r-š* of the Pyramid of Ikauhor. It is uncertain whether irrigation work is referred to.

In the Old Kingdom, a *hntj-š* gave personal service to the king: court service to the living king as *hntj-š n pr-ꜥ*, or temple service to the dead king as *hntj-š* of his pyramid.⁷⁷ He also held a plot of land for his service. There are good reasons to suspect that *š* is here a homonym meaning 'work', and that these were people 'in front of duties' rather than 'in front of ponds'.⁷⁸ Yet by the Middle Kingdom the word can mean 'gardener', while the *hnt-š* was the place of trees *par excellence*.⁷⁹ Possibly we are here dealing with a false etymology. Gardening was not the core function of the Old Kingdom *hntj-š*, but may have been the typical use of his land holding, close to the pyramid he served. Free grain land must have been scarce in the Memphite region by the Fifth and Sixth Dynasties, and one may guess that land development was necessary in marginal areas, which would naturally encourage plantation development.⁸⁰ The duties of the *hntj-š* included the organization and transport of supplies for the pyramid temples, so that in practice a role as local market gardener to the offering table may have been part of his function.

Such assumptions fit the evidence of the Dahshur decree of Pepi I, which protects the *hntjw-š* of the pyramids of Snofru: 'My Person has decreed against the assessing (*jp*) of the canals (*mr*), pools (*š*), wells (*šdwt*), runnels ($\overline{\text{N}}\overline{\text{N}} \overline{\text{O}} \overline{\text{Q}}\overline{\text{Q}}$) and trees in this pyramid-town.'⁸¹ Some at least of the *hntj-š* were cultivating orchards on lands that stood above the inundation, fed manually from wells. Although in practice the *hntj-š* may have been relatively independent, and individually responsible for his farm, the initial development was an institutional endowment and he had institutional duties. There is a degree of continuity with the *hntj-š* known from the pyramid town of Illahun in the Middle Kingdom,⁸² and the *hnt(j)-š* lands that supplied New Kingdom temples with the flowers and vegetables for their offering tables.⁸³ The institutional need for tied plantation agriculture was constant.

In general the categorization of agricultural land is complicated by uncertainty about the water regime.⁸⁴ The crucial term is *qyt(t)*, etymologically 'high'-land, although its

⁷⁶ E.g., KRI II, 488, 16; *Wb.* v, 226, 6-227, 3.

⁷⁷ A. M. Roth, *SAK Beihefte* 4, 177-86; id., *Egyptian Phyles in the Old Kingdom* (Chicago, 1991), 79-81, 193-4; Eyre, in Powell (ed.), *Labor*, 35-7; R. Stadelmann, *Bulletin du Centenaire, Supplément au BIFAO* 81 (1981), 153-64; P. Posener-Kriéger, *Les archives du temple funéraire de Néferirkarê-Kakaï* (Cairo, 1976), II, 579-81.

⁷⁸ Eyre, in Powell (ed.), *Labor*, 30. On the word-group *hntj-š*, see Gardiner, *ZÄS* 45 (1908), 129-30.

⁷⁹ *Wb.* III, 310-11 and IV, 398; *CDME* 194-5; Hugonot, *Jardin*, 16-17. Cf. also *hntj-š* for the Lebanon, G. Posener, *Princes et pays d'Asie et de Nubie* (Brussels, 1940), 85; the synonym *hrt-š*, Hugonot, *Jardin* 15; and *jry-š* for a man looking after trees, Fischer, *Dendera*, 154-5 = Hugonot, *Jardin*, 246.

⁸⁰ Schott, *RdE* 17 (1965), 7-13, argued that uninundated land (around the pyramid itself) was typical of such holdings, outside the flood basins; cf. also Kees, *Ancient Egypt*, 70-2, 159. The presence of 'settled Nubians' at Dahshur (see following note) reinforces that impression of deliberate land development for settlers in this area.

⁸¹ *Urk.* I, 209-13; H. Goedicke, *Königliche Dokumente aus dem Alten Reich* (Wiesbaden, 1967), 55-77, §XI; cf. Schenkel, *Bewässerungsrevolution*, 26; Kees, *Ancient Egypt*, 80. The suggestion that the problematic *hnwt* might refer to the shaduf is impossible to substantiate.

⁸² U. Luft, *Oikumene* 3 (1982), 148-9; G. Möller, *Hieratische Paläographie*, I (Leipzig, 1927), 14.

⁸³ Hugonot, *Jardin*, 16-17. Note especially *Urk.* IV, 207, 5-7, distinguishing *hntj-š* and *qyt* and; and *Urk.* IV, 171, 16-172, 3, distinguishing *hrt-s* for fresh produce from *hnt* lands for the divine offerings. The term *km* is more common for temple gardens at this period.

⁸⁴ For the previous discussions see A. H. Gardiner, *The Wilbour Papyrus*, II (London, 1948), 26-31, 178-81, with review by Fairman, *JEA* 39, 122; *AEO* I, 7*-12*; Schenkel, *Bewässerungsrevolution*, 59-67 and *LÄ* I, 778-80, s.v. 'Be- und Entwässerung'; D. Meeks, *Le grand texte des donations au temple d'Edfou* (Cairo, 1972), 56 n. 18, 147-50; A. Gasse, *Données nouvelles administratives et sacerdotales sur l'organisation du domaine d'Amon* (Cairo, 1988), 54-6, 185-7; S. P. Vleeming, *Papyrus Reinhardt* (Berlin, 1993), §§9, 18; D. Bonneau, *Le fisc et le Nil* (Paris, 1972), 79, 114-16.

original ecological status is curiously difficult to define. Attested from the Middle Kingdom down to Coptic $\kappa\omicron\iota\epsilon$, this was ordinary grain land with a standard fiscal assessment. Schenkel has argued that it lay above the natural inundation, and was only cultivable following Middle Kingdom works to develop flood control.⁸⁵ Yet grain cultivation required land watered by the flood (Arabic *rei* land). *qjt* must surely lie in the flood basins:⁸⁶ presumably land that was reached by the normal inundation, but which was high enough to drain satisfactorily. Drainage was crucial to land values. The contrast in the Middle Kingdom and early Eighteenth Dynasty was *hrw*, 'low' land: perhaps land that could not be counted on to drain satisfactorily for grain crops.⁸⁷

The ecology of the Nile creates various special categories of land: the riverbank *levée* itself; the area of low riverbank land, uncovered as the Nile sinks back into its bed (Arabic *gezira* land); swampy land; and islands in the flood plain naturally standing above the inundation. These categories cannot be directly identified in the important land categories of the New Kingdom, probably because of our inability to distinguish fiscal from geographical usage. *jdb*, 'riparian(?)' land,⁸⁸ *tnj*, 'raised(?)' rather than 'tired(?)' land,⁸⁹ and *nhb*, 'fresh(?)' land,⁹⁰ are typically documented in small parcels, and Papyrus Wilbour places higher fiscal assessments on *tnj* and *nhb* land. This might imply that they were used for high value crops, including fruit or vegetables, or even for additional summer crops, and not just that they had higher grain yields. Possibly *tnj* might include *levée*, and *nhb* cultivable lower land, or even *gezira* land.

bḥ lands

The problem is further compounded by changes in terminology. In the late Eighteenth Dynasty, the term *bḥ* came into use for districts under extensive vine, fruit⁹¹ and olive(?) oil-tree⁹² cultivation. The *bḥ* were typically divided into discrete plantations (*km*) under the authority of individual 'gardeners'. It is surprisingly difficult, however, to define a quasi-technical reference for the root *bḥ* within the water regime.⁹³ A high percentage of

⁸⁵ *Bewässerungsrevolution* 60–5, and cf. Meeks, *Texte des donations*, 56, n. 18. Note especially Deir Rifeh vii, 23 = P. Montet, *Kēmi* 6 (1936), 159: 'I have brought Hapy in [X X X X X] to the *qjt*-land of your fields (*jḥwt*); your *śdw*-plots are irrigated (*jwh śdw=tn*)'. Pace Schenkel, the normal flood on the *qjt*-land is perhaps distinguished from more artificial supply to the *śdw*-plots, although perhaps the *śdw* plots are included (as a legal and not ecological class) on the *qjt* land. In general the term *qjt* equates with the Greek term *ἡπειρος* as normal grain land, but a degree of confusion arises from the fact that an incorrect equation is often made in the literature between *ἡπειρος* and the Arabic *sharaqī* land: land requiring artificial irrigation.

⁸⁶ Kees, *Ancient Egypt*, 53–4, 75–6; Baer, *JARCE* 1, 39–41 and n. 98; T. G. H. James, *JEA* 54 (1968), 53, d; Butzer, *Early Hydraulic Civilization*, 48; Endesfelder, *ZAS* 106, 43–5.

⁸⁷ Note also the *hrw* 'fen' land of P. Reinhardt, Vleeming, *P. Reinhardt*, 67–8. Cf. Willcocks, *Egyptian Irrigation*², 160–1, 238–9, but note his observation, p. 93, that the more valuable land typically lay at the northern end of each basin, where water and silt deposit were deeper.

⁸⁸ Gardiner, *Wilbour Papyrus* II, 26–7; Vleeming, *P. Reinhardt*, 47–8; S. L. D. Katary, *Land Tenure in the Ramesside Period* (London, 1989), 254–8. Meeks, *Texte des donations*, 149 stresses that this is not limited to the riverbank, and may not even refer specifically to a water-regime. No accurate categorization seems possible.

⁸⁹ Schenkel, *Bewässerungsrevolution*, 64; Vleeming, *P. Reinhardt*, 68–9 against Gardiner, *Wilbour Papyrus* II, 28–9, 178–81; Menu, *Mélanges P. Lévêque* II, 351.

⁹⁰ Gardiner, op. cit. 28–9, 178–81; Vleeming, *P. Reinhardt*, 47–8.

⁹¹ Specific examples of trees, *KRI* II, 514, 16 and III, 298, 14; P. Harris I, 4, 3.

⁹² Esp. Y. Koenig, *Catalogue des étiquettes de jarres hiératiques de Deir el-Médineh*, I (Cairo, 1979), nos. 600–85; P. Harris I, 8, 5–7. According to Strabo 17.1.35, olive plantations were restricted to the Fayum.

⁹³ *Wb.* I, 448–50; *CDME* 81; Wild, *Hommages Sauneron* I, 312–5; Yoyotte, *Kēmi* 14 (1975), 87–8; Fairman, in J. D. S. Pendlebury et al., *The City of Akhenaten*, III (London, 1951), 167.

usage is metaphorical, typified by the idea of abundance, and the focus here may be on the variety of luxury produce rather than just a plentiful supply of water. In the oases *bḥ* was land watered from wells and springs, typically associated with wine production, and distinguished from *štrw*, the rough country.⁹⁴ In the Nile Valley its close association with fruit cultivation excludes the possibility that a *bḥ* was simply a flood basin. More likely it was an area with controlled watering, perhaps dyked to prevent free flooding⁹⁵ and facilitate channelled irrigation in season. This is the best way to envisage, for instance, the Ramesside development near Pi-Ramesse in the Delta called 'Kaenkemet, *bḥ* in the Two Lands, in great lands of oil-trees and vines, enclosed in walls (*sbty*), in their circumference like *jtṛw*'.⁹⁶ An isolated wine docket refers to 'grapes of the mound (*jt*)' from a 'great *bḥ*' in Kaenkemet,⁹⁷ implying that small plots of genuine high land might be included.

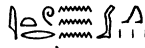
The Delta and the Fayum

The known *bḥ* lands were largely in the Delta, where agricultural development is attested at all periods. Plantation agriculture seems always to have been a feature of this development,⁹⁸ and local specializations in wine growing are attested from an early date, especially along the Western River and in the region of Sile.⁹⁹ Yet there appears to have been a significant increase in wine and oil-tree production during the New Kingdom,¹⁰⁰ exemplified by the growth of Tell el-Daba and Per-Ramesses as an archetypal garden city.¹⁰¹ Similarly a High Steward Amenmose describes 'Nay-Amon-Re in the Western River; it had been a *brkt*; I made it into temples and shrines on the endowment of the House of Amon'.¹⁰² Here an area of explicitly wet land had been developed, as one of a group of similarly named wine-producing settlements in the Delta.

The natural ecology of the Delta is distinct from that of the Nile Valley proper.¹⁰³ Considerable areas of waterlogged and saline land were to be found between the branch-

⁹⁴ Gardiner, *JEA* 19 (1933) 19-30, Dakhleh Stela lines 2-3; Vernus, *RdE* 29, 189-90; A. Zivie, *RdE* 31 (1979), 140.

⁹⁵ Greater Memphis was protected from the flood by dykes: see A. B. Lloyd, *Herodotus Book II. Commentary 99-182* (Leiden, 1988), 10-13; D. G. Jeffreys, *The Survey of Memphis*, 1 (London, 1985), 53-5, and cf. 4-6 for recent flood patterns in the area. It probably always had low-lying areas watered by local canals, and used for orchards and market gardening: for the Ptolemaic period see Thompson, *Memphis*, 38-43, and note the temple of Amenophis III built 'anew (*m mṛwt*) on *bḥ* on the west of Hutkaptah on the (*jbwy*) of Ankhtawy' (*Urk.* IV, 1795, 5-6).

⁹⁶ P. Harris I, 8, 5-6, temp. Ramesses III. *Wb.* I, 147, 3 reads  not as the term for river or canal but as the measure of length, to translate 'miles in circumference'.

⁹⁷ *KRI* II, 673-96, formula IID.

⁹⁸ Kees, *Ancient Egypt*, 30, 185-9, 201-2; H. K. Jacquet-Gordon, *Les noms des domaines funéraires sous l'Ancien Empire égyptien* (Cairo, 1962); id., *LÄ* III, 672-3, s.v. 'Kolonisation'; J. A. Wilson, *JNES* 14 (1955), 225; Butzer, *Early Hydraulic Civilization*, 94-5; id., *LÄ* I, 1049-50, s.v. 'Delta'. Note also Willcocks, *Egyptian Irrigation*², 239.

⁹⁹ Meyer, *LÄ* VI, 1169-82, esp. 1169-70 and 1172-3; Hugonot, *Jardin*, 241-4.

¹⁰⁰ Mahmud Abd er-Razik, *MDAIK* 35, 227-47; K. A. Kitchen, in A. B. Lloyd (ed.), *Studies in Pharaonic Religion and Society in Honour of J. Gwyn Griffiths* (London, 1992), 115-23; Butzer, loc. cit.; and cf. P. Harris I, 7, 10; 27, 9-11; 67, 9.

¹⁰¹ *LEM* 21, 9-23, 12 = An. III, 1, 11-13, 9; Bietak, *Avaris and Piramesse (PBA 65)* (London, 1979), esp. 227-8, 269-71, 274-83; *Tell el-Daba* II, 204; *AÖAW* 122 (1985), 267-78; Meyer, *LÄ* VI, plate between 1176-7; Hugonot, *Jardin*, 85, 94-5.

¹⁰² *KRI* V, 415-17 = Gardiner, *JEA* 34 (1948), 19-22 = A. Hamada, *ASAE* 47 (1947), 15-21, temp. Ramesses III. Cf. also Kitchen, op. cit. 117-18, nn. 19, 26-7; 31. For *brkt* as a pond see Gardiner, *Wilbour Papyrus* II, 29. Cf. also Hassan Fathy, *Gourna. A Tale of Two Villages* (Cairo, 1969), 138-42, for village ponds.

¹⁰³ Bietak, *Tell el-Daba* II, esp. 49-58, 117-39; Butzer, *LÄ* I, 1043-52, s.v. 'Delta'.

ing courses of the Nile and in the coastal areas. Widespread grain cultivation required a basin system with effective through-flow and drainage to control salination. Otherwise cultivation was restricted to higher, well-draining land close to the watercourse.¹⁰⁴ Probably the *b'ḥ* were ribbon developments along the watercourses, protected by dyking systems to keep the full force of the Nile flood at bay. One may envisage an intermediate water regime similar to that of the nineteenth-century berm (riverbank) lands in Upper Egypt.¹⁰⁵ Here local high canals were used during the flood season, to water high-value crops on riverbank lands protected from full inundation, and this was supplemented by local artificial watering in winter. It is important for the history of Egyptian irrigation to distinguish between true basins with free flood patterns, and the use of feeder canals for the controlled watering of areas deliberately protected from natural flooding. This latter regime is the model for instituting widespread perennial irrigation. The existence of large areas of plantation agriculture can be taken as direct evidence for the development of such a regime.

Such water control is better exemplified in the Fayum, where the natural ecology differed in significant ways from both the Nile Delta and the Nile Valley. Like the oases,¹⁰⁶ the Fayum was an area of specialist vine, fruit and vegetable cultivation,¹⁰⁷ and included a garden-type water regime on a large scale. Already in the Middle Kingdom canalized water may have been used to feed specialist agriculture. A reduction in the size of Lake Moeris made areas of low land available for irrigation by ordinary seasonal flow of Nile water along the Bahr Yusuf. The system could then exploit local feeder canals and radial drainage patterns, and not only the basin system of the valley proper. The lake itself then served as a drainage sump, important in mitigating the salination that is a normal consequence of canal-fed and of perennial irrigation. The habits of water control necessary for extensive cultivation of the Fayum would slowly promote out-of-season cultivation, and provide extensive experience in the development of low-lying irrigable land. It is not, however, possible to put this experience into proper historical context. The major developments of the Middle Kingdom are followed by a gap in the record. Possibly the record is defective, but possibly exploitation of the area was limited in the New Kingdom. This might have been the result of cumulative salination, or a simple change in policy following a breakdown in canal maintenance. Similarly the intensive development of the Ptolemaic period broke down through failure to maintain the systems for supply and drainage of water. Nevertheless, the use of this garden style of controlled seasonal watering, in an area not subject to full natural inundation, is the first step towards developing genuine perennial irrigation.

¹⁰⁴ Willcocks, *Egyptian Irrigation*², esp. 164-6, 229-38.

¹⁰⁵ Willcocks, op. cit. 170-5. Cf. Sir Henry Lyons, *JEA* 12 (1926), 242-3 on the annual remeasurement and redistribution of these variable lands for the local landholders.

¹⁰⁶ Lisa L. Giddy, *Egyptian Oases* (Warminster, 1987), 4-5, 95-7, 163; Wagner, *Oasis*, 293-301.

¹⁰⁷ Rathbone, *Economic Rationalism*, 219-28, 248-51; D. J. Crawford, *Kerkeosiris. An Egyptian Village in the Ptolemaic Period* (Cambridge, 1971), 108-12. In the Graeco-Roman period the Fayum had its own distinctive regime of water administration, perhaps because detailed distribution from canals was significant only here, cf. Bonneau, *BSFE* 120 (1991), 7-24. Irrigation development in the Fayum involved controlling and restructuring the flow of water in and out of the region, and then its distribution from these water-courses. See D. Arnold, *LÄ* II, 87-93, s.v. 'Fajjum'; B. P. Grenfell, A. S. Hunt and D. G. Hogarth, *Fayum Towns and their Papyri* (London, 1900), 1-17; Schenkel, *Bewässerungsrevolution*, 65-7; Butzer, *Early Hydraulic Civilization*, 36-8, 47, 48; Lloyd, *Herodotus Book II* II, 124-5; E. D. Cruz-Urbe, in J. H. Johnson (ed.), *Life in a Multi-Cultural Society* (Chicago, 1992), 63-4; Willocks, *Egyptian Irrigation*², 139-41, 150-5, 157-63. I have been unable to consult G. Garbrecht and H. Jaritz, *Untersuchungen antiker Anlagen zur Wasserspeicherung im Fayum/Ägypten* (Braunschweig and Cairo, 1990).

The economics of plantation development

Plantation agriculture varied in scale, from household kitchen gardening¹⁰⁸ or a few trees planted within the village area to a home orchard, fed by standing water, or the major orchard districts of the Delta and Fayum. This was, nevertheless, the specialist semi-commercial sector of agriculture, growing marketable crops. Grain was the subsistence crop, for which there could not be a regular commercial market in the countryside. It was distributed as closely quantified rations to the members of the household, or 'redistributed' as rations to specialist work-forces, public or private. It was not normally sold on an open market.¹⁰⁹ Vegetables, fruit, even wine, were distributed more unevenly as rations or wages,¹¹⁰ but, together with fish and craft products, they are also commodities typically shown in tomb 'market scenes'.¹¹¹ This local retail market deals in commodities above the absolute level of subsistence. For the elite a variety and abundance of fresh produce was the mark of a luxury diet, emphasized by the elaboration of the fruits and vegetables recorded as offerings on the walls of tombs and temples.

Major plantation investment and development necessarily belonged to the economic context of the great estate or temple. It seems certain that at all periods development of the Delta and the Fayum laid proportionally greater emphasis on vine and fruit growing than on subsistence grain crops. Away from centres of population, or from the place of consumption, agriculture necessarily concentrated on commodities that were valuable and could survive storage and transport: wine, dried fruit, oils and dates. There is a necessary association between in-house transport organization, effective delegation and control of local estate management, and the development of perennial water supplies, that is not limited to the well-documented great estates of the Graeco-Roman period (see above), but is typical for all periods of Egyptian history.¹¹² For instance, the Ramesside P. Anastasi IV describes the collection of produce from 'Nay-Ramesses-Meryamon, at the edge of the *ptrj*-waters': a Delta estate, on which 21 workers produced 1500 *mn*-jars of wine, and 50 each of *šdh* and *pꜣwr* drinks, 50 sacks of pomegranates, 50 of grapes, and 60 baskets of grapes, for transport by three boats back to the royal mortuary temple.¹¹³

It is perhaps significant that in the Graeco-Roman Fayum the private interest of great estates played a central role in ensuring maintenance of the irrigation system. It is likely that, if unmediated in this way by influential local power, neither the state bureaucracy nor the communal interest of the peasant farming communities was ever sufficiently sensitive, efficient, or rational to maintain the stability of the water regime in the long term.¹¹⁴ In general the received view of ancient Egyptian society is that of a strong

¹⁰⁸ E.g., Hugonot, *Jardin*, esp. 225-33; Kemp, *Amarna Reports*, IV (London, 1987), 49-53; id., *JEA* 73 (1987), 36.

¹⁰⁹ J. J. Janssen, *SAK* 3 (1975), 161-70; cf. Eyre, *BiOr* 44 (1987), 30-1.

¹¹⁰ Cf. Eyre, in Powell (ed.), *Labor*, 24-5, 201-3.

¹¹¹ For a survey see Eyre, *ibid.* 31-2, 199-200; R. Möller-Wollermann, *JESHO* 28 (1985), 138-42.

¹¹² For the development of temple transport fleets see, e.g., P. Harris I, 28, 5-8. For the economic functioning of date-gardens cf. Mounir Megally, *Recherches sur l'économie, l'administration et la comptabilité égyptiennes à la XVIIIe Dynastie d'après le Papyrus E.3226 du Louvre* (Cairo, 1977), esp. 254-7.


¹¹³ An. IV 6, 10-17, 9 = *LEM* 41, 10-42, 8. For the *ptrj*-waters as a source for plantations see Bietak, *Tell el-Daba* II, 202; Kitchen, in *Studies Gwyn Griffiths*, 117-19. For the economic context, cf. P. Harris I, 4, 12-5, 3.

¹¹⁴ Rathbone, *Economic Rationalism*, 227-8, 408; Bonneau, in Samuel (ed.), *Proc. Twelfth Int. Cong. Pap.*, 46-51, 60-2. Cf. also Kees, *Ancient Egypt*, 82 on the royal and institutional ownership of vineyards; Bonneau, *JESHO* 26 (1983), 6-8, 12-3, on the state and temple dominance in the *drymos* land; and Crawford, *Kerkeosiris*, 117-21, 139, on the chronic problems of agrarian decline.

centralized bureaucracy exercising detailed and uniform control over the productive resources of the country.¹¹⁵ This is based partly on the ideological emphases of official inscriptions and documents, and partly on an assumption that effective irrigation and agriculture required a dictatorial regime supported by an effective civil service. In reality the situation was always more varied, complex, and ramshackle.

The crucial factor for the central power was its ability to enforce fiscal demands and political control. The realities of power were more 'feudal' than bureaucratic.¹¹⁶ As in mediaeval Egypt, so in Pharaonic and Ptolemaic Egypt, power lay in control over the ruling class and in the solidarity of that class, not in the detailed administration of the individual peasantry by an impersonal and centralized civil service. The role of the impersonal 'state' was typically that of delegation rather than direct control. It operated through divine endowment or land grant to the official and ruling class, either personally or through the religious foundations that they controlled. The focus here is on continuity in the role of great estates, whether those of individual magnates or religious institutions, in the practical control of the Egyptian countryside. This is particularly significant where investment and technical development is an issue. In the oases proper, where irrigation provided the only water supply, the system was characterized by communal water rights.¹¹⁷ This is quite distinct from the private well and pond water that irrigated small to medium orchards and gardens. The assumption that there were communal and customary rights to the normal flood water of the inundation is natural, although hardly susceptible to proof. Presumably there was no issue when water was taken manually for orchards or gardens bordering the river. The difficult questions arise for water that was deliberately channelled or diverted from the flood.

Central bureaucratic involvement in the distribution of water is virtually impossible to document. There are no clear records of water disputes from the pharaonic period, and the few texts that seem to deal with water rights and administration are all difficult to interpret. For instance, the Twelfth Dynasty autobiography of Khnumhotep records clearly that the king divided the Nile down its middle, 'causing town to know its boundary with town, their boundary stelae established like heaven, and their water known according to that which was in the writings.'¹¹⁸ It is more likely that the king defined the borders of their territory rather than their rights to flood or irrigation water.

At the beginning of the Eighteenth Dynasty, the Duties of the Vizier declares that 'It is he who dispatches the district councillors to  in the entire land': to 'make' or 'deal with' the *c*-channels.¹¹⁹ The same passage also claims that it is he who sends people to fell trees and dispatches local mayors and headman 'to plough and to harvest'. These

¹¹⁵ See e.g., the discussion by Janssen, *BiOr* 43 (1986), 351-66, of Stuchevsky's analysis of Papyrus Wilbour, or Crawford, *Kerkeosiris*, 2-3, 7-9, for such an assessment of the Ptolemaic data. Note in particular her surprising assumption that pharaonic procedures for land registration were more bureaucratically effective than those of the Ptolemaic period. More accurately she stresses the lack of bureaucratic uniformity in detailed administrative and documentary procedures at the local level.

¹¹⁶ Eyre, in Allam (ed.), *Grund und Boden*. Cf. Rostovtseff, *JEA* 6 (1920), 161-78, esp. 164-5, for continuity from the 'more or less clearly defined feudal character' of pre-Ptolemaic Egypt, although he considerably overestimates the effectiveness of Ptolemaic centralization. Kehoe, *Management and Investment*, passim, focuses on the equally fragmented tenure and exploitation of great estates of the Roman period through lease arrangements.

¹¹⁷ Gardiner, *JEA* 19, 19-30; P. J. Parsons, *JEA* 57 (1971), 165-80; Wagner, *Oasis*, 279-83.

¹¹⁸ Lines 21-53 = De Buck, *Readingbook*, 68, 4; cf. Schenkel, *Bewässerungsrevolution*, 59. For the latest edition, see Lloyd, in *Studies Gwyn Griffiths*, 21-36.

¹¹⁹ R24-5; G. P. F. van den Boorn, *The Duties of the Vizier* (London, 1988), 234-42. For earlier technical discussions see Schenkel, *Bewässerungsrevolution*, 30, 33-4; Endesfelder, *ZÄS* 106, 45.

claims are idealizing, and should not be taken as evidence for an interventionist central bureaucracy, actively controlling the detail of water distribution.¹²⁰ The context is a political assertion of central authority. An essentially local water regime is familiar from texts of the Middle Kingdom: local potentates claim credit for ensuring the free flow of water for local arable farming.¹²¹ The term ϵ appears in the Middle Kingdom Hymn to Sesostris,¹²² associated with dyking or damming (*dnjt*) for guidance of flood water. Much later in Demotic texts the term ϵ (*n*) *mw* seems to refer to the dyked and seasonal water channels, necessary to guide the water through a system of controlled flood-basins.¹²³ It is likely that this was the case already in the Middle Kingdom.¹²⁴ However, the date or extent of the fully dyked and channelled systems of flood basins remains problematic.¹²⁵ Through the New Kingdom, economic growth and the colonizing settlements of foreign populations in some of the richest, but hydraulically more difficult, areas of Middle Egypt may well suggest that this development was continuous through the pharaonic period.

New lands

From the Eighteenth Dynasty, areas of land were categorized as *jw n mꜣw(t)*, 'island of new', more simply *mꜣj*, 'new' land, or 'island' (Coptic $\mu\omicron\Upsilon\epsilon$). The older term *jw*, 'island', is probably also used in the same way. By the end of the New Kingdom *mꜣj*-lands were a major feature of the agricultural landscape. They form the main subject of P. Reinhardt,¹²⁶ a Twenty-first Dynasty register of lands associated with the Temple of Amon, while the holdings of the Edfu temple at the beginning of the Ptolemaic Period consisted of 5660 $\frac{3}{8}$ aroura of *mꜣwt*-land compared to 7551 $\frac{5}{8}$ aroura of *qꜣj*-land.¹²⁷ It is unclear what sort of lands these were, and how they might be 'islands' or 'new'. The Edfu text provides detailed topographical information. The *mꜣwt* lands could include genuine islands in the Nile,¹²⁸ although this was the exception. Often, but not always, they bordered the Nile. Relatively large areas of land were involved. A simple equation with the Arabic category of *gezira*, as the quasi-technical term for riverside land between high and low water,¹²⁹ does not seem possible, but this may be the correct general under-

¹²⁰ For comparison see Menu, *CRIPEL* 3 (1975), 141-9, for reservations over the possibility of a centrally-controlled sowing schedule in the New Kingdom.

¹²¹ See above n. 85 and below n. 153.

¹²² F. Ll. Griffith, *Hieratic Papyri from Kahun and Gurob* (London, 1898), 100 and pl. ii, 12.

¹²³ Meeks, *Texte des donations*, 63-4 n. 52; Pestman, *P. L. Bat.* 14 (1965), 79; and for equivalent Greek use of *κοιλίας*, id., *JEA* 55 (1969), 142 n. 6. This Greek word 'hollow' is used of seasonal ponds in Herodotus II, 93; Lloyd, *Herodotus Book II* II, 379-80.

¹²⁴ Endesfelder, *ZÄS* 106, 37-51; van den Boorn, loc. cit.

¹²⁵ Butzer, *Early Hydraulic Civilization*, 102-3.

¹²⁶ P. Berlin 3063; Vleeming, *P. Reinhardt*; Gasse, *Données nouvelles*, 139-66. The similar register P. Berlin 23253 (Gasse, op. cit. 100-4 s.v. 'Grundbuch') includes some land of this category, but also *jdb* and mostly plots listed under the heading of 'canals' (*mr*). (*LÄ* IV, 687 confuses the two manuscripts.)

¹²⁷ Meeks, *Texte des donations*, 5*, 1-2.

¹²⁸ Meeks, *Texte des donations*, 65*, 5-69*, 14. In contrast see P. Rylands IX, 16, 1-12 for the variety of land type on a large Nile island.

¹²⁹ See Gardiner, *Wilbour Papyrus* II, 26-7; Bonneau, *Le fisc*, 70, 114, 168; W. C. Hayes, *Ostraka and Name Stones from the Tomb of Sen-mut (no. 71) at Thebes* (New York, 1942), 34-5. Note Athens stela (no number), 4-5 = Ramadan El-Sayed, *Documents relatifs à Saïs et ses divinités* (Cairo, 1975), 43-7; a donation of 10 aroura *m hꜣw pꜣ jdb sꜣt n wꜣh hꜣpꜣ nty jw=w dd n=f tꜣ mꜣj n pr Nt*, 'inside the *jdb*, land of the inundation's *wꜣh*-ing, which is called the *mꜣj* of the Temple of Neith'. Is this *mꜣj* land part of the *jdb*, or is it bounded by the *jdb*? Was the *mꜣj* 'deposited' as new sandbanks by the Nile, or does the term *wꜣh* simply describe the way the inundation stood on the land? The sequence of terms in the Onomasticon (*AEO* I, 7*-12*) is *jdb*, *pꜣt*, *mꜣwt*, *šꜣy*, *ht*, *jw=f-m-nꜣj*, *mꜣm*, *qꜣj*, *trꜣj*, *nꜣhb*, *jw*, *jshꜣm*, *mꜣw*, *wdb*. This seems to associate *mꜣj* with features of the riverbank and changing Nile, but the rationale of ordering is not completely clear.

standing: that these 'islands' were low land that emerged or had emerged from retreating waters, typically along the river, along the major seasonal water-courses, or around swamps.¹³⁰

Properly speaking the Arabic term *gezira* does focus on the 'island' as a category of land that stands above water, and it is the special ecology of the Nile that adds to it the fertile low lands that emerge around it as the water recedes. In both ancient and modern Egypt, 'island' is used in place names for villages or districts that were not Nile islands. Hayes¹³¹ notes that: 'El Gezireh, "the Island", at Thebes, for example, is a well-defined area on the west bank of the river, which during the height of the inundation is isolated from the mainland, but which supports a small village, built on it, and is vigorously cultivated, especially in the spring and early summer when the river has receded from its fertile, low-lying flats.'

Schenkel has argued for an identification of *jw n mꜣwt* with the older *tnj* 'raised' land: 'islands' above the natural flood. He sees in both the equivalent of Arabic *sharaqī* land (unflooded, artificially watered land), and observes that the appearance of the term seems to be roughly contemporary with the introduction of the shaduf in the Amarna Period.¹³² However, in P. Reinhardt small plots of *tnj* land are subtracted from assessments of the *jw n mꜣwt* (*t*), and the term clearly has a distinct technical sense.¹³³ Conversely, the term *nḥb*, 'fresh(?) land', seems to fall out of use towards the end of the Twentieth Dynasty. One possibility is that *jw n mꜣwt* subsumed *nḥb* land,¹³³ and perhaps even the earlier class of *ḥrw*, 'low'-land.¹³⁵ Certainly the 'island' land of P. Reinhardt was in relatively damp areas, since marsh or waterlogged lands are subtracted from its assessments, as well as plots used for crops with high water requirements or tolerance, especially cucumbers and fodder.¹³⁶ There is not the regular association between 'island' land and plantation agriculture that one would expect if it were *sharaqī* land.

A group of wine dockets identify orchards that 'His Person made *m mꜣwt*' near Qantir.¹³⁷ The land determinative is used here in writing *mꜣwt*, but there is potential confusion with the term *m mꜣwt*, 'anew', determined with the bookroll. This spelling is used in P. Harris I for the developments of Ramesses III: 'I made *ḥꜣ-n-tꜣ*-land *m mꜣwt* with pure *srjt*-grain, (and) I doubled their fields';¹³⁸ or 'I made for him divine-offerings *m mꜣwt* over and above the daily offerings he used to have, and I gave him fields, *qꜣjt*, *nḥb* and *jw* in the Southern and Northern Districts, under barley and emmer'.¹³⁹ It is difficult to distinguish between 'new' endowments, 'new' developments, and 'new' land. However, there can be

¹³⁰ Yoyotte, *Comptes rendus du groupe linguistique d'études chamito-sémitiques (GLECS)* 8 (1957-60), 100-101; Meeks, *Texte des donations*, 56, n. 18; Gasse, *Données nouvelles*, 148-9; Vleeming, *P. Reinhardt*, 45-8.

¹³¹ loc cit.; cf. also Gardiner, *JEA* 22 (1936), 181-2.

¹³² *Bewässerungsrevolution* 64-5; cf. Jeffreys, *Survey of Memphis* 1, 51-3, on the 'islands of Memphis'.

¹³³ Gasse, *Données nouvelles*, 186-7; Vleeming, *P. Reinhardt*, 68-9.

¹³⁴ Bonneau, *Le fisc*, 115, but see below at n. 140 for *nḥb* and *jw* as separate categories under grain. If the etymologies are sound, there is parallelism between *mꜣwt*, 'new', and *nḥb*, 'opened up', land.

¹³⁵ Meeks, *Texte des donations*, 56, n. 18; 147-8, §21; Gasse, *Données nouvelles*, 148-9; Vleeming, *P. Reinhardt*, 45-7.

¹³⁶ Cf. Bonneau, *Le fisc*, 73, 75; Crawford, *Kerkeosiris*, 117-21.

¹³⁷ *KRI* II, 462-3; cf. Kitchen, in *Studies Gwyn Griffiths*, 116 n. 16, 122, formula J2; *KRI* II, 673-91, formulae I, VI; Hayes, *JNES* 10 (1951), 46, no. 69; Koenig, *Étiquettes de jarres*, no. 6115, for *bꜣq*-oil. The land determinative is used in all these examples.

¹³⁸ P. Harris I, 27, 12. Cf. also *Urk.* IV, 1795, 5-6 n. 95 (above).

¹³⁹ P. Harris I, 59, 6-7. Cf. also Pestman, *P.L.Bat.* 14 (1965), 78-80, for 'island' land mostly under grain but including plantations.

little doubt that the term *jw n mrwt* implies some major development in patterns of land use. This might follow from natural changes in the course or flood pattern of the Nile, for which there is some evidence at this period,¹⁴⁰ or simply from projects that brought a significant part of the landscape into more effective use.

In P. Reinhardt land is frequently classed as *bh*, 'corvée land',¹⁴¹ which implies that strong administrative measures were used to bring or keep it under cultivation. It was also typically under the local authority of a *ʿs-(n)-mw*, 'water-chief'.¹⁴² As probably with the earlier titles of Overseer or Chief of *bh*, control of water-supply is implied,¹⁴³ so associating these hypothetical agricultural developments with a closer control of the water regime. Also, as with the *bh* lands, there seems to be a close association between 'new' lands and temple endowments.¹⁴⁴ Perhaps we should visualize improvements in the system of dykes and drainage canals associated with the flood-basins, to bring former swamps or poorly draining land into profitable cultivation,¹⁴⁵ leaving this land as new 'islands' for cultivation, under the control of institutions that had the necessary resources for development and management.¹⁴⁶

The historical context: basin and semi-perennial irrigation

At issue is whether the limited data can be interpreted as evidence for a gradual modification of the landscape. The main difficulties lie in dating. By the end of the pharaonic period truly natural wild flooding had virtually ceased to exist. The topographical data in the Edfu Donation Text,¹⁴⁷ and in Demotic and Greek documents,¹⁴⁸ show that a developed system of canals and dykes ensured a controlled pattern of basin flooding in Upper Egypt similar to that of the early nineteenth century.¹⁴⁹ This long predates the

¹⁴⁰ Jeffreys, *Survey of Memphis* I, 48-53; Bietak, *Avaris and Piramesse*, 274-83.

¹⁴¹ Vleeming, *P. Reinhardt*, 51-5; Gasse, *Données nouvelles*, 149, 162-3, 217-19. Presumably corvée for cultivation rather than canal or dyke maintenance, although neither is well attested in the pharaonic period: cf. Eyre, in Powell (ed.), *Labor*, 18-20, 208, against Bonneau, *La crue*, 53-5. The labour envisaged in the Shabti Spell (see Schneider, *Shabtis* I, 50-3) involves activity associated with water control: *r srwd shwt*, 'to make the cultivated land grow', and *r smhw wdbw*, 'to cause the banks to flood'. This is insufficient evidence for particular technical practice. For the canal maintenance corvée in the Graeco-Roman period, cf. Bonneau, *BSFE* 120 (1991), 17-19.

¹⁴² Vleeming, *P. Reinhardt*, 56-7. See C. A. R. Andrews, *JEA* 64 (1978), 92; Endesfelder, *ZÄS* 106, 47, for isolated New Kingdom examples of the title.

¹⁴³ Endesfelder, loc. cit.; Wild, *Hommages Sauneron* I, 312-15; Vleeming, *P. Reinhardt*, 56; Gasse, *Données nouvelles*, 218.

¹⁴⁴ Compare also the long running and violent dispute between the priesthoods of Pathyris and Hermonthis over 'island' land recorded in the Greek P. BM 2188 = T. G. Skeat, *Greek Papyri in the British Museum*, VII (London, 1974), 273-99, with the dispute of P. Rylands IX 16, 1-18, 4.

¹⁴⁵ In this there would be parallelism with the category of land called *drymos* in the Ptolemaic Fayum; cf. Bonneau, *JESHO* 26, 1-13, with special note of the fact that such land was typically temple or state endowment, pp. 6-8 and 12-13 n. 51.

¹⁴⁶ See Janssen, *BiOr* 43, 364-5, for Stuchevsky's suggestion that '*hit*: land of Pharaoh' was reclaimed development land, worked under the supervision of temple or state institutions. He sees parallels with Ptolemaic crown-lands.

¹⁴⁷ Meeks, *Texte des donations*, esp. 133-5 for the dating. See also S. Cauville, *BIFAO* 92 (1992), 67-99, for the picture given by late 'geographical' inscriptions of grain-lands (*w*) fed by canals (*mr/jtrw*) with inundation water, amid the wild and typically waterlogged *phw*.

¹⁴⁸ E. Otto, *Topographie des Thebanischen Gauces* (Berlin, 1952), 103-6; Pestman, *P.L.Bat.* 14 (1965), 54-6, 78-88; id., *JEA* 55, 129-60. Strabo 5.1.5 makes clear that in the Roman period the Delta was criss-crossed with dykes and channels for water supply and drainage.

¹⁴⁹ In the Edfu text lands are grouped under the heading of *sh*, perhaps categorization by irrigation basin: cf. Schneider, *Shabtis* I, 11-12. Abbas Bayoumi, *Champ des Souchets*, 1-12, notes interchange between *š* and *sh*, distinguishing arable land (or flood-basin) under inundation and under cultivation. Cf. n. 7 above.

introduction of the water-wheel, necessary to irrigate extensive *sharaqi* lands, and both *qjt* and *mwt* land must come under the Arabic category of *rei* land. Genuine *sharaqi*-land was used for artificially watered plantations at all periods, but schemes of mechanical water-raising, to water dry lands for arable farming, were not a feature of the system in the pharaonic period. In practice, comparison with the Arabic land categories of *rei*, *sharaqi*, and *gezira* is of limited and uncertain value for the pharaonic period. Irrigation development was not then concerned with water raising, but with control of the natural flood, primarily by extending the network of controlled flood-basins over the plain.¹⁵⁰ Although basin irrigation did not require the raising or artificial movement of water, but only efficient local channelling of the flow, it was a complex and highly sophisticated system that required considerable local input of labour and organization.¹⁵¹

Initially, the unmodified Nile flood was able to support a sparse but sedentary farming population. Some effort to modify and regularize the natural patterns of basin flooding must be assumed to go back to a very early date, and a degree of regulation of the flow of water onto the fields seems to have existed by the Old Kingdom.¹⁵² In the early Middle Kingdom major efforts to control the inundation are attested.¹⁵³ The relevant texts stress the importance of dyking to guide and restrict water flow, and by the mid-Twelfth Dynasty, it would seem that control of basin-flooding was well established for *qryt*-land in Upper Egypt. New Kingdom depictions of the Fields of Iaru typically show arable land surrounded by water courses, and it seems likely that they represent land with a regime of controlled basin flooding. The New Kingdom seems to have been a period of continuing development in water control, with the extension of farming into previously uncultivated areas of hydrologically more difficult lands,¹⁵⁴ in both Middle Egypt and the Delta. These would be lands subject to waterlogging, poor drainage, or poor through-flow of water. Such land becomes saline and uncultivable. This was always a major natural problem in the Delta. In the valley also, low-lying land, particularly on the valley margins, formed salt marshes that served as drainage sumps for the cultivable land. Such salina-

¹⁵⁰ Endesfelder, *ZÄS* 106, 37–51, esp. 39–40, 43–5.

¹⁵¹ Willcocks, *Egyptian Irrigation*²; id., *The Nile in 1904* (London, 1904), esp. 65–8. Hurst, *The Nile*, 38–46; A. Richards, *Egypt's Agricultural Development 1800–1900* (Boulder, 1982), 14–19; J. Besançon, *L'homme et le Nil*³ (Paris, 1957), 85–118; T. Ruf, *Histoire contemporaine de l'agriculture égyptienne* (Paris, 1988); Butzer, *Early Hydraulic Civilization*, esp. 41–56, 102–3; Hopkins, *Agrarian Transformation*, 30–4, 39–40, 98–107, provides a clear picture of the agrarian landscape. Note also the observation of Hamed Ammar, *Growing Up*, 29, 158, that basin irrigation was responsible man's work, while under perennial irrigation the easy water-control of the canal sluices was typically boy's work.

¹⁵² Butzer, *Early Hydraulic Civilization*, 46–7. See Abbas Bayoumi, *Champ des Souchets*, 4–9 for relevant material in the Pyramid Texts; also J. P. Allen, in Allen et al., *Religion and Philosophy in Ancient Egypt* (New Haven, 1989), 7–9, 19.

¹⁵³ Schenkel, *Bewässerungsrevolution*, esp. 29–36, 59; Endesfelder, *ZÄS* 106, 37–51, esp. 43–5.

¹⁵⁴ Note Bonneau, *BSFE* 120, 7, remarking that the Greek papyrological data for water control comes largely from the area from Dairut to the Fayum: the area fed by the Bahr Yusuf, with a system of flood-basins in the Valley, and then the Fayum's own special regime. She notes that further south the water control was simpler and is therefore less documented. One might speculate that the founding of Amarna in this area might reflect agricultural development in these districts: note especially the detailed categorization of lands (including *mj*) in the Amarna boundary stela (*Urk.* iv, 1985, 10–15). Similarly the presence of substantial populations of foreign origin in Ramesside Middle Egypt is likely to reflect colonizing development. For an attempt to relate archaeological data to agricultural wealth, development, and population density, see Wilson, *JNES* 14, 209–36.

tion was always an obstruction to the development of perennial irrigation in Egypt. Land that was low enough for an extended season of channelled watering could not in practice be kept free of salts except by basin-flooding.¹⁵⁵

The initial development of semi-perennial plantation farming did not involve water-raising, but a water-regime that was similar to that of the flood-basin: dykes kept the natural flood from the land, and local channels controlled and limited its flow onto relatively high-situated fields. Gravitational watering was restricted to the period of the flood,¹⁵⁶ and was necessarily supplemented by manual watering out of season. Such a regime permitted the cultivation of perennial and summer crops, and was the basis for perennial irrigation in Egypt. However, without perennial canals or machinery to raise water, it precluded the growth of winter arable crops on this land, and even for extensive orchards and vineyards it was perhaps only practicable with widespread use of the shaduf, along perennial water courses with relatively limited seasonal changes in water level. This can be envisaged for areas of the Delta in the New Kingdom, while a comparable regime might perhaps also be envisaged for districts in the Middle Kingdom Fayum. Conversely, this development brought with it a new danger. The destructive force of a very high Nile came not from the depth of the inundation, but from the massive surge of water when a dyke broke. In the nineteenth century such breaches were disastrous in areas of perennial irrigation, but not so serious in areas of basin irrigation. Early references to very high Niles are positive.¹⁵⁷ A negative attitude to very high floods first appears in post-New Kingdom texts, probably connected to breaches in the dykes,¹⁵⁸ but the texts are too few to draw safe historical conclusions.

The plantation sector was the earliest to operate an artificial watering regime using first natural standing water, and then artificially excavated ponds and wells.¹⁵⁹ This depended on individual initiative, local investment, and local development projects based on the land-owner's labour resources. The water table was readily accessible throughout the Nile Valley, and a well or deep pond could be dug virtually anywhere. The only well-documented canal projects of the New Kingdom connected temples at the edge of the desert with the Nile channel.¹⁶⁰ It is probable that these formed part of the canal and dyke grid for the flood basins, in contrast to the longitudinal, basically natural 'canals' known from the Old Kingdom. It is to be expected that they might provide limited seasonal

¹⁵⁵ Willcocks, *Egyptian Irrigation*², chapter VIII, and esp. 160-1, 229-39; Hurst, *The Nile*, 46-65; Richards, *Egypt's Development*, 77-80; Butzer, *Early Hydraulic Civilization*, 90; Bietak, *Tell el-Daba II*, 54-6; Bonneau, *La crue*, 114-15, and *Le fisc*, 73-6, 81; for the oases, Giddy, *Oases*, 4.

¹⁵⁶ Cf. Pestman, *P.L.Bat.* 20 (1980), 253-65; A. F. Shore, in J. B. Harley and D. Woodward (eds.), *The History of Cartography*, 1 (Chicago, 1987), 128-9, for the relationship of plots to canals and dykes in the Fayum.

¹⁵⁷ Baines, *Acta Or.* 36 (1974), 39-54 and 37 (1976), 11-20; T. G. H. James, *The Hekanakhte Papers and Other Early Middle Kingdom Documents* (New York, 1962), pl. 5.4. Although these letters stress the relationship between Nile height and productivity, they provide no technical detail for water-control.

¹⁵⁸ Baines, *Acta Or.* 36, 54 n. 38.

¹⁵⁹ Cf. Hurst, *The Nile*, 37-8.

¹⁶⁰ For a convenient collection of examples see Gessler-Löhr, *Heiligen Seen*, 76-7, 82-3, 96, 98-101, 109-12, 115-16, 118-22, 140, 143, 145, 167, 178-80, 187-8, 191-2, 318-21. Note however, Bietak, *Tell el-Daba II*, 54-6, for possible evidence of canal works in the eastern Delta.

water for small areas outside the basins, but hard evidence is lacking beyond their typical association with trees and garden agriculture.¹⁶¹

The issue of customary rights to times of use and quantities drawn, typical for perennial water regimes, would not arise beyond a moral claim that the flow of seasonal water should not be diverted for selfish ends. Such a claim is made in the negative confession, first attested in texts of the Eighteenth Dynasty: 'I have not stopped water in its season; I have not made a dam against the running water'.¹⁶² This is likely to refer to channelled flow through the system of flood-basins rather than water for semi-perennial orchard cultivation. It is not until the Graeco-Roman Fayum that evidence survives for actual disputes over blocking the flow along major feeder canals.¹⁶³

The historical development of water control and expansion of the water regime belongs to a sector of élite or institutional investment for economic development: to the division of labour, and to projects for internal colonization. This is best attested in schemes for plantation development, where expertise in water management is to be expected. However, the technical parallels with control of the flood-basins are sufficiently close to suggest complementary and roughly contemporary periods of major development. The extensive cultivation of summer crops was hardly feasible before the widespread use of the water-wheel in the Hellenistic period. However, the water-wheel operated most profitably on land which was capable of inundation, but which had controlled rather than free summer-flooding, and into which considerable investment had been made.¹⁶⁴ This was typical, for instance, of Middle Egypt before the High Dam was built. In Assiut and Girga provinces in the 1950s, wells provided the necessary water for out-of-season growing of cotton in over half of the basin area. The creation of the relatively disciplined landscape and water regime, into which the *saqia* was introduced, cannot have been a rapid process. It is probable that we should envisage this landscape as a gradual achievement of the whole of the pharaonic period, in which extension of the cultivable land and development of its water regimes were a feature of economic development at all periods. This landscape was not an original and unchanging environment from which pharaonic society took its structures, but was much more the historical creation of the developed pharaonic state.

¹⁶¹ For the term *ꜥ*, 'canal'(?), see above. The term *hnm*, distinct from *hnmt*, 'well', is a topographical feature used to define the borders of tracts of agricultural land. Gardiner, *Wilbour Papyrus* II, 30-1, tentatively suggests 'basin', but 'feeder canal' for the basin might be better. Note the Sheshonq Stela, line 12 (A. M. Blackman, *JEA* 27, 83-95; Menu, *CRIPEL* 5, 183-9), for a tract fed by(?) such a *hnm* (*m sdf n ꜥ; hn nty m ibꜥw*), and Gardiner, loc. cit. n. 8, for *hnm* as vineries. For *hnn* as a possible term for irrigation basin see An. IV 1b, 5; P. Lansing 12, 10; *AEO* 1, 7*-8*.

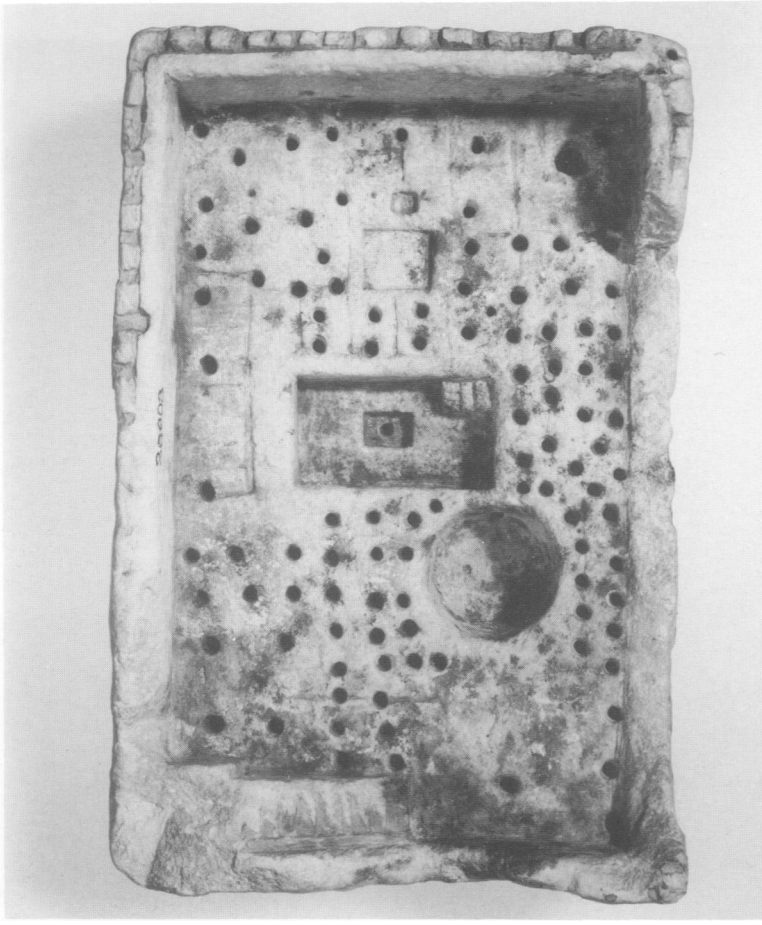
¹⁶² Schenkel, *Bewässerungsrevolution*, 27.

¹⁶³ Notably the Greek P. Sakaon 35, discussed by Rathbone, *Economic Rationalism*, 211, 227, 408. In a more recent case described by Hurst, *The Nile*, 60-1, the village higher up the canal cut off supply to that lower down in a bad year.

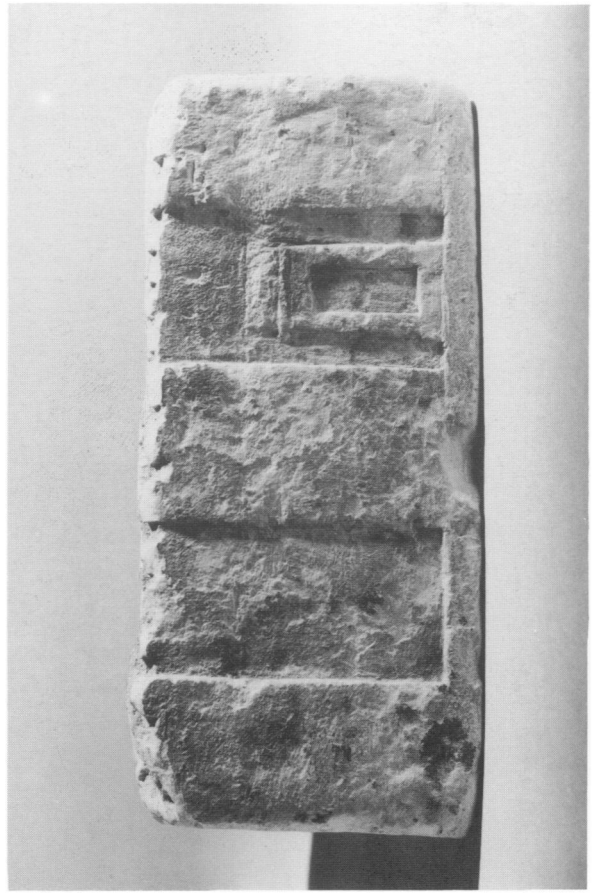
¹⁶⁴ Cf. Bonneau, in Samuel (ed.), *Proc. Twelfth Int. Cong. Pap.*, 49, 61.



1-. Model orchard, BM 36903: front view
(courtesy of the *British Museum*)



2. BM 36903: view from above



3. BM 36903: view from the right, showing side entrance

BULLFIGHT SCENES IN ANCIENT EGYPTIAN TOMBS*

By JOSÉ M. GALÁN

Fights between two bulls began to be represented on the walls of local chiefs' tombs in the Sixth Dynasty and lasted until the reign of Thutmosis III, in the Eighteenth Dynasty. The scene has been regarded as one of 'daily life'. However, its symbolic character is suggested by its context and by contemporary religious-funerary texts, and this explains its incorporation into the tomb iconographic repertoire. The deceased is identified with a bull, leader of its herd, when he is forced to defend his status as regional social leader (on earth), which is questioned by the challenge of another leader. The deceased, by overcoming his opponent, is enabled to claim his right to maintain his leadership in the Netherworld. This symbolism of the bullfight was also mobilized in literature and in royal inscriptions.

At the end of the Old Kingdom a new scene appears in the decorative repertoire of local officials' tombs: the confrontation and fight between two bulls. This representation continued through the Middle Kingdom and into the New Kingdom, being found in provincial cemeteries of Middle and Upper Egypt. Despite its absence in tombs of the Late Period, the arrangement of such fights was a practice that continued in Egypt, as witnessed by Strabo in the *dromos* of the Hephaesteion at Memphis, near the temple of Apis. He wrote: 'It is the custom to hold bullfights in this dromus, and certain men breed these bulls for the purpose, like horse-breeders; for the bulls are set loose and join in combat, and the one that is regarded as victor gets a prize.'¹

Bullfight scenes are generally seen as part of the bucolic life that the deceased wanted to perpetuate in the afterlife. However, a study of the scene and its context, together with contemporaneous religious-funerary texts, reveals that its representation is not descriptive, but symbolic. Its significance explains why the scene was included in the repertoire of tomb decoration.

The following description of scenes is arranged in both a geographical and a chronological order. From north to south, the sites with tombs dating to the Sixth Dynasty are first listed: Deshasheh, Meir, Deir el-Gebrawi, el-Hawawish, Hagarseh and Qubbet el-Hawa; then come Beni Hassan, el-Bersheh and western Thebes, whose earliest tombs with bullfight scenes date to the Eleventh Dynasty.

The scenes

1. In the tomb of Iteti-Shedu in Deshasheh (south of Herakleopolis Magna), which dates to the Sixth Dynasty,² the tomb owner is represented standing, leaning on a staff, and inspecting the

*I am grateful to B. M. Bryan, H. Goedicke, and D. Lorton for reading the manuscript and providing valuable comments.

¹ *Geography* XVII, 1, 31 [C807], trans. H. L. Jones (Cambridge, 1932), 89. A bullfight is also mentioned by Aelian, *De Natura Animalium* XI, 11, discussed, together with Strabo's account, in A. B. Lloyd, 'Strabo and the Memphite tauromachy', in M. B. de Boer and T. A. Edridge (eds), *Hommages à Maarten J. Vermaseren*, 11 (Leiden, 1978), 609-13; previously mentioned by E. Drioton, *Rapport sur les fouilles de Médamoud (1926). Les inscriptions* (Cairo, 1927), 10-12.

² W. M. F. Petrie, *Deshasheh* (London, 1898), 45, pl. 18; PM IV, 122 (11); W. S. Smith, *A History of Egyptian Sculpture and Painting in the Old Kingdom* (London, 1946), 220; J. Vandier, *Manuel d'archéologie égyptienne*, v (Paris, 1969), 66, fig. 43.

labour on his estate, which is mainly concerned with cattle breeding: a couple mating, a man helping a cow to give birth to a calf, another milking, a group lassoing a *ngz*-bull. Among these scenes, a bull is represented lifting and overthrowing another from behind, with its horns stuck into its rival's belly (fig. 1). Right behind it, a herdsman is hitting it with a stick on the rear thigh, and saying: 'Charge your horn, victorious *kz*-bull!'³

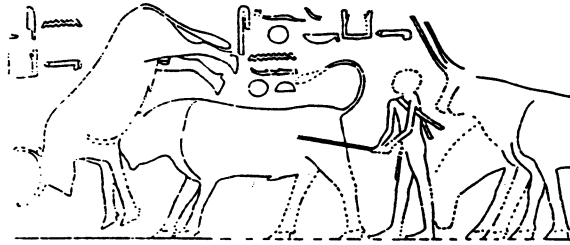


FIG. 1. Tomb of Iteti-Shedu, Deshasheh. After Petrie, *Deshasheh*, pl. xviii.

2. In Meir, three tombs include a bullfight scene in their decoration. One of the walls of Pepiankh-Henikem's tomb (A, 2), dating to the Sixth Dynasty (the reign of Pepi II), shows cattle being brought and goats⁴ browsing from a small tree.⁵ In the lower register, a dappled *kz*-bull is represented lifting another one, having stuck one of its horns into one of the front thighs of its rival. Next to this scene, a cow and a dappled *kz*-bull behind her face the fight. On that same wall, at the other side of a doorway, the owner is represented seated on the ground, with the caption: 'Inspecting (*ms*) the accounting of produce (*irt irw*),⁶ consisting of all large and small cattle'.⁷

3. The tomb of Senbi son of Ukhhotep (B, 1), from the reign of Amenemhet I of the Twelfth Dynasty, accords the bullfight scene a greater importance within its decoration.⁸ In the upper register of one of the walls, the deceased is represented sitting in front of an offering table, watching a bull being butchered and offering bearers approaching him with large and small cattle. In the two lower registers, he is again represented, this time standing, holding a staff and a handkerchief,⁹ with his wife, and inspecting cattle. Next to the delivery of a calf attended by two herdsman, two other herdsman are shown between two bulls who are facing each other (fig. 2a). This is the step before the fight: the positioning of the two bulls. One of them has adopted a charging pose, and is referred to as 'A victorious *kz*-bull like an Apis-bull whom Hesat has suckled'.¹⁰ One of the herdsman confronts it; he has one knee on the ground, and has raised a stick with his two hands to the level of the bull's horns. The other herdsman is behind him, standing and

³ Petrie, *Deshasheh*, 45, translates, 'Mayest you get loose(?), O strong bull!' See also A. Erman, *Reden, Rufe und Lieder auf den Gräberbildern des Alten Reiches* (Berlin, 1919), 32; W. Guglielmi, *Reden, Rufe und Lieder auf altägyptischen Darstellungen der Landwirtschaft, Viehzucht, des Fisch- und Vogelfangs vom Mittleren Reich bis zur Spätzeit* (Tübingen, 1973), 99 n. 305. P. Montet, *Les scènes de la vie privée dans les tombeaux égyptiens de l'Ancien Empire* (Strasbourg, 1925), 97, translated, 'Délivres-tu le taureau fort?'

⁴ The small species varies in the representation of this motif, from goats or gazelles to calves.

⁵ A. M. Blackman, *Meir*, v (London, 1953), pl. 32; Smith, *Egyptian Sculpture and Painting*, 221; Vandier, *Manuel* v, 16, fig. 7; PM IV, 247 f.

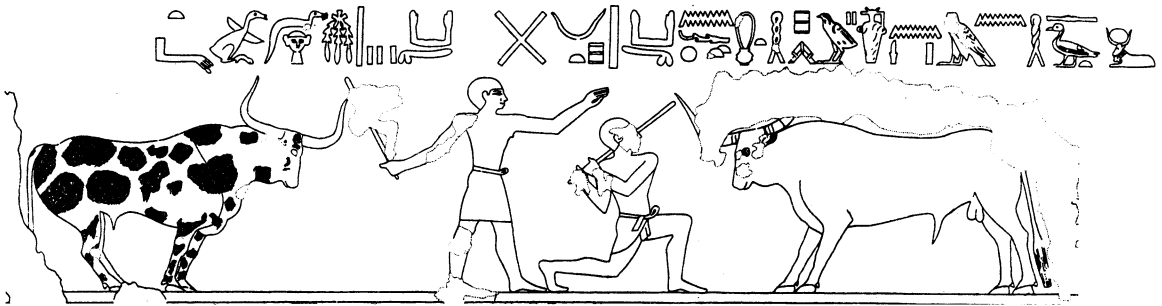
⁶ For the term *irw*, see R. Anthes, 'Die Nominalbildungen *irwt* "Zeremonien" und *irw* "Benehmen" und "Abrechnung"', *MDAIK* 24 (1969), 32-7.

⁷ Blackman, *Meir*, v, 41.

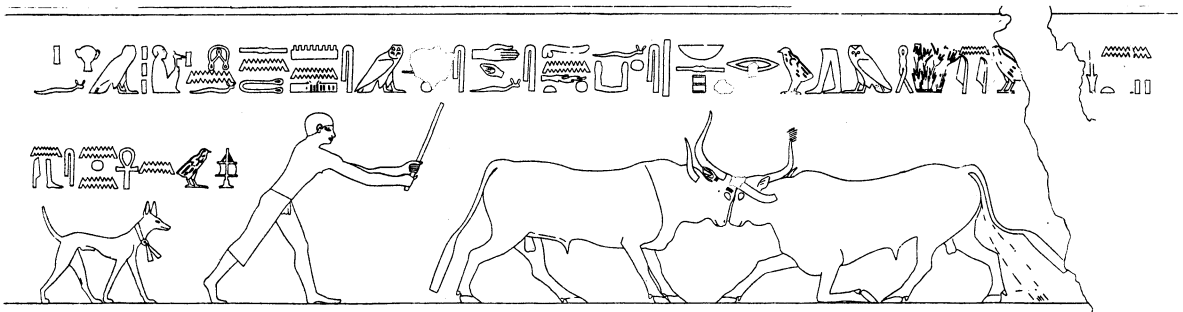
⁸ Blackman, *Meir*, I (London, 1914), pls. 9-11; PM IV, 25 (2, 3); Vandier, *Manuel* v, 204, fig. 95.

⁹ For the motif of the handkerchief, see H. G. Fischer, 'An elusive shape within the fist of Egyptian statues', in *Ancient Egypt in the Metropolitan Museum Journal* (New York, 1977), 143-55, and the remark on p. 184.

¹⁰ Blackman, *Meir* I, 33; P. Montet, 'Les boeufs égyptiens', *Kêmi* 13 (1954), 48 f.; Guglielmi, *Reden*, 100 n. 310; W. Ghoneim, *Die ökonomische Bedeutung des Rindes im alten Ägypten* (Bonn, 1977), 33 n. 3. Concerning the Apis bull, see E. Otto, *Beiträge zur Geschichte der Stierkulte in Ägypten* (Leipzig, 1938), 11-34.

FIG. 2a. Tomb of Senbi, Meir. After Blackman, *Meir* I, pl. xi.

holding a stick, with his raised arms opened. His attitude corresponds to the caption above him: 'Arbitrating (*wꜥ*) (between) *kꜣ*-bulls'. The second bull is identified as 'A black-painted male rival'.¹¹ The next section of the scene shows the moment when the two bulls have clashed, each one sticking one of its horns into the other's head (fig. 2b). Above one of the bulls is written: 'The lord is he who reaches (its rival) with both horns'.¹² Behind the other bull, one of the herdsmen is shown participating in the action, holding a stick with his two hands and bent towards the fighters, followed by a dog. The caption above this side of the scene describes the action thus: 'The victorious *kꜣ*-bull charges as he hears, "charge firmly!" after he has removed the herdsmen from his sight'.¹³

FIG. 2b. Tomb of Senbi, Meir. After Blackman, *Meir* I, pl. xi.

4. In the tomb of Ukhhotep son of Senbi (B, 2), from the Twelfth Dynasty (the reign of Sesostris I), the owner is represented in the upper register, seated in front of an offering table, together with his wife, while temple attendants approach him playing castanets.¹⁴ In the lower two registers, the deceased is standing holding a staff and a sistrum. A group of priestesses of Hathor greets him, each one with a sistrum and a *menat*-necklace, following a priest bearing offerings. Below, the 'overseer of the fields of the temple-estate' is watching a bullfight (fig. 3).¹⁵ The two bulls have

¹¹ The heading reads *msd hr tꜣt*. The meaning 'rival' is derived from the verb *msdꜣ*, 'to hate' (*Wb.* II 154, 1), thus *msd(w) hr*, 'one of hateful face'. For *msd* as 'rival', see A. M. Blackman, 'Notes on certain passages in various Middle Egyptian Texts', *JEA* 16 (1930), 71. On the other hand, the writing might be related to the word *msdmt* 'black (eye)-paint' (*Wb.* II 153, 8-14), which was used to refer to dappled bulls like the one depicted underneath this caption.

¹² Read *nb sprw m hnyw[ꜣ] snwty*.

¹³ Blackman, *Meir*, I, 33 f., translates, 'Separating the strong bull. He regards the separating (only) when the herdsmen withstand him firmly'; followed by Guglielmi, *Reden*, 110 (12).

¹⁴ Blackman, *Meir*, II (London, 1915), pl. 15; S. Allam, *Beiträge zum Hathorkult (bis zum Ende des Mittleren Reiches)* (Munich, 1963), pl. 6; PM IV, 250 (6).

¹⁵ Vandier, *Manuel* V, 221, fig. 103.3.

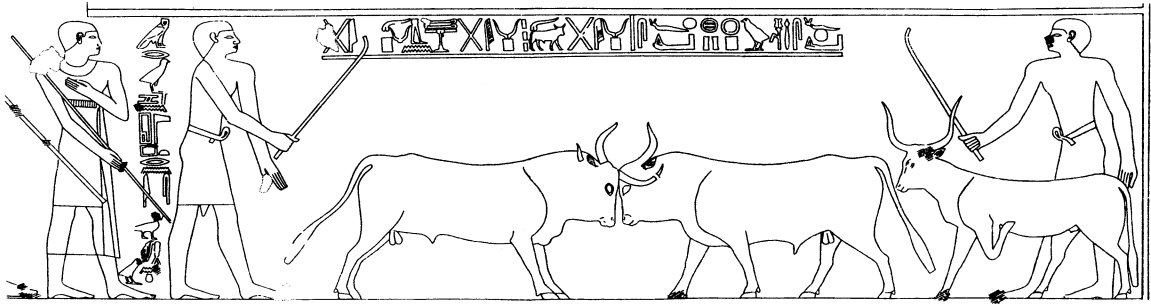


FIG. 3. Tomb of Ukhhotep, Meir. After Blackman, *Meir* II, pl. xv.

already stuck their horns into each other's heads, and two herdsmen, each holding a stick behind the bulls, address the fighters. One says: 'Dispute, *kꜣ*-bulls! Dispute! Lift up and reach the genitals! Dispute!' The other herdsman, who has a cow next to him, says to his bull: 'Charge! Charge, great one of Ukh! Charge!'¹⁶

5. In Deir el-Gebrawi, Ibi, of the Sixth Dynasty, is represented leaning on a staff and holding a *sekhem*-sceptre, inspecting cattle.¹⁷ His wife and one of his sons are next to him, the latter burning incense. In the fields, two herdsmen are helping a cow to deliver, two others are milking, a *kꜣ*-bull is mating with a cow, and goats are represented mating and browsing from a small tree on which they lean their forelegs. In the central register, before the mating scene of the *kꜣ*-bull, a bull is shown lifting another one, having stuck his horns into his lower abdomen¹⁸ (fig. 4). The caption is partially preserved: 'A fight (*ꜣhꜣ*) of *kꜣ*-bulls'. Next to them, a herdsman faces the fight, with a stick in his upraised hands. His action is described as: 'Arbitrating (between) *kꜣ*-bulls'.¹⁹

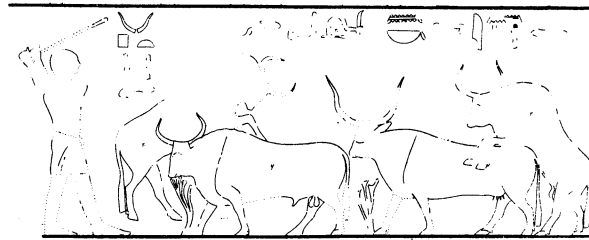


FIG. 4. Tomb of Ibi, Deir el-Gebrawi. After Davies, *Deir el Gebrâwi* I, pl. xi.

6. In the tomb of Djau, from the late Sixth Dynasty and also located in Deir el-Gebrawi, the scene shows the beginning and the end of a bullfight: they wrestle with the horns, and one of them finally lifts up its rival.²⁰ The owner appears leaning on a staff and holding a *sekhem*-sceptre, accompanied

¹⁶ Blackman, *Meir* II, 25, translates, 'Separate the bulls, separate (them)! Up, take away the bull, separate (them)!' and 'Let go, let go to-day! The Ukh is mighty, let go!' See also Guglielmi, *Reden*, 110 f. (13), who translates: 'Bring die Stiere auseinander, bring (sie) auseinander. Vorwärts(?)! Nimm den Stier weg! Bring (sie) auseinander!' and 'Laß ab, laß ab jetzt, du großer Uch, laß ab!' The imperative form of the verb *wꜣt*(*i*), in other scenes an infinitive translated as 'to arbitrate (a dispute)', has been rendered here 'to dispute'. On this scene, see also W. Wreszinski, 'Der Gott *Wh*', *OLZ* 35 (1932), 521-3.

¹⁷ Norman de G. Davies, *Deir el Gebrâwi* (London, 1902), I, 17, pl. 11; Smith, *Egyptian Sculpture and Painting* 221 f.; PM IV, 244 (11).

¹⁸ Vandier, *Manuel* v, 60, fig. 35-4.

¹⁹ Davies, *Deir el Gebrâwi* I, 17, translates the verb *wꜣt* as 'separating(?)', as Montet did, in *Les scènes de la vie privée*, 97.

²⁰ Davies, *Deir el Gebrâwi* II, pl. 9; PM IV, 245 (7).

by two dogs and a monkey, while the counting (*tnwt*) of the cattle takes place. Behind this scene, Djau is represented again, sitting in front of an offering table and being approached by relatives.

7. In the cemetery of el-Hawawish, near Akhmin, five tombs have bullfights painted on their walls. The tomb of Hesi-Min preserves traces of it.²¹ The date of this tomb is uncertain, but Kanawati suggests 'late Dynasty V, probably under Djedkare'.²² One bull is represented lifting up its opponent by sticking its horns into its rival's front thighs. There is a herdsman behind it, moving towards the contenders with a stick raised above his head. In that same section of the wall, the owner of the tomb is represented with his wife, sitting in front of an offering table.

8. The tomb of Kahetep called Tjeti is dated to the reign of Pepi II.²³ The owner is depicted leaning on a staff, 'inspecting a fight (*ḥ*) of *k*-bulls'.²⁴ The four registers next to him show different moments in the fight(s). In the upper register a herdsman faces the fight with a stick raised above his head. In the second register a herdsman watches the fight leaning on the stick in the same pose as Kahetep. The herdsman is identified as *imy-r tst*, 'overseer of the duel'.²⁵

9. Shepsi-pu-Min called Kheni is probably the son of Kahetep.²⁶ On one of his tomb's walls, he is shown like Kahetep, 'inspecting a fight of *k*-bulls'.²⁷ Four moments in a fight are arranged in order in the upper two registers. A herdsman is depicted next to the last stage of the fight, where one of the bulls is tossing his opponent, saying: 'To the ground! *k*-bull'.²⁸ In the three registers below the fight, cattle are being brought to the tomb owner, a bull is mating with a cow, one herdsman is helping a cow to deliver, and another two are milking a cow.

10. The tomb of Hesi-Min-Sesi is dated to the end of the reign of Pepi II.²⁹ Next to a group of goats browsing on a tree, two bulls are represented fighting.³⁰ A herdsman stands close to them with a stick raised in the air.

11. The suggested date for Rehu-Rausen's tomb is the Tenth Dynasty.³¹ The owner is depicted together with his wife inspecting cattle husbandry.³² In the middle register, there were two moments in a bullfight, still partly visible.

12. In the cemetery of Hagarseh, near Sohag (Athribis), the tomb of Mery I, dating to the Sixth Dynasty, shows the owner leaning on a staff inspecting the accounting of the field produce,³³ attended by one of his sons. In the same framed space, Mery is represented again before an

²¹ N. Kanawati, *The Rock Tombs of El-Hawawish, the Cemetery of Akhmin* (9 vols., Sydney, 1980-89), IV, 18 f., figs. 8-11.

²² *Ibid.* 8-10.

²³ Kanawati, *El-Hawawish* I, 13 f.

²⁴ *Ibid.* 21 f., fig. 10, pl. 3 (b).

²⁵ Kanawati translates this title as 'master drover', and reconstructs it also above the herdsman depicted in Hesi-Min's bullfight scene. In W. A. Ward, *Index of Egyptian Administrative and Religious Titles of the Middle Kingdom* (Beirut, 1982), 53 n. 417, this title is translated 'overseer of a Work-gang'. I suggest that *tst* here refers to the action that the person to whom the 'title' is attached is overseeing, i.e., the bringing together of the two bulls, the arranging of the fight.

²⁶ Kanawati, *El-Hawawish* II, 11-15.

²⁷ *Ibid.* 23 f., fig. 20, pl. 6 (a); *id.*, 'Bullfighting in Ancient Egypt', *Bulletin of the Australian Centre for Egyptology* 2 (1991) 52 f.

²⁸ This interjection, *r t k*, was also written in Kahetep's tomb for the same final step of a bullfight (second register).

²⁹ Kanawati, *El-Hawawish* VII, 9 f.

³⁰ *Ibid.* 13, fig. 3 (c).

³¹ *Ibid.* 23 f.

³² *Ibid.* 26, fig. 15.

³³ Petrie, *Athribis* (London, 1908), pl. 9; PM v, 34 (4); Smith, *Egyptian Sculpture and Painting*, 225; Vandier, *Manuel* v, 56, fig. 34.

offering table, being attended by another of his sons. The field scene in front of him includes cattle being brought, two calves browsing on the branches of a small tree, a riverine scene which is mostly lost, and a bull lifting another with its horns from the front. Behind it, two men stand addressing the fight: 'Oho! Good horns!' and 'Pound instead of charging!'(?).³⁴

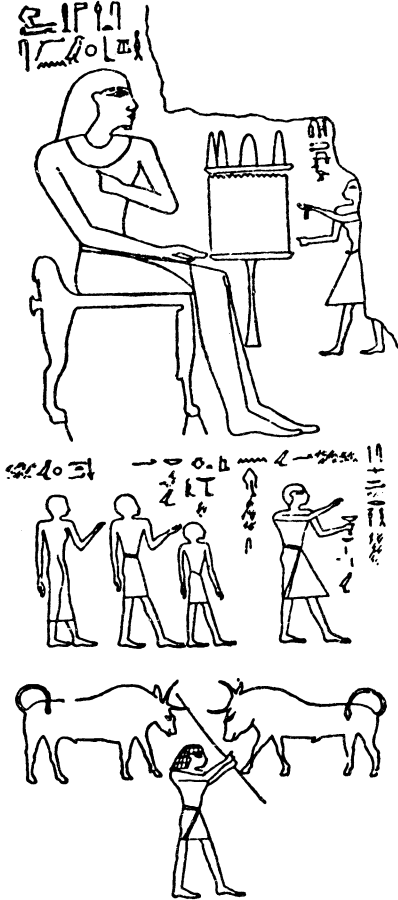


FIG. 5. Tomb of Khunes, Aswan (Qubbet el-Hawa). After Morgan, *Catalogue*, I, 161.

13. The tomb of Mery II, which is at the same location and which dates from the reign of Pepi II, includes two bullfight scenes. On the south wall,³⁵ the owner is represented leaning on a staff, with one of his wives behind him, inspecting cattle. In the lower register, two bulls have just clashed with their horns, starting a fight. The last stage of the confrontation is shown in the same register: one of the bulls is lifting the other one from behind, sticking his horns into his lower abdomen, and causing him to bend his forelegs and fall to the ground. No herdsmen seem to have been present. The north wall depicts a variation on the scene.³⁶ The owner is represented together with one of his wives, receiving funerary offerings from his children and his other wives. In the upper register, the owner appears again, catching fish and fowl in a swamp. In the lower register, one bull is overthrowing another, dappled, one in a similar way as in the final scene of the south wall; again, no herdsmen seem to have been present. The north wall scene is different from its counterpart, and is captioned: 'Day of the victory of the *k*-bull from the black herd'.³⁷

14. At Aswan, among the tombs of Qubbet el-Hawa, the tomb of Khunes, from the Sixth Dynasty, includes two bullfight scenes.³⁸ On one of the walls, two bulls are fighting with their horns, next to a couple of boats on the river and groups of cattle being brought in front of the deceased, who is shown seated inside a kiosk.³⁹ The other scene is on one of the pillars, together with the deceased sitting in front of an offering table with relatives approaching him (fig. 5). Two bulls are facing each other and, between them, a herdsman is raising a stick with both his hands.⁴⁰

³⁴ Petrie, *Athribis*, 17, translates the second man's words, 'O strike him, and he will let go'. The translation suggested here is not certain; the words used might be *nhdyw* 'tusk' (*Wb.* II 304, 5-8; 384, 2-3) for 'horns', and for 'to pound' *hwsi* (*Wb.* II 248, 4 ff.).

³⁵ Petrie, *Athribis*, 4, pl. 12; PM v, 35; Vandier, *Manuel* v, pl. 2, fig. 11.

³⁶ Petrie, *Athribis* pl. 7; PM v, 35.

³⁷ Petrie, *Athribis* 3 f., translates, 'Day of strength, bull of black bulls'; but on p. 16 J. H. Walker renders it as, 'The day of overthrowing(?) the bull'. The term translated as 'black-herd' is *kmt*, which is connected with the Apis bull; cf. Otto, *Stierkulte in Aegypten*, 17, 20.

³⁸ J. de Morgan et al., *Catalogue des monuments et inscriptions de l'Égypte antique*, I (Vienna, 1894), 160 f.; PM v, 235 (5-6, e).

³⁹ In the upper register, Morgan's line drawing shows a bull falling down on his nose. It is uncertain whether another bull is causing him to fall since the rest of the register is lost; however, from the parallels surveyed in this study, this seems probable.

⁴⁰ Smith, *Egyptian Sculpture and Painting*, 227; Vandier, *Manuel* v, 60, fig. 35. 2.

15. At the same location, the tomb of Sirenput I (from the reign of Sesostris I) shows the deceased leaning on a staff and inspecting cattle, which are being brought to him by herdsmen.⁴¹ There are two bulls confronting one another, one getting ready to charge the other, behind which a herdsman is shown holding a stick towards its rear. Below this scene, the deceased is represented on a larger scale, fishing and fowling.

16. In Beni Hassan, three tombs from the Eleventh Dynasty and two from the Twelfth Dynasty have bullfights represented on their walls. In the tomb of Baket I (no. 29) the deceased is represented holding a staff and a *sekhem*-sceptre, followed by two attendants.⁴² Together with a scene of men lassoing a bull and goats browsing from a small tree, a cow is giving birth with the help of a herdsman, and two bulls are fighting. One of them is starting to lift the other from the front, while a herdsman follows the fight from behind the latter. The scene has the caption: 'Charging of the horns of the bulls'.⁴³ On the same wall, another bullfight scene is represented.⁴⁴ The deceased appears in the same pose as before, followed by five attendants. Men are shown wrestling, and cattle are being brought before the deceased. A double scene, partly lost, shows two bulls fighting with their horns. A herdsman follows the action closely from behind one of them, holding a stick in his hand. The text above the bulls of the second group is not preserved in its entirety.⁴⁵

17. The tomb of Baket III son of Remushenta (no. 15) represents the deceased holding a staff and a *sekhem*-sceptre.⁴⁶ Dancers are shown performing before a funerary statue inside a shrine which is being transported;⁴⁷ next to this are offering bearers and cattle which are being brought to the deceased. A herdsman is represented raising a stick with both his hands, between two dappled bulls confronting one another. One of the bulls is identified as a 'mry-bull', the other as a 'hww-wsh-bull'.⁴⁸ Next to this scene, a group of four bulls are eating grass, watched by two herdsmen.

18. The tomb of Khety (no. 17) combines field scenes with boats on the river.⁴⁹ Behind a scene of cattle being brought, and of a dappled bull mating with a cow, two dappled bulls are shown fighting with their horns (fig. 6). Two herdsmen, represented on a smaller scale than the bulls, are hitting them from behind on their hind legs.

19. The tomb of Amenemhat-Imeny (no. 2) dates to the Twelfth Dynasty and is also located in Beni Hassan; it was built during the reign of Sesostris I. It represents the deceased inspecting field-produce and cattle.⁵⁰ He is shown with two dogs, holding a staff and a handkerchief in his hand, while an official hands him a document. Next to the lassoing of a bull and the bringing of offerings, two bulls appear facing each other. A herdsman is standing between them, holding a stick in both

⁴¹ Morgan, *Catalogue* I, 186 f.; PM v 238 (6-7); Vandier, *Manuel* v, 206, fig. 97.1.

⁴² P. E. Newberry, *Beni Hasan*, II (London, 1893), pl. 31; PM IV, 160 (13-14); Vandier, *Manuel* v, 207, fig. 98.

⁴³ Read *sfh hnw (k)-bulls*. Guglielmi, *Reden*, 105 (2), translates: 'Laß ab, du Miststück(?) der Kälber!' She takes the sentence as the herdsman's direct speech, which is unlikely since the direction of the signs is opposite to his direction. The word for 'horn' is *hnw* (*Wb.* III, 109, 14-16).

⁴⁴ Newberry, *Beni Hasan* II, pl. 32; PM IV, 160 (15-16).

⁴⁵ See Guglielmi, *Reden*, 106 (6).

⁴⁶ Newberry, *Beni Hasan* II, pl. 7; PM IV, 153 f. (14-20); Vandier, *Manuel* v, 215, fig. 101.

⁴⁷ See M. Eaton-Krauss, *The Representations of Statuary in Private Tombs of the Old Kingdom* (Wiesbaden, 1984), 60 ff.

⁴⁸ See P. Montet, 'Notes sur les tombeaux de Béni-Hassan', *BIFAO* 9 (1911), 12; Guglielmi, *Reden*, 100 n. 309. For the appellative *mry*-bull, see Guglielmi, *Reden*, 111; Ghoneim, *Bedeutung des Rindes*, 32 f. The term 'hww-herd' is used in *The Story of Sinuhe*, in a passage quoted below (p. 95).

⁴⁹ Newberry, *Beni Hasan* II, pl. 12; PM IV, 158 (24-25); Vandier, *Manuel* v, 211, fig. 100.

⁵⁰ Newberry, *Beni Hasan*, I (London, 1893), pl. 13; PM IV, 142 (7-11); Vandier, *Manuel* v, 211, fig. 99. 2. The tomb has an inscription with the date of Year 43 under Sesostris I, but it has to be noted that the owner has a stela dated to Year 8 of Amenemhet II (Louvre C 4): see reference in D. Franke, *Personendaten aus dem Mittleren Reich* (Wiesbaden, 1984), 301 (490).

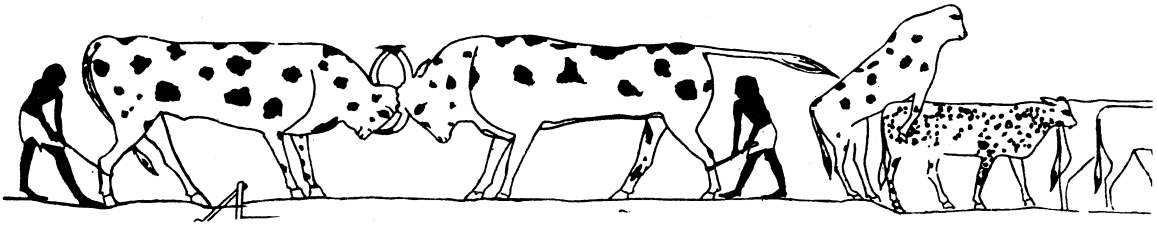


FIG. 6. Tomb of Khety, Beni Hassan. After Newberry, *Beni Hasan* II, pl. xii.

hands to the head of one of the bulls. Behind the other bull a second herdsman stands in a relaxed pose, with a stick in one of his hands. A double hieratic text was written over the scene, giving the instructions that each herdsman addresses to his bull: 'Tackle him, *mr*-bull, victorious *ky*-bull! Behold, I command it to you, the herdsman', and 'Tackle him, *mr*-bull, victorious *ky*-bull!'⁵¹ Next to the scene, a cow is being held by a third herdsman.

20. In the tomb of Khnumhotep III (no. 3) at Beni Hassan, from the reign of Sesostri II, the deceased is represented supervising cattle and various activities.⁵² Two bulls are shown fighting with their horns, while a herdsman stands next to one of them with a stick in his hand (fig. 7). The scene has the caption: 'Arbitrating (between) *ky*-bulls by the herdsman Khnumnakht'. Behind the other bull, another herdsman holds a stick between the rear legs of the bull, and addresses it with the words: 'Tackle him!'⁵³ A more advanced stage of the fight is shown in the second group of the scene: each herdsman is behind his respective bull, stretching his stick towards its front. One of them is saying: 'Charge, *mry*-bull!'⁵⁴

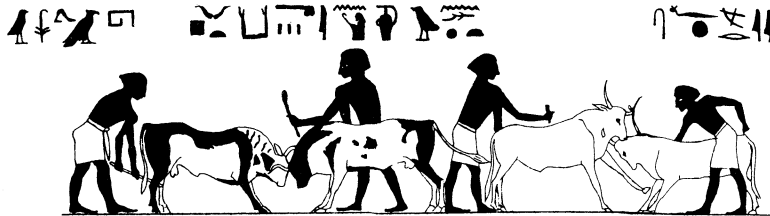


FIG. 7. Tomb of Khnumhotep III, Beni Hassan. After Newberry, *Beni Hasan* I, pl. xxx.

21. At el-Bersheh, the tomb of Ahanakht (no. 5) of the Eleventh Dynasty represents the deceased sitting before an offering table.⁵⁵ In the registers underneath him are a group of dancers, herdsmen lassoing a bull, milking one cow and helping another to deliver, and a bullfight.⁵⁶ The first group of the bullfight scene shows the two bulls clashing with their horns, and a herdsman hitting one of them on the rear with a stick. In the second group, one of the bulls has fallen on his forelegs, while the other has lifted himself over the head of the fallen one. A herdsman stands behind each bull, hitting it with a stick. Nearby, a third group is represented on the wall: a bull has lifted another from behind, sticking his horns into his lower abdomen.⁵⁷ No text accompanies these groups.

⁵¹ The transcription of the hieratic text is given in Montet, *La vie privée*, 3 f., pl. 2. See also Guglielmi, *Reden*, 111 (14).

⁵² Newberry, *Beni Hasan* I, pl. 30; PM IV, 145 f. (7-11).

⁵³ See Guglielmi, *Reden*, 114 (19).

⁵⁴ See Guglielmi, *Reden*, 114 (18).

⁵⁵ F. L. Griffith and P. E. Newberry, *El Bersheh*, II (London, 1894), pl. 14; PM IV, 181 (5).

⁵⁶ Vandier, *Manuel* v, 221, fig. 103.2.

⁵⁷ E. Brovarski, 'Ahanakht of Bersheh and the Hare nome in the First Intermediate Period and Middle Kingdom', in W. K. Simpson and N. M. Davies (eds), *Studies in Ancient Egypt, the Aegean, and the Sudan* (Boston, 1981), 17, fig. 3.

22. The tomb of Djehutihotep (no. 2) at el-Bersheh dates from the reigns of Sesostriis II–III.⁵⁸ The deceased is represented sitting inside a kiosk, supervising the counting of cattle.⁵⁹ Cattle are being brought to him, and boats are depicted on the river in connection with the supervision. In this context, two bulls are represented fighting with their horns (fig. 8). A herdsman stands behind each of the bulls, with a stick raised in one hand and a large piece of cloth hanging over the arm closer to the bull. Beside this, the following stage of the fight is represented, with one of the bulls lifting the other by sticking his horns into the front thighs. One of the herdsmen stands behind it, in the same pose as before, now addressing the bull: ‘Charge, victorious *ky*-bull!’⁶⁰

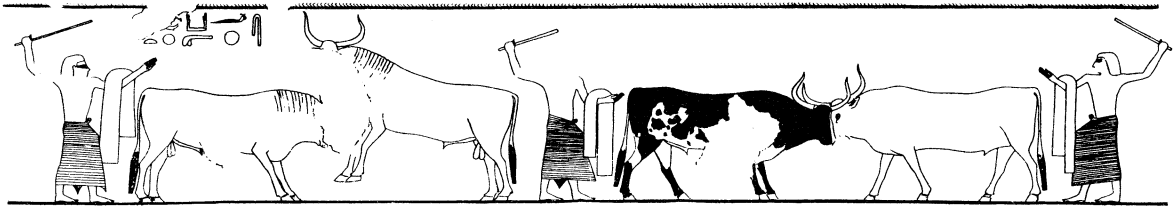


FIG. 8. Tomb of Djehutihotep, el-Bersheh. After Griffith and Newberry, *El Bersheh* I, pl. xviii.

23. In the Theban cemetery of Asasif, dating from the Eleventh Dynasty (the reign of Nebhepetre Mentuhotep), the tomb of Djar includes a bullfight scene (pl. IX).⁶¹ Two dappled bulls are fighting with their horns, and a herdsman stands behind each with a stick in his hand. Their words were written in hieratic, but they are now only partly legible. Next to this scene, the preparation of a funerary meal is taking place, and in the register above, a mummy and its coffin are being treated, and a funeral procession is commencing. On the same wall, there is a hunt and a marsh scene with a hippopotamus.

24. The New Kingdom examples of bullfight scenes preserved on tomb walls are found in western Thebes, and all date to the reign of Thutmosis III.⁶² In the tomb of Amenemhat,⁶³ a scene shows one bull overthrowing another from behind. The context of the fight includes the deceased and his wife sitting in front of an offering table, and being attended by one of their sons. A banquet is taking place in front of them, with musicians and dancers; next to this a man is shown bringing in a bull.

25. In the tomb of Ineni, two bulls fighting are partially preserved next to a scene of cattle and various animals being brought before the deceased for inspection.⁶⁴

⁵⁸ Guglielmi, *Reden*, 112 (15), dates the tomb to the reign of Amenemhet II, but PM IV, 179, and Franke, *Personendaten*, 448 (781), date it to Sesostriis II–III.

⁵⁹ Griffith and Newberry, *El Bersheh* I (London, 1894), pls. 18–19; PM IV, 180 (14–16); Vandier, *Manuel* v, 217, fig. 102.1.

⁶⁰ Griffith and Newberry, *El Bersheh* I, 28, suggest the translation, ‘Let loose(?) mighty bull!’ See Guglielmi, *Reden*, 112 (15).

⁶¹ PM I, 1, 429 (2); C. Vandersleyen, *Das alte Ägypten* (Propyläen Kunstgeschichte 15; Berlin, 1975), pl. 266; Metropolitan Museum of Art photographs, negative no. M12C81.

⁶² For representations on ostraca of the late New Kingdom, see J. Vandier d’Abbadie, *Catalogue des ostraca figurés de Deir el Médineh*, I (Cairo, 1936), pls. 12, 15 (nn. 2071, 2108); Vandersleyen, *Das alte Ägypten*, pl. xliia (MMA 24.2.27); W. H. Peck and J. G. Ross, *Egyptian Drawings* (New York, 1978), pl. ix. The motif of two equals fighting was also represented with *mouflons*, as shown in G. Daressy, *CG Ostraca* (Cairo, 1901), pl. 13 (n. 25062); Peck and Ross, *Egyptian Drawings*, pl. 99; cf. also L. Klebs, *Die Reliefs und Malereien des neuen Reiches* (Heidelberg, 1934), 67.

⁶³ N. de G. Davies and A. H. Gardiner, *The Tomb of Amenemhêt* (London, 1915), 40–2, pl. 6; PM I, 1, 164 (5); W. Wreszinski, *Atlas zur altaegyptischen Kulturgeschichte*, I, 1 (Leipzig, 1923), pl. 15; G. Farina, *La pittura egiziana* (Milan, 1929), pl. 59; Vandier, *Manuel* v, 253, fig. 113.3.

⁶⁴ H. Boussac, *Le tombeau d’Anna* (Paris, 1896); PM I, 1, 161 (9); Vandier, *Manuel* v, pl. 17, fig. 138; E. Dziobek, ‘Trois nouvelles tombes civiles a Cheik Abd-el-Gournah’, *Les dossiers d’archéologie* 149–50 (Dijon, 1990), 102; id., *Das Grab des Ineni, Theben Nr. 81* (Mainz am Rhein, 1992), pl. 8.

26. The tomb of a second Amenemhet shows various domestic animals being brought between a hunting and an offering scene.⁶⁵ Among them, two groups of fighting bulls can still be distinguished. In the upper register one bull is overthrowing another, coming from the back. In the lower register they are fighting with their horns next to a herdsman, who seems to have a stick raised in one hand.

27. The tomb of Senemioh has a partially preserved scene, where two bulls are wrestling with their horns.⁶⁶ Behind one was a herdsman with a stick raised over the bull. A second herdsman faces the fight from behind the other bull with a stick in one hand and with the other hand raised forward. Next to this scene are animals being brought and an offering scene.

Remarks on the translations of the texts

The verb *wḫ*, which occurs in bullfight scenes in the infinitive, *wḫt* (3, 5, 20), and in the imperative (*wḫ(i)*), (4), is generally taken as 'to separate'. While this is its basic meaning, it is clear from the representations of the motif that the herdsmen are not trying to prevent the fight between the two bulls, but on the contrary, they are instigating and encouraging them to fight. For this reason, *wḫ* in this context is probably related to its legal use (*Wb.* I, 299: 'Streit, Kampf schlichten'; Faulkner, *CD*, 59: 'judge contestants at law'). In a fighting context, 'to separate' implies 'to referee opponents, to arbitrate a dispute'. The sign *wḫ* for 'to judge' is accompanied by a double determinative showing two men confronting each other and raising a stick against each other in the tomb of the vizier Amenemopet (TT29; *Urk.* IV, 1439, 7–8). From this tomb, too, note the reference to *wḫwt kꜣw* as one of the duties of the vizier, also mentioned in the tomb of Rekhmire: 'It is he (the vizier) who shall do the confrontation among the *kꜣ*-bulls, who shall carry out the confrontation within them' (*Urk.* IV, 1115, 7).⁶⁷ This interpretation of the term agrees not only with the figurative representations, but also with the bullfight theme in contemporary religious-funerary texts, as will be shown below.⁶⁸

The verb *sḫ* (1, 3, 4, 12, 20, 22) is used in the bullfight scene to express an action expected from the bulls. Its basic meaning is 'to loosen', and in other cattle scenes it can refer to the action of a cow delivering.⁶⁹ I suggest that when it is applied to a bull and to its horns, it has the nuance 'to let loose, to charge'.⁷⁰

The basic meaning of the verb *ḥꜣ* is 'to go down'. Used as a transitive verb and in the imperative form, as in 19 and 20, it has the nuance of 'to throw to the ground, to tackle'.⁷¹

The ideogram for 'bull' in this context is consistently specified as *kꜣ*, accompanied by a male-genitals ideogram.⁷² The combination of these three signs is commonly translated

⁶⁵ PM I. I, 237 (11); MMA photos, negative no. T1997.

⁶⁶ PM I. I, 242 (7); MMA photos, negative no. T3571.

⁶⁷ See Norman de G. Davies, *The Tomb of Rekh-mi-re' at Thebes* (New York, 1943), 83, pl. 122 (31), translating this passage: 'It is he who makes inventories of all oxen of which inventories have to be made'. G. P. F. van den Boorn, *The Duties of the Vizier* (London, 1988), 286, agrees with Davies' translation. In Rekhmire's tomb, *wḫ* has the meaning 'to judge' with the nuance of discerning *maat* between two contestants (*Urk.* IV, 1077, 17; 1118, 5, 8; 1161, 12; 1170, 1).

⁶⁸ Note the pertinent words by K. R. Weeks, 'Art, Word, and the Egyptian World View', in Weeks (ed.), *Egyptology and the Social Sciences* (Cairo, 1979), 66: 'If we are to understand accurately and adequately the terms used by Egyptians in labelling scenes and objects in their culture, we must understand the nature of the significant attributes those scenes and objects are given in a mortuary context, and must try to determine whether such attributes maintain their significance in other contexts as well.'

⁶⁹ See Guglielmi, *Reden*, 97 f.

⁷⁰ *Wb.* IV 116, 23; 117, 1–2. See Ghoneim, *Bedeutung des Rindes*, 8, 37, 73.

⁷¹ *Wb.* II 475, 1–3, 'den Gegner angreifen, annehmen'.

⁷² *Wb.* V 94 ff.

just as 'bull', which is unsatisfactory since a 'bull' can be identified by different appellatives (e.g., *smrw*, *mr*), and *kꜣ* is also used preceding the ideogram for snake, crocodile or baboon in the Coffin Texts. It seems that the term *kꜣ*-bull has both a sexual connotation, and refers to the highest hierarchical position within a group.⁷³

The bullfight

These scenes represent a fighting contest between two bulls, as described by Strabo much later. It seems that the contest was arranged and arbitrated by two herdsman, who placed the bulls facing each other (*wꜣ*).⁷⁴ They proceeded to hit them with a stick on the horns to provoke the violent engagement (*sfh*). Then the herdsman moved aside and cheered them from behind.⁷⁵ The purpose seems to have been the selection of the best male for breeding from among the fierce bulls or studs. This is suggested by the identification of the bulls as *kꜣ* plus the writing of a phallus, the presence of a cow next to the arena,⁷⁶ and references to the genitals during the fight.⁷⁷

Blackman argued that the bullfight represented in Ukhhotep son of Senbi's tomb (4), was related to the Hathor cult and the search for a bull-consort, citing textual evidence for this practice.⁷⁸ By looking at the context of similar scenes, it seems that the bulls' fight was part of an extraordinary occasion. However, it was not related specifically to Hathor, but rather to the inspection of cattle and produce by the tomb owner. Some representations of bulls engaged in a fight lack the presence of herdsman,⁷⁹ which recalls the natural origin of the confrontation, subsequently arranged by herdsman for breeding purposes.

Religious-funerary meaning

The bullfight scene is generally understood as an everyday farmyard occurrence.⁸⁰ However, the context has a marked religious-funerary nature, not only by being

⁷³ This is clear when the term is used to refer to Osiris' dignity (*sfh*) in the West; cf. CT 1, 100a; 102a; 110c-11b; 140d-e; 151b. See P. Derchain, 'Bébon, le dieu et les mythes', *RdE* 9 (1952), 26 n. 5, with bibliography.

⁷⁴ Because the basic meaning of the verb *wꜣ* is 'to separate', the authors who published the tombs with bullfight scenes interpreted the action of the herdsman as trying to stop the fight; cf. Vandier, *Manuel* v, 58-62, and also Lloyd, *Hommages Vermaseren* II, 622. Other authors distinguished two types of scenes, one in which the herdsman try to separate the bulls, and another in which they encourage them to fight; cf. L. Klebs, *Die Reliefs und Malereien des mittleren Reiches* (Heidelberg, 1922), 88; F. Hartman, *L'agriculture dans l'ancienne Egypte* (Paris, 1923), 267; Guglielmi, *Reden*, 99; Kanawati, *BACE* 2, 56 f.

⁷⁵ A discussion on different terms for 'arena' can be found in J. J. Clère, *BiOr* 8 (1951), 175 f.; J. Leclant, 'La "mascarade" des boeufs gras et le triomphe de l'Egypte', *MDAIK* 14 (1956), 144 n. 1; S. Sauneron, 'Remarques de philologie et d'étymologie', *RdE* 15 (1963), 51 f.; Lloyd, *Hommages Vermaseren* II, 616-20.

⁷⁶ See Blackman, *Meir* II, pl. 15, and v, pl. 32; Newberry, *Beni Hasan* I, pl. 13, and II, pl. 12; Davies, *Deir el Gebrâwi* I, pl. 11. In the two last instances the scene also shows the mating after the fight.

⁷⁷ For textual evidence, see Blackman, *Meir* II, pl. 15. Pictographic evidence, showing a bull lifting another by sticking one of his horns into the other's lower abdomen, can be found in Petrie, *Athribis*, pl. 7, 12; Davies, *Deir el Gebrâwi* I, pl. 11; and in Brovarski, *Studies in Ancient Egypt*, 17, fig. 8.

⁷⁸ *Meir* II, 25 ff.; see also Klebs, *Reliefs und Malereien des MR*, 175 f.; Guglielmi, *Reden*, 99 f., 111 (13).

⁷⁹ See Davies, *Deir el Gebrâwi* II, pl. 9; Petrie, *Athribis*, pl. 7, 12; Blackman, *Meir* v, pl. 32; Brovarski, *Studies in Ancient Egypt*, 17, fig. 8.

⁸⁰ Besides the tomb publications referred to above, see Klebs, *Reliefs und Malereien des MR*, 88; M. Broze, *La Princesse de Bakhtan* (*MRE* 6, Brussels, 1989), 99 n. 19; and Kanawati, *BACE* 2, 54, who states that 'the inclusion of bullfighting in the repertoire of wall scenes is significant, for these scenes usually depict "the useful" and "the entertaining".' Kanawati explains the relevance given to the bullfight scene in Kahetep's and Kheni's tombs, saying that they 'must have greatly enjoyed such contests' (p. 52); cf. id., *El Hawawish* I, 21 f., and II, 24. A general metaphorical aspect of the bull, symbolizing strength and courage, was already recognized by H. Grapow, *Die bildlichen Ausdrücke des Ägyptischen* (Leipzig, 1924), 76-9, and is pointed out by Guglielmi, *Reden*, 95 n. 271, and by P. Behrens, 'Stierkampf', *LÄ* v, 16 f.

represented inside a tomb, but by its association with the scenes showing the deceased sitting in front of a funerary offering table, or fishing and fowling in a marsh, which is probably a symbol of man's power to impose order over nature's chaos.⁸¹ The motif of goats browsing with their forelegs on the branches of a small tree is common in Mesopotamian and Levantine iconography, and may perhaps be regarded as a representation of the 'tree of life', and thus has funerary symbolism.⁸² Moreover, the cattle and produce that are brought for inspection are specified in the inscriptions of several scenes which include a bullfight as being for the funerary cult of the deceased.

Contemporary religious-funerary texts—the Pyramid and Coffin Texts—can clarify the symbolism behind these tauromachy scenes within the funerary context. In these texts, the deceased states his right to preserve in the Netherworld the status he held on earth as a social leader. To reinforce his claim, the deceased's leadership is said to be challenged, and his opponent who questions his right is then defeated. This situation, the dispute between two equals for the leadership, was compared with the fight between two bulls, leaders of two herds. Hence in a funerary context 'kꜣ-bull' not only identifies the bulls entangled in a fight, as has already been seen, but is also used as an epithet of deities⁸³ and of the deceased who is identified with Osiris.

The context for this epithet refers to the power of defeating a rival enemy of equal status who has challenged one's leadership; success means getting to eat the right food (the five rations of the temple of Heliopolis),⁸⁴ having the power for procreation⁸⁵ and, thus, becoming the foremost of those in the Netherworld.⁸⁶ The epithet 'kꜣ-bull', in the last analysis, denotes the highest hierarchical status within a group.

In the texts the kꜣ-bull is associated with virility and the earned right to mate, as it is in the figurative representations.⁸⁷ In the Pyramid Texts it is said: 'May the (other) kꜣ-bull/Seth crawl away because of his testicles' (PT 418a).

In the Coffin Texts, the deceased is referred to in the following way: 'I am this kꜣ-bull on whom are his testicles' (CT III, 124i; VII, 220a-b); 'It is to the ba of the kꜣ-bull of the West to whom procreation is allowed on earth' (CT VI, 72h-i); 'I have inherited the kꜣ-bull of heaven. I have reached his opponent, who would take away my meal from me. My

⁸¹ Recently, however, E. Feucht has argued against the symbolic character of this scene, in 'Fishing and Fowling with the Spear and the Throw-stick Reconsidered', in *The Intellectual Heritage of Egypt* (Studia Aegyptiaca 14; Budapest, 1992), 157-69, concluding that 'the meaning of the scene is to be sought in the deceased's wish for pleasure as well as in his need of sustenance in the hereafter' (p. 168). While the texts she quotes in support of her interpretation describe and complement the action represented in the scene, they do not explain the reason why it was depicted on tomb walls.

⁸² In the ancient Near East, the motif appears on cylinder seals from the Uruk Period (e.g., Berlin VA 10537; see A. Moortgat, *Vorderasiatische Rollsiegel* (Berlin, 1940), no. 29), and in small statues discovered at Ur, dating to the Third Dynasty (J. B. Pritchard, *The Ancient Near East in Pictures* (Princeton, 1954), n. 672, nn. 667-8 respectively). This motif is represented next to a cow nursing a calf on an Old Babylonian cylinder seal now in the Oriental Institute Museum: see J. Oates, *Babylon* (London, 1986), 175, fig. 123. For the cow and calf motif, see O. Keel, *Das Böcklein in der Milch seiner Mutter und Verwandtes* (OBO 33; Freiburg, 1980).

⁸³ Osiris is repeatedly identified as 'kꜣ-bull of the West'; Geb is referred to as 'kꜣ-bull of heaven/the cemetery' (CT VI 185b); Atum is the 'kꜣ-bull of the two Great Enneads' (CT VI 325d). Earlier, in the Pyramid Texts, both Re and Geb have as epithet 'kꜣ-bull of heaven' (for Re, see PT 283a; 513a; 889d; 1238c; 1432b; for Geb, PT 316a). Re is also called 'kꜣ-bull of the Ennead' in PT 1238c.

⁸⁴ See CT III, 14b; 37c; 99e; 125g; 160b; 161c; 173h-j; 184a-b; 195k; v, 208f; vi, 233k-234a. For earlier references, see PT 716e-717a.

⁸⁵ See CT III, 124i; v, 257d-f; 370f-371b; vi, 72h-i; 233k-234a; 249b; vii, 182a-c; 220a-b.

⁸⁶ See CT I, 135a; 179m; iii, 46d; 169a-b; 195i-196a; 263g; iv, 94a; v, 335g; 370f-371b; 377c.

⁸⁷ See above n. 76 f.

heart is against him who would take away my copulation with my female from me, when it is (the appropriate moment)' (CT vi, 233*k*-234*a*); 'I am the *kꜣ*-bull, exalted of lapis lazuli, lord of the fields, *kꜣ*-bull of the gods. Sothis speaks to me in her appropriate time' (CT v, 370*f*-371*b*; cf. also CT v, 384*l*-385*b*). About the god Herishef, one of the spells says: 'Lord of Herakleopolis, exalted of jewels, beautiful of feathers, *kꜣ*-bull who copulates with fair females' (CT v, 257*d*-*f*).

Concerning the identification of a 'victorious *kꜣ*-bull' with an 'Apis-bull whom Hesat has suckled', which appears in ex. 3, it must be pointed out that the deceased is identified with the 'Apis-bull who is in heaven/the cemetery, high of horns' (CT iii, 140*e*-*f*); with a 'white *kꜣ*-bull whom Hesat has suckled' (CT iii, 61*c*; cf. also CT iv, 350*a*-351*d*); and with the 'son of Hesat' (CT vi, 218*j*). As for the 'black painted' *kꜣ*-bull mentioned in the same scene, the deceased is referred to as 'the son of the *kꜣ*-bull of heaven, the *kꜣ*-bull of the black-painted bulls, the lord of the West' (CT vi, 232*i*; cf. also CT v, 3840-385*b*).

References to bullfights can be found in the Pyramid Texts, where two *kꜣ*-bulls are mentioned fighting in *tekhen*.⁸⁸ One of the spells even refers to how the deceased will overcome his opponent in a way similar to the final moment of the bullfight as represented in several scenes on tomb walls: 'Hail to you *ngꜣ*-bull of the bulls! When you go forth, he (the deceased) shall take you by your tail (*sd*), he shall seize you by your hindquarters' (PT 547*a*-*b*).⁸⁹ In the Coffin Texts the deceased, after being identified with a *kꜣ*-bull, is addressed thus, 'Lift up yourself, grasp (his) tail!' (CT iv, 351*d*; 366*d*-*e*), which is very close to how one of the *kꜣ*-bulls is addressed by a herdsman in 4.

The bullfight scenes on tomb walls represent the same process as is described in these texts: in his struggle to maintain his leadership in the Netherworld, and all that the highest social position implies, the deceased is symbolically identified with a bull who has to defeat another who challenges him. This challenge is meant to prove that the deceased is entitled to be the lord of the herd and fields, i.e. of the Netherworld.⁹⁰ It is perhaps significant that the owners of the tombs where bullfight scenes are represented were local chiefs, that is, regional social leaders.

Fights between bulls were part of farmyard life in ancient Egypt, but this is not enough to explain their incorporation into the tomb repertoire. Only by relating the scene to symbolism concerning the afterlife as described in funerary texts can one understand the scene's appearance in tombs. Nevertheless, the reason behind the representation of bullfights on tomb walls remains uncertain, since not all the themes attested in funerary texts were depicted.⁹¹

⁸⁸ PT 425*e*; 690. The identification of *thꜣ* in this context is uncertain; for the various uses of the word, see *Wb.* v, 326 f. For an interpretation of these two passages, see Lloyd, *Hommages Vermaseren* ii, 613-15.

⁸⁹ Montet, *Kémi* 13, 54 f., fig. 7, relates this passage of the Pyramid Texts to a Ramesside scene from Abydos where the prince is holding a bull by the tail. It has to be noted that this scene, of a much later date, is not funerary, although related to Osirian rituals, and that the passage from the Pyramid Texts is addressed to a *ngꜣ*-bull. All things considered, one identification does not necessarily have to exclude the other, since the Egyptian king was commonly identified with a *kꜣ*-bull in the New Kingdom.

⁹⁰ Lloyd, *Hommages Vermaseren* ii, 613-15, 623-6, argues that the bullfight is a metaphor for the conflict between Order and Chaos, that is, between Horus and Seth.

⁹¹ 'Foreign' examples of bullfights c. 1500 BC, eight centuries after the first Egyptian bullfight scenes, show the cultural interconnections in the Near East: a) a bullfight scene of this type on a cylinder seal from the Kassite Period (Berlin VA 3869, see Moortgat, *Rollsiegel*, no. 554); b) the recently-discovered Minoan frescoes at Tell el-Daba showing bullfights of the type painted in Knossos palace (M. Bietak, 'Minoan Wall-Paintings Unearthed at Ancient Avaris', *Egyptian Archaeology* 2 (1992), 26-8; id., *Ägypten und Levante* iv (1994), 44-93).

On tomb walls, the bullfight is represented within scenes which show the successful outcome of the confrontation for the deceased: he is depicted inspecting the produce of the fields as head of the estate. He has overcome his (equal) rival and attained a meaningful afterlife in which he remains a social leader, which implies that he keeps his property and social status. In this connection, it should be noted that, when funerary texts refer to the deceased as a *kꜣ*-bull, he is sometimes also called 'lord of the fields', who says: 'I have come within you to inspect my abundance, to make to flourish the vegetation' (CT v, 370f-371b; cf. also CT v, 384l-385b). The deceased is represented inspecting the fields with a *sekhem*-sceptre (as seen in 5, 6, 16, 17) and in CT vi, 263f-g, the deceased says: 'The going forth of the *kꜣ*-(bull), lord of the West, exalted of *sekhem*'.

The bullfight motif in non-funerary contemporary texts

The theme of the *kꜣ*-bull is used in the Eighteenth Dynasty to refer to the king as social leader, and as a champion without equal. From Thutmose I on, the Horus name of each king begins with the epithet 'Victorious *kꜣ*-bull'.⁹² Prior to him, the prenomen of the last king of the Seventeenth Dynasty was 'Born of a victorious *kꜣ*-bull' (Kamose),⁹³ who used as epithet 'victorious king in Thebes'. Ahmose's Horus name was '*kꜣ*-bull in Thebes', and Amenophis I's '*kꜣ*-bull who subdues the lands'.⁹⁴

The only instance where the expression 'victorious *kꜣ*-bull' is used in a non-funerary context before the New Kingdom is in the tomb of Tefib, from the First Intermediate Period.⁹⁵ The fragmentary state of the inscription does not allow an inference as to whether it refers to a king, or to a local military leader. In the New Kingdom, this appellation is used exclusively by monarchs. A possible antecedent for this royal epithet might be 'white *kꜣ*-bull who tramples the *Iuntyu*', which is used of Sesostri I.⁹⁶ While the image of a bull was associated with kingship since the very beginning of the history of the Egyptian monarchy,⁹⁷ the only antecedent for the use of the appellation 'victorious *kꜣ*-bull' is to be found in the bullfight tomb scenes of the Sixth Dynasty.

Thutmose I associated himself with the image of a *kꜣ*-bull through the epithet 'pointed of horns', which was adopted also by Amenophis II and III.⁹⁸ This last ruler had as his Golden-Horus name, '*kꜣ*-bull of those who are reigned over, who subdues the Nine

⁹² J. von Beckerath, *Handbuch der ägyptischen Königsnamen* (Munich, 1984), 83 ff., 225 ff.

⁹³ Ibid. 82, 223. Note the epithet used by Thutmose I in the Tombos rock-stela, '*msty kꜣ psdtyw*' (Urk. IV, 84, 16), and that used by Thutmose III in Karnak, '*msy n kꜣ mwt.f*' (Urk. IV, 552, 3).

⁹⁴ Von Beckerath, *Königsnamen*, 83, 224.

⁹⁵ F. L. Griffith, *The Inscriptions of Siût and Der Rife* (London, 1889), pl. 11 (l.26); P. Montet, 'Les tombeaux de Siout et de Deir Rifeh', *Kémi* 3 (1930-35), 93; H. Brunner, *Die Texte aus den Gräbern der Herakleopolitenzeit von Siut* (Munich, 1937), 18, 46; W. Schenkel, *Memphis, Herakleopolis, Theben* (Wiesbaden, 1965), 80.

⁹⁶ Florence 2540. See S. Bosticco, *Le stele egiziane dall'Antico al Nuovo Regno, Museo Archeologico di Firenze*, 1 (Florence, 1959), 31-3, pl. 29 a-b; H. S. Smith, *The Fortress of Buhen. The Inscriptions* (London, 1976), 39-41, pl. 69.1. See also E. Blumenthal, *Untersuchungen zum ägyptischen Königtum des Mittleren Reiches*, 1 (Berlin, 1970), 104 (B6.35), who relates the epithet to the god Montu. However, it might as well be related to the appellation 'white *kꜣ*-bull', used in the Coffin Texts (see CT I, 143c; 147a; 270c; III, 61c; 263g). For a recent discussion of the second part of the inscription, see C. Obsomer, 'Les lignes 82 à 24 de la stèle de Mentouhotep (Florence 2540) érigée à Bouhen en l'an 18 de Sésostri Ier', *GM* 130 (1992), 57-74.

⁹⁷ See for example the Narmer Palette: Vandier, *Manuel* I. 1 (Paris, 1952), 592-9, figs. 389-92; W. M. F. Petrie, *Ceremonial Slate Palettes* (London, 1953), pls. G 17-18, K.

⁹⁸ *Urk.* IV, 266, 4. Amenophis II, in *Urk.* IV, 1301, 3; 1305, 4; Amenophis III, in *Urk.* IV, 1682, 9; 1694, 7; 1701, 8; 1704, 12.

Bows'.⁹⁹ In the so-called Poetical Stela, the god Amun addresses Thutmosis III, saying: 'I shall cause that they see your majesty as a young *kꜣ*-bull, firm of heart, pointed of horns, whom one cannot tackle'.¹⁰⁰ Thutmosis III explained in this way his name 'Horus, Victorious *kꜣ*-bull who has appeared in Thebes': '[Amun-re] has made me victorious as a victorious *kꜣ*-bull, he has caused that I appear inside Thebes',¹⁰¹ associating the epithet *kꜣ*-bull with the action of appearing (*hꜣꜣ*) as leader.¹⁰² One of his officials, Amenemhab called Mahu, represents himself in his tomb reciting a hymn to this king, saying: 'Giving praise to the victorious *kꜣ*-bull, kissing the ground for the one who has appeared in Thebes'. In a parallel scene, he is 'Giving praise to the Lord of the Two Lands, kissing the ground for the one who has appeared in Thebes',¹⁰³ these two captions associate 'victorious *kꜣ*-bull' with 'Lord of the Two Lands'. An inscription on Tutankhamun's bow-case associates the expression 'victorious *kꜣ*-bull' with the king's military qualities and with his status as the one who stands out from and for the group: 'The Good God, courageous one, son of Amun, champion, lord of the *khepesh*, protector of his troops, victorious *kꜣ*-bull among the multitude, who breaks a coalition, being firm on his chariot like the Lord of Thebes, strong fighter, who knows the place of his hand, who shoots with a bow, victorious one, strong authority'.¹⁰⁴

Warfare terminology borrowed from the bullfight motif the word 'horn' (*ꜣb*, *db*) to refer to the flanks of the army. The fictional Sinuhe eulogises Sesostri I, saying: 'He is one who subdues the flank, who makes the hands weak, so that his enemies cannot surround the vanguard'.¹⁰⁵ The Annals of Thutmosis III refer in the same way to the king's troop division in his first Levantine campaign.¹⁰⁶ One of the earliest words to refer to the fighting ground, *mꜣwn*, used as ideogram a bull ready to charge, showing that its original meaning should have been 'arena'.¹⁰⁷

The bullfight motif was also used in literature, as a way to describe the challenge and fight between two tribe leaders. In the *Story of Sinuhe*, the 'victorious one of Retenu' comes to challenge Sinuhe in his camp with the understanding that the winner will immediately acquire the property and group leadership of the defeated rival. Sinuhe looks for a way to explain this challenge, and he finally expresses the situation by comparing it with cattle behaviour: 'I am like a *kꜣ*-bull of a *hꜣwꜣw*-herd'¹⁰⁸ in the middle of another herd:

⁹⁹ Von Beckerath, *Königsnamen*, 86, 229; *Urk.* IV, 1747, 9. See D. Lorton, *Juridical Terminology of International Relations in Egyptian Texts through Dyn. XVIII* (Baltimore, 1974), 39. Note Ramses II's titulary, 'victorious of arm, courageous of strength, *kꜣ*-bull of rulers, king of those who are reigned over' (*KRI* II, 479, 6-7); cf. N. C. Grimal, *Les termes de la propagande royale égyptienne, de la XIXe dynastie à la conquête d'Alexandre* (Paris, 1986), 577 (97). On the royal epithets *nsw nsw(t)ꜣw hꜣꜣ hꜣꜣw*, see Lorton, *Juridical Terminology*, 18-20, 33-5; Grimal, *La propagande royale*, 576 ff.

¹⁰⁰ *Urk.* IV, 616, 3-4.

¹⁰¹ *Urk.* IV, 160, 13-15.

¹⁰² For the verb *hꜣꜣ*, see M. Schunck, *Untersuchungen zum Wortstamm hꜣꜣ* (Bonn, 1985).

¹⁰³ *Urk.* IV, 908, 9-10, 14-15. See *PM* I. I, 173 (C, D).

¹⁰⁴ W. McLeod, *Self Bows and other Archery Tackle from the Tomb of Tutankhamun* (Oxford, 1982), 38, pls. 6-16; H. Beinlich and M. Saleh, *Corpus der hieroglyphischen Inschriften aus dem Grab des Tutanchamun* (Oxford, 1989), 170.

¹⁰⁵ (B 54-55): R. Koch, *Die Erzählung des Sinuhe* (Brussels, 1990). For this passage, see H. Goedicke, 'The Encomium of Sesostri I', *SAK* 12 (1985), 9 f., who translates: 'A subduer of the flank it is, who makes the hands (i.e. enemy fighters) weak, so that his enemies cannot surround the troops'.

¹⁰⁶ *Urk.* IV, 653, 11-12; 657, 10-13.

¹⁰⁷ H. Schäfer, 'Das Zeichen für *ꜣwn*', *ZÄS* 43 (1906), 74-6; cf. above n. 75.

¹⁰⁸ The appellative '*kꜣ*-bull of a *hꜣwꜣw*-herd' is used to refer to one of the bull contenders in the tomb of Baket at Beni Hassan, parallel to '*mꜣry*-bull'; cf. Newberry, *Beni Hasan* II, pl. 7.

the *kr*-bull of (this) herd opposes him, the *ng*-bull is charging against him (...) Does a *kr*-bull want to fight? Then, the bull (challenged) shall go forth, (even if) he wants to turn the back afraid that he will match him. If he wants to fight, let him say it'.¹⁰⁹ Sinuhe prevails over his opponent by sticking one of his arrows in his rival's neck: 'he screamed and fell down on his nose'¹¹⁰ just like the defeated *kr*-bulls that are represented on tomb walls.

The *kr*-bull was regarded as one of the animals that embodied strength and courage: being the leader of its herd, it was forced to challenge and to be challenged by other herd leaders to maintain its status and territory. The *kr*-bull was thus adopted as an image to refer to the highest status of gods, the deceased, and the ruling king among their groups. The bullfight between two *kr*-bulls was adopted in funerary texts as a metaphor for challenges that the deceased had to overcome to confirm his right to his status as leader. The bullfight was represented on tomb walls among the so-called 'daily life' scenes within the context of this imagery. The royal epithet 'victorious *kr*-bull' alludes to the confirmation of the king's social leadership and territorial authority after having overcome (hypothetical) opposition. The *Story of Sinuhe* also uses the metaphor of the bullfight to describe a situation he went through: as a tribe leader, he is challenged by another leader who plans to deprive him of his property and status. The deceased, the king and Sinuhe all overcome their opponents, and are confirmed as leaders and heads of their territory.

¹⁰⁹ (B 117-20, 123-25). See H. Goedicke, 'Sinuhe's self-realization', *ZÄS* 117 (1990), 129-39.

¹¹⁰ (B 139). On the duel, cf. H. Goedicke, 'Sinuhe's duel', *JARCE* 21 (1984), 197-210. A decorated archery case, BM EA 20648, brings together the bullfight motif and Sinuhe's use of the bow in the duel. It shows two moments of a confrontation between bulls: first, the bulls are wrestling with their horns next to two men, and finally one bull overthrows his opponent from behind, being encouraged by a man with a stick in his raised hand; see A. F. Shore, 'A Soldier's Archery Case from Ancient Egypt', *BMQ* 37 (1973), 4-9, who dates it to the Seventeenth or early Eighteenth Dynasty. For a representation of a bullfight on an axe, also in the British Museum (EA 36764), see E. Kühnert-Eggebrecht, *Die Axt als Waffe und Werkzeug im alten Ägypten* (Berlin, 1969), 82, pl. 28.2.




Tomb of Djar, Asasif (p. 89)
(*photography by the Egyptian Expedition, The Metropolitan Museum of Art. MMA neg. M12C81*)
BULLFIGHT SCENES IN ANCIENT EGYPTIAN TOMBS


'IR WNN ŠDM.F (ŠDM.N.F) ET 'IR ŠDM.F (ŠDM.N.F): UNE APPROCHE STRUCTURALISTE

By J.-M. KRUCHTEN

There is a more fundamental difference than a mere shade of meaning between the pattern 'ir šdm.f (or šdm.n.f) + adverbial syntagm' and the pattern 'ir wnn šdm.f (or šdm.n.f) + adverbial syntagm', wherein the substantivizer *wnn* appears between the particle *ir* of the thematization and the nominal verbal form *šdm.f* or *šdm.n.f*. In the first construction, the adverbial syntagm is a mere facultative adjunct, and we have to translate the whole sentence without putting any special stress on it. But in the second, this same adverbial syntagm a fixed part of the pattern: the predicate of the nominal verbal form, which comes just before and acts as the subject of the sentence nominalized by the *wnn*. So, we have to translate this conditional protasis accordingly, by means of a locution such as '(if) it is ... that he hears/has heard ...'

DANS un récent article, Leo Depuydt suggérait de voir dans le moyen égyptien *ir wnn* l'ancêtre de la particule conditionnelle néo-égyptienne *i.nn* ('si'), et examinait les différentes occurrences du *ir wnn* dans le corpus des textes en ancien et moyen égyptien.¹ Tout en étant d'accord avec lui pour considérer que *i.nn* dérive, par contraction, de *ir wnn*, je me propose d'en apporter ici une preuve fonctionnelle, en revenant quelque peu sur l'interprétation syntaxique et la traduction qu'il donnait des exemples de *ir wnn* relevés.

Pour analyser avec quelque chance de succès les constructions très diverses faisant intervenir *wnn*, il convient tout d'abord, de rappeler la fonction essentielle de ce morphème, et ensuite de le distinguer des autres morphèmes de l'égyptien de la Phase I, partiellement ou totalement homophones (*wn* et *wnn*), également dérivés du verbe *wnn* (*Hae geminatae*), qui signifiait initialement 'être, exister', au sens probable d' 'être présent (effectivement) à tel endroit'.² Le *wnn* qui suit le *ir* de la thématisation est le morphème *wnn* de substantivation, qui intervient pour convertir en un équivalent de nom un groupe Sujet/Prédicat autonome, ainsi qu'il a été montré par Polotsky, et encore rappelé récemment par Vernus.³ Ce morphème de substantivation *wnn* apparaît dans la très grande majorité des cas, sous la graphie .

Mais, il peut aussi se rencontrer concurremment, dans un contexte syntaxique identique, sous la graphie , comme l'atteste, par exemple, les deux versions suivantes du même passage du Décret d'Horemheb.⁴

 Karnak, l. 17

 Fragment Caire CG 34162 (Abydos), l. x + 4.



¹ L. Depuydt, 'Late Egyptian *inn*, "if", and the Conditional Clause in Egyptian', *JEA* 77 (1991), 69-78.

² Pour l'usage des 'auxiliaires' d'actualisation *iw* et *wn*, en égyptien de la Phase I, avec les formes verbales circonstancielles (*šdm.f*-*mr.f*-, *šdm.n.f* non-'emphatique', passif *šdmw.f*), la comparaison avec l'emploi du verbe/auxiliaire *hallawo* en tigrigna (dialecte éthiopien), paraît, en effet, singulièrement éclairante (D. Cohen, *L'aspect verbal* (Paris, 1989), 194-5).

³ P. Vernus, *RdE* 34 (1982-3), 119.

⁴ J.-M. Kruchten, *Le Décret d'Horemheb* (Bruxelles, 1981), 48; pll. i-ii.

C'est pourquoi il importera, en ancien et moyen égyptien, de ne pas confondre le morphème de substantivation *wnn*, écrit parfois *wn(n)*, dont il va être question ici à propos de *ir wnn*, et qui représente, peut-être, l'infinitif du verbe *wnn*,⁵ 'l'être, le fait (que)', avec:

- (1) le *wnn* du futur, *toujours* orthographié ,⁶
- (2) le verbe *wnn* à son sens plein d'«être, exister», qui apparaît surtout au *šdm.f* circonstanciel (*mr.f*), dans la construction *iw wn* + Sujet [indéterminé] ('il y a ...'), à valeur de présent;⁷
- (3) le 'past converter' *wn*, qui confère à l'ensemble autonome auquel il se préfixe une valeur d'accompli,⁸ et qui se présente *toujours* sous la graphie , probablement par besoin de dissimilation avec le *wnn* du futur (1);
- (4) l'autre morphème de substantivation *wn*, qui jouant essentiellement le même rôle syntaxique que notre *wnn*, s'explique probablement par le fait que étymologiquement, il représente un *šdm.f* prospectif non-autonome (subjonctif), ainsi qu'il ressort de son emploi dans la construction *rdi wn* Sujet + Prédicat,⁹ comme équivalent de la tournure *rdi šdm.f* (*rdi stp.f*), lorsque l'objet de *rdi* consiste, non en un verbe conjugué, mais en une proposition à prédicat adverbial.

Le morphème de substantivation *wnn* est utilisé, souvent, derrière une préposition, pour transformer la relation prédicative qui suit en l'équivalent de nom à attendre obligatoirement derrière cet élément syntaxique. Mais, il ne s'agit là que d'un emploi particulier de *wnn* parmi bien d'autres, l'élément ainsi substantivé *wnn* + [Sujet + Prédicat] étant apte, en principe, à remplir toutes les fonctions du nom, comme l'a souligné, exemples à l'appui, Pascal Vernus.¹⁰

Avec les prépositions, on rencontrera donc, en distribution complémentaire, pour former un syntagme adverbial, les constructions suivantes:

- préposition + nom (ou équivalent de nom: infinitif ou participe/forme relative substantivé);
- préposition + forme verbale nominal (*šdm.f* nominal – *mrr.f* –, *šdm.n.f* 'emphatique', ou *šdm.f* prospectif non-autonome – *mry.f* –);
- préposition + *wn(n)* + [Sujet + Prédicat].

Dans ce dernier emploi, le morphème *wnn* de substantivation convertit, à l'instar de notre 'que' français ou 'that' anglais,¹¹ en équivalent de nom, tout relation prédicative

⁵ Pour l'infinitif *wnn*, voir A. H. Gardiner, *Egyptian Grammar*³ (Oxford, 1957), §299. L'ensemble substantivé pourrait, dans cette hypothèse, être en simple apposition, comme ce fut le cas, en latin tardif, pour ce qui suivait le *quod*, ancêtre du 'que' français actuel, littéralement, 'cela, (à savoir) ...'. Comparer, peut-être, à cet égard, avec le *p* *wn* néo-égyptien, littéralement, 'le fait étant (que)' (A. Erman, *Neuaegyptische Grammatik*² (Leipzig, 1933), §679).

⁶ Ce *wnn* pourrait représenter le *šdmw.f* futur (prospectif) de l'ancien égyptien, voir J. P. Allen, *The Inflection of the Verb in the Pyramid Texts* (Malibu, 1984), §265 et §261 (fig. 2).

⁷ E. Edel, *Altägyptische Grammatik* (Rome, 1955-64), II, §979A; D. P. Silverman, *Interrogative Constructions with JN and JN-JW in Old and Middle Egyptian* (Malibu, 1980), 28-30; Gardiner, *Egyptian Grammar*³, §107, 2.

⁸ Edel, *Altägyptische Grammatik* II, §§894-98; Gardiner, *Egyptian Grammar*³, §474, 2; J. Černý et S. I. Groll, *A Late Egyptian Grammar*³ (Rome, 1984), §§10.10.2, (2); 19.13.7-12.

⁹ Edel, *Altägyptische Grammatik* I, §481, β; Allen, *Inflection of the Verb*, §§232, 264 (fig. 3); Gardiner, *Egyptian Grammar*³, §§118.2, 452.

¹⁰ *Revue Historique de Droit français et étranger* 61 (1983), 75.

¹¹ La seule différence entre l'égyptien *wnn* et notre 'que'/'that' tient à ce que ces derniers sont nécessaires également quand l'ensemble à convertir consiste en une proposition à prédicat verbal, puisque nos langues indo-européennes ne comportent pas l'équivalent des formes verbales nominales personnelles égyptiennes.

non-verbale¹² autonome, et se rencontrera donc, en principe, tant devant une proposition à prédicat nominal que devant une proposition à prédicat adjectival ou adverbial. En réalité, le groupe [Sujet + Prédicat] substantivé par le *wnn* sera constitué, dans l'immense majorité des cas, par une proposition à prédicat adverbial, donc [Nom (ou équivalent de nom)/Sujet + Syntagme adverbial/Prédicat], l'emploi de *wnn* devant une proposition à prédicat adjectival ou une proposition à prédicat nominal n'étant attesté, jusqu'à présent, que par quelques exemples, dont notamment:

ir wnn ddy ḥꜣw n ḥpr tp tꜣ hr ir.t sꜣwt mnw nw ntrw / tw.ì r wḥm mꜣwt mtt 'Iḥ ... (Décret d'Horemheb, G, col. 7 = *Urk.* IV, 2161, 4-6);

Quelle que soit la traduction à donner à ce passage au sens controversé,¹³ l'adjectif *ddy* y apparaît le prédicat, encore qu'on puisse également y voir, en théorie, une forme *šdm.f* du verbe de qualité correspondant.

ir wnn nfr pw dddt nbt r.s / kꜣ tꜣty ḥꜣb.f... 'Si c'est bien tout ce qui a été dit à ce propos, le vizir enverra ...' (Pap. Kahun ed. F. Ll. Griffith, *Hieratic Papyri from Kahun and Gurob* (London, 1898), pl. 22, 7).¹⁴

Parmi les emplois du morphème *wnn* de substantivation derrière les diverses prépositions (*dr*,¹⁵ *hnꜣ*, *m-ht*, *hft*,¹⁶ notamment),¹⁷ celui de *wnn* derrière le *ir* de la thématization, dans le composé *ir wnn*, qui serait à l'origine du néo-égyptien *i.nn*, constitue assurément le plus répandu dans la pratique.¹⁸ Et tous les exemples de protases à valeur conditionnelle commençant par *ir wnn* relevés dans les sources concernent des propositions à prédicat adverbial au sens large, hormis les quelques exemples cités ci-avant, où l'ensemble substantivé est représenté par une proposition à prédicat adjectival ou nominal, et quelques cas où l'ensemble substantivé consiste en une relation d'exist-

¹² Le système verbal de l'égyptien ancien et moyen comportant des formes verbales nominales personnelles spécifiques, le *wnn* de substantivation ne sera utilisé avec une forme verbale ordinaire qu'à titre tout-à-fait exceptionnel, pour faire passer une nuance que ne comporte pas la forme nominale correspondante (cf. *infra*, p. 100: *ir grt wnn mr Šnfrw {hr mr.t} wnn m-sꜣ nꜣ n kꜣ*, à sens explicitement présent, ou par ex., *šꜣ Rꜣ pw ḥꜣ.t m nsw ir.t.n.f m wn(n) n ḥpr.t šꜣsw Šw*, 'cela signifie que Rê a commencé à apparaître comme roi de ce qu'il a(vait) fait alors même que les soulèvements de Chou [= les nuages] n'étaient pas encore advenus' (*Urk.* V, 6, 15-16): la forme *n šdm.t.f* n'ayant pas de correspondant nominal exact, l'auteur a recouru, derrière la préposition *m*, au *wnn* pour conserver la nuance, pour lui essentielle, 'pas encore' que n'aurait pu rendre aucune négation construite avec *tm*.

¹³ Kruchten, *Décret d'Horemheb*, 184, 186-9; Depuydt, *JEA* 77, 78.

¹⁴ Pour quelques autres exemples d'emploi de *wnn* devant une proposition à prédicat adjectival, voir Edel, *Altägyptische Grammatik* II, §§951, $\beta\beta$; 1038; Vernus, *RdE* 39 (1988), 149-50. Pour *wnn* devant une proposition à prédicat nominal, voir par ex. pap. Berlin 10030 A, 16, *ir grt wnn nty pw ꜣ m [...]*, 'si, par contre, c'est celui qui est ici à [...]': U. Luft, *Das Archiv von Illahun* (Berlin, 1992).

¹⁵ Edel, *Altägyptische Grammatik* I, §487.

¹⁶ Gardiner, *Egyptian Grammar*³, §157. 1 (*hnꜣ*, *m-ht*, *hft*).

¹⁷ Les autres prépositions admettent, en général, *wn*, soit qu'il faille y voir une graphie courte du morphème *wnn*, soit, plus probablement, qu'il s'agisse du morphème *wn* (*šdm.f* prospectif non-autonome, cf. *supra*, n° 4), *wnn* s'opposant, à l'origine, à *wn* comme un indicatif à un prospectif/modal, cette différence de sens s'effaçant ensuite, au point qu'une même préposition puisse admettre—en contexte identique—*wnn* ou *wn* (cf. français contemporain, qui a tendance à construire 'après que' avec le subjonctif par contamination de la conjonction 'avant que'); voir Edel, *Altägyptische Grammatik* I, §485 (*m*); Gardiner, *Egyptian Grammar*³, §157. 1 (*m*), 2 (*dr*), 3 (*mi*, *r*).

¹⁸ Il convient toutefois de noter qu'en moyen égyptien, le *ir* de la thématization, déjà lexicalisé, n'est plus une préposition ordinaire, puisque à la différence du (*i*)*r* dont il tire son origine, il admet outre les noms et équivalents de noms, des syntagmes adverbiaux divers (cf. *ir m-ht*, *ir r-sꜣ* ..., etc.): pour les développements de ces constructions en néo-égyptien, voir H. Satzinger, *Neuägyptische Studien. Die Partikel ir. Das Tempus-system* (Vienne, 1976), 20 sqq.

ence de type *iw wn* + Sujet indéterminé, 'il y a ...' (*supra*, n° 2), le morphème *wnn* se substituant, dans la protase, au *iw* assertorique, devant le *śdm.f* circonstanciel du verbe *wnn* à son sens plein d'«être, exister» (*ir wnn wn* + Sujet indéterminé).¹⁹

ir wnn wn sprw nty r spr r.k / ... 's'il y a un plaignant qui désire se plaindre à toi, ...' ('The Installation of the Vizier', 13; 21).²⁰

Par propositions à prédicat adverbial au sens large, j'entends, d'une part, les diverses propositions à prédicat adverbial sensu stricto de type [Nom ou équivalent de nom/ Sujet + Syntagme adverbial/Prédicat] et de l'autre, les nouvelles formes verbales bipartites, telles le *iw.f hr śdm*, qui tend, depuis la fin de la VI^e dynastie,²¹ à se substituer au *śdm.f* circonstanciel marquant la concomitance (*śdm.f* 'présent').²² et le *iw.f r śdm*, apparu vers la même époque,²³ qui est à l'origine du Futur III néo-égyptien.

En outre, parmi les exemples de *ir wnn* suivi de proposition à prédicat adverbial au sens strict, il convient encore de distinguer des constructions simples, dans lesquelles c'est un substantif qui fait office de sujet au syntagme adverbial prédicat, et des constructions plus complexes où c'est une forme verbale nominale (*śdm.f nominal* – *mrr.f*, *śdm.n.f* 'emphatique' ou *śdm.f* prospectif non-autonome – *mry.f* –) qui remplit cet emploi.

Nous pourrions, de ce fait, classer les exemples de protases à valeur conditionnelle débutant par *ir wnn* et comportant ensuite une proposition à prédicat adverbial, relevés dans notre corpus des textes en ancien et moyen égyptien de la manière suivante:

1. *ir wnn* + forme verbale bipartite

1. *ir wnn* + [(*iw*).*f hr śdm*]

ir grt wnn {mr} Śnfrw hr mr.t wnn m-s3 n3 n k3 / ... (Documents d'Héqanakhte, lettre 2, col. 35).²⁴

Construction manifestement hybride, à amender en:

ir grt wnn mr Śnfrw {~~hr mr.t~~} wnn m-s3 n3 n k3

ou en

ir grt {~~mr~~} wnn Śnfrw hr mr.t wnn m-s3 n3 n k3.

Héqanakhte ayant dû opter en cours de rédaction pour la seconde construction, en omettant de corriger ce qui était déjà écrit.²⁵ Personnellement, je ne vois qu'une explica-

¹⁹ A distinguer de *ir wn śrh m ht.t / śmh św* (Bol de Berlin, col. 2), où le verbe *wnn* est à son sens plein d'«exister» au *śdm.f* prospectif non-autonome derrière *ir* (construction *ir śdm.f* / négation *ir tm.f śdmw*), le tout étant donc à traduire 's'il existe un grief dans ton coeur [litt. "ton ventre"], oublie le!'

²⁰ *Urk.* IV, 1090, 11; R. O. Faulkner, *JEA* 41 (1955), 20 fig. 2; même construction *Urk.* IV, 1093, 5; Faulkner, *JEA* 41, 21 fig. 3.

²¹ Edel, *Altägyptische Grammatik* II, §§926–30.

²² Pour les étapes de cette évolution, voir Vernus, 'La date du Paysan éloquent', dans S. Israelit-Groll (éd.) *Studies in Egyptology Presented to Miriam Lichtheim* (Jérusalem, 1990), II, 1033–47.

²³ Edel, *Altägyptische Grammatik* II, §§934–7.

²⁴ Depuydt, *JEA* 77, 71; T. G. H. James, *The Héqanakhte Papers and other Early Middle Kingdom Documents* (New York, 1962), pl. 6, 6A.

²⁵ Le personnage étant appelé Snéfrou partout ailleurs dans les documents d'Héqanakhte, une lecture Mér(y)-Snéfrou de son nom semble devoir être écartée, et l'élément *mr* qui précède est fort probablement à interpréter comme le verbe *mri* à la forme *śdm.f* circonstancielle, comme l'a judicieusement observé Mark Collier, que je remercie d'avoir attiré mon attention sur ce point important.

tion à ce changement. Héqanakhte aura ainsi substitué la construction (*iw*).f hr šdm au (*iw*) šdm.f (avec *mr.f* circonstanciel), parce que cette forme nouvelle (nouveau progressif),²⁶ plus expressive, rendait mieux, à son époque, l'action en cours que l'ancien inaccompli šdm.f, lequel tendait à ne plus exprimer que l'action habituelle ou répétée depuis l'apparition de ce concurrent.²⁷ Dans la première construction *ir grt wnn mr Šnfrw* {~~hr mr.t~~} wnn m-s: n: n k:, le morphème *wnn* remplace donc le *iw* assertorique de la construction autonome, à sens de présent synchrone, correspondante *iw mr Šnfrw wnn m-s: n: n k:*,²⁸ tandis que dans la seconde construction *ir grt wnn* {~~mr~~} Šnfrw hr mr.t wnn m-s: n: n k:, il remplace ce même *iw* assertorique, qui entre en composition dans le progressif *iw.f hr šdm*, de signification équivalente à *iw šdm.f*, mais plus explicite pour un homme de la XI^e dynastie. Le sens est donc, dans l'un et l'autre cas, 'si Snéfrou désire *en ce moment* être en charge de ces boeufs, ...',²⁹ Héqanakhte ayant entendu souligner par là, avec une ironie résignée, le caractère versatile de Snéfrou son fils cadet et préféré.³⁰ Dictée par un souci de précision, la correction d'Héqanakhte constitue ainsi un témoignage précieux sur une étape de l'extension de la forme *iw.f hr šdm* aux dépens de l'ancien *iw šdm.f*, son adaptation à une protase introduite par *ir*.

2. *ir wnn* + [(*iw*).f r šdm]

ir wnn.f r rd̄i.t št / ... 'si, à l'avenir, il donne cela, ...'³¹ (Pap. Kahun, pl. 36, 13).³²

2. *ir wnn* + [proposition à prédicat adverbial *sensu stricto*]

1. *ir wnn* + [Nom + Syntagme adverbial]

ir wnn.k hn̄c rmt / ... 'si tu es avec des gens, ...' (Ptahhotep, 232);³³

ir wnn ib.f r ḥ: / im̄i dd.f ... 's'il désire combattre, qu'il dise ...' (Sinouhé, B 125).³⁴

Dans ce dernier exemple, qui a suscité la perplexité de Depuydt,³⁵ on rencontre l'expression consacrée *ib.f / ib n NN r* + infinitif (littéralement, 'son coeur / le coeur de NN est vers (telle action)', à traduire 'il / NN désire'),³⁶ laquelle ne constitue en égyptien qu'une proposition à prédicat adverbial de type simple. Que l'énoncé autonome (*iw*) *ib.f r* + infinitif doive impérativement être converti, au moyen de *wnn*, en équivalent de nom pour coexister avec la préposition *ir* de la thématization, est prouvé tant par le parallèle *ir*

²⁶ *Supra*, n. 21.

²⁷ Cohen, *L'aspect verbal*, 126, 151.

²⁸ Cf. *supra* (*ir wnn wn sprw nty r spr r.k* / ...).

²⁹ Vernus, *RdE* 39, 149, n. 8.

³⁰ James, *Héqanakhte Papers*, 10: 'Snofru, the youngest of the five (sons), coming after Anupu in the list in letter II, seems to have been an especial favourite of Héqanakhte. In I he is earnestly recommended to the care of Merisu (*vs.* 12) and expected to work on the farm (*vs.* 6). From letter II it is clear that Snofru was not inclined to work and Héqanakhte instructs Merisu to let him do just what he wants (II, 35-37)'.
³¹ Le futur *iw.f r šdm* s'opposant, en moyen égyptien, au *šdm.f* prospectif (*mry.f*) comme un indicatif à une forme modale (Vernus, *Future at Issue: Tense, Mood and Aspect in Middle Egyptian, Studies in Syntax and Semantics* (New Haven, 1991), 24-6), il conviendrait, peut-être, de comprendre 'quand il donnera cela, ...', la tournure concurrente *ir d̄i.f st* signifiant plutôt, quant à elle, 's'il donne cela, ...'.

³² Depuydt, *JEA* 77, 71.

³³ Gardiner, *Egyptian Grammar*³, §150.

³⁴ R. Koch, *Die Erzählung des Sinuhe* (Bruxelles, 1990), 49.

³⁵ Depuydt, *JEA* 77, 75.

³⁶ *Wb.* 1, 60, 12-13.

wnn ib n Dḥwty r šd st / ..., ‘si Thot désire les sauver ...’, du *Livre de la Vache du Ciel*,³⁷ également construit avec le morphème *wnn* à attendre dans tous les cas après le *ir*, que par la traduction en néo-égyptien de sa contrepartie négative, figurant au Traité de Ramsès II et Hattousil III: *hr ir iw bn ib n* (Ramsès) (*r*) *šm.t / ...*,³⁸ ‘... et, si Ramsès ne désire pas aller ...’

A cause de la présence de la négation *bn* après le *iw*, il est, en effet, clair que l’ensemble [*iw bn ib n NN (r) šm.t*], du texte de Ramsès II, représente non une forme verbale autonome, telle que le Futur III (nous aurions rencontré, en ce cas, *ir bn iw / iri ib n NN (r) šm.t**),³⁹ mais une construction subordonnée, résultant de la conversion en séquence non-autonome, au moyen du *iw* de subordination néo-égyptien, de l’énoncé non-verbal autonome [*bn ib n NN (r) šm.t*]. Là où le néo-égyptien utilise le ‘converter’ *iw* pour substantiver⁴⁰ (*bn*) *ib n NN (r) šm.t* après la préposition (*i*)*r* de la thématization, le moyen égyptien a donc utilisé *wnn*, qui joue exactement le même rôle syntaxique à ce stade antérieur de la langue, et qui en néo-égyptien, n’intervient plus qu’en position initiale,⁴¹ dans des constructions désormais lexicalisées.⁴²

2. *ir wnn* + [Forme verbale nominale / Sujet + Syntagme adverbial / Prédicat]

(1) *ir wnn* + [*šdm.f* (nominal *mrr.f*) + syntagme adverbial]

Papyrus Berlin 8869 (Eléphantine, VI^e dynastie):

ir wnn h3b is šs.k [n] sn.k im⁴³ di šs.k šh, r w3 / iry (r)⁴⁴ sn.k im ht m st; ir šwt wnn irr is šs.k nn r šd (h) hr m33 [... / ...] (coll. 3-5)⁴⁵

Bol Berlin 22573 (début du Moyen Empire):

ir wn(n) irr.t(w) nn šqrw m-di rh.t / m.t pr, m-^c hrdw.t wgg(w); ir wn(n) irr.t(w) m msdd.t / r it.t(m) hrt-ntr⁴⁶ (coll. 1-2).⁴⁷

³⁷ Ch. Maystre, *BIFAO* 40 (1940), 99; E. Hornung, *Der ägyptische Mythos von der Himmelskuh* (Göttingen, 1982), 25 (Séthi I^{er}, §78-9).

³⁸ *KRI* II, 228, 5.

³⁹ Pour *bn iri NN stp* comme contrepartie négative de *iri NN stp*, voir Černý et Groll, *Late Egyptian Grammar*³, §18.1.2.; J. Winand, *Etudes de néo-égyptien*, I. *La morphologie verbale* (Liège, 1992), 490.

⁴⁰ Rappelons que si le *iw* de subordination du néo-égyptien sert surtout à former des propositions circonstancielles (ou relatives avec antécédent indéterminé), on le rencontre aussi, fréquemment, comme morphème de substantivation de la proposition sujet du verbe *hpr* (Vernus, *RdE* 32 (1980), 123) ou des propositions complétives de certains verbes, tels que *gmi* et *mri* notamment (Černý et Groll, *Late Egyptian Grammar*³, §§63.1, 63.3). Pour un exemple avec *mri*, voir *KRI* I, 322, 9-10: (*i*)*n mr.tn iw n3 n srw n Pr-^c r. w. s hr r^c r hn^c.i ink*, ‘désirez-vous que les agents de Pharaon V.S.F. s’en prennent violemment à moi personnellement?’ (autre traduction: J. Borghouts, *ZĀS* 106 (1979), 18, ex. 3).

⁴¹ C’est-à-dire, là où l’emploi du ‘converter’ *iw*, exclusivement non-initial (ce qui le discrimine d’ailleurs, sans possibilité d’erreur, du *iw* du Futur III), est impossible.

⁴² Voir Černý et Groll, *Late Egyptian Grammar*³, §§55.1, 56.1.

⁴³ Pour l’expression *sn.k im*, équivalente à *b3k im*, voir P. J. Frandsen, *JARCE* 15 (1978), 27, n.(d).

⁴⁴ Peut-être, le rédacteur de cette lettre a-t-il voulu d’abord écrire *iry(.i) r.k*, ‘j’agirai contre toi’, puis a-t-il corrigé ce que cette manière d’écrire pouvait avoir de trop direct?

⁴⁵ *Hieratische Papyrus aus den Königlichen Museen zu Berlin*, III. *Schriftstücke der VI. Dynastie aus Elephantine, Zaubersprüche für Mutter und Kind, Ostraka* (Leipzig, 1911), pls. 3-4.

⁴⁶ Pour le sens de cette expression, passablement obscure, voir A. H. Gardiner et K. Sethe, *Egyptian Letters to the Dead, Mainly from the Old and Middle Kingdoms* (London, 1928), 21.

⁴⁷ Gardiner et Sethe, *ibid.* 5-7, 21-2, pl. v et va.

Première constatation: quand le verbe qui suit *wnn* appartient à une catégorie de verbes faibles, on constate, à la forme *šdm.f*, le redoublement de la seconde radicale caractéristique du *šdm.f* nominal (graphies *irr* du verbe *iri*: Pap. Berlin 8869, col. 4: écrit $\overline{\text{ir}}$; Bol de Berlin, coll. 1 et 2),⁴⁸ ce qui donne à penser que les verbes forts, invariables, utilisés en parallèle sont également à une forme verbale nominale, soit ici, le *šdm.f* nominal (forme *mrr.f*), soit dans la tournure correspondante à l'accompli (cf. *infra*, 106), le *šdm.n.f* 'emphatique', soit encore le *šdm.f* prospectif non-autonome (forme *mry.f*) (*infra*).

Remarquons ensuite que les exemples du papyrus et du bol de Berlin, se suivant directement sur ces documents, vont manifestement par paire, en constituant, chacun, la branche d'une alternative.⁴⁹ Sur le plan du sens, il est d'autre part, tout aussi évident que l'opposition exprimée dans les protases porte sur les modalités de l'action, et non sur l'action (de *hb* ou *iri*), elle-même:

Pap. Berlin 886g:	<i>di sš.k šh r w</i> 'pour que tu (littéralement, ton scribe) occasionnes violence et pillage' <i>r šd r h</i> 'pour rompre le combat, en voyant [...]' ⁵⁰
Bol de Berlin: ⁵¹	<i>m-di rh.t</i> 'avec ta connaissance' <i>m mšdd.t</i> 'avec ta désapprobation' (littéralement, 'alors que tu détestes').

C'est pourquoi il est clair, déjà à l'examen de ces quatre premiers exemples, que dans la construction de type *ir wnn* + [*šdm.f* + syntagme adverbial], le *šdm.f* est la forme *šdm.f* nominale (*mrr.f*) faisant office de sujet, le syntagme adverbial par lequel s'exprime la modalité de l'action en constituant le prédicat, tandis que le morphème *wnn* convertit en équivalent de nom, la proposition à prédicat adverbial ainsi formée, pour la rendre compatible avec la préposition (*i*)*r* de la thématization.

A la seule différence de cette préposition, nous avons, du reste, à faire à exactement la même tournure que celle identifiée en 1979 par Osing, dans la biographie d'Ouni (VI^e dynastie), et si remarquablement commentée par cet auteur:⁵²

i w (i) gr ir(w) šndš n r h m hntyw 5 (i) pn mr-qd.šn
n špšš
n ttš
n wšš bšw nšw-bit Mr. n-R r rnh(w) dt r ntrw nb(w)
*n wnn hpr ht nb(t) hft h w wd k.f (coll. 49-50).*⁵³

⁴⁸ Depuydt, *JEA* 77, 71, n. 17.

⁴⁹ Le Pap. Berlin 886g, col. 4, utilise, du reste, la particule enclitique *šwt*, pour mieux marquer cette opposition.

⁵⁰ Etant donné l'importance de la lacune qui suit, je ne saisis pas clairement de quelle manière *hr mš*[...] *k* peut se rattacher à ce qui précède.

⁵¹ La 3^e branche de l'alternative que reconnaît Gardiner (*Letters to the Dead*, 21: *ir wn šrh m ht.t / smh šw*, *supra*) n'est, en fait, qu'une sous-possibilité de la 1^{ère} branche de l'alternative (le mal est fait 'avec la connaissance' de la défunte).

⁵² J. Osing, 'Zur Syntax der Biographie des Wnj', *Orientalia* 46 (1979), 179.

⁵³ *Urk.* 1, 109, 6-11; P. Tresson, *L'inscription d'Ouni* (Caire, 1919), 7.

‘en outre, un raccourci a été réalisé pour le Palais au moyen de l’ensemble de ces cinq canaux, parce que la puissance du roi de Haute et Basse Egypte Mérenrê—qu’il soit vivant à jamais!—était plus manifeste, parce qu’elle était plus éclatante, parce qu’elle était plus formidable que (celle) de tous le dieux, et *parce que c’est conformément au commandement qu’ordonne Son ka que toute chose se réalise.*’

Dans cet exemple aussi, comme l’a bien perçu Osing,⁵⁴ c’est le syntagme adverbial *hft hꜣw wꜣ kꜣ.f* qui constitue le prédicat de la proposition, le verbe *hꜣr (ht nb)* étant au *śdm.f* nominal pour lui servir de sujet. Tout cet ensemble, à analyser essentiellement comme une proposition à prédicat adverbial, est converti par le *wꜣn* en équivalent de nom après la préposition en fonction de conjonction *n* (‘à cause de, parce que’), et se trouve ainsi en distribution complémentaire (cf. *supra* p. 98) avec les trois *śdm.f* nominaux coordonnés qui précèdent immédiatement, derrière la même préposition *n*, ainsi répétée quatre fois (*n šꜣś/n ttꜣ*,⁵⁵/*n wꜣś bꜣw nꜣw-bit* ...) dans ce passage de conclusion générale à la biographie d’Ouni.

Nous traduirons donc, obligatoirement, nos exemples de la construction *ir wꜣn + [śdm.f + syntagme adverbial]* en faisant porter l’emphase, en français ou en anglais, sur ce qui constitue la prédicat véritable de la proposition, le syntagme adverbial, par lequel s’exprime la modalité de l’action dont le locuteur égyptien a entendu faire dépendre la condition:

Pap. Berlin 8869, 3–5:

‘Si c’est pour occasionner violence et pillage que tu m’écris (cela),⁵⁶ j’entreprendrai quelque chose sur place. Mais, si par contre, c’est pour rompre le combat, en voyant [...], que tu fais cela, [...].’

A *dꜣ śꜣ.k śhꜣ, ꜣwꜣ*, littéralement, ‘de telle sorte que ton scribe donne coup et vol’ (*dꜣ śꜣ.k* représentant une forme *śdm.f* prospective non-autonome, exprimant le but, la conséquence, c’est-à-dire, un élément circonstanciel),⁵⁷ s’oppose *r śꜣꜣ ꜣhꜣ* (*r* + infinitif).

Bol Berlin 22573, coll. 1–2:

‘Si c’est avec ta connaissance que ces coups sont occasionnés, prend garde, (ta) maison, ainsi que tes enfants, sont dans le malheur. Si c’est avec ta désapprobation, ton père est grand dans la nécropole.’⁵⁸

⁵⁴ A la différence de E. Doret (*The Narrative Verbal System of Old and Middle Egyptian* (Genève, 1986), Example 199), qui traduit ‘(and) because everything used to happen in accordance with the explicit command of his *kꜣ*’, ce qui correspondrait à l’égyptien *n hꜣr = śdm.f* nominal derrière préposition, analogue à *n šꜣś, n ttꜣ, n wꜣś*..., qui précèdent) *hꜣt nb(t) hꜣt hꜣw wꜣ kꜣ.f*, le syntagme adverbial *hꜣt hꜣw wꜣ kꜣ.f* représentant dans ce cas une simple extension non-essentielle du prédicat verbal *hꜣr*.

⁵⁵ Edel, *Altägyptische Grammatik* 1, §503.

⁵⁶ Litt., ‘si c’est pour que ton scribe (=tu) cause coup et vol que ton scribe (=tu) écrit (cela) à ton frère (=à moi), ton frère (=je) entreprendra quelque chose sur place. Mais, si par contre, c’est pour rompre le combat, en voyant [...], que ton scribe (=tu) fais cela [...].’

⁵⁷ Il s’agit de la forme que Doret appelle ‘The Subjunctive *Śdm.f*’: *Narrative Verbal System*, 39 sqq., en particulier, 42–3, pour l’expression du but (‘purpose’) ou de la conséquence (‘result’).

⁵⁸ Assez curieusement, Depuydt (*JEA* 77, 72) traduit correctement la première branche de l’alternative (‘if it is with your knowledge that these wounds have been inflicted ...’), mais incorrectement la seconde (‘if they have been inflicted in spite of you ...’), qui présentant la même construction doit admettre aussi la même traduction.


A *m-di rh.t*, préposition composée suivie de substantif ou préposition en fonction de conjonction devant le verbe *rh*,⁵⁹ s'oppose *m msđđ.t*, préposition en fonction de conjonction suivie du *šdm.f* nominal de *msđđ*.

Et semblablement dans les cas suivants, où l'emphase semble porter sur le syntagme adverbial mais où le verbe appartenant à une catégorie verbale qui ne présente pas de duplication de l'avant-dernière radicale à la forme *šdm.f* nominale, il ne nous est pas possible, sur base de la seule morphologie, de décider à quel *šdm.f* nous avons à faire:

ir grt wnn hr pꜣ ḥsb II 3 / ... 'si, d'autre part, c'est ici que ces II travailleurs se trouvent, ...' (Pap. Kahun, pl. 31, 3-4),⁶⁰

ir wnn šh.tw hr ir.t mꜣ't (hr mnḥ tp tꜣ, hr dwꜣ ntr) / iw.i r šh r šms Wnn-nfr (et variantes),⁶¹ 'si c'est à faire la justice (à être excellent sur terre, à adorer le dieu) qu'on devient esprit "akh", je deviendrai (certainement) un "akh" pour suivre Ounennéfer';

ir wn(n) hpr mi dd(.i) / wnn rn(.i) nfr(w), mn(w) m niwt(.i), 'si c'est bien comme je (le) dis que (cela) se passe, mon nom sera excellent et durable dans ma ville'⁶² (Stèle de Mentouhotep fils de Hépy (University College 14333), 16).⁶³

Ce dernier exemple, avec le verbe *hpr* utilisé impersonnellement, est évidemment à rapprocher par sa structure syntaxique, comme par son contexte, du passage de la biographie de Ouni déjà commenté (*supra*). Introduite chez ce dernier par la préposition en fonction de conjonction *n* à valeur causale, à la place habituelle du complément circonstanciel, c'est-à-dire en fin de phrase, la remarque sur le cours naturel des choses servant de conclusion à ces deux biographies (*hpr ht nb(t) hft ḥw wd kꜣ.f* et *hpr φ mi dd(.i)*, avec *dd* renvoyant à une série de dictons liant la survie du défunt à la bonne réputation acquise sur terre) est, par contre, mise en vedette grâce au *ir* de la thématization chez Mentouhotep. Que le *wnn* y soit un élément déterminant de la construction est, en outre, clair à l'examen de la disposition du texte hiéroglyphique sur le stèle de l'University College. Contraint d'abrégier son texte au maximum pour faire tenir sa conclusion dans l'espace restant à la dernière ligne, le compositeur de l'inscription n'en a pas moins préféré cette formulation avec le morphème *wnn* (quitte à le réduire à sa graphie alternative courte ) , à *ir hpr φ mi dd(.i)**, qui n'aurait constitué qu'une tautologie.

(2) *ir wnn* + [*šdm.n.f* ('emphatique') + syntagme adverbial]

Documents d'Héqanakhte (XI^e dynastie):

ir grt wnn šd.n.sn šn't m-dbꜣ-n nꜣ n bdt nty m Pr-hꜣꜣ / didi.sn st im gr (Lettre I, 4-5);⁶⁴

ir wnn rdꜣ.n.k in.t(w) n.i it-mḥ is r ꜣb.t pꜣ it-mḥ.../... (Lettre I, vs. 3-4).⁶⁵

⁵⁹ Gardiner et Sethe, *Letters to the Dead*, 21.

⁶⁰ Depuydt, *JEA* 77, 71.

⁶¹ H. Grapow, 'Ägyptische Jenseitswünsche in Sprüchen ungewöhnlicher Fassung aus dem Neuen Reich', *ZAS* 77 (1942), 63-6 (je remercie Mark Collier de m'avoir signalé cet article et ces exemples).

⁶² On rapprochera évidemment cet usage 'emphatique' de *hpr* de celui rencontré dans le passage de la biographie de Ouni étudié par Osing (*supra*, 000).

⁶³ H. M. Stewart, *Egyptian Stelae, Reliefs and Paintings from the Petrie Collection*, II (Warminster, 1979), 20 (86), pl. 18.

⁶⁴ James, *Hekanakhte Papers*, pl. 1A.


⁶⁵ James, *ibid.* pl. 3A.

On peut s'attendre à ce que la construction *ir wnn* + [*šdm.n.f* + syntagme adverbial], de structure identique à celle bâtie avec le *šdm.f* nominal, offre *mutatis mutandis*, donc à l'accompli, le même sens. De fait, le premier exemple tiré des documents d'Héqanakhte permet déjà de le vérifier de manière éclatante, puisque dans ce cas, c'est de la modalité de l'action de la protase (*m-dbꜣ-n nꜣ n bdt nty m Pr-ḥꜣꜣ*, 'en échange de cet épeautre qui est à Per-haa') que dépend la modalité de celle de l'apodose (*im gr*, 'là également'), comme a entendu le souligner Héqanakhte lui-même par l'emploi de la particule *gr(w)*, 'également'. C'est pourquoi, d'ailleurs, sur le plan syntaxique, à la proposition à prédicat adverbial de la protase, répond dans l'apodose, une autre proposition à prédicat adverbial, également construite avec une forme verbale nominale, en l'occurrence, le *šdm.f* nominal *didꜣ.sn*. Traduction: 'si, d'autre part, c'est en échange de cet épeautre qui est à Per-haa qu'ils ont reçu la *šnꜣt*, c'est là également qu'ils la dépensent'.⁶⁶

Et pour l'exemple suivant des documents d'Héqanakhte: 'si c'est pour rassembler cet orge que tu m'as fait amener le vieil orge, ...', l'accent étant mis, comme souvent dans les expressions de mouvement, sur le but du déplacement, plutôt que sur le déplacement lui-même.

(3) *ir wnn* + [*šdm.f* (forme *mry.f*) + syntagme adverbial]

ir wnn ḥꜣꜣ.f r ḥꜣꜣt mhnt / in bꜣ.f ḥtm.f sw / ir wnn h[ry.]f r phꜣwy mhnt / wꜣ im pw ḥꜣ, 'Si c'est à l'avant du bateau qu'il descend, ce sera son *ba* qui le détruira. Si c'est à l'arrière du bateau qu'il descend, (cet) "akh" sera (l')un d'entre eux' (*Coffin Texts* v, 203g-j)⁶⁷

La graphie  du *tertiaae infirmae hꜣꜣ* en 203g nous permet de voir en confiance dans la forme verbale qui suit le morphème *wnn*, tant en *g* qu'en *i*,⁶⁸ soit un *šdm.f* prospectif non-autonome (forme *mry.f*) moyen égyptien⁶⁹ soit un *šdmw.f* futur de l'ancien égyptien ('nominal prospective form'⁷⁰), c'est-à-dire, dans l'un et l'autre cas, une forme verbale nominale, capable de tenir lieu de sujet au syntagme adverbial qui suit (*r ḥꜣꜣt mhnt* [*g*] et *r phꜣwy mhnt* [*i*]),⁷¹ à l'instar des deux formes verbales nominales déjà examinées dans les exemples précédents (*šdm.f-mrr.f* et *šdm.n.f* 'emphatique'). Mais, il n'est pas moins significatif de constater que, comme dans le cas du papyrus Berlin 8869 et du bol Berlin 22573, nous avons à faire aux deux branches d'un alternative, l'opposition exprimée par les protases portant, à l'évidence, ici encore, sur la modalité de l'action de *hꜣꜣ* ('à l'avant' ou 'à l'arrière du bateau'), et non sur celle-ci.

La comparaison de nos divers exemples fait apparaître, ainsi, clairement derrière *ir wnn*, la triple opposition entre formes verbales nominales, caractéristique de l'égyptien de la Phase I: *šdm.f* (*mrr.f*) = inaccompli / *šdm.n.f* 'emphatique' = accompli / *šdm.f* prospectif (*mry.f*) = futur ou modal.

⁶⁶ Littéralement, 'c'est là aussi qu'ils la donnent', l'indicatif présent français, qui correspond le mieux au *šdm.f* nominal (inaccompli indicatif), rendant d'ailleurs à la perfection une injonction qui ne souffre ni doute ni objection quant à sa réalisation. Pour *rdꜣ* au sens de 'aliéner, vendre, dépenser', voir Gardiner, *JEA* 48 (1962), 65; M. Megally, *Recherches sur l'économie, l'administration et la comptabilité égyptiennes à la XVIII^e dynastie d'après le papyrus E 3226 du Louvre* (Caire, 1977), 244-7, 254 n. 2.

⁶⁷ Exemple de construction *ir wnn* aimablement communiqué par Mark Collier.

⁶⁸ En *i*, l'espace de la lacune derrière *ir wnn h[...].f* correspond à 2 cadrats, ce qui laisse supposer une graphie similaire à la précédente.

⁶⁹ Gardiner, *Egyptian Grammar*³, §§447-8.

⁷⁰ Allen, *Inflection of the Verb*, §261 (fig. 2).

⁷¹ Pour cette construction dans les Textes des Pyramides, voir Allen, *ibid.* §262.

De fait, alors que ce passage des Textes des cerceux construit avec le *šdm.f* prospectif *mry.f*, est à situer dans le contexte des *tribulations promises* au défunt dans l'Au-delà,⁷² les deux paires d'exemples du papyrus Berlin 8869 et du bol de Berlin 22573, bâtis avec le *šdm.f* nominal *mrr.f*, concernent, l'une et l'autre, l'interprétation d'une attitude effective observée par l'auteur de ces documents chez son interlocuteur (sa mauvaise ou sa bonne volonté). Quant aux *šdm.n.f* des documents d'Héqanakhte, nous avons vu que la condition exprimée par leur protase portait essentiellement sur une des modalités de l'action de 'percevoir' ou 'faire amener', ce procès étant, pour sa part, bel et bien *achevé* dans l'esprit du locuteur.

A l'examen des exemples de différentes constructions faisant intervenir le morphème *wnn* relevés dans le corpus des textes en ancien et moyen égyptien, il est donc certain qu'il existait une différence de sens importante entre les protases conditionnelles de type *ir šdm.f / šdm.n.f...* et *ir wnn šdm.f* (forme *mrr.f* ou *mry.f*) / *šdm.n.f...* Contrairement à ce qui a été affirmé, l'une de celles-ci n'appartient pas à la langue littéraire et l'autre, à la langue épistolaire, et cette répartition entre sources résulte donc davantage des hasards de la transmission de textes que de la nature intrinsèque de ces formations.⁷³ Mais, dans la première, s'il y a un syntagme adverbial, ce qui n'est nullement nécessaire,⁷⁴ ce dernier n'exprime qu'une modalité purement contingente de l'acte. Tandis que dans la seconde, ce syntagme adverbial constitue un élément indispensable de la construction, puisqu'il est véritablement le prédicat de la proposition tenant lieu de protase, et qu'il exprime ainsi la modalité essentielle de l'action, exclusive de toute autre modalité possible.⁷⁵

Soit:

- *ir šdm.f / šdm.n.f* + syntagme adverbial *facultatif*;
- *ir wnn šdm.f* (*mrr.f* ou *mry.f*)⁷⁶ / *šdm.n.f* + syntagme adverbial *obligatoire*.

Une protase telle que *ir gm.f šw* ⚡ signifiera donc 's'il le trouve ici', la condition portant sur la découverte ou non-découverte de *šw*, alors que *ir wnn gm.f šw* ⚡ devra être traduit 'si c'est ici qu'il le trouve', la condition portant non sur la découverte de *šw*, mais sur sa présence effective à tel endroit. Autrement dit, pour ne prendre que celui-là de nos

⁷² R. O. Faulkner, *The Ancient Egyptian Coffin Texts*, II (Warminster, 1977), 54-5 (Spell 405, traduction).

⁷³ De fait, si la construction *ir wnn šdm.f / šdm.n.f...* permet de rendre une directive précise, et a dès lors, plus de chance de se retrouver dans les documents de la pratique administrative ou juridique, il n'est nullement exclu qu'elle apparaisse également dans des sources plus littéraires.

⁷⁴ On pourrait donc appliquer à l'étude des constructions *ir šdm.f / šdm.n.f* (+ syntagme adverbial) et *ir wnn šdm.f / šdm.n.f* + syntagme adverbial, le critère de présence ou d'absence du syntagme adverbial, utilisé par Logan et Westenholz dans leur remarquable étude de l'opposition entre forme *šdm.f* et *šdm.n.f* à la stèle de Piye (T. J. Logan et J. G. Westenholz, *JARCE* 9 (1972), 111-19).

⁷⁵ Les constructions *ir wnn.f hr / r šdm*, qui ne résultent que de la 'substantivation' des formes verbales autonomes bipartites *iw.f hr šdm / iw.f r šdm*, où le syntagme adverbial est lexicalisé, ne peuvent évidemment être confondues avec les constructions de type *ir wnn šdm.f / šdm.n.f* + syntagme adverbial.

⁷⁶ En théorie, comme nous l'avons vu, la séquence *ir wnn šdm.f* dans le cas des verbes forts, pourra, en effet, recouvrir non pas deux mais trois constructions différentes: (1) *ir wnn šdm.f* (= *šdm.f* nominal—*mrr.f*) + syntagme adverbial obligatoire, (2) *ir wnn šdm.f* (= *šdm.f* prospectif—*mry.f*) + syntagme adverbial obligatoire, et plus rarement, à en juger par le seul exemple qui en a été relevé (*supra*), (3) *ir wnn šdm.f* (= *šdm.f* circonstanciel—*mr.f*), qui résultant de l'adaptation à la protase de la forme *iw šdm.f*, aura les mêmes valeurs que celle-ci (sens de présent synchrone jusqu'au Moyen Empire et de présent d'habitude ou de présent gnomique ensuite jusqu'à la XVIII^e dynastie), et qui ne constituant donc pas, comme les deux précédentes, un cas de proposition à prédicat adverbial substantivée, ne sera suivie d'un syntagme adverbial qu'à titre facultatif.

nombreux exemples, le *šd.n.sn* ‘emphatique’ de *ir grt wnn šd.n.sn šnct m-dbꜣ-n nꜣ n bdt nty m Pr-hꜣꜣ ...*, aurait pu, en tant que forme verbale nominale, être rattaché directement à *ir* (*grt*), sans l’intermédiaire de *wnn*.⁷⁷ Mais, dans cette hypothèse, *ir šd.n.sn šnct m-dbꜣ-n nꜣ n bdt nty m Pr-hꜣꜣ** ... aurait signifié ‘s’ils ont obtenu la *šnct* en échange de cet épeautre qui est à Per-Haa ...’, et la condition de la protase aurait consisté dans l’obtention ou non de la *šnct* pour prix de l’épeautre de Per-Haa, alors qu’en réalité, comme elle est libellée, la lettre d’Héqanakhte ne met pas en doute que cette somme d’argent—fort probablement, une unité de compte fictive—a pu être obtenue, mais subordonne seulement au fait qu’elle provienne de la vente des céréales de Per-haa, l’obligation de dépenser (aliéner) à Per-haa même, les objets obtenus en troc pour cette valeur, ce qui en définitive est dans la ligne de la prudente gestion de ce père tatillon.

Que le *ir wnn* de l’égyptien de la Phase I soit à l’origine du *i.nn* de condition néo-égyptien, comme l’a suggéré récemment Depuydt, me semble donc corroboré par le fait que *i.nn*, incluant étymologiquement le morphème de substantivation *wnn*, se préfixe toujours à un énoncé autonome (forme verbale ou construction autonome), à la différence du simple *ir*, qui ne l’incluant pas, continue à requérir, en néo-égyptien, comme en moyen, une construction ou une forme verbale non-autonome (en néo-égyptien, le *stp.f* prospectif non-autonome ou la forme *iw.f (hr) stp*, à analyser—nous l’avons vu à propos de l’exemple tiré du Traité de Ramsès II et Hattousil III—comme un circonstanciel, et non comme un Futur III).

⁷⁷ Il est, en effet, manifeste que le morphème *wnn* ne représente, par rapport à la forme *šdm.n.f* (‘emphatique’) ou *šdm.f* nominale, qui suit immédiatement, qu’un morphème libre, les formes verbales composées *wnn šdm.f / šdm.n.f*, illustrées seulement par quelques rares occurrences que nous avons analysées différemment (Edel, *Altägyptische Grammatik* 1, §899), étant à rayer des grammaires.

BALUSTRADES, STAIRS AND ALTARS IN THE CULT OF THE ATEN AT EL-AMARNA*

By IAN SHAW

The fragments of stone balustrades, parapets and screen walling from the city of el-Amarna are an invaluable source of evidence for the idiosyncratic nature of the cult of the Aten and its associated architecture. The presence of ramps and steps flanked by balustrades in most of the major buildings at el-Amarna suggests that Akhenaten was obliged to devise innovative architectural forms to provide suitable contexts for the worship of the Aten.

THE religious and ceremonial buildings of the city of Akhetaten are the most important sources for the study of the rituals and symbolism of Atenism. Along with Akhenaten's slightly earlier temples dedicated to the Aten in East Karnak,¹ the remains of the temples, chapels and shrines at el-Amarna are the surviving physical record of a unique and idiosyncratic phase in the history of Egyptian religious thought. Ranging from scenes of rituals and processions carved and painted in the tombs of Akhenaten's courtiers to the surviving remains of the temple walls and foundations themselves, the architectural evidence at el-Amarna can still offer fresh insights into the cult of the Aten. The current Egypt Exploration Society excavations at the Small Aten Temple (or *Hwt-Itn*) and Kom el-Nana show that new excavation can add greatly to the understanding of the distinctive nature of temples dedicated to the Aten,² but fresh insights can also be gained by re-examination of the sculptured and inscribed material excavated between 1891 and the late 1930s and now in various museum collections.

In 1951 John Cooney and William Kelly Simpson published an article dealing with six parapet fragments and a balustrade newel-post, which appear to have derived from an altar in the Great Temple at el-Amarna, excavated by Flinders Petrie in 1891–2. They concluded that 'examination of fragments, mostly unpublished, now scattered throughout museums in Egypt, Europe and America is the sole means of assembling what still survives of this or of duplicate altars. The collections at Oxford and University College London, along with scattered portions of the Amherst Collection still in private possession, are perhaps the best chances of locating related fragments.'³ The present article concentrates on a number of such fragments now in collections throughout the world.

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¹ R. W. Smith and D. B. Redford, *The Akhenaten Temple Project*, 1 (Warminster, 1976); D. B. Redford, *Akhenaten, the Heretic King* (Princeton, NJ, 1984); J. Gohary, *The Akhenaten Sed-festival at Karnak* (London, 1992).

² B. J. Kemp, *Amarna Reports*, v (London, 1989); id., *Ancient Egypt: Anatomy of a Civilization* (London, 1989), 276–87.

³ J. D. Cooney and W. K. Simpson, 'An Architectural Fragment from Amarna', *Brooklyn Museum Bulletin* 12/4 (1951), 1–12.

Of the major sections of parapet or balustrade which are discussed here (multiple joining fragments being regarded as effectively single sections), two are in the Fitzwilliam Museum, Cambridge, two in the Ashmolean Museum, Oxford, five in the Petrie Museum, University College London, nine in the Egyptian Museum, Cairo, two in the Metropolitan Museum, seven in the Brooklyn Museum and one in the Kestner-Museum, Hanover. By studying a large number of these fragments of balustrades and parapets *en masse*, their roles within the state buildings at el-Amarna can be more accurately assessed.

The nature of Amarna balustrades and parapets

There are at least thirty surviving fragments of balustrades and parapets from el-Amarna and el-Ashmunein, those at the latter site having been re-used as *talatat*-blocks. These are currently in museum collections, and it has proved possible to examine most of them at first hand (Appendix 1). In addition to the surviving examples which can be traced, there are also a number of fragments which are mentioned in the reports of the various excavators at el-Amarna from 1892 to 1937, but their current locations are not known (Appendix 2). The total number of excavated pieces is therefore probably at least forty, by the time the 'lost' fragments are included.

Probably the most diagnostic feature of these narrow slabs of stone (usually limestone, quartzite or granite) is the fact that they were decorated with sunk relief or engraved inscriptions on both main faces. This decoration invariably consists of multiple depictions of the typical scene of the Amarna royal family offering to the Aten; Cairo JE 87300, a section of granite balustrade, is one of the best surviving examples (fig. 1). When one decorated face is missing, the fragments are often still identifiable as balustrades either by the existence of a single or double roll-shape on the upper edge, or by the fact that the royal figures in the typical offering scene are placed on a diagonally ascending base-line and the scene itself may often be repeated several times. A typical Amarna balustrade, parapet or screen wall, therefore, usually has the appearance of a quadrilateral double-sided stele, of which the upper edge is generally in the form of a single or double convex roll (see top views of Ashmolean 1922.141 and Fitzwilliam E16.1950 in pl. X, 1 and 2). When Petrie encountered the first fragments of balustrades and parapets at el-Amarna, he appears to have misidentified them as stelae. In 1924 he wrote, 'In many collections are examples or portions of the stone steles with which the palace was profusely decorated. These steles are always curved and slightly slanting at the top, and bear the scene of the king, queen and daughter offering, without any inscription beyond the names and titles. They are cut in all materials, limestone, alabaster, quartzite, black granite, red granite etc.; and their purpose is unknown. Such slabs are now in the Gizeh museum; in the room built over the pavement at Tell el-Amarna; in the Ashmolean Museum; Berlin Museum; Cabinet des Médailles, Paris; Lord Amherst's collection; and the Edwards Collection.'⁴

The characteristic shape of the parapets and sections of screen wall (such as Ashmolean 1922.141, pl. X, 1) would have been a long rectangle, whereas that of the balustrades (e.g. Cairo T.30.10.26.12, pl. XI, 1) would have been an irregular quadrilateral. Although the total length of most balustrades would usually have been greater than their average height, most of the larger, thicker examples appear to have been

⁴ W. M. F. Petrie, *A History of Egypt*, II (London, 1924), 223.

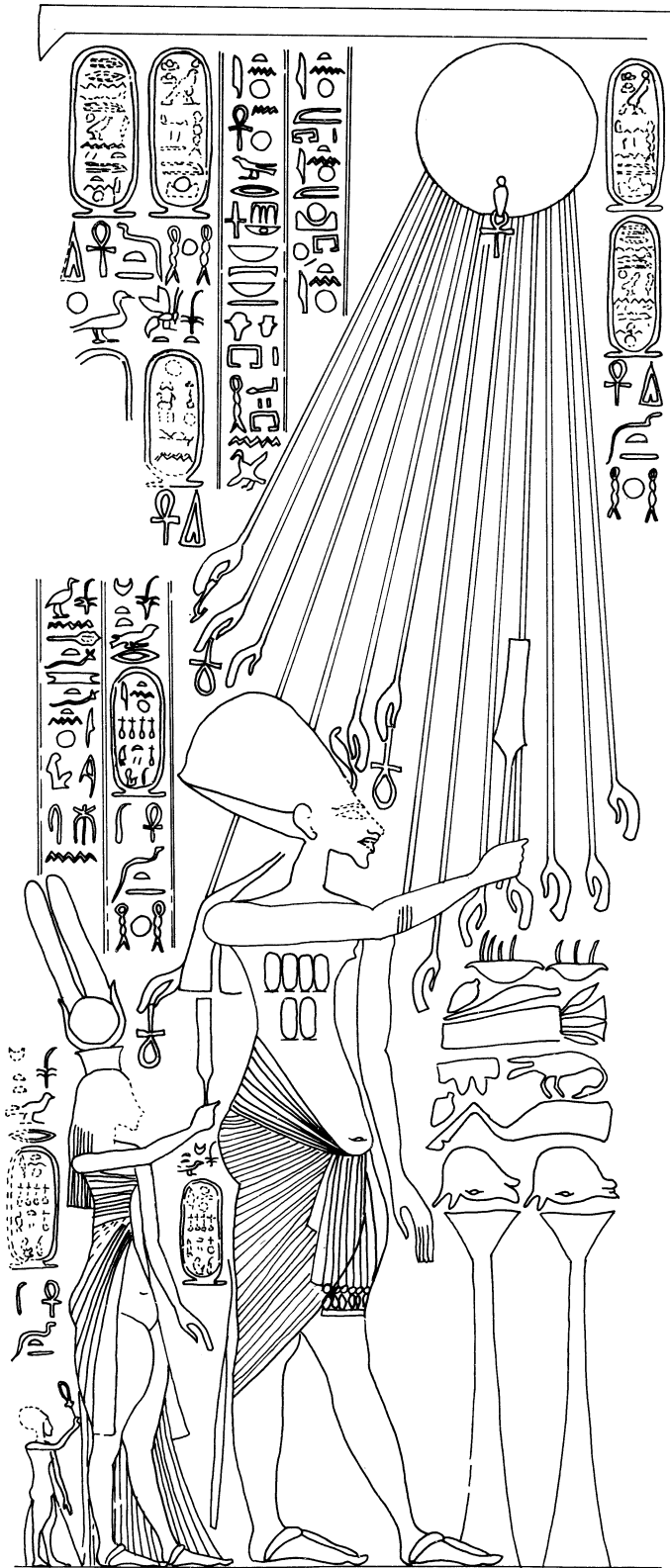


FIG. 1. Depiction of the Amarna royal family making offerings to the Aten, decorating one side of the segment of balustrade Cairo JE 87300 (after Roeder, *Amarna Reliefs aus Hermopolis*, pl. 1).

composite, each consisting of at least two or three joining pieces, so that the individual sections of balustrade are usually tall and narrow, with slanting upper edges. The thickness of both balustrades and parapets characteristically widens from top to bottom. There are also a few surviving 'newel-posts' from balustrades (Metropolitan M21.9.447, Cairo SR 13265 and Fitzwilliam E16.1950). It is possible that the round-topped shape of the upper edge of the balustrades inspired the engraving of cartouches—or pairs of cartouches—on the ends of their lower newel-posts, as on Cairo SR 13265 and Metropolitan M21.9.447. Both of these were made as separate, wider sections for attachment to the ends of heavy multipartite balustrades. As Cooney and Simpson point out, 'In commenting on the "stelae" which he found at Amarna, Petrie remarked that their ends were unworked, a detail without precedent in Egyptian stelae. A plausible explanation of this seeming carelessness is that the terminal post was made as a separate piece and joined to the balustrade with a binder.'⁵ Fitzwilliam E16.1950, on the other hand, is not a separately carved newel-post but simply a fragment broken off one end of a fairly thin balustrade or parapet (see pl. X, 2), similar in dimensions to the fragments of screen wall or parapet from the temple and kiosks in the Maru-Aten at el-Amarna.⁶ Depictions of balustrades in some of the rock-tombs of the nobles at el-Amarna clearly show such newel-posts, which are usually represented frontally (see figs. 4 and 5).

Earlier decorated balustrades in Egyptian temples

The erection of ramps and steps, flanked by balustrades and invariably leading to altars surrounded by parapets, was evidently a distinctive and idiosyncratic feature of Akhenaten's shrines and temples to the Aten. Throughout the rest of the New Kingdom the ramps and stairways in temples were often provided with low roll-topped balustrades, but these were usually plain and undecorated. There are, however, several surviving examples of decorated balustrades from earlier periods, notably those which run alongside the wide ramps and steps in Queen Hatshepsut's mortuary temple at Deir el-Bahri.⁷

The two pairs of balustrades at Deir el-Bahri, excavated and reconstructed by Herbert Winlock between 1923 and 1931, are considerably thicker and squatter than those at el-Amarna. Like the Amarna balustrades, the Deir el-Bahri ones show traces of decoration on both sides; the pair flanking the ramp leading to the middle terrace are decorated with relief depictions of a seated lion on either side of the lower newel-posts and limestone sphinxes on top of each of the upper newel-posts. The pair of balustrades on either side of the ramp leading to the upper terrace are evidently carved to resemble the serpent-form of the goddess Wadjet, with the lower newel-post of each carved in the form of a cobra's head surmounted by the form of the hawk-god (see fig. 2 and pl. XI, 3). The head of the cobra was deliberately destroyed and, ironically, Winlock suggests that this may have happened during the Amarna period: 'her hooded cobra-head ... had been painstakingly chiseled away by Akh-en-Aten, we must suppose, when all the gods were proscribed except the sun god. But the hawks were all forms of Horus, and Horus was a manifestation of the sun, and therefore these hawks escaped proscription.'

⁵ Cooney and Simpson, *Brooklyn Mus. Bull.* 12/4, 6.

⁶ T. E. Peet and C. L. Woolley, *City of Akhenaten*, 1 (London, 1923) (hereafter *COA* 1), 121–2, pls. xxxii.2, xxxiii.2 and xxxiv.1–2.

⁷ H. E. Winlock, *Excavations at Deir el-Bahri: 1911–1931* (New York, 1942), 106–7, 172–3, 219, fig. 14.

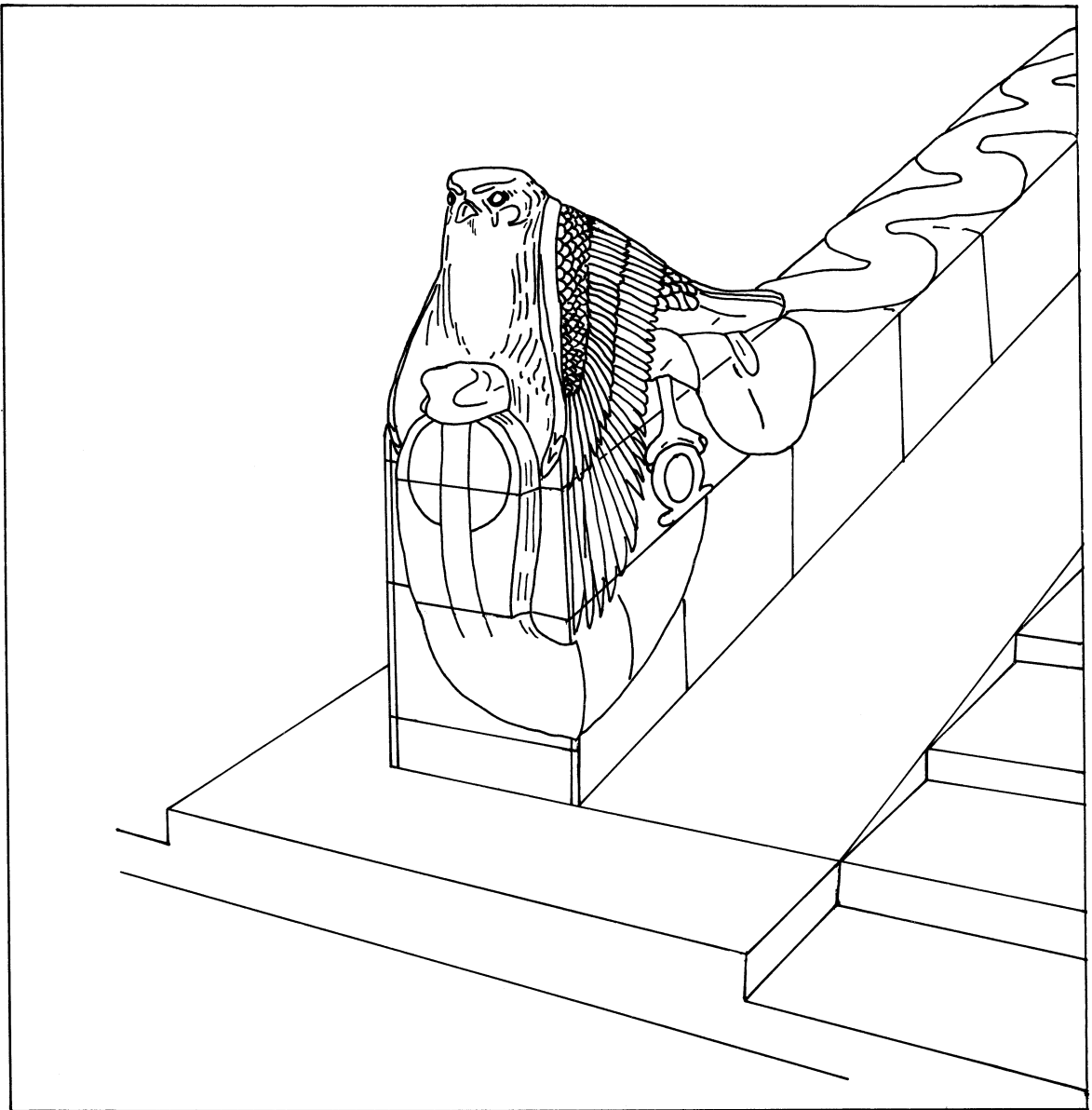


FIG. 2. Reconstruction drawing of one of the balustrades flanking the ramp leading to the upper terrace at the temple of Hatshepsut, Deir el-Bahri (after Winlock, *Excavations at Deir el-Bahri*, fig. 14).

The balustrades in Hatshepsut's temple clearly relate to the use of large-scale ramps and terracing rather than specific cultic imagery—it would be perverse (and anachronistic) to suggest that they had any links with the cult or architecture of the Aten. However, it is interesting to compare their decoration with those at el-Amarna. The primary image conveyed by the upper balustrade at Deir el-Bahri was evidently the symbolism of the northern and southern deities, Wadjet and Horus respectively. On the lower balustrade the relief carvings of lions on either side of the bottom newel-posts must have signified the power of the queen as ruler. The architects of Hatshepsut's temple, unlike the creators

of the Amarna balustrades, were not using the decoration of the balustrades to make any descriptive statement about the act of worship itself. Instead, they simply concentrated on the serpent-shape of the balustrade, using it to express the union of the country rather than attempting to refer to the practice of the cult in the temple. It is noteworthy, however, that the ends of the lower balustrades' newel-posts at Deir el-Bahri were each decorated with a personification of an *ankh*-sign holding up the queen's cartouche in its hands. As with the Amarna balustrades, an association seems to be made here between the cartouche-shape and the outline of the balustrade.

The upper terrace of Hatshepsut's temple also incorporates a monumental limestone altar approached by steps and located in the centre of a small courtyard, which is considered to have been dedicated to the sun-god Re-Harakhti.⁸ Although the altar itself is thought to have once been surrounded by a parapet,⁹ the steps leading up to the altar on its western side were apparently not provided with balustrades.

Locations and patterns of use of the balustrades at el-Amarna

Less than half of the sections of parapet and balustrade at el-Amarna have known provenances, but this is a sufficiently high proportion to permit some discussion of their characteristic locations and patterns of use. Figure 3 shows the distribution of the provenances of fragments from locations in the central part of the city. Seven are known to be from various sections of the Great Temple, at least six from the Great Palace and five from the Maru-Aten, as well as two balustrades (U4, whereabouts now unknown) which are mentioned by John Pendlebury in his report on the excavation of the Small Aten Temple (see Appendix 2).

As far as materials are concerned, there are few distinct patterns, although particular stones appear to have been used in two different parts of the Great Temple: the balustrades in the Gem Aten are of limestone and those from the Per-Hay are of pink and black granite (see Appendix 2). In the Great Palace, on the other hand, Pendlebury pointed out that a mixture of limestone and granite parapets and balustrades were associated with the complex's earlier phases, while a number of sandstone balustrades were inscribed with the later version of the Aten's cartouches and therefore evidently formed part of a later phase of construction. In the Maru-Aten there are fragments of parapets and screen walls carved from purple quartzite, pink granite and calcite.¹⁰

Undoubtedly the high number of elaborate balustrades at el-Amarna is closely connected with the prevalence of the architectural combination of the podium and the ramp or set of steps, which Barry Kemp has noted.¹¹ Once adopted, however, the double-sided balustrade seems to have been employed at various scales throughout the city, ranging in size from the 50-centimetre-thick sections of stone along the main processional ways of the three principal ceremonial buildings (the Great Palace, Great Temple and Small Aten Temple—see pl. XI, 1) to the delicate parapets serving as screen-walls in the kiosks of the Maru-Aten (e.g. Ashmolean 1922.141, see pl. X, 1), a set of ritualistic pleasure-gardens at the southern end of the city.

⁸ E. Naville, *The Temple at Deir el-Bahari*, I (London, 1895), pls. v–vii; PM II², 362, plan xxxvi.4.

⁹ Naville, op. cit. 7–8, pl. viii. But see also R. Stadelmann, *MDAIK* 25 (1969), 166–7, where the altar of Re-Harakhti at Deir el-Bahri is identified as a precursor of the ubiquitous *šwt-R'w* ('sun-shades') at el-Amarna.

¹⁰ J. D. S. Pendlebury et al., *The City of Akhenaten*, III (London, 1951) (hereafter *COA* III), 184–5.

¹¹ B. J. Kemp, *JEA* 62 (1976), 89.

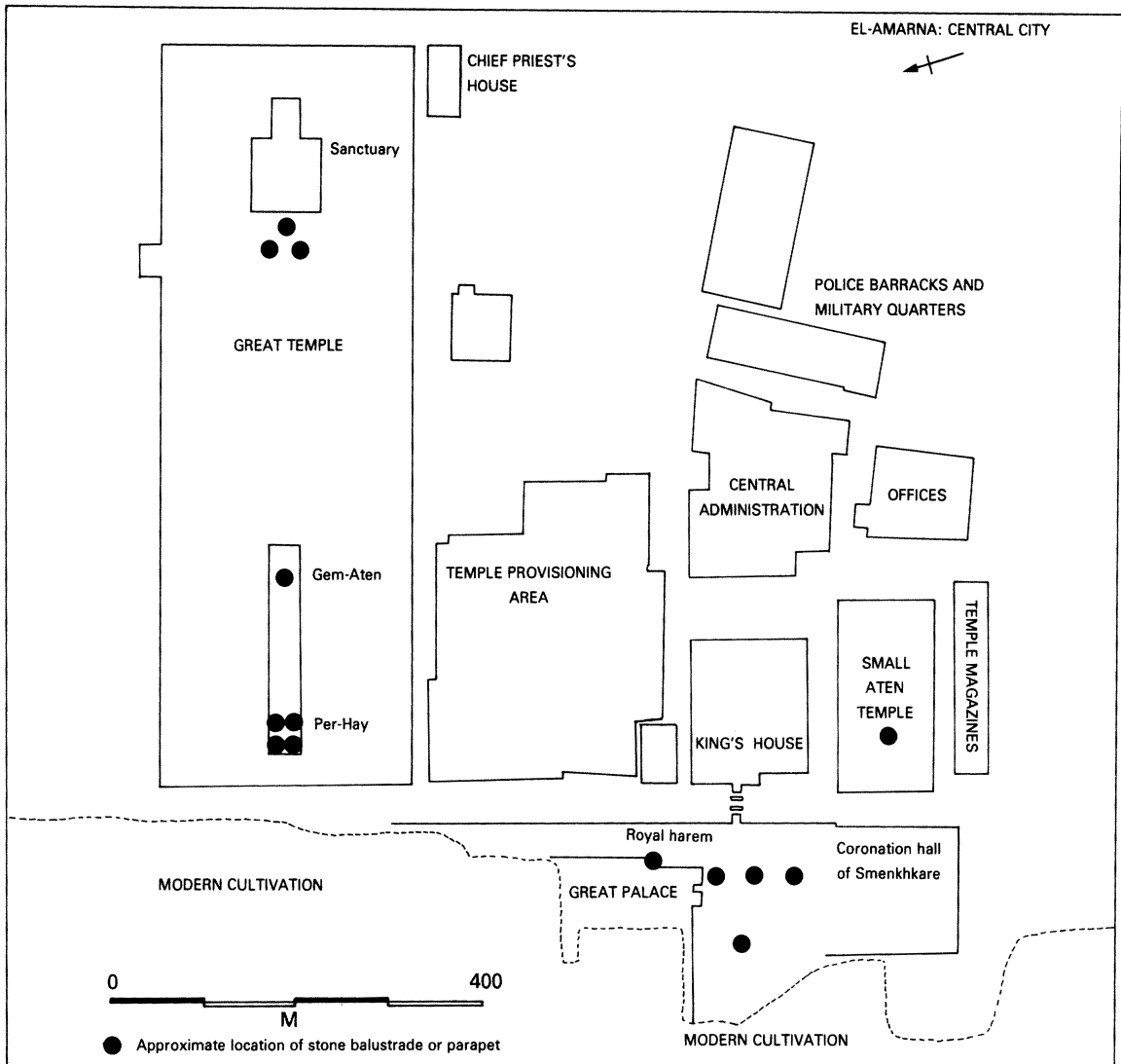


FIG. 3. Schematic plan of the central city at el-Amarna (after *COA* III, pl. i), showing the approximate provenances of parapets and balustrades, with the exception of those in the Maru-Aten complex, 4 km to the south.

There may also have been many mud-brick balustrades and parapets at el-Amarna which have not survived. There was, for instance, a low rectangular platform in the north-east corner of the King's House, with a short ramp or staircase leading up to it. Pendlebury gave the following account of this structure: "The supporting walls of the ramp or steps have a whitewashed roll-top, a white band along the base and, as far as we could make out, some fresco showing kneeling figures."¹²

The cult of the Aten, relying as it did on open courtyards and unroofed sanctuaries exposed to the sun's rays, required the development of a new and flexible style of architecture capable of focusing and containing this new style of worship. The succes-

¹² *COA* III, 87.

sions of platforms approached by steps and balustrades effectively channelled the royal family through the vast temples and palaces, providing suitable scenarios both for major offering ceremonies and private devotions. There are precedents for this form of 'processional' architecture in the way-stations and chapels that punctuate the routes through and between many earlier temples.

All but one of the surviving balustrades and parapets from el-Amarna are decorated with the same basic scene of the royal family—the king, queen and a princess—processing towards altars or cult-stands caressed by the rays of the Aten. This composition is recurrent throughout the decoration of the city and necropolis of el-Amarna, but it was clearly particularly appropriate to the balustrades and parapets, the purpose of which was to enclose and surround the stairways and platforms that punctuated the royal processions. Such details as the royal regalia and the types of offering differ from one piece to another: on Cairo T.30.10.26.12 Akhenaten wears the white crown, on one side of Ashmolean 1922.141 and on Cairo JE 87300 he wears the blue crown, and on the other side of Ashmolean 1922.141 he wears a bag-wig and uraeus. On Cairo T.20.6.28.8 the king wears an unusual form of crown combining sun-disk, horns and double feathers, which is identical to that worn by Nefertiti on a column fragment in the Ashmolean Museum (1893.1.41 (71)).¹³

Although most of the surviving balustrades and parapets at el-Amarna were components of a succession of ramps, steps and altars—as depicted in the tombs of such nobles as Panehsy and Meryra I (figs. 4 and 5)—the unusual decoration on one fragment of balustrade in the Petrie Museum (UC 68; fig. 6) suggests that double-sided balustrades may also have formed part of a somewhat different type of architectural element. UC 68 consists of a rounded upper section of a limestone balustrade (measuring 7 × 12.5 × 12 cm) with sunk relief decoration on both sides. One side is carved with the heads of the figures of two foreign captives. To the left is part of the head of a Libyan wearing a side-lock, with a headdress consisting of two feathers and a streamer, and to the right is the face and hair of a Nubian, with his curls engraved in the form of small squares. Both heads bear some traces of the red paint with which they were originally decorated. The other side of the fragment is carved with the head of another Nubian wearing a large earring.¹⁴ Since UC 68 is clearly not decorated with the usual scene of the royal family making offerings to the Aten, but instead bears depictions of Egypt's traditional enemies, it is possible that it originally formed part of the structure of a 'window of appearances' either in the Great Palace or the King's House. Certainly the depictions of windows of appearance in the Amarna-period tombs at el-Amarna and Saqqara show lines of foreigners along the lower façade, below the window, as in the tomb of Horemheb (fig. 7).¹⁵ The approach to the window is usually depicted as a balustraded stairway, as in

¹³ See A. Rammant-Peeters, *OLP* 16 (1985), 38, no. 5, where this style of crown is described as 'la coiffure en forme de mortier complète des plumes'. See also J. Samson, *JEA* 63 (1977), 92, figs. 2 and 3, where the crowns on the balustrade (Cairo T.20.6.28.8) and the column fragment (Ashmolean 1893.1.41 (71)) are compared.

¹⁴ J. Samson, *City of Akhenaten and Nefertiti* (Warminster, 1972), 58–9, pls. 31–2; H. M. Stewart, *Egyptian Stelae, Reliefs and Paintings from the Petrie Collection*, 1 (Warminster, 1976), 18, fig. 9.7.

¹⁵ G. T. Martin, *The Memphite Tomb of Horemheb, Commander in Chief of Tut'ankhamūn*, 1 (London, 1989), 24–8, pls. 18–19; id., *The Hidden Tombs of Memphis* (London, 1991), 49–50, fig. 16. See also Norman de G. Davies, *The Rock Tombs of El Amarna*, II (London, 1905), pl. xxxiii, for the scene of the rewarding of Meryra II by Akhenaten and Nefertiti, in which the parapet of the window of appearances is decorated with depictions of Asiatic and Nubian captives.

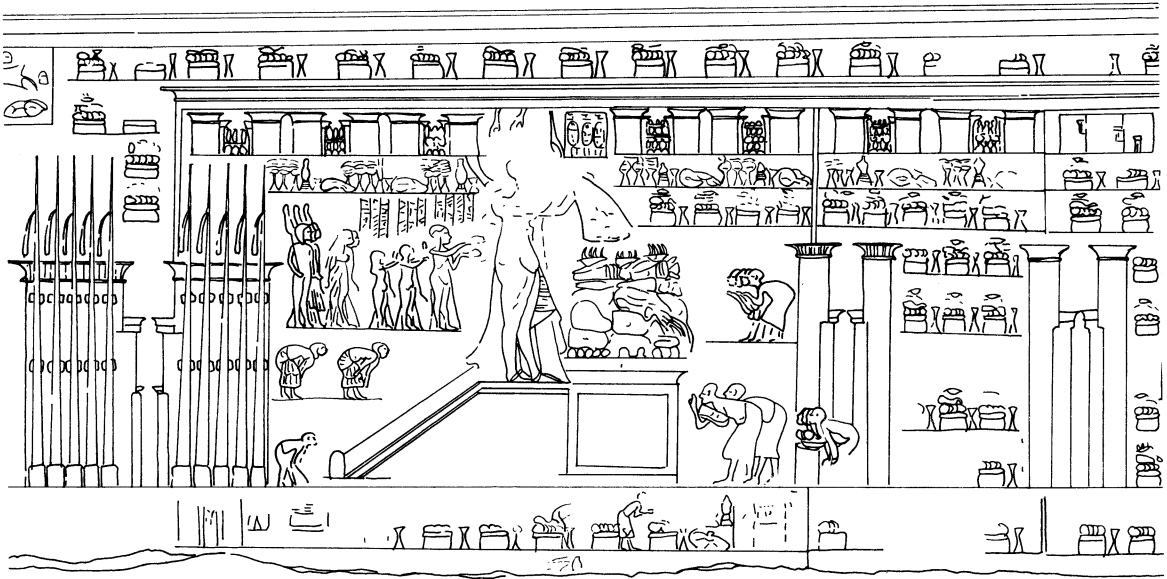


FIG. 4. Depiction of an altar approached by balustraded steps, in the tomb of Panehsy, el-Amarna (after Davies, *Amarna* II, pl. xviii).

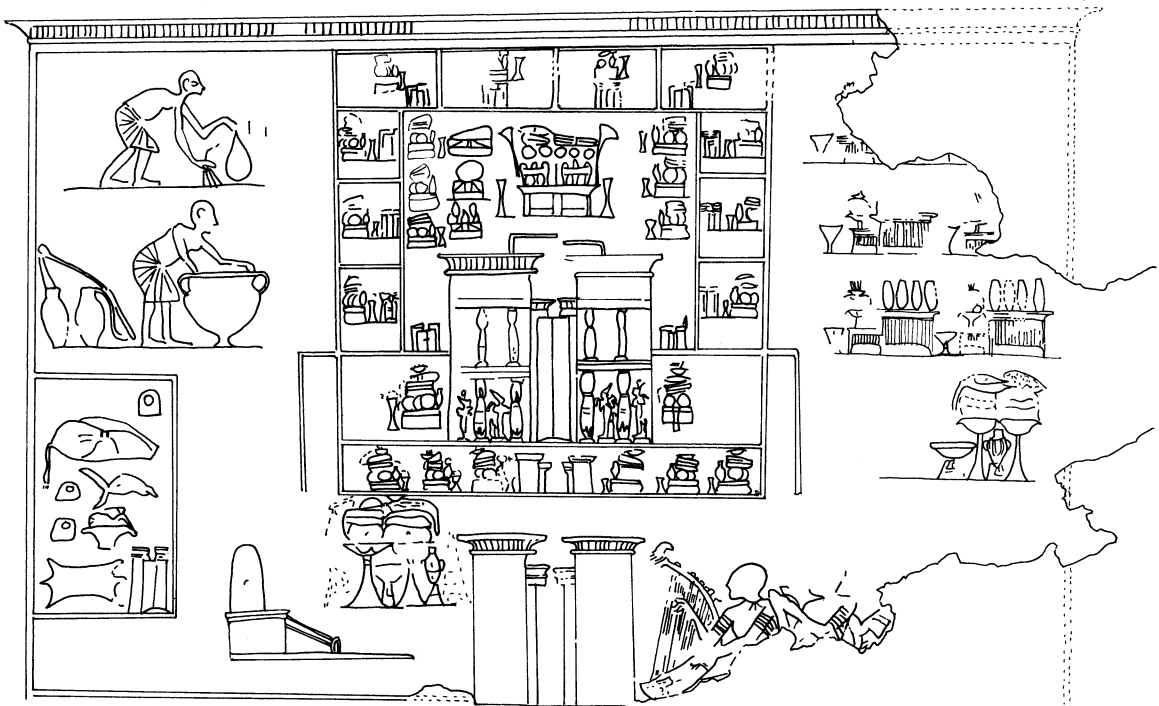


FIG. 5. Depiction of the balustraded approach to the Great Stele in the Sanctuary of the Great Temple at el-Amarna, in the tomb of Meryra I, el-Amarna (after Davies, *Amarna* I, pl. xi).

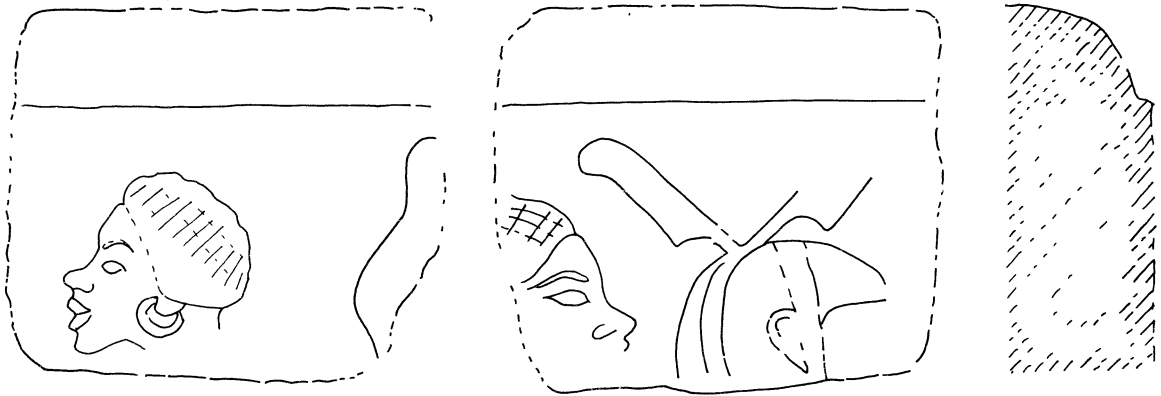


FIG. 6. The two decorated faces of the fragment of limestone balustrade, Petrie Museum UC 68 (after Stewart, *Egyptian Stelae* I, pl. 9.7).

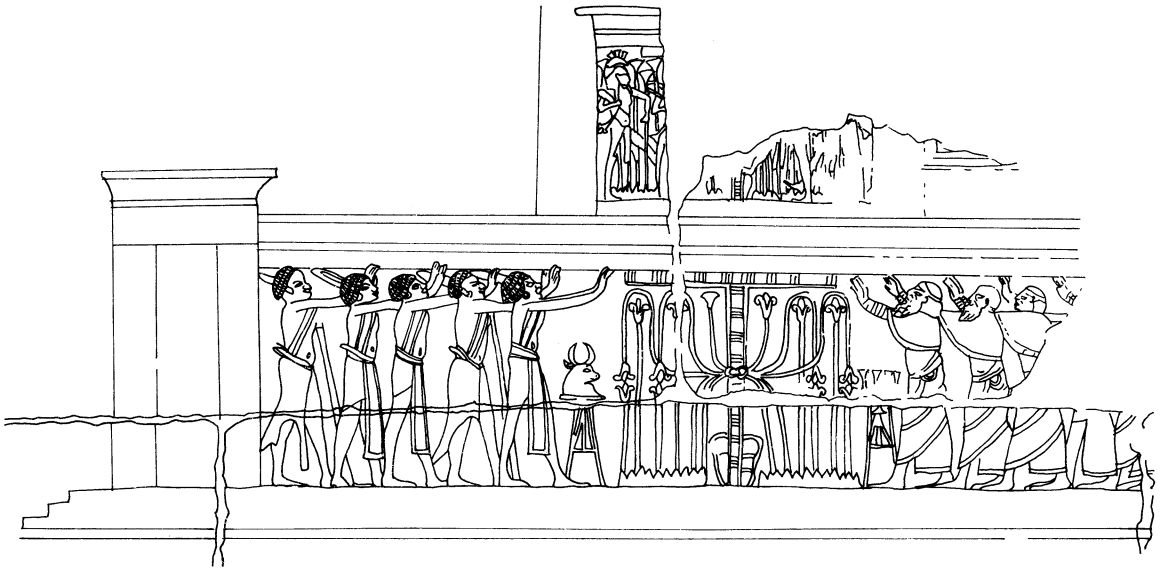


FIG. 7. Depiction of a possible window of appearances in the Memphite tomb of Horemheb (after Martin, *Hidden Tombs of Memphis*, fig. 16).

the tomb of the Amarna courtier Meryra II (fig. 8).¹⁶ It is therefore possible that UC 68, instead of being part of an altar, derives either from a window of appearances or perhaps from a royal throne room or platform-kiosk similar to those excavated at Malkata and Kom el-Samak.¹⁷

¹⁶ Davies, *op. cit.* 43–4, pl. xli.

¹⁷ The Palace of the King at Malkata included two ‘audience halls’ and a small columned ‘reception room’, each containing a mud-brick throne dais painted with figures of foreign captives on the floor and steps: the balustrade fragment UC 68 might well have formed part of such a structure. For brief descriptions of the throne daises at Malkata, see R. de P. Tytus, *A Preliminary Report of the Pre-excavation of the Palace of Amenophis III* (New York, 1903), 15–18, and W. Stevenson Smith, rev. W. K. Simpson, *The Art and Architecture of Ancient Egypt*² (Harmondsworth, 1981), 285–6. The platform-kiosk at Kom el-Samak, which is approached by a stairway and ramp incorporating paintings of captives, is described in the Japanese excavation report: see Y. Watanabe and K. Seki, *The Architecture of ‘Kom el-Samak’ at Malkata South: A Study of Architectural Reconstruction* (Tokyo, 1986).

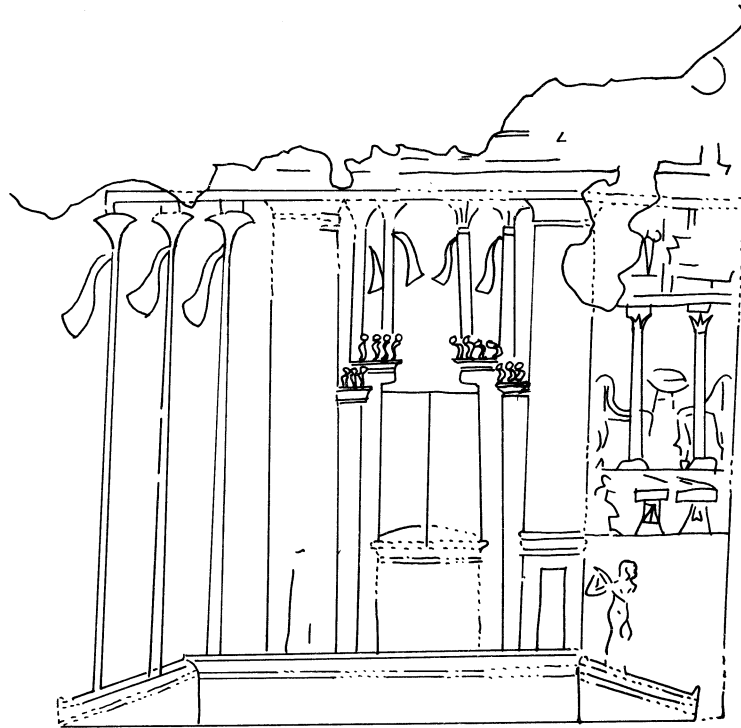


FIG. 8. Distant view of a window of appearances, depicted in the tomb of Meryra II (after Davies, *Amarna* II, pl. xli).

Atenism at Heliopolis: 'Great Stele' or parapet?

There is one further item of evidence relating to the use of ramps and parapets in the cult of the Aten. A very large rectangular stele of red quartzite in the Cairo Museum, CG 34175, (fig. 9 and pl. XI, 2) is decorated on both sides with relief carvings and inscriptions dating to the Amarna period. One face was re-worked into a round-topped stele in the time of Horemheb, transforming it into a traditional scene in which the king makes offerings to Atum and Hathor, while below them the High Priest of Heliopolis, Pa-ra-emheb, offers a prayer to Atum. The sunk-relief sun-disk of the Aten is, however, still clearly visible at the top of the stele. On the other, more damaged, side two scenes of the Amarna royal family worshipping the Aten have been left intact. The scene at the top shows the family (Akhenaten, Nefertiti and Meretaten) kneeling before the rays of the sun-disk, whereas the scene below is more unusual, depicting the king, a princess and an unknown male figure apparently prostrate on the ground in the presence of the Aten. The reliefs were discussed by Labib Habachi,¹⁸ who interpreted CG 34175 as a large rectangular votive stele from an Amarna-period temple at Heliopolis.

CG 34157 is identified by its inscription as an architectural element of a temple dedicated to the Aten at Heliopolis, the original centre of sun-worship in Egypt. The Heliopolitan cult of the sun is widely considered to have exerted a considerable influence

¹⁸L. Habachi, 'Akhenaten in Heliopolis', *Festschrift Rieke*. (Beiträge Bf 12; Wiesbaden, 1971), 35-45. See also C. Aldred, *Akhenaten King of Egypt* (London, 1988), 275, fig. 25.

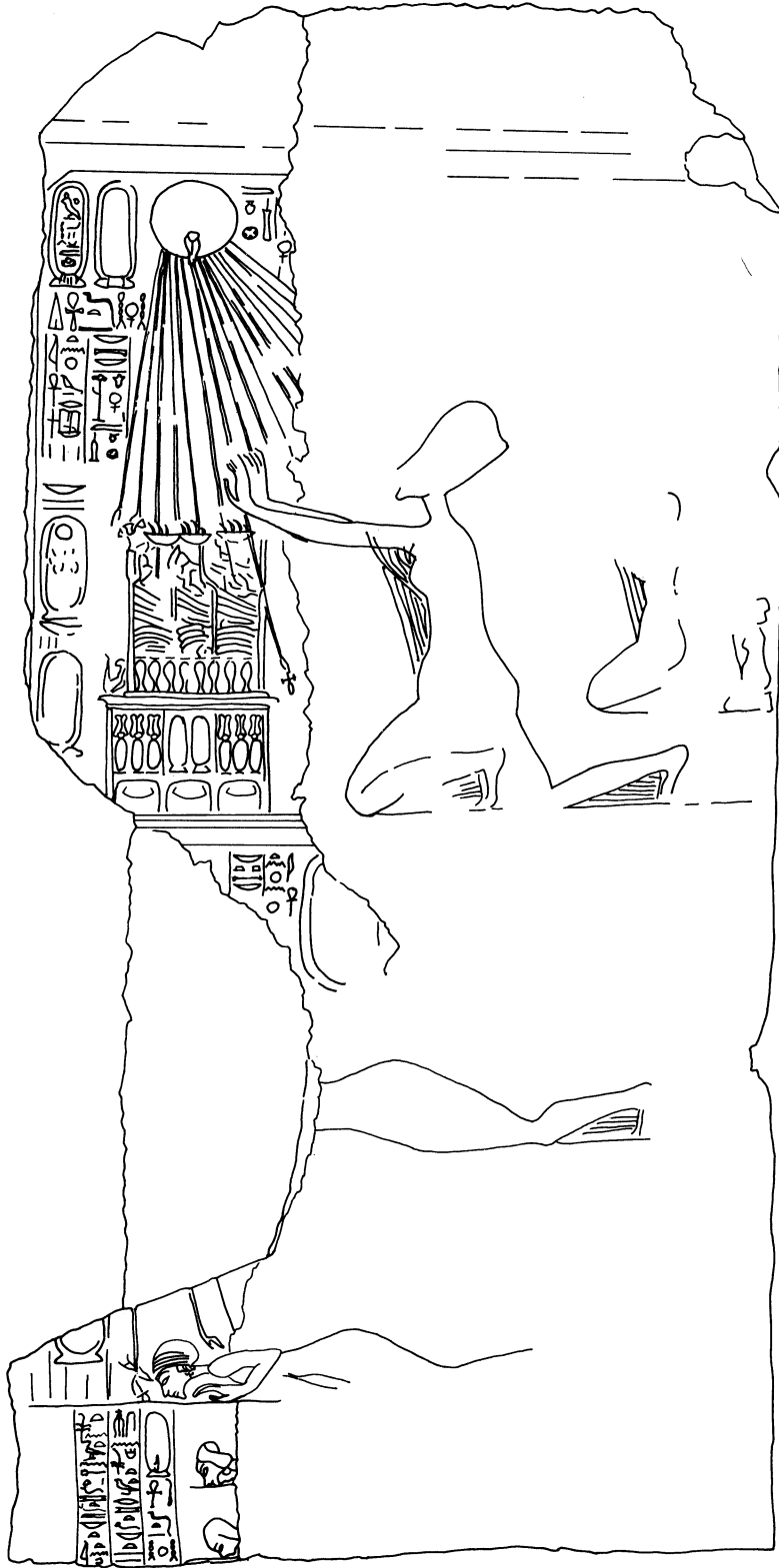


FIG. 9. 'Stele' from the Amarna-period temple at Heliopolis, Cairo CG 34175 (after Habachi, *Festschrift Ricke*, fig. 20).

on the roots of Atenism,¹⁹ and it seems that Akhenaten acknowledged this debt by constructing a 'temple called Which-lifts-Re-in-Heliopolis-of-Re'. Although few traces of the temple to the Aten have been found *in situ* at the site of Heliopolis itself, several relief blocks, apparently deriving from such a complex, have been preserved through their re-use in the minaret of the nearby eleventh-century Mosque of Hakim in northern Cairo.²⁰ Some fragments of inscribed quartzite, thought to derive from the pedestal-blocks of royal statues, also bear the name of the Heliopolitan temple.

In 1933, during Pendlebury's excavations at el-Amarna, many fragments of purple quartzite were discovered between the Butchers' Yard and the Sanctuary of the Great Temple. These were identified as fragments of the so-called Great Stele (or Benben), which is depicted in the tombs of Meryre I and Panehsy (see figs. 4 and 5). The inscription on stele CG 34175 mentions the temple 'Which-lifts-Re-in-Heliopolis-of-Re', and Habachi has suggested that it may have been a 'free-standing stela' forming a focus of worship in the Heliopolitan Aten temple, just as the 'Great Stele' appears to have been venerated in the Great Temple at el-Amarna. One problem with this interpretation, however, is that the 'Great Stele' at el-Amarna is represented in some of the tombs of Akhenaten's nobles as a round-topped stele, whereas CG 34175, in its original state before Horemheb's re-use, was clearly a rectangular slab.

Many of the surviving stelae from private shrines to the Aten in the gardens of élite inhabitants of el-Amarna²¹ have horizontal upper edges rather than curved profiles, but they tend to be much smaller than CG 34175 and are only decorated on one side (e.g. Berlin, Ägyptisches Museum, 14145).²² Clearly the Heliopolitan 'stela' does not fit neatly into either category—it does, however, bear some resemblance to the Amarna parapets. It is therefore arguable that CG 34175 was part of a high parapet surrounding the temple's principal altar, rather than a Heliopolitan equivalent of the 'Great Stele' at el-Amarna. The interpretation of CG 34175 as a parapet would cast some doubt on the supposed 'visibility' of the Amarna royal family during their worship of the Aten, given that the Heliopolitan parapet would have been higher than any of those so far identified at el-Amarna.²³ Even if CG 34175 were some form of stele rather than a parapet, its discovery at Heliopolis nevertheless suggests that the double-sided relief slab—whether stele, parapet or balustrade—was a recurrent element of Atenism throughout the country, rather than simply an idiosyncrasy of the site of el-Amarna itself.

Conclusion

Most discussion regarding the ceremonial architecture at el-Amarna has tended to concentrate on its place in the overall chronological development of pharaonic temples and palaces.²⁴ These studies have focused particularly on the identification of the ground plans of buildings at el-Amarna and Thebes with various surviving fragments of ancient Egyptian religious and architectural terminology, for instance, the Per-Hay, Gem-Aten,

¹⁹ Redford, *Akhenaten*, 169–81; Aldred, *Akhenaten*, 237–48.

²⁰ Habachi, in *Festschrift Rieke*, 37–8.

²¹ S. Ikram, *JEA* 75 (1989), 89–102.

²² See Kemp, *Ancient Egypt*, 285, fig. 94.

²³ See Kemp, *Ancient Egypt*, 276–85, for a discussion of the apparent 'semi-public' nature of Akhenaten's worship of the Aten.

²⁴ A. Badawy, *JEA* 42 (1956), 58–64; E. P. Uphill, *JNES* 29 (1970), 151–66; J. Assmann, *JNES* 31 (1972), 143–55; R. Stadelmann, *MDAIK* 25 (1969), 159–78.

Maru-Aten and *Šwt-Rꜥw*. Such work has undoubtedly shed a great deal of light on the antecedents and eccentricities of Atenist architecture—and the reconciliation of texts with artefacts is certainly among the most crucial interpretive roles of the historical archaeologist—but the discussion of Amarna architecture has tended to be concerned with the ‘labelling’ of buildings and complexes rather than with the analysis of the physical remains in their own right.

The present paper has taken the approach that the ceremonial architecture at el-Amarna was made up of a series of essential, interlinked elements, each making a contribution to the overall theatrical backdrop, which has been called by Kemp ‘the arena of royal display’.²⁵ It is in these pragmatic terms that the architectural components of the city at el-Amarna are perhaps best examined—since the shape, size, decoration and positioning of the individual elements were clearly designed to facilitate the royal and priestly enactment of Atenist ceremonies. Balustrades and parapets are part of the essential architectural ‘vocabulary’ at el-Amarna and their detailed analysis may elucidate some of the underlying ritual and ideology peculiar to the site. It is to be hoped that this paper may help to bring to notice other surviving Amarna balustrades, parapets or screen walls, which perhaps have been misidentified as fragments of stelae. Any further pieces that come to light, particularly those with known provenances within the city, may provide further clarification of the essential role played by these unusual architectural elements in the public buildings of the Amarna period.

Appendix 1: List of Amarna-period balustrades and parapets currently in museum collections

Dimensions are listed in centimetres in the following order: height × width × thickness.

Oxford, Ashmolean 1893.1-41(2)

Material: pink and grey granite. Dimensions: 18 × 14.6 × 5.2.

Description: two joining fragments of a parapet.

Provenance: Per-Hay, Great Temple, el-Amarna (Petrie excavations).

Bibliography: unpublished.

Oxford, Ashmolean 1922.141 (excavation no. 1922/273)

Material: purple quartzite. Dimensions: 15 × 36 × 6.

Description: three joining fragments of a parapet or screen-wall.

Provenance: Maru-Aten, el-Amarna.

Bibliography: *COA* 1, 121–2, pl. xxxiv, 1, 2; PM IV, 208; J. Samson, *JEA* 59 (1973), 49.

Cambridge, Fitzwilliam E13.1933

Material: black granite. Dimensions: 16.3 × 12.5 × 5.2.

Description: double roll-top balustrade.

Provenance: the ‘platforms’ in the Per-Hay, Great Temple, el-Amarna.

Bibliography: *COA* III, 18.

²⁵ Kemp, *Ancient Egypt*, 276–9, fig. 91.

Cambridge, Fitzwilliam E16.1950 (ex MacGregor Collection)

Material: pink granite. Dimensions: 36.6 × 7.8 × 10.2.

Description: part of the newel-post of a single roll-top balustrade.

Provenance: el-Amarna.

Bibliography: Sotheby, *Catalogue of the MacGregor Collection* (London, 1922), lot no. 1558.

Cairo JE 63853

Material: limestone. Dimensions: 20 × 53 × 10.

Description: part of a balustrade with cartouches and Aten-disk.

Provenance: Tuna el-Gebel (excavations of Ghombert).

Bibliography: R. Weill, *CRAIBL* (1912), 484-90.

Cairo JE 63854

Material: limestone. Dimensions: 25 × 30 × 10.

Description: part of a balustrade with Aten-disk and head of Nefertiti.

Provenance: Tuna el-Gebel (excavations of Ghombert).

Bibliography: Weill, *op. cit.*

Cairo JE 87300

Material: black granite. Dimensions: 119 × 51 × 41.5.

Description: single roll-top section of balustrade.

Provenance: Per-Hay, Great Temple, el-Amarna (but excavated as a *talatat* at Hermopolis Magna).

Bibliography: G. Roeder, *Amarna-Reliefs aus Hermopolis* (Hildesheim, 1969), 23-5, pls. 1-2.

Cairo T.20.6.28.8 (SR 13415)

Material: limestone. Dimensions: 43 × 40 × 16.5.

Description: single roll-top parapet.

Provenance: Great Palace, el-Amarna

Bibliography: *COA* III, pl. lxix.4.

Cairo T.27.3.25.9 (SR 13414)

Material: limestone. Dimensions: 73.5 × 49 × 48.

Description: fragment of balustrade with slanting, single roll-top.

Provenance: Gem-Aten, Great Temple, el-Amarna.

Bibliography: *COA* III, 16, 19, pl. lvii.5,6,8.

Cairo T.30.10.26.12 (487 and SR 13416)

Material: limestone. Dimensions: 97 × 49 × 15.5.

Description: fragment of balustrade with slanting, single roll-top.

Provenance: Per-Hay, Great Temple, el-Amarna.

Bibliography: *COA* III, pl. lxix.5; É. Drioton, *Encyclopédie photographique de l'art. Le Musée du Caire* ([Paris], 1949), 40, no. 105; W. Westendorff, *Painting, Sculpture and Architecture of Ancient Egypt* (New York, 1968), 138; M. Saleh and H. Sourouzian, *Official Catalogue: The Egyptian Museum, Cairo* (Mainz, 1987), no. 164.

Cairo SR 13265

Material: grey granite. Dimensions: 49.8 × 28 × 12.5.

Description: newel-post of a balustrade, with double roll-top and end inscribed with the cartouches of the Aten.

Provenance: el-Amarna.

Bibliography: unpublished.

Cairo CG 34175 (SR 13348)

Material: quartzite. Dimensions: $244 \times 121 \times 20.5$.

Description: double-sided, stele/parapet with one face decorated with reliefs showing the royal family offering to the Aten. The other face has been reworked into a more traditional stele format, showing Horemheb offering to Atum and Hathor, but the original deeply-carved Atenist sun-disks are still visible.

Provenance: Heliopolis.

Bibliography: PM IV, 63; P. Lacau, *Stèles du Nouvel Empire*, 1 (Cairo, 1909), 214-6, pl. lxxv; G. Daressy, *Rec. Trav.* 16 (1916), 123-4; Habachi, in *Festschrift Ricke*, 35-45.

Cairo (accession no. unknown; excavation no. 1922/271)

Material: pink granite. Dimensions: $30 \times 55 \times ?$.

Description: thirteen fragments of parapet or balustrade. The figure of the queen has been altered to that of Meritaten by modifying the face and elongating the head, and the latter's name and epithets have been substituted for the queen's names.

Provenance: Maru-Aten, el-Amarna.

Bibliography: *COA* I, pls. xxxii.2 and lvi.

Cairo (accession no. unknown; excavation no. 1934/72)

Material: granite. Dimensions: unknown.

Description: fragments of the lower part of a granite stele, with relief decoration on both sides depicting the royal family offering to the Aten.

Provenance: North Harem, Great Palace, el-Amarna.

Bibliography: *COA* III, 45, pl. lxxix.1.

London, Petrie Museum UC 68

Material: limestone. Dimensions: $7 \times 10.7 \times 13$.

Description: fragment of a balustrade with a rounded top, horizontal ridges along either side of the top and sunk relief decoration on both faces.

Provenance: unknown.

Bibliography: H. M. Stewart, *Egyptian Stelae* I, 18, pl. 9.7.

London, Petrie Museum UC 166

Material: grey granite. Dimensions: $17 \times 13 \times 5.5$.

Description: fragment of parapet/balustrade bearing sunk relief carving on both sides, showing Aten rays descending into a pile of offerings.

Provenance: el-Amarna.

Bibliography: Stewart, *op. cit.* 13, n. 9.

London, Petrie Museum UC 401

Material: calcite. Dimensions: $54 \times 52.5 \times 10.2$.

Description: only one side decorated in deep sunk relief with incised hieroglyphs (other decorated side missing).

Provenance: Great Palace, el-Amarna.

Bibliography: Samson, *City of Akhenaten and Nefertiti*, 58, pls. 31-2; Stewart, *op. cit.* 10, pl. 6.

London, Petrie Museum UC 24323

Material: calcite. Dimensions: 27.5 × 26 × 19.5.

Description: part of a scene of the royal family offering to the Aten, possibly from a balustrade but with relief on one side only.

Provenance: Broad Hall, Great Palace, el-Amarna.

Bibliography: *COA* III, 67 [35/200]; Stewart, op. cit. 10, pl. 7.1.

London, Petrie Museum UC 24326 (ex Wellcome Collection)

Material: pink granite. Dimensions: 12 × 9 × 5.5 (tapering in thickness from 5.7 at the bottom to 5.3 at the top).

Description: fragment of a balustrade decorated on both sides, each having originally been decorated with representations of Nefertiti and Meretaten.

Provenance: el-Amarna.

Bibliography: Stewart, op. cit. 15–16, pl. 8.8.

Hanover, Kestner-Museum 1935.200.195

Material: limestone. Dimensions: 52 × 25.5 × 4.2.

Description: narrow slab with decoration on one side only but slanting base-line indicating that it probably derives from a balustrade.

Provenance: el-Amarna.

Bibliography: R. Drenkhahn, *Ägyptische Reliefs im Kestner-Museum Hannover* (Hanover, 1989), 96–7.

New York, Metropolitan Museum M21.9.447

Material: limestone. Dimensions: 15.2 × 16.2 × 9.4.

Description: balustrade end-piece with double roll-top.

Provenance: Great Temple, el-Amarna.

Bibliography: Cooney and Simpson, *Brooklyn Mus. Bull.* 12/4, 6, fig. 4.

New York, Metropolitan Museum M21.9.469, 573, 597 and 604

Material: limestone. Dimensions: M21.9.469: 11.5 × 8.5 × 8; M21.9.573: 7 × 5 × 5.5; M21.9.597: 12 × 8 × 12.5; M21.9.604: 9.5 × 13.2 × 12.

Description: fragments of the upper edge of a parapet with double roll-top. These fragments are currently on long-term loan to the Brooklyn Museum (L49.13a–b), where they are displayed together with the joining fragment Brooklyn 41.82. The collective dimensions of the re-assembled parapet are therefore 41.8 × 44.6 × 13 (12.1 at top and 13.9 at base). All five fragments were originally in the collection of Lord Amherst, therefore they ultimately derived from Petrie's excavations at el-Amarna.

Provenance: Great Temple (probably east end).

Bibliography: Cooney and Simpson, op. cit. 4–5, fig. 2.

Brooklyn Museum 41.82

Material: limestone. Dimensions: 37.8 × 42.2 × 13.9.

Description: fragment of a double roll-top parapet, joining up with Metropolitan Museum M21.9.469, 573, 597 and 604 (see above).

Provenance: Great Temple (probably east end).

Bibliography: W. M. F. Petrie, *Tell el-Amarna* (London, 1894), 11, 19, pl. xii. 1, 2; *William Randolph Hearst Collection, Sale Catalogue*, Sotheby (London, 1939), pl. 3; Cooney and Simpson, op. cit. 1–5, figs. 1–2.

Brooklyn Museum 16.660 (ex Wilbour Collection)

Material: limestone. Dimensions: $9.5 \times 10 \times 3$ (thickness actually tapering from 3.1 at top to 2.9 at base).

Description: a small portion of a balustrade or similar architectural element with two inscribed surfaces.

Provenance: el-Amarna.

Bibliography: T. G. H. James, *Corpus of Hieroglyphic Inscriptions in the Brooklyn Museum* (Brooklyn, 1974), 141 (no. 344), pl. lxxix.

Brooklyn Museum 16.674 (ex Wilbour Collection)

Material: grey granite. Dimensions: $12.5 \times 16 \times 9.3$.

Description: upper edge of a balustrade or parapet.

Provenance: el-Amarna.

Bibliography: James, op. cit. 141 (no. 319), pl. lxxvii.

Brooklyn Museum 16.701 (ex Wilbour Collection)

Material: purple quartzite. Dimensions: $11.3 \times 9.2 \times 4$.

Description: possibly fragment of an altar parapet.

Provenance: el-Amarna.

Bibliography: James, op. cit. 153 (no. 361), pl. lxxx.

Brooklyn Museum 16.705 (ex Wilbour Collection)

Material: black granite. Dimensions: $16.5 \times 9.3 \times 3.1$.

Description: slab with two decorated surfaces, therefore probably part of an altar or balustrade, possibly belonging to the same monument as Brooklyn 16.706.

Provenance: el-Amarna.

Bibliography: James, op. cit. 152 (no. 355), pl. lxxix.

Brooklyn Museum 16.706 (ex Wilbour Collection)

Material: black granite. Dimensions: $11.3 \times 8.3 \times 5$.

Description: fragment of an altar or balustrade, possibly belonging to the same monument as Brooklyn 16.705.

Provenance: el-Amarna.

Bibliography: James, op. cit. 152 (no. 356), pl. lxxix.

Brooklyn Museum 16.713 (ex Wilbour Collection)

Material: quartzite. Dimensions: 8.6×8.6 (average) $\times 3.7$.

Description: fragment of a balustrade or parapet decorated on both faces.

Provenance: el-Amarna.

Bibliography: James, op. cit. 152 (no. 358), pl. lxxix.

Appendix 2: Amarna balustrades and parapets described in excavation reports; current whereabouts unknown

U₁

Material: calcite.

Description: five inscribed fragments of balustrade, with relief decoration on both sides.

Provenance: Maru-Aten, el-Amarna.

Excavation number: 1922.208A-E (handcopies HC53-60).

Photograph number: 1922.106.

Bibliography: *COA* 1, pl. xxxiii.2(?); see also unpublished object-cards in the EES archives.

U₂

Material: calcite.

Description: five inscribed fragments of calcite, two (A–B) with relief decoration on both sides and three (C–E) only worked on one side.

Provenance: Maru-Aten, el-Amarna.

Excavation number: 1922.287A–E (handcopies HC64–9).

Bibliography: Unpublished object-cards in the EES archives.

U₃

Material: granite.

Description: fragments of the lower part of a stele, showing on both sides a relief of the royal family worshipping the Aten.

Provenance: North Harem, Great Palace, el-Amarna.

Excavation number: 1934.72.

Bibliography: *COA* III, 45, pl. lxix. 1.

U₄

Material: unknown.

Description: Pendlebury describes a ‘mud-paved ramp’ in the Sanctuary of the *Hwt-’Itn*. This ramp ‘passes between two thin pylon towers and wall-trenches on either side seem to indicate the presence of a balustrade’.

Provenance: Small Aten Temple (*Hwt-’Itn*), el-Amarna.

Bibliography: *COA* III, 95.

U₅

Material: sandstone.

Description: fragments of balustrades bearing the later Aten cartouches.

Provenance: Great Palace, el-Amarna.

Bibliography: *COA* III, 184.

Appendix 3: Provenances of fragments of balustrades, parapets and screen walls at el-Amarna

GREAT TEMPLE**(EASTERN END)**

Metropolitan M21.9.447

Metropolitan M21.9.469, 573, 597 and 604

Brooklyn B.41.82

(PER-HAY)

Ashmolean 1893.1-42(2)

Fitzwilliam E13.1933

Cairo JE 87300

Cairo T.30.10.26.12 (SR 13416)

(GEM-ATEN)

Cairo T.27.3.25.9 (SR 13414)

SMALL ATEN TEMPLE (*Hwt-’Itn*)

U₄ (see Appendix 2)

GREAT PALACE**(UNSPECIFIED LOCATION)**

Cairo T.20.6.28.8 (SR 13415)

UC 401

U₅

UC 68?

(BROAD HALL)

UC 24323

(NORTH HAREM)

U₃

MARU-ATEN

Ashmolean 1922.141

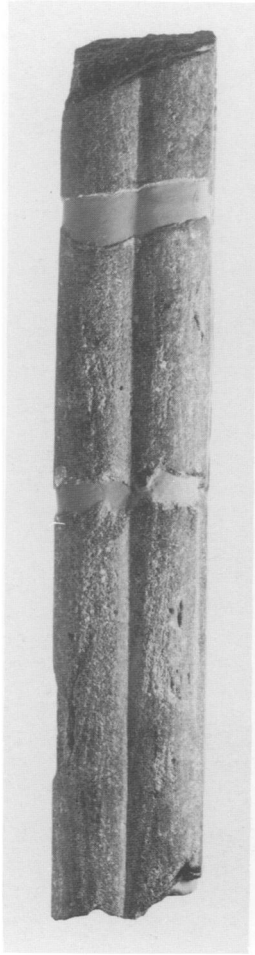
Cairo (JE unknown 1)

U₁

U₂



2. Side and top views of a fragment of pink granite balustrade newel-post from el-Amarna, Fitzwilliam Museum E.16-1950 (reproduced by permission of the Syndics of the Fitzwilliam Museum, Cambridge)

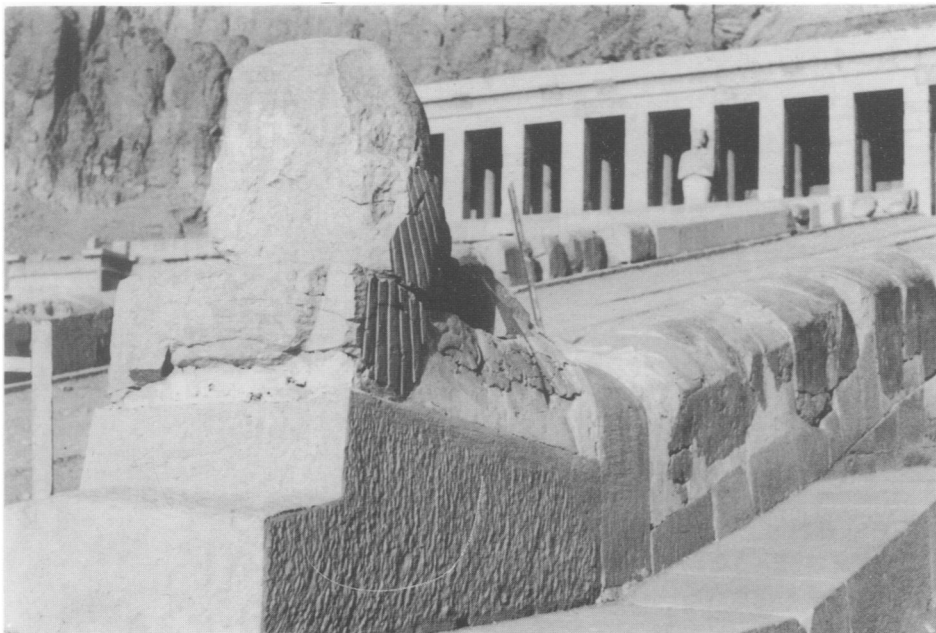


1. Side and top views of a fragment of purple quartzite parapet or screen wall from the Maru-Aten at el-Amarna, Ashmolean 1922.141 (courtesy of the Ashmolean Museum, Oxford)



1. Side view of a section of limestone balustrade from the Great Temple at el-Amarna, Cairo T.30.10.26.12
(courtesy of Lehnert and Landrock)

2. Quartzite stele/parapet from the Amarna-period temple at Heliopolis, Cairo CG 34175
(courtesy of Lehnert and Landrock)



3. Left-hand balustrade of the ramp leading to the upper terrace of the temple of Hatshepsut at Deir el-Bahri
(photograph by I. Shaw)

DEBTS AND CREDIT IN THE NEW KINGDOM

By JAC. J. JANSSEN

Discussion of some Deir el-Medina ostraca in which *nty m-di* is the key term. They are to be distinguished from those which record an exchange transaction. The suggestion (by Manning et al.) that the *nty m-di* formula indicates that a middleman was involved is rejected. The texts reflect an 'open credit system', typical for an economically less developed, moneyless society. At the end the matter of P. Cairo 65739 is discussed as a clear example of the system.

FOR many ostraca from Deir el-Medina the meaning is still obscure. This is partly due to the state in which they have survived, with pieces broken off and the ink in some places faded or even lost. When the beginning of the text is missing the interpretation is particularly liable to be problematic. But even if it is completely legible and the translation poses no problems, we still, in many instances, do not understand exactly what the scribe tells us, since we do not know the 'Sitz im Leben'. In the following article I draw attention to a particular category of such mysterious ostraca in which the phrase *nty m-di* is the key term.¹

An important instance, although in some respects a unique one, as will be seen, is O. Petrie 51 (= HO 28, 1). The text runs as follows:

- Rt. 1. Objects (*shwt*) of Amenemone which are with (*nty m-di*) the chief
 2. policeman Amenemope: 5 *deben* of copper;
 3. 2 *rwḏw*-garments of smooth cloth, makes 15 (*deben*).
 Objects of Amen-
 4. emone which are with the scribe of the Granary of Pharaoh Amenkheḫ:
 5. 1 *mnt*-jar of fresh fat.
 Objects of Amenemone
 6. which are with (*nty(m-di)*) the chief policeman Amenwahsu:
 7. Objects of Amenemone which are with the scribe Har[shire]:^a
- Vs. 1. 1 wooden bed, makes 15 (*deben*).
 2. Which are with the scribe of the necropolis Hori:
 3. 8 *khar* of emmer; 3 *hin* of sesame oil; 3 *gḥw*
 4. of *ḥqq*-fruits.^b
 Which are with
 5. Hunero, the daughter of Twosre: 6 *hin* of fat;
 6. 8 bundles of vegetables; 2 goats; 1 mat.

¹ Or the variant *nty m-r*, which is especially, but not exclusively, found in Nineteenth Dynasty texts. In some ostraca both forms occur, e.g. O. Cairo 25670, rt. 2 and vs. 1; O. Brussels E 6311, 1; 11; vs. 2: S. Allam, *Hieratische Ostraka und Papyri* (Tübingen, 1973), pls. 24-7 (henceforth quoted as *HOP*). For a discussion of *m-di*, see A. Théodoridès, *RdE* 22 (1970), 139-54.

Notes

(a) The last part of the name is lost. Since in vs. 2 the scribe of the necropolis Hori is mentioned, with his full title, the present scribe may well be Harshire, the son and successor of Amennakhte, son of Ipuy. This would firmly date the ostrakon to the later years of the mid-Twentieth Dynasty (Ramesses VI–IX). M. Gutgesell (*Die Datierung der Ostraka und Papyri aus Deir el-Medineh* (Hildesheim, 1983), 415–16) opted for the reign of Ramesses VI (but he did not recognize that two Horis are mentioned). This is indeed possible, but not at all certain.

(b) The nature of the *hqq*-fruits is still unknown (cf. Janssen, *JEA* 77 (1991), 85 n. j). They are frequently said to be measured in *g'bw* ('armfuls?').

This text, which is easily translatable, seems on the face of it quite clear. All kinds of commodities, the property of a certain Amenemone, are stated to be 'with' various persons. The goods are of a varied nature: copper, garments, fat, a bed, several kinds of food, and a mat. For some of them, clearly the more expensive ones, the value is given in *deben* of copper. The people who, at the moment the text was written, were in possession of the goods seem mostly to have been local dignitaries: two chief policemen, two scribes of the workmen, and a scribe of one of the granaries from which the community obtained its monthly grain-rations, hence obviously a man well-known in these circles. The only person concerning whose identity and position we are uncertain is the lady Hunero. The intriguing questions are: why were these goods distributed to so many persons and why did Amenemone have this recorded so carefully? That is: what is the background of the text?

In one respect the subject matter is unique, so far as I know. In no other ostrakon is it related that the goods of one man are (temporarily?) in the possession of several other persons. However, ostraca recording that the objects of one person are 'with' another are quite common. An illustrative instance of this type is O. Gardiner 204² (= *HO* 50, 1). According to the first three lines, this is an account (*r rdit rh.tw*) of the objects of the workman Penne which are with (*nty(m-di)*)³ the chantress of Amun Shedemdwaē. For all the ten items the value is indicated in *deben* (of copper). Some are rather expensive: a bed for 20 *deben*, a table (? *mšr*)⁴ for 15, a coffin for 30. Five *hin* of sesame oil cost 5 *deben*; the other items only one *deben* each. The total value is, correctly, given as 76 *deben*.

This was the original debt of the lady the Penne. Gradually she paid off part of it, which is noted, somewhat irregularly written, to the left of the main text, below the sum total, evidently as these commodities were received by Penne. The repayment consisted of emmer and barley, vegetables, a shawl (*mrw*), and what seems to be an exceptionally expensive *sdj*-garment.⁵

The verso begins with recording a 'strong, repaired wooden *oipe*-measure', valued at $\frac{1}{4}$ *khar* (= $\frac{1}{2}$ *deben*), the equivalent of its contents. Whether this was one of the objects delivered by Penne, or belonged to the discharge of the debt, is not clear. It seems to be neglected in the sum total that follows. Here the debt of Shedemdwaē to Penne is stated

²The Gardiner ostraca are now in the Ashmolean Museum, Oxford, and there registered under their original numbers. In this article I still use their old prefix since they are so published in *Hieratic Ostraca* (Oxford, 1957) (hereafter, *HO*), and *KRI*.

³*m-di* omitted, as in O. Petrie 51, 6 (see above). In vs. 4, *nty m-di* is fully written out.

⁴For *mšr*, see my *Commodity Prices from the Ramessid Period* (Leiden, 1975), 194–6.

⁵Despite the writing ($\overset{\times}{\text{𓆎}} \text{𓆏} \text{𓆐}$), which would be unusual for *sdj*, this is what it seems to mean. Or could it be an error for *dyt*, 'mantle' or 'cloak'? For that garment a price of 30 *deben* would be normal.

to be 75 (*sic*) *deben*, of which 54 have been paid back, so that a debt of 22 (!) *deben* remains. In the final lines 6–7 this is repeated (but now, correctly, as 76 *deben*) in a slightly shorter form.

A similar matter is recorded in O. Gardiner 162 (=KRI VII, 309–10), except that on the recto the words *nty m-di* are absent. The formula is that of a sales transaction: ‘Account of all objects which the workman Khnemnose gave to the chief policeman Nebsmen’. However, no mention is made of an object that the former should have bought from the latter. The total value of the debt, for that is clearly what it is, was 66 *deben* of copper. This is stated on the verso in words similar to those in O. Gardiner 204, discussed above: ‘Amount of money (*ḥr n ḥd*) of Khnemnose which is with (*nty m-di*) Nebsmen: 66 (*deben* of) copper’. Of these, 43 *deben* have been paid off, so that a debt of 23 *deben* remains. It is worth noting that the items came to the policeman through (*m-drt*) various persons, probably at different times.

Evidently, these two ostraca describe how a debt was compounded, and how it was partly discharged. Both present a survey of the position of the parties at a particular moment, while the first text contains notes, added subsequently, of how the repayment was composed. What happened afterwards, whether the debtors paid off the remainder, we do not know, nor is it clear why such an interim statement was written down.

The subject of O. Cairo 25572 is more complicated, particularly because of the behaviour of one of the parties involved.⁶ It is also obscure because of what seems to be a scribal error. Firstly, the objects of Khaemdwa which are with (*nty m-r*) a certain Huy are enumerated: yarn, barley, mats, vegetables, skins, etc., none of them of a high value. Together they are said to be worth 2 *sniw*, which at that time—the late Nineteenth Dynasty—may have been the equivalent of 8 to 10 *deben* of copper.⁷ Huy, however, is said (rt. 10–11) to have a *sdj*-garment of the same value ‘with’ a lady called Makhaiia.

There follows the record of Huy’s appearance before the local court, where he swears that nothing of Huy (*sic*!) is with him. That must be a mistake of the scribe for ‘nothing of Khaemdwa’. A few days later, however, Huy returned, accompanied by four colleagues, declaring that ‘a manifestation of god has appeared’,⁸ which obviously means that his former statement was untrue, in other words, that he still possessed objects of Khaemdwa.

The judgement of the court is not recorded, but on the reverse of the sherd we find an ‘account of the objects of the workman Huy, which are with (*nty m-r*) the workman Khaemdwa’. They are: oil and fat, basketry, sandals, a hide, a pig, etc.; again no item of a high intrinsic value. Their total price is stated to be $4\frac{1}{2}$ *sniw* and 1 *hin* (of oil), which means $4\frac{1}{2} + \frac{1}{6}$ or $4\frac{2}{3}$ *sniw*, more than double that of the objects of Khaemdwa that were with Huy, according to the recto.

Does this mean that Huy had to pay a fine of substantially more than one hundred per cent?⁹ And that, so far as we know, for initially denying that he owed something to Khaemdwa? It seems unlikely. Why were the goods said to be ‘with’ him, not ‘given to’

⁶ Translated by A. G. McDowell, *Jurisdiction in the Workmen’s Community of Deir el-Medīna* (Leiden, 1990), 253–4. Her explanation (pp. 179–80) differs from that given here, as does also my present one from the view I gave earlier (*BiOr* 32 (1975), 293).

⁷ *Commodity Prices*, 105–8.

⁸ See J. F. Borghouts, in R. J. Demarée and Jac. J. Janssen (eds), *Gleanings from Deir el-Medīna* (Leiden, 1981), 5.

⁹ So Allam, *HOP*, 65. It was actually more than double, which makes the explanation less plausible.

him? That is, why did the latter only temporarily possess them? What the correct explanation of the affair could be escapes me. Moreover, I do not understand the implication of the note in rt. 10–11 that a garment to the same value as Huy's debt has been 'with' a lady. Was this perhaps a sort of security? The only clear fact is that originally a number of minor commodities belonging to Khaemdwa were in the possession of Huy, constituting the latter's debt. There is no indication that this was a sales transaction.¹⁰ Why then was such a debt incurred?

The question can be raised in several other instances. O. DeM. 261 is an account of the objects of Menna which are with (*nty m-r*) the chief policeman Mentumose.¹¹ Unfortunately, the text is fragmentary, so that much of it escapes us. Note, however, that the last line runs: 'And he gave me one . . .', which may suggest repayment.

O. DeM. 402, of a Year 4 of the mid-Twentieth Dynasty, poses a problem in so far as it is uncertain whether prices are recorded.¹² The objects are those of a certain Amennakhte, which are with (*nty m-d'i*) a Neferhotpe. The total (line 8) is seven, but seven of what remains a mystery. Perhaps seven items, but then 'three' after *p' ity* (line 5) should be counted as 'one'.

Equally complicated, but with far more information, is O. Brussels E. 6311 (= Allam, *HOP*, pls. 24–7) an account of the objects¹³ which are with (*nty m-r*) the workman Huy, the son of Huynofre, without stating to whom they belonged. No prices are noted, perhaps since all were of low value, such as loaves of bread, beer, fruits, sesame-oil, and twice one *khar* of emmer (rt. 2 and 5). The occurrence of two identical entries suggests that the goods were handed over at different times. A conspicuous entry is that of rt. 10: '2 blocks of natron, (given, or received) through Patjewemdiamun for his coffin'. Was this material used for purifying the wooden object? 'His' very probably refers to Huy, for the next line states that $\frac{1}{2}$ *khar* of barley and 1 *khar* of emmer were 'with' his wife Iy, and this is known to have been the name of Huy's spouse.¹⁴ At the left of rt. 4–7, separated from the main text by a curving line, we find a rather mysterious note about some commodities for a coppersmith, the connection with Huy being unclear. The last lines of the recto informs us that a matter was reported to the chief workman Hay, and that he gave the advice, probably to the author of the text ('me' in rt. 13), to go to court. Was Huy unwilling to repay the amount due, as was the debtor of O. Cairo 25572 discussed above? It is very possible that in both cases it was the same Huy, although the name was rather common.¹⁵

¹⁰ This Allam seems to suggest by translating 'Verzeichnis der Gegenstände des A, die bei B (geliefert worden sind)'. The word 'geliefert' has no counterpart in the text.

¹¹ The draughtsman Menna and the chief policeman Mentumose were entangled in a legal contest, recorded in O. Or. Inst. Chicago 12073, concerning a large vessel containing fat, an affair that lasted eighteen years. For a new interpretation, see J. G. Manning et al., *JNES* 48 (1989) 117–24). O. AG. 104 (= KRI VII, 323) also lists objects of Menna which are 'with' someone else, but the text is too fragmentary to be of use here. See further O. Varille 24, discussed below (p. 134).

¹² Cf. *Commodity Prices*, 47–8.

¹³ Written $\textcircled{\text{---}}$ for *hwt* > *shwt*.

¹⁴ Cf. O. DeM. 225, 4.

¹⁵ O. Cairo 25572 dates from the late Nineteenth Dynasty (*Commodity Prices*, 31–2), and so does O. Brussels E. 6311, as the names of Huy, the son of Huynofre, Patjewemdiamun, and particularly that of the chief workman Hay prove. However, there was also in that time another Huy, the son of (Anher)khew (see e.g. O. Cairo 25521, 2).

The text on the verso begins with relating that ‘his [father?]¹⁶ had died because of the ‘enemy’, so that all his possessions became his (*hpr m-di.f*), that is, probably, Huy’s. These possessions are then listed. It seems unlikely that this matter is directly connected with that of the recto, although it was certainly the same Huy who was involved (see vs. 12).

In most of these, and in a few more instances,¹⁷ the formula used is: *r rdit rh.tw shwt n A nty m-ꜣ/m-di B*, which is akin to the introduction of many records of sales transactions: *r rdit rh.tw shwt (nb) i.diw A n B*.¹⁸ The other formula with which such texts are introduced has *pꜣ hꜣ* instead of *shwt (nb)*.¹⁹ Of this type, I know of only one case with *m-di*,²⁰ namely O. Gardiner 33 (= *HO* 18, 3), recording the ‘money’ (*hꜣ*) of the workman Penne²¹ which was with the policeman Psed. Five items are listed, each with its price, to a total value of 30 *deben*. This again seems not to be a sale, since nothing is said about an object for which the sum would have been paid.

In some cases the formula is abbreviated to *shwt n A nty m-ꜣ/m-di B*. One of them is O. Gardiner 194 (= *KRI* VII, 311–12). Goods belonging to Khnemnose²² which are with Amenemone are listed, with their prices. The series is interrupted at some points (lines 7, 13, 16, 26) by the words *whm rdit n.f*,²³ in line 26 followed by *m pꜣ hꜣ n Amenhotep*, ‘at the appearance of Pharaoh Amenhotep’. That suggests that the objects were handed over during a longer period, some even on specific days. It is important to note that Khnemnose recorded these items very carefully, although several are of low value, such as a *mnt*-jar of beer and loaves of bread. One entry runs (line 18): ‘I filled (= strung) for him a couch (*krk[r]*)’,²⁴ another (line 20): ‘I wove for him a *sdw*-garment’. Evidently, activities (services) are included among the ‘objects’ which are with Amenemone.

That happens also in O. DeM. 428, recording ‘objects of Hay which are with the door-keeper Khaemwese’. The first item listed is: ‘I gave his ox to eat during four full months’, while in line 4 we read: ‘I filled (= strung) for him a bed’, valued at 1 *khar* (of grain), and in rt. 5-vs. 1: ‘[I] wove for him a *dniw*-garment and a pair of sleeves’.²⁵ In between, sandals, oil, fruit, and a *šqr* are mentioned, the total value being only 7 *deben*.

Such a small total, composed of the values of minor items, seems far away from debts such as those of Shedemdwaē (76 *deben*) or of the chief policeman Nebsmen (66 *deben*), quoted above (pp. 130–1). Even larger than these is the sum noted in O. Nash 4 (= *HO* 57, 1) of ‘the objects of Prahotepe which are with (*nty m-ꜣ*) Neferhotpe’, which amount to

¹⁶The word after *pꜣy.f* is lost.

¹⁷E.g. O. DeM. 673 (*shwt nb* omitted; *m[-di]* lost); O. IFAO. 1253 (unpubl., fragment); O. BM. 29560 (= *HO* 85, 1), listing food and a few objects given at feast days.

¹⁸E.g. O. DeM. 556, 1–2; O. Turin 57248, 1–2; O. Gardiner 163 (= *HO* 58, 3), 1–3; O. Colin Campbell 5 (= *HO* 63, 1), 1; O. Berlin 12636, 1–2 (Allam, *FuB* 22, 1982, 56–7).

¹⁹E.g. O. DeM. 223, 1–4; 399, 1–3; 423, 1–2; O. Gardiner 126 (= *HO* 53, 1), 1; O. Gardiner 158, 1–2 (= *KRI* VII, 345–6).

²⁰But see *hꜣ n hꜣ* in O. Gardiner 204 (= *HO* 50, 1), v. 3 and 6, and in O. Gardiner 162, v. 1 (= *KRI* VII, 310), both discussed above.

²¹Very probably the same person as occurs in O. Gardiner 204.

²²See O. Gardiner 162, discussed above. Whether Amenemone is the same person as in O. Petrie 51 (above, p. 129) is uncertain, for the name was fairly common.

²³In line 13 not *whm*, but *rdyt n.f m-dr wnw.f mr*, ‘Given to him after he had been ill’ (Kitchen left out *dr*, but Černý’s transcription is clear on this point, whereas *wnw.f* is only Černý’s suggestion made subsequently; see Černý, Notebook 45, p. 94).

²⁴For *krkr*, see *Commodity Prices*, 185.

²⁵The meaning of *shty* at the end is obscure; perhaps it is simply redundant.

102½ *deben* of copper.²⁶ Minimal again are the amounts recorded in O. Varille 24 (= KRI VII, 341) as belonging to the draughtsman Men(na)²⁷ which are ‘with’ a lady called Iyemwau. They are loaves of bread, handfuls of plants, and suchlike, and some are said to have been handed over by a particular person, while another entry mentions a basket ‘for his feast’. Obviously, the items were not given at one single moment: rt. 4 is dated to IV *šht*, rt. 6 first to I *prt* and then to II *prt*. On the very fragmentary verso an oath is mentioned (vs. 5), but the circumstances are unknown.

Are these gifts, such as are recorded, for instance, in O. Cairo 25606? Here a workman Hori is said to have given the carpenter Pentwere a *mss*-garment, a grain-basket filled with emmer, another with barley, and two bundles of vegetables, to a total value of 10 *deben*. On the verso a gift of 11 *deben*, consisting of 6 *deben* of copper and a *mss*-garment, is recorded. It was given to Minkhew, probably by the same workman Hori. It is conspicuous that nowhere is any reason for these ‘gifts’ recorded. Certainly, these are not simply ‘presents’ in our sense.

Similar ‘presents’ are fairly frequently mentioned in the ostraca. Sometimes, as in O. Varille 24 discussed above, they were handed over in instalments. O. Aberdeen (= HO 61, 2), another example, lists gifts from a workman Amenemope to the carpenter Qenna, some very appropriately consisting of pieces of wood, but others of plants, vegetables, and a goat. The total value is 3¼ *khar* (or 7½ *deben*). According to the verso Amenemope also gave Qenna barley and vegetables, but these were in exchange for a wooden *šqr*.

The latter is clearly an exchange (or sales) transaction. That this was also the case with the ‘gifts’ on the recto is doubtful. Even if that were so, such purchases are sometimes organized in a way we would not expect. Let us take as an example O. Gardiner 56 (= HO 48, 2), from Year 3 of Ramesses IV, whose name appears at the top edge. Lines 1–2 record that 29 (pieces of) *Christdorn* wood (*ht n nbs*) were received from the hand of the policeman Khaemnun, being brought by the policeman Nakhtsobk. Who received this wood—the author of the text—is not stated. What is extensively recorded, however, is ‘the account of the “money” which he gave me’. It was received through the hands (*m-drt*) of no less than fourteen persons—among whom was the author of the text (vs. 3)—and consisted of barley, emmer, vegetables, and goats.²⁸ Although the nature of the transaction is certainly not clear in all respects, one point seems evident: the purchase of 29 pieces of wood was a complicated matter, in which a large number of people were involved. This statement may be a suitable point of departure for a discussion of the economic implications of the text we have dealt with above.

In the article by Manning et al. quoted above (n. 11), the authors state (p. 121) that ‘countless ostraca show a workman had placed a certain quantity of goods *m-di* (in the possession of) a *Mdry* or *Hry Mdry*. We would suggest that this is evidence of the use of middlemen in the transactions between workmen and outsiders’. With the latter words they refer to the idea of Ventura²⁹—in my opinion incorrect—that the members of the community had, for reasons of secrecy, no direct contact with the outside world, except through the doorkeepers of the Enclosure, water-carriers and woodcutters, or the policemen.

²⁶ The sum of the items that survived is far lower, but perhaps some of the high prices are lost.

²⁷ Probably the same man as in O. DeM. 261; see above p. 132 and n. 11.

²⁸ The note ‘total 70’ (vs. 9) seems to indicate the quantity of vegetables, which was 70 bundles. Whether the note written to the left (vs. 10) repeats this is obscure.

²⁹ Raphael Ventura, *Living in the City of the Dead* (Freiburg/Göttingen, 1986). See also C. J. Eyre’s review in *CdE* 67 (1992), 277–81.

The word 'countless' is somewhat exaggerated. Of the ostraca discussed in this paper stating that goods are *m-di* someone, only three, apart from O. Petrie 51 (see p. 129) which is exceptional—here policemen, but also scribes, one an outsider, as well as a lady, are recorded as possessing objects—mention policemen, namely O. Gardiner 162, O. DeM. 261, and O. Gardiner 33, while in one a doorkeeper occurs (O. DeM. 428). In two texts goods are stated to be 'with' women, namely O. Gardiner 204 and O. Varille 24, and there is no indication that they constituted a link between the village and outsiders. Moreover, the wording of these texts does not in any way suggest that these people acted for someone else.

Several other texts record matters between two workmen, for example O. Cairo 25572, O. DeM. 402, O. Gardiner 194, and O. Nash 4. All these use the term *nty m-di/m-r*. Attractive as the suggestion of Manning et al. may be, we have to conclude that this formula does not point to a middleman.³⁰ Perhaps the authors were led astray by Černý's remark³¹ that in numerous cases policemen are stated to have 'brought' or 'received' goods, but there the compound preposition *m-drt*, 'through his hand', is used, and not *m-di/m-r*. An additional objection against the middleman theory is the occurrence of services among the 'objects' (*šwt*) which are with B. These services are rendered to B himself, not to a third person (never mentioned) for whom he acts.

This does not mean that policemen never acted as middlemen, but the *nty m-di* texts require a different explanation. For that we should understand how, in a moneyless society, sales transactions came about. If one sold, for example, an ox, it had to be paid for with several objects, for one could hardly find a single article of sufficient value to be used as its price. After some haggling about the price of the ox, the seller stated what goods he wanted in exchange. Very probably, the buyer did not possess these, or at any rate, not all of them. Therefore, he did the rounds of his relatives, friends, and neighbours, trying to collect what he needed to satisfy the seller. Wherever he knew or surmised that one of the commodities he wanted was present, he simply asked for it, and usually it was given to him, because its owner thus became his creditor and could later on, in his turn, insist on receiving an object or service. Likewise, the owner of the required item could pay off in this way a standing debt. This was the manner in which the buyer of an expensive article acquired what the seller demanded. The latter will, in his turn, not have needed all he received for his own household, but will have used some of these objects to pay off his own debts, or to bind people to him.

That is, there existed in the community what I once called an 'open credit system',³² in which everyone was the debtor and creditor of several others.³³ This is not uncommon in economically less developed societies.³⁴ It certainly does not mean that such communities

³⁰ Middlemen probably did exist. In the numerous texts concerning the hire of donkeys (see my article in *SAK* 20 (1993), 81–94), mostly water-carriers and woodcutters acquire the animals for some days, which is understandable in view of their work. However, policemen are also recorded as hiring donkeys, especially a certain Anherkew (O. DeM. 133; O. DeM. 1068, rt. II; O. Petrie 4 = *HO* 72, 3; O. Michaelides 84; O. IFAO. 765 (unpubl.); O. IFAO. 1257 (unpubl.); O. Turin 57151). He occurs more times in those texts than anyone else, and, hence, may well have acted as middleman. So too, possibly, the water-carrier Pentwere, mentioned in O. Berlin 1121 (= *Hier. Pap. Berlin* III, pl. 35).

³¹ J. Černý, *A Community of Workmen at Thebes* (Cairo, 1973), 281.

³² *Altorientalische Forschungen* 15 (1988), 16–17.

³³ In his recent article 'Die Handel und die Kaufleute im Alten Ägypten', in *SAK* 19 (1992), 257 ff., Malte Römer wrestled with the problem of how, in a moneyless society, one could pay, without mentioning the possibility of such a credit system.

³⁴ See, e.g., Raymond Firth, in R. Firth and B. S. Yamey (eds), *Capital, Saving and Credit in Peasant Societies* (London, 1964), 29–33 ('Credit in the Peasant Society').

are ideal, with everybody acting generously to everyone else. On the contrary, 'the politics of self-interest are well and truly alive'.³⁵ One could, and some certainly did, misuse the system, trying to acquire goods but refusing to give any. That seems to have been the case with Huy in O. Cairo 25572 (above, pp. 131–2). However, social control, always strong in a small community, will have put a brake on excess egotism, without being able to prevent it completely.

The model here described could be termed 'generalized reciprocity': exchange relationships which were only balanced in the long run, and in which the maintenance of good relations was more important than any short-term gain. One of its aspects is that many persons could be involved in the purchase of one valuable object, as seems to be the case in O. Gardiner 56 (see p. 134). Against this background we can understand that at a certain moment someone wanted to draw up a list of all the goods he had given to various people, as Amenemone did in O. Petrie 51 (see p. 129). Here also lies the explanation of what happened before the lawsuit of a certain lady Erenofre took place, as described in P. Cairo 65739.³⁶ The text relates that she had bought a slave-girl from a trader, and paid for her with textiles and copper objects plus some scrap copper. The garments seem to have been her own property, but the vessels were brought³⁷ to her from various persons. She refutes the accusation that among them was a certain lady Bakmut. Whether that was correct or not is of no interest here. We are merely concerned with the point that, in order to pay, Erenofre seems to have gone around and collected goods which the trader wanted. Since he was probably an itinerant merchant, he required goods he could easily transport, with a relatively high value compared with their size and weight. Therefore, only textiles and copper were acceptable to him. The garments she possessed herself, the copper she had to 'borrow'.³⁸

In this way we should understand the economic reality expressed by our *nty m-di* texts. In some cases the 'borrowing' will actually have been to obtain food that was a necessity of daily life. Such debts will generally have been too small to be noted down. In other instances one 'borrowed' in order to pay for a purchase. The texts do not distinguish between them in their formulation. Note, however, that 'borrowing' for productive reasons is not mentioned in our material—unless perhaps the acquisition of wood in O. Gardiner 56 (see p. 134) was designated for that purpose, although this may have been a simple exchange transaction. Other texts that are discussed above present us, when understood, with an insight into a particular aspect of the ancient Egyptian economy.

³⁵ B. J. Kemp, *Ancient Egypt. Anatomy of a Civilization* (London, 1989), 239. Kemp speaks here about the redistribution system, defending the role of self-interest against what he thinks others have suggested—in my opinion rather superfluous, for nobody as far as I know ever made the unlikely statement that in ancient Egypt people were not interested in accumulating wealth.

³⁶ Published by A. H. Gardiner, *JEA* 21 (1935), 140–6.

³⁷ Gardiner translated *ini* as 'bought', but just that, I think, was not the case. His defence of this rendition (p. 144 n. 14), that 'it is not to be imagined that these persons presented their goods to Erenofre gratis', though in itself correct, misses the point.

³⁸ Not in the sense that she could ever give these actual objects back. Only their value could be replaced. Until then, she was in the debt of her 'lenders'.

A LATE EIGHTEENTH DYNASTY STATUE IN THE NICHOLSON MUSEUM, SYDNEY

By KARIN SOWADA

Publication of a little-known private statue dating to the late Eighteenth Dynasty, donated to the University of Sydney's Nicholson Museum.

SEVERAL large fragments of sculpture feature in the large and diverse collection of Egyptian artefacts displayed in the University of Sydney's Nicholson Museum. One of the most interesting pieces is an uninscribed upper torso of a man in diorite, R.1138 (pl. XII, 1-4).¹ The statue, which has never been published adequately,² can now be more firmly identified as an important piece of private sculpture depicting a high official, and dating to the late Eighteenth Dynasty.

Private statuary from the late Eighteenth Dynasty is generally poorly understood, partly due to the small corpus of extant pieces. It is not appropriate to conduct a detailed reappraisal of all the material in this brief note. However, further pieces are coming to light as a result of excavations at the New Kingdom necropolis of Saqqara, which should enable the prosecution of such a study in the future.

Description of the statue

Inv. No. R.1138: height 47.1 cm; depth 25.7 cm; width across front (from the point of sleeve to vertical break) 39.0 cm; width of face 13.5 cm; height of face (from chin break) approx. 14.2 cm.

Head and upper torso of a man in coarse black diorite, broken in a rough horizontal line across the diaphragm and obliquely through the body. The right shoulder and arm are missing, sheared off by a rough vertical break, and the left arm has broken off along the lower edge of the sleeve. While over some areas the exterior surface still bears a faint polish, much of the surface has been weather-worn, especially around the back and behind the head. Half of the nose has broken off and substantial pieces are missing from the chin and right breast; the left eye, eyebrow and temple area are severely damaged. The surface has been rubbed at the bridge of the nose. The right upper eyelid and lower lip are slightly damaged.

¹ I am deeply grateful to Prof. A. Cambitoglou, Curator of the Nicholson Museum, for permission to publish this piece. My thanks also to Mr E. D. G. Robinson, Assistant Curator, and Mr R. Workman, for their kind help in preparing the photographs.

² Brief notes appear in E. Reeves, *Catalogue of the Museum of Antiquities of the University of Sydney* (Sydney, 1870), 90 no. 1138; A. D. Trendall, *Handbook to the Nicholson Museum*¹, (Sydney, 1945), 46; the statue is described as possibly representing General Horemheb in C. Lawler, *Treasures of the Nicholson Museum* (exhibition cat., Sydney, 1979), 7 no. 28, and A. Cambitoglou, *Handlist to the Egyptian Collection*², (Sydney, 1991), 24; G. T. Martin, *The Memphite Tomb of Horemheb*, 1 (London, 1989), 23 n. 1; and R. Tefnin, *CdE* 64 (1989), 146 n. 2.

The head is erect and positioned back on a short neck set firmly into heavy shoulders. Two sloping neck sinews spread towards the edge of the jawbone from the base of the throat. Subtly modelled clavicles are divided by a faint vertical muscular contour which extends from this point to the first fold of skin at the diaphragm. The fold is convex, suggesting the presence of a second fold at the point of the break. The remaining nipple is defined on the curvaceous breast. Behind the figure, a thick back pillar extends from the base of the head. There is no trace of an inscription on the back pillar. The left arm shifts forward at the lower edge of the sleeve; possibly the arm was flexed at the elbow and rested on the thigh.

The low forehead recedes from the root of the straight nose. Fine carving defines the long nasal bone; the base of the nose is as wide as the space between the eyes. Naturalistic eyes are set obliquely into the brow, sloping down towards the nose; the right eye is set slightly higher than the left and possibly at more of an angle. The deep inner canthi are well-defined and tilt downwards. Rounded eyeballs look downward, the curved shape visible under the skin below the lower lid. An incised line separates the heavy, fleshy upper eyelids from the brow. Eyebrows in raised relief arch gently over the eye, following the line of the upper lid and tapering to a point on the temple. The pouting set of the drooping mouth is slightly oblique, higher on the right side than the left, while the lips are full and broad, sharply defined and turned down at the corners. The upper lip is broader with a slight downward point at the centre, and overhangs the thicker lower lip in profile. Subtly modelled naso-labial lines and a faint cupid's bow are visible.

The figure wears a thick, lightly striated crimped wig, set low on the forehead and parted down the middle of the head. On the forehead, the apex of the part is slightly off-centre. The wig follows the contours of the face and falls over the ears and collarbone in tapering lappets. The figure is attired in a clinging tunic, with an accentuated fold beneath the breast and sharply pleated, flaring sleeves (eleven folds remaining). A pair of shallow, incised lines curve around the base of the throat above the clavicles and join two short parallel lines at the centre, suggesting a fastened tunic with a vertical slit at the neckline.

The statue was sent to the University of Sydney by Sir Charles Nicholson in 1864, as part of a four-case consignment of (primarily Egyptian) antiquities.³ By this time he had already made a substantial contribution to the University collection, which was later published partly in his seminal work, *Aegyptiaca*, and more fully in Reeves' *Catalogue*. R.1138 is first mentioned in the latter, as the 'bust of a female figure, of the size of life, in black basalt, a work executed in a remarkably pure style of Early Egyptian art. The face is slightly mutilated. Stands one foot six inches high.'⁴

It would appear that Nicholson purchased this and other pieces during a short trip to Cairo in 1862. He makes mention of having bought 'several stelae, fragments of sculpture and other incised stones' from a Mr Massara, Dragoman of the British Consulate in Cairo.⁵ This purchase probably included the limestone naophorous statue of the vizier *Tj*,⁶ and definitely included six incised limestone blocks from the tomb chapel of Mose,

³ This is the only donation by Nicholson documented so fully in the University records. A Bill of Lading dated October 20, 1864, and a letter written by Nicholson describing the contents of the four boxes survive in the small collection of his papers: University of Sydney Archives, Acc. No. 951/952, Group P4, Series 4, Item 5.

⁴ Reeves, *Sydney Catalogue*, 90. Nicholson's own correspondence also described the piece as the 'bust of a woman', as did A. D. Trendall, who also believed it to be 'in Saite style', *Nicholson Museum Handbook*, 46.

⁵ C. Nicholson, *Aegyptiaca* (London, 1891), 95.

⁶ K. A. Kitchen and B. A. Ockinga, *MDAIK* 48 (1992), 99-103, pls. 20-1.

sent to Sydney in the 1864 shipment.⁷ According to Nicholson, 'these blocks . . . were represented by Mr Massara as having been brought from Memphis', although their provenance was undoubtedly Saqqara.⁸ The consignment also contained a limestone block dating to the reign of Akhenaton,⁹ found at Mit Rahina during excavations conducted by Joseph Hekekyan in 1854.¹⁰

The person from whom Nicholson purchased these pieces was Mr Hanna Massara, who began working at the British Consulate in 1837, initially as an interpreter. He was also the proprietor of an antiquities shop in Cairo, 'said to have been expensive'.¹¹ Massara clearly lived up to his costly reputation: Nicholson wrote of the consignment that '... [the antiquities were] collected by me with some trouble and . . . at considerable expense; . . . some of them perhaps . . . [are] objects of historical and philological (sic) value'.¹² Hanna Massara was possibly the brother of Youssef Massara, Dragoman of the French Consulate in Cairo, and a well-known dealer in antiquities. According to Malek, most of Youssef's objects came from Saqqara and Mit Rahina.¹³ In all likelihood, Hanna Massara also obtained much of his material, including R.1138 and other items he sold to Nicholson, from this rich source of ancient objects close to Cairo.

As R.1138 is a fragment, albeit a sizeable one, we can only surmise as to the nature of the statue to which it belonged.¹⁴ There is no evidence that the statue belonged to a dyad. The case for R.1138 being the male half of a dyad would have been strengthened with the presence of a wider backrest, possibly a secondary hand,¹⁵ and the vertical shoulder break on the left, indicating that the figure was positioned on the right-hand side of a dyad arrangement.¹⁶ None of these is extant on the Nicholson statue. In all likelihood, R.1138 was an independent figure. The narrow back pillar, the forward movement of the left arm, and the erect visage suggest that our piece was part of a kneeling figure making and offering or holding an altar, stela or shrine away from the body in the naophorous

⁷ These blocks are still in the Sydney collection. See PM III², 554; G. A. Gaballa, *The Memphite Tomb-Chapel of Mose* (Warminster, 1977), 18 f., pls. xli-iv; J. Malek, *JEA* 67 (1981), 156-65; id., *OLP* 17 (1986), 15 n. 74. Gaballa believed that only five blocks were in Sydney, but a sixth is extant.

⁸ Nicholson doubted their Memphis origin, considering rather that the blocks were found near the Djoser Pyramid at Saqqara by the Prussians: *Aegyptiaca*, 96. Prior Prussian discovery is disputed by Gaballa, *Tomb-Chapel of Mose*, 2.

⁹ This and two other blocks from a pavement, also found by Hekekyan and acquired by Nicholson on another occasion, were published by Nicholson in *Aegyptiaca*, 115-34; see also PM III², 220. At least one block is still held by Sydney University.

¹⁰ A letter from Hekekyan to Nicholson indicates that he knew Hekekyan and was familiar with his Memphis work: Nicholson MS, Acc. No. 951, Item 15. Joseph Hekekyan's papers and field notes are the subject of research by D. G. Jeffreys, University College, London. For the preliminary findings, see his *The Survey of Memphis*, 1 (London, 1985), 13 and *passim*.

¹¹ Malek, *OLP* 17, 15 f. I am grateful to Dr Malek and Dr M. L. Bierbrier for bringing this information about the Massara brothers to my attention.

¹² Nicholson MS, Item 5.

¹³ Malek, *OLP* 17, 15.

¹⁴ For a summary of New Kingdom statue types from the Memphis-Saqqara region, see J. Malek, *RdE* 38 (1987), 117-37.

¹⁵ The hands of women on dyads are seen in a variety of positions: behind the back as on Munich ÄS 5560 and Venice 796 in H. W. Müller, *MfBK* 18 (1967), 11-12, 16, pls. 2, 6 and Birmingham 69'96 in J. Ruffle, *JEA* 53 (1967), 39-41, pl. v; clasped on the spouse's thigh as with BM EA 36, T. G. H. James, *An Introduction to Ancient Egypt* (London, 1979), 203, fig. 78; and around the man's waist as on the dyad from Horemheb's tomb, Martin, *Horemheb* 1109, pls. 152-3.

¹⁶ Malek notes, however, that 'the opposite [dyad] arrangement [male to the left, female to the right] is also known': *RdE* 38, 120. See, for example, the limestone dyad from Saqqara: G. T. Martin, *MDAIK* 37 (1981), 307-11, pls. 48-9.

type.¹⁷ Such statues are well attested from the Memphite region.¹⁸ The unprovenanced figure in grey granite of the priest Ibeba, Louvre E. 25429, from the reign of Ay, bears an altar in its hands and is comparable to R.1138 on stylistic grounds.¹⁹

Alternatively, the Nicholson piece could have belonged to a single full-length figure seated on a dais, with the hands resting on the thighs,²⁰ or a striding figure.²¹ A slight downward tilt of the eyeballs is debatable, but its presence may suggest a single seated figure. However, these two types of statue are not common in the known private sculpture repertoire of the era; single standing figures are more frequently seen as small wooden statues.²² The back pillar and erect visage of R.1138 make it less likely that the fragment belonged to a life-size cross-legged scribal statue in the manner of the well-known sculpture of Horemheb as a scribe, now in New York, MMA 23.10.1.²³ The fold of skin below the breast on R.1138 is suggestive of either a seated or squatting figure. However, Cairo CG 551 and representations in Horemheb's Saqqara tomb depict standing figures with a fleshy 'bosom' and folds of skin beneath the diaphragm, so this is not conclusive.²⁴

The Nicholson Museum statue is without a visible inscription, so its dating and identity must be determined on stylistic grounds. The wig and costume both suggest a high official, dating to the late Eighteenth Dynasty. The unstructured, wavy long wig was one of several styles favoured by courtiers of the late Eighteenth and early Nineteenth Dynasties.²⁵ This wig type, or minor variations of it, can be seen on a small number of statues dating to this period²⁶ and in some Amarna tombs.²⁷ In addition, this style

¹⁷ Cf. Louvre A 73, MMA 33.2.1 and Cairo CG 619; J. Vandier, *Manuel d'archéologie égyptienne*, III (Paris, 1958), pls. clxiii.2, clxvi.3 and cliv.4. The back pillar and soft chest curves should be noted on Cairo CG 586, L. Borchardt, *Statuen und Statuetten von Königen und Privatleuten*, II (Berlin, 1925), 141 f., pl. 105. For a limestone offering statue from the tomb of Horemheb, see G. T. Martin, *JEA* 64 (1978), 9, pl. iv. 1, and *Horemheb* I, 110, pl. 154. B. Bothmer has suggested that the grey granite upper torso with a single back pillar dating to the reign of Amenophis III and Akhenaton, Brooklyn 60.96, belonged to a statue holding a stela: *BMA* 8 (1967), 81 f. For a standing naophorous figure, see Cairo CG 42161 in Vandier, *Manuel* III, pl. clix. 1.

¹⁸ Malek, *RdE* 38, 121.

¹⁹ J. Vandier, *JEA* 54 (1968), 89–94, pls. xv–vi.

²⁰ For example, the limestone statue of Maya, Leiden AST.1, and its pair, a statue of his wife Meryt, Leiden AST.3. The backrest of AST.1 is broader than the narrow back pillar of R.1138: Vandier, *Manuel* III, pls. clxvii. 4, 6; H. D. Schneider, *BSFE* 69 (1974), 20–48. See also a limestone seated figure dating to the reign of Amenophis III, Cairo CG 585; Borchardt, *Statuen und Statuetten* II, 140 f., pl. 105.

²¹ Cairo CG 551; Borchardt, *Statuen und Statuetten* II, 97 f., pl. 92; Vandier, *Manuel* III, pl. clxxi.4. This piece almost certainly dates to the reign of Amenophis III. A head, and a standing limestone statue of a single figure, along with emplacements for standing figures, have also been found in Horemheb's Saqqara tomb: G. T. Martin, *JEA* 62 (1976), 12; id., *JEA* 64, 9, pl. iv. 3; id., *Horemheb* I, 59, pl. 63.

²² For example, Cairo CG 806 and Cairo CG 801 in Vandier, *Manuel* III, pl. clxx.1, 3; Louvre E.11555 in J. Berlandini, *RdE* 37 (1986), 9, pl. 2.

²³ MMA 23.10.1 has been widely published. For references, see PM III,² 865, in addition to Müller, *MjBK* 18, 22 f., fig. 13; M. Lichtheim, *Ancient Egyptian Literature*, II (Berkeley, 1976), 100 ff. (text only); S. Schoske, *MjBK* 38 (1987), 18 f., figs. 12–13; Martin, *Horemheb* I, 23 n. 1, 161, pl. 155 A–C. A related piece is the black granite statue (ht. 67 cm), Alexandria P. 5953, in A. Rowe, *BSRAA* 35 (1942), 139, pl. 27, 1–2; cf. Cairo CG 592, Cairo JE 44861 and the Twentieth Dynasty statue of Ramses-nahkt, Cairo CG 42162; Vandier, *Manuel* III, pls. clxix.5, clxxi.3, cl.3.

²⁴ Martin, *Horemheb* I, pls. 85–6.

²⁵ In his study of this wig style, Tefnin (*CdE* 64, 143 f.) suggests that it was favoured exclusively by private individuals and was most popular during the Memphite era at the end of the Eighteenth Dynasty.

²⁶ Vandier, *Manuel* III, 486 ff. Cf. Cairo CG 42178, Berlin 4508 and Louvre A 73. The last dates to the reign of Rameses II/Merneptah: Vandier, *Manuel* III, pls. clvi.5, clvii.2, clxiii.2. On Alexandria P. 5953, the end of each strand is gathered in a small plait: Rowe, *BSRAA* 35, pl. 27, 1–2. See also the quartzite head, Beirut 1809, Tefnin, *CdE* 64, fig. 1a.

²⁷ N. de G. Davies, *The Rock Tombs of Tell el-Amarna*, II (London, 1905), pls. v (west wall), x (middle register), xxiii.

features in many of Horemheb's Saqqara tomb reliefs²⁸ and on the New York Horemheb, both dating to his pre-royal career under Tutankhamun.²⁹ The tunic with flared pleated sleeves likewise became more fashionable as court dress during the late Eighteenth Dynasty, at least as early as the reign of Amenophis III, and continued into the early Nineteenth Dynasty.³⁰ When the evidence of the wig and costume is added to the expressionist style and sensitive facial modelling, R.1138 can be placed more firmly in the era which flourished in workshops at Memphis shortly after the Amarna period. This style combined the expressionism of the Amarna age with a return to artistic restraint, and is generally associated with the reigns of Tutankhamun and Ay.³¹

Several key characteristics point to this date for the Nicholson statue. The androgynous appearance, an oval face, full prominent lips, obliquely-set eyes with heavy lids and an interest in the underlying facial bone structure, are all features associated with sculpture of the post-Amarna period.³² All these traits are evident on R.1138. As a whole, subtly modelled contours give the face and neck area of the Nicholson statue a three-dimensional structure, vitality and muscular realism. The features, placed somewhat asymmetrically on the face, are naturalistic and sensitive, yet sharp and strong. Contrasting with the thick-set shoulders, the body is almost feminine in the modelling of the plump chest curves, doubtless the reason why Trendall thought the piece the bust of a woman. This recalls the more supple handling of flesh under the hands of craftsmen from the reign of Amenophis III and the Amarna period, which persisted into the reign of Tutankhamun.

The trend toward greater realism during the Amarna period, which continued after the end of this era, can be clearly seen in the modelling of the eye area.³³ On the Nicholson statue, the eyeball has a sense of real volume and its curvature is clearly visible beneath the edges of the lower and upper lids. The upper lid is thicker and more clearly defined beneath the brow line; the eye socket is carefully shaped and the inner canthi are carved in a lifelike fashion. The modelled brow exposes the underlying bone, giving the eye more definition and heightening the sense of realism. Very similar modelling of the eye is found on BM EA 75, a black granite royal statue bearing the name of Horemheb,³⁴ and on a granite head probably representing the scribe Paramessu, Boston 42.467, dating to the

²⁸ Martin, *Horemheb* 1, pls. 30, 85-6, 88-9, 106-7.

²⁹ On the dating of MMA 23.10.1, see H. E. Winlock, *JEA* 10 (1924), 5; R. Hari, *Horemheb et la Reine Moutnedjemet* (Geneva, 1964), 47-8; Lichtheim, *AE Literature* II, 100; Müller, *MjBK* 18, 28.

³⁰ Vandier, *Manuel* III, 497. Short flared pleated sleeves are found on the ebony statuette of Tjay, Cairo JE 33255, generally dated to the reign of Amenophis III: J.-P. Corteggiani, *The Egypt of the Pharaohs at the Cairo Museum* (London, 1986), 103-4. See also Martin, *MDAIK* 37, 309.

³¹ W. C. Hayes points to a 'late, typically Memphite phase of the Amarna style': *The Scepter of Egypt*, II (Cambridge, Mass., 1959), 304. For a discussion of this trend, see Bothmer, *BMA* 8, 88; J. Berlandini, in *L'Égyptologie en 1979: axes prioritaires des recherches*, II (Colloques internationaux du CNRS 595; Paris, 1982), 195-212 (relief sculpture); also of relevance E. L. Ertman, *ibid.* 245-7; V. Solia, in *Artibus Aegypti. Studia in honorem Bernardi V. Bothmer* (Brussels, 1983), 147-52, fig. 1; Berlandini, *RdE* 37, 3-11. Much research remains to be done on the question of a separate Memphite artistic style: G. T. Martin, *The Hidden Tombs of Memphis* (London, 1991), 192 f.

³² Schneider, *BSFE* 69, 25-37; B. Bothmer, *The Luxor Museum of Ancient Egyptian Art: Catalogue* (Cairo, 1979), 120, 137; J. Berlandini, *Connaissance des Arts*, 413-14 (1986), 68-9; *id.*, *RdE* 37, 8 n. 30; Martin, *Horemheb* 1, 79 (relief sculpture).

³³ Bothmer, *Luxor Catalogue*, 120, suggests that a major change in the modelling of the region from a flatter to a more three-dimensional eye occurred during the Amarna period. For a more detailed and highly relevant discussion of depictions of the eye in sculpture during the late Amarna period, see C. Aldred, *Akhenaten and Nefertiti* (New York, 1973), 64.

³⁴ T. G. H. James and W. V. Davies, *Egyptian Sculpture* (London, 1983), 42 ff., fig. 51.

late Eighteenth or early Nineteenth Dynasty.³⁵ The latter also features strong eyebrows in raised relief. Beirut 1809 can be validly compared to the Nicholson piece in relation to the sensitive modelling of the eyes, although the second incised line towards the edge of the upper lid is not found on R.1138. To this corpus should also be added the statue in Munich, ÄS 5560,³⁶ which although differing from R.1138 in the detailed modelling of the features, is broadly similar in the shape and contours of the face.

The mouth is another notable feature of the Nicholson statue. Not wholly apparent in the photographs is the sharp, slightly raised edge of the lips, which is more prominent on the upper lip. The broad, sensual, slightly pouting mouth is turned down at the corners in a fashion that clearly evokes its Amarna precursors³⁷ but finds close parallel with statues dating to the reigns of Ay and Tutankhamun. Although comparison with royal statues should not be taken too far, R.1138 can be compared with a statue of Tutankhamun as Amun, Brussels 5698, in relation to the modelling of the eyes, bone structure and especially the mouth.³⁸ This should be considered along with the quartzite head from Memphis, Cairo JE 45547,³⁹ and the usurped statue of King Horemheb with Amun, Turin 768.⁴⁰ The sensuous modelling of the mouth is also notable on Brooklyn 66.174.1, a limestone block statue from Dahamsha dating to the reign of Ay; Bothmer describes the mouth as 'lush in appearance and disdainful in expression',⁴¹ a phrase which could be applied equally to the Nicholson statue.

This type of facial modelling and expressionistic style is found on other statues from the late Eighteenth Dynasty. For example, the New York Horemheb displays a strikingly similar treatment of the features, although the face is perhaps slightly more elongated. Worthy of particular mention is the uninscribed grey granite head in the Museo Archeologico in Florence, no. 6316,⁴² also closely comparable to R.1138. This piece is perhaps even more realistic in its modelling; one gets the sense that Florence 6316 is more fully a 'portrait' of the subject than the idealizing features of R.1138. The pouting, yet stern set of the wide, full mouth, naturalistic modelling of the oblique, heavy-lidded eyes, eyebrows in raised relief, receding forehead, heavy shoulders and back pillar find clear parallels with the Nicholson statue. This piece has been placed in the time of Horemheb and is closely comparable to MMA 23.10.1 and R.1138 despite differences in the hairstyle, which is a more elaborate version of the simple striated courtier's wig.⁴³

³⁵ B. Bothmer, *BMFA* 47 (1949), 42-6, no. 269, figs. 1-4; C. Aldred, *New Kingdom Art in Ancient Egypt* (London, 1951), 70, fig. 94; W. S. Smith, *Ancient Egypt as Represented in the Museum of Fine Arts* (Boston, 1960), 126, fig. 79; Müller, *MjBK* 18, 26 f., fig. 15.

³⁶ Müller, *ibid.* 9 ff., figs. 1-4, 19.

³⁷ Cf. Berlin 21340, Brooklyn Museum 86.226.20 (formerly L67.26.1) and head of a princess, Berlin 14113; Aldred, *Akhenaten and Nefertiti*, 166 no. 94, 168 no. 98 and 175 no. 102.

³⁸ Vandier, *Manuel* III, pl. cxviii.5; see also pl. cxvii.1 (Cairo CG 42091).

³⁹ Vandier, *Manuel* III, pl. cxiv.2; Aldred, *Akhenaten and Nefertiti*, 60, fig. 37; *id.*, *Akhenaten, Pharaoh of Egypt. A New Study* (London, 1968), pl. 8; P. Gilbert, in *Musées Royaux d'Art et d'Histoire, Le règne du Soleil. Akhnaton et Nefertiti* (Brussels, 1975), 76-7; Tefnin, *CdE* 64, 140, fig. 1b.

⁴⁰ Vandier, *Manuel* III, pl. cxxi.1; W. S. Smith, *The Art and Architecture of Ancient Egypt* (London, 1965), pls. 138-9; E. Scamuzzi, *Egyptian Art* (Turin, 1966), pls. xxx-i.

⁴¹ Bothmer, *BMA* 8, 84 f., figs. 30-4.

⁴² J. Vandier, *Egyptian Sculpture* (Paris, 1951), fig. 88; P. Gilbert, in *Studi in memoria di I. Rosellini*, II (Pisa, 1955), 99-104; Vandier, *Manuel* III, 520, pl. clxxii.2; Müller, *MjBK* 18, 26 ff., figs. 20-1.

⁴³ Müller, *ibid.* 28. Tefnin has also noted the close relationship between R.1138, MMA 23.10.1 and Florence 6316: *CdE* 64, 146.

As the total corpus of sculptures in the round from this era is not large, any association of the Nicholson piece with particular individuals must be approached cautiously. However, close similarities between R.1138 and MMA 23.10.1, in terms of material, execution and iconography, tend to the tentative suggestion that R.1138 may be a pre-royal depiction of Horemheb. There is a close resemblance in costume⁴⁴ and wig type.⁴⁵ Both statues are carved from expensive and durable hard stone types. This implies that, like MMA 23.10.1, the Nicholson piece represents a person of some importance. In iconographic terms, the facial features are clearly related. Each statue displays a similar treatment of the heavy eyelids, curvature of the eyeball beneath the skin, and modelling of the bone structure. Nonetheless, the lips of R.1138 are broader and more supple, while the body is more naturalistic in its modelling: the fold of skin beneath the breast on R.1138 is subtly moulded rather than sharply incised, as is the case on MMA 23.10.1. This may suggest the hand of an artisan closer to the traditions of Amarna than his contemporaries. In addition, the demeanour of the two statues is markedly different. The New York scribe is quiet and reflective compared to the alert, somewhat stern expression of R.1138, suggesting two figures in differing attitudes. Winlock's Cairene sources indicated that the New York statue 'had come from privately owned lands in the date palm groves of Mitrahinah (sic)'. He suggested that it was 'made for and set up in a court of the Ptah temple by Horemheb at the time he was residing in Memphis'.⁴⁶ It would appear that, like the Nicholson piece, MMA 23.10.1 was probably found at Memphis.

In conclusion, R.1138 is a fine piece of non-royal private sculpture, depicting a high official of the late Eighteenth Dynasty. Although closer identification of the figure should be approached with caution, the statue is tentatively proposed as a pre-royal depiction of Horemheb. The piece was almost certainly carved in the immediate post-Amarna period, probably in a workshop at Memphis, during the reign of Tutankhamun or his successor, Ay. Our fragment is most plausibly explained as part of a full-sized figure making an offering, holding a stela or naos, or seated on a dais. Information surrounding Nicholson's acquisition of the statue suggests that R.1138 came from the Memphis-Saqqara region and was meant for a tomb or, more likely, the Ptah temple.

⁴⁴The neck fastening on the tunic of R.1138 is shorter and not 'looped' in the same fashion as MMA 23.10.1.

⁴⁵The wig of MMA 23.10.1 bears horizontal notches at the end of each hair strand to indicate the tied tips, and strands on the forehead have been pulled diagonally back behind unseen ears, allowing the crown of the wig to fall down the side of the face; cf. Beirut 1809. No such features are visible on R.1138.

⁴⁶Winlock, *JEA* 10, 3. Hayes also suggested that the titles, gods and epithets mentioned on the statue are consistent with a Memphite origin (*Scepter* II, 304). I would like to thank Dr Dorothea Arnold, Curator of Egyptian Art at the Metropolitan Museum, for information about the acquisition of this piece.



1.



2.



3.



4.

EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION

By S. G. J. QUIRKE *and* W. J. TAIT

Publication of Wellcome Egyptian Manuscripts 2 to 10: part of a late Ramesside letter; a Third Intermediate Period *Amduat* papyrus including Hours 1 to 3; a Ptolemaic Book of the Dead in hieratic; the Demotic Bryce Papyrus; a Coptic homily on the Three Holy Children; two frames of Coptic fragments; and three modern liturgical books in Coptic. A note is included on Wellcome Egyptian Manuscript 1, fragments from hieratic prescriptions of the New Kingdom.

THE collections of the Wellcome Institute for the History of Medicine preserve a small group of Egyptian papyri, a Coptic parchment, and two small Coptic volumes on paper. These are here described for the benefit of scholars working on related material; the entries on hieroglyphic and hieratic papyri are by Stephen Quirke, those on Demotic and Coptic manuscripts by John Tait. We are most grateful to Dr Nigel Allan for his encouragement and every facility in access to the collection, and to the Wellcome Trust for permission to give an account of their Egyptian manuscripts in this journal, and for generously providing a grant towards their illustration.

Hieratic and hieroglyphic papyri

Wellcome Egyptian Manuscript 1

Fragments from a New Kingdom papyrus containing prescriptions.

This small group of darkened fragments had been glued together and stuck onto linen, and is currently in course of conservation by Alan Donnithorne, Department of Conservation, British Museum. At this stage of treatment it is possible to make out only occasional signs of the hieratic text, and no photograph can be given. From a preliminary inspection the hand appears to be of the late Eighteenth or early Nineteenth Dynasty.

According to a note of 2 July 1940 in the Wellcome collection files, the papyrus was purchased on that date from a Mr W. W. P. Falconer, who said that it had been brought from Egypt by his uncle who had worked there on excavations. This uncle was presumably Mr Harold Falconer, a member of the Matmar team for October 1930 to March 1931.¹ Although Harold Falconer worked in Egypt on at least that occasion, he may have acquired the fragments elsewhere. The note records that the item had been shown to Glanville and to the British Museum, where Spiegelberg had identified it as a medical papyrus fragment and dated it to 8,000 BC. That date is presumably an error in transmission.

¹ G. Brunton, *Matmar* (London, 1948) 1.

Wellcome Egyptian Manuscript 2

Fragments of a late Ramesside letter (pls. XIII, XIV)

The fragments are a light colour, with grey smears as if palimpsest. They are mounted in one frame, in an order that appears largely accurate but may be a little too closely fitted at the recto bottom right. The rather coarse texture of the papyrus makes it difficult to determine the precise arrangement from the fibres. As mounted, the fragments measure 23.3 cm (maximum height) by 8.4 cm (maximum width).

The fragments comprise the lower left-hand portion of a letter similar in hand and height to those edited by Jac Janssen.² There are no details recorded of acquisition date or provenance, but it may be noted that no papyri of late Twentieth Dynasty date have survived outside Thebes. The mention of Mont, recto line 1, may confirm the Theban origin suggested by the date.

Transliteration:

Recto (pl. XIII)

1.] *Mntꜣw hnn* (?)
2.] *iw.f ir w-* (?)
3.] *.-dn* (?) *sn*
4.] *-t n pry.f sn*
5.] *hrw n*
6.] *ꜥqw m ꜣ*
7.] *ꜣ..* (?)
8.] *r* (?) 7 *hrwꜣ*
9.] *i.d̄i.i*
10.] *-t̄i ꜣtr st iw.w*
11.] *.tn* (?) *iw ꜣ..* (?) *i.*
12.] *d̄i.i n rn.f iw mh bin*
13.] *im.w iw [..]-dt* (?) *iw.w sꜥd̄* (?)
14.] *.. im.w [..] pry ky* 18
15.] *.. [..] ..*

Verso (pl. XIV)

1.] *ꜣ ꜣw* (?) *.. [..] .. n t̄š̄i*
2.] *i.hꜣb.k [..] hꜣst* 32 8
3.] *.. 40* (?) *..*
4.] *d̄i* (?) *hr.w* (?) *n mꜣwt [..] n Tꜣwy*
5.] *.. 10 [+x ?]* *..*
6.] *.. in.w* (?) *ꜥn m-d̄i*
7.] *.w* (?) *.. m pry.k..*

These fragments are insufficient to give connected sense, and seem not to join any of those published by Janssen. Possibly other portions of the letter have survived unpublished, and may be recognized from this publication.

² *Late Ramesside Letters and Communications* (London, 1990).

*Wellcome Egyptian Manuscript 3*A Third Intermediate Period *Amduat* (pls. XV, XVI)

The papyrus roll has a maximum height of 24.3 cm, and is 150.5 cm in length, with a vertical fold about 0.5 cm in width at 39.5 cm from the right edge; this fold conceals perhaps 1 cm of the total width. Sheet joins, right over left, occur 20.5 cm from the right edge, 52.5 cm from the right edge (presumably an intervening join is obscured by the modern fold), and then at the following intervals: 19.7 cm, 20.0 cm, 19.8 cm, and 19.8 cm. The last preserved join is 22.0 cm from the left edge, but the vertical breaks 2 to 3 cm from the left edge may conceal another final join. The papyrus is a light brown hue, with staining at the right end and at points along the edges. The staining may be due to damp, and seems to involve no resinous matter, in contrast to the Ptolemaic Book of the Dead, Wellcome Egyptian Manuscript 4.

Although the Wellcome papyrus has neither acquisition details nor provenance, it is clear from the research of Niwiński that all extant funerary papyri of this period came from Thebes.³ A similar geographical restriction may be noted for the *Books of Breathing* and for related compositions of the late Ptolemaic and Roman Periods, and this suggests that the practice of copying and preserving texts was specific to certain places at certain periods.

The Wellcome *Amduat* does not provide the name of the tomb-owner. According to the classificatory scheme of Niwiński, this example falls into the category A.II.1b, that is, faithful copies of the last four Hours of the *Book of the Hidden Chamber Which is in the Underworld* as attested in New Kingdom royal tombs.⁴ In contrast to all examples in the *Amduat* categories discussed by Niwiński, this manuscript includes elements of the First and Third Hours in addition to the Eleventh and Twelfth. The various sections of the Wellcome papyrus can be identified with the following parts of the relevant hours:

Wellcome papyrus

Upper Register:

1. baboon on mound, monkey in shrine, jackal-headed and human-headed gods
2. figure of Horus and a serpent facing five goddesses slaying enemies in five sand-pits, a sixth pit with enemies upside-down, four goddesses with hill-lands hieroglyph on their heads, a human-headed god
3. four gods wielding oars
4. two deities with outstretched arms, ram with knives, Ptah figure, jackal on shrine, crouched man, *wadj*-sceptre
5. eight gods with raised arms

Royal Tombs

- Third Hour, upper register, left end (crocodile-not human-headed god)
 Eleventh Hour, entire lower register
- Twelfth Hour, lower register, left end, second group of four deities
 Third Hour, upper register, left end (continuing directly from 1)
- First Hour, lower register, third group (nine deities in three rows)

³ *Studies on the Illustrated Theban Funerary Papyri of the 11th and 10th Centuries B.C.* (Orbis Biblicus et Orientalis 86; Freiburg, 1989).

⁴ *Ibid.* 159-92.

Lower Register:

1. illegible hieroglyphic label
2. four uraei

First Hour, lower register, second group
(twelve in four rows, from which Wellcome
takes the right pair of the upper, and the left
pair of the middle row)

3. sun-bark towed by eight goddesses and
eight gods
4. twelve gods bearing a coiled snake, uraeus
with red crown, uraeus with white crown, two
goddesses with red crown, two goddesses with
white crown

Twelfth Hour, middle register (twelve gods
and thirteen goddesses)
Eleventh Hour, entire middle register

Right end of papyrus:

head and arms of deity, with scarab, reclining
mummy against lower arm.

Twelfth Hour, right end

The sporadic hieroglyphic labels on the Wellcome papyrus confirm these identifications, and are outlined below, noting divergences from the New Kingdom royal versions.

Upper Register:

1. none

2. falcon-headed figure: 'Horus'

serpent: '(fire)-shooter of millions'

the five sand-pits filled with enemy spirits: 'pit'
inside the first pit: 'enemy'

five fire-spitting goddesses: (1) 'she who is over her furnaces'; (2) 'she who is over her pits';
(3) 'injurer'; (4) 'she who is over her slaughterhouses'; (5) 'she who is over her knives'

the sixth, larger, pit: 'valley of the upturned'

four hill-land goddesses: (1) 'cook'; (2) 'burner'; (3) 'she who is over her sand', written as if *nt-mrt*,
'she who is of Right'; (4) 'destroyer' (written as if *br-dd*, 'enduring soul' rather than *htmyt*)

the human-headed god: 'he who is over his cauldrons (i.e. the sand-pits)' (written as if 'Atum of the
cauldrons')

3. four gods wielding oars: (1) 'clothed'; (2) 'he who is over dignity' (reduced to *f* and plural
strokes); (3) *in sfw* (not in New Kingdom versions); (4) *nhry* (in New Kingdom versions the name
of the third god with oar, with crocodile-head)

4. none

5. eight adoring gods: (1) 'he of the Underworld'; (2) 'direct of shore'; (3) 'he of jubilation';
(4) 'bull'; (5) 'arm' (or 'strong'); (6) 'destroyer of the Two Lands' (New Kingdom versions have
'destroyer of the heart'); (7) 'boar'; (8) 'bull of the Underworld'.

Lower Register:

2. four uraei: (1) 'cleaver of heaven' (New Kingdom versions have *wpst*, 'scorcher'); (2) 'slitter';
(3) 'protectress of the Two Lands'; (4) 'flaming' (the second *s* perhaps derives from the flame
determinative)

3. none

4. twelve deities bearing the coiled snake: (1) 'bearer'; (2) 'shoulderer'; (3) 'laden' (reduced from
stpy to *aleph* with oval and plural strokes); (4) 'binder'; (5) 'receiver'; (6) 'firm of arm'; (7) 'grasper';
(8) *iw* (as in New Kingdom versions, meaning uncertain); (9) 'taker'; (10) (lost in fold: New
Kingdom versions have 'embracer'); (11) 'guide of the image' (? as in New Kingdom versions the
reading is uncertain; written with *s* and two knives); (12) 'he of the Coiled Serpent'

uraeus with red crown: 'image of Isis'

uraeus with white crown: 'Nephthys'

first goddess with red crown: 'male Neit'

second goddess with red crown: 'Neit' (New Kingdom versions add the red crown)

first goddess with white crown: 'Neit of the red crown' (*sic*, New Kingdom versions have 'Neit of the white crown')

second goddess with white crown: 'Neit-Osiris'.

In manuscripts of this type, an offering vignette is sometimes provided at one end of the papyrus. It is possible that this papyrus contained such a vignette, supplying the name of the owner, but it is equally likely that the manuscript is complete and that the name of the owner would have been supplied by other items in the burial, notably the Book of the Dead which it complemented. Other examples of this style of *Amduat* date to the late Twenty-first to early Twenty-second Dynasties.

All other published examples and all copies in the British Museum contain motifs from the last four Hours of the *Amduat*. The inclusion of elements from the First and Third Hours on the Wellcome manuscript suggests that the transmission of the text may have been more complex than the models so far proposed, notably that the east wall of the burial chamber of Amenhotep II provided the model for *Amduat* papyri of the Third Intermediate Period.⁵ It remains probable that the funerary workshops drew most heavily on that one source, but the Wellcome manuscript indicates at least some input from other directions.

Wellcome Egyptian Manuscript 4

A Ptolemaic Book of the Dead (pls. XV, XVII-XXI)

Only the lower half of the papyrus roll is preserved. At some point in the last century this has been unrolled and glued to linen, but in the process some fragments have been misplaced. Since this treatment, parts of the surface and edges have flaked away. The flaking and discoloration prevent the identification of any joins. As mounted, the roll now covers a length of 207 cm, with a maximum height of 17 cm at columns 3 to 6 and 20-21.

The text, entirely in carbon black, is bordered below by a double line, with a blank space of 2.5 cm between this and what appears to be the original bottom edge of the roll. The text is divided into sections by vertical double lines, of which thirty-three can now be discerned with certainty, giving a minimum total of thirty-four columns. This numbering is used in the description of contents below, where less certain double lines and possible lacunae are noted. New formulae and sub-sections within them begin in a new column, a format of Late Period Book of the Dead manuscripts labelled 'Style 2' by Malcolm Mosher.⁶ No trace of vignettes survives, and other documents of 'Style 2' indicate that most of these would have lain across the upper margin of the roll, the sole exceptions being the full-height vignettes of BD Chapters 16 (the adoration of the sun), 110, 125, 143 (Osiris litany), 152 and 161. The restriction of the Wellcome Book of the Dead to the lower part of the roll between BD Chapters 16 and 125, omitting 110, might possibly be taken as evidence that the roll was found in modern times damaged but more complete than now, and was subsequently divided with the more marketable vignette fragments being sold separately. However, there is no evidence of modern cutting.

⁵ *Ibid.* 179-80.

⁶ *JARCE* 29 (1992), 149-50.

Stains from embalming materials poured over the body darken parts of the surface, and small quantities of solid resinous matter are visible below columns 3 to 14 and 21. The improvements in techniques of analysis in recent years raise the hope that enough of this material might survive to allow identification. Funerary manuscripts of different ages bear different degrees of staining from embalming or bodily contamination. Books of the Dead on papyrus in the New Kingdom do not show such damage, in contrast to those of the Third Intermediate Period and, especially, of the fourth to third centuries BC. An historical typology of embalming practices and the placing of funerary material is much needed to update E. A. T. Wallis Budge, *The Mummy: A Handbook of Egyptian Funerary Archaeology* (second edition, Cambridge, 1925).⁷

The name-space on this papyrus has been left blank in column 3, ll. x + 5, x + 6; column 15, l. x + 10; and column 26, l. x + 10. The name of the owner has been inserted in column 4, l. x + 10; column 5, l. x + 8; and column 26, l. x + 3. In column 20, ll. x + 1-2 and column 5, l. x + 5 the name of the owner is given the filiation 'born of *Tj-(nt)-hwt (?)*', but the name of the owner himself is nowhere clearly legible. It appears to begin $\overline{\text{Tj}} \text{ sm}$, but I have found no parallel for such a name form.

The following Chapters of the Book of the Dead occur in the columns, numbered as mounted:

Column 1: destroyed

Column 2: BD 17

Between columns 2 and 3 are two sets of double lines with an intervening blank space only 1.9 cm in width. The last legible line in column 2, the penultimate, l. x + 10, corresponds to Lepsius Tb 17, 11, *ink Mnw m prt.f*, and the first legible group in column 3 is *tp.f wn.i* in l. x + 2, corresponding to Lepsius Tb 17, 14. The missing two columns of text in Lepsius could not fill one of the broad columns used for BD 17 in the Wellcome papyrus; for example, Lepsius Tb 17, 15 to 17 fills only four lines in the Wellcome papyrus, column 3, ll. x + 5 to x + 8. There is no sign of a break in the horizontal fibres, and this seems to exclude the possibility that the modern placing of these fragments is incorrect. Therefore, the narrow gap appears original to the layout, but I can offer no explanation or parallel for its intrusion into the columns of the text of BD 17.

Columns 3-6: BD 17

Columns 7-13: BD 18

Column 14: BD 26 (garbled and incomplete)

Column 15: BD 30A

Column 16: BD 28

Column 17: BD 77

Column 18: BD 83

Column 19: BD 81A

Column 20: BD 87

Column 21: BD 88

Column 22: BD 86

Column 23: BD 56

Column 24: BD 58

(Between columns 24 and 25 a false join is evident)

Column 25: unidentified

Column 26: BD 74

Column 27: BD 92 (a fragment at the top of this column is misplaced)

Column 28: BD 93

Columns 29-33: destroyed

Column 34: BD 125 introduction.

⁷ An extraction of a Ptolemaic Book of the Dead from a mummy in modern times by European researchers is described in a report by Pleyte, kept in the archives of the Rijksmuseum van Oudheden,

Funerary manuscripts from later than the ninth century BC remain difficult to date, but recent research by Ursula Verhoeven and Malcolm Mosher⁸ allows a provisional assessment. Five fine 'Style 2' Books of the Dead come from Memphis, but the mass of such documents are less accomplished and their provenance is suggested by Mosher to be Thebes in the late Ptolemaic Period, after 200 BC. Until hieratic palaeography and the history of the Book of the Dead in the Ptolemaic Period have been further refined, it is possible only to ascribe the Wellcome example to this later phase.

Demotic papyri

Wellcome Egyptian Manuscript 5

The Bryce Papyrus (pls. XXII-XXIV)

The Bryce Papyrus, a Theban marriage contract of the third century BC, was first published by F. Ll. Griffith in 1909.⁹ His edition, exemplary for its time, was accompanied by photographs of the recto and of the witness-list on the verso. The former is rather small-scale and severely cropped, while the latter does not prove as legible on close inspection as a first glance might suggest. The plates published here may therefore perhaps be welcome to Demotists. After Bryce's death in 1919, the papyrus seemed to vanish, and Lüddeckens listed its present location as unknown in *LÄ* iv, 788.¹⁰ The text has, however, been cited several times, especially in studies of Demotic marriage contracts,¹¹ and a re-edition (transliteration, translation, and notes) appeared in Lüddeckens' volume on the subject. The papyrus is said to have been purchased by Bryce at Thebes at least 'some years' before 1909 (Griffith, p. 47), and the Theban provenance is fully confirmed by the contents. The beginning of each line, and hence the beginning of the dating formula, is lost: the securest indication of the date is afforded by the eponymous priests. The study of this institution by Clarysse and Van der Veken cautiously stated of the present text 'terminus post quem is 269, when the kanephoros was first introduced',¹² whereas more recently M. Minas has argued that, because of the mention of the priest of Alexander, it 'should be dated after 265/4',¹³ it is generally felt to be unlikely to date after 260 BC (so first Griffith, p. 49).

Leiden, and excerpted in Maarten Raven, *Mummies onder het Mes* (Amsterdam, 1993), 60-6; note the small patches of stained papyrus at top and bottom of the section illustrated there, p. 63 fig. 91.

⁸ U. Verhoeven, *Das saïtische Totenbuch der Iahtesnacht*, P. Colon. Aeg. 10207, mit einem Beitrag von P. Dils, 3 vols. (Bonn, 1993); M. Mosher, *JARCE* 29, 149-50.

⁹ F. Ll. Griffith, 'A Demotic marriage contract of the earlier Ptolemaic type', *PSBA* 31 (1909), 47-56.

¹⁰ William Moir Bryce receives an entry in W. R. Dawson and E. P. Uphill, *Who Was Who in Egyptology*² (London, 1972), 44. The New Kingdom hieratic writing-board known as the Bryce Tablet—published by Griffith, 'A contract of the fifth year of Amenhotp IV', *PSBA* 30 (1908), 272-5—found its way into the collections of the Oriental Museum of the University of Durham. It was accompanied by no record of its history, and was re-identified by T. W. Thacker. More recently, the present Wellcome Demotic text was first recognized to be the Bryce Papyrus by C. A. R. Andrews.

¹¹ See M. El-Amir, *A Family Archive from Thebes: Demotic Papyri in the Philadelphia and Cairo Museums from the Ptolemaic Period* (Cairo, 1959), pt. 2, 153, 162-3; E. Lüddeckens, *Ägyptische Eheverträge* (ÄA 1; Wiesbaden, 1960), Urkunden 12, esp. 26-8, where further bibliography is given; and P. W. Pestman, *Marriage and Matrimonial Property in Ancient Egypt: A Contribution to Establishing the Legal Position of the Woman* (P. L. Lugd.-Bat. 9; Leiden, 1961), text B2.

¹² W. Clarysse and G. Van der Veken, *The Eponymous Priests of Ptolemaic Egypt* (P. Lugd.-Bat. 24; Leiden, 1983), 6-7 (text D).

¹³ M. Minas, *The Eponymous Priesthoods of the Ptolemaic Period: A Study of the Demotic Evidence* (M. Phil. thesis, Oxford, 1993), 10-11.


After close inspection of the original, it seems more useful to add here a few minor glosses to Lüdeckens' edition, than to offer a new one:

line 1: The name of the father of the kanephoros is surely to be read *ṛstytqs* (so originally Griffith, and so also Clarysse and Van der Veken).

On the titles *ir(?) ḥp wn-ḥr(?)* see also Pestman, *Marriage*, p. 172.

At *Dem.Nb.* 1, vi, 412, the name of the husband is read (surely correctly) as *Pa-sy* (reference 2).

At the end of line 1, *mwt=f* is followed by three signs, the forms of which are not entirely clear. Thereafter, a vertical strip of papyrus with a width of 1.0–1.3 cm is very badly abraded, affecting all three lines of text. To the left of this, traces of the tail of the =f of *mwt=f* become increasingly clear, but no other traces may be seen here. Thus, probably no more than 1.5 cm of text are lost—certainly no more than 3.0 cm.

line 2: No satisfactory reading has yet been proposed for the word for cloth(ing) here and in line 3. It may be worth recording schematically that the ductus of the chief sign is .

The reading *r* in *mḥ* 6 *r qy* seems problematic. Given the free use of such fractions for linear and square measure in Problems 7–12 of R. A. Parker, *Demotic Mathematical Papyri* (Brown Egyptological Studies, 7; Providence, Rhode Island, 1972), it may be worth considering the reading *mḥ* 6 $\frac{2}{3}$ *qy* here and in line 3.

whṛ s/st: whatever the exact form of the pronoun, it surely does not resemble =f.

At the end of line 2, there are slight traces of a vertical stroke, but they are too far removed from *n-im=* to belong to the expected =w.

line 3: At the end, the slight traces occupy about 1.5 cm.

The material collected in the parts of the *Dem.Nb.* so far issued allows some improvements to Griffith's reading of the witness-list on the verso (pl. XXIV),¹⁴ and it may perhaps be useful to offer a transliteration here:

- 1 *Ḥr-pa-ṛs(.t) sṛ Ḥr-Ḥnsw*
- 2 *Pṛ-wr sṛ Wn-nfr*
- 3 *Pa-R^c sṛ Nḥt=f*
- 4 *Ḥr-Wn-nfr sṛ ...*¹⁵
- 5 *Ḥr sṛ Nḥt-Ḥr-m-ḥb*
- 6 *Mry-ḥs¹⁶ sṛ Nḥt-nb=f*
- 7 *Mry-ḥs sṛ Pa-ḥy*
- 8 *Mry-^rḥs¹ (sṛ) Imn-iw*¹⁷
- 9 *Twtw¹⁸ sṛ Prg*¹⁹
- 10²⁰
- 11 *Pa-s^ry¹ ...* [
- 12 ..²¹ [.....] ...

¹⁴ A few citations from the witness-list are actually given in *Dem.Nb.*

¹⁵ Conceivably *Mw(.t)-i-ir-ti-s?*

¹⁶ Despite minor variations, each sign making up the name of the witness in ll. 6 and 7 seems to correspond, and the names must surely be the same. The reading *Mry-ḥs* may be suggested. If this much is accepted, then it is difficult to read any other name in l. 8. The same name is a possibility in l. 12.

¹⁷ The reading of *Imn* is more secure than appears from pl. XXIV; nevertheless, there remains the difficulty that there would seem to be no writing of *sṛ* in this line.

¹⁸ The clear *twt*-sign in this line leaves little doubt as to the reading; but in l. 10 it is difficult to believe that the same name is in question.

¹⁹ *Prg*: on close inspection, *p* seems more likely than Griffith's *q*; but the best parallel to such a name is included only as doubtful in *Dem.Nb.* (l. viii. 571, *prq*).

²⁰ The father's name has every appearance of being compounded with *Pp*.

²¹ Possibly *Mry-ḥs*, as in ll. 6–8.

- 13 *Nht*-[...].
 14 *Dhwt*-^r*iw*¹[...].
 15 *P*^r-*ti*-...[...]. *s*^r *Pa-hy*
 16 *Hr-s*^r-*is*(. *t*)-... *s*^r *Hr-s*^r-*is*(. *t*)

Although Griffith's original brief physical description contained no substantial error, it seems worthwhile to offer a fresh account here. The papyrus is discoloured to a brown shade. The surviving area is 55.4 cm at maximum in width and 43.4 cm in height. The sheet joins are right-over-left, as expected. On the recto, the sheet joins are visible at about 14 cm, 13.5 cm, and 13.5 cm from the right-hand edge, and then about 13 cm survives to the left-hand edge. The width of the joins varies between 1.5 and 2 cm. The left-hand edge may perhaps have been cut rather than torn. The traces at the ends of the three surviving lines have been mentioned above.

Coptic manuscripts

Wellcome Egyptian Manuscript 6

Homily on the Three Holy Children (pls. XXV, XXVI; figs. 1, 2)

The two conjugate leaves published here in full are without question the same two leaves concerning which a considerable amount of information was given in passing by Evelyn-White in his 1926 publication of manuscripts from the Wadi al-Natrun monastery of Saint Macarius.²² In presenting there (p. 73) a summary edition of two leaves containing parts of the same text found by him at the monastery, he stated that 'other fragments of the same MS are extant'. He proceeded to give an account of the present pair of leaves, stating them to have been in 1908 'in the possession of a Spanish duke'. His remarks were based entirely, it seems, on information from W. E. Crum, 'who saw the original ... at the British Museum. The present whereabouts of this fragment is unknown.' The identity of the leaves seen by Crum with those published here is set beyond doubt—quite apart from the other details given—by the fact that Evelyn-White quoted the first six lines, with the appropriate lacunae indicated. He also mentioned fragments in Leipzig, again from the same MS, and noted that 'the complete²³ text is extant' in the Vatican. In editing this MS,²⁴ also from the monastery of St Macarius (together with other works concerned with the Three Holy Children), De Vis took note of the present fragment, but evidently had to rely on Evelyn-White's published account. The relationship between the two MSS—the order of the leaves—is briefly set out by De Vis (esp. p. 63), and will not be discussed further here. The chief interest presented by the present leaves is that the text (at least that of the second two pages) is considerably fuller²⁵ than that of the Vatican MS (such a variation is not surprising in patristic texts in Coptic). This may perhaps justify the transcription

²² H. G. Evelyn-White, *The Monasteries of the Wadi'n Natrûn, Part 1: New Coptic Texts from the Monastery of Saint Macarius; Edited with an Introduction on the Library at the Monastery of Saint Macarius* (New York, 1926).

²³ In fact the beginning and any title or indication of authorship are lost.

²⁴ H. De Vis, *Homélie coptes de la Vaticane*, II (Coptica 5; Haunia, 1929), 60–120.

²⁵ It should be noted that Evelyn-White provided a summary rather than a translation of the contents of the present leaves, thus giving a rather misleading impression of the relationship between the two versions (although De Vis perhaps suspected as much to judge from *Homélie*, n. 7 on pp. 73–4).

Text:

1	Ν θοκ δε λρεζ ερω'ο'γ[πεκμωιτ ετζηπ <u>vac.</u> [βι νεμωου αν επτ[Χ ε ηενπιεζουου ετ[5 Ν αβιτουγ νωου <u>vac.</u> η['μ'ο'γ' χναμου Ν θοκ <u>vac.</u> [Π λιρητ' γαρ αqδ'λογ[ναβογχοδονοc'ο[ρο μβαβγλων - .[10 Ε βαβγλων - αq[ηογν επαζο μπ'ε'q[αqτωβ ερωου μ'π'ε'q[ψβογρ - Μ πεqβι νεμωου - ψα'π[15 Π εζουου ητεπεqμο'γ[λιρητ' λ'ναβογχοδονο cop πογρο - αqω'λ'[..]ω λ'κιμ - νεμιεχονιαc πεq ψηρι εβαβγλων - 20 Ζ οτε ογν - εταπογροερ ηημφιν - πεχαq ημα ηη - πιχωχ ηcιογρ - χε λ'νιογυ ηηι εβολ <u>ηvac.</u> 'ε'ν ηι ψη'ρ'ι ητετεχμαλλωcια - 25 Η ε'ν'π'γενοc ητετ'μετ ογ'ρ'ο' - ηζανcωτπ ηηελ ψιρ'ι' - ματαζωου ερατου - ηπαμθο -	1	..]. ματcαβωου εταc ...]. χαλλδεοc - μοι νω ...]. πιηρηπ - νεμνιταπα ..] εψαρεπογρο - ου 5 ...]. βολ ηηητουγ -]. π'ιρητ' εταγψινη η]. η'ιηλ - νεμπιη ηα]. γιοc - αγχεμογ]. ψ'ιρι νε ητενιογ 10]. ογοζ αγταζωου]. ηπεμθο εβολ]. ρο <u>vac.</u> . ..]. ηαγ δε ηχε πογρο - ..]. α'ιαλλωογυ - αqραψε 15 ..]. ρ'ηι εχωου ημαψω - 'η'ε'μ' ε'χεν τογκαταc ταcic - νεμτογμετε π'ι'ι'ημη - εθηανεc - Θ ταqογαρcαζηι ερογτ' 20 νωου - εβολ ηενπιηρηπ ηcθωοινογqi - εψαρε πογρο cω ηηηηq - νεμ χινογωμ ηιβεν - εψα ρε'π'ογρο - ογωμ ηηη τουγ - 26 Ν ιαγιοc δε αγερογcοβ ηι - νεμνογερηου 'ε'γ χω ημοc - χεμπε[] <u>vac.</u> ερενογωμ ηζλι νε'η' 30 χαι - εψαρεναηπαρανο μοc ογωμ ηηητουγ - <u>vac.</u>
	(a)		(b)

FIG. 1. Egyptian Manuscript 6, pages (a) and (b).

(which eschews restorations) and the translation (incorporating the obvious restorations) offered here.²⁶

The leaves are parchment, rather dark, with a strong yellow tinge, and are still attached together at their fold; the first surviving page is hair-side. The height of the pages is 29.2 cm. The original fore-edge of the first leaf is entirely destroyed, and a width of up to 21.2 cm is preserved; of the second leaf the full width of 21.5 cm survives in part. The text is written in single columns, about 13 cm wide, and their height varies between 22.5 cm and 22.8 cm. There are some extremely faint traces of vertical rulings. The last page bears the number 30.

The hand may be dated to the tenth century AD, or perhaps no more than half a century either side of it. As the MS undoubtedly stems from the Monastery of St

²⁶ For a general account of the various surviving Coptic texts concerned with the Three Holy Children, see M. van Esbroeck, 'Three Hebrews in the Furnace', in A. S. Atiya (ed.), *The Coptic Encyclopedia* (New York, 1991), VII, 2257-9.

1	Χ εοϋπε ετεκνααιϋ - ιϷ πικοςμοϷ τηρϷ - νεμνι μετοϷρωου τηροϷ - αϷ <u>vac</u> δνεϷωου νακ -	1	λ νεμψλο'λ' niben etxh βαπεκερωψιψι - μαροϷ εωοϷ† τηροϷ επιαικ n̄ τε †ζικων - μαροϷ <u>vac</u>
5	Μ μον Ϸλι ηεννιμετοϷ ρωου n̄τ <u>vac</u> επκαϷι - † ε βοϷν εζρενπεκοϷαϷ ϷαϷνι -	5	ζ'ιτοϷ επεϷнт - n̄c <u>vac</u> ε οϷωψτ n̄μο[<u>vac</u>]Ϸ - n̄ce ερϷεβεϷε n̄μοϷ ϷωϷ νοϷ† - ϷεοϷνι ακβιϷι n̄μαϷω - εϷωπ ακψαν
10	Ν ιμ ετο̄νι n̄μοκ - ιε n̄ιμ ετοι n̄ζϷϷοϷ νεμ'α'. - Ϸε ακβιϷι παρην τηρ'ο[<u>vac</u>]Ϸ εταϷωψι βαϷω'κ' - νεμ n̄η εο̄νᾱι μενεϷϷοκ -	10	† Ϸω n̄μοϷ νακ - Ϸεακψαν Ϸωτεμ n̄Ϸωι †n̄αϷρε πεκψωτ ψωπι ϷιϷεν εο̄νοϷ niben -
15	Τ ωνκ οϷν †νοϷ ω ποϷρο βι νακ n̄οϷνοϷ'β' εφοϷ - μαθαμιδ̄ n̄τεκζι'κ'ω'ν' - νεμτεκϷτϷλη 'ε'[....]π - βαϷοϷ n̄μαϷω - Ϸε'λ'Ϸω λοϷ ηενϷωβ niben - n̄μετ	15	Μ αθαμιδ̄ νακ νοϷϷρω n̄Ϸρωμ n̄η[....]αερατϷωτεμ - ε ψτ. n̄'οϷ <u>vac</u> ωψτ n̄τεκζι κων - n̄τοϷρωκζ n̄νοϷ Ϸωμα - n̄τοϷωτεμϷεμ Ϸλι n̄κερμι n̄τωοϷ -
20	Ϸ βαι n̄πεκραν ϷιϷωϷ - μα ταϷοϷ ε̄ρατϷ ηεντκοι n̄n̄ρα - ηεντϷωρα n̄βαβϷ λων -	20	Ν αι δε n̄πιαιδ̄βολοϷ †Ϸοβ ni naϷ ε̄ρωοϷ - αϷμαϷϷ ε̄βολ ηενμαθοϷι niben n̄ταϷ -
25	Ο ϷοϷ λϷοϷ ηενοϷοϷαϷ ϷαϷνι - νεμοϷζονϷεν εο̄ρενιϷϷλη τηροϷ νεμνιαϷπι n̄λαϷ - νεμ γενοϷ niben n̄τενιρω	25	Ν η εταϷτϷαβο ε̄ρωοϷ <u>vac</u> αϷ ιϷϷ n̄μοϷ ηενοϷωλεμ αϷϷοκοϷ ε̄βολ - Ο ϷοϷ παιρη† n̄π'ο'Ϸρο ταϷο
30	Μ Ι		

(c)

(d)

FIG. 2. Egyptian Manuscript 6, pages (c) and (d).

Macarius, it is not surprising that the standard palaeographies have no exact parallels.²⁷ The hand might be said to exaggerate the typical features of hands from the monastery. It is very upright, and round letters are very rounded. **ω** has a substantial tail, almost square-cut at the right; **ο** has a short and strictly horizontal one. **β** and **κ** are very distinctive, with their upper right-hand portions very cramped. Most noticeably of all, **Ϸ** and **ε** form nearly a closed circle, the horizontal bar of **ε** (except in enlarged letters) being formed by merely a touch of the full width of the nib. Many parallels may be found among pls. 1–16 of Evelyn-White's volume, pl. 6A, pl. 8, and pl. 10A being similar; only pl. 12B, however, is likely to be from the same hand, although the piece is too fragmentary

²⁷ In H. Hyvernat, *Album de paléographie copte pour servir à l'introduction paléographique des Actes des Martyrs de l'Égypte* (Paris, 1888; repr. Osnabrück, 1972), pls. 20 (end of the ninth century), 25 (tenth or eleventh), 41.2 (c. tenth), and 42.1 (tenth) seem closest. In V. Stegemann, *Koptische Paläographie* (Heidelberg, 1936), the most relevant material may be found in Tafelband, pl. 17, 'Buchschrift des X. Jahrhdts: Dicker Stil'. There is nothing very similar in M. Cramer, *Koptische Paläographie* (Wiesbaden, 1964), but see pls. 53 (Nr. 22; AD 889), 57 (Nr. 26; AD 933), and 59 (—; AD 979).

and indistinct for certainty. At any rate, the history of the monastery's library as sketched by Evelyn-White (pp. xxi–xlvi), and in particular the large number of dated MSS of the ninth to tenth centuries (pp. xxv–xxvi) would suit the date suggested here.²⁸

Translation:

(a)²⁹

'...] But guard them³⁰ [in] your secret place. [Do not] touch them at all, because on the day when you take them ...,³¹ you yourself will surely die.' So Nabouchonosor the king of Babylon took them, [and brought] them to Babylon. He [placed them] in the treasury of his [god], (and) he sealed them with his seal-ring. He did not touch them, up to the day of his death. So Nabouchonosor³² the king took Joakim and Jechonias his son to Babylon. When, then, the king married,³³ he spoke to Manê, the chief eunuch, saying 'Bring to me from among the captive children, and from the royal race, some select youths, and set them before me.

(b)

Teach³⁴ them the speech of the Chaldeans. Give them the wine and the food which the king is used to consume.' So it was that they sought Daniel and the three holy youths.³⁵ They found [that] they were the sons of kings, and they set them before the king. [When] the king saw these youths, he rejoiced over them greatly, and over their manner and their fine understanding. He ordered that they should be given (a share) of the perfumed wine of which the king was used to drink, and (of) all the food of which the king was used to eat. But these saints took counsel together, saying 'Let us not eat anything of which these lawless people eat [...]

(c)³⁶

'...] what you yourself will do.³⁷ Behold, it is to you that the entire world and all kingdoms bow their heads. No one in the kingdoms of the earth opposes your command. Who resembles you, or who is equal to you? For you are exalted more than all those who have lived before you, and those who shall come after you. Arise, therefore, o king, take a great quantity of gold, (and) create your image and your monument³⁸ [...]. Raise them greatly. Adorn them with every work of craftsmanship. Write your name upon it, (and) set it up in the field of <D>êra³⁹ in the land of Babylon. And say in a command and an order that all nations and speeches of tongue and every race of men

(d)

and all people(s) who lie under your power—let them all gather for the consecration of the image. Let them cast themselves down and worship it and reverence it as a god. For indeed you are

²⁸ Evelyn-White's own dating of his fragments of the same MS was 'tenth or eleventh century'.

²⁹ Pages (a)–(b): cf. De Vis, *Homélie*, 73ff.

³⁰ i.e. the vessels of the house of God. Cf. Dan. 1; 2 Chr. 36:6ff. In our text, the Son of God is here addressing Nabouchonosor (Nebuchadnezzar).

³¹ It is hard to interpret **ΝΩΟΥ** here as any kind of dative, and the text may simply be corrupt; the Vatican version has the obvious 'when you touch them'.

³² Since the photographs for the plates were prepared, a small portion of parchment has been unfolded, with the effect that every letter of the king's name is now legible (similarly a few letters have been revealed on the verso).

³³ The reading seems secure, although Evelyn-White apparently records a reading (hardly an emendation) **ΕΡΝΗΦΙΝ**.

³⁴ **[ε]ΒΟΛ** might well be read at the start of page (b), but it is surprising that it was carried over to the new page.

³⁵ There is perhaps just room for the obvious reading, **ΝΑ|ΛΩΟΥ|ΝΑ|ΓΙΟC**.

³⁶ Pages (c)–(d): cf. De Vis, *Homélie*, 79ff. 15.

³⁷ The devil is addressing the king. Cf. Dan. 3: 1ff.

³⁸ Or 'inscription'?

³⁹ Evelyn-White suggests, with a note of query, that 'field of Ur' should be understood; but see De Vis, *Homélie*, 80 n. 3.

greatly exalted (but), if you do these things, you shall be exalted even more. I say to you: if you heed me, I shall cause your rod to be upon every nation. Make for yourself a furnace of fire; those who shall disobey (refuse) to worship your image, let their bodies be burned, and no ashes of theirs be found.' The devil gave him this advice, (and) he filled him with all his poison. When he had taught these things, he⁴⁰ hurried in haste and brought them to fulfilment. And thus the king set [...]

Wellcome Egyptian Manuscript 7

Papyrus fragments

Two glass frames containing minor papyrus fragments (21 in one frame, 20 plus some tiny scraps in the other). With the exception of two small strips from an account, the hands, where anything at all is legible, plainly indicate that these pieces are all literary. Too little survives to give hope of identifying the texts. It seems that these fragments were extracted from a 'made-up' roll. This, the writing-material (papyrus), and the hands (perhaps sixth to eighth centuries) suggest that there is no connection at all with the previous text.

Wellcome Egyptian Manuscripts 8–10

Modern liturgical books (pl. XXVII)

8. A composite volume containing two items, cased in a typical English late nineteenth-century style of half-leather binding. Inscriptions on the fly leaf include 'A. Burnell Cairo Nov^r 1868' and 'No 38 in Mr. I. White Kings Catalogue'. (a) The first item is a paper liturgical manuscript, 153 mm high by 112 mm wide; Coptic (Bohairic) with the usual Arabic running version, and Arabic titles; black and red ink. The leaves (after the first) are numbered in Arabic on verso; evidently complete. The Arabic colophon on 52 verso is dated 'Monday 15 Baramhat 1579 Coptic year of the Martyrs'⁴¹ (22 March 1863). Leaf 53 is numbered on verso, but blank recto and verso; then some blank leaves. Leaves 36–39 contain a list of patriarchs of the Coptic Church ending with Cyril IV (1854–61); the colophon mentions Demetrius (II, 1862–70). (b) The second item is a paper manuscript, 143 mm high by about 98 mm wide (width varies). Coptic and Arabic; black and purplish-red ink. Contains Psalms, Coptic with Arabic headings, then the story of Joseph of Arimathea, in alternate Coptic and Arabic paragraphs. It is in a quite different hand from (a), but probably of similar date.

9. Part of a disbound paper manuscript, badly worn. Coptic and Arabic; black and red ink.⁴² One detached (probably front) board survives of the binding, quarter leather, no doubt Egyptian. A slip of paper is present, typescript, probably from the middle of the present century: 'Coptic (Bohairic) paper volume with liturgical text, prayers, psalms, liturgies etc. 18–19th Century.' The leaves (not pages) have been numbered in red pencil

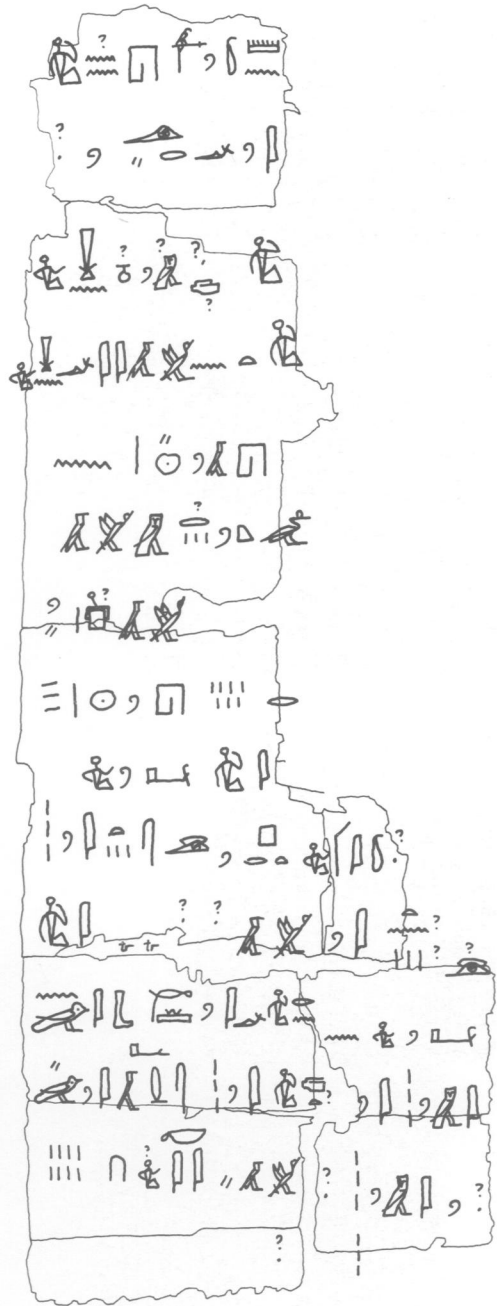
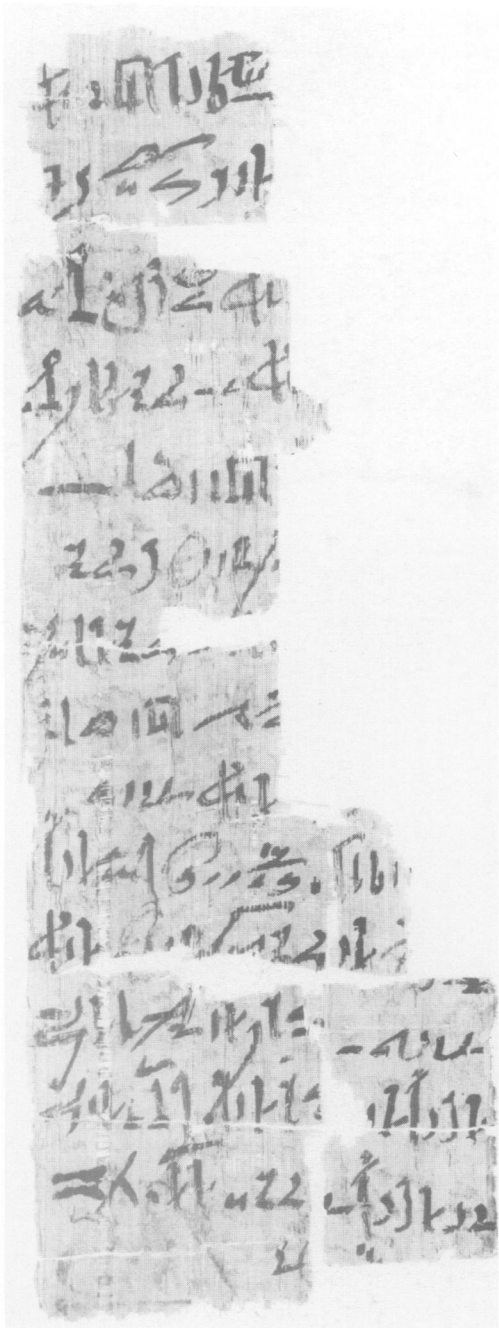
⁴⁰ It is questionable whether the king or the devil is to be understood as the subject of the verb 'hurry' here; or possibly **TCABO** should here be taken in the sense 'learn' (cf. W. Crum, *Coptic Dictionary* (Oxford, 1939), 434b, reference to Ps 105:35, Bohairic): i.e. 'When he (the king) had learnt these things, he hurried in haste ...'

⁴¹ I am most grateful to C. H. Bleaney for her comments on the Arabic of these texts.

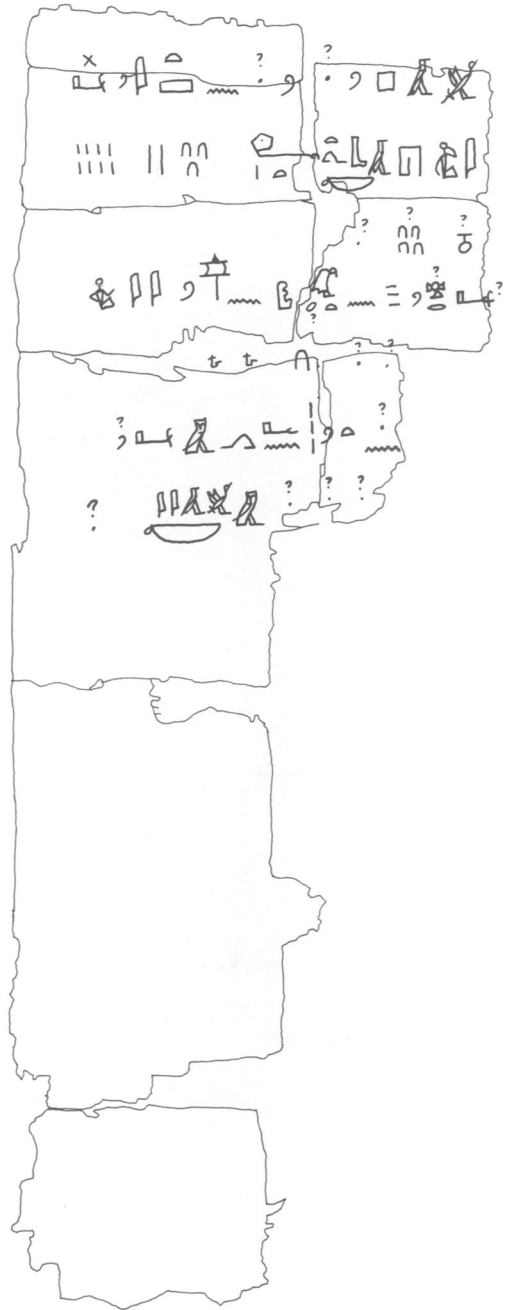
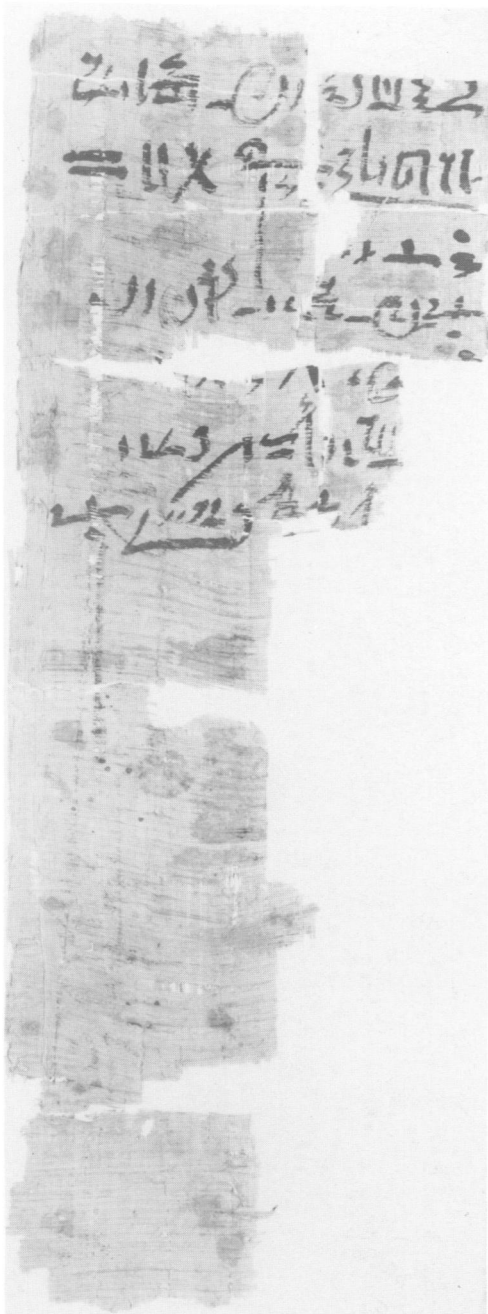
⁴² One leaf (apparently not the title page of the entire volume, but a title to a section) is written and decorated in black, red, and blue ink, and gilt.

in modern European style, and on the recto. There is considerable evidence of original quire-numbering etc., and the manuscript is clearly incomplete.

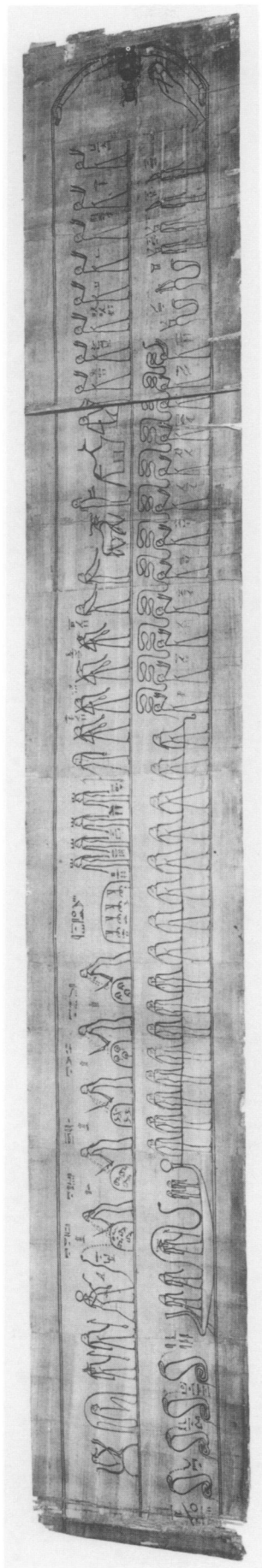
10. Part of a disbound paper manuscript, badly worn. Coptic and Arabic; black and red ink. A similar slip states: 'Coptic (Bohairic) paper volume with various prayers from the Anaphoras of Cyril and Gregory. The pages are unnumbered and some leaves are probably misplaced or missing. 18-19th Century'. This again is fair enough, except that in some, but not all, parts of the volume the leaves have their original numbering on the verso (and the manuscript indeed cannot be complete).



Egyptian Manuscript 2: late Ramesside letter, recto (p. 146)



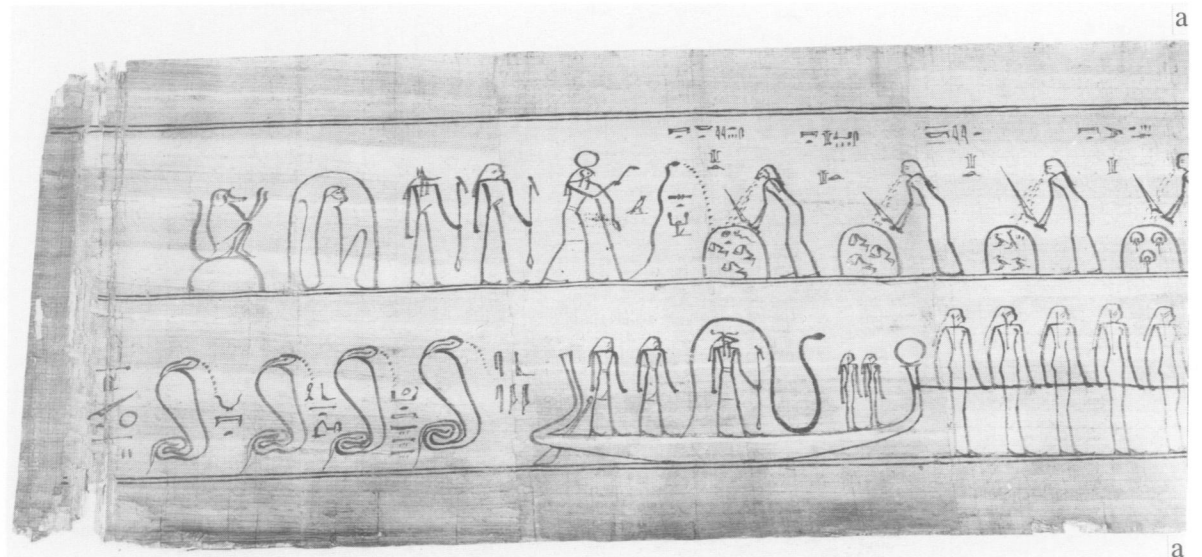
Egyptian Manuscript 2: late Ramesside letter, verso (p. 146)
EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



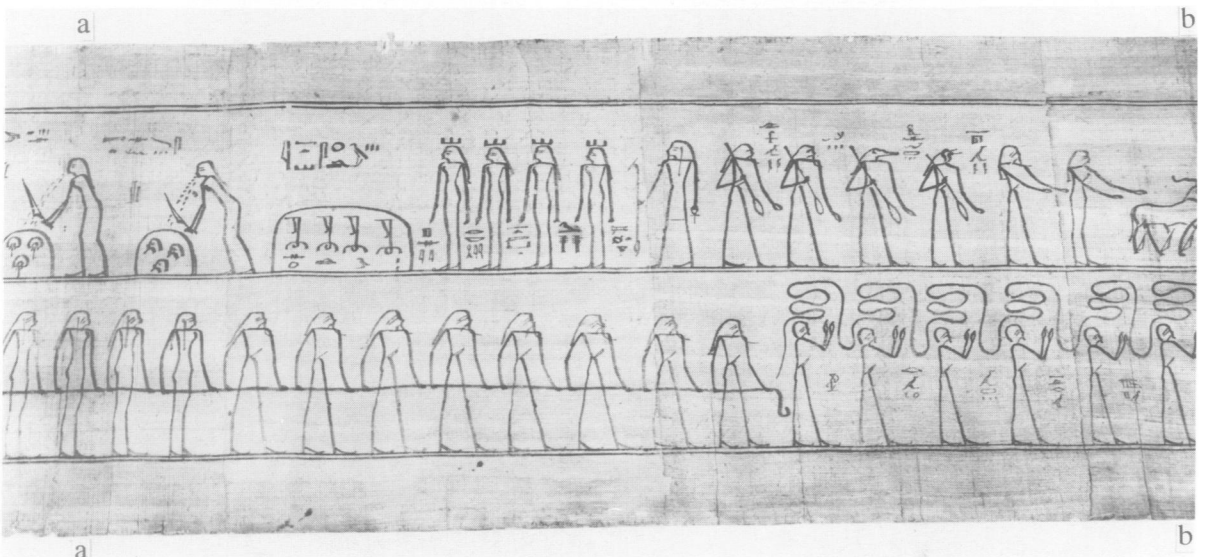
1. Egyptian Manuscript 3: *Amduat* of the Third Intermediate Period (pp. 147-9)



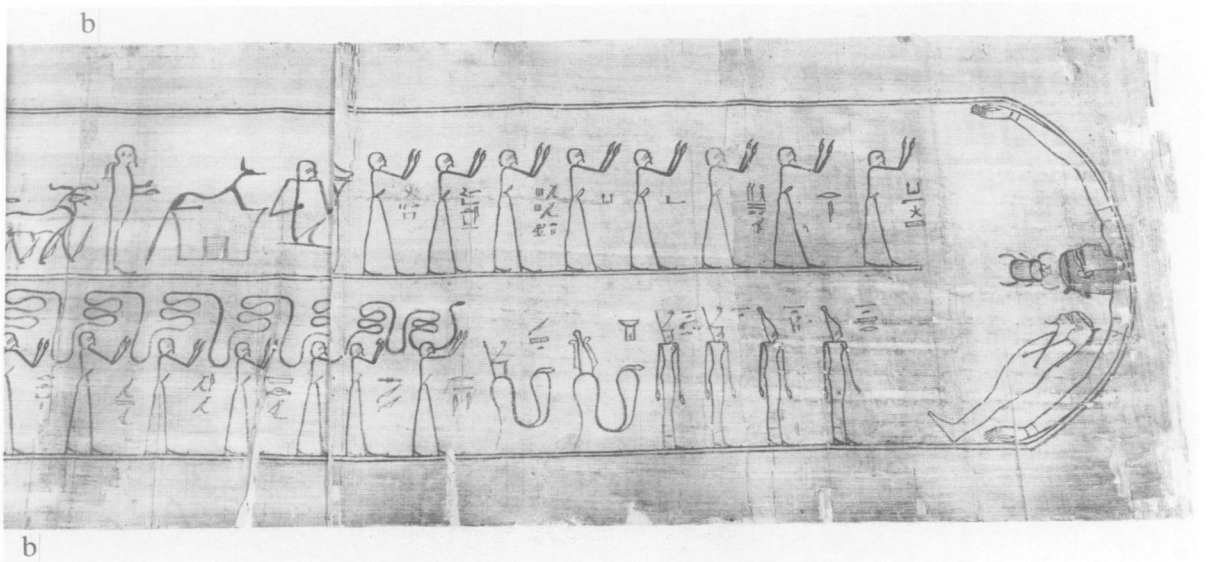
2. Egyptian Manuscript 4: Ptolemaic Book of the Dead (pp. 149-51)
EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



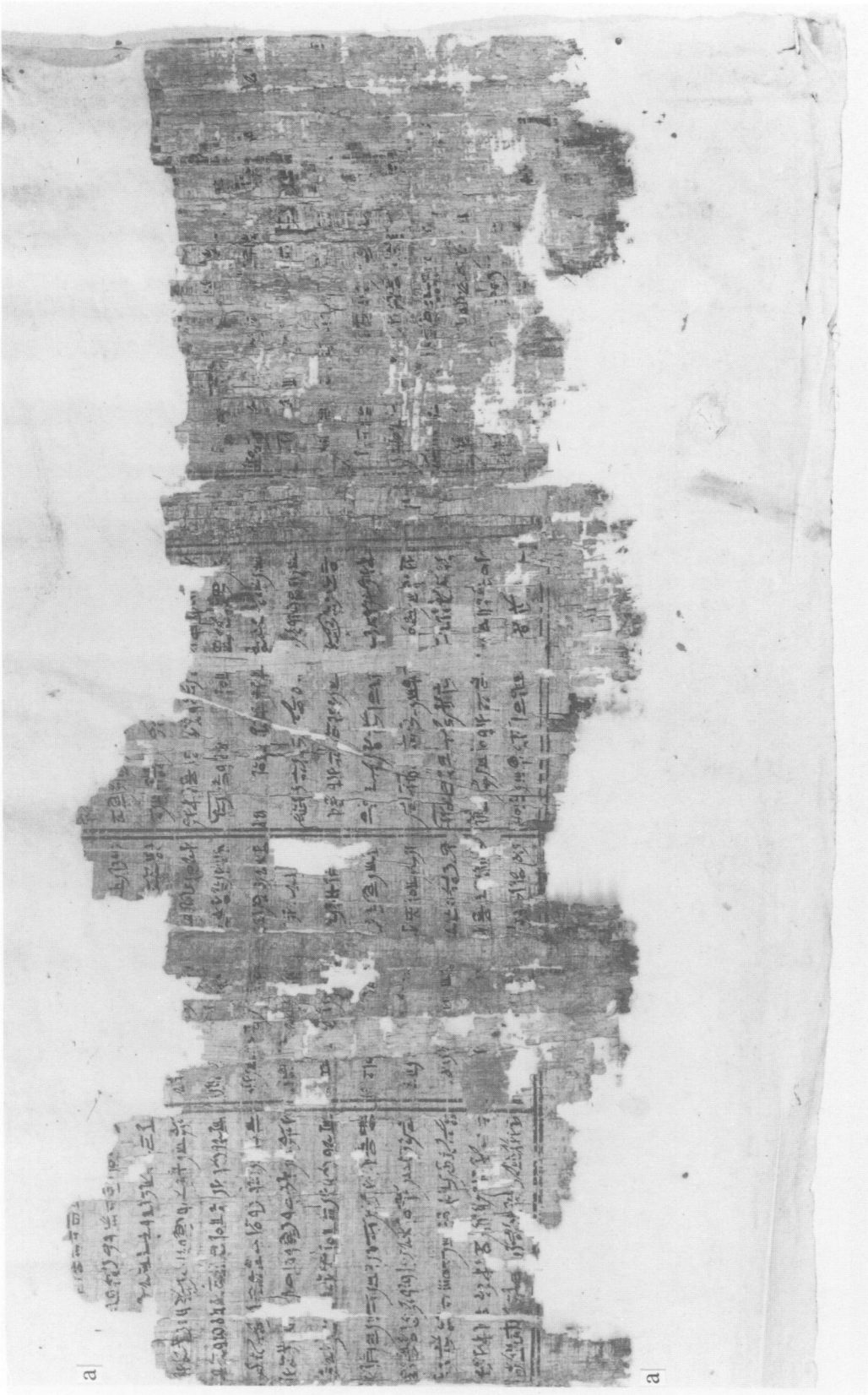
1.



2.



3.



Egyptian Manuscript 4, cols. 1-5 (pp. 149-51)

EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



Egyptian Manuscript 4, cols. 5-11 (pp. 149-51)
EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



Egyptian Manuscript 4, cols. 11-18 (pp. 149-51)

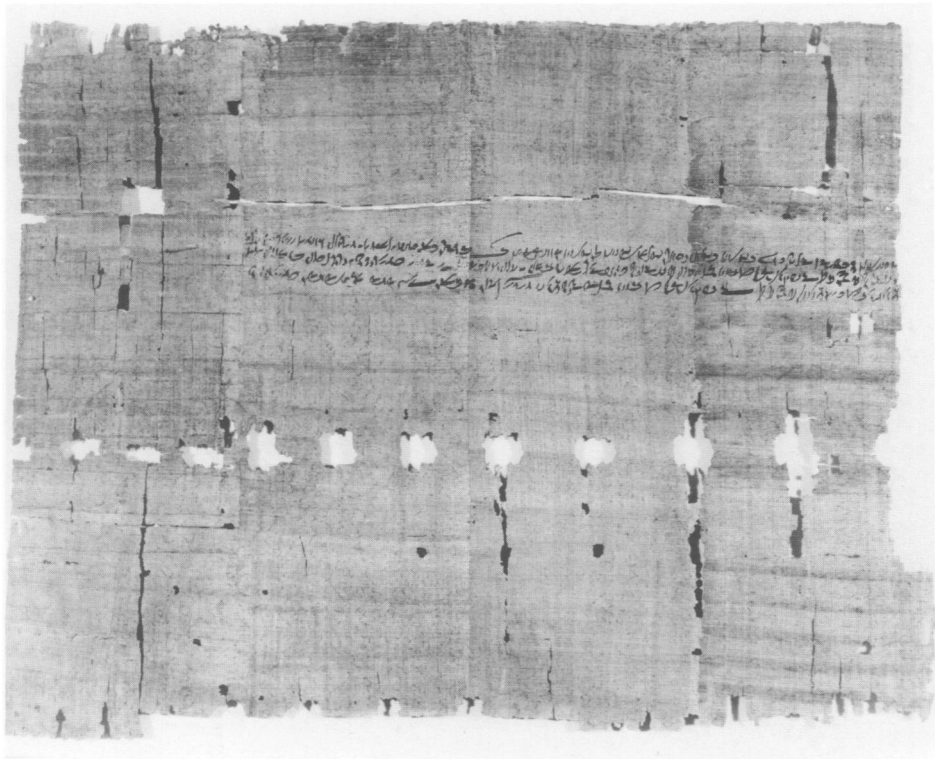
EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



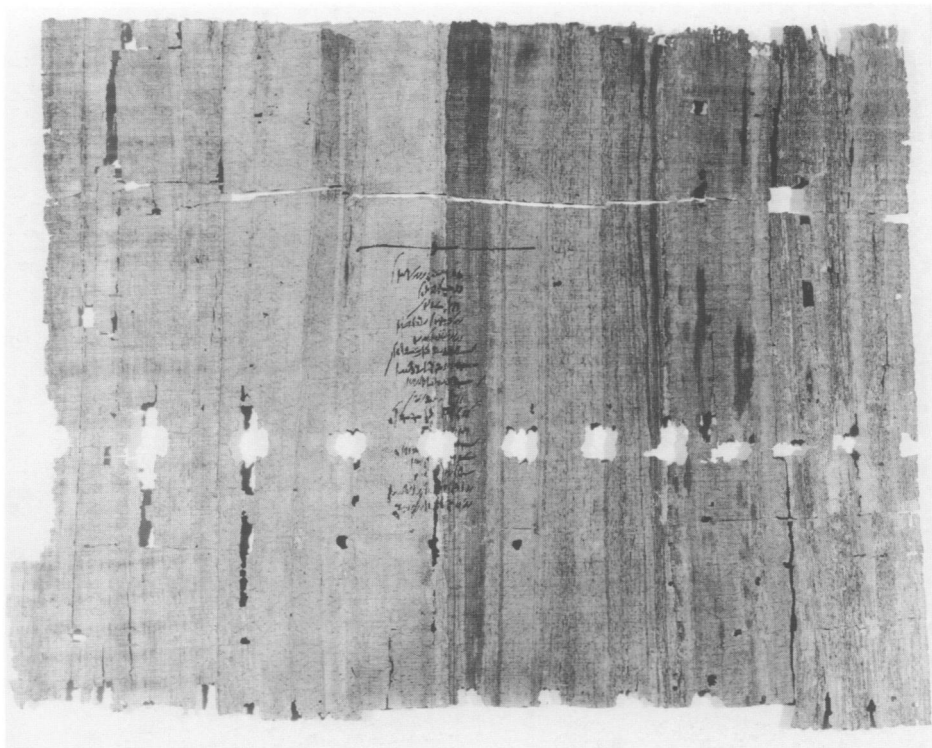
Egyptian Manuscript 4, cols. 18-28 (pp. 149-51)
EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



Egyptian Manuscript 4, cols. 28-34 (pp. 149-51)
EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



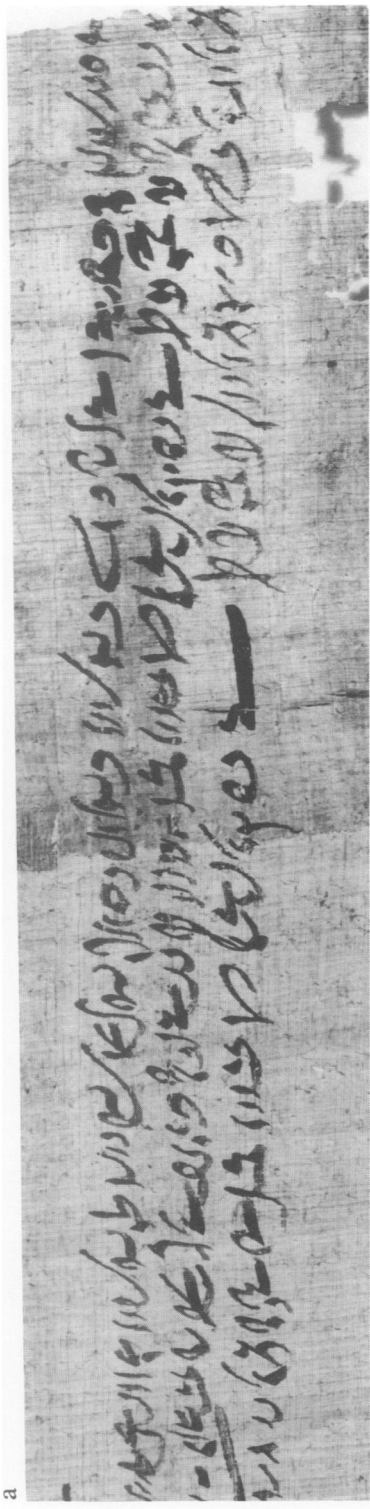
1. Recto



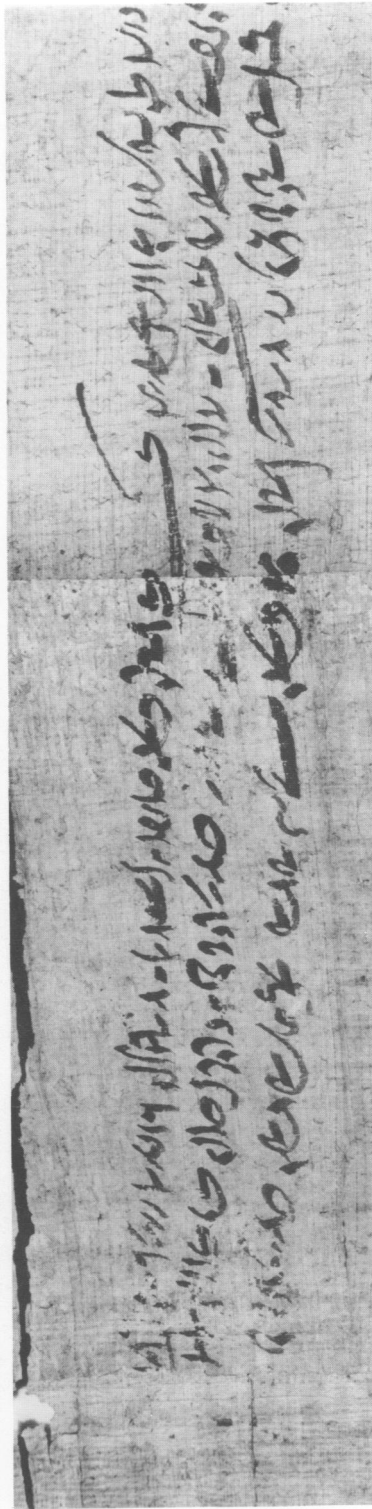
2. Verso

Egyptian Manuscript 5: The Bryce Papyrus (pp. 151-3)

EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION

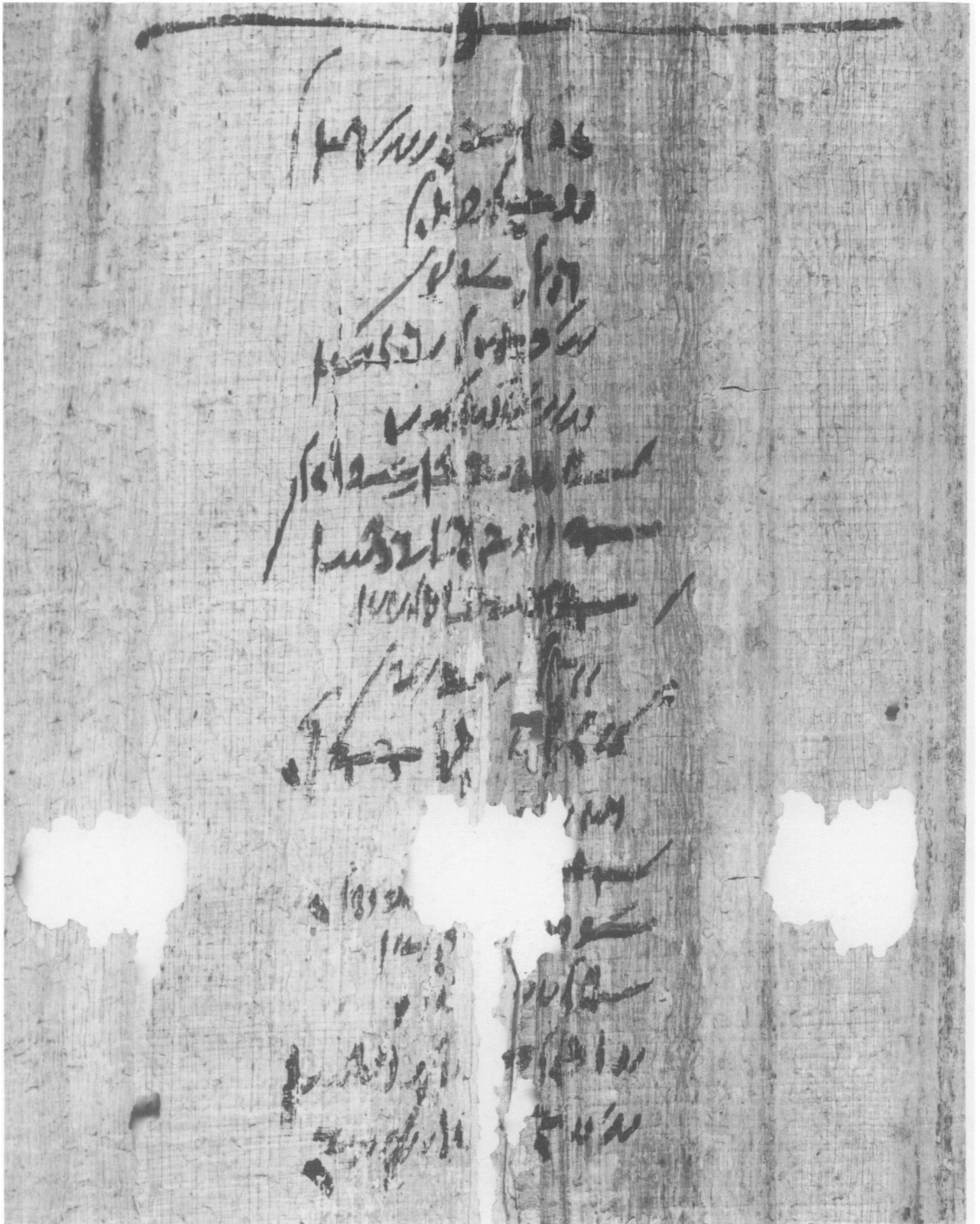


a

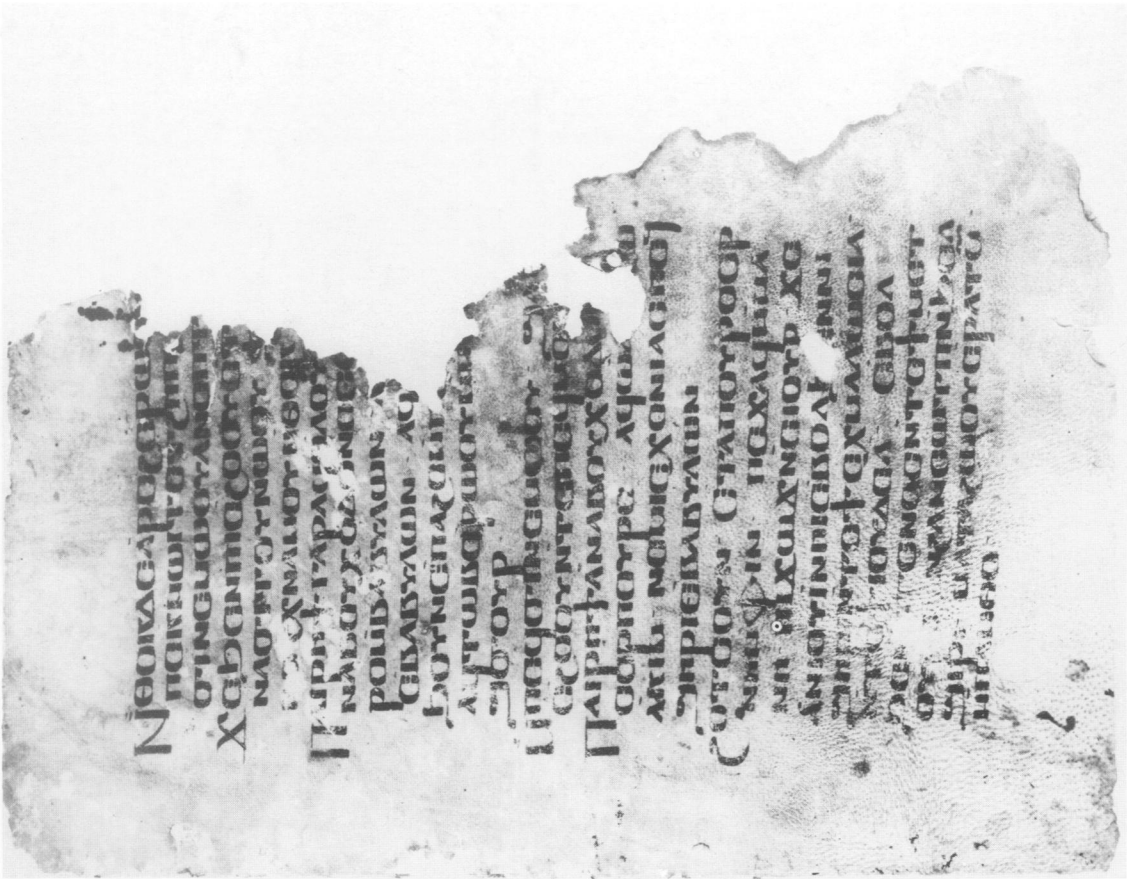


a

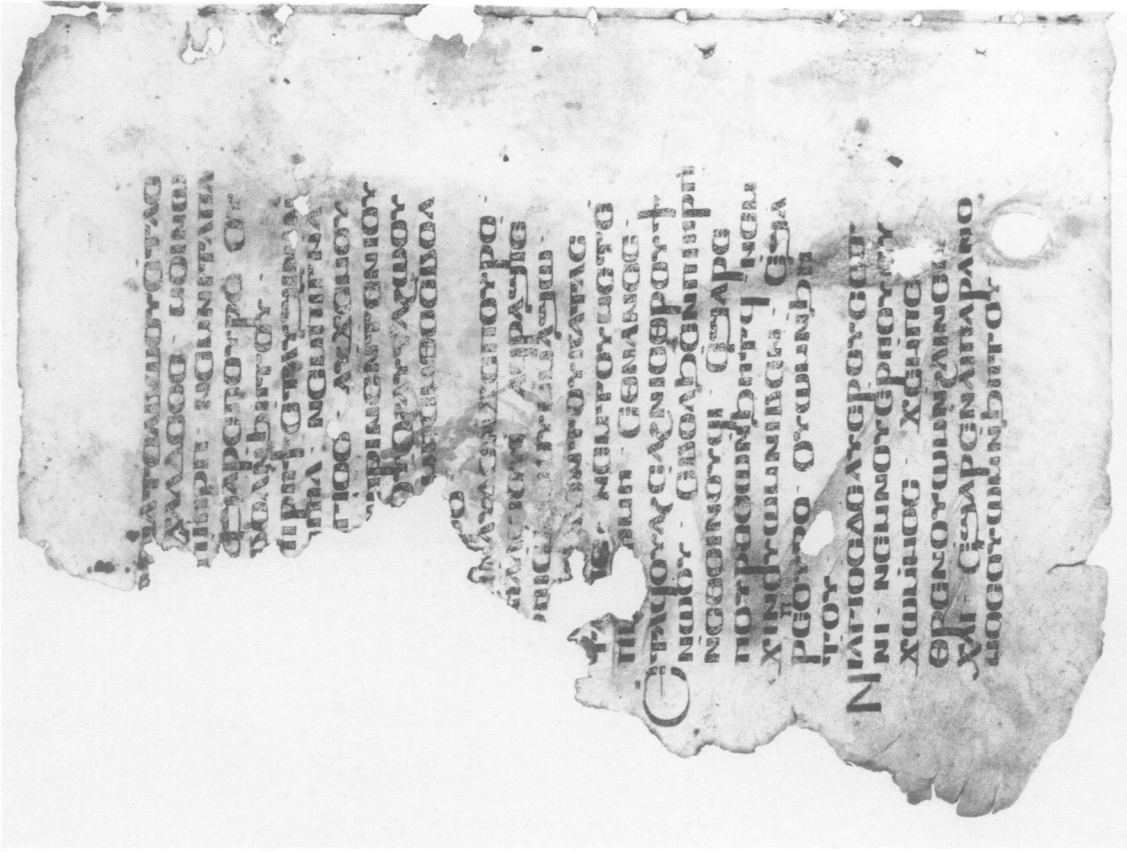
Egyptian Manuscript 5 (The Bryce Papyrus): text on the recto (pp. 151-3)
 EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



Egyptian Manuscript 5 (The Bryce Papyrus): witness list on the verso (pp. 152-3)

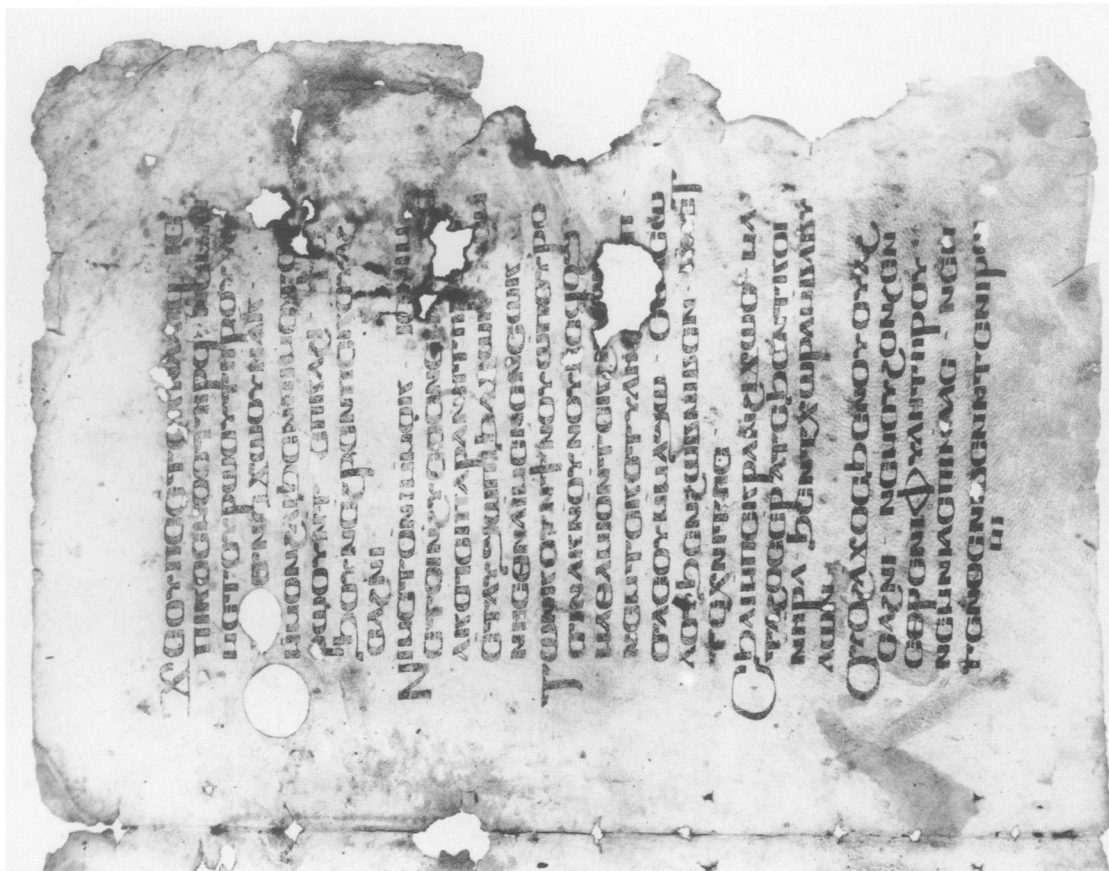


1. (a)

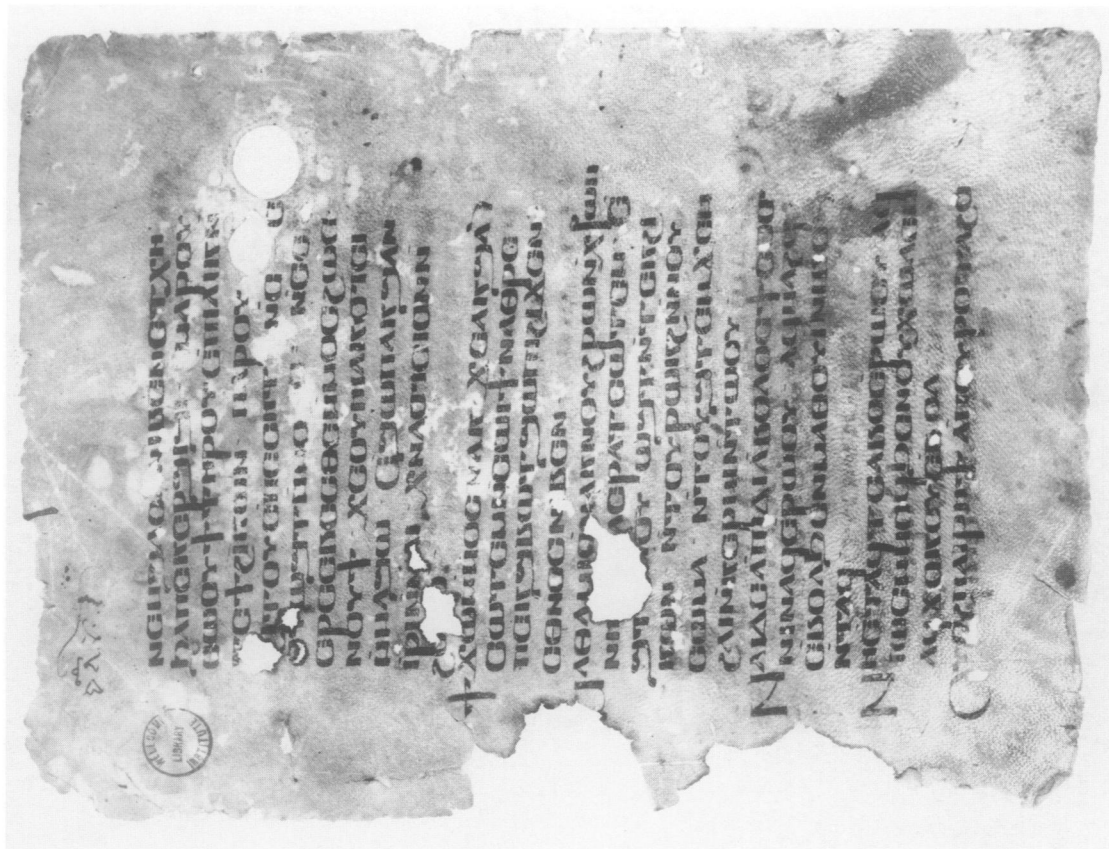


2. (b)

Egyptian Manuscript 6: Homily on the Three Holy Children (pp. 153-7)
 EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



1. (c)



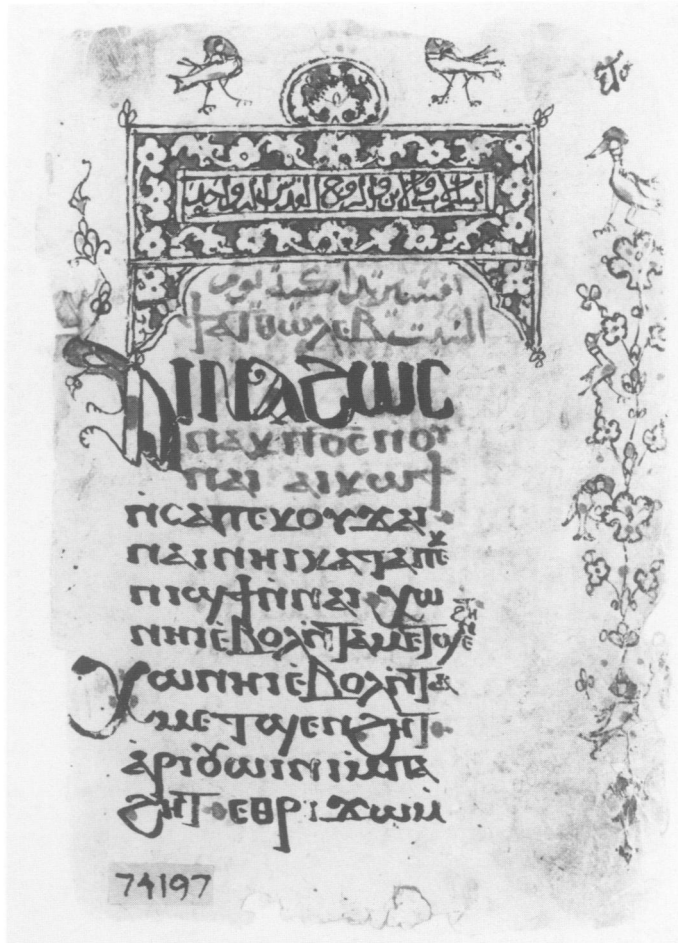
2. (d)

Egyptian Manuscript 6: Homily on the Three Holy Children (pp. 153-7)

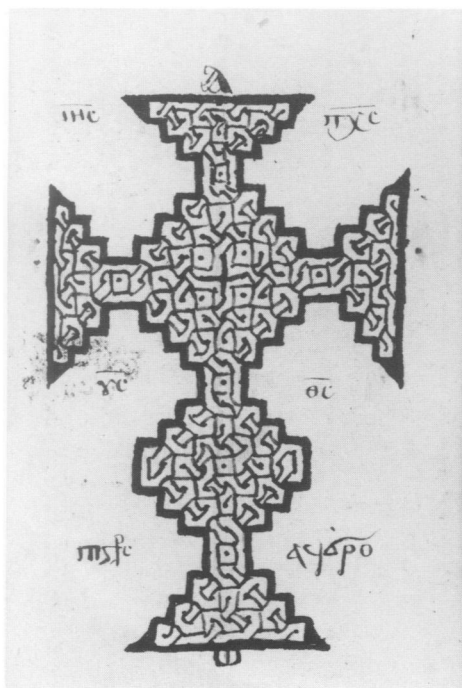
EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION



1. Egyptian Manuscript 9



2. Egyptian Manuscript 10



3. Egyptian Manuscript 8

Coptic liturgical books (pp. 157-8)

EGYPTIAN MANUSCRIPTS IN THE WELLCOME COLLECTION

POST-MEROITIC ('X-GROUP') AND CHRISTIAN BURIALS AT SESIBI, SUDANESE NUBIA. THE EXCAVATIONS OF 1937

By DAVID N. EDWARDS

Publication of a small group of 'X-Group' and Christian graves at Sesibi, excavated by the Egypt Exploration Society in January 1937. This is the most southerly site where typically 'X-Group' material has been found. A range of practices can be seen which provide a useful insight into the transition from typically pagan to Christian burial rites during the early sixth century AD.

Two seasons of excavation were carried out by the Egypt Exploration Society in and around the New Kingdom settlement at Sesibi (Sudla) in northern Sudan during the winters of 1936-7 and 1937-8. The first season was directed by A. M. Blackman and the work was completed by H. W. Fairman. Two preliminary reports were swiftly published,¹ but full publication was never undertaken and many of the results remain unreported. Further publication has been limited to that of a collection of finds in Stockholm² and a few other individual objects.³ The need for a full publication of this remarkable site has long been clear, both with regard to the 'temple-town' itself and the associated cemeteries, about which almost no information has been published. The importance of the site is not confined to the New Kingdom, since it has become apparent that the excavators also encountered remains of later periods, of which no mention was made in their reports. In particular, Kirwan reported that typical 'X-Group' post-Meroitic (c. AD 350-550) material had been found at the site,⁴ and a number of examples of 'X-Group' ceramics from Sesibi have been noted in museum collections.⁵ These are of considerable interest, as Sesibi marks the southernmost location where such material has been encountered.

During the winter of 1991, limited fieldwork was carried out at Sesibi by the Mahas Survey Project.⁶ While carrying out a brief reconnaissance of the area, the opportunity was taken to assess the current condition of all known sites, prior to carrying out more intensive fieldwork. The New Kingdom settlement at Sesibi is one of the few major sites

¹ A. M. Blackman, *JEA* 23 (1937), 145-51; H. W. Fairman, *JEA* 24 (1938), 151-6.

² B. Peterson, *OrSu* 16 (1967), 3-15.

³ J. Keith-Bennett, 'Anthropoid Busts: II. Not from Deir el Medineh Alone', *BES* 3 (1981), 43-71, esp. 60-1. A small group of Mycenaean sherds from Sesibi was also noted by V. Hankey, 'The Aegean Interest in el Amarna', *Journal of Mediterranean Anthropology and Archaeology* 1 (1981), 38-49, esp. 46.

⁴ L. Kirwan, *The Oxford University Excavations at Firka* (Oxford, 1939), 34. For convenience, the traditional, although increasingly outmoded, usage of 'X-Group' to define this period will be adhered to in the report, rather than 'Ballana', or 'Noubadian'.

⁵ B. Trigger, *History and Settlement in Lower Nubia* (Yale University Publications in Anthropology 69, 1965), 133, n. 9; L. Török, *Late Antique Nubia* (Budapest, 1987), 176 n. 843.

⁶ This project was based in the University of Khartoum under the direction of Dr Ali Osman Mohammed Salih, with a survey licence granted by the Sudan National Corporation for Antiquities and Museums. The author acted as Archaeological Field Director during the 1991 season.

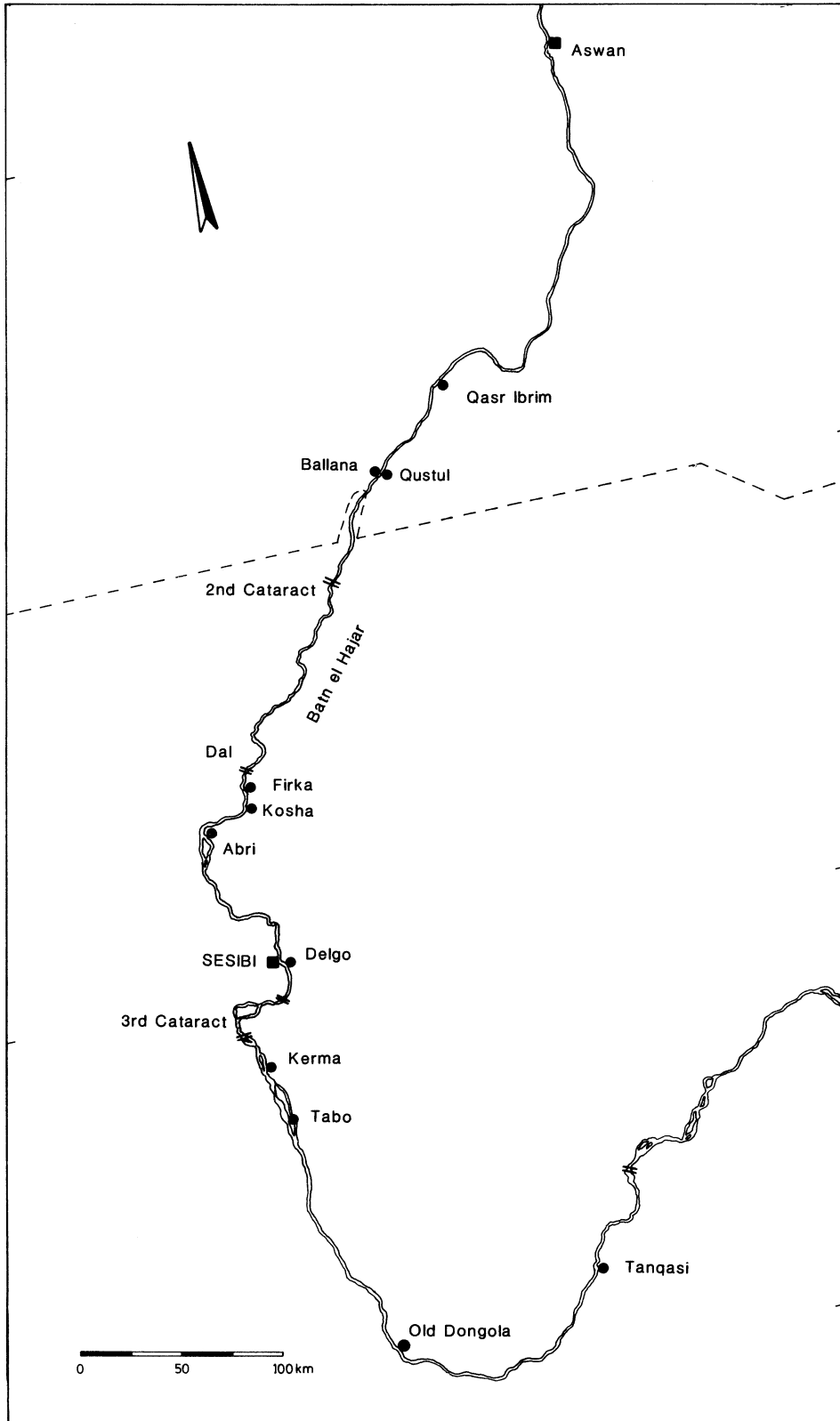


FIG. 1. Northern Sudan and Egyptian Nubia.

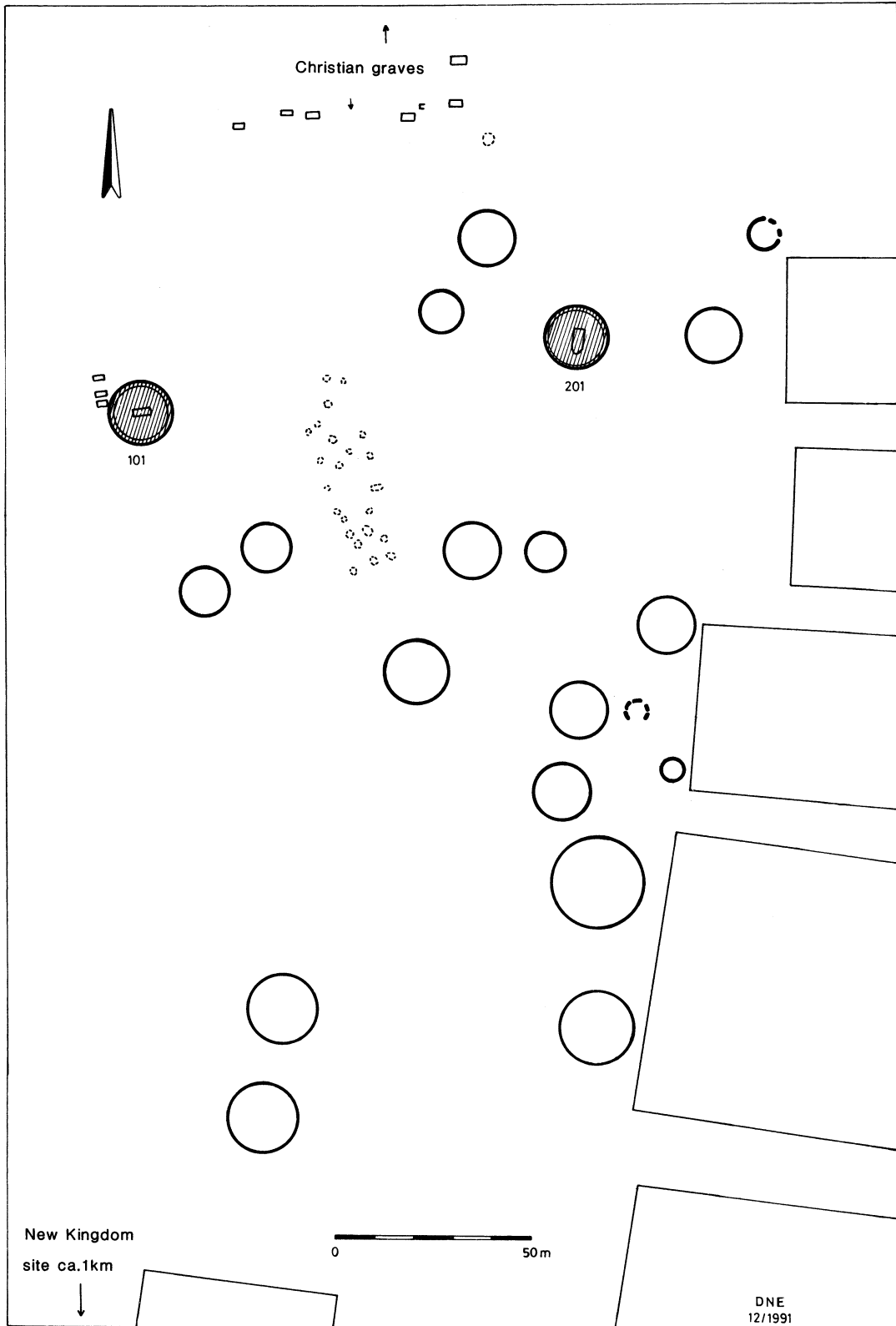


FIG. 2. Sketch plan of Sesibi 'X-Group' cemetery in 1991, showing location of Tumuli 101 and 201. Modern houses of Sesi-Kasanta village to east and south of cemetery.

within the survey concession, but as the project is particularly interested in clarifying the nature and extent of post-Meroitic occupation in the Mahas region, the reported 'X-Group' remains in the vicinity were of special interest for us. In the course of our work, it proved possible to locate and carry out a preliminary survey of an extensive 'X-Group' and medieval Christian necropolis which lies north of the New Kingdom site, and to identify within it tombs excavated by the Egypt Exploration Society in January 1937.⁷

Following this work, the surviving records of the 1937 excavations, held by the Egypt Exploration Society, were consulted and have proved to be reasonably complete and suitable for quite detailed publication. The report which follows is largely dependent on these original field notes, and it is hoped that all but a small number of ambiguities and uncertainties in the records have been satisfactorily resolved.⁸ It has been possible to locate and re-examine a number of the finds recovered from the site, but for the bulk of the material I have relied on the original notebooks for the object descriptions and the pottery typology. The general description of the site and its context and the cemetery plan are based on my own observations in 1991.

The site

The well-known pharaonic site at Sesibi, more properly Sesi, is located on the west bank of the Nile, opposite the small town of Delgo, some 18 km north of the Third Cataract (fig. 1). About one kilometre to the north of the New Kingdom settlement and cemeteries, the steep and rocky hill of Jebel Sesi stands close to the river and commands extensive views along the Nile to both the north and south. The irregular and rock-strewn summit of the hill is surrounded by a massive rough-stone girdle wall with two clusters of ruined buildings towards its northern end (see pl. XXVIII, 1). This fortified enclosure is entered through a gate at the lower southern end. The eastern slopes of the hill outside the walls are covered with further extensive ruined structures, terraced into the hillside. While no systematic work has been carried out on this site, this was clearly a centre of some importance. Most of the standing remains are probably of medieval Christian or later date. However, a small number of earlier 'X-Group' sherds have been noted on the surface within the enclosure and it is assumed that the hill-top was also occupied during this period.

A large necropolis associated with the hill-top settlement lies in open ground to the west of the hill. Most of this area is quite flat and featureless, but to the south-west of the hill it becomes more undulating with low mounds of eroded ancient alluvium in what must be a palaeochannel of the Nile which once flowed west of the hill. Surface indications suggest the cemetery covers at least five hectares, with both 'X-Group' and medieval Christian graves. The earlier burials would seem to be concentrated within its south-western area, where the tumulus superstructures of at least eighteen graves are still well-preserved amongst the low mounds of alluvium (fig. 2). These low, flat-topped mounds, up to 20 m across, are constructed with a distinctive cladding of small stones,

⁷ A brief description of the site has been published in D. N. Edwards and A. Osman, *Mahas Survey Reports*, 1 (Cambridge, 1992), 90.

⁸ The support and encouragement of the Committee of the Egypt Exploration Society is gratefully acknowledged. Special thanks are due to Robert Morkot for his invaluable assistance and guidance during my work with the Sesibi archive, also to the British Museum, for permission to study and publish those objects in the collections, and to the Royal Ontario Museum for additional information supplied to the EES.

probably collected from the slopes of the hill (pl. XXVIII, 3). The locations of several other eroded or otherwise disturbed tumuli are indicated by more amorphous clusters of stone. Further areas of this cemetery can still be discerned amongst the houses of the modern hamlet of Kasanta to the south of the hill, which is gradually expanding westwards onto the open ground where the cemetery lies. To the north, the eroded mudbrick superstructures of numerous Christian graves were noted, and further graves were recorded to the north-west of Jebel Sesi. Within the tumulus zone there is also a cluster of small stone-covered mounds, 1–2 m in diameter, which probably mark other graves, of unknown date.

Tumulus 201

This was one of the largest tumuli in the cemetery, lying at its north-east end. The mound was *c.* 23 m in diameter and *c.* 3 m high, and like the other tumuli in the cemetery was surrounded with a cladding of small dark stones. The mound would seem to have been constructed from the spoil excavated from the tomb chambers and from a ditch 2–3 m wide and 15 m in diameter which surrounded the tomb.⁹ The tumulus was completely removed in order to reveal the main burial (fig. 3). During the course of this, at least one subsidiary burial, cut into the mound, was excavated.

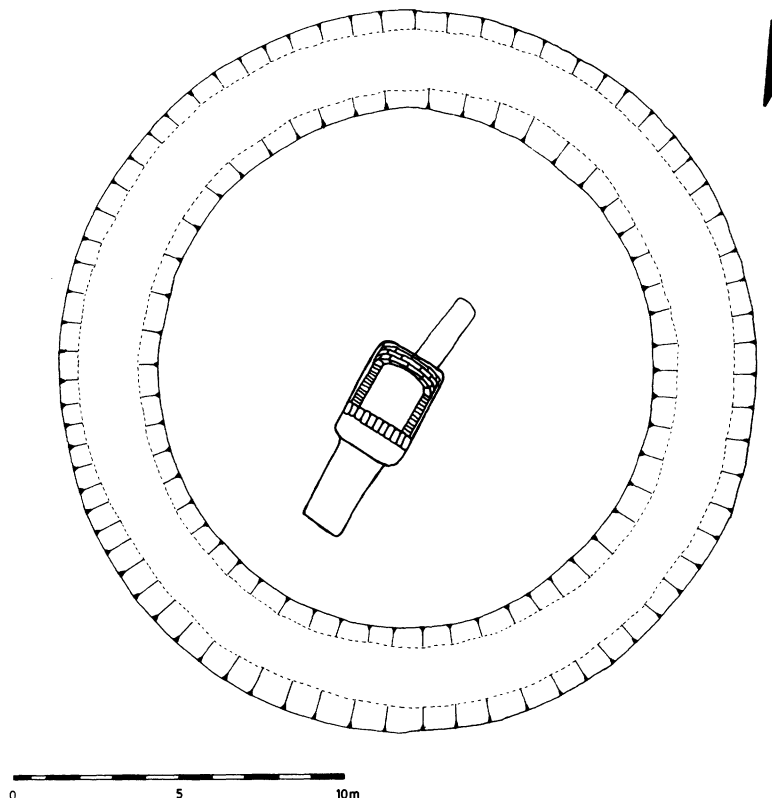


FIG. 3. Plan of Tumulus 201, post-excavation.

⁹The excavation of the ring ditch to provide additional building material indicates that the tumulus was originally confined inside the ditch. The subsequent slippage of material into the ditch suggests that its sides may originally have been much steeper, supported by the stone cladding.

In the south-east part of the mound, a child's burial was found in a rough shallow grave lined with broken slabs of stone and bricks and roofed with stone. The grave was 155 cm long and 60 cm wide at the top, narrowing towards the bottom. The body was 133 cm long, lying with its head south, facing east on its right side with the legs partly flexed and wrists crossed, right over left, over the pelvis. It was wrapped in a coarse yellow cloth and finally in a sheepskin which covered it. Some coarse brown cloth was found around the lower half of the legs, and the wrapped body lay on a further layer of yellow cloth. Among the stones used in the construction of the grave was a broken fragment of worked stone with a 'Coptic' design. This burial probably dates to the post-medieval period.

The grave substructure was oriented NNE-SSW with the burial chamber at the north end. It consisted of a large mudbrick vaulted chamber in a simple pit, leading into a low burial chamber cut into the alluvial soil at its north end. The outer chamber was entered by a steep and irregular ramp from the south side. Outside the blocking of the outer chamber, at the foot of the ramp, were found the bones of a subsidiary burial which proved to be a dog skeleton. The skull appears to have been slightly apart from the rest of the body.

The mudbrick vaulted chamber measured 202 × 126 cm, with a maximum height of 151 cm. When excavated, it was found that part of the vaulting had collapsed, crushing many of the objects within (pl. XXVIII, 2). It would appear from the records that it had not been robbed. A total of sixty-one pottery vessels (nos. 1-61) were found in the chamber, together with two shattered glass vessels, an iron spear-head (no. 317), two iron nails (nos. 318-19) and a number of copper alloy nails.¹⁰

The inner burial chamber, cut into the alluvium, measured 199 × 78 cm with an entrance 99 cm high. The entrance was sealed with a wall of mudbricks 12 cm thick. This chamber had clearly been much disturbed by tomb robbers, although it is not recorded how they gained entry into the tomb, and no clear picture emerges as to its layout. Near the east end, the remains of two legs of an *angareeb* wooden bed were found, but the rest of the bed does not seem to have been preserved. In the debris, four large jars (nos. 65-8), an incomplete flagon/table amphora (no. 64) and two unidentified smaller vessels (nos. 62-3) were found. An alabaster ring (no. 329) and pieces of a leather object were found amongst the bones. A copper alloy ring (no. 330i) was found on a finger which had been detached from the other bones. A similar ring (no. 330ii) and a pair of tweezers (?) (no. 331) were recovered from near the foot of the bed in the north-east corner of the chamber. Other finds included two sandals, ten beads (red-white-yellow) still strung together and about twenty other beads which had become detached.

The pottery

(i) The pottery from the large vaulted chamber consisted of sixty-one vessels. These included:

4 large jars (201.1-3, 35)

2 amphorae (201.4, 13)

40 goblets (201.5-11, 16, 18-19, 22-31, 33, 36-7, 40-2, 44-6, 49-55, 57-60)

¹⁰ Some sketch plans were made during the clearing of the chamber but these lack the necessary detail to reconstruct accurately the original layout of the objects.

- 3 footed bowls (201.32, 47-8)
- 1 cup (201.61)
- 1 pilgrim flask (201.20)
- 1 small oil bottle (201.17)
- 1 large oil bottle (201.34)
- 1 coarse hand-made jar (201.21)
- 1 coarse hand-made bowl (201.38)

A further six numbered items were listed in the site notes or noted on sketch plans (201.12, 14-15, 39, 43, 56). These were probably all ceramic vessels, but it has not been possible to identify their forms.

(ii) Seven vessels were found in the burial chamber. These were:

- 2 thick redware 'vases' of uncertain form (201.62-3)
- 1 table amphora (201.64)
- 4 long-necked large jars (201.65-8)

The original site notes include a pottery typology with relatively good-quality drawings.¹¹ This typology originally comprised forty-three types for the sixty-eight vessels. In view of the very standardized forms of the goblets, I have reduced the twenty-nine types to four, distinguishing only the general decorative schemes and slight variations of form. However, as fully published pottery groups are scarce, the vessels will be described in full where possible. The original numbering of types is retained except for those used for the goblets.¹²

Type 1: amphorae (nos. 201.4, 13). This form is well-known from 'X-Group' and Early Christian contexts throughout Lower Nubia.¹³

201.13: H. 56.2 cm, diam. max. 22.8 cm, diam. mouth 8.8 cm (fig. 4).

Type 2: table amphora (no. 201.64). The vessel is in good quality polished redware. This example was damaged, with both the loop handles missing. There was a narrow band of raised decoration around the bottom of the neck. It was decorated with a poorly preserved white-painted scroll decoration from shoulder to neck. Footed table amphorae are common in late 'X-Group' tombs.¹⁴ H. 36.7 cm, diam. max. 18 cm, diam. mouth 5.2 cm (fig. 5).

¹¹ The pottery typology was drawn at scale 1:4. It should be noted that in a few cases some minor discrepancies exist between the scale drawings and descriptions in the field notes.

¹² The original drawings were used for figs. 3-5, except for the Type 6 jar and the archer's loose, for which new drawings made in the British Museum were used.

¹³ Examples are found in a similar context at Abri-Missiminia 2-V-6/33/34: A. Vila, *La prospection archéologique de la vallée du Nil, au sud de la Cataracte de Dal (PASCAD)* 14 (Paris, 1984), fig. 20.5. From the site photographs the amphorae appear to have a ribbed surface, although this was not fully represented on the original drawings. According to Adams the earliest examples have a smoother finish and examples such as this with a pronounced ribbing are found only during the later 'X-Group' period: W. Y. Adams, *Ceramic Industries of Medieval Nubia* (Lexington, 1986), 545. While most Lower Nubian examples are Egyptian imports (Adams Ware U2), recent work at Old Dongola has demonstrated that amphorae of this form were locally produced during the Transitional-Early Christian period: see K. Pluskota, 'Dongola. A pottery production centre from the Early Christian period', in W. Godlewski (ed.), *Coptic and Nubian Pottery*, II (Warsaw, 1991), 34-56. From the available evidence it is uncertain whether these are local or imported items.

¹⁴ This type of decoration is known elsewhere in the region with a simple scroll design on another table amphora from Dal-Angureeb (3-B-26/2/3: Vila, *PASCAD* 2 (1975), 73-5, fig. 83.3), and on a large jar at Abri-Missiminia (2-V-6/33/15: Vila, *PASCAD* 14, fig. 20.3). Note that the table amphora from Dal-Angureeb had also lost its handles.

Type 3: large jars (nos. 201.1–3). Three large redware storage jars with finger-impressed decorative stripes radiating from the base of the neck. This form of large jar, produced in a range of sizes, often with this form of decoration, is common in the region south of Dal.¹⁵

Jar illustrated (no number): h. 56 cm, diam. max. 39.2 cm, diam. mouth 12.8 cm (fig. 4).

Type 4: jar (no. 201.35). A medium-sized redware storage jar with a short neck.¹⁶ H. 44 cm, diam. max. 27.4 cm, diam. mouth 9.3 cm (fig. 4).

Type 5: pilgrim bottle (no. 201.20). Such redware pilgrim bottles are uncommon in ‘X-Group’ contexts in Lower Nubia.¹⁷ H. 32 cm, diam. 26.3 cm, w. 14.4 cm (fig. 4).

Type 6: long-necked jar (nos. 201.65–8). Red-brown ware long-necked jars with a thin red slip.

201.67: A pale red, slightly micaceous silt ware, with a thin pink-white wash. Decorated with three black loop designs on the shoulder and black bands around the neck and waist. A number of dark patches on the surface may be liquid splashes. H. 29.8 cm, diam. max. 22.6 cm (fig. 5, pl. XXX, 2).¹⁸

201.65: mouth broken. H. 30 cm.

201.66: H. 30 cm.

201.68: Decorated with black(?) scroll designs on the shoulder. H. 31.6 cm, diam. max. 21.3 cm.

Type 7: jar (no. 201.21). A ‘rough hand-made redware jar’, described as a ‘cooking pot’, slightly cracked in two places. The fabric of this siltware vessel is slightly micaceous. It has a thick white wash on the inside of the neck and over parts of the outside neck and shoulders. Such hand-made vessels are rarely found in Lower Nubian ‘X-Group’ graves.¹⁹ H. 33 cm, diam. max. 25.2 cm, diam. rim 10 cm (fig. 5, pl. XXX, 2).

Type 8: goblet. Thin redware footed goblets, with one or two incised lines running around the shoulder. These goblets are decorated with two alternating sets of three vertical white stripes and varying numbers of horizontal stripes. Such goblets are common and widely distributed.

201.37: three vertical and seven horizontal stripes. H. 13.7 cm, diam. rim 9 cm, diam. base 5.8 cm (fig. 5).

201.5: three vertical and eight horizontal stripes. H. 13.2 cm, diam. rim 8.8 cm, diam. base 5.2 cm.

201.6: three vertical and six horizontal stripes. H. 13.2 cm, diam. rim 9.6 cm, diam. base 5.6 cm.

201.8: three vertical and seven horizontal stripes. H. 12.4 cm, diam. rim 8.3 cm, diam. base 5.1 cm.

201.9: three vertical and eleven horizontal stripes. H. 11.7 cm, diam. rim 8.6 cm, diam. base 5.6 cm (pl. XXX, 2).

201.16: three vertical and nine horizontal stripes. H. 13.6 cm, diam. rim 8.7 cm, diam. base 5.2 cm.

201.18: the decoration is unusual with two sets of three vertical stripes side by side, followed by two sets of seven horizontal stripes, and not alternating as is usual. H. 11.6 cm, diam. rim 8.6 cm, diam. base 5.7 cm.

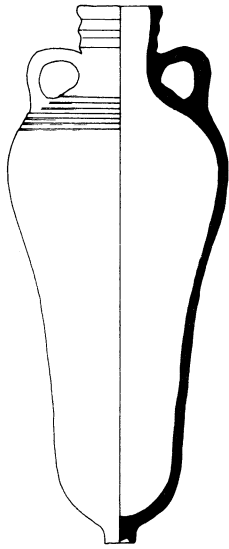
¹⁵ Good parallels can be found at Abri-Missiminia (2-V-6/83/7 and 2-V-6/110/1: Vila, *PASCAD* 14, 42, fig. 38.8; 55, figs. 57, 210). They are also found in graves which may be of slightly earlier date, for example, Tumulus 12 at Firka Cemetery A (Kirwan, *Firka*, 9, pl. xxiv, Type 12b).

¹⁶ A very similar example with five incised lines around the shoulder was found at Abri-Missiminia (2-V-6/33/14: Vila, *PASCAD* 14, fig. 21.2).

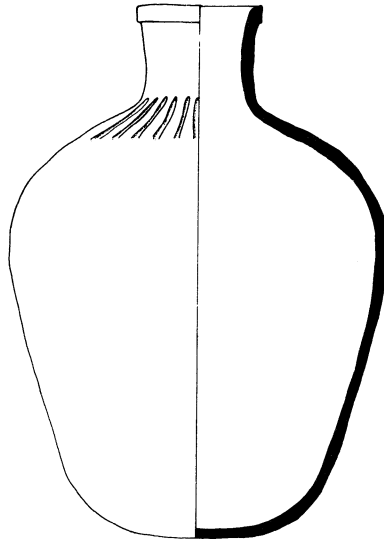
¹⁷ Two examples are known from the area south of Dal, from Abri-Missiminia (2-V-6/33/4: Vila, *PASCAD* 14, 25, fig. 21.5), and Nilwatti (8-L-3/1/7: Vila, *PASCAD* 10 (1978), 108–9).

¹⁸ Similar jars are known from Abri-Missiminia (2-V-6/33/7, 15: Vila, *PASCAD* 14, 27, fig. 20.2, 3) and the scroll decoration matches that found on the table amphora at Dal-Angureeb (see n. 14 above).

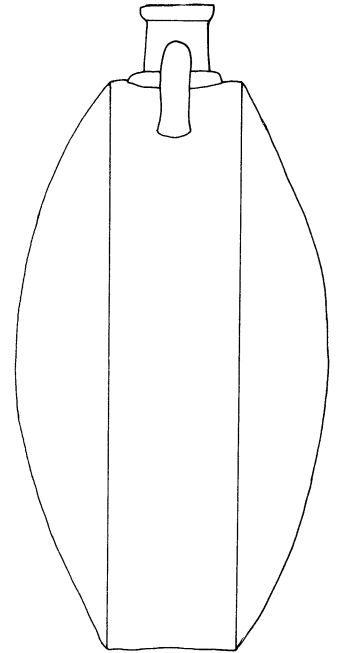
¹⁹ It may be compared with an example from Tumulus 4, Firka Cemetery B, found in association with the same type of goblets as our example (Kirwan, *Firka*, 15, pl. xxiv, Type 11c).



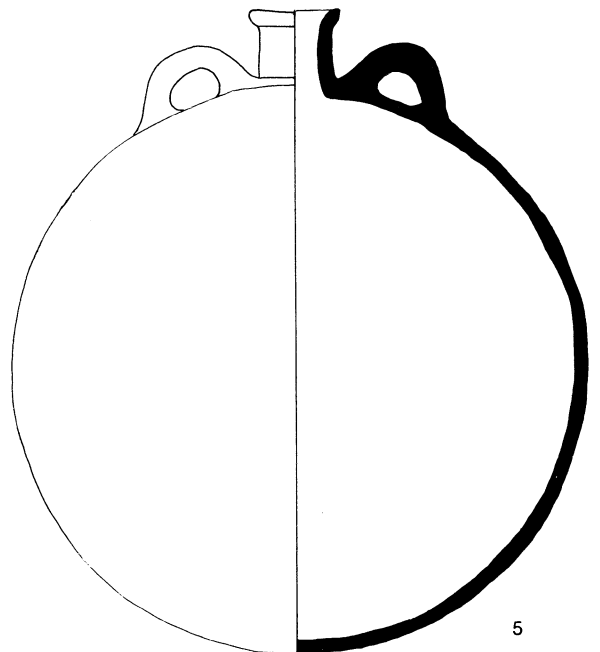
1



3



4



5

FIG. 4. Pottery types: 1, 3 (scale 1:8); 4, 5 (scale 1:4).

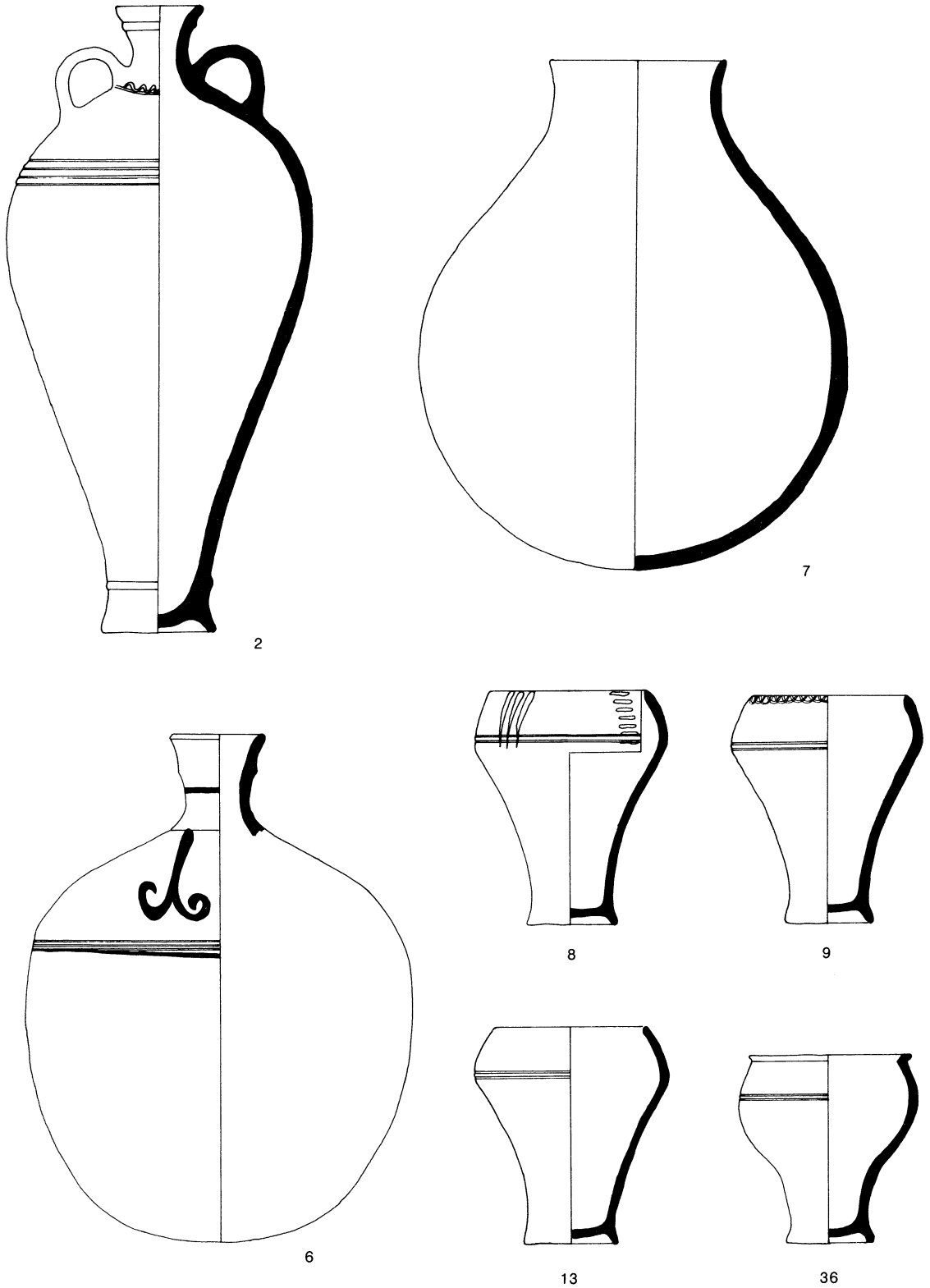


FIG. 5. Pottery types: 6 (scale 1:8), 2, 7, 8, 9, 13, 36 (scale 1:4).

- 201.19: three vertical and seven horizontal stripes. H. 12.4 cm, diam. rim 9.2 cm, diam. base 5.2 cm.
 201.22: three vertical and seven horizontal stripes. H. 11.6 cm, diam. rim 9.2 cm, diam. base 5.6 cm.
 201.24: three vertical and eight horizontal stripes. H. 12.8 cm, diam. rim 8.8 cm, diam. base 6.0 cm.
 201.29: three vertical and six horizontal stripes. H. 11.8 cm, diam. rim 8.7 cm, diam. base 5.4 cm (pl. XXX, 3).
 201.30: three vertical and seven horizontal stripes. H. 12.7 cm, diam. rim 9.2 cm, diam. base 5.7 cm (pl. XXX, 3).
 201.33: three vertical and seven horizontal stripes. H. 11.7 cm, diam. rim 7.7 cm, diam. base 5.2 cm.
 201.42: three vertical and seven horizontal stripes. H. 11.6 cm, diam. rim 8.8 cm, diam. base 5.4 cm.
 201.49: three vertical and nine horizontal stripes. H. 13 cm, diam. rim 8.2 cm, diam. base 5.4 cm.
 201.50: three vertical and five horizontal stripes. H. 12.8 cm, diam. rim 8 cm, diam. base 5.6 cm.
 201.52: three vertical and seven horizontal stripes. H. 12 cm, diam. base 5 cm.
 201.53: three vertical and eight horizontal stripes. H. 12 cm, diam. rim 8.2 cm, diam. base 5.5 cm.
 201.55: a broken goblet. Decorated with groups of four alternating vertical and horizontal stripes. H. 13 cm.
 201.58: three vertical and eight horizontal stripes. H. 12 cm, diam. rim 8.6 cm, diam. base 5.6 cm.

Type 9: goblet. Redware goblets decorated with a white festoon design around the outside rim.²⁰

- 201.60: H. 13.4 cm, diam. rim 9.2 cm, diam. base 5.2 cm (fig. 5).
 201.10: H. 11.7 cm, diam. rim 9.4 cm, diam. base 5.3 cm.
 201.36: H. 12 cm, diam. rim 9.3 cm, diam. base 5.2 cm.
 201.41: H. 11.6 cm, diam. rim 8.6 cm, diam. base 5.3 cm (pl. XXX, 3).
 201.44: H. 13 cm, diam. rim 9.2 cm, diam. base 5.8 cm.

Type 13: goblet. Plain undecorated redware goblets.

- 201.27: H. 13.5 cm, diam. rim 9 cm, diam. base 5.8 cm (fig. 5).
 201.23: H. 12.4 cm, diam. rim 8.8 cm, diam. base 5.2 cm.
 201.25: H. 12 cm, diam. rim 8.6 cm, diam. base 5.8 cm (pl. XXX, 3).
 201.26: H. 11.4 cm, diam. rim 8.7 cm, diam. base 5.2 cm (pl. XXX, 3).
 201.28: H. 11.8 cm, diam. rim 8.6 cm, diam. base 5.7 cm.
 201.45: H. 12.7 cm, diam. rim 8 cm, diam. base 6 cm.
 201.46: H. 11.4 cm, diam. rim 8.7 cm, diam. base 5.2 cm.
 201.51: H. 11.6 cm, diam. rim 8.4 cm, diam. base 5.2 cm.

Type 36: goblet (no. 201.59). A plain goblet with an unusual fine everted rim with a flat top. The top of the rim was decorated with four groups of four white stripes. Such rims are rare on these goblets. H. 11.2 cm, diam. max. 10.6 cm (fig. 5).

Type 37: footed bowl (no. 201.48). A simple hemispherical redware footed bowl. The rim was decorated with irregular splashes of white paint. H. 8.5 cm, diam. 12.4 cm, diam. base 6.24 cm (fig. 6, pl. XXX, 2).

²⁰ Such goblets are known from elsewhere in the area from Dal-Angureeb (Vila, *PASCAD* 2, 73-5, fig. 83.1) and Firka (Tumulus B.2/10, Type 21d: Kirwan, *Firka*, 14, pl. xxv).

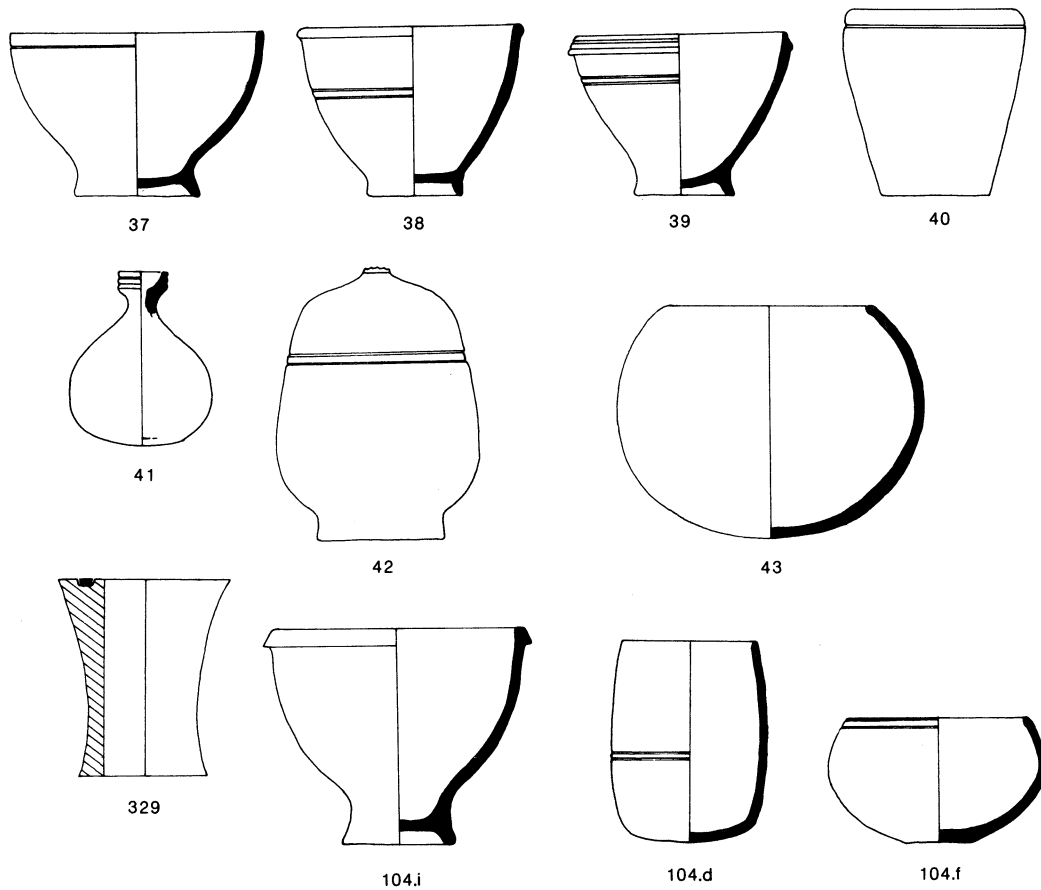


FIG. 6. Pottery types: 37, 38, 39, 40, 41, 42, 43 and 104.d, 104.f, 104.i (scale 1:4); Archer's loose 36.37.329 (scale 1:2).

Type 38: footed bowl (no. 201.47). A small redware footed bowl with an externally thickened rim.²¹ H. 8.6 cm, diam. 10.8 cm, diam. base 4.8 cm (fig. 6).

Type 39: footed bowl (no. 201.32). A small redware footed bowl with a grooved externally thickened rim.²² H. 8.4 cm, diam. 10.8 cm, diam. base 5.2 cm (fig. 6).

Type 40: cup (no. 201.61). A small flat-based cup with a single incised band around the rim. H. 9.6 cm, diam. mouth 8.4 cm, diam. base 5.4 cm (fig. 6).

²¹ One bowl very similar to 201.47 was found in Firka B.4 (Kirwan, *Firka*, pl. xxv, Type 18c).

²² This form is relatively uncommon in 'X-Group' graves and such rims are more commonly found on Early Christian wares. A very similar example is known from Abri-Missiminia Tomb 60 (Vila, *PASCAD* 14, 34, figs. 29.2 and 198).

Type 41: oil bottle (no. 201.17). A small spherical red-brown bottle with a short neck.²³ H. 8.8 cm, diam. 7.6 cm, diam. mouth 2.4 cm (fig. 6, pl. XXX, 2).

Type 42: bottle (no. 201.34). A blackened redware bottle with a broken neck.²⁴ H. > 14 cm, diam. max. 10.4 cm (fig. 6).

Type 43: bowl (no. 201.38). A coarse handmade black-brown 'cooking pot', slightly cracked. H. 13.6 cm, diam. max. 15.8 cm, diam. rim 10.1 cm (fig. 6).

Other vessels

201.12: a large 'bottle-shaped' redware pot with painted decoration, but no further details survive.

201.15: a broken redware 'amphora' with two handles, possibly another Type 2.

201.39: a broken redware vessel of unknown form with a light, buff-coloured wash.

201.43: a broken thin redware jar of unknown form.

201.56: a small broken vessel, possibly a small goblet. Not reconstructable. H. > 8.8 cm, diam. 10 cm.

Small finds

The pieces of two glass vessels were found scattered through the outer chamber, described as a dark blue glass dish and a white glass cup or beaker. The fragments of the blue glass vessel were very widely dispersed and the excavators thought that it was probably broken when the pots were laid out, perhaps deliberately smashed. The beaker appears to have been reconstructable, but it has not proved possible to trace further details about either of these vessels, or ascertain their present location.²⁵

Alabaster ring (reg. 36.37.329)

An 'alabaster' ring with eight glass and stone inlays in its upper surface.²⁶ Three inlays survive, two brown and one blue. H. 5.0 cm, outside diam. 4.3–3.1 cm, inside diam. 2.1–2.0 cm (fig. 6).

Copper alloy rings (reg. 36.37.330)

Two copper alloy rings were found in the burial chamber. One of these (330i) was found in place around a finger bone. The other (330ii) was found close to another copper alloy object (331) and may be associated with it (see below).

²³ This is similar to Adams' Form N.10: Adams, *Ceramic Industries*, fig. 59. Variants of this form are commonly found in 'X-Group' graves; many are probably imported vessels, e.g. B. B. Williams, *Excavations Between Abu Simbel and the Sudan Frontier, Part 9: Nubadian X-Group Remains* (Chicago, 1991), Type 57b, fig. 15c.

²⁴ A bottle with a similar profile and two handles was found at Abri-Missiminia (2-V-6/459/1: Vila, *PASCAD* 14, 130, fig. 169).

²⁵ Glass vessels are relatively rare outside élite cemeteries. A number of vessels were found in the largest tombs at Firka Cemetery A (Tombs A. 11 and A. 14: Kirwan, *Firka*, 5–12, pl. xii). None were found in Cemetery B, which is likely to be contemporary with the Sesibi burial.

²⁶ Such rings appear to be an unusual variant of the archer's loose, commonly found in post-Meroitic graves. They are also sometimes described as 'mace heads'. This example may be compared with rings found in tombs Bg5 and Bg in the 'royal' cemetery at Ballana (W. B. Emery, *The Royal Tombs of Ballana and Qustul* (Cairo, 1938), pl. 53). This object was previously published by S. Wenig, *Africa in Antiquity*, II. *The Catalogue* (Brooklyn, 1979), 311.

Copper alloy 'tweezers' (reg. 36.37.331)

A small copper alloy object found in the debris of the burial chamber, tentatively identified as a pair of tweezers. This may have been linked with the second ring (330ii).²⁷

Iron spearhead (reg. 36.37.317?)

An iron lance or spearhead was found, but no further details survive.

Beads

Some of the beads recovered from the burial chamber were described and classified according to the site bead typology. These included:

- 11 irregular white glass beads: *c.* 3 × 3 × 1 mm (Type 78.12)
- 3 white glass beads: 3 × 2 × 1 mm (Type 82.10)
- 1(?) white glass bead: 2 × 3.5 × 1 mm (Type 78.5)
- 4 white glass beads: 2.5 × 2 × 1 mm (Type 86.65)
- 8 irregular dark green 'glaze' beads: 4 × 3 × 1.5 mm (Type 86.89)
- 1(?) 'amethyst' bead (Perf. Type III): 3 × 3 × 1 mm (Type 78.44)
- 5 'amethyst' beads (Perf. Type III): 3 × 2.5 × 1 mm (Type 82.10)

Tumulus 101

This large tumulus near the west side of the cemetery was some 16 m in diameter and 1.5 m high. Like the others, its outer surface was clad in a layer of small dark stones (pl. XXVIII, 3). Following the removal of the mound, a central shaft was exposed, measuring 3.15 × 1.70 m, oriented east–west (fig. 7). This held a mudbrick vaulted chamber at its east end, 2.35 m long and 1.35 m wide. The vault was constructed on two side walls built with four courses of brick stretchers. The open arch of the vault was subsequently bricked up. On top of the arch, a narrow wall was then built to just above surface level (pl. XXVIII, 4). This was presumably built to allow the backfilling of the shaft above the vault to proceed, while leaving the ramp and chamber entrance open. Access to the chamber was provided by a steep ramp *c.* 1.75 m long from the west, with a maximum depth of only *c.* 1.35 m. The chamber, which was unlooted, held a single adult skeleton. The body was wrapped in a linen shroud and laid with the head to the west on a bed (pl. XXIX, 1). The covering of the bed had decayed, but the wooden uprights were quite well preserved. No other artefacts were recovered with the burial.

During the clearing of the tumulus ring ditch, a further narrow and shallow grave covered with stone slabs was excavated, measuring 2.3 × 0.4 × 0.47 m. The body was that of a male and was 164 cm long, dorsally extended with hands crossed over the pelvis, right hand over left. It was wrapped in a linen shroud, covered with a sheepskin and then bound from head to foot with thin rope and what was thought to be some form of netting. The stratigraphic relationships of this burial were not fully described, but it seems likely that this was a later burial cut into the edge of the tumulus mound.

The removal of the tumulus exposed a ring ditch, *c.* 15 m in diameter, surrounding the burial. The ditch was *c.* 1 m deep and up to 2.5 m wide, and was crossed by four pathways *c.* 1 m wide. The spoil from the ditch was presumably incorporated into the tumulus makeup. The grave was placed on a low natural mound, giving it some added

²⁷ Sets of cosmetic implements, including tweezers, are commonly found in Meroitic and 'X-Group' contexts; a good selection of different types are illustrated in Williams, *Nubadian X-Group Remains*, pls. 80–1.

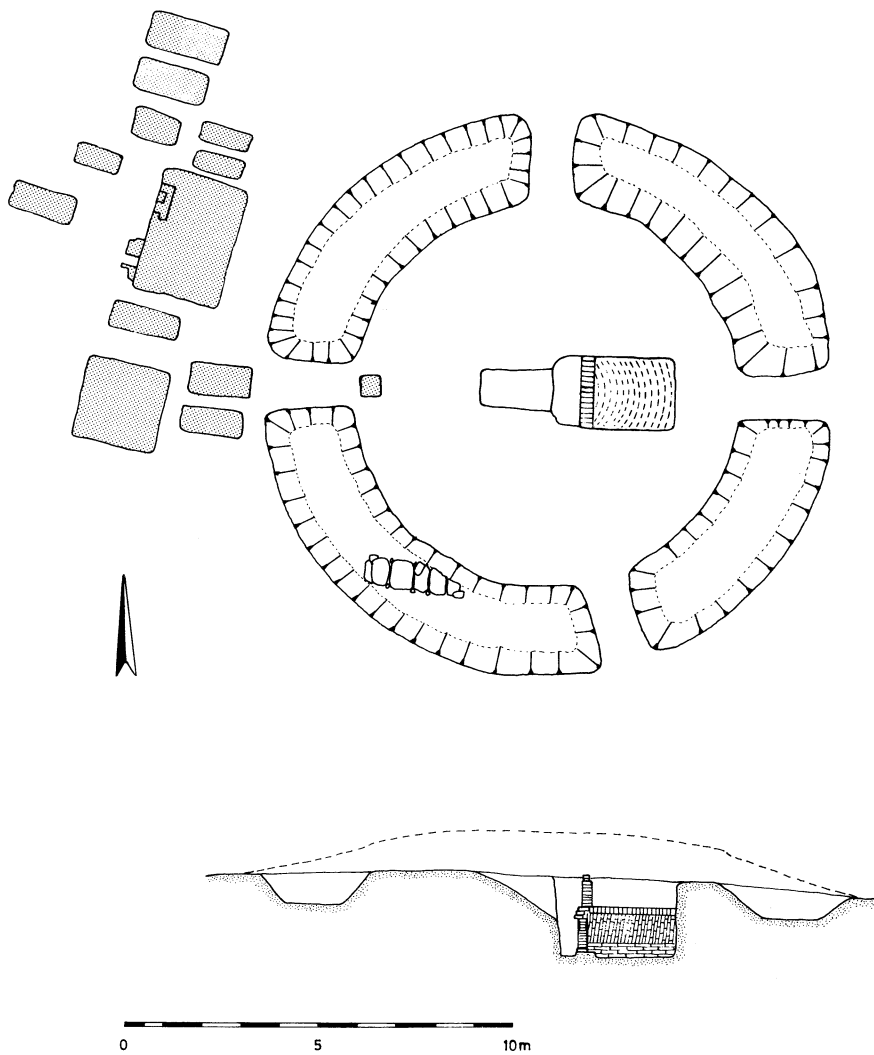


FIG. 7. Plan of Tumulus 101, post-excitation, and associated mastaba graves. E-W section across tumulus.

prominence. Just inside the ring ditch on the west side, opposite one of the pathways, a small mudbrick platform was found beneath the mound; this was identified as an altar. The platform was *c.* 50 cm square and two courses of bricks high (pl. XXIX, 2).

A small group of ceramics was found beneath the mound of the tumulus. Close by the mudbrick 'altar', a pottery cup (no. 101.d) was found, full of charcoal and what was identified as the 'remains of incense'. A further seven complete or fragmentary vessels (nos. 101.g-m) were found in the fill of the north-west quadrant of the ring-ditch and three more lamps (nos. 101.a-c) beneath the mound close by.

Pottery from Tumulus 101

101.a: redware round lamp.

101.b: redware oval lamp with handle.

101.c: redware oval lamp with handle.

101.d (= 104.d): a hard polished redware cup. This contained charcoal and 'incense'. H. 10.4 cm, diam. mouth: 7 cm (fig. 6, pl. XXX, 2).

101.g: redware lamp.

101.h: redware lamp.

101.i (= 104.i): redware footed bowl with a red wash. It is unclear whether the rim was plain or grooved (fig. 6).

101.j: fragmentary redware cup.

101.k: fragmentary redware cup.

101.l: a redware footed bowl, similar to 101.i, but larger.

Mastaba graves and associated burials

Just south of the tumulus three graves were excavated which held the inhumations of two adults and one child. These were not located on the main plan. No artefacts were found with the bodies. To the west of the tumulus, the eroded mudbrick superstructures of a further twelve graves were located (fig. 7). These graves form a tight cluster, while elsewhere in the cemetery Christian graves appear to be rather more dispersed. It seems likely that the tumulus and mastaba graves form a group of related tombs. The size of the mastaba superstructures varied considerably and they probably covered both single and multiple burials. Such variability of superstructures can be compared with Lower Nubian cemeteries such as Ashkeit.²⁸ Between two of the mastabas a lamp (no. 101.e) and a bowl (no. 101/104.f) were found, and further fragments of lamps and small cups were found on the surface in the vicinity. Two of the graves were excavated, revealing narrow shaft graves with low chambers, one of mudbrick and one of redbrick.²⁹ The undisturbed bodies, wrapped in simple linen shrouds, were laid east-west, head to the west with hands crossed over the pelvis.

Pottery from Christian mastaba graves

101.e: a redware round lamp.

101.f (= 104.f): a small cream-slipped redware bowl with a single incised line around the rim, which was decorated with a thin brown-black band. The bowl contained a mixture of charcoal and 'incense'.³⁰ H. 6 cm, diam. max. 10.7 cm (fig. 6).

The lamps were not included in the pottery typology and further details are lacking. However, a photograph of seven lamps exists which probably includes those from Tumulus 101 and the mastaba graves (pl. XXX, 1). The circular examples are variants of Adams Form P15 which are typically late 'X-Group', surviving into the early Christian period. The mould-made lamps with loop handles are likely to be imported Byzantino-Egyptian wares.³¹

Discussion

The form of the grave substructure below Tumulus 201 is distinctive, and a number of tombs with a short ramp, vaulted chamber and small axial burial chamber, all oriented

²⁸ T. Säve-Söderbergh (ed.), *Late Nubian Cemeteries* (Solna, 1981), pl. 50.

²⁹ The mudbricks measured 37 × 18 × 10 cm and redbricks 35 × 18 × 8 cm.

³⁰ The form of this bowl is known both in 'X-Group' Ware R2 and in W29, and is also found in early Christian wares. Comparison may be made with a cream bowl from a cemetery at Kosha-Ayun (3-P-18/2/1): Vila, *PASCAD* 4 (1976), 109, fig. 56). Vila dated this grave to the Meroitic period on the basis of the grave's east-west orientation and this vessel, with reuse in the Christian period, and it was implied that this bowl was Meroitic. While the Kosha bowl was further decorated with three painted rosettes, the similarity between these two unusual vessels is striking and it may be suggested that these are both examples of a Transitional or very early Christian ware, perhaps produced further south.

³¹ For a group of similar Nubian lamps, see Säve-Söderbergh, *Late Nubian Cemeteries*, 32-4, pl. 16.

north-south, were found in the important 'X-Group' cemetery at Abri-Missiminia. It is noteworthy that graves of this type were the largest and most elaborate in that cemetery.³² The contents of the Sesibi grave also mark it out as having been an unusually elaborate burial. Such a large quantity of ceramics in a single tomb is rare in this region, and it can be assumed that other objects were removed by tomb robbers.³³ At Abri-Missiminia, the largest collection of pottery from a single tomb comprised only thirty-three vessels and very few held more than ten.³⁴ The important Tomb 11 in Firka, Cemetery A, had over eighty finds including thirty-nine pots.³⁵ Bed burial is also an unusual feature in most 'X-Group' cemeteries, although well represented in the royal tombs at Ballana and Qustul further north.³⁶ Two possible examples were identified at Firka in Tombs A. 11 and A. 12, and Vila identified only five occurrences among 251 graves at Abri.

The dog skeleton at the foot of the entrance ramp is also of interest as an example of animal sacrifice. The multiple sacrifices of horses, camels and other animals, including sixty-six dogs at Ballana and Qustul are well known, but the practice is relatively rare in smaller provincial cemeteries. A single camel was found in Firka A. 11, together with two dogs in tombs A. 12 and A. 14. Such sacrifices seem to have been restricted to high-status 'royal' or 'princely' burials, and the occurrence of one in this grave in association with quite elaborate grave goods suggests that this burial was of an individual of some importance.³⁷

The range of ceramics found in the grave is quite typical of other sites in the area south of the Batn el-Hager, with numerous parallels known from sites explored by the Dal Survey and from earlier work at Firka and Kosha. However, some of the pot forms and decorative schemes differ from material from north of the Second Cataract. This variability may in part reflect chronological differences, as the southern sites are generally of a late 'X-Group' date, but it is possible that some of the material was produced in different centres, perhaps within this region. In particular, it can be seen that the white festoon decoration on the goblets, while common south of Dal, is extremely rare further north.³⁸ The footed bowls, particularly those with the thickened rims (Type 39), are not a common feature of 'X-Group' assemblages; these also appear to be a southern

³² This grave is Vila's Type BIV/A1: Vila, *PASCAD* 14, 10-11.

³³ At Abri, Vila considered that the abundance of pottery, in contrast to the rarity of metal objects in plundered tombs, indicated the particular desirability of metal for the tomb robbers (*PASCAD* 14, 176-7). It is likely that any fine jewellery was also removed from this tomb.

³⁴ Tomb 2-V-6/33 was pillaged but it seems likely that most of the pottery remained in the graves (Vila, *PASCAD* 14, 25-30). It contained 33 pottery vessels, a number of beads and fragments of leather articles, and was similarly constructed to the Sesibi tomb, and covered with a tumulus 17 m in diameter; there are very strong similarities between the two graves and their contents.

³⁵ Kirwan, *Firka*, 3-7. Tomb 11 at Firka, with a massive tumulus some 40 m in diameter and 8 m high, is one of the largest and richest 'X-Group' graves found outside the 'royal' cemeteries at Ballana and Qustul.

³⁶ Bed burial was quite rare in the non-royal or 'private' burials at Ballana and Qustul and some burials were made on hides (Williams, *Noubadian X-Group Remains*, 74-5).

³⁷ The symbolic associations of dog sacrifice in both Meroitic and post-Meroitic contexts have been discussed in some detail by P. Lenoble, 'Chiens de païens, une tombe postpyramidale à double descenderie hors de Méroé', *Archéologie du Nil Moyen* 5 (1991), 167-84; see also C. Bonnet et al., 'Sépultures à chiens sacrifiés dans la vallée du Nil', *CRIPEL* 11 (1989), 25-39.

³⁸ This form of decoration was not found at all on the large numbers of late 'X-Group' goblets of identical form recovered at Qasr Ibrim during recent excavations. The Sesibi goblets examined in the British Museum are readily distinguishable from examples from Qasr Ibrim due to their quite heavy dark-red slip and slightly coarser finish. The fabric may also be slightly different, with significant micaceous and rare cream grit inclusions. It seems likely that a more systematic study of 'X-Group' fabrics may prove fruitful in differentiating production centres.

phenomenon and are rarely found north of Sesibi. They are not found at Ballana and Qustul, for example, nor in the relatively late Qasr Ibrim cemeteries.³⁹

The combination of what are normally regarded as both pagan and Christian characteristics within the Tumulus 101 burial is of some interest, and this phenomenon has not been as well-defined previously. A number of otherwise 'Christian' tumuli have been recorded in Lower Nubia, for example at Abu Sir-Abka (5-T-27) on the Second Cataract,⁴⁰ but the provision of tumulus superstructures appears generally to have ceased with the adoption of Christian burial rites. The continued use of bed burial has been noted at Firka B.6, in a burial otherwise following Christian practices with no grave goods.⁴¹ The significance of the lamps and other vessels buried within the tumulus mound is unclear, and their use in burial rites is, of course, not certain. However, such a use might be linked to the common Christian custom of placing lamps in niches in the tomb superstructures; this practice is seen in the adjoining mastaba graves. The small mudbrick 'altar' is of considerable interest as the possible focus of the funeral rites, perhaps including the burning of incense found in the cup lying nearby. Overall, it may be suggested that Tumulus 101 dates to the period of transition when Christian practices had not fully displaced the existing pagan rites. The subsequent adoption of more standard Christian practice is apparent with the complete abandonment of tumuli and the adoption of rectangular mastaba graves. An interesting question remains concerning possible connections between the occupants of the different grave types and whether the cluster of mastaba graves around Tumulus 101 represents a series of burials of related individuals spanning this transitional period.

Although there was little material directly related with Tumulus 101, such evidence as we have suggests that the two excavated tumuli were of a broadly similar date, at the end of the post-Meroitic 'X-Group' period. Ceramically, the assemblage from Tumulus 201 is composed of the latest 'X-Group' types as well as transitional forms, some of which are also found associated with Tumulus 101. In particular, the footed bowl 101/104.i is very similar to 201.32 and 201.47. The redware cup 101/104.d, while not found in 201, is a form well known from late 'X-Group' contexts, with many examples from Abri and neighbouring cemeteries.⁴²

The close association of north-south pagan and east-west Christian graves within the same cemetery has also been recognized at Abri-Missiminia⁴³ and Firka.⁴⁴ Close parallels can also be drawn between the Sesibi pottery and finds from Abri-Missiminia, notably with Vila's Tomb 33. The decoration on some of the larger vessels is almost identical, but the Abri tomb also includes a number of large jars and amphorae decorated with crosses.⁴⁵ Within this context, such decoration can be taken as good evidence for the arrival of Christianity in this region.⁴⁶ The similarities in material found in Firka

³⁹ A. J. Mills, *The Cemeteries of Qasr Ibrim* (London, 1982).

⁴⁰ W. Y. Adams and H.-A. Nordstrom, *Kush* 11 (1963), 31; see also Vila, *PASCAD* 14, 187.

⁴¹ Kirwan, *Firka*, 16.

⁴² Adams Form A.7. Forty-five examples of this form (Vila's Type I-2) of cup were found at Abri (Vila, *PASCAD* 14, 159, fig. 196).

⁴³ Vila, *PASCAD* 14.

⁴⁴ Kirwan, *Firka*, 16.

⁴⁵ Vila, *PASCAD* 14, fig. 20. 1, 4, 5.

⁴⁶ Such a cross motif is only otherwise found on a single jar at Abri, from Tomb 107 (Vila, *PASCAD* 14, 53, fig. 55.4). This grave was located just to the south of Tomb 33 at the northern end of the 'X-Group' cemetery and is likely to be of similar date. In this part of the cemetery there is a relatively small number of late 'X-Group' tombs interspersed with Christian graves, and it is tempting to suggest that burials here date to the period of transition which saw the adoption of Christian burial practices.

Cemetery B,⁴⁷ especially B.1 and B.2, and Sesibi 201 would suggest a similar date for all these burials, not long before or during the period when Christian burial practices were adopted.⁴⁸

From the limited material at our disposal, it would appear that this transition was made within a relatively short period while typically late 'X-Group' pottery remained in use, but before the widespread appearance of what are regarded as new 'Transitional/Early Christian' forms and wares.⁴⁹ Current interpretations suggest a late fifth century or early sixth century date for these 'X-Group' wares,⁵⁰ while the historical sources record a mid-sixth century date for the conversion of Nubia following the mission of Julian to Nobatia. However, further refinement of the chronology remains problematic in the absence of more absolute dates.⁵¹

At a more general level, the finds from these tombs are important in confirming that typically 'X-Group' ceramics were distributed as far south as the Third Cataract, largely, if not totally, excluding wares known from the Dongola Reach. The published material from Tabo, just south of the Third Cataract near Kerma, clearly falls into a different Upper Nubian ceramic tradition⁵² and other post-Meroitic sites in the Dongola Reach have consistently produced a range of ceramics very different from the typical 'X-Group' products found in Lower Nubia.⁵³

There is little which may distinguish the Sesibi material from that found in neighbouring areas to the north, for example, around Abri, and it would seem that the Third Cataract zone marked a well-defined ceramic frontier between Lower Nubia and the Dongola Reach during this period. It is suggested that within the context of the emergence of the medieval kingdoms of Nobatia and Makuria, north and south of the Cataract, further research into the distribution of these different wares, and other 'economic' manifestations of the political frontier, may be fruitful.

⁴⁷ Kirwan (*Firka*, 16) suggested a chronological development from Cemetery A to C with the first appearance of Christian graves at the southern end of cemetery B.

⁴⁸ Attention must be drawn to important work carried out near Old Dongola by Mahmoud el-Tayeb for the Sudan Antiquities Service, presented at the Seventh International Conference for Nubian Studies in Geneva, 1990. Recent excavations in the cemeteries at Jebel Ghaddar have investigated a number of post-Meroitic tumuli. One tumulus in the northern cemetery covering an east-west burial, surrounded by many typical Christian mastaba graves, may be compared with Sesibi Tumulus 101. I am grateful to Mahmoud el-Tayeb for drawing this material to my attention, and for generously supplying me with a manuscript copy of his report on these excavations.

⁴⁹ Note that Adams' Transitional Ware R2 is almost entirely absent from 'X-Group' burials: see Adams, 'Comments on Nubian Pottery Collections in Stavanger', in Säve-Söderbergh, *Late Nubian Cemeteries*, 24-7.

⁵⁰ Williams, *Nubadian X-Group Remains*, 17-18.

⁵¹ It must also be noted that elements of the Nubian population may have been converted to Christianity well before the 'official' conversion of the 540s AD, while pagan practices may also have survived somewhat later than this in more remote areas of Nobatia.

⁵² H. Jacquet-Gordon and C. Bonnet, 'Tombs of the Tanqasi Culture at Tabu', *JARCE* 9 (1971-2), 77-84; C. Bonnet (ed.), *Kerma, royaume de Nubie* (Geneva, 1990), 255-6. This pottery may be compared with material from the Old Dongola area: K. Grzymalski, *Archaeological Reconnaissance in Upper Nubia* (Toronto, 1987), 36-7, pl. 9; id., 'Ceramic material from the Letti Basin area', in Godlewski, *Coptic and Nubian Pottery*, 18-23. The pottery from El Ghaddar near Old Dongola was classified according to Adams' typology as Ware R1. However, although there are some formal similarities between this material and northern 'X-Group' pottery, it seems clear that this pottery, like that from Tabo, should be distinguished from Lower Nubian products. Similar material was recovered from the famous tumuli at Tanqasi: P. Shinnie, 'Excavations at Tanqasi', *Kush* 2 (1954), 66-85.

⁵³ Török, *Late Antique Nubia*, 71; D. N. Edwards, *Archaeology and Settlement in Upper Nubia in the 1st Millennium A.D.* (BARS 537, Oxford, 1989), 11-12.

Distribution of the finds

Following the two seasons' excavations at Sesibi and Amara, the finds were divided with the Sudan Antiquities Service. The records of the division are incomplete, but it would seem that a relatively large proportion of the 'X-Group' material was retained and included in the division. The present location of many of the pots and other objects cannot now be traced, and it seems likely that some of the pottery, especially the damaged pieces, was reburied on site at Sesibi. Those pieces whose location is known are listed below.

Sudan National Museum, Khartoum

Pottery: 201.11, 16, 19, 22, 23, 33, 36, 50, 52, 55; 101.g.

The British Museum

Pottery: 201.9 (BM 64029), 201.17 (BM 64031), 201.21 (BM 68656), 201.25 (BM 68643), 201.26 (BM 68647), 201.29 (BM 68645), 201.30 (BM 68644), 201.41 (BM 68646), 201.48 (BM 64030), 201.67 (BM 68657), 101.d (BM 64028).

Small finds: alabaster ring, reg. 36.37.329 (BM 64033).

Royal Ontario Museum, Toronto

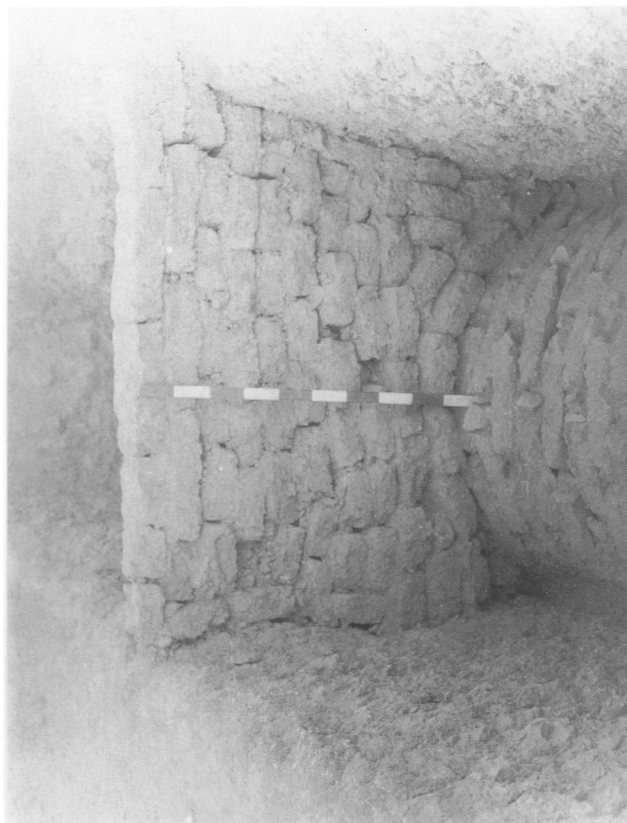
Pottery: 201.32 (ROM 938.55.29), 201.37 (ROM 938.55.30), 201.44 (ROM 938.55.31), 201.49 (ROM 938.55.32), 201.64 (ROM 938.55.33), 201.66 (ROM 938.55.34), 101/104.f (ROM 938.55.35).

Royal Cornwall Museum, Truro

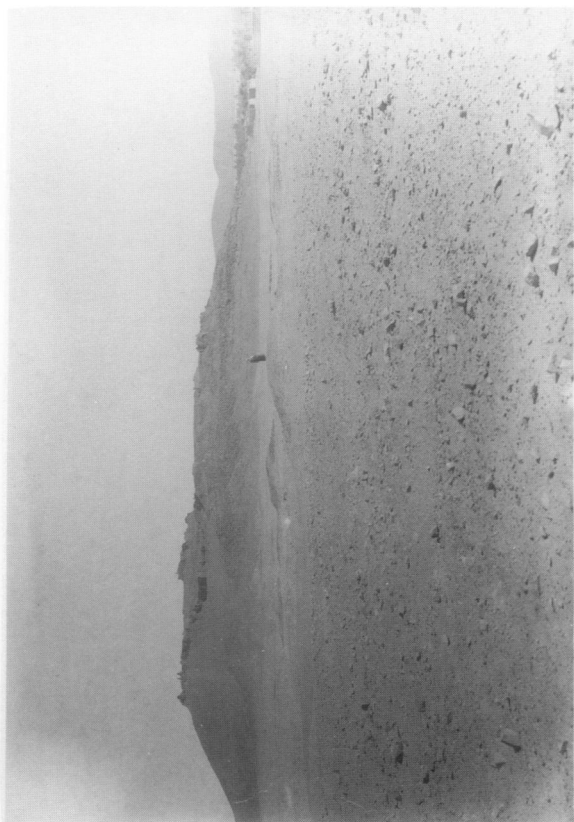
Pottery: 201.51.



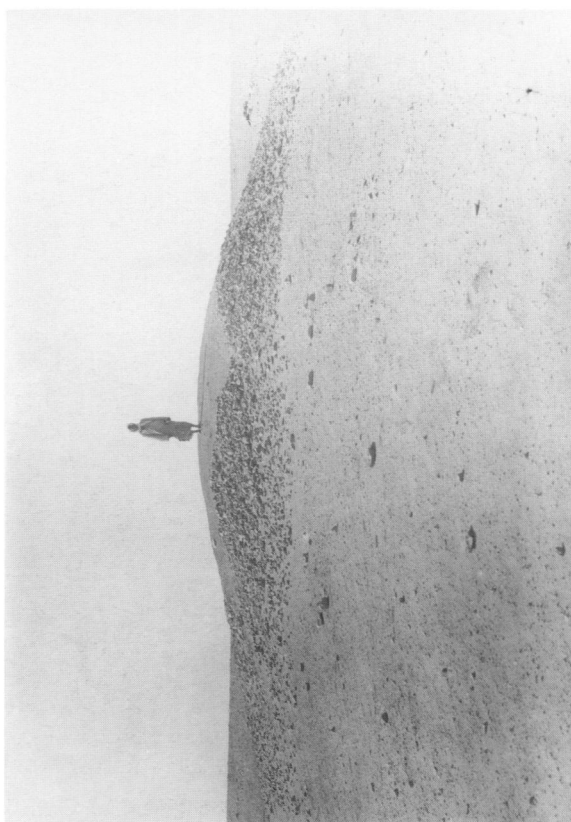
2. Tumulus 201. Outer chamber during excavation



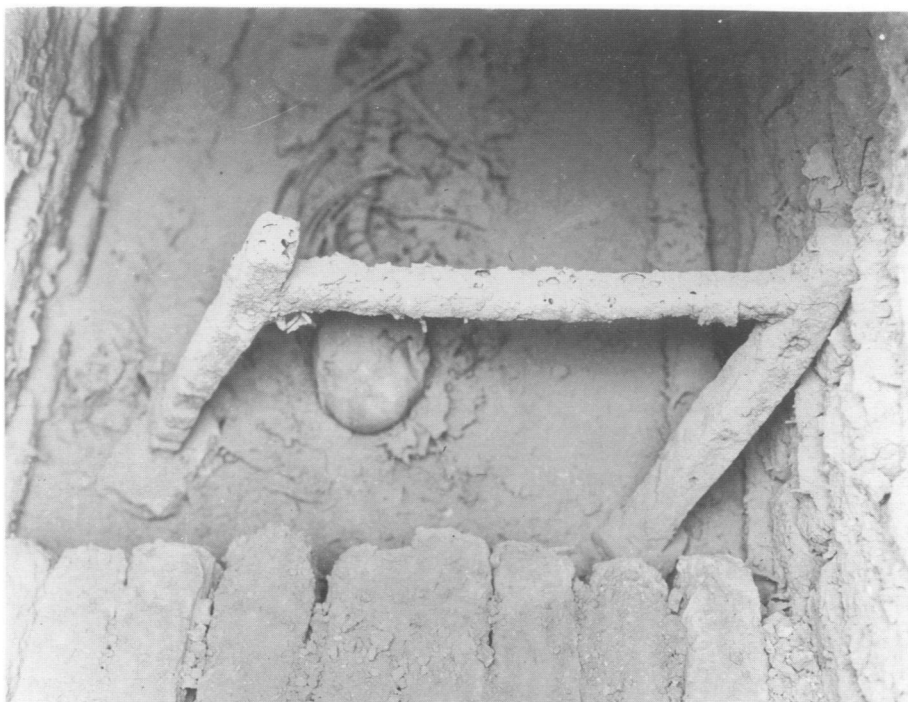
4. Tumulus 101. Grave shaft showing cross wall, from east



1. Jebel Sesi from south-west across 'X-Group' cemetery



3. Tumulus 101. Pre-excavation from east

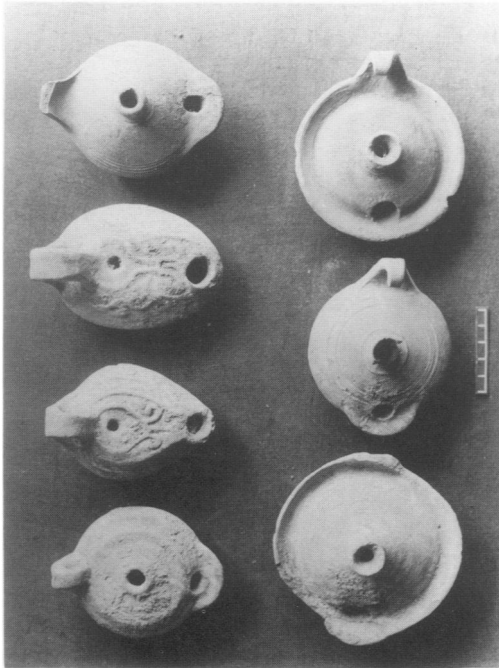


1. Tumulus 101. Burial chamber with bed frame in foreground



2. Tumulus 101, post-excavation, from west. Mastaba graves in foreground and 'altar' in front of the burial chamber

EXCAVATIONS AT SESIBI, 1937 (pp. 159-78)



1. Lamps from Tumulus 101 and mastaba graves



2. 'X-Group' pottery. Left to right: 104.d, 7 (201.21), 8 (201.9), 37 (201.48), 6 (201.67), 41 (201.17)



3. 'X-Group' pottery. Left to right: 13 (201.25), 8 (201.30), 8 (201.29), 9 (201.41), 13 (201.26)

EXCAVATIONS AT SESIBI, 1937 (pp. 159-78)

MUSEUM ACQUISITIONS, 1992

EGYPTIAN ANTIQUITIES ACCESSIONED IN 1992 BY MUSEUMS IN THE UNITED KINGDOM

Edited by ELENI VASSILIKA

Predynastic Period

1. Ceramic ovoid vessel with red slip, scraped and burnished surface, Birmingham City Museums and Art Gallery 1992A454.
2. Flint spearhead and group of five arrowheads, Birmingham City Museums and Art Gallery 1992A455-456.
3. Two flint blade flakes, Birmingham City Museums and Art Gallery 1992A457. From Wadi el-Sheikh.

First Intermediate Period

4. Pottery from Qau, British Museum EA 73990-73992. Ex-Pitt Rivers Museum, Dorset. Given by James Ede.
5. Steatite stamp seal with geometric design on base, back formed of two sculpted male figures back to back, British Museum EA 73989.

Middle Kingdom

6. Limestone cosmetic jar, Birmingham City Museums and Art Gallery 1992A449.
7. Calcite cosmetic jar, said to come from Thebes, Birmingham City Museums and Art Gallery 1992A450.

New Kingdom

8. Wooden figure of the god Bes, possibly a furniture element, British Museum EA 74106 (pl. XXXI, 2). Purchased with the assistance of the British Museum Society.
9. Papyrus, fragments of two painted scenes without texts, showing Egyptians and foreigners in combat, British Museum EA 74100. From the EES excavations at Amarna, 1936 season.
10. Leather, fragments of painted prepared surface, acquired with 74100, British Museum EA 74101.
11. Papyrus, assorted small fragments with traces of text, none diagnostic to establish date, acquired with 74100, British Museum EA 74102.
12. Blue glazed composition bowl fragment, with black painted floral motifs on rim and interior, British Museum EA 74104. Given by Dr C. N. Reeves.

13. Calcite chariot yoke finial, British Museum EA 74110.
14. Pottery mould for cartouche plaques of Ramses II, British Museum EA 74109. Ex-Pitt Rivers Museum, Dorset.
15. Limestone ancestor bust with traces of red pigment on face, British Museum EA 73988.
16. Fibre and cord hand brush, Bristol Museums and Art Gallery 38/1992.
17. Three calcite cosmetic jars (the last from Thebes), Birmingham City Museums and Art Gallery 1992A451-453.

Third Intermediate Period

18. Limestone raised relief of a striding sphinx in a cut-away section of a shrine on a bark, *smw-twy*-signs under the body, Fitzwilliam Museum E.1.1992 (pl. XXXI, 1). Purchased through the University Purchase Grant, the American Friends of Cambridge University and the Friends of the Fitzwilliam Museum.

Late Period

19. Bronze figure of Wadjet as a lion-headed goddess enthroned, with inscription invoking Horus of Pe and Wadjet, British Museum EA 74111. Bequeathed by Mrs Suzanne King through the National Art Collections Fund.
20. Green glazed composition amulet of Bes, British Museum EA 74099. Given by D. E. Williams.
21. Green glazed steatite amulet of the Memphite triad, with names of each inscribed on the back, British Museum EA 74094.
22. Green glazed steatite amulet of Inheret-Shu, British Museum EA 74095.
23. Blue glazed composition gaming-piece, with circular base and upper part in the form of a Bes head, date uncertain, possibly as early as New Kingdom, British Museum EA 74093.
24. Six copper alloy. Osiris figures, Birmingham City Museums and Art Gallery 1992A458-463.
25. Glass spindle whorl, Birmingham City Museums and Art Gallery 1992A465.
26. Glass rod fragments, Birmingham City Museums and Art Gallery 1992A466.

Ptolemaic Period

27. Blue glass two-finger amulet, British Museum EA 74098.
28. Falcon mummy, apparently composed of miscellaneous material and incomplete, British Museum EA 74105. Given by Swaffham Museum.
29. Faience figurine of a naked male with hair and beard indicated in black, collar in relief, flexed knees, long phallus, left arm raised to head; pierced for suspension behind neck and pierced through the ears, Liverpool Museum, 1993.75 (pl. XXXI, 3).

Roman Period

30. Terracotta figure of Harpocrates holding a cornucopia, British Museum EA 74096.
31. Terracotta figure of Isis holding Harpocrates on her left shoulder, British Museum EA 74097.

32. Terracotta figure of a pregnant woman draped and veiled and seated on a birth-stool, British Museum GR 1992.8.11.1. First-second century AD.

Coptic Period

33. Pottery sherds from Soba, principally of the sixth to ninth centuries AD, British Museum EA 73993-74091. Given by the British Institute in East Africa.

34. Papyrus, Coptic letter in thirteen lines including an account of clothing and other items sent by a man to his brother Kyriakos, British Museum EA 74107.

35. Papyrus, Coptic letter fragment of four lines, British Museum EA 74108.

36. Parchment and paper religious texts in Greek, from the cathedral of Qasr Ibrim, British Museum EA 74112-24. Given by the Egypt Exploration Society.

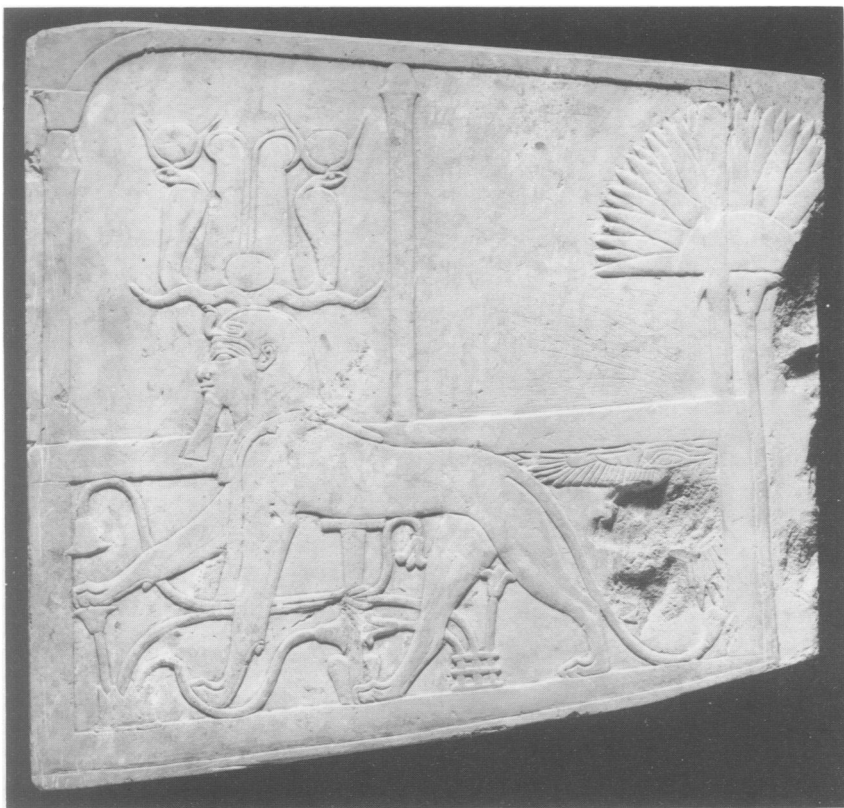
Miscellaneous

37. Stone spindle whorl, Birmingham City Museums and Art Gallery 1992A464.

38. Six necklaces, mainly faience tubular and disk beads, Birmingham City Museums and Art Gallery 1992A467-472.

39. Group of scarabs and crude faience amulets, Birmingham City Museums and Art Gallery 1992A473.

40. Paper *firman* issued by the Ottoman authorities to Henry Salt, British Museum EA 74092.



1. Relief of a striding sphinx, Fitzwilliam Museum E.1.1992 (p. 180, no. 18)



2. Wooden figure of Bes, British Museum EA 74106 (p. 179, no. 8)



3. Faience figure of a man, Liverpool Museum 1993.75 (p. 180, no. 29)

BRIEF COMMUNICATIONS

Possible *s*-signs from the Tomb of Djet (Uadji)

Fragments of modelled pottery excavated by Petrie in the Umm el-Qa'ab royal cemetery at Abydos are tentatively identified as parts of large, three-dimensional *s*-signs once placed in recesses.

DESCRIBING his excavation at the Tomb of Djet in the Umm el-Qa'ab First Dynasty royal cemetery at Abydos in 1899–1900, Petrie remarked on the recesses he found in the tomb (site mark Z):

The cross walls were built after the main brick outside wall was finished and plastered. The deep recesses coloured red, on the north side, were built in the construction; where the top is preserved entire, as in a side chamber on the north, it is seen that the roofing of the recess was upheld by building in a board about an inch thick. The shallow recesses along the south side were merely made in the plastering, and even in the secondary plastering after the cross walls were built. All of these recesses, except that at the S.W., were coloured pink-red, due to mixing burnt ochre with the white. In the outline of pl. LXIII, the condition of the walls does not profess to be exactly as at present, but more or less, broken down, so as to show the plan and detail more clearly. The purpose of these recesses is quite unknown.¹

The following year of excavation revealed similar recesses in the Tomb of Djer (site mark O):

A strange feature here is that of the red recesses such as I have described last year in the tomb of Zet. The large ones are on the west wall, and in the second cell on the north wall. Besides these, there are very shallow ones on each side of each of the cell walls on the north and south, except the eastern narrow cell on the north and the two most eastern ones on the south; there is also one niche in a cell in the east. No meaning can yet be assigned to these, except as spirit-entrances to the cells of offerings, like the false doors in tombs of the Old Kingdom.²

No other tomb in the cemetery seems to have been built with such recesses in the side chambers.

It is extremely difficult to calculate the measurement of the individual recesses using the site plans published in Petrie's reports at a scale of 1:200, but the manuscript notebooks kept in the Petrie Museum of Egyptian Archaeology at University College London have proved to be helpful in this regard.³ From the measurements given in inches in these it is apparent that the recesses varied in size according to their situation in the tombs. In the Tomb of Djer the recesses on the west wall have a height varying from 1.523 to 1.828 m (60 to 72 in.) and a width from 0.355 to 0.457 m (14 to 21 in.) and those on the east wall a width from 0.355 to 0.457 m (14 to 18 in.) and a uniform height of 0.990 m (39 in.).

The pencil plan of the Tomb of Djet in the notebook gives some code letters for some of the recesses which are marked on the plan reproduced here (fig. 1a).⁴ The recesses shown on the upper part of *Royal Tombs* I, pl. lxiii are those marked A, B and C on the south wall which were merely made in the plastering and coloured pink-red. They have a height and width of 1.562 m (61.5 in.), 0.629 m (24.8 in.); 1.615 m (63.6 in.), 0.667 m (26.3 in.); 1.562 m (61.5 in.) and 0.317 m (12.5 in.), respectively. The recesses on the north wall of the tomb include the large rectangle

¹ W. M. F. Petrie, *Royal Tombs of the Earliest Dynasties*, I (London, 1900), 10, pls. lxi (plan), lxiii (recesses).

² Petrie, *Royal Tombs of the Earliest Dynasties*, II (London, 1901), 8, pl. lx (plan).

³ Petrie Notebooks 2 and 3 respectively; for a full list of manuscripts in the Petrie Museum see B. Adams, *JEA* 61 (1975), 108–11.

⁴ *Royal Tombs* I, pl. lxi.

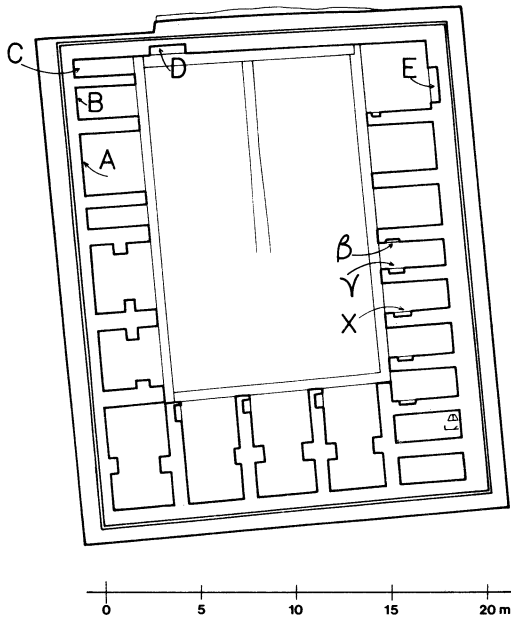


FIG. 1a. Plan of the Tomb of Djet (after Petrie, *Royal Tombs I*, pl. lxi).

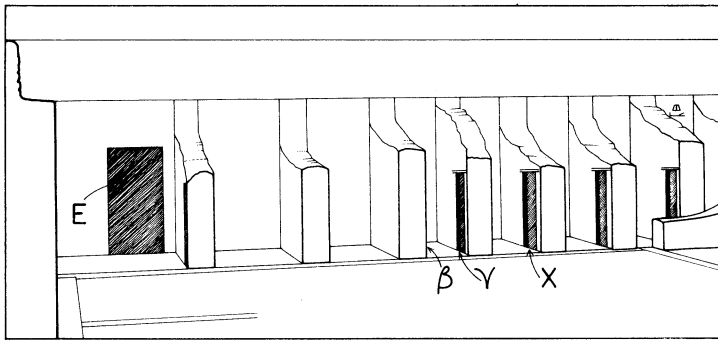


FIG. 1b. Elevation showing the chambers with recesses along the north wall of the tomb (after Petrie, *Royal Tombs I*, pl. lxiii).

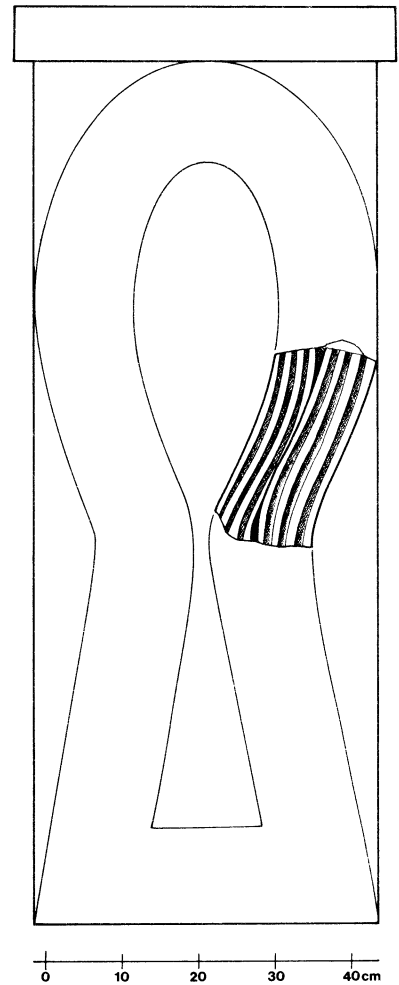


FIG. 1c. Suggested reconstruction of pottery sh in recess X, incorporating fragment UC.36627 A.

marked E on the plan, which is 1.645 m (64.8 in.) high and 0.947 m (37.3 in.) wide with a depth of 0.248 m (9.8 in.). Each of the side walls of the chambers north from the E recess chamber has a recess, or two, in the side walls (fig. 1b). The first, narrow recess is 0.233 m (9.2 in.) wide and those marked β and γ are 0.335 m (13.2 in.) and 0.330 m (13.0 in.) wide, 0.106 m (4.2 in.) and 0.126 m (5 in.) deep, and 1.142 m (45 in.) high. The recess on the side wall of the following chamber has a width of 0.457 m (18.0 in.) and a depth of 0.114 m (4.5 in.). The reconstruction postulated here (fig. 1c) is based on the dimensions of the recesses on the side walls of the north wall of the tomb, specifically the recess in this chamber, given the designation X. The last chamber before that marked Δ , which can just be seen in the photograph (pl. XXXII, 1),⁵ has a recess of 0.457 m (18 in.) wide and 1.219 m (48 in.) high.

⁵ *Ibid.*, pl. lxiv.1. This chamber is not described in the publication. Petrie's notebook no. 2 has a sketch of these signs (*hr-r*), which were marked on the north wall.

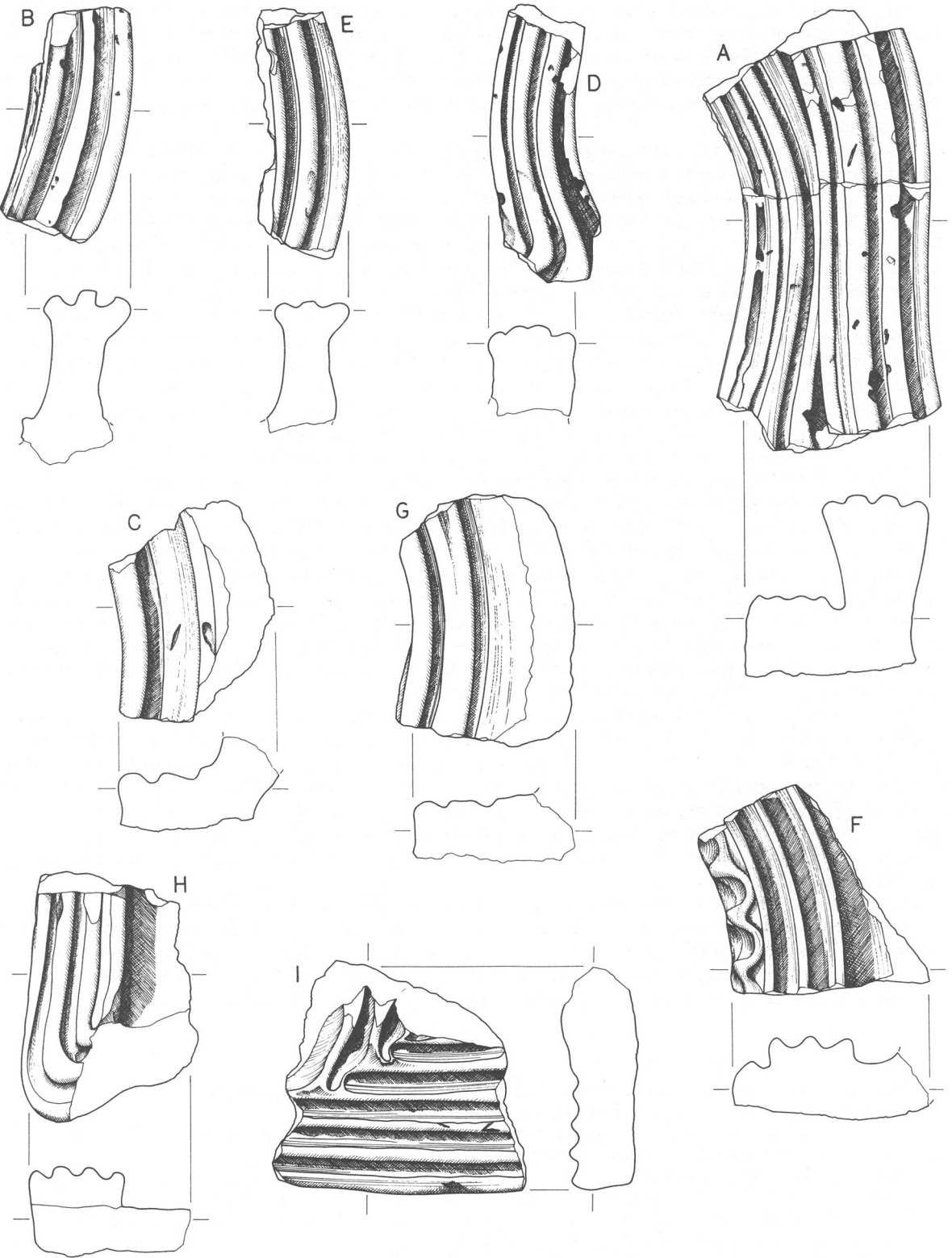


FIG. 2. Pottery *s*-sign fragments from the Tomb of Djet, UC.36627 A-I. Scale 1:4.



1. The Tomb of Djet, looking east, showing the side chambers with one recess visible on the left
(*courtesy of the Committee of the Egypt Exploration Society*)


st-SIGNS FROM THE TOMB OF DJET (pp. 183-7)



2. The inscribed block of Ramose from Saqqara

RAMOSE, AN OVERSEER OF THE CHAMBERLAINS (pp. 202-8)

from the First Dynasty, often based on wall hangings that were no doubt used in houses and palaces.¹³

It is interesting to note that the administrator of Upper Egypt under Queen Merytneith at Abydos is named as the official Sa-ka on mud sealings from her tomb, although the form of the *sr*-sign here is Gardiner V16 , which is much more frequent in the first two dynasties.¹⁴ According to Kaplony the full reading is *Sr-kr inw šmꜣ*, implying that he had control of the tribute from Upper Egypt made to the tomb.¹⁵

The large mastaba Tomb 1060 at Tarkhan, which dates stylistically to the reign of Djet, has two shallow (1.25 cm = ½ in.), red-painted recesses in the north and south walls of the burial chamber, which, at a height of 1.320 m (52 in.) and width of 0.380 m (15 in.), are similar in size to those in the Tomb of Djet, and may have had a connected function.¹⁶ There are also large tombs dated to the reign of Djet at Saqqara and Gizeh, both of which share the characteristic of the surrounding graves of sacrificed retainers with Tomb Z at Abydos. Neither of these tombs has wall recesses, but Tomb 3504 at Saqqara, which appears to belong to the official Sekhem-ka, who is also known from the Tomb of Djet at Abydos, has a recess which contained a wooden panel in the burial chamber. This tomb also has a low bench around it on which was modelled a series of bulls' heads in clay inset with real horns.¹⁷ This feature confirms the custom of the use of ceramic to reinforce the symbolic decorative devices in early tombs prior to the introduction of stone into the structures in the reign of Den.¹⁸

BARBARA ADAMS

Further observations on the dedication formula *ir.n.f m mnw.f*

Some further observations concerning the grammatical structure of the dedication formula *ir.n.f m mnw.f*. Morphological evidence is presented in support of the identification of the verb as a nominal, or substantival, verbal form. The origin of the formula itself is traced to early king-lists where the logic of its syntactical structure conforms to what might properly be called an 'onomastic pattern'.

IN a recent article in the Journal,¹ I discussed the grammatical problems associated with the translation of the dedication formula *ir.n.f m mnw.f*. The theory proposed as a solution to these problems involves the identification of *ir.n.f* as a nominal verbal form, the verb itself being transitive with its direct object mediated by the preposition *m* in order to allow it to function in an adverbial phrase as the emphasized semantic direct object of the nominal verb. Following infini-

¹³ Particularly Tomb 3505, dated to the reign of Qa'ra at Saqqara, see W. B. Emery, *Great Tombs of the First Dynasty*, III (London, 1958), pls. 6-8.

¹⁴ *Royal Tombs* I, pl. xxi. 28; A. J. Spencer, *British Museum Catalogue: v. Early Dynastic Objects* (London, 1980), no. 370, pl. 30 (EA 32646). The V16 form appears on a stela dated to Qa'ra-Semerkhet from Abydos with what seems to be a V18 form above it, see *Royal Tombs* I, pls. xxxi, xxxvi. 46 (Chicago O.I.6741).

¹⁵ P. J. Kaplony, *Die Inschriften der ägyptischen Frühzeit*, I (Wiesbaden, 1963), 611. The name of *Sr-kr* also appears on a stone vase fragment and an ivory tablet from the Tomb of Den, *Royal Tombs* I, pls. xi.16 and xvi.19 (Pittsburgh), and pls. xiv.11 and xl.6 (Berlin 15465).

¹⁶ *Tarkhan* I, 14, pl. xvi.1.

¹⁷ Emery, *Great Tombs of the First Dynasty*, II (London, 1954), pls. vi-vii.

¹⁸ The Tomb of Den at Abydos has a granite floor, see *Royal Tombs* II, 9, pl. lvi A.1, 2; the later kings of the First Dynasty reverted to wooden floors and then a limestone-lined burial chamber was built in the Second Dynasty Tomb of Khasekhemwy (*Royal Tombs* II, 13, pl. lvii. 4-6).

¹ *JEA* 79 (1993), 99-120.

tives are interpreted as substantives in apposition to this emphasized semantic direct object:

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 . . .

Two examples which have recently come to my attention may, I hope, not only dispel any lingering scepticism concerning this interpretation but also further illuminate the syntax of the dedication formula by tracing its origin.

The ir.n.f m nsyt formula

Throughout the Turin king-list, a formula *nsw bity N ir.n.f m nsyt rnpt² X ibd Y hrw Z* appears several times as headings interspersed among abbreviated entries in the manner of Egyptian commercial and administrative documents. The expression *ir.n.f m nsyt* is omitted from the abbreviated entries in the following manner:

nsw bity N ir.n.f m nsyt rnpt X ibd Y hrw Z

nsw bity N . . . rnpt X ibd Y hrw Z

nsw bity N . . . rnpt X ibd Y hrw Z, etc.³

This formula appears to conform to the same syntactical pattern as the dedication formula *ir.n.f m mnw.f*. Perhaps because it finds itself embedded merely incidentally in the larger issues of chronology, the *nsw bity N ir.n.f m nsyt* formula seems to have attracted little attention *per se*. Helck translates, 'regierte als König',⁴ while Malek renders it, 'he reigned for the period of'.⁵ Neither translation attempts to deal with the inherent difficulties of the Egyptian text. Redford, on the other hand, addresses the Egyptian directly and translates, 'king N functioned in the kingship X years, Y months, Z days'.⁶ He implicitly accepts a noun + *sdm.n.f* construction, and resorts to an intransitive interpretation of *iri* in order to accommodate the preposition *m*, as do Anthes and Vittmann in their interpretations of the dedication formula *ir.n.f m mnw.f*. In my previous article I attempted to show, from the overwhelming evidence of cases in which *iri* is co-ordinated with *mnw* in the context of dedication inscriptions, that the verb is transitive. In the *ir.n.f m nsyt* formula, the case for a transitive verb is even more cogent. It is well attested that the Egyptian idiom for exercising an official function or office employs a transitive *iri* co-ordinated with a direct object.⁷ The following example from P. Westcar (9, 11–12) exemplifies the idiom:

iw.sn r irt it twy mnht m t: pn r dr.f iw smsw n.sn imy r irt wr m:rw m 'Iwonw

They will exercise this noble office in this whole land; the eldest of them will be—lit. exercise (the office of)—Greatest of Seers in Heliopolis.

The office of kingship conforms to the same principle; the *Wörterbuch* (II, 333, 8) observes that when *iri* is co-ordinated with *nsyt* the verb takes a direct object. A parallel to P. Westcar 9, 11–12 can be cited from Hatshepsut's temple at Deir el-Bahri:

iw.s r irt [ns]yt tw(y) mn[ht] m t: pn r dr.f (Urk. IV, 221, 9).

² Against reading *rnpt*, see A. H. Gardiner, *JEA* 31 (1945), 21, who points out that the word in the Turin king-list is written as in the date formula. For a reading *hsbt* in the date formula, against the *ht-sp* of Sethe followed by Gardiner (ibid. 14), see W. Barta, 'Das Jahr in Datumsangaben und seine Bezeichnungen', *Ägypten und Altes Testament*, 1: *Festschrift Elmar Edel* (Bamberg, 1979), 35–41. Note, however, the reading *nsyt m hhw n rnptwt*, in P. Harris I, 22, 5, which offers the possibility that the writing in the Turin king-list may have been influenced by the orthography of the similarly written date formula. The question is not crucial for the present argument and, since it may be considered open, *rnpt* has been tentatively retained here.

³ E.g., cols. VII, 3 ff., VIII, 4 ff.; A. H. Gardiner, *The Royal Canon of Turin* (Oxford, 1959), pl. iii.

⁴ W. Helck, *Untersuchungen zu Manetho und den ägyptischen Königslisten* (UGAA 18; Berlin, 1956), 83.

⁵ J. Malek, *JEA* 68 (1982), 94.

⁶ D. B. Redford, *Pharaonic King-lists, Annals and Day-Books* (Mississauga, 1986), 8.

⁷ *Wb.* I, 109, 26–8; R. O. Faulkner, *A Concise Dictionary of Middle Egyptian* (Oxford, 1981), 26, 3.

Another example from P. Westcar (10, 13) reads:

nsw irty.fy nsyt m tꜣ pn r dr.f

The king who will exercise kingship in this whole land!

Here, with Redford and Faulkner,⁸ I have translated *nsyt* as 'kingship'. The *Wörterbuch* (II, 332, 13) translates 'Königtum, Königsherrschaft'. But none of these conveys the particular, temporal nuance required by the Turin king-list. In his recent study of this document, Helck translates 'Regierungszeit(en)'⁹ and this can be supported by an example from P. Harris I (22, 5) where a translation of *nsyt* as 'reign' is required:

imi n.f nsyt m hhw n rnpwt

Grant him a reign of myriads of years!

In conformity with the interpretation I have proposed for the pattern of the dedication formula, the Turin king-list formula may now be rendered:

nsw bity N ir.n.f m nsyt rnpt X ybd Y hrw Z

The king of Upper and Lower Egypt, N: it was a reign of X years, Y months, and Z days that he accomplished.

The substantival pseudo-verbal pattern

Because the Egyptian idiom demands a transitive understanding of *iri*, the intrusion of the preposition *m* has to be attributed to some extraordinary syntactical function. As stated above, the theory I have proposed to explain this, as it pertains to the dedication formula, requires that *ir.n.f* be interpreted as a nominal verbal form. Since the nominal *sdm.n.f* form displays no distinctive morphology in Egyptian orthography, my identification of the nominal form rested entirely upon the fact that *ir.n.f* could, in some cases, occupy initial position in the formula. Nonetheless, such diagnostic examples are particularly uncommon; the verb far more commonly follows a name in frontal extraposition. The reasons for this will be examined below.

A rare variant of the dedication formula provides morphological justification for identifying *ir.n.f* as a nominal, or substantival, *sdm.n.f* form. So far as I am aware, it is unique. In carrying out renovations on the Speos Artemidos of Hatshepsut, Sety I had inscriptions of his own carved into the monument. One of these reads:

*wnn nsw nb tꜣwy Mn-mꜣt-rꜣ hr irt m mnw.f n mwt.f . . .*¹⁰

As Polotsky explained, the syntactical pattern *wnn.f hr sdm* represents the substantival equivalent of *iw.f hr sdm*:

Tandis que les formes substantives personnelles du *sdm.f* et du *sdm.n.f* remplacent les constructions prédicatives ('factiveuses') *jw.f sdm.f* et *jw sdm.n.f*, les constructions 'pseudo-verbales', composées avec le statif ou avec une préposition, surtout *hr*, suivie de l'infinitif, ne peuvent être substantivées que par la substantivation de l'auxiliaire.

To achieve this, he explained, '*jw.f* est remplacé par une forme substantive du verbe *wnn*'.¹¹

The verbal substituent in this inscription of Sety I, therefore, demonstrates that when the *ir.n.f* of the dedication formula is replaced by a pseudo-verbal equivalent, it is the *substantival* pseudo-verbal construction that is employed. This provides indirect morphological support to the proposition that the *ir.n.f* of the dedication formula *ir.n.f m mnw.f* is a nominal *sdm.n.f* form as required by the theory proposed in my previous article. As in the standard form of the dedication formula, the semantic direct object is mediated by the preposition *m*.

⁸ Faulkner, *ibid.* 139.

⁹ W. Helck, *SAK* 19 (1992), 169.

¹⁰ H. W. Fairman and B. Grdseloff, *JEA* 33 (1947), pl. iv, text 7.

¹¹ H. J. Polotsky, *Israel Oriental Studies* 6 (1976), 35, §3.8.3.2.

The problem of frontal extraposition

While the pseudo-verbal variant of the dedication formula provides the morphological evidence which the nominal *sdm.n.f* form itself denies us, it nevertheless raises another perplexing question. The examples of the dedication formula which eschew frontal extraposition all occur in non-royal contexts; in fact, it appears that all non-royal occurrences avoid frontal extraposition, favouring instead a form of rear extraposition (*ir.n.f m mnw.f n it.f in N*)¹² or oblique nominal reference, e.g. *htp di nsw . . . n N dd ir.n(.i) m mnw.i*, 'an offering which the king gives . . . to N, who says: "It is my monument that I have made . . ."'.¹³ In royal inscriptions, on the other hand, with the exception of the pseudo-verbal pattern, the king's name invariably appears in frontal extraposition: *nsw bity N ir.n.f m mnw.f*. Never do we find a pattern **ir.n nsw bity N m mnw.f*, nor do we find any non-royal example following a similar **ir.n N m mnw.f*. Why is it that the sole variant employing the pseudo-verbal pattern alone differs in this respect? Why does it not conform to a hypothetical **nsw bity N wnn.f hr irt m mnw.f*? We need to explain why non-royal examples and the royal pseudo-verbal variant of the dedication formula deviate from royal examples using the *sdm.n.f* form in not employing frontal extraposition of the name.

The relevant facts are as follows:

- (1) The sole royal example of the dedication formula which eschews frontal extraposition is also unique in employing the pseudo-verbal pattern. It dates from the Ramesside period.
- (2) With this single exception, all, and only, non-royal examples of the dedication formula avoid frontal extraposition;¹⁴ royal examples always employ it. In other words, only royal names are put in frontal extraposition.
- (3) The earliest attested examples of *ir.n.f m mnw.f* date from the Old Kingdom and occur in royal contexts; examples in private contexts do not occur until the Middle Kingdom.¹⁵ Being royal, these earliest examples employ frontal extraposition.

The onomastic pattern

We are now in a position to draw some conclusions. As we have observed, the royal dedication formula *nsw bity N ir.n.f m mnw.f* and the Turin king-list formula *nsw bity N ir.n.f m nsyt* share the same syntactical pattern, with both employing frontal extraposition of the royal name. Furthermore, since the earliest attestations of the dedication formula are found on the Palermo Stone, where they constitute the individual components of a list of kings, it may be suggested that the dedication formula and the Turin king-list formula share a common provenance in king-lists. If we allow that the evidence is consistent with a conclusion that the dedication formula *nsw bity N ir.n.f m mnw.f* derives originally from king-lists, the logic of its syntactical pattern becomes explicable. The frontal extraposition of the royal name has nothing to do with any putative noun + *sdm.n.f* form. The name was originally required in this position as an element in a list of royal names, as in the case of the *nsw bity N ir.n.f m nsyt* formula. Both these formulae, then, conform to what can be called an 'onomastic pattern', with the frontal extraposition of the name arising only from the latter's function as an individual element in a list of names. In order to provide further information about each king, the name is resumed in the pronominal elements of *ir.n.f m mnw.f* or *ir.n.f m nsyt* and followed by details such as his significant accomplishments or length of reign, depending on the purpose of the particular list. The use of the nominal verb and the mediation of the preposition *m* allow the salient element to be emphasized, here 'reign of X years, Y months, Z days' or 'his monument/endowment'. In the latter case, 'his monument/endowment' is expanded by substantives in syntactical apposition to it.

Considered historically, the dedication formula appears to be an adaptation of the onomastic pattern or, more accurately, an adoption of a particular version of it, for dedication inscriptions. In this secondary, dedicatory role, it functions syntactically in essentially similar fashion. The

¹² Castle, *JEA* 79, 104, exx. 15, 16.

¹³ *Ibid.* 119, ex. 53, where I interpreted *dd* as *dd(.i)*. It is, however, to be interpreted as a participle.

¹⁴ The inscriptions of Herihor are an exception to this but since, as is well known, this High Priest of Amun assumed royal prerogatives, they constitute an exception proving the rule.

¹⁵ G. Björkman, *Kings at Karnak* (Uppsala, 1971), 23.

frontally extraposed royal name, however, having its inception and original function in a list of names, now functions independently to give prominence to the name of the king whose achievement is recorded in the following elements of the dedication. With a minor reservation about the word 'narrated', I have already expressed agreement with Leahy's observation concerning extraposition of the royal name in the dedication formula, that 'its principal function is to identify the context, both chronological and religious, in which the act subsequently narrated takes place.'¹⁶ Clearly this is not far removed from the function of extraposed royal names in king-lists.

The non-royal examples of the dedication formula are to be considered later derivatives from royal exemplars. They avoid frontal extraposition and instead employ rear extraposition or otherwise resort to oblique nominal reference. Their avoidance of frontal extraposition can be explained not only by the absence of any non-royal onomastic precedent for the formula but also by the fact that the educated Egyptian would have been acquainted with king-lists employing this pattern, and too close an imitation might well have been considered a presumptuous claim to inclusion in such lists—a political statement of considerable import avoided by the Middle Kingdom dignitaries of Sheikh Saïd and el-Bersheh,¹⁷ if not by the later High Priest Herihor who assumed royal prerogatives at the expense of a declining Ramesside dynasty.¹⁸

The absence of frontal extraposition in the unique pseudo-verbal variant of Ramesside date can be explained by the fact that the pseudo-verbal construction has no attested precedent in king-lists. Since it is only indirectly related to the onomastic pattern of these lists as a syntactical variant of the derivative dedication formula, the formal imperative of the onomastic pattern dictating frontal extraposition consequently found no atavistic echo in its construction.

EDWARD W. CASTLE

On supposed connections between the 'canon of proportions' and metrology

The author examines Claire Simon's hypothesis that the *nby*-rod was designed not for architectural use but for laying out the squared grids employed by artists to establish proportions of the human figure, and concludes that Simon fails to make her case.

In a recent article, Claire Simon published a useful catalogue of measuring rods marked with divisions that are, in modern terms, approximately 10 cm or fractions of 10 cm long.¹ With one exception, they do not obviously relate to the cubit rod and its divisions into palms, and Simon connects them with a unit of measurement called a *nby* which has long been known from texts. Furthermore, she notes that the divisions of 10 cm correspond to the length claimed by Erik Iversen to represent the side of a square in the early grid system used by artists to draw the human figure, and she suggests that the rods were used to lay out grids on monuments.

Iversen's theoretical analysis of the early and later grid systems is based on the notion of a tightly-knit mathematical relationship between the 'canon of proportions' and linear units of measurement.² Iversen holds that the living male forearm from the tip of the middle finger to the elbow is the length of one royal cubit consisting of seven palms, equivalent to 52.5 cm in modern metric units, and that in art this same distance occupies $5\frac{1}{4}$ squares on the grid. It follows from these assumptions that the side of each grid square would be equivalent to a length in the living arm of 52.5 cm divided by 5.25, which is 10 cm.

¹⁶ Castle, *JEA* 79, 109.

¹⁷ *Ibid.* 104, nn. 30, 31, and 118, n. 123.

¹⁸ E.g., *KRI* vi, 717, 16-723, 11, *passim*.

¹ *JEA* 79 (1993), 157-77.

² *Canon and Proportions in Egyptian Art* (1st ed., London, 1955; 2nd ed., Warminster, 1975).

Iversen further relates the side of a grid square to the anatomical clenched hand or fist, which he regards as combining the width of four fingers (= one palm) and a thumb. He takes the thumb width contributing to the fist to be equal to the width of $1\frac{1}{3}$ fingers. Since there are 28 metrological fingers in a royal cubit of seven palms, the fist would have a metric equivalent of $52\frac{1}{2} \times 5\frac{1}{3} \div 28 = 10$ cm. For Iversen, the fist is also a metrological unit found on measuring rods. Therefore, the metrological unit of the fist and the length of a grid square side in the grid system are equivalent, so that the fist could be said to be the 'module' of the 'canon of proportions'.

The basic problem with Iversen's analysis is that if each grid square were equivalent to 10 cm in a life-size figure, a standing figure consisting of 18 squares to the hairline plus another half to full square to the top of the head, as in the early eighteen-square grid system, would be the equivalent of 185 cm to 190 cm, that is, over six feet. However, this can hardly be regarded as the height of an average ancient Egyptian. In fact, an analysis of Predynastic long bones from Naqada has shown the mean male stature to have been approximately 170 cm.³ Because of this, I have argued that in life the length of the forearm from the middle fingertip to the 'elbow bone' (the olecranon process of the ulna) in an Egyptian male of average stature was not a royal cubit at all. Rather, the distance approximates to a small cubit of 6 palms, or 45 cm in modern terms.⁴

It is also doubtful whether Iversen is right in saying that the elbow to fingertip distance in art occupies $5\frac{1}{4}$ grid squares. Measurements that I have made on statistically meaningful samples based on the publications of several New Kingdom temples show that the forearm varies in length according to posture, available space, and period. However, there are examples of figures drawn on surviving grids that date to the Twelfth Dynasty, the time when the grid was introduced, where one arm hangs at the side of the body with the hand extended. The elbow bone lies on horizontal 12 and the fingertips on horizontal 7 five squares below, or in one exceptional example, on horizontal 11 with the fingertips on horizontal 6.⁵ Each gives a distance from elbow to fingertips of only five squares. If the forearm in art ideally occupies 5, and not $5\frac{1}{4}$, squares, and if the length of the forearm from elbow to fingertips is the equivalent of 45 cm, not 52.5 cm, then the side of a grid square will represent in life not 10 cm, but 9 cm. Moreover, if the grid square represents 9 cm, 18.5 to 19 squares from the soles of the feet to the top of the head will give a height for standing figures of 166.5 to 171 cm. This is closer to the average living stature of an Egyptian male of 170 cm than to the height of 185 to 190 cm that results from equating the side of a grid square to 10 cm.

Simon has considered the arguments for identifying the length of the living forearm with a small cubit and is prepared to accept them. Having rejected Iversen's reasons for equating a grid square side to a length of 10 cm, she has to find another justification for arriving at the same conclusion. She accepts that in life the length from elbow to wrist is approximately 27 cm and that of the hand approximately 18 cm. Therefore, the proportions between the elbow to wrist distance and the hand can be expressed as a ratio of 3:2. In other words, the limb can be correctly proportioned on the grid if three squares are assigned to the forearm from the elbow to the wrist and two to the hand. She claims that the Egyptians chose (arbitrarily) to make each square equivalent to $1\frac{1}{3}$ palms, so that three squares would represent 4 palms. The proof of this is, according to Simon, shown by the use of grids with squares having sides of about 10 cm.⁶

Simon admits that in real terms the length of the elbow to wrist would have been artificially lengthened by this adjustment from 27 cm to 30 cm. To maintain the ratio of 3:2 between the elbow to wrist distance and the hand, the hand has to occupy two squares, and is lengthened from 18 cm to 20 cm, so that the length of the whole forearm then becomes equivalent to 50 cm. Because this is so near to a royal cubit, Simon suggests that a quarter square was added to the fingers to bring the forearm to a length of 52.5 cm or one royal cubit. However, this proposal would violate the natural ratio of hand to arm which Simon has insisted on maintaining up to now, for instead of a ratio of 3:2, the addition of a quarter square to the hand produces a ratio of $3:2\frac{1}{4}$,

³G. Robins and C. Shute, *Human Evolution* 1 (1986), 313-24; id., in S. Schoske (ed.), *Akten des Vierten Internationalen Ägyptologen Kongresses München 1985*, 1 (Hamburg, 1988), 301-6.

⁴G. Robins, *GM* 59 (1982), 61-75, and *GM* 61 (1983), 17-25; see also R. Lepsius, *Die Längenmasse der Alten* (Berlin, 1884), 1; N. Victor, *GM* 121 (1991), 103 no. 6.

⁵E.g. A. M. Blackman, *Rock Tombs of Meir*, II (London, 1915), pls. ii, x.

⁶JEA 79, 163.

that is, 4:3. The final consequence of Simon's hypothesis is that the rest of the body would have to be drawn in proportion with the forearm on the 'enlarged squares', so that the average individual had to grow from 170 cm to around 185 cm.⁷

It is not at all clear why the distance from the elbow to the wrist has to correspond to a particular number of metrological units. The forearm from elbow bone to middle fingertip naturally has a length of 45 cm, equal to 6 palms, in a male of average stature because that is a fact of life. If, therefore, the forearm is drawn in art according to natural proportions in relation to the body, the number of squares it occupies on a grid can be said to be equivalent to a small cubit of 6 palms or 45 cm. By contrast, neither the elbow to wrist length nor the hand length corresponds in life to whole units of palms, so why would they need to do so in art? In order to produce a forearm, artists would simply have had to draw the hand and the elbow to wrist distance in accordance with their natural ratio, which is close to 2:3, and this they could obtain from the system of grid squares. As a consequence, each grid square would represent $1\frac{1}{5}$ palms in life ($6 \div 5 = 1\frac{1}{5}$), not the $1\frac{1}{3}$ palms of Iversen and Simon.

However, Simon needs to maintain the equivalence between a grid square side and $5\frac{1}{3}$ palms or 10 cm because she believes that the *nby*-rods partitioned into divisions measuring 10 cm or fractions of 10 cm were used to mark out artists' grids. To support this contention she claims that the great majority of surviving squares measure 10 cm in length, or fractions of 10 cm and not 9 cm or fractions of 9 cm.⁸ Simon's statement is supposedly based on published measurements made by Ernest Mackay in private tombs in the Theban necropolis,⁹ and a remark by Gustav Jéquier that some unfinished tombs have ceiling patterns with surviving grids and that the squares are always about 10 cm wide.¹⁰ It is not evident that grids laid out for the execution of geometric patterns can be used in an argument concerning the square size of grids used to draw human figures. In any case, data for ceiling-pattern grids in TT 80 and 104 do not comply with Jéquier's observation.¹¹ No grid has a square size of 10 cm. In two cases the squares are simple fractions of 10 cm; in one, they are a simple fraction of 9 cm; in another two, the squares are uneven, as is often the case with artists' grids.

With regard to grids used to draw human figures, a glance at Mackay's table listing the square sizes of 71 grids found in 36 Theban tombs shows that Simon's claim is mistaken. Sixty-nine of the grids are widely and fairly evenly distributed over a size range of 1.5 cm to 8 cm. Of the grids occurring at $\frac{1}{4}$, $\frac{2}{3}$, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, and $\frac{1}{6}$ fractions of 10 cm and 9 cm, with a latitude of ± 1 mm on either side of each fraction, 22 (= 32%) are fractions of 10 cm and 20 (= 29%) fractions of 9 cm. Other published results also fail to bear out Simon's claim.¹²

In reality, there is no reason why the grid square size on the wall should be a simple fraction of 10 cm, 9 cm or indeed any other length. It seems more likely that the artist, rather than measuring out set grid square sizes, would mark off the area to be covered by the grid according to the space available, and then divide it into the required number of squares, so that grid square size would be governed not by any theoretical system but by practical considerations, being determined by the size of the figure. The purpose of the grid was simply to aid the artist in drawing an acceptably proportioned figure according to what was in vogue at any given period.

The equivalence between grid square size and the width of the fist claimed by Iversen and Simon is by no means universal, for while the fist often fits into a grid square, it may be greater or smaller in size. The temptation for artists to fit it into a grid square is obvious, but there is a further reason why the two often coincide. When the rear arm of a male figure hangs by the side of the body, the figure is usually placed on the grid so that the arm is situated between two adjacent grid verticals, one running down the outer side of the upper arm and the other down the inner side, enclosing the arm in a vertical column a grid square wide. How neat, then, also to fit the fist at the end of the hanging arm into this column and so into the width of a grid square. However, there are

⁷ Ibid. 164.

⁸ Ibid. 163.

⁹ *JEA* 4 (1917), 76.

¹⁰ *Decoration égyptienne. Plafonds et frises végétales du Nouvel Empire thébain*, (Paris, 1911), 8.

¹¹ Abdel Ghaffar Shedid, *Stil der Grabmalereien in der Zeit Amenophis' II.* (Mainz, 1988), 25-6.

¹² Ibid. 27-9; E. Dziobek, *Das Grab des Ineni* (Mainz, 1992), 24.

enough exceptions to show that artists were not constrained to make the fist exactly equal to one grid square side, and there is no evidence that the fist was ever thought of as a 'canonical unit' representing a constant metrological length.

Simon suggests that the *nby*-rod went out of use with the introduction of the later grid system, an event now thought to have occurred in the Twenty-fifth Dynasty,¹³ rather than the Twenty-sixth as she and Iversen state. This changeover meant that standing figures now consisted of 21 squares from the baseline to the upper eyelid or root of the nose instead of 18 from the baseline to the hair-line. Simon follows Iversen and explains the change in the grid system as a consequence of a reform in the system of measurement, whereby the royal cubit was divided into six enlarged palms of 8.75 cm instead of seven palms of 7.5 cm; this reform affected the grid, so that the forearm from elbow to fingertips was made to occupy six squares, one for each enlarged palm in the reformed cubit. Simon acknowledges, however, that proof is lacking to date the reform of the system of measurement to the same period as the reform of the canon.¹⁴

Against this view are the facts that the anatomical distance involved in real life is not a royal cubit, and that no reformed cubit rod can be shown definitely to survive from a period as early as the Twenty-fifth Dynasty. It can, however, be demonstrated that the new grid square size is simply five-sixths the size of the old for a figure on the same scale, thus accounting for the original five square length of the fingertip to elbow distance being replaced by six squares.¹⁵ The reduction in square size may have been adopted so that the number of squares in the forearm in art would match the number of palms in a small cubit, the metrological unit that corresponds to the length of the living forearm. This explanation was not open to Iversen because of his insistence that in the early grid system the forearm consisted of $5\frac{1}{4}$ squares, not 5. Since he agrees that in the later grid system the fingertip to elbow distance occupied six squares, the new square size, according to his theories, would need to be seven-eighths of the old, since the ratio $5\frac{1}{4}:6 = 7:8$. Seven old squares, therefore, would be equal to eight new ones. The logical consequence of such a ratio would be that the old horizontals 7 and 14 should become the new horizontals 8 and 16, but this is not borne out by plate 30 in the second edition of his book (n. 2), where two figures on an early and later grid are superimposed.

There is, then, no reason to believe that there was a close connection between the 'canon of proportions' and metrology. The origin of the grid system had nothing to do with units of measurement. Its purpose was to help artists proportion the human body acceptably in art. It was not designed to produce figures of absolute 1:1 proportions, nor an enlarged version thereof, since it could be employed to create figures of any size from very small to over life-size depending on the size of the grid square (and, of course, the space into which the figure was to be fitted). It is important to realize that proportions were not unchanging over time. Except during the Amarna Period, the number of grid squares in the system may not have changed between the Twelfth and the Twenty-fifth Dynasty, but the way the body related to the grid did. These variations show that there was not one unchanging canon of proportions, and that the human figure in art as drawn on the grid system did not conform to a single, strict, immutable model.

Any relationship between metrology and the proportions of the human figure in art derives from the fact that the human figure in art was based on natural proportions, while in life the forearm from the elbow to the middle fingertip measures approximately 45 cm. Since this is the length of six palms or a small cubit, the two can be related and the grid square given a metrological equivalent of $1\frac{1}{5}$ palms or 9 cm. This link, however, is in no way fundamental to a proper understanding of the significance of the grid system. Far more interesting is the study of how analyses of proportions can reveal differences in the treatment of male and female figures in art based on differences in life, how variations in the proportions of the human figure contribute to the styles of different periods, and how the grid, designed to aid the drawing of the human figure, also affected other aspects of a composition.¹⁶

GAY ROBINS

¹³ M. Bietak and E. Reiser-Haslauer, *Das Grab des Anch-Hor Obersthofmeister der Gottesgemahlin Nitokris*, II (Vienna, 1982), 230.

¹⁴ *JEA* 79, 164.

¹⁵ Robins, *SAK* 12 (1985), 101-16.

¹⁶ Robins, *Proportion and Style in Egyptian Art* (Austin, 1994).

Some notes on the *Story of the Shipwrecked Sailor*¹

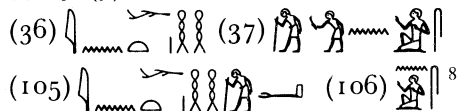
Notes on four problematic passages in the *Shipwrecked Sailor*.

THE *Story of the Shipwrecked Sailor* has been the subject of debate since about 1880. The following notes on some problems relating to the text derive from a larger research project on the story.²

1. *dd jn šmsjw jqr*, 'The trustworthy *šmsjw* said' (1)

The term *šmsjw* has been studied by Berlev.³ The Egyptians called the people who followed their masters throughout a trip *šmsjw*. *šmsjw* also designated servants in general. The term was also used with a modifier. Thirteen titles of the rank of *šmsjw* are known,⁴ but the modifiers were often omitted in writing. The *Story of the Shipwrecked Sailor* is a case in point. All the text says is that the shipwrecked sailor himself won the title of *šmsjw* and 200 heads (probably *hmww njswt—Sh.S.* 177–9). One other case is known where 'heads' were awarded. This is on the stela of Khusobek, a warrior of the time of Senwosret III and Amenemhet III, who was given the title of *šmsjw nj hqꜣ* and '60 heads' for his valour in battle:⁵ *dj.tw.j r šmsjw nj hqꜣ rdjw n.j tp 60*, 'I was appointed as *šmsjw nj hqꜣ* and I was given 60 head(s)'.⁶

This is the only case of promotion to *šmsjw* where the person promoted was also awarded heads. The example from the stela of Khusobek suggests that the shipwrecked sailor too may have been promoted to be *šmsjw nj hqꜣ* or 'follower of the Lord'. 'Followers' who held the rank of *šmsjw njw hqꜣ* enjoyed quite a privileged status, and are mentioned along with nomarchs in expedition records.⁷

2. *jn ht hh n.j s(j)*

This is a participial statement⁹ The dependent pronoun *s(j)* refers neither to the mast nor to the wave of the sea, but to the boat (*dp.t—Sh.S.* 25): 'It was the mast which pierced through it (i.e. my boat) for me'.¹⁰

¹ This article is adapted from my book, *Papyrusat ne raste na skala*, 'Papyrus does not grow on rock' (Sofia, 1987), and from my paper presented at the International Congress of Egyptology in Turin in 1991. I owe a great deal to my teacher, the late Prof. Dr Igor V. Vinogradov, with whom I first read this text, and to Dr Oleg D. Berlev for many suggestions, and to my friends Joan and Alec Dakin, and to Prof. J. Baines, who have helped me with my English as we discussed this article.

² Edition: W. Golénischeff, *Les papyrus hiératiques N° N° 1115, 1116A et B de l'Ermitage Impérial de St-Pétersbourg* (St. Petersburg, 1913), 1–3, pls. i–viii, 1–8. Selective bibliography of the text, translations and studies: W. K. Simpson, *LÄV*, 619–22; D. Kurth, 'Zur Interpretation der Geschichte des Schiffbrüchigen', *SAK* 14 (1987), 167–79; J. Baines, 'Interpreting the Story of the Shipwrecked Sailor', *JEA* 76 (1990), 55–72.

³ *Obshtestvennie otnoshenia v Egipte epohi Srednego Tsarstva* (Moscow, 1978), 206–29.

⁴ *Ibid.* 229.

⁵ *Ibid.* 215.

⁶ K. Sethe, *Ägyptische Lesestücke*² (Leipzig, 1928), 83; J. Baines, in J. Osing and G. Dreyer (eds), *Form und Mass . . . Festschrift für Gerhard Fecht* (Wiesbaden, 1987), 43–61 with pl. 1.

⁷ Berlev, *Obshtestvennie*, 217.

⁸ A. M. Blackman, 'Notes on Certain Passages . . .', *JEA* 16 (1930), 6; A. Erman, *The Literature of the Ancient Egyptians*, trans. A. M. Blackman (London, 1927), 30 n. 5: 'The whole account of the storm is unintelligible to us'; M. Lichtheim, *Ancient Egyptian Literature*, 1 (Berkeley and Los Angeles, 1973), 212, 215 n. 1; W. K. Simpson, *The Literature of Ancient Egypt* (New Haven and London, 1972), 52, n. 6: 'This passage is difficult in the original'.

⁹ A. H. Gardiner, *Egyptian Grammar*³, (Oxford, 1957), §373A.

¹⁰ G. Wainwright, 'Zeberged: The Shipwrecked Sailor's Island', *JEA* 32 (1946), 31–8; id., 'Zeberged: A Correction', *JEA* 34 (1948), 19; E. Maksimov, 'Papyrus No 1115 iz sobrania gosudarstvennogo Ermitazha', in *Drevnii Egipt i Drevnaia Afrika, sbornik* (Moscow, 1967), 94–106; B. Radomska, 'Die Insel des Schiffbrüchigen—eine Halbinsel?', *GM* 99 (1987), 27–30; W. Westendorf, 'Die Insel des Schiffbrüchigen—keine Halbinsel', in S. Israelit-Groll (ed.), *Studies in Egyptology Presented to Miriam Lichtheim* (Jerusalem, 1990), II, 1056–64.

3. . . . *jw pn nj kꜣ*, ' . . . this island of the *ka*' (114)

'*Ka*' is known to have been used as a geographical name.¹¹ In the Ramesside Period, one of the Delta branches of the Nile was called *kꜣ*. The Greeks translated *ka* as *'Αγαθοδαίμων*. According to Gardiner, it was 'one of two names given by [Ptolemy] to the Canopic branch'.¹² A similar usage of *ka* is to be found in the *Story of the Shipwrecked Sailor*. However, further evidence may show how far the name of the island can be associated with the meaning attested in the translation of *ka* as *'Αγαθοδαίμων*.

We still lack a satisfactory translation of the word *ka* in the phrase *jw pn nj kꜣ* (*Sh.S.* 114). The prevalent opinion is that the ancient Egyptians saw the *ka* as an essence associated, to a greater or lesser degree, with the dead or the world of the dead.¹³ Since Golénisheff's translation 'l'île enchantée' and the explanation that *ka* was comparable with *djinn* in Arab stories,¹⁴ most scholars have thought that the island was associated with the 'beyond'.¹⁵ Maspero argued that the island of the *ka* described in the story was a phantom island, an island of the dead.¹⁶ Maksimov takes Maspero's ideas further. He thinks that this is a description of an island of spirits and that the shipwrecked sailor does not talk with the serpent, lord of the island, but with his spirit (literally 'his immutable spirit—*ka*').¹⁷

This conclusion agrees with generally accepted interpretations of the basic meaning of the *ka*. Only Erman had different ideas.¹⁸

Ancient Egyptian texts do not provide a clear presentation of how the Egyptians conceived the 'world of the dead'. According to Berlev, two worlds of the dead coexisted in the Egyptian world view: 'the world of the dead body', and 'the world of the image'.¹⁹ The two worlds 'differed greatly one from the other, the first one being imaginary, the second absolutely real, a reflection of man's life. . . . the world of the corpse was only described in a series of texts, commonly called "spells", while that of the *ka* was only depicted pictorially'.²⁰ Having been strictly differentiated during the Old Kingdom, these two worlds later began to merge.²¹ These 'worlds' were created by men and 'began to function immediately after they were created, and were dependent neither on the state of the person for whom they were made (dead or living), nor, if dead, on the state of preservation of his body (mummy, skeleton, complete disintegration), nor, lastly, on the place where the image or texts were to be found (tomb, temple, desert, modern museums, heaps of rubbish, refuse dump).'²²

The general context of the *Story of the Shipwrecked Sailor* is not related to the notions of the 'invisible world beyond'. On the other hand, the serpent, which is regarded as some sort of spirit or ghost, gives unambiguous information about itself (151): . . . *jnk js hqꜣ pwnt*, ' . . . I am the Lord of Punt', not of *dwt*, *jmnt* or *hr (j)t-nꜣr*, that is, of the 'world beyond'.

I believe that the meaning and content of *ka* in the story should not be sought in traditional interpretations of its wider significance, but within the context of the story itself. Here is how the text characterizes the island of the *ka* (114–16): . . . *jw pn nj kꜣ nn ntt nn st m-hnw.fjw.fmhꜣw hr nfrwt nbwt*, ' . . . this island of the *ka*. There is not anything that is not in it. It is full of all good things.'

¹¹ A. H. Gardiner, 'The Delta Residence of the Ramessides', *JEA* 5 (1918), 254, no. 1; id., *Ancient Egyptian Onomastica* (Oxford, 1947), II, 155*; other examples: H. Gauthier, *Dictionnaire des noms géographiques contenus dans les textes hiéroglyphiques* (Cairo, 1925–31), V, 183–4.

¹² Gardiner, *Onomastica* II, 155*.

¹³ *Wb.* v, 86ff.; A. Bol'shakov, *Rol' izobrazhenii v mirovozrenii egiptian epohi Starogo Tsarstva*, avtoreferat (Leningrad, 1985).

¹⁴ W. Golénisheff, 'Le papyrus No 1115 de l'Ermitage Impérial de Saint-Pétersbourg', *RT* 28 (1906), 90.

¹⁵ G. Maspero, *Contes populaires de l'Égypte ancienne*⁴ (Paris, 1911), lxiii; Maksimov, *Drevnii Egipet*, 102.

¹⁶ Maspero, *ibid.*

¹⁷ Maksimov, *Drevnii Egipet*, 102.

¹⁸ A. Erman, 'Die Geschichte des Schiffbrüchigen', *ZAS* 43 (1906), 14; id., *Literature*, 32 n. 2.

¹⁹ S. Hodjash and O. Berlev, *The Egyptian Reliefs and Stelae in the Pushkin Museum of Fine Arts, Moscow* (Leningrad, 1982), 14.

²⁰ *Ibid.* 14.

²¹ *Ibid.* 15.

²² *Ibid.* 15.

This description tells of an island of material welfare, riches and abundance.²³ This characteristic of the island is specifically highlighted by the 'author' of the *Shipwrecked Sailor*, who puts the same words in the mouths of the two contrasting protagonists: the serpent lord of the island, and the paltry shipwrecked sailor. 'There is not anything that is not in it' occurs both in the sailor's narrative and in the serpent's description of the island (51-2 = 115). In this sense, Golénischeff was right when he saw a 'Biblical tale of heaven on earth' in the story.²⁴

One is left with the impression that the meaning and content of the notion of *ka* within the context of the *Shipwrecked Sailor* is *abundance*.

4. . . . *m jr jqr hnms.j jn-m rdj}{t} mw [n] spd hd-t n sft.(tw).f dw*, '... Do not be too clever, my friend. Who gives water to a duck at dawn when it is to be slaughtered in the morning?' (183-6).²⁵

These lines are closely comparable with some rock inscriptions from the region of Abu Handal in Lower Nubia.²⁶ In these inscriptions, violent threats against the members of Egyptian expeditions in Nubia are mentioned:

No. 24 *jr grt hd.tj.fj sw mwt.f n drt n nmtj*, '... Now as for the one who shall destroy this (inscription), he will die by the hand of the executioner'.²⁷

Date: Middle Kingdom, beginning of the Twelfth Dynasty.²⁸

No. 56 . . . *jr šc.[tj?].fj gmj(w) n.f mw[t?]*, '... As for the one who will cut (this), death will be found for him (?)'.²⁹

Date: Middle Kingdom, beginning of the Twelfth Dynasty, Year 16 (presumably of Senwosret I).³⁰

No. 57 . . . *jr grt hd.tj.fj sw nmt.f n nmtj njswt*, '... Now as for the one who shall destroy this (inscription), he will die by the king's executioner'.³¹

Date: Middle Kingdom, beginning of the Twelfth Dynasty, Year 9³² (of Senwosret I?).

No. 58 . . . *jr grt hd.tj.fj sw nn hdj.f*, '... Now as for the one who shall destroy this (inscription), he shall no more travel downstream'.³³

Date: Middle Kingdom, beginning of the Twelfth Dynasty, Year 9 (of Senwosret I, i.e. Year 29 of Amenemhet I).³⁴

In his notes on inscription no. 58, the editor of these texts stressed the fact 'that these threats are directed against members of Egyptian expeditions to Nubia clearly results from our No. 58 which reads *nn hd.f*, "he will not travel downstream", i.e. "he will not return back (to Egypt)" cannot concern Nubians'.³⁵

According to these inscriptions, the threats are typical for the time between Year 29 of Amenemhet I and Year 16 of Senwosret I. After Year 16 of Senwosret I such extreme threats against the members of Egyptian expeditions are not typical. The same threat, slightly differently worded, is expressed in the *Story of the Shipwrecked Sailor*, lines 183-5. The examples from the rock inscriptions of Lower Nubia suggest that the events described in the story were also set in the

²³ Similarly: C. Vandersleyen, 'En relisant le Naufragé', in Israelit-Groll, *Studies in Egyptology* II, 1022.

²⁴ W. Golénischeff, *Vestnik Evropii*, fevral', 1882, 595.

²⁵ *Sh.S.* 183-6 have been the subject of debate for many years: see, e.g., M. Gilula, 'Shipwrecked Sailor, Lines 184-185', in J. H. Johnson and E. F. Wente (eds), *Studies in Honor of George R. Hughes* (Chicago, 1976), 75-82; D. Devauchelle, 'Naufragé 184-186', *GM* 101 (1988), 21-5.

²⁶ Z. Žába, *The Rock Inscriptions of Lower Nubia*, 1 (Prague, 1974); I am grateful to Dr Oleg Berlev, who encouraged me to work on these inscriptions.

²⁷ *Ibid.* 52.

²⁸ *Ibid.* 52.

²⁹ *Ibid.* 79.

³⁰ *Ibid.* 81.

³¹ *Ibid.* 81.

³² *Ibid.* 81.

³³ *Ibid.* 85.

³⁴ *Ibid.* 86.

³⁵ *Ibid.* 84.

same period (Year 29 of Amenemhet I—Year 16 of Senwosret I). These ‘events’ could, however, be still earlier. Line 9 mentions *phwj wrwt*, ‘the end of Wawat’, in the meaning of southern boundary of Egypt. That this boundary is not mythical but real follows from the character of the beginning of the text which, as pointed out by W. K. Simpson, ‘is couched in terms of a standard quarrying report such as might be found in the Hammamat Valley or the Sinai’.³⁶

According to the inscriptional evidence, the conquest of Wawat took place in the last ten years of the reign of Amenemhet I,³⁷ who is well known as the king who ‘subdued the people of Wawat’.³⁸ The *Story of Sinuhe* mentions Senwosret I as the conqueror of Libya and that in future he ‘will conquer the southern lands’.³⁹

The situation in Egypt described in the *Story of the Shipwrecked Sailor* belongs to the years of Amenemhet I preceding the conquest of Wawat. The question of the date of the manuscript is quite separate from these arguments.

SERGEI IGNATOV

Wall-paintings from the North Harim in the Great Palace at Amarna*

Two sketches made by Petrie which continue the ‘servants’ scene painted on a wall of the North Harim have recently been found in the Petrie Collection, University College London. A fragment of painted plaster from the scene is identified and a short description provided.

THE Great Palace at Amarna was excavated by Petrie in 1891–2. He found a number of wall- and floor-paintings, the most notable example being the famous painted pavement in the cross-hall of the so-called North Harim (P2 on his published plan; this area was identified as room E during the later excavations of Pendlebury).¹ In the same room, he was fortunate to find some of the original decoration on the east wall, which also extended a short way onto the south wall. Petrie described a delicately painted scene showing servants about their tasks before the return of the master, which he illustrated with a colour plate.² The scene appeared 75 cm above the ground, over a design described as ‘the usual dado . . . of the old panel pattern, generally painted in red, blue and white’.³

Petrie recorded the main area of the ‘servants’ scene by making a full-size colour copy. The more accurate method of tracing directly from the wall was not possible because of the delicate state of the paintwork, which began to crumble even as he copied it. The original sketches made on site have recently come to light in a portfolio of Petrie’s work, now in the Petrie Collection. Most of these are reproduced as plate v in his excavation report, but unknown sketches also occur in this portfolio. One sketch is described in the published text but not illustrated; the other is not mentioned at all.⁴

³⁶ Simpson, *Literature of Ancient Egypt*, 50.

³⁷ N. Grimal, *A History of Ancient Egypt*, trans. I. Shaw (Oxford and Cambridge Mass., 1992), 161.

³⁸ W. Helck, *Der Text der “Lehre Amenemhets I. für seinen Sohn”* (Wiesbaden, 1969), 77, xii.b.

³⁹ Zába, *Rock Inscriptions* 1, 34; *Sinuhe* B 71–2.

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¹ W. M. F. Petrie, *Tell El Amarna* (London, 1894), 8, 12–15, pl. xxxvi; J. D. S. Pendlebury, *City of Akhenaten*, III, (London, 1951), 40, pls. xiii.A, xiv. See also F. Weatherhead, *JEA* 78 (1992), 179–85.

² Petrie, op. cit. 14–15, pl. v. The paintings are also described in the *Illustrated London News*, October 22, 1892, 114.

³ Petrie, op. cit. 14. Contradicting this statement, on the following page Petrie notes that the scene with the sitting figure ‘reached within an inch or two of the denuded surface of the ground.’

⁴ *Ibid.* 15.

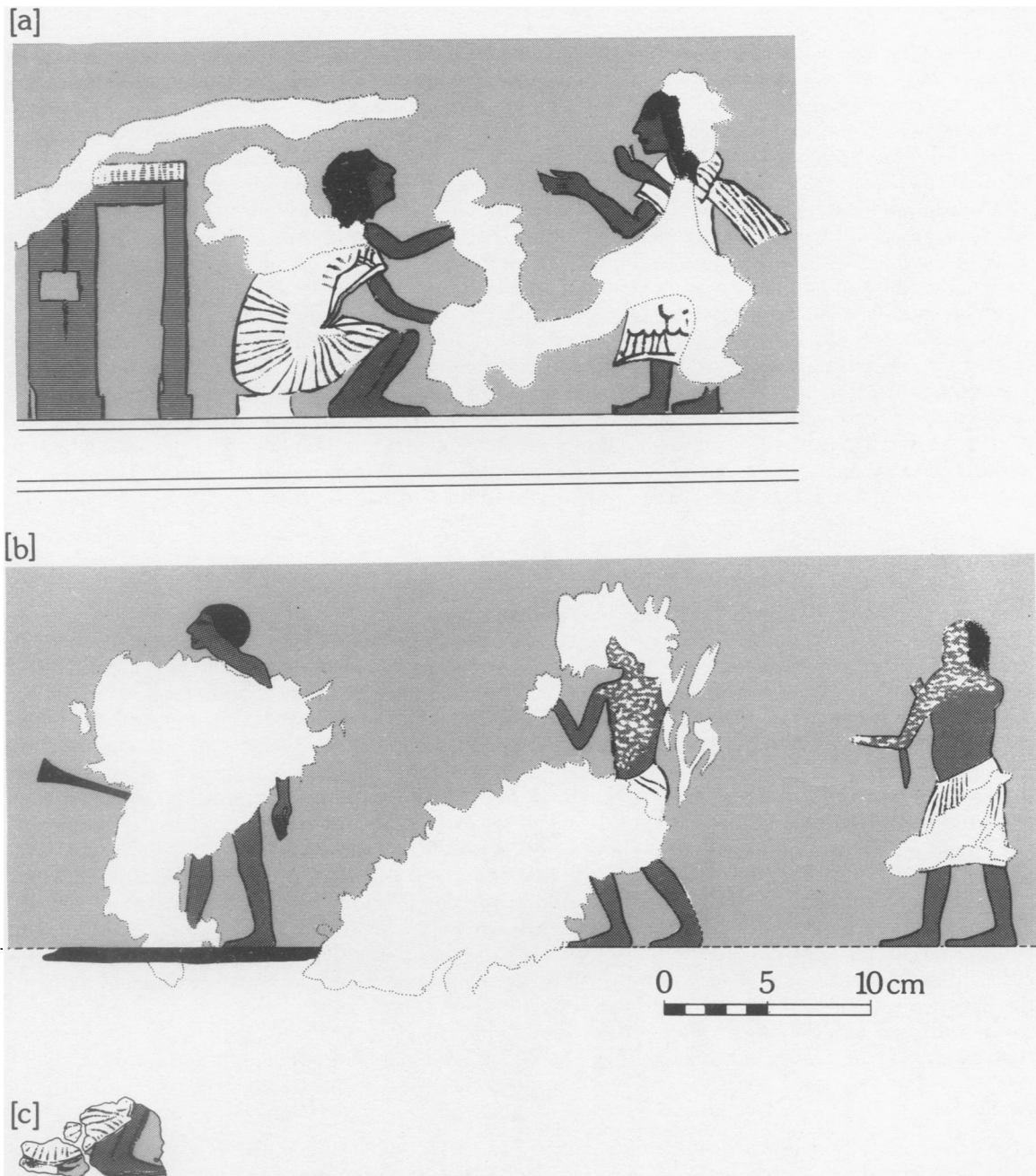


FIG. 1. Wall-paintings from the North Harim. On all three drawings, the background colour is yellow, clothing is white, hair and eye details are black and the outlines and flesh colour are red-brown. Damaged edges are indicated by a dotted line. (a) and (b) are drawn from photographs of the original sketches.

(a) Enlarged from Petrie's sketch at 1:5. The doorway to the left of the figures is blue with a white cornice. There are two sets of parallel lines drawn in pencil below the figures, possibly indicating the top of a dado.

(b) Reduced from Petrie's sketch drawn at actual size.

(c) Plaster fragment UC.2265. This is the lower part of the seated figure shown in (a). Note that the clothing detail is slightly different from that of the figure in (a).

Description

The first sketch, illustrated here as fig. 1a, depicts two figures, a man sitting on a low stool next to an open door, animatedly talking to another, who stands with a brush (?) tucked under his arm. Petrie noted in his text that he copied this at a reduced scale. This is obvious when the sketch, which is also on a different paper, is compared with the other sketches made of wall-paintings in room E. It would appear that the reduction was 1:5, assuming that the figures in this scene were the same size as those in the other scenes Petrie copied.

The second sketch (fig. 1b), which shows a totally unknown scene, depicts three figures. On the left is a man with a black baton, followed by a figure with bent knees and a raised arm, and a walking figure. All three advance to the left, and are of similar size to the figures on the original sketch for Petrie's plate v. As with the latter, it would seem that Petrie made this sketch full size.

In his published account, Petrie stated that the first sketch described above (fig. 1a) was a continuation of the main scene. In order to place both newly discovered sketches, one has to refer to Petrie's site journal.⁵ Here he noted the whole sequence of figures appearing on the east wall. First came the scene that he drew at reduced scale (fig. 1a), next came three figures, described as a steward with baton and two servants carrying food (fig. 1b). After them was a wide space, not measured. Finally came the sequence shown on Petrie's plate v. The known sequence, which is about 250 cm wide, is extended with the addition of the newly discovered scenes, to an estimated 350 cm, with unknown spaces between the groups adding further to the width.

Surviving paintwork

The paintings were extremely friable due to tunnelling of the mud-plaster by termites and the penetration of plant roots, but Petrie managed to remove some fragments 'to vouch for the character of the work' and consolidated them with wax.⁶ More than twenty years later, some small fragments which could have come from above the 'servants' panel were tentatively identified by Davies amongst the material brought to England by Petrie, and now in the Petrie Collection.⁷

The exact provenance of the fragments in the Petrie Collection seems never to have been recorded by Petrie, who could not remember this information several years later when asked by Davies.⁸ Davies could only establish that they were all from the Great Palace and King's House, the two places Petrie records in his site report where painted plaster was found, and where he collected pieces for study.

One of the pieces noted by Davies, but not recognized by him,⁹ UC.2265 (fig. 1c), has recently been identified by the author as part of the squatting figure shown on one of Petrie's sketches (fig. 1a). The fragment is 0.3–0.4 cm thick and has a pale yellow ground colour, which appears to be a mix of yellow and white pigment or yellow laid over white. A deep yellow underpainting can be detected under the white skirt; this is presumed to continue under the light yellow and the skin colour, but cannot be seen. Unfortunately, all these characteristics are identical to those of many of the fragments attributed by Davies to the King's House in the Petrie Collection, so that UC.2265 cannot be used as a diagnostic standard for identifying more Great Palace fragments. Petrie's wax treatment is not apparent, but this may have been removed in a later conservation treatment.

Discussion

Petrie describes the subject of the wall-paintings as the master returning home and the servants making preparations to receive him. It is not clear whether he thought that the occupant missing from the chariot scene on the south wall was Akhenaten, but this is unlikely, since the horse and

⁵Petrie's Journal, Tell El Amarna, 1891–2, p. 37; kept in the Petrie Collection.

⁶Petrie, *Tell el Amarna*, 15.

⁷Norman de Garis Davies, *JEA* 7 (1921), 2, pls. iii–iv (nos. 14–16, 19). Davies recognized that a number of the fragments appeared to come from a scene showing a palace building and royal court. These are UC.2276–8 and UC.2281. He believed this would have been placed above the scene of servant figures in room E, or come from a similar scene elsewhere in the Great Palace or King's House.

⁸Ibid. 2.

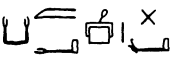
⁹Ibid. pl. iii. 3.


chariot would have been much larger if the charioteer was the king. Moreover, none of the figures appears in a posture suggesting the presence of the king, such as bowing. Indeed, the two sets of conversing figures, on the far right and left of the sequence, even give an informal aspect to the scene. Some of the figures could be preparing for the visit of an important individual to the buildings, as in scenes in the tombs of Amarna.¹⁰ The figure of the king might have been depicted some distance away on the south wall, and the surviving chariot detail might be part of the royal entourage. The servants sequence would thus form part of a larger composition involving the return of Akhenaten to the Great Palace, possibly from a ceremonial visit to one of the temples.

FRAN WEATHERHEAD

A lexicographical note on the Medinet Habu inscription of Year 11

In the Medinet Habu inscription of Year 11 on the Second Libyan War a problematic word *kms* occurs. The author discusses previous explanations of this term and suggests that *kms* is merely an ancient scribal error for the well known word *gns*, 'violence'.

THE inscription of Year 11 on the Second Libyan War, located on the north inner face of the first pylon of Ramses III's temple at Medinet Habu, contains a considerable number of problematic words and phrases. An example of such a crux is  (*kms*), which appears in a broken passage describing to pharaoh the wretched condition of his defeated foes [... *hry.t*]=*k* (?) *try sn kms hsy tnm*.¹ J. Wilson and W. Edgerton rendered this line '[[the terror] of thee. There seizes them ---, weakness, and error]'.² They thus refrained from any translation of *kms*, and merely commented 'We have no guess for *kms*'. The editors of the *Wörterbuch* allotted the word an entry (*Wb.* v 131, 8), stating that it is found in the phrase *try kms*, and remarking 'von überwundenen Feinden'. More recently, L. Lesko has included the term in *A Dictionary of Late Egyptian*, IV (Providence, 1989), 41, where it is defined: '(?) weakness, error'. This tentative rendering seems to be based on the Wilson and Edgerton translations of the two words following *kms*, namely, *hsy* and *tnm*. In an article devoted to *kms*, M. Görg concluded that it is a Semitic loan-word.³ He connects *kms* with Akkadian *kamas/šū*, 'to bow, kneel', and Ugaritic *kms*, 'throw oneself down'. This interpretation seems to have gained acceptance. Adopting Görg's suggestion, K. Kitchen, for example, translates the passage: 'Your terror seizes them, cowed, miserable and straying'.⁴

The purpose of this note is to propose that *kms* here is most probably not an independent word at all, but only a miswriting of  (*gns*), 'Gewaltsamkeit, Unrecht' (*Wb.* v, 177, 5-6); 'outrage, violence' (Lesko, *A Dictionary of Late Egyptian* IV, 60). The use of *k* for *g* is a characteristic of Late Period Egyptian.⁵ The spelling *kms* for *kns* is easily explained by assuming

¹⁰For example, in the tomb of MeryRa (N. de Garis Davies, *The Rock Tombs of el Amarna*, I (London, 1903), pls. x, xviii), showing servants within a palace building.





¹ Oriental Institute of Chicago, The Epigraphic Survey, *Medinet Habu*, II. *Later Historical Records of Ramses III* (Chicago, 1932), pl. 83, lines 51-2. The reading of the word in the lacuna as *hry.t* was a tentative suggestion of J. Wilson and W. Edgerton, *Historical Records of Ramses III: The Texts in Medinet Habu Volumes I and II* (Chicago, 1936), 85 n. 51c. This proposal has been accepted by later scholars, e.g. K. Kitchen, *RI* v, 65. However, the traces below the break do not strongly favour *hry.t*; cf. the spacing of the reed-leaves and determinative in *hry.t* in line 50 of this inscription.

² Wilson and Edgerton, *Historical Records*, 85.

³ 'Beobachtungen zu einem semitischen Fremdwort im Ägyptischen', *SAK* 2 (1975), 75-7.

⁴ 'Egypt, Ugarit, Qatna and Covenant', *Ugarit-Forschungen* 11 (1979), 543. In his note on the translation 'cowed', he states: 'For this word *kms* (from *kms*, Common Semitic, attested in Ugaritic and Akkadian), see the excellent note by M. Görg'.

⁵ E.g. *dk(i)*, 'to see', for *dgi* in *Wb.* v, 497. On this common feature in Demotic, see W. Spiegelberg, *Demotische Grammatik* (Heidelberg, 1925), 10.

an error of transcription from a hieratic *Vorlage* due to confusion between   (G. Möller, *Hieratische Paläographie*, II (Leipzig, 1909), 69 example LXI) and   (ibid. 64 example xv). This class of errors is not uncommon in monumental inscriptions.⁶ While found in Late Egyptian, *gns* is particularly well attested in the later stages of the language. In Demotic *qns*(= *gns*) appears frequently in association with *try* in the compound *try-gns*, 'mit Unrecht nehmen', 'Gewalt antun, vollstrecken' (W. Erichsen, *Demotisches Glossar* (Copenhagen, 1953), 542).⁷ The combination of *try* and *gns* is also found in Late Period hieratic texts; a good example is *try p; šriw [g]ns*, in P. Vandier 4/6, which Posener renders 'l'enfant est brutalement enlevé'.⁸ In view of the lacuna, the passage in the Medinet Habu inscription can still not be translated with certainty, but it is probably best to follow the Edgerton and Wilson interpretation, and assume that the three nouns *gns* (written *kms*), 'violence', *hšy*, 'weakness, defeat', and *tnm*, 'aimless wandering', are the subjects of *try*, 'seize', resulting in the translation '[. . . fea]r of you (?). Violence, defeat, and wandering have seized them'.⁹

RICHARD JASNOW




Ramose, an overseer of the chamberlains at Memphis*

Publication of a Ramesside block of the chamberlain of the Lord of the Two Lands, Ramose. The communication casts some light on the title *imy-hnt*, which is rarely found in the Memphite area, and also offers a preliminary list of the bearers of the name 'Ramose' at Memphis during the New Kingdom and the Late Period.

THERE are many decorated fragments and blocks of various dates scattered over the Saqqara plateau. One of these, a Ramesside block of a man with a title rarely found in the Memphite area, forms the subject of this communication (pl. XXXII, 2). It was found to the north of the causeway of the Unas pyramid, close to the face of the cliff which overlooks the valley temple of King Unas. The fragment is rectangular, made of limestone, and measures 26 cm high, 41 cm wide, and 10 cm

⁶J. Wilson lists 'errors which probably originated in copying from a hieratic manuscript' in 'Ancient Text Corrections in Medinet Habu', *ZÄS* 68 (1932), 48 n. 4. Wilson and Edgerton remark on corruptions in the Abu Simbel version of the 'Blessing of Ptah' due to mistaken transcription from the hieratic (*Historical Records*, 119–20 and 129, cited by Ogden Goelet Jr., in E. Bleiberg and R. Freed (eds), *Fragments of a Shattered Visage. The Proceedings of the International Symposium on Ramesses the Great* (Memphis, 1991), 30 n. 8). Other hieroglyphic errors based on a misinterpretation from a hieratic draft are: The Epigraphic Survey, *Reliefs and Inscriptions at Karnak*, IV. *The Battle Reliefs of King Sety I* (Chicago, 1986), pl. 31, line 23 (*hš.t* as *iwt*), with discussion in the commentary to that volume on p. 97, n. k; R. Caminos, *The New-Kingdom Temples of Buhen*, I (London, 1974), 63; cf. also Caminos, *The Chronicle of Prince Osorkon*, *Analecta Orientalia* 37 (Rome, 1958), 129. For an analysis of corruptions in literary texts based on misunderstandings of hieratic by the ancient scribes, see G. Burkard, *Textkritische Untersuchungen zu ägyptischen Weisheitslehren des Alten und Mittleren Reiches* (ÄA 34; Wiesbaden, 1977), 10–16.

⁷Cf. also W. Crum, *A Coptic Dictionary* (Oxford, 1939), 822a, who renders this compound 'use violence, do evil, hurt, ill-treat, constrain'.

⁸G. Posener, *Le Papyrus Vandier* (Cairo, 1985), 67; see also R. Jasnow, *A Late Period Hieratic Wisdom Text* (Chicago, 1992), 91. I know of no certain examples of *try-gns* in Late Egyptian. However, in P. Pushkin 127 recto, 3/6, an odd phrase *nry-w ʿ gns* occurs, which R. Caminos wished to emend to *nry-w (sp. w) ʿ. w (n) gns* and render 'their great acts of violence' (*Tale of Woe* (Oxford, 1977), 37), a translation which yields good sense in the passage. This too is, perhaps, an instance of a scribal error, due to confusion between   (Möller, *Hieratische Paläographie* II, 32 n. 5) and  *try* (Möller, *Hieratische Paläographie* II, 20 no. 224). Without additional textual support, this must remain a mere possibility, but it is certainly striking how well the emendation *nry-w try-gns(.w)* corresponds to Caminos' proposed translation.

⁹*try* is most probably the Late Egyptian *sdm=f* form, used as a present perfect; see E. Wente, 'A Late Egyptian Emphatic Tense', *JNES* 28 (1969), 2.

*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, and for the comments of an anonymous *JEA* reader.

thick. It bears the remains of an incised hieroglyphic text in seven vertical columns.¹ Below the text, on the right, is the upper part of the head of a man, facing left. He is holding a now-lost censer bowl towards a god, presumably Osiris. Some of the smoke rising out of the censer—maybe held by his rear hand—is still visible before the man.² The surface of the fragment is much weathered and no traces of paint remain.



FIG. 1. The block of Ramose

The hieroglyphic text reads as follows (fig. 1):

[*htp di nsw n*]
 [*Wsir*] *nb nhh*
 [*hqꜣ*] *dt di.f q[rst]*
nfrt m hrt-ntr
 [*n dt*] *r nhh*
 [*n kꜣ n Wsir*] *imy-r imy(w) hnt*
 [*n nb tꜣwy*] *Rꜥ-ms . . .*

'An offering which the king gives to Osiris,³ lord of eternity, ruler of everlastingness,^a that he may give a good burial in the necropolis for ever and ever,^b to the *ka* of Osiris, the overseer of the chamberlains^c of the Lord of the Two Lands, Ramose^d . . .'

Commentary

(a) For *nb nhh* and *hqꜣ dt* as titles usually held by Osiris, see, e.g., stelae Cairo CG 34080, 34135, 34138, 34185; offering table CG 23015. See also *HTBM* vii, pl. 24; H. S. K. Bakry, *ASAE* 60 (1968), 4-5; H. M. Stewart, *Egyptian Stelae, Reliefs and Paintings*, 1. *The New Kingdom* (London, 1976), pl. 19.1; M. Tosi and A. Roccati, *Stele e altre epigrafi di Deir El-Medina* (Turin, 1972), nos. 50010-11.

(b) *Wb.* ii, 301.18; v, 508. Another possible restoration is (*rn. i mn.(w) r nhh*); see W. Barta, *Aufbau und Bedeutung der altägyptischen Opferformel* (Glückstadt, 1968), 154 [154c].

¹ Traces of text in the first column are vague; *iii* and *ḏ* might be readable.

² The shape is highly unusual, looking more like a cow's horn, but there is no room here for an animal's head. The smoke may be depicted as if it is being blown by a breath of wind.

³ A different reading might be suggested: *rdi irw n Wsir hnty imnty hqꜣ dt nb nhh*, 'giving praise to Osiris, the foremost of the west, lord of eternity, ruler of everlastingness'. Cf. the stela of Raia, Berlin Mus. 7271 (PM III², 664; text, LD III, 242 [d]; G. Roeder (ed.), *Aegyptische Inschriften aus den Staatlichen Museen zu Berlin*, II (Leipzig, 1924), 194-5.

(c) The title *imy-r imy(w) hnt* literally means 'the overseer of those who are in front'.⁴ The simple *imy hnt*⁵ was exceptionally active in the court, temples, and tombs.⁶ As chamberlain of the king, he was in charge of dressing him, placing the crowns on his head, and also decking him with jewels.⁷ As for the *imy(w) hnt* in their priestly association, they were priests of lower rank, usually serving in the temples as attendants.⁸ But as funerary-priests the *imy(w) hnt* had important roles in the funeral ceremonies before the final burial, e.g. 'the deceased's journey to Abydos',⁹ and the 'opening of the mouth'.¹⁰ To my knowledge, this office was held by at least four officials in the Memphite area during the New Kingdom¹¹ and the Late Period. These are as follows:

Iryiry *hry imy(w) hnt n nb trwy*, 'head of chamberlains of the Lord of the Two Lands', *temp.* Ramesses II.

PM III², 756; G. T. Martin, *Corpus of Reliefs of the New Kingdom from the Memphite Necropolis and Lower Egypt* (London, 1987), 34-5 (84), pl. 31; KRI III, 208 (ix. 9), reading \equiv as \equiv (in *n k; n*); J. Berlandini, in A.-P. Zivie (ed.), *Memphis et ses nécropoles au Nouvel Empire* (Paris, 1988), 24; J. van Dijk, *OMRO* 66 (1986), 10.

Rc-htp (vizier) *imy-r imy(w) hnt r; n nb trwy m hwt-hbw*, 'the great overseer of the chamberlains of the Lord of the Two Lands in the halls of festivals', *temp.* Ramesses II.

PM III², 665; Brugsch, *Thes.* v, 950-1; Piehl, *Inscr.* III, lxxxi.Q-lxxxii.R, pp. 52-3; M. Moursi, *Die Hohenpriester des Sonnengottes von der Frühzeit Ägyptens bis zum Ende des Neuen Reiches* (MÄS 26; Munich, 1972), 68-72; KRI III, 53-7; M. Moursi, *MDAIK* 37 (1981), 321-9.

⁴ *Wb.* I, 75, 1; L. H. Lesko (ed.), *A Dictionary of Late Egyptian*, I (Berkeley, 1982), 31; D. Meeks, *ALex*, III (1979), 79.0202.

⁵ M. Guilmet, *CdE* 39 (1964), 31-40.

⁶ A. H. Gardiner, *Ancient Egyptian Onomastica*, I (Oxford, 1947), 23*.

⁷ *Pyr.* 726; *HTBM* II, pls. 8, 9; K. Sethe, *Lesestücke*, 75; H. Kees, *Das Re-Heiligtum des Königs Ne-Woser-Re*, III. *Die grosse Festdarstellung* (Leipzig, 1928), 23-4; Gardiner, *JEA* 39 (1953), 26-7; Guilmet, *CdE* 39, 32-4; H. Gauthier, *La grande inscription dédicatoire d'Abydos* (Cairo, 1912), 9.46; KRI II, 328.1-2; A. Gaballa, *MDAIK* 30 (1974), 20-1; W. Helck, *Untersuchungen zu den Beamtentiteln des ägyptischen Alten Reiches* (Glückstadt, 1954), 29; idem, *Zur Verwaltung des Mittleren und Neuen Reiches* (Cologne, 1958), 272, 279, 312.

⁸ Guilmet, *CdE* 39, 34-7; the priestly association of this office is also known from titles which attest the *imy(w) hnt* with specific gods, e.g. the god *Sbk*: W. A. Ward, *Index of Egyptian Administrative and Religious Titles of the Middle Kingdom* (Beirut, 1982), 54 no. 428; the god *Imn*: Cairo CG 25051; the god *Hr*: G. Lefebvre, *Histoire des grands prêtres d'Amon de Karnak* (Paris, 1929), 18 n. 7. See also H. Gauthier, *Le personnel du dieu Min* (Cairo, 1931), 61-3; E. Naville, *The Festival-hall of Osorkon II in the Great Temple of Bubastis* (London, 1892), 14, 29-30, pls. 1, 14, 15. Titles such as *imy hnt r; m sbdw* (*Lesestücke*, 72-4), and *imy hnt m hwt-nb* (H. G. Fischer, *Egyptian Titles of the Middle Kingdom* (New York, 1985), 55), indicate their activities in the temples of these cities. In the Late Period the *imy hnt*-priests are attested with some highly important personalities, for instance, the God's Wife of Amon (E. Graefe, *Untersuchungen zur Verwaltung und Geschichte der Institution der Gottesgemahlin des Amun vom Beginn des Neuen Reiches bis zur Spätzeit*, I (Wiesbaden, 1981), 36-8, 88-94), as well as the high-priest of Heliopolis (E. Naville, *Ahnas El Medineh* (London, 1899), 19).

⁹ Guilmet, *CdE* 39, 37-40; N. de G. Davies and A. H. Gardiner, *The Tomb of Antefoker Vizier of Sesostris I and his Wife Sent* (London, 1920), 20, pls. 19, 21, 22; idem, *The Tomb of Amenemhêt (No. 82)* (London, 1915), 52, pls. 10, 13; Davies, *The Tomb of Rekh-mi-Rêr at Thebes* (New York, 1943), 70-8, pls. 79, 80, 82-3, 87-8, 90, 92.

¹⁰ E. Otto, *Das ägyptische Mundöffnungsritual*, II (Wiesbaden, 1960), 12, 34, 52-7. There is no doubt that the *imy(w) hnt*-priests were members of the institution that ran the funeral ceremonies in the necropolis; this is not only known from tomb scenes, but indicated by a title such as *imy hnt r; m t; dsr*, 'the great attendant in the necropolis', Cairo CG 20514 (see Ward, *Index of Titles*, 54 no. 427).

¹¹ In addition, statues of the vizier Paser were found in the temple of Ptah at Memphis (PM III², 838). Paser (V. A. Donahue, *JEA* 74 (1988), 103-23), who owned Theban tomb no. 106, lived during the reigns of Sethos I and Ramesses II. He was also an overseer of the chamberlains and may have practised the duties of this office in the Memphite temple of Ptah during the reign of Ramesses II (Gaballa, *MDAIK* 30, 20-1).

- Pthy* *wrb hry-hb.(t) m pr-nfr imy hnt m st-Hsp*, 'wrb-priest, lector priest in the embalming house, chamberlain in the house of *Hsp*', Ramesses II (Year 30).
PM III², 783; M. Malinine et al., *Catalogue des stèles du Sérapéum de Memphis*, I (Paris, 1968), 5, pl. ii. 4; É. Chassinat, *RT* 21 (1899), 72; *KRI* II, 370. 20.
- Hr-hbit* *imy-r imy(w) hnt (n) pr-wr imy-r imy(w) hnt (n) pr-nsr*, 'overseer of the chamberlains in Per-wer and overseer of chamberlains in Per-neser', Twenty-sixth Dynasty.
PM III², 588; A. M. Lythgoe, *BMMA* 2 (1907), 194, fig. 1; M.-L. Buhl, *The Late Egyptian Anthropoid Stone Sarcophagi* (Copenhagen, 1959), 25-6 (A. 7), fig. 5, pl. i; G. Daressy, *ASAE* 4 (1903), 76-82.

(d) For the writing of *ms* without the phonetic complement ^l see, e.g., *Ägyptische Inschriften* . . . *Berlin* II, 131-3 (no. 5 in the list below); W. M. F. Petrie, *Memphis*, I (London, 1909), pl. xi. 20 (no. 4 in the list below); G. T. Martin, *JEA* 68 (1982), 81-3 (no. 8 below); id., *The Memphite Tomb of Horemheb Commander-in-Chief of Tutankhamun*, I (London, 1989), 57, pl. 54 (no. 9 in list below). The sign ^{ll} occurs in some other names without the ^l, e.g., Cairo CG 34054 (Amenmose); *Ägyptische Inschriften* . . . *Berlin* II, 99 (Minmose); Martin, *Corpus of Reliefs*, 19, 37, pls. 11.37, 34.92 (Amenmose, Ptahmose).

The name 'Ramosé' occurs often in the Memphite area during the New Kingdom. A preliminary list of occurrences is here offered in chronological order.

1. *hry mrw*, 'head of serfs', *temp.* Tuthmosis IV or later.
A votive stela found in the hypostyle hall of the temple of Ptah, beneath the foundations: PM III², 833 (b);¹² Hanover 1935.200. 229; W. M. F. Petrie, *Memphis* I, 7, 18-19, pl. viii. 3.
2. *ss n pr-nb(?)*, 'the scribe in the house of gold', *temp.* Tuthmosis IV or later.
On a votive stela in the hypostyle hall of the temple of Ptah, in the foundations: Brussels Mus. Roy. E. 4499; PM III², 833 (a); Petrie, *Memphis* I, 7, 19, pl. viii. 4; text, L. Speleers, *Recueil des inscriptions égyptiennes des Musées Royaux du Cinquantenaire à Bruxelles* (Brussels, 1923), 37, no. 134; *Urk.* IV, 1563, part only; also quoted by B. M. Bryan, *The Reign of Tuthmosis IV* (Baltimore, 1991), 157 n. 75, fig. 1; A. R. Schulman, *Ceremonial Execution and Public Rewards. Some Historical Scenes on the New Kingdom Private Stelae* (Freiburg, 1988), 10-12.
3. A votive stela with no titles, Eighteenth Dynasty.
Found in the hypostyle hall of the temple of Ptah: PM III², 833 (c); Petrie, *Memphis* I, 8, 19, pl. xv. 36.
4. *ss pr-hd n nb trwy*, 'scribe of the treasury of the Lord of the Two Lands', Eighteenth Dynasty.
A votive stela from the Ptah temple: PM III², 834; Petrie, *Memphis* I, 7, 19, pl. xi. 20. Only part of the name is still visible.
5. *hry pdty ss nsw idnw n p; mšc*, 'head of bowmen, royal scribe, deputy of the army', late Eighteenth or early Nineteenth Dynasty.
A fragmentary stela from his tomb, north-west of the tomb of Horemheb, South Saqqara: PM III², 733; G. T. Martin, *The Hidden Tombs of Memphis* (London, 1991), 118-20; id., *JEA* 73 (1987), 2 fig. 1, 6; J. van Dijk, in *The New Kingdom Memphis Newsletter* 2 (1989), 10; another stela probably from this tomb, Berlin 7306, *Ägyptische Inschriften* . . . *Berlin* II, 131.

¹² Stelae (a)-(c) are assigned in PM III², 833 to one person. However, (a) and (b) have different titles, and the scene on (c) differs from the others. For these reasons it is preferable to assign each stela to a different official.

6. *idnw n: n imntyw pr-hd n pr-ʿ*, 'deputy of those who are in the west (?) of the treasury of the royal palace', late Eighteenth or early Nineteenth Dynasty.
The tomb of Maya, South Saqqara: LD III, 241b; E. Graefe, *MDAIK* 31 (1975), 196, fig. 4.
7. *kdn*, 'charioteer', late Eighteenth or early Nineteenth Dynasty.
The tomb of Maya, South Saqqara: LD III, 242a; Graefe, *MDAIK* 31, 201, fig. 6a.
8. *imy-r gnwty*, 'overseer of sculptors', late Eighteenth or early Nineteenth Dynasty.
From Saqqara, position unknown: G. T. Martin, *JEA* 68 (1982), 81-2; id., *Corpus of Reliefs*, 30, pl. 26. 71.
9. *sš mšc iry-pct imy-ꜥf m st nb hnd.f imy-ht.f m shꜥ nb n nsw*, 'scribe of the army of the hereditary prince who is close to him wherever he goes, confidant of his lord in every mention of the King', late Eighteenth or early Nineteenth Dynasty. Possibly the same man as no. 5 in the list above?
The tomb of Horemheb, South Saqqara: Martin, *Tomb of Horemheb*, 57 no. 56, pl. 54.
10. *sš pr-hd n pr 'Itn*, 'a scribe of the treasury in the temple of Aton', late Eighteenth Dynasty.
Son of Iniua, whose tomb was discovered by the Saqqara expedition, 1993: H. Schneider, *Egyptian Archaeology* 3 (1993), 3-5; id., *JEA* 79 (1993), 1-9, pls. ii.2, iii.1.
11. *imy-r wtw*, 'overseer of the embalmers', Nineteenth Dynasty.
A monument from the Teti Pyramid Cemeteries: J. Malek, in *The New Kingdom Memphis Newsletter* 2 (1989), 6.
12. *trw*, 'sculptor' or 'engraver', Nineteenth Dynasty.
On a stela of his father Pawah from South Saqqara, near the pyramid of Ibi: PM III², 675; G. Jéquier, *La pyramide d'Aba* (Cairo, 1935), 25-6, pl. xvii.
13. *sš nsw sš n pr-hd n nb trwy*, 'royal scribe, scribe of the treasury of the Lord of the Two Lands', Nineteenth Dynasty.
A stela from South Saqqara, near the pyramid of Ibi. The stela's owner is also called Amunmose: PM III², 675; Jéquier, *La pyramide d'Aba*, 27, pl. xviii.
14. Son of the stela owner, *nbt-pr 'Iwy*, Nineteenth Dynasty.
From the same area as nos. 11-12 (above): Jéquier, *La pyramide d'Aba*, 31-2, pl. xxii.16.
15. *sš nfrw n nb trwy idnw m hwt-ntꜥ*, 'scribe of the recruits of the Lord of the Two Lands, deputy of the temple', Nineteenth Dynasty.
A stela reused in the Monastery of Apa Jeremias: PM III², 669; J. E. Quibell, *Excavations at Saqqara (1907-1908)* (Cairo, 1909), 112, pl. li.4.
16. *imy-r pr wr n Hnsꜥ*, 'chief steward of Khons',¹³ Nineteenth Dynasty.
A column base from North Saqqara, near the tomb of Hetepka: PM III², 824; G. T. Martin, *The Tomb of Hetepka* (London, 1979), 40, no. 143, pl. 41.
17. *nby*, 'gold worker', Nineteenth Dynasty.
A votive stela from the temple of Ptah: Cairo T.16.3.25.12; PM III², 849; A. Mariette, *Monuments divers recueillis en Égypte et en Nubie* (Paris, 1872), pl. 30.a; B. Bruyère, *Mert Seger à Deir El Médineh* (Cairo, 1930), 50, fig. 30.

¹³ PM and Martin give the name of 'Ramose', but traces suggest that it might be read as *Rꜥ-ms-s[(w)-. . .]*, i.e. 'Ramesses[nakht]' or similar.

18. 'scribe, director of all the works before his Lord', Nineteenth Dynasty.
An inscribed block from Kom el-Qala at Memphis: PM III², 861; unpublished Philadelphia photos 38371-2, 38688.
19. *šꜥꜣ mw nt ḥwt Mn-Mꜣrt Rꜥ m pr 'Imn*, 'scribe, chief of water in the temple of Sethos I in the domain of Amun', *temp.* Sethos I or later. (The owner changed his name to Amunmose, or perhaps the palette had been usurped by Amunmose, as the former name 'Ramosé' is still visible.)
Green slate scribe's palette from Saqqara, position unknown: British Museum EA 12778; PM III², 733; S. R. K. Glanville, *JEA* 18 (1932), 58, pl. viii. 1; Wilkinson MSS III, 9 A; text, E. A. W. Budge, *The Mummy* (London, 1925), 174; *KRI* I, 332: 136; C. Andrews, *JEA* 64 (1978), 92; K. A. Kitchen, *Ramesside Inscriptions Translated and Annotated: Translation*, I (Oxford, 1993), 270.
20. *ḥry šꜣwty tꜣrt*, 'head of custodians of the cabin', Nineteenth Dynasty.
Reused stela in the Monastery of Apa Jeremias: Cairo JE 46190-1; PM III², 669; M. Chaban, *ASAE* 17 (1917), 180-2.
21. *ḥry-tp m pr-nfr*, 'chief in the embalming house', Ramesses II (Year 30). Father of *Pthy*, mentioned above, p. 205.
A stela from the Serapeum, North Saqqara: PM III², 783; Malinine et al., *Catalogue des stèles*, 3-5, pl. ii.4; Chassinat, *RT* 21, 72; *KRI* II, 370: 10.
22. Unfinished votive stela, Nineteenth Dynasty.
Saqqara, position unknown: Cairo. T. 20.3.25.5; A. Radwan, *ASAE* 71 (1987), 227, pl. vi.
23. Votive stela, Nineteenth Dynasty.
Reused in the Monastery of Apa Jeremias: Cairo JE 40693; PM III², 667; B. Grdseloff, *ASAE* 39 (1939), 393-6, fig. 17.
24. *šꜥ ḥrp kꜣwt nb . . . ssmwt*, 'scribe, director of all works, . . . of horses', late Ramesside or Late Period?¹⁴
From a tomb to the east of the Step Pyramid (the Tomb of the Cow): PM III², 592; Petrie in Sayce MSS 22a; Malek, *JEA* 67, 158 n. 17; idem, *SAK* 12, 43 n. 1.
25. *nby*, 'goldsmith', Twenty-second Dynasty or later.
A votive stela from the Serapeum, North Saqqara: PM III², 808; Malinine et al., *Catalogue des stèles*, 114 (145), pl. xl.

¹⁴ Malek has dated the tomb to the Late Period (PM III², 592); elsewhere, he reconsiders the date and prefers a Ramesside one (*JEA* 67 (1981), 158 n. 17; *SAK* 12, 43 n. 1; *LÄ* IV, 432; *LÄ* V, 410). However, to date such a tomb from the hand copy of Petrie (in Sayce MSS 22a, Griffith Institute), is rather problematical, though not entirely impossible. But it remains a speculative date for the tomb, until future work can take place there. Apart from the representation of the 'Western Goddess', which is comparable with that on a block (Gunn MSS 30) in the chapel of Mose, dated to Ramesses II (G. A. Gaballa, *The Memphite Tomb-Chapel of Mose* (Warminster, 1977), pl. 48), the spelling of the name of Osiris is typical of the Nineteenth to Twentieth Dynasty writing of this name, provided Petrie's copy can be relied upon (*Wb.* I, 359; cf. the same spelling which appears in the tomb of Mose: e.g. Gaballa, pls. 3, 5, 11, 12, 22, 30).

Likewise Malek suggests that the determinative of the name of Ramosé would indicate a Nineteenth Dynasty or a late date (in A. B. Lloyd (ed.), *Studies in Pharaonic Religion and Society in Honour of J. G. Griffiths* (London, 1992), 59). However, there is an early and securely dated instance of that determinative on a stela from Year 47 of Thutmose III (A. Radwan, *MDAIK* 37 (1981), fig. 2). Another criterion could be indicative of a Nineteenth Dynasty date, although it requires further research: the appearance of part of BD Chapter 125 (the so-called negative confession) in the first room is reminiscent of its appearance in Nineteenth Dynasty tombs in the Theban necropolis and at Deir el-Medina (M. Saleh, *Das Totenbuch in den thebanischen Beamtengräbern des Neuen Reiches* (Mainz, 1984), 63-72, figs. 75, 76a-c; Stewart, *Egyptian Stelae* I, 59, pl. 47).



1. The Tomb of Djed, looking east, showing the side chambers with one recess visible on the left
(*courtesy of the Committee of the Egypt Exploration Society*)

st-SIGNS FROM THE TOMB OF DJED (pp. 183-7)



2. The inscribed block of Ramose from Saqqara

RAMOSE, AN OVERSEER OF THE CHAMBERLAINS (pp. 202-8)


There is no doubt that this loose block belongs to one of the Ramesside tomb-chapels¹⁵ south of the causeway of the Unas pyramid, between the pyramid of Sekhemkhet and the Monastery of Apa Jeremias.¹⁶ The name should be added to the published list of missing tombs in this New Kingdom cemetery.¹⁷

KHALED DAUD

Henuttawy's guilty conscience (gods and grain in Late Ramesside Letter no. 37)¹

In Late Ramesside Letter no. 37, the singer of Amun Henuttawy explains how she was twice cheated out of grain consignments. She attributes these mishaps to the intervention of her patron god, Amun-Endowed-with-Eternity, who is avenging himself on her for allowing him to run out of grain offerings by depriving her of grain in turn. This article discusses the text and provides an overview of the background.

AN incident concerning the singer of Amun, Henuttawy, who lived during the later years of the Twentieth Dynasty, sheds some light on that poorly attested group of people, women in administration. In the Turin Taxation Papyrus,² she receives and records consignments of grain on behalf of various Theban institutions. This text mentions Henuttawy receiving shipments of grain, twice when acting alongside the scribe of the Necropolis Nesamenemope³ and twice on her own. When alone, Henuttawy collected amounts of 10½ sacks⁴ and 18½ sacks.⁵ To give some idea of the value of these consignments, the Deir el-Medina workmen, who were professional people and thus fairly well-paid, received (at least in theory) a monthly salary of four *khar*-sacks of emmer for bread and one-and-a-half *khar* of barley for beer.⁶ In today's terms, Henuttawy handled small- to medium-sized sums. She probably did not enjoy clerical status in her own right,⁷ but functioned as the helper and representative of Nesamenemope, who seems to have been her husband.⁸

¹⁵ On palaeographic and stylistic grounds the relief might be placed within the second half of the Nineteenth Dynasty or in the Twentieth. The *h*-sign appears with two loops instead of three: for dated examples of that form, see, e.g., Malinine et al., *Catalogues des stèles*, pl. v. 14, second register, col 3, *nhh*  (dated to the end of the reign of Ramesses II); Stewart, *Egyptian Stelae* 1, pl. 41. 2 (*temp.* Merneptah), where the *h*-sign is written thus in the name of *Pth*; Malek, *SAK* 12, figs. 4-6, pls. 2. 1-2 and 3. 5-6. The shape of the man's head as well as the eye are distinctively Ramesside and are particularly common in the tomb reliefs and stelae of the Nineteenth and Twentieth Dynasties (cf. Martin, *Corpus of Reliefs*, pls. 4.11, 20.56, 26.71, 29.80, 32.85, 33.86; Malinine et al., *Catalogue des stèles*, pls. i. 1, 3, iv. 13; Malek, *SAK* 12, fig. 7, pl. 5.8; N. de Garis Davies, *Two Ramesside Tombs at Thebes* (New York, 1927), pls. vi, vii; Tosi and Roccati, *Stele e altre epigrafi*, nos. 50032-4, 50072-3).

¹⁶ PM III², 655-61, 706-7; Malek, *JEA* 67, 157-8; id., *SAK* 12, 45-6; Martin, *The Memphite Tomb of Horemheb*; idem, *The Tomb-Chapel of Paser and Racia at Saqqara* (London, 1985), and in *JEA* 72 (1986), 15-22; *JEA* 73, 1-9; *JEA* 74 (1988), 1-14; H. D. Schneider, *JEA* 77 (1991), 7-21; Martin, *Hidden Tombs*.

¹⁷ Martin, *Hidden Tombs*, 200-1.

¹ I am most grateful to two referees of the *JEA* for their comments, and to Prof. Sarah Groll, with whom I originally read this text, for various suggestions.

² P. Turin 1895 + 2006 (*RAD* 35-44) (henceforth abbreviated TTP); translated by A. H. Gardiner, *JEA* 27 (1941), 22-37.

³ TTP r. 2.10-11, 3.6-7. For Nesamenemope see J. Černý, *A Community of Workmen at Thebes in the Ramesside Period* (Cairo, 1973), 213-14; D. Valbelle, "Les ouvriers de la tombe." *Deir el-Médineh à l'époque ramesside* (Cairo, 1985), 69, 222-3, 240-1.

⁴ TTP r. 4.8.

⁵ TTP r. 5.3-4.

⁶ Jac. J. Janssen, *Commodity Prices from the Ramessid Period* (Leiden, 1975), 460; C. J. Eyre, in M. A. Powell (ed.), *Labor in the Ancient Near East*, 1 (New Haven, 1987), 178.

⁷ In *LRL* 57.2 she describes herself as 'singer of Amun-Re King of the Gods' rather than 'scribe'.

⁸ This connection is generally assumed on the basis of their work together: Černý, *Community*, 214; Valbelle, *Ouvriers*, 240; G. Robins, *Women in Ancient Egypt* (London, 1993), 124.

During the Ramesside Period, administrators' wives sometimes participated in their husbands' work.⁹ This practice may have been quite common. One text¹⁰ describes the trial of a bureaucrat's wife and daughter, who had appropriated large quantities of property from a government store-room, presumably on the pretext that it was required on official business. The ambitious scale of their theft implies that the sight of an official's wife handling state property was not, in itself, unusual enough to cause immediate comment.

Henuttawy's bureaucratic duties come to life in a letter she herself sent, P. Geneva D 191 (Late Ramesside Letter no. 37).¹¹ This letter is her reply to another missive, now lost, sent her by Nesamenemope. He was absent (maybe supervising collections of grain from outlying sites?)¹² and had presumably asked her to deputize for him as an on-the-spot witness of his business, in particular, deliveries and withdrawals from the warehouses.

The events she describes took place at Medinet Habu, where the crew of the Necropolis now lived,¹³ and where there were storage facilities¹⁴ and a harbour.¹⁵ Henuttawy herself probably remained at Medinet Habu, and did not go out to collect grain from outlying sites in person.

Nesamenemope had written that the scribe Pentahutnakhte and the captains of the Necropolis¹⁶ should collect 162½ *khar*-measures of emmer (probably as rations for the crew). He had stipulated that they must 'not withdraw them with a large *oipe*-measure',¹⁷ presumably because if they measured out the grain for themselves from the warehouse, this device would allow them to appropriate additional grain against their paper credit,¹⁸ whereas, if the grain for their rations had already been set aside, the large *oipe*-measure would make the total appear smaller and the workmen could claim the difference on some other occasion. Such irregularities would redound to Nesamenemope's discredit, since he had arranged this distribution of grain.

Henuttawy, however, was unlucky: 'Your letter reached the place where the vizier was', she writes,¹⁹ 'and he sent the scribe Saroy²⁰ together with the measurer, and he²¹ let them²² come bringing an *oipe*-measure which was larger than the granary's *oipe*-measure (by) one *hin*, and I went in person and had the barley collected when I was present, and they made (it) 146¾ *khar* with

⁹ Valbelle, *Ouvriers*, 241; Robins, *Women in Ancient Egypt*, 124-5.

¹⁰ J. Černý and A. H. Gardiner, *Hieratic Ostraca*, 1 (Oxford, 1957), 74-5; translated by S. Allam, *Hieratische Ostraka und Papyri aus der Ramessidenzeit* (Tübingen, 1973), 20-4, and discussed by K. A. Kitchen, *Pharaoh Triumphant* (Warminster, 1982), 133-5.

¹¹ Published in transcription by J. Černý, *Late Ramesside Letters* (Brussels, 1939), 57-60; translated by E. F. Wente, *Late Ramesside Letters* (Chicago, 1967), 71-4, and more recently by Wente, *Letters from Ancient Egypt* (Atlanta, 1990), 174-5.

¹² See C. J. Eyre, *SAK* 11 (1984), 203, and in *Labor in the Ancient Near East*, 180, for the heightened involvement of the Necropolis scribes in collecting and delivering grain as rations for the workmen towards the end of the Twentieth Dynasty. Valbelle, *Ouvriers*, 69, and Eyre, *SAK* 11, 203, suggest that their responsibilities occasionally extended beyond the administration of the Necropolis.

¹³ M. Bierbrier, *The Tomb-Builders of the Pharaohs* (London, 1982), 119; Valbelle, *Ouvriers*, 124-5. C. J. Eyre, *BiOr* 44 (1987), 25, dates the move to Medinet Habu as early as the first years of Ramesses IX's reign.

¹⁴ U. Hölscher, *The Mortuary Temple of Ramses III*, 1 (Chicago, 1941), 64-5.

¹⁵ Hölscher, *The Mortuary Temple of Ramses III*, II (Chicago, 1951), 11-13.

¹⁶ For this term see Černý, *Community*, 231-43.

¹⁷ *LRL* 57.10.

¹⁸ In the absence of standard measures, this was quite a problem in ancient Egypt. Compare the manoeuvres in O. Leipzig 2 (*HO* 34, 4, translated by Allam, *Hieratische Ostraka* 199-200, and recently discussed by A. G. McDowell, *Jurisdiction in the Workmen's Community of Deir el-Medina* (Leiden, 1990), 214 and M. Gutgesell, *Arbeiter und Pharaonen* (Hildesheim, 1989), 157); or the prohibitions in the *Teaching of Amenemope*, e.g. 17.18-19, 'Do not shift the balance, do not falsify the weights, and do not damage the fractions of the measure.' See also *Amenemope* 18.15-19.1, and the discussion by I. Grumach, *Untersuchungen zur Lebenslehre des Amenemope* (MÄS 23; Munich, 1972), 117-18, 121-2.

¹⁹ *LRL* 57.11-58.2.

²⁰ This change of personnel doubtless made Henuttawy's task more difficult. Pentahutnakhte, the scribe of Medinet Habu (Černý, *Community*, 209-10; Valbelle, *Ouvriers*, 145-6), would have known the people and procedures involved. The less well attested Saroy might have been a complete stranger to the institution.

²¹ The scribe Saroy, or the measurer.

²² The captains of the Necropolis, maybe accompanied by other crew members and interested parties.

this *oipe*-measure, and this inhabitant of the Necropolis²³ and the fisherman²⁴ said, “150 *khar* is what we measured out for ourselves with the *oipe*-measure of the granary of the estate of Amun”, so they said, and I checked the *oipe*-measures, and I said to them, “I have the right to check.²⁵ I will find the barley wherever it is”, so I said to them.’

The difference between the grain measured by the workmen’s *oipe*-measure and the grain measured by the (presumably standard) *oipe*-measure at the granary is $3\frac{1}{4}$ *khar*. I suggest that only 150 *khar* of grain actually reached Henuttawy, and that this amount, when measured by the workmen’s non-standard *oipe*-measure, appeared to be $146\frac{3}{4}$ *khar*.

Since 1 *khar* = 4 *oipe*
and 1 *oipe* = 40 *hin*²⁶
1 *khar* = 160 *hin*

150 *khar*, measured by the granary *oipe*-measure of 40 *hin*

= $150 \times 160 = 24,000$ *hin*.

The same amount, however, measured by the 41-*hin* measure

= 24,000 divided by 41 = 585.36 *oipe*
divided by 4 = 146.34 *khar*.

This last was presumably rounded up to $146\frac{3}{4}$ *khar*, or perhaps the non-standard measure was a little under a *hin* in excess of the standard.

Had the entire consignment of $162\frac{1}{2}$ *khar* arrived, they would have measured $162\frac{1}{2} \times 160 = 26,000$ *hin*

divided by 41 = 634.146 *oipe*
divided by 4 = 158.53 *khar*.

Henuttaway rather glosses over the more embarrassing discrepancy of $12\frac{1}{2}$ *khar* between the amount she was told to expect and the amount she actually received. Maybe someone in the grain distribution network had appropriated them?

Henuttawy had further problems with the deliveries themselves. She continues,²⁷ ‘And you wrote to me, saying, “Collect the 80 *khar* of barley from this boat of Itinefer the fisherman”, so you said in writing, and I went to collect them, and I found $72\frac{1}{2}$ *khar* of barley in his possession, and I asked him, “What’s this $72\frac{1}{2}$ *khar* of barley?” so I said to him, “whereas it’s 80 *khar*—it says so in his letter”, and the men said, “3 completely full measures are what we measured out for ourselves, each being $2\frac{1}{2}$ *khar*, making $72\frac{1}{2}$ *khar* of barley”, so they said.’

It seems to have been quite normal to reimburse delivery men their expenses, presumably by arrangement with the appropriate official.²⁸ In Year 12 of Ramesses XI, the same fisherman, Itinefer, received a sackful of grain to cover his expenses.²⁹ On this occasion, however, his crew helped themselves without permission—and quite generously.³⁰

²³ For this term, see R. Ventura, *Living in a City of the Dead: A Selection of Topographical and Administrative Terms in the Documents of the Theban Necropolis* (Freiburg, Switzerland, 1986), 35–7.

²⁴ Maybe the fisherman who brought the consignment, as below (*LRL* 58.2–7).

²⁵ Literally, ‘my check is with me’ (J. Černý and S. I. Groll, *A Late Egyptian Grammar*³, (Rome, 1984) §17.6.2). I disagree with Wente’s paraphrase in *Letters from Ancient Egypt*, 174, ‘I’m satisfied with the check’, since the point of Henuttawy’s communication is that she is indeed dissatisfied with the outcome of her errand.

²⁶ W. Helck, *LÄ* III, 1201.

²⁷ *LRL* 58.2–7.

²⁸ TTP r. 4.5, ‘Given for the expenses of the skipper, 20 sacks’. P. Amiens r. 1.8; 2.3; 2.9; 3.3; 3.12; 4.3; 4.8 (*RAD* 1–13, translated by Gardiner, *JEA* 27 (1941), 37–56.)

²⁹ TTP r. 4.3.

³⁰ The example *par excellence* of grain appropriation *en route* is the Turin Indictment Papyrus v. 1.7–2.11 (*RAD* 78–80, translated by Gardiner, *JEA* 27, 60–2) where a ship’s captain and his confederates made away with 5004 sacks over nine years.

This was not the first occasion when the delivery men pocketed part of a consignment for the institutions of Western Thebes. The Turin Taxation Papyrus mentions a similar incident in that same Year 12: 'Arrived and delivered to the scribe Nesamenemope and the singer of Amun Henuttawy in Year 12, month 3 of *ḥ.t*, day 23, 33 *khar* of grain, $3\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{32}$. Deficit, to the account of the fishermen, $\frac{2}{4}$, $\frac{1}{16}$, $\frac{1}{32}$ *khar*'³¹ (r. 2. 10–11). Had Itinefer been present, he might perhaps have concluded that the institutions of Western Thebes were easy to cheat.

After these events, Henuttawy is lost for words from sheer indignation: 'And then I fell silent,³² thinking "Until you return,³³ Amun-Endowed-with-Eternity will have done³⁴ bad to me!"'

It comes as no surprise to find the singer of Amun Henuttawy reacting in this vein, when swindled by delivery men. The inhabitants of Deir el-Medina were prone to attribute their personal misfortunes to the intervention of some angry god, goddess, or supernatural agent whom they had somehow offended.

Two well-known examples of this type of causal thinking will suffice. The draughtsman Neferabu, in his prayer to the goddess of the Peak, Meretseger, says,

... I made the greatest offence by equating myself to the Peak
and (therefore) she punished me.³⁵

The same Neferabu confesses to the God Ptah,

I am a man who swore falsely by Ptah, Lord of Maat.
He made me see darkness by day.³⁶

Henuttawy's explanation,³⁷ however, is particularly interesting. What does she think she has done to make the god angry with her? She advises her correspondent Nesamenemope: 'Look out for his (Amun's) barley! You must have (some) brought³⁸ precisely because it is not there,³⁹ (not even) a *khar* of barley for his divine offerings. It was I who (was obliged to) donate 30 *khar* of emmer for his divine offerings—from Year 2⁴⁰, month 2 of *ḥ.t*, day 27 until month 3 of *ḥ.t*, day 2,⁴¹—from the

³¹ Gardiner (*JEA* 27, 28) interprets this deficit in a more charitable vein as the commission paid to the fishermen. It may have been the inevitable element of loss in grain consignments due to spillage, damage, rats, or non-standard measuring techniques. Or, to put matters in a more sinister light, the fishermen were perhaps taking the blame for someone else's speculations.

³² P. J. Frandsen, *An Outline of the Late Egyptian Verbal System* (Copenhagen, 1974), 107. Silence is seldom mentioned in ancient Egyptian dialogue, except when a main character fails to respond at a crucial point, e.g. *LES* 67.8–9; *Sinuhe* B 253–7. Pauses in Egyptian prose are undeniably pregnant. R. B. Parkinson remarked to me that in the *Tale of the Eloquent Peasant*, for example, Rensi's silence is not explicitly described in the narrative, apart from his initial silence towards the officials (B 1 80–2); throughout the rest of the text, it is implied by the Peasant.

³³ *LRL* 58.7–8. My translation follows Wentz, *Letters from Ancient Egypt*, 174. An alternative translation is Černý and Groll, *Late Egyptian Grammar*, §33.2, 'I will stay silent longing for you to come (lit. saying, "until you come")'.

³⁴ Černý and Groll, *Late Egyptian Grammar*, §21.3b suggests that this is a conditional clause, 'Even if Amun ... will do every wrong to me'. This translation, however, leaves two hanging protases; I suggest that *wn* + initial prospective *stp.f* be translated as a future pluperfect.

³⁵ Stela Turin N-50058 (Cat. 1593), ll. 3–4 (*KRI* III, 772.14–15), recently discussed by S. I. Groll, *Ling Aeg* 1 (1991), 143–53; S. I. Groll, in J. Osing and E. K. Nielsen (eds), *The Heritage of Ancient Egypt: Studies in Honour of Erik Iversen* (Copenhagen, 1992), 63–72.

³⁶ Stela BM EA 589, ll. 2–3 (*KRI* III, 771.16–772.1).

³⁷ *LRL* 58.8–16.

³⁸ Following Frandsen, *Outline*, 159, *j-dj.k* is translated as a second tense. For examples of the form *j-dj.f* used for the second tense, see Černý and Groll, *Late Egyptian Grammar*, §26.18.6.

³⁹ For constructions of this type with *bn*, see P. Vernus, *RdE* 36 (1985), 155 ff.

⁴⁰ The text is damaged at this point (Jac. J. Janssen, *Late Ramesside Letters and Communications* (London, 1991), pl. 60). A date of Year [1]2 of Ramesses XI, which would place the events of this letter within the period recorded in the Turin Taxation Papyrus, is technically possible, but Wentz (*Late Ramesside Letters*, 4–5, n. 16) has demonstrated that at that point Nesamenemope was not yet scribe of the Necropolis, since the post was then held by Efnamun (P. BM EA 10068 v. 7.8). On the other hand, the text is unlikely to be from the Twenty-first Dynasty since Butehamun appears as scribe of the Necropolis in Late Ramesside

grain which is deposited in my charge, when/and . . . for the divine offerings. Now Amun-Endowed-with-Eternity had the barley put into a chest⁴² and had a seal put on it.⁴³ Look, you should join forces with Pasesny and you will argue⁴⁴ with the overseer of the granaries about the barley of Amun-Endowed-with-Eternity—indeed, he doesn't have one single *oipe*⁴⁵ for his divine offerings today⁴⁶—and don't⁴⁷ neglect⁴⁸ him, the two of you!

Henuttawy interprets her offence as having allowed the god to go short of offerings. Presumably Henuttawy and Nesamenemope were responsible for keeping the god supplied, since she had resorted to 'borrowing' grain from that which was left in her charge,⁴⁹ and since she insists that Nesamenemope intervene on the god's behalf with the powers that be.

Maybe Nesamenemope had in fact sent supplies, but somehow they had failed to reach the god. If we follow a suggestion made tentatively by Wenté,⁵⁰ we may translate *j-dj.k* in *LRL* 58.9 as a relative form, 'Look out for his (Amun's) barley *which you sent* [my italics], since there is not even a *khar* of barley for his divine offerings.'

Henuttawy suggested that the god had grain (Nesamenemope's delivery?) stored away safely under seal. She told Nesamenemope to team up with a second man and ask the appropriate official to release this grain for the god's use.

Henuttawy, then, interprets the god as making 'the punishment fit the crime'. Since he was going hungry, Amun-Endowed-with-Eternity ensured that she, too, would have problems with grain supply.

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Letter no. 28, written in or after Year 7 of *whm ms.wt*. Wenté, *Late Ramesside Letters*, 3, states that Butehamun had probably replaced Nesamenemope by this point, although M. Bierbrier, *The Late New Kingdom in Egypt* (Warminster, 1974), 41–2, remarks that Butehamun's promotion does not necessarily preclude Nesamenemope still being in office. Presumably the text is to be dated to Year 2 of *whm ms.wt* (as Wenté, *Letters from Ancient Egypt*, 174) rather than a regnal year of Ramesses XI. People mentioned in this text generally cluster in texts from the early years of *whm ms.wt*. The overseer of granaries Menmaatrenakhte (*LRL* 59.14) appears in P. Mayer A r. 1.6 and P. BM EA 10052 r. 1.4, both of Year 1 of *whm ms.wt*, and P. BM EA 10383 r. 1.3, of Year 2. The priest of the temple of Mut Pawenesh (*LRL* 59.8) crops up in P. BM EA 10052 v. 11.17; Abbott Dockets B14 and P. Mayer A v. 8.2, 12.15, and Nesamenemope himself appears in P. BM 10052 r. 1.19 of Year 1 and P. BM EA 10403 r. 1.2 of Year 2. The scribe Pentahutnakhte (*LRL* 57.9), however, is attested throughout the end of the Twentieth Dynasty, from Year 7 of Ramesses IX (P. Turin 1881 r. 8.11), through the Necropolis Journal of Year 3 of Ramesses X (*KRI* vi, 691.13) and the reign of Ramesses XI (P. BM EA 10068 v. 1.8) into Year 2 of *whm ms.wt* (P. BM EA 10403 v. 3.19) and the Late Ramesside Letters correspondence (see Černý, *LRL*, 76). The fisherman Itinefer (*LRL* 58.3) is attested in TTP r. 4.3, of Year 12 of Ramesses XI.

⁴¹ At that period, these dates would have fallen during the Opet-Feast (W. Helck, *JESHO* 7 (1964), 137; W. Murnane, *LÄ* iv, 574–5) which may have produced a demand for extra offerings.

⁴² For this word, see L. H. Lesko, *A Dictionary of Late Egyptian*, 1 (Berkeley, 1982), 230.

⁴³ Cf. Černý and Groll, *Late Egyptian Grammar*, ex. 576.

⁴⁴ For this term see McDowell, *Jurisdiction*, 21.

⁴⁵ Černý and Groll, *Late Egyptian Grammar*, ex. 1093.

⁴⁶ Černý and Groll, *Late Egyptian Grammar*, §19.2.2.

⁴⁷ Reading *.tn* for *.n* (cf. D. Sweeney, in S. I. Groll (ed.), *Studies in Egyptology Presented to Miriam Lichtheim* (Jerusalem, 1990), 963). Alternatively, the text may be read as written: 'We won't neglect him, either of us!' Cf. Wenté, *Late Ramesside Letters*, 74, note o.

⁴⁸ Conjunctions generally need a starting point—Černý and Groll, *Late Egyptian Grammar*, §42.2; J. F. Borghouts, *ZÄS* 106 (1979), 15. However, conjunctive chains can absorb foreign bodies, in brackets as it were, and continue past them.


⁴⁹ Probably institutional supplies, like the consignments she handled in Late Ramesside Letter no. 37 and in the Turin Taxation Papyrus. It is not clear whether these responsibilities were part of Henuttawy's duties as 'singer of Amun'. They may have been more in the line of an *ad hoc* development from her or Nesamenemope's activities in the official distribution network.

⁵⁰ Wenté, *Late Ramesside Letters*, 73, note j.

Reflections on the goddess Tayet*

A review of the monumental and textual evidence for the little-known Tayet, goddess of spinning and weaving.

TAYET is known as a goddess of weaving and spinning cloth. The present account offers some reflections on her place of origin, her form, her occurrence in texts and scenes, her function, and her relations with other deities in the Egyptian pantheon.¹ Neither the process of weaving nor other deities of weaving who have no connection with Tayet will be dealt with in this study.

Her place of origin is very uncertain. We have two starting points for speculation: the first is derived from the name itself, *Trit(t)*. This is considered to be the name of a weaving town in Lower Egypt,² and is also later the name of the town of Buto.³ Thus it is possible to deduce that Buto (Dep) was the place of origin for Tayet, who personifies the royalty of the northern kingdom.⁴ This deduction is based on the appearance of the sign ⁵ in the names of both the town and the goddess, and also in the Hymns to Diadems, which localize Tayet in Lower Egypt.⁶ Moreover, the texts situate the eye of Horus in the weaving town of Buto, and by so doing make a connection between the eye of Horus and Tayet.⁷

The second point of speculation is based on the statement in the temple of Dendara that Tayet was born in Dendara⁸ with a green or, more likely, a turquoise skin colour.⁹ Even in this reference, however, her connection to Lower Egypt is maintained, since it appears in the *Pr-nw* shrine of the temple, which is the name of a shrine at Buto. Thus, the Dendara text strengthens the Buto connection at the expense of Dendara.¹⁰

As for her complexion, it is worth noting that Tayet had no iconographic form before the first millennium. Thus, she is only mentioned in inscriptions rather than represented in scenes. The primary inscriptions which mention her are the essential funerary texts of the Pyramid Texts, Coffin Texts and Book of the Dead.¹¹ The earliest representation of Tayet known thus far is in the chapel of Osiris *hq-dt* at Karnak. A scene in the east inner room depicts Tayet in female human form holding two pieces of cloth and standing among a host of Nile gods with water, flowers and


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¹ For previous compilations of information on Tayet, see A. M. Blackman and H. Fairman, *JEA* 29 (1943), 34–5 n. 25; M.-T. Derchain-Urtel, *LA* vi, 185–6, s.v. 'Tait'.

² PT 737, 1642, 1794; *Wb.*, v, 231; H. Bonnet, *Reallexikon der ägyptischen Religionsgeschichte* (Berlin, 1952), 764.

³ *Wb.* v, 231.

⁴ C. Husson, *L'offrande du miroir dans les temples égyptiens de l'époque gréco-romaine* (Lyon, 1977), 79; CT 936.

⁵ Var. ; the sign probably represents a bundle of flax rather than a loom: see K. Zibelius, *Ägyptische Siedlungen nach Texten des Alten Reiches* (TAVO Beiheft B19; Wiesbaden, 1978), 255; cf. K. Sethe, *Übersetzung und Kommentar zu den altägyptischen Pyramidentexten* (Glückstadt, [1935]-1962), III, 369.

⁶ Zibelius, *Ägyptische Siedlungen*, 255; A. Erman, *Hymnen an das Diadem der Pharaonen* (Berlin, 1911), 32; cf. F. Gomaà, *Die Besiedlung Ägyptens während des Mittleren Reiches*, II (TAVO Reihe B 66/2; Wiesbaden, 1987), 354–5.

⁷ PT 737, 1642, 1794; H. Gauthier, *DG* vi, 4; Erman, *Hymnen*, 30; A. Piankoff, *The Pyramid of Unas* (New York, 1968), pls. 59, 60, 64; BD Chapter 936.

⁸ E. Chassinat, *Le temple de Dendara* (9 vols., Cairo, 1934–87), II, 225, 7.

⁹ Chassinat, *Dendara* IV, 126, 4–5; Bonnet, *Reallexikon*, 764–5; cf. Blackman and Fairman, *JEA* 29, 34 n. 25.

¹⁰ Gauthier, *DG* II, 90.

¹¹ Sethe, *Die altägyptischen Pyramidentexte*, I (Leipzig, 1908), §§56a, 738a, 741b; A. De Buck, *The Egyptian Coffin Texts* (Chicago, 1935–61), I, §60; IV, §§282, 345; VI, §§486, 608; VII, §§936; 1023; E. W. Budge, *The Book of the Dead, The Egyptian Hieroglyphic Text* (London, 1910), II, 41 §82.A8; III, 59 §172; VI.32; cf. C. Davies, *The Egyptian Book of the Dead* (New York, 1984), I14, pl. xxxi.

birds. They face Osiris and Isis, with the cartouche of the later Libyan king Rudamun in front of Osiris.¹²

This representation in human form is striking in two basic respects. First, Tayet is one of the rare deities in the Egyptian pantheon who have purely anthropomorphic forms (e.g. Ptah, Min).¹³ Secondly, although she is related to one of the oldest capitals in Lower Egypt, Buto, and is frequently alluded to in the religious books, yet her physical form was first depicted only in the first millennium and then more widely in the Graeco-Roman temples; many representations of Tayet with her cloth-sign occur at Dendara, Edfu, and Kom Ombo.

In Dendara she appears many times. The first instance is in the side room X, 'The Chamber of Cloth', to the east of the inner vestibule,¹⁴ in a row which includes four standing figures, the king, Shesemu, Tayet and Ihy, before three seated ones, Hathor, Harsomtus and Ihy (fig. 1).¹⁵ The text describes Tayet as a mother of gods.¹⁶ The second instance is in the same room, among seven seated figures of deities preceded by young Ihy. It is worth noting that here Tayet is holding the *ḥny*-sign and the lotus sceptre rather than her traditional cloth-sign; the text relates her to Isis.¹⁷ The third representation is in the outer doorway of 'The Chapel of the New Year Court', where Tayet with Ihy offers a *m^cr*-garment to Hathor and Horus.¹⁸ The text links her with the goddess Shayit of Dendara. Tayet's appearance here is probably significant in terms of the funerary rebirth associations of the end of one year and the beginning of a new one. Her fourth appearance in Dendara is in the interior of the same court.¹⁹ Here, Tayet with the king, preceded by a small figure of Harsiesi, offers cloth to Isis and Harsomtus.²⁰

In the temple of Edfu, Tayet makes two appearances. The first is in the 'Chamber of Cloth', on the inner lintel of the entrance from the corridor of the vestibule of the treasury.²¹ She is seated in

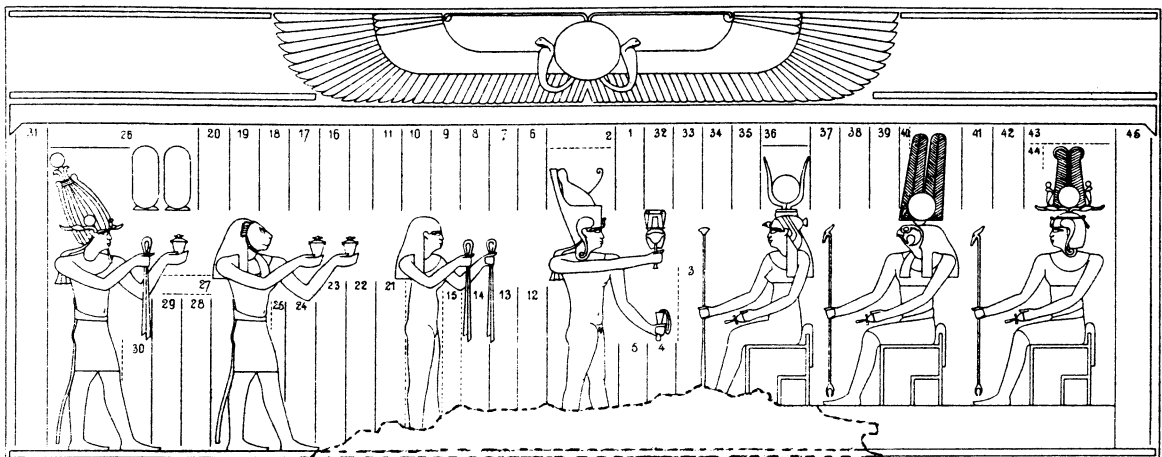


FIG. 1. Dendara room X ('The Chamber of Cloth'), doorway (after Chassinat).

¹² G. Legrain, *RT* 22 (1900), 134; he does not identify the goddess but refers to 'quatre Nils et une déesse'. Cf. PM II, 206, 19.ii; J. Baines, *Fecundity Figures* (Warminster, 1985), 308.

¹³ Cf. J. Černý, *Ancient Egyptian Religion* (London, 1952), 27-30.

¹⁴ PM VI, 57.

¹⁵ Chassinat, *Dendara* IV, pl. cclxxvi.

¹⁶ *Ibid.* 101.

¹⁷ *Ibid.* 125, pl. cclxxx.

¹⁸ PM VI, 59; Chassinat, *Dendara* IV, 179, pl. ccxcviii.

¹⁹ PM VI, 60-1.

²⁰ Chassinat, *Dendara* IV, pl. cccxi.

²¹ PM VI, 140; S. Cauville, *Essai sur la théologie du temple d'Horus à Edfou* (Cairo, 1987), 42-4; M. de Rochemonteix and E. Chassinat, *Le temple d'Edfou*, (14 vols., Paris, 1892-34; 2nd edn. of text vols. I-II, rev. and corr. by S. Cauville and D. Devauchelle, Cairo, 1984-90), II, 164; pl. xlii.b.

a row of eight deities to whom the king is offering. She holds the *ꜥnh*-sign and the lotus sceptre. The second representation is in room X adjoining the sanctuary of the temple,²² where Tayet, among a host of deities, is seated holding this time the *wst*-sceptre and *ꜥnh*-sign.

Finally, in Kom Ombo she also appears twice: once among a host of divinities in the court of the temple,²³ and again in the corridor of the inner vestibule of the Birth House, accompanied by the beer-goddess Menket.²⁴ She is carrying the word for 'linen' (*sšr*) as an offering in what is for her a unique representation.

Tayet's function should also be considered in the light of her relationship to other deities. This grew out of her prominent funerary function, which was to cover the deceased with her handmade bandages, also called *tyt.t*,²⁵ in the embalming ritual. The whole process of weaving as well as covering the dead was thought to function under her patronage. Thus, she became a goddess of funerary tasks, not only because she covered the body of the deceased and protected him against decomposition, but also because she carried him to heaven as a *drt* (the kite bird) in order to join the company of Re in the horizon.²⁶ This function recurs repeatedly in religious texts from various periods,²⁷ as well as in references such as that in the story of Sinuhe, who was guaranteed 'wrappings (made) by the hands of Tayet'.²⁸ In the tomb of Rekhmire, it is stated that 'the bandages are in the hands of Tayet'.²⁹ In the funerary papyrus of Nesmin, a spell cites Tayet who will provide him [the Osiris Nesmin] with a cloth from her hands'.³⁰

These functions of fashioning of bandages and providing transport to heaven link Tayet to the goddess Isis in several ways, firstly as a *drt* and goddess of the dead. Both had the ability to change the location of the dead to the desired state amongst the gods by the effect of being the *drt*-bird.³¹ Secondly, like Isis who looks after her son Horus, Tayet is considered as a mother of the dead because she covers him with her wrappings.³² Therefore, it is understandable that a connection between the two as Isis-Tayet (*ist-Trit*) was formed in the New Kingdom.³³ This identification with Isis led to Tayet's further connection with Nephthys, who with Isis forms the paired goddesses of the dead, the *drt*.³⁴

Tayet's connection with Horus is evident both in her analogy to Isis described above and in the religious context where the cloth made by Tayet is referred to as 'the woven eye of Horus' or 'clothing the dead (king) in the eye of Horus (i.e. wrappings)'.³⁵

²² PM VI, 148-9; Rochemonteix and Chassinat, *Edfou* I, 127, pl. xxi.b.

²³ PM VI, 182 (18-23).

²⁴ PM VI, 199 (25-6); cf. J. de Morgan et al., *Catalogue des monuments et inscriptions de l'Égypte antique*, II. *Kom Ombo*, I (Vienna, 1895), pls. 56-7.

²⁵ D. Meeks, *ALex* II, 78.4512, and III, 79.3353; P. Lacau, *RT* 32 (1910), 84. The name itself translated as 'awning' refers to the embalming or purification tents or their curtains: Budge, *The Book of the Dead* (London, 1898), text, 206. It is also probable that the administrative title *tyty sb* for the vizierate is derived from the translation of *tyt* as a material rather than a goddess; cf. Meeks, *ALex* II, 78.4510, and III, 79.3351.

²⁶ PT 417; R. O. Faulkner, *The Ancient Egyptian Pyramid Texts* (Oxford, 1969), 137; Meeks, *Génies, anges et démons* (Sources Orientales 7; Paris, 1971), 27; M. Münster, *Untersuchungen zur Göttin Isis* (Berlin, 1968), 149.

²⁷ See above, n. 11; also in the pyramid of Pepi I: J. Leclant, in M. Görg and E. Pusch (eds), *Festschrift Elmar Edel* (Bamberg, 1979), 291-2, 297.

²⁸ A. H. Gardiner, *RT* 33 (1911), 92 = id., *Notes on the Story of Sinuhe* (Paris, 1916), 69, with references to Anast. I, 4,1 and Cairo stela M.K. 20565; A. M. Blackman, *Middle Egyptian Stories* (Brussels, 1932), 32; M. Lichtheim, *Ancient Egyptian Literature*, I (London, 1973), 229.

²⁹ P. Virey, *Le tombeau de Rekhmara* (Paris, 1889), 128, 10 and 192 n. 10. The passage does not appear to be included by N. de G. Davies, *The Tomb of Rekh-mi-Rer at Thebes* ([New York], 1943).

³⁰ F. Haikal, *Two Hieratic Funerary Papyri of Nesmin* (Brussels, 1970-72), I, 29, and II, 18.

³¹ Derchain-Urtel, *LÄ* VI, 185; Münster, *Untersuchungen*, 150.

³² Bonnet, *Reallexikon*, 764-5; PT 741.

³³ E. Hornung, *Das Amduat* (Wiesbaden, 1963), I, 103, and II, 113, 114 (421); Münster, *Untersuchungen*, 152.

³⁴ Sethe, *Komm.* III, 741c; cf. Faulkner, *A Concise Dictionary of Middle Egyptian* (Oxford, 1962), 323.

³⁵ PT 373, 1202; CT 608.

The association of Tayet with Isis and Horus consequently made a link between Tayet and Osiris. Thus we find one of Osiris' names is *Trity*,³⁶ and the dead person who usually becomes Osiris is also Tayet.³⁷ Moreover, this funerary function relates Tayet to the god of ointment, Shesmu, who supervises the anointing of the body during embalming, and also to Imentet, the goddess of the West.³⁸

We can also say that by providing clothing for the king, Tayet may be considered as a protector of the monarch.³⁹ In this way, she is associated with the uraeus goddess Wadjet, who is well known as a protecting diadem of the king. Therefore, the uraeus receives in her hymns the name of Tayet,⁴⁰ who, in her turn, has the cobra sign in the different writings of her name,⁴¹ and the word *wꜣd(t)* itself is present in many elements attributed to her (e.g. green colour or green linen).⁴² Moreover, this is perhaps the reason for Tayet's epithet 'mistress of fear', as a likely allusion to her protective function.⁴³

The connection with Isis, who made garments for a number of goddesses, and with her symbolic motherhood of the king, as well as the fashioning for the gods and their statues of ceremonial wrappings known as 'the great adornments',⁴⁴ enabled Tayet to claim the title 'mother of the gods and mistress of goddesses', particularly in the Graeco-Roman Period,⁴⁵ when her position became more evolved and multi-functional.

As regards Tayet's relationship with other deities, we should give particular attention to three of them: Neith, Hathor and Hedjhotep. Neith had a long-term connection with Tayet in weaving, and Sais itself was known as a 'mansion of weaving'.⁴⁶ Moreover, many prayers were addressed to Neith by the dead to guarantee the wrapping of his body in bandages made by Neith, as by Tayet herself, in Sais.⁴⁷ This connection is further established by Neith's attachment to the two sisters, Isis and Nephthys, and, with Tayet, to the Horus-eye, particularly during the Graeco-Roman Period.⁴⁸ In addition, the identification of Tayet as the king's mother is also applied to Neith who 'carried the King of Upper and Lower Egypt in her womb ... (and) who is nourished by Isis, nursed by Nephthys, (and) nourished by the milk of Tayet'.⁴⁹

Tayet's connection to Hathor adds some further aspects to her funerary function, as one of Hathor's responsibilities towards the deceased is to offer him bread, an item which only began to be added to the offering lists during the New Kingdom.⁵⁰ Tayet, in her turn, had been connected with Nepri, the god of bread and corn, from the Middle Kingdom; on a stela of the Eleventh Dynasty, the owner states 'I gave bread to the hungry and clothing to the naked. I was son of

³⁶ *Wb.* v, 231,11, citing BD 142 (variant Cc, l. 74); the form is also used by P. Barguet, *Le livre des morts* (Paris, 1967), 107; contrast T. G. Allen, *The Book of the Dead* (Chicago, 1974), 119 (S, var.2): Osiris in Tayet.

³⁷ CT 282.

³⁸ Bonnet, *Realexikon*, 764-5; A. Mariette, *Dendérah* (Paris, 1870-3), IV, 5,14.

³⁹ Bonnet, *Realexikon*, 764-5. Tayet was also considered as a king's nurse during the Graeco-Roman Period: see *Wb.* v, 232,10; Rochemonteix and Chassinat, *Edfou* I, 124; Mariette, *Dendérah* II, 34a.

⁴⁰ A. Moret, *Le rituel du culte divin journalier en Egypte* (Paris, 1902), 223; J. Broekhuis, *De Godin Renenwetet* (Assen, 1971), 81; Rochemonteix and Chassinat, *Edfou* II, 30,3 and 59,18.

⁴¹ Cf. *Wb.* v, 231-2.

⁴² Faulkner, *CD*, 55; above, n.8.

⁴³ Chassinat, *Dendara* II, 150, 4-5.

⁴⁴ Gardiner, *Notes on Sinuhe*, 69; id., 'Personification', in *Hastings' Encyclopaedia of Religion and Ethics*, IX (Edinburgh, 1917), 791 (g)3. See also A. M. Calverley et al., *The Temple of King Sethos I at Abydos*, I (London and Chicago, 1933), 43 pl. 10, 44 pl. 11; Chassinat, *Dendara* IV, 106, 3-4; M. Alliot, *Le culte d'Horus à Edfou au temps des Ptolémées* (Cairo, 1954), 726.

⁴⁵ Chassinat, *Dendara* v, 101, 6-7. For references from Dendara and Edfu with many deities, see Blackman and Fairman, *JEA* 29, 34-5 n.25.

⁴⁶ For its connection with weaving, see R. el-Sayed, *Documents relatifs à Saïs et ses divinités* (BdE 69; Cairo, 1975), 180-93.

⁴⁷ El-Sayed, *La déesse Neith de Saïs* (BdE 86; Cairo, 1982), I, 77-9, and II, 333.

⁴⁸ *Ibid.* II, 491, Doc.704, 500, Doc.718, 584, Doc.932, 572, Doc.908d.

⁴⁹ *Ibid.* II, 588, Doc.943.

⁵⁰ C. J. Bleeker, *Hathor and Thoth. Two Key Figures of the Ancient Egyptian Religion* (Leiden, 1973), 42-5; Baines, *Fecundity Figures*, 197.

Nepri, husband of Tayet',⁵¹ thus reflecting the relation of the two deities and their functions. In the Book of the Dead, the deceased expects bread from Hathor and linen garments from the hand of Tayet,⁵² and is assumed to eat bread 'on a small rectangular cloth which Tayet herself has woven'.⁵³ This offering of bread perpetuates their connection into the Graeco-Roman Period, when Hathor was given the name of Tayet.⁵⁴

The association with Hedjhotep has another dimension. From his first appearance in the Middle Kingdom, he is connected both to Tayet and to the eye of Horus, who are together responsible for the bandages offered to the deceased in the name of Hedjhotep, considered to be the masculine homologue of Tayet.⁵⁵ Consequently, he was widely regarded as Tayet's consort in Edfu and Dendara during the Graeco-Roman Period.⁵⁶ One may assume that this situation brought Tayet further familial relationships. Thus, Re became her father and Nut her mother,⁵⁷ and the king was engendered as a son by Tayet herself.⁵⁸

Finally, one may deduce that, in the beginning, the word *Twt.(t)* referred interchangeably to either the goddess or the cloth, without any further distinction. Also, it is conceivable that Tayet as a goddess was not considered an imageable deity until the first millennium, when she made her first appearance in scenes. At that time her embodiment in anthropomorphic form reflected human normality, which found ready acceptance among the worshippers. Moreover, one may assume that her widespread appearance in the Graeco-Roman Period was based on many factors, such as her early connection with kingship, either direct or symbolic, and also her assimilation to Horus and Isis in this particular sphere. Her function played a very important role in assuring her continued popularity after the Pharaonic period, since the use of bandages for embalming persisted. Subsequently, she adopted other funerary roles, such as providing the bread offering and milk. This position was strengthened by her connection with most of the prominent deities in the Egyptian pantheon, whom she provided with ornamental garments. In these ways, it is clear that Tayet's relationship to the other gods evolved in a manner beyond her funerary functions. Finally, by the Graeco-Roman Period, Tayet's greater prominence appears to have led also to the creation for her of family relationships among the gods.

HASSAN EL-SAADY

Tutankhamun's sarcophagus: an addition and two corrections

Further notes to the author's recent publication of the sarcophagus.

WHILE it is true that Carter's notes for Obj. no. 240 [the sarcophagus] do not include any comment on the various discolourations that can be seen on Burton's photographs of the box,¹ information is forthcoming from another source. In the second volume of Carter's publication on the tomb's discovery, Alfred Lucas noted the presence of a fungus not only on the walls of the burial chamber (where it was 'so plentiful as to cause great disfigurement') but also, if 'only to a slight extent, on the walls of the Antechamber and on the outside of the sarcophagus'.² Though 'dry and apparently

⁵¹ F. Ll. Griffith, *PSBA* 18 (1896), 202; H. M. Stewart, *Egyptian Stelae, Reliefs and Paintings from the Petrie Collection*, II (Warminster, 1979), 20 no. 86, pl. 18.

⁵² Allen, *Book of the Dead*, §82c.

⁵³ *Ibid.* §172, 6.

⁵⁴ *Wb.* v, 332, ii b.7; Husson, *L'offrande du miroir*, 79 n.11; Meeks, *ALex* II, 78.4511.

⁵⁵ Faulkner, *Coffin Texts*, Spell 779; Meeks, *Génies*, 27-8 n.49.

⁵⁶ For further references to this status, see Blackman and Fairman, *JEA* 29, 34 n.25.

⁵⁷ Rochemonteix and Chassinat, *Edfou* II, 163, 15; Chassinat, *Dendara* IV, 125, 5-6.

⁵⁸ Rochemonteix and Chassinat, *Edfou* II, 30, 3, and III, 140, 16, and 286, 17; Chassinat, *Dendara* II, 102, 8.

¹ M. Eaton-Krauss, *The Sarcophagus in the Tomb of Tutankhamun* (hereafter, *Sarcophagus*) (Oxford, 1993), 1 note 4.

² In H. Carter, *The Tomb of Tut.ankh.Amen*, II (London, 1927), 166.

dead' when the tomb was discovered, the fungus could not have developed in the absence of a nutrient, suggesting that the exterior of the box was indeed originally covered with a stain or wash.³

Both Nicholas Reeves⁴ and I⁵ overlooked another comment by Lucas, correcting his initial identification of the adhesive used to repair the sarcophagus's granite lid as gypsum cement.⁶ According to Lucas's analysis of a specimen he himself took subsequently, the material was 'a mixture of resin and powdered limestone.'⁷

Finally, I am indebted to Dr Pedro Costa, who called my attention to a slip of the pen on p. 20 (with note 38). The size of the cavity hollowed out of the box to accommodate the coffins of the king should of course have been expressed in *cubic*, rather than *square*, metres.

MARIANNE EATON-KRAUSS

³ Cf. *Sarcophagus*, 1 with notes 4 and 5.

⁴ *The Complete Tutankhamun. The King. The Tomb. The Royal Treasure* (London, 1990), 105.

⁵ *Sarcophagus*, 3.

⁶ In Carter, *The Tomb of Tut.ankh.Amen* II, 167-8.

⁷ *Ancient Egyptian Materials and Industries*⁴, revised and enlarged by J. R. Harris (London, 1962), 7 with note 10; cf., too, H. J. Plenderleith's analysis in Appendix V of Carter, *The Tomb of Tut.ankh.Amen* II, 215, calling the material 'a mixture of gum-resin with calcium carbonate and sand.'

REVIEWS

Translating *Ma'at*

A review discussion of *Ma'at. Gerechtigkeit und Unsterblichkeit im alten Ägypten*. By JAN ASSMANN. 230 × 150 mm. Pp. 319, 13 illus. Munich, Verlag C. H. Beck, 1990. ISBN 3 406 346677. Price DM 68.

It seems a poor reflection on Egyptology that a more general English-speaking audience has not yet been given translations of the accounts by Jan Assmann of Egyptian kingship and religion. This lacuna becomes still wider with the appearance in 1990 of his fundamental study of *ma'at*, the Middle Egyptian word for 'what is right'.¹

Egypt, A. observes in his foreword (pp. 9–14), stands behind us as a forgotten past, and it is the task of Egyptology to restore the experience of pharaonic Egypt to the memory of our society. With this programme he aims beyond the narrow confines of the specialist field to a wider circle of academic readers. Chapter I explores 'the place of *ma'at* in the history of religion and ideas', with a bibliography probably unfamiliar to most Egyptologists (pp. 15–39). Religion is here divided into the primary, without a single historical point of origin, and the secondary, those with a founder such as Moses, the Buddha, Christ or Muhammad. The study is launched from the concept of an 'axial age' proposed by Karl Jaspers as the historical turning point when several peoples across the Old World simultaneously underwent a breakthrough in self-consciousness, with the recognition of individuality, historical thinking, and the difference between reality and an ideal world (p. 26).² A. notes that the ahistorical vagaries of this theory were reduced by Eisenstadt in his attempt to determine the precise forms in which the changes were institutionalized, in particular the separation of well-being and rule.³ He then introduces a string of scholars (Eric Voegelin, Hans Kelsen, Hans H. Schmid and, a name more familiar to Egyptologists, Henri Frankfort) who have researched the 'pre-axial' condition existing before that separation and found a compact approach to the world in which religion and politics, society and cosmos, and other popular modern pairings had not yet fissioned.

A. opposes certain elements in these writings, as when he argues against Voegelin that the Egyptian view of the cosmos is not static, as was the Hebrew, but an unfolding of the world in which the gods are not merely in the world but rather are themselves the world, a perception closer to Greek polytheism (pp. 34–5). He also argues that *ma'at* is aligned on an axis not of order against disorder, but of good against evil, and is thus not a term for cosmic order, as Frankfort and his predecessors posited. These important refinements do not detract from a general sense of endorsement of the works cited, and the study stands on the identification of *ma'at* as a term as broad as both our terms 'religion' and 'culture'. Here the religion is primary, that is to say a system of social beliefs without a founding figure. Since *ma'at* refers to good against evil, it presents the Egyptian means of justifying action on individual, social and political levels, each of which evolved its own discourse on (and elaboration of) *ma'at*. This allows A. to set out (pp. 35–9) the programme for the book: the justification of the individual first, in the Old Kingdom, involves only

¹ It should be noted that *Maât, l'Égypte pharaonique et l'idée de justice sociale* (Paris, 1989), is not a translation of the volume under review, but the separate text of a series of lectures delivered at the Collège de France in 1988.

² Citing (p. 24) Karl Jaspers, *Vom Ursprung und Ziel der Geschichte* (1948).

³ Citing (p. 27) S. N. Eisenstadt, *The Axial Age: The Emergence of Transcendental Visions and the Rise of Clerics* (Jerusalem, 1982), and id. (ed.), *The Origin and Diversity of Axial Age Civilizations* (New York, 1985).

success in this life (Chapter III) and survival in the memory of posterity (Chapter IV), but is extended after the Old Kingdom into survival in the next world (Chapter V); the justification of creator sun-god and of his son the king (Chapter VI) are combined in an exposition of the cosmos as a continual battle to realize *ma'at*, giving Egyptian thought a pessimistic foundation in the view that human beings and the world tend inherently to evil and chaos.

After a difficult chapter of theorizing the reader may welcome on p. 38 a table which places the themes of the book in a lucid theoretical framework, charting spheres of reality (the sacred, cosmos, rule, society, humankind) against the corresponding aspects of features in those spheres (religious, cosmic, political, social, anthropological). In this table, the religious aspect of rule in Egypt includes divine kingship, while the political aspect of the cosmos presents the solar cycle as a display of sovereignty, with the sun as king in the sky. Here the reader can appreciate how much territory the book covers, as well as the potential for future research in other areas. With this tabulation A. observes that the Greeks were first to explore the spheres of reality through the corresponding aspect (e.g. to develop an anthropological study of human beings or a theological study of deities).

Before embarking on the discussion of each discourse on *ma'at* in Chapters III to VI, A. warns in Chapter II.1 against the dangers of treating all sources alike, without regard to the specific processes by which a theme may take shape in society, become a text, and then enter a core of codified or canonical writing or speech. In the absence of any canonization of texts (i.e. Scripture) in Egypt, A. takes five distinct groups of writings to amount to five areas of discourse on *ma'at*: wisdom literature (Chapter III); non-royal tomb-chapel autobiography (Chapter VI); funerary literature (Chapter V); liturgical texts of the solar cult (Chapter VI); and kingship texts (Chapter VII). Wisdom literature appears first in the Twelfth Dynasty, and its relatively late emergence into text attracts special attention to the processes of this emergence (Chapter II.2). Here A. lapses into the widespread Egyptological practice of ascribing all chaos to the intermediate periods. Against this, the following discussion of wisdom literature stands out all the more brilliantly as the core of the book. Three central tenets of Egyptian ethical behaviour are revealed in the climax of the *Tale of the Eloquent Oasis-dweller*: 'there is no yesterday for the slothful, there is no friend for the man deaf to *ma'at*, there is no feast for the greedy'. Recast in positive form these three laments describe ethical living as doing what is right (social action as the opposite of withdrawal into oneself), saying what is right (social communication as the opposite of social deafness), and desiring what is right (social intent as the opposite of avarice).

Chapter IV expounds the concept of 'vertical solidarity', in which A. sees the essence of *ma'at* in contrast to other views of what is right. In 'vertical solidarity' the state protects the poor from the strong, urging them to place their trust in the state and ignoring, as we might protest from our position of 'horizontal solidarity', the obvious shared interest, if not identity, of the state, the rich and the strong, against the poor. The good man (the texts are a male preserve) enjoys the favour of the king and the love of society, and can expect to survive death in the memory of posterity; this will protect him from the annihilation that would follow the destruction of his tomb-chapel with its immortalization of offerings for his *ka* (soul of sustenance). After the Old Kingdom the individual's survival after death assumes three new aspects, the *ba* (soul of mobility), the identification with Osiris, and the 'heart' or inner being. Chapter V considers the extension of life after death from partaking of tomb-chapel offerings to a full enjoyment of immortal supernatural power, i.e. divinity; entrance into this world of *ka* and *ba* as *netjer*, 'deity', calls for a declaration of purity, and for this *ma'at* is codified as for a vow of priestly service (pp. 122-59). The codification of *ma'at* is presented in the address to the president of the tribunal of the afterlife and the address to the forty-two deities as a denial of guilt or 'negative confession' in Chapter 125 of the Book of the Dead. In the address to the president of the tribunal denial of sins against deity and temple are prominent, whereas sins against society dominate the address to the forty-two assessor deities. Justice is now enforced not by the fear of social failure or damage to the tomb-chapel, but by a fear of eternal damnation for having done wrong. The new fear finds visible expression in the judgement vignette as a monster comprised of the three voracious creatures, lion, crocodile and hippopotamus. A. points out at this juncture the union, or unity, of wisdom, law, morality and religion, and notes the survival of the codified rules of *ma'at* into the Late Period, when scepticism over an afterlife returned the emphasis to living on in the memory of posterity.

The discussion on justification of the individual is followed by a chapter on the justification of the sun-god and his rule of the world. The central texts for Chapter VI are the liturgy for power over air (CT 75-83), the division of the world in the 'Myth of the Heavenly Cow', and the spoken offering of *ma'at* in cultic recitation, encapsulated in BD 126. CT 75-83 amount to an extended commentary on the dawn of creation, when All (Atum) was at the brink of unfurling into differentiated matter, first as dry preserving air, Shu, and corrosive changing moisture, Tefnet; Shu and Tefnet are envisaged already distinct within Atum in the depths of the primeval waters of nothingness, Nun, and identified as Neheh, the eternal cycles, and Djet, the eternal chain of events, or as Ankh, 'life', and Ma'at, 'right'. The self-conscious intricacy of this account of existence may be seen in the expression as Ma'at, 'right', of now Shu, since both give life through breath of air, now Tefnet, perhaps simply because both are feminine words. BD 126 sets the daily repeated justification of the sun-god in parallel to the one act of immortalizing justification of the individual in BD 125; the four baboons, expressing the role of Thoth applied to all four cardinal points, raise *ma'at* to the sun-god, restoring to him the eye that had left him. This role of restoration belongs not only to Thoth, as the god who has the wisdom to coax back the eye of Ra, but also to the king who rules on earth to maintain the divine order.

Chapter VII investigates this most political aspect of *ma'at*. It distinguishes the roles of 'raising *ma'at* to the sun-god' (an offering performed by Thoth, the king, or in his stead the temple priests), 'realizing *ma'at*' (a political act of enabling the divine order to continue, performed only by the king), and 'saying or doing *ma'at*' (the social behaviour enjoined on human beings). Here 'vertical solidarity' finds its starkest expression, with the king and state claiming to protect the poor from oppression by the strong. A certain division of interest within the élite surfaces in the *Installation of the Vizier* (*Urk.* IV, 1092, 14) at the phrase 'the king loves the fearful more than the strong-willed', but the obedience of the poor still clearly serves the interests of the powerful. A. points out that the founding myth of the Egyptian state, Horus and Seth, portrays the triumph of the weak over the strong. This is not quite the same as rescuing the weak from the strong, but we may with A. identify an official opposition to the slogan 'might is right'. Here we should recognize that that slogan cannot legitimate any state, and that therefore no state seeks to use it, even if in practice it helps to found and secure every state. The Egyptian state exists, according to this exposition, to sustain not only the human being but also the cosmos itself; without the force of the state and its rituals, human society would disintegrate at every level, cosmic as well as individual. The gifts of the state are abundance, security, and the breath of life itself; with a profound pessimism in the ability of either nature or humankind to organize themselves, the Egyptian state sees itself as indispensable to the continued existence of the divine order. The chapter ends with an examination of kingship and cosmography in the reign of Akhenaten, when for a single decade the cosmos in peril was replaced by a world of harmony and light, empty of any evil other than that of denying that the king was sole intermediary between the sun and its world below.

In Chapter VIII, *ma'at* is defined against what preceded and what followed it, and the stages of development traced within its history in the Old to New Kingdoms. Before *ma'at*, A. sees societies functioning on prescriptive altruism, called 'amity' by Meyer Fortes in British ethnography. The emergence of a nation-state pushes back the borders of society, and thus of social behaviour, beyond the more visible confines of the kinship group, into an invisible distance. These distant bounds of action are conceived as the boundaries of the world, giving the new framework of society a world order equated with its political rule or kingship; the new order of justice is the realm of *ma'at*, a solidarity or social cohesion that is 'vertical', directed from king and élite down to the masses that need and desire protection. In the New Kingdom the sovereignty of the king is usurped by the invisible deity, provoking the reaction of Akhenaten but triumphing after his death. In place of the king as protector of the poor, Amun and the gods intrude as the powers to whom prayers are addressed, and the world of civil justice and government from the palace now competes with oracles and legitimation of rule from the temples. A. sees in the eclipse of *ma'at* the emancipation of not man but god from cult, with the will of god replacing *ma'at* as the principle of success in life. If the change from mechanical solidarity to individualism brought no axial age to Egypt in the manner of Greece, Israel, China or India, the blame may be laid on the negative anthropology of the Egyptians, the view that human beings tend to evil and need to be protected from themselves.

The concluding chapter summarizes the place of *ma'at* in the history of religions, delineating its existence in the three spheres of morality, religion, and justice. In morality, the implicit ideas of value among hunter-gatherers and peasant farmers give way to the wisdom literature of the ancient oriental realms, with an ethic still casuistically structured. The new 'vertical solidarity' is replaced in turn at the axial breakthrough by the rational and explicit ethic of founded religions, sects, philosophies and schools of thought. In religion, the primary religions, without founder, may be divided into a first stage of tribal religion, followed by a second stage of polytheism, with a third stage of 'summodeism', where the creator and earthly kingship mirror one another. Summodeism, the stage incorporating *ma'at*, then yields to the perception of an immanent order and a personal relation to the deity or deities, and this phase of 'personal piety' acts as a prelude to the secondary religions characterized by a founding figure. In justice, an immanent providence with instant reward or revenge is replaced by a political justice dependent on the state, where world order is justice, as in the system of *ma'at*; this connective justice is then ousted by religious justice, the theologization of secular judicial procedure, as god (in the guise of prophet or oracle) replaces the ruler. From the third phase, religious justice, proceeds the Weberian disenchantment or secularization of the world. In summary, the archaic and axial world views are separated by another phase, with the following three stages: (1) implicit solidarity, designated by *ma'at* but not made explicit (the Old Kingdom in Egypt); (2) explicit solidarity, now reflective and dogmatic (Middle Kingdom following the trauma of the First Intermediate Period); (3) the crisis of *ma'at* and genesis of a new world view characterized by the 'theology of will' and an identity relation to god. Before (1) comes state formation, between (1) and (2) the collapse of the Old Kingdom, and between (2) and (3) the opening of Egypt to the wider Near Eastern world and entry into an *oikumene* of states sharing the same extended geographical perspective and a corresponding world view common to that time.

It is difficult to pit against such breadth and depth of knowledge any differences of opinion. The following paragraphs can address only some of the issues around which this volume should stimulate debate; several of them raise points of criticism that refer to the broad spectrum of Egyptology as well as to the specific matter of A.'s pioneer research.

A. directs the attention of his readership to primary source material, which alone can ground a historical account, comparative or otherwise. In some instances I would prefer to carry this emphasis on context to different conclusions, keeping always in mind the essential strictures of Chapter II on the unequal weight of the sources. Without its context, a text can become an empty citation. Like must be compared with like if we are to chart any historical development, and comparison of diverse material or across different periods must first take account of the differences. If Old Kingdom texts reveal that *ma'at* is the will of the king (as on pp. 54-5), we might question whether later comparable monuments of kings and courtiers contradict this declaration. The record must also be secure; the importance of the Neferhotep stela from Abydos cannot be denied, but the monument itself has not recently been located and cannot be checked. At the end of that text *ma'at* is defined in the phrase 'the reward of the man who acts is that one will act for him: that the god deems *ma'at*' (cited, e.g., on p. 65). That definition can at present be offered only as a conjectural restoration of a damaged monument, and ought not to be granted automatic canonical status. For this inscription the context does not demand that the definition convey the 'core meaning' of *ma'at*; it need only be the sense most pertinent to the theme of the text, in this case the piety of the king as son to the gods.

Attention to context allows us to delineate the area of our knowledge, and also of our ignorance, more sharply. Throughout this volume *ma'at* belongs self-evidently to the written sources and therefore automatically outside the world of the non-literate masses and, just as restrictively, the world of women and children. Its extreme partiality should remind us that those worlds had their own existence alongside the dominant social group. It seems probable that they too shared the word for 'what is right', even if its terms of reference differed from those of the élite and cannot be reconstructed now, precisely because they are excluded from the directorial world of writing. We need to heighten our sensitivity to the pluralism of the past in the varied overlapping groupings of human beings at any one time: town as opposed to village; women to men; children to adults; manual labourers to literate élite. This binary framework of analysis should not blind us to the

gradations behind each mode of difference; for instance, between Residence city and farmhouse there stands a series of intermediate grades from major provincial town to minor provincial town to large village to hamlet. We cannot hope to explore all these identities and their interrelationships, because the sources throw light on relatively few; the countryside is an astonishing blank in the Egyptological record. Yet we may hope to assess each part of the past more faithfully if we consider its place in the whole. In addressing so clearly the question 'what is right', A. confronts us with the widest problem of all — the nature of the record: how do the surviving texts represent their sector of society and their society as a whole?

The record requires careful observation of the synchronic rule, to compare in the first instance sources from the same periods. It is dangerous to date the *floruit* of *ma'at* to the period 3000–1500 BC (cf. p. 24), when we have so few continuous texts for the first third of that span of time, 3000–2500 BC. Among the few sets of data found in all periods are personal names, confirming the findings of ethnography, that the naming of the human individual represents a universal feature of human societies. The very existence of personal names could be taken to contradict the belief of Jaspers that an 'axial age' brought the discovery of individuality (cf. p. 26, point 4). The cult of the sun might be ascribed to the First Dynasty, on the basis of the ivory comb of Djeter incised with a falcon on a boat in the sky. Yet the falcon on the comb may be a general god of celestial power, perhaps Horus, rather than specifically a sun-god. The earliest secure evidence for a royal sun-cult dates to the Third Dynasty: the Netjer-khet naos from Heliopolis, and the theophorous name of the courtier Hesyra.⁴ All too often we seem to possess insufficient data to use the Early Dynastic period as a testing-ground for historical theories.

The same lack of data might be acknowledged for the Fourth Dynasty at present. On pp. 53–4, A. credits the pyramids with unifying the country, although we do not know the sources of manpower for the enterprise.⁵ Perhaps unconsciously, Egyptologists follow the bias of Middle Egyptian literature in taking the Fourth Dynasty kings Sneferu and Khufu as the totality of the Old Kingdom, relegating Pepy II to the company of First Intermediate Period kings such as Meryibra and Merykara. Monolithic kingship is an Egyptological, and perhaps already a Middle Egyptian, construct that arises out of comparisons between the Giza pyramids and virtually any other monument. The royal court of the Fourth Dynasty can only be researched through a synthesizing study of court burials around the pyramids, using the mass of primary source material becoming available through the Boston expedition publications, among others. When the courts of Khufu and Khafra have been reconstructed, the centre of the land then needs to be seen in the context of the country as a whole, an even more difficult task given the dearth of written records outside the Memphite area before the Fifth Dynasty.

If it is uncertain that the pyramids unified Egypt, however plausible a historical hypothesis that remains, it is still less realistic to attribute to their construction the collapse of the Old Kingdom several centuries later. If we were to apply strict determinism, we might sooner argue that the Old Kingdom collapsed because pyramids were no longer being built on the scale of Giza.⁶ Both assertions transform concomitant features (unity with large pyramids, disunity with small pyramids/ after large pyramids) into historical causes (large pyramids promote unity/ lead to ruin, small pyramids promote disunity). Reduced to this formula, a one-dimensional political interpretation of monuments loses its allure, and the historian is forced back to a more sober appraisal of the full range of features in historical developments.

⁴ For the naos of Netjer-khet, see R. Weill, *Sphinx* 15 (1911), 9–26; recent photographs of two of the fragments are published in A. M. Donadoni Roveri (ed.), *Egyptian Civilization. Monumental Art* (Milan, 1989), 200, figs. 301–2.

⁵ For the Middle Kingdom pyramids there is now the thorough study by F. Arnold, *The South Cemeteries of Lisht, II. The Control Notes and Team Marks* (New York, 1990), especially pp. 23–5 on the geographical origins of the workmen. The places specified in these inscriptions cluster in the Memphis-Fayum zone, with additional forces drawn from farther afield in Lower and Middle Egypt, but none from Upper Egypt. However, the organization of manpower for the Old Kingdom may have been entirely different, given not only the greater scale of the operation but also the gulf in time.

⁶ Cf. B. J. Kemp, in B. G. Trigger et al., *Ancient Egypt: A Social History* (Cambridge, 1983), 89.

On some points I would draw a different conclusion from a specific source, as on p. 95, where the rule is adduced that unjust gains cannot be inherited. From the *Tale of the Eloquent Oasis-dweller* I would set a different nuance on the maxim that ill-gotten gains cannot be passed on to the heirs of the wrongdoer; at the end of the tale, Nemtynakht is punished with confiscation of all his goods, and such blanket confiscations would in practice deprive any heirs of any goods, ill-gotten or not.⁷ In other words, the action of confiscation is directed at the wrongdoer, but inevitably affects the heirs in the same stroke. This sets the Egyptian evidence on a somewhat different footing to any proposed Biblical or other parallels.

The great pitfall in the record is our ignorance of how much is lost, as A. observes when he describes the surviving textual record as 'more or less accidental and at all events lacuna-ridden in the extreme'. Dreams are a case in point, with a single pharaonic dream-book, the Middle Egyptian (presumably Middle Kingdom) text attested on a sole Ramesside copy owned by Qenherkhepshef.⁸ Another Deir el-Medina craftsman has left us the only pharaonic reference to dreaming on temple precincts, on his stela BM EA 278.⁹ These two isolated instances contradict the impression gained from other sources that dream interpretations were a feature of Ptolemaic rather than pharaonic Egypt. The Middle Egyptian dream-book in particular takes the genre back, well into the *floruit* of *marat*. The difference between earlier and later dream interpretation would seem to lie in the institutionalization visible in the 'sanatorium' at Dendera.¹⁰

The general tendency to denote Ramesside and later periods as a classic age of magic also needs correction. The Pyramid Texts already incorporate texts for defence against harmful creatures, and an early Middle Kingdom papyrus in Turin continues the tradition in another medium.¹¹ The majority of the late Middle Kingdom papyri from the Ramesseum find are 'magical' in content, so much so that Gardiner and others have drawn the analogy between that Thirteenth Dynasty library and the Ramesside library of Qenherkhepshef (the Chester Beatty papyri).¹² 'Magic', like 'medicine', belongs to our modern categorization of knowledge, and ought not to be applied to the past without careful consideration.¹³ Texts of healing were divided by the Egyptians themselves, under the headings (1) 'treatments', 'diagnosis', or 'prognosis' (including the 'magical' birth prognoses), (2) 'prescriptions', and (3) 'incantations'. The strategy of 'protecting the body' involved all three throughout pharaonic history wherever we find healing texts, and extended to objects which we call amulets. In reconstructing their historical context, we need to take into account the archaeological as well as the iconographic and textual evidence. Late Period burials are not the sole source for amulets, as excavation at settlement and temple sites as well as cemeteries of earlier periods has demonstrated.¹⁴ Only a modern prejudice could continue to paint the Ramesside and Late periods as dark ages of superstitious practice after some golden age of state rationality under, presumably, Sneferu and Khufu.

⁷ For the text of B2 133-40 see now R. B. Parkinson, *The Tale of the Eloquent Peasant* (Oxford, 1991), 48-48b.

⁸ The dream-book is preserved imperfectly on papyrus Chester Beatty III (BM EA 10683), published by A. H. Gardiner, *Hieratic Papyri in the British Museum. Third Series* (London, 1935), 9-23 and pls. 5-8a and 12-12a. The history of the library in which it was found is examined by P. W. Pestman, in R. J. Demarée and J. J. Janssen (eds.), *Gleanings from Deir el-Medina* (Leiden, 1982), 155-72.

⁹ Published by M. L. Bierbrier, *Hieroglyphic Texts from Egyptian Stelae etc.*, 10 (London, 1982), 37-8, pl. 86.

¹⁰ Cf. W. Westendorf, *LÄ* v, 376-7.

¹¹ The incantations against harmful creatures form group A in the analysis by J. Osing, *MDAIK* 42 (1986), 131-44, esp. 132-6. The papyrus is published by A. Roccati, *Papiro ieratico n. 54003. Estratti magici e rituali del Primo Medio Regno* (Turin, 1970).

¹² A. H. Gardiner, *The Ramesseum Papyri* (Oxford, 1955), 1: 'The analogy with the Chester Beatty papyri of the Twentieth Dynasty is perfect'.

¹³ The problems raised in applying the word 'magic' to ancient Egyptian practices are discussed by Robert K. Ritner, in Alan B. Lloyd (ed.), *Studies in Pharaonic Religion and Society in Honour of J. Gwyn Griffiths* (EES Occasional Publications 8; London, 1992), 189-200.

¹⁴ See, e.g., the amuletic forms and designs of Old Kingdom plaques and late Old to early Middle Kingdom button seals, as illustrated in B. J. Kemp, *Ancient Egypt: Anatomy of a Civilization* (London and New York, 1989), 91, fig. 32.

At some points I feel that we lose touch with the Egyptian context simply from a particular choice of words. For example, I would prefer to avoid the Egyptological use of 'propaganda', considered by A. (p. 57), following Posener, as an accurate description of the literature of the Middle Kingdom. In a sense, all products of a society are 'propaganda', that is, they include a political dimension. Yet the word carries such strong negative connotations in Western culture that it induces us to demote subconsciously works of art to the level of a secret service. I am not suggesting that Posener, still less A., intended to devalue Egyptian literature, but I feel that such depreciation is the inevitable consequence of setting the political before the literary in the assessment of the texts. I would describe the brilliant flowering of Egyptian literature as a court product, but resist an interpretation in which the political eclipsed the aesthetic.¹⁵

In a similar vein, A. proposes (p. 114) to replace 'democratization' with the word 'demoticization', because the concept of democracy appears alien to ancient Egypt. However, even 'demoticization' incorporates the concept of 'the people', which seems inappropriate to the élite for whom alone funerary texts were developed. Funerary texts and iconography spread not from *aristoi* to *demos*, but from the king to his subjects, and motifs such as the *nemes* and sceptres were taken up only in the funerary domain. The extension of kingly attributes to the burials of subjects does not imply that only after the Old Kingdom did Egyptians expect an active afterlife; it indicates, rather, that the expression of that afterlife changed from Old Kingdom patterns of *akh* and sustaining *ka* to a new emphasis on the divine status of the mummified dead. Mummification may be the key to this change, as the dead came to acquire the status not just of blessed spirit (*akh*), but of the god and king of the dead, Osiris. One feature of deification was the attribute of possessing a *ba*, but this, too, is restricted to the funerary domain, the exception being the *Dialogue of a Man with his Ba*, the most problematic of the literary products of the Twelfth Dynasty.

If the changes in funerary texts and iconography reflect an emphasis on making the dead into a god, not just a spirit, then it is understandable that the Egyptian élite took up the existing repertoire of kingship as the handiest means of expressing the immortality of a human body. The changes began at the end of the Old Kingdom with the adoption of Pyramid Texts by the queens of Pepy II and the unidentified texts in the tomb of Medunefér, governor at Balat in the same reign.¹⁶ If we consider these changes against a spread of mummification techniques, or their refinement, they lose much of their alleged political reference and cease to imply either 'democratization' or 'demoticization' of royal motifs. Similar problems surround the general adoption of royal underworld books in the Third Intermediate Period (and already in the Twentieth Dynasty with the papyrus of Anhay and the tomb of Tjanefer, TT 158) and, conversely, the disappearance of Coffin Texts in the late Twelfth Dynasty, and of the Book of the Dead and underworld books in the mid-Twenty-second Dynasty. The use of terms related to 'democracy' clouds the relationship between burials of king, royal family and subjects. The words 'democratization' and 'demoticization' cause us, damagingly, to forget that any burial in which a text might appear belongs to the élite and is diametrically opposed, as much as the kingship itself, to the vast bulk of the Egyptian population. For funerary as for other literature, political readings distort both the 'political' and the 'cultural' history that we write from the Egyptian record.

Other unwelcome assumptions lurk in the phrase 'personal piety', a key feature in modern interpretation of religious texts after Akhenaten. In its restriction, by and large, to the late New Kingdom, this phrase implies that Egyptians before the reign of Akhenaten did not experience a direct and personal relationship with their world or with the powers in it. Theophorous names attest to direct personal links to the divine at all periods, and show the changing forms of expression of those links. This is not to deny the distinctive character of votive stelae in the Nineteenth Dynasty, but I would prefer to call these 'devotional', to avoid restricting piety to a particular period.

A. considers two texts in particular as outstanding examples of 'personal piety', both of which I would interpret in another light. In the private domain he takes the texts of Samut Kyky, and for

¹⁵ For a discussion of the literary genres of discourse, instruction and narrative, see now R. B. Parkinson, in S. Quirke (ed.), *Middle Kingdom Studies* (New Malden, 1991), 91–104.

¹⁶ On the origins of the Coffin Text tradition, see H. Willems, *Chests of Life* (Leiden, 1988), 244–9.

kingship he uses, as do many Egyptologists, the Great Harris Papyrus. Samut Kyky dedicates himself to Mut in a spectacular flourish of devotion, making over all his property to the goddess. I wonder whether we have here anything more than an example of a pious foundation, a means of securing an estate inalienably by pinning it to the eternal, that is, to the divine. The motive has been examined by Barry Kemp for the periods before the Ramesside age; it may display as much self-interest as devotion, not that the one necessarily excludes the other.¹⁷

For the deeds of Ramses III recorded by Ramses IV in the Great Harris Papyrus, Eric Uphill has pointed out in recent seminars the flaws in traditional readings. This manuscript is conventionally interpreted as recording the cession of royal estates to the temples on a massive scale. However, according to the details of each royal 'gift', the estates were made over not to the temples and priesthoods of local or even national deities but quite specifically to the temples for the cult of the king, Ramses III, during his lifetime. Furthermore they were to be administered not by the local priesthoods but by court officials. The Great Harris Papyrus records a perennial pharaonic institution, the establishment of the cult of the reigning king by the reigning king. The papyrus is exceptional not so much for its contents as for the fact that they were recorded and have survived.

Two other royal sources do not warrant their traditional Egyptological interpretations. The Amarna letters are taken to demonstrate a royal lack of interest in foreign policy (cf. p. 232), and the Qadesh epic is presented as evidence for a new royal dependence upon the direct intervention of the sun-god (cf. pp. 262-7). The Amarna letters represent one side of the international diplomatic correspondence of Akhenaten and his father Amenhotep III, and should be assessed with the same caution that the historian would apply to any other government or diplomatic statements. As with the Great Harris Papyrus, it is the survival, not the contents, that seem to me exceptional, and I would expect the same phraseology and the same protests at Egyptian circumspection in any other reign. The Qadesh epic does not seem to me to mark a new role for the sun-god. It presents a moment when the reigning king fulfilled, not in cult but in military action, an item in the repertoire of kingship—the defence of Egypt or 'enforcement/extension of the borders' as it appears in pharaonic terminology. Precedents for the text include the Megiddo narrative in the annals of Thutmose III, and the fishing episode in the annals of Amenemhat II at Memphis,¹⁸ both of which demonstrate the royal attribute of divine perception or prophecy (perhaps more accurately 'foresight'). The Megiddo text provides a particularly useful parallel because it reminds us that the Egyptians did not record historical events on the model of our historiography but immortalized episodes in a reign to confirm the divine kingship; these are texts of kingship, not 'historical *Urkunden*'. Both Megiddo and Qadesh devote little space to the historical fact that interests the conventional historian, namely whether the Egyptians win or lose a particular battle; all royal action is *nhtw*, 'prowess', and there is no word for 'defeat' in this context, and so no word for 'victory' either. Megiddo concentrates on the prelude to a long siege that could have been avoided, according to the text, and Qadesh describes a near catastrophic military encounter which ended any hopes of removing competition from the control of the Eastern Mediterranean littoral.

The great originality of the Qadesh records lies above all in the expansion of intricate pictorial compositions across temple wall surfaces on a large scale, a feature elaborated still further under Ramses III in the great ship battles on the north side of Medinet Habu. This should be considered synchronically in the context of Ramesside artistic production, in which new forms are developed out of the double-edged experience of Tuthmoside and Amarna art, and diachronically in the history of development of a particular motif, the king as champion against a mass of fallen enemies. The text accompanying this vast spatial extension remains, in my view, within the traditional terrain of the *Königsnovelle*.¹⁹

The interpretation of the Qadesh epic highlights the primacy of text in the works of A., and this needs to be carefully monitored to prevent distortions of the surviving record. On p. 277 the

¹⁷ B. J. Kemp, in B. Trigger, op. cit. 81, 83, 85 and 105-7.

¹⁸ For the episode in the Amenemhat II inscription, see now H. Altenmüller, *SAK* 18 (1991), 36-7. An alternative interpretation of this inscription is to be published by Dr Jaromír Málek and the reviewer within the epigraphic corpus of the EES expedition to Memphis.

¹⁹ For a discussion of this term and its application in Egyptology, see A. J. Spalinger, *Aspects of the Military Documents of the Ancient Egyptians* (New Haven and London, 1982), 101-14.

concept of legitimate rule is dated later than the development of inequality, but this cannot be asserted from the ancient sources, because written records attesting to a concept of legitimate rule never appear earlier than social stratification. The division of society into rulers and ruled is one of the preconditions for the birth of writing, and this removes the origin of political legitimation from history to ethnography. No society exists without some order and all order requires legitimation, whether in a kinship-based or a stratified society, making the concept of legitimacy a universal feature of human life. Exclusive focus on written texts would deprive us of that ethnographic insight. With this qualification in mind, I would like to refine three fundamental and interrelated propositions by A.:

- (1) the bonds between members of societies may be either hierarchically structured (societies with 'vertical solidarity') or not (societies with 'horizontal solidarity');
- (2) humankind underwent an axial change, moving from primitive or early compact thought (fusing rule and well-being, cosmos and society) to differentiated thought (distinguishing religion and politics, appearance and reality);
- (3) this axial change replacing assumption with reflection was produced by a rupture in political history.

1. *Vertical and horizontal solidarity*

Louis Dumont posited from his research into Indian society a division of humanity into *homo hierarchicus* and *homo aequalis*. Using this division, A. labels as 'horizontal' the solidarity of kinship-based societies and of modern states espousing 'democracy', and denotes as 'vertical' the solidarity of states before the modern age, in which hierarchies of administration, priesthood and social class determine the social bonding between individuals. He sees in *ma'at* a word equivalent to 'vertical solidarity', as on p. 103: 'only in a stratified society can Ma'at exist'. In a society ordered on hierarchical lines, it is good to show obedience, respect, humility, as in the classic Middle Kingdom teaching attributed to Ptahhotep. In return for obedience the state, the good ruler, or the good man of the élite protects the poor from the rich, the weak from the strong. These themes were first developed by the powerful men of the provinces in the First Intermediate Period and taken up by Middle Kingdom kings and New Kingdom deities. The state offers two rewards for obedience, security (the *tj n 'nh*, 'breath of life') and justice (*ma'at*). These two benefits of living in a state complement one another, as in the Coffin Text liturgy of Shu, but they are separate, and this might usefully be emphasized in relation to the discussion by A. on pp. 230-1.

The contrast with modern thinking appears most stark in the Great Harris Papyrus where the phrase *s nb m 'qꜣf*, 'every man was his own guideline', proclaims not the virtue of self-reliance and individualism but the anti-social vice of egoism (cf. p. 90). On p. 270 A. equates *ma'at* with the *solidarité mécanique* of Durkheim, the bonding in 'tight' as opposed to our 'loose' societies. This division by type of society seems evident enough from our own modern experience of culture clash in western Europe, and yet the framework threatens a fundamental cleft in humankind, the division of not just society but the species itself into two opposing races, *homo hierarchicus* and *homo aequalis*. If we can perceive the differences between a liberal and a repressive society, we can surely also recognize within ourselves both hierarchical and equalizing elements. The texts reflect the interests of the élite, and most often of the state in its ruler, and for this reason *ma'at*, 'what is good', will mean in the context of the written record 'what the élite/ the state deems good'. The promotion of sectional interests as 'what is good' does not necessarily convey either the sum total of the word as understood by one person in one social stratum, or the full number of its possible interpretations across gender, class, space and time. The word *ma'at* may be 'what is good for the state' in the written record, but that record does not necessarily carry the assent of an entire society.

Both (post-)industrial and kinship-based societies also incorporate 'vertical solidarity' in their ranking of individuals according to age, position in a family, or socially-fixed criteria of productivity. In sum, respect is a universal feature that allows us to evaluate, an aspect of all social bonding as we define our relation to the others of our species around us; self-respect is another universal feature, necessary for fixing our own being as the nodal point of our relations with

others. Horizontal and vertical solidarity then become two universal aspects of humankind, and our research into the written sources can resume the study not of different types of human being but of different expressions of being human in different societies. The 'horizontal' strand of solidarity emerges most strongly in groups excluded from power, uniting fraternally those who are minorities or at economic or social disadvantages, but that bonding exists in other groups too, for example between members of a social stratum, including élites.

The Egyptian evidence, like that from other ancient societies, occupies a special place in the existing range because it presents neither a kinship-based society nor a modern state. On p. 243, A. notes that 'state' is an inappropriate term for these ancient realms because it implies delineation against other states, and this observation may be fully endorsed by the work of Anthony Giddens and of the Claessen and Skalník group on the early state.²⁰ Indeed, it provides a precise formal definition of the 'early state' as 'a state not bordered on all sides by other states'. A specifically Egyptian flavour of *ma'at* might be detected in its reference to eternity, the promise extended to those who are proven pure at the judgement of the dead (cf. pp. 244–5). Yet the connection of purity and eternity recurs in other societies as a logical extension of social life beyond the grave; it finds celebrated expression within the Christian tradition as the question 'What should I do to inherit eternal life?', put to Jesus in the New Testament. Here as elsewhere I find that *ma'at* conveys not so much a unique Egyptian phenomenon as the Egyptian expression of a universal human sense of 'what is right'. The social exposition of 'what is right' may vary from one society to another, but the concept of right against wrong persists through all. I return, in other words, to the plain formula on p. 108: 'Die Ma'at ist "das Gute".'

2. Axial change in the history of ideas

The theory of axial change provides the ground for this volume, with a framework of research constructed by Jaspers and those who have used his model. The mere observation of change in Greece, India, Israel and China in the mid-first millennium BC might seem devoid of controversy, but in positing a shared moment and mechanism of change the axial age theory may nurture the same politically lethal growth that *Ideengeschichte* may harbour. Placing ideas or matter first always threatens to eclipse the other entirely, as seems to happen on pp. 264–7 where A. presents the clericalization of the state as the cause of disunity and of the Theban theocracy. This ignores the triumph of not the priesthood but the army at the end of the Twentieth Dynasty at Thebes, when the general Herihor took the royal titulary to legitimate his authority, bolstered by the title of High Priest of Amun, doubtless commanding the vital granaries of the Amun domain. It also omits critical economic factors in the loss of northern interest in Thebes, notably the exhaustion of the Nubian goldmines. Another factor may have been a natural extinction of the Ramesside royal family that regarded Thebes as its burial-place even though it resided in the Eastern Delta.

The alleged change from pre-axial to axial age is a change in thinking, above all from compact to differentiated and reflective thinking; historically proven dangers abound in suggesting that Western man (and it is a male-dominated reflex) enjoys an improved mind by comparison with other peoples. I cannot see in our world any sign that 'compact' and 'differentiated' thought might be mutually exclusive, any more than that a human being could exclude the elements of hierarchical and egalitarian social ties ('vertical' and 'horizontal' solidarity). A. himself links the ideas of Voegelin on cosmological compactness with post-Habsburg Austrian conservatism (p. 31). There is no human thought that can be termed 'primitive', any more than a human language can be 'primitive', because the human being is a complex animal. Therefore I do not accept the category 'early thought' of pp. 198–9, and reject equally the label 'primitive man' as a contradiction in terms. A social order can be 'progressive', but only a technology can be 'primitive' or 'advanced'. On pp. 241–2, A. identifies as 'archaic thought' the unity of morality and law, and on

²⁰ Cf. A. Giddens, *The Nation-State and Violence, Volume Two of a Contemporary Critique of Historical Materialism* (Cambridge, 1985), 3–4. An Egyptological contribution to the discussions on early states is that of J. J. Janssen, in H. J. M. Claessen and P. Skalník, *The Early State* (The Hague, Paris and New York, 1978), 213–34.

p. 153 writes of the lack of differentiation in Egypt of the categories of wisdom, law, morality and religion. In my view, all societies conflate these spheres. The combination of cosmos and society occurs still, as in the contemporary wave of holistic medicine or the recent attention to the environment. Above all governments today are as keen to fuse rule and well-being as any hieroglyphic text. If the axial age separates power from well-being, we are still waiting for it.

On this theme, A. (p. 201) leaves the ground-rule of statehood a little too sourcebound to the élite, and I would invert his two rules ('man cannot live without *ma'at*', and 'man cannot live without the state') to take into consideration the élite at times of disunity, or the labouring masses at all periods, and to deprive the state of its self-legitimation. The two rules would then become: (1) man cannot live without society; (2) society cannot survive without a sense of justice. The state appropriates the rules to the formula 'man cannot live without the state', and this view can be considered hypothetically, though there is no written record to which we might turn for evidence, as the concomitant in thought to the emergence of the state in praxis. Our state stands within this tradition, and, if we must resist the arrogance of power, we must also recognize the social aspect of the claim, that society and individuals both need security (life) and justice. When A. writes (p. 200) that 'the state exists in the Egyptian conception so that *Ma'at* and not *Isfet* rules on earth', I see no barrier to removing the Egyptian colouring and translating '*Ma'at*' and '*Isfet*' as 'Right' and 'Wrong' or 'Good' and 'Evil'. With this recognition of the universal character of the state, we leave an Egyptian specific and return to the human dilemma, of reconciling the individual and the social aspects of living.

The distinction between pre-axial and axial thought may be paralleled in that between primary and secondary religions, where again I would nuance the approach by A. Primary religions grow organically, without a founder, whereas secondary religions take a founding figure such as Moses, Jesus, or Muhammad. The primary religion is confined to one culture, although features of one primary religion may be found analogous to those in another, as in the translation of Egyptian deities into Greek ones. Secondary religions may grow beyond their home culture to embrace all peoples in a universal proselytizing movement, yet the deity remains unique and untranslatable: Yahweh may not be Zeus or Amun. Only secondary religions comply with our full notion of 'religion', while the primary religions remain at a level of 'compact thinking' (pp. 18–20). On reflection this definition seems rather ethnocentric, making a religion out of Mormon belief but not Hinduism, and omitting the translation that may have occurred in some circles, as in Egyptian gnosticism.

On p. 20, A. notes that secondary or founded religions oppose truth to normality, being the beliefs of oppressed minorities for whom normality represents oppression. However, he omits to note that a secondary religion that has assumed political power (Judaism in Israel, orthodox Christianity after Constantine, Protestant Christianity in reformation states such as Switzerland or Sweden) suddenly reverts to behaving like a primary religion. The oppressed persecute their opponents as soon as they escape from persecution. In other words, minorities or the dispossessed oppose truth to normality, but this view receives expression only rarely.

Secondary religions are alleged to place man before god in a manner that primary ones do not. The nearest an Egyptian ever came to god would be the devotional texts which Egyptologists label 'personal piety', and this genre of texts takes up the Middle Kingdom innovation of king before god. I find this unconvincing; the king is before the gods in all cult, for example, on Sixth Dynasty reliefs in Upper Egypt, and, as argued above, personal names in all periods attest to a sense of direct experience of deities. The change across time is one of style and expression, and new features in the record such as, most importantly, the oracle need to be seen against that religious background. It is possible, for example, that the oracle provides a ruler at times and places where the king is present on a grand scale in monuments but resides permanently elsewhere. New Kingdom rulers invested heavily in Thebes as a brilliant southern partner to the ancient centres of Memphis and Heliopolis, but they resided always in the north, Akhetaten being the closest Residence to Thebes in any period of unity. In the shadows of the monuments of kingship the god assumes the regal voice of decree, most particularly for those direct dependants of the throne, the craftsmen for the royal tomb. The gods were perhaps never less than initiators of action; immanence and transcendence are perhaps two words for expressing a single experience, the human sense of being in the world.

3. *Causes of axial change: the relation of history and text*

Given my objections to the axial theory, it may seem superfluous to address the causes alleged to produce axial change, but there are several important issues highlighted by this concentration on the different experiences of different societies across a vast area of the Old World and a rather wide section of time in the mid-first millennium BC. If the axial age presents itself in the theory of Jaspers as a moment of reflection, it requires an impulse to reflect; this is provided in the theory by a rupture in the development of a people, that is to say, in political history. This point of the theory touches on the core of historical study, the processes of change against the backdrop of continuity. A. explains the emergence of reflective texts in Egypt in the Middle Kingdom by resorting to the First Intermediate Period, but flaws abound in this conventional account of third millennium history. The third millennium may be poor in range of written sources, but it seems unlikely that Egypt ever enjoyed a thousand years of uninterrupted harmony. The changes in royal burial place and the figures of slain enemies on the statues of Khasekhemwy indicate disruption to tradition in the Second Dynasty, and the sequence of kings through the Third to Sixth Dynasties might allow for other breaks in the superficial continuity of a kinglist. If the First Intermediate Period is held to have prompted new reflection, we need to consider why earlier challenges to royal or central power had no impact. This may return us to the history of writing.

The Egyptological tendency to divide history into periods of order and disorder should be qualified. There is a bad side to any period, as the evidence of better documented periods, such as the petition of Padiaset (Petiese), demonstrates. The reign of a king who appears with the label 'strong' in the historical record need not be much freer of hardship at local level than a period of national disunity. I see the texts of Middle Kingdom 'pessimistic literature' as a development not within the history of political or even social relations (*contra* p. 217), but within the history of literature. A radical *mutabilitas mundi* shadows much Egyptian writing in the knowledge that, in Egypt at all periods, order may suddenly and without warning collapse into chaos. The radiant new texts emerge not out of strife in the collapse of Memphite kingship c. 2100 BC or the power struggle between Heracleopolis and Thebes c. 2000 BC, or even a possible power struggle early or late (or both) in the reign of Amenemhat I c. 1950 BC, but out of the strength of the court of Senusret I and his successors.

Developments of genres may also shed light on changes in text; the 'personal piety' ascribed to Late Egyptian wisdom literature might be pinpointed to the combination of 'pessimistic' and wisdom literature to produce the *Teachings of Any* and *Amenemipet*, anticipated to some extent already in the *Discourse of Sasobek*. The appearance of new genres or new compositions belongs also within the history of the language, as each new phase of the language dawned with a new outburst of literature. Literary texts (narratives, teachings, and discourses) are not evenly distributed over the millennia but fixed to the early years of written use of first Old, then Middle, then Late Egyptian.

The literary texts belong to the history of not only literature and language but also literacy, as it extends from one field to another, and from one geographical centre to many. With Middle Kingdom literature the court embraces, alongside hieroglyphic monuments for eternity and hieratic letters and accounts documents for day-to-day business, a third domain of recording as accessible as letters (because in hieratic) and as eternal as the carved blocks of an offering-chapel. Literature includes a political aspect, just as literacy spreads with immense social and political ramifications, and writing always raises questions of control and selection, either by or against central power; yet it occupies, and can only be fully assessed in, its own domain. In the present instance, I prefer to see the wider spread and uses of literary, rather than political disunity, as the spur to the 'discourse on *ma'at*'. The spread of literacy might then prove a more fruitful terrain for the study of changes in expression, and indeed A. cites the research of Jack Goody into the effects of literacy, beside the Egyptological contribution of John Baines to the subject. In the 1992 volume *Das kulturelle Gedächtnis. Schrift, Erinnerung und politische Identität in frühen Hochkulturen*, A. will doubtless explore this angle in greater depth. Unlike Baines, I consider literacy an inherently destabilising social and political feature, not at its peak in royal and provincial courts but at the humble margins of the semi-literate, the merchant or elder able only to make his name-mark. Literacy expands on the general rule that people at its fringes tend to learn, rather than forget or

avoid, how to write, because writing brings with it advantages in power over others, particularly at the semi-literate fringe. This implies that the appearance of reflective literature bears some relation to political history, but I would assert that the connection is indirect or circumstantial rather than direct or causal. The 'axial' changes in Greece, India and Israel seem to me difficult to measure precisely because they apply to the very beginnings of written traditions in those lands. There are no earlier comparable sources from which to assess how innovative the new texts may be; the history is again that of literacy rather than of human society in total.

Jaspers and his followers also remove from the causes of change physical or material factors, an omission that seems to me curious when all 'axial change' falls within the early Iron Age. Without asserting primacy of matter over idea, it should nonetheless be possible to take into account the changes in social and above all in international relations that followed new technologies with new sources for materials, new trade routes, new productive, demographic and military capabilities. Neither a history of artefacts nor a history of ideas can satisfy our thirst for accounts of ourselves. A total history may be an impossible task, but it is needed if only as an unrealizable goal to remind us that each account of the past is necessarily partial. I have set out my reactions to the work of A. at some length not because I do not agree with him, although the disagreements must be visible, but because his work holds such importance among accounts of the pharaonic past. Avenues of future research radiate out from his work on all sides, and translations are urgently needed if an English-speaking readership is to benefit fully from that promise. However broad the range of studies addressed in A.'s books, their substance remains Egyptological, and the onus rests upon Egyptologists to communicate them to their colleagues.

STEPHEN QUIRKE

The Imperishable Stars of the Northern Sky in the Pyramid Texts. By JOSEPH BRADSHAW. 210 × 150 mm. Pp. v + 38, figs. 15. Printed and published privately at 85 Balfour Road, London N5 24E, 1990. Price £1.50 (postage extra).

The importance of the 'Imperishable Stars' in the thought of the Pyramid Texts has long been recognized, but usually in a fairly general manner which sees them as suitable symbols of immortality. A detailed exposition of their significance is therefore welcome, particularly from an Egyptologist who cultivated a special interest in astronomical matters. The late Joseph Bradshaw, who died on 17 November 1991, had been a research student at Glasgow University; he was the son of a Polish rabbi and studied Egyptology at universities in Poland and at the Sorbonne, as well as in Egypt itself. He later used the surname of his Scottish wife, Hilary Bradshaw, a Glasgow graduate.

Stress is laid, to start with, on the holiness attached by the Egyptians to the polar regions of the northern sky; to them it was 'the holiest quarter of the heavens' since 'their entire universe seemed to be suspended from the northern polar star'. Of similar import was 'the small group of stars clustered about the northern pole star'; among these were the seven stars of the Little Bear. The latter phrase is, of course, a Greek picture of the shape of the constellation which contained the north celestial pole, and through aptly drawn figures Bradshaw suggests that the Egyptians had other forms in mind—in this case a bull's head (figs. 14A and B), or again a chair (fig. 1), part of a human head (fig. 2), part of a female breast (fig. 5), a ladder (fig. 9), and a phallus (fig. 10). On p. 20 the phallus is connected with *Pyr.* Utterance 570 with its allusion to the birth of a god upon the arms of Shu and Tefnet; the connection is not very clear, but in 1450 the king is said to live with the Imperishable Stars.

The most unexpected feature of Bradshaw's research is the claim that both Re and Osiris are deities with primarily circumpolar connections. For Osiris *Pyr.* 749d TM is quoted (p. 9): 'N makes his abode in the Field of Offerings among the C.S. (Circumpolar Stars) in the following of

Osiris'. A still more favourable rendering can be urged: these stars are 'the followers of Osiris' (cf. Faulkner's translation). The case of Re seems more difficult, for if he is the sun-god and the sun plainly sets every evening, how can he belong to the 'never-setting stars', which is the Egyptian phrase for the Circumpolar Stars? Bradshaw's reply is to deny, with much vigour, that Re (or Atum) is a sun-god. 'What is important in these texts', he says (p. 15), 'is that they associate eternal life not with the sun, but with the C.S., the reason for this doubtless being . . . that in former times sunset was compared with death'. If one were to object that the hieroglyphic writing of Re points to the sun, Bradshaw would reply, as in his pp. 8-9, that 'in hieroglyph N5 (Gardiner) Re is depicted by a small circle within a larger one; this suits a star describing a circle about the pole star (Thuban) rather than the sun'. Ingenious, certainly, but hardly convincing.

Many related matters are discussed (such as sunset as the start of the 'religious day', pp. 1 and 3) and the work is one of undoubted originality which is likely to stimulate as well as provoke.

J. GWYN GRIFFITHS

Growing up in Ancient Egypt. By ROSALIND M. AND JAC. J. JANSSEN. 180 × 155 mm. Pp. xii + 177. London, The Rubicon Press, 1990. ISBN 0 948695 15 3. Price £16.95.

Rosalind and Jac. Janssen have written the first book in English specifically about ancient Egyptian children and childhood. In it they tell us what Egyptian sources have to say about conception, pregnancy, childbirth, the dangers of childhood, what children wore, the games they played, their education, the transition to adulthood and marriage, and the special case of the royal child. The book is a synthesis of old and new material, drawing in particular on Rosalind Janssen's expertise concerning ancient Egyptian textiles and clothes, and Jac. Janssen's firsthand knowledge of the material from the workmen's village at Deir el-Medina.

Notwithstanding their academic credentials, the two authors have created a most enjoyable book, which is both easy to read and informative. Unlike some popular books it does not provide facile answers. The authors make clear the gaps in the Egyptian sources and show that many problems of interpretation have no easy solution. Many of the answers to questions that we are interested in asking are not the sort of thing the Egyptians would have recorded. As the authors remark: 'The Egyptians in general do not record the means leading to an end' (p. 68). This does not mean that we should not ask the questions, but that we have to glean the answers from an array of scrappy, disparate material not intended for the purpose, and in which there will inevitably be large gaps we cannot fill.

The authors draw on a wide range of material: archaeological, representational, and textual. They also offer models drawn from present-day Egypt. They are well aware that the sources cannot always be taken at face value. What is shown in formal art, for example, in tomb and temple scenes, is chosen for a particular purpose, and may not relate directly to reality. Two examples are the contrast between the view of the close-knit family on stelae and in tombs at Deir el-Medina and the less idyllic picture gained from the textual records of the village (p. 113), and the nudity of children in art compared to archaeological finds of children's clothes. Many books on 'everyday life', from the nineteenth century onwards, have made the mistake of using formal art as their main source. What is refreshing here is the diversity of sources, many of which will be unknown to the general reader, leading to a glimpse of a less well-known side of Egypt.

Chapter 1 begins with the beginning of a child's life, that is, conception, pregnancy, and birth. The writers discuss the Egyptians' knowledge of conception drawing on literary texts and medical papyri. There were methods supposed to establish whether a woman was pregnant, and also to discover the sex of the child. For the confinement itself the authors draw together the unfortunately scanty knowledge that can be gleaned from figured ostraka, and from wall paintings in the houses of the workmen's villages at Amarna and Deir el-Medina, together with a description of the birth of royal triplets in the literary text of P. Westcar.

Chapter 2 deals with babyhood. The child was named at birth, and breast fed for the first years of its life either by its mother or a wet nurse. Mother's milk was also considered an effective remedy for a variety of ills, and was stored in small pottery vessels modelled in the shape of a squatting woman holding a child. Infant mortality was high, as the archaeological evidence shows, and the child had to be guarded by amulets and spells, not only against accident and disease, but also against demons, magic, water spirits, and the dead.

Chapter 3 discusses what children probably wore. The authors touch upon two important topics: the significance of nudity in ancient Egyptian art, and the contrast between representational evidence and surviving garments. They point out that the exposed upper torso so frequently represented for men would be impractical at least in the winter, while surviving garments do not confirm this nakedness. We should therefore question whether children always went naked as shown, since they too would be liable to get cold. Further, items of children's clothing, including a formidable wardrobe from the tomb of Tutankhamun, have survived to show that, on some occasions at least, children wore clothes. The nudity of children in art therefore has a deeper significance than a simple reflection of nudity in life.

Chapter 4 looks at how children amused themselves and were gradually introduced by role play into the world of adult activities. Here the authors draw a parallel with modern Egypt before mustering the rather sparse evidence from ancient times. Figures of children, boys and girls, are found alongside women gleaning in harvest scenes. Boys are also shown looking after flocks and herds, and helping in various agricultural activities like sowing seed.

Chapter 5 is devoted to the games that children are represented playing in a few Old and Middle Kingdom tombs. The reason for their inclusion in the tomb decoration is unclear, yet we may be sure that they were not chosen at random, since the subject matter for tomb decoration was always very carefully selected. The authors stress that there was a deeper significance than simply that of 'youngsters having fun', and that 'there must have been a more profound meaning than that which meets the eye on the level of everyday activities', but as with so much to do with ancient Egypt what that meaning might be 'is pure hypothesis'.

Chapter 6 is called 'The Schoolboy'; only boys were sent to school, since the aim was to produce scribes and bureaucrats, and only men could hold government office.

In Chapter 7 the authors discuss the problem of circumcision in ancient Egypt. They point out that there is no evidence that 'female circumcision' or clitoridectomy occurred. I would add, however, that it is unclear what form such evidence might take. There are few enough references to male circumcision, which was practised, but evidence for its occurrence can also be gathered from depictions of male genitalia, which are shown in certain circumstances. Since much representational and textual material dealing with human affairs is oriented towards male rather than female concerns (the exception being house decoration which was largely concerned with childbirth, but survives only in a very fragmentary form), and since references to male circumcision are so rare, it seems unlikely that mention of clitoridectomy will be found. While the results of the male operation are easily visible when the male genitalia are uncovered, this is not so in the case of women, so even though the female pubic area is not infrequently depicted, the relevant parts of the genitalia remain hidden. Thus, unless unequivocal evidence can be provided by surviving mummies, the question must remain unresolved.

With regard to male circumcision, the authors argue that in the Predynastic Period to the Old Kingdom, the custom of circumcision was 'widespread if not universal', but that later it became 'voluntary' except for certain groups such as priests, and perhaps officials; according to the evidence from their mummies King Ahmose and perhaps Amenhotep I were not circumcised. However, it would seem to me that lack of evidence is a major obstacle to drawing meaningful conclusions concerning the practice of circumcision. There is no textual evidence from the Old Kingdom, two texts from the First Intermediate Period, three from the Middle Kingdom, and one reference from the New Kingdom. Then there is silence until the Twenty-fifth Dynasty and the stela of Piankhy, according to which the king refused to see four rulers from the Delta because they were uncircumcised. The representational evidence is more abundant from the Old and Middle Kingdoms because male genitalia are shown more often. By the Eighteenth Dynasty it is less common to show male genitalia; peasants are more usually clothed, and when they do appear naked, their genitalia are often not visible. The wooden model phalli offered to Hathor at Deir el-

Bahri are circumcised, as are ithyphallic gods in carefully drawn depictions, although it could be argued that this is due to an iconographic convention. It seems that the status of circumcision and its widespread implementation or otherwise must remain unresolved.

Chapter 8 is concerned with the passage into manhood. The authors postulate that three factors influenced a man's career: birth, talent, and the favour of the king. They suggest, however, that one place where non-literate men might find advancement was in the army if they worked their way up through the ranks. They cite two possible examples, Ahmose son of Ibana, and Amenemhab owner of TT 85, and point out that they are nowhere called 'scribe'. However, Amenemhab was a *ḥrd n kꜣp* (p. 150). It is generally assumed that bearers of this title were brought up and educated in the palace (pp. 142–3), and therefore it is hard to believe that Amenemhab was illiterate.

In Chapter 9, which is entitled 'The Royal Child', the authors discuss the question of whether there was a royal heiress or not, but do not strictly answer it. They seem to imply, however, that brother-sister marriages took place for other reasons. They discuss the upbringing of the heir, and the role of tutors. About royal grandchildren they say: 'Grandchildren of rulers . . . were generally not so identified [that is, by "king's son" or "king's daughter"] by the Ancient Egyptians'. But this needs to be modified according to Dodson and Janssen, *JEA* 75 (1989), 136, where evidence is accepted as indicating 'the extended use of *st nsw*' to mean "king's granddaughter".

The authors in their Chapter 10, 'The Companions of the Prince', consider the status of the naked women with Ramesses III in the scenes in the high gateway at Medinet Habu. They come to the somewhat unlikely conclusion that these persons being embraced or chucked under the chin by the king, in spite of being unclothed apart from headdresses, jewellery, and sandals, are 'ladies-in-waiting rather than royal mistresses', particularly as in one scene they are called *msw nsw*. But since kings actually married their daughters, the inclusion of some *msw nsw* should not surprise us. Because formal Egyptian art is very restrained when it comes to depicting sexual intercourse openly, the close physical contact between the naked king and women does in fact represent a high degree of intimacy.

The final chapter of the book looks at attitudes to children found in the Wisdom Literature and elsewhere.

Although this aspect is not particularly stressed by the authors, it becomes clear in the course of the book that there is gender distinction among Egyptian children. If a child is named on an apotropaic wand, it is always a boy (p. 9). Prescriptions demand the milk of a woman who has given birth to a boy (p. 19). Parents particularly desire a son for a number of reasons (p. 158). In tomb scenes boys and girls are usually not shown playing together (p. 55). By far the most clear-cut distinction comes in Chapter 6, called 'The Schoolboy'. There was no 'schoolgirl' in ancient Egypt, as the purpose of schools was to produce government officials, who had to be men. It must be assumed therefore that boys and girls of the scribal families had different role models. The boy would emulate his father, and like him hope to obtain an official position. A girl could not model herself on her father, and one assumes that her mother and other adult women would form her role models. Since we know less about the role of women in society than men,¹ we also know less about the upbringing of girls than boys. However, just as there was a literary genre in the form of advice from fathers to their sons, so there may have been a similar body of material transmitted orally to advise and define the place of women in the social world.

The following brief comments may be made:

p. 46: Identification of children's dolls presents some problems. Some writers have described as dolls what must in fact have been fertility figurines (often called 'concubine' figures); regrettably this still occasionally continues.² Janssen and Janssen are aware of the difficulty, and suggest two criteria for distinguishing dolls and fertility figures: first, that 'a clear indication that the human figure was indeed a toy is when it was found in a child's grave', and that in fertility figurines 'the genitalia are mostly emphasized, which clearly distinguishes them from girls' dolls'. However, if figures are defined as dolls simply by virtue of being placed in a child's grave, we shall by definition never find fertility figures in the burials of children. Further, I wonder whether it is

¹G. Robins, *KMT* 1 no. 3 (1990), 18–21, 64–5.

²G. Hart, *Ancient Egypt* (San Diego, New York, London, 1988), 40.

applying modern standards to assume that in ancient Egypt a child's doll could not realistically show the genitalia.

p. 119: While there is no doubt that Thutmose II was the son of Thutmose I and Mutnofret, there is in fact no statement as to who the mother(s) of Amenmose and Wadjmose were. Thus it is by no means certain that Thutmose II was 'the son of a wife of lower rank' than Wadjmose or Amenmose. Nor is it anywhere actually stated that the sons of a *hmt nsw wrt* necessarily succeeded over sons of other wives.

p. 121: Despite Hatshepsut's career, *sr nsw* and *srt nsw* were not in competition for the throne. Amenhotep III may have liked Sitamun more than her brother Amenhotep, we cannot know, but it is unlikely to have had 'political repercussions', even if Amenhotep junior were jealous, since there was a strict distinction between the roles of *srt* and *sr nsw*.³ While it is indisputable that kings married their sisters (p. 122) and had children by them, it seems to stick in the throats of Egyptologists to admit the possibility that kings might have had consummated marriages with their daughters. Thus Janssen and Janssen come down against physical unions between Amenhotep III and Sitamun, and Akhenaton and Meritaton. In the latter instance they refer to Helck's argument that Meritaton appears with the title *hmt nsw* on a *talatat* when she could only have been a toddler, so the marriage could not have been consummated.⁴ It is possible, however, that the title here is due to a scribal error,⁵ and the fact that it does not occur elsewhere in the myriad attestations of Meritaton supports this. It is also naïve to assume that marriage to a young child was not intended to result in consummation at a later date, when she was considered old enough, as has been and is the case in other cultures. To say that Sitamun 'shared her father's bed is unlikely' seems overconfident, since there is no proof one way or the other. However, there is evidence that in the Nineteenth Dynasty, Ramesses II, who likewise married several of his daughters, probably had a child by his daughter Bintanath.⁶

pp. 128, 142: Whether Heqareshu and Heqanefer were of Nubian descent or not, there can be no doubt that they must have been thoroughly Egyptianized before being appointed as tutors to the king's children. It is surely wrong therefore to call Heqaerneheh a foreigner (p. 142). No Egyptian king would entrust his children to a tutor not steeped in Egyptian culture, and he must surely be thought of as fully Egyptian, not foreign.

The authors have chosen to present their work in the form of a popular book, and this is to be applauded when the result is of such high quality. But just because of this, scholars and students, as well as the general reader, will wish to make use of this book. It is regrettable, therefore, that the authors give no references to the material they draw upon, and only a select bibliography at the end. In the preface they say: '... literature on which we have based our text is quoted in the bibliography, but numerous details are derived from everywhere in the Egyptological output. Our colleagues will easily recognize most of them; for the general reader, for whom this book is intended, they are too specific to be of interest' (p. xi). It is indeed true that much of the work drawn on is easily recognizable to those in the know; for instance, the work of John Baines on twins, Erika Feucht on the *hrd n kwp*, Helck on father-daughter marriage, Bryan on female literacy, and Robins on the 'heirss' theory. The first two are cited in the bibliography, but the last three are not. Discreet endnotes would satisfy those wishing to know the sources, while they could be ignored by those who do not. In addition, the authors would have done themselves a service by making clear how much of the text is dependent on their own original work. Since the book is aimed at a general English-speaking audience, which in the main is unlikely to read German and possibly even French, I assume that the select bibliography is in fact a concession to the specialist, as must also be the list of Theban tombs with references to where they are referred to in the text. I would plead that in future a book like this should give references to sources and a fuller bibliography just because it is likely to be used by students and specialists as well as the general reader.

GAY ROBINS

³ G. Robins, *Wepwawet* 3 (1987), 15-17.

⁴ W. Helck, *CdE* 44 (1969), 22-6.

⁵ G. Robins, *GM* 52 (1981), 76.

⁶ G. Robins, *Bi Or* 41 (1984), 606.

Egyptian Sculpture. Cairo and Luxor. Text by EDNA R. RUSSMANN, photographs by DAVID FINN. 335 × 260 mm. Pp. xi + 230, colour illus. Austin, University of Texas, 1989, and London, British Museum Publications, 1990. ISBN 0 292 70402 X. Price £25.00.

Egyptian sculptors produced thousands of statues, from which Edna Russmann has brought together a very small selection: ninety-two works, chosen for their quality, their radiance, their good reputation—those that any lover of art would want to look at in order to enjoy the contemplation of Egyptian statuary. This choice was confined chiefly to pieces in the Cairo and Luxor museums and supplemented with five works still in the open air at Karnak and in the Ramesseum. As David Finn tells us in his introduction, the final selection of 169 illustrations was made from over 2,000 photographs. Of those which the authors have retained, about one-third occupy an entire page; all are in colour. Of course, most of the works are famous; this is normal, when only the 'highlights' are being selected, and it is not a reproach. Russmann has included only three unpublished works (nos. 24, 49 and 82).

The text, and indeed the book as a whole, were conceived for the public at large. This has resulted in a very fine piece of work which holds the promise of enjoying great success. Such a book, of course, is also of interest to the professional, who at the same time feels disappointment in several respects. It is rather curious that the photographer has systematically pointed his camera on a level with the knees or at the lower third of the objects, sometimes nearly level with the ground, even for the smallest statues or heads. Nearly everything is shown from beneath; this deviates from the 'Bothmerian' rules, requiring the camera to be on a level with the eyes, and reminds us that Werner Forman, another great photographer, advocates the freedom of the camera so as to reveal most effectively the character of the work. Here, the camera seems to obey a fixed idea, and these views from beneath often deform the work. A striking example is the Mycerinus 'triad' (no. 7), where the king's face cannot be recognized.

As for the text, the least one can say is that the reader will find here all that is traditionally said concerning Egyptian art and, unfortunately, even what should have been abandoned a long time ago. Some facts established recently are denied. I will mention only two cases I know well. The first example is the dating of Seneb's statue (no. 14); Nadine Cherpion proved (*BIFAO* 84 (1984), 35–54) that it dates from the reign of Djedefre. 'However', writes Russmann (p. 215), 'this has been decisively refuted by S. Falke, in an unpublished dissertation written for the Freie Universität, West Berlin'. I had the opportunity to read a longer summary of Falke's discussion; I observed with bitterness that this refutation was based on the very arguments Cherpion showed to be without foundation (that is to say, Junker's interpretations). On the other hand, Nadine Cherpion dates Seneb's tomb with extremely concrete arguments. The second example is the iconography of Sesostri I. Few reigns show so homogeneous a series of royal portraits. Thus it is surprising to read (p. 54): 'There is no standard likeness for this king.' Such a sentence was necessary to introduce among Sesostri's statues the two wooden statuettes from Lisht. These figures—one now in Cairo, the other in New York—were formerly attributed to Sesostri I, but this attribution was contested with good reason by S. B. Johnson (*JARCE* 17 (1980), 11–20). Russmann writes concerning them: 'Ironically, the finest and most convincingly naturalistic of all Sesostri's statues seem to bear no direct connection with him at all.' This is excellently observed! Why, then, say that it is Sesostri I? In the note, p. 216, the author writes again: 'The faces of Sesostri I that most closely resemble this statue are to be found in relief: see Aldred, *Middle Kingdom Art in Ancient Egypt*, figs. 21 and, especially, 22.' Both these bas-reliefs—the king and Ptah (limestone pillar from Karnak, in Cairo) and the king running in front of Min (from Coptos, in University College, London)—are indeed the two works where the features of Sesostri I are most characteristic, but these features are not at all like those of the wooden statuettes.

All this is a pity, as is the unfortunately green colour of some photographs (nos. 12, 21 and 65, for example) and the blurring of others (pp. 11 and 144). But it is essential that we remember the constructive aspect of the book. Russmann chose for our pleasure admirable works which one never tires of looking at. She must, moreover, be thanked for having brought out of the shadows Hepkem's statue (no. 25), the indecent sexuality of Tama (no. 52), and Nespekashuty's individual physiognomy (no. 82), while David Finn has successfully illuminated Mitry's profile (p. 44), the meditative face of Sikaherka (p. 74), the large statue of Thutmose IV (p. 99) and Tutankhamun's

belly (p. 129). Among lesser-known works, I should mention, too, a noteworthy statue of a king, attributed either to Teti or—here—to Menkauhor (no. 15), and the private statues of Khenty-khetyemsaf-seneb (no. 32, Middle Kingdom) and Djedasetiufankh (no. 77, Late Period). The book ends with maps, a chronology, a glossary, documentation for each chapter including a selected bibliography and notes, a general bibliography listing all the publications cited, arranged by author, and an index. We must thank both the Egyptologist and the photographer for this very interesting piece of work.

One final observation: the 'Foreword' should have been checked by an expert before the book went to press. It is a pity to read on the first page of the text that the pylons of Karnak 'were built three thousand years before Greece and Rome' and to see the Homeric image 'Thebes, city of a Hundred Gates' attributed to 'Heroditus' (*sic*).

CLAUDE VANDERSLEYEN

Royal Persons: Patriarchal Monarchy and the Feminine Principle. By PATRICIA SPRINGBORG. 240 × 160 mm. Pp. xv + 326, figs. 32. London, Unwin Hyman, 1990. ISBN 0 04 445376 0. Price \$30.

The exact scope of this book is not indicated by its title or subtitle. In particular there is no suggestion of the conspicuous place given to ancient Egypt in the exposition of the theme. The front cover illustration shows Osiris between Nephthys and Isis and is based on a relief at Philae; and of the thirty-two figures in the text, thirty are of Egyptian origin. It is a little awkward, by the way, that the sources of the figures are given under 'Acknowledgements' on p. 316 rather than with the figures themselves or with the list on pp. ix-x.

We are naturally given more detail about the author's approach and training in the Preface and on the back cover. At present a Senior Lecturer in the Department of Government of the University of Sydney, Dr Springborg is a former student of the Polish scholar Leszek Kolakowski, and it was only in 1986 that she began 'to examine the Egyptian sources'; she was then spending a 'sabbatical' in Egypt, and had the good fortune to gain the assistance of Professor Lanny Bell at Chicago House in Luxor. Professor Kent Weeks, who is now at the American University in Cairo, is also thanked for aid. The first chapter is entitled 'Queens, goddesses and "the birth of the state"', and it is rather overpowering in its thematic range. Among the topics dealt with are the rise of democracy and its relation to monarchy and republicanism; the Greek *polis* and its 'male-soldier' citizenship; the birth of the state as celebrated in Egyptian and other Near Eastern myths; patriarchal monarchies in which 'the processes of empowerment are female'; theogonies which 'abound in mouth-womb symbolism'; the 'trade in women' as the economic and social basis of the early state; the Egyptian royal brother-sister marriage; the Mystical Body of the King in European political theology; the debt of Judaism and Catholicism to Egyptian ritual; 'Egyptomania' in fifteenth-century Florence; and the legitimation of charismatic leaders, including modern revolutionaries such as Lenin and Mao. The wide range of theme is doubtless justified by the book's comprehensive title. In the introductory chapter several statements are offered in a summary manner without any detailed defence. Thus the allusion to the 'trade in women' as the economic basis of the early state (p. 5) is supported only by a reference to Marx, *The Grundrisse* (Penguin, 1973), but without a page indication; and this is a fault that flaws many other references. We are told on p. 12 that the pharaoh needed to 'match the creativity of woman in his leadership function'; but he must also 'extend to his subjects the protective (*ka*) arms of the mother goddess, Good Shepherd of his Sheep, in his moral role as guardian of a people'. I have no objection to the feminist standpoint taken throughout this book; the Good Shepherd of Egyptian tradition, however, is decidedly a male figure.

This seems to be admitted on p. 94, albeit with no reference to the rich textual sources portraying a god or pharaoh as the Good Shepherd; cf. Dieter Müller in *ZÄS* 86 (1961), 126-44. However, a rock drawing of the Amratian period depicts a shepherdess, and this leads to a wide-ranging discussion of related female figures in several regions, especially of those with raised arms,

which are claimed, possibly rightly, to concern the aetiology of the *ka*. A feature of this long discussion is that it is dominated by a study which Hornblower published in 1929. Hathor as the mother of Horus is clearly important in the Egyptian theology of kingship, especially as a goddess who suckles the pharaoh. In this connection (p. 108) Hornblower is again cited. More apposite now are the remarks of H. Brunner in *Die Geburt des Gottkönigs* (1964), 131 (a book on Springborg's list) and particularly the two studies by Jean Leclant there cited.

The attack (p. 8) on the 'modern social science canon' with its belief that 'civilization began with the Greeks' and proceeded through the Renaissance to the post-Reformation states seems well justified. After all, it was in 1951 that Henri Frankfort published *The Birth of Civilization in the Near East* with its elaborate chapter on 'The Cities of Mesopotamia' (a book that is oddly missing in the otherwise substantial bibliography given on pp. 298–315); and for Egypt and Mesopotamia there is now a big corpus of translated texts. I find it strange, though, that in a chapter on 'Monarchy as a social form' Springborg finds her main model in Paul Veyne's *Le pain et le cirque* (1976)—the book is cited on p. 314, but the printers have omitted the author's name. On p. xiii Springborg tells us that it was the impact of this 'great book on the Roman emperor' that gave her the impetus to the writing of the present work. In the course of the first chapter (p. 12) we are told that 'the ancient monarchy of Egypt, the Roman and Hellenistic monarchies so closely modelled upon it, conceived of themselves as welfare states, providing bread and circuses, not sporadically or incidentally for the occasional benefit or amusement of their subjects, but rather as a constant day-to-day activity expected of them'. The theme is more fully treated in Chapter 15 ('Monarchy and the welfare state', pp. 259 ff.). Here the comparison with the Roman emperors is assigned to Baillet in 1912, and we are told that 'as the Nile was the source of the wherewithal of life, the pharaoh was, quite literally, the nourisher of his people'. A number of quotations follow in which the pharaoh is lauded for giving provisions, but only in one of these is he connected with the Nile or its inundation. The phrase 'quite literally' is thus rather disturbing. A weakness in this chapter is its excessive reliance on Baillet's studies of 1912 and 1913, varied by abrupt sallies into Veyne's Roman Empire; here Fergus Millar is also deployed, but not in favour of a detailed parallel with Egypt. A more balanced picture of the early Egyptian economy is offered in Chapter 3 ('Unification of the Two Kingdoms'). The term 'welfare state' seems out of place, if only because it throws a modern concept at an ancient polity.

On kingship and divinity Springborg tends to favour Posener's approach and in her chapter on 'Divine Images' offers acceptable remarks on the *ka* (save for the view of M. Bernal, approved on p. 54, that the royal *ka* met at death 'passed into Greek as "*karor*" or "*ker*"'); and in the following chapter she offers a lively *exposé* of Lanny Bell's work on the royal *ka* at Luxor. In general the 'feminine principle' in the doctrinal basis of kingship is seen to reside in the power assigned to the deities Hathor and Isis. If succession is consistently patriarchal, the element of feminine sanction through these deities is of vital religious validity (p. 167, in an ably argued chapter). 'The king as animate law' (Chapter 14) is concerned more with comparisons and contrasts relating to Egyptian and Hellenistic theories of monarchy; it is a perceptive discussion although it ends with two unacceptable etymologies. A feature of the explication of royal symbols is the diligent discovery of sexual and fertility symbolism in several ritual objects. Here Blackman's early studies of the role of the uterus, placenta, and umbilical cord, together with his African analogies, are eagerly followed. On p. 135 Springborg suggests that the name Hathor, 'House of Horus', should be taken 'more literally' to mean 'Womb of Horus' (i.e. the womb that produced Horus); and she compares the Sumerian *Ninhursag*. The suggestion is worth considering, although it does not imply a 'more literal' usage. Attention is given also to the sacred necklace of Hathor, the *menat* (pp. 112 ff., 135 ff.). In spite of noted studies by Bonnet (1952), Barguet (1953), Leclant (1961), and Westendorf (1967), Springborg gives the sole stamp of approval to that of Quaegebeur in *BSFE* 98 (1983), 17–39, where the *menat* is seen as a symbol of regeneration consisting, basically, of a pair of testicles. Why should a goddess of sexuality symbolically sling a pair of testicles round her neck? Sexual prowess might be indicated, one may think. The explanation offered is more subtle, however: these are the testicles of Seth, and some Ptolemaic texts suggest that the *menat* was given to the goddess in order to secure her aid in the destruction of Seth—an idea that fits well into the Horus–Seth myth. Westendorf's solution is different (*ZAS* 94 (1967), 145): suggesting a connection with the word *mnt*, 'thigh, womb', he thinks that the *menat* represents the female vulva;

it appears often with the sistrum, whose handle, in his view, originally figured the phallus. Dr Lana Troy accepts this interpretation in her valuable *Patterns of Queenship* (Uppsala, 1986), 100–102. It seems to me that there are difficulties of iconography with both *menat* and sistrum if tackled on these lines. The necklace remains a 'symbol of mysterious origins' (Springborg on p. 112), but this book is a welcome contribution to the study of the problem, as of many others connected with pharaonic kingship and queenship. If it enthuses too readily on certain issues, as on monarchical 'welfare states', it has enough sober clarity to reject theories of an early matriarchy (apart from 'a grain of truth', p. 6).

J. GWYN GRIFFITHS

Saqqâra Tombs, II: The Mastabas of Meru, Semdenti, Khui and Others. By A. B. LLOYD, A. J. SPENCER and A. EL-KHOULI. Archaeological Survey of Egypt Memoir 40. 320 × 254 mm. Pp. xv + 53, pls. 36. London, Egypt Exploration Society, 1990. ISBN 0 85698 113 3. Price £48.

The present volume is the second in a planned series of three reports on epigraphic work conducted on some smaller tombs to the north of the mastabas of Mereruka and Kagemni in the Teti Cemetery. The first volume (see the present writer's review in *Bibliotheca Orientalis* 43 (1986), 409–11) includes reports on the tombs of Mereri and Wernu; the present volume records the tombs of Meru, Semdenti, Khui, Ankh and Desi, as well as some miscellaneous blocks; the future third volume will focus on the mastaba of Neferseshemtah in the Rue de tombeaux.

Volume II in this series, like Volume I, follows the usual presentation of the EES Memoirs. The report on each tomb includes sections on 'Architecture and Excavation' which describe the clearance work conducted, the architectural features of the superstructure and substructure of the tomb and an inventory of objects found; 'Names and Titles' of the tomb owner, and others if preserved; and finally 'The Decoration', which describes the scenes and inscriptions on each wall and provides useful diagrams of false doors and, when necessary, those of certain walls. The commentary on each tomb is clear and contains useful measurements of the different registers, the height and type of reliefs, the degree of completion of each section of the scenes, the remaining traces of colours, and modern preservation work.

The commentary in the sections on decoration is rich in comparisons with other monuments. Here might be made a few remarks of minor importance on the text. In describing the tomb of Meru on p. 19, the authors mention four offering bearers carrying *hps̄*-joints, but only three appear on pl. 11. On the same page is also mentioned an offering bearer holding out 'birds at the end of a fully extended right arm, whilst carrying others in his left'. This area of the scene (pl. 11) clearly shows alteration, as indicated by the authors, and accordingly the action of the offering bearer is not entirely clear; however, he is likely to be wringing a bird's neck with his extended arm, as on pl. 9. It is curious that while discussing the false doors, the traditional terms for their various parts are generally used, yet the central niche is here named 'a narrow door' (pp. 16, 27). The text is followed by 'Indexes', divided into royal and private names, names of deities, geographical areas and place names, titles of tomb owners and a general index.

Drawings of the scenes and inscriptions are, in general, well produced. It is unfortunate that the epigraphic expedition had difficulty with the light which resulted in some details not originally recorded being found later in their final checking, and so only commented on in the text. Fewer than half of the eight photographic plates are devoted to relief. As line drawings can never replace photographs for stylistic studies, more black and white photographs of reliefs would have been useful.

With regard to the dating of the whole group, the authors repeat their statement made in Volume I that 'the absolute dating of the individual tombs is a matter of considerable uncertainty'. However, they decide that 'several, including Mereri, may well be contemporary with the larger mastabas in the area which are datable to Teti and Pepy I. Others, including Wernu, are certainly

later, perhaps considerably so, but for none does there seem to be evidence which points incontrovertibly to a date later than the end of the Sixth Dynasty' (p. 2). This area of the cemetery is very well planned in streets and there are many reasons to believe that at least three rows of tombs were planned as a unified cemetery, dating from the reigns of Teti and Pepy I, in fact the earlier part of that of Pepy I. All the tombs included in the first two volumes of this series belong to the same period. Meru, for example, as already indicated by the authors, changed his name from Tetisonb to Pepysonb, a change which most probably took place under Pepy I (see also N. Strudwick, *The Administration of Egypt in the Old Kingdom* (London, 1985), 98). Drioton records the name of Pepy in a partly-preserved inscription in the tomb of Desi (*ASAE* 43 (1943), 506), but this is not mentioned in the EES publication. One of the tombs in this same street belongs to the overseer of Upper Egypt Nikauisesi, who was most probably the same man mentioned in a decree of Teti (N. Kanawati et al., *Excavations at Saqqara*, I (Sydney, 1984), 9, 13 n. 26; H. Goedicke, *Königliche Dokumente* (Wiesbaden, 1967), 39, fig. 3). In the next street near the mastabas of Mereri and Wernu, the vizier Hesy built a tomb, later usurped by Seshemnefer, in which he recorded the progress of his career under Isesi, Unis and Teti (Kanawati et al., *Excavations at Saqqara* I, 9). In a street further to the north we find the mastaba of Mehi, who describes himself as 'honoured before Teti' (*Excavations at Saqqara* II (1988), pl. 6). There is nothing in the inscriptions or titularies of any official buried in this area that would suggest a date after the reign of Pepy I, and the fact that one tomb is built against another does not at all mean that they were separated by a long period of time.

In the past attention has focused on the major mastabas in the area, Mereruka, Kagemni, Khentika, and others. Small tombs in the vicinity were left unpublished, even though they were excavated and known. The habit of giving priority to publishing 'spectacular' tombs at the expense of smaller ones is dangerous and could result in an imbalance in our perception of Egyptian civilization. The authors and the EES have taken a positive step to redress this problem and are to be congratulated for the production of the first two volumes of this important and fine series; we look with anticipation to the third and final volume.

NAGUIB KANAWATI

The Administration of Egypt in the Late Middle Kingdom. The Hieratic Documents. By STEPHEN QUIRKE. 215 × 150 mm. Pp. vii + 253. New Malden, SIA Publishing, 1990. ISBN 1 872561 01 2. Price £30.

This well-organized work comprises a detailed series of new interpretations of the Egyptian administrative papyri of the late Middle Kingdom (Sesostris III to the Thirteenth Dynasty inclusive) based on the original documents. As such, we are presented for the first time with a new and highly informative appreciation of the internal character of Egypt at a time when the bureaucracy alone appears to have formed the basis of the pharaoh's strength. From the start, the reader is taken through a careful analysis of the justly-famous P. Bulaq 18; this section comprises about fifty per cent of the entire work. Owing to this orientation of the author—namely, stressing the non-epigraphic data—many new and markedly radical interpretations of Egyptian administrative structure are revealed. Indeed, it can be fairly stated that this volume will form the basis for any future understanding of this epoch, so much so that I must recommend Quirke's study as a necessary first step for any researcher. This is most clearly seen on p. 4 of the opening introduction wherein Quirke reanalyses the presumed tripartite division of the state into three *warets* and argues, correctly in this reviewer's opinion, that an *a priori* bipartite organization was the rule. Moreover, this general overview presents the characteristics peculiar to the late Middle Kingdom in a handy summary form (the rise of new titles; the presence of treasury suffix-titles; the term *nbt pr*; and the like) so that the seemingly artificial division of Middle Kingdom and late Middle Kingdom is laid to rest.

In Section I (P. Bulaq 18) Quirke stresses the specific vocabulary and phraseology employed in the accounts. This portion of the work is prefaced by an extremely useful summary of the history

of the manuscript and its internal characteristics, a background that hitherto has been all too often ignored in the Egyptological material. Then follows a study of the day summary accounts and at this point, Quirke presents another of his independent viewpoints. He stresses the division of the palace into three sectors, following the evidence of the personnel. An official state sector (*hnty*) is seen in contrast to the private quarters (*kꜣp*) as well as provisioning houses (the *pr šnr*). Interlaced with this well-reasoned analysis is the subsequent study of the various palace functionaries themselves, from high to low. There, Quirke does not hesitate in rejecting a fixed 'Cabinet' of chief officials administrating the state, and cautions us from automatically trying to link our norms with those of Pharaonic Egypt (p. 57 in particular). Here, in fact, will be found one of the key substructures of Quirke's system: namely, that he repeatedly returns to the papyri themselves and then works out the intricate arrangements concerning the functions of the administrators and their interlocked duties. Rank, therefore, is revealed through function or, more precisely, functional dependence in a vast palace-structured hierarchy, even though the purpose of P. Bulaq 18 was simply one of palace expenditure (p. 61).

In the following chapters will be found the various officials of the outer palace (presented in various 'blocks'), among whom we may single out the military, who comprised the lowest sector of these lists. Note that Quirke points out their role in procuring labour as well as providing a war machine. The inner palace officials were, naturally, closely connected to the royal family, and Chapter Five concentrates on the commissions. At this point, the reader will find a strongly-presented case for the transference of duties from one palace sector to another. Finally, we turn to the three state branches themselves (*wꜣrwꜣt*) and a brief note on the palace of the king in these accounts (pp. 120-21).

The second half of Quirke's study moves to other papyri, such as those now in Brooklyn (published by Hayes: P. Brooklyn 35.1446) or the Illahun archive. The former, although quite different in purpose and scope than P. Bulaq 18, nevertheless reveals the formal relationship of vizier to Pharaoh, and once more the author stresses his opposition to any idea that the vizier overstepped his official powers at the expense of the king's. With regard to the Illahun papyri, Quirke's new approach allows him to interpret much of these unpublished documents with a freshness and incisiveness hitherto missing in most analyses. He purposely tells us that his main interest is the connection of this archive with the state apparatus (p. 157). The cult complex of *Sekhem-Senusret*, separated from the town of Illahun itself (*Hetep-Senusret*), is the subject of another of Quirke's points that is worth stressing (pp. 158-9), as well as his remarks on the function of local mayor (p. 161). Descriptions of corvée labour then follow (see the important discussion on *iwꜣ* and *hwꜣ*: pp. 162-3) with the repeated stress on *wꜣrt mhꜣtt* and *wꜣrt rst* as local divisions of Illahun. The Kahun papyri are subsequently brought into discussion and once more the penetrating reader will find much grist for his mill: witness, for example, Quirke's study on the town as an independent juridical entity, the possibility of national bureaux for the Fayum district, and his remarks concerning the *imy-r hnꜣwꜣt* controlling the workforce. The remaining papyri, such as those from Harageh and the larger group from Thebes (Ramesseum archive), round out this work and a short conclusion is presented (pp. 214-16).

While aptly pointing out that the Thirteenth Dynasty consisted of various rulers from different families, Quirke is almost at pains to stress the impossibility of the vizier-theory of power at that time. In fact, these administrative papyri reveal the effective working of the state apparatus, be it in a local town (Illahun) or at the regional southern capital (Thebes) and nothing indicates a weakened role of Pharaoh. In Quirke's eyes the failure of a continual succession of one lineage in the Thirteenth Dynasty is crucial and his point that 'failure to replace the 12th Dynasty itself constitutes the 13th Dynasty' (p. 214) cannot be underestimated.

The above detailed summary barely does justice to the effective demonstration of the author's theses or his rigorous methodology. Indeed, simply by reading the footnotes, the reader is left with a series of helpful and highly-incisive hints for his own research, as Quirke appears not to have left any stone unturned in his demonstration of the late Middle Kingdom administrative structure. All that comes out of the work is clear and straightforward. Modern discussions of this period of time, too often based on the most insubstantial data, are more than infrequently calmly and quietly laid to rest and in their place a typically Egyptian hierarchy of administrators regulating their land is revealed. Here, one finds no romantic hypotheses of power struggles between king and vizier; no futile theorizing on the 'democratization' of the Pharaoh.

Additional points in this book that are worth stressing encompass more the lexical-interpretative arena than the purely administrative. Some of these include Quirke's study of the *sh n hnrw*, the *shw*-*r* title, and others of the Thirteenth Dynasty (p. 6); his hypothesis that the two texts of P. Bulaq 18 might have been included in the burial to enable Neferhotep to indicate his scribal ability in the afterlife; the difference between *fqrw* and *sbbw* (quite crucial: p. 34); *smr wrty* as a prefix title (p. 69); his note on *snt nsw* (p. 100), and the like. Thus one will find useful comments on *sbbw* as 'estate workers' (pp. 145-6, 193), a series of new readings in the Kahun papyri (pp. 169-70), *iwyw* as 'detachment' (p. 191), and the all-important *trst* (-bread) (pp. 207-8). Many more, depending upon the predilection of the reader, can be located.

In sum, this reviewer cannot praise the study of Stephen Quirke any further without sounding repetitive. The crucial thing in a work such as this is that the new interpretations depend solely upon the primary material. That is to say, the author has provided a modern and detailed account of the various administrative papyri and all of his analyses depend upon that material itself. Here, one can easily see just how vital it is to survey what the Egyptians wrote and what they actually did on a day-to-day basis (as with P. Bulaq 18). I would hazard a reasonable guess that the same practice ought to be followed by students of Egyptian astronomy or economy. Namely, one must see the working-out of a system that is never explicitly discussed by the Egyptians through their daily life experiences. In the case of Quirke's administrative emphasis, P. Bulaq 18 naturally looms large in his account. Granted that none of the accounts discussed by Quirke has as its purport an explicit rendering of the administrative structure of late Middle Kingdom Egypt, yet, the material is large and detailed enough for modern analysis, and the author's approach has clearly produced important results. Perhaps one would have wished an amalgam of the epigraphical material (mainly from stelae) and the papyri. To me, and I suspect to Quirke as well, such an approach would have overburdened the covers of this book without vastly resolving many of the problems enunciated. Instead, we find a relatively compactly written yet readable account of the late Middle Kingdom governmental hierarchy available to all Egyptologists.

ANTHONY SPALINGER

Egypt and Canaan in the New Kingdom. By DONALD B. REDFORD. Beer-Sheva IV. 240 × 171 mm. Pp. xii + 121 (+ 2). Beer-Sheva, Ben-Gurion University of the Negev Press, 1990. ISSN 0334 2255. Price not stated.

In eight compact chapters, the author concisely reviews a variety of topics bearing on Egypt's imperial rule over Canaan in the New Kingdom. Chapter One is simply a three-page summary of the well-known differences in the forms and nature of Egyptian rule in Nubia and Western Asia. More ambitious is Chapter Two, covering two topics. The first is the terminology (Egyptian and Akkadian) of titles applied to Egyptian officials serving in Canaan; the second is a prosopography of those known to us from available sources. Redford's definitions of *imy-r hswt* may well fit earlier periods, but seem to this reviewer not to fit the new conditions of the New Kingdom so well. To see them as supervisors of such regions as Canaan, Amurru and Upe (whether defined as formal provinces or not) still seems preferable in the well-organized mid to late Eighteenth Dynasty, just as in the Nineteenth. Akkadian *šakin mati*, 'governor', is a rough equivalent, while *rabišu* means little more than '(royal) representative'—not unusually in a particular place. Even a local dynast such as Abimilki of Tyre could use this catch-all term for himself, as Redford also notes. *Contra* Redford, this title is entirely distinct from that of the royal messengers (with no fixed base other than the Egyptian capital), who constantly travelled back and forth as royal couriers between the pharaoh's court and those of vassals and foreign powers; these are the *wprwt(w) nsw* (*uput-šarri*), whose Akkadian equivalent would be *mar-šipri* and the like. For prosopography, Redford gives a comprehensive list of known officials, with Egyptian identifications where possible, which is summarized in tables.

Chapter Three passes to the geography of empire. The importance of Sile as a staging-post is well stressed, and the chain of forts and stations along the North Sinai coast road to Canaan. For

major Egyptian centres in the Levant, Redford allows Gaza, Ullaza and then Sumur, and Kumidi. He does not, by implication, share in the current fashionable rush to identify a rash of further Egyptian 'residencies' all over Canaan. Nor does he believe in formal provinces of Canaan, Amurru and Upe (p. 35). But what, then, is Upe? In the Amarna period, it is not a political unit, unless it were roughly the equivalent of a convenient geographical grouping or 'province'. In Chapter Four, on 'Policy and Population Control', it is refreshing to see Redford (unlike some commentators) taking seriously the mass deportation practised by Amenophis II in his Year 9; Redford stresses the persistent 'exiling' of Asiatics into Egypt during the Eighteenth to Twentieth Dynasties.

Chapter Five brings us to the tax-structure of Egypt's Syrian domains, with a useful discussion of terminology used, and a review of the products shipped back to Egypt, from gold to foodstuffs. Chapter Six turns to broader cultural relations, in terms of commerce, writing-systems in use, and Egyptian cults abroad, with a side-glance at Egyptian influence via Canaan on the Bible—all in three and one-half pages, and hence rather superficial. Chapter Seven is dedicated to the role of the Shasu and Apiru (on the loose in the scrubby uplands of central Canaan). *Pace* Redford (72f., 119 and n. 553), the relief of the capture of Ascalon (and its neighbours) at Karnak cannot be decisively dated to Ramesses II (his view in *IEJ* 36(1986), 193–6); he has chosen to ignore the very clear and thorough demonstration of their attribution to Merenptah by Yurco in *JARCE* 23 (1986), 189–215. Decades ago, the present reviewer had to examine those same reliefs for *KRI*, very carefully, and could find *no* trace of any cartouche before Merenptah's in any of these reliefs; they appeared in *KRI*, II, not IV, simply (i) out of extreme caution, (ii) because of a line of text of Ramesses II along the top of the wall (which is *not* proof of ownership of the scenes!), and (iii) because of the prince Khaemwaset (who may be a nephew here of the famous son of Ramesses II). Ascalon features elsewhere in Merenptah's wars (on the 'Israel' Stela), but nowhere in those of Ramesses II. It is a pity that Redford cannot be gracious enough to admit that he is as subject to error as lesser mortals (e.g., the reviewer, from time to time!). Neither are the Shasu the early Israelites—see L. Stager, *Eretz-Israel* 18 (1985), 56–64; another case where Redford refuses to consider any view not in accord with his own. Chapter Eight gives a clear, concluding overview of the main points in the book. Better proof-reading would have eliminated most of the more venal misprints.

Naturally, opinions can vary over issues where the evidence is often indecisive or inadequate. But when all is said and done, this handy and attractive little book will serve as a convenient, documented summary on its theme, particularly useful to students before they study the subject in closer detail from the sources themselves. We wish it well.

K. A. KITCHEN

Valley of the Kings: The Decline of a Royal Necropolis. By CARL NICHOLAS REEVES. 160 × 240 mm. Pp. xliii + 376, pls. 15. London and New York, Kegan Paul International, 1990. ISBN 0 7103 0368 8. Price not stated.

Der Autor legt mit seiner Arbeit eine umfangreiche Untersuchung zu den Gräbern im 'Tal der Könige' vor. In ihr werden die Grabanlagen nicht nach architektonischen Kriterien oder solchen, die sich mit der Dekoration, deren Entwicklung und religiösen Aussagekraft beschäftigen, betrachtet. Im Mittelpunkt der Untersuchung stehen die Gräber in ihrer eigentlichen Funktion als Ort der Bestattung eines Königs oder Privatmanns und als Aufbewahrungsort von Grabbeigaben, die die Begehrlichkeit von Grabräubern wecken. Vf. geht weiter der Frage nach, wann und in welcher Weise die Gräber beraubt worden sind, und welche Restaurierungsmaßnahmen in den beraubten Gräbern und an den Mumien vorgenommen wurden.

Die Arbeit ist klar und übersichtlich gegliedert: Teil I (p. 13–179) enthält die Besprechung der einzelnen Grabanlagen und ihrer Besitzer, soweit diese nicht zweifelsfrei feststehen, und untersucht die in den Gräbern gemachten Funde. Für jedes einzelne Begräbnis werden die erhaltenen Daten möglichst vollständig zusammengestellt. Mit Hilfe der erhobenen Daten wird die

Zuweisung der Grabanlagen an bestimmte Personen überprüft, die Frage nach dem Zeitpunkt und dem Grad der jeweiligen Beraubung gestellt. Bei mehrfachen Beraubungen wird das Problem der Abfolge der verschiedenen Einbrüche in das Grab untersucht. Es werden die zur Rettung der Mumien ergriffenen Maßnahmen, soweit sie sich aus dem archäologischen und epigraphischen Befund der Gräber nachzeichnen lassen, zusammengestellt.

Teil 2 (p. 181–268) beschäftigt sich mit dem Schicksal der in den zuvor untersuchten Gräbern beigesetzten Mumien und behandelt den Transfer der Mumien in die Mumienverstecke von DB 320, KV 35 und KV 57. Es wird der Versuch unternommen, die Wege der Mumien in diese Mumienverstecke mit Hilfe der erhaltenen 'dockets' zu bestimmen. Die schwierigen Fragen werden anhand von gut aufbereitetem Material erörtert. Das Material wird in Form von Tabellen übersichtlich dokumentiert (Tab. 3–8).

Eine Zusammenfassung (p. 269–82) beschließt die Untersuchung. Es folgen vier Appendices (p. 285–337), in denen unpubliziertes Material über die Ausgrabungstätigkeit im Tal der Könige während des ersten Viertels unseres Jahrhunderts behandelt wird: Appendix A enthält die Unternehmungen des 'Antiquities Service' von 1898–1906 unter den Ausgräbern V. Loret, H. Carter und E. Chassinat (p. 286–92), Appendix B die archäologischen Arbeiten von Theodore Davis zwischen 1902 und 1914 mit den Ausgräbern H. Carter, J. E. Quibell, E. R. Ayrton, E. H. Jones, H. Burton (p. 292–321), Appendix C die Ausgrabungen des Fifth Earl of Carnarvon im Zeitraum von 1915–1922 unter H. Carter (p. 321–31). Appendix D schließlich gibt Auszüge aus der Korrespondenz von A. Weigall wieder (p. 331–7). Ein von Stephen Quirke besorgter Index am Ende des Bandes (p. 341–74) erleichtert die Handhabung des Buches.

Die Untersuchungen des ersten Teils stützen sich auf die grundlegenden Vorarbeiten von E. Thomas, *Royal Necropoleis* (Princeton, 1966), und berücksichtigen neuere Untersuchungen zu den Königsgräbern (z.B. J. Romer, E. Hornung). Sie werden in kritischer Distanz durchgeführt und liefern durch Heranziehen von bisher nicht ausgewertetem Material neue wichtige Ergebnisse zu den Grabanlagen. Es werden die Grabanlagen und die darin gemachten Funde untersucht. Die Funde in den nicht vollständig ausgeraubten Gräbern werden auf ihre Lücken hin überprüft. Dabei zeigt sich, daß sich die von den Grabräubern begehrten Güter in zwei Gruppen teilen lassen: Verbrauchsgüter wie Leinenstoffe, Öle, Kosmetika, letztere besonders dann, wenn kurz nach der Bestattung eingebrochen wurde, und Gegenstände, die für eine Weiterverarbeitung und Wiederverwendung geeignet waren, wie wertvolle Hölzer, Elfenbein und vor allem Metalle. Vf. stellt fest, daß während der 3. Zwischenzeit dazu übergegangen wurde, Wertgegenstände von den Königsmumien zu entfernen, um diese für Grabräuber weniger attraktiv zu machen.

Die Untersuchung liefert höchst interessante Einzelergebnisse zu bisher wenig beachteten Grabanlagen, so z.B. zu WV 25 (p. 40: Grab des Echnaton), KV 58 (p. 72: Hort von Grabräubern oder Restaurierungswerkstatt?),¹ KV 4 (p. 121: Ramses XI. als Reparaturwerkstatt für Grabausrüstungsgegenstände), KV 36 (p. 140: Neudatierung in die Zeit Thutmosis IV./Amenophis III.), KV 45 (p. 147: Privatgrab eines Userhet, vielleicht des *hrd n kꜣp* von TT 56), KV 46 (p. 148 ff.: Grab von Tuya und Yuya mit verschiedenen Phasen der Beraubung). Einige der Lösungsvorschläge sind problematisch. Hierzu die folgenden kritischen Anmerkungen:

— Große Probleme bietet nach wie vor die Identifizierung des Grabes von Amenophis I., das Vf. (p. 3–5) in Dra abu'l Naga sucht und dort, in Anlehnung an H. Carter² und J. Romer,³ mit AN B verbindet.⁴ Gegen diese Gleichsetzung hat E. Thomas eine Reihe von Einwänden vorgetragen,⁵ die

¹ Vgl. dazu C. N. Reeves, 'A State Chariot from the Tomb of Ay', *GM* 46 (1981), 11–19; id., 'The Discovery and Clearance of KV 58', *GM* 53 (1981–82), 33–45.

² H. Carter, 'Report on the tomb of Zeser-ka-ra Amenhetep I, discovered by the Earl of Carnarvon in 1914', *JEA* 3 (1916), 147 ff.

³ J. Romer, 'Royal Tombs of the Early Eighteenth Dynasty', *MDAIK* 32 (1976), 198 ff.

⁴ Vgl. aber ablehnend dazu J. Černý, in *PM* 1, 599 und Thomas, *Royal Necropoleis*, 173.

⁵ Unklarheiten über die Funktion des Grabes als Doppelgrab mit Ahmes Nofretari oder als Einzelgrab für einen der beiden; keine Kongruenz zu den lokalen Angaben des pAbbott; die Funde enthalten Namen von mehreren Herrschern, unter denen die Namen von Amenophis I. keineswegs die am häufigsten belegten sind.

Vf. aber nicht überzeugend ausräumen kann. Seinem Lokalisierungsversuch stehen andere Versuche gegenüber: z.B. KV 39,⁶ DB 320,⁷ Habl B.⁸

— Das Grab Thutmosis II. wird von Vf. (p. 18f.) nicht, wie bisher, in KV 42,⁹ sondern wenig überzeugend in DB 358 lokalisiert. Entscheidend für diese, hier erstmals vorgeschlagene Identifizierung ist die Existenz eines sog. 'Grabräuberschachts' in DB 358, der nur bei Königsgräbern belegt sein soll, sowie die Einrichtung des Grabes unterhalb der 1. Kolonnade des Totentempels der Hatschepsut, also zeitlich vor Hatschepsut. Diese neue Deutung ersetzt ältere Interpretationen, in denen DB 358 bisher kontrovers teils als ein Königinnengrab aus der frühen 18. Dyn. (Ahmose-Meritamun),¹⁰ teils als das Grab der Königsgemahlin Amenophis II.¹¹ betrachtet worden ist.

— KV 55 ist für Vf. (p. 42 ff.)¹² ein unvollendetes Privatgrab der 18. Dyn., in dem Teje und Echnaton in der Nach-Amarnazeit nachträglich beigelegt worden sind. Ihre Überführung nach KV 55 in der Nach-Amarnazeit geschah jedoch nicht gleichzeitig, sondern in zeitlichem Abstand, wie sich einerseits aus dem zweimaligen Verschuß des Grabes und andererseits aus der Lage der Grabbeigaben aus dem Besitz der Teje und des Echnaton ergibt. Die Grabausstattung der Teje befand sich in der Mitte des Raumes, die des Echnaton an der Seite.

Am Ende der 20. Dynastie wurde die Mumie der Teje—unter Hinterlassung der bei der Auffindung des Grabes noch erkennbaren Unordnung—aus KV 55 entfernt und an einen unbekanntem Ort verbracht. Nach Ansicht von Vf. wurde sie in der zweiten Hälfte der Regierung des Smendes (nach J. 13; vgl. Table 11, p. 259) in das Mumienversteck von KV 35 überführt, wo sie—unter Berufung auf J. E. Harris und E. F. Wente¹³—'happily' (p. 44) in der namenlosen Mumie Kairo CG 61070 (p. 211) aus der Seitenkammer 'Jc' von KV 35 identifiziert werden kann (vgl. p. 205; Table 4, Nr. 18; p. 211; Table 6, Nr. 15; p. 246). Die Mumie des Echnaton dagegen verblieb in KV 55, dem die dort gefundenen skelettierten menschlichen Reste eines Mannes zugewiesen werden.

Die Problematik der mit reichem Material belegten Schlußfolgerungen zu KV 55 muß nicht eigens betont werden. Auch andere Rekonstruktionen des in KV 55 festgestellten Sachverhalts sind denkbar. Höchst hypothetisch ist die Annahme, daß in KV 55 sich neben der Mumie eines Mannes auch die Mumie der Teje befunden haben soll. Noch schwieriger nachzuvollziehen sind die Wege, die die angebliche Mumie der Teje nach KV 35 genommen hat. An sich problematisch ist schon die Frage, ob KV 55 überhaupt als Grab des Echnaton diene.¹⁴ Ebenso möglich ist die Auffassung, daß KV 55 das Grab des Semenckare/Nefernefruaten gewesen ist.¹⁵ Eine solche Möglichkeit wird von Vf. allerdings nicht diskutiert.

Der 2. Teil der Arbeit beschäftigt sich mit den Verstecken, in denen die Königsmumien des Neuen Reichs zum Schutz vor Grabräuberei vorübergehend oder endgültig gelagert worden sind. Die Untersuchungen dieses Abschnitts stützen sich auf die Ergebnisse der archäologischen Untersuchungen zu den Gräbern im Tal der Könige im 1. Teil der Arbeit und auf das Text-

⁶ Vgl. Thomas, *RN*, 73 ff.; J. Rose, *After Tutankhamun, An International Conference on the Valley of the Kings, Abstracts of Papers and Presentations*, Highclere Castle, 15–17 June 1990, 1.

⁷ Franz-Jürgen Schmitz, *Amenophis I.* (Hildesheim, 1978), 205 ff.

⁸ Thomas, *RN*, 71 und 160 Fig. 16: Habl B.

⁹ Vgl. PM 1, 559; E. Hornung, 'Das Grab Thutmosis II.', *RdE* 27 (1975), 125 ff.; L. Gabolde, 'La chronologie du règne de Thoutmosis II', *SAK* 14 (1987), 76 ff.; E. Thomas, *RN*, 73 ff. schlägt KV 32 oder KV 39 dafür vor.

¹⁰ Thomas, *RN*, 175 f.

¹¹ Vgl. PM 1, 629 f. und H. Winlock, *The Tomb of Queen Meryetamun at Thebes* (New York, 1932), *passim*.

¹² Vgl. auch Reeves, 'A Reappraisal of Tomb 55 in the Valley of the Kings', *JEA* 67 (1981), 48 ff. und id., 'Akhenaten after all?', *GM* 54 (1982), 61 ff.

¹³ J. E. Harris, E. F. Wente et al., 'The Mummy of the "Elder Lady" in the tomb of Amenhotep II: Egyptian Museum Catalog Number 61070', *Science* 200 (1978), 1149 ff.

¹⁴ Vgl. dazu auch: A. H. Gardiner, 'The So-called Tomb of Queen Tiye', *JEA* 43 (1957), 23–4; Reeves, *GM* 54, 61–71. Für eine Beisetzung der Kije in diesem Grab plädiert, wenn auch wenig überzeugend, Y. Knudsen de Behrens, 'Pour une identification de la momie du tombeau No 55 de la Vallée des Rois', *GM* 90 (1986), 51–60.

¹⁵ Vgl. zuletzt: R. Krauss, 'Kija—ursprüngliche Besitzerin der Kanopen aus KV 55', *MDAIK* 42 (1986), 76 ff.

material der sog. 'dockets'. Mit Hilfe der verfügbaren archäologischen und inschriftlichen Daten wird versucht, die Wege der Mumien zu den einzelnen Mumienverstecke nachzuzeichnen. Unter diesen sind für Vf. drei Verstecke von besonderer Bedeutung, und zwar die bekannten Verstecke aus DB 320 und KV 35 und das von Vf. als solches neu identifizierte Versteck in KV 57.

— Im Hinblick auf das Mumienversteck DB 320 weist Vf. überzeugend nach, daß DB 320 nicht mit dem Grab der Ahmose-Inhapi identisch sein kann (p. 183 ff.), als das es bisher wegen der 'dockets' auf den in DB 320 gefundenen Mumien von Ramses I., Sethos I. und Ramses II. (p. 237 f. Table 10, Nr. 40, 41, 42) fast allgemein gegolten hat. Vf. wendet sich damit gegen die erstmals von H. Winlock¹⁶ vertretene und von J. Černý,¹⁷ E. Thomas¹⁸ und A. Niwiński¹⁹ durch zusätzliche Argumente unterstützte Auffassung, daß DB 320 das Grab der Ahmose-Inhapi gewesen sei. Er begründet (p. 187) seine Ablehnung der bisherigen Meinung mit der in DB 320 vorgefundenen Verteilung der Mumien. Aus ihr ergibt sich, daß die Mumie der Ahmose-Inhapi vom Ende der 17. oder Anfang der 18. Dynastie als eine der letzten nach DB 320 verbracht wurde und nicht—wie für den Fall, daß DB 320 das Grab dieser frühen Königin gewesen ist, zu erwarten wäre—im eigentlichen Grabbereich.²⁰ Vf. stellt fest, daß das Grab zwar an das Ende der 17. oder Anfang der 18. Dynastie zu datieren ist, daß es aber vor seiner Verwendung als Mumienversteck als Familiengrab der Familie der Neschons und des Pinudjem II. gedient hat. Unklar bleibt, wem das Grab vor seiner Wiederverwendung ursprünglich zuzuordnen ist. Die Überführung der Mumien nach DB 320 datiert er in die Zeit Scheschonk I. (vgl. Table 11, p. 259).

Die ursprüngliche Sammelstelle der später nach DB 320 überführten Mumien, das Grab der Ahmose-Inhapi, kann nicht sehr weit von DB 320 entfernt gelegen haben. Vf. sucht diese im Grab 'WN A' südlich von Deir el Bahari (p. 190–2). Seine Identifizierungsvorschlag fällt aber nicht sehr überzeugend aus, nicht zuletzt weil das Grab 'WN A' für eine so weitreichende Frage bisher noch nicht hinreichend untersucht worden ist.

— Das zweite große Endlager von Mumien ist KV 35. Auch hier ist eine unsystematische Lagerung der Mumien innerhalb des Grabes zu erkennen. Vf. schließt daraus, daß die Mumien im Grab mehrfach umgeräumt wurden. Die unterschiedliche Restaurierungstechnik lege nahe, daß die Mumien aus unterschiedlichen Sammelstellen nach KV 35 gebracht worden sind.

Eine der Sammelstellen, aus der die Mumien nach KV 35 überführt wurden, soll KV 14, das Grab der Tausret, gewesen sein.²¹ Diese Annahme stützt sich auf zwei, in der unvollendeten Sarkophaghalle 'Ka'/'Kb' von KV 14 erhaltenen Graffiti, für die Vf. eine Lesung 'Jahr 6, II *ih* 1' in 'Ka' und 'Jahr 7, II . . .' in 'Kb' von R. Caminos übernimmt: 'It is possible . . . that the first KV 14 graffito (—aus 'Jahr 6' in Ka—) is to be connected with the round of official activity which took in KV 17, KV 7 and KV 57 . . . The possibility of some connection with the *whm mswt* restorations is strengthened by the date (—aus 'Jahr 7'—) of the graffito within Kb' (p. 109).²²

Die von Vf. vertretene Lesung 'Jahr 7' für das Datum aus 'Kb' läßt sich, wie neuere Untersuchungen ergeben haben (vgl. *GM* 84 (1984), 9), jedoch nicht halten. Beide Daten in 'Ka' und 'Kb' müssen einem gleichen 'Jahr 6' zugeordnet werden. Wie wiederholt dargelegt worden ist, gehören sie beide in die Reihe der Daten, die mit der Baugeschichte von KV 14 zu verbinden sind. Sie benennen den Zeitpunkt der Einstellung der Arbeiten an der unvollendeten Sarkophaghalle 'Ka'/'Kb' im 6. Jahr von Siptah-Tausret.

Gegen eine Deutung der Daten als Markierungen einer offiziellen Inspektion oder Einrichtung einer Cachette spricht auch ein Vergleich mit den 'dockets' aus den anderen Gräbern des 'Tals der

¹⁶ H. Winlock, 'The Tomb of Queen Inhapi', *JEA* 17 (1931), 107 ff.

¹⁷ J. Černý, 'Studies in the Chronology of the Twenty-first Dynasty', *JEA* 32 (1948), 24 ff.

¹⁸ E. Thomas, 'The *ky* of Queen Inhapi', *JARCE* 16 (1979), 85 ff.

¹⁹ A. Niwiński, 'The Bab el-Gusus Tomb and the Royal Cache in Deir el-Bahri', *JEA* 70 (1984), 73 ff.

²⁰ Vgl. dazu auch M. Dewachter, 'La dispersion du contenu de la cachette royale de Deir el-Bahari', *BSFE* 74 (1975), 19 ff.

²¹ Vgl. dazu H. Altenmüller, 'Das Grab der Königin Tausret (KV 14)', *GM* 84 (1985), 7–17; ders., 'Observations on some new Dates from the Tomb of Tawosre (KV 14)', in Rose (ed.), *After Tutankhamun*, 11.

²² Das Datum aus 'Kb' kann nicht mit dem Datum von oCG 25,575 von 'Jahr 7, II *ih* 1' aus KV 47 verbunden werden. Auch das p. 109 genannte angebliche Datum aus 'Jahr 7, II *ih* 7' ist zu streichen. 'Jahr 7' ist dort, wie übrigens korrekt auf p. 103, 234 angegeben, in 'Jahr 6' zu verbessern: vgl. Černý und Sadek, *Graffiti de la montagne thébaine*, Nr. 2056a.

Könige' (vgl. p. 233 ff.: Tab. 10). In allen diesen 'dockets' und Graffiti—hier sind in erster Linie die von p. 234 in Tab. 10 Nr. 5–9 zu betrachten—wird das Datum jeweils von einem Text begleitet, der Informationen über die Personen und/oder den Zweck des Aufenthalts im Grab gibt (vgl. auch p. 228–31). Dies ist in KV 14 nicht der Fall. Die Annahme, daß die Mumien, in 'zwei Runden' nach KV 14 gebracht und dort restauriert wurden, und daß die Daten aus diesem Anlaß in 'Ka'/'Kb' aufgeschrieben worden sind, ist unter diesem Aspekt noch weniger wahrscheinlich.

— KV 57: Ähnlich problematisch ist der Fall von KV 57, das von Vf. aufgrund der von ihm erstmals im Zusammenhang veröffentlichten Graffiti als Mumienversteck aus der Zeit der *whm-mswt*-Ära angesehen wird und in dem nach Ansicht des Vf. die Mumien des Haremheb und des Eje gelagert worden sind. Abgesehen davon, daß die geringen menschlichen Überreste in KV 57 eine Identifizierung der dort gefundenen Personen kaum gestatten, sind auch die Umstände, die zu der Einrichtung dieser cachette geführt haben sollen, höchst dubios. 'It is perhaps the case that graffito a (—mit einem Datum aus Jahr 4 der *whm-mswt*-Ära(?), IV *ih*t 22, wie p. 234 Tab. 10 Nr. 4 ergibt—) constitutes a record of transfer of Ay's body from his original tomb to that of Horemheb, the few funerary furnishings . . . being temporarily stored, perhaps, in the nearby KV 58 and for some reason not recovered' (p. 78). Diese Feststellungen dürften aber kaum genügen, KV 57 als ein Mumienversteck der *whm-mswt*-Ära zu erweisen.

Die Frage, welche Mumie mit welchem König zu verbinden ist, muß trotz der 'dockets' und der einschränkenden Bemerkungen von p. 225 ff. in vielen Fällen offen bleiben. Kapitel 12, in dem die Wege der einzelnen Mumien in die Mumienverstecke, so wie in den vorausgegangenen Kapiteln erschlossen, zusammenfassend dargestellt werden, enthält unter diesem Aspekt eine Fülle von Fragezeichen und ist auf weite Strecken spekulativ. Fast jede besprochene Königsmumie ist als problematischer Fall einzustufen, ganz besonders gilt dies für die Mumien ohne 'dockets', zu denen die angeblichen Mumien von Thutmosis I. (CG 61065), von Teje (CG 61070),²³ von Haremheb und von Sethnacht zählen, sowie die Mumie der 'Unknown woman D' (CG 61082), in der Vf. Tiaa oder Isisnefret sehen möchte.

Trotz der kritischen Bemerkungen kann die Arbeit insgesamt sehr positiv bewertet werden. Sie ist hervorragend dokumentiert. Eine übersichtliche Präsentation der Quellen erlaubt den schnellen Zugriff auf das Material, ein ausführlicher Index macht das Buch benutzerfreundlich. Das Buch bietet vielfach neue, wenn auch aus Faktenmangel nicht immer sichere Lösungen an. Es ist anregend geschrieben und stellt eine wissenschaftliche Arbeit von hohem Rang dar. Als solche wird die Arbeit gewiß weithin Beachtung finden und auf lange Sicht auch Bestand haben.

HARTWIG ALTENMÜLLER *and* CHRISTIANE PREUSS

The Reign of Thutmose IV. By BETSY M. BRYAN. 260 × 180 mm. Pp. 390, pls. 19. Baltimore and London, The Johns Hopkins University Press, 1991. ISBN 0 8018 4202 6. Price \$63.50/£39.50.

Recent years have seen the publication of a number of books dealing with individual reigns of the Eighteenth Dynasty, including Peter Der Manuelian's study of the *floruit* of Amenophis II.¹ The book under review deals with the reign of that ruler's son, a period at which Egypt's power and prestige were at their height.

The make-up of the book is straightforward, successive chapters dealing with chronology, the royal family, the royal monuments, the private monuments, and home and foreign policy. Like many works of the past few years, it is produced from a laser-printed, word-processed camera-

²³ Vgl. dazu G. Robins, 'The value of the estimated ages of the royal mummies at death as historical evidence', *GM* 45 (1981), 63 ff.; R. Germer, 'Die angebliche Mumie der Teje', *SAK* 11 (1984), 85 ff. Die Mumie wird gelegentlich auch als Mumie der Hatschepsut angesprochen: Gabolde, *SAK* 14, 73.

¹ *Studies in the Reign of Amenophis II* (Hildesheim, 1987).

ready copy. Unfortunately, while the book is extremely well made, with a not unattractive typeface, the word-processing itself is poor, with spaces missed out, isolated commas at the beginnings of lines, uneven paragraph indents and, in one place (pp. 205–6), three lines at the bottom of one page repeated on the next. The insertion of diacriticals is also rather careless, and with numerous omissions; on p. 338, three hieroglyphs have been missed out. The sum of graphic errors is such that one would assume that proof-reading did not occur.

A selection of other basic mistakes includes misspelling Jeffrey Spencer's Christian name twice (pp. 1 and 316 n. 176), the writing of 'Temple' for 'Temp. Register' on fig. 7, plus the mention of non-existent figures '11a' and '11b' on p. 390 (I can only find a 'Fig. 11', on plate v, which seems to correspond to 'Fig. 11b'); a significant number of others exist. Such a body of careless errors does rather detract from one's appreciation of the work of the author.

Chapter One deals with the chronology of Tuthmosis IV's reign. This matter is of considerable interest in the reconstruction of overall New Kingdom chronology, in view of Edward Wente and Charles Van Siclen's proposal to raise the reign length from the conventional nine years to thirty-three.² Judiciously, Bryan recognizes that Manethonian evidence for the Eighteenth Dynasty is far too confused to be of any real use; on the other hand, she shows that the first eight years of Tuthmosis IV are reasonably covered by surviving monuments, and that an alleged 'Year 20'³ really belongs to Tuthmosis III. Beyond this, there are no clear year-dates of the king.

Turning to the king's mummy, unlike some writers, the author accepts the identity of the corpse labelled 'Tuthmosis IV', quite rightly in my opinion, since it is one of the cached mummies labelled with its name on the actual shroud, without the possibility of names having been switched through coffin exchanges. She gives an extensive discussion of the age-related details revealed by X-rays of the mummy, quoting a number of physical anthropological opinions which contradict conclusions reached during the original X-ray programme. These sources also state that the X-rays of the royal mummies are not good enough for detailed interpretation, because of the need to take them through wooden coffins. Thus, apart from the specific case of Tuthmosis IV, a general warning is provided against taking the ages given in the *X-Ray Atlas* too seriously—something very welcome in view of the impossible ages quoted there for many rulers.

An account is then given of the astronomical data bearing on the absolute chronology of the reign. The reviewer must confess to profound scepticism regarding such dating methods, and is therefore in full agreement with the author that the 1504/1479 dates given for Tuthmosis III, and other more detailed estimates by Richard Parker and others, are far from certain. Indeed, there is an urgent need to review all aspects of New Kingdom absolute chronology from first principles, since a good case can be made for removing up to twenty-five years from the period between the late Eighteenth Dynasty and the accession of Shoshenq I, the earliest point at which any meaningful synchronism exists from the point of view of establishing absolute dates.

Next, the jubilee evidence is assessed, the key material used by supporters of the proposition that Tuthmosis IV reigned for 33 years. Bryan agrees with Erik Hornung, Elisabeth Staehelin and Donald Redford that the mere mention of the *hb-sd* cannot be used to support a thirty-year-plus reign for any New Kingdom king. Likewise, the evidence of official careers is shown to support a reign of no more than ten years. Thus, a decade of rule is assigned, a conclusion with which the reviewer concurs.

The next two chapters are devoted to the royal family. The first matter dealt with is the question of Tuthmosis IV's succession. Many scholars have expressed, implicitly or explicitly, the view that some foul play may have been involved in his accession, basing their views on the text of the Dream Stela in front of the Great Sphinx at Giza, and the erasure of the name of the apparent crown prince on 'Stela B' from the same site. Bryan discusses the matter over a number of pages, and comes to the ultimate conclusion that Tuthmosis was indeed Amenophis II's legal successor; 'although [he] may have been challenged by another prince upon the death of' his father, this prince 'was not likely to have been the legitimate heir' (p. 348). I must confess that this view is diametrically opposite to that which I take on the basis of the selfsame evidence, and cannot say

² *Studies in Honor of George R. Hughes* (Chicago, 1976), 217–61.

³ Used by Wente in J. E. Harris and E. F. Wente, *An X-Ray Atlas of the Royal Mummies* (Chicago, 1980), 253, and by K. A. Kitchen, *Serapis* 4 (1977–78), 69.

that some of the author's argumentation inspires confidence. I hope I am wrong, but the whole section gives the impression of being a defence of Tuthmosis against his modern accusers: such an approach is not a sound historical practice.

In the course of her discussion, the author questions Redford's equation of the prince of 'Stela B' with the *sm*-priest and prince, Amunhotpe;⁴ her grounds seem, however, insufficient. Her treatment of Prince Webensenu also fails to carry conviction, leaving much of the chapter distinctly unsatisfactory. However, certain assessments of princes of the general period of Tuthmosis IV seem sound. I would now follow Bryan in assigning Amenemopet to the brood of Amenophis II, rather than Tuthmosis III,⁵ and attributing Brussels E6858 to Amunhotpe C (the future Amenophis III). Her addition of Prince Ahmose to the general period also seems correct, although I am not convinced by the confident statement that his monuments should be dated to Tuthmosis IV's reign: the stylistic considerations used are rather dangerous when one is dealing with a reign only ten years long, particularly when such a dating brings into consideration wider matters concerning the role of royal princes. It is unlikely that any son of Tuthmosis IV can have been old enough to serve under his father: thus, Ahmose would have to be a son of a predecessor. However, this would go against the apparent rule that the title of *sr-nsu* was dropped on official monuments once one's father was dead.⁶ The instance of Ahmose might well disprove this 'rule', but pending further evidence, I would prefer to date his stela, Berlin 14200, and statue, Cairo CG 589, to the last year or so of Amenophis II, during which the prevailing style cannot have differed significantly from that of Tuthmosis IV's reign.

Moving on to Chapter Three's royal ladies, a full documentation is given of Tuthmosis' mother, Tia (A). Here, it is significant that we have no unequivocal mention of her under the king's father, Amenophis II, and a number of examples of the name of Queen Meryetre, mother of Amenophis II, erased to make way for that of Tia. One inevitably wonders how this ties in with the evidence of the princes' stelae at Giza, but on this occasion must agree with Bryan that a definite conclusion is unwarranted.

On pp. 106-7, it is proposed that the various fragments from KV 47 naming a *mwt-nsu* [etc.] Tia, allocated by Cyril Aldred to the mother of the tomb's owner, Siptah,⁷ in fact belong to the mother of Tuthmosis IV, suggesting a reburial. The principal pieces are of a calcite canopic chest, which the author says is of 'a very similar stone and style' to the fragments of that of Tuthmosis IV. I find this statement most curious: firstly, the latter pieces are presently unlocatable in the Cairo Museum, and have never been illustrated.⁸ Secondly, presuming that Tuthmosis' chest was of the same design as that of Amenophis II, its detailed form (particularly of the interior), stone quality, and decorative scheme will have been quite unlike Tia's!⁹ A further error is found in Bryan's statement that the canopic fragments were found in 'water-washed rubbish thrown aside in the first corridor by grave robbers' (p. 106); they were also found far deeper inside the tomb, in the sepulchral hall.¹⁰ Here, they were intimately mixed with pieces of a calcite coffin and another chest, which cannot be other than those of Siptah. This latter chest is actually of better quality than that of Tia,¹¹ the fragments referred to on p. 107 having nothing to do with the 'second chest'.¹²

⁴ *JEA* 51 (1965), 111-14.

⁵ Dodson, *JEA* 76 (1990), 91-6.

⁶ *Ibid.* 88-9, n. 14. Bryan's contrary view (p. 84 n. 132) fails to make the distinction between official and private monuments. Also, her appeal to the case of royal women retaining titles invoking a deceased *nsu* may be turned by the observation that, in general, princesses had no 'independent' titles, in contrast to their brothers, whose could hold 'real' jobs, and thus an alternative source of ranking titulary.

⁷ Aldred, *JEA* 49 (1963), 41-8.

⁸ Otto Schaden, who collaborated with me on the New Kingdom chapter of my *Canopic Equipment of the Kings of Egypt* (London, 1994), was unable to locate the box containing them in both 1984 and 1985-6.

⁹ Full discussions of all these chests are included in Dodson, *Canopic Equipment*, 51-3, 72-3, 120 [30].

¹⁰ C. N. Reeves, *Valley of the Kings: The Decline of a Royal Necropolis* (London, 1990), 320.

¹¹ Dodson, *Canopic Equipment*, 73.

¹² *Canopic Equipment*, 72 n. 143 and Dodson, *RdE* 41 (1990), 32 n. 9.

Finally, the whole suggestion of a reburial including a weighty, stone, canopic chest founders on the point that caching never demonstrably includes such heavy items of stone equipment: only mummies and coffins (plus the occasional canopic *jar*) were normally moved. Accordingly, the reviewer continues to accept the existence of a Nineteenth Dynasty *mwyt-nsw* Tia. He also would maintain the dating to this dynasty of the shabti MMA 14.6.40, since, whatever the unusual features of its spell, its form seems far more in keeping with a Nineteenth Dynasty date.

A surprising feature of Tuthmosis IV's reign is the attribution to its relatively brief period of no fewer than three *hmwt-nsw wrt*. Attempts have been made to show that one of them was none other than the deified Ahmose-Nefertiri, but Bryan shows that Nefertiry was indeed a genuine wife of Tuthmosis.

Attempts have also been made to equate the second wife, 'Iaret', with other personages, but the author once again argues convincingly for her distinct identity, and her elevation in Year 7. In view of the king's own relative youth, I would support the view that she was Amenophis II's daughter, rather than a child of Tuthmosis himself.

The last wife, only attested in her son's reign, is Mutemwia. Bryan clearly points out the impossibility of her equation with the Mitannian princess, and the unlikelihood of any Egyptian royal parentage. Although not unsympathetic to Aldred's association of Mutemwia with the Yuya family, the author does not commit herself.

The discussion of Tuthmosis IV's daughters draws heavily on the evidence of the cache discovered by Alexander Rhind. The republication of this group by the reviewer and Professor Janssen¹³ clearly appeared as the manuscript was made ready for the press, since, while its conclusions are noted, certain earlier comments are left unchanged, for example that the author does 'not know' which Royal Museum of Scotland numbers refer to the labels of Tia (B). Likewise, she believes that the death of Tia during the reign of Amenophis III is 'conclusively demonstrated' by the label; since the deposit in which it was found was a cache, this is by no means the case. Equally unsound is the later statement (p. 247) that the daughter of Prince Siatum 'died (or was reburied) in Amenhotep III's reign'.¹⁴

Chapter Four comprises in essence an annotated catalogue of Tuthmosis IV's monuments, arranged geographically. Few comments are necessary, since all entries are workmanlike, and lack exceptionable statements. A number of additional objects from the king's tomb, KV 43, have been traced in the Oriental Institute, Chicago, allowing a definitive list of finds to be given on pp. 208-10. A minor point is that coffin Cairo CG 61035 is 'definitely not', rather than 'probably not', original to KV 43. In the list of monuments on pp. 211-13, a small quibble is that the prince's head in Oxford is owned by The Queen's College, not a college endowed by the New York borough of Queens! Additionally, the museum numbers for objects in Durham and the British Museum lack their respective prefixes 'N' and 'EA': the literature has long been bedevilled by sloppily cited accession numbers, a point which should be watched.

A substantial section deals with 'Civil, Religious and Military Administration'. The probable over-attribution of tombs to the reign of Tuthmosis IV on stylistic grounds is well highlighted, although elsewhere in the book there are examples of the author herself basing considerable conclusions on doubtful stylistic opinion. The following discussions seem sound, and so generally require little comment.

In discussing the tomb of the vizier Hepu (TT 66), Bryan suggests that 'high ranking members of Thutmose's court were forced to build at foot-tiring altitudes [on the Sheikh Abd el-Qurna hill] because the mount was already so honeycombed' (p. 243). This is directly contrary to the indications of early Tuthmoside tombs in the area, where there seems to have been an attempt to build as high as possible, at a time when few tombs had been built lower down.¹⁵

The final chapter is entitled 'Thutmose IV Abroad and at Home', covering foreign policy, and concluding with a summary of conclusions regarding domestic matters discussed in earlier chapters. The king's Konosso stela is discussed in some detail. The normal interpretation of the

¹³ JEA 75 (1989), 125-38.

¹⁴ Ibid. 135-6.

¹⁵ Cf. P. F. Dorman, *The Monuments of Senenmut* (London, 1988), 85.

text as recording a war in Nubia is rejected in favour of reading it as referring to desert policing operations around the latitude of Elephantine.

The broken toponym on a Karnak statue-text normally read as referring to a war against Naharin is shown to be more likely to refer to a lesser state, but some skirmish with Naharin is proposed on the basis of a scene of captives in TT 90.

A number of aspects of relations with other states are inferred from the Amarna Letters. In a number of these documents there are references back to an earlier reign, normally identified as Tuthmosis IV's, and Bryan's views on them seem wholly reasonable. Acceptable, too, is the summary of the Palestinian archaeological evidence, limited as it is.

The following section is concerned with home matters. A number of paragraphs discuss coregency evidence; they would surely have been better placed three hundred pages earlier, along with other chronological matters, rather than in this concluding part of the book. Also perhaps better placed earlier would have been a two and a half page discussion of the 'Aten' scarab in the British Museum (EA 65800), which resurrects doubts as to its authenticity. On p. 354 it is stated that a 'handcopy and photograph are provided below': the photograph appears at the very end of the book as fig. 52, but the hand copy is nowhere to be found.

The general statements of conclusion that are interleaved with these detailed discussions are not particularly remarkable, with the final 'Epilogue' being essentially a work of rhetoric. Indeed, they are a good reflection of the difficulty in getting beyond the surface of the outward manifestations of the Egyptian monarchy. In the present state of research, a fairly good *chronicle* of ancient Egypt can be reconstructed, but the preparation of *history*, in the sense of explaining the motivations that lay behind bald occurrences, is still in most cases a matter of intuition, and should be explicitly recognized as such.

The book concludes with a bibliography, indices and plates. Amongst the latter, fig. 12b, a detail of the upper part of the Giza 'Dream Stela', seems rather pointless, as it is smaller than the corresponding part of the full view of the stela on the opposite page! The indices, apparently computer generated, are not satisfactory, being far too selective, even when taking into account the explanatory rubric on p. 386. At the very least a *full* index of personal names is needed, with a listing of museum objects high on the list of desirables.

The reviewer's overall reaction to the book was disappointment. A lot of effort has clearly gone into the research, and as a catalogue of material relating to Tuthmosis IV's reign, it would be difficult to fault. However, parts are badly written, with many of its discussions of contentious points unconvincing for one reason or another; this leaves aside the lack of care seen in the way that the text has been physically put together. A comprehensive revision of both content and typography would have led to a far more satisfactory book.

AIDAN DODSON

Découverte à Saqqarah: le vizir oublié. By ALAIN ZIVIE. 314 × 272 mm. Pp. 199, 109 illus., mostly coloured. Paris, Éditions du Seuil, 1990. ISBN 2 02 012499 8. Price FF 390.

The tomb of the vizier Aperia is hewn in the escarpment under the Antiquities Service rest-house at Saqqara. It is thus a type of New Kingdom funerary monument not normally associated with the Memphite necropolis (but see the remarks in my *The Memphite Tomb of Horemheb*, I, p. 3). Certainly no-one since Flinders Petrie seems to have taken an interest in Aperia's tomb, even though inscriptions were visible, as well as parts of damaged reliefs. Petrie made notes on the tomb in the 1880s (preserved among the papers of A. H. Sayce), whence its existence is signalled in the new edition of Porter and Moss, vol. III.

Until the recent excavations, the first or main vaulted chamber of the tomb was encumbered almost to the ceiling with windblown sand, dust, and modern detritus—a dispiriting sight. This did

not deter Zivie from applying for a concession to excavate, a project which has occupied him for more than a decade. The results, of which we have a tantalizing preview in this volume, are nothing short of a triumph.

The volume is lavishly produced, printed on coated paper, and rather weighty to hold. It seems to have been written with the cultivated general reader in mind, rather than the scholar looking for precise details and argued facts. The author does, however, place the discovery, which caused great public interest in France, in its religious, chronological and artistic contexts, and something is said about the iconography of the objects, many of which are of high quality, which is in accord with the tomb-owner's status. The tone of *Le vizir oublié* is highly personal. The book is written with *élan* and is beautifully illustrated.

Aperia's name is also written Aper-el, which is Asiatic rather than Egyptian. Zivie suggests that the etymology is Semitic, possibly from Abed or Oved-el, 'the servitor of the god El'. The names of his wife and son are purely Egyptian, however. The Semitic connection is interesting, and it remains to be seen whether the examination of Aper-el's skeleton will suggest a non-Egyptian origin (E. Strouhal provides a preliminary assessment of the skeletal material in this volume). Even if it does, it would be difficult to prove that Aper-el came from lands beyond the Egyptian frontiers. There must have been plenty of people of Semitic origin long domiciled in Egypt, particularly perhaps in Memphis, by the late Eighteenth Dynasty, which is when the tomb-owner flourished.

The rock tomb is on four levels, the burial chamber of the owner, his wife Tauert and their son Huy, general of chariotry and scribe of recruits (presumably under Akhenaten), being twenty metres below the entrance. Level 3 shows extensive evidence of firing. The primary burials had been disturbed, but most unusually the robbery was detected before everything was broken up and dispersed (the usual state of affairs at Saqqara and elsewhere), and the chamber was reblocked, to remain inviolate until modern times. The tomb equipment was choice, as was to be expected for a family of vizieral status, but not as extensive and wide-ranging as the nearly contemporaneous burials of Yuia and Thuia (Valley of the Kings) or Kha (Deir el-Medina). Nevertheless, it is an ensemble of great importance, particularly because it is the first of its period to have been found in the Memphite necropolis virtually intact and excavated under modern conditions. The comparative material from the current EES-Leiden work has, by and large, been plundered and smashed.

As regards the funerary objects, the coffins, though in fragile condition and presenting severe conservation problems, were of gilded wood with fine face-masks and inlays. The canopic jars are excellent examples of the period, but I would hesitate to designate them portraits of the owners, as the author seems to suggest (in respect of Egyptian art, the word 'portrait' should surely be used very sparingly). Amulets, jewels (including gold rings), cubit rods, and a number of alabaster vessels for unguents were also recovered. There were also shabtis, a fine cosmetic palette in the form of a fish, and a remarkable wooden head of a female, reminiscent of a similar head found earlier in the century near the Step Pyramid. In some ways the mud-seal impressions (*temp.* Akhenaten) and the imported Aegean ceramics are among the most important historical objects in the group. Plates illustrating two of the latter are provided. Hardly a word is said about this vital material, which admittedly is not of paramount importance to the general reader. The two illustrated wares appear to be of the classic Late Helladic III A2 period. Peter Warren and Vronwy Hankey conclude from other sources that pottery of this epoch began before the reign of Amenhotep III. The Aperia funerary deposit dates from late in the reign of Amenhotep III and extends into the reign of Akhenaten (wine jar docket of Huy date to Year 10, surely of that king). The Aperia material appears on present evidence to confirm the Warren-Hankey chronology, and in any case provides much-needed new facts to bring forward in the current controversy about ancient Near Eastern and Aegean chronology.

As I have pointed out elsewhere, information about the viziers of Lower Egypt and their families in the Eighteenth Dynasty is meagre in the extreme. When the court and chief officials were based in Memphis, before and after the reign of Akhenaten, the northern vizier must have had enormous influence, particularly as he was well-placed to have the ear of the sovereign. Although we learn nothing from the tomb about Aperia's administrative activities or initiatives in a crucial period of Egypt's history, the details about his family are a welcome addition to a growing Memphite

prosopography. As well as holding the highest state office under the Pharaoh, the vizier Aperia was also God's Father, a title also held by Yuia, father-in-law of Amenhotep III. One should, however, resist the temptation to link the Yuia and Aperia families on the basis of such a fact. In any case, the significance of the title God's Father is not yet fully understood.

The site of Zivie's work is far from being exhausted; indeed, the *gebel* escarpment must be full of tombs, as I have suggested in another place. Exploration has already revealed the names of the officials Resh, Meryre, Merysekhmet, and Nehsy. Their monuments, touched on in the present volume, are in parlous condition but full of information, not least on iconography, and one admires the intrepidity of the excavator.

The area was modified and re-used in the Thirtieth Dynasty for the burials of a multitude of cats, sacred to the goddess Bast, connected with her temple nearby, the Bubastieion. Some of the cat mummies are completely preserved, but most are broken and scattered. Sometimes a mere bone or two served as a substitute for a complete mummy. The embalmers must have scraped up almost anything that came to hand in order to meet their 'quota'. This rather unprepossessing material is not ignored by Zivie. Indeed, it is of considerable importance, and we can expect not only valuable new insights into the sacred animal cult at Saqqara, but also many new facts on the history and domestication of the cat in antiquity. Some specimens from the Aperia complex seem to have had a yellowish-red pelt.

We look forward to the full scientific report on the findings, which will without doubt considerably amplify our increasing knowledge of the Memphite area in the first and second millennia BC.

GEOFFREY T. MARTIN

The Complete Tutankhamun: The King, the Tomb, the Royal Treasure. By NICHOLAS REEVES. 260 × 200 mm. Pp. 224, 519 illustrations, 65 in colour. London, Thames and Hudson, 1990. ISBN 0 50005 058 9. Price £15.95.

The title of this book is modelled on those handbooks that promise the reader all there is to know about a particular subject, from Indian cookery to tackle fishing. What Nicholas Reeves supplies is a highly readable description of Tutankhamun's tomb in Chapter III and of its contents in Chapters IV–V, prefaced in Chapter I by the briefest account of the historical context, and in Chapter II by yet another retelling of the story of Carter's search for and discovery of the tomb.

Barely ten pages (less than five per cent of the total volume of the text) are devoted to Tutankhamun and his reign. In the paragraphs on Tutankhamun's parentage, Reeves opts for Akhenaten (correctly, in my view) to fill the role of Tutankhamun's father, but his championing of Kiya as the boy king's mother (in the table on p. 9, she is 'highly likely to have been' his mother and on p. 24 she is the only candidate considered, whereas on p. 21 she is 'perhaps Tutankhamun's mother') must remain highly speculative. Both before and after the publication of Reeves's book, Kiya's claim was disputed; cf. most recently the remarks of G. Robins, *DE* 22 (1992), 25–7. Because Tutankhamun's mother is nowhere mentioned during his reign, it seems likely that she did not play a role after his accession; in all likelihood therefore she was already dead. This is the only informed supposition that can be made regarding the woman's identity.

Reeves concentrates on the policy of restoration undertaken in Tutankhamun's name, and this is undeniably the best-documented aspect of the reign. But he neglects to mention even in passing the cult of the deified Tutankhamun, an important feature of his kingship that Lanny Bell has thoroughly investigated in an article among those listed on p. 214.

Tutankhamun's titulary as rendered in the box on p. 25 is redrawn from my article in *Form und Mass. . . Festschrift für Gerhard Fecht* (Wiesbaden, 1987), 121–3, but my commentary is inaccurately represented. As noted in my study (*pace* Reeves), it is the Horus name—not the 'gold falcon' (that is, Golden Horus) element—that occurs with the earlier nomen. Furthermore, the king's amply documented *nebty* name was *nfr-hpw srgḥ-trwj*; the form given in *The Complete Tutankhamun* that includes the epithet *shṭp-ntrw nbw* is a unique variant.

The list of monuments Reeves would associate with Tutankhamun is in need of revision. For example, no object excavated to date at Amarna names Tutankhaten. The stela fragment Berlin 14197 was acquired by purchase and has no certain provenance, whereas the faience ring bezels with the king's nomen from the site all read Tutankhamun. (Reeves omits mention of the work of the Egypt Exploration Society expedition at Amarna under the direction of B. J. Kemp, which has uncovered evidence for continued occupation of some part of the city through most if not all of Tutankhamun's reign.) The 'three standing statues of the king (Cairo CG 42091-2 and Cairo JE 66757)' number in fact only two, since CG 42092 and JE 66757 (=JE 38244) are one and the same; see R. Engelbach, *ASAE* 39 (1939), 199. Reeves's attribution of some other statues to Tutankhamun's reign is problematic, one example being EA 75 in the British Museum. The pristine inscriptions on the back pillar (and on the missing base which, as T. G. H. James informed me, Labib Habachi located in a storage area of the Cairo Museum) name King Horemhab.

Reeves's succinct rundown of the officials who served under Tutankhamun is marred by the transposing of the captions to the illustrations on p. 32.

The 'fresh light [that] may now be shed on why Tutankhamun died' (p. 12) turns out to be the suggestion that he was murdered, with Ay the likely culprit (p. 33), because the young king had begun to express a will of his own. There is no evidence in support of this idea. The Liverpool anatomist R. G. Harrison did suggest, both in print and in a television documentary, that Tutankhamun *could have died* 'from a brain haemorrhage caused by a blow to his skull from a blunt instrument' (*Buried History* 8 (March 1972), 24). Why Harrison did not publish the 'additional analysis' (promised in *Antiquity* 46 (1972), 11) before his death in 1983 is uncertain. My discussion with his associate R. C. Connolly led me to suspect, however, that the objections raised by Harrison's colleagues who saw the documentary dampened his enthusiasm for the subject. Even if it could be shown that a head wound was responsible for the king's death, how Tutankhamun received the injury would still be open (cf. the entertaining debate in the fall 1992 and winter 1992/1993 issues of *KMT* on the possibility that 'fatal' injuries were sustained when Tutankhamun fell from his speeding chariot).

The contents of Chapter II on Carter's work in the Valley of the Kings that culminated in the discovery and clearance of Tutankhamun's tomb will be familiar to anyone who has read the treatments of the same subject in Thomas Hoving's *Tutankhamun: The Untold Story* (New York, 1978 and London, 1979) or John Romer's *Valley of the Kings* (London, 1981), 231-76. Reeves does not conceal the fact, broadcast by Hoving, that Carnarvon, his daughter, Carter and Callender toured the tomb 'probably on the evening of November 28th' (p. 55) before the official opening the next day. He cites two instances of objects moved in the process (certainly the painted box, Obj. no. 21—see p. 79—and 'perhaps' the small golden shrine, Obj. no. 108, p. 140). Regardless of the justification that it was 'undoubtedly their prerogative' to search through the rooms (so p. 55), it is impossible to excuse the obfuscation of the excavation records which has hampered interpretation of the find down to the present. Reeves continues this policy, for example, with his caption to the illustration on p. 95. For the purported role of Richard Adamson in the clearance of the tomb (he is included in the list of 'Members of the Team', pp. 56f.), the remarks of H. V. F. Winstone (*Howard Carter and the Discovery of the Tomb of Tutankhamun* (London, 1991) 298 f.) should be consulted. The man seated at the table in the photograph on p. 61, above left, is Mace, not Callender.

Chapter III, on the tomb's archaeology, is introduced by comments on its architecture and decoration. Discussing the robbery of the tomb, pp. 95-7, Reeves states 'there can be little doubt that the entrance corridor was empty at the time the first illicit entry was made'. In support of this opinion he remarks that 'the originally plastered surface of the inner doorway, unlike the replastered hole, was unmarked by the pressure of the chipping fill, suggesting that the main plaster coating had been long dry when the rubble was introduced'. This statement is in contradiction of Carter's notes on the seal impressions (cited here, like Breasted's 'conspectus', below, with the permission of the Griffith Institute) where he wrote: 'The second sealed doorway, at the end of the descending passage leading directly into the Antechamber, was almost an exact replica of the first doorway, save, perhaps, the seal impressions were less distinct—stone and rubble having been piled against them before they were dry and hard' (cf. *Tut-ankh-Amen* II, 95). In those same notes, Carter distinguished an eighth impression among the sealings of the doorways, type 'H',

which is included in the tabulation of occurrences of sealings in the lower left-hand corner of p. 92 but not illustrated. This particular impression was identical with 'E' (recumbent jackal over nine bound captives), except that the small cartouche with the prenomens was omitted from the design. Carter was convinced 'that this device was only employed during the re-closings' of the tomb after the robberies. But he could not rule out the possibility that both 'E' and 'H' had been used during the original closing of the tomb after the burial, while Breasted in his 'conspectus' of the same impressions stated that 'H' was 'so involved with "B" and "F"' on the doorway to the burial chamber 'that it is certainly one of Tutankhamun's own seals'. Perhaps the imminent publication of the seal impressions by Olaf E. Kaper will provide a definitive interpretation of this material. In any case, the dilemma of the tomb's despoliation in antiquity is not yet resolved (cf. R. Krauss, *MDOG* 118 (1986), 165–81), nor is the discussion served by attributing the absence of items an Egyptologist might expect to find in a royal tomb to the activities of tomb robbers.

Papyri rank high among the artifacts that Egyptologists sorely missed from the treasure (cf. p. 167). The 'papyri' in the box Obj. no. 43 (illustrated p. 167, below left) reported in the first newspaper accounts of the tomb's discovery proved to be bundles of linen. Fascination with the 'missing' papyri has even left its mark in recent fiction—witness the roll purloined by one of Carter's local workmen which played a crucial role in Robin Cook's thriller *Sphinx* (New York, 1979), 24. Reeves has given up his earlier thesis that papyri are to be found inside the 'statuettes in shrines' (*GM* 88 (1985), 39–45), suggesting instead that the elusive 'missing religious texts' are secreted inside the kilts of the so-called guardian statues. Only scientific investigation of the statues can prove or disprove this latest thesis, of which I am as sceptical as I was of his initial suggestion (see now *KMT* 4/3 (fall 1993), 8). Note that the statue with the *khat*-headdress bears the text referring to the royal *ka*, not the figure with the *nemes*, as Reeves reports.

Inaccuracies and factual errors of the kind signalled above are found throughout the text. Though each may be more or less inconsequential in itself, cumulatively their effect is significant, and they are too many to list here. While *The Complete Tutankhamun* demonstrates Reeves's flair for collecting and arranging data, the book is significantly lacking in scholarly thoroughness. A few additional examples will exemplify what I mean.

Only the head end of the king's sarcophagus is inscribed with fourteen rows of vertical hieroglyphs in addition to the framing text, while the foot bears a single horizontal band of text below the torus moulding (in contrast to Reeves's description on p. 105). The claim that Carter's series of drawings showing the position of amulets and jewellery on Tutankhamun's mummy (pp. 112f.) was previously unpublished is inaccurate, since six of them (a third of the total) appeared for the first time in *The Illustrated London News* (26 February 1927, 35of.); all but one of those were reused by Alix Wilkinson, *Ancient Egyptian Jewellery* (London, 1971), figs. 50, 66a–d.

Reeves illustrates a number of Carter's sketches and scale drawings—some indeed for the first time. To supplement them, many useful and informative drawings were specially commissioned for the book. The several tables that provide *inter alia* overviews of some categories of objects, such as 'ritual figures' (p. 131) and 'heirlooms' (p. 169), are similarly informative.

It is convenient to have the well-illustrated compilation in Chapters IV and V with the objects arranged by category and the numbers assigned them in the course of the tomb's clearance conspicuously included. (Other popularizing books on Tutankhamun's treasure followed the lead of the original three-volume account which presented the objects in the order they were removed from the tomb, beginning with the items deposited in the Antechamber and ending with the contents of the Annexe.) But with few exceptions, the items included are familiar from earlier publications, and the new colour photographs taken by Reeves in the Cairo Museum are often out of focus (e.g. pp. 2, 106, 107, 122 bottom, and 123).

Despite Reeves's use of 'fresh evidence from scholarly monographs on the shrines, chariots and other finds' evoked in the blurb on the dust jacket, he has refrained from mentioning by name any living colleague who has contributed to the study of Tutankhamun and the objects from his tomb. (John Romer is cited outside the main text, on p. 213, in connection with a list of 'Museums and Collections' with objects from Tutankhamun's tomb, as the director of a mission that located some items from Carter's clearance of KV 62 in the tomb of Ramesses XI.) The non-specialist will have to attempt to ferret out references from among the unannotated titles listed on pp. 214–17 under the rubric 'Further Reading'.

Some final words on the design of this book. The sepia tinting of many photographs, drawings, tables and even sections of text may be fashionable, but I for one found it very obtrusive, especially in the first three chapters, where no full-colour illustrations provide relief. The layouts which make use of 'boxes' adopted from contemporary news magazines for information to supplement the main text, illustrations which overlap each other, and a jumble of unnumbered figures, their captions, and the main text, inhibit rather than facilitate understanding. The snazzy appearance (heralded to a certain extent by Christine El Mahdy's *Mummies, Myth and Magic in Ancient Egypt*, which Thames and Hudson brought out in 1989) represents an unwelcome departure from the sober presentation of two other recent popularizing books on Egyptological subjects by the same publisher: C. Aldred, *Akhenaten: King of Egypt* (1988) and G. T. Martin, *The Hidden Tombs of Memphis* (1991). Like the foreword by the current Earl of Carnarvon, the format was evidently influenced by marketing factors. It would be a pity if this style comes to dominate archaeological publications for a broader public.

MARIANNE EATON-KRAUSS

The Tomb of Iurufef, a Memphite Official in the Reign of Ramesses II. By MAARTEN J. RAVEN, with the collaboration of DAVID A. ASTON, GEOFFREY T. MARTIN, JOHN H. TAYLOR and ROXIE WALKER, with plans and sections by KENNETH J. FRAZER and photographs by PETER JAN BOMHOF. Egypt Exploration Society Fifty-Seventh Excavation Memoir, edited by Alan B. Lloyd. 320 × 255 mm. Pp. xvii + 82, pls. 55. National Museum of Antiquities, Leiden, and Egypt Exploration Society, London, 1991. ISBN 0 85698 119 2. Price £60.

After the volumes on the tomb-chapels of Paser and Raia (1985, reviewed by Zivie in *JEA* 75 (1989), 278–9), and the first volume on the tomb of Horemheb (1989), the present publication deals with the tomb of the 'Scribe of the Divine Offerings, the Scribe of the Treasury, Iurufef'. In the 'Introduction' general information is succinctly presented on its discovery, its location in the complex of the Tias indicating that Iurufef was a retainer of Tia (evidence supported by his presence on the reliefs of the latter's tomb), on Iurufef's titles and relatives, on the destruction of the original burials by fire followed by a cache of intrusive burials to be dated to the Third Intermediate Period, and on its skeletal material. The emphasis of the publication lies on the funerary material because of its quantity and its character, so far unique for Saqqara, which fully justifies a detailed publication. The subsequent six sections deal with the details.

In sections 1 (Raven) and 2 (Raven and Frazer) the superstructure and substructure respectively are described. Although the measurements of the subterranean parts which consist of two levels of rooms are duly given, I agree with Zivie's remark in *JEA* 75, 279, on the Paser publication, that the present publication also is too summarily illustrated as far as the subterranean parts are concerned. Apart from the very useful pl. 6 showing the chaotic state of the burials—further very well illustrated in the drawings on pls. 7–10—axometric drawings of the rooms accompanied by photographs while they were empty would have been convenient. This would enable the reader to decide which shape the ledge in room D actually has, since pls. 5 (right) and 10 differ. The same holds for room F: on pl. 5 its east wall is straight, while on pl. 9c it is curved. Pl. 5 also shows that the door from the shaft to room E is in the centre, and not 'at the west end of the north wall'.

In section 3 (Aston/Raven/Taylor) the coffins and related objects of the intrusive cache are extensively discussed. After details about the importance of the find and the situation in which the burials were found, the main part is devoted to the materials and constructions (wooden anthropoid and rectangular coffins, palm-rib mats and papyrus-rind coffers), decoration (colour—in particular the photograph of the lid of no. 27 on the cover is very instructive—disposition and iconography) and date. There is very interesting information on constructional features, such as reused material often consisting of very small pieces of wood and very coarse decoration, which both reveal poor workmanship, and the way Taylor dates the coffins to the Third Intermediate

Period is most convincing, proving once and for all that (very) poorly executed coffins with no or even fanciful texts (nos. 27, 54 + 64, 59, partly) are not the 'privilege' of the Graeco-Roman Period. Very striking is the fact that independent of the sex of the owner the hands, if present, are always rendered as fists, although in the Third Intermediate Period female coffins almost without exception have stretched hands, as correctly noted by Raven (p. 38, no. 22), but not mentioned by Aston (p. 16) and Taylor (p. 20). The reasoning of the authors can be easily followed by means of the photographs and very detailed drawings (pls. 11–37) of *all* coffins that were not beyond the point of conservation. However, the scale of the drawings is slightly too small in respect of the photographs. It should also be noted that the captions on pls. 27 and 33 have been transposed: cf. description and pls. 28, 34. The section closes with a catalogue of the 72 Third Intermediate Period burials, excluding those of the New Kingdom (nos. 73–82).

The catalogue of about 130 objects is the subject of section 4 (Raven). Notwithstanding the large number of seventy-two intrusive burials against about nine datable to the original Nineteenth Dynasty burials of Iurudef and his family, only thirty-two objects were found with the former group. The same imbalance is found with the pottery, as described and catalogued in section 5 (Aston): only five of the eighty vessels belong to the Third Intermediate Period. I would suggest that on p. 41 (no. 44) the slight tilting to the left of the ostrich feather and the semicircular blob below suggest a large hieroglyphic sign of the west rather than the goddess Maat, especially as the attributes are not on the same level, which one would expect in the case of two females. The objects are well illustrated, but I see no reason why a minute faience fragment is both illustrated in photograph and drawing (pls. 42 and 44, no. 55), whereas intact stone objects with decoration are only drawn (pls. 44, nos. 8–10).

Finally, section 6 (Walker) deals with the human remains. The material is presented, discussed and evaluated in a way which makes it a readable report, even for laymen like the present reviewer. The only puzzling thing is the discrepancy—without comment—between the number of individuals: on p. 68 a number of 109 individuals is mentioned, whereas on p. 24 eighty-two burials (Iurudef plus cache) are given. The presentation of some of the data (e.g. age, sex, location in tomb etc.) in table 1 (p. 72 ff.) in bar graphs would have helped to clarify the findings. The number of photographic illustrations of pathological details does not do justice to the importance of this group of people, who showed so many signs of physical hardships not found in the very poorly preserved remains of the original Iurudef burials.

The volume ends with a concordance of excavation and catalogue numbers, a list of the spatial distribution of objects, and indexes.

All in all, it will be obvious that the few critical remarks are no more than some marginal glosses which in no way detract from the high quality of this publication and its well balanced interpretations of the different groups of material, which shed some very revealing light on the treatment of New Kingdom burials by later generations of a considerably lower social stratum than the original owners. It is to be hoped that the series will continue without too much delay, because the data appear to be of the utmost importance for a better understanding of the scope and variety of the archaeological sequences at Saqqara during the New Kingdom and its immediate aftermath.

RENÉ VAN WALSEM

Jackal at the Shaman's Gate. By TERENCE DUQUESNE. Oxfordshire Communications in Egyptology III. 280 × 215 mm. Pp. 136, figs. 8. Thame, Oxon, Darengo Publications, 1991. ISBN 1 871266 13 0. Price not stated.

This work consists of three separate parts, all preliminary to a major study on the god Anubis in preparation (p. 6). The first part, which gave the book its title, is a broadly based introduction to Anubis as he is presented in the older Egyptian sources. The second part includes a study of a papyrus fragment. The final part is a comprehensive and valuable bibliography on Anubis (pp. 56–135).

The second part attempts a critical re-edition with translation and commentary of *PGM XXIII* (P.Oxy 412), an important papyrus fragment which is, however, beset with a host of problems. The

papyrus contains a damaged quotation of the concluding sentences of Sextus Julius Africanus (c. AD 160–240), *Kestos* 18. This text is itself a compilation of diverse materials: sections from Homer's *Odyssey* and *Iliad*, a fragment of a magical hymn, and a piece of commentary by Julius Africanus himself who says that he obtained the material, including the magical hymn, from a volume he found in the library in Jerusalem. The excerpt puts the Homeric passages to a secondary use for necromancy, a context that explains the function of the hymn that is not in Homer. Thus, the hymn comes from another source prior even to the one Julius Africanus uses. DuQuesne is primarily interested in this older magical hymn because it belongs together with the hymnic material assembled in the *Papyri Graecae Magicae*. The author critically examines the text, an effort that is always required in the case of a highly fragmentary document, even if only a few hypothetical attempts at restoration are the outcome.

Two major problems should have been investigated further than the author was prepared to go. The hymn is clearly not complete, but for whatever reason only part of the invocation is cited. Without more comparative analysis it seems premature to supply, as the author does, a concluding formula where the citation breaks off. It rather appears that the invocation continued before coming to a prayer request which is now missing altogether. The other problem is which deity is addressed. DuQuesne assumes at times that the hymn is addressed to Anubis or Hermanubis, while at other places he admits that it is addressed to the chthonic deities. The fact is that Anubis is only the first in line, and is followed by the whole company of underworld gods. Thus, it is unjustified to call the hymn as a whole 'the Anubis invocation' or 'the Anubis hymn' (pp. 54–5). Such a title would be appropriate only if it could be shown that all the other deities have been merged into Anubis; the text as far as we have it does not support such a conclusion.

Regrettably, the commentary does not address the hymn's literary problems of genre, composition and function, nor those of its syncretistic nature. The author confines himself to notes on the textual problems, parallels in other Greek texts, and the divine epithets. Useful as these notes certainly are, they do not support the author's hypothesis of an 'Anubis hymn'. The names and epithets clearly identify a company of Egyptian and Greek deities, with the Jewish Iao thrown in for completeness's sake. The evidence also shows that the religious culture of the hymn is highly syncretistic and, therefore, quite different from that of the ancient Egyptian sources. What was Anubis' career that enabled him to join his present company? How did his role and identity change? As the god Momus complained to Zeus in Lucian's *Concilium deorum* (chapter 10): 'You there, you dog-faced, linen-vested Egyptian, who are you, good fellow, and how did you become worthy of being a god, barking as you do?' In other words, the reader would have welcomed some advice on how he gets from the first part of DuQuesne's study to the second part. Clearly, the Graeco-Egyptian Anubis needs to be treated as a god distinct from the older deity. Or does the unexplained term 'archetype' suggest that all forms of Anubis are manifestations of the same 'archetype of the divine dog, jackal, or wolf in various cultures' (p. 56)? Thus, the final assurance that 'the Anubis invocation has a numinous, many-layered beauty which may be enjoyed as poetry and as powerful expressions of Greco-Roman spirituality' (p. 55) is more of an appeal to faith than a summary of the examination of the evidence.

HANS DIETER BETZ

The Carlsberg Papyri, I: Demotic Texts from the Collection. Edited by PAUL JOHN FRANDBSEN, with contributions by K.-TH. ZAUZICH, W. J. TAIT and MICHEL CHAUVEAU. Carsten Niebuhr Institute Publications 15. 302 × 215 mm. Pp. vii + 140, pls. 10. Copenhagen, Museum Tusculanum Press, 1991. ISBN 87 7289 161 0. Price not stated.

The volume under review is the first of a new series in which it is intended to publish the demotic papyri of the Carlsberg collection, housed in the Carsten Niebuhr Institute at the University of Copenhagen. The papyri in question were mostly acquired by purchase in Cairo during the 1920s and 30s. The majority of them are believed to have come from Tebtunis. Some of this demotic

material has been made available in the course of the decades since its acquisition by scholars such as Lange, Erichsen, and, most notably, Volten. The bulk of it, however, remains unpublished. The reason for this is undoubtedly the texts' state of preservation, for the collection consists chiefly of fragments. Nevertheless, what survives is of first-rate importance. Unlike most collections of demotic papyri, in which documentary material predominates, the Carlsberg fragments derive mainly from literary, religious, mythological and 'technical' (i.e. medical, astrological, or juristic) texts. Their number is vast: over one thousand different manuscripts are thought to be represented. There is good reason to believe that this material, when properly edited and studied, will transform our understanding of the demotic genres encompassed by it.

The impetus for the new project to publish the demotic Carlsberg texts comes from a working group established in 1989, the International Committee for the Publication of the Carlsberg Papyri (ICPCP). Under the auspices of this committee, which is supported by the Carlsberg Foundation, the task has begun of conserving and preparing a comprehensive catalogue of the demotic fragments, both necessary preliminaries to their eventual publication. The volume under review, a joint work by three of the project's collaborators, presents a selection of the more interesting pieces that have been identified and studied to date.

The book opens with an introduction by Karl-Theodor Zauzich, who gives a survey of the contents of the Carlsberg collection of demotic papyri, an account of the circumstances which led to the formation of the ICPCP, and a description of the research programme initiated by that committee. Appended is an annexe by W. J. Tait, who describes the work accomplished towards the cataloguing of the collection prior to the inception of the present project. This was due largely to the late Aksel Volten, whose working methods and achievements are outlined in some detail. It is evident from Tait's account that Volten's published editions of Carlsberg papyri represent only a small proportion of the effort that he devoted to the study of the collection. He had laboured for many years on various other texts from it, but death prevented him from completing their publication.

The greater part of the book is devoted to text editions proper. These are: P. Carlsberg 207 + 207.1, a narrative recounting how a *s(t)m* priest, possibly the famous Khaemwast, helps a ghost to take vengeance upon his enemies; P. Carlsberg 207.2, perhaps a part of the preceding narrative; P. Carlsberg 230, eleven fragments from a once extensive demotic herbal; P. Carlsberg 236, part of a legal manual; and P. Carlsberg 301, another text of the same nature as the preceding. The last is edited by Michel Chauveau, all the others by W. J. Tait. Each edition comprises a description of the papyrus in question, transliteration and translation of the text with commentary, general discussion of its character, with reference to other comparable papyri, a glossary, and photographs.

Little needs to be said about these editions, beyond that they are exemplary in every way. The texts selected for publication contain numerous difficulties. This makes the achievement of the editors all the more remarkable. Transliterations and translations are accurate and reliable. The commentaries are consistently illuminating, and face every textual problem squarely and honestly. The descriptions and general discussions are as full as one could wish, with abundant bibliography. The glossaries enable the reader to find what he is looking for with a minimum of trouble.

The following points occurred to me as I was studying the editions:

P. Carlsberg 207, x+II, 2: With the writing of the negative future marker as *bn-*iw*-n=f* here, discussed on p. 27, cf. similar writings like the *bn-*iw*-n=k* that occurs in P. Spiegelberg (Strasbourg), III, 19, and P. Insinger, XVIII, 22.

ibid., x+II, 3: The relative clause *mtw hn=k*, discussed on p. 31, does not mean 'which you have ordained', but rather 'which you desire, wish' (= Coptic $\epsilon\tau\epsilon\zeta\eta\alpha\kappa$). See Zauzich, *Enchoria* 7 (1977), 152, for this etymology. Compare P. Harkness, IV, 23-4, where a deceased woman is told: *šm=t r t p. t r ir mr=t iw=t r p; t r ir n; nt-iw hn=t*, 'You will go to the sky to fulfil your desire. You will come to the earth to do what you wish.'

ibid., x+II, 4: The words *try=y ncy. t irm=k r-hr t; ml[;]* are translated 'my journeying with you on the boat' (p. 32). I wonder whether the sense is not rather 'My meeting-place with you is on the boat.'

For similar locutions of this type, used in fixing a rendezvous, see e.g. P. Krall, X, 24, 32, XIX, 29-30; P. Spiegelberg (Strasbourg), XIV, 15.

ibid., x+II, 18: *swšy*, written with brazier determinative, varies with *swḥy* and *swḥ(t)* as a demotic form of the *s(b)-n-ḥ.t*, 'Brandopfer', of *Wb.* III, 430, 20 (= Coptic ⲪⲱⲟⲩⲪⲱⲓ). The connection was established by Černý in his *Coptic Etymological Dictionary*, 258-9, where reference is made to an occurrence of the word in P. BM 10080, IV, 16. Elsewhere in demotic, the same noun occurs in P. Harkness, III, 33, and VI, 31; P. Carlsberg 67, line 6 (J. Ray, *JEA* 61 (1975), pl. 25 and pp. 182-3, there translated as 'assembling'); Archive of Ḥor, text 11 verso, lines 2 and 4, text 15 verso, line 7 (Ray, *The Archive of Ḥor*, pls. 12 and 16, pp. 49-50 and 59-60, there translated as 'assemble'); and P. Krall, V, 31 (E. Bresciani, *Der Kampf um den Panzer des Inaros*, pl. 2 and pp. 34-5, 115, there interpreted as a term denoting a part of the body).

ibid., x+II, 21: Examination of the original suggests to me that *lwḥ* rather than *lwḥ* should be read after *ir* here. At any rate, the translation 'do wrong' given for this phrase on p. 33 seems to require such a reading. *ir lwḥ* would mean 'be foolish' or the like.

P. Carlsberg 230, fragment 4+5, x+II, 3: The words *iw=f ths=f* are translated 'while he anoints it' on p. 59. In view of the use of the pronominal infinitive of *ths*, I should prefer to see here a conditional or future clause. The same is true of e.g. *iw=w t.t=f*, *ibid.*, line 8. Cf. *iw=w fy=s* in fragment 6, line x+6, which is translated (correctly in my view) as 'they should press it' on p. 76.

ibid., fragment 4+5, x+II, 21: I should read *šc rt=f* rather than *iw=f rt* after *glnty*. The translation 'it grows' given on p. 74 does not require emendation.

The last section of the book is a handlist of published Carlsberg papyri, compiled by W. J. Tait. This is not restricted to demotic texts, but includes hieroglyphic, hieratic, Coptic, and Greek manuscripts as well. The handlist is more than just a series of bibliographical references, since Tait frequently supplements or corrects information given in the original publications. A case in point is P. Carlsberg 67. Understood by its editor as a 'healing prayer', the text in fact beseeches Sobek to curse someone with an illness. Tait's list discreetly retitles it as a 'plea to Sobek'.

The handlist is followed by nine photographic plates depicting the texts edited in the volume. By way of an added bonus, a tenth plate shows for the first time the reconstructed P. Carlsberg 9, the fragments of which, formerly divided between Berlin and Copenhagen, are now reunited in the latter city. For the most part, the photographs are of acceptable quality, given the darkness of some of the originals. In future volumes, when relatively substantial fragments like P. Carlsberg 207 are published, it would be helpful if line numbers were added to the plates.

A book such as this one is of value for a variety of reasons. The papyri presented in it have their own intrinsic interest. It demonstrates that even fragmentary texts can yield a surprising amount of information in the hands of the right editors. Several of the Carlsberg demotic papyri, including two of those edited in the present volume, are divided between that collection and others elsewhere. It is to be hoped that the publication of these fragments will permit scattered pieces from the same manuscripts to be identified more readily. Finally, everyone who studies Egyptian papyri, whether demotic or those of earlier date, will find himself dealing at one time or another with fragmentary material. The volume under review offers a number of insights into the problems and pitfalls of working with fragments. I have in mind, for example, the comments on p. 22 concerning the sudden change in appearance of the hand of P. Carlsberg 207. If the last seventeen lines of the second column of that text were preserved on a separate fragment from the rest, one would hardly guess that they formed part of the same manuscript. Similarly, see the comments on pp. 48-9 on the marked variation in colour among the fragments of P. Carlsberg 230. This actually led Volten to assume that some of them belonged to a separate text or texts.

All of those concerned with the production of this book deserve to be commended warmly. Special praise is due to Tait, whose contribution is by far the largest. The volume inaugurates the new series in a splendid fashion and sets a high standard for future ones to maintain.

Columbia Papyri, VIII. Edited by ROGER S. BAGNALL, TIMOTHY T. RENNER and KLAAS A. WÖRPER. American Studies in Papyrology, Volume 28. 230 × 150 mm. Pp. 238, pls. 57. Atlanta, Scholars Press, 1990. ISBN 1 55540 396 4. Price not stated.

The eighth volume of this series continues the publication of the mainly Greek papyri in the collection of the library of Columbia University, New York. This volume is markedly different from its predecessor, published in 1979, which was distinguished by its rich content of documents from the fourth century AD (the present reviewer admits to a bias in favour of this period!). The content here is much more mixed, with roughly a third of the items literary while the documents vary widely in date and type. However, the outstanding characteristic of the present volume is that it has been used as an opportunity to re-edit a large number of Columbia papyri published in scattered articles in journals. The usefulness of this must not be underestimated. The new editions frequently make substantial textual advances, and are always accompanied by a comprehensive bibliography of earlier work on the text; often they challenge the conclusions in such earlier work. Nevertheless, only one of the sixteen literary texts in the volume is new, and this must reduce the book's attractiveness for those with substantial libraries. The proportion of new texts in the documentary section is much higher.

The first item, no. 192, preserves a sixth century copy of part of a discourse of the Abbot Isaias, a work known from elsewhere. It stands on a section of a large roll, written down the roll in a single column in mediaeval fashion (a way of writing technically termed *transversa charta*). On the other side stands the end of a contract, written in similar format, and re-edited in this volume as no. 244 (see below under that number for my comments on the relationship of the two texts to each other). On p. 28 in the commentary we read: 'The papyrus in general follows G', G being a group of mediaeval manuscripts. I should like to rid classical philology of this absurd usage (practised widely, not just in P.Col. VIII) whereby a papyrus is said to 'follow' some mediaeval manuscript, despite the latter being many hundreds of years later.

A series of fragments from extant classical authors follows (Homer, Euripides, Plato, Isocrates, Apollonius Rhodius). The first of the Homer pieces, no. 193, is said to have a section where the surface had been partly stripped away before the text was written, the ink running over the lower layer of fibres; this may be, but I suspect we may be looking at an instance of casual papyrus construction where a gap was left between strips in making up the roll, a common phenomenon. On p. 30 in the commentary we read 'codd.', another widespread and irritating usage I should like to see abandoned. Very rarely can it mean what it ought to mean, that this is the checked reading in every known mediaeval manuscript of the work concerned; frequently it means no more than 'this is the reading in the printed text in the edition I am using'.

I am not sure that the curiously compacted and misaligned Homeric text no. 196 may not be a product of modern-day amalgamation, despite the denial in the *ed. pr.* The darkening visible in the plate might be the result of glue staining. The original editor said the two parts overlapped, but there is no text obscured by the overlapping. It would be necessary to establish the nature of the 'support' that holds the two pieces together, to reach a decision; I suspect that a piece of scrap papyrus has been affixed to the back.

No. 206, the only literary text in this selection not published elsewhere, is grammatical, listing participial forms. I am inclined to think it may be a good deal earlier than the assigned date of 'III/IV'.

No. 207 preserves a portion of the 'standard' version of the shorthand Commentary. On its other side is no. 222, discussed further below, a slave sale of AD 160/1. Despite assertions by Westermann, Wilcken, Youtie, Pringsheim and Feinberg, as well as the editors of the volume under review, no. 222 is on the recto and no. 207 the verso. This is apparent from the plates and has been confirmed for me by Professor Bagnall (letter of 4 February 1992). A consequence is to allow the shorthand text to be later than the slave sale—substantially later, in my opinion, since I should be inclined to assign its script to the early fourth century, a gap between use of recto and verso of around 150 years (see E. G. Turner, 'Recto and Verso', *JEA* 40 (1954), 102–6).

The thirty-nine documents are a mixture of official and private items, all independent pieces, not combining to form an archive. Dates range from the second century BC to the sixth century AD and the texts are arranged on this basis, not grouped according to type. Provenances are equally

wide ranging, albeit all within Egypt. Versions of eleven of the items have previously been published elsewhere.

Among new information, I single out Ptolemaeus, royal scribe of Polemon's division of the Arsinoite nome in no. 218 (15 January 139). No. 224 gives us another attestation of Potamon, strategus of Heraclides' division of the Arsinoite between 171 and 176. No. 234 gives us a new Arsinoite acting-strategus in the third century, Aurelius Horion alias Paulinus; the information was already used in G. Bastianini and J. Whitehorne, *Strategi and Royal Scribes*, 57, under the Columbia inventory number. Another new official is the procurator Theophanes, presiding official in the court hearing no. 235. The editors suggest that he may have been procurator of the lower Thebaid, but see below on this identification. The date of no. 235 (simply 'year 8') is problematical; the editors hesitantly put forward 22 April 312 (it is only the identification of the year that is uncertain; month and day are clear). This may be right (though see below), but I see no reason for their introduction to exclude mention of 8 Diocletian (and 7 Maximian)=291/2. 311/12 for its part = 8 Maximinus, 6 Constantine and 4 Licinius. However, 291/2 is apparently never referred to simply as 'year 8'. Probus had a brief 8th year (282), but like Gallienus' it was of too short a duration to be a possibility for this Columbia text.

No. 235 calls for other comments. The translation misses the implications of *κληθέντων καὶ... ὑπακουσάντων* (lines 3-7) by treating *καί* as if it immediately preceded *ὑπακουσάντων*.

I find it hard to make sense of line 16. Perhaps instead of *ἀρ[τάβη]c* it may be possible to read *ἀρού[ρη]c*. In the plate, the extreme right-hand portion of the papyrus has been mounted too close, and there should be a gap all the way down, of one to two letters at the narrowest part.

The renewed use of the presiding official Theophanes' title in line 20 suggests that this and the next line comprise his judgement, an impression reinforced by the probable blank space below. This is standard form earlier on (see my *Reports of Proceedings*, 51-2), and does not really indicate 'vacillation' as the editors propose (their note to line 2, Theophanes' opening speech, where he is also given his title in contrast to my remarks in my *Reports of Proceedings*, 39). I am not sure how far we should allow this pattern of speech introductions to affect our assessment of the date of these proceedings.

Theophanes' name is also restored as the speaker in line 19. This is suspicious, since it gives him two consecutive utterances with no intervening speaker. I suspect that his name is wrongly restored in 19 and that this line is to be allocated to another speaker. Besarion (cf. 12-13) may seem a likely candidate, but Professor Bagnall has checked the original for me and does not think his name can be read (last letter sigma?) in the scanty traces that actually survive (the transcript notwithstanding).

The name of the official in line 9 may lurk in the gap in 8, but efforts to read it have so far failed. In AD 312 we would expect the *ἡγεμών* here to be *praeses Thebaidos*, not prefect as the edition has it. Yet at this date the *praeses* should not be titled *λαμπρότατος* = *clarissimus*, see J. Lallemand, *L'administration civile*, 61-2. This must be the most powerful argument for assigning this text to a much earlier date. Short of admitting 291/2 (8 Diocletian and 7 Maximian, therefore requiring Maximian's year to be ignored), it seems the only possibility is 8 Severus Alexander = 228/9. The editors thought this too early palaeographically, and I am inclined to agree; I would prefer a late third century date (the papyrus might be a later copy, but this again brings problems). It is also early for the consistent abbreviation of *εἶπεν*. Nevertheless, this is the one third-century interpretation of 'year 8' that does not raise difficulties of its own. If this were right, then the *ἡγεμών* in 9 would be the prefect and Theophanes some other imperial procurator, not procurator of the lower Thebaid.

I have already made some comments about the slave sale no. 222 while discussing the shorthand text no. 207 which is on its other side. I might add here that col. i of no. 222 is in a different hand from the main text of col. ii, neither noted here nor in the *ed. pr.*'s transcription (although Westermann was aware of the fact, as his commentary showed). One needs to read the introduction to no. 207 (and see p. 71) to find a reference to the docket on the back of no. 222, there, of course, before no. 207 was written (cf. my comments above). I hazard a guess that it may say *πρ(ᾶσις) Ἀγαθῶ Δαίμονι παρὰ Σαραπίωνος*. It is easier to see it on the plate in the *ed. pr.* It escapes me why the (restored) text at line 44 of no. 222 has been changed from signifying

'Sarapion sold to Agathodaemon' (so *ed. pr.*, Sammelbuch, Van Groningen, Pringsheim) to 'Sarapion bought to Agathodaemon'. For a different version, see *ZPE* 98 (1993), 249⁴.

The large piece of a sixth century land sale, no. 244, is written on the other side of the Isaias discourse published as no. 192, the first text in this volume. This edition describes the Isaias as 'recto', the sale as 'verso', and supposes that the sale 'on the back' was written later than the Isaias. I do not think that this is right. Although the sale is indeed written across the fibres, it is written *transversa charta* on the 'recto' side of the roll. Correspondingly, the Isaias is written *transversa charta* along the fibres, on the 'verso' side of the roll. While the horizontal fibre alignment may suit the script of the Isaias and the vertical fibre alignment is better adapted to the cursive hand of the sale, the sale side clearly has the superior surface texture, and there may therefore be some presumption that the sale was written first.

No. 246, headed 'Account of Money Taxes', is certainly a writing exercise, as its introduction hesitantly suggests, and it should have been headed as such. A close parallel for this kind of hotch-potch of documentary phrases is P.Harr. II 226, like the Columbia text in a competent cursive. Lines 2-3 look as if they may be by a different hand: i.e. the piece was used to start an account, but abandoned, and then re-used for writing practice. The blank space shown in the transcript at line 6, and indicated in the translation, does not exist. The apparatus draws our attention to apparently superfluous marks in 7 (after *πόλεως*) and 10 (after *νός*). These occur at two of the probable phrase-break points, and might have been intended to indicate them. Perhaps in the translation separate elements would have been better divided by semi-colons.

I will briefly list some other points of interest. No. 202 provides a survey of papyri of Euripides' *Orestes*. Other surveys are of Isocrates papyri (no. 204), grammatical papyri with verb paradigms (no. 206) and *ἡμέραι Σεβασταί* (no. 212). No. 219 is another slave sale. Under no. 220 there is a discussion of *λαογραφία ιδιωτῶν* at Memphis. No. 228 attests a tax *ὑποκείμενα καμήλων καὶ ὄνων*. No. 237 and no. 244 have notarial subscriptions. No. 243 has late (fifth century?) evidence for sitologi. Topography: an early mention (AD 312? but see above) of the Antaeopolite village Aphrodite in no. 235, a discussion of the location of *Κερκή* under no. 230; late mentions of Philoteris in no. 236 (AD 313), Theadelphia in no. 237 (AD 395?), and Karanis in no. 242 (fifth century). Onomastics: the rare name *Λάμυρος* (no. 228). Vocabulary: *ἀπαγγισμός* (no. 239); *ἀπόχυμα* (no. 216); damaged and uncertain *ζετηρ[* (no. 243); *κάθισμα* (no. 242); *καταλοχισταί* (no. 223); *κερματιστής* (no. 230)?; *προτερέω* (no. 227); *περιεργοχάζω* (no. 242). No. 240 contains many unusual words, but not *addenda lexicis*. Corrections to published texts: outstanding, of course, is no. 238 which adds a large piece to P.Princ. III 136 and provides a re-edition of the whole. Minor corrections or proposals: O.ROM. II 96.3 (p. 88 n. 60); P.Iand. 34.3 (p. 146 n. 73); P.Laur. IV 153.1 (no. 223 introd.); P.Lond. V 1754.1 (no. 244.20 n.); SB XVI 12220 = P.Oxy. 336 descr. (p. 114 n. 64); SPP XXII 23 (no. 213.1 n.). P.Heid. 201 (ed. Siegmann) and P.Col. VIII 197 apparently preserve consecutive columns of the same Homer manuscript.

The volume has complete indexes of the usual type. There are adequate concordances which include re-editions and Pack² numbers, not just the first editions. Finally, there is a full set of clear plates, a model for other publications. Of necessity in this small-format book, some are reduced in scale; others are usefully enlarged, but there is always a scale included. It seems unfair, given this generosity, to regret the absence of plates of the backs of one or two items. On the plates of no. 238 (pls. 56-7) the 'front' and 'back' notations have been transposed.

REVEL COLES

Paphos, II: The Coins From the House of Dionysus, with an appendix on the coins found in the Odeion, the Gymnasion, and the Asklepieion. By I. NICOLAOU. 295 × 235 mm. Pp. 227, pls. 41. Nicosia, Department of Antiquities, 1990. ISBN 9963 36 415 2. Price not stated.

This volume, conveniently written in English, completes the numismatic evidence from K. Nikolaou's excavations at Nea Paphos 1968-78. The coins are listed geographically and chronologically, each with full details of provenance, and the majority are illustrated on excellent plates.

There are fourteen pages of commentary and eight pages of computer-generated histograms which provide a good overall picture of the finds and their significance. The appendices describe the finds from the other three sites, again with histograms. The coins give a clear picture of the history of Paphos from the fourth century BC to the Middle Ages.

The house of Dionysus is a magnificent building constructed in the later second century AD on earlier foundations. The preceding building, of the first century AD, had been destroyed by an earthquake, dramatically illustrated by the skeleton of a man crushed by a falling wall. On his person were twelve coins in a cloth bag, three in silver and nine in bronze, dating from Augustus to Trajan, with two countermarked under Hadrian. The earthquake is not otherwise attested (pp. 145–6), but may be dated *c.* AD 120, not long after the last coins from the destruction.

The coins of Timarchos (nos. 1–5) are of interest in themselves, but the main importance of the finds lies in the dating that they can give to the stratigraphy of the structures (p. 147). The ‘unattested’ coin of Alexander the Great (no. 6) clearly does not have his name in between the club and bow. Its left-facing head indicates that it is most probably an issue of Thebes, as BMC 178–82 or 189.

The most important finds are moulds of limestone bored with shallow holes for roundels of 15–23 mm in diameter, linked by channels of 12–20 mm in length. These were used clamped together for bronze casting, so that marks of burning from the hot metal are often found on the flat underside of the mould. These were immediately described as moulds for runs of flans, separated, trimmed, and later struck as coins. The remains of nine such mould blocks have been found, four from room LII, in which there was also a pit of ash. One came from next door, found in a deposit of ash, and there can be no doubt that this was a metal-working area prior to the construction of the Augustan building. I am by no means convinced that the establishment was making flans for coins. The links between the roundels are 12–20 mm in length. This seems entirely unnecessary if the ultimate product was only the round flans. After separating, a great deal of metal would remain in bars of semicircular section. The flans themselves do not possess the fabric of any coins, and the prominent lump in the centre of one side, caused by the indentation of the drill in creating the mould, is never to be found on coins. The indentation found on the obverse and reverse of Ptolemaic coins is quite different and could not have been caused by such a mould. I find it impossible to believe that these moulds and their products were part of a coining process. They must have been used as bars of decorative bronzework, perhaps for window openings or tripods.

Tighter editing might have been applied. On the plates the catalogue number and the original inventory number are both given. In the text the catalogue number is usually ignored after the original entry and cross-referencing is to the inventory number. This is unhelpful when the reader attempts to follow up interesting provenances, such as the coins found in the ash deposits with the moulds in rooms L, LI and LII. Two coins of Cleopatra VII (462 and 444) were the latest in the ash of room LII, underlining that the metal-working area was in use only until the end of the Hellenistic period.¹

The author has provided a rich source of material for future research into Cypriot numismatics. One attribution, however, must be corrected. The Augustan capricorn/scorpion issue (p. 117) is regularly found in Cyprus—four here (nos. 587–90) and twenty-four in the Cyprus Museum etc. There is no evidence to support the old attribution to Commagene and there is no need to perpetuate it: see now M. Amandry and A. Burnett, *Roman Provincial Coinage* (London/Paris, n.d.), 579. 3916. None of the buildings was rebuilt after the earthquakes of 332 and 342. The Byzantine and later coin finds were all casual losses, showing what was circulating in Paphos, but are of little consequence for the history of the site.

MARTIN PRICE

¹ On p. 64, last line of no. 518, read Belgium instead of Oslo.

Prosopografia isiaca. By FABIO MORA. I. *Corpus prosopographicum religionis Isiaca*. Pp. xxii + 526. II. *Prosopografia storica e statistica del culto isiaco*. Pp. x + 169, 2 plans. Études préliminaires aux religions orientales dans l'Empire Romain, 113. 245 × 160 mm. Leiden, New York, Copenhagen, Köln, E. J. Brill, 1990. ISBN 90 04 09232 3. Price DF 330.

In a work undertaken in the University of Rome at the suggestion and under the supervision of Professor Ugo Bianchi, the author indicates his concern with the Isiac cult outside Egypt. The regions covered are Delos, the Greek Orient, Italy, the Danubian provinces, the western provinces, and the African provinces; and the assiduously garnered material is presented in this order and with these headings. While the prosopography of the cult of Isis has been given some attention in previous studies—due mention is made of the contributions by T. A. Brady, L. Vidman, P. Roussel, Françoise Dunand, Michel Malaise, and M.-F. Baslez—these have been restricted to certain regions or to certain groups of people (such as priests). Dr Fabio Mora is the first to tackle a comprehensive survey of the whole field. He has aimed to provide, in his presentation of the material, (1) the various onomastic elements; (2) concordances with other prosopographical works; (3) date and place of the dedications; (4) the deities venerated; (5) the religious or public offices held by the persons named, and their social status. Naturally information is not always forthcoming for all these headings, but the system is a sound one. Each area is provided with an alphabetical run-through of the names together with details of sources and identifications, often including notes on the ethnic onomastic origins of both the principal names and the patronymics. In Part I (Delos) the onomasticon extends to No. 1084 and is followed by forty-two pages of 'Indici complessivi' which deal with many related matters. Most notable of the Delian persons is the priest Apollonius (No. 114) who introduced the cult of Sarapis to Delos and who is expressly called an Egyptian. Mora rightly remarks (p. 18) on the possibility that his name could be theophorous, with Apollo really implying Horus. A name with clear theological implications is Sophia Agapêtou (Part II, 1072), an Athenian priestess of Isis: cf. my remarks on 'Isis and *Agape*' in *Class. Phil.* 80 (1985), 139 ff. and her stela in Athens National Museum 1214, for which see Elizabeth J. Walters, *Attic Grave Reliefs that Represent Women in the Dress of Isis* (Princeton, 1988), pl. 37e, where a date of the third century AD is given (p. 105) as opposed to the first-century date of Mora and Vidman (SIRIS 13). The same profusion of data and rigorous analysis of them are found throughout. Indeed, Mora's passion for plenitude amounts to a healthy determination to present an absolutely complete dossier of the material. A typical pointer to this commendable urge is the Appendix on p. 522 which is devoted to Isiac devotees outside Egypt whose dedications are expressed in a language other than Greek and Latin; these are brief texts in hieroglyphic and Demotic which Spiegelberg and others have translated.

Statistically systematic investigations are pursued in the second volume, the results being methodically displayed in a series of tables. A process of spontaneous diffusion is seen to have been at work, and four chapters are devoted to specific themes. In the first of these the participation of women in the Isiac cult is discussed. Mora is here intensely concerned to combat the idea that Isis was in a special way a deity for women. To some extent his campaign is a sciamachy, for remarkably few scholars have favoured the idea. One of these is said to be Sharon K. Heyob in her book *The Cult of Isis among Women in the Graeco-Roman World* (Leiden, 1975). In fact, Heyob's study is fairly cautious and she never suggests that the cult was intended exclusively for women. On p. 4 Mora overstates his objections when he questions the role of *Isis Lactans* as being specifically typical of the goddess; he unwisely follows Dunand in suggesting that it is a role borrowed from other Egyptian goddesses. It is a role as old as the Pyramid Texts, although Hathor is sometimes there the mother of Horus: see my *Origins of Osiris and his Cult* (1980), 96 ff. with the allusion to Maria Münster's study. Mora notes that there is only one epigraphic reference to the pair Isis and Harpocrates and that Pompeii provides only one representation of Isis nourishing her child. Here Tran Tam Tinh's *Essai* on Pompeii is cited, but very conveniently the same author's *Isis Lactans* (with Y. Labrecque; Leiden, 1973) is ignored, although it offers numerous iconographical instances of the theme, with many outside Egypt itself; cf. Heyob, op. cit. 43. In spite of these minor flaws Mora is able to supply elaborate evidence, relating to the various areas and ages, concerning female participation in the cult. It is certainly not an overwhelming factor. At Delos a figure of 15.5% emerges (p. 14), compared with 10% in the other Greek islands, confirming the role of Delos

as a 'bridge' between mainland and insular Greece; mainland Greece yields, for the dedications, a figure of 27.9% (p. 19). In general the imperial period shows an increase. Of interest is the comparison between the cults of Cybele and Isis in Rome and Italy, recorded on pp. 25-6; in Campania the female proportion is less, though not markedly so, in the cult of Cybele.

A feature of the second chapter, on the organization of the divine world in the Isiac religion, is the attempt to establish the worship of tetrads as well as triads (p. 32 f.). The latter, of course, are well known, although dyads are also common, as with Sarapis and Isis or Isis and Anubis at Delos; at Delos too we find the triad Sarapis-Isis-Anubis, but with Harpocrates often added to make the group a tetrad. In the fourth chapter, on Isis at Rome and on the Capitol, mention is made (p. 73, n. 5) of the reference in Apuleius, *Metam.* 11. 30 to the establishment of the college of *pastophori* in the time of Sulla. I agree with Mora that this reference is not enough in itself to maintain the benevolence of Sulla towards the cult, but there are other reasons for maintaining this: see my Commentary ad loc. 343-5 and 359, with remarks on the views of M. Malaise and R. E. Witt.

A useful discussion of 'Isis in the Aretalogies' appears in the third chapter, but certain reservations need to be noted. Prominence is rightly given to the studies by Dieter Müller and Jan Bergman; Mora has missed, though, the important review of Bergman's book which was published by Müller in *OLZ* 67 (1972), 118-30, and also the reviews of both books in *JEA* 49 (1963), 196-7 (of Müller) and 56 (1970), 230-1 (of Bergman). In his review in *OLZ*, Müller (now Mueller) made some concessions to Bergman's standpoint, admitting (p. 130) that the latter had 'established a possible Egyptian background for some parts of the aretalogy which had previously been claimed as Greek'. From time to time Mora makes use, naturally, of the literary sources and his practice is disturbingly cavalier: he is content to rely, for all authors, on Hopfner's *Fontes*, a valued compendium which was published in 1922-25. Since then texts and commentaries relating to several of the major authors have appeared, including a study by Hopfner himself (*Plutarch über Isis und Osiris*, 2 vols. 1940-41), which offered a revised text of chapters 12-19 of that work. While Mora offers sound remarks on mysteries and initiations, often following Bianchi, Grandjean is right in assuming that when the text from Maroneia (ii-i BC) mentions *mystai*, it means what it says. Mora is sometimes oblivious of the fact that he is dealing with a bicultural phenomenon. He is concerned, *freilich*, with data from outside Egypt, but the truth is that the concepts of secrecy and initiation are well attested in the early Egyptian ritual tradition and probably had a continued effect: see the remarks in my *Plutarch's De Iside et Osiride* (1970), 42 f. and 390-2, especially on the Egyptian words *šb*, 'secret', and *bs*, 'initiate'; the application of these concepts was widened by the impact of Greek religion. It would be wrong, however, to suggest that Mora consistently ignores the Egyptian antecedents of his theme. He is sensitive to the ethical and social distinctions involved in the Greek and Egyptian traditions, as in his discussion (II, 55) of the relation of the sexes in marriage. Here (n. 62) he refers to an oracle of Sarapis which forbids paederasty; he might well have added that this too reflects the Egyptian moral code.

In his general conclusions (II, 113 ff.) Mora prudently faces up to the limitations which are inevitable in this type of statistical research. In particular, the results often relate only to specific times and places rather than to general trends. Apart from the reservations above noted, he should none the less be congratulated on a notable achievement.

J. GWYN GRIFFITHS

Excavations at el-Ashmunein, IV. Hermopolis Magna: Buildings of the Roman Period. By D. M. BAILEY. 369 × 285 mm. Pp. 82, pls. 116. London, British Museum Press, 1991. ISBN 0 7141 0958 4. Price £95.

The city of Hermopolis in Middle Egypt reached its greatest architectural splendour in the second century AD. Many of the public buildings which flanked its main east-west road, Antinoe Street, are listed in a document of about AD 267, P.Vindob.gr. 12565, in which one Aurelius Appianus reckoned the cost of repairing and reconstructing them. Little now remains of what he then saw.

The robbing and burning of stone for lime and the removal of *sebakh* for fertilizer and the manufacture of gunpowder have been devastating. The report reviewed here records what it has been possible to salvage of some of the buildings on the north side of Antinoe Street in the central part of the city.

The work of the British Museum's Expedition to Roman Hermopolis between 1980 and 1989 was only partly concerned with actual excavations. Much of it involved the planning and study of buildings cleared in previous years by excavators who died before they were able to publish their discoveries. Most notable among these is the structure identifiable as the Komasterion, the procession-house for the festivals of Hermes, one of the buildings named by Aurelius Appianus. Decision about where the buildings he documented had stood was long impeded by the belief that the wall of a Thirtieth Dynasty temenos was still then standing. It is here shown to have been partly demolished for the Komasterion to be built over it. Written sources record komasteria elsewhere in Egypt, but this is apparently the first to have been excavated. The plan is unusual, consisting of a nave flanked on each side by four columnar aisles of lower height. The Corinthian north and south façades are convincingly reconstructed. The detail of the second century AD column capital suggests Asiatic craftsmanship, and a lucky sondage produced the red granite ridge-piece from the apex of one pediment, an unusual discovery. A happy place is found for figures of sacred baboons above the entablature flanking the nave porch.

North-east of the Komasterion, and like it excavated by Rizkallah Makramullah in 1945, was a substantial mud-brick chambered structure, the so-called 'Bastion'. One interpretation of this is that it was the Ptolemaic predecessor of the Komasterion, but it may have been no more than a storehouse. Difficulties of interpretation also arise in the discussion of the Great Telesterion. The re-creation of this monument is partly based on Aurelius Appianus' references to tetrastyla, and partly on some *disiecta membra* of a column or columns about 100 feet high, second only to the so-called Pompey's Pillar in Alexandria. The arrangement proposed has to take account of the different ground levels of adjacent buildings, and the resulting differences in street level are so awkward as to make one wonder. As the author concedes, little of this is capable of proof.

Immediately to the north, and west of the Komasterion, is the temple by the Sphinx Gate. This was the main area of the British Museum's excavations, which extended that investigated by the Hildesheim expedition in 1939, the results of which were never properly published. The temple is restored as peripteral, hexastyle and Corinthian; *spolia* in an adjacent wall are now shown not to have belonged to it, as had previously been suggested. Alternative dates for some green glass built into this wall have important implications for the dating of the temple, and the relevant discussion in n. 128 should not be overlooked. The plans of the excavation, pls. 40-2, would have been easier to relate to one another if they had not been oriented in three different ways, and on pl. 42 the numbers of columns E3 and E4 are transposed. There is also an apparent inconsistency between statements on p. 35 as to whether or not the Sphinx Gate's lack of an inscription implies that it was never completed. The stratified pottery is illustrated, but full publication is reserved for a separate monograph.

The other main structures which were surveyed are the much-ruined South Church (probably fifth to sixth century) and its adjacent chapel and baptistery, originally excavated by Abu Bakr in 1946. Bailey thinks on balance that the internal columns of the church carried arcades rather than flat architraves, but one difficulty with that is the unequal spacing of the columns, which would presumably have resulted in arches of different diameters and heights. There are several Egyptian parallels for the western aisle and the unusually wide nave, and some comparative plans would have aided the discussion here. Bailey openly states his change of view about the baptistery, which he had previously interpreted as a winepress (not unreasonably, to judge from the photographs). Among miscellaneous other structures which are briefly considered, some of those published as baths in the Hildesheim expedition's report are reinterpreted here as vats, possibly for garum or pickled fish, an attested Egyptian product. An analysis of samples of their mortar linings appears as an appendix.

Other appendices deal with particular architectural features, apart from one on early Islamic glass-making on the Komasterion site. What little imported marble was found was typical of Roman assemblages in the East Mediterranean. Three of the four inscriptions reported on were uncovered in earlier work, and none is very informative. It would have been more instructive for a

translation of the Aurelius Appianus repair papyrus also to have been included, so that the reader could place in context the frequent references made to it. An appendix on brick sizes would have been more effective if the dimensions had been presented in the form of a graph, rather than numerically. Other sections of the volume are also burdened with such details as the measurements of column capitals, which are tedious in the body of the text and would have been better tabulated separately, as occasionally they are.

In other respects, however, the volume is a fine product, not least for its illustrations. Sue Bird's excellent reconstructed elevations of buildings and drawings of architectural detail deserve particular mention. There is abundant photographic coverage, a notably valuable aspect of which is the inclusion of plates taken at the time of the original excavations, from the photographic archive made available by A. H. S. Megaw. These often show features which have since disappeared or have been moved from where they were found. How much richer our knowledge of Roman Hermopolis would have been had as much care been devoted to it a century or so ago as has been given to this volume. At least, one surviving part of the Roman archaeology of the great city of Hermes has now received worthy publication.

T. F. C. BLAGG

Egypt and Africa: Nubia from Prehistory to Islam. Edited by W. V. DAVIES. 297 × 210 mm. Pp. 320, pls. 16, line drawings 105, fold-out illus. 7. London, British Museum Press in association with the Egypt Exploration Society, 1991. ISBN 0 7141 0962 2. Price £30.

This volume celebrates the most important development in British Egyptology for many years. Published by two leading research institutions it, like the new Sackler Gallery in the British Museum, draws attention under the name of Nubia, to the Middle Nile Valley between Aswan and Khartoum. It covers the time span from 6000 BC to AD 1500 and so widens by some 4,000 years the period which is usually the concern of Egyptologists; only the palaeolithic and the Islamic periods are missing. This double broadening of perspective encourages a better understanding of developments in the Nile Valley as a whole and on the influence, or lack of it, which Egyptian civilization has had on the rest of Africa. It should also, aided by the new 'Society for Archaeological Research in the Sudan', go far towards closing the gap between archaeologists working in Egypt and the Sudan which has so unfortunately widened over the years.

The concepts of Nubia and of archaeological research in the Middle Nile Valley have become prominent in recent years due to the UNESCO Campaigns between the First and Third Cataracts, and indicate the threat which more Nile dams in the Sudan present to the regions further south. In this volume 'Nubia' is used geographically and extends well beyond those regions where Nubian language is known to have been spoken. The most southerly of these, the sahel-savannah, has since late glacial times allowed human movement west-east across Africa; it is the inclusion of this zone which justifies the title of this volume without committing its editor or contributors to a belief in the Nile Valley as a 'corridor' which took Egyptian influence southwards or a 'cul-de-sac' beyond which it did not spread. The thirty contributors brought together here, however, do not venture south of the Khartoum region or west of the Nile Valley, so that there are no solutions here to the main problems of sub-saharan Africa: the development of agricultures, the discovery and/or spread of metal-using, and the rise of urbanized states. The contributors are, with one Egyptian exception, from Europe and North America and it is sad that there are none from the rest of Africa.

This said, the volume is to be welcomed wholeheartedly; the contributors are all active research-workers from twelve countries and are well chosen. The papers vary from discussions of particular sites to broad overviews, but all offer new ideas and much unpublished information. The overall level is well above that of most conferences; of particular interest are those studies which cross the traditional chronological sub-divisions of research such as Mesolithic, Neolithic, Pharaonic, Napatan/Meroitic and Christian, those of Caneva, Marks, Shinnie, Geus, Bonnet, Török and Horton being especially successful. All the chronological divisions mentioned above

are represented but Christian (Godlewski, Adams, Welsby and Brown) and Mesolithic/Neolithic (Caneva, Smith, Reinold and, in part, Marks, Williams and Geus) have fewer papers than the others. The greatest lacuna is the study of domesticated plants and animals; Blench's paper, the only one bearing on the topic, virtually ignores Nubia. Caneva gives a brief introduction to the extensive botanical work already carried out in Nubia, and her bibliography is a useful study of savannah/sahel zone developments independent of Egypt.

The majority of the papers (nineteen) deal with the period 3000 BC-AD 500 when the Middle Nile Valley was much influenced by, and at times much of it politically united with, Egypt. The bringing together of those working on Pharaonic and Napatan/Meroitic topics is particularly happy. They throw light, in a way which will interest many working in other parts of Africa and in other continents, on the effect of an urbanized state on an isolated and less-developed neighbouring region over a period of several thousand years. The papers by O'Connor, Sève-Söderbergh and Morkot are particularly informative.

A second major topic, the nature of the urbanized state which developed in the Middle Nile Valley and which maintained, with its successor states, its independence for 2,000 years, is also well considered. In the earlier part of this period the region's differences from Egypt are stressed, especially by Hinkel and Török. A particularly interesting paper from Hoffman (using Peacock's typology and ceramic-constituent analysis) shows how similar the thirst of Meroitic élites for Mediterranean wines was to that of the contemporary Belgic inhabitants of Southern Britain. Although the Christian period has the fewest papers devoted to it, their range is wide and includes the only linguistic one (Browne); Adams' discussion of the Christian kingdoms is excellent.

Anyone reading (or even browsing) through this volume cannot but be impressed by the amount of work done in the Republic of Sudan in recent years and the exciting possibilities it offers for the future when the impact, or lack of it, of Egyptian civilization on the savannah and forest cultures of Africa will finally be revealed.

JOHN ALEXANDER

Qaşr İbrīm in the Ottoman Period. Turkish and Further Arabic Documents. By MARTIN HINDS and VICTOR MÉNAGE. Texts from Excavations. Eleventh Memoir. Pp. xiii + 134, pls. 16. London, Egypt Exploration Society, 1991. ISBN 0 85698 110 9. Price £64.

The present exemplary volume is the continuation of *Arabic Documents from the Ottoman Period from Qaşr İbrīm* (Egypt Exploration Society, 1986) by the late Martin Hinds and Hamdi Sakkout, reviewed in *JEA* 77 (1991), 233-4.

The 24 Arabic documents published here (one more 'became' Turkish, cf. p. 94, C6, and two require further work), largely associated with the shar'ī courts, cover the period 1630-1759; some (for example, nos. 65 and 66) relate to the same transaction. They are carefully examined for their relevance to the fortress of İbrīm and its administrative district. Martin Hinds had just completed the typescript at the time of his death and his contribution has been meticulously prepared for the press by his co-author who has been responsible for the Turkish documents, which number 168 and are variously dated between 1560 and 1739.

The Turkish documents have been divided into three groups: (a) those relating to the garrison at İbrīm; (b) those relating to the garrison at Sāy (Sali), upstream; and (c) miscellanea, including some letters and some fragments of poetry, some in good hands, including Ḥayālī Beg's famous gazel, '*Cihān-ārā cihān içündedür arāyi bilmezler*'. The information provided by the first two groups, which are practically all chits or vouchers relating to pay or allowances, is given in tables, but with exhaustive commentaries on their form and contents and with reconstructions of the circumstances in which they were issued, which are both ingenious and convincing. Ménage's discussion (pp. 7-8) shows the persistence at İbrīm of an elaborate regulation, within the framework of military discipline, of the repayment of debts and advances incurred by regular arrears of pay. This involved considerable ingenuity, particularly in view of the fossilization of military accounting and exchange rates in later Ottoman Upper Egypt and Nubia. He makes, moreover, the important

point that this system was unlikely to have been an invention of the commandants of the Ibrīm garrison and that it therefore most probably reflects standard procedure throughout the fortresses of Egypt, if not of the whole empire.

Ménage's commentary also clarifies the peculiar status of the Janissaries at Ibrīm and Sāy, the most important component of the garrisons though there are occasional mentions of the other Ottoman corps in Egypt, including the Tüfenkçiyān, the Çerākise, the Gönüllüyān and the 'Azabān. Although the Janissaries were in theory subject directly to the authority of the central government, initially at least there was also a sancakbeg of the district of Ibrīm. The strength of the garrisons included most of the standard ranks, together with imāms, ḥaṭībs and müezzins, gatekeepers, an armourer (*cebeci*) and military bands, but the position of the Janissaries was distinctly anomalous. For not only were they stationed there permanently; service in the garrisons was evidently hereditary. Not surprisingly, the ethnic origins of the Janissaries and the other soldiers in the garrisons, determinable from their patronymics, are also untypical, though that may result in part, Ménage suggests, from the fact that Egypt was a very untypical Ottoman province. There was one 'Bosnian' and one prominent Hungarian (*Macar*) family which can be traced back (Genealogy, p. 125) to 1003/1594. Otherwise, the soldiers were Muslim born of Muslim fathers, with a steadily increasing number of local nisbas. Some families appear to have had social ambitions, witness the amusing transformation of the family name Barghūth ('flea') into Bārūd ('gunpowder'). But the picture of a forgotten garrison gradually 'turning native' is given even greater plausibility by Ménage's conclusion (p. 96, C13) that by the 1720s it had become impossible to compose even an important letter in respectable Turkish: not only are there frequent lapses into Arabic, but the documents, the headings of which are invariably in Persian, though not always correct Persian, show a sharp decline in the literacy of hands and, quite soon even, the suppression of *siyākat* (Treasury cipher) script and numerals.

Detailed genealogical tables usefully show the relationships of the individuals named in the documents while the Glossary is a model of its kind and well worth reading straight through. And, for those of us who have never had the time to verify our suspicions, Ménage demonstrates that for the years 960–1289 H. in Freeman-Grenville's conversion tables, the days in Column 4 are two days behind. Correction of that error leads to considerably better convergence of calendar dates with the days of the week.

J. M. ROGERS

Other books received

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