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EDITORIAL FOREWORD

DURING the season 1964–5, the focus of Egyptological field-work shifted from Nubia to Egypt north of Aswân. Some tasks remain to be completed in the area threatened with inundation by the waters of the new lake building up behind the High Dam, but most expeditions have already quitted Nubia. The sequel to the Nubian campaign promises to develop into an unprecedented period of archaeological activity in Egypt proper. The Society's field-workers have been busy both north and south of Aswân. In the Foreword to Volume 50 of the *Journal*, Professor Emery's return to Saqqâra was briefly announced; the extremely interesting results achieved in his first season are summarized in his report in this volume. During the early summer, Dr. Seton-Williams conducted the first full campaign in the Society's new concession at Tell el-Farâʿîn. The work was again largely preliminary and prospective, but much can be expected from this site, as Dr. Seton-Williams's account, printed later in this volume, makes clear.

In Egyptian Nubia, Professor Plumley paid only a short visit to Qaṣr Ibrîm, but he spent some time in Cairo working on the important scrolls found in his season of the preceding year. He intends to return to Qaṣr Ibrîm during the winter 1965–6 for a final season of excavation. On the Society's last campaign in the Buhen concession, Mr. H. S. Smith (whose full report will appear in *Kush*) writes:

The Society undertook a final season's work in its concession at Buhen in Sudanese Nubia, under the general directorship of Professor W. B. Emery. The field-party, consisting of Mr. and Mrs. H. S. Smith, arrived at Buhen on January 24 after spending a month at Saqqâra assisting Professor Emery. Recording of the rock inscriptions throughout the concession was completed by February 4. These are mainly early Middle Kingdom hieratic graffiti situated high up on the south faces of hills used as watch-posts, and preserve the names of soldiers employed on signalling and watch duties, probably at the time of the construction of Buhen fort in the reigns of Ammenemes I and Sesostris I. Excavations were concentrated upon the area of the large but heavily denuded fortified town of Kor (Buhen South) at the southern end of the Society's concession. The dynastic cemeteries to the west of the town proved to have been pillaged with great thoroughness in modern times and yielded little useful evidence. A considerable area of the town had been dug for the Sudan Government by M. Vercoutter in 1954, but he excavated only a small stretch of the extensive fortifications, the last plan of which was made by Somers Clarke in 1899. As this plan, though admirable for its time, was incomplete and in part inaccurate, the Society re-cleared the fortifications sufficiently to allow a new and complete plan to be made. They prove to have had a more complex history than had hitherto been thought, and the evidence recovered, together with that from test trenches cut through the town debris, suggest modifications of certain of Vercoutter's conclusions about the relative dates of the fortifications. They may all in fact date from the Twelfth and Thirteenth Dynasties; at all events, evidence for occupation of the town after the Second Intermediate Period is sparse. Owing to its denuded condition the site

yielded very few objects, and what historical evidence it had to offer has now been wrested by the Society from the waters which will inundate it in 1966. Careful examination of the remaining areas at the southern end of the concession brought to light no further sites of importance, and the Society's eight seasons of work at Buhen are now completed. Camp was broken on March 15, and the Society's furniture and equipment dispatched to Saqqâra.

In order to relieve the strain placed on the Society's principal field-workers by the continuation of extensive campaigns in Egypt and the Sudan, it has been decided to appoint a Field Assistant who, for some months each year, will be able to give concentrated assistance to field directors both in actual excavation and in the preparation of reports. The first Field Assistant to be appointed is Mr. Geoffrey T. Martin, a graduate of London University at present engaged in research at Cambridge University. All who have the success of the Society's work at heart will wish him well in his new duties.

Professor J. Černý retired from the chair of Egyptology at Oxford University, after a tenure of fourteen years, in the summer of 1965. It is known that he plans a very full and busy retirement which all hope he will enjoy for many years to come. Best wishes go to his successor at Oxford, Dr. J. W. B. Barns.

Later in this volume, Mr. Cyril Aldred writes about Mrs. Nina de Garis Davies who died early in 1965. His eloquent tribute very properly emphasizes the debt Egyptology owes her. That her coloured facsimiles of tomb paintings remain the standard by which such work is judged, and by which most photographic reproduction in colour is condemned, is proof indeed of her great achievement. It is to be hoped that Mr. Aldred's gloomy prediction for the future of such recording will prove untrue. Mrs. Davies's work surely contains much to inspire others; but the opportunities to prosecute work of this kind, readily available in more expansive times, may be more difficult to find in the future.

PRELIMINARY REPORT ON THE EXCAVATIONS AT NORTH SAQQÂRA 1964–5

By W. B. EMERY

ON October 5, 1964, the Society reopened its work in the archaic necropolis at North Saqqâra, after an interval of nearly nine years. As before, this research is conducted on behalf of, and in co-operation with, the Service of Antiquities; an arrangement which in the present, as in the past, has proved to be most satisfactory in every way.

The staff of the expedition consisted of Mr. G. Biggs (University of Liverpool), Miss J. Bourriau (University College, London), Mr. C. Carter (University of Cambridge), Miss A. Millard (University College, London), Mr. Ali el Kholi (Inspector of the Egyptian Antiquities Service), Mr. G. Martin (University of Cambridge), my wife, and myself. Mr. and Mrs. H. S. Smith joined us for the last month of our season, prior to their departure for Nubia, to complete the Society's work at Kor.

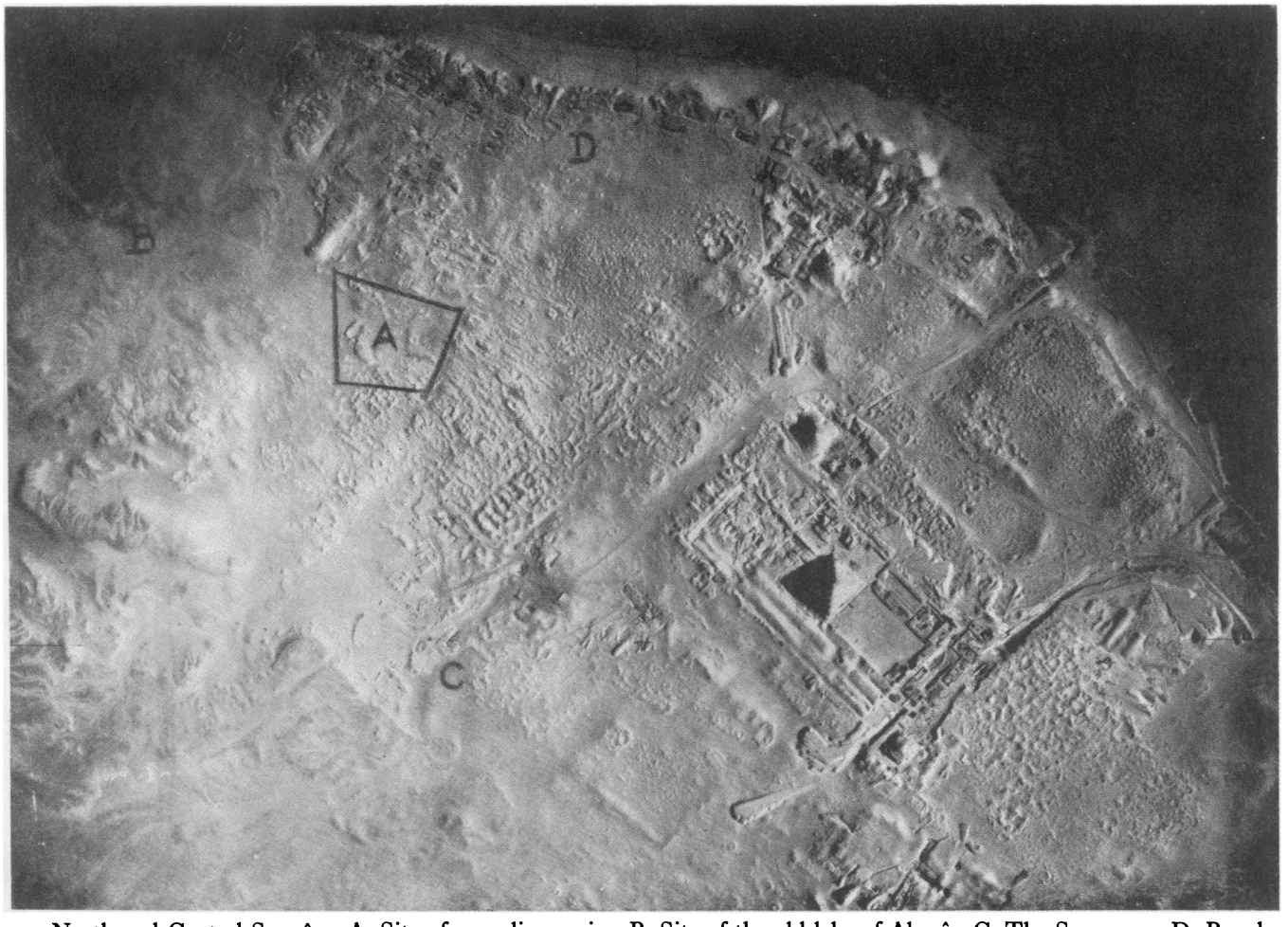
For some years I have been interested in the valley area at the extreme west of the archaic necropolis at North Saqqâra, where Firth had partly excavated one of the largest of the Third Dynasty tombs, which he had numbered 3077 (pl. II, 1). The superstructure of this tomb overlooked a large area covered with fragments of Ptolemaic-Roman pottery in a manner reminiscent of Umm el-Qaʿâb at Abydos (pl. III, 1). The strangeness of finding remains of this late period in an area devoted almost exclusively to monuments of the first five dynasties was most intriguing and suggested at once a place of pilgrimage. Although the pottery deposits cover a large area well down to the valley towards the village of Abusîr, my attention was drawn to the flat surface north of Firth's tombs 3077, 3079, 3080, and 3081. And so, before closing down our work on the tomb of Queen Ḥerneith in 1956, I sank two test pits in this locality, one of which exposed brickwork of the Third Dynasty together with two burials of sacrificed bulls, the remains of ibis mummies in lidded pottery jars, and Ptolemaic votive pottery. The juxtaposition of the remains of these two periods was indeed significant and at once brought to mind the possibility that here, in this place, only about 700 m. from the Step Pyramid enclosure, we might discover the Asklepieion and the tomb of Imḥotep, the great architect and vizier of King Zoser who became in later times the venerated God of Medicine. For many years archaeologists have searched, in theory and in practice, for the long-lost Asklepieion and the tomb of Imḥotep at Saqqâra. Its location has been suggested to lie in various areas of the great burial ground, such as closely adjacent to the Step Pyramid, on the edge of the cultivation near the pyramid of Teti and south of the Serapeum. But Reisner, Quibell, and Firth all believed that the tomb, at any rate, would be in the archaic necropolis at the

north end of Saqqâra, and it was in this belief that Firth reopened Quibell's excavation in this area in 1930, a search which ended only with his untimely death in 1932.

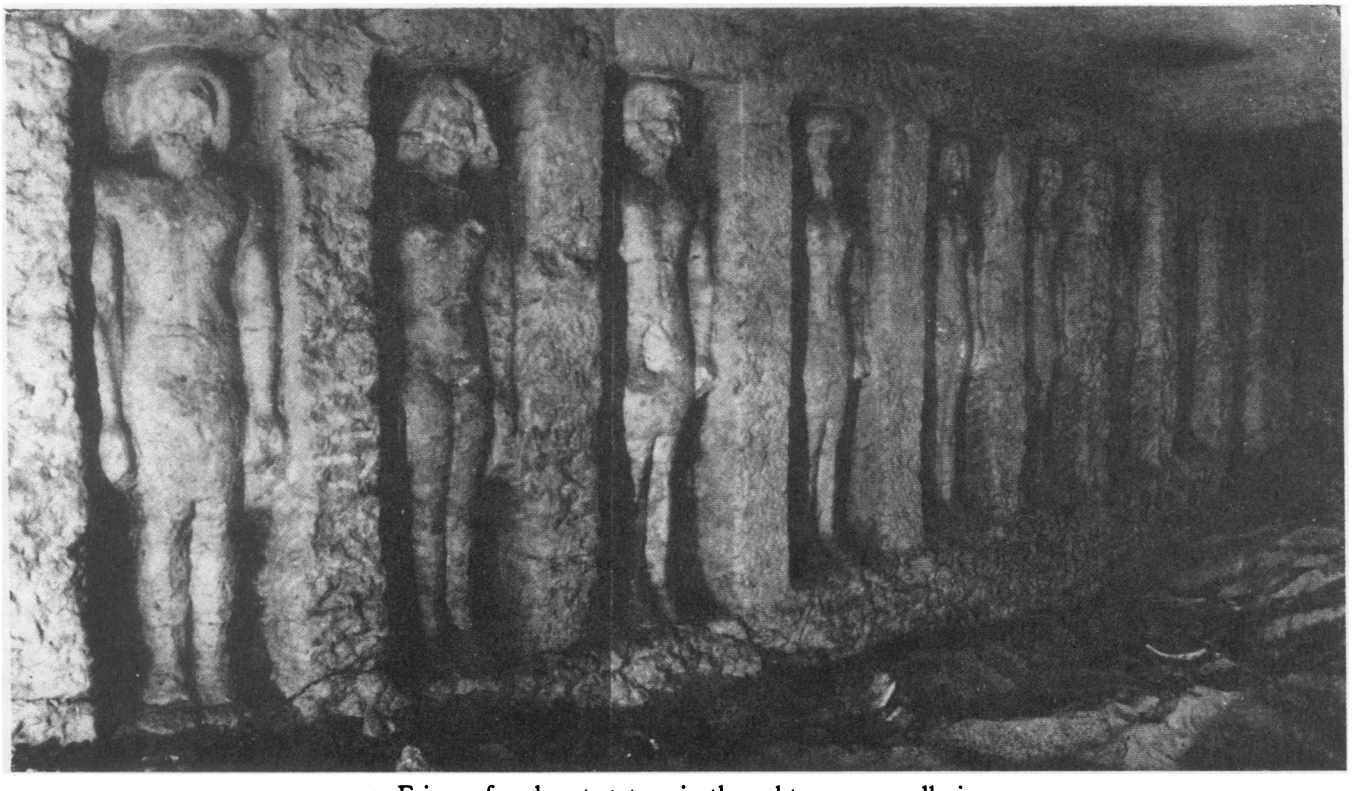
Excavation started on October 5, 1964, on the site of the 1956 test pits, and after a few weeks' work we had uncovered the superstructure of a large tomb of the Third Dynasty, which I have numbered 3508 (pl. III, 3). Measuring 33·50 m. by 16·00 m., it is built of rough stone with a brick casing, and is preserved to a height of 3·80 m.—far greater than any other mastaba in the archaic necropolis. In Ptolemaic-Roman times the upper part of the superstructure was exposed to a depth of about 1·30 m., and on this level were placed burials of sacrificed bulls, all with their heads towards the tomb and concentrated outside the north and south chapels in the east façade of the superstructure (pl. III, 2). Another significant feature is that the brickwork of the façade, as far down as the Ptolemaic-Roman level, has been deliberately and irregularly grooved in the manner frequently found in the stonework of temple buildings, presumably by pilgrims wishing to take away relics of the sacred structure. Also on the same level and above the bull burials were fragments of Ptolemaic-Roman offering pots and pot-stands, together with the remains of ibis mummies.

Only on the original ground-level did we find, outside the superstructure, any pottery fragments of Third Dynasty, and the general impression was that the whole superstructure had been systematically cleaned up at a later date. This was confirmed when we excavated the south burial shaft. Filled to the brim with clean sand, it had originally contained a fine plain limestone sarcophagus, but this had been systematically broken up for removal from the shaft, and the pieces thrown over the west side of the superstructure.

Turning our attention to the main burial shaft in the south end of the superstructure, our first discovery was the burial of a bull, carefully arranged, head south, on a bed of clean sand 1·25 m. below the mouth of the pit (fig. 1). Below this burial, at a depth of 6 m., we found nothing but clean sand, and then discovered, layer upon layer, hundreds of ibis mummies in their lidded pots (pl. IV, 2), from their general appearance all products of the same factory! More than five hundred of these mummies were removed from the pit and from what we then thought to be the burial chamber, and each had to be examined individually. This was because of the discovery of a demotic text painted on the inner side of the lid of one of the pottery containers. Moreover, many of the mummies were decorated with elaborate embroidered and *appliqué* designs such as seated figures of Thoth, Imḥotep, the sacred baboon in a wheeled shrine, the ibis on a lotus, etc. (pl. V). When the work of excavation in this shaft had reached a depth of more than 10 m., with hundreds more ibis mummies still untouched, we suspended further operations in it and turned our attention to a stone-built superstructure located on the north side of 3508. This tomb, numbered 3509, proved to be a typical corridor chapel type of the Fifth Dynasty, with painted reliefs of the highest quality (pl. IV, 3, 4). Its owner, Ḥetep-ka, a noble living during the reigns of Saḥurēʿ and Neferirkarēʿ, held, amongst other titles, those of 'Keeper of the Diadem' and 'Overseer of the Hairdressers of Pharaoh'. Examination of the main burial shaft again revealed masses of ibis mummies; but work in the substructure was postponed until further areas of the ground surface above could be cleared.

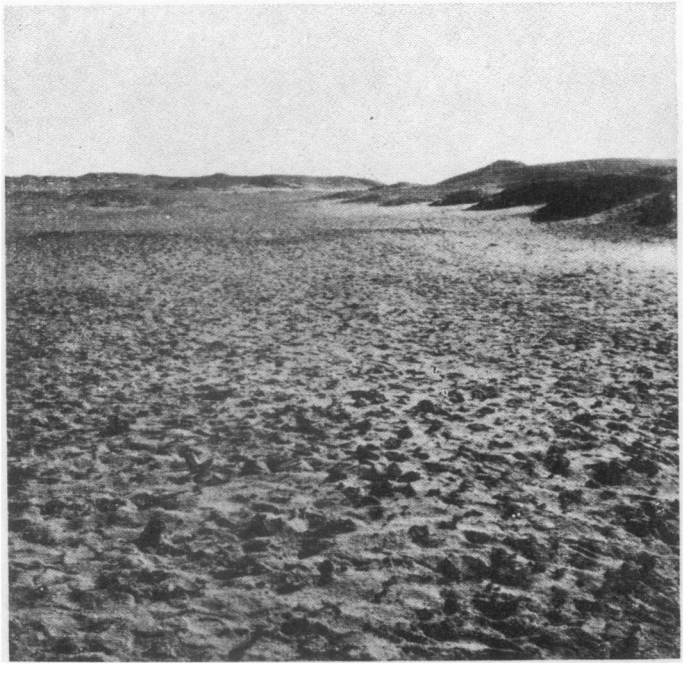


1. North and Central Saqqâra. A. Site of new discoveries. B. Site of the old lake of Abusîr. C. The Serapeum. D. Royal tombs of the First Dynasty

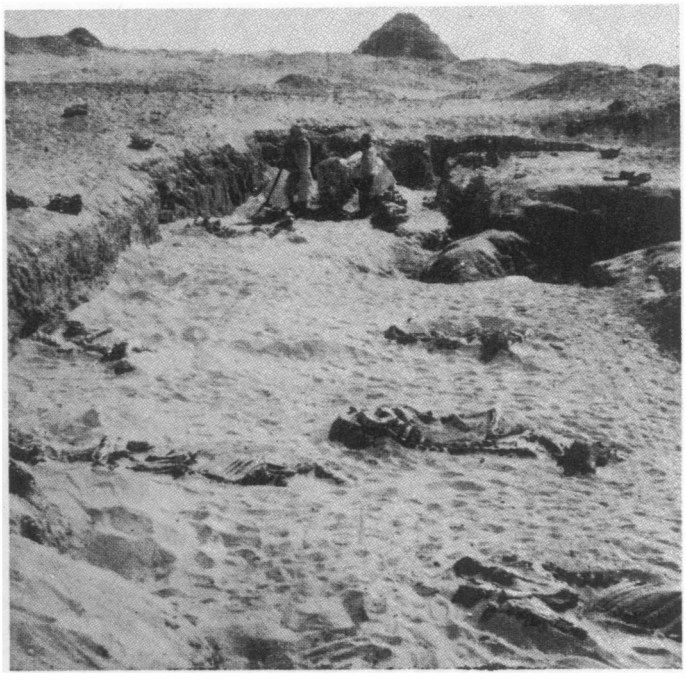


2. Frieze of rock-cut statues in the subterranean galleries

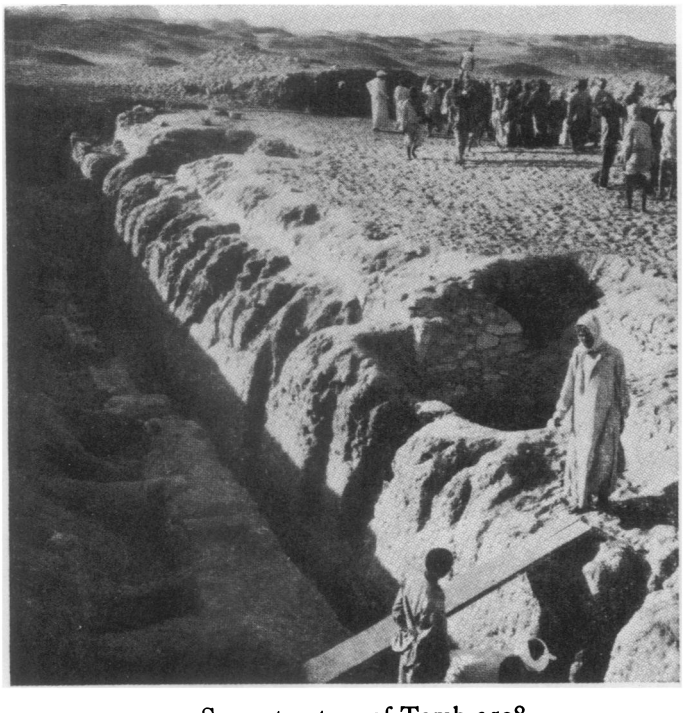
NORTH SAQQÂRA 1964–5



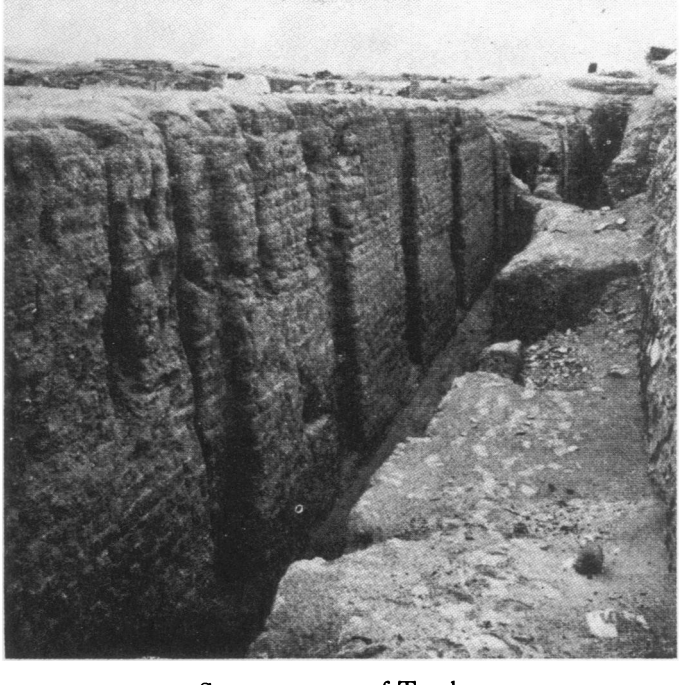
1. New site before excavation



2. Sacrificed bulls on Ptolemaic-Roman level



3. Superstructure of Tomb 3508



4. Superstructure of Tomb 3510

NORTH SAQQÂRA 1964–5

Working westward from Tomb 3508, the superstructures of more and more tombs were revealed, and it would appear almost certain that the whole of the great valley

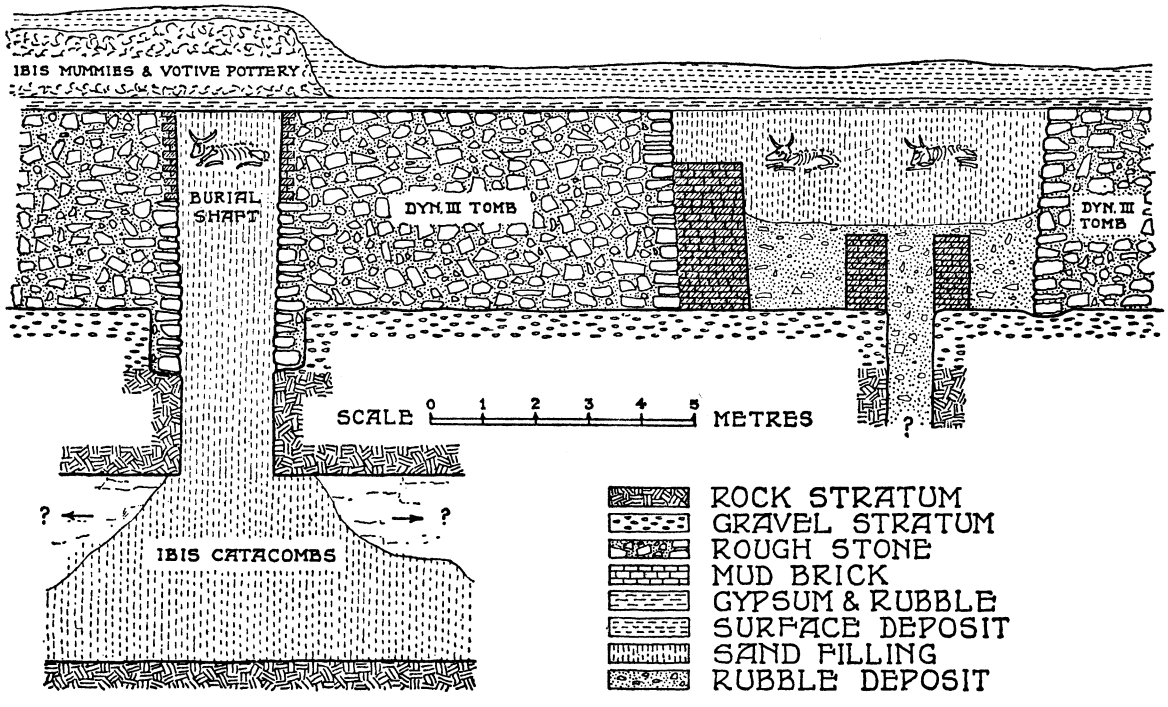


FIG. 1

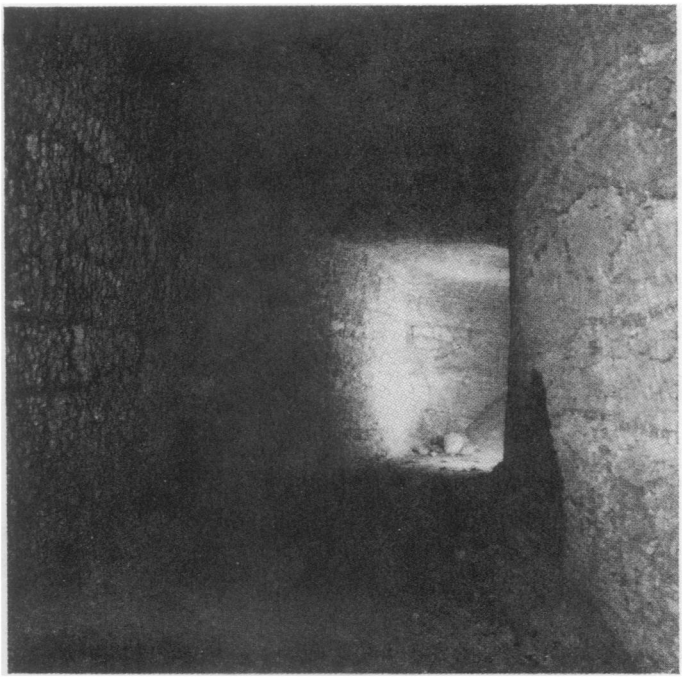
area is covered by streets and streets of funerary monuments of the Archaic and Old Kingdom Periods.

Directly in front of No. 3508 we uncovered a street of small subsidiary burials and beyond this another large mastaba of the Third Dynasty which we numbered 3510 (pl. III, 4). It was in the clearance of this narrow street of small tombs that we found the explanation of the uniform height of all the large tombs and of their excellent state of preservation. In the examination of the stratification we obtained evidence that in the Ptolemaic Period the superstructures had all been levelled to a height of about 4·50 m. above the original ground level and that the spaces between each structure had been filled with rubble, forming a great flat area on which there may originally have rested some large building (fig. 1). Some of the larger superstructures had been surrounded, during the Ptolemaic period, with the bodies of the sacrificed bulls; but whether these were foundation sacrifices for a building since disappeared, or whether they were placed there in veneration of the occupants of some of the tombs is not yet clear. Only on the original ground-level outside the superstructures did we find pottery fragments and stone offering-tables of the Third Dynasty, and the general impression was that these early structures had been systematically cleaned up during Ptolemaic times. On the great flat surface above them were banks of broken ibis mummies, scattered on the top levels, but in some cases originally laid in orderly rows in the lower levels. With them were masses of votive pottery, including incense-burners and

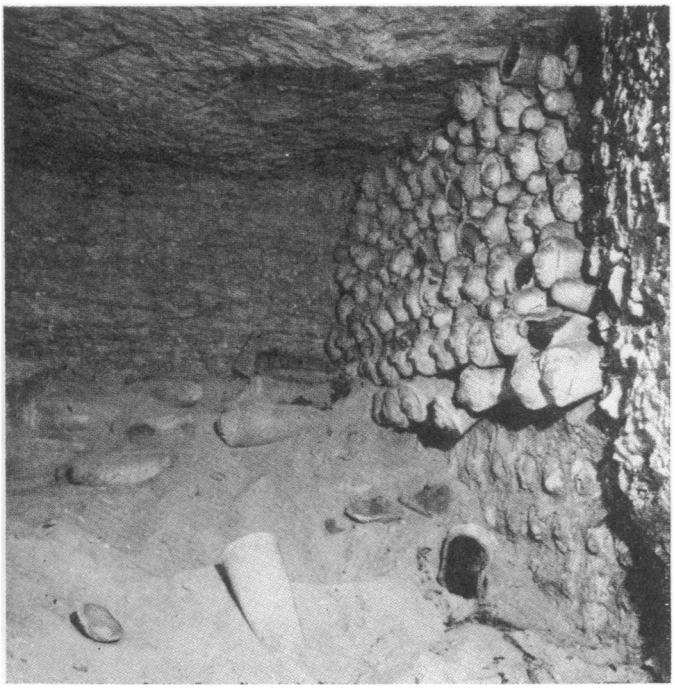
torch-holders, the presence and character of which puzzled us at the time of their finding but were explained later as the excavation progressed. Other objects found at this level were faience amulets and small wooden figures of deities such as Isis, Osiris, and Ḥaṯḥor, some of which are of fine quality. Another unusual find in this area was a small hoard of silver coins of Ptolemy I, all in mint condition; originally contained in a linen bag, they were perhaps lost by some unfortunate pilgrim.

On December 10, 1964, we cleared the south burial shaft of Tomb 3510, and at a depth of 10 m. broke into a vast labyrinth of rock-cut passages, similar in many respects to those of the Serapeum and Tuna el-Gebel. The extent of this labyrinth is still unknown and we are as yet ignorant of the beginning and end of this great underground structure, although we have explored, with some difficulty, hundreds of yards of its passages (fig. 2). Parts of it are completely clear of debris, but others are filled with sand and rubble to such an extent that we could only crawl just below its ceilings. This is because, when it was constructed in Saite-Ptolemaic times, the tunnellers frequently broke into the burial shafts of the Archaic and Old Kingdom tombs situated above it. They blocked off these shafts as they cut, but in many cases the blocking has fallen and the rubble fillings of the shafts have filled large parts of the passages. Many of the galleries, which stand 4 m. high and 2·50 m. wide, are packed with mummies of ibis still undisturbed in their pottery jars. There are literally thousands and thousands of these strange deposits of the bird, which at Memphis in Ptolemaic times was sacred to Imḥotep; many of the side galleries packed to the ceiling with them were sealed off with mud and gypsum plaster. Only a preliminary examination and survey has so far been possible, for it is obvious that excavation through the Old Kingdom pits would be impossible, and moreover there is in parts the hazard of fragile rock conditions. It is clear that the only solution to this problem is to find the proper entrance and start the clearance of the galleries from there.

All passages so far explored are of undoubted Saite-Ptolemaic date, with the exception of galleries found at the end of this season's work. These, situated at the north end of the main gallery, are certainly of the Old Kingdom period, and in one of them we discovered a frieze of rock-cut statues standing about 0·78 m. high in a row just below the ceiling (pl. II, 2). Left in an unfinished state by their original builders, they appear to have been restored and painted in the Late Period. The gallery in which they stand is full of debris which, because of the dangerous state of the rock, we have as yet been unable to clear. But from other evidence we may judge that the floor must be at least 2·00 m. below the top of this deposit and we may well find inscriptions below the statues. The existence of underground galleries containing the mummies of ibis was known to the early explorers such as Pocock, Denon, Mariette, and Lepsius, and indeed a sketch plan of part of the catacombs was published by the last in 1843. The 'Tombeau de Momies d'Oiseaux' was, to judge from Napoleon's maps, one of the principal monuments at Saqqâra, for on Flle. 21 of the series, the only ancient remains marked are the pyramids, tombs of human mummies, and the tomb of the birds. On de Morgan's map of the necropolis, the 'Tombe des Oiseaux' is also marked, adjacent to the 'Tombe des Bœufs', but these are placed some considerable distance from our discovery, probably owing to an error of the cartographer who perhaps was ignorant



1. A gallery clear of debris

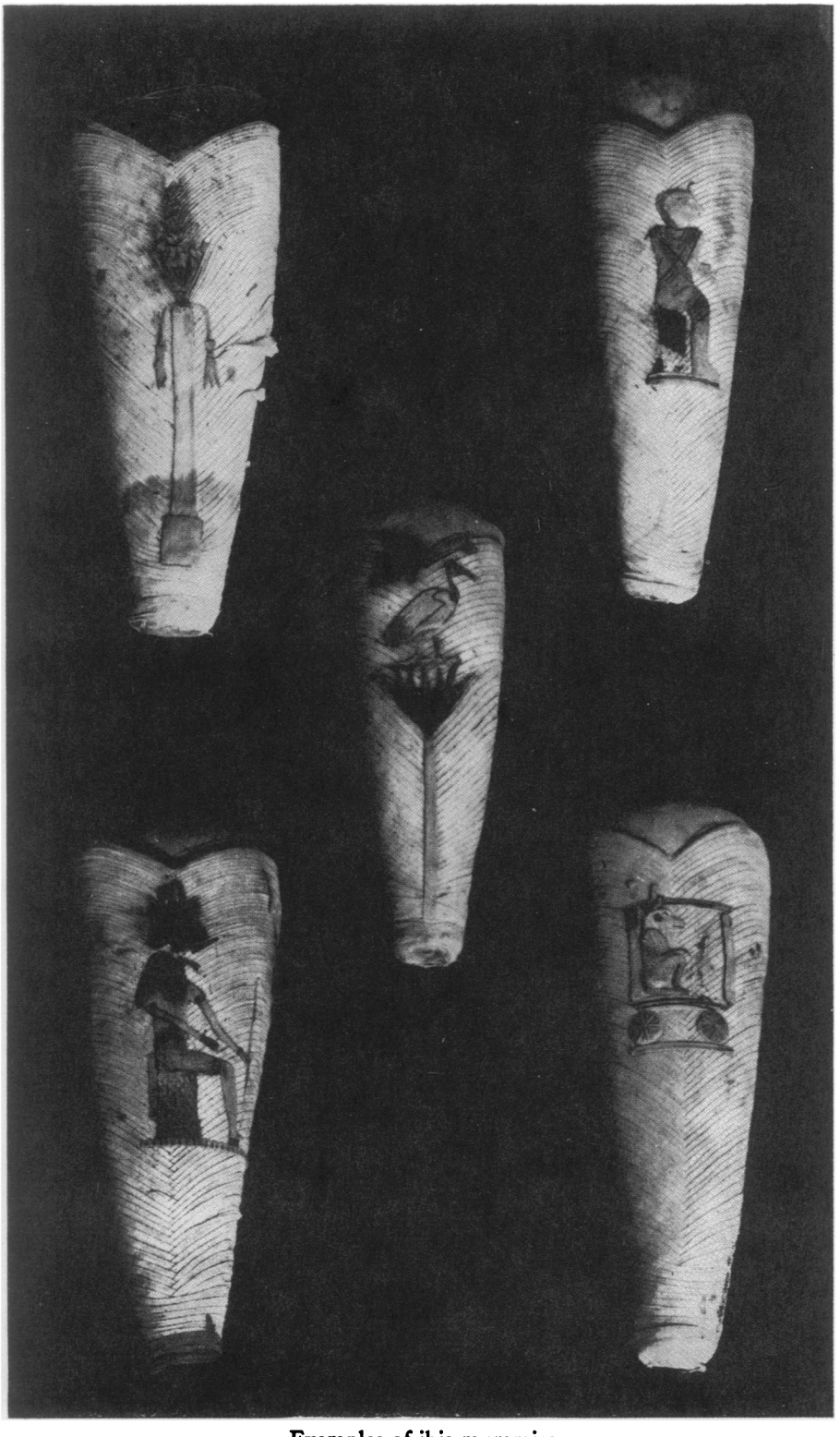


2. Ibis mummy pots packed in the catacombs

3. Relief on entrance gate of Tomb 3509

4. False door in Tomb 3509

NORTH SAQQÂRA 1964–5



Examples of ibis mummies

NORTH SAQQÂRA 1964–5

of their exact location, since all traces had disappeared by that time. There is of course always the possibility that the ibis galleries extend that far, for it is certain that they

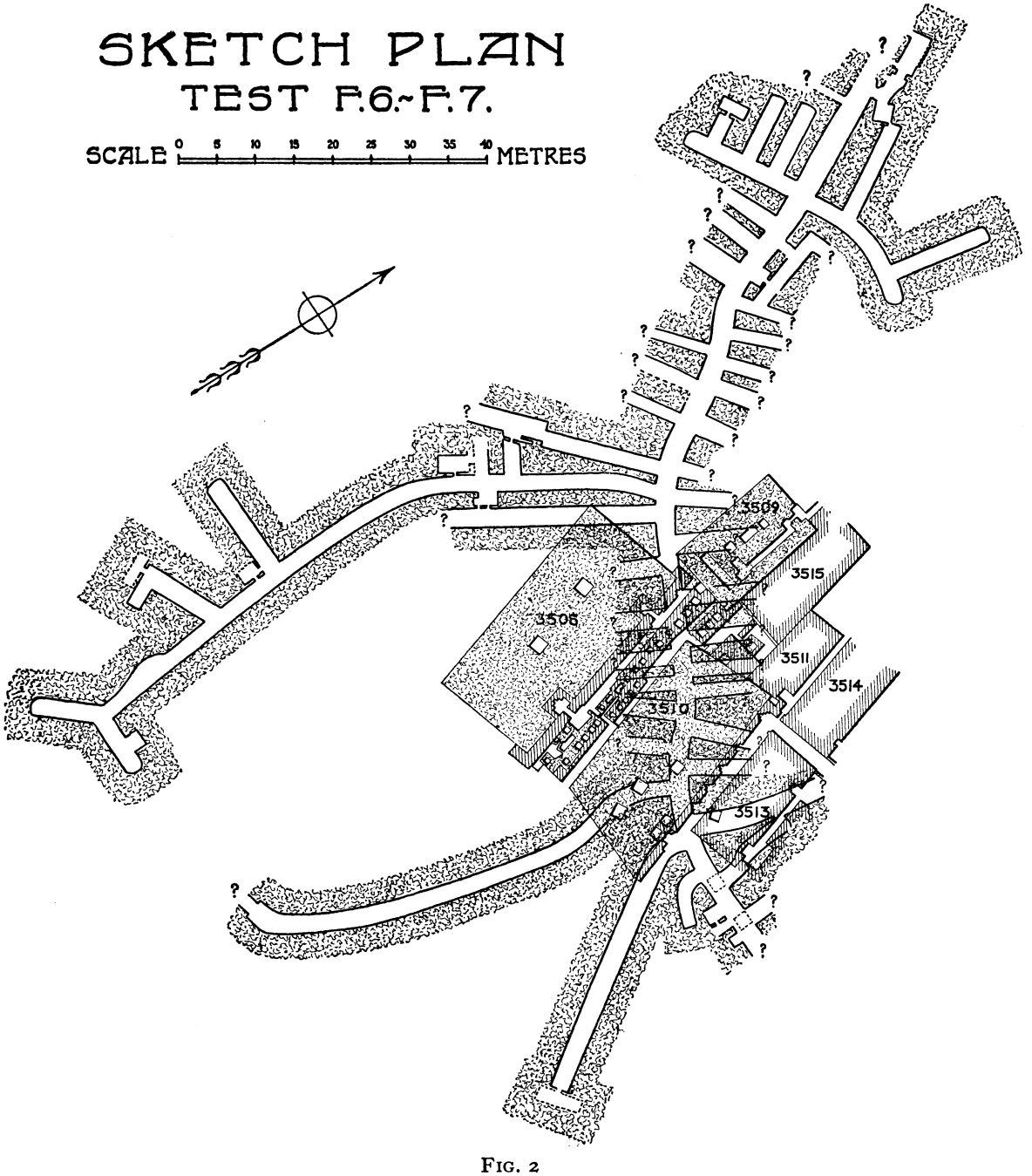


FIG. 2

cover a very large area. From the scanty accounts left by these early explorers, it is obvious that they only penetrated a small part of the labyrinth—probably, as we have done, through Old Kingdom burial shafts—and I think the main entrance to the labyrinth still remains to be discovered.

Although our excavations are as yet only in their early stages and it is therefore not possible to be dogmatic, I think that in all probability we have located part of the long-lost Asklepieion and that, connected with it, we shall find the tomb of Imḥotep. My reasons for this belief are as follows:

1. At the time of his death, Imḥotep was recognized no doubt as a very great personage, but nevertheless as a mortal man, and his tomb would be similar to those of other great Third-Dynasty nobles such as Ḥesy-rēʿ or Khaʿ-bau-sokar. Its location would almost certainly be in the necropolis of North Saqqâra, where all the nobility of this period were buried. Subjected to the repeated plundering of such rich tombs throughout Egypt's long history, it may well have been lost until his deification in later times, when it was identified, to become a place of veneration and the nucleus of the famed Egyptian Asklepieion of the classical world.

2. The builders of the ibis catacombs must have had some definite reason for selecting as a site for the building the congested area of the archaic necropolis, and this could only have been because in this area was a venerated place connected with the god of whom this bird was a symbol. If this were not so, why should the builders undertake the difficult task of tunnelling below ancient tombs whose burial shafts would continually interrupt their progress and necessitate the construction of retaining walls and false ceilings? Should the conception of the ibis catacombs have had no connexion with a monument of an earlier period, there would have been no reason to construct them in this difficult terrain, when an ideal and virgin site was available less than half a mile to the north-west.

3. In the *Hermetica* it says that there was a temple of Imḥotep in which he was buried situated 'in the Libyan mountains near the shore of crocodiles' and from this some authorities have argued that his tomb must have been in the Faiyûm. But I would suggest that this description might well fit in with the site of the present discovery; for the foothills of the Western Desert rise just behind and it is only a short distance from the site of the old lake of Abusîr, which is now drained and under cultivation. Even within my own memory, the lake was quite a large expanse of water and was reserved for royal duck-shooting parties. In ancient times it may well have been much larger and have been the habitat of crocodiles.

4. After his deification as the god of medicine, Imḥotep gradually acquired many of the attributes of Thoth and the title of 'First Chief One of the Ibis'. He also became associated with other animals sacred to Thoth, such as the cynocephalous baboon, and, like Thoth, he was considered as 'Scribe of the Gods'.

5. On an inscribed Ptolemaic statue base in the British Museum there is a list of the six festivals of Imḥotep, the fifth of which reads:

> The day on which Imḥotep reposes before his father after his death, he enters and goes out before the great god; the reunion of his spirit with his body takes place and he rests in the great Dehan, a tomb dear to his heart.[1]

It may be that the tomb referred to is this underground labyrinth which we are now exploring.

[1] B.M. 512, see Gauthier, *BIFAO* 14 (1918), 33 ff., especially, pp. 38, 48.

THE TELL EL-FARÂʿÎN EXPEDITION, 1964–1965

By M. V. SETON-WILLIAMS[1]

AFTER a brief but encouraging initial survey in the spring of 1964, the Egypt Exploration Society began in the early summer of 1965 a systematic investigation of the ancient Delta site now known as Tell el-Farâʿîn. The Expedition, financed primarily through the generosity of Mr. A. R. Reid and a substantial grant from the Trustees of the British Museum, was also supported by contributions from the City Museum and Art Gallery, Birmingham, the University of Manchester Museum, the Bolton Museum, and a number of private donors; to all of these we are deeply indebted.

The launching of this project owes much to the competent assistance of a number of London University Extension Diploma students specializing in Egyptology. In 1964 we had the help of Mr. M. Cane as Draughtsman, Mr. D. J. Dyson as Photographer, and Mr. R. B. Welsh as Field Assistant and Surveyor; in 1965, as Field Assistants with a variety of specialized duties, Mr. J. P. Clarke, Dr. J. C. Guignard, Miss A. Kenny, Miss A. Macfarlane (of the British Museum), and Mr. M. Roaf, and as Draughtsmen Mr. P. G. French and Mr. G. T. Harding. On both occasions Mrs. Elsa Coult acted as Assistant Field Director and Mrs. Joan Martin as Architect. Much of the work carried out would not have been possible but for the help of our reîs Ismain Ibrahim Fayid of Gîza, who accompanied the mission in both seasons. Invaluable assistance was given in 1964 by Mr. Ahmed Nashati as Inspector, his place being taken the following season by Mr. Hamdi Ahmed Yussef. We are deeply grateful to the Egyptian Department of Antiquities and especially to the Director-General, Mahdi Bey Ibrahim, and his colleague Mr. Zaki Rizkalla, for facilitating our work in every possible way. Amongst the many friends who welcomed the Expedition locally we would like to thank in particular Mohamed Husein Sekhmawy and also the omda of Ibtu and Lieutenant Abdul Gamal Saleh, Commandant of Police at El-Aguzein, for their unfailing courtesy and generosity to all of us at all times.

Tell el-Farâʿîn is situated in the Disûq markaz within the Gharbîya mudirîya; it lies to the east of the modern Ibtu Canal, which, as is evident from the map, is undoubtedly a relic of a former branch of the Nile. In the immediate vicinity are three villages: to the south-west, Ibtu, the largest, whose name has been thought to be a corruption of BUTO (in Greek *Βουτώ*) the Pharaonic *Pr-wꜣḏyt*, 'House of (the goddess) Wadjet (Edjō)'; to the east, Mohammed el-Baz (Baz being derived apparently from the Persian word for hawk); and to the west the seat of the Sekhmawy family, whose name suggests another Pharaonic survival. The Arabic name, Tell or Kôm el-Farâʿîn, means 'Mound of the Pharaohs'. To the north, also within the area of the concession, lies a small mound,

[1] I am grateful to my Assistant Field Director, Mrs. Elsa Coult, for help in preparing this initial report.

Kôm el-Dahab, or Hill of Gold. Yet another, approached by a causeway, is visible to the north-east of Site B (see plan, pl. VI), and a further one, close to the Ibtu Canal and west of the modern cemetery, is also plainly discernible and again reached by a causeway. Much time will need to be devoted to the plotting of these and other so far unrecorded remains still discernible in the locality.

Despite the salinity of the soil the neighbouring area is under extensive cultivation. Rice, cotton, barley, beans, lentils, potatoes, tomatoes, onions, garlic, and cucumbers are all grown locally. Fruit, with the exception of a few dates, is scarce. The vegetation is surprisingly lush and includes, in addition to the date-palm, varieties of poplar, pine, willow, and eucalyptus. Few species have survived on the site itself, most of which is thickly covered with low scrub, including one bearing berries used for food and another, very fast growing, gathered for fuel and a favourite haunt of snakes. The latter are fairly common on the site, two poisonous varieties having so far been noted; no cobras as yet. Scorpions are present, and also a peculiarly repellent tropical spider with a span of twelve to fifteen centimetres. Wild dogs abound, and there are also foxes, jackals, and hyaenas. The proximity of marshland to the north and the complex irrigation system make mosquitoes something of a problem, and several fevers are endemic in the area. The bird life is diverse: hoopoe, hawk (a very large variety), vulture, carrion crow, kingfisher, lesser green bee-eater, screech-owl, and heron are all to be seen on the site. Domestic fowl include the ubiquitous pigeon, turkeys, geese, and ducks, and, more rarely, hens. Meat comes mainly from the water-buffalo, all the more enjoyed because it is a luxury.

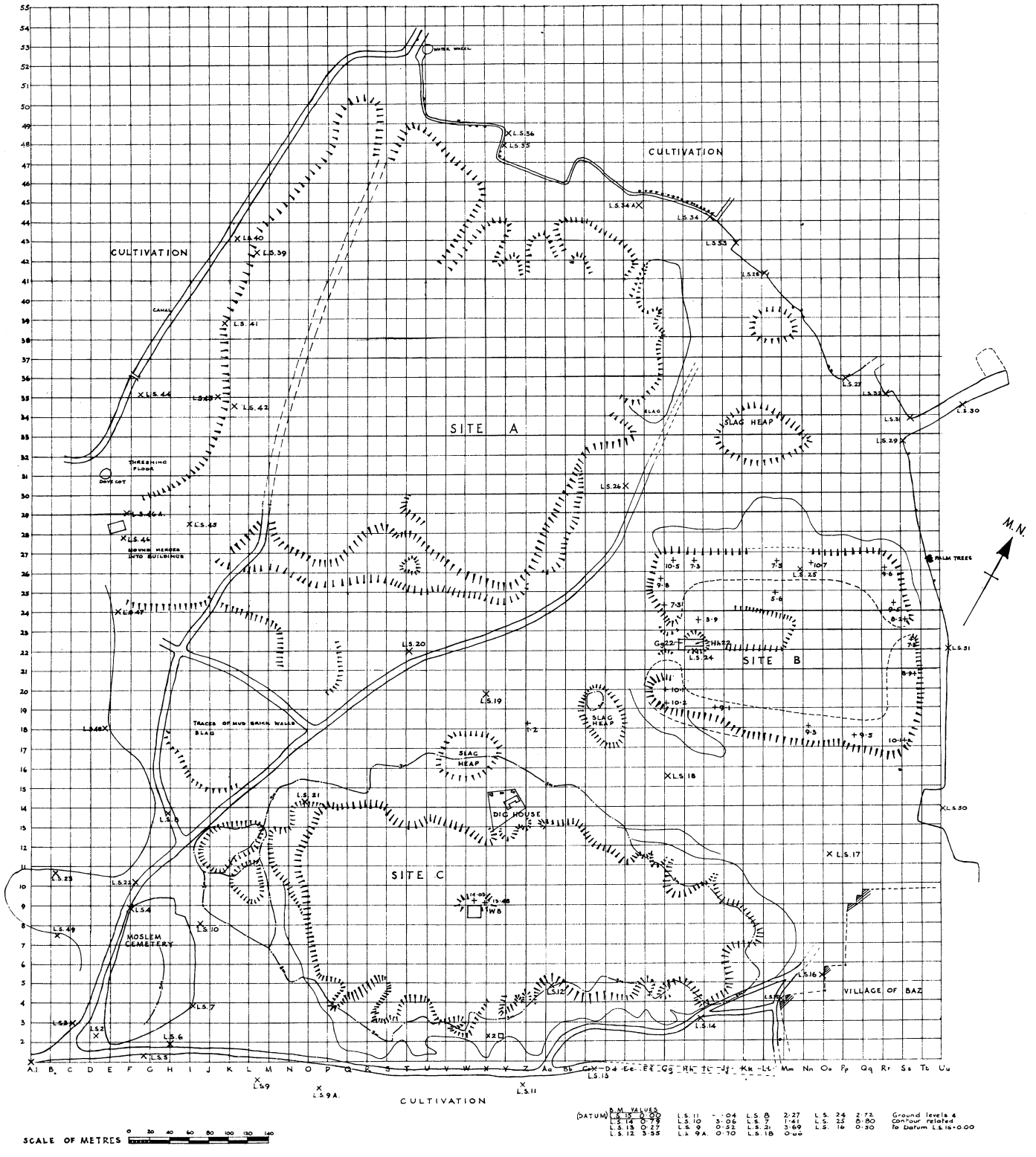
The climate of Tell el-Farâʿîn presents certain problems to the excavator. Winters are cool and wet; there is heavy rainfall into late spring, and high dew precipitation throughout the year. The prevailing winds are from the north or north-west, salty and stinging from the Mediterranean, but in summer, veering to the west-south-west, hot, dust-laden, and desiccating. Rain on this saline ground makes getting about in winter very difficult, especially for mechanized transport; by early July conditions deteriorate to an extent which impedes scientific work. The excavation season has therefore to be confined to late spring and early summer.

The mounds of Tell el-Farâʿîn extend over an area of 175 acres at least, and were first identified as BUTO by Flinders Petrie in 1886.[1] In 1904, when Currelly was making trial excavations on the site, Petrie prepared the first plan, based on the Land Survey Map then extant. His identification, made largely on the geographical position and dimensions of the site, has since been borne out at intervals by the discovery of inscribed objects there.[2] It must be said that as yet the evidence for the identification of Tell el-Farâʿîn as the double city of Pe and Dep is still tentative; but, if indeed it has substance, we feel bound to disagree with Professor Wilson's opinion that 'Buto was very poorly placed to serve as a capital of Lower Egypt'.[3] In our view it was in antiquity admirably placed on the northern marsh fringe to act as a guardian city, a function for

[1] *Naukratis*, I, 93.

[2] E.g., Edgar, *Ann. Serv.* 11 (1911), 87–90; Gauthier, ibid., 21 (1921), 29 ff., 37 ff.; Engelbach, ibid. 24 (1924), 169–77.

[3] See Wilson, 'Buto and Hierakonpolis in the Geography of Egypt', in *JNES* 14 (1955), 209–36.



TELL EL-FARÂ'ÎN 1964–5: PLAN OF THE SITE WITH TWENTY-METRE GRID APPLIED

which the cobra goddess was peculiarly fitted as patron. Contrary to Wilson's viewpoint that it was, like Hierakonpolis, 'poorly situated for commerce and communications', the evidence indicates that it lies across a trade route of considerable antiquity and that it occupied a position of political and economic vitality down to at least the third or fourth centuries A.D. Already the archaeological evidence indicates that not only was this a holy city and a place of pilgrimage, but an administrative centre possessing over many centuries far more than purely local status; that it had and enjoyed over a lengthy period facilities for commercial traffic based on the riverine system, its waterway greatly surpassing the present-day canal and on a scale resembling that of the existing Rosetta branch of the Nile. Why only the vestiges of this tremendous amenity are to be seen at the present time is not a question that can be dealt with in this paper.

The site of Tell el-Farâʿîn is one which has been extensively robbed, damaged, and sacked at various times in its history. Not surprisingly it is the temple area that has suffered most. Here in 1904 Currelly sank seven trial pits but failed to find any stone-built structures.[1] Currelly also examined some burials in the Roman cemetery north of Site A (see plan, pl. VI). Since then no systematic excavation appears to have taken place on the site, but about twenty years ago the omda of Ibtu conducted certain investigations which led to the uncovering of part of a limestone structure. Engelbach's well-known paper on the bronze hoard from El-Baz[2] indicates the existence near by of a temple to Horus, but its precise location has yet to be determined. A collection of objects from Tell el-Farâʿîn is reported to have been sent to the Cairo Museum some years ago, but it has not yet been possible to study these.

It will be observed from the plan (pl. VI) that the site is divisible into three main areas, conveniently labelled by Professor Fairman on visiting the site in 1963 as A, to the north, B, to the east, and C, to the south. Two of these, A and C, are town sites; B is a large temple complex with a massive enclosure wall. With the completion of the outline survey of these main mounds and their principal contours, it was possible to relate other features discernible as crop-marks in the intervening areas, particularly between Sites A and B; building complexes, mostly Roman, showed up very distinctly, and of particular interest were the traces of at least one ancient canal just north of the temple (Site B) and running parallel to its enclosure wall.

Water, at a depth of 3·50 metres below datum (LS 11) was reached in a trial trench, X 2, close to the cultivation, south of Site C. On the north side of this mound, in an area excavated for the Expedition House, it appeared at 5·40 metres below the ground surface.

Excavation so far as been concentrated on Sites C and B, in that order. The Site C sondage (W 8), begun in 1964 and continued this year, now reaches a depth of ten metres from the top of the mound. The object of this undertaking is to establish a stratigraphical sequence for this area; Roman, Ptolemaic, and Persian are the three main periods so far discernible, but earlier material has also been recovered. Clearance of Site B, in Hh 22/Gg 22, has revealed a similar picture, although here illicit digging has

[1] Petrie and Currelly, 'The Site of Buto', in *Ehnasya*, 36–38.

[2] 'Seizure of Bronzes from Buto', in *Ann. Serv.* 24 (1924), 169–77.

made matters more difficult, necessitating the removal of vast dumps piled up by previous despoilers and the disengaging of extensive pit material from various periods. Nevertheless there have been some interesting parallels with the stratigraphical section at W 8.

On the existing archaeological evidence three cultural levels can be clearly distinguished:

Level I. Roman, with at least three phases. (W 8; Gg 22; Hh 22; and numerous surface indications, including a kiln, buildings, pottery, slag, columns, floors, and walls.)
Level II. Ptolemaic, with two or more phases. (W 8; Hh 22; surface pottery.)
Level III. Persian. (W 8; Gg 22; Hh 22.)

Throughout these levels re-used material and objects not *in situ* were common, some dating to the Twenty-sixth Dynasty and some to the Twenty-second Dynasty; earlier material was also in evidence, including predynastic pottery.

Level I. The structures in Gg 22 showed three rebuildings, the earlier two phases of mudbrick and the last including the use of baked brick. Squatters had cut holes in the walls belonging to the last phase. A missile weighing about 15 *minae*, found within the precincts of the latest building in this area, suggests an engine with a range of some 400 yards; this would indicate that the temple may have been besieged from just outside the western entrance, and presumably sacked. It would account perhaps for the comparative paucity of material in the upper rooms, but the pottery would suggest for this period a dating somewhere between the first and fourth centuries A.D.

Evidence of Roman occupation elsewhere, as so far excavated, appears to consist largely of pits intrusive into the Ptolemaic levels of Hh 22 in the temple area, Site B; and of extensive glass-works, for which there is some interesting evidence in the furnaces uncovered within the first two metres of W 8, and the slag heaps recorded to the south-west and north of Site B (see pl. VI). That the Romans preferred to live on and around Site A, using Site C largely as an industrial quarter, is certainly evident, and a good reason for this may well be the wind which prevails from the north-north-west. Pottery and amulets from both W 8 and Hh 22 show a somewhat pathetic attempt to imitate Egyptian styles, in contrast to the distinctively Roman lamps recovered from Gg 22.

Level II. In Hh 22 the limestone structure already partially uncovered (p. 13, fig. 1 and pl. VII) proved intriguing. It is a dual complex, with a double staircase leading to an underground chamber as yet unexcavated, and twin wells. The northern well has a diameter of 1·24 m., the southern one 1·17 m. The limestone blocks, some of which are beautifully dressed, are all re-used; dowel-holes and slots of various shapes appear upside-down, and there are fragmentary inscriptions. One, attributable to the Twenty-second Dynasty (pl. VIII, 3), was found damaged in the northern well-head, while another, recovered from Pit 4 at the eastern end of the trench, bore a cartouche with the name *Wsr-M3ʿt-Rʿ Stp* . . . which could be that of Sheshonq III or of Ramesses II. The cutting of this stone was very much more worn than that found in the well-head and the earlier dating is by no means unacceptable. A note on both inscriptions has been very kindly added by Mr. Harry James (p. 15).

An interesting feature of the dual staircase complex was that in one the water appeared at the eighth step and in the other at the tenth. It is rumoured locally that there are in all 24 steps, but without pumps this point could hardly be established.

Immediately to the south of the structure, at the eastern end, appeared the only

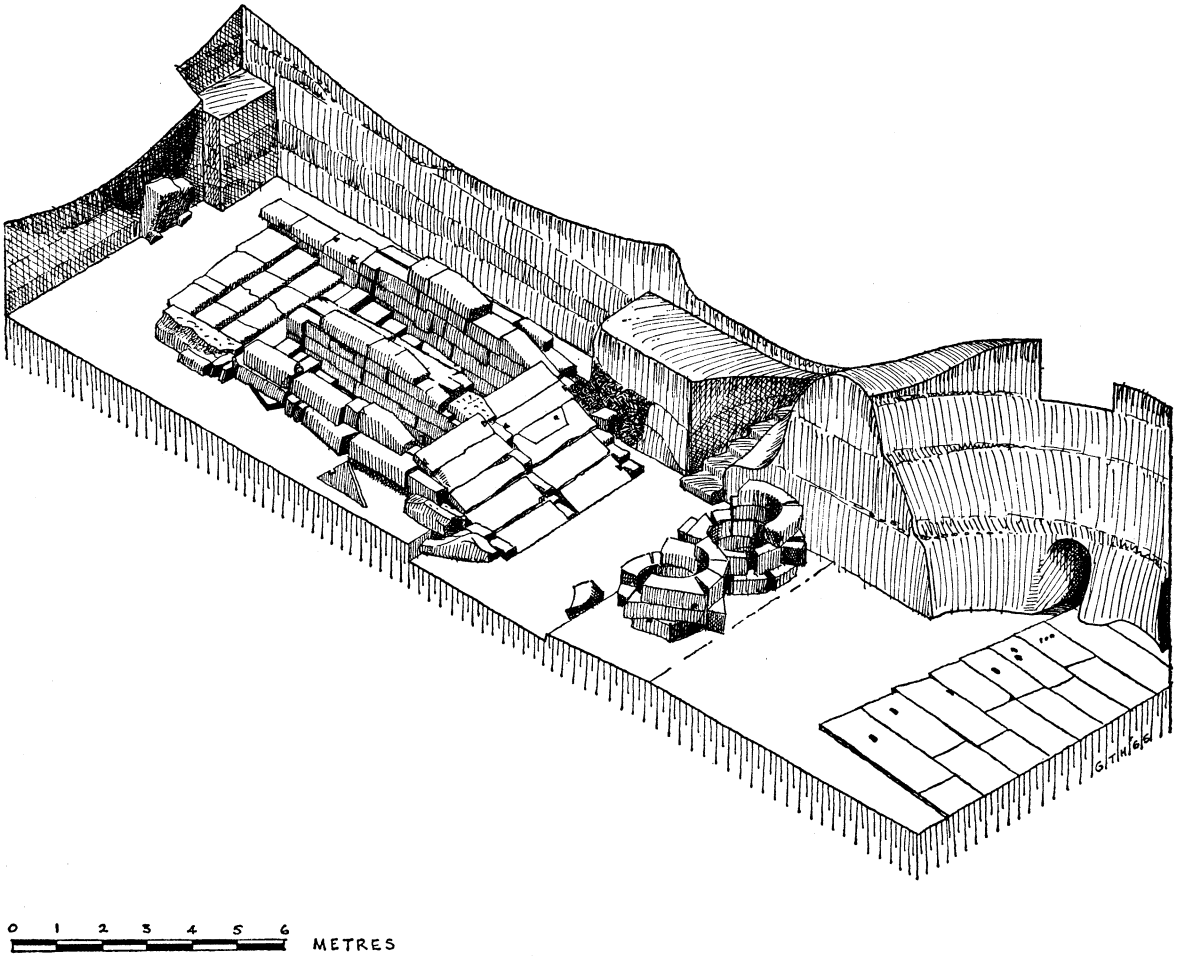


FIG. 1. Limestone structure in Gg 22/Hh 22, Site B.

undisturbed sector in this area (Hh 22), yielding early Ptolemaic coins. Wedged under the structure itself were Ptolemaic sherds.

The pottery from this complex included a large number of Aegean imports, indicating an extensive wine trade with the Greek islands. Small finds in this sector included a pair of *ushabti* figures belonging to the same man, a third example of which appeared in the Ptolemaic level in W 8, some distance away on Site C.

In W 8, the stratigraphical sounding, evidence from the Ptolemaic period consisted largely of pits, which yielded quantities of votive material of all kinds including hand-made dishes, mostly miniature, resembling those from the Ptolemaic rebuilding of the mortuary temple adjoining the Bent Pyramid at Dahshur; faience figurines and amulets, notably of Thoueris, Ptaḥ-Sokar, Bes, Anubis, Khnum, Shu, Wadjet, and Isis seated

on a throne;[1] papyrus sceptres were common, and there were several *udjat*-eyes datable to this period. Here too the pottery reflected a high percentage of imported wares, and fragments of statuary, mostly limestone, are attributable to this period.

The evidence so far obtained for Level II suggests a lengthy but somewhat disturbed occupation; many sherds showed staining and weathering indicating exposure, and several pits (as for example Pit F, in W 8) showed recutting into a fair depth—in one case about 20–30 cm.—of wind-blown deposit.

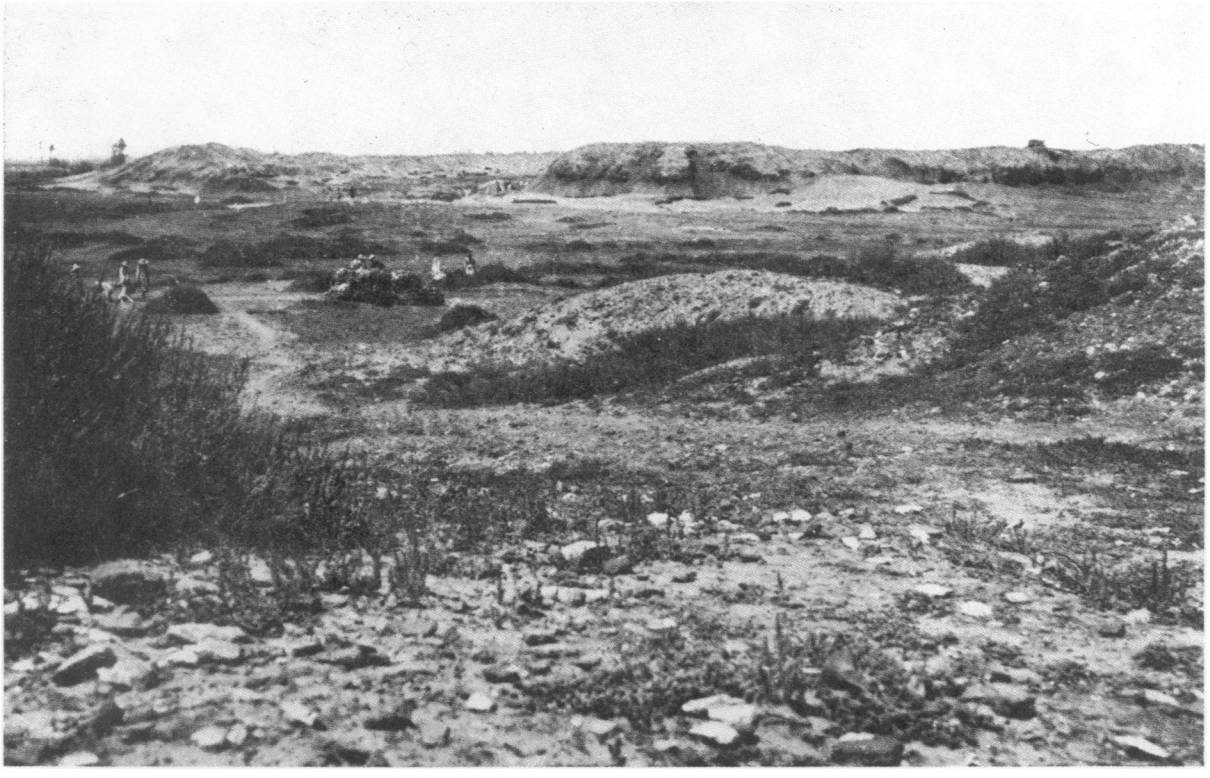
Level III. In Hh 22/Gg 22, to the west of the dual complex in Site B, an impressive limestone pavement was uncovered, in association with a mudbrick wall capped with large semi-dressed limestone slabs. The flagstones, which bore the traces of erased inscriptions, appeared to be re-used, and were 50 cm. thick; they were laid in sand containing charcoal. The full extent and purpose of this pavement have yet to be investigated, the area so far cleared measuring 7·57 m. by 2·68 m. Its alignment is entirely different from that of the dual complex of Level II, being NE.–SW.; and it may prove to be a processional way leading to a shrine or other structure about midway between the temple walls. As the season's work was finishing it became apparent that a large mudbrick structure on the same alignment with this pavement lay adjacent to the Ptolemaic building on the south side close to the dual staircase. Whether this is in fact a floor or a massive wall remains to be seen, but the brickwork is certainly imposing. The time relation between this structure and the western pavement has yet to be discerned, but it is not impossible that the former may be attributable to a somewhat earlier date.

Pre-Ptolemaic remains in the W 8 sector on Site C brought us for the first time into an undisturbed occupation layer. A mudbrick house on stone foundations, with re-used door sockets, and containing immense storage jars still *in situ*, yielded some distinctive amulets, weights, terra-cotta figurines, *udjat*-eyes, and pottery which included late Aramaean and Persian imports. A figure of Nefertum standing on a lion, found in an adjacent pit, has an exact parallel in the British Museum (B.M. 16631) and is dated to the Twenty-sixth Dynasty; an *udjat*-eye of pale-blue faience, very lightly incised, closely resembles a Saïte example in the British Museum; a terra-cotta bearded horseman of the type found by Petrie at Memphis,[2] is of the solid variety which Petrie considered earlier than the hollow specimens and which possibly dates to the sixth/fifth century B.C. Head downwards in the area outside the house was found a bronze Horus statuette, the figure, in fair condition, standing before the shrine of Lower Egypt (pl. VIII, 2). To this level also, although it was out of context, belongs a remarkable unfinished limestone head (pl. VIII, 1), whose high cheekbones and full face are strongly reminiscent of Thirtieth Dynasty work.

As work drew to a close in this sector further structures of an imposing nature began to appear. They were left covered and unexplored, but it is evident that here, as in the temple area, earlier material is beginning to emerge and in, so far as we can tell, a good state of preservation.

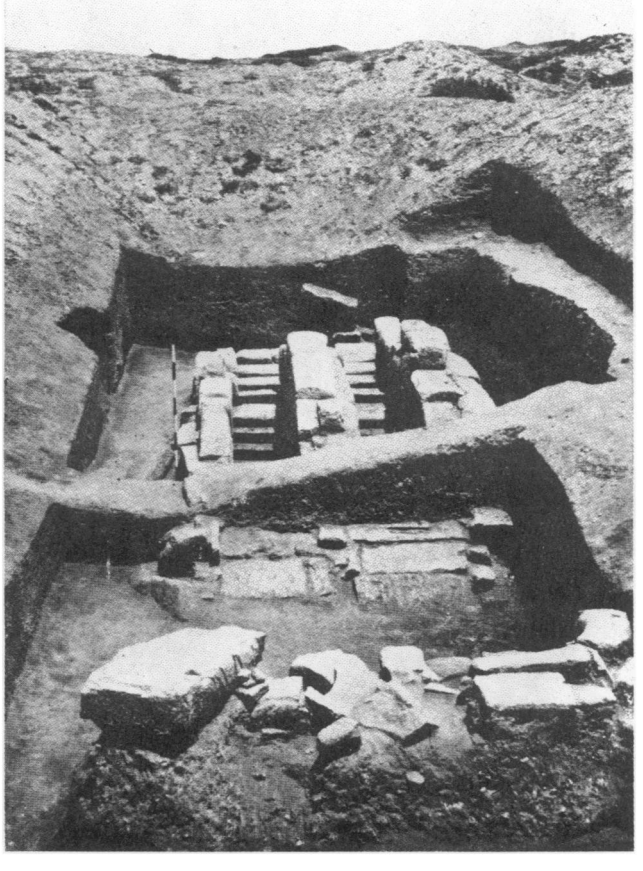
[1] For the type, cf. Petrie, *Memphis*, I, pl. xlvii, dated to *c.* 300 B.C.

[2] *Palace of Apries, Memphis*, II, pl. xxix.



1. General view from Site C, showing the western entrance

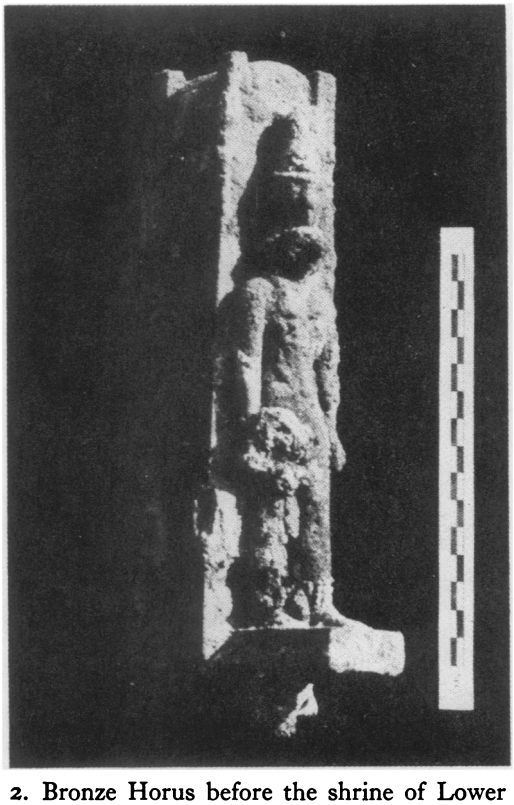
2. Hh 22 looking west



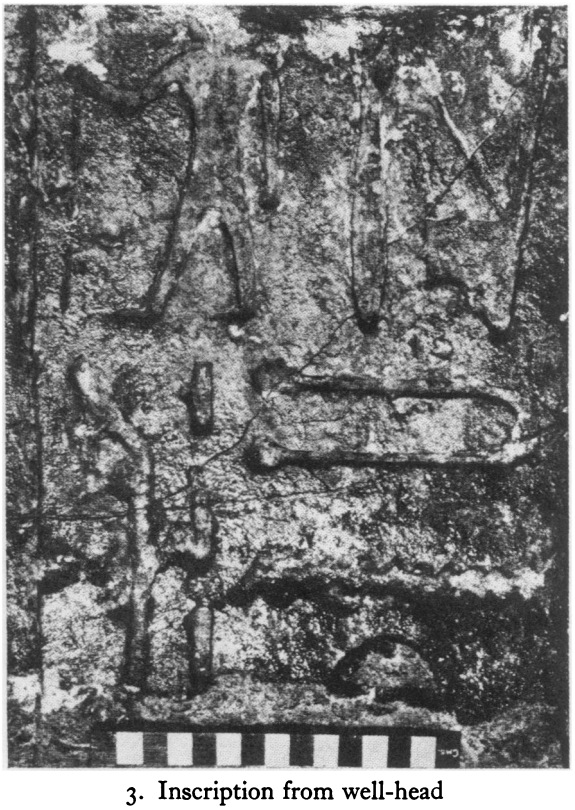
3. Hh 22 looking east

TELL EL-FARÂ'ÎN 1964–5: SITE B

1. Unfinished limestone head from Site C, W 8, Pit E



2. Bronze Horus before the shrine of Lower Egypt

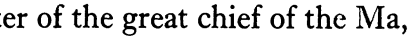


3. Inscription from well-head

As this report has had to be written within a few weeks of closing this season's work, there has been of course no opportunity to study the findings in detail; environmental specimens alone may be of considerable interest, particularly those which clearly originated some distance away. Remarkably little in fact seems to be known about analogous sites in the Delta, so far, and it seems worth while to examine with care the stratigraphical sequence here, particularly in the light of recent discoveries. Pottery at Tell el-Farâʿîn, to mention only one aspect of the rich archaeological promise of this site, is likely to be informative and even to contain surprises for those who may have temporarily shelved this relatively unknown material; the appearance of Aramaean ware is in itself rewarding. An encouraging factor is the good state of preservation of our finds so far, though future work may have to be adjusted according to the water level, which clearly varies from year to year. Equally encouraging is the fact that our workmen, with no previous experience of excavation, have shown every sign of willingness to learn and to take meticulous care; already it has been possible to train a small band of pick-men out of a host of novices. Best of all, an Expedition House is already building, and although the team will continue to sleep under canvas for a time it is hoped that the scientific work at least will prosper in more amenable surroundings.

Notes on two inscriptions

By T. G. H. James

1. Short text on a re-used slab (p. 12 and pl. VIII, 3) containing the title 'great chief of the Ma (Meshwesh)' and the beginning of a name  . Cf. the text on a stela published by Daressy, *Ann. Serv.* 16 (1916), 177, in which the 'great chief of the Ma, Sheshonq', later to become Sheshonq I, is described as *sꜣ wr ḥꜣ Nmrt mꜣʿ ḫrw mwt·f sꜣt n*  *mꜣʿ ḫrw*, 'son of the great chief Nimlot, justified, his mother being the daughter of the great chief of the Ma, Tjentsepeḥ, justified'. For the Libyan chieftains known as 'great chiefs of the Ma', from whom sprang the line of kings of the Twenty-second Dynasty, see Yoyotte, 'Les principautés du Delta au temps du l'anarchie libyenne' in *Mélanges Maspero* I, pt. 4, 121 ff. It is tempting to complete the name on this block as Tjentsepeḥ, and to hold that the same person is mentioned in both texts. The name is not, however, uncommon during the Twenty-second Dynasty, and Gauthier cites several royal ladies so named (e.g., *Livre des rois* III, 319 with n. 4, 343, 345 n. 1, 347 n. 1). The most that can be said at this point therefore is that the text is probably of Twenty-second Dynasty date, and that it may contain part of the name of the mother of Sheshonq I.

2. Block with part of a cartouche containing the name *Wsr-Mꜣʿt-Rʿ Stp . . . .*, probably to be completed *Stp-n-Rʿ*, rather than *Stp-n-'Imn*. This familiar prenomen of Ramesses II was also held by Sheshonq III, and it is possibly to him that this fragment should be ascribed in view of the evidence of building during the Twenty-second Dynasty provided by the fragment previously mentioned.

LORD DUFFERIN'S EXCAVATIONS AT DEIR EL-BAḤRI AND THE CLANDEBOYE COLLECTION*

By I. E. S. EDWARDS

JUST over a century ago Frederick Lord Dufferin, later the 1st Marquess of Dufferin and Ava, sailed in his steam yacht *Erminia* from Portsmouth to Alexandria, arriving on December 9, 1858.[1] He was then thirty-two years of age and the trip, which included visits to several other eastern Mediterranean countries, certainly influenced, if only indirectly, the course of his life. The knowledge of the Near East which he had gained must have led the Prime Minister to choose him in 1860 as the representative of Great Britain on a Five Power Commission which met at Damascus charged with the duty of investigating the massacre of the Maronites by the Druses. During the next forty years he held successively the offices of Governor-General of Canada, Ambassador in St. Petersburg and in Constantinople, Special Commissioner in Egypt (1882–3), Viceroy of India, Ambassador in Rome, and finally Ambassador in Paris.

Whatever ideas he may have entertained in 1858 about his future career, it is evident that his visit to the eastern Mediterranean and the Nile Valley was prompted by a genuine interest in the ancient civilizations of those regions. Writing to the Duchess of Argyll from Egypt he says: 'I am devoting myself to ancient history and Greek, which I hope thoroughly to master before I return. I have also given a good deal of time and attention to the study of hieroglyphics, which I found very fascinating, and made sufficient progress in to be able to interpret many of the simpler sentences carved on the temple walls.'[2] His Journal covering his voyage up the Nile to the Second Cataract and back to Alexandria,[3] although largely a record of his social and sporting

* *Acknowledgements.* I wish to express my gratitude to the following: Maureen, Lady Dufferin and Ava, for allowing me to publish the inscriptions in this collection and for her generous hospitality at Clandeboye; Mr. W. H. D. Chelmick, Agent and Secretary of Lady Dufferin, for facilitating my work at Clandeboye and answering many written queries; Mr. G. B. Thompson, Director of the Ulster Folk Museum, and Mr. Little, the Museum's photographer, for their assistance in photographing the collection and for permitting me to publish the photographs; Mr. K. Darwin and the staff of the Public Record Office, Belfast, for putting at my disposal the documentary records of the excavations; Professor C. J. Gadd, to whom I am especially indebted for bringing the collection to my knowledge and giving me the notes which he had taken when he visited Clandeboye; Professor J. Černý and Monsieur J. J. Clère, with whom I have discussed all the texts and who have made many helpful suggestions. Mr. Labib Habachi provided the reference quoted in text no. 5 below. Mr. William Mitchell, Director of the Art Gallery at Cranbrook Academy, Michigan, has kindly allowed me to publish the photograph of the figure of Amūn.

[1] He was accompanied by his mother, Helen, Lady Dufferin, John Hamilton (a cousin), Dr. Ward Leadam, and his steward named Wilson. A search in the library at Clandeboye failed to bring to light photographs taken by Wilson, but it is unlikely that they have been destroyed.

[2] Sir Alfred Lyall, *The Life of the Marquis of Dufferin and Ava* (John Murray, 1905), 94.

[3] Unpublished. The original is now in the Public Record Office of Northern Ireland at Belfast (Ref. V/13[4]).

activities, contains a number of entries of archaeological interest, particularly those which refer to his own excavations at Deir el-Baḥri in March–April, 1859. Having engaged a reis named Muhammad Husein and thirty men, he began to dig the western end of the Eleventh-Dynasty temple.[1] On his last day at Luxor (April 9) the Speos, which came to be known as Lord Dufferin's Tomb, was located and proved to be empty. He mentions *inter alia* the discovery of 'a large granite altar too heavy to move' near the mouth of the Speos.[2] It was his intention that the work should continue after his departure from Cairo, but a landslide, brought about by the collapse of one of the sides of the pit which he had sunk through the sand, caused him to change his plans and 'leave Muhammad with merely 5 men as a guard and sign of occupation, bidding them sink shafts here and there in order to see when we came to excavate in which direction it would be best to proceed'.

Soon after reaching Cairo (on April 25) Lord Dufferin made the acquaintance of Mr. Cyril C. Graham, a British resident of independent means who was twenty-five years of age and a keen student of the ancient Near East. It is not clear from the Journal how early in his association with Graham Lord Dufferin decided to give him the general control of his archaeological operations, but an entry on May 8 (five days after meeting Graham) records 'an interview with Dr. Lorange,[3] who is to superintend my excavations at Thebes'. Probably he had already appointed Lorange before meeting Graham. The decision to place Graham in general control was amply justified. As his letters show, he possessed more than a superficial knowledge of Egyptology; he did his work both as a recorder and as an excavator most conscientiously and it was he who organized the safe transportation of the whole collection from Egypt to the United Kingdom.

Even before Lord Dufferin had reached Cairo much had happened at Deir el-Baḥri. Reis Muhammad Husein had run into difficulties with Mariette's men, who were working nearby, and had found it necessary to appeal to Fadl Pasha, the Mudir of Qena and Esna, who immediately ordered both excavations to stop pending the issue of a firman by Said Pasha. The British Consular Agent, Mustafa Agha, however, succeeded in obtaining a temporary reprieve from the Government Agent in Luxor, but the Mudir again intervened with a further notice to stop the work. Muhammad, disregarding the order, not only went on digging, but increased his squad to twenty men and made what was to prove to be the most important artistic discovery of the

Typed copies of the entries relating to his visit to Egypt and Nubia are incorporated in the libraries of the Department of Egyptian Antiquities, British Museum, and the Griffith Institute, Oxford. There is also a typed copy of the entire Journal in the library of Clandeboye.

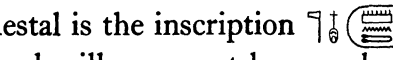
[1] His biographers (e.g. Lyall, op. cit. 93) refer to his excavations 'at Karnak'. In spite of many references in his journal to visits to Karnak he never mentions any excavations there. In every probability the name 'Kurneh' has been misread by his biographers as Karnak.

[2] Probably not the red granite altar later discovered by Naville in the debris north of the Speos. See Naville, *The XIth Dynasty Temple at Deir el-Bahari*, II, 21, pl. x, and Labib Habachi, *MDAIK* 19 (1963), 31, fig. 11. See further below, p. 21.

[3] In a letter to Lord Dufferin dated Aug. 26, 1859, Graham refers to Dr. Lorange as a German. From another letter dated Jan. 18, 1861, it is apparent that Dr. Lorange was a medical doctor. Several references to his shortcomings as an excavator occur in Graham's letters.

excavation, namely the seated crystalline limestone figure of Amūn[1] (pl. IX, 1). Reporting the discovery in a letter to Lord Dufferin dated April 27, 1859, Muhammad says:

> Opposite the pillar which you have seen, which near to it there is a stone like a table at the south side, I have found a white pillar, upon it there is a figure of white marble of full features, sitting on a chair and holding by the left hand the key of the Nile, the other hand upon his thigh. . . . I am afraid because I have no permit in hand to work and for this reason I have removed this beautiful antiquity and put it at Abu el-Haggag. I am afraid for it. From my fear I have covered that place in which I have found it again with sand and earth.[2]

This description, which is supplemented by a very creditable sketch of the figure, at least shows that it was found near the Speos where Lord Dufferin had been excavating. Indeed Muhammad, in the previous paragraph, states that he was digging 'in the place where the bank fell in Your Lordship's presence'. Close to the figure he found a wooden 'altar' inscribed with the name of Nub-kheper-Rēʿ Inyotef (Seventeenth Dynasty)[3] and the lower portion of a sandstone statue of Mentuḥotpe (pl. IX, 2) which Graham describes as 'colossal'. The dimensions of the fragment are: height 2 ft. 2½ in.; width of pedestal 1 ft. 2 in.; depth of pedestal from front to back 1 ft. 10¼ in. On the upper surface of the pedestal is the inscription  A second inscription, carved on the back pillar, cannot be seen because the figure is now attached to the wall, but a copy made by Graham gives the reading: .....  .

It is unfortunate that neither Graham nor Lorange (who reached Deir el-Baḥri in the middle of June) was present when these two pieces of sculpture were found; they must have obtained their information from Reis Muhammad or his men. Naville thought that the statue of Mentuḥotpe stood in the Speos[4] and Winlock held the same opinion,[5] but it has already been said above that the Speos was excavated in the presence of Lord Dufferin and contained nothing. Nevertheless it may have stood there originally. In 1859 both pieces of sculpture were in the so-called cella—the small hall with six columns in front of the Speos. What is far from clear is the exact spot in which they were found. Graham, in a letter to Lord Dufferin written before he had seen the excavations,[6] reproduces a plan drawn by Lorange in which both statues are placed

[1] A. C. Harris, so Graham reports, considered it 'almost, if not quite, the finest specimen of Egyptian sculpture' he had ever seen, and Graham himself described it as 'equal in beauty to the famous Horus of Champollion and of a much earlier period'. I do not understand the force of the allusion. It was sold to Monsieur E. Ascher of Paris (who kindly sent me an excellent photograph) at Christie's auction on May 31, 1937 (Lot 42). It is now in the Cranbrook Academy of Art, Bloomfield Hills, Michigan. Mr. Bernard Bothmer has kindly informed me that it was published on the cover of the catalogue of the Detroit exhibition *Life and Art in Ancient Egypt* (the Detroit Institute of Art, July 9 to Sept. 1, 1963). As Graham had already detected, it is an Eighteenth Dynasty piece, but his suggestion that the face is a portrait of Amenophis II may not be right. Christie's catalogue gives the height as 34 inches.

[2] Translated at the British Consulate in Cairo. The Arabic original is not included among the documents which I have traced.

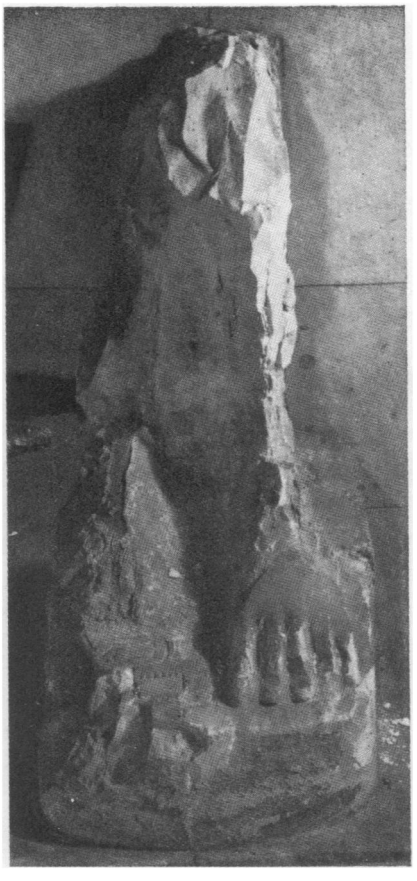
[3] Lot 18 at Christie's auction. This object passed into the collection of the late King Farouk and is now in the Cairo Museum. It was published by Moharram Kamal (who calls it a panel) in *Ann. Serv.* 38 (1938), 19–20 (pl. iv). An altar of Mentuḥotpe may also have been found at this spot (see above, p. 17, n. 2).

[4] Naville, op. cit. II, 20.

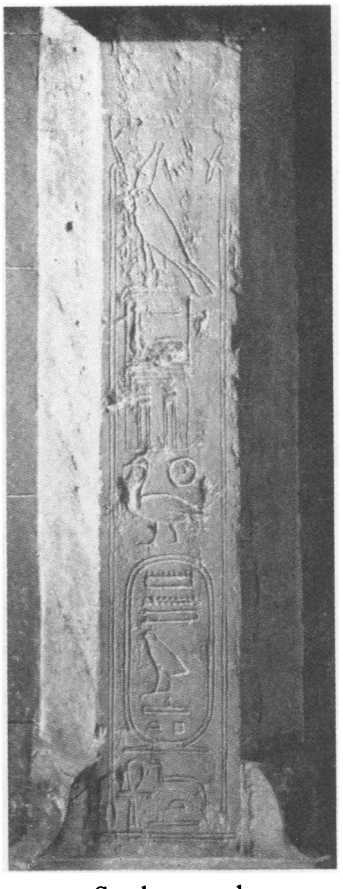
[5] Winlock, *The Rise and Fall of the Middle Kingdom in Thebes*, 41.

[6] Dated Feb. 5, 1860.

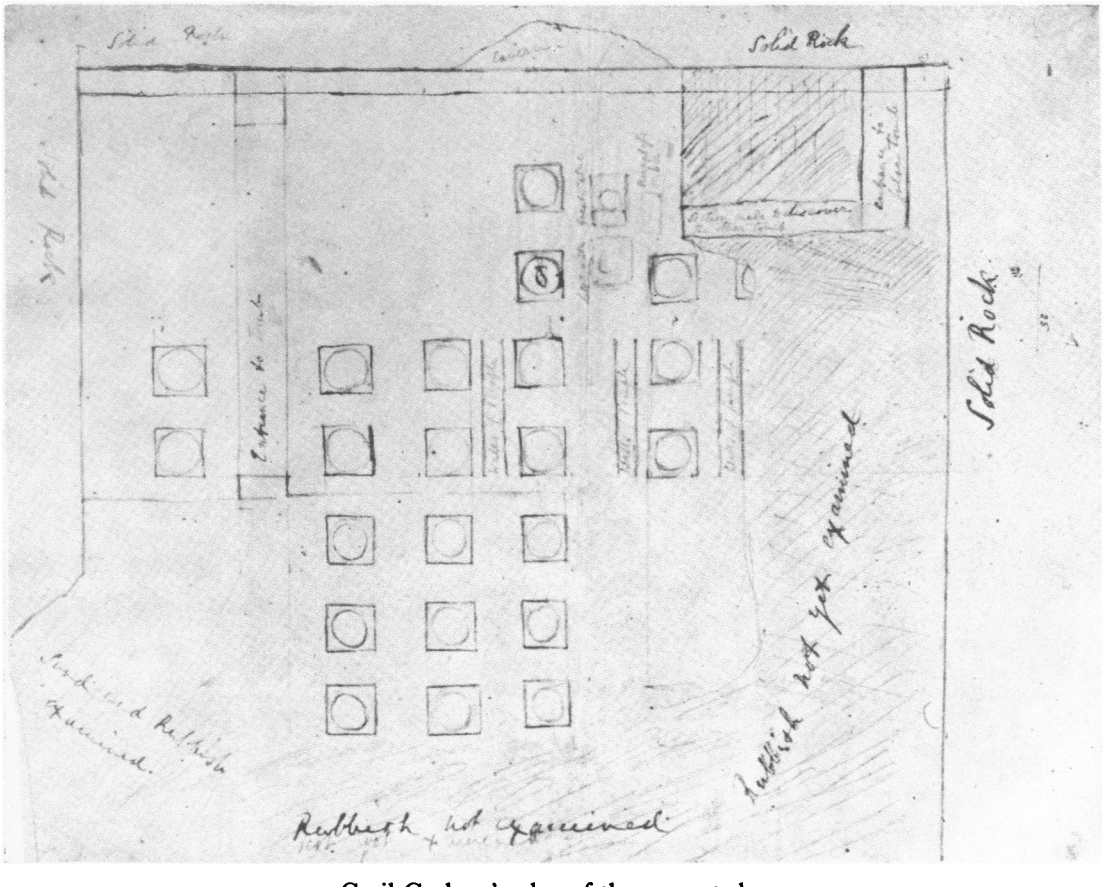
1. Figure of Amūn



2. Fragment of statue of Mentuḥotpe II



3. Sandstone column

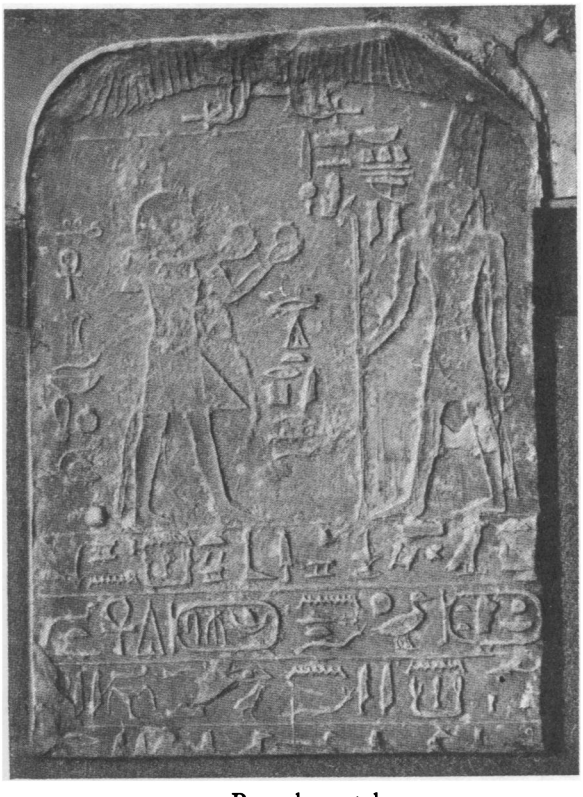


4. Cyril Graham's plan of the excavated area

LORD DUFFERIN'S EXCAVATIONS AT DEIR EL-BAḤRI

1. Granite altar of Mentuḥotpe II

2. Stela of Nisumont



3. Boundary stela

on the main axis of the cella between the stepped 'altar' carved from a single block, which still stands in its original position,[1] and the Speos, the figure of the king being in front (i.e. to the east) of the figure of Amūn. In his final report,[2] however, Graham gives a drawing with measurements of the 'altar' and calls the lower step the 'pedestal of smaller statue' (i.e. the statue of Amūn) and the upper step the 'pedestal of larger statue'. In view of the sloping surface of the upper portion and also of the circular cavity carved in its centre it seems unlikely that it supported a statue. Graham's plan (pl. IX, 4), while still placing the statue of Mentuḥotpe (the 'great statue') on the 'altar', locates the statue of Amūn (the 'little statue') on a separate block towards the east. The wooden 'altar' of Nub-kheper-Rēᶜ Inyotef ('Nuantef's Table') is shown on the plan lying by the side of the stone 'altar'. Muhammad, who wrote the description quoted above within a few days of making the discovery, also indicated that the statue of the god was on a separate mount, but made no reference to the statue of the king.

Further difficulties in obtaining a firman, coupled with some obstructiveness on the part of the Mudir of Qena and Esna, brought the excavation to a halt for a month after Lorange's arrival at Luxor. Work was resumed in the middle of July and continued without further interruption until the beginning of September. Graham's plan shows that about a half of the hypostyle hall was cleared, though not completely, leaving entirely unexcavated the whole of the north side from the cliff to the second row of octagonal columns[3] running east and west and also everything lying east of the seventh row of columns running north and south. Most of the finds were fragments of painted reliefs, not a few of which are of considerable size.[4] Tomb no. 15 in the south-west corner was cleared, but the coffin of Queen Tem (), composed of five separate pieces and a broken lid, all of alabaster except the base which was limestone, was left in the tomb on account of its weight.[5] Apart from the coffin the excavators found in 'the rubbish' of the tomb a mutilated granite crown of Upper Egypt, which Graham supposed was originally placed on top of the lid, but of this position

[1] Naville, op. cit. II, pl. iv C. *E.E.F. Archaeological Report*, 1906–7, pl. iv, 13.

[2] Written in June 1860 after visiting the excavations.

[3] One of these sandstone columns (h. 3 ft. 8 in.) was removed to Clandeboye. Its inscription ('The Horus Smatowy, Son of Rēᶜ Mentuḥotpe, living for ever') is undamaged (pl. IX, 3).

[4] Dr. Dieter Arnold hopes to publish these fragments, which are about seventy in number, in his reconstruction of the temple. The collection also includes a large part of the inscribed frieze of the 'cella' (cf. Naville, op. cit. II, pl. x F).

[5] See Naville, op. cit. II, 3, 21, pl. viii. By the time of Naville's excavation (1906–7) the broken lid had disappeared and no trace of an inscription was seen. Graham in his Report (p. 2) states: 'It appears from a painted inscription on the sarcophagus that it contained the body of a queen mother, mother of a king of Upper Egypt and wife of a king of Upper Egypt. Three sides are inscribed but the fourth side unfortunately is left bare although intended to have been filled up inasmuch as on that side would have appeared the king's name'. He gives a copy of the inscription, which was sent by Lord Dufferin to Samuel Birch and is translated by him in a letter of July 10, 1860. It was published by Maspero in *ÄZ* 21 (1883), 77 [xliii] and by Daressy in *Rec. trav.* 14 (1893), 30 [xlvii]. See also Gauthier, *Livre des rois*, I, 249, and Porter–Moss, *Top. Bibl.* I², pt. 2, 657. The two eyes were represented on the eastern side of the coffin, presumably in blue paint like the inscription. In his report Graham gives the following dimensions of the coffin: length 3·35 m.; breadth 1·57 m.; height 1·77 m.; thickness of blocks 0·25 m. These measurements are very similar to the estimated dimensions of the sarcophagus of Queen Meryet-Amūn (Winlock, *The Tomb of Queen Meryet-Amun at Thebes*, 23, 71). I owe this reference to Černý.

there is no evidence and the conjecture seems improbable. In two of his letters Graham refers to another discovery made in the tomb which he calls a gilded book or scroll. The earlier of these two letters (February 5, 1860) says it was 'found in fragments' by the coffin. He was able to read 'twice the name of the same king' (Mentuḥotpe?), but it was 'too much mutilated . . . to decipher much'. The second letter (January 18, 1861) gives the following description: 'A manuscript on cloth covered with a preparation of chalk on which were *stamped* the characters and then the whole had been covered with gold leaf.' He goes on to say that in spite of its damaged condition 'it will excite very great interest in the scientific world'.[1]

At a short distance from the tomb towards the east and in line with the axis of the corridor Lorange found a large pink granite altar (3 ft. 6 in. square by 1 ft. 8 in. in depth) inscribed with the names and titles of Mentuḥotpe repeated eighteen times on the various offerings carved in relief and on two bands at the longer sides of the central depression (pl. X, 1). In the central depression is the *sm*ʾ-emblem with intertwined papyrus and lotus stems and flowers flanked on each side by two kneeling Nile-gods.[2] Lorange was unable to move this piece with the men and means at his disposal on account of its great weight, so that it was left *in situ* when his excavation ceased and the question of providing additional funds for its removal was referred to Lord Dufferin. Before a decision had been obtained, however, Mariette had taken possession of it[3] with the result that some heated exchanges occurred between the French savant and Mustafa Agha which Graham describes in a letter dated March 2, 1860.

It appears that Mariette, finding all still and that it was extremely valuable, had quietly set all his men to work to move it down to the river. It required 200 men they say, and the distance was about 3 miles. Just as he got it to the river edge someone went and told Mustafa who called on Mariette and told him it was British property. Mariette said 'Oh! but Lord Dufferin is gone'. Yes, said Mustafa but still he is going to take it some day for I have orders from Mr. Graham to allow nothing to be touched. 'Well' says Mariette, 'I will take it to Boulaq and keep it there and then if His Highness likes to present it well and good.' So Mustafa is dreadfully perplexed and goes to Lord Henry Scott who tells him to write an official letter to Mariette; at the same time Lord Henry Scott writes to Mr. Colquhoun to inform him. Mariette does not like to take it then by force, leaves it, gets into his steamer in a passion, goes off to Cairo and threatens to come up again with an order from Said and carry it off. . . . In the meantime I have embarked it, not in a native boat but in Hood's boat,[4] the only one capable of taking it.

[1] This object does not seem to be in the Museum at Clandeboye and it was not among the antiquities sold at Christie's auction.

[2] Personifications of corn, food, etc., see Gardiner in J. Hastings, *Enc. of Rel. and Ethics*, IX, 791. Apart from the column of text relating to Nepri () the inscriptions are at present almost illegible but could probably be restored by cleaning the stone. For other examples of these deities on altars of Mentuḥotpe see Labib Habachi, *MDAIK* 19 (1963), 31–34 (figs. 11 and 13).

[3] Clearly this was the 'granite table of offerings' which Mariette had seen and not, as Naville supposed, the table of offerings found by himself in 1906 (*Deir el-Bahari*, II, 21). This latter table was found near the north side of the Speos, a part of the temple which was not touched in these excavations (see pl. IX, 4). On the possible identity of the table found by Naville and the table published by Ahmed Bey Kamal in *C.C.G. Tables d'offrandes*, 166, see Labib Habachi, op. cit. 31–32.

[4] The Reverend W. F. Hood of Nettleham Hall, Lincoln, who formed a valuable collection of Egyptian antiquities. See W. R. Dawson, *Who Was Who in Egyptology* (1951), 77.

Mariette in taking the altar was no doubt prompted by a desire to preserve the piece and his reluctance to relinquish it after getting it to the river-bank is understandable.

In addition to this altar and the so-called wooden altar of Nub-kheper-Rēʿ Inyotef Graham refers to another altar with an incomplete band of inscription giving four of the names and titles of Mentuḥotpe,[1] but he does not mention the material, describe its shape, or record its dimensions. It seems just possible that it was found by Reis Muhammad and that it is 'the altar' located in front of the two statues in Lorange's sketch. He cannot have been referring to 'Mariette's altar' because he calls the latter a 'granite slab inscribed'. I failed to find this 'altar' at Clandeboye and likewise a stone libation tank with damaged inscription giving the offering formula twice, once on behalf of Amon-Rēʿ and once on behalf of Aḥmose-Nefertiry.

Throughout the duration of the excavation (June–September, 1859) Graham remained in Cairo receiving reports from Lorange and passing on details of interest about the work to Lord Dufferin, who was travelling in Turkey and the Aegean. He then went to Beirût where Lord Dufferin joined him and together they journeyed through Syria and Palestine. Probably it was as a result of conversations during their travels that it was decided that Graham himself should go to Deir el-Baḥri to resume the excavations on a limited scale. Fourteen days digging in February–March 1860 enabled him to cut a corridor through the debris on the north side of the cella and reach the rock wall. He then dug westwards and found Tomb 16 in the north-west corner of the hypostyle hall. In a letter to his mother (March 24, 1860) he says that he had hoped to find 'the coffin of the great Mentuḥotpe himself', but in vain, for the tomb proved to be unfinished: 'they (i.e. the ancient Egyptians) had intended to have hewn a tomb in the rock but had given it up on account of the stone having been found too crumbling'. Even though he failed to achieve the primary object of his visit he did succeed in recovering the granite altar and in preparing a plan of the part of the hypostyle hall which Lorange had cleared (pl. IX, 4). No doubt also the knowledge of the site which he acquired helped him when writing his report.

On his return to Cairo Graham began to pack the finds for transport to Clandeboye. In all he dealt with 138 sculptures in relief, mostly fragments from Deir el-Baḥri, an unrecorded number of sculptures in the round, 252 scarabs, and some small antiquities. Lord Dufferin himself had collected some fragments of sculpture from other sites[2] and had probably already taken them to Ireland in his yacht. A few of the sculptures, mostly those in the round, and nearly all the small antiquities were sold by auction at Christie's in May, 1937, but nearly all the sculptures found at Deir el-Baḥri are still at Clandeboye embedded in the plaster of the walls of the entrance hall and the inner

[1] 'The Two Ladies *smꜣ-tꜣwy*, the Horus of gold *ḳꜣi-šwty*, king of Upper and Lower Egypt *nb-ḥpt-Rʿ*, son of Rēʿ Mentuḥotpe [beloved of] Amon-Rēʿ, lord of Karnak.'

[2] On April 8, 1859, he wrote in his Journal: 'In the morning we rode over and breakfasted in the great hall at Karnac, in order to take a last view of it: picked up a fragment of the cartouche of Shishank as also one of Amenemha, 13 dyn. whose cartouches he (*sic*) almost everywhere obliterated. The upper part of a cat headed figure we have also just brought on board, as well as the great toe of a granite statue of Rameses the Great. I have also from time to time picked up slabs of limestone covered with hieroglyphs, a few vases, bits of statues etc. brought by the peasants.'

hall. During two short visits to the house I was able to copy the most important of the texts and to record brief notes on several fragments. Those published here do not include any of the valuable wall-reliefs from Deir el-Baḥri,[1] or a damaged Ptolemaic–Roman stela and several fragments from other monuments are not described in detail, but I hope I have not overlooked any inscriptions of particular interest.[2]

Description of texts

1. Limestone stela of Nisumont son of Mentuḥotpe. H. 1 ft. 4 in. W. 1 ft. 1 in.
Eleventh Dynasty. Provenance unrecorded. Plate X, 2.

This well-carved stela is in an almost perfect state of preservation. The colour is still fresh and very little has been lost. Nisumont is painted in red, his wig black, and his collar and kilt are white. His wife has a black wig, her skin is yellow, and her dress is white. The child has red skin, a black wig, white collar and kilt, and a yellow lotus. No colour has been applied to the hieroglyphs in the inscription.

Above man: 'Honoured with Ptaḥ-Sokar, Mentuḥotpe's son Nisumont'.
Above woman: 'Ḥepy (daughter) of Ḥepy'. Above child: 'Nefery (son) of Ḥepy'.

As Černý first pointed out to me, both with Ḥepy and with Nefery filiation is expressed by the indirect genitive, a construction to which the only parallel known to me occurs on the stela of Rudjʿaḥau (B.M. 159). In the lowest of the scenes carved in three registers above the main text are three men, one of whom is named in the accompanying inscription 'Idy, the younger (?) (son) of the herdsman Neferporet' (see Faulkner, *JEA* 37 (1951), 52). This variation from normal is the more unexpected in the present instance because *sꜣ* is employed in the case of Nisumont.

2. Fragment of a limestone stela of an official. H. 1 ft. 7 in. W. 1 ft. 9 in.
Eleventh Dynasty. Provenance unrecorded. Plate XI, 1.

At the top of this fragment very little is missing from the right-hand side, no more than the amount of space necessary for writing *ḥtp dì nsw wsìr*. The main inscription may have extended over the whole width of the upper part of the stela and if so the lacuna at the end of l. 4 would have been equal to the space required to complete the offering scene at the base. In addition to the missing portion of the offering stand allowance must be made for the figure of the owner, seated or standing, and perhaps his wife also. Unfortunately his name was given in the lacuna between ll. 2 and 3 and may have been repeated as a caption to his figure. Like Tjetjy (B.M. stela 614), Inyotef son of Ka (B.M. stela 1203), and Ḥenun (Cairo stela 36346), he lived in the time of Waḥʿankh Inyotef, whom he served for the last 37 years of his reign of 50 years, and apparently for the whole of the reign of Nakhtnebtepnufer Inyotef, whose reign lasted for about 7 years. He was thus in the royal service for at least 44 years. Since Eleventh-Dynasty officials sometimes placed more than one stela in their tombs[a] it is possible that the stela belonged to one of the nobles already known by name.

Main text: '[An offering which the king gives to Osiris,] lord of Busiris, and Khentyimentiu,[b] lord of Abydos, in [all his] ..... places ..... (2) ..... consisting of everything of the house of Osiris,[c] that whereof the spirits desire to eat[d] at the festival of the month, the festival of the half-month, the *Wag*-festival and the festival of [Thoth][e] ..... (3) ..... ⟨my⟩[f] tomb. ⟨I⟩ did not tyrannize over the poor and I did not rob him who stole from ⟨me⟩.[g] I was one who said what was good and reported what was good[h] ..... (4) .....[i] the Son of Rēʿ Inyotef, the Great[j]

[1] See p. 19, n. 4.
[2] The collection also includes several well-preserved Greek inscriptions obtained by Lord Dufferin in Sept., 1859 near Sigaçik in the district of Seferihisar near Smyrna.

thirty-seven years in every way he desired.[k] ⟨I⟩ also served the Horus Nakhtnebtepnufer, the king of Upper [and Lower] Egypt [the Son of Rēᶜ Inyotef] ..... (5) ..... the horizon (?)[l] of eternity. O living ones who love ⟨life⟩[m] and hate death and who will pass by this tomb, as [ye] love .....'

Offering list: *First Register*: (1) Water-pouring. (2) Incense and fire.[n] (3) Cool water and two pellets of natron.[o] (4) Festival-perfume. (5) *Ḥknw*-oil. (6) *Sfṯ*-oil. (7) *Nḥnm*-oil. (8) *Twꜣwt*-oil. (9) Best cedar-oil.[p]

Second Register: (1) Two pairs of cloth strips. (2) Two loaves of bread and jugs (of beer). (3) Two *ttw*-loaves[q] and two *t-rtḥ* loaves. (4) Two *nmst*-jugs[r] of beer. (5) Two *swt*-joints and two *ḥtꜣ*-loaves. (6) Two *nḥr*-loaves. (7) Four *psn*-[s]loaves and four *dpt*-loaves. (8) Four *ḥbnnwt*-[t]cakes and onions.

Third Register: (1) Roast meat. (2) Liver.[u] (3) Spleen.[v] (4) Meat of the breast. (5) An *r*-goose and a *sr*-goose. (6) Pigeon. (7) Carob beans.[w] (8) .....[x]

Above male figure: 'Accept for thyself festival offerings; they are pure.[y] The butler Meni.'[z]

a. Cf. Clère and Vandier, *Textes de la première période intermédiaire et de la XIᵉᵐᵉ dynastie*, 14 (nos. 18 and 19) (Djari) and Hayes, *JEA* 35 (1949), 43, n. 6 (Ḥenenu in reigns of Nebhepetrēᶜ Mentuḥotpe and Sᶜankhkarēᶜ Mentuḥotpe).

b. Apparently with *m* for *tiw*.

c. See Polotsky, *Zu den Inschriften der 11. Dynastie*, 60.

d. Polotsky, loc. cit. The determinative  is represented in this text (see l. 5) as a standing man. Cf. Clère and Vandier, op. cit., 10 (no. 15), l. 7.

e. See Polotsky, op. cit., 61.

f. The suffix of the 1st pers. is regularly omitted in this text.

g. *ỉṯỉ mᶜ⟨i⟩* see Gunn, *JEA* 27 (1941), 147, n. 4.

h. Polotsky, op. cit., 37–38. The base of the second  is just visible.

i. The missing verb must convey the notion 'I served', perhaps *šms·n·i*.

j. I.e. Inyotef II. For a similar writing of the name see Clère and Vandier, op. cit., 11 (no. 16), l. 6.

k. For this expression in a more literal sense see Blackman, 'The Stele of Thethi', *JEA* 17 (1931), 57, l. 19.

l. The first group is badly mutilated; it must be either  or  . As an example of the possible variation from normal of the sign in an Eleventh-Dynasty inscription, see Clère and Vandier, op. cit., 3 (no. 3), l. 5. Of the only the top and bottom of the final downward stroke are preserved, but the is nearly complete. *ꜣḫt* 'horizon' in the sense of tomb is common (see Hayes, *JEA* 35 (1949), 48, n. *i*), but the *Wb.* 1, 17, no. 21 does not quote any examples of *ꜣḫt nt nḥḥ* in the same sense dating from earlier than the New Kingdom. The lacuna probably contained, after the name of Inyotef, *r swḏꜣ·f m ḥtp r* 'until he proceeded in peace to' (the horizon of eternity) (e.g., Clère and Vandier, op. cit., 3 (no. 3), l. 5, and 16 (no. 20), l. 13).

m. The sculptor has omitted *ꜥnḫ*.

n. The determinative of *sḏ·t* is not clear, but seems to be  merely reversed (see Caminos and James, *Gebel es-Silsilah*, 1, 46, 2).

o. For the omission of *nṯry* 'natron' see W. Barta, *Die altägyptische Opferliste*, 48, n. 4; see also Caminos and James, op. cit., 46, 3.

p. *ꜥš* 'cedar' is mutilated, but the inversion of the signs seems clear.

q. See Caminos and James, op. cit., 49, 12.

r. For the spelling of *nmst* (in which the sign  is reversed) see James, *The Mastaba of Khentika*, 63, n. 12.

s. Spelt irregularly with insertion of  and with *s* and *n* transposed.

t. See Caminos and James, op. cit., 76, 6.

u. See Gardiner, *Onomastica*, II, 248*–9*.

v. See Gardiner, op. cit., II, 249*–50*.

w. *wꜥḥ* 'carob beans' see James, op. cit., 65, n. 2.

x. The signs in this frame are almost completely erased; the last sign seems to be a mutilated  .

y. I am indebted to Clère for the information that this expression occurs on the Moscow stela no. 5603 (formerly no. 4071). *šsp* is written with the signs inverted.

z. The reading *wbꜣ* is due to Černý, who kindly points out that the formation of the sign resembles the hieratic (cf. Möller, *Paläographie*, I, 46, no. 487). A somewhat similar writing of the sign may be seen on Cairo Stela no. 20012 (cf. Lange and Schäfer, *Grab- und Denksteine des Mittleren Reiches*, IV, pl. 2).

3. Upper part of a limestone boundary stela. H. 1 ft. 4 in. W. 11½ in.
Early Eighteenth Dynasty. Provenance unrecorded. Plate X, 3.

When complete this stela probably bore one more horizontal line of inscription and beneath it was a blank portion of stone which would have been buried in the ground.[a] The king shown in the upper register offering wine to Amon-Rēꜥ must be Amosis I.

In front of god: 'Beloved of Amon-Rēꜥ, lord of the Thrones of the Two Lands.'
In front of king: 'Presenting wine is what he is doing.'[b]
Behind king: 'May all protection of life attend him like Rēꜥ for ever.'

Inscription in horizontal lines: 'The south-eastern boundary of the land donated[c] to the King of Upper and Lower Egypt (2) Nebpeḥtyrēꜥ, Son of Rēꜥ of his own body, Amosis given life for ever. (3) The rod[d] (of land) which the *ḫkr*-maker[e] and superintendent of the goldsmiths (4) .....[f] donated to him.[g].....'

a. Cf. Cairo 34021 (Lacau, *Stèles du nouvel empire*, pl. xii) and two examples published by Gauthier, *Ann. Serv.* 36 (1936), 56 ff., pl. iii. Fischer, *Rev. d'Égyptol.* 13 (1961), 108, n. 4, comments on this feature with reference to Cairo J. d'E. 88802 (see Chevrier, *Ann. Serv.* 49 (1949), 258, fig. 3).

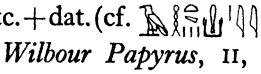
b. For this use of the *sḏmw·n·f* rel. form see Gunn, *Syntax*, Ch. VII. Cf. Lacau, op. cit., 27, pl. ix. Clère has, however, suggested that *ꜥnḫ ḏt* (Gardiner, Eg. Gr.³ § 378) has been omitted after *irî·n·f*.

c. On *ḥnk* 'donated land' see Gardiner, *Wilbour Papyrus*, II, 86 and 111–13. The same expression occurs in Lacau, op. cit., 41, pl. xii (see Gardiner, op. cit., 215).

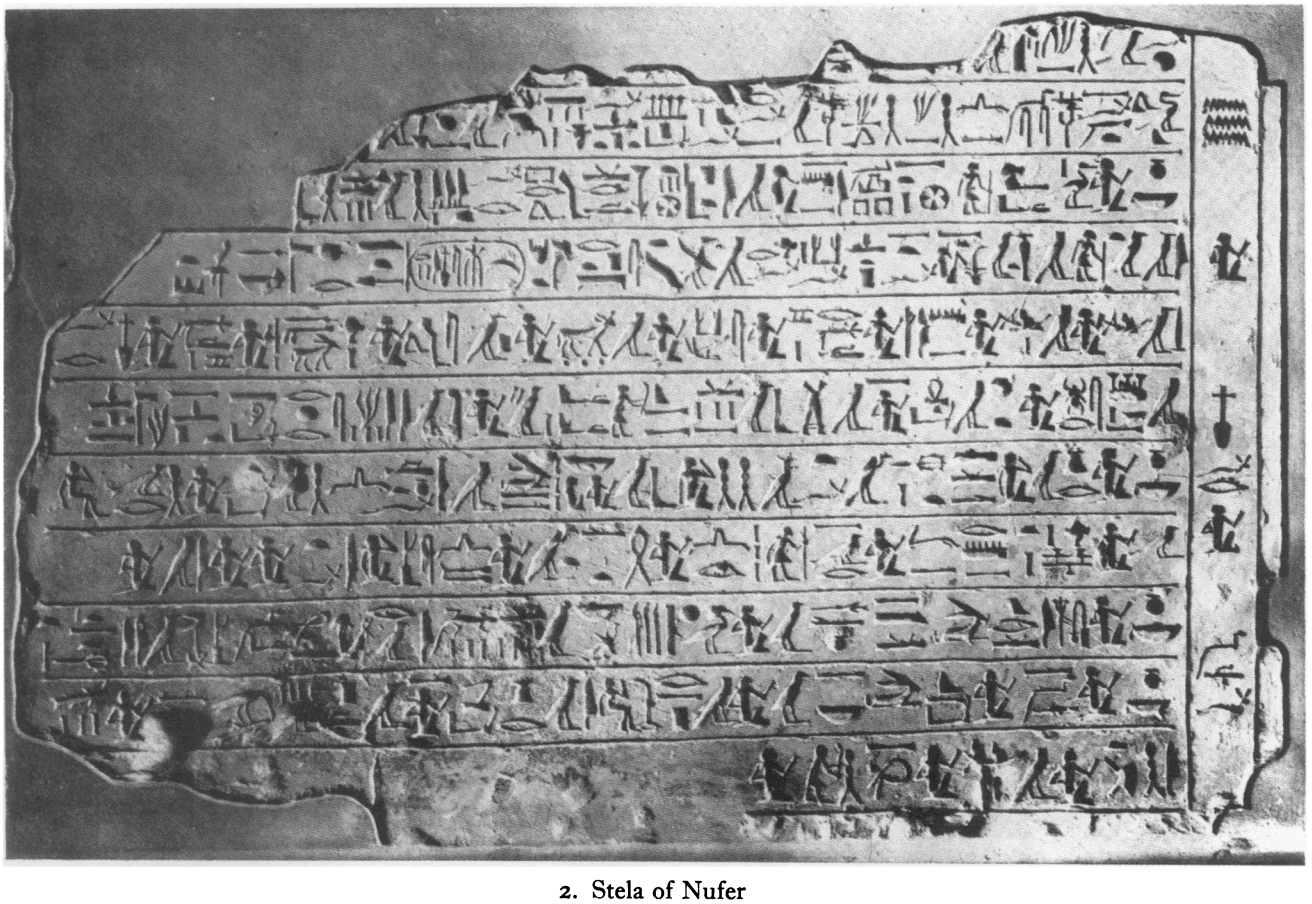
d. *Ḫt* 'rod' of 100 cubits, see Gardiner, *Eg. Gr.*³, § 266, 2 and Griffith, *PSBA* 14 (1891–2), 403 ff.

e. The tip of the *ḫkr*-sign (placed horizontally as often, see Gardiner, *Eg. Gr.*³, § 543, Aa 30) is lost, but the reading is clear.

f. I cannot offer a satisfactory reading for the mutilated signs in this line which seem to conceal the name of the person who made the donation and perhaps a further title (*ꜥḳ* ?).

g. At first sight the expression *ḥnky n·f* looks like the pass. ptc.+dat.(cf.  (var. )  , Gauthier, op. cit., l. 1, which Gardiner, *Wilbour Papyrus*, II, 112, translated 'fields presented to the image (?) of Amūn), but 'the rod (of land) presented to him, namely the *ḫkr*-maker .....' would not give the required sense which is obtained if *ḥnky* is construed as the perf. rel. form. Texts of this kind record sometimes gifts by the king to officials (e.g. *Ann. Serv.* 52 (1952–4), pl. 29 and Berlin 14994, both discussed by Helck, *Materialen zur Wirtschaftsgeschichte des N.R.*, 238) and sometimes gifts by officials (e.g. Gauthier, op. cit. and other texts quoted by Gardiner, loc. cit.), but the recipient in these latter cases is either a god or the statue of the king, and not the king himself. However it does not seem possible to take *ḥnky·n·f* as the *sḏmw·n·f* rel.

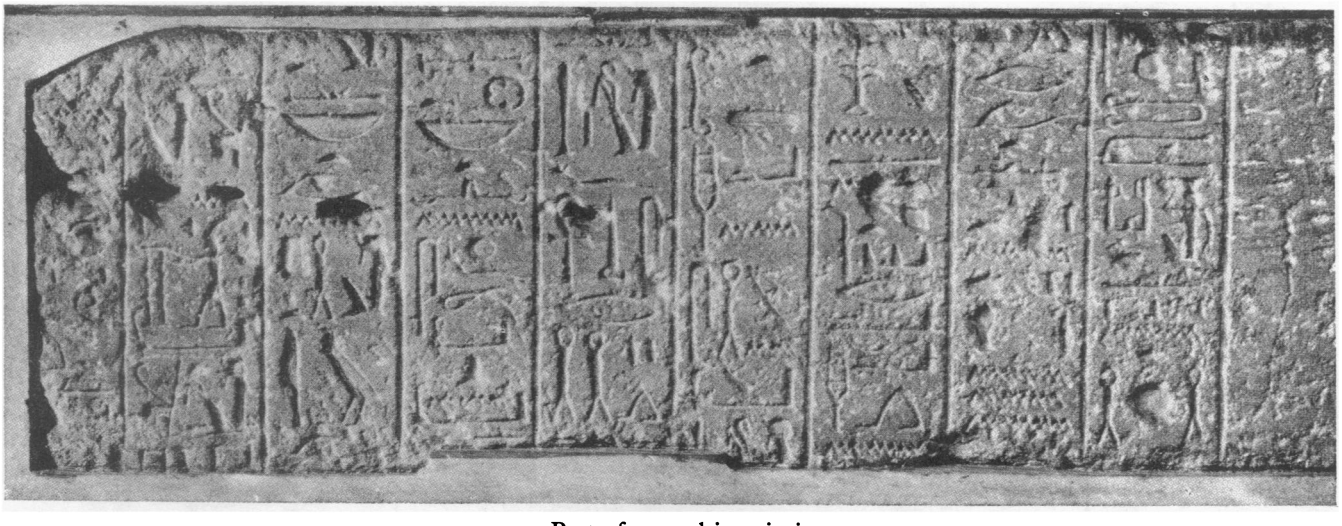
1. Stela of an official



2. Stela of Nufer

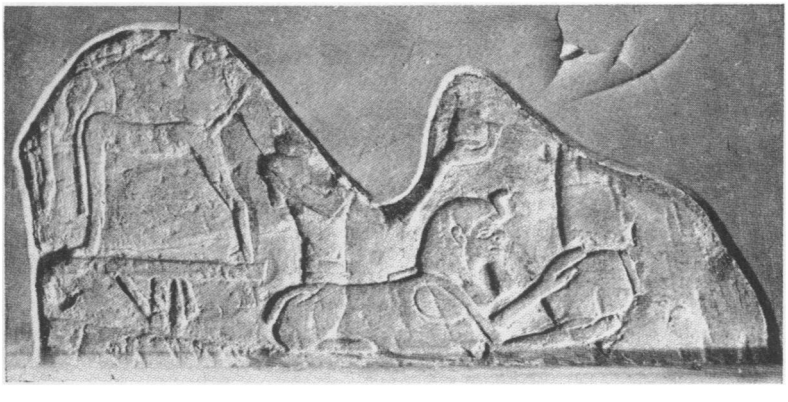
1. Fragment of a stela

2. Fragment with the cartouche of Taharqa



3. Part of a royal inscription

4. Fragment of relief



5. Fragment with sphinxes in relief

LORD DUFFERIN'S EXCAVATIONS AT DEIR EL-BAḤRI

form with dat. *n* omitted 'the rod (of land) which he (i.e. the king) presented to the *ḫkr*-maker ....' The presence of *n*, which appears to be a radical, in *ḥnky* is interesting and offers useful confirmation of Gardiner's conclusions on the reading of the word.

4. Fragment of the limestone stela of Nufer, a priest. H. 1 ft. 5 in. W. 2 ft. 3 in. Early Eighteenth Dynasty. Provenance unrecorded. Plate XI, 2.

Although it is impossible to be completely certain that Nufer was the name of the owner and not the name of his father, everything seems to indicate that it was so. The spacing out of the words would require a longer stela than seems probable if the name of the son and at least one title had been carved in the missing portion. Furthermore the title *wʿb* would fit in with the speaker's assertion in l. x+9 that he was a physician. There is also the negative argument that the title *wʿb* is not given to the father in l. x+3. The chance reference in l. x+4 to his father's service to the king at the time of the death of Queen Aḥmose-Nefertiry, wife of Amosis I, allows the stela to be fairly closely, but not precisely, dated. We know from other evidence that she died in the reign of Amenophis I.

Vertical column at right side:[a] '..... the priest[b] Nufer,[c] he says:'

Horizontal inscription: (x+1) '...[d]..... (x+2) one[e] whom the north wind itself reaches, and one whose nose the wind is not prevented[f] from (reaching), so that I[g] may receive offerings, my heart being glad and joyful[h] ..... (x+3) I was the son of a mayor, a city nobleman and an overseer of the granaries of Amūn in Karnak, energetic[i] in going forth to the field of festival-food [who spent] (x+4) ⟨his⟩ old age in the favour of the king.[j] He was one with whom his (i.e. the king's) *ka* was pleased when the divine consort Aḥmose-Nefertiry, justified with the great god lord of the West, flew to heaven. (x+5) I fare in my boat and moor at my plot of land. I plough with my oxen and bring in (my) corn[k] on my asses. My goodly plot of land (x+6) in the country which I cultivate[l] was assigned[m] to me in recognition of my valiant service;[n] its produce becomes *ḥtp*-bundles of divine offerings (??).[o] (x+7) I am one who was truly modest[p] from the womb of my mother, one whom everyone would wish to be like. I did not rob the poor man (x+8) on the road. I was friendly with[q] the great. I did not defame my mother, my father did not find fault with me. (x+9) I am a truly excellent scribe, a dexterous physician who knows prescriptions which have many uses (?)[r] and who has investigated[s] diseases of the body. (x+10) I was a valiant warrior[t] in my youth;[u] I snared waterfowl[v] and caught fish (x+11) casting the net[w] from my self-made boat.'

a. Cairo stela 34006 (Lacau, *Stèles du nouvel empire*, pl. v) has a vertical column in this position, but in that inscription (the Coronation Inscription of Tuthmosis I) it is the person addressed who is named in it. For another variation see Gardiner, *Tomb of Amenemhēt*, 71, n. 20 and pl. xxv.

b. Restore  before  .

c. See introductory comments.

d. The two words at the beginning of the line appear to be [*s*]*fḫ ḥn*[*t*]*y* followed by *m*, but I cannot offer a translation.

e. *ỉnk* 'I' very probably stood at the beginning of one of the missing lines (see the next line and three further examples below).

f. Gardiner, *Eg. Gr.*[3], § 307.

g. Following the regular rules of concord, the 3rd pers. pron. suffix refers to the subj. *ỉnk* at the beginning of each sentence (Gardiner, *Eg. Gr.*[3], § 509).

h. See Gardiner, *Notes on Sinuhe*, 97. Perhaps restore *ỉm·f* 'because of it'.

i. Cf. the expression *r wꜣḏ* 'vigorously' (Gardiner, *Eg. Gr.*[3], § 205, 5).

j. I.e. Amenophis I.

k. *pꜣs* = *pis* (*Wb.* I, 502, 9). Polotsky, *Zu den Inschriften der* 11. *Dynastie*, 35, remarks that the occurrence of the preposition *ḥr* as a variant to *m* after this verb shows that it means 'bring in' and not 'tread in' as Gardiner, *JEA* 3 (1916), 100, n. 1, had tentatively suggested.

l. For *shpr* 'cultivate, make grow'; see the *Eloquent Peasant*, B 1, 264.

m. Apparently the Old Perfective of a denominative verb *ḫtm* which is not quoted in the *Wb.* The noun *ḫtm·t* 'contract' is given (*Wb.* III, 352, 18 and 19, 353, 1).

n. Nothing so far in this text would suggest that the speaker had ever been a warrior; *ḳnn ꜥwy·i* might therefore seem to refer to the achievements and accomplishments in other matters which he enumerates in what immediately follows. Nevertheless in the last line but one he appears to claim to have been a 'valiant warrior' in his youth (see n. *t* below) and the land was probably granted to him as a reward for his military services.

o. A clause with grammatical and lexicographical difficulties. The exact meaning of *šww* is uncertain (see Caminos, *Miscellanies*, 135). Gardiner, *Onomastica* I, 63* f. suggests 'rushes', which would not fit the context. *Wb.* IV, 434 'Art Kraut' and Faulkner, *Concise Dictionary* 263 'edible vegetable' give the required sense which here seems to be roughly equivalent to 'garden produce'. The fem. suffix *s* is strange, for it can only refer to *šd* 'plot of land' which is masc.; perhaps the false concord is due to confusion with the fem. words *šdwt* and *šdyt* which have the same meaning. *Ḫrš* (*Wb.* III, 330, 12; Faulkner, op. cit., 197) as a vegetable-measure is not uncommon; it may be used in apposition to the commodity (e.g. *Urk.* IV, 825, 17, *sm ḫrš* 5 'vegetables, 5 bundles') but in a very late example (Spiegelberg, in *Excavations at Saqqara 1907–8*, 91) the noun follows in the indirect genitive *ḫrš n iḏḥw* 'bundle of reeds'. *Ḥtp* is also used as a vegetable-measure (*Wb.* III, 196, 1–2, and Caminos, op. cit., 363) and is no doubt related to *ḥtp* 'basket' (*Wb.* III, 195, 12–16, and Caminos, op. cit., 205), but it can also mean 'offerings' (*Wb.* III, 196, 3) which seems to be the meaning here.

p. *gr* 'modest', see Griffith, *JEA* 12 (1926), 227.

q. *rmn n* 'be friendly with' (see Faulkner, op. cit., 149).

r. The translation 'which have many uses' is a conjecture. *ꜥšꜣ* must refer either to the speaker (lit. 'great of . . .') or to *šsꜣw* which seems more likely. *irw* (if that is the reading) is strange; the only apparent reason for the determinatives  is that they emphasize the abstract meaning of the word. The kindred word *irt* is used in the sense of '(bodily) functions' in an Eighteenth-Dynasty stela published by N. de G. Davies in *Griffith Studies*, 289, pl. 40, 11 ( , 'so that thy natural functions are complete').

s. *ḏr*(*r*) written incorrectly with  as det. for (Gardiner, *Sign List* M. 3).

t. *nḏs ḳn* 'valiant warrior', so Faulkner, op. cit., 145. Anthes, *Felseninschr. von Hatnub*, 37, 2 f., 'ein starker Bürger'. The addition of 'in my youth' need not necessarily refer to military prowess, although the reference in l. x+6 may point to it (see n. *n* above). Otherwise 'strong man' with reference to the sporting achievements about to be mentioned would be more natural.

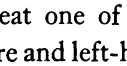
u. An error for *wn·kwi*.

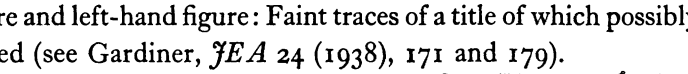
v. See Faulkner, *JEA* 38 (1952), 128.

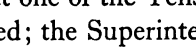
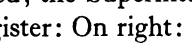
w. For other examples of the *sḏmt·f* in a virtual clause of time where *sḏm·n·f* is used in the main clause, see Gardiner, *Eg. Gr.*³, § 406.

5. Fragment of limestone showing an incomplete cartouche  . Graham, in his report, refers briefly to this piece. Through misreading the hieratic of the Turin Royal Canon he mistakenly identified the king with Sꜥankhkarēꜥ Mentuḥotpe. [Men]tuuser seems to be the only restoration possible, cf. B.M. 41434 (*Hiero. Texts* v, pl. 18), a king not mentioned in *Livre des rois*. Although Graham does not actually state the provenance, he implies that it came from Deir el-Baḥri.

6. Fragment of limestone stela. Middle Kingdom. Provenance unrecorded. Plate XII, 1.

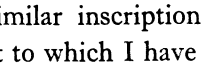
Upper register: Feet and legs of three persons. Between right-hand and middle figures: The title  'Great one of the Tens of Upper Egypt' followed by traces of the name. Between middle figure and left-hand figure: Faint traces of a title of which possibly  (*ꜥnḫ tt ḥkꜣ*) are preserved (see Gardiner, *JEA* 24 (1938), 171 and 179).

Line of inscription between the registers: []  ..... 'Great one of the Tens of Upper Egypt Iu...ḥetepi; his wife, the Servant of the Ruler's Table, Imdjed; the Superintendent of the Ruler's Table .....'

Lower register: On right: Lower portions of two male figures, of whom the left-hand figure bears the name  .... 'Paꜥamu', the parents, two daughters, and a son. Between the mother and the first daughter  'His daughter the Lady of the Table, Satetemḥeb'. Between the two daughters  'The Lady of Amūn, Meket'. Above the son:  .... 'The Priest of Khons . . .'.

7. Fragment of limestone (H. 1 ft. 0 in. W. 1 ft. 6 in.) on which are carved in low relief cranes, geese, and a trussed ox. The vertical column of inscription on the left ('.... as thy father Rēꜥ-Horus has commanded, mayest thou live!') shows that the fragment belonged to a royal monument, perhaps one of the Eighteenth-Dynasty temples[a] (pl. XII, 4). Another fragment of the same scene (H. 1 ft. 3½ in. W. 11½ in.) is also in the collection. Provenance not recorded.

a. Professor R. A. Caminos has pointed out to me that oxen trussed in a very similar manner figure among the reliefs of the temple of Kumma (temp. Tuthmosis III). See Dunham and Janssen, *Second Cataract Forts*, vol. 1, *Semna Kumma*, pl. 53. Cf. the Coptic place-name ⲡⲏⲥ ⲙⲙⲁⲥⲱ.

8. Feet and pedestal of a black granite triad (H. 1 ft. 0½ in. W. 1 ft. 9 in. D. 1 ft. 3 in.) representing a male, in the centre, a female, on his left, and probably another female on his right, of whom only the feet are preserved. Probably New Kingdom. Provenance unrecorded. The central figure bears the epithet '..... beloved of [Khnum] lord of the Cataract'. The surviving portion of a female bears a similar inscription: '..... beloved of Satis, lady of the House of the Triad' (), an epithet to which I have found no parallel.

9. Sandstone fragment with 9 incomplete vertical columns of incised text (H. 11 in. W. 3 ft. 6 in. W. of cols. 3½ in. approx.). Plate XII, 3. The block is clearly taken from a royal inscription of the New Kingdom, but too much is missing to permit of any connected sense. It records in the first person (col. 2) that the king has built the temple (*ḥwt*) which he claims is like (col. 3) the work (*kꜣt*) of Ptaḥ. He then describes (cols. 4–6) an expedition to Nubia mentioning a place (col. 7) 'south of Sentep (?)'. In the course of his journey it seems that he carried out some operation (col. 8) 'in order to make a way which is upon the waters (?)'. The inscription ends with the claim (col. 9) that it is an everlasting work. Provenance not recorded.

10. Limestone fragment decorated in raised relief showing a standard bearing a standing sphinx, the incomplete upper part of a male figure holding a vessel in the outstretched left hand and a recumbent royal sphinx with human hands pouring a libation from a vase (pl. XII, 5). A somewhat similar sphinx is published in Naville, *Deir el-Bahari*, 1, pl. xiii (*d*) and dated (p. 68) to the Eighteenth Dynasty. Provenance unrecorded but almost certainly Deir el-Baḥri.

11. Big toe (W. of nail 3 in.) of a red granite colossal statue, probably of Ramesses II. Obtained at Luxor early in April, 1859 and mentioned in Lord Dufferin's Journal (see p. 21, n. 2 above).

12. Fragment of sandstone with traces of gesso overlay (L. 1 ft. 4½ in. H. 7 in.). Carved in sunk relief are figures of a priest kneeling with arms upraised in adoration before Rēʿ-Ḥorakhty, falcon-headed, and Nephthys, both of whom are squatting. A mutilated inscription behind the priest gives his name, Pentawer, and part of his title: .....  . Ramesside. Provenance unrecorded.

13. Sandstone fragment inscribed with the incomplete cartouche of Taharqa [beloved of] Amūn. Twenty-fifth Dynasty. Plate XII, 2. From Qaṣr Ibrîm. An account of how this fragment was removed from 'the remains of a Roman wall' is given in Lord Dufferin's Journal on February 17 and 18, 1859.

14. Uninscribed sandstone table of offerings (W. 1 ft. 9 in.) decorated with representations of a *ḥes*-vase and four round cakes. Late Period. Provenance unrecorded.

SINUHE'S REPLY TO THE KING'S LETTER

By HANS GOEDICKE

WHEN Sinuhe received the letter of King Sesostris I informing him that there were no charges against him and that he should return to Egypt in order to be buried there as befits a royal follower, he rushed through his camp full of joy shouting happily the good news (B 202–4): *How does this happen to a servant whom his heart has led to distant countries? Good, indeed, is loyalty which saves me (now) from death! Your* Ka *allows that I may have the end of my bodily (life) in the Residence!* This outburst of joy is followed in the story by the quotation of the letter which Sinuhe wrote in reply. It forms one of the more difficult parts of the story, and contains several problems. The section of the text is contained in Papyrus Berlin 3022 (B 204–38)[1] and the Ashmolean Ostracon *verso* 21–36.[2]

After the heading 'copy of the report on this decree'[3] the contents of the message can be divided into six sections, of which only three are concerned with actual events. These sections are:

1. Introduction of the sender, which is connected with a statement about the effect of the letter received.
2. Salutation to the king, consisting of two parts; the first praising the king's *Ka*, the second invoking the gods of all parts of the world to support the king.
3. A statement about Sinuhe's loyalty and his hopes for reward, which became true through the king's grace.
4. The actual concern of the letter, consisting of a request and the motives for it.
5. Reassurance of Sinuhe's submission and loyalty to the king.
6. A wish for the king's health as the concluding passage.

1. *Introduction of the sender*

Unlike B 204, Ash. vs. 21 connects the first section with the heading by a relative form, thus stressing the narrative character of the account.[4] The sender is introduced

[1] Gardiner, *Die Erzählung des Sinuhe* (Berlin Staatliche Museen, *Hieratische Papyrus* v); Blackman, *Middle Egyptian Stories*, 33–34.

[2] Barns, *The Ashmolean Ostracon of Sinuhe* (Oxford, 1952).

[3] The customary translation of *smi* as 'reply' (Gardiner, *Notes on the Story of Sinuhe*, 76; the passage in B.M. 5645, vs. 5 (*Admonitions of an Egyptian Sage*, pp. 107 f.) *n wḫd smi·n mdt* 'it is not accepted what a saying has to tell' has no bearing on the question) or 'Empfangs-Anzeige' (Grapow, *Der stilistische Bau der Geschichte des Sinuhe*, 77; *Wb.* IV, 128, 18) is misleading. The position of Sinuhe excludes the possibility that he 'answers' his king, since this would imply an equality which certainly did not exist. The relationship is reflected in the choice of *smi*, indicating that the commoner can only 'report' to his king but not 'reply', although when asked specifically he might 'answer' (*wšb*), as in B 260. For the use of *smi* in private letters, see James, *The Ḥeḳanakhte Papers*, 129.

[4] Barns, who is predisposed to consider B the better version, considers it 'a mistaken addition'.

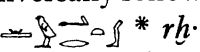
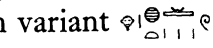
in B as *bꜣk n ḥ Sꜣ-nht* and in Ash. as *bꜣk n ḥwt-ꜥꜣt Sꜣ-nht*. Both formulations correspond to the usage in letters of the Middle Kingdom, where the sender is frequently indicated as *bꜣk* or similar.[1] The difference between the two versions is that B appears to stress the loyalty to the palace, while Ash. emphasizes the connexion with the funerary institutions (*ḥwt-ꜥꜣt*) which corresponds to common *bꜣk n pr-ḏt*.

In all available studies *ḏd* is interpreted as being used to introduce the words of the letter; thus what follows after *ḏd* is considered the opening phrase. While this interpretation is tempting in view of the use of *ḏd* in common letters of the period, it also leads to considerable difficulties. In epistolary usage the beginning of a letter consists normally of one or more sentences of salutation. This is seen in *m ḥtp*[2] or *m ḥtp nfr wrt* 'In very good peace!'[3] Of course *m ḥtp* is a well-attested form of greeting, but only as a greeting of welcome which is extended verbally to an approaching person.[4] The limited use of *m ḥtp* rules out the possibility that *m ḥtp* or *m ḥtp nfr wrt* is the opening salutation of the letter. For Sinuhe to extend 'a very fair welcome' (Gardiner) to the king would be completely nonsensical under the prevailing circumstances. Thus it is necessary to divide the sentences differently and to consider *in kꜣ·k* as the beginning of the salutation. All that precedes can thus only qualify Sinuhe's statement (*ḏd*). Accordingly the introductory passage reads:

B *bꜣk n ḥ Sꜣ-nht ḏd m ḥtp nfr wrt r ḫt wꜥrt tn irt·n bꜣk-im m ḫm·f*
Ash. *bꜣk n ḥwt-ꜥꜣt Sꜣ-nht ḏd m ḥtp nfr wrt ḥr ḫt wꜥrt tn irt·n bꜣk-im m ḫm·f*

'The servant of the palace (var. *ḥwt-ꜥꜣt*) Sinuhe says, very truly relieved concerning that flight which the servant-here made in his ignorance:'

The qualification of a statement is frequent in legal documents, like *Urk.* I, 16, 15–17; 29, 1–2; 162, 6; in connexion with the speaker of a statement it occurs in Pap. Mill., I, 1–2; cf. also *Wb.* V, 619, 15. Of a related nature are the formulations qualifying the mode of speaking, like *m rꜣ·f*, *m mdw mꜣꜥ*, *m bw mꜣꜥ*, etc. Accordingly it is necessary to understand *m ḥtp nfr wrt* here as an adverbial phrase specifying *ḏd*. In the same way it is used in the Book of *Kmyt*, § V, where it depends on the preceding *wn*. For the adverbial phrase *m ḥtp*, cf. *Wb.* III, 193B, and for *nfr wrt* its frequent occurrence in *iꜣw nfr wrt* 'in very old age' in the Old Kingdom funerary formula.[5]

The misunderstanding of the passage was mainly caused by Gardiner's[6] reading *rḫ·tw wꜥrt* . . . with *in kꜣ·k* introducing the logical subject, in which interpretation he has been universally followed. From the mere orthographic point of view it is impossible to read  * *rḫ·tw wꜥrt*, since it involves the assumption of at least three scribal errors: the haplographic omission of one *w*, the dividing of the ending *·tw*, and the placing of the determinative within the ending. Not even the unquestionably better Ashmolean variant  has helped to eliminate the prevailing misconception;

[1] James, op. cit. 119 ff.
[2] Grapow, *Sinuhe*, 78; Sethe, *Lesestücke*, 12, 7; Lefebvre, *Romans et contes*, 18.
[3] Gardiner, *Notes*, 78; *Wb.* III, 193, 28; Wilson in Pritchard, *Ancient Near Eastern Texts*, 21.
[4] Grapow, *Wie die alten Ägypter sich anredeten*, III, 112 ff.
[5] Among the numerous occurrences, cf. *Urk.* I, 190, 5; Mariette, *Mastabas* E 1; C 7; D 65; Cairo 1434. *Nfr wrt* in connexion with burial occurs in Cairo 1485; 1526; Lepsius, *Denkm.* II, 95 a.
[6] Gardiner, *Notes*, 78.

it was labelled 'a senseless phonetic error'.[1] It is possible to connect *ḥr ḫt* or *r ḫt* not with the preceding *ḥtp* but with *ḏd* and to understand it as an indication of the contents of the letter. Such summaries occur in letters to higher persons[2] and have parallels in the 'dockets' in royal decrees.[3] For *ḫt* 'matter', cf. Pap. Berlin 8869, 5,[4] also the expressions *šnỉ ḫt r* 'to investigate a matter against' and *šnṯ ḫt r* 'to dispute a matter', etc.

2. *Salutation to the king*

The actual letter, as is customary, opens with a salutation[5] which in this case, being directed to the king, is especially flowery. It consists of two parts. The first is in praise of the *Ka* of the king as the king's decreeing power[6] and thus continues the mention in B 203. It describes the *Ka* of the king as chosen[7] by Rēʿ and favoured by Monthu. The second part invokes a large number of deities to sustain and to bestow everything upon the king.

This division of the text, which differs from that generally accepted since the appearance of Gardiner's study, is supported by two facts, one grammatical, the other derived from the contents. It seems logical and in agreement with good style to open the letter with a mention of that element which Sinuhe considered responsible for having effected the change in his life, namely the *Ka* of the king. This part of the salutation is retrospective and states what Sinuhe considers to be a fact. The second part contains a wish and as such requires universal divine support. Thus the two sections point in opposite directions and consequently cannot be connected. Grammatically the first part shows the construction *in*+noun+participle, which here is undoubtedly passive.[8] The second part uses the perfective *sḏm·f* with optative meaning (Gardiner, *Eg. Gr.*[3], § 450. 4) and with anticipatory mention of the subjects.

B *in kꜣ·k nṯr nfr nb tꜣwy mrw Rʿ ḥsw Mnṯw nb*
Ash. *in kꜣ·k nṯr nfr nb tꜣwy mrw ʿnḫ-Rʿ ḥs sw ʿnḫ-Rʿ nb ꜣḫty ḥs sw Mnṯw nb*
B *Wꜣst Ỉmn nb Nst-tꜣwy Sbk-Rʿ*
Ash. *Wꜣst Ỉmn nb Nst-tꜣwy Sbk-Rʿ nb Swmnw*

'Your *Ka*, good God, lord of the Two lands, is chosen by Rēʿ (var. the living Rēʿ, and the living Rēʿ, lord of the horizons, favours it) and favoured by Monthu, lord of

[1] Barns, op. cit. 21 f. Actually *ḥr ḫt wʿrt tn* is superior to *r ḫt wʿrt tn* since the construction *ḥtp ḥr* is more common than *ḥtp r*; cf. *Wb.* III, 188 f.

[2] Cf. Scharff, *ZÄS* 59 (1924), 38 f.

[3] *Urk.* I, 210, 1; 280, 17–18.

[4] Smither, *JEA* 28 (1942), 16 ff.

[5] James, op. cit. 120 ff. I find it difficult to follow James (p. 124) in his view about an independent exclamatory greeting *m ḥst nt Mnṯw* 'In the favour of Monthu!' It seems rather to be an adverbial phrase connected with what precedes; thus in II, 1 it reads 'How are you? Are you alive, prosperous and healthy in the favour of Monthu?'; likewise in XX B 3–4; while in XX A 3 it is attached to *ʿnḫ wḏꜣ snb* after *nb*, 'may he live, be prosperous and healthy in the favour of . . .'. XI, vs. 1–2 has *iw·ṯn m ḥst nt Ỉmn-Rʿ* 'you shall be in the favour of Amon-Rēʿ'.

[6] Cf. Goedicke, *Die Stellung des Königs im Alten Reich*, 37 ff.

[7] When *mrỉ* is used to describe the relationship between the king and a deity it seems preferable to render it 'chosen' rather than the customary but clumsy 'loved'.

[8] Gardiner, *Eg. Gr.*[3], §373, §227. 3 lists this construction only as active, while Westendorff, *Der Gebrauch des Passivs*, 145 ff. points out that the construction was originally formed with the passive participle. In the occurrence here one could explain *mrw Rʿ* as relative form; a parallel to the construction exists in Ptaḥḥotep, 173, which Gunn, *Studies in Egyptian Syntax*, 59, explained in this fashion.

the Thebaid (var. and Monthu, lord of the Thebaid, favours it) and by Amūn, lord of Karnak, and Sobek-Rēᶜ (lord of Semenu).'

Of the two versions, Ash. is unquestionably superior,[1] although the only real difference between them is that Ash. is more specific and detailed in its statements. What might appear at first sight as a peculiar compilation of gods proves under close inspection to be a careful selection.[2]

The relationship of the king with Rēᶜ, as the cosmic god, is different from that with the other gods; it is only with Rēᶜ that the relationship is specified as *mrw*.[3] In addition to Rēᶜ, the three gods Monthu, Amūn, and Sobek-Rēᶜ are mentioned in this connexion with their specific cults. It is surprising to find Monthu mentioned before Amūn, both apparently representing the South, in particular the Thebaid. Curious also is the reference to *Swmnw* in Ash. which is missing in B and which appears to be a later addition. The place is otherwise not attested before the reign of Ammenemes II.[4]

The wish contained in the second part of the salutation opens with the invoking of a large number of deities. Their listing is carefully organized and they represent not only Egypt but the entire universe. It is noteworthy that the representation of 'Egypt' excludes the Eastern Delta, for which special deities are mentioned. From the version preserved in Ash. it is unlikely that this list included Amūn and Sobek-Rēᶜ, as they are named with their specific cult places and belong more properly with Monthu in the first part. Accordingly the second part of the salutation reads:

B *Ḥr Ḥthr ʾItmw ḥnᶜ psḏt·f Spdw Nfr-bꜣw Smsrw Ḥr-ỉꜣbty*
Ash. *Ḥr Ḥthr nṯrw nbw tꜣ-mrỉ ʾItmw psḏt ᶜꜣt Spdw Nfr-bꜣ Rᶜ Smsm Ḥr-ỉꜣbty*
B *nbt-ỉmḫt ḫnm·s tp·k ḏꜣḏꜣt tpyt nw Mn-Ḥr ḥry-ỉb ḫꜣswt*
Ash. *m ḥnsk n Mnṯyw nbt-ᶜḥt ḫnm·t·s m tp·k ḏꜣḏꜣw tpy n Ym Mn-Ḥr ḥry-tp ḫꜣswt*
B *Wrrt nbt Pwnt Nwt Ḥr-wr Rᶜ nṯrw nbw tꜣ-mrỉ ỉww nyw wꜣḏ-wr*
Ash. *Wrrt Nwt Ḥr-wr Rᶜ nṯrw nbw tꜣ-dšrt ỉw ḥry-ỉb wꜣḏ-wr*
B *dỉ·sn ᶜnḫ wꜣs r fnḏ·k ḫnm·sn ṯw m ꜣwt-ᶜ·sn dỉ·sn n·k nḥḥ nn ḏrw·f ḏt nn ḥntỉ·s*
Ash. *dỉ·sn n·k nḥḥ ḏt*

B 'Horus and Ḥathor, Atum and his Ennead, Sopdu, Beautiful-of-might, *Smsrw*

[1] Ash. has also the better grammatical structure; after the first emphasized sentence in the construction *in*+noun+participle, it continues with *sḏm·f*-forms, the pronoun *sw* undoubtedly referring to *kꜣ·k*. Why Barns, op. cit. 22, considers B 'doubtless correct' in comparison with the 'unaccountable . . . additions' in Ash. escapes me.

[2] Gardiner, *Notes*, 79 calls the list 'a peculiar one', in which he distinguishes between 1. 'the gods of the reigning Dynastic family', 2. 'the principal cosmic deities', 3. 'certain other gods, most of whom are connected with distant lands'.

[3] The formulation reminds one of the later *mry-ʾImn* as the principal epithet of the kings of the New Kingdom. For the connexion with Rēᶜ, cf. in particular the change of name of Pepi I to *Mry-rᶜ* 'chosen one of Rēᶜ'.

The expression *ᶜnḫw-Rᶜ* in Ash. has been commented on by Sethe, *Nachr. Gött.* 1921, 107 ff.; Gunn, *JEA* 9 (1923), 168 ff., but both discussions are restricted to Akhenaten. The term is possibly to be related to Junker's discussion *Der Lebendige* (Anz. Österr. Akad. d. Wiss. 1954, 169 ff.). It is undoubtedly not a creation of the ᶜAmarna period, but can be traced back to the Old Kingdom in *ᶜnḫw-Ḥr* as a designation of the king (not to be read *Ḥr ᶜnḫ* as is commonly done), for which cf. also *Pyr.* 917 a.

[4] Cf. Kuentz, *BIFAO* 28 (1929), 124 ff. The cylinder assigned by Petrie, *Scarabs and Cylinders*, pl. xii, no. 29, to Sesostris I is a parallel to Newberry, *Scarabs*, pl. vi, no. 5, and belongs to Sesostris II.

and Eastern Horus, the Mistress of *Imḥt* who upon you protects the wayfarers over the sea, Min-Horus who supervises the deserts, Wereret mistress of Punt, Nūt, Haroeris, and Rēʿ, and all the gods of Egypt (?) of the islands of the Sea—may they give life to your nose, may they equip you with their deeds and may they give to you eternity without its end and duration without its limits.'

Ash. 'Horus, Ḥathor, and all the gods of Egypt, Atum and the Great Ennead, Sopdu, Beautiful-of-might, Rēʿ-semsu, and the Horus-of-the-East with the curls of bedouins, the Mistress of the palace who upon you protects the wayfarers over the ocean, Min-Horus who supervises the deserts, and Wereret, Nūt, Haroeris, and Rēʿ and all the gods of abroad (and?) of the island in the Sea—may they give to you eternity and duration.'

Horus and Ḥathor are listed as main representatives of *Tȝ-mrî*.[1] Atum and his Ennead are apparently not included among the gods of *Tȝ-mrî*, but follow after them and precede the list of deities who unquestionably belong to the Eastern Delta. They appear therefore to represent Heliopolis, which apparently occupied a special position in the organization of the Egyptian state.

The Eastern Delta is represented by four gods, headed by Sopdu. *Nfr-bȝw* is obviously an independent entry, but is not attested elsewhere.[2] For *Smsrw*, in Ash. *Rʿ-smsm*, cf. Gardiner, *JEA* 29 (1943), 75 f. and Kees, *ZÄS* 79 (1954), 39 f. If there is any connexion with *Ḥr-smsw* it is obscure.[3] In the case of the fourth deity, *Ḥr-ỉbty*, there seems no need to emend *ḫmʿ* before *m ḥnskw*, as Barns proposed, in view of *Rec. trav.* 29 (1907), 11, 90. For the un-Egyptian appearance of Sopdu, cf. Borchardt, *Das Grabdenkmal des Königs Śaȝḥu-Reʿ*, II, Bl. 5.[4]

The significance of *nbt-ʿḥt*, var. *nbt-ỉmḥt*, is obscure. In the second case it appears to refer to a chthonic deity, in the first to the 'daimon of the palace'. Although a connexion with the uraeus might be implied, there is certainly no justification in seeing here a reference to the goddess of Buto.[5] *Imḥt* is attested *CT*, IV, 89 g; 344 c, apparently denoting a funerary installation. In this sense the word is used for the realm of Sokaris as lord of the Memphite cemetery, cf. *BIFAO* 29 (1929), 51 ff.; Jéquier, *Livre de ce qu'il y a dans l'Hadès*, 66. The word is possibly related to *ỉmḥw* in *Pyr.* 239 a; cf. Sethe, *Kommentar*, I, 213. Between B *ḫnm·s tp·k ḏȝḏȝt* and Ash. *ḫnm·t·s m tp·k ḏȝḏȝw*, the latter appears to be the better. If I am right, the words *m tp·k* are to be taken as an adverbial adjunct to *·s*, while the object of the transitive *ḫnm* is *ḏȝḏȝw tpyw Ym*. The latter collective is in both texts determined in a secular manner and thus cannot be considered a divine corporation; the reference is to mortals.

For Min-Horus as a compound name, cf. Gauthier, *Fêtes du dieu Min*, 24, 198; Hassan, *Hymnes religieux*, 149. Again, *ḥry-tp* of Ash. is better than *ḥry-ỉb* of B. The

[1] The fact that the deities of Heliopolis and the Eastern Delta are mentioned separately makes one wonder about the exact meaning of *tȝ-mrî*.

[2] Barns erroneously makes a compound divine name *Spdw-nfr-bȝw*. *Nfr-bȝw* has the appearance of a Horus-name, but is not attested as such.

[3] Cf. Kees, *ZÄS* 64 (1929), 104 ff.

[4] The passage is possibly less figurative, and has a direct political or at least cultic significance; the word might not denote 'curl', but be a relative form connected with *ḫnsk* 'to pay homage' (*Wb.* III, 116, 3; *Urk.* IV, 83, 13).

[5] Grapow, *Sinuhe*, 78; Lefebvre, *Romans*, 18, n. 82; but cf. Gardiner, *Notes*, 80.

'foreign regions' (*ḫɜswt*) are unquestionably to be identified with the Eastern Desert of which Min is frequently called the patron or lord. The mention of the deity of Punt follows logically and completes the *orbis terrarum* in the south-east.

Neither Ash. *Nwt Ḥr-wr Rᶜ nṯrw nbw tɜ-dšrt ỉw ḫry-ỉb wɜḏ-wr* nor B *Nwt Ḥr-wr Rᶜ nṯrw nbw tɜ-mrỉ ỉww nyw wɜḏ-wr* is clear. While some hesitation has been expressed about the justification of the identification of *ỉww nyw wɜḏ-wr* as the 'islands of the Mediterranean',[1] no question has been raised about the significance of *tɜ-mrỉ* or *tɜ-dšrt* here. However, if we take the invoking of the three deities as being parallel to what precedes and as part of the same salutation (for doing which there seems indeed to be no doubt), no reference to Egypt can occur here, since Egypt and her deities are listed at the beginning of the invocation. The three deities are rather to be considered as the representatives of a foreign region with which Egypt was in contact.[2] This foreign region is obviously *ỉww nyw wɜḏ-wr*, which more likely refers to the Mediterranean than to the equally possible Red Sea.[3] However, it is not the entire region which is indicated as the realm of the mentioned deities, but only a territory named *tɜ-mrỉ* or *tɜ-dšrt*. It should be noted that *tɜ-mrỉ* is given the 'foreign land' determinative, like *tɜ-dšrt*, which one would expect to have it. The significance of the determination remains uncertain.[4]

All the deities are requested to bestow benefits upon the king. Ash. has a considerably shorter formulation than B, but it is in no way 'confused' as Barns considers it. Remarkable is the separation of *ḥn·ty·fy* from the salutation and its connexion with what follows. With the invocation of the gods, the salutation of the king is completed and the more immediate concern of the letter begins.

3. *A statement about Sinuhe's situation*

Sinuhe's letter opens with a statement about his situation. It consists of a summary of his activities abroad, where he continued to consider himself a loyal servant of the Egyptian king. He also indicates that throughout this period of absence he has cherished a hope which he now finds fulfilled as a reward for his loyalty. As a summary of his activities the section conforms with the usage found in letters written to superiors of the Middle Kingdom.[5]

B *wḫm· ⟨ỉ⟩ snḏ·k m tɜw ḫɜswt wᶜf·n·k sšnt ỉtn*
Ash. *ḥn·ty·fy wḫmw snḏ·k m tɜw nbw wᶜf·n·k šnt·n ỉtn*

'⟨I⟩ spread your fame in the foreign countries: "You have grasped what the sun encircles!"'

That a new section begins here is indicated by the rubric in Ash., which does not,

[1] Vercoutter, *L'Égypte et le monde Égéen préhellénique* (*Bibl. Ét.* XXII), 127 f.; cf. also Gardiner, *Notes*, 81.

[2] The fact that they bear Egyptian names does not indicate that they are actually Egyptian; it is rather an attempt at an *interpretatio aegyptiaca*.

[3] The fact that the preceding invocation refers to Punt might seem to favour the latter.

[4] It is certainly tempting to think of Egyptian colonies abroad, but it seems highly doubtful if such an interpretation could be justified. Connexions between Egypt and the Aegean world undoubtedly existed during the Middle Kingdom; cf. Ward, *Orientalia* 30 (1961), 27 ff.

[5] Cf. James, op. cit. 126 f.; Scharff, op. cit. 38 f.

however, include the first word. Since *ḥn·ty·fy* refers to Sinuhe his mention cannot be emphasized at the beginning of the letter; B is even more radical and omits the subject completely.[1] It is clear that in Ash. *ḥn·ty·fy* is to be taken as a noun because of the determinative attached to it. *Wḥmw* in Ash. is old perfective, while B has an imperfective *sḏm·f*.[2] *Wʿf·n·k šnt·n ỉtn* gives the gist of Sinuhe's political propaganda abroad and it is to be taken as a quotation. It is a summary of Sinuhe's praise of the king to the bedouin chief in B 46 ff.

The next point in Sinuhe's letter is the mention of his former wish for a ritual burial, permission for which has now been granted:

B *nḫ pw n bꜣk-ỉm n nb·f šdỉ ⟨wỉ⟩ m ỉmnt*
Ash. *nḫt pw nt bꜣk n nb·f šdỉ sw m ỉmnt*

'There was the request of the servant to his lord: Save him in the West!'

The passage is undoubtedly to be understood as a reference to the topic about which Sinuhe intends to comment.[3] From Ash. it is clear that *šdỉ sw m ỉmnt* represents the contents or the quotation of the request. B, as before, omits the pronoun, which is a sign of modesty.[4] For the formulation of the request, cf. the prayers of the New Kingdom, like Pap. An. IV, 10, 1; 13, 5;[5] Pap. Harris, 78, 13; but also Gardiner and Sethe, *Letters to the Dead*, Cairo Bowl, 1. 10.

After the reference to the former hope or plea, the letter describes the kindness of the king's pardon in fulfilling Sinuhe's wish without being asked.

B *nb sỉꜣ sỉꜣ rḫyt sỉꜣ·f m ḥm-n-stp-sꜣ*
Ash. *nb sỉꜣ sỉꜣ rḫyt sỉꜣ·f m ḥm-n-stp-sꜣ ʿnḫ-wḏꜣ-snb*
B *wn·n bꜣk-ỉm snḏw ḏd st ỉw mỉ ỉḫt ʿꜣ wḥm st*
Ash. *wn·n·ỉ bꜣk-ỉm snḏw r ḏd st ỉw mỉ ỉḫt ʿꜣ r wḥm st*

'The lord of understanding, who understands the commoners, he, as manifestation in the palace, l.p.h., understood: the servant-here was too frightened to say it, as if the matter were too great to repeat it.'

The grouping *nb sỉꜣ–sỉꜣ rḫyt* seems to imply a certain polarity by juxtaposing the general with the specific. While *nb sỉꜣ* appears almost as a divine quality, *sỉꜣ rḫyt* seems to emphasize the human application of this quality of understanding. *Sỉꜣ·f* is perfective *sḏm·f* and more probably has present perfect meaning, as Grapow, *Sinuhe*, 82, takes it, than expresses a wish.[6] *M ḥm-n-stp-sꜣ* appears to be in apposition to *·f* and as such qualifies *nb sỉꜣ*. For the term, cf. Spiegel, *ZÄS* 75 (1939), 120; James, *The Mastaba of Khentika*, inscr. **10**, 12.

In the second part the reading of B is disputed; however, *wnt* and *wnn* both give good sense. Ash. is undoubtedly better in using the preposition *r* before *ḏd* and *wḥm*. The syntax of the passage is rather unclear and allows two views. One, followed in

[1] For parallels, cf. James, op. cit. 24.

[2] Westendorff, op. cit. 45 connects this passage with the preceding and considers it part of Sinuhe's wish for the king, like Lefebvre, op. cit. 19. This view cannot be maintained in the light of Ash.

[3] For the introduction of previously discussed topics, cf. *Urk.* I, 282, 15, 18; 286, 7, 16; cf. also Goedicke, *Grapow Festschrift*, 101 ff.

[4] For the mode of quotation, cf. Goedicke, op. cit. 97 f.

[5] Cf. Caminos, *Late Egyptian Miscellanies*, 196.

[6] Cf. Gardiner, *Eg. Gr.*³, § 450. 4; Wilson also interprets it this way.

the translation above, divides it into two sentences each ending in the same way. The other considers *iw mi iḫt ꜥ3* as a subsidiary clause, followed by *r wḥm st* standing parallel to *r ḏd st*; the translation then would be: 'The servant-here was afraid to say it, as if it were a great matter, and to repeat it.' In view of the frequent occurrence of the pair *ḏd–wḥm*, the first possibility appears more convincing. In translation the contrast of 'to say' with 'to carry out' seems more appropriate than the usual 'to say' with 'to repeat'.[1] For the use of *mi*, cf. Blackman, *JEA* 16 (1930), 69.

4. *The actual concern of the letter*

The main section of Sinuhe's letter consists of three parts: a new address, the request, and an explanation of it.

B *nṯr ꜥ3 mitw Rꜥ ḥr sšs3 bꜣk n·f ḏs·f*

Ash. *nṯr ꜥnḫ mitỉ n Rꜥ sw3w ỉb n bꜣk-ỉm n·f ḏs·f*

B *iw bꜣk-ỉm m ꜥ nḏ-r3 ḥr·f dỉtw ⟨n⟩3 ḫr sḫr·f*

Ash. *iw bꜣk-ỉm ḥr nḏ-r3·f dỉ·tw nn m-bꜣḥ·k*

B 'The Great God, likeness of Rēꜥ, is aware of him who serves him himself. The servant-here be in the hand of one who cares for him when one gives this under his [*sic*] planning.'

Ash. 'O living god, likeness of Rēꜥ, may the wish of his very servant-here be honoured, when the servant-here is asking, that one gives this before you.'

The two versions differ considerably, but are both grammatically possible, so that Ash. cannot be considered a corruption of B as Barns insists. It rather seems that Ash. uses the phraseology current in the New Kingdom, while B has the older formulations.

The use of *nṯr ꜥ3* in B is contrary to the usual employment of the term; *nṯr ꜥnḫ* is a more appropriate designation for the living king. The expression *mitỉ Rꜥ* occurs otherwise only in connexion with *nṯr nfr*, but not with *nṯr ꜥ3*.

Gardiner, *Notes*, 83, stresses that *sšs3* should be taken as a causative; in this he is followed by Grapow, *Sinuhe*, 82, although *Wb.* IV, 543 states that *sšs3* is used as a spelling of *šs3*. It is as the simplex *šs3* that the verb should be understood here; for the transitive use, cf. *Wb.* IV, 544, 5. For *bꜣk n·f ḏs·f*, cf. Barns, op. cit. 23, who quotes two related passages from texts of Ramesses III.[2] However, *bꜣk* appears to have more the implication of service than of labour, as Barns seems to take it. For the use of *ḏs·f*, cf. also Gardiner, *Eg. Gr.*[3], § 36. 3. *Bꜣk-ỉm* in Ash. is presumably a miswriting, as Barns suggests, but it could also be taken as an enforced possessive. For *sw3w ỉb* < *sw3š*, cf. *sw3š ꜥnḫ* in *BIE* 25 (1943), 5.

The next sentence in B is strange; *m ꜥ nḏ-r3 ḥr·f* seems the only possible reading, cf. *Wb.* II, 371, 23. The emendation *⟨n⟩3* seems certain in view of the *nn* in Ash. *Sḫr* appears to have here the connotation of 'decision'. It undoubtedly refers to the king's deliberation after the letter is placed 'before' him as indicated in Ash. and not to the

[1] This applies also to the frequent phrase *ḏd nfr/wḥm nfr* (Edel, *Phraseologie der Inschriften des Alten Reiches* § 43; Janssen, *Het autobiografie vóór het nieuwe rijk*, II H c, p. 11 ff.) where saying and performing are contrasted with each other. This is particularly clear from Pap. Turin 136, 8 quoted in Gardiner, *Notes*, 83.

[2] *Medinet Habu*, II, pl. 106, 22; Lepsius, *Denkm.*, III, 194, 15.

design of fate, as Grapow, *Sinuhe*, 49, interprets it. For *dì·tw nn m-bɜḥ·k*, cf. *Urk.* IV, 1211, 9.

After the plea for a favourable decision on his request, Sinuhe describes the king as the protector of his subjects. It is this role of the Egyptian king from which Sinuhe hopes to benefit.

B *ỉw ḥm·k m Ḥr ỉṯỉ-ꜥ nḫt ꜥwy·k r tɜw nbw*

Ash. *ỉw ḥm·k ꜥnḫ-wḏɜ-snb m Ḥr ỉṯỉ-ꜥ nḫt·tỉ nỉwtyw·k tɜw nbw*

B 'Your majesty is the conquering Horus and your arms are strong against all lands.'

Ash. 'Your majesty, l.p.h., is the conquering Horus as you protect your subjects in all lands.'

Nỉwtyw seems the only possible reading, the word apparently denoting the king's subjects. The same spelling and meaning occurs in *Siut*, IV, 18; Merikarēꜥ, P. 105.[1] The connexion of *nỉwtyw* with the following *tɜw nbw* remains uncertain; it seems grammatically to be a direct genitive, and such an interpretation would imply the existence of subjects of the Egyptian king 'of' many countries. Thus it might be preferable to restore here the preposition *m*.

The main point in the letter, which follows next, is generally considered to contain the naming by Sinuhe of witnesses of his conduct during his years in Asia.[2] Before discussing the text in detail, this point needs some clarification. The prevailing situation was the following: Sinuhe has run away and after years abroad he is pardoned by the king and allowed to return to Egypt. There are no restrictions mentioned in the royal decree but only the unconditional invitation to return. It is unquestionably an act of grace which is awarded to Sinuhe and it is in this sense that he understands it. However, being an act of grace there is no reason why Sinuhe should justify his conduct after he has been accepted and pardoned by the king. The royal act, so it seems to me, makes any further support unnecessary. On the contrary, it would even diminish the goodness of the king's act. It also should be taken into consideration what kind of witness Sinuhe is alleged to produce: foreigners, and these to substantiate the act of grace of the king! With these preliminaries in mind we now can turn to investigate the text:

B *wḏ grt ḥm·k rdt ỉn·tw mkỉ m Ḳdm ḫntyw Ỉꜥšˁ m ḫnt Kšw*

Ash. *wḏ gr ḥm·k ꜥnḫ-wḏɜ-snb rdt ỉn·tw n·k mkỉ ḳd m ḫnt Ỉɜɜ m ḫnt Kšỉ*

B *mnws m tɜwy fnḫw ḥkɜw pw mtrw rmnw ḫprw m mrwt·k*

Ash. *ḥr rdt sšmw·k m tɜw fnḫw ḥkɜw pw mtrw rmnw ḫpr mrwt·k*

Considering the difficulties of the passage it seems advisable first to conduct the investigation before attempting a translation. The two copies differ widely and it is necessary to evaluate them.[3]

There is agreement that Sinuhe suggests that the king should issue a command.

[1] Barns, op. cit. 23 offers an interpretation of the passage which seems rather strange.

[2] See Posener, *Littérature et politique*, III f.

[3] Barns, op. cit. 23 condemns Ash. because 'it has little to contribute but errors', since he takes B as the standard version.

Since every official act of the Egyptian king is described as a 'command', the passage conveys no suggestion about the status of the recipient. There is no immediate indication about the possible addressee. Since it is unlikely that Sinuhe would request a command to himself, he cannot be the person to receive the command, although he is the person likely to benefit from it.

The requested royal act is described in B as *rdt in·tw* and in Ash. as *rdt in·tw n·k*. The use of *rdi* characterizes it as a request and not as a command. *Rdi ini* are the words used in the New Kingdom to denote the supplying of required commodities; it is probably in this sense that the expression is to be understood here, with the specific sense of supplying people; cf. *Urk.* I, 212, 2. The adjunct *n·k* in Ash. can only refer to the king, in the sense that the supplying should be done as for the king.

Despite their differences B and Ash. agree in indicating the object of *ini* as *mki*. It has always been assumed that *mki* is the proper name of a chieftain. In addition to the objections already expressed, the story itself provides evidence against such an interpretation. When Sinuhe arrives at the Egyptian border, he does not mention any princes brought as his witnesses.[1] On the other hand, Sinuhe does not arrive alone at the frontier but accompanied by *styw*. The passage[2] is most informative and contains revealing information about the nature of Sinuhe's company: *ꜥḥꜥw ꜣṯpw m ẖt·f ẖr ꜣwt-ꜥ nt ẖr nswt n styw iww m sꜣ·i ḥr sbt·i r wꜣwt-Ḥr.* '(Then his majesty let come an excellent overseer of peasants of the royal administration) and loaded ships in his charge with gifts from the king for the *styw* who had come behind me while escorting me to the ways of Horus.' *Styw* is undoubtedly to be identified with the well-attested term for 'Asiatic bedouin',[3] and can in this context only denote those people of Asiatic origin who accompanied Sinuhe in his service. They obviously did not enter Egypt but were rewarded at the frontier—an indication that they were considered as having rendered a service. Their reward comes from the Egyptian king. There can be no doubt that these people were not 'princes' of any kind, but rather a form of bodyguard. It is necessary to emphasize that they were rewarded or paid by the king, since it prompts us to conclude that they were hired for the king's service. This consideration leads us back to the point in Sinuhe's letter still under discussion.

From the later mention of an escort, which one justly can compare with the institution of the *rafîq* in Arab travelling, the passage in question receives a different perspective. If it is to be considered as involving arrangements for safe travelling, it is improbable that we can have here the mention of a specific person. *Mki m Ḳdm* (B) and *mki ḳd* (Ash.) describe rather the kind of escort Sinuhe wishes to have on his journey to Egypt. The fact that only a single person is indicated here, while later at the border a group of people is involved, can be explained by a consideration of the institution of the *rafîq* in the classical form of Arabian desert travel. This *rafîq* or

[1] One could assume that Sinuhe's suggestion is a mere rhetorical phrase and that it was not accepted by the king. However, the passage occupies such an important place in the letter that it seems improbable that it was mentioned without good reason.

[2] B 244–5. The parallel in Ash. vs. 39–40 is badly preserved.

[3] Grapow, *Sinuhe*, 89 f. renders *styw* 'Schützen', and apparently thinks of the military term for 'archers' *Wb.* IV, 327, 16–17). But this word is attested only from the Nineteenth Dynasty.

companion is usually one person of standing in a given tribal area, the company of whom serves as a guarantee for safe conduct. The significance of the *rafiq* is limited to his tribal area, but he might follow the party to its final destination and only return to his home at the end. Thus a party travelling through a number of regions might very well accumulate a number of *rafiqs* on its way.[1]

The connexion of *mkꜣ* with the root *mk* 'to protect' seems apparent.[2] According to the determinative the word denotes a foreigner, but this does not imply that the term itself is foreign.[3] The absence of any implication that the *mkꜣ* is a foreigner is evident from the additional specification of a foreign origin: in B it is *m Ḳdm*, in Ash. *ḳd*. Both have identical meanings, expressed differently. *Ḳdm* is the more general term, denoting the Asiatic 'East'; cf. *Wb.* v, 82, 1; Sethe, *Kommentar*, IV, 291; *CT*, I, 160 e; Lutz, *Egyptian Tomb Steles*, pl. 34. *Ḳd* is apparently a variant for *Ḳdm*; for a parallel use see Davies and Gardiner, *The Tomb of Amenemhēt*, pl. 12 and p. 51, n. 2; cf. also Gardiner, *Ancient Egyptian Onomastica*, I, 134*. As the term lacks any association with a specific geographical region, it appears to be used here closely with *mkꜣ*. I suggest that both phrases mean 'Eastern protector' or 'protector in/from the East'.

The mention of regions which Sinuhe expected to traverse on his return journey might furnish a hint on Sinuhe's whereabouts in Asia. According to B 182 Sinuhe was at *Rṯnw* at the time when he was pardoned, and it is from there that he returns. Previously Sinuhe's Asiatic home is described as *Ỉꜣꜣ* (B 81), which cannot be greatly different from *Rṯnw*, and probably is a part of the latter.

There is agreement between the versions in the mention of the country of *Kš*. This is probably the *Kwšw* of the Execration Texts of the Thirteenth Dynasty.[4] The name is also attested in the ʿAmarna tablets,[5] and it occurs once in the Nineteenth Dynasty.[6] The localization of the cuneiform *kaši* is uncertain, but it seems likely that it is to be placed in southern Palestine.[7] It must be stressed that *Kš* is not a place but a region, as is indicated by the use of the preposition *m-ḫnt*.[8]

In the term preceding *Kš*, the two texts differ widely. Ash. has *Ỉꜣꜣ*, but this is undoubtedly a mistake and probably influenced by the occurrence of *Ỉꜣꜣ* in Ash. rt. 37 (B 81). It is there that Sinuhe made his home after he was accepted by the ruler Ami-enshi of 'upper Rethenu'. This would mean that *Ỉꜣꜣ* is the region from which Sinuhe returns to Egypt.[9] The information in B thus is likely to be the better. The

[1] Cf. for instance C. P. Grant, *The Syrian Desert* (New York, 1938), 172, 212; C. M. Doughty, *Travels in Arabia Deserta*, 142, 276; W. Thesinger, *Arabian Sands* (London, 1959), 155 f.

[2] The connotation 'to honour' is implicit in the word; cf. Sethe, *Kommentar*, I, 286, but also 'to respect' (ibid. II, 165). The implication of safe guidance seems to exist in the royal epithet *mkꜣ-mšr·f* of the Nineteenth Dynasty (*Wb.* II, 160, 7).

[3] There is no need to connect *mkꜣ* with the similar geographical term in the Execration Texts (Posener, *Princes et pays*, 83, E 37 and 93, E 62) as Helck, *Beziehungen Ägyptens zu Vorderasien*, 45 indicates.

[4] Posener, op. cit. 88 f., E 50–51; cf. Helck, op. cit. 60.

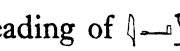
[5] Knudtzon, *El Amarna Tafeln*, 1100 f.

[6] *Ann. Serv.* 30 (1930), 46 f.

[7] Cf. Weber in Knudtzon, op. cit. 1101, n. 2.

[8] Cf. *Wb.* III, 302, 11; Sethe, *Kommentar*, IV, 331; cf. also Ikhernofret, 4.

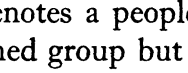
[9] *Ỉꜣꜣ* is not attested outside the story of Sinuhe and its identification is doubtful; cf. Gauthier, *Dict. géog.* I, 15. One might wonder in view of the curious conglomeration of sounds if it is a name at all and not an indication of an uncertain or obscure name in the form of gibberish, as in ʿ or ʿꜣ 'foreigner' (cf. Goedicke, *JEA* 46 (1960), 60 ff.).

reading of  is agreed on as *ʿrwš*,[1] a term which is not attested elsewhere. From the use of the preposition *ḥntyw* and the determinative it appears that the term denotes a people, apparently of hostile character. It does not seem a particularly defined group but is likely to denote the occupants of the region denoted as *Kšw*.

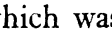
There can be no doubt that *mnws* in B is to be taken as parallel to *mḳi*; it seems confirmed by Ash. where *ḥr rdt sšmw·k* depends directly on *wḏ gr ḥm·k*. The parallelism implies that *mnws* is the designation of a person, but its exact meaning is difficult to establish. There is no other occurrence of the word, save possibly the hapax *mns* in Pap. An. IV, 13, 6. The latter occurs in the compound *sš mns* and refers to a man stationed at a frontier post. If we can assume that the words *rdt sšmw·k* of Ash. describe the activity expected from the person denoted as *mnws*, it seems tempting to consider him a kind of royal follower.[2]

Rdt sšmw·k in Ash. is of particular importance since it not only specifies the requested services, but also links them to the king. *Sšmw* is presumably to be identified with *Wb.* IV, 228, 3, 6, 8–10; but cf. also 287, 21; cf. further *Urk.* IV, 613, 7; Caminos, *Late Egyptian Miscellanies*, 44; Gardiner, *Ancient Egyptian Onomastica*, I, 96*; *Medinet Habu*, I, 16, 15. The difference between B and Ash. at this point is only one of idiom, probably due to the change in the political situation in Palestine in the New Kingdom.[3]

The services are requested in a specific area which is described as *tꜣwy fnḫw* in B and as *tꜣw fnḫw* in Ash. There is considerable uncertainty about the origin and significance of the term. Brugsch[4] was the first to connect it with the Phoenicians, a view which was subsequently supported by Sethe[5] against the objections of M. Müller,[6]

[1] The unusualness of the term makes it doubtful that *ʿrwš* is the correct reading; it appears tempting to read  *ʿdiw(r)* and to identify it with *ʿdirw* in the list of Sheshonḳ I; cf. Gauthier, *Dict. géog.* I, 125.

[2] It is tempting to connect *mnws* with the term *nws* in *ḥry-nws* which is attested for a carrier of weapons in the Abu Sîr sun temple; v. Bissing–Kees, *Das Re-Heiligtum*, III, Bl. 3, nr. 121/2, 124, 126, Bl. 19/20, nr. 45 a, 47 and S. 24 f. The compound *ḥry-nws n Wꜣḏ(t)* as a title of the vizir *Mrrw-kꜣ* (Firth–Gunn, *Teti Pyramid Cemeteries*, I, 134) suggests that *nws* refers to the 'insignia of Egyptian rulership' as Helck, *Untersuchungen zu den Beamtentiteln des Alten Reiches*, 24 indicates. Such a meaning agrees well with the word *nws* denoting the royal headgear: Jéquier, *Pyramides des Neith et Apouit*, pl. viii, l. 43; id. *Frises d'objets*, 6; cf. also *Wb.* II, 224, 15. The title *ḥry nws* occurs in the Middle Kingdom once on a coffin (Weill, *Rev. d'Ég.* 7 (1950), 185 f.). For the formation of the word, possibly a *nisbe*, cf. Junker, *Ann. Serv.* 49 (1949), 212 and id. *Gîza*, XI, 135.

By connecting  with the term *nws* (possibly *nyw.s*?) it would seem feasible to read it *m-nws* or *(i)m(y)-nws* instead of *mnws* and to consider the latter a contracted writing. The meaning of such a term *m-nws* or *ỉmy-nws* might be 'he who is with (in?) the insignia', i.e. a person representing sovereign rights. Such a rendering of the designation agrees with the variant in Ash. It would also suit the indication in Pap. An. IV, 13, 6 and the *sš mnws* mentioned there could be considered as a representative of the administration attached to the military post.

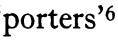
[3] Barns, op. cit. 24, compares the passage with An. III, 1, 4 and renders *rdt sšmw·k* as 'spreading your policy in the lands of the *fnḫw*' in which he is followed by Vercoutter, *L'Égypte et le monde Égéen*, 160 ff. The latter takes *mnws* as a personal name. For the use of *ḥr*, cf. James, *Ḫeḳanakhte Papers*, 107.

[4] *Geschichte Ägyptens*, 242.

[5] Sethe, 'Der Name der Phönizier', in *MVAG* 21 (1917), 305 ff. explains it as 'land of the carpenters' in which he is followed by Helck, *Beziehungen*, 22. The spelling of the title read *ḥrp fnḫw* in *Wb.* I, 576, 15 and translated as 'Tischler' excludes such a view. It rather has to be understood as 'leader of the craftsmen with chisel and saw', neither one being *fnḫw*. The saw is *tfꜣ* and the chisel *ʿnt*; cf. Junker, *Gîza*, IV, 72. The additional *fḫ* or *fḫn* specifies the status of the craftsmen and might very well indicate their foreign origin. A different specification occurs in Sethe, *Dramatischer Ramesseumpapyrus*, 171 f.

[6] *Asien und Europa*, 208 ff.

who regarded it as an Egyptian designation of 'verwüstete, ausgeplünderte Länder'. The term occurs once in a fragmentary context in an inscription of king Niuserrēʿ.[1] It occurs again in the pyramid of Aba in a text where *Ṯḥnw* is used in older versions. Kees[2] in discussing this last instance takes *fnḫw* as a generic term applied to 'alle Völkerschaften Asiens, die mit den Ägyptern im Kampf gestanden hatten'. Despite Sethe's objection the word is most likely to be connected with the verb *fḫ*, which bears the meaning 'to vanish', sometimes used with the sense 'to remove oneself from a place' (*Sinuhe* B 29). It seems feasible to me that both connotations are implied in the compound *tꜣw fnḫw* where *fnḫw* specifies the lands either as being remote[3] or as expected to vanish. Unfortunately it is impossible to draw any specific geographical information from the term, except in as much as it is used of countries which did not have a common border with Egypt. A state of hostility does not seem implied in the mention in *Sinuhe*. If there were hostility then they would be rather hazardous to travel through.

The last section of Sinuhe's request has been considered a description of the trustworthy character of the foreign chiefs who were thought to have been mentioned in the preceding sentences. However, since we have found that there is no mention of the supposed witnesses, this next section also needs reconsideration. The use of the rubric in Ash. indicates that it is separate from what precedes and also that it contains a point of special interest. It does not necessarily mean that we have here the beginning of a new section. I am inclined to interpret the passage as a quotation of the diplomatic letter (*firmân*) of the Egyptian king to the local dignitaries for the support of Sinuhe on his journey. According to the rubric in Ash. a division between *ḫkꜣw pw mtrw*[4] and *rmnw ḫpr(w) m mrwt·k* is required. The first can only be interpreted as a vocative.[5] *Mtr*, which qualifies *ḫkꜣw*, appears to have the connotation 'legal', but also 'just', 'respected'; cf. *Wb.* II, 173, 3.  is a writing for *rmnw* 'porters'; for the spelling, cf. *CT* II, 164 g, also *Siut*, III, 15; *Pyr.* 1714. The request for the supplying of 'porters'[6] shows that Sinuhe travelled overland and that he used a carrying chair. For this way to travel, cf. Klebs, *Die Reliefs des Alten Reiches*, 27 ff.; Junker, *Gîza*, XI, 249 ff.; Klebs, *Die Reliefs des Mittleren Reiches*, 43 f. *Ḫprw* is unquestionably an old perfective; for its use, cf. *Wb.* III, 262; and for *m mrwt*, cf. *Wb.* II, 103, 4 and *JEA* 47 (1961), 7, l. 13.

[1] Borchardt, *Das Grabdenkmal des Königs Ne-user-reʿ*, 68; cf. Sethe, *ZÄS* 45 (1908), 140. Although Sethe's reading *fnḫ* is probable, it remains uncertain whether it denotes people (*fnḫw*) or specifies *ḫꜣswt*.

[2] *ZÄS* 79 (1954), 38 f. who stresses the generic use of the term. In this respect *fnḫw* or *tꜣw fnḫw* is normally used parallel to the people of *ḫnt-ḥn-nfr*. This term, however, is used from the later part of the Eighteenth Dynasty to denote the Nubian province, i.e. the Nubian territory under Egyptian administrative control. If we consider the parallel as being exact, then *tꜣw fnḫw* are not hostile or subdued countries, but rather allied to Egypt in some way.

[3] For instance, clearly in *Medinet Habu*, II, 123 A.

[4] The spelling  in Ash. is presumably erroneous, the inappropriate determinative possibly being corrupted from  .

[5] For the use of *pw* in the vocative, cf. Gardiner, *Eg. Gr.*[3], p. 87; Grapow, *Wie die alten Ägypter sich anredeten*, II, 33, 78.

[6] For the supply of porters, cf. *Urk.* I, 43, 17 and *JEA* 45 (1959), 10.

In conclusion of our investigation of the main issue of Sinuhe's letter, here is the proposed new translation:

B 'And may your majesty decree, to furnish an Eastern protector among the *Ꜥrwš* in (the region) of *Kš* and a *mnws* (?) in the distant lands (saying): O righteous rulers, may porters exist by your kindness!'

Ash. 'And may your majesty decree to furnish for you an Eastern protector in (the region of) *Iꜣꜣ* (?) and in (the region of) *Kš* and to give your guides (or services) in the distant lands (saying): O righteous ruler, may porters exist upon your wish!'

In closing his request Sinuhe offers an explanation for his plea:

B *nn sḫꜣ Ṯnw ny·k im·s mitt ṯsmw·k*

Ash. *n sḫꜣ Rṯnw ink is mitt ṯsmw·k*

B 'Not shall (Re)thenu think: Your subject there is like one of your dogs.'

Ash. 'Not shall Rethenu think: I am like one of your dogs.'

The variant in Ash., which cannot be considered erroneous, shows that B does not indicate a possession, as Gardiner thought, *Eg. Gr.*[3], § 114. 4; Lefebvre, *Grammaire*, § 196. It is rather the nominally used *nisbe*-adjective *ny*, as in *ny-Wnis*, *Urk.* I, 81, 5.[1]

5. *Reassurance of submission and loyalty*

Sinuhe's request for respectful treatment on his journey home is justified by a long declaration. There he reiterates that his flight was not a deliberate action and that it could be considered improper but not criminal:

B *wꜥrt tn irt·n bꜣk-im n ḫmtw·s nn sḏm·i ib·i n ḳmd·i st n rḫ·i iwd wi r st*

Ash. *wꜥrt tn irt·n bꜣk-im m ḫm·f n rhw st n ḳmd st n rḫ·tw ini wi r ḫꜣst tn*

B *iw mi sšm rswt mi mꜣꜣ sw idḥy m ꜣbw s n ḫꜣt m Tꜣ-stị*

Ash. *iw·i mi sšmw rswt s n ḫꜣt ⟨m⟩ Tꜣ-stị*

B *n snḏ(·i) n sḫs·tw m-sꜣ·i n sḏm·i ṯs ḫwrw n sḏm·tw rn·i m rꜣ wḫmw*

Ash. *n snḏ·i n sḫsḫ·tw m-sꜣ·i n sḏm·tw rn·i m rꜣ wḫmw*

B *wpw-ḥr nf n ḏdf ḥꜥw·i rdwy·i ḥr hwhw ib·i ḥr ḫrp·i nṯr šꜣi wꜥrt tn ḥr stꜣ·i*

Ash. *wpy nfꜣ n ḏdwꜣ ḥꜥw·i rdwy·i ḥr ꜣs ib·i ḥr ḫrp·i nṯr šꜣi wꜥrt tn ḥr stꜣ*

B 'That flight which the servant-here has done, it was not deliberated, it was not my intention, I had not reflected it, I did not realize my separation from home. It was like a trance, as when a Delta-man sees himself in Elephantine, a man from the Delta marshes in Nubia. I had not to be afraid, there was no chasing after me, I did not hear the verdict "Criminal!", my name was not heard in the mouth of the herald, except for that movement of my limbs; that my legs moved and that my heart led me—the god who destined this flight dragged me.'

Ash. 'That flight which the servant-here has done in ignorance, it was not thought up, it was not reflected, it is not known what brought me to this region. I was like

[1] Cf. Edel, *Altägyptische Grammatik*, § 347, 3. The word occurs also in the name *Ny-ḫꜣswt-nswt* 'The one belonging to the foreign lands of the king', wrongly explained by Edel, *ZÄS* 85 (1960), 80 as 'zugehörig sind die Fremdlander dem König,' and similarly *ZÄS* 81 (1956), 11 f., *Ny-nbw-Ḥtḥr* 'The one belonging to the domains of Hathor'. It also occurs as  in religious texts, e.g. *Book of the Dead*, I, 7 *nyw wnḏwt·k* 'a member of your clan'.

a dream-walker, a man of the Delta marshes ⟨in⟩ Nubia. I had not to fear, one did not run behind me, my name was not heard in the mouth of the herald, except for that movement of my limbs; that my legs were running and that my heart was leading me—the god who destined this flight dragged me.'

The two versions do not differ widely, but Ash. again seems the better. Grapow, *Sinuhe*, 84, says about this section that 'die endliche Inangriffnahme des Hauptthemas . . . so unvermittelt' occurs.[1] It is, however, necessary to emphasize that the main topic of Sinuhe's letter is *not* the explanation of his flight; this would be unnecessary since he has already been pardoned.

Stylistically the section is a marvel, with the two blocks of four negative clauses. Each group has its special topic; while the first negates any intention, the second stresses the absence of any legal prosecution. Sinuhe does not deny all action, but describes it as an unvoluntary movement of the limbs under the spell of a higher power.

Ḳmd, which is used as an antonym of *rḫ*, seems to express the 'afterthought', the 'remembering' of a past event. For this meaning, cf. Nagel, *BIFAO* 29 (1929), 33; Pap. Mill. 1, 9 (Volten, *Zwei politische Schriften*, 109 f.).

Snḏ appears to denote here the fear of being arrested as a criminal after his misdeed. *Ḥwrw* is generally considered adjectival and thus connected with *ṯs* into *ṯs ḥwrw* 'reviling word' (Gardiner), 'belittling word' (Wilson), 'lästerlichen Ausspruch' (Grapow), 'parole injurieuse' (Lefebvre), 'Schmähredе, Vorwurf' (*Wb.* III, 56, 2). The assumed expression occurs only here and in B 41 which is a parallel to our passage. First, the context clearly unrolls the different stages in the apprehension of a criminal, including his arraignment. This shows that we have here a description of the legal procedure and in such it would be rather strange to have a reference to unjustified accusations incorporated. Second, *ṯs* expresses not mere 'talking', but deliberated, thoughtful pronouncement. As such it denotes the 'verdict' but also the 'counsel';[2] further the 'spell' (*Wb.* V, 403). Third, *ḥwrw* has the specific ethical meaning 'improper' and is as such the antonym of *iḳr* 'proper'.[3] Accordingly **ṯs ḥwrw* would mean 'improper sentence', i.e. a pronouncement of unethical nature.[4] In our passage *ḥwrw* can only refer to Sinuhe with the implication of his being arraigned. Thus the sentence is to be divided differently, with *ḥwrw* being the quotation of the contents of the verdict (*ṯs*).[5] *Ḥwrw*, especially in the Heracleopolitan Period, has the connotation of political criminal; cf. *Moʿalla*, I α 3; II β 2; *Admonitions*, 6, 11, 12;[6] *Siut*, II, 38.

For the police functions of the *wḥmw*, cf. Helck, *Zur Verwaltung des Mittleren und Neuen Reiches*, 67 ff. Apparently Sinuhe's flight was reported although he was not legally arraigned. *Wpw-ḥr nf* does not introduce a new sentence, as it is generally

[1] Similarly, A. Hermann, *OLZ* 48 (1953), 107; cf. also Posener, *Littérature et politique*, 99.

[2] Cf. in particular the expression *gmi ṯs* 'to find the (proper) spell'; Janssen, *Het egyptische autobiografie*, II Gb; Polotsky, *Zu den Inschriften der 11. Dynastie*, § 64.

[3] Cf. Žabá, *Les Maximes de Ptaḥḥotep*, 116, 75.

[4] This meaning occurs in B.M. 10258. 5, *ḥn ḥwrw swg·f ḏd sw* 'a slanderous speech startles him who says it'.

[5] A similar formulation occurs in the Cracow stela of *Mrr* line 7 (Černý, *JEA* 47 (1961), 5 ff.): *n ḏd(·i) grgw r ⸢nḫw bwt Ỉnpw* 'not did (I) say falsely against a citizen: "abomination of Anubis!"'

[6] Cf. Spiegel, *Soziale und weltanschauliche Reformbewegungen im alten Ägypten*, 16.

assumed, but continues the preceding. The contrast is between absence of an indictment and that which the police-officer actually reported, which is summarized as *nf* (var. *nfꜣ*);[1] it describes Sinuhe's flight as an uncontrolled motion of the limbs.[2] In addition the involuntary action is attributed to the determination of the supernatural.[3]

In a question Sinuhe sums up his attitude and his flight:

B *n ỉnk ỉs ḳs sꜣ ḫnt snḏ s rḫw tꜣ·f*

Ash. *nn ỉw ỉnk ỉs ḳꜣ sꜣ*

B 'Was I a haughty one before, a man who is afraid to be recognized by his (home)-land?'

Ash. 'Was I a haughty one?'

That we have here a question is clear from the better *ỉn ỉw* in Ash. For the construction, cf. Gardiner, *Eg. Gr.*[3], § 492. 3.[4] The meaning of *ḳꜣ sꜣ* is ambiguous; according to *Urk.* VII, 54, 19 it is the quality which marks the 'rebel' (*ḥtn ỉb*). *Ḫnt*, which reading cannot be contested,[5] can only be an adverb; cf. *Wb.* III, 304, 6; Goyon, *Nouvelles Inscriptions*, no. 61, 12. For the use of *snḏ* 'to be afraid' of a development, cf. *JEA* 47 (1961), 7, l. 7.

Having explained his position, Sinuhe repeats the nature of his attitude to the Egyptian king:

B *ꜥn Rꜥ snḏ·k ḫt tꜣ ḥryt·k m ḫꜣst nbt*

Ash. *ḫnty·f r ꜥn Rꜥ snḏ·k ḫt tꜣ ḫry-ḥryt·k ḫt ḫꜣst nbt*

B 'Again: By Rēꜥ, your respect is in the land (Egypt?) and your dread is in every region.'

Ash. 'Its gist again: By Rēꜥ, your respect is throughout the land (Egypt?) and fearful ones are in all regions.'

I am unable to quote an early instance for the use of *ꜥn* (var. *r ꜥn*), but see *Wb.* I, 189, 13. Ash. obviously re-interprets the text and gives more than a mere graphic variant. *Ḫnty* seems to refer to the contents of the letter, possibly with the connotation of what is most important in it. The suffix *·f* thus refers back to *smỉ* at the beginning of the letter.[6]

The mention of Rēꜥ is an exclamatory assertion, for the subsequent suffix *·k* refers to the king and not to Rēꜥ. The spelling *ḫryw-ḥrt* in Ash. is not a mistake, but a description of the inhabitants of the foreign territories as being 'under the fear'.[7]

[1] For the construction, cf. *Urk.* I, 282, 15; 286, 7; 143, 13; 129, 11; Selim Hasan, *Gîza*, III, 18.

[2] Cf. the use of *ḏḏf* in regard to hair, *Wb.* V, 634, 4; also *CT* V, 333 e.

[3] The story of Sinuhe contains the first reference to predetermination in Egyptian beyond the determination of the day of death. One might very well wonder if this attitude is basically Egyptian or if it is supposed to reflect here some ways of thinking which Sinuhe picked up during his stay abroad. It is only at the beginning of the New Kingdom that predeterminism becomes more discernible in Egypt and then again it could be attributed to foreign influences during the Second Intermediate Period. The isolation of the references in the story of Sinuhe makes it doubtful if *nṯr* in this connexion is to be understood as an anonymous, unknown god, as Morenz, *Untersuchungen zur Rolle des Schicksals in der ägyptischen Religion*, 16, suggests.

[4] B's text here could possibly be interpreted as a negative clause and rendered 'I was not a haughty one before, a man afraid to be recognized by his (home)land'.

[5] Cf. Gardiner, *Notes*, 79; Blackman, *Middle Egyptian Stories*, 34.

[6] Cf. in this connexion the colophon of literary manuscripts *ỉw·f pw ḫꜣt·f r pḥwy·f* or similar.

[7] Cf. *Wb.* III, 390 V; also *Urk.* I, 221, 18; 305, 18; Cairo, 20538, 17 *ḥr ḫꜣbw*, wrongly quoted in *Wb.* IV, 471, 13 as *ḥr šmꜣw*.

Next, Sinuhe puts his unchanging loyalty into poetical words:

B *mi wi m ḫnw mi wi m st tn ntk is*

Ash. *pwy m ḫnw pwy m st tn ntk is šnt·n itn*

B *ḥbs ꜣḫt tn wbn itn n mrt·k*

Ash. *wbn Rꜥ m mrwt·k*

B *mw m itrw swr·tw·f mri·k*

Ash. *mw m itrw swri·tw m mrwt·k*

B *tꜣw m pt ḫnm·tw·f ḏd·k*

Ash. *tꜣw m pt ḫnm·tw·f mri·k ꜥnḫ·tw m tꜣw ddi·k špssw m wḏ·n·k*

B 'Alike, if I am in the Residence or if I am in this place, it is you: This horizon was covered (but) the sun arose by your kindness. The water from the river, it shall be drunk when you desire, the air in heaven, it shall be breathed, you said.'

Ash. '(If) this one (is) in the Residence or in this place, you are what the sun encircles. As Rēꜥ rises for love of you, the water from the river shall be drunk by your kindness, the air in heaven, it shall be breathed, by your love. One lives from air, (but) you give the (necessary) offerings through your command.'

In a poetic form Sinuhe describes his wishes and the effect of the king's grace. I think that *šnt·n itn* in Ash. belongs to *ntk is*, describing the king as 'all' in Sinuhe's life. On the other hand *ḥbs ꜣḫt tn* is a circumstantial clause connected with the following. It is not an epithet of the king (Barns), as even the most flowery eulogy can hardly describe the king as master of the cosmos. The passage appears to have a double meaning. First, *ꜣḫt tn* refers to Sinuhe's prospects before his pardoning. Second, *ꜣḫt* is a frequent term for 'tomb'[1] and thus alludes to the promise of a ritual burial in the king's letter (B 194–7). The rising of the sun can be taken here metaphorically in two ways. First, that the clouds in Sinuhe's life have disappeared, second, that he will be able to enjoy eternal light.[2]

The next picture refers to life in Egypt. The *mw m itrw* is undoubtedly the 'water from the river'.[3] Here again a funerary allusion is implicit referring to the drinking of the water by the *Ba*. *Tꜣw m pt* also refers to the funerary sphere. The addition in Ash. is particularly elucidating in this connexion.[4] It contrasts the mere eternal existence with the advantages of receiving offerings. For *špssw* as the needs of the deceased, cf. *Wb.* IV, 451, 2.

As a last point before closing his letter, Sinuhe speaks about the settlement of his present affairs.

B *iw bꜣk-im r swḏt tꜣt·i iri·n bꜣk-im m st tn*

Ash. *iw bꜣk-im ḥr swḏ n tꜣt·f ir·n·f m st tn iw·s pw iri·n bꜣk-im m ḫntyt*

[1] Cf. Hayes, *JEA* 35 (1949), 48, n. i.

[2] Ash. *Rꜥ* is better than *itn* in B which has no metaphysical connotation. For the picture cf. *Lebensmüde*, 138 f.

[3] For *itrw* as designation of the Nile, cf. *Wb.* I, 146, 10; de Buck, *Orientalia Neerlandica*, 1. For the idea, cf. also *Book of the Dead*, 17, 2.

[4] Barns, op. cit. 26 considers it an interpolation partly from the following concluding wish, partly from B 188. Although there is no doubt that our passage is connected with the latter, there is no reason to presume an interpolation on the basis of mere similarity, when the text gives such good sense.

B 'The servant-here will hand over ⟨to⟩ my (male) children, what the servant-here has acquired in this place.'

Ash. 'The servant-here is handing over to his (male) children, what the servant-here has acquired in this place, when the servant-here comes south.'

Wb. v, 343, 7 renders *ṯꜣt* 'Besitz and Leuten, den jemand vererbt', while Gardiner, Wilson, Grapow, Lefebvre render it 'office of vizier' despite the determinative. It seems more likely to me that *ṯꜣt* is a general term, corresponding to *ṯꜣ* '(male) child', as *mswt* to *ms*. Apparently, Sinuhe does not wish to dispose of his property according to his own discretion.[1]

6. *Conclusion and wish for the king's health*

The final section of the letter is the surrender to the king's judgement and a wish for the king's well-being:

B *irr ḥm·k m mrr·f ꜥnḫ·tw m ṯꜣw n dd·k*

Ash. *irì sw ḥm·f ꜥnḫ-wdꜣ-snb mrw·f ꜥnḫ·tw m ṯꜣw n ddì·n·k*

B *mrì Rꜥ Ḥr Ḥtḥr fnḏ·k pw špss mrrw Mnṯw nb Wꜣst ꜥnḫ·f ḏt*

Ash. *mry Rꜥ Ḥtḥr fnḏ·k pw špss mrrw nṯrw nbw ꜥnḫ·f ḏt*

B 'Your majesty shall do as he pleases; one lives from the breath of your deeds.[2] Beloved one of Rēꜥ, Horus and Ḥatḥor, may this your noble nose, beloved of Monthu, lord of Thebes, live for ever.'

Ash. 'His majesty, l.p.h., shall do it as he pleases; one lives from the breath of what you have given. Beloved one of Rēꜥ and Ḥatḥor, may this your noble nose, beloved of all gods, live for ever.'

For *mry Rꜥ*, as an address to the king, cf. *Urk.* I, 38, 8; Grapow, *Wie die alten Ägypter sich anredeten*, III, 93. For the final wish, cf. *Urk.* I, 39, 6; Grapow, ibid. 42. The reference to the nose seems a fine stylistic point after the prior mention of breath. The final wish has no direct parallel in private letters, which usually conclude with a wish for a favourable reception.[3]

In conclusion, the continuous translation of Sinuhe's letter to the king reads thus:[4]

The servant of the palace Sinuhe says, very truly relieved concerning that flight which the servant-here made in his ignorance:

Your *Ka*, good God, lord of the Two Lands, is chosen by the living Rēꜥ, and the living Rēꜥ, lord of the horizons, favours it and Monthu, lord of the Thebaid, favours it and Amūn, lord of Karnak and Sobek-Rēꜥ. Horus, Ḥatḥor, and all the gods of Egypt, Atum and the Great Ennead, Sopdu, Beautiful-of-might, Rēꜥ-semsu and the Horus-of-the-East with the curls of bedouin, the Mistress of the palace who upon you protects the wayfarers over the ocean, Min-Horus who supervises the deserts and Wereret (mistress of Punt), Nut, Haroeris, and Rēꜥ and all the gods of abroad (and?) of the island in the Sea—(may they give life to your nose, may they equip you with their deeds and) may they give to you eternity (without its end) and duration (without its limits).

[1] It is possible that this passage contains a tentative inquiry as to whether Sinuhe should bring his children with him to Egypt or leave them behind, as eventually happens.

[2] For *ddì*, cf. *JEA* 48 (1962), 31.

[3] Cf. James, op. cit. 127.

[4] The translation follows Ash. except when B provides the better wording.

I spread your fame in the foreign countries: 'You have grasped what the sun encircles!'

There was the request of the servant to his lord: Save him in the West! The lord of understanding, who understands the commoners, he, as manifestation in the palace, l.p.h., understood: the servant-here was too frightened to say it, as if the matter were too great to repeat it.

O living god, likeness of Rēʿ, may the wish of his very servant-here be honoured, when the servant-here is asking, that one gives this before you. Your majesty, l.p.h., is the conquering Horus as you protect your subjects ⟨in⟩ all lands. And may your majesty decree to furnish for you an Eastern protector among the *Ỉrwš* in (the region of) *Kš* and to give your guides (or services) in the distant lands: (saying) O righteous ruler, may porters exist upon your wish. Not shall Rethenu think: I am like one of your dogs. That flight which the servant-here has done in ignorance, it was not thought up, it was not reflected, it is not known what brought me to this region. I was like a dream-walker, a man from the Delta marshes in Nubia. I had not to fear, one did not run behind me, my name was not heard in the mouth of the herald except for that movement of my limbs; that my legs were running and that my heart was leading me—the god who destined this flight dragged me. Was I a haughty one (before, a man who is afraid to be recognized by his homeland)?

Its gist again: By Rēʿ, your respect is throughout the land and fearful ones are in all regions. If this one is in the Residence or in this place, your are what the sun encircles. As Rēʿ rises for love of you, the water from the river shall be drunk by your kindness, the air in heaven, it shall be breathed, by your love. One lives from air, (but) you give the (necessary) offering through your command. The servant-here will hand over to his male children, what the servant-here has acquired in this place, when the servant-here comes south.

His majesty, l.p.h., shall do as he pleases; one lives from the breath of what you have given. Beloved one of Rēʿ and Ḥaṯor, may this your noble nose, beloved of all gods, live for ever.

NOTES ON THE USE OF GOLD-LEAF IN EGYPTIAN PAPYRI

By SHIRLEY ALEXANDER

THE decoration of manuscripts by means of gold and silver is one of the most characteristic aspects of medieval book illumination in Europe. Developments in technique and materials within the medieval period can be traced with some precision, but the origins of the craft are difficult to establish. A study of the earliest extant manuscripts such as the Vatican Manuscript Lat. 3225 indicates that by about the fifth–sixth centuries A.D., metallic decoration in manuscripts was already fully developed, and therefore that a long technical history lay behind the Vatican example. Literary evidence indicates that during the first four centuries of the present era the use of metals on written documents was of frequent occurrence in Asia Minor.[1] Before the first century A.D., literary evidence fails us, except for one reference to the effect that in the third century B.C. the Jewish Laws were written in Jerusalem on leather in letters of gold.[2] As far as other centres, such as Rome and Greece, are concerned, both surviving manuscripts and literary evidence for metallic decoration are lacking. It is feasible to estimate from extant manuscripts the character of Roman and Greek illumination, within reasonable limits, but this method is not valid for establishing fine detail such as the actual materials and techniques employed. In this matter, only concrete examples are acceptable, in the form of existing works. In Egypt, such works exist from the Twentieth Dynasty[3] to the Ptolemaic period, enabling us to predate by over one thousand years the techniques and materials relative to metallic decoration exhibited in the earliest medieval manuscripts on parchment.

The following is a description of the Egyptian examples which have so far come to light during this research directed towards establishing the origins of manuscript illumination with metals.[4]

The earliest datable Egyptian papyrus known to include metal leaf is the Papyrus of Anhai, a Theban Book of the Dead of the Twentieth Dynasty, *c.* 1150 B.C., in the British Museum.[5] Metal is sparingly used in this richly decorated, well-preserved

[1] E.g. J. Capitolinus, The Two Maximini, xxx, 4, *Scriptores Historiae Augustae*, vol. 2, Loeb Classical Library, trans. D. Magie (1924). St. Jerome, *Ad Laetam* and *Ad Eustochium*, *Select Letters of St. Jerome*, Loeb Classical Library, trans. F. A. Wright (1954).

[2] Josephus, *Jewish Antiquities*, XII, 11, Loeb Classical Library, trans. R. Marcus (1957).

[3] [See now the Addendum below. Ed.]

[4] Doubtless many more examples exist, and it would be interesting to know whether any specimens not mentioned here are sufficiently different in technique or definite in date to alter the conclusions reached below.

[5] No. 10472—published by E. A. W. Budge, *The Book of the Dead. Facsimiles of the Papyri of Hunefer, Anhai, Kerasher and Netchemet* (London, 1899). No mention is made of the metal decoration of the papyrus. I am grateful to the Trustees of the British Museum for permission to publish this piece. For the colour photograph in pl. I, I wish to thank the gold-beating firm of George M. Whiley, Ltd., London.

papyrus. In the scene accompanying a hymn to the sun-god metal leaf is used on the disk of the sun and on the head, face, and lower breast feathers of the falcon Rēʿ-Ḥarakhty (pl. I). To judge from a visual inspection of the surface, the metal appears to be a rather uneven alloy of gold and silver, unburnished and attached directly to the papyrus by means of an adhesive. Black paint is applied over the metal to depict details of the eye, beak, and feathers. Metal appears to be used here on account of the lustre it imparts to the sun disk and feathers of the god. However, the metal is not singled out as a special material, as in other papyri, but it is used as a colour among other rich colours. This is a sophisticated use of the metal and, as such, indicates that it is by no means an early example of the art of metallic decoration on papyrus.

Other examples combine the use of metal with colour, though they lack the refinement of the Papyrus of Anhai. A very small unpublished fragment (Aeg. 8500) in the Vienna National Library is painted with the head and foreparts of a jackal in solid black pigment (pl. XIII, 1). Around its neck, the animal wears a wide collar of gold-leaf, on which are painted stripes and part of a cord.[1] The metal leaf is a rich golden colour, and is thick in comparison with that used in medieval manuscripts. It is not so thick, however, as to prevent the fibres of the papyrus on which it is applied from being clearly visible through the gold. Thus any adhesive layer between the leaf and the papyrus must be thin.

Similarly, an example in the Cairo Museum combines metal with colour. On this papyrus, which is several feet long, only four very small areas have gold-leaf, namely the crowns and collars of deities. Here then the metal is applied to objects which in reality were probably also of metal—a characteristic use of leaf, found in other papyri and in medieval manuscripts. In this instance, in contrast to the British Museum example, the gold performs a special function and is isolated from the pigments by its distinctive colour, lustre, and texture. This isolation appears to be intentional, as the lack of overpainting of details tends to emphasize the metal leaf as a material fundamentally different from the adjacent pigments.

In contrast to the papyri mentioned above, the following examples use gold-leaf as the only source of colour on black outline drawings. In the papyrus department of the Vienna National Library, fragments of two unpublished papyri are assembled back to back within one glass frame, numbered Aeg. 12.027 and Aeg. 12.028.[2] Both papyri are in so fragmentary a state that measurements are not practicable,[3] and both are dated by Mr. T. G. H. James to approximately the eighth–seventh century B.C. They represent judgement scenes from the Book of the Dead. On Aeg. 12.027 Osiris has a golden crown. Further along the scene, both Anubis and Horus are shown with gold-leaf garments over which details are painted in black pigment (pl. XIII, 2). The female figure bending towards the scale wears a garment with a gold belt and hem. The

[1] The fragment is approximately 46 × 25 mm., and represents the jackal head of Anubis. It is dated by Mr. T. G. H. James approximately to the eighth century B.C.

[2] Formerly numbered 10110/24. To facilitate reference in this paper, new numbers were assigned by the curator, Mr. Fackelmann, for whose help and permission to publish these papyri I am grateful.

[3] Measurements taken at the widest and longest sections of Aeg. 12.027 are 580 × 209 mm.

gold hem also appears on the dress of the soul of the deceased, the next figure in the row. A few pieces of gold-leaf exist as unidentifiable fragments above the scale. The gold of Osiris' crown is darker in colour than the gold of the rest of the fragment. As no other evidence has as yet been found for the intentional use of contrasting colours of the same metal within one papyrus, it is presumed that the fragments are incorrectly assembled from two different papyri. That this is actually the case in this instance is confirmed by the findings of the epigraphist's study of the hieroglyphs.

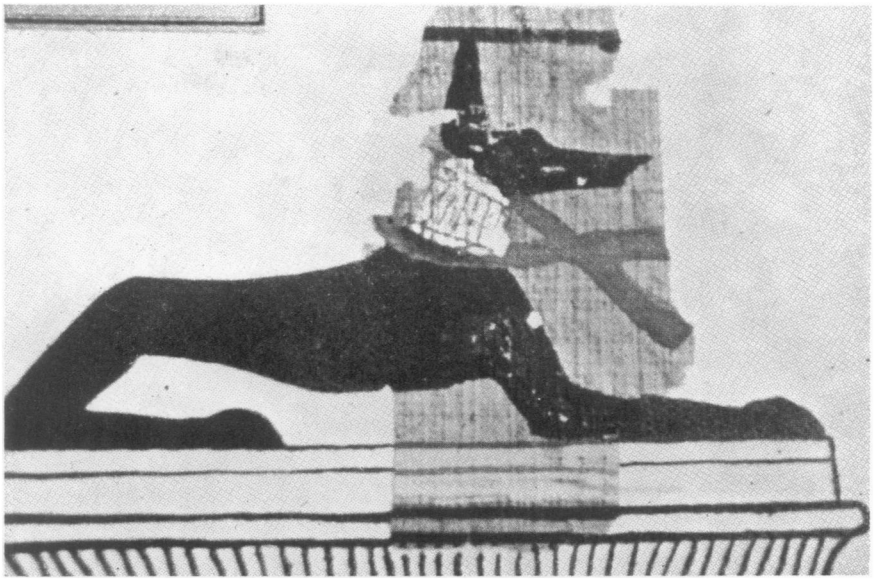
Aeg. 12.028 is similar to 12.027, but is more fragmentary. The golden crown and collar of Osiris and part of a gilded foot before the throne are preserved. In common with 12.027, the gold is cut carefully to shape and outlined in the black pigment used for the drawing of the rest of the fragment, thus indicating that the gold-leaf was applied to the papyrus before the painting was carried out.

The final example to be considered here is the Ptolemaic papyrus 37.1776E in the Brooklyn Museum. This is a complete papyrus roll of considerable length, in which the drawings and hieroglyphs are in black pigment. It may thus be grouped technically with the fragments from the Vienna National Library as regards both its use of gold as the only colour and in the reservation of the metal leaf for special details such as crowns and sceptres. There is a difference between them, however. Whereas in the Vienna examples the gold was carefully shaped, probably before its application to the papyrus, in the Brooklyn Museum specimen it is only approximately cut to size, shaping not being attempted in several instances. The actual outlines of crowns are painted over the gold with black pigment, the rough edges of the metal protruding from the sides (pl. XIII, 3).[1] This method is usual when it is intended to paint in colours the areas adjacent to the gold, so that the edges of the metal are covered with paint. Mr. James considers the technique in this instance to be due to poor workmanship, which characterizes the papyrus as a whole. This papyrus is also of interest in that it shows a brittle white substance underneath the gold, and in areas where the metal has flaked off. It is presumed that this is the adhesive used to attach the metal leaf to the papyrus.

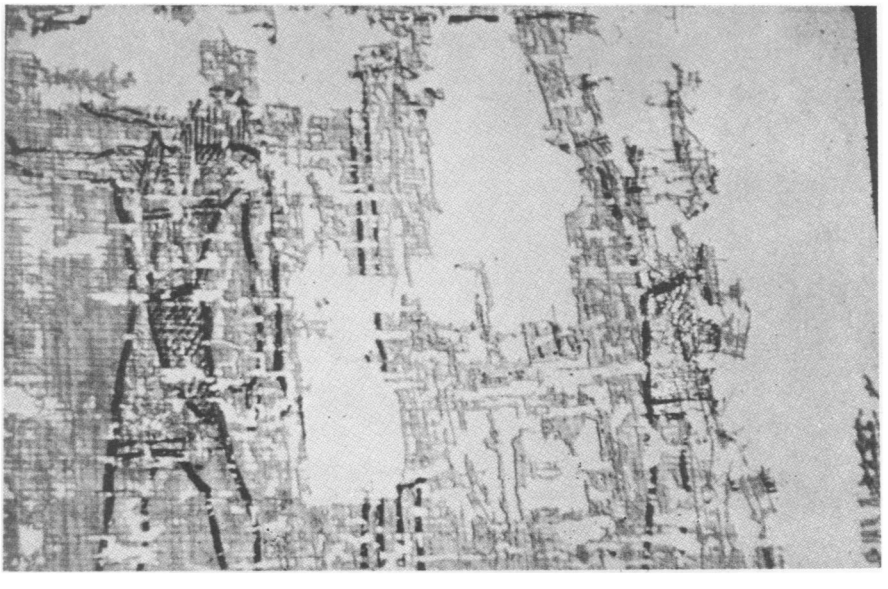
From the foregoing evidence, the following conclusions may be drawn regarding the technique of the application of metal leaf to papyrus in Egypt. The exercise of the craft was comparatively rare, and was of limited use within the individual documents. It is possible, though the evidence does not show this directly, that in some periods the craft was reserved for the richest papyri. In all cases the metal is gold leaf applied directly to the support with an adhesive. Burnishing is hardly practical on papyrus, and there is no evidence to show that it was carried out on the above examples.

Several points are not clarified by the foregoing. It would be of interest to know whether there is evidence to show that silver or other metal leaf was employed in a manner similar to that of the gold-leaf. The date and place of origin of metal powder as a means of illumination are in no way explained. The Jewish Laws of the third

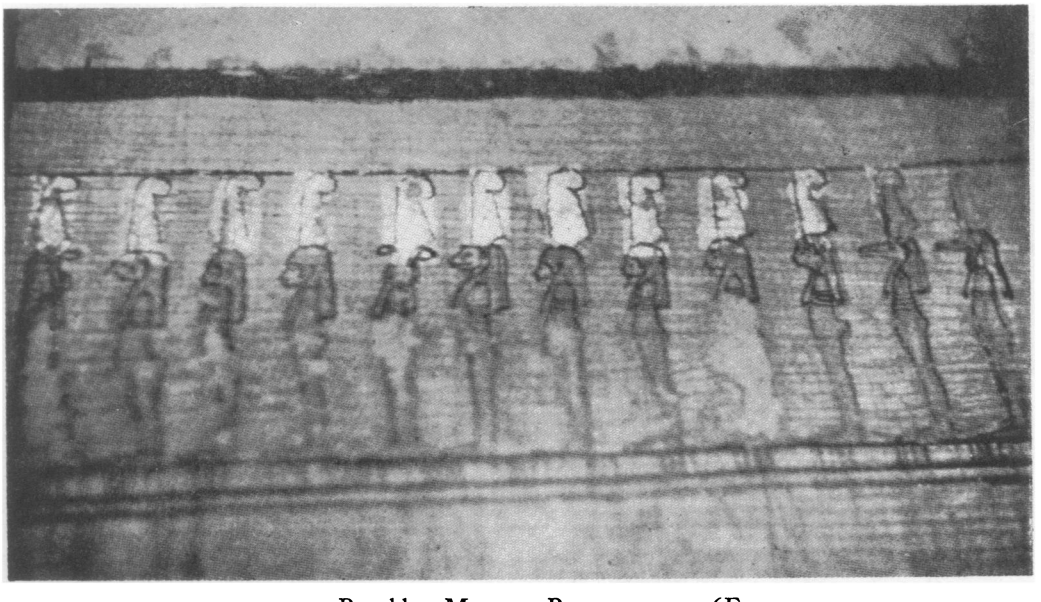
[1] I wish to thank Mr. B. V. Bothmer, Curator of Ancient Art in the Brooklyn Museum, for permission to publish this document; also Mr. John D. Cooney, former Curator of Ancient Art in the Brooklyn Museum, for help and suggestions.



1. Vienna Papyrus Aeg. 8500



2. Vienna Papyrus Aeg. 12.027



3. Brooklyn Museum Papyrus 37.1776E

PAPYRI WITH GILDED DECORATION

century B.C., mentioned earlier in the paper, were quite possibly examples of chrysography using gold powder. One wonders whether Egypt has anything equivalent in the way of papyrus decoration with metal powder to parallel its early development of metal leaf, or whether in fact the origins of the craft are quite distinct from Egyptian work.

Whatever further information may be gained from this type of study, it is clear that metallic decoration of manuscripts was by no means confined to the medieval period. Although medieval artists employed other methods of metallic decoration, probably also very ancient, the basic technical knowledge evident from the Egyptian examples was not substantially altered until the later Middle Ages.

Addendum

By T. G. H. James

After Miss Alexander submitted her text, a further example of illumination in gold on a papyrus was identified in the British Museum. Papyrus 9940, a Book of the Dead, produced for Neferronpet contains a vignette in which the deceased man and his wife Ḥunro are depicted; head-bands, collars, armlets, and anklets are gilded, but unfortunately much of the gold is lost. Neferronpet is described as a *ḥry ỉrw nbw pḍḳ*, 'chief of the makers of thin gold', and as such he was clearly in a position to exploit his professional opportunities to provide his funerary document with unusually lavish decoration.[1] This papyrus is earlier in date than that of Anhai, being late Eighteenth, or early Nineteenth Dynasty (*c.* 1400–1300 B.C.).

Papyri 10472 (Anhai) and 9940 (Neforronpet) were examined in the Research Laboratory of the British Museum, and Dr. A. E. Werner, Keeper of the Laboratory, has kindly made the following interim results available:

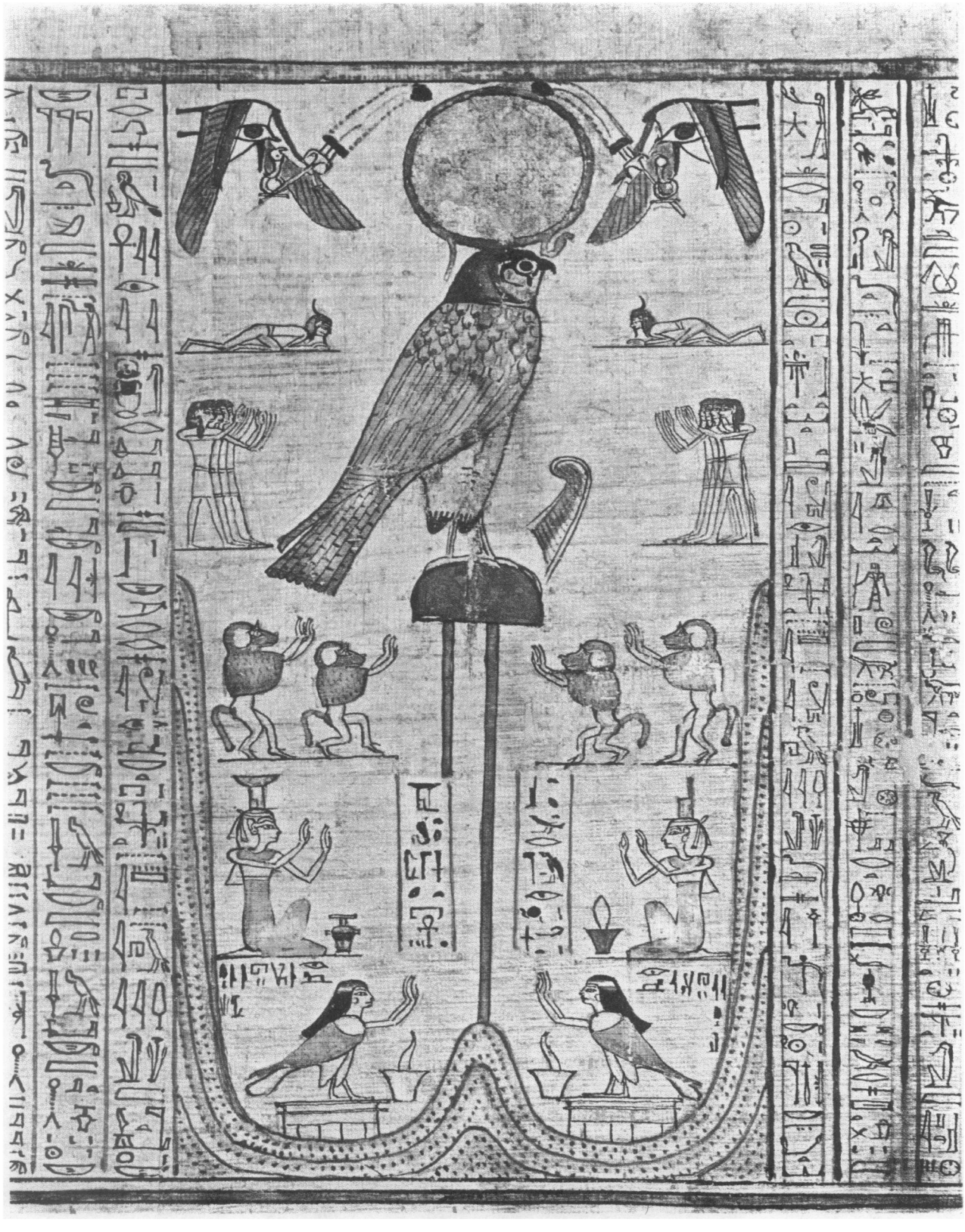
1. No firm opinion can be offered on how the gold was attached. Microscopic examination where the gilding had lifted, determined no adhesive layer; but any size of gum or glue would necessarily have been thin and its presence hard to detect. It might be possible to attach gold-leaf to papyrus relying on the natural adhesive properties of the papyrus.
2. The thickness of the gold on 10472 was found, on the average, to be about 9 microns or 0·009 mm., i.e. about $3\frac{1}{2}$ ten-thousandths of an inch. On 9940 it was about 6 microns or 0·006 mm., i.e. about $2\frac{1}{2}$ ten-thousandths of an inch.
3. Although the gold of 10472 was distinctly greenish, while that of 9940 was generally bright, but in part also pinkish, no significant difference could be found between the composition of the metal on the two documents. All the various coloured samples were found to contain some silver and small amounts of iron. Only qualitative spectrographic analysis was undertaken at this stage. It is possible that the iron detected may be an impurity from the adjacent iron-containing paint.
4. The pink coloration of some of the gilding on 9940 appears to be due to traces of overlying colouring matter. The under-surface of the gilding shows no coloration so that it is unlikely that it is due to substances present in the papyrus or any adhesive used. Also the coloration is confined to areas near overlying paint, so that it is unlikely that the coloration is due to any general effect of environment on impurities in the gold. Further investigations on this point are being undertaken.

[1] The gilding on this papyrus was noted by Naville, *Das Ägyptische Todtenbuch*, Einleitung, p. 63: 'Die gelbe Farbe wird durch Vergoldung ersetzt'.

Yet another papyrus with gilded decoration was formerly in the Hood Collection. In the Sale Catalogue of this collection the document is described (probably by Newberry) as being written for a priest of Amūn, Bakuru. There are coloured vignettes and 'the sun and necklaces are laid in gold leaf as is often the case in later papyri; the Egyptians were the first illuminators to practise this art'.[1] It is not known where this papyrus is now.

[1] Sotheby, *Sale Catalogue of the important collection . . . formed by the late Rev. W. Frankland Hood* (Nov. 11, 1924), lot 135.

PLATE I



VIGNETTE FROM THE PAPYRUS OF ANHAI

THE ADMONITIONS OF AN EGYPTIAN SAGE

By R. O. FAULKNER

IN the last volume of the *Journal* there appeared a number of comments by me on the text and translation of the *Admonitions*, and in continuation thereof I now offer a running translation of this text embodying the conclusions reached in my previous article. The sage Ipuwēr is presumed to be speaking to the king:

1,1. . . The door[-keepers] say: 'Let us go and plunder'. The confectioners [. . .]. The washerman refuses to carry his load [. . .]. The bird[-catchers] have drawn up in line of battle. [. . . The inhabitants(?)] of the Delta carry shields. The brewers1,5 [. . .] sad. A man regards his son as his enemy. Confusion(?) [. . .] another. Come and conquer (?); judge(?)[. . .] what was ordained for you in the time of Horus, in the age [of the Ennead(?) . . .]. The virtuous man goes in mourning because of what has happened in the land [. . .] goes [. . .] the tribes of the desert(?) have become Egyptians everywhere.

Indeed, the face is pale;1,10 [. . .] what the ancestors foretold has arrived at [fruition(?) . . .]2,1 the land [is] full of confederates, and a man goes out to plough with his shield.

Indeed, the meek say: ['He who is . . . of] face [is] as a well-born man.'

Indeed, [the face] is pale; the bowman is ready, wrongdoing is everywhere and there is no man of yesterday.[a]

Indeed, the plunderer [. . .] everywhere and the servant takes what he finds.

Indeed, the Nile overflows, yet none plough for it. Everyone says: 'We do not know what will happen throughout the land.'

Indeed, women are barren and none conceive. Khnum fashions (men) no more because of the condition of the land.

Indeed, poor men have become owners of wealth, and he who could not make2,5 sandals for himself is now a possessor of riches.

Indeed, men's slaves, their hearts are sad, and magistrates do not fraternize with their people (?) when they shout(?).

Indeed, [hearts] are violent, pestilence is throughout the land, blood is everywhere, death is not lacking, and the mummy-cloth speaks even before one comes near it.

Indeed, many dead are buried in the river; the stream is a sepulchre and the place of embalmment has become stream.

Indeed, noblemen are in distress, while the poor man is full of joy. Every town says: 'Let us suppress the powerful among us.'

Indeed, men are like ibises. Squalor is throughout the land, and there are none indeed whose clothes are white in these times.

[a] I.e. no one of lineage to maintain order.

Indeed, the land turns round as does a potter's wheel; the robber is a possessor of riches and [the rich man is become(?)] a plunderer.

Indeed, trusty servants are [like (?) . . .]; the poor man [complains(?)]: 'How terrible! What am I to do?'

2,10Indeed, the river is blood, yet men drink of it. Men shrink(?) from human beings and thirst after water.

Indeed, gates, columns, and walls (?) are burnt up, while the hall(?) of the Palace stands firm and endures.

Indeed, the ship of [the Southerners] has broken up; towns are destroyed and Upper Egypt has become an empty waste.

Indeed, crocodiles [are glutted(?)] with the fish they have taken,[a] for men go to them of their own accord; it is destruction of the land(?). Men say: 'Do not walk here; behold, it is a net.' Behold, men tread [the earth(?)] like fishes, and the frightened man does not(?) distinguish it because of terror.

Indeed, men are few, and he who places his brother in the ground is everywhere. When the wise man speaks, [he flees without delay(?)].

Indeed, the well-born man [. . .] through lack of recognition, and the child of his lady has become the son of his maidservant.

3,1Indeed, the desert is throughout the land, the nomes are laid waste, and barbarians from abroad have come to Egypt.

Indeed, men arrive [. . .] and there are indeed no Egyptians anywhere.

Indeed, gold and lapis lazuli, silver and turquoise, carnelian and amethyst, Ibhet-stone and [. . .] are strung on the necks of maidservants. Good things are throughout the land, (yet) house-wives say: 'Oh that we had something to eat!'

Indeed, [. . .] noblewomen. Their bodies are in sad plight by reason of (their) rags, and their hearts sink(?) when greeting [one another(?)].

Indeed,3,5 chests of ebony are broken up, and precious *ssnḏm*-wood is cleft asunder in beds(?) [. . .].

Indeed, the builders [of pyramids(?) have become] cultivators, and those who were in the sacred bark are now yoked [to it(?)]. None indeed sail northward to Byblos today; what shall we do for cedar trees for our mummies, with the produce of which priests are buried and with the oil of which [chiefs] are embalmed as far as Keftiu? They come no more; gold is lacking [. . .] and materials(?) for every kind of craft have come to an end. The [. . .] of the Palace is despoiled. How often do the people of the oases come with their festival spices, mats(?) and skins(?), with fresh *rdmt*-plants,3,10 grease(?) of birds . . .?

Indeed, Elephantine and Thinis(?) [are in the series(?)] of Upper Egypt, (but) without paying taxes owing to civil strife. Lacking are grain(?), charcoal, *irtyw*-fruit, *mꜣꜥw*-wood, *nwt*-wood, and brushwood. The work of craftsmen and [. . .] are the profit(?) of the Palace. To what purpose is a treasury without its revenues? Happy indeed is the heart of the king when truth comes to him! And every foreign land [comes(?)]! *That* is our fate and *that* is our happiness! What can we do about it? All is ruin!

[a] See Gardiner's note in *Admonitions*, 29 on this corrupt passage.

Indeed, laughter has perished and is [no longer] made; it is groaning that is throughout the land, mingled with complaints.

Indeed, every dead person is as a well-born man. Those who were 4,1Egyptians [have become] foreigners and are thrust aside.

Indeed, hair [has fallen out] for everybody, and the man of rank can no longer be distinguished from him who is nobody.

Indeed, [. . .] because of noise; noise is not [. . .] in years of noise, and there is no end to noise.

Indeed, great and small ⟨say⟩: 'I wish I might die.' Little children say: 'He should not have caused ⟨me⟩ to live.'

Indeed, the children of princes are dashed against walls, and the children of the neck are laid out on the high ground.[a]

Indeed, those who were in the place of embalmment are laid out on the high ground, and the secrets of the embalmers are thrown down because of it(?).[b]

Indeed,4,5 that has perished which yesterday was seen, and the land is left over to its weakness like the cutting of flax.[c]

Indeed, the Delta in its entirety will not be hidden, and Lower Egypt puts trust in trodden roads. What can one do? No [. . .] exist anywhere, and men say: 'Perdition to the secret place!' Behold, it is in the hands of(?) those who do not know it like those who know it. The desert-dwellers are skilled in the crafts of the Delta.

Indeed, citizens are put to the corn-rubbers, and those who used to don fine linen are beaten with . . . Those who used never to see the day have gone out unhindered(?); those who were on their husbands' beds,4,10 let them lie on rafts. I say: 'It is too heavy for me' concerning rafts bearing myrrh. Load them with vessels filled with [. . . Let(?)] them know the palanquin.[d] As for the butler, he is ruined. There are no remedies for it; noblewomen suffer like maidservants, minstrels are at the looms within the weaving-rooms, and what they sing to the Songstress-goddess is mourning. Talkers (?) [. . .] corn-rubbers.

Indeed, all female slaves are free with their tongues, and when their mistress speaks, it is irksome to the maidservants.

Indeed, trees are felled(?) and branches(?) are stripped off. I have separated him and his household slaves,5,1 and men will say when they hear it: 'Cakes are lacking for most children; there is no food [. . .]. What is the taste of it like today?'

Indeed, magnates are hungry and perishing, followers are followed [. . .] because of complaints.

Indeed, the hot-tempered man says: 'If I knew where God is, then would I serve him.'

Indeed, [Right] pervades the land in name, but what men do in trusting to it is Wrong.

Indeed, runners are fighting over the spoils (?) [of]5,5 the robber, and all his property is carried off.

[a] Repeated below, 5, 16. [b] Repeated below, 6, 14. [c] Repeated below, 5, 12–13.
[d] 'Them' in these two sentences presumably refers to the gently-born ladies.

Indeed, all animals, their hearts weep; cattle moan because of the state of the land.

Indeed, the children of princes are dashed against walls, and children of the neck are laid out on the high ground.[a] Khnum groans because of his weariness.

Indeed, terror kills;[b] the frightened man opposes what is done against your enemies(?). Moreover the few are pleased, while the rest(?) are . . . Is it by following the crocodile(?) and cleaving it asunder? Is it by slaying the lion roasted on the fire? [Is it] by sprinkling for Ptaḥ and taking [. . .]? Why do you give to him? There is no reaching him. It is misery, which you give to him.

Indeed slaves (?) [. . .][5,10] throughout the land, and the strong man sends to everyone; a man strikes his maternal brother. What is it that has been done? I(?) speak to a ruined man.

Indeed, the ways are [. . .], the roads are watched; men sit in the bushes until the benighted traveller comes in order to plunder his burden, and what is upon him is taken away. He is belaboured with blows of a stick and murdered.[c]

Indeed, that has perished which yesterday was seen, and the land is left over to its weakness like the cutting of flax, commoners coming and going in dissolution [. . .]. Would that there were an end of men, without conception,[6,1] without birth! Then would the land be quiet from noise and tumult be no more.

Indeed, [men eat] herbage and wash ⟨it⟩ down with water; neither fruit nor herbage can be found ⟨for⟩ the birds, and [. . .] is taken away from the mouth of the pig. No face is bright which you have ⟨. . .⟩ for(?) me through(?) hunger.

Indeed, everywhere barley has perished and men are stripped of clothes, spice(?), and oil; everyone says: 'There is none.' The storehouse is empty and its keeper is stretched on the ground; a happy state of affairs! . . .[6,5] Would that I had raised my voice at that moment, that it might have saved me from the pain in which I am.

Indeed, the private council-chamber, its writings are taken away and the mysteries which were ⟨in it(?)⟩ are laid bare.

Indeed, magic spells are divulged; *šmw-* and *sḫnw*-spells(?) are frustrated(?) because they are remembered by men.

Indeed, public offices are opened and their inventories are taken away; the serf is become an owner of serfs(?).

Indeed, [scribes(?)] are killed and their writings are taken away. Woe is me because of the misery of this time!

Indeed, the writings of the scribes of the cadaster(?) are destroyed, and the corn of Egypt is common property.

Indeed, the laws[6,10] of the council-chamber are thrown out; indeed, men walk on them in the public places and poor men break them up in the streets.

Indeed, the poor man has attained to the state of the Nine Gods, and the erstwhile procedure of the House of the Thirty is divulged.

Indeed, the great council-chamber is a popular resort, and poor men come and go in the Great Mansions.

Indeed, the children of magnates are ejected into the streets; the wise man agrees

[a] A repetition of 4, 3. [b] Probably an omission, see note on 5, 7. [c] Lit. 'killed in wrongness'.

and the fool says 'No', and it is pleasing in the sight of him who knows nothing about it.

Indeed, those who were in the place of embalmment are laid out on the high ground, and the secrets of the embalmers are thrown down because of it.[a]

7,1Behold, the fire has gone up on high, and its burning goes forth against the enemies of the land.

Behold, things have been done which have not happened for a long time past; the king has been deposed by the rabble.

Behold, he who was buried as a falcon ⟨is devoid(?)⟩ of biers, and what the pyramid concealed has become empty.

Behold, it has befallen that the land has been deprived of the kingship by a few lawless men.

Behold, men have fallen into rebellion against the Uraeus, the [. . .] of Rēʿ, even she who makes the Two Lands content.

Behold, the secret of the land whose limits were unknown is divulged, and the Residence is thrown down in a moment.

Behold, Egypt is fallen to7,5 pouring of water, and he who poured water on the ground has carried off the strong man in misery.

Behold, the Serpent is taken from its hole, and the secrets of the Kings of Upper and Lower Egypt are divulged.

Behold, the Residence is afraid because of want, and [men go about(?)] unopposed to stir up strife.

Behold, the land has knotted itself up with confederacies, and the coward takes the brave man's property.

Behold, the Serpent [. . .] the dead; he who could not make a sarcophagus for himself is now the possessor of a tomb.

Behold, the possessors of tombs are ejected on to the high ground, while he who could not make a coffin for himself is now ⟨the possessor⟩ of a treasury.

Behold, this has happened ⟨to⟩ men: he who could not built a room for himself is now a possessor of walls.

Behold, the magistrates of the land are driven out throughout the land; ⟨. . .⟩ are driven out from the7,10 palaces.

Behold, noble ladies are now on rafts, and magnates are in the labour-establishment, while he who could not even sleep on walls is now the possessor of a bed.

Behold, the possessor of wealth now spends the night thirsty, while he who once begged his dregs for himself is now the possessor of overflowing bowls.

Behold, the possessors of robes are now in rags, while he who could not weave for himself is now a possessor of fine linen.

Behold, he who could not build a boat for himself is now the possessor of a fleet; their erstwhile owner looks at them, but they are not his.

Behold, he who had no shade is now the possessor of shade, while the erstwhile possessors of shade are now in the full blast(?) of the storm.

[a] A repetition of part of 4, 4.

Behold, he who was ignorant of the lyre is now the possessor of a harp, while he who never sang for himself now vaunts the Songstress-goddess.

Behold, those who possessed vessel-stands of copper ⟨. . .⟩ not one of the jars thereof has been adorned(?).

Behold, he who slept[8,1] wifeless through want [finds] riches, while he whom he never saw stands making dole(?).

Behold, he who had no property is now a possessor of wealth, and the magnate praises him.

Behold, the poor of the land have become rich, and ⟨the erstwhile owner⟩ of property is one who has nothing.

Behold, serving-men have become masters of butlers, and he who once was a messenger now sends someone else.

Behold, he who had no loaf now is the owner of a barn, and his storehouse is provided with the goods of another.

Behold, he whose hair had fallen out and who had no oil has now become a possessor of jars of sweet myrrh.

[8,5]Behold, she who had no box is now the possessor of a coffer, and she who had to look at her face in the water is now the possessor of a mirror.

Behold, ⟨. . .⟩[a]

Behold, a man is happy eating his food. Consume your goods in gladness and unhindered, for it is good for a man to eat his food; God commands it for him whom he has favoured ⟨. . .⟩

⟨Behold, he who did not know⟩ his god now offers to him with incense of another [who is(?)] not known [to him(?)].

[Behold,] great ladies, once possessors of riches, give their children for beds.

Behold, a man [to whom is given(?)] a noble lady as wife, her father protects him, and he who has not [. . .] killing him.

Behold, the children of magistrates are [. . . the calves(?)][8,10] of cattle [are given over(?)] to the plunderers.

Behold, priests(?) transgress with the cattle of the poor [. . .].

Behold, he who could not slaughter for himself now slaughters bulls, and he who did not know how to carve(?) now sees [. . .].

Behold, priests(?) transgress with geese, which are given ⟨to⟩ the gods instead of oxen.

Behold, maidservants [. . .] offer ducks; noblewomen . . . .[b]

Behold, noblewomen flee; the overseers(?) of [. . .] and their [children(?)] are cast down through fear of death.

⟨Behold,⟩ the chiefs of the land flee; there is no purpose for them because of want. The lord of [. . .]

[Behold,][9,1] those who once owned beds are now on the ground, while he who once slept in squalor(?) now lays out a skin-mat for himself.

[a] A considerable scribal omission.

[b] A blank space in the MS.

Behold, noblewomen go hungry, while the priests(?) are sated with what has been prepared for them.

Behold, no offices are in their right place,[a] like a herd running at random without a herdsman.

Behold, cattle stray and there is none to collect them, but everyone fetches for himself those that are branded with his name.

Behold, a man is slain beside his brother, who runs away and abandons him(?) to save his own skin.

Behold, he who had no yoke of oxen is now the owner of a herd, and he who could find for himself no plough-oxen is now the owner of cattle.

Behold, he who had no grain is now the owner of granaries,9,5 and he who had to fetch loan-corn for himself is now one who issues it.

Behold, he who had no dependants is now an owner of serfs, and he who was ⟨a magnate⟩ now performs his own errands.

Behold, the strong men of the land, the condition of the people is not reported ⟨to them⟩. All is ruin!

Behold, no craftsmen work, for the enemies of the land have impoverished its craftsmen.

[Behold, he who once recorded(?)] the harvest now knows nothing about it, while he who never ploughed [for himself is now the owner of corn; the reaping(?)] takes place but is not reported. The scribe [sits in his office(?)], but his hands [are idle(?)] in it.

Destroyed is [. . .] in that time, and a man looks [on his friend as(?)] an adversary(?). The infirm man brings coolness [to what is hot(?) . . .] fear [. .9,10 .]. Poor men [. . .] the [land] is not bright because of it.

De[stroyed is . . .] their food [is taken(?)] from them [. . . through] fear of his terror. The commoner begs [. . .] messenger, but not [. . .] time. He is captured laden with his goods, and [all his property(?)] is taken away [. . .] men pass by his door [. . .] the outside of the wall(?), a shed(?), and rooms containing falcons. It is the common man who will be vigilant,10,1 the day having dawned on him without his dreading it. Men run because of ⟨. . . for⟩ the temple of the head, strained through a woven cloth within the house(?). What they make are tents(?), just like the desert folk.

Destroyed is the doing of that for which men are sent by retainers in the service of their masters; they have no readiness. Behold, they are five men, and they say: 'Go on the road you know, for we have arrived.'

Lower Egypt weeps; the king's storehouse is the common property of everyone, and the entire palace is without its revenues. To it belong emmer and barley, fowl and fish, to it belong white cloth and fine linen, copper and oil,10,5 to it belong carpet and mat, [. . .]-flowers and wheatsheaf and all good revenues . . . If the . . . it in the Palace were delayed, men would be devoid [of . . .] . . .

Destroy the enemies of the august Residence, splendid of magistrates [. . .] in it like [. . .]; indeed the Governor of the City goes unescorted.

Des[troy the enemies of the august Residence,] splendid [. . .]

[a] I.e. are in disorder.

[Destroy the enemies of] that erstwhile[a] august Residence, manifold of laws [. . .].

[Destroy the enemies of][10,10] that erstwhile august [Residence . . .].

[Des]troy the enemies of that erstwhile august Residence [. . .] none can stand [. . .].

[Destroy the enemies of th]at erstwhile august [Residence], manifold of offices; indeed [. . .].

Remember to immerse [. . .] him who is in pain when(?) he is sick in his body; [. . .] show respect(?) [. . .] because of(?) his god, that he may guard the utterance(?) [. . .] his(?) children who are witnesses of(?) the surging of the flood.

Remember to [. .[11,1] .] . . . shrine(?), to fumigate with incense and to offer water in a jar in the early morning.[b]

Remember ⟨to bring⟩ fat *r*-geese, *trp*-geese and *st*-geese and to offer god's-offerings to the gods.

Remember to chew natron and to prepare white bread; a man ⟨should do it(?)⟩ on the day of wetting the head.

Remember to erect flagstaffs and to carve offering-stones, the priest cleansing the chapels and the temple being plastered (white) like milk: to make pleasant the odour of the horizon[c] and to provide bread-offerings.

Remember to observe regulations, to order dates correctly, and to remove him who enters[11,5] on the priestly office in impurity of body, for that is doing it wrongfully, it is destruction of the heart(?) [. . .] the day which precedes(?) eternity, the months [. . .] years(?) are known(?).

Remember to slaughter oxen [. . .]

Remember to go forth purged(?) [. . .] who calls to you; to put *r*-geese on the fire [. . .] to open(?) the jar [. . .] the shore of the waters [. . .] of women(?) [. . .] clothing [. .[11,10] .] to give praise(?) [. . .] in order to appease you(?).

[. . .] lack of people; come(?) [. . .] Rēʿ who commands(?) [. . .] worshipping him(?) [. . .] West until [. . .] are diminished(?) [. . .].

Behold, why does he[d] seek(?) to fashion ⟨men⟩? The frightened man is not distinguished from the violent one. He[d] brings coolness upon heat;[12,1] men say: 'He is the herdsman of mankind, and there is no evil in his heart.' Though his herds are few, yet he spends a day to collect them, their hearts being on fire(?). Would that he had perceived their nature in the first generation; then he would have imposed obstacles, he would have stretched out his arm against them, he would have destroyed their herds and their heritage. Men desire to give birth(?), but sadness supervenes, with needy people on all sides. So it is, and it will not pass away while the gods who are in the midst of it exist. Seed goes forth into mortal women, but none are found on the road. Combat has gone forth,[12,5] and he who should be a redresser of evils is one who commits them; neither do men act as pilot in their hour of duty. Where is he today? Is he asleep? Behold, his power is not seen.

[a] Here the derogatory demonstrative *pf* is added.

[b] A reference to the matutinal purification of the image of the god in his shrine. All the paragraphs opening with 'Remember', except the first, appear to refer to the performance of the ritual by the king, an act essential to the well-being of the land.

[c] I.e. the abode of the god.

[d] The supreme god.

If we had been fed(?), I would not have found(?) you, I would not have been summoned in vain(?);[a] 'Aggression(?) against it(?) means pain of heart' is a saying(?) on the lips of everyone. Today he who is afraid(?) . . . a myriad of people; [. . .] did not see(?) [. . .] against the enemies of [. . .] at his outer chamber; who(?) enter the temple [. . .] weeping for him(?) . . . that one who confounds what he has said . . . 12,10The land has not fallen [. . .] the statues are burnt and their tombs destroyed [. . .] he sees the day of [. . .]. He who could not make for himself ⟨. . .[b]⟩ between sky and ground is afraid of everybody.

. . . if(?) he does it . . .[c] what you dislike taking. Authority, Knowledge, and Truth are with you, yet confusion is what you set throughout the land, also the noise of tumult. Behold, one deals harm to another, for men conform to what you have commanded. If three men travel on the road, they are found to be only two, for the many kill the few. Does a herdsman desire death? Then may you command reply to be made,[d]13,1 because it means that what one loves another detests; it means that their existences(?) are few everywhere; it means that you have acted so as to bring those things to pass. You have told lies, and the land is a weed which destroys men, and none will count on(?) life. All these years are strife, and a man is murdered on his house-top even though(?) he was vigilant in his gate-lodge.[e] Is he brave and saves himself? It means he will live.

When men send a servant(?) for humble folk, he goes on the road until(?) he sees the flood; the road is washed out(?)13,5 and he stands worried(?). What is on him is taken away, he is belaboured with blows of a stick, and wrongfully slain. Oh that you could taste a little of the misery of it! Then you would say [. . .] from someone else as a wall, over and above [. . .] hot . . . years . . .[. . .].

[It is indeed] good when ships(?) fare upstream(?) [. .13,10 .] robbing them.

It is indeed good [. . .].

[It is indeed] good when the net is drawn in and birds are tied up [. . .].

It is [indeed] good [. . .] dignities(?) for(?) them and the roads are passable.

It is indeed good when the hands of men build pyramids, when ponds are dug and plantations of the trees of the gods are made.

It is indeed good when men are drunk; they drink *myt* and their hearts are happy.

It is indeed good when shouting is in men's mouths, when the magnates of districts stand looking on at the shouting14,1 in their houses(?), clad in a cloak, cleansed in front and well-provided within.

It is indeed good when beds are prepared and the head-rests of magistrates are safely secured. Every man's need is satisfied with a couch in the shade, and a door is now shut on him who once slept in the bushes.

It is indeed good when fine linen is spread out on New Year's Day [. . .] on(?) the bank; when fine linen is spread out and cloaks are on the ground. The overseer of14,5

[a] I.e. if affairs had not gone to rack and ruin, I would not have sought this audience, only to speak to deaf ears. The proverb which follows is perhaps an equivalent of our saying 'It is no use kicking against the pricks'.

[b] A word or words omitted.

[c] Reading and meaning alike obscure.

[d] I.e. 'answer me back and reject my reproaches'.

[e] Lit. 'his house of the boundary'.

[. . .] the trees, the poor [. . 14,10.] in their midst like Asiatics [. . .]. Men [. . .] the state(?) thereof; they have come to an end of themselves(?); none can be found to stand up and protect themselves(?) [. . .]. Everyone fights for his sister and saves his own skin. Is it Nubians? Then we will guard ourselves; warriors are made many in order to ward off foreigners. Is it Libyans? Then we will turn away. The Medjay are pleased with Egypt. How comes it that every man kills his brother? The troops15,1 whom we marshalled for ourselves have turned into foreigners and have taken to ravaging. What has come to pass through it is informing the Asiatics of the state of the land; all the desert folk are possessed with the fear of it.[a] What the plebs have tasted(?) ⟨. . .⟩ without giving Egypt over to(?) the sand. It is strong(?) [. . .] speak about you after years [. . .] devastate itself; it is the threshing-floor which nourishes their houses(?) [. . .] to nourish his children [. .15,5.] said by the troops(?) . . .15,10 .] fish [. . .] gum, lotus-leaves(?) . . .[. . .] excess of food.

What Ipuwēr said when he answered the Majesty of the Lord of All: [. . .] all herds. It means that ignorance of it is what is pleasing to the heart. You have done what was good in their hearts and you have nourished the people with it(?). They cover16,1 their faces through fear of the morrow.

That is how a man(?) grows old before he dies, while his son is a lad without understanding; he begins [. . .], he does not open [his] mouth [to] speak(?) to you, but you seize him in the doom of death [. . .] weep [. . .] go [. . 16,10] after you, that the land may be [. . .] on every side. If men call to [. . .] weep [. . .] them, who(?) break into the tombs and burn the statues [. . .] the corpses of the mummies [. .17,1 .] of directing work [. . .].

[a] I.e. awed by the collapse of a once great state.

THE STELA OF AMUN-WOSRE, GOVERNOR OF UPPER EGYPT IN THE REIGN OF AMMENEMES I OR II

By WILLIAM KELLY SIMPSON

In memoriam J. M. A. Janssen, 1907–1963

DURING a visit which I made to the new excavations at Mendes in June of 1964 Mr. William Peck of the Detroit Institute of Arts, and of the expedition staff, showed me photographs of a round-top stela fragment belonging to Mrs. Josephine H. Fisher of Detroit. I wish to express my gratitude to Mrs. Fisher for her kindness in permitting me to discuss and illustrate it, and to Mr. Peck for bringing the stela to my attention. In addition, Mr. Peck supplied me with the photographs of the fragment on which this study is based. The line drawing on plate XIV was made by tracing from an enlarged photostat of one of the photographs. It has not been possible to collate this against the original, but there are few places where the photographs are not clear.

Mrs. Fisher informs me that the fragment measures 22 in. wide, 14 in. high, and $4\frac{1}{2}$ in. thick, and that it appears to be of white limestone. The photographs indicate traces of a painted border on the lower right. A border with round-top stelae is uncommon; such a border continuing around the lunette occurs in Louvre stela C 1 of the coregency of Ammenemes I and Sesostris I. Evidently the stela when complete was at least three times the height of the present fragment. It was purchased by Mr. Otto O. Fisher from a bookstore in Los Angeles about twenty years ago. The presence of the cartouche of Ammenemes clearly indicates a date in the Twelfth Dynasty, and reasons will be presented below for identifying the ruler as Ammenemes I or II. The individual for whom the stela was carved and whom it commemorates was the governor of Upper Egypt (*imy-r šmʿw*) Amun-wosre, son of the lady Ḥepyw. The three parts of the text consist of the date in a year (in lacuna) of the reigning king, the invocation formula ending with the owner's title, name, and filiation, and a series of conventional epithets continuing to the point where the block was cut. Although many stelae are dated in the reign of Sesostris I, there are only three certain examples dated in the reign of his predecessor, Ammenemes I, known to me. The first two are Louvre stela C 1 of the general Nesu-Montu and Cairo stela *CCG* 20516 of Inyotef. Both are dated during the coregency with his son, whose titulary also occurs in them.[1] The third is an almost illegible stela from the Delta with a poorly preserved date.[2]

[1] For a partial bibliography of Louvre stela C 1, see Porter and Moss, *Top. Bibl.* VII, 382 (there is no evidence that the stela was found in Palestine). For *CCG* 20516, see Porter and Moss, V. 50.

[2] Habachi, *Ann. Serv.* 52 (1954), 453–4; found near Esbet Rushdi el-Kebira. I made a hand copy from the

The outstanding interest of the fragment is the occurrence at this time of the title *ỉmy-r šmʿw*, 'governor of Upper Egypt'. The significance and importance of the office in the Old Kingdom has been discussed by Eduard Meyer, Kees, Breasted, Gauthier, Helck, and Goedicke among others.[1] Goedicke has recently shown that there is no reason to regard the title as an honorific rather than as a real office because it is borne simultaneously by several persons. He reasons that a single *ỉmy-r šmʿw* delegated his duties in subdivisions of Upper Egypt to subordinates each of whom bore the same title but served only in a subdivision; the latter is occasionally specified, as in the case of a governor of Upper Egypt in the middle nomes.[2] Helck believes that the office disappeared for ever in the First Intermediate Period, the south being henceforth in the Middle Kingdom administered by a chamberlain (*ỉmy-r ḫnwty*) of the head of the south, and the north by a chamberlain of the north-land.[3]

It is not my intention to examine whether this change in the administration of the land did in fact take place along the lines envisaged by Helck, although I remain somewhat unconvinced by his evaluation of the importance of the chamberlains. It is clear, however, that the office of governor of Upper Egypt survived the First Intermediate Period. In the extended form *ỉmy-r šmʿw mỉ ḳd·f*, 'governor of Upper Egypt in its entirety', it is represented in the titulary of the vizier Amunemḥet in the reign of Nebtowyrēʿ Mentuḥotpe and in the titulary of Ḥep-djefa of Siût in the reign of Sesostris I, occurrences in themselves exceptions to Helck's dictum.[4] In the titulary of the vizier it might be argued that the title is an honorific, but it might equally be argued that it represents a stage in his cursus. As the main title of Amun-wosre, for it is so singled out, it can hardly be considered as an honorific annexation. If, as many believe, the vizier became the first king of the Twelfth Dynasty, there is a distinct possibility that Amun-wosre succeeded him in the governorate or served as a subordinate governor in a subdivision under a 'governor of Upper Egypt in its entirety', who was the successor of Amunemḥet. Ḥepdjefa of Siût may have been the predecessor, the successor, or the superior of Amun-wosre, depending upon whether the latter is to be dated in the reign of Ammenemes I or II and whether his title, without the tag *mỉ ḳd·f*, signified overall or only partial jurisdiction. However we evaluate the

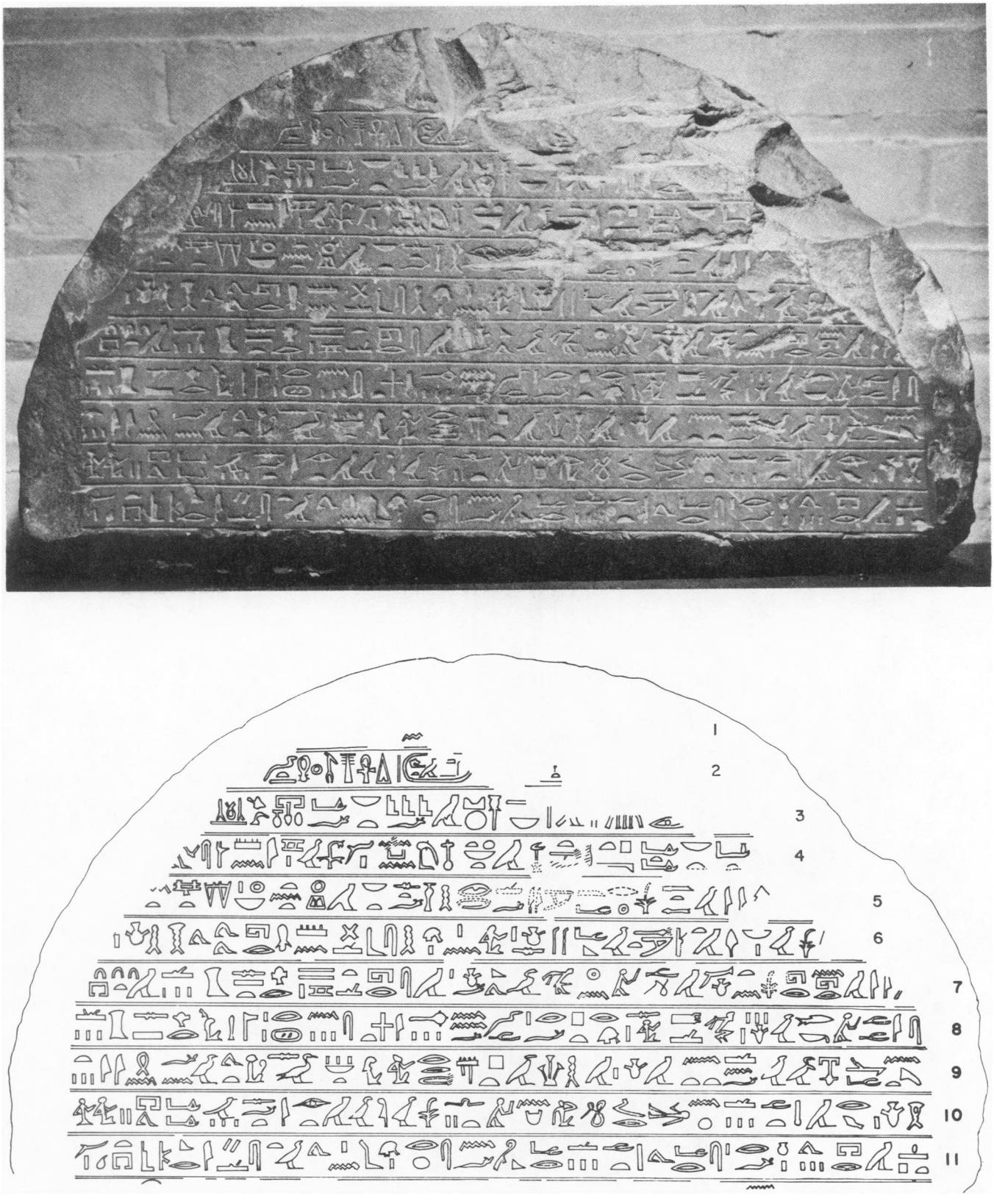
Cairo Museum register photograph and could not find sufficient traces to read the regnal year as 20(?), as proposed by Habachi.

[1] Eduard Meyer, *Geschichte des Altertums* I, 2[3], §§ 261, 264; H. Kees, *Beiträge zur altägyptischen Provinzialverwaltung und der Geschichte des Feudalismus* (Nach. . . . Göttingen, 1932), 85–119; J. H. Breasted, *A History of Egypt*, 138, 145; H. Gauthier, *Recueil . . . Champollion*, 217–44; H. W. Helck, *Untersuchungen zu den Beamtentiteln des ägyptischen Alten Reiches*, 109–10; Hans Goedicke, *MIO* 4 (1956), 1–10.

[2] *MIO* 4 (1956), 4–9.

[3] 'Als sich aber kurz nach der Übernahme der Regierung durch eine herakleopolitanische Dynastie thebanische Fürsten selbstständig machten, verschwindet das Amt eines "Vorstehers von Oberägypten" für immer.' *Zur Verwaltung des mittleren und neuen Reichs*, 10–11. On the chamberlains, see ibid. 12–13.

[4] The title of the vizier Amunemḥet appears in *Hammâmât*, 113, 7; Weil, *Die Veziere des Pharaonenreiches*, 37. For the title of Ḥep-djefa (Djefai-ḥepy), see *Siut*, I, 222, and Reisner, *JEA* 5 (1918), 79–80. On the statue from Kerma Ḥep-djefa bears the title *ḥry-tp ʿ3 n šmʿw*. The idea that the title disappeared in the First Intermediate Period can be traced to Breasted, op. cit. 165. Gauthier, op. cit. 236–44, lists nine or ten examples from the Middle Kingdom, many doubtful, and twenty-one possible cases for the period from the New Kingdom down to the Twenty-sixth Dynasty.



THE STELA OF AMUN-WOSRE

title of Amun-wosre and the extended title of the vizier and the nomarch of Siût, it is clear that the office survived the reunification of Egypt under Nebḥepetrēᶜ Mentuḥotpe and was represented in the first part of the Twelfth Dynasty. The changes in the administration whereby the office disappeared, whether or not along the lines suggested by Helck, postdate the establishment of the Twelfth Dynasty. It is probably too much to hope that the missing portion of the stela may contain biographical details with reference to Amun-wosre's career. It is curious to note that in spite of the common formation of the name, it is not otherwise attested before the New Kingdom in Ranke, *Personennamen*, I, 27, 6.

Translation

(1) [Regnal year . . . under the majesty] of[a] (2) [the King of Upper and Lower Egypt Seḥe]t[epibrēᶜ Son of Rēᶜ] Ammenemes, given life, stability, dominion like Rēᶜ for ever.[b] (3) [A boon which the king gives to Osir]is, first of the westerners, the great god, lord of Abydos, in all his cult-places,[c] that he may grant a funerary invocation consisting of bread and beer, cattle and fowl, alabaster and clothing, (4) [. . . . . .] and all offerings,[d] that which the heaven gives and the earth creates, a thousand of every good and pure thing for the *ka* of the Governor of Upper Egypt, Amun-wosre,[e] (5) [born to the house-mistress][f] Ḥepyw, justified. The royal acquaintance, true beloved of his lord,[g] who performs all that is praised of him throughout the course of every day, who adheres to the path of (6) [him who established] him,[h] possessor of grace and great of love,[i] straightforward, a man of rectitude,[j] firm of sole and quiet of step,[k] patient (7) and [free] from tremor (?),[l] who fulfils the king's desire in suppressing the rebel,[m] an intimate in pacifying the two lands,[n] privy counsellor in the court of the thirty,[o] (8) who renders impotent the disaffected,[p] who perceives a man according to his utterance,[q] to whom bodies say what is in them,[r] mouth of Nekhen, priest of Maᶜat, privy counsellor (9) of hearing alone,[s] to whom is opened up that which is in the heart—that which is concealed from everyone,[t] whose coming is awaited by the courtiers,[u] (10) attentive in hearing speech, who succours the wretched and rescues the have-not,[v] free from committing mischief, who causes two brothers to come forth (11) satisfied with the utterance of his mouth, who forwards a plea when he has gained full knowledge of it,[w] one who knows the rules for the future,[x] excellent of speech,[y] (12) [. . . . . .[z]

Commentary

(*a*) The presence of the *n* in the lunette can hardly be otherwise interpreted: the stela commenced with the indication of the regnal year as, for example, in the lunette of round-top stelae of the reign of Sesostris I (*CCG* 20515, 20516, 20542; Los Angeles County Museum stela of Shen).[1] If the stela belongs to the reign of Ammenemes I, it is particularly unfortunate that the date is missing, as one would wish to know whether it refers to his sole reign (years 1–20) or his coregency with his son Sesostris I (years 21–30). I have elsewhere noted that the general practice in the coregency was a dating system in terms of the regnal years of the junior partner.[2]

(*b*) The second cartouche is clear, but the first is almost completely destroyed. If

[1] For the last, see Faulkner, *JEA* 38 (1952), pl. 1.

[2] *JNES* 15 (1956), 214–19. Since the publication of the article cited several other examples of dates during the coregency have come to light; in each case the year is given in terms of the reign of the junior partner: Goyon, *Nouvelles inscriptions rupestres du Wadi Hammamat*, no. 67; Sesostris I, year 2; Emery, *Kush* 9 (1961), 85, Sesostris I, year 5; Simpson, *Papyrus Reisner I*, 93, [Sesostris I], years 7–8 (cited from *P. Reisner IV*, unpublished).

the *t* has been correctly read, the obvious reading is Seḥetepibrēʿ, the prenomen of Ammenemes I. There are several indications which make it clear that the stela belongs to the first part of the dynasty; the reigns of Ammenemes III and IV can be confidently excluded from consideration. Schenkel has noted that the book-roll determinative is frequently written with a single tie in the reign of Sesostris I and the first part of the reign of Ammenemes II (there is very little material from the reign of Ammenemes I on which to draw).[1] In our stela the book-roll is horizontal with a single tie on the right eight times, vertical with both ties once or perhaps twice, and horizontal with both ties once. A similar variation or vacillation in this sign occurs in Louvre stela C 1, of the reign of Ammenemes I. In the phrase *m swt·f nbt*, the *st* sign is written out three times instead of a single writing with plural strokes. This triple writing seems to me to be an 'early' indication, since it is particularly evident in the texts of the First Intermediate Period and Eleventh Dynasty, at which time both versions are current.[2] The writing of the title *ỉmy-r* with the tongue (*Sign List* F 20) is first noted by Schenkel in year 10 of Sesostris I (at the end of the coregency of Ammenemes I and Sesostris I);[3] one cannot therefore exclude the reign of Ammenemes I on the basis of this writing. Various other details of the style of the writing and the occurrence of several epithets in writings attested early in the dynasty or in the Eleventh Dynasty all point to an early date in the Twelfth Dynasty. The possible presence of the *t* in the first cartouche increases the likelihood of the reign being that of Ammenemes I, although the reign of Ammenemes II can by no means be excluded.

(*c*) The phrase *m swt·f nbt* is rendered by Faulkner as 'wherever he may be' or 'in all his aspects' (*JEA* 37 (1951), 48). I prefer the translation adopted above. For the writing of *swt* with three *st* signs, see the preceding paragraph.

(*d*) The term is *ḥnkt*, written with the hand holding a pot (*Sign List* D 39); it is occasionally thus used in the invocation formula, for example in *CCG* 20561, of the reign of Sesostris I.

(*e*) The title and the writing of *ỉmy-r* with the tongue are discussed above.

(*f*) The lacuna at the beginning of the line suits the space for the restoration suggested in the translation.

(*g*) The traces can be confidently so restored. For this conventional translation, see Gardiner in *JEA* 4 (1917), 33–34.

(*h*) The relatively long series of epithets is not without interest. No attempt will be made to reopen the question of translations of the clichés discussed in detail by Janssen in *De Traditioneele Egyptische Autobiografie vóór het Nieuwe Rijk*, hereafter abbreviated as Janssen with reference to category and example. For *mḏd wꜣt nt smnḫ sw*, see Janssen, II, Bc 10–25.

[1] Wolfgang Schenkel, *Frühmittelägyptische Studien*, 27–28. To the stelae of the reign of Ammenemes II cited by Schenkel might be added the false door at Saqqâra in Firth and Gunn, *Teti Pyramid Cemeteries*, II, pl. 83, which is probably to be assigned to this reign (Simpson, *JARCE* 2 (1963), 54 F; Aldred, *Middle Kingdom Art in Ancient Egypt*, no. 36, p. 44).

[2] Clère and Vandier, *Textes de la première période intermédiaire et de la XIème dynastie*, §§ 4, 20, 23, 24, 25; pp. 25, 30, 31, 33.

[3] Schenkel, op. cit. 36.

(*i*) The couplet *nb ỉꜣmt ꜥꜣ mrwt*, Janssen, IV, Ac 2, 5, 7, is represented in the Eleventh Dynasty and in the reign of Sesostris I.

(*j*) The phrase *s n tp ḥsb* is not recorded in Janssen, IV, Ao, among expressions beginning with *s n*.

(*k*) The development of the couplet *mn ṯbyt hr nmtt* is discussed by Polotsky, *Zu den Inschriften der 11. Dynastie*, 3–8; Janssen, I, Z and I, Ak. This version is represented in Janssen's examples only from the reign of Ammenemes II onward.

(*l*) The only other occurrence of this rare epithet, used in the second part of the same couplet, is in the stela of Mentu-ḥotpe in the Eleventh Dynasty (University College 14333). The couplet has been most recently translated as 'attentive, free from tremor' by Goedicke in *JEA* 48 (1962), 28; see also *PSBA* 18 (1896), 195; *Wb.* II, 287. 2; Janssen, VI, J 12. The term *nhrhr* is now no longer a *hapax*. For the writing of *šwy* with terminal *-y*, see Janssen, VI, J, *passim*, particularly in cases early in the Twelfth Dynasty. The London stela is dated later by Schenkel (*JEA* 50, 6).

(*m*) The epithet *mḥ ỉb nsw m dꜣr ḫn* is not otherwise attested, although it is similar to the *mḥ ỉb nsw śmtr pꜥt m shdt bṯn ỉb*, cited by Janssen, II, Ax 35.

(*n*) The phrase *ꜥḳ ỉb·f*, cited by Janssen, II, O, is not otherwise attested with this complement, *m shrt tꜣwy*.

(*o*) For *mꜥbꜣyt*, 'court of the thirty', and this title, see *Wb.* II, 46, 16.

(*p*) See the version *sỉddy sbỉ ḥr nsw* cited by Janssen, II, Co, in a text of the reign of Sesostris I, and the phrase *r sỉdt n·f rḫyt* of Papyrus Ramesseum VII rt., A 24. For the rendering, 'make impotent', see Faulkner, *Concise Dict.* 213, with reference to *JEA* 4 (1917), 35, n. 2. Our phrase *sỉdd ḥꜣkw-ỉb* is a new variant.

(*q*) Janssen, II, Cz 2, cites only one example of *sỉꜣ s r tpt r·f*. The sense would seem to be, 'who evaluates a man according to his speech'.

(*r*) The phrase *ḏd·n n·f ḫtw ỉmt·sn* is a new version of the phrase *ḏd·n n·f ḫtw ḫrt·sn* of Janssen, II, Hc 82.

(*s*) See Spiegelberg, *Rec. Trav.* 16 (1894), 28–29, 'Geheimrat des allein Hörens', to which reference is made by Gardiner, *ZÄS* 45 (1908), 126. For *sḏm sḏmt wꜥ*, see *BMMA* 28 (1933), November, Section II, 31, fig. 38.

(*t*) The epithet *wbꜣ n·f ntt m ỉb m ḥꜣpt r rmṯ nbt* is attested in the shorter form *s n wbꜣ n·f ỉb*, without the extension *m ḥꜣpt r rmṯ nbt*, in Janssen, II, R 4.

(*u*) Cited in Janssen, II, Cn 6, 11.

(*v*) The couplet with the same supine man as determinative for *nḫ* is cited in Janssen, II, Bi 1, in a single occurrence of the reign of Sesostris I.

(*w*) Cited in Janssen, II, Dh 9. The present translation seems appropriate.

(*x*) Cited in Janssen, II, Bl 63, where it similarly follows the preceding epithet in Louvre stela C 240, 4–5. I am not certain of the translation; one might wish to devise a translation which would render the epithets as a couplet.

(*y*) The examples of *ỉḳr st-ns* listed by Janssen, I, G 44–48, belong, when datable, to the latter half of the dynasty.

(*z*) A few traces remain from the next line. The top, curved section of the stela was cut at this point from the lower portion with the remainder of the text and probably

a scene of the owner before a table of offerings with his family and retainers. I have not succeeded in locating any published reference to this missing section. If the stela was cut in modern times, one may eventually expect to find the missing lower part in a public collection or in private hands. The rounded upper part, however, may well have been cut away and discarded at a time when the lower part was employed as a building block.

ANCIENT EGYPTIAN FORTIFICATIONS

By A. W. LAWRENCE

ERODED walls of unburnt brick can seldom be accurately planned without excavation, and the date may not be ascertainable even after excavation. For these reasons alone, the study of Egyptian military architecture would be exceptionally difficult, no matter how much attention had been given to it. But the last attempt at an overall historical survey appeared in 1900, and such of the data used in it as have been checked are usually found to require correction or supplementing.[1] Of late, many fortified sites have been investigated but the reports so far available are rarely complete. The present essay[2] could, at best, be only tentative, and is the more liable to error because the writer has seen none of the monuments; its publication, however, may be useful to scholars concerned with describing and interpreting fortifications.

In Egypt proper, between the First Cataract and the Mediterranean, fortifications were built during the periods when the country was split between rival principalities, but whenever it was held by a single king there can have been no need for defensive works, except, of course, in frontier areas. We may suspect that, in the interior, any walls that remained serviceable at each time of unification were promptly demilitarized, as an act of policy; if not, they would soon have been breached and quarried to suit the convenience of the local population. In fact, total demolition would have been easy and, perhaps, profitable, because the materials could be re-used. Every known fortification, of whatever age, was built in mud-brick, perhaps reinforced with timber, and if stone linings were provided at gateways the blocks were laid without mortar. The Egyptians adhered to these methods in Nubia too; they took advantage of the abundant rock only for paving or, on occasion, to preserve the foot of a wall from erosion by the wind-blown sand. The one exception is an Old Kingdom wall of rough stone at Buhen.

There is no reason, therefore, to expect much continuity in design between one disturbed period and another, apart from such elements as were also used in civil

[1] R. Weil, *J. asiatique* 15 (1900), 80, 201. As comparison of pl. xvi, *a* and *b* will demonstrate, the pioneer field-work of Somers Clarke, *JEA* 3 (1916), 155, and L. Borchardt, *Altäg. Festungen an der 2. Nilschnelle* (1923), was partly wasted owing to the lack of visible detail at the unexcavated sites. But the general information collected by Borchardt is still valuable.

[2] I had originally hoped to compile a brief analysis of Egyptian principles of military design, as part of the introduction to a study of ancient Greek fortification (on which I have long been working). But, under the guidance which Prof. H. W. Fairman and Mr. Barry J. Kemp most kindly lavished upon my reading and its interpretation, there emerged an involuntarily long and argumentative draft, which was then criticized by them both and by Mr. Harry S. Smith. In so far as this article may present fact accurately, that is due to my three advisers, but none of them has seen the text after it was rewritten for publication and I alone am responsible for the theoretical matter. The sources from which I have taken data on actual ruins are listed in the Appendix.

or religious architecture. For instance, the enclosing walls of towns often resembled those of sanctuaries, at any rate in plan, and may also have been comparable with the embankments that protected low-lying towns from the inundation. Through no other means does continuity between predynastic and fully historic methods of fortification seem likely to have resulted.

From the carvings on slate palettes and the forms taken by hieroglyphic signs,[1] a vague idea is obtainable of a type, or possibly two types, of defensible enclosure prevalent till the unification of Egypt under the First Dynasty. On the assumption that the representations are drawn in plan, the perimeter would seem to have been sometimes rectangular, sometimes rounded; in certain hieroglyphs and on all the palettes it is studded with projections, spaced at fairly regular intervals. There being no reliable indication of their scale, it is an open question whether the wall should be restored with a panelled face, or buttresses, or salients comparable in size with towers. But, as Professor Fairman bids me note, the earliest archaic hieroglyphs for 'city' show no projections. They might have been ignored because of their relative insignificance in an extensive perimeter. Alternatively, we may think that the draughtsmen distinguished two kinds of enclosure, keeping strictly to the facts; town-walls, on this supposition, were drawn without projections because they had none, whereas forts or defensible palaces are represented (as in the *ỉnb* sign) with the projections that were requisite for some reason—perhaps to compensate for less massive construction. Again, though, scale has to be taken into consideration; in the case of a fort, projections would be relatively larger and might, therefore, be thought worth marking, even if a town-wall with precisely similar projections was, by convention, drawn without them.

Comparison with existing remains of the earliest dynasties fails to eliminate any of these conjectural solutions. The one and only town-wall (probably of the Fourth Dynasty), at Buhen, lacks projections, at any rate in the stretch which the excavator has already made known. The so-called 'forts' can scarcely have been defensive works—they are more suggestive of palace enclosures—but could derive from military prototypes; the inadequate pointers to that hypothesis include a salient gatehouse in the Hierakonpolis example, and the rather low outer wall around both that building and the 'Shûnet el-Zebîb', the most notable of the group at Abydos. These 'forts', together with various tombs and the enclosing wall of the Step Pyramid,[2] exemplify methods of panelling and buttressing, such as might account for the projections shown by the earlier draughtsmen, but neither treatment of the wall-face would have conferred any military advantage. Larger projections are known only from another part of Hierakonpolis, where two were found, placed far apart against the roughly circular retaining-wall of a sand-filled terrace, which almost certainly supported a sanctuary; the date may approximate to that of Menes. The better-preserved salient was backed by 4 m. of the terrace-wall and involved three thin walls of its own; the flanks, of some 2·50 and 3·50 m. respectively, converged on the front, which was shorter than

[1] Badawy, *History of Egyptian Architecture*, 178. Quibell, *Hierakonpolis*, I, pl. xxix. Hölscher, *Das Höhe Tor von Medinet Habu*, 12. *Wiss. Veröff. d. D.O.G.* (1910).

[2] Firth and Quibell, *The Step Pyramid*, II, pls. 1, 34.

either of them. The dimensions would be scarcely adequate for a defensive tower. The shape, however, is typical of that which the palettes give to projections, if they were drawn in plan or in some intelligible convention. Perhaps, therefore, the function of the earlier projections was the same as best accounts for those at Hierakonpolis, to reinforce the edge of a sand-filled terrace; if they too had been filled with sand they would have been efficacious and very economical buttresses, the amount of brick-work being reduced by the slanting flanks.

Some other explanation must apply to a siege-scene of the Fifth Dynasty at Dishâsha.[1] It appears to represent a fortified enclosure with curved bulges irregularly spaced around an oval perimeter. Two of them actually meet, and soldiers are shown making a breach at the junction, by boring into the wall with long poles; some dislodged bricks or blocks already lie on the ground, to form the nucleus of a heap from which the top of the wall should eventually become accessible. It is tempting to think that the bulges may represent prototypes of the rounded salients known under the Twelfth Dynasty, when their purpose was unquestionably to enable archers to shoot sideways as well as forward and downward; on that analogy, though, the attackers chose a spot subject to a greater concentration of fire than where the bulges are clearly some distance apart. Probably the artist was trying to represent buttresses smaller than those of Hierakonpolis; at any rate they would not have been large enough for archers to stand on top.

The Middle Kingdom: introductory

The Twelfth Dynasty organized the defence of the isthmus of Suez by means of a system called 'The Walls of the Prince' which was kept in good condition for centuries.[2] Scraps of ancient information suggest that its effectiveness depended on a chain of forts, and there may have been no actual wall to link them; even when Ramesses II built a 'Wall' for the comparable purpose of impeding Libyan attacks on the western Delta, this too apparently consisted of isolated forts, although the chariots of that time could have been delayed by a continuous wall more than the donkey caravans of the Middle Kingdom. But an example of a continuous obstacle, four miles long, still exists between the landing-places on either side of the First Cataract. It runs beside the ancient portage-road, bending to follow the least uneven route instead of taking military advantage of inequalities. The wall is about 2 m. thick and still 6 m. high in places; allowing for the batter on each face and for a parapet on one alone, the top can barely have been wide enough to man, and there are apparently no projections which could have carried a wide cornice. In fact, the wall must have been, not a fortification, but a barrier. The date of construction may be put earlier than an inscription on an adjacent rock, recording a visit, in the third year of Sesostris II, by an official sent to inspect the fortresses which had been established in Nubia—in one instance, not less than two reigns beforehand. Since the frontier had previously been set at the First Cataract, the advance must have caused a great increase in river traffic, predominantly for state purposes, and the wall must surely have been built to restrict pilferage or looting of the goods conveyed overland where the Nile was obstructed.

[1] Petrie, *Deshasheh*, 6, pl. iv. Badawy, op. cit., fig. 121 restoration.

[2] Posener, *Littérature et politique*, 24, 56.

The Twelfth Dynasty administered the Nubian riverside as firmly as the nature of the country permitted, by means of fortified stations, which gave control along the Nile and discouraged raids from either side. The main objectives of the conquest[1] were, it seems, to organize the collection of alluvial gold and to work the copper mines with a royal labour-force. Some of the forts appear to have been deliberately sited where the routes used for these purposes left the river. Traces of copper-smelting have been noticed at several forts; there, donkey caravans must have loaded supplies of food and water for the miners and returned with the ore. Other forts appear to have been sited for the benefit of shipping, where the garrison may conceivably have been needed, on occasion, to help crews in difficulties as well as to protect them from attack. Forts were also concerned in trade, whether with the local Nubians or with visitors from unadministered territory, upon whose movements patrols kept watch to forestall raids. An inscription of Sesostris III gave a standing order at Semna that Nubians from up-river should be allowed to go down as far as Iqen, near the end of the Second Cataract, only if they wished to trade there, and otherwise must be turned back; this is obviously another precaution against raiding. There was, no doubt, danger of large-scale attack from the south, although evidence so far has not proved that the kingdom of Kerma became really formidable till the Second Intermediate Period. Whether the garrisons of any forts were sufficient to meet a serious emergency is not known. No estimate of their numbers can be made from the size of the building, of which a huge proportion must have been reserved for storage (especially food-stuffs), and some for civilians and their activities. Since, however, almost every male civilian, Egyptian or Nubian, is likely to have been an accomplished slinger from his boyhood, and every Nubian to have had some practice in archery, they could be put to good use in a siege, and the women could help with the stones that were assembled on the wall-walk and dropped upon the enemy.

The Egyptians certainly held Nubia well into the Thirteenth Dynasty. Their occupation may have ended with it, or slightly beforehand, either with a voluntary withdrawal (to counter troubles in their own country) or as a result of invasion from Kerma. Signs of burning at a large number of forts can be due to attack or to accident; sparks from the smelters must have been capable of setting any exposed timber alight. In no instance, though, is fire-damage known to have been made good, a fact which might imply that the Egyptians immediately ceased to hold the place. A possible alternative implication is that security had so improved that defences could be neglected, and it may be significant that Sesostris III is the latest king whose name can be associated with building new fortifications. If the Thirteenth Dynasty did build any, their work might, on that argument, be expected to have provided against less serious dangers—as was patently the case under the New Kingdom after its complete subjugation of Nubia.

The problems of close dating within the long duration of the Middle Kingdom are complicated by the varied characters both of buildings and of their sites. The fortified

[1] Kirwan, *Geog. Journ.* 129 (1963), 261—summary of Nubian history. *Kush* 7 (1959), 129—map of gold-fields.

establishments range from police-posts to considerable forts and—presumably only after long colonization—great towns. They fall into geographical groupings which, if the conquest was not effected in a single operation, should correspond with its several stages. Below the Second Cataract, the sites chosen presented little, if any, natural military advantage but usually gave the occupants a chance of being more or less self-supporting, and the fortifications enclosed level or sloping ground, adjoining a quay on the river-bank. Since this region is the nearest to Egypt proper, the forts should include, in all likelihood, some belonging to the earliest phase. The region of the Second Cataract does not form such a definite unit and may have been annexed in two or three operations or reigns. In the lower part of the Cataract, the trade centre called Iqen (Mirgissa) occupied a stretch of flat riverside linked with a fort on the plateau above, while on a hump-backed island opposite, Dabnarti, stood another fort. In the next area upstream there were only two minor stations, Murshid and Askut, as yet imperfectly known. Higher up, where the river narrows, the minor Semna South was on flat ground, but three forts stood on cliffs or rock masses, at Shalfak, Semna, and Kumma, and another on the steep ridge of Uronarti island; the approach to each of these four was so difficult that a long flight of concealed steps to the landing- or watering-place was a practical as well as a military requisite. The designs of such forts necessarily bore a close relation to the ground; consequently, differences in the methods of fortification, as compared with most buildings below the Second Cataract, were inevitable in some instances. But in others they must have been voluntary, due to a change of principle. Differences so caused can also be detected on flat ground, at Iqen and when buildings below the Cataract were reconstructed or added.

Comparison of the remains suggests that the oldest style came fully developed from Egypt, proved unsuitable to the Nubian landscape and therefore was modified, unsatisfactorily; a different style was then substituted, and persisted, with variants and probably deteriorating, till the Egyptians withdrew and perhaps even after Kerma took over.

On general considerations, too, that sequence may be thought plausible. The Middle Kingdom had arisen out of disorders but the fortifications they involved must have stood upon or close to the alluvium, and little or no experience can then have accumulated of how to exploit a foundation of hard rock, still less an isolated hill-top. Confronted in Nubia with those conditions, the Egyptians appear to have been slow to change their habits of design and of construction; at two sites which seem fairly late, Mirgissa and Serra, they even laid the courses of bricks sloping in conformity with the ground.[1] The national aversion to experiment and innovation evidently hampered progress.

The Middle Kingdom: earliest phase

The oldest inscription yet known from any fortress, one discovered at Buhen, is a commemorative text of Sesostris I (dated in his fifth year) and had originally been

[1] *Kush* 9 (1961), 132; 11 (1963), pls. xxvii, xxix. W. Stevenson Smith, *Art and Architecture in Ancient Egypt*, pl. 63 (A). R. Keating, *Nubian Twilight* (1962), pl. 60.

placed in some wall; if he was not the founder of the fort, the only alternative is his immediate predecessor, Ammenemes I, who claimed to have won successes against the Nubians. The situation of Buhen, just below the Second Cataract, made it the natural headquarters of Lower Nubia, and if the conquest proceeded by stages, the first should have been completed by the construction of Buhen for terminus. Between it and the old frontier were lesser forts at ʿAnîba, Ikkur, and Kuban, all three with fortifications almost identical in scheme with those of Buhen. A description of Buhen applies to them also, except for the dimensions and a few minor variations.

The fort was rectangular, but to at least one of the corners towards the Nile was attached a thick spur-wall, defensible on both faces, to prolong the enclosure wall beside the quay; spurs of this kind are found at various Middle Kingdom sites (fig. 4). On the other three sides the wall stood behind outworks, basically composed of a ditch and its berm (pl. XV, 1, 2). The berm platform extended from the foot of the wall to a parapet, with embrasures for archers, which rose from the brick lining of the ditch. At the centre of the west side the outworks were interrupted by the main gatehouse, which was rectangular in outline, twice as long as it was wide. It consisted of twin towers and a passage between them, more than 23 m. long, for they projected both well forward of the ditch and slightly back from the wall. The towers expanded towards one another at the mouth of the passage, leaving it a width of only a couple of metres; then followed a broad drawbridge-pit and space beyond into which the wooden bridge could be pulled on rollers, but a final contraction reduced the actual gateway to 3 m. width, closed by heavy doors of wood. The brickwork that enclosed the drawbridge area was uniform with the wall in thickness and presumably in height; the ends of the towers could have been taller, if desired. The landward corners of the enclosure could have been much taller, because they projected outwards and (at least in one case) were thickened inwards by extra brickwork which contained a staircase. Whatever the motive for the outward projection it can scarcely have been to provide flanking-fire, for the outworks likewise bent around the corner, maintaining their regular distance from the wall. True, a sideways view could be obtained along the rest of the berm platform, but the distance to the gatehouse (? 55 m.) was over-long to be effectively commanded by archers from the two salients. A plausible reason for thickening the corners may be deduced from the fact that the enemy could attack them in comparative safety, opposed by an inevitably smaller number of defenders than could be massed at any other point; the great solidity of the actual corner-towers would, in compensation, have made them exceptionally difficult to breach. But another feature, peculiar to them and to the gatehouse, also requires explanation. Only in these parts of the fort was the wall given a straight outward face. Everywhere else the outward face, but never the inward, was indented between piers resembling small towers, 2·25 m. wide and projecting 1·90 m., spaced at regular intervals of slightly over 5 m. Structurally they were almost completely independent, so much so that they could fall without damage to the wall itself and merely expose its original smooth face. To judge mainly from the drawings Emery has already published, the wall was first built with a series of slots externally, ready to receive

the backs of the piers when they, in turn, were built. The piers had a buttressing effect. So, in theory, a relatively thin wall with piers could be structurally as good as a thicker with none, but it would certainly have been more liable to be breached; hence the combination of exceptional thickness and a rectilinear face might seem appropriate for the corner towers and the gatehouse. There are, however, two objections to that explanation; the Egyptians did not customarily give a thought to economizing in brickwork, and the wall at Buhen would have been perfectly adequate without buttressing.

The height of the wall cannot have been less than 9 m. and that, with a parapet which we may restore with the rounded merlons familiar from Middle Kingdom and New Kingdom art, would have neared the limit of escalade.[1] The thickness, 4·80 m. at the base, and a pronounced batter on both faces, together guaranteed a fantastic margin of safety; this was enhanced (at Buhen and elsewhere) by lateral and transverse beams laid horizontally in the mudbrick, and (at most sites) by layers of reed matting between the courses. When the wall was newly built the timber frame and the matting held the drying brickwork in place, and subsequently would have kept the upper portion stable if the lower were partially breached. The piers cannot have contributed towards stability; they must have aided defence in some active way. That they served as towers is unlikely because the inevitable parapet along three sides of the top would have left a roughly square platform so small that only one man could use it freely, or two at a crush; cantilevering might have extended the area,[2] but scarcely enough to allow flanking-fire outside the batter of the intervening wall-faces. And it is difficult to imagine any worthwhile gain that would have resulted if the piers had been carried to a higher level than the wall. A clue from the manner in which the top of the wall was defended leads to a different explanation of the function of the piers. Heavy stones have been found lying in rows above the brickwork, ready to be dropped on assailants who had captured the berm, and this ultimately best means of defence would have lost much of its value if the stones had fallen against the sloping face, from which they would ricochet among the enemy. A straight drop would have been particularly desirable if the base of the wall was in process of being breached. Surely we should restore an overhang projecting from the wall sufficiently to more than neutralize the batter. How far outwards the hypothetical overhang might need to stretch depends on whether the stones (some of great weight) were always lifted over the parapet or could be dropped through traps in the flooring behind it. But, in either case, the simplest and most reliable way to construct the overhang would be to carry it on beams laid across between the piers; if traps were incorporated, no other form of support might be practicable. The presence of a wooden framework of the sort,

[1] According to Philo of Byzantium (third century B.C.) a ladder could not be used if the wall was 20 cubits high, i.e. *c.* 9 m. But he was thinking of an upright wall; a taller ladder might have been placed to sag against the sloping face of a Middle Kingdom wall—often inclined 1:6–7, but apparently steeper at Buhen.

[2] In Middle Kingdom art, hostile Nubians are shown defending buildings that carry a row of box-like overhangs, encased in wood (for the colouring matches doors), and a man leans out of each to throw a spear or a stone; but the walls lack piers, and the style of the buildings is definitely not Egyptian. Schäfer, *ZÄS* 74 (1938), 146; Newberry, *Beni Hasan*, I, pls. xiv, xv; Badawy, op. cit., fig. 122—restoration.

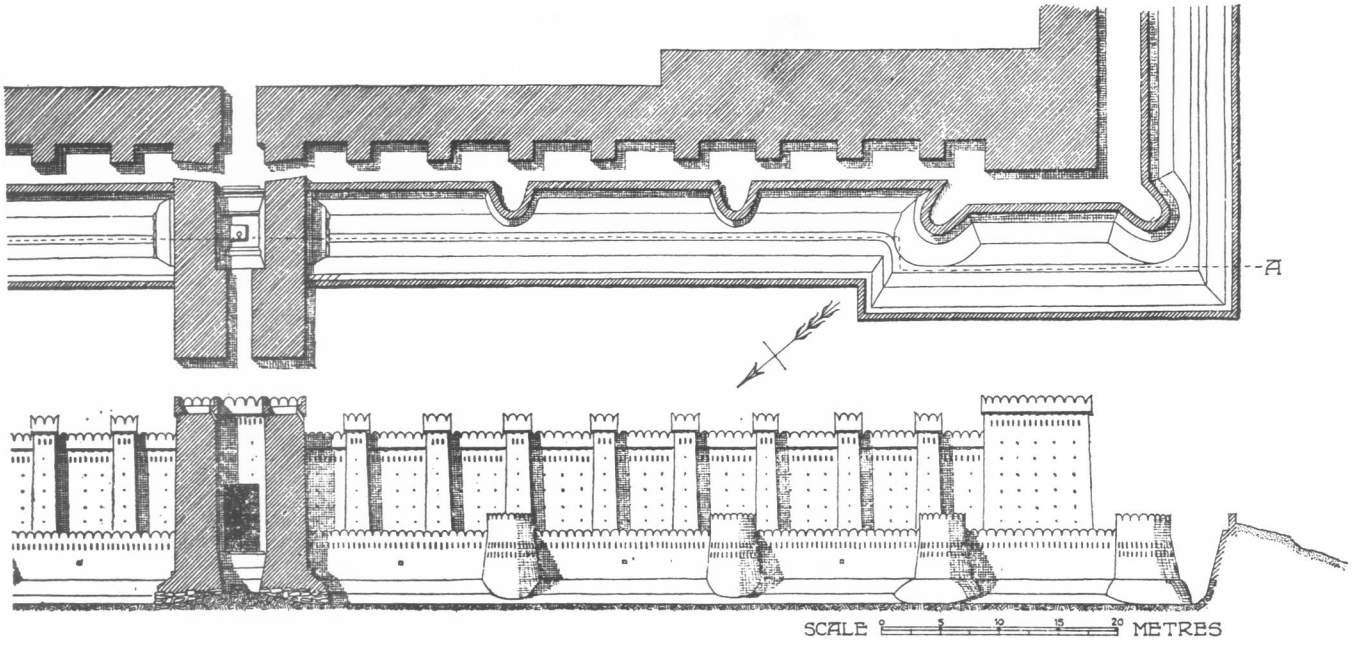
perhaps extended by cantilevered beams at right angles, would account for the thick layer of charred wood, ash, etc. which the excavators discovered at the foot of the wall.[1]

If the function of piers was to carry an almost indispensable extension of the wall-walk, only some insuperable difficulty can have prevented the building of piers along the sectors most liable to attack—the gatehouse and the corners of the enclosure. The difficulty is readily identified on the assumption (already made by Emery) that the increase in thickness implies greater height, because a level would soon have been reached at which the batter of the wall-face brought the top too far back to be overhung with the aid of piers of reasonable projection. Greater height gave longer range to archers and slingers, for whose sakes a wide expanse of ground beyond the ditch was smoothed into a glacis, where the enemy would be completely exposed.[2] In the case of the corner towers, another advantage obtained by increased height[3] was a better command of the ditch, which otherwise was partly hidden from the wall-walk by the man-high parapet of the berm. This rose, in the main, from the very edge of the ditch but at irregular intervals it curved outwards over a solid base built on the sloping scarp. Only from the berm was the entire floor of the ditch commanded, through downward-sloping slits in the parapet. They were arranged in groups of three diverging outward from a single embrasure, so that the archer could aim forward or slightly towards his left or right. A lower row of similar embrasures was regularly provided around the curves but seldom between them, because there the archer would be further from the enemy and his field of fire expanded with distance. On one sector a fire-step ran beside the parapet, which must therefore have been topped with merlons to allow of level or upward aim. Here, and on another long sector, a natural rise of the ground outside the ditch actually overlooked the parapet, against which the defenders must have pressed their bodies if an attack developed, and screening walls had to be built to enable them to move across the backs of the curved salients. If the enemy succeeded in capturing the berm, its occupants had no way of retreat except through the sides of the gatehouse, and their chances of reaching it from any distant part of the perimeter would have been negligible. The commander of the fort must have been prepared to lose almost every man he stationed in the berm, and we may suppose that he chose those he considered expendable, but trained soldiers can scarcely have been so regarded, especially because of the inevitably long delay in obtaining replacements. It may be significant that the closest parallel to the Buhen scheme in the fortifications of other countries and times is in the trade-posts which Europeans built on the Gold

[1] The rectangular overhangs shown in New Kingdom representations of forts might have been related in shape, even if suspended by cantilevering alone.

[2] Immediately outside the ditch, a ledge ran between the top of the counterscarp and a wall of unknown, but obviously not considerable, height. If the defenders had taken the risk of manning the ledge, they would have commanded the glacis to great effect. They would, however, have been unable to retreat unless ladders were placed ready in the ditch for them to climb down the counterscarp and up to the top of the berm parapet, while failure to pull the ladders after them would have enabled the enemy also to reach the berm. Probably, therefore, the wall was no more than a curb to prevent sand blowing into the ditch.

[3] The corners of the forts, similar in type, at ʿAnîba and Kuban do not seem to have been thickened; at Ikkur the excavators did not find the wall at all, and mistook the berm for it.



1. Plan and elevation (along broken line A) of centre and southern half of western Middle Kingdom defences, restored by W. B. Emery. From *Kush* 8 (1960), pl. ii

2. Northern half of western Middle Kingdom defences
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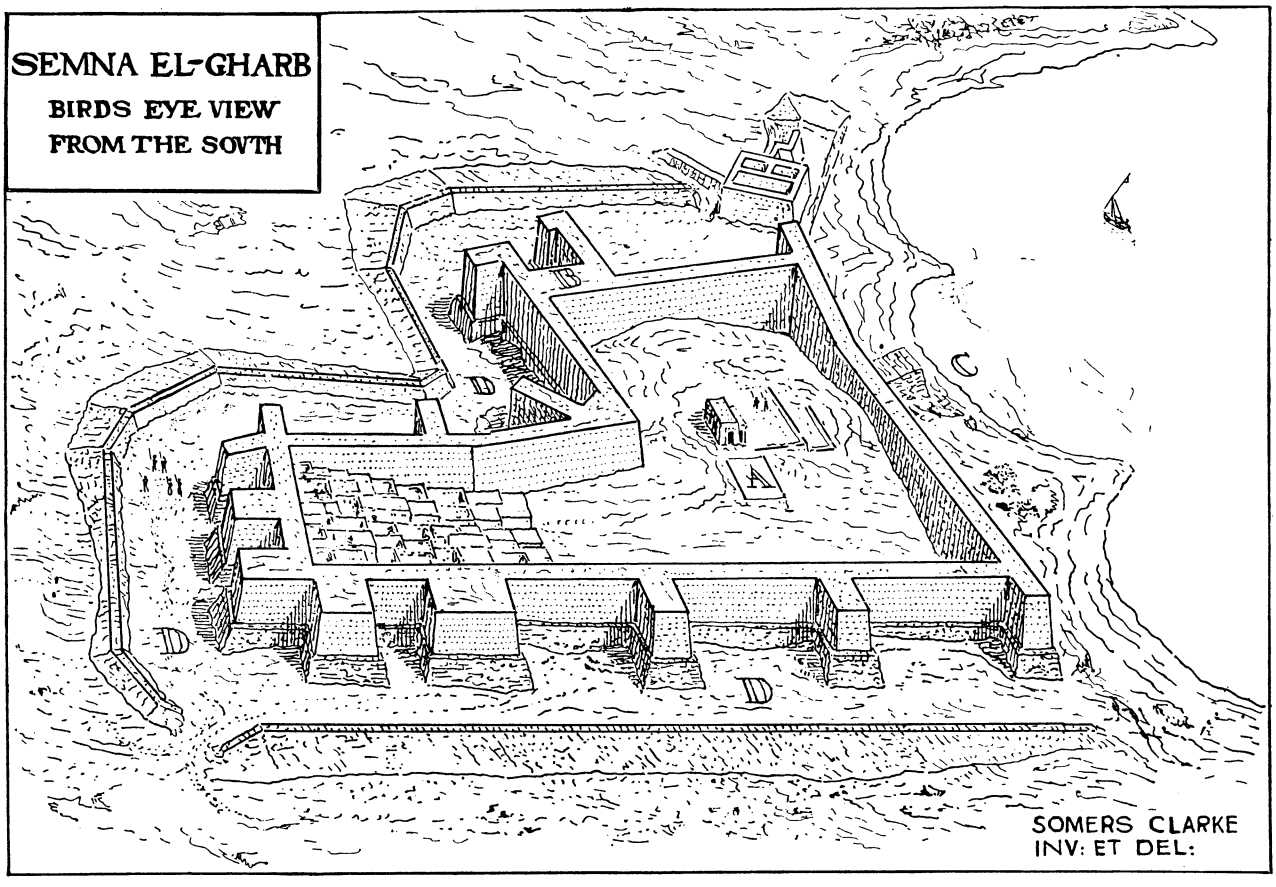
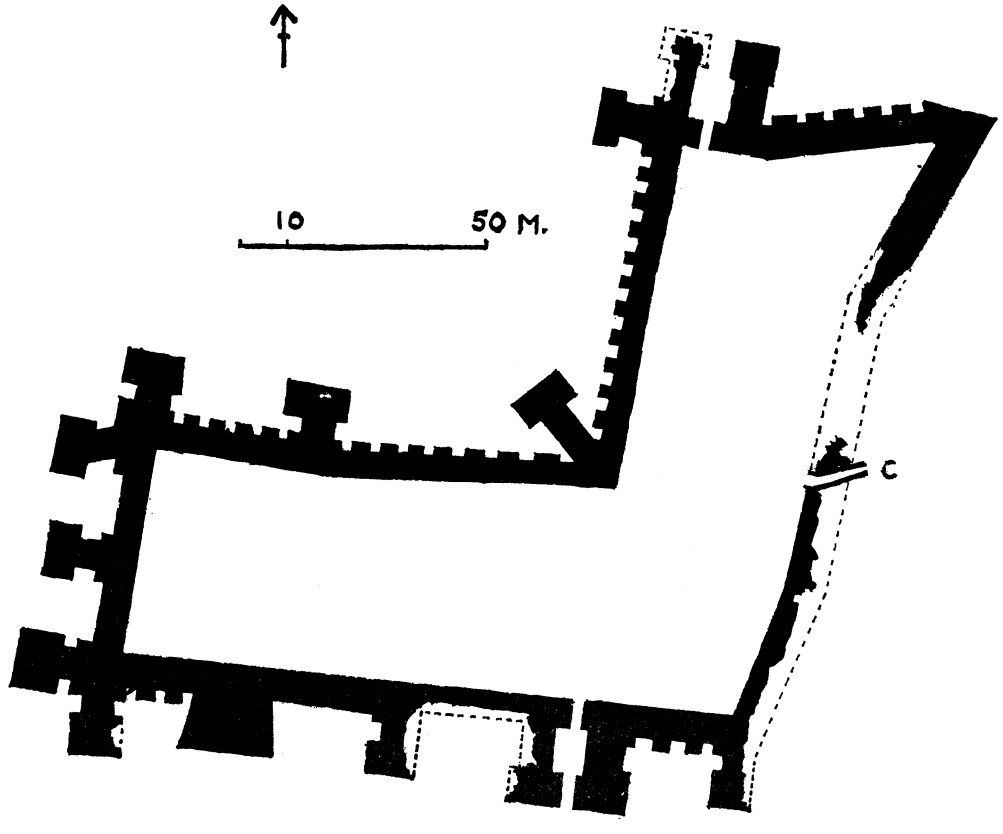
BUHEN FORT



1. Restoration by Somers Clarke, drawn before excavation. A. Temple and early substructure. B. North Gatehouse. C. Concealed steps to Nile. D. Ditch. From *JEA* 3 (1916), pl. xxxi



2. Plan of excavated wall. C. Concealed steps to Nile. After Dunham and Janssen, *Semna Kumma*, plan iv

SEMNA FORT

Coast, equally isolated in a remote land amid an alien population.[1] From the seventeenth century to the nineteenth each of these forts was surrounded (funds and sites permitting) by a fortified berm, in which African allies took refuge in case of attack by hostile tribes; their only way of retreat was through the gateway of the fort, and the parapet contained many slits in order that the Africans themselves might defend it (with muskets, naturally). Under the Middle Kingdom, colonists and friendly Nubians may similarly have been expected to take refuge in and hold the berm. Any prototypes in Egypt would have been meant for the local population and, no doubt, their livestock—and a scheme so complex as that of Buhen, and ill-suited to the ground, does not look like an improvisation.

Minor forts of the same type as Buhen, at ʿAnîba, Ikkur, and Kuban, must have been less satisfactory in general, because their dimensions were all smaller, even as regards height of wall and depth and width of ditch, but at any rate their berms were not overlooked, the sites being flat. The designer who committed that blunder at Buhen[2] can have had no previous experience of planning for uneven ground. There may, indeed, have been no Egyptian precedent for such a siting, nor for a rock-cut ditch. If the builder of Buhen had been able to afford a wider ditch, such as may have been customary on sand or gravel, enough of its floor could have been commanded from the wall-walk over the top of the parapet. Ditches in Egypt would not necessarily have been less steep-sided, since they must have been brick-lined for revetment; the rock-cut ditches in Nubia, even if dry,[3] were lined in order that they could not be climbed. In appearance there may have been nothing to distinguish the scarp and berm parapet at Buhen from earlier counterparts in Egypt, hence the fact was not quickly realized that a berm parapet weakened rather than strengthened a fort placed on hard rock. In Egypt the fortified berm may have been invaluable to prevent the enemy mining through the soft ground under the wall, and there is no reason why the device should not have been retained there, although abandoned in Nubia. The Assyrians used it as late as the seventh century, with a comparable system of outward bends to the berm and of downward-plunging slits,[4] and they may have learnt from contemporary Egyptian practice.

All three minor forts were subsequently rebuilt larger and with stronger defences, but ʿAnîba alone in the original style—presumably before the replacement of Ikkur

[1] Cf. my *Trade Castles and Forts of West Africa* (1963), 76. I can cite no unquestionable example of an early Byzantine system which sounds only vaguely comparable as prescribed by the anonymous *Strategike* (XII, 5–6, 232 a): the peasantry must not be allowed to take refuge inside the fortress proper, in case it becomes overcrowded, but should be made to occupy an outer work, placed between the wall and the ditch, and help defend it, particularly by striking at any mobile shelters and rams that the enemy may bring forward.

[2] Mr. H. S. Smith tells me that the original configuration of the ground was hidden by dumps left by MacIver and Woolley along the outer edge of the ditch; although the curb on the counterscarp definitely stood higher than the berm parapet, its position was not so commanding as some photographs would lead one to think.

[3] It was assumed that all ditches in Nubia were dry, until the discovery at Buhen of a conduit which met the ditch 70 cm. above the floor (*Kush* 12 (1964), 46). Water, however shallow, could scarcely have been crossed without some noise of splashing, and so would have been a useful precaution against night-attack.

[4] W. Andrae, *Die Festungswerke in Assur* (1913), figs. 186, 189, 190, pl. lxviii.

and Kuban. Later, a fortified town was added on to the second fort at ʿAnîba, again without change of style. A quay alongside the town wall should be contemporaneous, and among its burnt bricks was set a block of stone recording the Nile level in the sixth year of Sesostris II. A whole lifetime had passed since the foundation of Buhen while the style persisted without the least alteration.

The Middle Kingdom: transitional phase

The second fort at Kuban shows an attempt to improve on the Buhen style by modifying details; the successive lines of defence correspond but their shapes are different. The ditch was very shallow but rather wider than at Buhen, almost 9 m. overall, compared with 3·50 m. at the old fort of Kuban. A more pronounced batter so diminished the size of the curved salients that only one man could stand in each. The size of the piers is uncertain; they were ruinous when observed in 1842 and 1844. The wall, more recently, retained a height of 8 m. and was 6 m. thick at the base; the batter on each face was exceptionally pronounced and the width on top can scarcely have exceeded a metre, including the parapets. The wall would have held firm till a breach had been pierced almost to the inner face; on the other hand, there can barely have been room on the wall-walk for men to pass one another. However, the whole fort was obviously planned for a minimum number of defenders; those on the wall-walk commanded most of the ditch floor, and few, therefore, were needed on the berm. The gatehouse projected far beyond the ditch, in the manner of Buhen.

The second fort at Ikkur marks a further departure from the Buhen style, again by way of modification. The inward side of the ditch ran straight, and apparently the berm was edged with a mere curb. The gateway, like that of the older fort, appears to have simply interrupted the wall; in recognition, perhaps, of this weakness, gates were placed, anomalously, across the alley which separated the wall from the inner buildings. One might be tempted to suspect that the defences were perfunctory, but for the fact that the wall itself was imposing (6 m. thick, in its ruinous state still 7 m. high) and the ditch uncommonly wide. The inconsistency dwindles if we may assume that the approach was protected by an annexe beyond the ditch, known only from a stretch of wall which led obliquely away from one side of the bridgehead. The excavator, however, associated this with the previous fort; he stated no grounds for this opinion, and the strongest evidence he might have found could only have established a sequence of brickwork at the junction with the ditch lining. He supposed, no doubt, that the construction of the second ditch had obliterated the outer wall's original connexion with the first, and, indeed, the simplicity of the first gateway may imply the existence of some wall outside. But the eventual junction suited the requirements of the second fort so well that it must surely have been chosen deliberately, whether the outer wall were old or new at that time. Moreover, one of the wall's two salients came forwards as though to command the bridgehead from close range. This salient was rectangular, the other ended with a curve; in size they were comparable with the corner salients of a berm. The resemblance to a berm may conceivably have been accentuated by

a ditch, because a serpentine retaining-wall ran parallel with the outer wall, but no berm parapet was so sturdy.

The second forts at Kuban and Ikkur have been attributed, on vague evidence, to Sesostris III. Neither resembles the known works of that king, but one or other, if not both, might easily date from the beginning of his reign or from the latter years of his predecessor, Sesostris II. The same may be said of the minor fort at Serra, which stood on a plateau sloping to the Nile. A small harbour may have been enclosed by the fort, but the outline was otherwise rectangular. The wall was about 5·50 m. thick, and piers projected 2 m. at intervals no longer than their outward faces, 2 or 3 m.

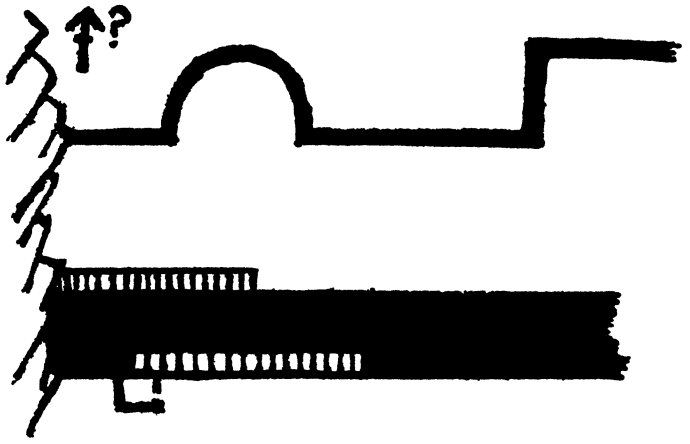


FIG. 1. Mirgissa. Diagrammatic plan of valley defences. Based on photographs and descriptions.

instead of the 4 m. at Buhen. The landward corners of the fort thickened outwards but apparently projected no further than the piers. A short spur beyond the ditch, reached by a bridge, was surrounded by an almost completely independent ditch. The spur was slewed, like the annexe wall at Ikkur, and so outflanked the corners of the fort at roughly equal range, while the gateway may possibly have been situated in the re-entrant. The outward end widened, after the usual manner of spurs, and the tower so formed could have been 7 m. square.

Much the same notions of defence and a similar technique were applied in two double fortifications at Mirgissa, the ancient Iqen.[1] One set, found recently in the valley bottom, began at the foot of a cliff and headed for the Nile (fig. 1). The main wall was 5 m. thick and quite tall; the top could be reached by a staircase at the back and another in front, where a corridor ran behind an outer wall. This, although thinner than the other, was three times as high as any berm parapet, and definitely comparable with the Ikkur annexe because here, too, there existed both a curved and a rectangular salient. Beam-holes in the former bear witness to either an upper story, or more likely a roof-platform; below, to avoid weakening the wall, only a single slit was supplied for each archer instead of the three customary in a berm parapet.

This fortification in the valley at Mirgissa was so commanded from the cliff-top, on which stood the largest of all Middle Kingdom forts, that it cannot be earlier;

[1] *Kush* 12 (1964), 8—identification affirmed.

equally, however, the fort on the plateau would not have had secure access to the Nile shore until the valley defences were built, and so they must be contemporaneous.[1] Some parts of the fort on the plateau were excavated more than thirty years ago but insufficiently published; moreover, the description by Reisner and an accompanying unsigned sketch-plan are irreconcilable with the daybook of his excavator, Wheeler, and the many drawings it contains (though few, perhaps, to scale). The area enclosed

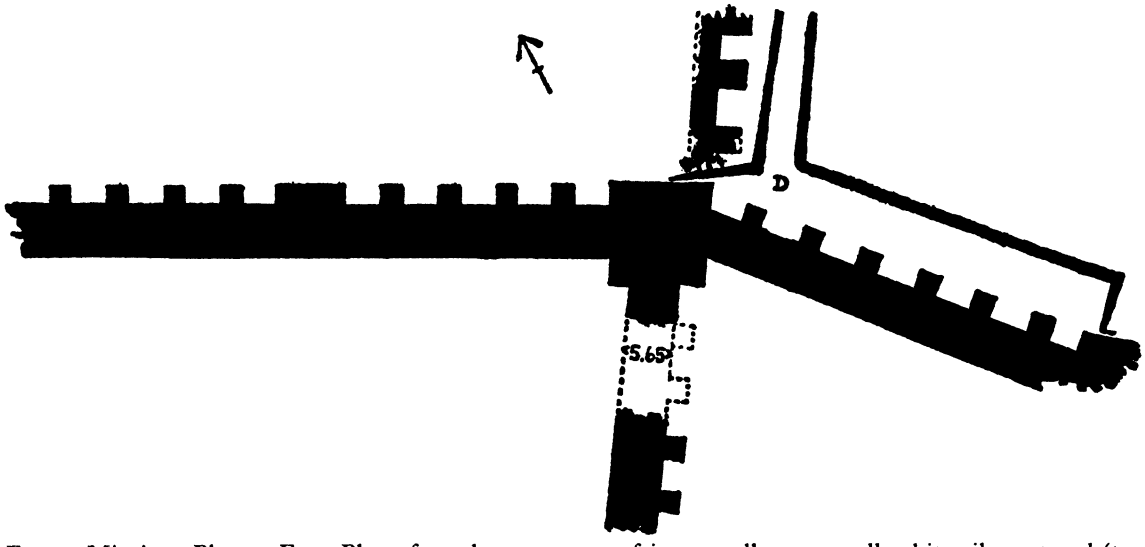


FIG. 2. Mirgissa, Plateau Fort. Plan of north-east corner of inner wall, outer wall arbitrarily restored (top right), ditch (D), spur to cliff-edge (extreme right). Adapted from *Kush* 8, plan 4.

was approximately rectangular. On the east a single wall (5·65 m. thick) kept an almost straight course near the cliff edge and any space between was blocked by branch walls, one of which (fig. 2) is known to have been defensible on the outward face alone, unlike a normal spur (fig. 4). On the other three sides of the fort, two walls of almost equal thickness ran parallel, some 20 m. apart. The interval was too wide to allow help to be given from the inner wall when the outer was attacked. Wheeler examined one of the two places where the walls joined,[2] and proved that the inner had been built first; since, however, the outer alone was protected by a ditch, it almost certainly formed part of the original project. In both walls (figs. 2, 3) the outward face was studded with piers, 2 m. square and so traditional in form, interspersed with projections likewise of 2 m. but prolonged three or four times as wide; the spacing, whether between two piers or between a pier and a longer substitute, seems never to

[1] Outside the valley defences there has been found a third wall, which Vercoutter believed to have joined a wall on the plateau, known from air photographs to have kept fairly near the escarpment for some 300 m. and then met the outer north gatehouse of the fort. This wall—probably of the town—cannot be older than the fort, nor was it strong enough to be the original line in the valley.

[2] At the north-east corner of the inner wall Wheeler found that a stone talus at the base had been partially cut away to receive the outer wall. The latter was obviously in very bad condition, and the sketch-plans do not show its course distinctly. Wheeler thought it was studded with piers on the inward side; in fig. 2 I have drawn them on the outward, but the supposed piers on the inward side may have existed as the ends of inner buildings.

have exceeded 4 m. The corners of both enclosures projected slightly further over a longer frontage and were made square (8–11 m.) by extra brickwork within. Probably they formed towers taller than the wall, and the elongated substitutes for piers may also have been towers, though of lesser height; alternatively, and perhaps more likely, they could have been pillars for structural reinforcement between one sector of the wall and another.

At the south there was a gateway only through the inner wall; the passage was prolonged both outwards and inwards by piers on either hand. At the north a comparable gateway through the inner wall was approached through an extraordinarily long gatehouse in the outer; its outward and inward ends thickened into towers which narrowed the passage, while at the middle the walls were comparatively thin and bore piers. Since here, too, the outer fortifications were much stronger than the inner, the question arises of whether the inner enclosure can really have been meant as a second line of defence, capable of resisting attack after the loss of the outer. It seems more like a secure barracks. Besides, the great width of the space between the two walls is explicable only as requisite for its own sake; perhaps the copper ore was dumped and smelted there. Or, since Mirgissa is now securely identified with Iqen, the most northerly trading centre to which Sesostris III admitted free Nubians, this controlled area might have been allotted for their marketing.

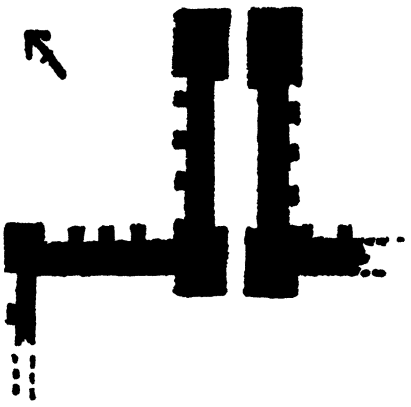


FIG. 3. Mirgissa, Plateau Fort. Plan of gatehouse of outer enclosure. After Wheeler, *Kush* 9, fig. 14.

The outer wall did not stand next to the scarp of the ditch but was set inwards to leave ample space for a stone talus that overlaid the base—a precaution more against erosion, perhaps, than mining. Wheeler's notes record the distance from the wall to the top of the counterscarp as about 23 m. and the depth of the ditch centre as 3 m. Beyond the counterscarp he found flattened rock, making a platform 11·50 m. wide, between brick edgings which projected upwards; the one on the counterscarp would not only have held the drifting sand but added 1·30 m. to the depth of the ditch, at the cost of offering some shelter where the enemy might collect before attacking. The platform must have been intended as a means of exposing them to more efficient fire from the wall-walk.

The scheme of Mirgissa fort seems another and more drastic attempt to improve on the Buhen style by adaptation in detail. Stylistically it should be later than the second forts at ʿAnîba, Kuban, and Ikkur, but earlier than the known works of Sesostris III. Geographically, also, Mirgissa comes between those two groups. It stood amid the lower reaches of the Second Cataract, scarcely ten miles above Buhen, which seems to have guarded the frontier of Sesostris I, but well below Semna, to which Sesostris III finally advanced the frontier. Towers of great projection, such as he used at Semna, would have been so advantageous at Mirgissa that their absence is incompatible with the same stage of his reign.

The Middle Kingdom: late phase

With the exception of one small outpost,[1] the forts high up the Second Cataract occupied sites where successive lines of defence were rarely practicable, and a new style was invented perforce. Since the nature of the ground varied greatly between one site and another, the style needed to be flexible; each design fitted the terrain.

The fort at Semna (pl. XVI) was named after Sesostris III and inscriptions of his eighth and eighteenth years have been found there. Reisner, who excavated the ruins completely, asserted on no known evidence that the eastern half of the L-shaped enclosure existed by the eighth year of the reign and the western not till the twelfth or thirteenth; he also found traces of two earlier periods below the eastern inner buildings.[2] Probably the fort was entirely rebuilt, much larger, in the course of the reign; the east wall has been denuded but otherwise the whole perimeter is manifestly of one design and one period. The fort covers the levelled summit of a huge rock-mass, steep-sided particularly on the east, where roofed steps led privily down to the Nile. The wall, with the piers which probably extended its top, was the sole defence on that side but elsewhere ran close by a ditch, the more formidable owing to an artificially raised counterscarp. A platform, 7·50 m. wide, separated the counterscarp from the external downward-sloping glacis, and was, in fact, a smaller edition of that at Mirgissa.

A fort, which has yielded inscriptions dated in the eighteenth and nineteenth years of Sesostris III, stood on the long and narrow two-humped island of Uronarti (fig. 4). The enclosure was made triangular in outline so as to fit the plateau of the northern hill, and fortified only by a wall with piers; the slopes below were too steep for a ditch. Along two projecting ridges were built spurs, each composed, like a predecessor at Buhen, of a single wall defensible on both sides, and uniform in height with the enclosure. One overlooks the saddle and the approach to the landing place, the other stretches to the north point of the island, 230 m. distant; both changed direction in

[1] The enclosure known as Semna South was built on flat ground, 1,200 m. distant from the great fort of which it seems to have been a dependency. The internal area was very small, some 35 m. square. The wall was 8 m. thick, and straight along each side except for piers, which projected 2 m. The berm and ditch were both unusually wide (as might be expected if the work was even partly executed in sand). A second ditch—a unique feature—surrounded the glacis which began at the counterscarp of the inner ditch; the stone paving of the glacis kept evenly to an angle of 24° and so could have been overlooked from the wall, which was at least 5 or 6 m. high. A stair tunnelled beneath the glacis, towards the Nile. A revetted bank left the fort beside the south corner but soon turned sharply north-east, making an outward jag insufficient for flanking-fire, and continued straight to the foot of a hill opposite the centre of the fort. Another bank started from the north-east corner of that hill and led to the foot of a lower hill, where it turned back and (to judge from an air photograph) passed the fort and bent again to the Nile. The banks, which presumably carried low walls, were so planned in relation to the hills as to be serviceable for confining animals but incapable of excluding human aggressors; the fort is therefore likely to have been a caravan base.

[2] Reisner's changes of mind are explicable. He began, following Borchardt, with the supposition that a substructure at the middle of the east side had carried the original sole building, a miniature fort 'A'—under which, however, he afterwards found still older walls, extending southward. At first, therefore, he ascribed to Ammenemes I a 'nucleus' of the fort, presumably meaning 'A' alone, but later credited him with 'the eastern half' or 'the north-east quarter' in which the walls beneath 'A' lay. Probably Reisner was not interested enough to realize that, by revealing the true shape of the final wall, he had invalidated Borchardt's grounds for thinking that the north-east part was the latest to be completed, and his apparent contradiction of that view is likely to have been due to careless wording.

conformity with the shape of the upstanding rock, the whole of which was covered by the brickwork. The purpose of the spurs may have been, to some slight extent, to bar the enemy from using the highest rocks for attacking the enclosure, but an obviously

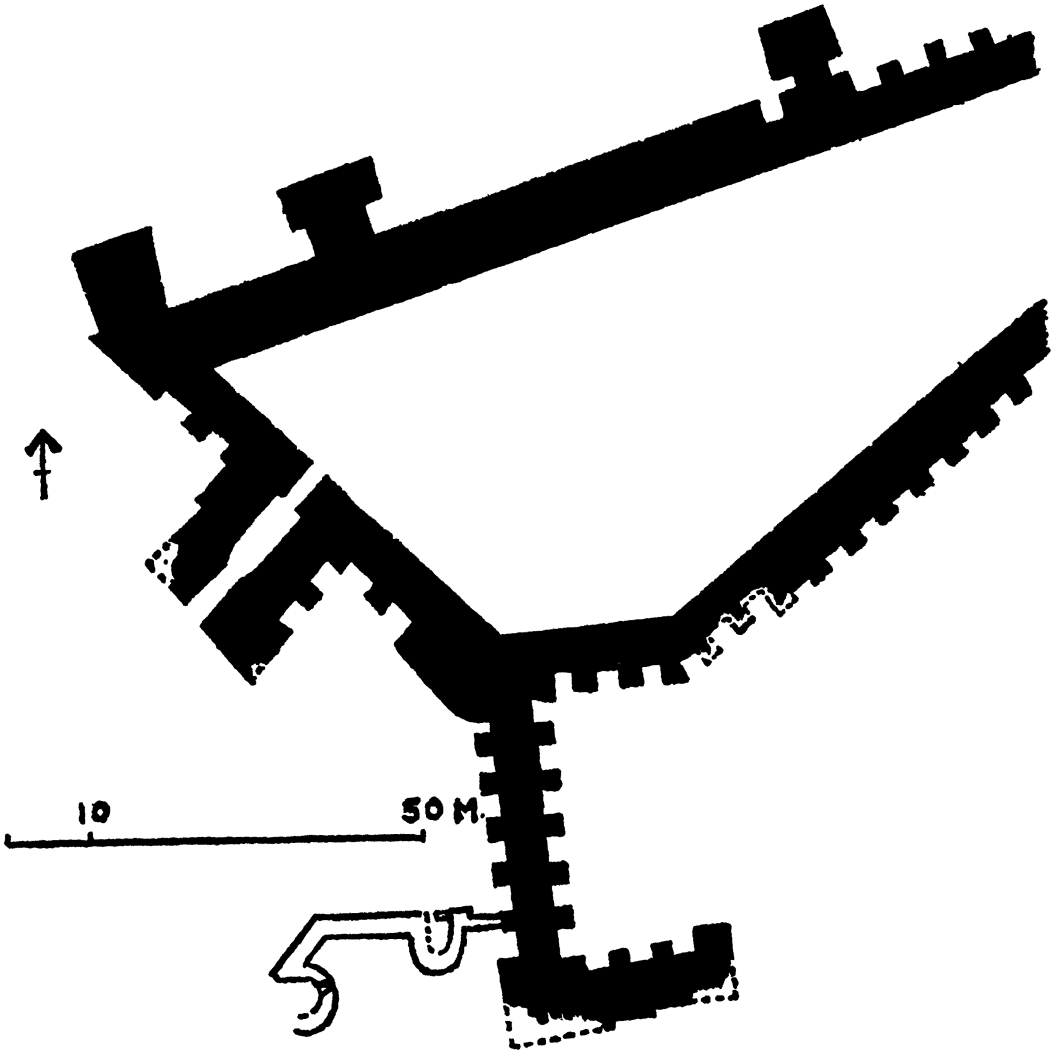


FIG. 4. Uronarti Fort. Plan of wall and spur at south end (in filled outline) and addition (in hollow outline). After *Kush* 8, plan 1.

more cogent motive was the intent to break up enemy concentrations by missiles from above.

At both Semna and Uronarti the wall of the enclosure was made self-sufficient with the aid of towers, uniform in height with the wall itself and just as solid; some were placed, too, on the longer spur at Uronarti (fig. 5). The towers are mostly of a novel shape, adapted from that which had long been used in gatehouses; a thin neck extends outwards to a broader end, so that the plan resembles the outline of a mallet. They projected, as a rule, about 9·50 or 10 m. but sometimes as much as 12 m., approximately at right angles or, when one was placed in a re-entrant, it bisected the angle between the two converging sectors, as the corner salients of a berm had done in the

Buhen style. They varied in plan, apparently the better to match the ground, and were placed at irregular intervals for the same reason. Where danger particularly threatened, the gaps between their frontages did not exceed 10 m.; at less vulnerable portions the gaps might be as long as 50 to 80 m., and no towers at all were placed above cliffs.

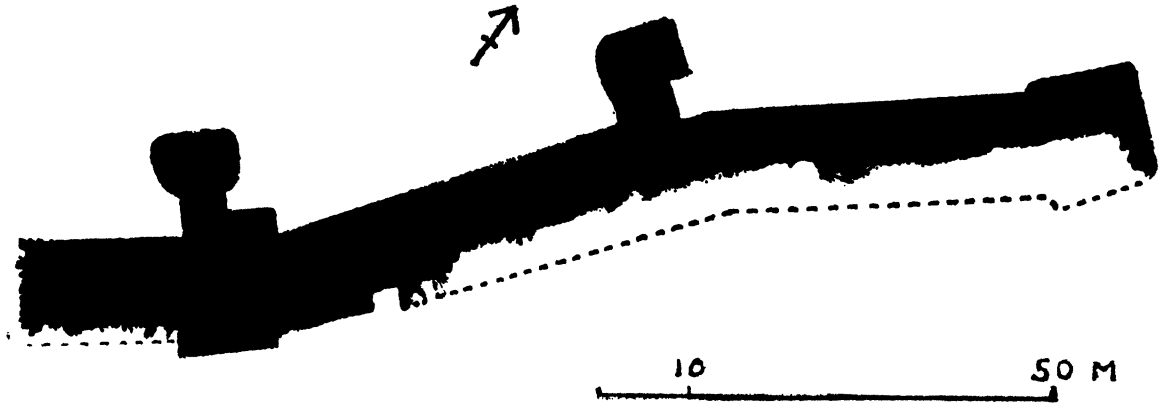


FIG. 5. Uronarti Fort. Plan of end of north spur. After *Kush* 8, plan 1.

Two lesser forts overlooked slopes so abrupt that the complete absence of towers is no argument for earlier date; moreover, both were situated in territory which Egypt is unlikely to have held before Sesostris III. Kumma, straight across the Nile from Semna, can only have acted as a complement to that major fort, and the circumstances which demanded its construction presumably operated simultaneously with the building of Semna. The whole summit of a little hill was occupied by the fort, the perimeter of which has therefore been exceptionally subjected to erosion, and all the outer face of the wall perished long ago. The outline was roughly square, apart from two salients, one evidently a spur; the few shapeless remnants of the other suggest a gatehouse.

The second fort that required no towers or ditch dominated the landscape from a very imposing hill, now called Shalfak. To cover the whole of the flat summit three spurs were required as well as the exceptionally irregular enclosure; basically it may be regarded as a quadrilateral widening towards the west, though the north-west corner was slanted off and the west end of the south side recessed by a succession of right-angle bends. For no main wall of the Twelfth Dynasty was allowed to curve. As at Uronarti and Semna, the wall varied in thickness (from 5 m. upwards) and was supplied with piers only where approach up the slope was feasible; the spurs were similarly treated. Most of the piers at Shalfak were 2 m. square (as at Mirgissa), slightly broader than those at Uronarti, while the variation at Semna ranges both above and below either norm. The intervening recesses at each fort tended to be narrower than the piers, contrary to older practice; if the function of piers remained as postulated, to carry a wooden extension of the wall-walk, the beams laid between them were now shorter and could have been less massive.

A minor gateway at Shalfak and a slightly larger equivalent at Uronarti (8 m. long by less than 3 m. wide) resembled the inner portion of a main gateway, i.e. the piece that goes through the wall. At both these forts the main gateway was placed at the

opposite end from the minor, to which the steps from the Nile ascended; at Semna there were two main gateways on opposite sides. All four correspond broadly in scheme with the main gatehouse at Buhen, and may have been identical with it in length; the ground on the hilltops would not have allowed such exaggerated length as at Mirgissa. The width of the gatehouses differed but always much exceeded that at Buhen; at Semna it even equalled the length. Because, however, the passage was just as narrow as at Buhen towards either end (and only at Semna did the central portion expand much) the sole purpose of increasing the width must have been to increase the strength of the twin towers. These may, if the passage were vaulted, have merged into a single tower at either end but the central portion almost certainly formed an open court, commanded from the surrounding roofs. Each gatehouse probably contained a staircase or a pair of staircases, as apparently at Buhen. In none of the forts can the height of the wall have been less than 9 m. but access to wall-walks could have been obtainable from the roofs of the inner buildings, by ladders straddling the alley which ran beside the foot of the wall. The alley would, in any case, have been too narrow for rapid movement of troops, and must have been constantly obstructed by ladders to the second story (because few of the storerooms at ground level could be entered from without); the inner streets also were narrow and could easily have been bridged, in which case troops could have moved across the roofs to any threatened part of the wall.

The excavators' provisional data on the minor fort at Askut, an island between Mirgissa and Shalfak, suggest a close resemblance to Shalfak and Uronarti in plan and most other respects. No helpful results are yet published of the excavations at Dabnarti, the island opposite Mirgissa; the remains above ground[1] include a series of flanking towers comparable in length with those at Semna, but whether their ends widen in the same manner is not yet known. An exceptionally long tower was slewed in front of the entrance, as may have been the case at Serra.

The use of flanking towers seems, on the present unsatisfactory evidence, to have begun in outer, not main, walls, by adaptation of salients such as had been applied in a berm. The most effective piece of flanking, and probably the latest known in the Middle Kingdom, is appropriately found in a work obviously inspired by an outer wall. This wall, which enclosed an annexe to Uronarti fort (fig. 4, bottom left), appears to have been the only wall there in spite of an average thickness of only 2·30 m. Most of its course consisted of long straight sectors, after a tortuous beginning from one of the old spurs. From that first stretch projected two approximately semicircular salients, 7 or 8 m. in diameter, and so comparable in form to those of the berm at

[1] The wall on Dabnarti was built with less than the usual care and cannot have been very tall, while the area enclosed, though quite extensive, contained no permanent buildings and has so far yielded singularly few traces of ancient use. These facts suggest that the fort was meant for a temporary purpose; Sesostris III may have needed it as a dependency of Mirgissa while he undertook the conquest of the upper reaches of the Cataract and the construction of his forts at Semna, etc. Although an extremely dangerous rapid has impeded approach to the island in modern times, navigation under the Middle Kingdom was assisted by higher flood-levels. Wheeler deduced that the level had reached 5·50–7 m. above that of 1932, cf. *Kush* 9 (1961), 165 and 146; if so, there can have been little damming-up at Semna, but cf. *Kush* 11 (1963), 104.

Buhen. They were hollow, and (one at least) closed behind and probably roofed. They stood at right angles to each other and so could have given mutual aid in defence; one archer's slit is preserved. Material of the Thirteenth Dynasty was found in the annexe as well as in the old fort.[1]

Sealings of the Middle Kingdom were found in a small enclosure at Faras, downstream from Buhen and Serra. It was only weakly fortified, perhaps because of improved security so far behind the frontier. The wall ran straight on all sides, except for one small tower (perhaps the gateway) and a couple of buttresses on the side away from the Nile; this was approached through an almost indefensible outer court, worth mentioning only as a possible equivalent to the space between the two walls of Mirgissa fort. At Kor, rather more than a mile south of Buhen, an enormous area beside the Nile was enclosed and partitioned by rubble foundations for straight walls, less than 2·40 m. thick, and curved salients less than 0·90 m. thick; probably this was merely a camping-place with donkey pounds, but even so it should belong to a time when the frontier had been moved far upstream. In the whole region of the First Cataract the only serious fortification which could be ascribed to the late Middle Kingdom is the final extension of ʿAnîba, excessively simple in design and roughly built.[2] It may, however, belong to a later age. The enclosure contained a temple of the Eighteenth Dynasty which the excavators took to be contemporaneous. More plausibly, the degeneracy of the work has been explained by dating to the Second Intermediate Period.[3] On that theory, the design should probably be attributed to some Egyptian in Nubian employment, because the wall around a C-Group settlement in the same district, at Arêqa, was far more crudely planned and executed.

The outer town of Buhen

The Middle Kingdom fort at Buhen eventually became the centrepiece of a strongly fortified enclosure, over a mile in perimeter and obviously intended for a town. Between the town wall and the fort stood a temple, not later than Amosis; it overlaid rooms almost certainly of the Middle Kingdom, and each building in turn masked some defences of the fort. The town wall must be older than the New Kingdom, but was

[1] Mr. B. J. Kemp informs me that a sealing of the presumed Hyksos king Maatibrēʿ (known only from scarabs) is published among those found in Uronarti fort—*Kush* 3 (1955), 66, no. 378—and may imply occupation under the rule of Kerma, where also sealings of this king have been found.

[2] In Period VII of the site. The wall was some 5 m. thick at the base. The corners projected almost imperceptibly (15 cm.) and the only other projections were the towers of the gatehouse (2·15 by 7·50 m. frontage); the passage between them was eventually reached by a fixed bridge instead of the original drawbridge. The berm was narrow and unfortified, and the ditch was narrow enough (2·75 m.) along most of its course to be jumped. Presumably the wall of the second fort (II) and of the town (III) still remained in use; it had been doubled (in Period IV) at the back, by 4 m. of new brickwork separated from the older by 20 cm. at the base, but the batter on either hand rapidly widened the interval higher up.

[3] Possible traces of a fort in Lower Egypt have been hesitantly ascribed to the Second Intermediate Period, by intuition rather than on evidence (Brunton and Engelbach, *Gurob*, 3, pl. i); the graves in the vicinity are mostly no earlier than Tuthmosis III. Only the foundation-trenches remain for a wall that could scarcely have been as much as 2 m. thick and delimited a rectangle of *c.* 43 by 86 m. Near one corner, three raised platforms projected in a row as though to support brickwork, which could have been 2·50 m. thick and have averaged perhaps 6 m. in length. The dimensions suggest towers like those of Semna and Uronarti.

altered, probably in more than one period, and the problems of dating may thereby have been complicated.

On the west side, away from the Nile, the defences ran upon a flat plateau, and were multiple as in the fort, consisting of the wall, a berm with parapet, a ditch and its counterscarp. Emery's excavations have proved that the same system was applied also on the north end, where the ground slopes steeply down to the river (and, since

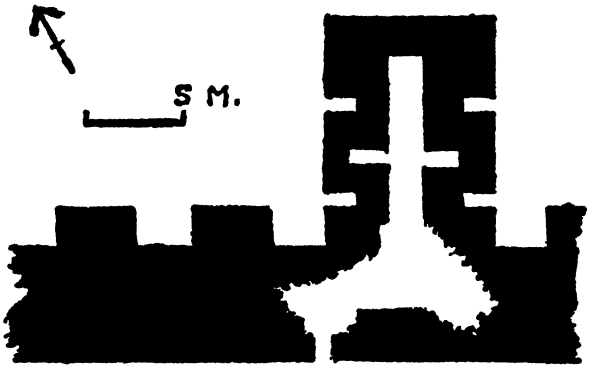


FIG. 6. Buhen. Outer town wall. Plan of added tower. After Emery, *Kush* 7, fig. 1.

MacIver and Woolley thought there was no ditch on that sector, their statement that there was no ditch on the south end may be equally mistaken). The wall itself conformed with Twelfth-dynasty practice, being 4·50 m. thick at the base and not less than 11 m. high, timber-framed, battered, and supplied with piers (except on some stretches which may be replacements). As in the forts of Sesostris III, the width of the piers varied but habitually exceeded that of the recesses between them; no other instance is known of such a slight projection, 1·50 m. In the planning, instead of the extreme regularity which prevailed in the fort, there may be seen a measure of freedom, less than an architect of Sesostris III would have allowed on a hilltop, but such, perhaps, as he might have thought appropriate here. The junction of the riverside and southern walls alone can have formed a right angle. The north wall left the river at an acute angle, which theoretically should have caused part to be overlooked from outside. Both the inland corners must have been obtuse, and the west wall diverged from them in outward-slanting sectors, which met, not at the central gatehouse, but well to one side of it. The gatehouse was nearly twice as long as it was wide, in the manner usual early in the Twelfth Dynasty, but the exterior bore piers, as at Mirgissa and Uronarti. The berm and the counterscarp bent outwards at intervals longer than in the fort but—perhaps in compensation—each salient of the berm appears to have projected further and to a longer frontage. MacIver and Woolley thought the salients were rectangular, and did not observe any arrow-slits, but it may tentatively be suggested that the corner salients of the fort are likely prototypes.

The later improvements included, near the middle of the north end, the addition of a hollow tower (fig. 6), 8 m. wide, which projected 8 m. beyond the original wall; the sides bore piers. The form may have been imitated from the gatehouse but is unparalleled for a flanking tower; in the forts ascribed to Sesostris III flanking towers

often stood at the middle of a side but they appear invariably to have been solid. No work clearly dated to the New Kingdom is at all comparable.[1]

The New Kingdom

When the Egyptians reoccupied Nubia, they found the Middle Kingdom fortifications mostly choked with sand and sometimes encumbered with rubbish. Several were cleared and made habitable, but with little or no regard to defence; at Buhen alone was the fort appreciably altered, in a manner which disposed of the refuse at the expense of military efficacy. The wall itself was refaced but no attempt was made to recondition the berm, although it had remained practically intact; instead, it was buried even deeper, under a platform that extended over it to the previous middle of the ditch. The platform cannot have been meant for defence; indeed the doorways that had led from the gatehouse to the old berm were blocked up. The remainder of the ditch was filled solid up to a couple of metres above the original floor; even so, little or nothing of the new ditch floor can have been seen from the wall-walk. The general impression that the fort was to a large extent demilitarized is confirmed by changes in the gatehouse; it was so much reduced in both length and breadth as to become scarcely more than a monumental entrance.

Throughout Nubia fortification under the New Kingdom was perfunctory. When the frontier had been advanced to the Fourth Cataract the security of towns and villages downstream can rarely have been threatened, and then only by a few marauding nomads. Sometimes the settlement filled an annexe to a religious precinct, the wall of which was extended on the same design. Only three examples have been published of independently walled towns; Sesebi, on a site indefensible by nature, was built by Amenophis IV, roughly two centuries after the conquest, while both ʿAmâra West and Aksha date from Sethos I. These walls must certainly have been impressive—which, no doubt, was their real purpose—but show no concern for military advantage. If ditches existed they were not brick-lined. Gates not less than 3 m. wide, even as wide as 6·50 m., received no safeguards; sometimes the wall thickened on either hand, but in order to receive staircases to the wall-walk. How slightly access to it was valued appears from the fact that both the stairs in one gateway at ʿAmâra were soon blocked. No piers existed; the wall-walk may have been cantilevered outwards by a cornice. Each side of the rectangular enclosures ran straight, except for projections of 2·65 by 3·15 m. wide at Sesebi, and rather smaller at ʿAmâra; they were spaced 13 m. apart at Sesebi and even further at ʿAmâra, and spans so long cannot

[1] Three towers, eminently suitable for outflanking, project from the enclosure of Kôm Ombo, where Champollion noticed a cartouche of Tuthmosis III on one of the stone-lined gateways; whereas these gateways took an ornamental form, common at sanctuaries, the towers conferred no embellishment and seem genuinely and purely defensive in purpose. All three are placed on the side away from the Nile, one in the centre at right angles to the wall, the others at either corner and slewed so that each commands also the return towards the river; in one instance, that was effected by the typically Greek device of building four external facets. All three towers could be used in conjunction for their mutual defence. Probably they were built against the Blemmyes; the town reached its greatest prosperity under the Ptolemies and the Romans, and lay barely thirty miles within the frontier.

have been overlaid by beams. Perhaps the projections belong to solid pillars of brickwork, between which the intervening sectors may have been separately constructed; the tops could have risen above the wall to form turrets, such as adorned the entrances of temples. Very few projections of any kind are known at Aksha, though half of the perimeter is drawn on the excavators' provisional plan. At one of the three corners represented the wall thickened into a tower, 5·85 m. square though the flanks did not project more than about 3 m. A comparable, though slightly smaller, corner tower at ʿAmâra resulted from two successive enlargements (the first by Ramesses II) of a projection which had resembled any other at that site. Nothing else of the New Kingdom, whether in Egypt or in Nubia, might be regarded as a flanking work.

At Soleb, between ʿAmâra and Sesebi, a double wall (separated by a corridor or a solid fill) surrounded both the temple precinct and an area suitable for a little town. The same methods were applied in Egypt, naturally on a much larger scale. At Heliopolis the sanctuary occupied the major part (about 1,100 by 475 m.) of an enclosure shared with the town, and neither component of its double wall seems to have been less than 10 m. thick. If Petrie was approximately right in assigning the wall externally to Ramesses II and internally to Ramesses III, it can hardly have been built in the expectation that it might ever come under attack. The great width of at least one gateway also implies ambition to create an imposing work of practically no utility.

The borders of Lower Egypt must have been liable to raids in much greater force than the Nubians could then muster, and some genuine fortifications may have been required, although quarters for chariot troops are likely to have been almost indefensible. A western frontier-line, probably a chain of forts, is known to have been constructed by the Nineteenth Dynasty to restrain the Libyans,[1] and the ancient 'Walls of the Prince' continued to perform a similar function towards the isthmus of Suez. Contemporary illustrations[2] probably relate thereto, as well as actual remains,[3] especially at the partially excavated site of Tell el-Raṭâba. This huge mound in the Wâdi Tumilat was fortified in three periods. The original wall has been traced for

[1] Rowe, 'Contribution to the Archaeology of the Western Desert'. II; *Bulletin of John Rylands Library* 36, no. 2 (March 1954), 485, 497.

[2] See Gardiner, *JEA* 6 (1920), 99. There is, no doubt, unusually good reason to associate with the eastern frontier a relief of the Nineteenth Dynasty (ibid., pl. xi), showing a pylon on one bank of a waterway, guarding the entrance to a bridge, another pylon across the bridge as the gateway to an enclosure lined with buildings, and a third pylon for its exit. The clearest view of a fort is, however, most likely to relate to Nubia, because it occurs in the tomb of the Viceroy of Kush under Amenophis IV (N. de G. Davies, *The Tomb of Huy*, pls. ix, bottom, and xl, 2), but buildings of similar type are represented as situated on the eastern border. The walls are drawn in section, a convention which leaves us in doubt as to whether the rectangular overhangs of the wall-walks or towers were carried entirely by cantilevered beams or to some extent by supports rising from the ground; a wavy line on the very top must indicate the rounded merlons on the parapet. Another representation, in the tomb of Nebamūn, has been taken for a fort but must be really of a group of trees, as Wreszinski saw (*Atlas*, I, pl. 224).

[3] An irregularly shaped, brick-walled, enclosure at El-Shaghâmba, of unknown age, must have been comparable with Tell el-Raṭâba in layout but apparently not in details (Petrie, *Hyksos and Israelite Cities*, 52, pl. xxxix M). Alleged fortifications at Tell el-Maskhûṭa (Pithom) are best ignored. No specifically defensive characteristics can be seen in a stone building, firmly dated to Ramesses II, in the neighbourhood of Suez, though Clédat thought it was a combined fort and temple of the frontier troops (*BIFAO* 16 (1919), 208, fig. 3). Its wall consisted of a double row of well-cut large blocks, each 30 cm. thick. The exterior, 14·80 m.

370 m. in the course of which it made three slight bends, one of them buttressed, and only another buttress (or two?) projected from the straight faces. The second and much thicker wall, dated by a foundation-deposit of Ramesses III, enclosed a larger area of the mound within a trapezoidal perimeter (fig. 7). One side ran unrelievedly straight for more than 300 m. Another side contained a main entrance, between a pair of towers which externally ended flush with the outer wall-face but at the back stretched

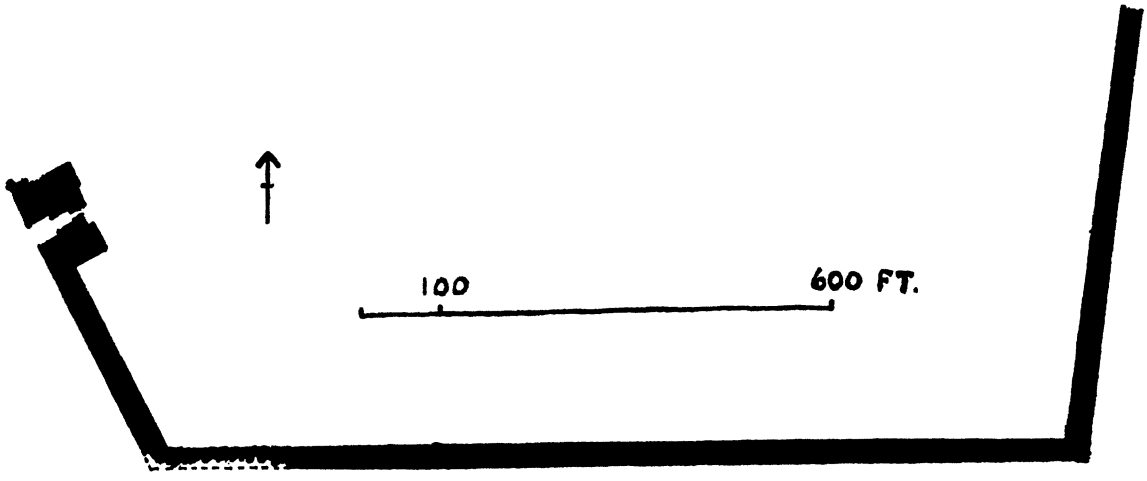


FIG. 7. Tell el-Raṭâba. Plan of wall of second period. After Petrie, *Hyksos and Israelite Cities*, pl. xxxv.

far inwards. The passage was wide at the mouth (? 9 m. square) and contracted twice behind, where the towers broadened at its expense. Gateways of the Middle Kingdom had been designed on the contrary principle of a narrow mouth and a wider court behind. Here the enemy would have been exposed to missiles from three directions compared with four under the Middle Kingdom scheme. Asiatic influence may be suspected, as in the similar entrance to the outer enclosure at Medînet Habu.

The sham fortifications with which Ramesses III surrounded his temple at Medînet Habu have, for their most prominent feature, the pavilion tower imitated from Syrian military architecture. In other portions Egyptian and Syrian elements appear to have been methodically blended, as a memorial to victories in Syria. There may, however, have been nothing unfamiliar to Egyptian eyes in the inner enclosing wall, which was built earlier in the reign. The main gateway, comparable in plan to those at Sesebi and ʿAmâra, pierced an exceptionally thick stretch of wall, but along the remainder, turrets projected 2·50 at intervals of nearly 40 m.; they were oblong, except at the corners of the rectangular enclosure where the inevitable doubling made them square. Only the wider spacing differentiates this scheme from that of Sesebi or ʿAmâra, at any rate in plan. The elevation would also have been similar if there were turrets at those sites taller than the rest of the wall, as is known to have been the case at Medînet Habu. Turrets of that kind are constantly represented on the views of Syrian towns carved at the Ramesseum (and they remained characteristic of all Western Asia, according to the Assyrian reliefs); if such were already used at Sesebi, presumably Amenophis IV or one of his predecessors had introduced them.

square, was unflanked and interrupted only by a pylon gateway. Internally, three successive rooms stretched the full width, though the innermost (entered through a smaller pylon) was virtually subdivided by a colonnade into a vestibule and the temple proper. The assumption that the outer rooms were occupied by a garrison is purely arbitrary; the many storage-jars they contained might have been needed by the priests and servants of the cult.

The two outer walls at Medînet Habu were built late in the reign. The main wall was very high. Two of the corners were curved, the other two rectangular. No projections have been found except for the Syrian-style gatehouse, which was prolonged much farther inwards than outwards. The passage widened sideways into the wall thickness, as at Sesebi and ʿAmâra (for stairs), and contracted in the manner Ramesses used also at Tell el-Raṭâba. The gateway through the low outermost wall opened opposite, between a pair of guardrooms. The wall, 4·40 m. high, is in part preserved to the very top, where rounded merlons stood in contact; the gaps between them widened upwards from the continuous parapet. From the base of the parapet rose square turrets, built upright so that they gradually separated from the battered face (and similar turrets probably existed on the main wall too). Each contained a little room, and was crowned with its individual parapet, likewise with rounded merlons. Cavalier turrets of this sort can be distinguished on the views of Syrian towns at the Ramesseum, where, however, they are represented behind a continuous parapet; at Medînet Habu the turrets necessarily interrupted the parapet, owing to the comparative thinness of the outermost wall. If the Egyptians had built such turrets at other sites, remains would surely be still visible.

The last Dynasties

The division of Egypt into mutually hostile states, and aggression from across the shrunken frontiers, must have caused the building of many fortifications; the earliest would naturally have been the work of the Twenty-first Dynasty, since it bore the onset of the troubles. Brick-stamps of its Theban branch occur in the town wall at El-Ḥîba, a hundred miles south of Cairo. This was 12·60 m. thick and still retains a height of 10 m. Natural advantages, such as rarely presented themselves in Egypt, were exploited by siting the wall on low rock from the southern extremity beside the Nile to the north-east corner, where it met a higher mass of rock, which runs back westward to the river and so blocked access from the north. The general convex course (of about 600 m.) was obtained by means of straight sectors, a couple of slight bends, and an abrupt double bend that made a re-entrant—and so, unlike any other part, was outflanked. The wall ended northwards with an inward thickening, forming the eastern side of the main gateway, the width of which appears to be no less than 6 m.; the situation was a safe one. Above the west side of the gateway stood the end of a 'fort' on the higher rock; it was rectangular, of roughly 120 by 60 m., and stretched to the river bank.

Two kings of the Twenty-first Dynasty have left enclosures at Tanis, which are worth attention in the absence of true fortifications on flat ground. Siamūn's building was a rectangle of 120 by 80 m. and its wall nearly 7 m. thick (on a wider base, thought to be earlier). Psusennes re-used part of a structurally remarkable quadrilateral (perhaps of Ramesses II) and so gave the great temple an irregular precinct of nearly 200 m. a side. The new wall was 18 m. thick (in one sector); a ramp, 5 m. wide, led to the top, which cannot have been much less than 11 m. high. In principle these enclosures at Tanis sustain comparison with the single 'great wall' at El-Kâb, which, with its narrow gateways, seems a genuinely military work, the largest the Egyptians are known to have built at any period; in each case the wall was enormously thick and ran straight for the entire length of each side, with no projections of military import.

The fortification at El-Kâb encloses a rectangular area of flat ground by means of

the wall alone, nearly three miles in perimeter. An isolated precinct inside contained a small temple of the Nineteenth Dynasty and a larger of later date, completed by the Ptolemies. The remainder of the walled area is thought to have been intended for a town, though only a small proportion was ever inhabited. Some king may have begun the project on a more grandiose scale than suited local economy. Alternatively, the scale may have suited the conditions of a limited period, and for that line of thought the geographical situation is important. The plain of El-Kâb lies 80 miles below the First Cataract, where the frontier with Nubia was again placed after the collapse of the New Kingdom and remained until the Napatan kings of the eighth century expanded their territory into Egypt. The 'great wall' is too far downstream to have been meant as a base for invading Nubia, but well placed for resisting invasion from Nubia. On that argument it cannot be a work of either the Middle Kingdom or the New, these being periods of Egyptian aggression. Although an inscription on the site referred to the restoration by Ammenemes III of a wall built by Sesostris II, that should not relate to the 'great wall' for archaeological as well as historical reasons; the style clearly derives from the New Kingdom, and the technique of a brick arch, over one of the gate passages, is said by Somers Clarke to be without dated parallel before the Twenty-sixth Dynasty. On the combination of this evidence the 'great wall' might plausibly be dated to the middle of the eighth century, as a safeguard against the Napatans; although in the event Upper Egypt seems to have made no resistance, there may have been intention to do so.

The wall was 12·10 m. thick and built in separate sectors of undulating brickwork, for greater stability. There were no projections of any kind from the outward face, except possibly a thickening at each corner. The main gateways, most of them stone-lined, were of uniform design; the passage ended flush with either wall-face and kept a constant width of 1 m. apart from a slight expansion to receive the wooden doors. Every passage was arched, always to the same level, nearly 11 m. above ground, and the wall-walk probably rested directly upon the arch. Ramps, built against the inner wall-face, were broad enough to take five or six men abreast all the way from the ground to the top. Defenders to the numbers implied by this provision should have had no difficulty in holding the wall against any attack; a work of such magnitude could depend on its size alone.

The old methods of attack—escalade, breaching, mining—were supplemented during or before the eighth century by the mobile towers mentioned in an inscription of Piankhi's;[1] their invention should probably be credited to the Assyrians. The introduction of mobile towers would not have occasioned modification to the traditional plan of a fortification; in fact the archers and slingers mounted upon them would have made any unroofed salient of normal height untenable. The only possible counter-measure (apart from a ditch and other outworks) would have been to build closed towers taller than the rest of the wall, so that the defenders could wait under cover till the time came to repel boarders.

[1] Breasted, *Ancient Records*, IV, § 842, 861.

Gigantic embankments at various sites in the Delta may be the worn remains of late town-walls or sanctuaries, though sometimes they could also have served the purpose of retaining the flood-waters. The example at Sais—probably to be identified with the main sanctuary there—appears to have been square but for rounded corners, and measured about 680 m. a side; some king of the Twenty-sixth Dynasty is likely to have built or rebuilt it in compliment to his family's place of origin. Both Psammetichus I and Apries left foundation-deposits at Daphnae, where the troops that guarded the eastern frontier were stationed—not, however, in a fortress, but in a great cantonment, one of the three Command Headquarters of the Egyptian Army.[1] On Herodotus' account (III. 13) of the Persian conquest, the garrison came out to fight the invaders and, when defeated, made no attempt to hold Daphnae but stood siege within the wall of Memphis (now represented by shapeless embankments).[2]

It is most unlikely that any fortifications built after this event followed the Egyptian tradition, except in irrelevant trappings such as pylon entrances; the planning would have been Asiatic under the Persians, Hellenistic after Alexander.

APPENDIX

Select bibliography for fortified and semi-fortified sites

Abydos: Ayrton, Currelly, and Weigall, *Abydos*, III (1904), pls. vi, vii. Reisner, *Development of the Egyptian Tomb*, 10 n.

Aksha: Rosenvasser, *Kush* 12 (1964), 96, fig. 1.

ʿAmâra West: Fairman, *JEA* 25 (1939), 139, pl. xiii; 34 (1948), 8, pl. ii.

ʿAnîba: Steindorff, *Aniba* (1937). Säve-Söderbergh, *Ägypten und Nubien* (1941), 33, 127.

Arêqa: ibid. 131, fig. 11.

Askut: Badawy, *Kush* 12 (1964), 47, fig. 1; *Illustrated London News*, June 22, 1963, 964.

Buhen, Fort: Emery, *Kush* 7 (1959), 7, pls. iv, vi–ix; 8 (1960), 7, pls. i–v; 9 (1961), 81, pls. xvi–xix; 10 (1962), 106, pls. xxix–xxxi; 12 (1964), 46, pls. xi, xii. R. Keating, *Nubian Twilight* (1962), pls. 18–20.

Old Kingdom: Emery, *JEA* 48 (1962), 2; *Kush* 11 (1963), 116, fig. 3.

Town-wall: Randall-MacIver and Woolley, *Buhen*, II, chap. vii, plan G. Somers Clarke, *JEA* 3 (1916), 161, pl. xxvi.

Dabnarti: Ruby, *Kush* 12 (1964), 54. Wheeler, *Kush* 9 (1961), 146, fig. 66.

Daphnae: Petrie, *Tanis*, II, 47, pls. xliii–xlv.

Faras: Griffith, *Liverpool Annals of Archaeology and Anthropology* 8 (1921), 80, pl. xvi.

First Cataract wall: Weigall, *Antiquities of Upper Egypt*, 411. Baikie, *Egyptian Antiquities in the Nile Valley*, 717.

Heliopolis: Ricke, *ZÄS* 71 (1934), 125, fig. 4. Petrie, *Heliopolis, Kafr Ammar and Shurafa*, pls. i, ii.

El-Ḥîba: Kamal, *Ann. Serv.* 2 (1901), 85. H. Ranke, *Koptische Friedhöfe bei Karara* (1926), 58, pl. 22. 4 (but not pl. 22. 3).

[1] According to Herodotus (II. 30).

[2] Iamblichus, writing more than eight centuries after the Persian conquest, asserted that Heliopolis offered resistance (*Vita Pyth.* 4). The belief might have been inspired merely by the stupendous ruins of the wall, which no one would then have thought to have originated out of ostentation, instead of for defence.

Hierakonpolis, 'fort': Kemp, *JEA* 49 (1963), 24, pl. iv.
terrace: Quibell, *Hierakonpolis*, II, pl. lxxii.

Ikkur: Firth, *Archaeological Survey of Nubia Report* 1908–9, I, 22, figs. 8, 9; II, plan xx, pls. 33–36. Weigall, *Antiquities of Lower Nubia* (1907), 84, pl. xxxix. Ebert, *Reallexikon der Vorgeschichte*, III, pl. 85 a.

El-Kâb: Quibell, *El Kab* (1898). Somers Clarke, *JEA* 7 (1921), 54, pls. ix–xviii. Somers Clarke and Engelbach, *Ancient Egyptian Masonry*, fig. 252. Fondation Égyptien Reine Elisabeth, *Fouilles d'el Kab* (1940), I, pl. 1; II, pl. 21. Capart, *Fouilles en Égypte, El Kab* (1946), photographs.

Kôm Ombo: Maspero, *Egyptian Archaeology*, fig. 30; Weill, *J. Asiatique* 15 (1900), 105, 245.

Kor: Somers Clarke, *JEA* 3 (1916), 163, pl. xxvii. Vercoutter, *Kush* 3 (1955), 4.

Kuban: Emery and Kirwan, *Excavations between Wadi es Sebua and Adindan, Archaeological Survey of Nubia Report* 1929–31. Firth, *Archaeological Survey of Nubia Report* 1910–11, pl. 1. Lepsius, *Denkmäler*, I, pl. 111, and *BIFAO* 27 (1927), 32—piers.

Kumma: Dunham and Janssen, *Second Cataract Forts*, I, *Semna Kumma* (1960), 113, plan xvi.

Medînet Habu: Hölscher, *Excavation of Medinet Habu*, IV. ii (1951), *Mortuary Temple of Ramses III* (*Oriental Inst. Publ.* LV); *Excavations at ancient Thebes 1930/1* (1932) (*Oriental Inst. Comm.* 15).

Mirgissa, plateau fort: Reisner, *Kush* 8 (1960), 17, plans 3–6, pls. ix–xiii. Wheeler, *Kush* 9 (1961), 97.
valley defences: Vercoutter, *Kush* 12 (1964), 60, pl. xix; *Revue d'Égyptologie* 15 (1963), 72, pl. II B.
wall near cliff-edge: ibid. 72, pl. 9. Keating, *Nubian Twilight*, pl. 23—air photograph. *Kush* 9 (1961), 93.

Sais: Lepsius, *Denkmäler*, I, pl. 55.

Semna (West): Dunham and Janssen, *Second Cataract Forts* I, *Semna Kumma. BMFA* 27 (1929), 71.

Semna (South): Borchardt, *Altäg. Festungen* (1923), pl. 22. Vercoutter, Sudan *Report on Antiquities Service and Museums* 1956–7, 5. Keating, op. cit., pl. 16—air photograph.

Serra (East): Hughes, *Kush* 11 (1963), 124, plan 11, pls. xxvii–xxxi; 12 (1964), 9.

Sesebi: Blackman, *JEA* 23 (1937), 146, pls. xiii–xv, xix. Fairman, *JEA* 24 (1938), 152, pl. viii.

Shalfak: Reisner, *Kush* 8 (1960), plan 2. *BMFA* 29 (1931), 66. Wheeler, *Sudan Notes and Records* 15 (1932), 251.

Soleb: Giorgini, *Kush* 10 (1962), 152; 12 (1964), 87.

Tanis: Montet, *Tanis*, I and II; *Les Énigmes de Tanis*; *Revue archéologique* 1958, i, 1.

Tell el-Raṭâba: Petrie, *Hyksos and Israelite Cities*, chap. v, pl. xxxv.

Uronarti: Reisner, *Kush* 8 (1960), 13, plan 1 and 3 (1955), 26; *Sudan Notes and Records* 14 (1931), 1. *BMFA* 29 (1931), 66.

THE ADDITION OF EGYPTIAN UNIT FRACTIONS

By R. J. GILLINGS

A STUDENT of the ancient Egyptian exact sciences who studies the extant papyri soon becomes aware of what, at first glance, appears to be quite an 'oddity' in the solutions of the arithmetical problems. This 'oddity' is one of *emphasis*. For example, having due regard to the technique and methods available to the Egyptian scribe, a problem may be presented of some relative difficulty, and one finds explanatory matter, especially in the arithmetic, of the most elementary and simple kind set down in extensive detail, while the mechanism of a more abstruse and closely reasoned argument may be omitted altogether. It is as if the scribe was unaware of any inherent difficulty in it, and so he merely set down the answer. The arithmetical part of the following problem illustrates this.

Problem 70 of the Rhind Mathematical Papyrus (RMP)[1] proposes the question:

If 7 $\overline{2}$ $\overline{4}$ $\overline{8}$ *ḥeḳats*[2] of meal are made into 100 loaves, how much meal is there in each loaf, and what is the *pesu*[3] of the bread?

The *pesu* is a measure of the quality, concentration, or strength of the bread, as it is also of beer, and the higher the *pesu* number, the weaker the bread or beer, because less meal is used. The scribe shows how to divide 100 by 7 $\overline{2}$ $\overline{4}$ $\overline{8}$ to determine the *pesu*. He does this by his usual method for division, that is, to keep on multiplying his divisor (in this case 7 $\overline{2}$ $\overline{4}$ $\overline{8}$) until the dividend is reached (here it is 100). He obtains the answer 12 $\overline{\overline{3}}$ $\overline{42}$ $\overline{126}$, which is the required *pesu* number. This process is quite straightforward and simple enough, and he explains it in all detail. But the scribe, following his usual procedure elsewhere in the RMP, proceeds further by multiplying 12 $\overline{\overline{3}}$ $\overline{42}$ $\overline{126}$ by 7 $\overline{2}$ $\overline{4}$ $\overline{8}$ to obtain 100, the purpose being to prove that his answer is the correct one. This he must do using only unit fractions, that is, using fractions all of which have unity for their numerators,[4] with the solitary exception of the fraction $\frac{2}{3}$ for which he uses a special sign. In this operation, the scribe is confronted with the addition of a group of mixed numbers as follows:

the integers, $\qquad 50\ 25\ 12\ 6\ 3\ 2\ 1 = 99,$

[1] B.M. Pap. 10058, published Chace, Bull, Manning, Archibald: *The Rhind Mathematical Papyrus*. 2 vols. Math. Assoc. of America (Oberlin, Ohio, 1927).

[2] $\overline{2}$ $\overline{4}$ $\overline{8}$ is written instead of $\frac{1}{2}+\frac{1}{4}+\frac{1}{8}$ because all Egyptian fractions (except $\frac{2}{3}$) had unity for their numerators, and mere juxtaposition meant addition. $\frac{2}{3}$ is conventionally written $\overline{\overline{3}}$. *Ḥeḳats* may conveniently be translated as bushels.

[3] The relation *pesu* = (no. of loaves) ÷ (no. of *ḥeḳats*) shows that if, say, 100 loaves are made from 5 *ḥeḳats* of meal, the *pesu* of the bread would be 20, while if only 4 *ḥeḳats* of meal were used, the *pesu* would be 25, so that although of a higher *pesu* there is less meal in the bread. W. W. Struve uses the term 'Backverhältnis' in his translation of the Moscow Mathematical Papyrus (MMP).

[4] In the hieroglyphs, any integer became its reciprocal (or inverse) merely by writing ⟷ over it. In hieratic this became a dot.

and the sixteen unit fractions,

$$\overline{2}\ \overline{6}\ \overline{12}\ \overline{14}\ \overline{21}\ \overline{21}\ \overline{42}\ \overline{63}\ \overline{84}\ \overline{126}\ \overline{126}\ \overline{168}\ \overline{252}\ \overline{336}\ \overline{504}\ \overline{1008}.$$

This formidable array of fractions obviously adds up to 1, so as to give a complete total of 100, and, as far as we are able to judge, either the scribe adds them up in his head or he has close at hand previously prepared tables from which he makes hieratic jottings on some sort of ancient scribbling pad, writing down only his answer; for the RMP does not show us how the addition is made. Again in the Moscow Mathematical Papyrus, MMP,[1] the famous controversial problem 10 proposes to find the area of the curved surface of a 'basket',[2] shaped like a semi-cylinder, a hemisphere, or the half of an egg.[3] Only the directions for working with the given data are set down, and these rather briefly. How the scribe arrived at the answer of $\overline{\overline{3}}\ \overline{6}\ \overline{18}$, as the result of calculating $\overline{9}$ of 8 is not shown, nor indeed are we told how he found out that the result of multiplying 7 $\overline{9}$ by 4 $\overline{2}$ was 32. These are operations for which one might fairly expect some explanations.

In problem 9, the scribe of the MMP at once gives the answer to 11 divided by $1\ \overline{\overline{3}}\ \overline{6}$,[4] as if he worked the sum mentally, and in problem 17, confronted with the relatively more difficult operation of dividing $\overline{3}\ \overline{15}$ into 1, he merely sets down his answer as $2\ \overline{2}$, with no comment or explanation as to how he obtained it.

The 'oddity' of which we spoke comes more forcibly to our attention when we observe, in these same problems, that the scribe goes to the trouble of showing how he knows that 3 times 4 is 12, thus (RMP problem 26):

If[5] 1 is 3
then 2 is 6
and —4 is 12.

Similarly, near the beginning of the RMP, he shows the complete working out for 4 times 7 is 28, thus:

If 1 is 7
then 2 is 14
and —4 is 28.

He goes through similar processes in RMP problems 35 and 36, and in MMP problem 17, to establish the following simple results:

$3\ \overline{3}$ times 1 is $3\ \overline{3}$
$3\ \overline{3}\ \overline{5}$ times 1 is $3\ \overline{3}\ \overline{5}$
40 times $2\ \overline{2}$ is 100,

any of which he could surely expect to be accepted without query.

[1] No. 4676, published by W. W. Struve, B. A. Turajeff, *Mathematischer Papyrus des Moskauer Museums der Schönen Künste, Quellen u. Studien*, Abt. A, Band 1 (Berlin, 1930). [2] Struve has 'Körbe'.

[3] Peet (*JEA* 17, 154) regards the 'Körbe' as a semi-cylinder, Struve (see n. 1 above) as a hemisphere, while Neugebauer regards it as 'half-an-egg', *Vorgriechische Mathematik*. (Berlin, 1934). See also Van der Waerden, *Science Awakening*, 33–35 (Gröningen, 1954).

[4] The answer is correctly given as 6.

[5] The words are added for clarity, and the horizontal stroke to the left of 4 is a mark indicating the answer. In the papyrus this is sloped.

One is utterly unprepared, however, for the sheer simplicity of the operation of finding one-third of 3 (RMP problem 25). The scribe first finds two-thirds of 3 to be 2, and then halves 2 to get 1.

Again in problem 67 he finds one-third of unity as follows:

Do it thus:

$$\begin{aligned} &\text{If} \quad 1 \text{ is } 1 \\ &\text{then } \overline{\overline{3}} \text{ is } \overline{\overline{3}} \\ &\text{and } \quad \overline{3} \text{ is } \overline{3}. \end{aligned}$$

One can only be amazed at the trouble to which the scribe will go over things which appear to us so elementary; yet elsewhere, with operations on the addition of unit fractions of alarming proportions, he will produce immediate answers with the utmost nonchalance.

It is the purpose of this paper to determine how the scribes achieved, with such apparent facility, answers to relatively complex operations with fractions. Certainly the scribes did have some tables available, and the 26 entries on the addition of fractions in the Egyptian Mathematical Leather Roll (EMLR)[1] constituted probably one of many such prepared tables. The existence of tables is attested in the RMP itself, where, for example, the recto gives the results in unit fractions of the number 2 divided by all the odd numbers from 3 to 101.[2] This is quite an extensive table. Another table containing only 10 entries precedes problems 1 to 6.[3] In these problems the equalities listed in the table are specifically used. They consist of the results in unit fractions of the numbers from 1 to 10 divided by 10, one entry being, for example,

$$8 \div 10 = \overline{\overline{3}}\ \overline{10}\ \overline{30}.$$

Again, following problem 60, a table consisting of 15 entries gives a series of multiplications of fractions like

$$\begin{aligned} &\overline{6} \text{ of } \overline{2} = \overline{12} \quad \text{and,} \\ &\overline{7} \text{ of } \overline{\overline{3}} = \overline{14}\ \overline{42}. \end{aligned}$$

Almost certainly a table for finding $\overline{\overline{3}}$ of any number,[4] integral or fractional, was available to the scribe, one which he must have regarded as of some importance, and it was probably of considerable length.

With straight out addition of integers the scribe clearly had no difficulties at all. Examples of this are quite numerous in the RMP and the MMP, and in upwards of 100 additions like the following, scarcely any scribal errors occur; but the evidence available does not enable us to say just how he did this, or whether he used any tables for straight out addition.

[1] The leather roll B.M. 10250 was acquired exactly 100 years ago by the British Museum together with the RMP, from the collection of A. H. Rhind. Roughly 10×20 in., it remained unrolled for over 60 years owing to its brittle condition. See Scott and Hall, *Brit. Mus. Quarterly* 2 (1927), 56; Glanville, 'Math. Leather Roll in the Br. Museum', *JEA* 13 (1927), 232 ff.; Vogel, *Arch. Gesch. Math. Naturwiss. Tech.* 2 (1929), 386; Neugebauer, *ZÄS* 64 (1929), 44; Gillings, *Australian Jr. Sci.* 24, no. 8 (1962), 339.

[2] See, for example, Gillings, 'The Division of the Odd Nos. 3 to 101 from the Recto of the RMP', *Austr. Jr. of Sci.* 18, no. 2 (1955), 43–49.

[3] Cf. Gillings, 'Problems 1–6 of the RMP', *The Maths. Teacher*, 55, no. 1 (1962), Washington, U.S.A.

[4] Cf. Gillings, 'The Egyptian $\frac{2}{3}$ Table for Fractions', *Aust. Jr. of Sci.* 22, no. 6 (1959), 247–50.

MMP (Pr. 11)	*RMP (Pr. 31)*	*RMP (Pr. 70)*	*RMP (Pr. 30)*	*RMP (Pr. 79)*
1	6	40	3621	7
8	21	80	1358	49
16	28	160	194	343
—	42	1280	——	2401
25	—	640	5173	16807
	97	320		——
		——		19607
		2520		

For the addition of the smaller unit fractions,[1] the scribe shows that he knows at once by simple inspection that:

A. $\overline{2}\ \ \overline{2} = 1$ (26 examples from RMP and MMP)
B. $\overline{3}\ \ \overline{3} = \overline{\overline{3}}$ (8 ,, ,, ,,)
C. $\overline{\overline{3}}\ \ \overline{3} = 1$ (7 ,, ,, ,,)
D. $\overline{4}\ \ \overline{4} = \overline{2}$ (17 ,, ,, ,,)
E. $\overline{2}\ \ \overline{6} = \overline{\overline{3}}$ (10 ,, ,, ,,)
F. $\overline{3}\ \ \overline{6} = \overline{2}$ (9 ,, ,, ,,)
G. $\overline{6}\ \ \overline{6} = \overline{3}$ (7 ,, ,, ,,)
H. $\overline{2}\ \overline{3}\ \overline{6} = 1$ (3 ,, ,, ,,)

and many others, some of which involve the above.

The equalities which give us so much food for thought are those like the following, of which there is an abundance in both the RMP and the MMP. These and many others the scribe has summed immediately, writing down merely the answers.

$\overline{\overline{3}}\ \overline{\overline{3}}\ \overline{3}\ \overline{6}\ \overline{6} = 2$ (RMP Pr. 40)
$\overline{\overline{3}}\ \overline{6}\ \overline{9}\ \overline{18} = 1$ (RMP Pr. 67)
$\overline{2}\ \overline{5}\ \overline{10}\ \overline{10}\ \overline{10} = 1$ (RMP Pr. 35)
$\overline{\overline{3}}\ \overline{5}\ \overline{10}\ \overline{46}\ \overline{138}\ \overline{230} = 1$ (RMP Pr. 30)
$\overline{\overline{3}}\ \overline{10}\ \overline{10}\ \overline{15}\ \overline{30}\ \overline{30} = 1$ (RMP Pr. 30)
$\overline{\overline{3}}\ \overline{3}\ \overline{3}\ \overline{6}\ \overline{9}\ \overline{9}\ \overline{12}\ \overline{18}\ \overline{24}\ \overline{27}\ \overline{27}\ \overline{72}\ \overline{108} = 2$ (RMP Pr. 42)
$\overline{\overline{3}}\ \overline{6}\ \overline{10}\ \overline{30}\ \overline{30} = 1$ (MMP Pr. 17)

There are, of course, some very obvious simple groupings here, either in groups of two or three, or more, but there remain many for which the ordinary calculator must surely have required recourse to a set of tables in some form or other, unless he were a calculating prodigy. At this point we refer to the EMLR.

The 26 equalities in unit fractions of the EMLR divide themselves naturally into nine groups. There are 16 two-term equalities, 8 three-term equalities, and 2 four-term equalities. If we set them down in the order of these groups we at once become aware of an ordered sequence of unit fractions, of which the scribe must also have been aware. Further study leads one to the thought that, in the EMLR, we have only one (partial) table of many, which the scribe and his pupils must have constructed, and probably learnt by heart, in much the same way as a modern pupil learns his multiplication tables. There must have been many such tables, and we can perhaps think ourselves lucky that this one has come down to us in so legible a form.

[1] By 'smaller' fractions I mean fractions with smaller denominators. This is for brevity of reference.

Re-arranged sequence of unit-fraction equalities of the EMLR

Line	Group	Equality
7	Generator[1]	$\frac{1}{3}\ \frac{1}{3} = \frac{1}{3}$
5	(1, 1)	$\frac{1}{6}\ \frac{1}{6} = \frac{1}{3}$
4		$\frac{1}{10}\ \frac{1}{10} = \frac{1}{5}$
11	Generator	$\frac{1}{9}\ \frac{1}{18} = \frac{1}{6}$
13	(1, 2)	$\frac{1}{12}\ \frac{1}{24} = \frac{1}{8}$
24		$\frac{1}{15}\ \frac{1}{30} = \frac{1}{10}$
20		$\frac{1}{18}\ \frac{1}{36} = \frac{1}{12}$
21		$\frac{1}{21}\ \frac{1}{42} = \frac{1}{14}$
19		$\frac{1}{24}\ \frac{1}{48} = \frac{1}{16}$
23		$\frac{1}{30}\ \frac{1}{60} = \frac{1}{20}$
22		$\frac{1}{45}\ \frac{1}{90} = \frac{1}{30}$
25		$\frac{1}{48}\ \frac{1}{96} = \frac{1}{32}$
26		$\frac{1}{96}\ \frac{1}{192} = \frac{1}{64}$
3	Generator (1, 3)	$\frac{1}{4}\ \frac{1}{12} = \frac{1}{3}$
2	Generator	$\frac{1}{5}\ \frac{1}{20} = \frac{1}{4}$
1	(1, 4)	$\frac{1}{10}\ \frac{1}{40} = \frac{1}{8}$
6	Generator (1, 1, 1)	$\frac{1}{6}\ \frac{1}{6}\ \frac{1}{6} = \frac{1}{2}$
12	Generator (1, 2, 4)	$\frac{1}{7}\ \frac{1}{14}\ \frac{1}{28} = \frac{1}{4}$
14	Generator	$\frac{1}{14}\ \frac{1}{21}\ \frac{1}{42} = \frac{1}{7}$
15	(2, 3, 6)	$\frac{1}{18}\ \frac{1}{27}\ \frac{1}{54} = \frac{1}{9}$
16		$\frac{1}{22}\ \frac{1}{33}\ \frac{1}{66} = \frac{1}{11}$
17		$\frac{1}{26}\ \frac{1}{39}\ \frac{1}{78} = \frac{1}{13}$
18		$\frac{1}{30}\ \frac{1}{45}\ \frac{1}{90} = \frac{1}{15}$
10	Generator (1, 2, 6)	$\frac{1}{25}\ \frac{1}{50}\ \frac{1}{150} = \frac{1}{15}$
8	Generator	$\frac{1}{15}\ \frac{1}{25}\ \frac{1}{75}\ \frac{1}{200} = \frac{1}{8}$
9	(3, 5, 15, 40)	$\frac{1}{30}\ \frac{1}{50}\ \frac{1}{150}\ \frac{1}{400} = \frac{1}{16}$

Generator (1, 1)

$\frac{1}{2}\ \frac{1}{2} = \frac{1}{1}$
$\frac{1}{3}\ \frac{1}{3} = \frac{1}{3}$ (l. 7)
$\frac{1}{4}\ \frac{1}{4} = \frac{1}{2}$
$\frac{1}{6}\ \frac{1}{6} = \frac{1}{3}$ (l. 5)
$\frac{1}{8}\ \frac{1}{8} = \frac{1}{4}$
$\frac{1}{10}\ \frac{1}{10} = \frac{1}{5}$ (l. 4)
$\frac{1}{12}\ \frac{1}{12} = \frac{1}{6}$

Generator (1, 2)

$\frac{1}{3}\ \frac{1}{6} = \frac{1}{2}$
$\frac{1}{6}\ \frac{1}{12} = \frac{1}{4}$
$\frac{1}{9}\ \frac{1}{18} = \frac{1}{6}$ (l. 11)
$\frac{1}{12}\ \frac{1}{24} = \frac{1}{8}$ (l. 13)
$\frac{1}{15}\ \frac{1}{30} = \frac{1}{10}$ (l. 24)
$\frac{1}{18}\ \frac{1}{36} = \frac{1}{12}$ (l. 20)
$\frac{1}{21}\ \frac{1}{42} = \frac{1}{14}$ (l. 21)
$\frac{1}{24}\ \frac{1}{48} = \frac{1}{16}$ (l. 19)
$\frac{1}{30}\ \frac{1}{60} = \frac{1}{20}$ (l. 23)
$\frac{1}{45}\ \frac{1}{90} = \frac{1}{30}$ (l. 22)
$\frac{1}{48}\ \frac{1}{96} = \frac{1}{32}$ (l. 25)
$\frac{1}{96}\ \frac{1}{192} = \frac{1}{64}$ (l. 26)

Generator (1, 3)

$\frac{1}{4}\ \frac{1}{12} = \frac{1}{3}$ (l. 3)
$\frac{1}{8}\ \frac{1}{24} = \frac{1}{6}$
$\frac{1}{12}\ \frac{1}{36} = \frac{1}{9}$
$\frac{1}{16}\ \frac{1}{48} = \frac{1}{12}$
$\frac{1}{20}\ \frac{1}{60} = \frac{1}{15}$

Generator (1, 4)

$\frac{1}{5}\ \frac{1}{20} = \frac{1}{4}$ (l. 2)
$\frac{1}{10}\ \frac{1}{40} = \frac{1}{8}$ (l. 1)
$\frac{1}{15}\ \frac{1}{60} = \frac{1}{12}$
$\frac{1}{20}\ \frac{1}{80} = \frac{1}{16}$
$\frac{1}{25}\ \frac{1}{100} = \frac{1}{20}$

[1] I use this term to indicate the fundamental relation between the denominators of the unit fractions being added.

Generator (1, 5)

$$\begin{array}{rrcr} \overline{6} & \overline{30} & = & \overline{5} \\ \overline{12} & \overline{60} & = & \overline{10} \\ \overline{18} & \overline{90} & = & \overline{15} \\ \overline{24} & \overline{120} & = & \overline{20} \\ \overline{30} & \overline{150} & = & \overline{25} \end{array}$$

Generator (1, 6)

$$\begin{array}{rrcr} \overline{7} & \overline{42} & = & \overline{6} \\ \overline{14} & \overline{84} & = & \overline{12} \\ \overline{21} & \overline{126} & = & \overline{18} \\ \overline{28} & \overline{168} & = & \overline{24} \\ \overline{35} & \overline{210} & = & \overline{30} \end{array}$$

Generator (2, 3)

$$\begin{array}{rrcr} \overline{10} & \overline{15} & = & \overline{6} \\ \overline{20} & \overline{30} & = & \overline{12} \\ \overline{30} & \overline{45} & = & \overline{18} \\ \overline{40} & \overline{60} & = & \overline{24} \\ \overline{50} & \overline{75} & = & \overline{30} \end{array}$$

Generator (2, 4) cf. (1, 2)

$$\begin{array}{rrcrl} \overline{6} & \overline{12} & = & \overline{4} & \\ \overline{12} & \overline{24} & = & \overline{8} & \text{(l. 13)} \\ \overline{18} & \overline{36} & = & \overline{12} & \text{(l. 20)} \\ \overline{24} & \overline{48} & = & \overline{16} & \text{(l. 19)} \\ \overline{30} & \overline{60} & = & \overline{20} & \text{(l. 23)} \end{array}$$

Generator (2, 5)

$$\begin{array}{rrcr} \overline{14} & \overline{35} & = & \overline{10} \\ \overline{28} & \overline{70} & = & \overline{20} \\ \overline{42} & \overline{105} & = & \overline{30} \\ \overline{56} & \overline{140} & = & \overline{40} \\ \overline{70} & \overline{175} & = & \overline{50} \end{array}$$

Generator (2, 6) cf. (1, 3)

$$\begin{array}{rrcrl} \overline{4} & \overline{12} & = & \overline{3} & \text{(l. 3)} \\ \overline{8} & \overline{24} & = & \overline{6} & \\ \overline{12} & \overline{36} & = & \overline{9} & \\ \overline{16} & \overline{48} & = & \overline{12} & \\ \overline{20} & \overline{60} & = & \overline{15} & \end{array}$$

Generator (3, 4)

$$\begin{array}{rrcr} \overline{21} & \overline{28} & = & \overline{12} \\ \overline{42} & \overline{56} & = & \overline{24} \\ \overline{63} & \overline{84} & = & \overline{36} \\ \overline{84} & \overline{112} & & \overline{48} \\ \overline{105} & \overline{140} & = & \overline{60} \end{array}$$

Generator (3, 5)

$$\begin{array}{rrcr} \overline{24} & \overline{40} & = & \overline{15} \\ \overline{48} & \overline{80} & = & \overline{30} \\ \overline{72} & \overline{120} & = & \overline{45} \\ \overline{96} & \overline{160} & = & \overline{60} \\ \overline{120} & \overline{200} & = & \overline{75} \end{array}$$

Generator (3, 6) cf. (1, 2)

$$\begin{array}{rrcrl} \overline{3} & \overline{6} & = & \overline{2} & \\ \overline{6} & \overline{12} & = & \overline{4} & \\ \overline{9} & \overline{18} & = & \overline{6} & \text{(l. 11)} \\ \overline{12} & \overline{24} & = & \overline{8} & \text{(l. 13)} \\ \overline{15} & \overline{30} & = & \overline{10} & \text{(l. 24)} \end{array}$$

Generator (4, 5)

$$\begin{array}{rrcr} \overline{36} & \overline{45} & = & \overline{20} \\ \overline{72} & \overline{90} & = & \overline{40} \\ \overline{108} & \overline{135} & = & \overline{60} \\ \overline{144} & \overline{180} & = & \overline{80} \\ \overline{180} & \overline{225} & = & \overline{100} \end{array}$$

Generator (4, 6) cf. (2, 3)

$$\begin{array}{rrcr} \overline{20} & \overline{30} & = & \overline{12} \\ \overline{40} & \overline{60} & = & \overline{24} \\ \overline{60} & \overline{90} & = & \overline{36} \\ \overline{80} & \overline{120} & = & \overline{48} \\ \overline{100} & \overline{150} & = & \overline{60} \end{array}$$

Generator (5, 6)

$$\begin{array}{rrcr} \overline{55} & \overline{66} & = & \overline{30} \\ \overline{110} & \overline{132} & = & \overline{60} \\ \overline{165} & \overline{198} & = & \overline{90} \\ \overline{220} & \overline{264} & = & \overline{120} \\ \overline{275} & \overline{330} & = & \overline{150} \end{array}$$

Generator (1, 1, 1)

$$\begin{array}{rrrcrl} \overline{3} & \overline{3} & \overline{3} & = & \overline{1} & \\ \overline{6} & \overline{6} & \overline{6} & = & \overline{2} & \text{(l. 6)} \\ \overline{9} & \overline{9} & \overline{9} & = & \overline{3} & \\ \overline{12} & \overline{12} & \overline{12} & = & \overline{4} & \\ \overline{50} & \overline{15} & \overline{15} & = & \overline{5} & \end{array}$$

Generator (1, 2, 1)

$$\begin{array}{rrrcr} \overline{5} & \overline{10} & \overline{5} & = & \overline{2} \\ \overline{10} & \overline{20} & \overline{10} & = & \overline{4} \\ \overline{15} & \overline{30} & \overline{15} & = & \overline{6} \\ \overline{20} & \overline{40} & \overline{20} & = & \overline{8} \\ \overline{25} & \overline{50} & \overline{25} & = & \overline{10} \end{array}$$

Generator (1, 2, 2)

$$\begin{array}{rrrcr} \overline{2} & \overline{4} & \overline{4} & = & \overline{1} \\ \overline{3} & \overline{6} & \overline{6} & = & \overline{3} \\ \overline{4} & \overline{8} & \overline{8} & = & \overline{2} \\ \overline{6} & \overline{12} & \overline{12} & = & \overline{3} \\ \overline{8} & \overline{16} & \overline{16} & = & \overline{4} \end{array}$$

Generator (1, 2, 3)

$$\begin{array}{rrrcr} \overline{11} & \overline{22} & \overline{33} & = & \overline{6} \\ \overline{22} & \overline{44} & \overline{66} & = & \overline{12} \\ \overline{33} & \overline{66} & \overline{99} & = & \overline{18} \\ \overline{44} & \overline{88} & \overline{132} & = & \overline{24} \\ \overline{55} & \overline{110} & \overline{165} & = & \overline{30} \end{array}$$

Generator (1, 2, 4)

$\frac{1}{7}\ \frac{1}{14}\ \frac{1}{28} = \frac{1}{4}$ (l. 12)
$\frac{1}{14}\ \frac{1}{28}\ \frac{1}{56} = \frac{1}{8}$
$\frac{1}{21}\ \frac{1}{42}\ \frac{1}{84} = \frac{1}{12}$
$\frac{1}{28}\ \frac{1}{56}\ \frac{1}{112} = \frac{1}{16}$
$\frac{1}{35}\ \frac{1}{70}\ \frac{1}{140} = \frac{1}{20}$

Generator (1, 2, 5)

$\frac{1}{17}\ \frac{1}{34}\ \frac{1}{85} = \frac{1}{10}$
$\frac{1}{34}\ \frac{1}{68}\ \frac{1}{170} = \frac{1}{20}$
etc.

Generator (1, 2, 6)

$\frac{1}{5}\ \frac{1}{10}\ \frac{1}{30} = \frac{1}{3}$
$\frac{1}{10}\ \frac{1}{20}\ \frac{1}{60} = \frac{1}{6}$
$\frac{1}{15}\ \frac{1}{30}\ \frac{1}{90} = \frac{1}{9}$
$\frac{1}{20}\ \frac{1}{40}\ \frac{1}{120} = \frac{1}{12}$
$\frac{1}{25}\ \frac{1}{50}\ \frac{1}{150} = \frac{1}{15}$ (l. 10)

Generator (1, 3, 3)

$\frac{1}{5}\ \frac{1}{15}\ \frac{1}{15} = \frac{1}{3}$
$\frac{1}{10}\ \frac{1}{30}\ \frac{1}{30} = \frac{1}{6}$
etc.

Generator (1, 3, 4)

$\frac{1}{19}\ \frac{1}{57}\ \frac{1}{76} = \frac{1}{12}$
$\frac{1}{38}\ \frac{1}{114}\ \frac{1}{152} = \frac{1}{24}$
etc.

Generator (1, 3, 5)

$\frac{1}{23}\ \frac{1}{69}\ \frac{1}{115} = \frac{1}{15}$
$\frac{1}{46}\ \frac{1}{138}\ \frac{1}{230} = \frac{1}{30}$
etc.

Generator (1, 3, 6)

$\frac{1}{3}\ \frac{1}{9}\ \frac{1}{18} = \frac{1}{2}$
$\frac{1}{6}\ \frac{1}{18}\ \frac{1}{36} = \frac{1}{4}$
$\frac{1}{9}\ \frac{1}{27}\ \frac{1}{54} = \frac{1}{6}$
$\frac{1}{12}\ \frac{1}{36}\ \frac{1}{72} = \frac{1}{8}$
$\frac{1}{15}\ \frac{1}{45}\ \frac{1}{90} = \frac{1}{10}$

Generator (1, 4, 4)

$\frac{1}{6}\ \frac{1}{24}\ \frac{1}{24} = \frac{1}{4}$
$\frac{1}{12}\ \frac{1}{48}\ \frac{1}{48} = \frac{1}{8}$
etc.

Generator (1, 4, 5)

$\frac{1}{29}\ \frac{1}{116}\ \frac{1}{145} = \frac{1}{20}$
$\frac{1}{58}\ \frac{1}{232}\ \frac{1}{290} = \frac{1}{40}$
etc.

Generator (1, 4, 6)

$\frac{1}{17}\ \frac{1}{68}\ \frac{1}{102} = \frac{1}{12}$
$\frac{1}{34}\ \frac{1}{136}\ \frac{1}{204} = \frac{1}{24}$
etc.

Generator (1, 5, 5)

$\frac{1}{7}\ \frac{1}{35}\ \frac{1}{35} = \frac{1}{5}$
$\frac{1}{14}\ \frac{1}{70}\ \frac{1}{70} = \frac{1}{10}$
etc.

Generator (1, 5, 6)

$\frac{1}{41}\ \frac{1}{205}\ \frac{1}{246} = \frac{1}{30}$
$\frac{1}{82}\ \frac{1}{410}\ \frac{1}{492} = \frac{1}{60}$
etc.

Generator (1, 6, 6)

$\frac{1}{4}\ \frac{1}{24}\ \frac{1}{24} = \frac{1}{3}$
$\frac{1}{8}\ \frac{1}{48}\ \frac{1}{48} = \frac{1}{6}$
etc.

Generator (2, 3, 3)

$\frac{1}{14}\ \frac{1}{21}\ \frac{1}{21} = \frac{1}{6}$
$\frac{1}{28}\ \frac{1}{42}\ \frac{1}{42} = \frac{1}{12}$
etc.

Generator (2, 3, 4)

$\frac{1}{26}\ \frac{1}{39}\ \frac{1}{52} = \frac{1}{12}$
$\frac{1}{52}\ \frac{1}{78}\ \frac{1}{104} = \frac{1}{24}$
etc.

Generator (2, 3, 5)

$\frac{1}{62}\ \frac{1}{93}\ \frac{1}{155} = \frac{1}{30}$
$\frac{1}{124}\ \frac{1}{186}\ \frac{1}{310} = \frac{1}{60}$
etc.

Generator (2, 3, 6)

$\frac{1}{2}\ \frac{1}{3}\ \frac{1}{6} = \frac{1}{1}$
$\frac{1}{4}\ \frac{1}{6}\ \frac{1}{12} = \frac{1}{2}$
$\frac{1}{6}\ \frac{1}{9}\ \frac{1}{18} = \frac{1}{3}$
$\frac{1}{8}\ \frac{1}{12}\ \frac{1}{24} = \frac{1}{4}$
$\frac{1}{10}\ \frac{1}{15}\ \frac{1}{30} = \frac{1}{5}$
$\frac{1}{12}\ \frac{1}{18}\ \frac{1}{36} = \frac{1}{6}$
$\frac{1}{14}\ \frac{1}{21}\ \frac{1}{42} = \frac{1}{7}$ (l. 14)
$\frac{1}{16}\ \frac{1}{24}\ \frac{1}{48} = \frac{1}{8}$
$\frac{1}{18}\ \frac{1}{27}\ \frac{1}{54} = \frac{1}{9}$ (l. 15)
$\frac{1}{20}\ \frac{1}{30}\ \frac{1}{60} = \frac{1}{10}$
$\frac{1}{22}\ \frac{1}{33}\ \frac{1}{66} = \frac{1}{11}$ (l. 16)
$\frac{1}{24}\ \frac{1}{36}\ \frac{1}{72} = \frac{1}{12}$
$\frac{1}{26}\ \frac{1}{39}\ \frac{1}{78} = \frac{1}{13}$ (l. 17)
$\frac{1}{28}\ \frac{1}{42}\ \frac{1}{84} = \frac{1}{14}$
$\frac{1}{30}\ \frac{1}{45}\ \frac{1}{90} = \frac{1}{15}$ (l. 18)

Generator (2, 4, 4) cf. (1, 2, 2)

$\frac{1}{4}\ \frac{1}{8}\ \frac{1}{8} = \frac{1}{2}$
$\frac{1}{6}\ \frac{1}{12}\ \frac{1}{12} = \frac{1}{3}$
etc.

Generator (2, 4, 5)

$\frac{1}{38}\ \frac{1}{76}\ \frac{1}{95} = \frac{1}{20}$
$\frac{1}{76}\ \frac{1}{152}\ \frac{1}{190} = \frac{1}{40}$
etc.

Generator (2, 4, 6) cf. (1, 2, 3)

$$\begin{array}{cccc} \overline{22} & \overline{44} & \overline{66} & = \overline{12} \\ \overline{44} & \overline{88} & \overline{132} & = \overline{24} \\ \overline{66} & \overline{132} & \overline{198} & = \overline{36} \\ \overline{88} & \overline{176} & \overline{264} & = \overline{48} \\ \overline{110} & \overline{220} & \overline{330} & = \overline{60} \end{array}$$

Generator (2, 5, 5)

$$\begin{array}{cccc} \overline{18} & \overline{45} & \overline{45} & = \overline{10} \\ \overline{36} & \overline{90} & \overline{90} & = \overline{20} \end{array}$$

etc.

Generator (2, 5, 6)

$$\begin{array}{cccc} \overline{26} & \overline{65} & \overline{78} & = \overline{15} \\ \overline{52} & \overline{130} & \overline{156} & = \overline{30} \end{array}$$

etc.

Generator (3, 4, 4)

$$\begin{array}{cccc} \overline{15} & \overline{20} & \overline{20} & = \overline{6} \\ \overline{30} & \overline{40} & \overline{40} & = \overline{12} \end{array}$$

etc.

Generator (3, 4, 5)

$$\begin{array}{cccc} \overline{141} & \overline{188} & \overline{235} & = \overline{60} \\ \overline{282} & \overline{376} & \overline{470} & = \overline{120} \end{array}$$

Generator (3, 4, 6)

$$\begin{array}{cccc} \overline{9} & \overline{12} & \overline{18} & = \overline{4} \\ \overline{18} & \overline{24} & \overline{36} & = \overline{8} \\ \overline{27} & \overline{36} & \overline{54} & = \overline{12} \\ \overline{36} & \overline{48} & \overline{72} & = \overline{16} \\ \overline{45} & \overline{60} & \overline{90} & = \overline{20} \end{array}$$

etc.

Generator (3, 5, 5)

$$\begin{array}{cccc} \overline{33} & \overline{55} & \overline{55} & = \overline{15} \\ \overline{66} & \overline{110} & \overline{110} & = \overline{30} \end{array}$$

etc.

Generator (3, 5, 6)

$$\begin{array}{cccc} \overline{21} & \overline{35} & \overline{42} & = \overline{10} \\ \overline{42} & \overline{70} & \overline{84} & = \overline{20} \end{array}$$

etc.

Generator (3, 6, 6) cf. (1, 2, 2)

$$\begin{array}{cccc} \overline{12} & \overline{24} & \overline{24} & = \overline{6} \\ \overline{24} & \overline{48} & \overline{48} & = \overline{12} \end{array}$$

etc.

Generator (4, 5, 6)

$$\begin{array}{cccc} \overline{148} & \overline{185} & \overline{222} & = \overline{60} \\ \overline{296} & \overline{370} & \overline{444} & = \overline{120} \end{array}$$

etc.

Generator (4, 6, 6) cf. (2, 3, 3)

$$\begin{array}{cccc} \overline{28} & \overline{42} & \overline{42} & = \overline{12} \\ \overline{56} & \overline{84} & \overline{84} & = \overline{24} \end{array}$$

etc.

Generator (1, 2, 3, 4)

$$\begin{array}{cccc} \overline{25} & \overline{50} & \overline{75} & \overline{100} & = \overline{12} \\ \overline{50} & \overline{100} & \overline{150} & \overline{200} & = \overline{24} \end{array}$$

etc.

Generator (1, 2, 3, 5)

$$\begin{array}{cccc} \overline{61} & \overline{122} & \overline{183} & \overline{305} & = \overline{30} \\ \overline{122} & \overline{244} & \overline{366} & \overline{610} & = \overline{60} \end{array}$$

etc.

Generator (1, 2, 3, 6)

$$\begin{array}{cccc} \overline{2} & \overline{4} & \overline{6} & \overline{12} & = \overline{1} \\ \overline{4} & \overline{8} & \overline{12} & \overline{24} & = \overline{2} \end{array}$$

etc.

Generator (1, 2, 4, 5)

$$\begin{array}{cccc} \overline{39} & \overline{78} & \overline{156} & \overline{195} & = \overline{20} \\ \overline{78} & \overline{156} & \overline{312} & \overline{390} & = \overline{40} \end{array}$$

etc.

Generator (1, 2, 4, 6)

$$\begin{array}{cccc} \overline{23} & \overline{46} & \overline{92} & \overline{138} & = \overline{12} \\ \overline{46} & \overline{92} & \overline{184} & \overline{276} & = \overline{24} \end{array}$$

etc.

Generator (1, 2, 5, 6)

$$\begin{array}{cccc} \overline{28} & \overline{56} & \overline{140} & \overline{168} & = \overline{15} \\ \overline{56} & \overline{112} & \overline{280} & \overline{336} & = \overline{30} \end{array}$$

etc.

Generator (1, 3, 4, 5)

$$\begin{array}{cccc} \overline{107} & \overline{321} & \overline{428} & \overline{535} & = \overline{60} \\ \overline{214} & \overline{642} & \overline{856} & \overline{1070} & = \overline{120} \end{array}$$

etc.

Generator (1, 3, 4, 6)

$$\begin{array}{cccc} \overline{7} & \overline{21} & \overline{28} & \overline{42} & = \overline{4} \\ \overline{14} & \overline{42} & \overline{56} & \overline{84} & = \overline{8} \end{array}$$

etc.

Generator (1, 3, 5, 6)

$$\begin{array}{cccc} \overline{17} & \overline{51} & \overline{85} & \overline{102} & = \overline{10} \\ \overline{34} & \overline{102} & \overline{170} & \overline{204} & = \overline{20} \end{array}$$

etc.

Generator (1, 4, 5, 6)

$$\overline{97}\ \overline{388}\ \overline{485}\ \overline{582} = \overline{60}$$
$$\overline{194}\ \overline{776}\ \overline{970}\ \overline{1164} = \overline{120}$$

etc.

Generator (2, 3, 5, 6)

$$\overline{12}\ \overline{18}\ \overline{30}\ \overline{36} = \overline{5}$$
$$\overline{24}\ \overline{36}\ \overline{60}\ \overline{72} = \overline{10}$$

etc.

Generator (2, 3, 4, 5)

$$\overline{154}\ \overline{231}\ \overline{308}\ \overline{385} = \overline{60}$$
$$\overline{308}\ \overline{462}\ \overline{616}\ \overline{770} = \overline{120}$$

etc.

Generator (2, 4, 5, 6)

$$\overline{134}\ \overline{268}\ \overline{335}\ \overline{402} = \overline{60}$$
$$\overline{268}\ \overline{536}\ \overline{670}\ \overline{804} = \overline{120}$$

etc.

Generator (2, 3, 4, 6)

$$\overline{10}\ \overline{15}\ \overline{20}\ \overline{30} = \overline{4}$$
$$\overline{20}\ \overline{30}\ \overline{40}\ \overline{60} = \overline{8}$$

etc.

Generator (3, 4, 5, 6)

$$\overline{57}\ \overline{76}\ \overline{95}\ \overline{114} = \overline{20}$$
$$\overline{114}\ \overline{152}\ \overline{190}\ \overline{228} = \overline{40}$$

etc.

The two-termed equalities can now be seen to be related so that in the second group, one term is always double the other, in the third group one term is always three times the other, and in the fourth group one term is four times the other. In the three-termed equalities, the ratios in the groups of the three terms are (1, 1, 1), (1, 2, 4), (2, 3, 6), and (1, 2, 6) while in the four-termed equalities the ratios of the terms are (3, 5, 15, 40).

It is obvious that no wholly complete table of such unit fractions is possible, because their number must be infinite. We can, however, make a pretty useful and comprehensive set of tables if we limit ourselves to the numbers 1 to 6 and consider all the combinations of unit fractions, two, three, and four at a time. If we do this we will see that, in the EMLR, the scribe has included a fairly comprehensive sampling, together with one or two others.

The reason for extending the members of the groups (1, 2) and (2, 3, 6) a little more than the others is because they contain so many of the scribe's entries in the EMLR. From the sequence of the five lines numbered 14, 15, 16, 17, 18 in the (2, 3, 6) group, we may conclude that the scribe composed his tables in some manner similar to the one adopted here, namely by simple multiplication (or indeed addition) of the known equalities, to obtain a new equality. And we may further note that the scribal error of line 17, where the scribe had written,

$$\overline{28}\ \overline{49}\ \overline{196} = \overline{13},$$

is more likely to have been,

$$\overline{26}\ \overline{39}\ \overline{78} = \overline{13},$$

which correction we have incorporated in the foregoing tables, rather than the one suggested by Glanville,[1] which was

$$\overline{28}\ \overline{49}\ \overline{98}\ \overline{196} = \overline{14}.$$

In setting down these tables for the addition of unit Egyptian fractions in this particular way, I am sure we are merely repeating, in essence, what the Egyptian scribes had already done three or four millennia ago, and in the summations which follow, we use the tables in much the same way in which, I feel, the scribe himself must have used them.

[1] *JEA* 13, 237.

Addition of fractions

Pr. 40

$$\overline{\overline{3}}\ \ \overline{\overline{3}}\ \ \overline{3}\ \ \overline{6}\ \ \overline{6}.$$

We could bracket the last three terms $(\overline{3}\ \overline{6}\ \overline{6}) = \overline{\overline{3}}$ from the generator (1, 2, 2) and get $\overline{\overline{3}}\ \overline{\overline{3}}\ \overline{\overline{3}}$ and proceed from there, but we bracket $(\overline{\overline{3}}\ \overline{\overline{3}})$ and $(\overline{6}\ \overline{6})$ getting $1\ \overline{3}$ and $\overline{3}$ from the generator (1, 1), and we have,

$$1\ \ \overline{3}\ \ \overline{3}\ \ \overline{3}.$$

From the generator (1, 1, 1) we find $(\overline{3}\ \overline{3}\ \overline{3}) = 1$ and we have,

$$1\ \ 1\ \ =\ \ 2.$$

Pr. 67

$$\overline{\overline{3}}\ \ \overline{6}\ \ \overline{9}\ \ \overline{18}.$$

By bracketing the terms $(\overline{6}\ \overline{9}\ \overline{18}) = \overline{3}$ from the generator (2, 3, 6) we have,

$$\overline{\overline{3}}\ \ \overline{3}\ \ =\ \ 1 \text{ from the equality (C).}$$

Pr. 35

$$\overline{2}\ \ \overline{5}\ \ \overline{10}\ \ \overline{10}\ \ \overline{10}.$$

No grouping of three terms presents itself. We must put $(\overline{10}\ \overline{10}) = \overline{5}$ from the generator (1, 1), and we now have,

$$\overline{2}\ \ \overline{5}\ \ \overline{5}\ \ \overline{10}.$$

The only possible grouping here is $(\overline{5}\ \overline{5})$ which from the Recto $(2\div 5)$ of the RMP equals $\overline{3}\ \overline{15}$, so that we have,

$$\overline{2}\ \ \overline{3}\ \ \overline{10}\ \ \overline{15}.$$

We may now group $(\overline{10}\ \overline{15}) = \overline{6}$ from the generator (2, 3) and obtain,

$$\overline{2}\ \ \overline{3}\ \ \overline{6}\ \ =\ \ 1, \text{ from the generator (2, 3, 6).}$$

Pr. 30

$$\overline{\overline{3}}\ \ \overline{5}\ \ \overline{10}\ \ \overline{46}\ \ \overline{138}\ \ \overline{230}.$$

The last three terms may be grouped using the generator (1, 3, 5), to give $(\overline{46}\ \overline{138}\ \overline{230}) = \overline{30}$, and we have,

$$\overline{\overline{3}}\ \ \overline{5}\ \ \overline{10}\ \ \overline{30}.$$

Again we put together the last three terms $(\overline{5}\ \overline{10}\ \overline{30}) = \overline{3}$ using the generator (1, 2, 6) so that we get,

$$\overline{\overline{3}}\ \ \overline{3}\ \ =\ \ \overline{1}, \text{ from the equality (C).}$$

Pr. 30

$$\overline{\overline{3}}\ \ \overline{10}\ \ \overline{10}\ \ \overline{15}\ \ \overline{30}\ \ \overline{30}.$$

We first bracket the three terms $(\overline{10}\ \overline{15}\ \overline{30}) = \overline{5}$ from the generator (2, 3, 6) so that we have

$$\overline{\overline{3}}\ \ \overline{10}\ \ \overline{5}\ \ \overline{30}.$$

Again by bracketing the last three terms $(\overline{5}\ \overline{10}\ \overline{30}) = \overline{3}$, from the generator (1, 2, 6), we get,

$$\overline{\overline{3}}\ \ \overline{3}\ \ =\ \ 1 \text{ from the equality (C).}$$

Pr. 42

$$\overline{\overline{3}}\ \ \overline{3}\ \ \overline{3}\ \ \overline{6}\ \ \overline{9}\ \ \overline{9}\ \ \overline{12}\ \ \overline{18}\ \ \overline{24}\ \ \overline{27}\ \ \overline{27}\ \ \overline{72}\ \ \overline{108}.$$

Excepting the obvious groupings of $(\overline{\overline{3}}\ \overline{3})$ and $(\overline{3}\ \overline{6})$, no other immediate groupings involving the use of the tables lead to a simple solution. We therefore resort to the Recto table applied to $(\overline{9}\ \overline{9})$ and $(\overline{27}\ \overline{27})$ and we have,

$$(\overline{\overline{3}}\ \ \overline{3})\ \ (\overline{3}\ \ \overline{6})\ \ (\overline{9}\ \ \overline{9})\ \ \overline{12}\ \ \overline{18}\ \ \overline{24}\ \ (\overline{27}\ \ \overline{27})\ \ \overline{72}\ \ \overline{108},$$
$$=\ \ 1\ \ \overline{2}\ \ (\overline{6}\ \ \overline{18})\ \ \overline{12}\ \ \overline{18}\ \ \overline{24}\ \ (\overline{18}\ \ \overline{54})\ \ \overline{72}\ \ \overline{108}, \text{ and re-grouping,}$$
$$=\ \ 1\ \ \overline{2}\ \ \overline{6}\ \ (\overline{18}\ \ \overline{18}\ \ \overline{18})\ \ (\overline{12}\ \ \overline{24})\ \ \overline{72}\ \ (\overline{54}\ \ \overline{108}),$$

using the generators (1, 1, 1), (1, 2), and (1, 2) again, we get,

$$= 1\ \overline{2}\ \overline{6}\ \overline{6}\ \overline{8}\ \overline{72}\ \overline{36}.$$

Now we group $(\overline{6}\ \overline{6})$ and $(\overline{36}\ \overline{72})$ using generators (1, 1) and (1, 2).
$= 1\ \overline{2}\ \overline{3}\ \overline{8}\ \overline{24}$, and then grouping $(\overline{8}\ \overline{24})$ using (1, 3),
$= 1\ \overline{2}\ \overline{3}\ \overline{6}$, and the final 3 fractions, being a fundamental generator giving $\overline{2}\ \overline{3}\ \overline{6} = 1$, we have,
$= 1\ 1$
$= 2.$

Pr. 17 MMP.

$$\overline{\overline{3}}\ \overline{6}\ \overline{10}\ \overline{30}\ \overline{30}.$$

The grouping of the last three terms giving $(\overline{10}\ \overline{30}\ \overline{30}) = \overline{6}$ is possible, but it seems more likely that the scribe would use the generator (1, 5) on the 2nd and 4th terms, giving $(\overline{6}\ \overline{30}) = \overline{5}$ so that the line now reads,

$$\overline{\overline{3}}\ \overline{5}\ \overline{10}\ \overline{30}.$$

Now by grouping the last three terms, and from the generator (1, 2, 6) we will have,

$$\overline{\overline{3}}\ \overline{3} = 1 \text{ from the equality (C).}$$

And now we return to the original problem of the summation of the sixteen fractions of problem 70 of the RMP.

$$\overline{2}\ \overline{6}\ \overline{14}\ \overline{21}\ \overline{21}\ \overline{42}\ \overline{63}\ \overline{84}\ \overline{126}\ \overline{126}\ \overline{168}\ \overline{252}\ \overline{336}\ \overline{504}\ \overline{1008}.$$

Starting with the higher numbers we first note that 336, 504, and 1008 are each multiples of 168, so that by using the generator (1, 2, 3, 6), we can obtain $(\overline{168}\ \overline{336}\ \overline{504}\ \overline{1008}) = \overline{84}$.
The line now reads,

$$\overline{2}\ \overline{6}\ \overline{12}\ \overline{14}\ \overline{21}\ \overline{21}\ \overline{42}\ \overline{63}\ \overline{84}\ \overline{84}\ \overline{126}\ \overline{126}\ \overline{252}.$$

We might be tempted to group $(\overline{84}\ \overline{84}) = \overline{42}$ and $(\overline{126}\ \overline{126}) = \overline{63}$, but again we note that 84, 126, and 252 are multiples of 42, so that using the same generator (1, 2, 3, 6) we get $(\overline{42}\ \overline{84}\ \overline{126}\ \overline{252}) = \overline{21}$.
Now it reads,

$$\overline{2}\ \overline{6}\ \overline{12}\ \overline{14}\ \overline{21}\ \overline{21}\ \overline{21}\ \overline{63}\ \overline{84}\ \overline{126}.$$

We now bracket $(\overline{63}\ \overline{84}\ \overline{126}) = \overline{28}$, for these numbers are multiples of 21, and also $(\overline{21}\ \overline{21}\ \overline{21}) = \overline{7}$, and using the generators (3, 4, 6) and (1, 1, 1) we have,

$$\overline{2}\ \overline{6}\ \overline{12}\ \overline{14}\ \overline{7}\ \overline{28}.$$

Bracketing $(\overline{7}\ \overline{14}\ \overline{28}) = \overline{4}$ and $(\overline{6}\ \overline{12}) = \overline{4}$ from the generators (1, 2, 4) and (1, 2), we reduce to

$$\overline{2}\ \overline{4}\ \overline{4} \text{ which is unity from the generator (1, 2, 2).}$$

One must remark that the groupings suggested in the foregoing examples are only some possible sequences in a large number of others; a scribe skilled in this technique might perform the summation in a shorter or more elegant fashion. On the other hand, a scribe not so skilled, or one who perhaps did not have his reference tables handy, could use another method which is well attested in the RMP. Thus in problem 22 it is required to show that

$$\overline{\overline{3}}\ \overline{5}\ \overline{10}\ \overline{30} = 1.$$

Now by grouping the last three fractions, and using the generator (1, 2, 6), the scribe can easily obtain $(\overline{5}\ \overline{10}\ \overline{30}) = \overline{3}$, so that he could obtain $\overline{\overline{3}}\ \overline{3} = 1$. But he does not do this.

Instead he directs the student to apply the four fractions separately to the number 30, which he then uses as a sort of 'least common multiple'. By taking in turn $\overline{\overline{3}}$, $\overline{5}$, $\overline{10}$, and $\overline{30}$ of 30 he gets 20, 6, 3, 1 which total 30, thus proving that

$\overline{\overline{3}}\ \overline{5}\ \overline{10}\ \overline{30} = 1.$

This method of adding fractions is employed by the scribe of the RMP in his problems on completion (problems 21, 22, 23) clearly for purposes of teaching the technique, and he sometimes has occasion to use it in his subsequent work. But in by far the majority of cases, the scribe is able to sum up to twenty and more fractions with quite large denominators without the use of this, what we may call, LCM method.

In problem 32 of the RMP the scribe has to sum the fractions

$\overline{12}\ \overline{18}\ \overline{24}\ \overline{36}\ \overline{48}\ \overline{114}\ \overline{228}\ \overline{342}\ \overline{456}\ \overline{684}\ \overline{912}$ to give $\overline{4}$.

Presumably because his tables for the addition of unit fractions were not close at hand, or for some other reason, perhaps a pedagogical one, he uses the highest number in the set, 912, as a common multiple (it is not, of course, what we call the LCM, which is 2736), and by dividing the eleven numbers of the fractions into 912, he obtains the series

$$76\ \ 50\ \overline{\overline{3}}\ \ 38\ \ 25\ \overline{3}\ \ 19\ \ 8\ \ 4\ \ 2\ \overline{3}\ \ 2\ \ 13\ \ 1,$$

which he says together make 228, or $\overline{4}$ of 912. The scribe does not show any of these eleven divisions, but 'oddly' enough he does show that $\overline{4}$ of 912 is 228, as his usual check, as follows:

1	912
$\overline{2}$	456
$\overline{4}$	228

In my own trial for the addition of these fractions I found this method very much more laborious than grouping the fractions and using tables. For the eleven divisions take some time as well as space, while the obvious groupings using the generator (1, 2) almost demand to be used; so that in a few lines we obtain,

$$\begin{array}{lccccc} & \overline{12} & (\overline{18}\ \overline{36}) & (\overline{24}\ \overline{48}) & (\overline{114}\ \overline{228}) & (\overline{342}\ \overline{684}) \quad (\overline{456}\ \overline{912}) \\ = & \overline{12} & \overline{12} & \overline{16} & \overline{76} & \overline{228} \qquad \overline{304}. \end{array}$$

Since the last three fractions belong to the (1, 3, 4) generating group, the fractions

$= \overline{12}\ \overline{12}\ \overline{16}\ \overline{48}$, and since $(\overline{16}\ \overline{48}) = \overline{12}$ from the generator (1, 3),

$= \overline{12}\ \overline{12}\ \overline{12}$ which is $\overline{4}$.

THE COREGENCY OF TUTHMOSIS III AND AMENOPHIS II

By DONALD B. REDFORD

THE suggestion that Tuthmosis III was for a time coregent with his son and successor Amenophis II has, understandably, never provoked the storm of controversy raised by the alleged Amenophis III–Akhenaten coregency. On the length of the coregency of Tuthmosis III and his son, however, there is a division between scholars. Whereas, to anticipate the results of this paper, it appears that the historical coregency amounted to not more than a couple of years, an aberrant hypothesis is to be found today in some quarters which asserts that Amenophis II ruled as coregent with his father for a fantastic twenty-five years or more.[1] The majority of scholars do not seem to have taken this hypothesis seriously, and there would be little point in combating it here were it not for the fact that a close examination of the evidence tendered in favour of a long coregency leads to two important results: (*a*) the re-dating of three papyri from the middle of the Eighteenth Dynasty, and (*b*) the discovery of a hitherto unsuspected male heir of Amenophis II.

The hypothesis which claims for Amenophis II a long coregency of a quarter-century or more apparently originated following Golénischeff's publication in 1913 of papyri 1116A and 1116B of the Hermitage.[2] The arguments put forward in support of this hypothesis depend upon these two papyri and the British Museum papyrus 10056,[3] and may be summarized as follows: (i) The occurrence of *ꜥnḫ wḏꜣ snb* after Tuthmosis III's prenomen in 1116B proves that he was still alive and reigning when the papyrus was written. Since the same papyrus contains the prenomen of Amenophis II, the son must have been reigning along with the father as coregent. (ii) One of the officials mentioned in 1116A, dated palaeographically to the same general period as 1116B, bears the name *ꜣ-ḫpr-⟨rꜥ⟩-r-nḥḥ*.[4] That an official whose name is compounded with the prenomen of Amenophis II was old enough to hold office while Tuthmosis III was still living argues a long coregency indeed. (iii) The presence of 'Year 18' in 1116A (vs. 19) suggests a date early in the reign of Tuthmosis III. (iv) Frequent mention is made of the 'king's son and *sm*-priest Amenḥotpe' in B.M. 10056, a papyrus which contains the date 'Year 30' of an Eighteenth Dynasty king (col. 9, 8). Since the orthography points to the middle of the Eighteenth Dynasty, the only possible candidate is Tuthmosis III.

[1] O. A. Toffteen, *Ancient Chronology* (*Researches in Biblical Archeology* 1; Chicago, 1907), 196 (rebuttal by H. R. Hall in *PSBA* 34 (1912), 107); Borchardt, *Mittel*, 81 f.; most recently E. Knudsen, *Acta Orientalia* 23 (1958–9), 111 f.

[2] V. Golénischeff, *Les Papyrus hiératiques . . . de l'Hermitage impérial à St. Pétersbourg* (St. Petersburg, 1913).

[3] Published by S. R. K. Glanville, *ZÄS* 66 (1930), 105–21; 68 (1932), 7–41.

[4] For the name see H. Ranke, *Die ägyptischen Personennamen*, 1 (Glückstadt, 1935), 58, 3.

Amenḥotpe, the king's son and *sm*-priest, must be the future king and successor of Tuthmosis.[1] He was thus already a grown man and coregent twenty-five years before his father died.

If the evidence cited above is valid, and if these facts have been interpreted correctly, we can only join with Golénischeff in saying 'il peut très bien que Thoutmosis III ait proclamé Amenophis II son héritier déjà dans la première moitié de son règne . . .'.[2]

Yet the mind balks at this suggestion, principally on account of a number of discordant facts which cannot be reconciled with a coregency of such a length. Although Golénischeff may be excused for not possessing the faculty of clairvoyance, it is known today that toward the middle of Tuthmosis III's reign, around Year 24,[3] the heir presumptive was not Amenḥotpe, but one Amenemḥēt, 'the king's eldest son'. There can be little doubt that he was an older (half-) brother of Amenophis II who died early. Since in an inscription of Year 24[4] he is being appointed to a function in the administration of the Amūn temple, the probability is that he was no longer a child at the time. This deduction would place his birth fairly early in the dual reign of Tuthmosis III and Ḥatshepsut, and it is within the realm of probability that his mother was Neferurēʿ. Amenophis II's mother, Meryetrēʿ-Ḥatshepsut II, does not appear until later in the reign of Tuthmosis III; Sit-yōḥ is still the king's chief wife in the middle of the third decade of the reign.[5] In fact on Amenophis II's own statement, he was only eighteen years old when he ascended the throne.[6] All these considerations strongly suggest that Meryetrēʿ did not marry Tuthmosis III and that Amenophis II was not born, much less made coregent, until well past the midway point in the 54-year reign.

A long coregency between the two kings is improbable on other grounds as well. How are the Syrian campaigns of both kings to be dovetailed? How can the fact be explained that there exist two separate rosters of high officials, one for each king? Was there a dual administration? And is it not a remarkable coincidence that the inscriptions of the one group of officials make no reference to, nor even hint at the existence of, the other? The difficulty is most apparent in the case of the viceroy of Kush. Woser-satet, who is mentioned *passim* in inscriptions of Amenophis II, and who undoubtedly spanned most of the reign, is nowhere mentioned in Tuthmosis III's inscriptions. On the other hand, the latter's Neḥy, who was still alive and in office two years before his sovereign died,[7] is entirely absent from documents belonging to the succeeding reign.[8]

In spite of these objections, however, the facts adduced in support of the long coregency must be explained, and the theory based upon them rebutted.

[1] Glanville, *ZÄS* 66 (1930), 105 f.; 68 (1932), 7 f.; so also most scholars who have had occasion to write on the subject: W. C. Hayes, *The Scepter of Egypt*, II, 141; id., 'Egypt: Internal Affairs from Tuthmosis I to the Death of Amenophis III', in *Cambridge Ancient History*², II (1962), 9; Gardiner, *Egypt of the Pharaohs*, 198.

[2] Op. cit. 3.

[3] Cf. Gardiner, *JEA* 31 (1945), 16; id., *JEA* 38 (1952), 9.

[4] Inscription from the festival hall, Karnak: *Urk.* IV, 1262.

[5] Cf. the stela from the Karnak Ptaḥ-temple: Breasted, *AR*, II, § 612.

[6] Great Sphinx-stela: *Urk.* IV, 1279, 10.

[7] *LD* III, 45 *e*; Reisner, *JEA* 6 (1920), 30.

[8] On the point in Amenophis II's reign when Woser-satet became viceroy see Helck, *JNES* 14 (1955), 30 f.; Helck suggests the possibility that someone else may briefly have held office between Neḥy and Woser-satet.

First, let it be said that the tacit assumption regarding the contemporaneity of papyri 1116A, 1116B, and B.M. 10056 is sound. The palaeography, as Glanville has pointed out,[1] is identical in all three. The onomasticon is mid-Eighteenth Dynasty throughout, although none of the individuals of the Leningrad manuscripts occurs in the British Museum text. Both 1116B and B.M. 10056 are concerned *inter alia* with wood for shipbuilding, and 1116A and B.M. 10056 both mention the northern residence *Prw-nfr* where a dockyard was situated. The evidence is so conclusive that Glanville has posited a common source for all three documents somewhere not far from Memphis, and perhaps in that city.[2]

We are confronted by an inconsistency when we examine the supposed occurrences of the name of Amenophis II in all three papyri. In the Leningrad manuscripts his prenomen is found enclosed in a cartouche. Moreover, the personal name *ꜣ-ḫpr-⟨rꜥ⟩-r-nḥḥ* (1116A, vs. 50) proves that he had borne the prenomen, and *ipso facto* been reigning, a considerable length of time. In B.M. 10056, however, he is called nothing more than 'king's son and *sm*-priest'; not even the qualification 'king's eldest son' appears. Are these really contemporary references to the same individual? The prenomen in the Leningrad manuscripts clearly belongs to Amenophis II, and the only reasonable conclusion is that 'Year 18' of 1116A belongs to him also.[3] Are we able even to identify the two persons, explaining the discrepant titles on the assumption that the references are not contemporary? Such an identification would be worth consideration only if it could be proved that the Leningrad papyri followed the British Museum papyrus by a fair number of years; and for this there is not the slightest evidence. Yet it is difficult to deny the identification principally because of the designation of the king's son Amenḥotpe as *sm*-priest in the British Museum papyrus. This title, we are told, was sometimes applied to the heir apparent during the New Kingdom;[4] and if the appellative in the present context has reference to nothing more than the eldest son's priestly function *vis-à-vis* his deceased father, a case might well be made that this prince is in fact the future king Amenophis II.[5]

Before further investigating the identity of the king's son Amenḥotpe, Golénischeff's belief that Tuthmosis III was still alive when 1116A and 1116B were written must be examined. The prenomen *Mn-ḫpr-rꜥ* occurs twice in 1116B (vs. 61 and 66), both times in the name of a building called 'the house of *Mn-ḫpr-rꜥ*, l. p. h.' The context lists amounts of precious wood belonging both to this establishment and to the 'bark of

[1] *ZÄS* 66 (1930), 106 f.

[2] Ibid. 108. Apart from the papyri under discussion, most of the occurrences of *Prw-nfr* are dated to Amenophis II's reign. There is none which is known to antedate it: cf. Spiegelberg, *REA* 1 (1926), 215 f.; Badawy, *Ann. Serv.* 42 (1943), 3; Helck, *Zur Verwaltung des mittleren und neuen Reichs* (*Probleme der Ägyptologie* 3; Leiden, 1958), 6 n. 2; Edel, *ZDPV* 69 (1953), 155; other references in Caminos, *Late Egyptian Miscellanies*, 337.

[3] It cannot belong to Tuthmosis IV, and the evidence of the palaeography is, as noted above, against a later date. Golénischeff was hampered by the fact that in his day the highest known date of Amenophis II was felt to be Year 5. That Amenophis II reigned at least twenty-six years is now certain.

[4] Sethe, *Thronwirren*, 67; Erman, *Die Religion der Ägypter* (Berlin, 1934), 267; Wainwright, *JEA* 26 (1941), 37; Černý, *Ancient Egyptian Religion* (London, 1952), 117.

[5] Assuming that Amenophis II was the eldest son of Tuthmosis III, which does not seem possible in the light of our present knowledge; see above, p. 108, n. 4.

ꜣs-ḫprw-rꜥ, ⟨lord?⟩ of the Two Lands'. The mere mention of Tuthmosis III's prenomen is no proof, of course, that he was still alive; a like-named 'house of *Nb-pḥty-rꜥ*' in 1116A, vs. 133 and 138 is certainly no proof that Amosis was still living. Rather, Golénischeff's argument seems to be based on the appearance of the benedictory formula 'life, prosperity, health!' following the prenomen. But surely these words apply, not to the royal name alone, but to the compound as a whole. This is easily proven by the ubiquitous occurrence of *ꜥnḫ wḏꜣ snb* after temple-names compounded with the prenomens of kings who had long since passed away.[1] Moreover, a reference to a 'House of His Majesty, l. p. h.' (clearly an allusion to the reigning king) in the same context (vs. 67) as the 'House of *Mn-ḫpr-rꜥ*, l. p. h.' suggests a distinction between the reigning king and Tuthmosis III. Of course the only conclusion possible, and the one to which all the evidence points, is that 'His Majesty' in this case is Amenophis II. A date for the two Leningrad papyri shortly after his eighteenth year would satisfy all the evidence. But there is no reason to believe that Tuthmosis III was still alive and reigning at the time.

No mention is made of Tuthmosis III in B.M. 10056, but Glanville assigns the papyrus to his reign partly on the basis of the palaeography and partly on the basis of a fragmentary regnal year in vs. 9, 8. A restoration 'Year 30' was opted for by him, but he freely admitted that the number could also be read 15, 25, or 35.[2] When writing accounts Egyptian scribes were content to precede each day's entry with only the month and day. Whenever they did include the year this usually signified that at that point a new regnal year had begun, whereupon the succeeding entries reverted to the minimal formula.[3] The month and day in the present passage do not correspond to the accession day of any Eighteenth Dynasty king, and so are of no help.[4] But a second regnal year date which occurred in vs. 3, 6 is more illuminating. Although in this case the year is completely lost, the surviving month and day, iv, 1, is precisely the date of Amenophis II's accession.[5] Obviously, then, the papyrus must date from his reign, and the other date read by Glanville 'Year 30' must be his as well. Since it now appears that Amenophis reigned just short of twenty-six full years, Glanville's reading cannot be accepted. From the facsimile and photograph given in Glanville's publication[6] either '10' or '20' would seem to be possible; and the present writer, in view of the considerations to be presented below, opts for the higher number.[7]

The evidence presented thus far clearly proves that all three papyri date from the reign of Amenophis II. Whether they were written during a coregency is a moot point, but nothing in the papyri themselves can be adduced to prove that Tuthmosis III was still living.

[1] E.g. Papyrus Abbott, 1, 13; 2, 3, 8; 3, 3; 7, 7, 12, 15; Papyrus Amherst, 3, 8; Papyrus Mayer 2, 3, 10, and many more. [2] *ZÄS* 66 (1930), 120 n. 3. [3] Gardiner, *JEA* 31 (1945), 23.

[4] vii, 4. The regnal year is inserted here perhaps because since the last entry more than a year had elapsed.

[5] For iv, 1 as the accession day of Amenophis II, see Gardiner, *JEA* 31 (1945), 27; Helck, *JNES* 14 (1955), pl. ii. [6] *ZÄS* 66 (1930), 7*; 68 (1932), Taf. 1.

[7] Glanville offered '15' and '25' as possible restorations, and there does indeed seem to be enough space for them. The present writer is a little hesitant, however, to accept '15' or '25', principally because Glanville himself in settling for '30' showed that he did not think a '5' was present.

It is now possible to answer the question posed above as to whether Amenophis II, attested by his cartouches in the Leningrad papyri, is to be identified with the 'king's son and *sm*-priest' of the British Museum text. The dating of the three papyri some time after the accession of Amenophis II renders such an identification impossible. Even if B.M. 10056 did date from a coregency, it would be most unusual to find one of the coregents mentioned without cartouches or titles, merely as 'king's son'.[1] While the identity of prince Amenḥotpe of B.M. 10056 remains to be discussed, it is quite clear that he is one of the sons of Amenophis II, and not that monarch himself.

The only title besides 'king's son' which is borne by Amenḥotpe in B.M. 10056 is *sm*-priest. The fact that he is resident at or near Memphis makes it almost certain that the office referred to is that connected with the high priesthood of Ptaḥ.[2] Other New Kingdom princes called *sm*-priests also functioned as chief pontiff in the northern city.[3] The best known is Khaʿemwēse, son of Ramesses II. Another was the 'king's son and *sm*-priest Ḏḥutmose' who appears with his father Amenophis III at the burial of an Apis in the Serapeum.[4] The same man has left a canopic box on which he is called 'the king's eldest son, his beloved, High Priest of Ptaḥ (*wr ḥrp ḥmw*) and *sm*-priest', and 'overseer of the prophets of Upper and Lower Egypt'.[5] He is doubtless to be identified with the king's son and *sm*-priest Ḏḥutmose who appears on a statuette in the Louvre.[6] During the Late Period the title *sm*-priest (and High Priest) of Ptaḥ is appropriated by claimants to the throne and by more distant relatives of the king.[7]

A number of High Priests of Ptaḥ is known from the late Eighteenth Dynasty, but their order and date of tenure in no way prevent us from placing Amenḥotpe of B.M. 10056 among them. From the end of the reign of Tuthmosis III a certain Ptaḥmose is attested whose titles are 'hereditary prince, count, seal-bearer of the king of Lower Egypt, *sm*-priest and High Priest of Ptaḥ'.[8] Another Ptaḥmose under Tuthmosis IV

[1] Sesostris I is indeed once referred to in Sinuhe (R 18) as *sʾ-nsw* at a time when he was coregent; cf. however, the variant in C 3, viz. *nsw*, and the other references which supply cartouches and titulary (R 12–13; 22). Elsewhere in formal inscriptions of the period of this coregency, Sesostris is always afforded cartouches; see Simpson, *JNES* 15 (1956), 214 f.

[2] Gardiner, *Egypt of the Pharaohs*, 198. Although the High Priest of Ptaḥ often functioned as the *sm*-priest of that god, this was not always the case, and the two offices were sometimes held by different individuals. For the primary connexion of the *sm*-priest with the cults of Wepwawet, Anubis, and Sokar, see C. Maystre, *JNES* 8 (1949), 84 f.; the most complete discussion is by Gardiner in *AEO* 1, 39* ff.

[3] Maystre (op. cit. 85) claims to know of three, but undoubtedly there were others. Already in the Twelfth Dynasty there is mentioned a king's son and *sm*-priest Amenemḥēt-ʿonkh on a squatting statue from Saqqara: Quibell, *Excavations at Sakkarah 1907–8* (Cairo, 1909), pl. 57, 1. Since he was responsible for appointing the owner of the statue to a post in the temple of Ptaḥ, it seems probable that this prince was the Memphite High Priest.

[4] Gauthier, *Livre des rois*, II, 355 for references; Petrie's suspicion (*History*, II, 203) that Ḏḥutmose was only a titular prince is, I believe, unfounded.

[5] Daressy, *Rec. Trav.* 14 (1893), 174 f.; Borchardt, *ZÄS* 44 (1907), 97 (photo.). Daressy ascribed the box to a son of Tuthmosis IV.

[6] Gardiner, *ZÄS* 43 (1906), 56.

[7] E.g. Tefnakhte (Piankhi Stela, 20); Harsiēse, Pediēse, Takelot (Second Pediēse Stela: Mariette, *Le Serapeum de Memphis* (Paris, 1882), III, pl. 26). See especially Borchardt, *Mittel*, 101 f. Cf. also Pedineit: Chassinat, *Rec. trav.* 21 (1899), 63.

[8] Anthes, *ZÄS* 72 (1936), 60 f.

held the same office. His titulary is of larger proportions and includes 'High Priest of Ptaḥ in the two houses (*pr·wy*)', 'he who is over the secrets of the great ⌜. . .⌝',[1] and 'of foremost position in Rostau'.[2] There can be no doubt that he is a different man from his namesake and predecessor.[3] From the reign of Amenophis III no less than six High Priests of Ptaḥ are known. They are the prince Ḏḥutmose (see above), Ptaḥmose, son of the northern vizier Ḏḥutmose,[4] Ptaḥmose, son of Menkheper,[5] the latter Ptaḥmose's son, Paḥonte,[6] and the two High Priests, Penpnebs and Wermer of the Berlin genealogy.[7] While there is not enough evidence to enable us to decide in which order they held office, it is likely that Paḥonte was the last of the group. He may have begun his pontificate just before Amenophis III died, and survived into the Nineteenth Dynasty.[8]

A significant gap occurs in the above list between the end of Tuthmosis III's reign and the beginning of the reign of his grandson Tuthmosis IV. This gap, which covers the reign of Amenophis II, can now be filled (at least partly) with the person of Amenḥotpe of B.M. 10056.

Is this prince Amenḥotpe, son of Amenophis II, mentioned on any other contemporary monuments? Very likely he was; but the fact that 'Amenḥotpe' was a popular name and was probably borne by many kings' sons during the Eighteenth Dynasty will render any identification somewhat dubious unless decisive proof is present. With this *caveat* in mind, the reader is invited to peruse the following occurrences of kings' sons Amenḥotpe from the middle of the Eighteenth Dynasty.

In tomb 64 of the Theban necropolis there is an important wall painting showing the two royal tutors Ḥeḳreshu and his son Ḥeḳerneḥeḥ in the company of their princely charges.[9] Ḥeḳreshu is seated facing right, with the young heir apparent Ḏḥutmose upon his lap. Before him stand Ḥeḳerneḥeḥ and a small prince Amenḥotpe, who carries a bouquet. Behind Ḥeḳerneḥeḥ appeared six other princes, originally all named, but the hieroglyphs are now almost completely destroyed. One name alone can be made out, that of a certain Amenemḥēt. All the princes including Ḏḥutmose wear pectorals bearing the nomen and prenomen of Tuthmosis IV. This fact drove Newberry to the conclusion that, while the child on Ḥeḳreshu's knee was undoubtedly the later

[1]  . [2] Ibid. 61. [3] Ibid. 61 and 67.

[4] Ibid. 61; K. Bosse–Griffiths, *JEA* 41 (1955), 56 ff., pl. 14; *Urk.* IV, 1911, 1914.

[5] Anthes, op. cit. 62; Bosse–Griffiths, loc. cit.; *Urk.* IV. 1911, 1917 f.

[6] *Urk.* IV, 1919.

[7] Borchardt, *Mittel*, Bl. II (2, 11, 12) *m rk nsw Nb-mꜣꜥt-rꜥ*; the historicity of these two is somewhat doubtful, since they are attested only in this late document whose trustworthiness is not at all certain; cf. Kees, *Das Priestertum im ägyptischen Staat* (Leiden, 1953), 66 n. 4.

[8] That is, if any of the references to the '*sm*-priest and High Priest of Ptaḥ, Paḥonte' on certain Nineteenth Dynasty monuments is really an allusion to the son of Ptaḥmose. For the difficulty in dating and arranging the High Priests of Ptaḥ who bore this name, see E. Schiaparelli, *Museo archeologico di Firenze. Antichità egizie* (Rome, 1887), 201 f.; P. Le Page Renouf, *PSBA* 14 (1892), 163 ff.; Anthes, op. cit. 64 f.; Kees, op. cit. 63 ff.; Helck, *Verwaltung*, 320 n. 1.

[9] *LD* III, 69; Newberry, *JEA* 14 (1928), pl. XII (restored from a copy by Burton); *Urk.* IV, 1572 f. (text). Tomb 64 may belong to Ḥeḳerneḥeḥ; Newberry (op. cit. 82 n. 4) thinks it was constructed for him during Tuthmosis IV's reign, and later abandoned in favour of no. 226. See now Porter–Moss, *Top. Bibl.* I², 128 f. and 327.

Tuthmosis IV, the other princes were his sons. The prince named Amenḥotpe, according to Newberry, subsequently became the third king of that name.[1]

It has been pointed out that Newberry's argument is not compelling. The other princes in the scene could as easily be Tuthmosis' brothers who, out of deference to their sovereign, wore his cartouche.[2] Again, the position of the princes in the scene may not be fortuitous: the six princes bringing up the rear could be sons of Tuthmosis IV, while Amenḥotpe could be a brother, and for that reason was singled out to be depicted in a position of honour. A possible rebuttal might take the following form: Ḥeḳreshu is specifically stated to be 'tutor (*mnᶜ*) of the king's eldest bodily son, Ḏḥutmose (in cartouche)', while Ḥeḳerneḥeḥ's title is 'tutor of the king's son Amenḥotpe'.[3] Since a father–son relationship existed between the tutors, it is probable that a similar relationship existed between their charges. The Amenḥotpe in question, then, it could be argued, is probably the son and successor of Tuthmosis IV.[4]

A king's son called Amenḥotpe is mentioned twice in graffiti from Konosso, once with Ḥeḳreshu and the second time with Ḥeḳerneḥeḥ.[5] The presence of the cartouches of Tuthmosis IV in the immediate vicinity lends support to the dating of the graffiti to his reign. More important, Amenḥotpe's name is accompanied by that of another king's son ᶜOkheprurēᶜ, and the parallelism in the graffito between the two names strongly suggests a fraternal relationship. ᶜOkheprurēᶜ is shown again upon the knee of an unidentified scribe in tomb 226 of the Theban necropolis along with three of his brothers.[6] If, as his name would indicate, he was a son of Amenophis II,[7] then there is every likelihood that prince Amenḥotpe was too, and we should have to consider him a brother and not the son of Tuthmosis IV.

While our identification of the prince in the British Museum papyrus with the

[1] Newberry, op. cit. 83 f.

[2] Petrie, *History*, III, 165; Drioton–Vandier, *L'Égypte*⁴, 384; Gauthier, *Livre des rois*, II, 290 n. 1 (but cf. 302 n. 4). Newberry long ago held the same view: *PSBA* 25 (1903), 294. His reason then, viz. that Tuthmosis IV at the time the tomb was prepared was too young to have had seven sons, is still sound. The nine daughters attributed to him by Gauthier (op. cit. II, 305) are most probably offspring of Amenophis III.

[3] Newberry, op. cit., pl. 12.

[4] W. Wolf, *ZÄS* 65 (1930), 98 f.

[5] Newberry, op. cit. 85 figs. 3 and 4; *Urk.* IV, 1575. In the graffito mentioning Ḥeḳerneḥeḥ, ᶜOkheprurēᶜ is referred to as *wḥm ᶜnḫ*.

[6] Names lost. The tomb is dated to the early years of Amenophis III: Newberry, op. cit. 82. Davies, *JEA* 9 (1923), 133, saw in the four children the sons of Amenophis III, and persists in this view in his later publication of the tomb: *The Tomb of Menkheperraseneb, Amenmose and Another* (London, 1933), 40. The difficulty with this view lies in the presence in the tomb paintings of Mutemwiya (ibid., pl. 41) instead of Tiy. This suggests a time very early in the reign of Amenophis III before his marriage to Tiy in or before Year 2; cf. Aldred, *JEA* 43 (1957), 114 f. That Amenophis III was old enough in the first year of his reign to have already begotten four sons is extremely doubtful.

[7] Unless ᶜOkheprurēᶜ was named after his father's father, in which case he would be the grandson of Amenophis II. This, however, seems unlikely. The present writer has collected a number of examples of names which either consist of or are compounded with the prenomina of kings, and the majority (though by no means all) of the persons bearing such names seem to have been born under the king whose prenomen their name contains. Of royal children who were named with their father's prenomen we may cite Menkheper(u)rēᶜ, probably the son of Tuthmosis IV (Legrain, *Ann. Serv.* 4 (1903), 138 f.), Setepenrēᶜ, a son of Ramesses II (Gauthier, *Livre des rois*, III, 93), Usermarēᶜ, another son of Ramesses II (ibid. III, 101), and ᶜAnkh-nes-neferibrēᶜ, daughter of Psammetichus II (Breasted, *AR.*, IV, § 988c). On the origin of this type of name, see Ranke, *Personennamen*, II, 206 n. 2, 207 n. 1, 218 f.

king's son Amenḥotpe of Theban tomb 64 and the Konosso graffiti must of necessity remain conjectural, we may with more confidence identify him with another royal personage. This is the king's son (dubbed 'prince B' by Selim Hassan), who erected the well-carved stela in the Sphinx-temple of Amenophis II.[1] The identification rests on three considerations: (i) like Amenḥotpe of the British Museum papyrus, 'prince B' was a king's son; (ii) like Amenḥotpe, his father was Amenophis II; (iii) again like Amenḥotpe, he was resident at Memphis and functioned there as *sm*-priest.[2] Unfortunately about one-third of the inscription on the stela is illegible, partly through weathering and partly through malicious damage, and wherever the name of the prince occurred it has been hacked out. That he was an important person, however, can be gathered from such epithets and titles as 'one who enters before his father without being announced, providing protection for the king of Upper and Lower Egypt' (l. 2), 'commander of horses, judge, "he-of-the-curtain," attached to Nekhen, priest of *mꜣꜥt*, mouth which quells in the entire land' (l. 4), 'hereditary prince, count, *sm*-priest . . .' (l. 5). Since the extant traces according to Hassan[3] show that his name was enclosed in a cartouche, it is only reasonable to conclude that at the time when the stela was carved 'prince B' was heir apparent. This conclusion takes on importance when it is recalled under what dubious circumstances Tuthmosis IV came to the throne.

On the dates for the life of the prince and Memphite High Priest Amenḥotpe one can only speculate. To be old enough to hold office around Year 20 of his father's reign he must have been born shortly after Amenḥotpe II's accession, and certainly no later than Year 5. Unfortunately at present there is not enough evidence to decide whether he was the eldest son of Amenophis II;[4] but if he is identical with 'prince B' of the Giza stela, we can be sure he stood ahead of Tuthmosis IV in line for the throne. On the present estimate of Tuthmosis' age at death, about thirty,[5] he too must have been

[1] S. Hassan, *Le Sphinx, son histoire à la lumière des fouilles récentes* (Cairo, 1951), fig. 40.

[2] Cf. the titles (l. 5) 'hereditary prince, count, *sm*-priest, master of every apron', (l. 7) '. . . *sm*-priest in the temple of Sokar . . .'. For the close connexion between the office of *ḫrp šndt nbt* 'master of every apron' and that of *sm*-priest of Ptaḥ, see Gardiner, *AEO* I, 40*.

[3] Op. cit. 117.

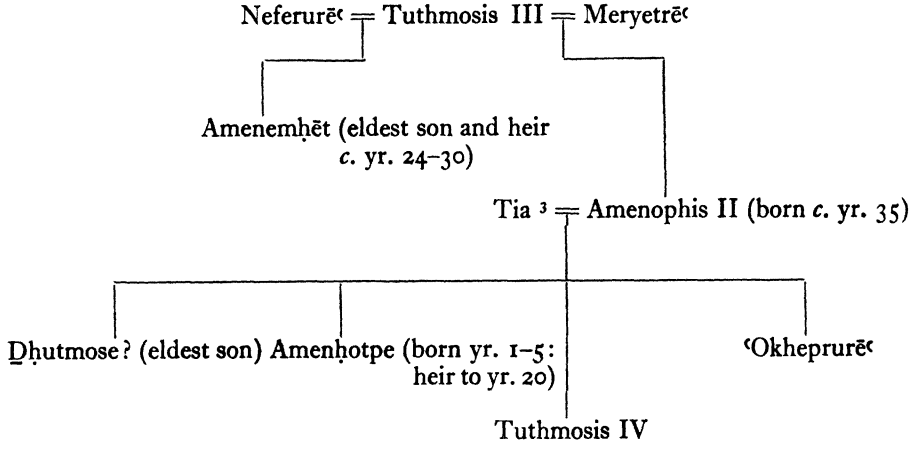
[4] The fact that he was named Amenḥotpe like his father might be taken to indicate that he was not the first-born, that an older son named Ḏḥutmose had been born to Amenophis II. It would be necessary to assume, however, that this Ḏḥutmose had passed away in childhood without leaving any trace.

The question arises whether the office of *sm*-priest of Ptaḥ was reserved for the king's eldest son and heir apparent. The evidence is inconclusive. Ḏḥutmose is specifically called the eldest son of Amenophis III (see above, p. 111 n. 4), but Khaʿemwēse was certainly not the eldest son of Ramesses II, that is if the term was employed by the Egyptians as we employ it today; see Seele, *The Coregency of Ramses II with Seti I and the Date of the Great Hypostyle Hall at Karnak* (Chicago, 1940), 34 and 37 n. 46. Even at the time he took the title of *sm*-priest of Ptaḥ (by Year 30 at least) there were other sons of Ramesses older than he. Only for a year or two before his death in Year 55 (Gauthier, *Livre des rois*, III, 48 n. 1) did Khaʿemwēse enjoy the title 'crown prince' (*iry-pꜥt*): Prisse d'Avennes, *Rev. Arch.* II, 2 (1846), 748 f., quoted by Gauthier, op. cit. III, 89. For that short period he probably was the oldest surviving son. But as late as Year 53 he did not yet hold this distinction: from about Year 21 to the above date Sutekh-ḥir-khopshef was crown prince and presumably the oldest of the surviving sons of Ramesses: Spiegelberg, *Rec. trav.* 16 (1894), 65; Ranke, *ZÄS* 58 (1923), 136 ff.; Edel, *Indogermanische Forschungen* 60 (1949), 74. He in turn was preceded by Amon-ḥir-wonmef, Ramesses (?), and perhaps by Amon-ḥir-khopshef (unless he be identical with Sutekh-ḥir-khopshef, as suggested by Ranke, loc. cit.). With the exception of Khaʿemwēse, however, none of these crown-princes ever bears the title *sm*-priest of Ptaḥ.

[5] Wolf, op. cit. 99; E. Smith (*The Royal Mummies*, 44 f.) sets twenty-eight as a minimal figure.

born during the early years of his father's reign. If he reigned ten years, and his father twenty-six, his year of birth would correspond to the sixth regnal year of Amenophis II. Some scholars long suspected—and indeed the suspicion persists today—that Tuthmosis IV was not the eldest son of his father.[1] The contents of the famous Sphinx-stela set up during Tuthmosis' reign seem to suggest that prior to the divine revelation recounted on that monument he was not expecting to succeed to the throne. On the other hand, the inscription in tomb 64 refers to him specifically as 'king's eldest son'. Are we here faced with evidence of family strife in the household of Amenophis II? Was there a struggle for the throne among the sons of the king? And did Tuthmosis IV attempt to justify his seizure of the throne by later asserting that he was, in fact, the eldest son of Amenophis II? Or does the appellative signify only that, for a short time before his father's death, Ḏḥutmose had the distinction of being oldest *surviving* son?[2]

The results obtained thus far concerning the heirs of Tuthmosis III and Amenophis II are set forth more clearly in the accompanying genealogical table:



While an overlap of twenty-five years between the reigns of Tuthmosis III and Amenophis II is quite out of the question, at least on the evidence adduced by Golénischeff, the possibility of a coregency of some length cannot be excluded.[4] The Theban tomb of Amenmose (no. 42) shows the cartouches of both kings, with partial titularies, facing each other above the door leading to the shrine.[5] The same tomb has

[1] H. Brugsch, *Egypt under the Pharaohs* (London, 1879), I, 462 f.; Drioton–Vandier, *L'Égypte*[4], 304 f.; Breasted, *History*, 327; Gauthier, *Livre des rois*, II, 288 n. 3; Hayes, *Scepter*, II, 147; Maspero, *Histoire*, II, 292 f.

[2] For the distinction between *sꜣ-nsw tpy* 'king's first-born son' and *sꜣ-nsw smsw* 'oldest (surviving) king's son', see Sethe, *Thronwirren*, 59 n. 1.

[3] Presumably a daughter of Tuthmosis III, though the title 'king's daughter' does not seem to occur with her name; contrast Hayes, *Scepter*, II, 146.

[4] Among those who hold that there was a coregency, though far from a quarter century in length, the following may be cited: Alt, *ZDPV* 70 (1954), 40 f.; Breasted, *AR*, II, 74 n. *d*; Bruyère, *Chron. d'Ég.* 18 (1944), 197; Drioton–Vandier, *L'Égypte*[4], 340; Helck, *Untersuchungen zu Manetho*, 66; id., *MDAIK* 17 (1961), 106 ff.; Sethe, *Thronwirren*, 55; Petrie, *History*, II, 135; Wilson, *apud* Pritchard, *ANET*[2], 245 n. 1; Wiedemann, *Geschichte*, 375. Some scholars are opposed, e.g. Meyer, *Geschichte*, II, 1, 147 n. 1, and most recently J. von Beckerath, *OLZ* 54 (1959), col. 11. Gardiner seems undecided: *Egypt of the Pharaohs*, 200 esp. n. 2.

[5] Davies, op. cit., pl. 39.

a stela on which the two monarchs appear seated back to back under a sunshade.[1] In the tomb of Neferronpet (no. 43) the owner is shown in one scene offering bouquets to two kings seated under a canopy.[2] While both royal figures were provided with cartouches, only the prenomen of the second figure (*ꜥ3-ḫprw-rꜥ*) was completed. There can be little doubt, however, that the unnamed king was intended to be Tuthmosis III. The two kings appear together again in the tomb of Dedy (no. 200), this time at a review of troops.[3] Across the river at Karnak two similar statue groups, one of Tuthmosis III and Amūn, the other of Amenophis II and Amūn, were found together in a room south of the granite sanctuary.[4] But since both had suffered mutilation and perhaps also removal from their original locations, their proximity upon discovery may be fortuitous. There is also evidence from outside Thebes. A temple of Tuthmosis III, now destroyed, which stood outside the walls of El-Kâb, once displayed the cartouches of Tuthmosis III and Amenophis II in close proximity.[5] The temple of ʿAmada in Nubia has frequently been cited as providing the best proof of a coregency.[6] The inner walls, the colonnade along the façade, and probably the enceinte wall were erected by Tuthmosis III, but he did not live to complete the rest of the temple.[7] This was done by Amenophis II who frequently added his own cartouches. That the young king actually contributed to the structure as coregent seems to follow from the occurrence of both his and his father's titularies on the jambs and lintel of the gate.[8] This juxtaposition was clearly intended from the start, but such does not appear to be the case in some of the scenes in the Kumma temple. In three scenes[9] separated vertically and connected across the top by bands of hieroglyphs, a royal figure is shown offering to Khnum and Sesostris III. Though the cartouches are badly hacked in the first and third scene, the prenomen in the middle one is easily identifiable as that of Amenophis II. The bands of hieroglyphs, however, bear the name of Tuthmosis III and declare that he built the temple. Undoubtedly the same thing happened here as at ʿAmada: the building was nearly complete on the death of Tuthmosis III, but was decorated largely by his successor, who carved his own reliefs and inscriptions in the spaces left blank. Finally, two pieces of evidence now outside Egypt must be mentioned, viz. the Leiden stela V, 11,[10] and a plaque in the Metropolitan Museum of Art, New York.[11] The former monument once again depicts the two kings together, while the latter merely juxtaposes their cartouches.

The evidence presented above consists entirely in the juxtaposition of the names and/or representations of Tuthmosis III and Amenophis II. Nowhere does a double-dated inscription appear. It is needless to stress the caution which must be exercised in the interpretation of such evidence. Already in 1928 Eduard Meyer felt justified in interpreting it quite differently from his colleagues, and had no hesitation in vehemently

[1] Ibid. 33. The cartouche intended for Amenophis is blank.

[2] M. Baud, *Les Dessins ébauchés de la nécropole thébaine* (*MIFAO* 63 [1935]), pl. 8; Helck, *MDAIK* 17 (1961), 103 abb. 3.

[3] Champollion, *Notices descriptives*, I, 528.

[4] Legrain, *Rec. trav.* 23 (1902), 62 f.

[5] Porter–Moss, *Top. Bibl.* V, 176.

[6] Petrie, *History*, II, 135; Gauthier, *Livre des rois*, II, 278 f.

[7] Breasted, *AJSL* 23 (1906), 48 f.

[8] *LD*, III, 65 *b*.

[9] *LD*, III, 64 *b*.

[10] Boeser, *Stelen* (*Nr*), pl. 7.

[11] Hayes, *Scepter*, II, 144.

denying the coregency postulated by Sethe.[1] The sobering fact is that no single, universal conclusion can be drawn mechanically merely from the graphic representation of two kings or their names side by side. Indeed, the very piece of evidence most relied on by proponents of the coregency, viz. the ʿAmada gate inscription, seems to be weakest of all; for the pylon itself, which of all parts of the temple would seem to have been the one certain joint undertaking of father and son, is specifically claimed by Amenophis II as his own work.[2]

Fortunately too much weight need not be placed on the juxtaposition of cartouches and figures. Other evidence is at hand which throws a clearer light upon the coregency.

Before examining this material, however, a text ought to be mentioned which might be expected to yield decisive information on whether there was a coregency or not. The text in question is the larger of the two Sphinx-stelae of Amenophis II, which deals with the king's early life and elevation to the throne.[3] This inscription twice states that Amenophis appeared as king, a fact which at first glance might appear to lend support to the hypothesis of a coregency. For if the first reference be taken as describing the inception of the coregency, the second could allude to Amenophis' assumption of sole rule on the death of his father. In line 11, after a long encomium of Amenophis II, the text says, 'now His Majesty appeared (*ḫꜥ·n ḥm·f*) as king as a fine youth[4] . . . having completed eighteen years in his strength . . .'. The narrative goes on to describe his prowess as a sailor and as an archer, his love of horses, the delight of his father in his activities, and his outings in the vicinity of the Giza pyramids. Then we are told (l. 26): 'now after these things His Majesty appeared (*sḫꜥ·n ḥm·f*)[5] as king, the uraeus took its place upon his brow . . .'.

It will readily be seen that in the translated passages two different verbal forms are used. *A priori* we should be forced to conclude that the author, by using a different

[1] Meyer, *Geschichte*, II, 1, 147 n. 1.

[2] ʿAmada stela, ll. 12–14; Kuentz, *Deux stèles d'Aménophis II* (*Bibl. d'Études* 10), 15 ff.

[3] Hassan, *Ann. Serv.* 37 (1937), 129 ff.; id., *Le Sphinx*, fig. 38; A. Varille, *BIFAO* 41 (1942), 31 ff.

[4] *Ḥwn nfr*; cf. *ḥwn n ḏrm* 'youth of fine gold', the epithet apparently applied to Amenophis II in the Koptos stela: Barucq, *Ann. Serv.* 49 (1949), pl. 1 (l. 1), p. 190. There seems no basis for Knudsen's belief (*Acta Orientalia* 23 (1958–9), 114) that *ḥwn* in the Sphinx-stela may refer to Amenophis as a mature or even middle-aged man. Tuthmosis' description of his son in lines 20–21 of the same text (a description which, by the way, employs *ḥwn nfr*) leaves no doubt that the expression is being used in its usual sense of 'youth', 'stripling'; cf. *Wb.* III, 52 f.

[5] Or 'was caused to appear'? For the passive *sḏm·f* of causatives in *s-*, see Gardiner, *Grammar*[3], § 420. Although as one approaches the Late Period *sḫꜥy* seems to be understood more and more as an intransitive and to approximate the simplex *ḫꜥy* (see Caminos, *JEA* 38 (1952), 51), it continued to be used transitively until very late: cf. Naville, *Festival Hall*, pl. 4; Piankhi stela, 25–26; *Wb.* IV, 236 f. (esp. 237, 5–6). Could we have here a reference to Amenophis' being 'caused to appear' scil. by a god, as sole ruler? The verb *sḫꜥy* with Amenophis II as object is a relatively common locution in his inscriptions, and usually takes a god as subject; e.g. 'utterance of Amon-rēʿ . . . "my beloved son, ʿOkhepru-rēʿ, lord of the Two Lands, whom I have caused to appear upon my throne" ' (scene on the ʿAmada stela: Kuentz, op. cit. 2); 'whom Amūn caused to appear upon his throne . . .' (Gauthier, *Le Temple d'Amada*, 70); 'the good god, likeness of Rēʿ, holy image of Atum, the son of Amūn his offspring, whom he caused to appear in Apet-sut, when he had placed him to be king of the living . . .' (*Urk.* IV, 1324); 'whom Amūn caused to appear upon the throne of Rēʿ . . . whom Amūn caused to appear in Thebes . . .' (*Urk.* IV, 1359). Although the question of the semantic subject of *sḫꜥy* must be left open, we should probably infer, if indeed the verb is to be taken transitively, divine rather than human agency.

verb the second time, was striving to express a distinction between the two 'appearances'; in other words, the two passages do not merely refer to the same event, but to two different occasions on which Amenophis II 'appeared as king'.

It could be argued that the distinction between the two passages is illusory. In lines 11 to 18 Amenophis is consistently referred to as 'His Majesty', and no mention is made of Tuthmosis III. The latter is undoubtedly dead, and the 'appearance' of line 11 thus refers to the beginning of Amenophis II's sole reign. At the beginning of line 19, however, the author suddenly reverts to a period before the young prince's assumption of power, a time of life to which the terms 'crown prince' (*inpw*, l. 19), 'king's eldest son' (l. 20), and 'king's son' (l. 23) could fittingly be applied. Nowhere in this section is there the slightest hint that Amenophis' status approached that of a coregent. The reasonable conclusion would seem to be that the text refers to two different periods in Amenophis' life, the first immediately following his assumption of sole rule (ll. 11–18), and the second preceding his accession when he was still nothing more than a 'king's son'. This understanding of the inscription would remove the necessity to construe the 'appearances' of lines 11 and 26 as describing two different accessions.

In spite of this objection the writer confesses that he feels inclined to accept the statement of line 11 as an allusion to a coregency. The fact that twice the king's appearance as king is described, and that two different verbs are employed, finds its best explanation in an inadvertent slip on the part of the author of the stela who desired to preserve the fiction of father–son (Osiris–Horus) succession without coregency, yet who was unconsciously obsessed by the actual historical situation. He makes no formal distinction between the period when Amenophis was coregent and the period when he took over the government alone. In line 11 the inception of the coregency is represented as the beginning of Amenophis' reign; in line 26 the inception of sole rule is similarly represented. The contradiction would not have existed for the Ancient Egyptian, whose ability to gloss over mutually exclusive elements has become proverbial. In any case, in a flowery inscription like the Sphinx-stela distortion of historical fact seems to have been perfectly permissible.

A monument which must be taken into consideration in any study of the present problem is the Memphis stela of Amenophis II.[1] Prior to the discovery of this important text it was possible to argue—and most scholars took it for granted—that the Asiatic campaign recounted on the fragmentary Karnak stela[2] and the operations against Takhsy mentioned in the ʿAmada and Elephantine stelae[3] were one and the same. In the absence of indications to the contrary it was but natural to conclude that Amenophis undertook but one campaign in Asia. With the discovery of the Memphis stela it may still be possible to hold that the Karnak, ʿAmada, and Elephantine stelae refer to the same campaign; but the supposition that Amenophis II campaigned only once in Asia is now shown to be wrong.

[1] Published by Badawy in *Ann. Serv.* 42 (1943), 1 ff.

[2] *Urk.* IV, 1310 ff.; complete bibliography in Breasted, *AR*, II, 305 n. *b*; and Porter–Moss, *Top. Bibl.*, II, 58.

[3] ʿAmada, ll. 15 ff.; Elephantine, ll. 18 ff.; see Kuentz, op. cit. 18 ff.; *Urk.* IV, 1296 ff.

The Memphis stela gives the accounts of two Asiatic campaigns, one (the first in order) in central and northern Syria, the other in Palestine. The first is dated Year 7,[1] first month of *shōmu*, day 25, and is called 'his first victorious campaign'. The second is dated Year 9, third month of *akhet*, day 25, and is called 'his second victorious campaign'. Whether the Karnak stela originally bore the same dates it is impossible now to tell; but it is clear that it describes the same campaigns as the Memphis stela.[2] The phrase 'first victorious campaign' occurs also in the ʿAmada and Elephantine stelae with reference to a campaign against Takhsy in which seven chiefs were captured. Both texts state that the stelae themselves were erected 'after His Majesty returned from Upper Retenu, having felled all those who had rebelled against him while extending the borders of Egypt. His Majesty came joyously to his father Amūn, having slain with his own bludgeon the seven chiefs who were in the district[3] of Takhsy[4] . . .'. The difficulty lies in the date with which both the ʿAmada and Elephantine texts commence,[5] viz. Year 3, third month of *proyet*, day 15. The 'first victorious campaign' on which Takhsy was taken cannot, then, have occurred later than Year 3. Yet the Memphis stela plainly states that the 'first victorious campaign' took place in Year 7.

Three solutions are possible: first, to assume that the dates on either the Memphis stela or the ʿAmada-Elephantine stelae are incorrect; second, to hold to both these dates, and reject, or rather re-interpret, the expression 'first' and 'second victorious campaign' on the Memphis stela; third, somehow to retain both dates and expressions.

To the knowledge of the present writer the only scholar who has argued in favour of the first of these solutions is Säve-Söderbergh.[6] He rejects the date on the ʿAmada stela, declaring that that monument 'must have been antedated and almost certainly no expedition took place before year 3 . . .'. Thus he believes that the Takhsy war is actually the same as the first campaign dated to Year 7, of the Memphis stela. Whether the inscription is antedated or not no one can tell; but I cannot see why it is so certain that no expedition took place before Year 3. If the date on the ʿAmada stela, viz. Year 3, vii, 15, does not refer to the return from the first campaign and the erection of the stela, to what does it refer? To the beautifying of the temple? This is a possibility; but it would only increase the likelihood that Year 3 is the *terminus ad quem* for the Takhsy campaign. Säve-Söderbergh's view encounters another difficulty in the form of the postscript to the Elephantine stela. Here in lines 24 to 26, after the beautifying of the temple and the military campaign have been described, a number of benefactions conferred upon the triad of Elephantine are enumerated and dated to Year 4. It is only

[1] Not '8' as in Maisler, *BASOR* 102 (1946), 9.

[2] Although, as Alt points out (*ZDPV* 70 (1954), 41), it devotes much less space to the second campaign than does the Memphis stela. Edel (*ZDPV* 69 (1953), 158) finds no room among the Karnak fragments for *wḏyt sn·nwt nt nḥt*.

[3] *W*: *Wb.* I, 243, 1–7; discussed by Helck, *Verwaltung*, 226 f.

[4] Egyptian *Tiḥsy*, Gauthier, *Dict. geog.*, VI, 46 f.; ʿAmarna KURTaḫ-ši: *EA* 189 rt. 12. This district probably lay close to, perhaps north-west of, Damascus; for the location see Gardiner, *AEO* I, 150* ff.; Edel, *ZDPV* 69 (1953), 158 n. 69.

[5] The date on the Elephantine stela is almost wholly lost; but the portion which remains of the day-number shows that the full date was originally the same as that of the ʿAmada stela: Kuentz, op. cit., pl. 3.

[6] *Bibl. Or.*, 13 (1956), 122.

reasonable to conclude that the events including the Takhsy campaign recounted in the text before this postscript are earlier than Year 4. There is thus no reason to deny the clear implication of the text that the expedition against Takhsy took place before Year 3.

A number of scholars seem to be in favour of the second solution. Drioton and Vandier state that Amenophis II undertook three campaigns in the Years 3, 7, and 9.[1] The use of the expression 'first victorious campaign' in the Memphis stela is defended by assuming that the scribe was referring only to the first of the two campaigns described by that text. The difficulty here is that the expression 'first victorious campaign' (*wḏyt tpt nt nḫt*) is nowhere else used in this strange manner, strange indeed since it usually refers not to the position of an account in a narrative, but to the military venture which in point of time stands first in a king's reign. Badawy,[2] Edel,[3] and Alt[4] likewise separate the campaigns of the Memphis stela from the Takhsy campaign, and postulate three Asiatic campaigns in Years 3, 7, and 9.[5] According to Alt[6] the expression 'first victorious campaign' is rightly used both on the ʿAmada and Elephantine stelae, and on the Memphis stela. In the latter inscription it refers to Amenophis' first military excursion after his father died, the campaign against Takhsy having been undertaken presumably while he was still coregent. Gardiner[7] has suggested with caution a similar solution. The campaign in Takhsy according to him may be that mentioned by Minmose on his statue from Madâmûd, a razzia in which thirty towns were captured by the Egyptians.[8] Although Minmose makes clear that this incident took place under Tuthmosis III, Gardiner thinks that the army may have been led by the young Amenophis as coregent, acting in his father's place. In that case the scribe of the Memphis stela would be justified in using *wḏyt tpt nt nḫt* with reference to the Syrian campaign with which he begins his account, since this would be the first military exploit of Amenophis II after the passing of his father. It must be confessed that the explanations of Alt and Gardiner are very attractive. If accepted they provide a persuasive argument in favour of a coregency.

A solution along the lines of the third cited above has been tendered, again with caution, by Wilson.[9] While admitting that he is unable to reconcile the dates on the various stelae of Amenophis II, he suggests that the discrepancy might be explained by a coregency: '. . . it is understood that Amen-hotep was coregent with his father, Thutmose III, for a minimum of 1 year and up to a possible 11 years. A possible reconciliation would be that the 7th year after the coregency began was the 3rd year of sole reign.' Wilson would thus equate the Takhsy campaign of the ʿAmada-Elephantine stelae with the first campaign of the Memphis stela. The contradictory dates would be explained by positing two dating systems for Amenophis' reign, one reckoned from the beginning of the coregency, and the other from the beginning of his sole rule. Edel has attempted a rebuttal of Wilson. The German scholar points out[10] that Amenophis II was in the plain of Sharon on his return from the Syrian campaign of the Memphis

[1] *L'Égypte*[4], 406 and 663. [2] *Ann. Serv.* 42 (1943), 5. [3] *ZDPV* 69 (1953), 158 f.
[4] *ZDPV* 70 (1954), 40.
[5] There is little to support Edel's view (op. cit. 160) that there was, subsequent to Year 9, a fourth campaign.
[6] Loc. cit. [7] *Egypt of the Pharaohs*, 200. [8] Ll. 14–15; *Urk.* IV, 1442.
[9] *Apud* Pritchard, *ANET*[2], 245 n. 1. [10] Op. cit. 158.

stela on the sixth day of the third month of *shōmu*, only nine days before the date (month and day) of the ʿAmada stela. Even if the date on the latter stela referred, not to the erection of that monument, but to the king's arrival at Memphis, or even Sile, it is scarcely possible that southern Palestine and the Sinai desert could have been traversed in nine days. Another of Edel's objections is that the only Syrian place name mentioned in the ʿAmada and Elephantine inscriptions, Takhsy, does not figure at all in the Memphis stela. Although Edel's second objection is scarcely cogent, the first is damning. Furthermore, that two separate systems of year-numbering were employed by Amenophis is without other foundation and is *a priori* unlikely.

We are thrown back on Alt's explanation as the most probable. Amenophis II is thus to be pictured in the final year of Tuthmosis III undertaking as coregent foreign military campaigns on behalf of his father. Edel objects[1] that if Tuthmosis III were still alive at the time his son marched on Takhsy the omission of some mention of him in the ʿAmada and Elephantine texts would be very strange. A not implausible solution would be to suppose that, while Tuthmosis was alive when his son set out for Takhsy, he was dead by the time the account of the campaign was drafted by the royal scribe. It would be most natural for the author to make the reigning monarch, Amenophis II, the sole protagonist, and quietly to omit all reference to the defunct ruler who, at any rate, probably did not figure prominently in public life during the last few years of his life.

One final piece of evidence makes the coregency a virtual certainty. This is the fact that for Amenophis II two accession dates are known. In Amenemḥēb's autobiography it is stated that Tuthmosis III passed away on vii, 30 of his fifty-fourth year, and that the next day, viii, 1, Amenophis II was 'established upon the throne of his father'.[2] As we have seen, both the Semna stela and B.M. 10056 give iv, 1 as the king's accession day;[3] and since the British Museum papyrus shows that on that date the year-number changed, it is reasonable to conclude that Amenophis' years were numbered from iv, 1, not viii, 1. The question now arises, did the 'appearance' of viii, 1 precede in time the 'appearance' of iv, 1, or is the reverse true? Clearly viii, 1 could not have preceded iv, 1 since in that case an interval of time amounting to at least two-thirds of a year would have elapsed between Tuthmosis' death and the beginning of his son's first regnal year. The heir apparent in Egypt, if he were coregent, might be allowed to begin his year-numbering before his father's death—witness the practice under the Twelfth Dynasty—but it runs counter to all that is known regarding Ancient Egyptian dating methods to suppose that he should have waited any period at all after that event to begin his numbering. The 'appearance' of iv, 1, then, must have preceded that of viii, 1, and this deduction provides incontrovertible proof that Amenophis II was for a time coregent with his father.[4]

[1] Ibid. 159.

[2] W. M. Müller, *Egyptological Researches*, 1, pl. 38 (l. 36).

[3] Helck, *JNES* 14 (1955), 22 ff., pl. 2. The date vii, 19 of Papyrus Rollin 1887 (Pleyte, *Les Papyrus Rollin de la bibliothèque impériale de Paris* (Leiden, 1868), pl. 15) is probably only the date when the hymn was composed, or perhaps first recited; but there is no evidence that it marks 'l'avènement du prince au trône' (ibid. 23; similarly Borchardt, *Mittel*, 81). The ingenious reconstruction of Knudsen (op. cit. 113) is, then, entirely without foundation.

[4] The two dates, iv, 1 (Semna stela) and viii, 1 (inferred from the autobiography of Amenemḥēb; not vii, 1

To sum up: Amenophis was appointed coregent on iv, 1 in an unknown year of Tuthmosis III, and from that date he numbered his regnal years. Although at present the exact length of the coregency is not known, it probably did not exceed two and one-third years, since the ʿAmada stela dated to Year 3 finds Amenophis II ruling alone. If, as argued above, lines 11 ff. of the Sphinx-stela refer to the inception of the coregency, Amenophis would have been eighteen years old at the time. Prior to his father's death he had probably undertaken a military campaign against Takhsy which he labelled his 'first victorious campaign'. Later in his reign, after Tuthmosis III had died, the earlier numbering was either forgotten or ignored, and Amenophis' wars were numbered afresh beginning with his first sole exploit, viz. that of Year 7.

as Helck, *Studia Biblica et Orientalia* III, 117) at first sight looks extremely suspicious, and one may be pardoned for weighing seriously the possibility that one of the scribes has made an error in the season. Gardiner too tendered this suggestion in *JEA* 31 (1945), 27, but finally rejected it, probably rightly. In fact the date viii, 1 does not appear in the old soldier's autobiography; what we are given is the date of Tuthmosis III's death, viz. vii, 30, and at present there is no reason to doubt its accuracy.

A FAMILY FROM ARMANT IN ASWÂN AND IN THEBES

By LABIB HABACHI

AMONG the numerous graffiti carved on the rocks of the region of Aswân, there are six inscribed for a certain Pendjerti, six for his son Nebunenef, and one more for these two persons and for another son of Pendjerti, called Hatiay. Although twelve of these inscriptions were published in facsimile some seventy years ago by de Morgan and his colleagues,[1] only a few of them were mentioned briefly by Sauneron in a recent interesting article 'Trois personnages du scandale d'Éléphantine'.[2] In the present article we shall consider them all in an attempt to discover the importance of these three persons and their relationships with other members of the same family. It will emerge that it is possible to identify this Hatiay with the owner of tomb no. 324 in the Theban Necropolis; also that other members of Hatiay's family including his son Pennut (tomb no. 331) were buried in the same place. From the list of Hatiay's titles and those of other members of his family, it will be shown that they came from the region of Armant, and that Hatiay and his son and grandfather (both Pennut) worked in the same region. But it will also be seen that Pendjerti and his son Nebunenef lived in the district of Aswân and bore such titles as 'chief priest of Khnum, Satis and Anukis'. As Sauneron showed, Nebunenef was one of the people involved in the so-called scandal of Elephantine. With so much established, it will be possible to determine the period when the family flourished, and to date the tomb of Hatiay (324) to the middle of the Twentieth Dynasty, not to the reign of Merenptaḥ, as was previously done.

Graffiti of Pendjerti

Four of these graffiti are to be found on the island of Siheil, one on the so-called Gebel Tingar, and one on the western side of the Nile opposite the south end of the Plantation Island:

1. (Pl. XVII, 1) Carved on the boulders of the low cliffs known as Siou Debba on Siheil. It shows Pendjerti clad in a garment reaching a little below his knees, over which he wears a leopard skin. He looks towards the south, to the place where the chapel of Anukis stood on the cliffs known as Husseintagug[3] like many of the figures

[1] De Morgan *et al.*, *Cat. des mon. et inscr. de l'Ég. antique*, I, 84 ff.

[2] *Rev. d'Ég.* 7, 53 ff. Helck, *Materialien zur Wirtschaftsgeschichte*, 936, mentions four inscriptions of Pendjerti and two of Nebunenef. There is no mention of them in Porter–Moss, *Top. Bibl.* IV, 252 f., or in Ranke, *PN*.

[3] For a map of this part of Siheil, showing the chapel and the cliffs with graffiti, see de Morgan, op. cit. 76 and *JEA* 37, pl. V (upper).

in other graffiti on the Island. He raises his arms in adoration, and before him the text reads: 'The chief priest of Khnum, Pendjerti'.[1]

2. (Pl. XVII, 2) In the middle of the western face of the cliffs known as Bibitagug on Siheil. He is shown with arms raised in adoration, wearing a garment reaching below his knees, and looking north. The inscription in two vertical lines reads: 'The chief priest of Khnum, Satis and Anukis, (2) Pendjerti'.[2]

FIG. 1

3. (Fig. 1 and pl. XVII, 3) Carved close to no. 2. It shows Pendjerti in a similar dress and attitude, but here accompanied by his wife, clad in a long, wide garment, with a lotus-flower on her head. Her arms are raised and in her right hand is a sistrum. One vertical line of text before Pendjerti reads: 'To the *ka* of the chief priest of Khnum, Satis and Anukis, Pendjerti'.[3] Before the wife, in three short vertical lines is: 'His sister, the house-mistress, (2) the chantress of Mont, (3) Nefertari'.[4]

4. (Fig. 2) An important graffito, commemorating a visit made by the overseer of Biga fortress to Siheil, where he was welcomed by Pendjerti. It is carved in an obscure place in the south-western corner of the Bibitagug cliffs. The two persons are shown facing each other with raised arms, as if greeting each other. Pendjerti wears his usual garment and looks north; the other wears a long garment with a shorter, wider one above it. Each figure is accompanied by an inscription in three vertical lines, one before and two behind.[5] Pendjerti's reads: 'The chief priest of Khnum, Satis and Anukis, Pendjerti.[6] (2) May there be given to thee provisions in the Cataract Region (3) and the cold water coming forth from Elephantine'.[7] The second text reads: 'The fortress-overseer of Biga Fortress, Pakharu.[8] (2) May thy *ba* live with breath (3) provided with joy'.[9] Both these texts consist of the titles and names of the persons concerned and the wish each expresses for the welfare of the other. Pakharu, 'the Syrian', was overseer of Biga Fortress, of which no trace now remains; its name is included in a list dating from about one hundred years before the beginning

[1] De Morgan, op. cit. 98 (no. 183). In this graffito and the next (no. 2), the sign for *tpy* seems intentionally erased. Can Pendjerti have been degraded to be a simple priest of Khnum after having been chief priest? No answer can be provided, but it should be remembered that it was his son who became involved in the scandal of Elephantine.

[2] Ibid. 86 (no. 30).

[3] Ibid. 91 (no. 101), where the figures of Satis and Anukis are shown without their distinctive head-dresses.

[4] De Morgan read the first line and the name .

[5] Ibid. 87 (no. 48). This text is faintly incised and the published copy contains many mistakes; it omits many signs, but includes a line of text underneath which undoubtedly does not belong to this inscription.

[6] De Morgan: for ; he gives the last group of the name only, and that as .

[7] De Morgan: for at the end of l. 2, and for in l. 3.

[8] De Morgan: for in *ḥtm*, determined by , not ; some signs not read; at end for .

[9] De Morgan: for *bꜣ·k*; *ḏbꜣty* wholly misread.

of the Eighteenth Dynasty; it is also mentioned in the titles of workmen employed in it.[1]

5. (Pl. XVII, 4) Among a group of graffiti on Gebel Tingar. There is no figure; the text of a single vertical line reads: 'The chief priest of Khnum, Satis and Anukis, Pendjerti'.[2]

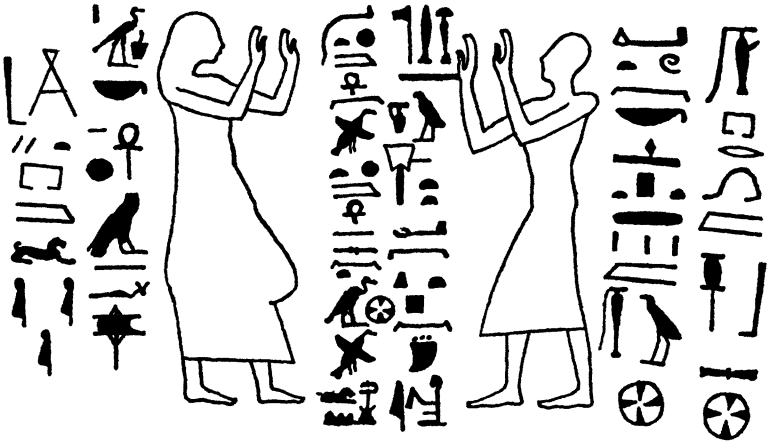


FIG. 2

6. (Fig. 3) On a boulder on the west bank of the Nile about 50 m. to the north of the path leading from the Nile to St. Simeon's Monastery. It has not been noted before. Its importance lies in the fact that it gives us the title and name of Pendjerti's father. It shows Pendjerti in the same dress and attitude found in nos. 2–4, facing west, where Khnum, whom he praises, was considered to be the lord. An inscription consisting of two long vertical lines in front of him and three short lines above him, reads: 'Praise be to thee, O Khnum, lord of the West! Mayst thou cause that I be strong (2) of legs, and that (my) memory will be good after eternity—for the *ka* of (3) the chief priest of Khnum, Satis and Anukis, (4) Pendjerti, (5) son of the overseer of prophets, Pennut'.

Pendjerti, the owner of the six graffiti described here, is not otherwise known. His name, which means 'the man of Ṭôd', occurs elsewhere only belonging to the father of a certain Amenmessu who lived in the reign of Ramesses II.[3] The title 'chief priest of Khnum, Satis and Anukis' held by Pendjerti was sometimes given to people who came from places far from Aswân, and who lived at Aswân for only a short time;[4] but Pendjerti, inasmuch as he carved many inscriptions in various places, quite probably dwelt in the area for a considerable period. His father's name was Pennut, 'the man of the Town', Town here referring to Thebes; his title 'overseer of prophets'

[1] See Säve-Soderbergh, *Äg. und Nub.* 81, and 189, nn. 3, 4; also de Morgan, op. cit. 29 (no. 15).

[2] Ibid. 128 (no. 12 upper left); a second line reading *ḥm-nṯr snnw n Ḫnmw* may have been inscribed for Pendjerti's son Hatiay, who, in graffito 13B, is third prophet of the god. Another text on Gebel Tingar, reading *ḥm-nṯr tpy n Ḫnmw Stt ʿnḫt* □ . . ., may also have been for Pendjerti, cf. ibid. 128 (no. 2).

[3] Ranke, *PN*, 112. We shall study the monuments of this man in the near future, and also those of the chamberlain Djḥutmose, called Pendjerti, known from a cone, see Davies-Macadam, *Corpus of Inscr. Fun. Cones*, no. 82.

[4] E.g., Amenḥotpe, overseer of the work on the two great obelisks, also chief prophet of Khnum, Satis and Anukis, cf. *JNES* 16, 91 ff.

probably had significance for a large place where there were many priests, possibly the capital itself. His mother, Nefertari, is described as 'the chantress of Mont'; this god had sanctuaries at Armant, Ṭôd, Madâmûd, and Thebes, in any of which she may have exercised her office.

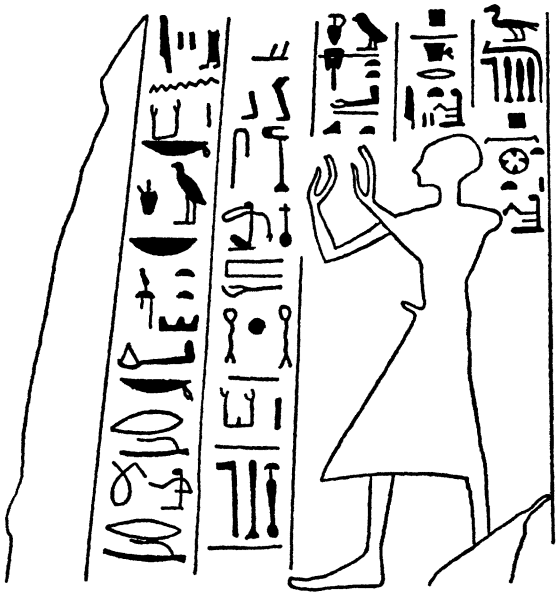


FIG. 3

Graffiti of Nebunenef

Of the six graffiti left by Nebunenef, five are carved on the rocks of Siheil and one on Gebel Tingar:

7. On a boulder on the east face of Husseintagug on Siheil. It consists of a single vertical line with no figure: 'The priest of Anukis, pre-eminent in Nubia, the god's father of Khnum, Nebunenef, justified'.[1]

8. (Fig. 4) On a boulder on the top of the cliffs of Husseintagug, to the west of the chapel of Anukis. It shows Nebunenef looking to the west towards the chapel of Anukis, holding up a small figure of Anukis which may be the top of a standard. A single vertical line reads: 'The god's father of Khnum, the priest of Anukis, pre-eminent in Nubia, Nebunenef'.[2] To hold the statue of the goddess was an honour granted only to people closely concerned with her cult, or to great visiting persons.[3]

9. In the middle of the western face of Bibitagug. It consists of a single vertical line: 'Made for the chief priest of Khnum and of Satis, Nebunenef, justified'.[4]

10. (Pl. XVII, 5) On Gebel Tingar. It consists of one vertical line: 'The chief priest of Khnum, Nebunenef'. Just in front of this graffiti is another mentioning 'the *wēb-*

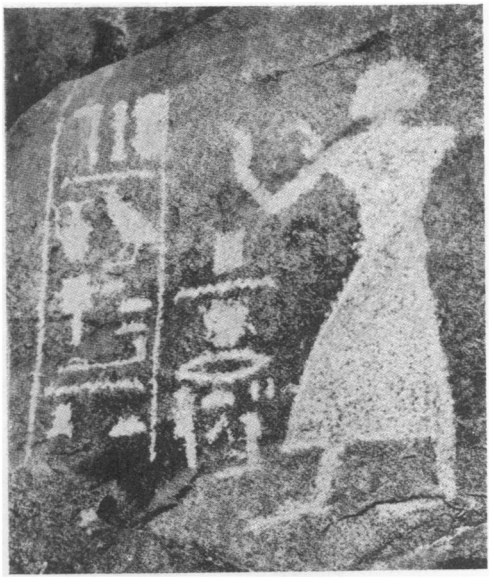
[1] De Morgan, op. cit. 84 (no. 4); Sauneron, *Rev. d'Ég.* 7, 57 (a).

[2] De Morgan, op. cit. 101 (no. 223); Sauneron, op. cit. 57 (b).

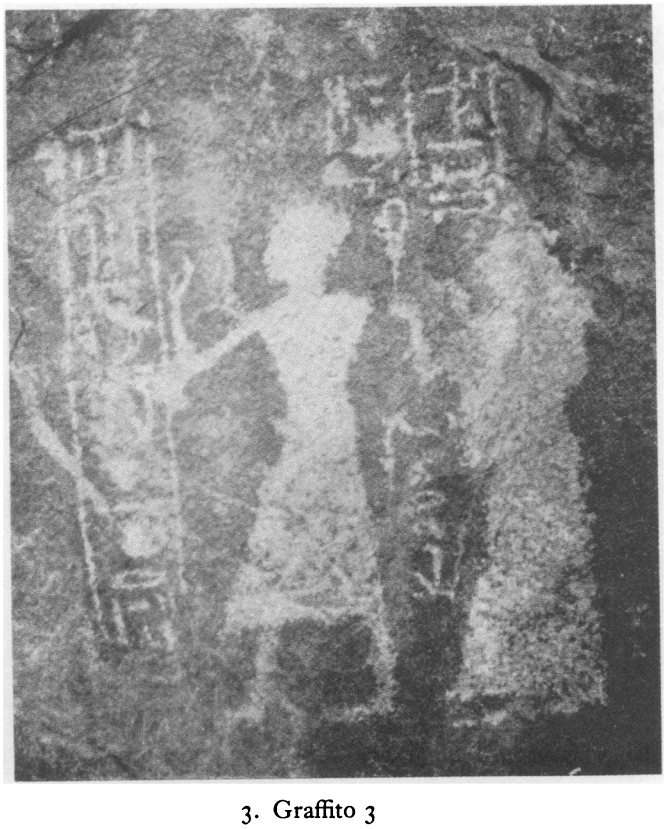
[3] E.g., May, chief of archers and overseer of works in the House of Rēʿ, de Morgan, op. cit. 100 (no. 203); *Chron. d'Ég.* 29, 210 ff.

[4] De Morgan, op. cit. 94 (no. 133); Sauneron, op. cit. 58 (d). Both overlook reading Satis.

1. Graffito 1



2. Graffito 2



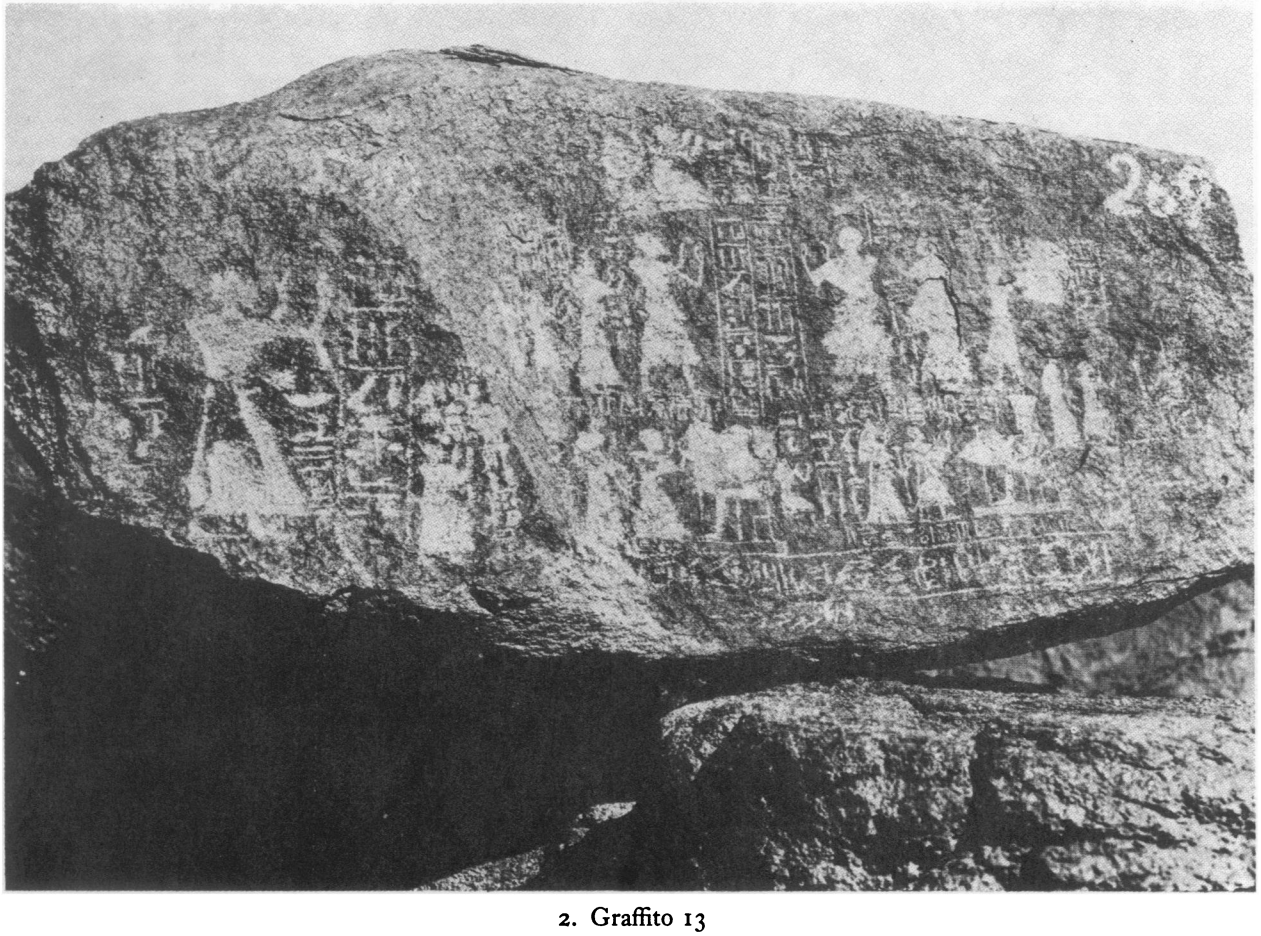
3. Graffito 3

4. Graffito 5

5. Graffito 10

GRAFFITI OF PENDJERTI AND NEBUNENEF

1. Graffito 12



2. Graffito 13

GRAFFITI OF NEBUNENEF, PENDJERTI, AND HATIAY

priest and scribe, Djḥutemḥeb', who may have been related to the family of Pendjerti, as we shall see.[1]

11. On a boulder to the east of the chapel of Anukis on Husseintagug. Nebunenef is shown almost life-size, raising his arms in adoration towards the chapel. Two vertical lines behind him read: 'The overseer of the priests of the deities, lords of (2) . . . . ., Nebunenef, justified'. Before Nebunenef stands a lady in front of a queen, but these figures seem to have been carved some time before our graffito; hence the reason why the text accompanying the figure of Nebunenef comes behind him.[2]

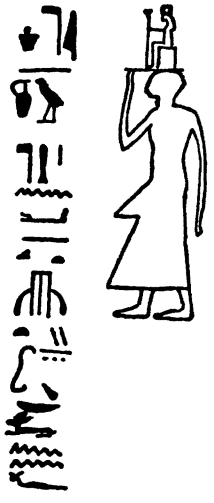


FIG. 4

FIG. 5

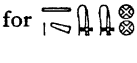
12. (Pl. XVIII, 1 and fig. 5) On a boulder lying at the foot of Bibitagug on the western side. It shows Nebunenef and his wife almost life-size, looking south. Above is one horizontal line: 'the chief priest of Khnum, Satis and Anukis, and the deities, lords of the land of Nubia (?), Nebunenef, justified'.[3] In front of Nebunenef, who is shown wearing a long, elaborate dress, and with arms upraised, are two vertical lines: 'The chief priest of Khnum, Satis and Anukis, Min of Koptos, and the deities, lords of the land of Nubia(?) (2) Nebunenef, justified in peace'.[4] Two vertical lines of text also accompany the figure of the woman who is shown in a long garment, wearing a lotus-bud on her head and carrying a sistrum in her left hand: 'His beloved sister, the house-mistress, chantress of Khnum, lord of the Cataract Region, (2) Tamutnofret, justified'.[5]

Of these graffiti, nos. 7 and 8 were clearly the first carved by Nebunenef, when he was simply 'god's father of Khnum' and 'priest of Anukis'. In no. 10 he has become 'chief priest of Khnum', and in no. 9 he is 'chief priest of Khnum and Satis'. Later,

[1] De Morgan, op. cit. 128 (no. 13); Sauneron, op. cit. 57 (c).

[2] De Morgan, op. cit. 101 (no. 215); Sauneron, op. cit. 58 (h).

[3] De Morgan, op. cit. 89 (no. 75); Sauneron, op. cit. 58 (f).

[4] De Morgan and Sauneron: the group for Koptos is not read;  for  ; De Morgan: l. 2 omitted.

[5] De Morgan: for .

in no. 11 he is described as 'overseer of the priests of the deities, lords of . . . . . (?)', which indicates that he has become head of the whole priesthood of the Aswân area. In no. 12 he is 'chief priest of Khnum, Satis and Anukis, Min of Koptos, and the deities, lords of the land of Nubia(?)'; his association here with Min, the god of fertility, is strange. In this last graffito, the reading of the place-name, here taken as *Tꜣ-stỉ*, is uncertain. It occurs in a somewhat similar context in another graffito on Siheil,[1] and, more significantly, in Theban tomb no. 212, which belongs to the scribe in the Place of Truth, Ramose; there Khnum, Satis and Anukis are described as lords of this place.[2] The sign  , of which the word is formed, has many values, and reduplicated in a place-name it is sometimes to be read *nsrsr*;[3] here, however, it is quite probable that we have a variant reading for *Tꜣ-stỉ*, the 'land of Nubia'.[4]

In the same graffito, no. 12, Nebunenef's wife, Tamutnofret, is described as 'chantress of Khnum', which links her with the local cult and it makes it even more probable that the couple actually dwelt at Aswân.

Graffito of Pendjerti, Hatiay, and Nebunenef

This is the most important graffito of the family in the region; it enumerates three generations, enables us to link the individuals genealogically to each other and to some other people buried in the Theban Necropolis. It should in fact be considered as a group of graffiti carved on successive occasions by members of the same family.

13. (Pl. XVIII, 2 and fig. 6) Carved on a big boulder on the top of Husseintagug, in a conspicuous place to the west of the Anukis chapel. For ease of description and reference we have divided it into eight sections or groups, working from top to bottom, and from left to right.[5]

A. Two persons are represented kneeling with uplifted arms, looking towards the chapel. In front are four vertical lines, the first two referring to the man in front, and the second two to the lady behind: 'The scribe and *wēb*-priest of (2) Khnum, Djḥutemḥeb',[6] and 'his sister, the house-mistress, the chantress (2) of Anukis, Mut(ar)dis'. Djḥutemḥeb is undoubtedly the same man whose name occurs with that of Nebunenef on Gebel Tingar, in graffito 10.

B. Four persons with upraised arms are shown also looking to the west, to the chapel of Anukis. The first, clad in a garment reaching his knees, has the text: 'to the *ka* of the chief priest of Khnum, Satis and Anukis, Pendjerti, justified'. The second, a lady in a long dress is 'his sister, the house-mistress, Nefertari'; the third, a male in a garment reaching just below his knees, is 'his son, the third[7] prophet of Khnum (2) Hatiay'; the fourth, whose figure is unclear, is 'his daughter, Tasement(?)'. This group may have been the first to have been carved on the boulder. It was made when

[1] De Morgan, op. cit. 93 (no. 132), the rock-inscription of Bakenkhons, who was involved with Nebunenef in the scandal of Elephantine; see later, and also Sauneron, op. cit. 60.

[2] Bruyère, *Deir el-Méd. 1923–1924*, 68; Gauthier, *Dict. géogr.* VI, 32, written  .

[3] Or *sisi*, cf. *Wb.* 2, 336.

[4] Cf. Gauthier, op. cit. VI, 31 f.

[5] De Morgan, op. cit. 102 (no. 220); a part in Sauneron, op. cit. 58 (e).

[6] De Morgan was unable to read the signs in the first line.

[7] Copied as two strokes by de Morgan.

Pendjerti was in the important position of high priest of Khnum, Satis and Anukis, and he is shown with his wife and with a son and a daughter. The son, Hatiay, here only 'third prophet of Khnum', later became 'overseer of priests' as we shall see later and in the group opposite.

FIG. 6

C. Three persons with uplifted arms, the first two of whom have long garments, are represented. The first is accompanied by the words 'To the *ka* of the overseer of the priests of all the deities, Hatiay'; the second is 'his sister, the house-mistress (2) the chantress of (3) Mont, Iuy';[1] the third, who is shown wearing a garment reaching just below the knees, is 'the son of his daughter (2) . . . . .'. In this group is shown Hatiay, with his wife and one of his grandsons; the group is placed on the rock to balance group B. Hatiay's wife, a 'chantress of Mont', is linked, through her title with that deity who was worshipped at Ṭôd, Madâmûd, Armant, and Thebes. Hatiay, the 'third prophet of Khnum' in B, may be the same man as the principal figure in C, who is 'overseer of the priests of all the deities'; we shall shortly see that he too was connected with one of the centres of the worship of Mont. Group C may have been carved later to commemorate a visit by Hatiay to Aswân.

D. This consists of a large figure of Nebunenef, clad in a long garment, with his hands raised in adoration towards the chapel of Anukis. A text in three lines before and behind him reads: 'To the *ka* of the chief priest of Khnum, Satis and Anukis, (2) Nebunenef, justified, (3) son of the chief priest of Khnum, Pendjerti'.

E. This group is carved just to the right of D, on a rough part of the boulder. Neither the figure nor the text is very clear. A man is shown, apparently standing with raised arms looking in the direction of the chapel of Anukis; of the text, all that can be made out with any certainty is: '. . . . for the *ka* of the chief priest of Khnum . . . .'.

F. A man and a woman, wearing long garments, face in the direction of the chapel

[1] De Morgan and Sauneron give  for  .

of Anukis; the man has both arms raised, the woman, one arm: in the other she holds a branch. Facing them is a damaged seated figure of Anukis, holding the *wꜣḏ*-sceptre. A horizontal line above reads: 'Overseer of the priests of all the deities, lords of Elephantine, the chief priest of Khnum, Satis and Anukis....'; behind the lady the damaged text has 'great one of the harem of Khnum....'. Underneath is: 'By his beloved sister(?), the great one of the harem of Amūn ....'.

G. Again, a couple in long garments face in the same direction towards a seated figure of Anukis, holding the *wꜣḏ*-sceptre. The man has both arms raised in adoration; the woman has one arm raised, and in the other she holds a sistrum and a flower. Above the goddess is: 'Anukis, mistress of (2) the land of Nubia'; above the man: 'Chief priest of Khnum, (2) Nebunenef, (3) justified'; above the woman: 'The house-mistress (2) Tamutnofret'. Behind the group is the kneeling figure of a man accompanied by two lines of neatly cut text: 'The sculptor of Amūn, (2) Amenḥotpēniby.' It is not clear whether this man was the craftsman commissioned by Nebunenef to carve the group G, or whether his figure is to be taken as quite independent from G. Below are two horizontal lines of text: 'To the *ka* of the chief priest of Khnum, Satis and Anukis, and deities, chiefs of Elephantine, Nebunenef,[1] justified, (2) by his beloved sister, the house-mistress, the chantress, overseer of the harem, Tamutnofret, justified'.

H. The last group consists of a couple shown facing a seated figure of Anukis, holding the *wꜣḏ*-sceptre. The man and woman are shown wearing long garments, standing in attitudes of adoration (but the left arm of the woman is lowered). The inscription above must originally have consisted of three vertical lines: 'To the *ka* of the chief priest of Khnum, Satis, (2) [and Anukis] ..... (3) His sister, the [house]-mistress, . . .'. It is probable that the two whose names are missing were Nebunenef and his wife.[2]

The burial of Hatiay and of other members of the family in Thebes

In 1925 the Mond Expedition found a small tomb belonging to a Hatiay about 100 m. to the east of tomb no. 55, the tomb of Ramose, the famous vizir of Amenophis III and Amenophis IV. This new tomb, which was given the number 324, consisted of a small portico with four columns in front of the entrance, a transverse hall, and a small inner chamber from which led a staircase to a complex of burial chambers arranged on three levels.[3]

This tomb was in a very bad state of preservation, most of the decoration having collapsed. Happily it was soon made the subject of study by Norman de Garis Davies and Alan Gardiner, who published a very accurate description of its surviving parts and decoration.[4] From this publication we are able to extract many details about the owner of the tomb and of his relatives. The best decorated and best preserved part of the tomb is the transverse hall. On the eastern part of the north wall are badly

[1] Sauneron, op. cit. 58 (g) quotes this text from Mariette, *Voyage*, no. 63; but it forms part of that given by de Morgan, op. cit. 102 (no. 220).

[2] So, too, possibly with groups E and F.

[3] Yeivin in *LAAA* 13, 11–16.

[4] *Seven Private Tombs at Kurnah*, 42 ff., pls. xxxi–xxxiv, xli (right).

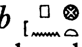
damaged agricultural scenes.[1] The east wall carries a scene of Hatiay with his wife, both fishing with rods in a pool in front of them; below in another scene is shown a man with his wife seated in front of him; he draws a clap-net full of birds towards himself, and he is described as the 'chief priest of Amūn, [scribe] of the offerings to the god in ⟨the temple⟩ of Mont'.[2] On the north wall, west side, are shown two vizirs seated, facing each other, with an offering-table between,[3] the owner of the tomb and his wife before a tree-goddess, *bas* drinking, a boat on a pool, and the Fields of Iaru.[4] According to the ceiling inscriptions, Hatiay had the following titles:

1. *ḥm-nṯr tpy n Sbk*, 'chief priest of Sobk'.
2. *ḥm-nṯr tpy n Mnṯw*, 'chief priest of Mont'.
3. *sš* . . . . [*Mn*]*ṯw*, 'scribe [of the Temple of] Mont'.
4. *imy-r ḥmw-nṯr nṯrw nbw*, 'overseer of the priests of all the gods'.

Elsewhere in the tomb his wife is referred to as 'his beloved wife, (2) the house-mistress, the chantress of Mont, (3) Lord of Ōn, Iuy(?)'.[5] A triple statuette found in the tomb, represents Hatiay, flanked on each side by a woman: on the right, 'the house-mistress, chantress of Amūn, Iuy', and on the left, 'the house-mistress, the chantress of Amūn, favoured one of Ḥatḥor, Nefertari'. These texts confirm that the name of the wife is Iuy, and that of the mother, Nefertari.[6]

From these inscriptions it is possible to identify the owner of Tomb no. 324 with the Hatiay of graffito 13c at Sehel. In both places he is styled 'overseer of the priests of all the deities'; in the tomb he is connected with the cult of Mont, with whom his wife Iuy is concerned both in the graffito and the tomb. Hatiay's father is not mentioned in the surviving parts of the tomb, but his mother occurs in the statue group, with the name Nefertari. In graffito 13, Pendjerti's wife is named Nefertari, and she too is concerned with the cult of Mont.

It should be noted that in the tomb, Iuy is described not only as 'chantress of Mont, but also as 'chantress of Amūn'; this is not unexpected because she clearly was connected with the Theban area inasmuch as she and her husband were buried there. The same is the case with Nefertari, for she is described in the graffito as 'chantress of Mont', and on the triple statuette from the tomb as 'chantress of Amūn' and 'favoured one of Ḥatḥor'. We shall shortly see that it is quite probable that her husband and other members of her family were buried in the Theban Necropolis, and it is likely that she too lived in the Theban area for some time and was buried there. Hence her connexion with the cult of Amūn. We shall also shortly give a reason for her connexion with the cult of Ḥatḥor.

One fragment recovered from the tomb of Hatiay bears the words *sꜣ·f wꜥb*  , 'his son, the *wēb*-priest, Pennut'.[7] Now Theban Tomb no. 331, also found by the

[1] Ibid. 44, pl. xxxi.

[2] Ibid. 44 f., pl. xxxii. Possibly Amūn is misread here for Mont, of whom the tomb-owner was chief priest, p. 45, n. 1.

[3] Ibid. 46, pl. xxxiii (lower).

[4] Ibid. 46 f., pl. xxxiv (middle and lower).

[5] Ibid. 44; for Hatiay's titles, see p. 47.

[6] Ibid. 43, pl. xli (right). The statue is now in the Cairo Museum (no. 71965, not F 1965, as given by Davies, p. 43, n. 1; cf. Porter–Moss, *Top. Bibl.* 1², 1, 396).

[7] *Seven Private Tombs at Ḳurnah*, 45.

Mond Expedition, belongs to a Pennut, called Sul(?),[1] who is given the title 'overseer of the houses of silver and gold'. He is also referred to as 'high priest of Mont' and 'overseer of the priests of all the deities'.[2] In many places in his tomb his father is named as 'high priest of Mont, Lord of Ōn, Hatiay'. Gardiner has already noted that there can be no question of denying the identity of this Hatiay with the owner of Tomb 324.[3]

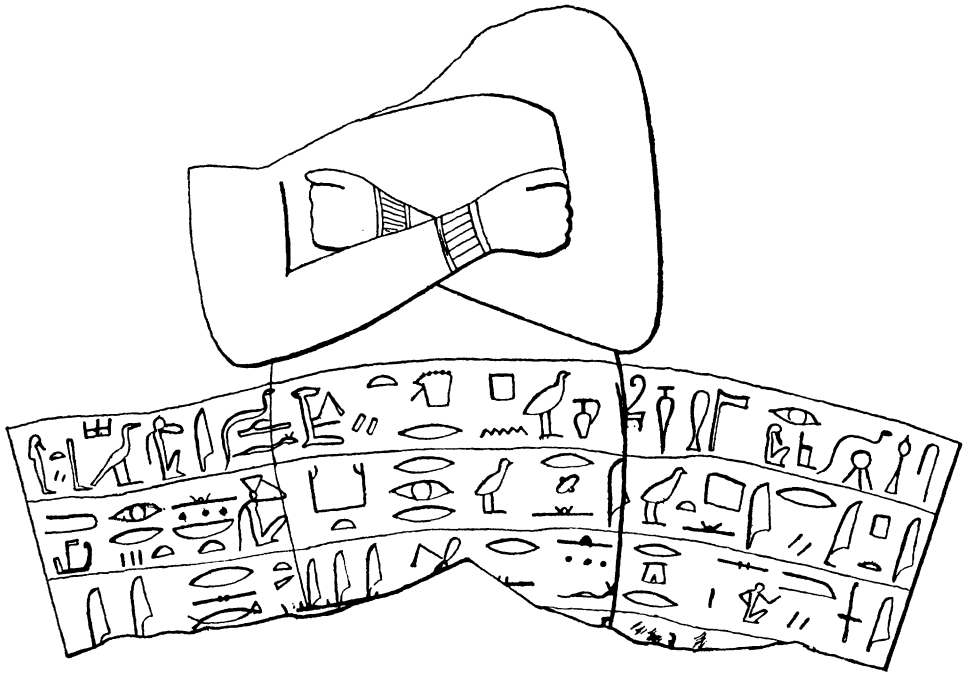


FIG. 7

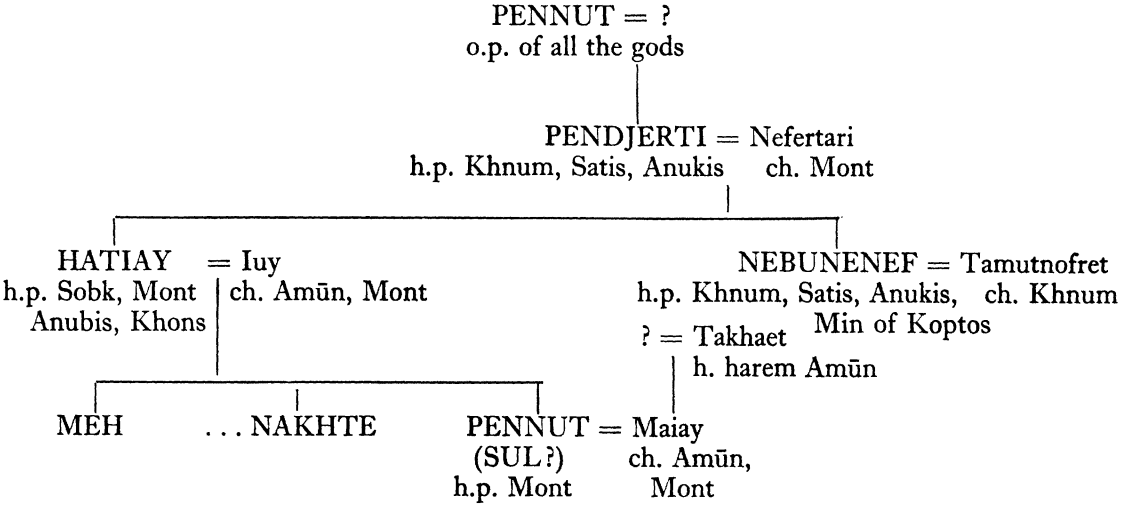
Pennut's wife was 'mistress of the harem of Mont, Lord of Ōn, Maiay', and his mother-in-law was 'mistress of the harem of Amūn, Takhaet';[4] some of his brothers are known from the Tomb of Hatiay: one may have been called Meḥ, another .... nakhte, while a third, whose name is unknown, was attached to the cult of Sobk.[5]

Yet another member of the same family seems to have been buried in the same Necropolis: Pendjerti, father of Hatiay and grandfather of Pennut. In the Tomb of Sennufer (no. 96), which was used as a store for finds made by the Mond Expedition, we found one day a funerary statuette of which the head and lower part were missing. It takes a typical *shabti*-form, showing a mummiform man with arms crossed on the chest. It is of sandstone and has a maximum height of 12·5 cm. and a maximum breadth of 9·5 cm. The first three lines of the text survive, containing the start of the normal *shabti* inscription; the owner is named as 'chief priest of Khnum, Pendjerti' (fig. 7). It is true that funerary statuettes are sometimes found far from the places where their owners were buried, but in this case, being part of the Mond finds, it must have been unearthed not far from the tombs of Hatiay and Pennut. The burial

[1] *Seven Private Tombs at Ḳurnah*, 53 ff., pls. xxxvi–xxxix.
[2] Ibid. 53 ff.
[3] Ibid. 55.
[4] Ibid. 54.
[5] Ibid. 45.

complex of Hatiay's tomb, as already mentioned, was arranged on three levels, and certainly contained more burials than those of Hatiay and his wife.[1] It cannot be shown that Pendjerti was buried in this tomb, but it seems highly probable that he was buried in the Theban Necropolis, as were his son and grandson.

The tree of the family can thus be established:



h.p. high-priest; o.p. overseer of priests; h. head of; ch. chantress of.

The town of origin of the family and the activities of its members

The tomb of Hatiay contained several copies of a funerary cone, of which the inscription has been published by Yeivin, and by Davies and Macadam (fig. 8). Yeivin gives only a hand-copy;[2] Davies and Macadam, in the index to their *Corpus*, give the titles: *ḥm-nṯr tpy n .... Ỉnpw, Ḫnsw* and *sš ḥwt-nṯr tpy n Mnṯw nb Ỉwny*.[3] Commenting on the divine hieroglyph at the beginning of the second line of the text, Gardiner has pointed out that Davies was undoubtedly mistaken in rendering it as a crocodile-headed figure, followed by a similar figure, and taking the first as standing for Sobk, the second being a determinative. For Gardiner the first figure was the falcon-headed Horus, and the second the crocodile-headed Sobk. He says: 'The combination of Horus and Sobk seems to point to Ombi as the seat of this cult, but the addition of Anubis and Khons is puzzling.'[4] Gardiner was right in taking the first sign as a falcon-headed divinity, but it must here stand for Mont, not Horus. The characteristic two tall feathers on the head and the *ʿankh*-sign in the hand are missing, this being due no doubt to the smallness of the scale of the representation. The cone, therefore, bears titles 1 and 3 found in the tomb, and 2 also, if we take the divine sign as Mont, not Horus. The latter god is not mentioned in the tomb. Furthermore, Hatiay's wife has the title 'chantress of Mont' both in the tomb and the graffito at Siheil (13c).

[1] Ibid. 43. [2] *LAAA* 13, 13. [3] *Corpus of Inscr. Fun. Cones*, no. 471; see also Index B.
[4] *Seven Private Tombs*, 47, n. 3; also 48, fig. 8. Gardiner noted that Yeivin (loc. cit.) had rendered the sign falcon-headed; the same is shown in our fig. 8.

The text on the cone therefore must be translated: 'The Osiris, the chief priest of (2) Mont, Sobk, Anubis and Khons, (3) the first temple-scribe of Mont, Lord of Ōn, (4) Hatiay.' These titles relate Hatiay to the district of Armant, and not that of Ombi.[1] In my study 'Amenwahsu Attached to the Cult of Anubis, Lord of the Dawning Land',[2] it was seen that on the rock stela carved by Amenwahsu in the Speos of Ḥoremḥeb at Silsila he showed Merenptaḥ, followed by his vizir Paneḥsi, facing 'Amen-Rēʿ king of the gods, lord of heaven', 'Mont, Lord of Ōn, the great god', 'Anubis, master of Smen, residing in Imiotru', and 'Ḥatḥor, mistress of Gebelein'. To this series of deities was added 'Anubis, lord of the Dawning Land', with no representation of his figure, perhaps because there was no room. The owner of the stela, represented in the lower register, is described as 'Chief of the prophets of all the gods, the chief prophet of the Sovereign, of Anubis and Khons, Amenwahsu, son of the judge, the chief prophet of the Sovereign, Anubis and Khons, Nakhtmont, born of the chief of the harem of Ḥatḥor, mistress of Gebelein, and of Anubis, lord of the Dawning Land, Merymaten, justified'.[3] Thus Amenwahsu and his father were attached to the cults of the Sovereign (who must have been Merenptaḥ), of Anubis and Khons, while Amenwahsu's wife was attached to the cults of Ḥatḥor and Anubis. Hatiay, on the other hand, was attached to the cults of Mont, Sobk, Anubis, and Khons, while his wife and mother were attached to the cult of Mont; his mother is also described as 'favoured by Ḥatḥor', which again relates her to the Armant district. On the other hand, both mother and wife were associated with the cult of Amūn, no doubt because of their connexion with the capital.

Fig. 8

Pennut, the son of Hatiay, lived probably either in the Armant district or the Theban district; his titles relate to deities of both places. His wife is connected once with the cult of Amūn, and once with the cult of Mont; her mother bore the important title 'Chief of the harem of Amūn', which was usually carried by the wives of the high priest of Amūn. In inscription 13c there is the mention of a chief of the harem, and in the tomb of Hatiay there is the representation of a high priest of Amūn, who could have been the father-in-law of Pennut. Hatiay's father, also called Pennut, probably lived in Armant or Thebes, and not in Aswân; he was a 'chief of priests' (graffito 6).

The unique scene of two vizirs in the tomb of Hatiay provides one further proof that Hatiay came from the district of Armant. Usermont, one of the two vizirs, is also depicted in the tomb of Khons (Theban Tomb no. 31); it is known that Khons was a descendant of this vizir and that both of them came originally from Armant.[4] The

[1] Porter–Moss, *Top. Bibl.* I², 1, 396, assign Cairo stela Cat. gen. 34138 to Hatiay's tomb, improbably. Lacau, *Stèles du Nouv. Emp*, 1, 188–9, gives the provenance as Qurna (confirmed by the Journal d'entrée under no. 31059), but mentions no tomb. This Hatiay is 'scribe' only, a title not found in the tomb of our Hatiay. Three women shown on the stela, representing apparently the daughter, wife, and mother of the deceased, possess names quite different from those held by the corresponding relatives of our Hatiay.

[2] *MDAIK* 14, 52 ff.

[3] Ibid. 54 ff.

[4] For the tomb of this man, see Davies and Gardiner, op. cit. 11 ff.; for his relationship to the vizir User-

other vizir represented in Hatiay's tomb was once thought to be Nebamūn, although the identification was stated to be quite doubtful. Nebamūn, however, is not known to have had any connexion with Armant; in fact no other vizir can with certainty be connected with this place. But it may be worth noting that many relatives of the vizir Paraḥotpe of the reign of Ramesses II were associated with the cults of Mont and Amūn; some had names similar to those of members of Hatiay's family, one actually being a chief priest of Mont named Hatiay.[1]

As has already been said, Pendjerti and his son Nebunenef must have lived in the Cataract region, for they left many graffiti in the area and their titles connect them with the cults of the district. It is noteworthy that Pendjerti is everywhere named as chief priest of the deities of the Cataract region, and it is possible that he was transferred from Armant specifically to exercise this function. His son, Nebunenef, on the other hand, began his career (as we shall see below) as *wēb*-priest of Khnum, priest of Khnum and god's father of Anukis, when his father was chief priest. After his father's death he replaced him as 'chief priest of Khnum, Satis and Anukis'. He added later, the offices of 'chief priest of Min of Koptos', and 'chief priest of the deities, lords of the Land of Nubia'.

It seems that in addition to the temples erected to the divine members of the triad of the Cataract Region, chapels in honour of other deities were consecrated in the same area; among these deities were Min and Amūn. In one graffito on the Island of Siheil a whole family is shown before an ithyphallic deity.[2] In another graffito, also on Siheil, its owner is shown opposite Amūn, the three members of the Cataract triad, and Ramesses VI, in whose reign he lived. This owner, Bakenkhons, gives homage to these deities, and he is styled 'the priest of . . . ., the chamberlain of Kamutef, the chief priest of Khnum, as being granted by Amūn himself, Bakenkhons.'[3] There was certainly a temple to Amūn in the quarries to the east of Elephantine to which Tuthmosis III dedicated offerings.[4]

However, some time before Nebunenef was granted his important religious titles, he was destined to be involved in the so-called Elephantine scandal. On the first page of the Turin Indictment Papyrus we read the following (ll. 12 ff.):

> Report concerning the promotion by the vizir Neferronpe of the *wēb*-priest Bakenkhons to the position of priest of Khnum. This priest said to the *wēb*-priest Nebunenef, 'Let us introduce three new priests, and we will cause the god to cast the son of the merchant outside'. He was examined and it was found that he had actually said it. He was made to take an oath of the Ruler not to enter the temple. But he gave a bribe to this priest, saying 'Let me enter to the god'. And this priest took the bribe and let him enter to the god.[5]

mont, ibid. 13; for the connexion between members of this family and the god Mont, and the district of Armant, see the family tree, ibid. 29.

[1] The family also included a Nefertari who was a chantress of Amūn, and a Sel (?) who was an overseer of priests, see Weil, *Die Viziere des Pharaonenreiches*, 101. Most of the family lived under Ramesses II, but may have been predecessors of the family of Pendjerti: families commonly repeated names over many generations. The link with the god Mont also suggests that the two families were closely connected.

[2] De Morgan, op. cit. 100 (no. 202). [3] Ibid. 93 (no. 102); Sauneron, op. cit. 60.

[4] *Urk.* IV, 825 f. For the quarries east of Elephantine, see Gauthier, *Dict. géogr.* II, 15.

[5] Sauneron, op. cit. 57 ff. For the text see Gardiner, *RAD* 75 and Peet, *JEA* 10, 121.

Unluckily we do not know the rest of this story, but we are sure that many of the people involved in this scandal found ways of getting out of it. As Sauneron has shown, Bakenkhons was promoted from 'priest' to '. . . the chief priest of Khnum'; while Nebunenef, who at that time was a simple *wēb*-priest, later assumed the most important religious titles of the district, as we have seen above. From the tomb belonging to Nebunenef's brother Hatiay, we have seen that the family had some sort of relationship with two vizirs, and a chief priest of Amūn. The last was perhaps still in office when the scandal broke. A man with relations of this order could hardly fail to prove himself innocent, even if he were actually guilty.

Of further interest is that part of the same Turin papyrus which speaks of 'the report concerning the sending by the divine father Djḥuṯḥotpe of the temple of Mont . . . . who was doing the duties of the post of the divine father of the temple of Khnum . . . . of a letter by their hand for the scribe of the temple, Djḥutemḥeb . . .'.[1] Here we have a priest of Mont at work in the temple of Khnum, as was the case with Pendjerti, who was transferred from Armant to Aswân. The Djḥutemḥeb may have been the same person who inscribed his name in inscriptions nos. 12 and 13A in the Aswân region.

The most important point to emerge from the discovery of the connexion between one of the members of the family of Pendjerti and the scandal of Elephantine is the indication provided of the period when this family lived. It is known that the scandal took place under Ramesses V. Probably, therefore, Pendjerti took up his office at Aswân about this time, while Nebunenef and his brother Hatiay lived on under some of the later Ramesside kings. From this it follows that Hatiay carved his tomb during the reigns of Ramesses VI and Ramesses VII, and not in the reign of Merenptaḥ, as Davies thought.[2] Pennut, his son, may have lived in the reign of Ramesses IX when an even more serious scandal was revealed—the wholesale robbery of royal and noble tombs in the Theban Necropolis.

Postscript

1. In the facsimile of graffito 3, fig. 1, the lotus flower on the head of Nefertari has been omitted. It can be seen faintly in the photograph, pl. XVII, 3.

2. The cone of Hatiay (p. 133 f.) has been discussed by Kees, *ZÄS* 88, 27, who takes the two seated god-figures to be crocodile-headed, reading *'Iti* and standing for Sobk. If this interpretation were correct, it would mean that Mont, a god with whom Hatiay was especially associated, had been overlooked, which would be quite improbable. Kees agrees that the family came from Armant.

[1] Vs. 3, 8–10, cf. Peet, op. cit. 124, with comment on 127.

[2] Davies and Gardiner, op. cit. 46. Helck, *Materialien zur Wirtschaftsgeschichte*, 941, places Hatiay under Ramesses II.

TEMPORAL *WNN* IN LATE EGYPTIAN

By KLAUS BAER

THE common Late Egyptian epistolary formula *wnn tȝy·i šrt (ḥr) spr r·k, iw·k (ḥr)*+ infinitive[1] has been interpreted as a (subordinate) temporal clause with *wnn* followed by a main clause exemplifying *iw·f ḥr sḏm* as a future tense.[2] The translation, 'When my letter reaches you, you shall . . .', is essentially correct, but using the translation as the basis for analysing the Egyptian construction leads to difficulties,[3] especially since *iw·f ḥr sḏm* does not normally occur in independent clauses in Late Egyptian.[4] Korostovtsev has now explained the instances in which the context imposes a future translation of *iw·f ḥr sḏm* as continuations of a future main clause.[5] This is undoubtedly correct—the examples cited below in which a conjunctive directly follows a clause with *wnn* are a conclusive parallel that Korostovtsev overlooked—but with one important proviso; *wnn·f ḥr sḏm* is not 'an explicit form to express future' in Late Egyptian.

[1] A few references: P. Bologna 1094, 6, 3 (*LEM*, 6, 3); P. Anastasi v, 22, 1–2 (*LEM*, 68, 9); P. Sallier I, 4, 2; 9, 4 (*LEM*, 80, 7; 87, 10); *LRL*, 2, 9; 29, 10; 34, 12; 35, 5, 12–13; 36, 15; 37, 8; 39, 11; 40, 4; 67, 2; 71, 5; *HO*, pl. 18, 1, 1; P. Berlin 8523, 11–12 (Spiegelberg, *ZÄS* 53 [1917], 107–11); *HO*, pl. 107, rt. 9–vs. 1. Similar: Pleyte, Rossi, *Pap. Turin*, pl. 66, 7; P. Anastasi IV, 11, 4–5 (*LEM*, 46, 15–16).

The following abbreviations, other than the usual ones, are used:

HO Černý, Gardiner, *Hieratic Ostraca* I
LEM Gardiner, *Late Egyptian Miscellanies*
LES Gardiner, *Late Egyptian Stories*
LRL Černý, *Late Ramesside Letters*
NÄG Erman, *Neuägyptische Grammatik*, 2nd ed.

[2] *NÄG*, § 804; Wente, *JNES* 20 (1961), 122 (*j*); Caminos, *JEA* 49 (1963), 33–34, 37. Sim. Wente, *The Syntax of Verbs of Motion in Egyptian* (unpubl. diss.), 131–3.

[3] *NÄG*, § 585 is disturbed by the conjunctive in the 'apodosis' of P. Salt 124, vs. 1, 9 (our example *y*)—the other conjunctive he cites, P. Salt 124, 2, 21, is simply the continuation of a future threat: 'I will come up to you on the *gebel* and kill you (*mtw·i ḫdb·k*). *LES*, 16 *a*, 84 *a* is tempted to emend *ḥr* to *r* in our examples *d*, *k*. The whole problem of 'future *iw·f ḥr sḏm*' results, of course, from a translation-based analysis of the sentences in which it occurs, not only in the case of the construction with temporal *wnn* but also in others such as the pattern of the oath beginning with the conjunctive (best translated as a conditional clause) and continuing with *iw·f ḥr sḏm*, the reverse of the regular usage in continuing temporal *wnn*. The use of the conjunctive in the 'protasis' of an oath is discussed by Černý, *Ann. Serv.* 27 (1927), 202 n. 8; Gardiner, *JEA* 14 (1928), 91; *NÄG*, § 584; Malinine, *BIFAO* 46 (1947), 99, 109. Černý, *JEA* 31 (1945), 41–42 (1) emends *iw·f ḥr sḏm* following a conjunctive in the 'protasis' of an oath to *iw·f r sḏm* in accordance with his opinion that *iw·f ḥr sḏm* can never be future, but cf. Wente, *JNES* 20 (1961), 121–2, where the same passage is discussed; *iw·f ḥr sḏm* is too common in future contexts to permit emendation, and the negative with *tm* rather than *bn* is decisive. The oath with the conjunctive in the 'protasis' is usually understood as elliptical, but it seems simpler to construe the conjunctive as continuing the verb of the asseveration with which Egyptian oaths begin when quoted in full, e.g. 'As Amūn and the Ruler endure (*Wȝḥ Ỉmn, wȝḥ pȝ Ḥḳȝ*)'.

[4] Černý, *JEA* 31 (1945), 41–42 (1); *JEA* 35 (1949), 29. Note that of the 28 instances of future *iw·f ḥr sḏm* cited by Wente and Caminos, 17 follow a clause with *wnn*, and 5 more follow a semantically similar formula *ḫft spr tȝy·i šrt r·k*, which is, however, grammatically different and will not be discussed here. Most of the remaining examples are dubious, cf. Korostovtsev, *JEA* 49 (1963), 174–5.

[5] Korostovtsev, *JEA* 49 (1963), 173–5.

The clause with *wnn* can be past as well as future depending on the presence or absence, respectively, of the particle *ḥr* before *wnn*. The evidence indicates rather that the function of *wnn·f ḥr sḏm* and the less frequent variants *wnn iw·f ḥr sḏm* and *wnn*+first present—the latter two attested with pronominal subject only—was to provide one of the Late Egyptian semantic equivalents of an English temporal clause or, more rarely, of a conditional clause; the two were not sharply distinguished in Egyptian.[1] To be more precise, it was the combination of a main clause with *wnn* and following clauses with a continuative tense (*iw·f ḥr sḏm* or the conjunctive) that had this function. Instances of the independent use of *wnn·f ḥr sḏm* can be cited, which have no such meaning.[2]

A. Wnn is followed by a noun subject

I. The clause with *wnn* refers to the future

a. 'When my letter reaches you, you shall . . .' (*Wnn ṯzy·i šꜥt* (*ḥr*) *spr r·k*, *iw·k* (*ḥr*)+ infinitive; if more than one instruction follows in the same sentence, all except the first use the conjunctive). References cited in note 1, page 137 above.

b. 'When the water rises (*Wnn* [*?*] *pꜣ mw mḥ*), you shall receive (*iw·k šsp n ḥꜣt*) this boat which I sent you and give it (*mtw·k dit·s*) to the fishermen.' Thirty-five more conjunctives follow.[3]

c. 'You are my good daughter. If NN throws you out (*Wnn* NN *ḥr ḥꜣꜥ·t r-bl*) of the house I built (?)—the house is . . . of Pharaoh, l. p. h.—you shall dwell (*iw·t ḥms*) in the gateroom in my storehouse.'[4]

d. 'Stay there till dawn. When the sun rises (*Wnn pꜣ itn ḥr wbn*), I shall be judged (*iw·i ḥr wp*) with you before him, and he will give (*mtw·f ḥr* [sic] *dit*) . . .'[5]

e. 'If Amūn lets me live (*Wnn Imn ḥr dit ꜥnḫ·i*) until I come south, I shall bring him (*iw·i ḥr int·f*), and shall contend with you before a tribunal (*mtw·i ꜥḥꜥ irm·k*), and shall see (*mtw·i ptr*) what ought to be done with him, and it will be done (*mtw·tw ir·f*).'[6]

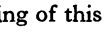
f. 'And the doorkeepers of the house of Pharaoh, l. p. h., took it, one for each one of them. When Pharaoh, l. p. h., my good Lord, l. p. h., appears (*Wnn Pr-ꜥꜣ . . . ḥr sḫꜥy*) at his jubilee, I shall inform him (*iw·i ḥr dit ꜥmꜣ·tw*) about them, for they acted against me again yesterday, and I shall cause that they be stopped (*iw·i ḥr dit ꜥḥꜥ·tw n·sn*).'[7]

g. 'And further, when NN reaches you (*wnn* NN *ḥr spr r·r·tn*), you shall go out (*iw·tn pr*) with him, and shall do (*mtw·tn irr*) corvée labour for me in the fields to which he shall take you.'[8]

[1] Gardiner, *Egyptian Grammar*[3], § 216; *NÄG*, § 811; Till, *Koptische Grammatik*, § 429.

[2] E.g. P. Anastasi II, 6, 4 (*LEM*, 15, 16), where only a vocative follows.

[3] *LRL*, 9, 16 ff. The word *wnn* is smudged in the original; Černý thought *wn* the more probable reading.

[4] *HO*, pl. 23, 4, rt. 3–vs. 1. In view of the chaotic spelling of this ostracon, the interpretation of  as the relative 'which I built' seems possible, if not provable.

[5] P. d'Orb., 6, 9–7, 1 (*LES*, 16, 2–4). For the erroneous *ḥr* in the conjunctive, cf. Gardiner, *JEA* 14 (1928), 92–93; Černý, *JEA* 35 (1949), 26–27. [6] Pleyte, Rossi, *Pap. Turin*, pl. 16, 3–4. [7] *HO*, pl. 75, 15–19.

[8] P. Mallet, 3, 5–6 (Maspero, *Rec. trav.* 1 (1870), pl. opp. p. 49). Another, damaged example of *wnn*+noun in P. Louvre 3169, 2 (Maspero, *Notices et extraits des manuscrits* 24 (1883), part 1, unnumbered pl.).

II. The clause with *wnn* refers to the past

h. 'When NN came (*Ḫr wnn* NN *ii*) to you and said, "Hand it (i.e. copper) over; Ḥori has been assigned to work on it," you did not give it (*iw·tn tm dit·f*) to him. The General said, "Let him (i.e. Ḥori) work on the javelins, and give him the copper to let him work on the javelins." '[1] This passage, from a letter sent by the necropolis scribe Tuthmosis to the necropolis guard Kar and to Butehamūn, cannot well be translated, 'When NN comes . . ., you shall not . . .', for this would put Tuthmosis in the position of countermanding the order of his superior, instead of upbraiding his subordinates for not carrying out the General's orders.

i. '. . . and he began to call to the town(speople) and said, "Don't let any member of the family of NN be seen going to make offering to Amūn, their God," so he said. When the men went (*Ḫr wnn nꜣ rmṯ šm*) to make offering . . . they were afraid of him (*iw·w snd n·f*), and he began to throw (*mtw·f ḫpr ḥr ḥwꜣ*) stones . . .'[2]

B. The subject of *wnn* is a suffix pronoun

I. The clause with *wnn* refers to the future

1. *Wnn*+suffix

j. '. . . and tell the porter ʿAḥautynefer, "Give me a *deben* of lead (or tin?)." When he gives it to you (*Wnn·f dit·f n·t*), I shall pay (*iw·i mḥ*) ʿAnery in full with one *deben* and five *ḳite* of lead . . .'[3]

k. 'They were told, "When you enter (*Wn·tn ḥr ʿḳ*) the town, you shall let out (*iw·tn ḥr wn*) your companions and seize (*mtw·⟨t⟩n mḥ*) every man who is in the town . . .'[4]

l. 'If you let him live, I shall pine away and die. Look, when he comes back, [you shall kill] him (*Ptr wnn·f iit, m[tw·k ḫdb·]f*), for I am suffering . . .'[5] A lacuna at the critical point makes it impossible to use this example as evidence, but since the conclusions suggest a restoration, it is listed here for completeness' sake. Cf. the discussion below.

m. In an obscure context, in which a man is being given some rather strange instructions: 'When you are speaking again, I shall go down to look at you, and will (*Wnn·k mdw ʿn, iw·i hꜣy ḥr gmḥ·k, mtw·i*) . . .'[6]

n. 'When you bring (*Wn·k ḥr in*) the ox, I shall give you (*iw·i di n·k*) a garment.'[7] Uncertain, cf. note 4 below.

[1] *LRL*, 21, 11–13.

[2] P. Salt 124, vs. 1, 14–17 (*JEA* 15 (1929), pl. 45–46).

[3] *LRL*, 56, 9–11.

[4] Joppa, 2, 8–9 (*LES*, 83, 16–84, 2). The reading *wn·tn* is certain. While the passage appears to be an example of temporal *wnn*, the necessity of emending here and in example (*n*) makes it unwise to rely on them to support any conclusions, cf. nn. 1, 2, p. 143, below. *LRL*, 2, 9 (cf. n. 1, p. 137 above) seems, however, to be a clear case of *wn* written for *wnn*, so that the emendation can be paralleled. The context is clearly future; and few literary texts of the New Kingdom are free from corruptions.

[5] P. d'Orb., 5, 3–4 (*LES*, 14, 8–10).

[6] *HO*, pl. 18, 1, 6.

[7] *HO*, pl. 69, 3, vs. 5–6. The context does not seem to exclude the past tense.

o. In a damaged letter of instructions: 'When he reaches you (*Wnn·f ḥr spr r·r·tn*) you shall attend to him, and (*iw·tn ḥr dit ḥr·tn n·f, mtw·*[*tn*) . . .'[1]

p. 'Look, I shall send NN with orders to Thebes. When he comes (*Wnn·f ḥr iit*) to you at the fortress of [the necropolis], you shall come (*iw·tn ḥr iit*) to meet him there, and send him (*mtw·tn hꜣb·f*) to us . . .'[2]

2. *Wnn*+pronominal compound

No examples are known to me.

3. *Wnn*+*iw·f ḥr sḏm*

q. 'Do not go to look at the frightfulness of the sea. If you look at (*Wnn iw·k ptr*) the frightfulness of the sea, you will look at (*iw·k ptr*) my own.'[3]

II. The clause with *wnn* refers to the past

1. *Wnn*+suffix

r. ' "He violated Citizeness Ḥel when she was living with Ḥesysunebef," so his son said. When he violated (*Ḫr wnn·f nk*) Ḥel, he violated (*iw·f nk*) Wobkhe, her daughter, and ʿApaḥte, his son, violated (*iw ʿꜣ-pḥty . . . nk*) Wobkhe also.'[4]

s. 'Look, when I was training (*Ḫr ptr wnn·i ḥr sbꜣ*) chariot warriors of the army of Pharaoh, l. p. h., and his chariotry, I ⟨made⟩ them come (*iw·i ⟨dit⟩ iwt·sn*) to prostrate themselves to you . . .'[5]

t. '. . . since their fathers did not report to him, but reported only to the vizier when he was in the Southland. When he was (*Ḫr wnn·f ḫpr*) in the Northland, the Medjay . . . went north (*iw nꜣ Mḏꜣyw . . . ḫd*) to the place where the vizier was with their memoranda.'[6]

u. 'As for the goat that I acquired for 20, please sell it for 25 pigeons. Don't say, "It belongs to these ladies (?)," but seize it and buy them for me quickly and promptly. When you bought (*Ḫr wnn·k int*), he (i.e. the seller of the pigeons?) caused to be brought to you what you would want (*iw·f ḥr dit in·tw n·k pꜣ nty iw·k r whꜣ·f*)'[7] As in many drafts of letters on ostraca, the context is not clear. The sentence beginning with *ḫr wnn* could be either past or future. As translated here, the recipient of the letter is told that there had been no difficulty with purchases in the past, so that there should be no reason for delay. Evidently this example cannot be used to support the interpretation of the force of *ḫr* that is offered here, but it also cannot be cited as an example to the contrary.

[1] Goedicke, Wente, *Ostraka Michaelides*, pl. 43, no. 66, 7.

[2] O. Deir el-Medîna 114, rt. 9–vs. 3. Some damaged examples of *wnn·f ḥr sḏm*: O. Deir el-Medîna 314, vs. 5–8 (probably future); P. Mallet, 6, 8–10 (Maspero, *Rec. trav.* 1 (1870), pl. opp. p. 51; the tense is uncertain from the context).

[3] Wenamūn, 2, 50–51 (*LES*, 72, 3–5).

[4] P. Salt 124, 2, 3–4 (*JEA* 15 (1929), pl. 43).

[5] P. Leiden 371, 14–16 (Gardiner, Sethe, *Letters to the Dead*, pl. 7); a letter to a deceased wife. For the restoration of *dit*, cf. ibid., p. 24.

[6] P. Abbott, 6, 21–23 (Peet, *Great Tomb Robberies*, pl. 4).

[7] O. Deir el-Medîna 118.

2. *Wnn*+pronominal compound

v. 'When I was coming (*Ḫr wnn tw·i nʿy*) from Thebes bringing the men who were dwelling there, I found (*iw·i gm*) A and B, . . . and they said to me (*iw·w ḏd n·i*) . . . , and C took (*iw* C *šsp*) the letter, and I called (*iw·i ʿš*) . . ., and I read it to them, and they said (*iw·i ʿš·s n·w, iw·w ḏd*) . . .'[1]

w. 'Note what I told you about the copper that was brought from Sementawy. Look, the coppersmiths of Sem came and said, "This copper belongs to Sem; it does not belong to the necropolis. Let the copper be brought to Sem," so they said. They (also) brought some copper (i.e. belonging to Sem?) and said, "Let some of it be weighed (i.e. in payment of Sem's arrears?)." Don't listen to them.[2] "Let them bring the copper that they weighed," you shall say to them. When they brought it (i.e. the copper) to you, you seized it (*Ḫr wnn*[3] *tw·tw ḥr int·w n·k, iw·k ḥr mḥ im·sn*) together with the other (i.e. the copper brought from Sementawy and claimed by Sem?) because of his (i.e. Sem's) many arrears. Look to it, if you (can) cause a bit of it to be brought (i.e. to the writer?).'[4] The same remarks apply here that were made about (*u*), except that the situation and the pronominal reference is even more obscure.

Granting the correctness of our interpretation, the disputed copper that had been brought from Sementawy was in the hands of the recipient of the letter at the time that Sem's coppersmiths brought another batch to be weighed. In view of Sem's arrears, the addressee had not released the first batch to Sem, but kept it as well as the second. The writer now asks him not to weigh out Sem's arrears from the second batch, the exact weight of which was apparently not known to Sem. Instead, Sem should be required to pay with a third batch of copper that had already been weighed. In the meantime, could the addressee abstract some of Sem's copper and give it to the writer, enabling him to recover at least part of what he had thought was his copper?

3. *Wnn*+*iw·f ḥr sḏm*

x. '. . .] of the doors. When they found (*Ḫr wnn iw·tw ḥr gm*) the four, he took (*mtw·f iṯ*) one of them. It is in his possession.'[5]

y. 'Memorandum about his taking the large chisel for splitting stone. When they said (*Ḫr wnn iw·tw ḏd*), "It isn't there," they spent (*mtw·tw ir*) a whole month looking for it, and he brought it and left it (*mtw·f in·f, mtw·f ḫʒʿ·f*) behind a large stone.'[6]

When the subject of *wnn* is a personal pronoun, three constructions are attested: *wnn*+suffix, *wnn*+pronominal compound, and *wnn*+*iw·f ḥr sḏm*. Erman treated them separately.[7] However, *wnn iw*+noun does not seem to occur; nor can any difference

[1] *LRL*, 45, 7–14. Supply *ḥr* instead of *r* as suggested by Černý, *LRL*, 45 *a*, 7.
[2] Reading *m-ir sḏm n·sn* instead of the unintelligible *m-ir sḏm·i sn* of the transcription.
[3] The reading is clear in the facsimile.
[4] O. Berlin P. 11239 (*Hier. Pap.* III, pl. 38).
[5] P. Salt 124, 1, 9 (*JEA* 15 (1929), pl. 42).
[6] P. Salt 124, vs. 1, 9–10 (*JEA* 15 (1929), pl. 45).
[7] *NÄG*, §§ 512, 539, 804, 806.

in the usage and functions of the three constructions be detected in the available examples. The following forms are actually attested in the passages just cited:

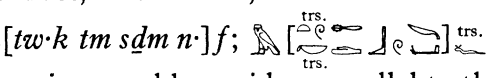
wnn·i	*wnn tw·i*	
wnn·k		*wnn iw·k*
wnn·f		
wnn·tn (?)		
	wnn tw·tw	*wnn iw·tw*

The uniformity of usage with a nominal subject suggests that the variation in linking pronominal subjects to *wnn* is the result of a combination of analogy and etymologically incorrect historical spellings, rather than of a functional difference. The unreliability of Late Egyptian historical orthography is well known.[1]

Eight of the ten examples with *ḥr* have a clear past context; two (*u*, *w*) are ambiguous. Similarly, all of the passages without *ḥr* can be future, and thirteen must be, counting all the examples of *wnn tꜣy·i šꜥt ḥr spr r·k* as one. Though not based on an exhaustive search through the Late Egyptian texts, this does suggest very strongly that the tense of temporal *wnn* did, in fact, depend on the presence or absence of *ḥr*.

The main clause with *wnn* is usually followed by the continuative *iw·f ḥr sḏm* in the first instance and the conjunctive thereafter. Some examples have either *iw·f ḥr sḏm*

Tense	*Main Clause ('When')*		*First Continuing Clause*	*Later Continuing Clauses*
Future	—	*wnn* + {noun / suffix *iw·f* / pron. / comp.} + {*ḥr sḏm* / Old Perfective?}	Usually: *iw·f ḥr sḏm* →	*mtw·f sḏm*
Past	*ḥr*+		More rarely: *iw·f ḥr sḏm* →	*iw·f ḥr sḏm*
			mtw·f sḏm →	*mtw·f sḏm*

(*f*, *r*, *v*) or the conjunctive (*x*, *y*.) in all instances; three of these occur in Pap. Salt 124, a text which shows a decided preference for usages which, if not incorrect, are at least uncommon.[2] However, the exceptions are not restricted to this document, and I believe that we are on sufficiently safe ground to propose a restoration for the damaged passage from the Myth of the Two Brothers already cited as example *l*. It has been discussed by Blackman, who suggested the following translation: 'Behold, when he returneth, [hearken] not [unto him].'[3] An *m* is visible before the lacuna, and was interpreted as the mark of the negative imperative. At the end is the tail of a sign that could be either an *m* or an *f*.[4] Blackman implies the latter. In view of the evidence of our other examples, it does not seem too hazardous to suggest that here, too, temporal *wnn* was followed by a continuative, which must, in this case, have been the conjunctive. The space is not sufficient to restore *m*[*tw·k tm sḏm n·*]*f*;  suits the space and the sense. If correct, this restoration would provide a parallel to the two examples

[1] Cf. Gardiner, *JEA* 16 (1930), 220–34; *JEA* 32 (1946), 101.

[2] Cf. Černý, *JEA* 15 (1929), 257–8; Gardiner, *JNES* 12 (1953), 149 (*i*). A case in point is the construction of *pꜣw pꜣy·f šri pd r-ḫꜣt·f* in rt. 2, 1. It appears to be an attempt to replace the suffix pronoun in the common *pꜣy·f*+infinitive by a noun, here *pꜣy·f šri*.

[3] *JEA* 22 (1936), 44.

[4] *LES*, 14 *a* (5, 4 *a–b*).

from P. Salt 124 that use the conjunctive in the first continuing clause. The construction can be summarized in the diagram on the previous page.

Finally, a word of caution. It would be rash to generalize from this usage of *ḫr* and *wnn* to other constructions with the same words. Thus the rare *ḫr wn·f*+pseudoverbal (with one *n*)[1] differs from the form with *wnn*; it is followed by other than continuative tenses and seems not to be restricted to the past.[2] The two examples included above that have *wn·k* and *wn·tn* respectively, are, therefore, suspect, as must be all cases involving emendation, especially since Late Egyptian texts usually distinguish *wnn* and *wn*.

[1] Caminos, *LEM*, 271.

[2] P. Turin B, vs. 3, 7 (*LEM*, 127, 9–10) is a clear instance, since *ḫr wn·f spr r·k* . . . is followed by a negative imperative. It would have been possible to maintain the traditional explanation of *wnn·f ḫr sḏm* as an essentially future form even in Late Egyptian if *ḫr* could have been shown to have had a reversing function analogous to *waw* consecutive, but there seems to be no clear evidence to support such a generalization and a good deal of evidence to the contrary. Note the ME distinction between *ir m-ḫt* and *ḫr m-ḫt* (Gardiner, *Egyptian Grammar*[3], 133 bottom).

THE CULT OF THE SPEAR IN THE TEMPLE AT EDFU

By E. A. E. REYMOND

WE have seen in our series of articles on the mythology in the Edfu tradition[1] that connected with the idea of the spear as the *ndty*—'Protector'—of the god in his 'Great Seat' (*st-wrt*)[2] there are beliefs and traditions which take us far beyond the limits of historical times and have every appearance of being the survival of beliefs from a primitive cult-place where the Creator was believed to have rested.[3] The part played by the spear in the life of the historical temple was of no little importance. The spear was regarded as the likeness of the primeval 'God-Mighty-of-Countenance'; it embodied the magical power that was believed to have issued from the Nun at the commencement of the world. Through the medium of the spear, therefore, the emanation of the Earth-god, the first power that protected, was always present in the historical temple, safeguarding the god and repulsing his enemies. It is natural that the spear as the image of the protector of the primeval age had its cult duly celebrated in the temple. Evidence is, however, scanty, though the close link of the spear with the 'mythical age of the Egyptian gods' may suggest that the god-spear might have been one of the prominent deities once adored in the sacred enclosures of prehistoric and archaic Egypt. No archaeological data or textual evidence of an early date, so far as we are aware, has survived, nor do we find anything relevant in the inscriptions of pharaonic temples. The late sources from the Graeco-Roman period, once again, are the only ones to furnish us a solid ground for an outline-picture of the cult of the spear once celebrated in the temple.

We are already familiar with the ceremony of 'Awakening the spear at dawn' together with other divine inhabitants of the Edfu Temple and the Temple itself.[4] In view of its nature it seems to be logical that the primeval protecting power that dwelt in it was brought to its daily life at the moment when the 'day of the temple-entity' began. But there is no evidence as to whether the spear had also its daily service, though we know that one of the side-chapels of the original nucleus of the temple, the 'Throne-of-Rēʿ' was consecrated to it and regarded as its dwelling place within the temple.[5] In the 'Building Text' of this sanctuary the spear is found listed among its divine dwellers. None of the reliefs which cover the walls of this chapel, however, indicates that there was a special daily ritual service devoted to the spear and that it would be held there. We conjecture that this chamber was most probably used as a storage room of the spear into which it was brought at night and from which it was

[1] See *JEA* 49, 140 ff. and *JEA* 50, 133 ff.
[2] *E.* (i.e. Chassinat, *Edfu*) IV, 358, 4 and *JEA* 49, 140–2.
[3] Cf. *JEA* 50, 136–7.
[4] Cf. *JEA* 49, 144.
[5] *E.* I, 302, 12.

carried into the hall of the pronaos of the temple at dawn when the ceremony of 'Awakening the Temple' began. It seems to us most likely that with the exception of this morning ceremony there was no daily ritual service performed on behalf of the god-spear at Edfu but the spear was adored as a divine being on special occasions or in connexion with the temple festivals. We have already referred to two scenes of the *wnp nhs*, 'piercing the nehes' which are engraved on the outer wall of the Edfu naos.[1] We suggested that these two scenes acquaint us with one of the rites performed in the temple on behalf of the original 'God-Mighty-of-Countenance'. The prescribed formulae to be recited at the performance of this rite imply clearly that it does not show the usual pattern of the episodes included in the daily ritual service of the temple. The connexion with the 'Festival of the Victory'[2] is apparent and strong and we are inclined to admit that this episode was included in the ceremonies of this festival. We imagine that on the days when this festival was celebrated at Edfu the rite of the *wnp nhs*, 'piercing the nehes', was completed and re-enacted on behalf of the falcon-like 'God-Mighty-of-Countenance'. His relationship with Horus the Beḥdetite makes this suggestion reasonably admissible. It will follow that the twenty-first day of the second month of the winter season[3] was the day on which a special rite was devoted to the falcon-like protector of Horus.

On the other hand, it is also certain that the spear was invoked by its sacred names and adored as a divine being in connexion with certain ceremonies that took place within the temple of Edfu and which had for their purpose to re-enact scenes from the 'mythical past' of the temple. We think here of the scene in the 'Primeval Djeba'[4] which was held in the hall of the Edfu pronaos.[5] In this connexion we could identify in the third register of the north-west wall (west side) of the pronaos a ritual scene which does not show affinities with the surrounding reliefs. It alludes to some mythical events that are reminiscent of the episode in the mythical Djeba. This is the ceremony of 'Bringing (as offering) the Staff of Horus' (*ms mdw Ḥr*).[6] The king is described as acting in the capacity of 'him who protects the Father by virtue of the Great White' (*ḥḏ-wr*) and as the 'Son of Tanen'.[7] The deity adored is Horus the Beḥdetite, but he is the god who alighted upon the willow, the god who rested on the *wṯst*-throne.[8] The rite is reminiscent of the myth and so it is most likely that this ritual act was derived from the tradition of the mythical Djeba. The main part of this episode consisted of the offering of the staff to Horus and this staff was believed to be that of the Ḥeter-Ḥer. This deity is familiar to us; so too his connexion with the Falcon Horus and his function in the Falcon's domain.[9] Therefore, we suggest that in this ritual act the king presented Horus with the emblem which was believed to have been filled with the magical power of the ancestor god, the Ḥeter-Ḥer, in order to renew the protecting power of the ancestor within the temple. This offering of the ancestor's image is not properly called an adoration of the ancestor's image and does not appear

[1] Cf. *JEA* 49, 142–4. [2] Cf. ibid. 142.
[3] Cf. *E.* VI, 61, 2 and *Bull. John Rylands Libr.* 37, no. 1, 192 ff.
[4] *E.* IV, 357, 15–359, 8 = *E.* X, pl. 105 and *JEA* 48, 81 ff.
[5] Cf. *Chron. d'Ég.* 75, 62 ff. [6] *E.* III, 186, 8–187, 6. [7] *E.* III, 186, 14. [8] *E.* III, 187, 4–5.
[9] Cf. *JEA* 49, 144–5.

to be an entirely independent act. In view of the mythical context it seems to us that this episode has every appearance of being a preliminary rite to the re-enactment of the scene in the Djeba. We imagine that when the Djeba-perch was erected in the hall of the pronaos, the king proceeded to carry in the ancestor's image. This then was placed in front of the god's seat and adored by its sacred names. The Egyptians seem to have believed that when the sacred names of the cult object were called, the magical power of the god was resuscitated and could thereafter act. It would follow that this episode was in fact the re-animation of the ancestor which, while performed in the temple, was projected into the original mythical surroundings. We have already stated that the name of the Ḥeter-Ḥer does not occur in the formula of invocation of this scene[1] but the spear was adored by the name of the 'Great White' (*ḥḏ-wr*), the 'God-Mighty-of-Countenance' (*Ntr-Sḫm-ḥr*) and the Segemeḫ (*Pȝ-sgmḫ*). This, however, seems to be the Edfu tradition which replaced the original protecting symbol of the Djeba by the staff of Tanen from the 'Mansion-of-Isden'.

In the scene in the primeval Djeba the spear was invoked together with the Shebtiw who were regarded as the ancestors who created the Edfu Temple and were adored as such in this temple.[2] It would seem that the adoration of the spear was only an additional episode to the main part of the ceremony. We know that at Edfu the cult of the Shebtiw was included in the 'Worship of the ancestors of the primeval age';[3] consequently, the adoration of the god-spear would appear as forming a part of this kind of worship. This view is furthermore supported by what can be deduced from a scene of *dwȝ-ntr*, 'Adoring the god' which is engraved on the outer wall of the naos.[4] The spear, bearing again the names *Ntr-sḫm-ḥr* and *Pȝ-sgmḫ*, described as the 'image of Tanen',[5] is associated with the *Sḫmw*, 'Powers', the august Kas and the *ḏdw*—Ghosts of the primeval age—and apparently it was regarded as being one of them. This association does not appear unnatural if we remember the original nature of the god who was believed to dwell in the spear. He was the primeval *sḫm*, 'Power'. This evidence would seem to be explicit enough to admit the possibility that the adoration of the spear, specially of the power resting in it, formed an integral part of the cult of the ancestors celebrated at Edfu. We know that this cult took place in the night of the New Year Festival;[6] consequently, this would be the date of the adoration of the spear depicted on the outer wall of the pronaos. If we recall the general significance of the New Year Festival, it is logical that through the medium of the spear the primeval protector-god received homage at the moment when the temple as an entity was brought to a new life. There was at that very moment the need to revivify the essential power that protected the chief god of the temple in his sacred place at the beginning of the world.[7]

The adoration of the spear as forming part of the ancestors' cult does not seem to be the sole ritual act devoted to the spear in the Edfu temple. It has been noticed that there is on the west wall of the pronaos, as the fifth scene of the second register over one of the episodes of the 'Foundation Ritual',[8] another ritual scene of the *dwȝ-ntr*,

[1] *E.* IV, 358, 2 and *JEA* 48, 82. [2] Cf. *ZÄS* 87, 54. [3] Cf. *Chron. d'Ég.* 75, 50, 63.
[4] *E.* IV, 378, 2–379, 16. [5] *E.* IV, 379, 13–14. [6] Cf. *Chron. d'Ég.* 75, 67. [7] Cf. *JEA* 49, 145.
[8] *E.* III, 110, 7–111, 5; this is the *rdi pr n nb·f*, the 'Giving the house to its lord'. The significance of this episode would strengthen the importance of the cult of the spear in the life of the temple.

'Adoring the God'[1] that refers to the spear. The spear is invoked as the 'God who came into being at the beginning who protects Rēʿ in Wetjeset-Neter' and as the 'Image of Tanen'. The spear-god is represented as a falcon-like deity and bears the names of the three primeval gods, the 'Great White', the 'God-Mighty-of-Countenance' and the Segemeḥ. There is therefore another proof that in the Edfu tradition the primeval deities were conceived to be one divine being.[2] On a closer examination of the context, it has been noticed that this scene, though seemingly in an isolated position, has affinities with the scenes which are over it in the third and fourth registers. These are 'Offering Truth'[3] and 'Presenting the diadem of triumph'.[4] We suppose that they form a single set of ritual episodes though it may appear from the first a rather unusual series, especially if we consider that in each of these scenes another deity was adored. Following the 'God-Mighty-of-Countenance' (the Segemeḥ) there is represented in the second scene Ptaḥ, in the third Osiris. In spite of this discrepancy it is likely that there is a connexion between them as far as their ritual significance is concerned. As a whole these three scenes are reminiscent of the rites of the early shrines, which were performed on behalf of the deceased Earth-god.[5] Our hypothesis is supported by the significance of the subsidiary names of Ptaḥ and Osiris. Ptaḥ is described by the name 'Likeness of the Radiant One', the '*Pṯḥ-nwyt* who protects Rēʿ in Wetjeset-Neter'.[6] These names are familiar to us and we think that originally the deity adored in this episode was the primeval protector-god, the *Ḥn-ntr* whom the tradition of a later date, perhaps even the Edfu tradition, equated with Ptaḥ of historical times because of his subsidiary name *Pṯḥ-nwyt*.[7] We find again here in the description of the adored deity the names of all the primeval protector-gods associated with and applied to one single divine being; the 'God-Mighty-of-Countenance' and the 'Great White' are named and equated with the 'Aggressive Soul of the Island of Fury'.[8] There is a clear reference to a protector-god of a composite nature who bore the properties of the original protectors and who in the Edfu tradition was regarded as Ptaḥ, the *nhp*-Protector of the Falcon Horus.[9]

Osiris, on the other hand, bears the name 'First among the gods'.[10] We know that in the Edfu text this name was used to describe the ancestor, the Earth-god.[11] Since the original protector was an Earth-god, we are inclined to admit that in the same way as the historical Ptaḥ-Protector replaced the primeval Protector-god, here Osiris is represented as the substitute for the original deceased Earth-god. It follows that we have here another series of ritual scenes concerning the cult of the ancestor-god who protected the Falcon Horus in the temple. In view of the fact that this cult is parallel to the adoration of the spear in connexion with the celebration of the New Year Festival, it seems to us most likely that it had in the temple a ritual purpose other than the former. If we look at the ritual scene represented in the first register beneath this series, we find there one of the scenes of the 'Foundation Ritual' of the temple,[12] and this may be the clue to the significance of this set of ritual scenes. We know that at

[1] *E.* III, 121, 10–122, 4 = *E.* X, pl. lxi. [2] Cf. *JEA* 49, 140. [3] *E.* III, 131, 13–132, 7.
[4] *E.* III, 141, 10–142, 4. [5] This ritual has been studied in connexion with the Osiris rites.
[6] *E.* III, 132, 5. [7] Cf. *JEA* 50, 137. [8] *E.* III, 122, 3–4. [9] *E.* III, 8, 9; VI, 325, 10.
[10] *E.* III, 141, 17, 18. [11] Cf. *Chron. d'Ég.* 75, 56–59. [12] Cf. p. 146, n. 8.

Edfu the 'Foundation Ritual' was underlain by the Myth of Creation of the temple and that the episodes which constituted it were conceived as the re-enactment of the mythical events from which the original temple resulted.[1] Bearing in mind this context it seems to us possible that in connexion with the performance of these rites the divine power who was first to protect the piece of land where the first temple of the Falcon was created was commemorated, and due reward was paid to him on the days when at Edfu the performance of the 'Foundation Ritual' took place.

The cult of the spear at Edfu was special in its characteristics and its significance in the life of the temple. It has been noticed, as far as our evidence goes, that this cult was always celebrated in connexion with very important ceremonies. A strong thread of old traditions passes through all the rites completed on behalf of the spear and these traditions take us into the heart of the belief in the mythical past of the temple. The cult of the spear appears as an attempt to preserve and to restore the traditions and beliefs that survived from predynastic and archaic Egypt. We have seen in the study of the scenes that only one sacred image was mentioned, though he was referred to by several names. If we recall the myth telling us that Tanen conferred the magical power of two deities upon a single staff,[2] it follows that the Edfu cult of the spear was the adoration of the 'staff of Tanen'. The Edfu tradition affected and added to the performance of this cult, but the original background is obvious for we have not seen a single occasion when this cult would be influenced by the Heliopolitan doctrine.

[1] Cf. *The Mythical Origin of the Temple* (with printer).

[2] Cf. *JEA* 50, 136–7.

THE DATE OF THE SO-CALLED INSCRIPTION OF CALIGULA ON THE VATICAN OBELISK

By ERIK IVERSEN

THE discovery and brilliant reconstruction by Professor Magi of a hitherto unobserved Roman inscription on the Vatican obelisk[1] has once more focused the attention of the learned world on this most venerable of monuments by informing us of a formerly unknown period of its history, the nearly seventy years between 30 B.C. and A.D. 37,[2] during which it adorned one of the public squares of Roman Alexandria, the Forum Julium laid out by Cornelius Gallus, the first imperial prefect of Egypt after the Roman occupation.[3]

Originally affixed to the base of the obelisk in bronze letters which were removed after the condemnation and suicide of Gallus in 26 B.C., the inscription has been reconstructed by Magi using the still visible traces of the holes made for the insertion of the small metal tongues by which the individual letters were attached to the stone. It runs according to Magi's reconstruction: IVSSV IMP(eratoris) CAESARIS DIVI F(ilii) C(aius) CORNELIVS CN(ei) F(ilius) GALLVS PRAEF(ectus) FABR(um) CAESARIS DIVI F(ilii) FORVM IVLIVM FECIT.[4]

It cannot be denied that this reconstruction presents unresolved and puzzling problems, but for our present purpose we shall merely take the undisputed existence of the inscription for granted. We shall accept Magi's dating and general interpretation, especially his demonstration of its Alexandrian origin, and turn our attention to the other Roman inscription of the obelisk, the preserved dedication to Augustus and Tiberius incised in two identical versions on opposite sides of its shaft, towards the west and the east (figs. 1 and 2): DIVO CAESARI DIVI IVLII F(ilio) AVGVSTO T(iberio) CAESARI DIVI AVGVSTI F(ilio) AVGVSTO SACRVM.[5] In spite of its apparent lucidity, this inscription also presents curious problems of its own, which strangely enough have been left unmentioned and unconsidered by most editors and commentators throughout the almost two millennia of its history, the most essential being that of its correct dating. In most editions the inscription is known simply as 'the inscription of Caligula', and is dated to the reign of that emperor. This dating has been unanimously and unhesitatingly accepted by all authorities, ancient as well as modern, in spite of the fact that it is contradicted by weighty evidence of an historical as well as an archaeological nature; it is based merely on a circumstantial interpretation of Pliny's

[1] F. Magi, 'Le iscrizioni recentemente scoperte sull'Obelisco Vaticano', *Studi Romani*, 11, 1 (1963), 50 ff.

[2] From some time after Gallus' appointment as prefect in 30 B.C. to some time after the accession of Caligula in A.D. 37.

[3] Pauly–Wissowa, *Real-Encyclopädie*, s.v. Cornelius Gallus (IV, 1, col. 1342 ff.); Cantarelli, *Serie dei prefetti di Egitto*, 1906.

[4] Magi, op. cit. 53–54.

[5] *Corpus inscriptionum Latinarum*, II, 1, no. 882, p. 156.

report that Caligula brought the monument to Rome and erected it in his Vatican circus, in which there is no mention of the inscription at all.[1]

FIG. 1

FIG. 2

We shall see that against this rather flimsy evidence *pro*, there is an impressive amount of weighty evidence *contra*. First of all it might be adduced in a general way that the strained relations between Tiberius and his successor, well established from the reports of Suetonius, make any dedication by the latter to the former of monuments on the scale of obelisks improbable, and that the modest absence of any reference to the dedicator would seem to contrast strongly with our general impression of Caligula's character—psychological evidence, which is inconclusive in itself, but which cannot be entirely disregarded when corroborated by more substantial historical facts. In this

[1] Pliny, *N.H.*, 6, 11, 74: tertius [obeliscus] est a Roma in Vaticano Gai et Neronis principum circo. Ibid. 16, 40, 201: abies admirationis praecipuae visa est in nave quae ex Aegypto Gai principis iussu obeliscum in Vaticano circo statutum quattuorque truncos lapides eiusdem ad sustinendum eum adduxit.

respect it is certainly worth noticing that in the entire epigraphical material of the period not one single dedicatory inscription from Caligula to Tiberius is found,[1] and the anti-Tiberian measures constantly taken by Caligula speak even more decidedly against his ever having dedicated the monument to his predecessor. Most significant among the measures so directed was the very first official act of the new emperor after the cremation of Tiberius. We are told by Suetonius[2] how Caligula in person led an expedition to the Pontian islands and Pandataria in order to fetch back to Rome the remains of his brother Nero and his mother Agrippina, both of whom had been exiled and executed by order of Tiberius, the latter by starvation. We are told how Caligula approached the ashes with the utmost reverence, transferring them to the urns by his own hands, how they were transported in state up the Tiber to Rome, and ostentatiously 'at high noon when the streets were at their busiest'[3] carried by a body of distinguished knights to the Mausoleum of Augustus where they received an official burial.[4] This spectacular demonstration of filial devotion was clearly intended as an official slight upon Tiberius, and it is therefore extremely unlikely that Caligula should have about the same time planned to pay him the unprecedented honour of consecrating an obelisk to his memory.[5]

When the obelisk is considered against the background of the particular place chosen for its re-erection, any idea about its dedication to Tiberius by Caligula becomes not only unlikely but utterly improbable. We know that it was placed as the principal ornament on the *spina* of the emperor's private circus in the Vatican gardens;[6] but at the time of Caligula these gardens were still officially known as *horti Agrippinae*, having been the private property of the emperor's mother from whom he had inherited them only a few years earlier after her execution in A.D. 33.[7]

It is clearly improbable that Caligula, having made a public demonstration of filial piety towards his mother, would have followed it with an equally public and utterly unnecessary slight upon her memory by consecrating a memorial to her murderer in her own gardens.

If against this background we now turn to the inscription itself and subject it to an unbiased critical examination, we shall see our doubts about the validity of the traditional dating strongly confirmed, and possibilities opened for another and infinitely more probable conception of its origin. Already Mommsen has drawn attention to a peculiar characteristic of the inscription which makes it unique in the entire history of Roman epigraphy: its being dedicated at the same time to a deified and an undeified emperor.[8]

[1] I am indebted for this information to Professor Panciera.

[2] Suetonius, III, 15.

[3] Robert Graves's translation.

[4] The marble slab covering the burial-place of Agrippina still exists, see Nash, *Bildlexicon*, II, 43, fig. 725.

[5] Since the preparations for the removal of the obelisk, the building of the special transport-boat mentioned by Pliny, its transportation to Rome, and its re-erection were all completed within a reign of less than four years, the plans for the transfer must necessarily have been made soon after his accession.

[6] For the location of the circus see F. Castagnioli, 'Il circo di Nerone in Vaticano', *Rendiconti della Pontificia Accademia Romana di Archeologia*, 32 (1959–60), 97.

[7] H. Jordan, *Topographie der Stadt Rom* (Berlin, 1907), I^3, 656; Lanciani, *The Ruins and Excavations of Rome* (London, 1897), 551, lxxviii. For the *horti Agrippinae*, cf. ibid. fig. 150 with plan of the parks and gardens of ancient Rome.

[8] *Corpus inscriptionum*, II, 1, 156, n. on 882: Nota obeliscum hunc a C. Caesare in hortis privatis consecratum esse principibus duobus abavo et avo; qualis consecrationis factae homini defuncto non relato inter divos alterum exemplum non facile reperias.

From the wording of his commentary it would seem that Mommsen, although accepting the traditional dating and the general conception of the inscription, nevertheless felt uneasy about it, suspecting in a vague and instinctive way that something was wrong. When the facts mentioned above are taken into consideration, it seems curious that Mommsen, together with many other learned commentators, should have overlooked another possibility, which, in the modest opinion of the author, provides the only natural and logical dating of the inscription, at one stroke resolving most of the otherwise embarrassing and disturbing problems involved: namely, that it was never made by Caligula at all, but at a time when the second of the two emperors to whom it was dedicated was still alive, that is during the reign of Tiberius.

This solution would immediately solve the problem of the double dedication, since at the time of Tiberius, and almost only then, would it have been natural to dedicate a monument to the two Augusti, the dead and deified Octavian, and the undeified and still reigning Tiberius. It would also provide an explanation for the omission of the name of the dedicator, since its dating to the reign of Tiberius would imply that the inscription was made while the obelisk was still standing in Alexandria, as it was not transported to Rome until after his death in A.D. 37. It would therefore have been dedicated by a local authority, probably, as in the case of the inscription reconstructed by Magi, by one of the praefecti Aegypti, who were always of equestrian rank, several of whom had served both emperors, for instance L. Seius Strabo, the father of Seianus.[1] According to imperial etiquette it would probably have been considered improper, especially in the provinces, to allow the name of an officer to appear conjointly with that of his imperial master on a monument consecrated to the latter.[2]

The Egyptian origin of the second inscription, which seems therefore to be highly probable, would provide unexpected corroboration of certain parts of Magi's reconstruction of the first inscription; but here one more problem must be considered—the purely technical question of the curious appearance of the inscription as it stands today, of which no satisfactory explanation has been given. As Magi has demonstrated, the bronze letters of the original inscription were directly affixed to the lower end of the obelisk's shaft by tongues inserted in holes cut in the granite. When the inscription was removed these holes remained and in order to make room for the new inscription it was necessary to repolish the stone. To avoid serious damage to the shaft, and probably also because the repolishing must have been a hard and time-consuming task, the holes were not completely erased; but enough of the stone had been polished away on either side of the shaft to leave two distinct depressions which were levelled and fashioned into two rectangular recesses which formed the grounds for the inscriptions

[1] He was perhaps the first prefect of Tiberius' reign, see Pauly–Wissowa, *Real-Encyclopädie*, s.v. Seius Strabo.

[2] That Gallus in the original inscription merely mentioned Augustus as the authority who had ordered the laying-out of the square, otherwise dedicating it in his own name, may very well have been one of the acts of insubordination which led to his downfall. In this respect the inscription quoted by Tacitus (*Annals* II, xxii) as having been dedicated to Augustus in the name of Tiberius by Germanicus is significant. We are told that the monument in question carried an inscription to the effect that the army of Tiberius had consecrated it to Mars, Jupiter, and Augustus; but that Germanicus omitted any mention of himself 'apprehending jealousy' (metu invidiae).

(figs. 1 and 2). If we examine these recesses as they appear today, we shall see that substantial parts of both have been effaced. On the side now turned to the west more than half of the outline of the front part of the recess has disappeared together with several letters from the beginning of the inscription (fig. 1). On the side turned towards the east the beginning of the inscription is intact, but the end has been completely erased together with the outline of the recess, which has almost completely disappeared (fig. 2).

This damage clearly cannot possibly be attributed to natural causes but must necessarily be explained as the result of a deliberate attempt to efface the inscription, an attempt obviously begun simultaneously on opposite sides of the monument, but for unknown reasons interrupted and never finished.

The questions now arise of when, why, and by whom the erasure was made; in these the matter of the original orientation of the inscriptions in the circus becomes highly significant. First, however, it should be remembered that the erasure of an inscription carefully cut on a surface of granite is a difficult and laborious task, which cannot be carried out on the spur of the moment. It must necessarily have been ordered by somebody who had strong motives for doing so, especially since the destruction of a dedication to a deified emperor would have been considered sacrilegious. I am also informed by friends with technical knowledge that the work must almost certainly have been done when the obelisk was standing, since it would have been very difficult to do if it were horizontal. Since it was certainly done after the death of Tiberius it must therefore have been carried out in the Vatican circus, a detail which acquires significance once the basic importance of the problem of orientation has been realized.

It is a well-established fact that the Latin and Greek inscriptions placed on Egyptian obelisks to commemorate their re-erection in the circuses and hippodromes of Rome and the provinces were always turned towards the longitudinal axis of the arena, quite simply because only from there could they be seen and read by the audience; but to this general rule the inscriptions of the Vatican obelisk would seem to form the only known exception. The entire problem has been subject to some discussion; but there can be no doubt that D'Onofrio[1] is right in his explanation of Fontana's account of his excavation of the original base of the monument in 1586–7,[2] describing how it was 'longo da Levante e Ponente palmi vintidue e mezo', and 'largo da Tramontana e Mezzogiorno palmi quindici'. As correctly pointed out by D'Onofrio this can only mean that the two sides of the shaft carrying the inscriptions faced towards the east and the west, and this is confirmed by numerous drawings and etchings from the period. On the other hand the author is equally convinced of the correctness of Castagnioli's reconstruction of the circus itself,[3] in accordance with which its transverse axis ran from north to south, and feels that this is the only solution which, based on excavations of the site, is supported by topographical and archaeological evidence.

In so far as the inscriptions are concerned a transverse axis from north to south

[1] D'Onofrio, *Gli obelischi di Roma* (Rome, 1965), 43, n. 7.

[2] Domenico Fontana, *Modo tenuto nel trasportare l'Obelisco Vaticano* (Rome, 1589), 23.

[3] See p. 151, n. 6.

creates serious problems, since it means that they were turned away from the audience, and faced the hemicircle and the *carceres* of the circus. It is clear that there must be a reason for this untraditional arrangement, and since it cannot have been made fortuitously, it must have been decided upon before the erection of the obelisk, by order of the emperor. In view of Caligula's relations to his predecessor, it seems pretty obvious that the unusual orientation represents a slight directed deliberately at the inscriptions, which were, so to speak, condemned in advance by being turned out of sight; but this being the case, the only natural explanation of their erasure is that it was effected by the same person who condemned them, that is Caligula. This explanation would strongly support their dating to the time of Tiberius and have the additional advantage of offering a plausible reason for the otherwise puzzling fact of why the erasure was never finished.

We have seen that the extensive operations, including the lowering of the obelisk in Egypt, the construction of the immense boat of transportation, explicitly mentioned by Pliny, the actual transportation, and the erection of the monument in Rome, must have taken a very considerable time and cannot have been brought near their conclusion until towards the end of Caligula's short reign of less than four years—an assumption supported by the fact that the circus itself was not completed until the time of Nero. Since the erasure was not begun until after the erection of the obelisk, it must have been one of the works in operation at the time of Caligula's assassination, and was therefore left unfinished when the murder was committed.

His successor Claudius took no interest in the completion of his predecessor's private circus, and did not have Caligula's very personal reasons for harbouring hatred and resentment against Tiberius. It would therefore have been natural for him to discontinue an act of revenge, which had merely become a senseless sacrilege, and an unnecessary waste of time and money. It would indeed be not without irony if Caligula instead of dedicating the inscription were responsible for its destruction, but it goes without saying that this is only a rather probable hypothesis, having no direct bearing on the basic problem of its date. It is equally clear that sceptics may call the theory of its Egyptian origin and its dating to the time of Tiberius, as proposed in the present paper, no less hypothetical than the old theory, and this is undoubtedly true in so far as it is based on circumstantial evidence and on material permitting only indirect deductions. On the other hand it should not be forgotten that there is no factual evidence whatsoever in favour of a dating to the time of Caligula, and any impartial critic must admit that the new solution here proposed solves considerably more problems than it raises, that it explains otherwise puzzling archaeological facts, and that it does not destroy well-established historical patterns.

NOTES ON OBOLS AND AGIOS IN DEMOTIC PAPYRI

By RICHARD H. PIERCE

THE Demotic formula *tn tbr 24 r ḳd·t 2·t*, 'at the rate of twenty-four obols to two *kitě*', has recently been discussed by Erichsen and Nims,[1] who took as their starting point a discussion by Heichelheim.[2] They noted that Heichelheim was aware of Grenfell's[3] discovery that the Demotic formula cited above is a rendering of the Greek formula *ληψόμεθα εἰς τὸν στατῆρα ὀβολοὺς κδ* and related phrases. They further asserted that 'beyond denying that this formula has any bearing on the relative values of copper and silver coinage, he [Heichelheim] is unable to give any explanation of it'.[4] But is it not a sufficient explanation of the Demotic formula to show that it is a rendering of a Greek formula when the latter's function is well understood? Heichelheim had only introduced a discussion of the Demotic text into his work in order to show that the earlier reading of the number following *ḳd·t* as 2/10 was no longer accepted by demotists and that the Demotic formula could not be used to prove that one drachma of silver was worth 120 drachmae of copper.[5]

The meaning and purpose of the Greek formula were established by Grenfell,[6] and it may not be out of place to review his discussion. He demonstrated that the formula was introduced to show that for a sum set in terms of silver money but payable in copper money twenty-four obols would be accepted as worth one stater. This is in contrast to other passages in which it is declared that more than twenty-four obols would be demanded to make one stater. Now to say that twenty-four obols are equivalent to one stater is to utter a truism; but from the contexts in which this formula occurs it seemed clear to Grenfell that either the obols or the stater had to be copper coins. Since silver was most commonly coined in staters (i.e. tetradrachms) and since there is no documentary or numismatic evidence for Ptolemaic copper staters, Grenfell

[1] For the reading of this formula see the discussion below. Cf. W. Erichsen and C. F. Nims in *Acta Orientalia*, 23 (1959), 132–3.

[2] F. Heichelheim, *Wirtschaftliche Schwankungen der Zeit von Alexander bis Augustus* (Jena, 1930), 14–17.

[3] B. Grenfell, *Revenue Laws of Ptolemy Philadelphus* (Oxford, 1896), 207–8. The same suggestion had been made by F. Lenormant in 1895, but Grenfell had probably completed his manuscript before he could learn of Lenormant's views; cf. Grenfell, op. cit. xiv, and Th. Reinach, *Revue des études grecques*, 41 (1928), 142.

[4] Erichsen and Nims, op. cit. 133. By 'this formula' I assume they mean the Demotic formula. On p. 15 of his book Heichelheim refers to the meaning of the Greek formula.

[5] This rate of exchange had been proposed by Revillout, who, on the basis of the reading 2/10, set up the formula: 24 units of copper, where one unit equals 20 drachmae of copper, equals two tenths units of silver, whence 120 units of copper equal one drachma of silver. Cf. Grenfell, op. cit. 200–10. For a résumé of the theories about the rate of exchange between silver and copper coins, see Th. Reinach, loc. cit.

[6] Op. cit. 195 and 199–200.

concluded that the obols were copper coins and that the stater was a silver coin. At twenty-four obols to the stater, copper coins would be accepted as being worth their equivalent denominations of silver coins—in effect, a rate of exchange between silver and copper coins of one to one.[1] If more than twenty-four obols were required to pay for a debt of one stater, extra copper coins were being demanded.[2] The formula, then, is used to show either that copper currency is to be accepted at par with silver currency of the same denomination or that an agio is to be charged, the percentage of the agio being established by the ratio of obols to staters given in the formula.

To Grenfell's discussion I can only add that so long as copper continued to be coined on the silver standard there is no need to identify the obols and the staters as representing silver or copper coins. Whether the ratio be copper obols to a copper stater, copper obols to a silver stater, silver obols to a silver stater, or silver obols to a copper stater, the sum to be paid in copper coins will remain the same. The following formula can be set up to determine the number of copper drachmae to be paid for a given sum set in terms of silver drachmae when an agio is charged. Let x be the sum to be paid in silver drachmae, and let y be the number of obols to be paid per stater in excess of twenty-four. Then:

$$x + \frac{y\left(\frac{x}{4}\right)}{6} = \text{the sum to be paid in copper drachmae.}$$

In its function of setting the percentage of the agio this formula is comparable to another common Greek formula which sets rates of interest on loans by reckoning on the mina.[3]

The purpose of the agio is a matter for discussion. Milne[4] has pointed out that governments which mint copper money are obliged to mint their coins somewhat lighter than their face value to avoid a possible appreciation in the value of copper as metal which would render the coins more valuable as metal than as currency, and it is conceivable that the agio originally represented the difference in value between the weights of the coins and the values ascribed to them.[5]

[1] This is what is meant by saying that copper was being coined 'on the silver standard'. Copper coins were being minted so as to be worth their nominal value in silver coins of the same denomination, or at least they were officially declared to be so.

[2] I prefer to express myself in this manner rather than to speak of a discount on copper, or of copper being accepted at less than its nominal value. The coins were accepted for what they were, only more were demanded. Hereafter I shall employ the term *agio* to describe this extra payment. [Agio is the word used in monetary transactions for the 'percentage charged for changing paper-money into cash or an inferior for a more valuable currency' (*Shorter Oxford Engl. Dict.*, s.v.)—Ed.]

[3] For example, at ten drachmae per mina (one mina equals one hundred drachmae) the rate of interest for the period set is ten per cent. The mina was a unit of account and was never coined. In Greek Papyrus Paris 62, col. v (112 B.C.) the agio was calculated on the mina. Cf. U. Wilcken, *Urkunden der Ptolemäerzeit*, I (Berlin-Leipzig, 1922), document no. 112.

[4] J. G. Milne, 'The copper coinage of the Ptolemies' in *LAAA* I (1908), 31. See also B. P. Grenfell, A. S. Hunt, and J. G. Smyly, *The Tebtunis Papyri* (London, 1902), 599.

[5] Such an explanation assumes that the ratio of silver to copper in the coins was by weight within ten per cent. (the normal agio) of the ratio by weight in raw metal; but this is a matter of dispute.

Grenfell[1] suggested that this agio included the expense of transporting and storing the heavy sums of copper. It may even be that the agio was instituted as a penalty to encourage payment in silver.[2] At all events, the size of the agio was set by the government.[3]

When copper coinage was removed from the silver standard (see above, p. 156, n. 1), sums were regularly expressed in terms of copper money without reference to silver. Some taxes, however, continued to be set in terms of silver money; and in these cases an agio was still charged. When an agio was charged, the sums were said to be in copper 'at the rate of twenty-six and one half (obols) (to the stater) (*χαλκοῦ εἰς κϛ┘*)'[4] or in copper 'with an agio' (*οὖ ἀλλαγή*);[5] when no agio was charged, the sums were said to be 'in copper at parity' (*πρὸς χαλκὸν ἰσονομόν*).[6] Thus in time the Greek formula which showed that no agio was to be charged was abbreviated, and no mention was made of staters or obols.

Now Erichsen and Nims in their discussion cited above assert that in the middle of the second century B.C. 'the silver stater was at a premium relative to the obol, the former being worth 24·25 to 27·12 silver obols instead of the usual 24'.[7] It appears that their assertion is deduced from the very Greek formulae of which the Demotic formula under discussion is a rendering. I have not been able to find any mention of silver obols in Svoronos,[8] and it is *a priori* unlikely that obols would have been coined on the Ptolemaic standard since the Ptolemaic drachma weighed 3·6 gm. and an obol was one sixth of a drachma.

Erichsen and Nims further assert that copper money came into use in Egypt during the second century B.C., but in this they appear to be mistaken.[9] Grenfell[10] showed long ago that copper coinage was used to pay very large sums of money already in the reign of Philadelphus, and the copper coinage of the early Ptolemies has been known and discussed for many years.[11]

[1] *Revenue Laws*, 200.

[2] Cf. T. Reekmans in *Studia Hellenistica*, 5 (Louvain, 1948), 18, n. 1. It is to be noted, however, that the government itself occasionally paid a small agio (cf. Greek Papyrus Hibeh 67, l. 15 and the note ad loc.); and there is no reason why the government should desire that private persons be encouraged to expect payment in silver from the state.

[3] This applies only to official transactions. In Greek Papyrus Hibeh 51 (245 B.C.) a price is set in silver (*πρὸς ἀργύριον*); and the agio (*ἐπαλλαγή*) was set at one and one half obols per four drachmae (i.e. one stater) and was stated to be the official rate (*τοσοῦτο γὰρ ἔκκειται ἐγ βασιλικοῦ*).

[4] The number of obols varied according to the rate desired. See e.g. Greek Papyrus Zois (150–148 B.C.) in Wilcken, op. cit. 1, document no. 114. It is to be noted that an agio could also be charged on sums set in copper. Presumably they represent sums which had been converted from silver upon which an agio was to be charged.

[5] E.g., Greek Papyrus Zois, cited in the last note.

[6] E.g., Greek Papyrus Paris 62, col. v, ll. 16–21; see p. 156, n. 3 above.

[7] Op. cit. 133.

[8] I. N. Svoronos, *Τὰ Νομίσματα τοῦ Κράτους τῶν Πτολεμαίων* (Athens, 1904–8). Number 35 of Svoronos, vol. II, 8, gives nine examples of hemidrachmae coined while Ptolemy I was still satrap of Egypt. It should be noted that the reference to Heichelheim given by Erichsen and Nims (op. cit. 133) in support of their assertion is a discussion of Wilcken, op. cit. 1, document 149, l. 32, in which a silver stater was sold for four times its normal value. Heichelheim attributed this to the issuance of debased silver coinage, which is a problem quite different from that under discussion.

[9] Op. cit. 133.

[10] Op. cit. 195.

[11] Cf. the references given in n. 5, p. 155, and n. 4, p. 156 above.

To return to the Demotic formula *tn tbr 24 r ḳd·t 2·t*, then, it is a rendering of its Greek prototype and serves the same function; namely, either to show that no agio is to be charged on sums paid in copper[1] or to set the percentage of the agio.[2]

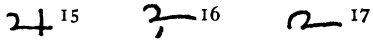
The sums of money defined by the Demotic formula are often explicitly said to be 'of copper' (*n ḥmt*),[3] 'of pure copper' (*n ḥmt sp-sn*),[4] or 'in copper' (*r ḫ ḥmt*).[5]

In its fullest form the Demotic agio formula reads *tn tbr 24 r ḳd·t 2·t*, 'at the rate of twenty four obols to two *kitě*'.[6] Generally, however, it is more or less abbreviated in the manner of its Greek prototype. Thus *tn*, 'at the rate of', is almost always omitted, *tbr*, 'obol,' is often dispensed with, and sometimes the whole formula is reduced to the numeral 24.[7]

The reading of the Demotic word for 'obol' has been a lexicographical crux since the days of Revillout and Brugsch.[8] The readings *ḳd·t*,[9] *ḥmt*[10] *tn*, and *šr·t*[11] have been proposed; while some scholars have adopted the expedient of using the *siglum* (*ὀβ.*) to indicate that a word meaning *obol* is to be read.[12]

In fact, the key to the correct reading is provided by the Coptic rendering of *ὀβολός*; namely, ⲧⲉϧⲓ^{B}.[13] Spiegelberg[14] noted that the Coptic word for *obol* (ⲧⲉϧⲓ) and the Coptic word for *seal* (ⲧⲱⲱϧⲉ^{S}, ⲧⲱϧⲓ^{F}) are so similar as to suggest that they are identical; and if one compares the Demotic ancestors of these words, the same similarity is found.

The Demotic word for *obol* is usually written with a single sign which occurs in the following common variants:



A comparison of this sign with the Demotic seal-determinatives of the words *tbr*, 'seal,' and *ḫtm*, 'seal,' as given in Erichsen's Demotic dictionary confirms Wente's

[1] E.g., Demotic Papyrus Lille 21, l. 6 (238 B.C.) and Demotic Papyrus Rylands 16, l. 7 (152 B.C.). These texts are published in H. Sottas, *Papyrus démotiques de Lille*, I (Paris, 1921) and F. Ll. Griffith, *Catalogue of the demotic papyri in the John Rylands Library, etc.* (Manchester, 1909).

[2] E.g., Demotic Papyrus Lille 30, l. 2 (iii B.C.), in Sottas, op. cit.

[3] E.g., Demotic Papyrus Rylands 16, l. 7. This phrase is a translation of the Greek χαλκοῦ, 'of copper'.

[4] G. Mattha, *Demotic Ostraka, etc.* (Le Caire, 1945), 79.

[5] E.g., Demotic Papyrus Lille 21, l. 6. This phrase is a rendering of the Greek πρὸς χαλκόν, 'in copper, on the copper standard'.

[6] See M. Malinine, 'Taxes funéraires égyptiennes à l'époque gréco-romaine' in *Mélanges Mariette* (Le Caire, 1961), 159, ostracon no. 16, l. 3.

[7] E.g., Demotic Papyrus B.M. 10609, l. 2, published by Erichsen and Nims, *Acta Orientalia*, 23 (1958), 125 ff.

[8] For the earlier bibliography consult Wilcken, *Griechische Ostraka*, I (Leipzig–Berlin, 1899), 718, n. 1, and Griffith, op. cit. III, 137–8.

[9] This reading was proposed by H. Brugsch in *ZÄS* 30 (1892), 8, and has recently been followed by M. Malinine, op. cit.

[10] Cf. Mattha, op. cit., p. 73; also S. Wängstedt, *Ausgewählte demotische Ostraka* (Uppsala, 1954).

[11] For *tn* and *šr·t* see Nims, *Acta Orientalia*, 25 (1960), 271–2.

[12] This *siglum* was suggested by Sir Herbert Thompson, *Theban Ostraca* (London, 1913), 28, and was recently adopted by E. Lüddeckens, *Ägyptische Eheverträge* (Wiesbaden, 1960), 311–12.

[13] W. E. Crum, *A Coptic Dictionary* (Oxford, 1939), 397 *a*.

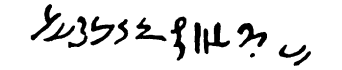
[14] *Koptisches Handwörterbuch* (Heidelberg, 1921), 140–1.

[15] W. Spiegelberg in Th. Reinach, *Papyrus grecs et démotiques* (Paris, 1905), 184.

[16] M. Malinine, op. cit., ostraca nos. 13 and 26.

[17] H. Thompson, *A Family Archive from Siut* (Oxford, 1934), 128, no. 315.

transcription of the Demotic sign for *obol* as a seal.[1] Moreover in Demotic Papyrus Loeb 62, recto, ll. 9, 10, 13, and 16,[2] there occurs what I believe to be a fuller writing of *tbr*:



Spiegelberg read this passage as *ḥḏ LXX ḥmt ḳd XXIV r ḳd II*, '70 Silberlinge (nach dem kurs) von 24 Kupferkite auf 2 Kite (Silber)'; and Nims read *ḥḏ* 70 *ḥmt sp-sn* ⌜*šr·t*⌝ *24 ỉr n ḳd·t 2*, '70 (deben) of copper coinage, 24 obols making 2 kite'. Now the sign which Spiegelberg ignored and which Nims read as *sp-sn* () looks very much like the demotic version of the hieroglyphic sign of the extended finger (), a triconsonantal sign read *tbr* in Demotic. A comparison of the writings given by Erichsen[3] of the *tbr*-finger with the sign previously read *sp-sn* lends very strong support to the case for reading it *tbr*. I therefore suggest that the Loeb passage be read: *ḥḏ* (*dbn*) 70 (*n*) *ḥmt* (*tn*) *tbr 24 1/2 r ḳd·t 2*, 'seventy (deben) of copper money, (at the rate of) twenty-four and one half obols to two *kitě*'.[4] Finally, I submit that both the Coptic and Demotic evidence combine to demonstrate that the Demotic word for *obol* is *tbr*. As for the reason why the Egyptians chose *tbr* to translate *obol*, I can only suggest that if the words *tbr*, 'obol,' and *tbr*, 'seal,' are the same, the word may have been chosen with reference to the figures stamped on the coins.

[1] Cf. W. Erichsen, *Demotisches Glossar* (Kopenhagen, 1954) under the entries *tbr* and *ḥtm*. Wente's suggestion is recorded by Nims, *Acta Orientalia*, 25 (1960), 266–7.

[2] W. Spiegelberg, *Die Demotischen Papyri Loeb* (München, 1931), cols. 94–97 and pl. 34, and C. F. Nims, 'Demotic Papyrus Loeb 62: a reconstruction', *Acta Orientalia*, 25 (1960), 266–76.

[3] Op. cit. 372 and 623.

[4] The reading *24 1/2 r* instead of *24 ỉr n* I owe to Professor R. A. Parker.

POST-PHARAONIC NUBIA IN THE LIGHT OF ARCHAEOLOGY. II

By WILLIAM Y. ADAMS

Author's note. This is the second part of a study dealing with the cultural development of Nubia since the New Kingdom, as it appears in the light of archaeological evidence. The first portion, covering the New Kingdom, Napatan, and Meroïtic periods, appeared in Volume 50 of the *Journal*, pp. 102 ff. The present portion deals with the X-Group and Christian periods. As before, the discussion of each period is prefaced by a brief synopsis (set in italics) of the history of the period as it is commonly represented. There follows a review of the available archaeological and historical evidence, and finally a restatement of the history of the period (again set in italics) incorporating such additions and amendments as are suggested by the archaeological record. The third and final part of this study will appear in volume 52 of the *Journal*.

IV. The X-Group Puzzle

c. A.D. 350–550

Events in Nubia are obscure after the collapse of the Meroïtic power. Tribal migrations brought at least one, and perhaps several, new ethnic groups into the region. One of these was the Blemmyes—warrior nomads who are usually identified with the Beja tribes of today. They raided Lower Nubia repeatedly, and a number of them settled down at various points along the Nile. As a buffer against their incursions the Roman Emperor Diocletian encouraged another tribe, the Nobatae, to take possession of the country between Aswân and Maḥarraqa.

One or other of these immigrant groups established dominion over what was left of the settled Meroïtic population in Lower Nubia, and a strong local monarchy developed at or near the modern Ballâna. In time the invaders and the natives fused into a single, culturally homogeneous population, the ancestors of the Nubians of today.[1]

At this point we have come to the end of what may be termed the 'articulate' phase of Nubian history. For more than 1,500 years, beginning with the Egyptian conquest of the Eighteenth Dynasty, such historical documents as we possess have come to us primarily from the Nubians themselves, or at least from people who played a direct part in Nubian history. In so far as these records are in the form of stelae, temple inscriptions, and tomb inscriptions, they are literally inseparable from the archaeological record, and are generally though not invariably in accord with it.

Beginning from about the time of Christ, a quite different situation prevails. The Nubians themselves are largely silent, and our historical knowledge of them comes

[1] Sources: Arkell, *History of the Sudan*, 174–85; Emery, *Royal Tombs*, 5–24; Kirwan, *Oxford University Excavations at Firka*, 39–48; Monneret de Villard, *Storia della Nubia cristiana*, 24–52; Woolley and MacIver, *Karanog Cemetery*, 85–98.

from their neighbours, and often from their enemies—the great majority of it at second- or third-hand. It is not surprising, therefore, that from this time forward, it is far more difficult than in earlier periods to synthesize from the documentary and the archaeological evidence a single consistent picture of Nubian cultural development. For the most part the two avenues of investigation run parallel, but do not converge.

The uncertainties arising from this duality of evidence are apparent at once when we try to reconstruct the history of Nubia from the fall of Meroë to the coming of Christianity. Unsatisfactory though it is, the term 'X-Group' is still the only safe designation for this period of two centuries, and in view of the numerous unresolved paradoxes it is not wholly inappropriate. We have a fair number of documentary records bearing upon the X-Group period,[1] but they are far from consistent with each other, and at this distance of time it is impossible to evaluate their accuracy. The too literal reliance upon such evidence—the attempt to approach Nubian history primarily through the door of Classical scholarship—seems to have unnecessarily confounded our understanding of the post-Meroïtic period. The Roman and Greek chroniclers, viewing Nubia from a point generally far removed in time and space, were conscious only of the peripheral ripples of the profound social and cultural upheaval which was in process.

In coming to grips with the X-Group problem, the first requirement is to see it in proper perspective. Some scholars seem to have regarded the X-Group culture as though it were something which emanated from the tombs of Ballâna and Qusṭul, and they have sought to identify their builders with one or another of the migrant tribes which disturbed the frontiers of Roman Egypt. The argument between Blemmyes, Nobatae, and Nobade has simmered for years[2] without leading to any fruitful results. The historians of antiquity have simply not left us the sort of ethnological data which would allow a definite identification of Blemmyes or Nobatae from their material remains, and in any case the cultural manifestations of the X-Group are too widespread and generalized to be associated with any single tribe. They are part of a complex transformation—racial, linguistic, and cultural—which affected the whole of the Nile Valley from Aswân to the junction of the Niles. To have any general relevance, therefore, the term X-Group cannot be applied to a specific ethnic or social division, but only to a period in history: the unsettled interlude of two to three centuries between the collapse of the Meroïtic state and the establishment of the Christian kingdoms.

To the archaeologist and cultural historian, the X-Group problem is a jigsaw puzzle, or rather a series of puzzles whose pieces have been scrambled. He has first to sort out the different pieces, and then to put them together into meaningful and related pictures. As usual in archaeology, the job is complicated by the fact that many of the pieces are lost, and others which are present do not seem to fit any of the pictures.

Apart from the rather ambiguous documentary record, we have many other and

[1] For a résumé see Woolley and MacIver, op. cit. 99–105.

[2] Cf. Emery, op. cit. 18–24; Griffith, *LAAA* 11, 123–125; Monneret de Villard, op. cit.; Woolley and MacIver, op. cit. 85–98; Kirwan, op. cit.; and articles by Kirwan in *Bull. soc. Roy. Géog. d'Egypte*, 25, 103–10; *Kush* 5, 37–41; *Kush* 6, 69–73; *LAAA* 24, 69–96; *Sudan Notes and Records*, 20, 47–62.

sometimes quite independent sources of light upon the events of the X-Group period. We have, for the first time in Nubian history, simultaneous evidence regarding race, language, and culture, and we seem to see change taking place in all three.

In *race* we have, according to some authorities, the introduction of a new and markedly negroid genetic element.[1]

In *language*, there is good reason to believe that the present-day Barabra (Nubian) speech family made its first appearance in the Nile Valley during the X-Group period.[2] We do not know what language was spoken by the Meroïtic population, but on the evidence of the surviving and undeciphered Meroïtic script, it was not one closely related to the modern dialects.[3] On the other hand, we know that the Barabra speech was established in Nubia a few centuries later,[4] and, as no important immigration took place in the meantime, we assume that its establishment dates from the X-Group period.

In *culture*, we have to consider independently a whole series of developments in different fields of human activity, viz.:

In *political and religious organization* (elements which are inseparably linked in Nubian culture history), we see the decline of the Meroïtic state religion with the break-up of the Meroïtic kingdom. As in the Mediterranean world a century or two before, there was apparently no firmly established religion during the X-Group period.[5]

In *domestic architecture and village organization*, we see unbroken continuity of development from Meroïtic through X-Group to Christian times, with little suggestion of cultural or social intrusion.[6]

In *pottery and the domestic arts*, we see an almost total ascendancy of Roman-Byzantine influence. An exception must be noted in the case of women's hand-made pottery, in which there is a continuity of development not merely from Meroïtic but from Neolithic times.[7]

In *burial practice*, we find a new type of tumulus with a new orientation, and an abrupt return to the pre-Meroïtic practice of contracted burial.[8] We also see the first appearance in Lower Nubia of two features previously associated with royal and noble tombs in the south: bed burial and human sacrifice.[9] X-Group burial practice stands in marked contrast to that which preceded and followed it, in both of which burial was dorsally extended with the head to the west.

In the above evidence we see the paradoxes of X-Group Nubia succinctly defined: we have to reconcile simultaneous evidence of continuity, of change emanating from the north, and of change emanating from the south. As matters now stand, there is no way of putting all of the pieces together without arriving at a contradiction. We can,

[1] See, e.g., Firth, *Arch. Surv. Nubia 1908–1909*, 36; Kirwan, *Sudan Notes and Records*, 20, 56–58; Reisner, *Arch. Surv. Nubia 1907–1908*, 345.

[2] Cf. Arkell, op. cit. 177; Hillelson, *Sudan Notes and Records*, 13, 137–48; Kirwan, *Sudan Notes and Records*, 20, 60–61.

[3] Cf. Trigger, *Kush* 12, 189–90.

[4] From the Old Nubian texts found in sites of the Christian period in the ninth century.

[5] See Adams, *Kush* 13 (in press).

[6] Ibid.

[7] Adams, *Kush* 12, 170–2.

[8] Cf. Griffith, *LAAA* 12, 70; Kirwan, *Sudan Notes and Records*, 20, 59.

[9] Emery, *Royal Tombs*, 25–26. For the Meroïtic evidence see Dunham, *Royal Cemeteries of Kush*, IV, 21–206 and V, 3–210.

however, by careful consideration of the evidence reduce the number and size of the apparent areas of conflict.

To begin with, we must avoid the usual assumption that there is a direct and causal relationship among all of the changes, racial, linguistic, and cultural, which took place during the X-Group period.[1] Such an assumption could only imply a complete replacement of the former population by a new group, and hence a break in the continuity of Nubian history. This thesis is untenable on a number of grounds. The alternative, which much more nearly accords with the evidence, is to consider that the simultaneous arrival of new influences from the north and from the south was coincidental, and that either would have occurred without the other.

In attempting to account for the X-Group culture, the obvious point of departure is its relationship to its predecessor. There is no convincing evidence for a wholesale replacement of the Nubian population at this time. Consequently, since evolution rather than revolution is the normal process in cultural development, we must accept as a 'null hypothesis'[2] the idea that the X-Group culture was a direct out-growth of the Meroïtic. Earlier analyses to the contrary,[3] it is the differences between the two and not the similarities which require explanation.

Beginning with domestic habitation, one of the humblest but most revealing aspects of human custom, we have clear evidence of continuity from the Meroïtic to the X-Group period. In many of the Meroïtic house sites in the Second Cataract region, there is a succession of floor levels ending with an X-Group level (i.e. a level yielding largely or entirely X-Group pottery) at the top. The architectural modifications do not suggest a squatter occupation in abandoned houses, but only the last in a series of routine repairs necessitated chiefly by the rising of the Nile.[4]

In the recently excavated village site of Meinarti there is unmistakable evidence of cultural and social continuity.[5] This settlement persisted for over 1,000 years, from the late Meroïtic to the end of the Christian period, without any indications of a change in the population. There was a gradual and orderly process of evolution affecting such matters as the size and layout of the village, the house plan, the methods of construction, pottery forms and styles, and many other cultural traits, but nowhere was there the abrupt and simultaneous 'clustering' of changes which would mark the appearance of a new dominant element in the population. From the Meroïtic to the X-Group levels there was a definite trend toward flimsier and poorer house architecture, but it was not abrupt, and the basic house plan was little affected. The process was to be repeated twice in the Christian period—each time reflecting a combination of destructive forces and declining cultural vigour.

Turning to another area of culture, we note that Meroïtic decorated pottery exhibits

[1] See esp. Emery, op. cit. 22–24, and Kirwan, *Oxford University Excavations at Firka*, 41.

[2] I.e. an hypothesis which must be accepted unless disproven.

[3] E.g. Emery, op. cit. 22–23; Kirwan, *Sudan Notes and Records*, 20, 60.

[4] The archaeological evidence cited here is chiefly from the author's own excavations. Preliminary accounts will be found in *Kush* 11, 24–28; *Kush* 12, 220–21; and *Kush* 13 (in press). See also Emery and Kirwan, *Excavations and Survey*, 417; Simpson, *Expedition*, 4, no. 4, 39; Woolley, *Karanog Town*.

[5] Adams, *Kush* 13 (in press) and *Settlement Archaeology*, ed. K.-C. Chang (in press).

its own unique blend of Roman–Byzantine and ancient Egyptian artistic influences, while X-Group pottery is almost purely Byzantine in derivation.[1] The change from the one to the other, while abrupt, was not instantaneous. The growing ascendancy of Byzantine influence in late Meroïtic pottery is apparent, and is seen not only in the local product but in the increasing number and variety of imports from Egypt. As a matter of fact the imported prototypes which inspired most of the X-Group vessel-forms are found not in X-Group but in late Meroïtic levels, as are the earliest local imitations. By the full X-Group period (after the final disappearance of the Meroïtic pottery tradition) the local manufacture of erstwhile Byzantine pottery was in full swing, and had driven the imports off the market. We should note, however, that while the artistic derivation of X-Group pottery was almost wholly foreign, its technology was a direct continuation of the Meroïtic traditions.

As usual, no comparable transformation is to be seen in the coarse, hand-made pottery which has always been, and remains today, the speciality of Nubian women. It follows a steady, glacially slow course of evolution from the dawn of history to modern times, with no visible interruptions.[2] It is still made with straw or grass temper, moulded in baskets, and decorated with diagonal scratches—characteristics which can be traced back to the earliest pottery in the Nile Valley.

Emery[3] and Kirwan[4] consider that the X-Group religion was derived from the Meroïtic. This was probably true as regards many of its concepts and practices, but it should not be taken to mean that the Meroïtic state religion and priesthood survived as such. Among themselves the X-Group rulers apparently maintained the tradition of the Meroïtic god-king,[5] but there is little indication that they succeeded in imposing their religious beliefs on the proletariat. The weight of archaeological evidence, in fact, points in the opposite direction. At Meinarti, there appears to have been a Meroïtic temple which was razed at the beginning of the X-Group period.[6] The important X-Group town of Karanog was conspicuous for the absence of a temple.[7] The little mud-brick temple which was built at Buhen in X-Group times was a far cry from the imposing stone structures of the Meroïtic period.[8]

These indications, together with archaeological and other evidence for the practice of Christianity well before its formal establishment,[9] make it clear that no religion was firmly entrenched in Nubia during the X-Group period. The collapse of the central Meroïtic authority automatically disestablished the state religion; the populace at Meinarti may have taken advantage of the fact to throw out an oppressive local priesthood and burn their temple. In the ensuing confusion several cults, including Christianity, apparently contended for adherents. Nubia shared in the general religious turmoil and uncertainty, which engulfed the civilized world in previous centuries.[10]

It is in the area of burial customs that we find the greatest difficulty in reconciling Meroïtic and X-Group practice. The abrupt reappearance of contracted burial and the

[1] Cf. Adams, *Kush* 12, 170–2. [2] Ibid. 170. [3] *Royal Tombs*, 19, 23. [4] *LAAA* 24, 88.
[5] Emery, op. cit. 18. [6] Adams, *Kush* 13 (in press). [7] Woolley, *Karanog Town*, 5.
[8] MacIver and Woolley, *Buhen*, 125–6. [9] Kirwan, *LAAA* 24, 96; Adams, *Kush* 13 (in press).
[10] Cf. Gough, *Early Christians*, 27–38.

new type of tumulus have almost no precedent in Meroïtic times.[1] Under the circumstances it is no wonder that the early archaeologists, whose view of cultural history was derived principally from the evidence of cemeteries, should have concluded that they were dealing with the remains of two quite distinct ethnic groups.

Of all the X-Group burial practices, it is only the abandonment of a western for a southern grave orientation (a transition which was reversed at the beginning of the Christian period) which remains totally inexplicable. The X-Group mound tumulus is not an illogical outgrowth of the Meroïtic brick superstructure, although there is no recognizable transition. The end-chamber and side-chamber graves are clearly prefigured in the Meroïtic period. The contracted burial position, although rare, is also not unknown in Meroïtic cemeteries[2] and is usual in all earlier Nubian periods. Moreover, the practice of dorsally extended burial was never fully supplanted in the X-Group period; it persisted from Meroïtic to Christian times, when it was re-established as the prevailing norm.[3] Among the X-Group graves in the Meroïtic cemetery at Faras West, Griffith actually found contracted burials to be in the minority.[4]

Nevertheless, there was clearly an abrupt change in the burial practices of a majority of the population, and the source of the new traditions, unlike those in pottery and the arts, is not to be found in Egypt.[5] It seems probable that they were brought to Nubia by an immigrant group from the south, but this cannot be accepted as a certainty. The downfall of Meroë and the repudiation of its state religion could conceivably have led to the adoption of new burial practices by former Meroïtic subjects of their own accord. Contracted burial points to the abandonment of cartonnage, embalming, and the coffin—vestiges of ancient Egyptian funerary practice which were still prevalent in Meroïtic times.[6] They were associated with a special priestly and artisan class responsible for the preparation and interment of the dead; a class which existed under state sanction, and very probably disappeared with the break-up of the Meroïtic kingdom.

The physical juxtaposition of X-Group and Meroïtic graves throws a wholly different light on their historical relationship. X-Group graves are encountered in many if not the majority of Meroïtic cemeteries,[7] and they always occupy a well-defined zone or zones, usually at one edge of the cemetery.[8] They are not set apart as a group from the Meroïtic graves; they simply begin where the Meroïtic graves leave off, and continue the same distribution pattern. It is notable that there is a deliberate attempt to avoid

[1] Griffith, *LAAA* 12, 70; Kirwan, *Sudan Notes and Records*, 20, 59.

[2] See Dunham, *Royal Cemeteries of Kush*, IV, 108, 140, 199, 203; Griffith, *LAAA* 12, 71.

[3] Cf. Firth, *Arch. Surv. Nubia 1908–1909*, 35; *Arch. Surv. Nubia 1910–1911*, 32.

[4] Op. cit.

[5] Reisner, *Arch. Surv. Nubia 1907–1908*, 345.

[6] Firth, *Arch. Surv. Nubia 1910–1911*, 31–32.

[7] This discussion is again based in part on the author's unpublished excavations. See also Adams and Nordström, *Kush* 11, 29; Bates and Dunham, *Excavations at Gemai*, 19–96; Emery and Kirwan, *Excavations and Survey* (Cem. 163, 169, 174, 194, 196, 197, 214); Griffith, *LAAA* 12, 69–72; Nordström, *Kush* 10, 43; Simpson, op. cit. 39; Vercoutter, *Kush* 11, 139; Verwers, *Kush* 10, 26; Woolley and MacIver, *Karanog Cemetery*.

[8] Often they are at the upper end of the cemetery, or otherwise on slightly higher ground than theMeroïtic graves, pointing to a rise in the level of the Nile beginning at this time (cf. Simpson, op. cit.). Many Meroïtic–X-Group habitation sites give the same impression (Adams, *Kush* 13, in press).

intrusion upon Meroïtic graves, as also upon other X-Group graves. These circumstances are suggestive of an uninterrupted growth pattern in the cemeteries, which in some cases continued into and even through the Christian period. The respect shown by the X-Group people for the existing Meroïtic graves contrasts sharply with the theory that they were barbarian invaders who subjugated their predecessors.[1]

Reviewing the purely archaeological evidence bearing upon the relationship of Meroïtic and X-Group, we must conclude that there are far more indications of continuity than of change.[2] Undoubtedly change was profound and rapid in some areas of culture; the suggestion of new immigration from the south is inescapable; on this point the cultural evidence alone is not conclusive. All the changes which we observe might have resulted from a combination of cultural diffusion and internal evolution.

The evidence of linguistics and of genetics is, of course, another matter. In the field of linguistics there seems to be no doubt that written Meroïtic was not directly ancestral to spoken Nubian, although it may have been a distant cousin.[3] We cannot be sure, however, that the undeciphered speech preserved in the Meroïtic script was also the spoken language throughout the Meroïtic kingdom; it could have been a classical language which was extinct in everyday use, or the dialect of the ruling tribe at Meroë which was not spoken in Lower Nubia. If either of these possibilities was the case, there is no reason to suppose, in the light of other evidence, that the language of Lower Nubia in Meroïtic times was not directly ancestral to that of today.[4]

The racial relationship of the Meroïtic and X-Group peoples is still under study. Recent investigations have cast doubt on the earlier hypothesis of a strong negroid admixture in the X-Group,[5] at least in so far as it affected the whole population. It remains to be seen whether a statistically valid and significant physical difference can be discovered between the two groups as a whole. A recent study of dental characteristics (among the most reliable indicators of genetic relationship) has revealed no such difference between Meroïtic and X-Group populations in the Wâdi Ḥalfa area.[6]

Taking into account all of the available evidence on the X-Group–Meroïtic relationship, it is clear that we require an historical explanation allowing for both continuity and change. On the one hand, it seems certain that the bulk of the Lower Nubian population remained the same from Meroïtic to X-Group times, and that the course of cultural evolution was for the most part uninterrupted. In the domestic arts there was a rapid Hellenization or Romanization, but it was a process already well begun in the Meroïtic period, and came about through diffusion rather than migration. On the other hand, the documentary record as well as the evidence of race and language suggest that there were also migrations from the South at this time, and that they had a profound and

[1] Cf. Emery and Kirwan, *Excavations and Survey*, 25; Griffith, *LAAA* 11, 122.

[2] This fact has been acknowledged by all of the principal students of the X-group culture; cf. Emery, *Royal Tombs*, 22–23, and Kirwan, *Sudan Notes and Records*, 20, 60.

[3] Trigger, *Kush* 12, 192–3.

[4] This theory has been advanced by Millet in an unpublished paper (*Some Notes on the Linguistic Background of Modern Nubia*) read at a Symposium on Contemporary Nubia, Aswân, 1964.

[5] As asserted, e.g., by Firth, *Arch. Surv. Nubia 1908–1909*, 36; Kirwan, *Sudan Notes and Records*, 20, 56–58; Reisner, *Arch. Surv. Nubia 1907–1908*, 345.

[6] I am indebted to Dr. David L. Greene of the Univ. of Colorado Nubian Exped. for this information.

immediate effect upon some parts of the indigenous culture. In other words, we must identify a small but influential minority as the source of some of the distinctive elements in the X-Group complex.

Who were these influential invaders? Probably they included members of a number of different but related tribes, who wandered into various parts of the Nile Valley after the fall of the Meroïtic kingdom, and established local hegemony over the settled population. Apparently they had little material culture of their own, for they completely assimilated that of their subjects. The latter, after the immemorial custom of Egypt and Nubia, adopted and imitated the burial customs of their rulers, which were presumably transplanted from their earliest habitat. The newcomers may also have imposed their language on the settled population.

Foremost among the new overlords of Nubia were undoubtedly the kings of Ballâna and Qusṭul. The fact that they furnish the most conspicuous examples of a new cultural and social synthesis, however, does not imply that they were its principal or only source. In the chain of historical induction they must be viewed primarily as an effect rather than a cause. We know nothing about the geographical limits of their power, but it can hardly have been as far-reaching as the general complex of X-Group traits, which extended at least from the First to the Fourth Cataracts. In the south, at Tangâsi, we see the complex without much of its Byzantine veneer, but it belongs recognizably to the same synthesis of traditions.[1] There may well have been another X-Group kingdom here, or at least an independent tribal group. Other X-Group centres which may have been the residences of local dynasts may be recognized at Sai Island[2] and Firka.[3] Nubia at this time gives an impression of containing a number of independent tribal groups with a common culture and, possibly, language—much in fact as today.

From the standpoint of cultural history it makes no difference whether we choose to identify the Ballâna kings as the Nobatae, the Nobade, the Blemmyes, or some other group. These are little more than names adrift on the sea of history; the fact that the principal students of the X-Group period are able to debate whether or not the Blemmyes were barbaric and nomadic[4] clearly shows that we know nothing important about their culture. A positive identification of the Ballâna kings with either Blemmyes or Nobatae would tell us little that we do not already know about the Ballâna kings, although it would tell us for the first time something substantial about Blemmyes or Nobatae. What is important, however, is to recognize that the X-Group population and culture were an amalgam of Blemmyes, Nobatae, Nobade, Black Noba, Red Noba, and probably other tribal groups whose names are lost to us—as well as the resident Meroïtic strain which remained numerically dominant.

If we cannot give a specific name to the immigrants of the X-Group period, we can make a few collective observations about them. First, as we noted before, they appear

[1] Shinnie, *Kush* 5, 66–85.

[2] The X-Group cemetery surrounding the ancient fortress of Sai is by far the largest known. Excavations were begun here by a French expedition several years ago, but were suspended when the needs of the Nubian salvage campaign became pre-eminent. See Vercoutter, *Report of the Antiquities Service and Museums 1955–1956.*

[3] See Kirwan, *Oxford University Excavations at Firka.*

[4] Emery, *Royal Tombs*, 5–24, versus Kirwan, *LAAA* 24, 69–76 and *Sudan Notes and Records*, 20, 53.

to have had little material culture of their own, for they left no mark on architecture, technology, and the arts. Second, on the evidence of the tombs,[1] they were warlike and had a well-defined status system. Third, they did not maintain an elaborate state religion or established priestly caste. All of these characteristics point strongly to a nomadic origin. We must add, however, that they had a knowledge of and a respect for Meroïtic traditions which probably antedated their arrival in Lower Nubia, for the royal trappings of the X-Group culture, although Meroïtic in derivation, are of Upper Nubian and not of Lower Nubian origin.[2] Finally, at least some of the newcomers spoke a language directly ancestral to modern Nubian, although whether they learned it from the resident population or taught it to them is uncertain. The sum of these indications is to suggest that the immigrants of the X-Group period came from among the nomadic tribes which had long lain on the flanks of the Meroïtic kingdom, particularly in the west, and had at times been its nominal subjects.

Thus far can the X-Group puzzle be assembled. The remaining pieces are lost, missing, or illegible. Whatever the origins of the incoming groups, they were soon swallowed up in the settled population, and all trace of their separate identity disappeared. By the beginning of the Christian period there was probably a single homogeneous race, language, and culture throughout Nubia. In sum, the X-Group picture now appears as follows:

As is common after long periods of stability, the disintegration of the Meroïtic state was accompanied by upheaval and migration. Major population shifts took place throughout the central Sudan. Several groups of nomads settled in the Nile Valley at various points between Aswân and the junction of the Niles, and a new social and cultural synthesis was achieved.

In Lower Nubia the effects of disruption are less conspicuous than in the south,[3] *although there are many indications of tribal migration. The newcomers probably represented several of the nomadic groups which had long lain on the flanks of the Meroïtic kingdom, and had already been considerably affected by it. Descending on the river valley when the Meroïtic power was no longer sufficient to repel them, they established a local hegemony over various areas without seriously disturbing the cultural and social evolution of the indigenous population, among whom they were probably a small minority. There emerged a series of local kingdoms sharing a common cultural synthesis, as in medieval and modern Nubia. The most powerful of the kingdoms was probably that established near Ballâna.*

Having no highly developed material culture of their own, the X-Group immigrants adopted the arts and crafts which were already flourishing in Nubia. Their coming may, however, have delivered the coup de grâce *to the native Meroïtic artistic tradition, resulting in the total ascendancy of Roman–Byzantine influence which is apparent in the minor arts of the X-Group period. In religion, also, the break-up of the Meroïtic kingdom destroyed the foundations of its state religion, and in the ensuing confusion several sects, including Christianity, contended for recognition. In architecture and village organization there was little change from Meroïtic times. It is only in burial customs, and perhaps in language,*

[1] See Emery, op. cit. 22–23 and 251–71; also Kirwan, *Sudan Notes and Records*, 20, 58.

[2] Emery, op. cit. 22; Junker, *MDAIK* 3, 155.

[3] Cf. Kirwan, *Sudan Notes and Records*, 20, 60.

that we see evidence of the newcomers successfully imposing their own cultural traditions upon the older population of Nubia.

The synthesis of Meroïtic, Egyptian (i.e. Byzantine), and southern influences was rapid and complete. By the beginning of the Christian period there was to all intents and purposes a homogeneous culture and population over the whole of Nubia.

V. Christian Nubia

c. A.D. 550–1400

The first Christian missionaries appeared in Nubia in A.D. 542. *According to a widely quoted contemporary account, advocates of the official Melkite and of the heretical Monophysite sects were dispatched simultaneously from Byzantium, but the former were delayed* en route, *and the Monophysites thus succeeded in converting all of Lower Nubia to their persuasion. However, a few years later another missionary seems to have converted some of the inhabitants of Upper Nubia to the Orthodox faith. Within* 40 *years of the first efforts, the whole country is reported to have been Christianized at least as far upstream as the confluence of the Niles.*

We know comparatively little of the early centuries of Christian Nubia, which, despite its religious conversion, was never politically subject to the Byzantine emperor. After the Arab conquest of Egypt in A.D. 640–2, *the religious link with the Mediterranean world was likewise weakened. In time the Nubians went over entirely to the Monophysite (Coptic) sect of Christianity, perhaps because it survived in neighbouring Egypt under the Arabs while the Byzantine sect was suppressed. However, Nubia followed an increasingly independent line of political and cultural development.*

By the time of the Arab conquest of Egypt there were already three well-defined Christian kingdoms in Nubia, with capitals at Pachoras (Faras), Dongola, and Sôba (near modern Khartûm). The two northern kingdoms were shortly afterward consolidated into one, which extended in all probability from the First to the Fourth Cataract. The geographical extent of the southern kingdom is uncertain.

By the middle of the ninth century the Nubian kings were sufficiently strong to invade Egypt and force the restoration of the deposed Patriarch of Alexandria. There followed two centuries of marked cultural efflorescence and economic prosperity, during which Nubia was generally at peace with her Egyptian neighbours. However, from A.D. 1050 *onward there was renewed and intensified warfare, culminating in a long series of rear-guard actions through which the Nubian kingdoms were gradually reduced to chaos. In the fourteenth century their political and religious cohesion finally disintegrated as a result of dynastic dissensions and external intervention, and Nubia was plunged into another of its dark ages, from which it did not emerge until the coming of Mohammed Ali in* 1821.[1]

In the past, only a small handful of scholars has interested itself in the history of Christian Nubia, and the published literature is small. For this period, much more than for preceding periods, our amendments to the record are chiefly in the form of additions rather than corrections.

[1] Sources: Arkell, *History of the Sudan*, 186–98; Clarke, *Christian Antiquities*, 7–12; Crawford, *Fung Kingdom*, 21–29; Crowfoot, *JEA* 13, 141–50; Griffith, *LAAA* 13, 50–54; Monneret de Villard, *Storia della Nubia cristiana*; Shinnie, *Medieval Nubia*.

The documentary history of Christian Nubia is once again fragmentary and generally uninformative, and most of it comes to us at very distant second-hand. For the early centuries there are some rather inconsistent accounts of missionary activity,[1] and scraps of geographical information.[2] For the Classic period of two or three centuries when Christian Nubia was at the height of its cultural and political development, there is almost no recorded history at all.[3] For the last centuries there is a considerable, though disjointed, record of raids and warfare, through which we trace the gradual dissolution of Christian society and culture.[4]

In the fragmentary medieval accounts of Christian Nubia, and even more in the scholarly discussion which they have provoked, we find the same preoccupation with monarchic states and fixed frontiers which has already obscured our picture of X-Group history.[5] In the light of more recent Nubian socio-political organization,[6] we are entitled to wonder if European-style political institutions were really well developed in medieval Nubia, or if they were not simply 'read into' the picture by European and Arab historians, whose interpretations of Nubian society and polity were coloured by those with which they were familiar in their own lands. Most of the kingdoms and sultanates of the post-Meroïtic Sudan, of which we have any reliable record, were based on shifting and unstable tribal combinations, and their territorial limits seldom remained the same from generation to generation.[7] We should probably view Christian Nubia in much the same light, recognizing that there may have been two kingdoms at some times and three or more at others,[8] and that there may also have been times when no royal authority was acknowledged over considerable portions of the Nile Valley.

In Northern Nubia, we are told that the kingdoms of Nobatia and Makuria united in the face of a common enemy around the end of the seventh century.[9] Such a process of voluntary consolidation does not appear inherently likely; moreover, according to Abu Salih there was still some sort of a frontier between them at Upper Maks (Akasha) five centuries later.[10] In fact, the record suggests that there were always more or less independent seats of power at Faras and at Dongola, but that Dongola was strong enough at times to make the northern kingdom at least nominally a vassal.[11] At other times Nobatia, and perhaps other districts as well, were certainly autonomous.

In the south, the Kingdom of Alwa has been accorded an importance by both medieval and modern scholars[12] which is hardly attested by its archaeological remains.[13]

[1] See esp. Griffith, *LAAA* 13, 51–52; Monneret de Villard, op. cit. 61–70; Shinnie, op. cit. 2–4.

[2] See Crawford, op. cit. 21–27; Griffith, *JEA* 11, 259–68; Kirwan *JEA* 21, 57–62; Shinnie, op. cit. 5–8.

[3] Cf. Shinnie, op. cit. 6–7. The sole important exception is Ibn Selim el-Aswani (quoted *passim* by Maqrizi, *El Khitat*).

[4] See esp. Clarke, op. cit. 11, and Shinnie, op. cit. 6–7.

[5] Cf. Arkell, op. cit. 186–90; Kirwan, *JEA* 21, 57–62; Mileham, *Churches in Lower Nubia*, 2–6; Monneret de Villard, op. cit. 130–57; Shinnie, op. cit. 5–8.

[6] Herzog, *Die Nubier*, 120–33.

[7] See esp. Arkell, op. cit. 203–25.

[8] See Crawford, op. cit. 21–25; Shinnie, op. cit. 5.

[9] Arkell, op. cit. 186.

[10] Abu Salih, *Churches and Monasteries* (tr. Evetts-Butler), 263–4.

[11] Cf. Arkell, op. cit. 186–7; Crawford, op. cit.; Shinnie, op. cit.

[12] E.g. Ibn Selim (quoted in Maqrizi, *El Khitat*, I, 311); Abu Salih, op. cit., 263–4; Alvarez, *Narrative* (tr. Stanley), 352; Kirwan, *JEA* 21, 61; Shinnie, op. cit. 8; Monneret de Villard, op. cit. 147–57.

[13] Cf. Shinnie, op. cit.

Of its erstwhile 400 churches (reported at very distant second-hand by Abu Salih),[1] only one, at Sôba itself, can now be recognized.[2] Obviously, Alwa was one of those semi-mythical kingdoms which by their very remoteness and insubstantiality have fired men's imaginations throughout the ages; it is one of half a dozen regions, both in Africa and in Asia, associated with the legendary Prester John.[3] In reality, Alwa must have been a poor and primitive frontier state, no more comparable with Makuria or Nobatia in power and influence than Ireland is with England. The medieval accounts suggest that the majority of its nominal subjects were actually nomads;[4] consequently we may doubt whether either the effective dominion or the established religion of the state extended very far from its capital city of Sôba.

In so far as there was any enduring 'cement' in Christian Nubian society, it was almost certainly provided by the church rather than by the monarchies.[5] In the few documents which the Nubians themselves have left to us we learn far more about bishops and eparchs than we do about kings and civil officials.[6] Even without such records we could infer the existence of the ecclesiastical organization from archaeological evidence, whereas we have hardly any material remains which are indicative of an institutionalized secular authority. For the whole eight centuries of Christian Nubia we cannot certainly identify the tomb or residence of a single king.

If we turn now to the archaeological record, we become conscious of a different and far more complete picture of the life and times of Christian Nubia than is provided by documentary evidence. Christian antiquities comprise more than one quarter of all known archaeological remains in Nubia,[7] and they have been investigated in recent seasons on a scale never previously attempted. We have now, for the first time, a firmly established continuity of archaeological evidence covering the whole eight centuries of the Christian epoch, and we can clearly trace the growth, flowering, and decay of Nubian culture during that time.

The picture of Christian Nubia which emerges from the archaeological record is one of a long period of stability and prosperity which has striking parallels with the Meroïtic period. In each case we see, at the beginning, a complex of Egyptian-derived cultural stimuli which for a time are merely imitated in Nubia. Later, as Egypt becomes weaker and her direct influence is lessened, Nubia becomes increasingly autonomous both politically and culturally. There is a flowering of local arts and architecture, in which originally Egyptian elements are modified and re-interpreted in purely Nubian ways. The culminating achievements, both in Meroïtic and in Christian Nubia, are seen in religious architecture, in the manufacture of decorated pottery, and in the writing

[1] Op. cit. 264.

[2] For descriptions see Clarke, *Christian Antiquities*, 34–38; Monneret de Villard, *Nubia medioevale*, I, 271; Shinnie, *Excavations at Soba*, 25–27. It is worth noting that neither Somers Clarke (op. cit.) nor Monneret de Villard (op. cit.) describes any churches along the 500-km. stretch of the Nile between Sôba and the Fourth Cataract. The few churches along the 'Middle Nile' reported by Crawford (*Castles and Churches*) are geographically and culturally much nearer to Dongola than to Sôba; cf. Shinnie, *Excavations at Soba*, 14.

[3] See Alvarez, op. cit. 352.

[4] Ibn Selim, op. cit.

[5] See Crawford, *Fung Kingdom*, 25–26; Monneret de Villard, *Storia della Nubia cristiana*, 169–94.

[6] The most important of these is the recently discovered list of bishops in the cathedral at Faras West. See Michalowski, *Kush* 12, 196.

[7] Adams, *Kush* 10, 15.

of the native language. Eventually there comes a period of rapid decline and ultimate collapse, brought on in part by external pressure and internal dissension, but due also in large measure to prolonged cultural isolation and stagnation.

To return to the beginning, we date the Christian Nubian period from the time of the arrival of the first formally designated missionaries in A.D. 542. This should not suggest, however, that Christian doctrines were unknown earlier. Christianity had been the established religion in Egypt for more than two centuries, and it would be surprising indeed, considering the prevalence of Roman-Egyptian influence in X-Group culture, if it had had no impact on Nubia in all that time. As a matter of fact, we have both documentary and archaeological evidence of the practice of Christianity in X-Group times. The first is in the form of monkish tales recounting early attempts to convert the Nubians.[1] The second consists of Christian votive lamps, both native-made and imported, as well as pottery with incised cruciform graffiti. At Meinarti village these objects were found occasionally even in the earliest of the three X-Group stratigraphic levels, and in the uppermost they were widely distributed.[2] It seems probable, therefore, that the missionaries dispatched by Justinian and Theodora found the ground already well prepared, and this may account for the apparently rapid and complete success of their efforts.[3]

The sectarian affiliation of the first Nubian Christians has been a matter of dispute for centuries.[4] The oft-repeated tale of the race between Melkite and Monophysite missionaries, with the latter winning by a nose, has been quoted earlier.[5] John of Ephesus, the author of this charming fable, was an ardent Monophysite and possibly biased;[6] his report arouses scepticism both for its *naïveté* and because it is hard to reconcile with the reported conversion of the more remote Kingdom of Makuria to the Orthodox faith.[7] Moreover, he is contradicted by the later historian Eutychius, who asserts that all of Nubia was originally Melkite (Orthodox), but transferred its allegiance to the Coptic faith after the Arab conquest of Egypt led to the suppression of the Melkites and the removal of their patriarch.[8]

Archaeological evidence leans toward Eutychius. The earliest Nubian churches, although large, were characterized by a small and simple *haikal* (sanctuary), with no tribune and with the altar well toward the back. The sanctuary was separated from the congregation only by wooden rails. In the eighth century wholesale changes were carried out, the effects of which were to enlarge the *haikal* and to screen it from the view of the congregation by means of brick partitions (*higab*).[9] As we associate this tendency particularly with the Coptic church, and as we find the transformation carried out simultaneously in churches throughout Nubia, we seem to see confirmation of the idea of a general change-over from Orthodox to Coptic practice,

[1] Kirwan, *LAAA* 24, 92–96. [2] Adams, *Kush* 13 (in press). [3] Kirwan, *LAAA* 24, 96.
[4] See Griffith, *LAAA* 13, 51–52; Kirwan, *Oxford University Excavations at Firka*, 49–51.
[5] Cf. Arkell, *History of the Sudan*, 181.
[6] Gadallah, *Sudan Notes and Records*, 40, 41.
[7] Arkell, op. cit. 185; Kirwan, *JEA* 20, 202.
[8] Griffith, *LAAA* 13, 52; Kirwan, *Oxford University Excavations at Firka*, 49–50.
[9] I have discussed at length the architectural evolution of the Nubian church in *JARCE* 4 (in press).

which Eutychius tells us took place 77 years after the Arab conquest of Egypt,[1] or about A.D. 719.[2]

In the eight centuries between the full establishment of Nubian Christianity and its final disappearance, we can recognize much more clearly than in any earlier period a continuous process of cultural growth, development, and decay. We have arrived, finally, at a span of history which can be described in dynamic instead of static terms. The period as a whole divides itself quite readily into three developmental phases, which I have elsewhere termed Early, Classic, and Late Christian.[3] The first of these was a period of rapid transition toward an independent Nubian culture and society; the second was a long period of stability and autonomy; the third was a period of rapid decline and dissolution. I have dealt at length with these and other aspects of Christian Nubian culture history in other articles,[4] and will merely summarize the data here.

The Early Christian period was a direct outgrowth of the X-Group, distinguished in the beginning only by religion. As time went on there was a limited revival of vaulted architecture in ordinary houses, a trait which had largely disappeared in X-Group times. Its re-adoption was probably stimulated by the use of vaults in the early churches. There were also changes in pottery styles, reflecting declining Egyptian influence and the first glimmerings of a new indigenous tradition. However, the shadow of Egypt remained strong in the Early period, and is apparent not only in the domestic arts but in the quantity and variety of imported goods (especially wine amphorae) which we still find at this time.

The first Nubian churches were large and spacious, making abundant use of cut stone construction and monolithic columns. Decoration was chiefly in the form of carved stone capitals, lintels, cornices, and the like, many of which perpetuated such pagan motifs as the hawk and the vine wreath. In these characteristics we see Nubia's last link with the architectural traditions of antiquity. They disappeared very rapidly after the first two centuries of Christianity; thereafter there was never again any significant concern for the external appearance of the church.[5] The small, open *haikal* of the early churches, as well as the persistence of Classical pretensions, suggests Orthodox Byzantine influence.

Curiously enough, the cultural bond between Nubia and Egypt does not appear to have been seriously affected by the Moslem conquest of Egypt in A.D. 640–2. The Egyptian Copts were at first left relatively unmolested by their conquerors, and it was very probably through them that the cultural as well as the spiritual link with Nubia was preserved. As I have suggested elsewhere,[6] the imported pottery and wine which appear so prominently in Nubia at this time were probably the products of Egyptian

[1] Griffith, loc. cit.

[2] Further archaeological evidence in favour of Eutychius is advanced by Monneret de Villard, *Aegyptus* 12, 309–16.

[3] *Kush* 12, 243–7.

[4] *Kush* 10, 245–88; *Kush* 11, 42–46; *Kush* 12, 216–47; *Kush* 13 (in press), *JARCE* 4 (in press). Many of the archaeological data cited in these articles are derived from my own excavations, which are not yet fully published. Preliminary reports, in addition to those cited above, are *Kush* 9, 7–43, and *Kush* 10, 10–75.

[5] A more extended description of the early Nubian church will be found in Adams, *JARCE* 4 (in press.)

[6] *Kush* 10, 281.

monasteries. With the accession of the Abbasid Caliphate in A.D. 750, however, there began a general persecution of Egyptian Christians, accompanied by the sacking of several monasteries, and it is very probably from this time that we must trace the increasingly independent development of Nubia in the following centuries.

In the eighth century we see a rapid transition toward Nubian cultural autonomy. The conversion from the Melkite to the Monophysite faith, according to Eutychius, should have taken place around A.D. 719.[1] In addition to the elaboration of the *haikal*, the Nubian church edifice from this time onward became smaller and less pretentious, and developed a characteristic form quite different from that which persisted in Egypt.[2] Frescoes took the place of carved stone as the principal form of decoration.

After A.D. 750 we find an abrupt decline in the quantity of Egyptian trade goods in Nubia,[3] signalling the interruption of normal relations between the two countries. The fortified cities in the extreme north of Nubia, Ikhmindi and Saba Gura, were probably built at this time.[4] In A.D. 795 comes the first known writing of Old Nubian.[5] Early in the following century an elaborate new pottery industry has been developed. It marks an abrupt break with the artistic traditions of the X-Group and Early Christian periods, and seems to represent nothing less than a revival of the Classic Meroïtic tradition[6]—perhaps an incidental result of the plundering of Meroïtic tombs which was undoubtedly going on at this time.[7]

The Classic Christian period was fully arrived by the middle of the ninth century. The Nubian embassy to the Caliph in Baghdad in A.D. 836, suggesting as it does the emergence of Nubia as a recognized power,[8] may be taken as a convenient symbolic dividing point between the Early and Classic periods.

There seems to have been a general upsurge of prosperity at this time. The houses are notably larger and more substantially built, and we find a general return to barrel-vaulted construction such as we normally associate with Christian Nubia,[9] and which still survives among the Kenzi Nubians. We also see urbanization—the increasing concentration of population in a few major centres—and the first recognizable monastic communities. Some of these may have been founded by refugee monks from Upper Egypt.[10] We may assume that the adoption of the Monophysite faith was universal by this time.

The churches of the Classic period are quite standardized in form, exhibiting the fully segregated *haikal* with its tribune and presbyterium. The narrow passage behind the *haikal* is a distinctly Nubian feature which is universal in the churches of the Classic period.[11] The buildings themselves are somewhat smaller than those of earlier

[1] Griffith, *LAAA* 13, 52. [2] Cf. Monneret de Villard, *Nubia medioevale*, III, 19.
[3] Adams, *Kush* 10, 280–1. [4] Cf. Arkell, *History of the Sudan*, 188–9. [5] Griffith, *Nubian Texts*, 5.
[6] Cf. Crowfoot, *JEA* 13, 145; Shinnie, *Medieval Nubia*, 13.
[7] As evidenced by the abundant Christian pottery left in the tombs at Nuri and Barkal. See Dunham, *Royal Cemeteries of Kush*, II, *passim*, and IV, 99.
[8] Cf. Shinnie, op. cit. 6.
[9] See esp. Clarke, *Christian Antiquities*, 22–33; Mileham, *Churches in Lower Nubia*, 7–10.
[10] Cf. Kirwan, *LAAA* 24, 104–5.
[11] For a discussion of this feature see Monneret de Villard, *Nubia medioevale*, III, 3–8.

centuries, and were built for the most part of mud brick, with no concern for external adornment.[1] The use of frescoes became general.[2]

The prosperity and power of the Classic period endured for about three centuries. The average level of the Nile had been gradually increasing since Meroïtic times, but in the ninth and tenth centuries there was a dramatic rise, destroying many of the older settlements and causing a widespread dislocation of the Nubian population.[3] It may have been these disruptions which led to renewed warfare with Egypt, culminating for a time in the Nubian occupation of a considerable tract between Aswân and Edfu.[4] The prevailing prosperity of Nubia was, however, only briefly interrupted, and in the eleventh century the river abruptly resumed its normal level. We note at this time a tremendous increase in the quantity of Egyptian trade goods (especially glazed pottery) in Nubian sites, which may have been a direct outcome of the Nubian occupation of the Aswân district. This latter event probably signifies the zenith of Nubian political power in the Middle Ages.

The strength of Nubia was to a considerable extent the measure of the weakness of Egypt under the last Fatimid Caliphs. This relationship was immediately reversed with the advent of Salah ed-Din (Saladin) in A.D. 1171.[5] In the same year as his accession he sent his brother Shams ed-Din on a punitive expedition into Nubia, which resulted in the capture and destruction of Ibrîm.[6] It was the first in a continuing series of raids, counter-raids, and border skirmishes which occupy most of the later history of Christian Nubia.[7] From this time onward we can mark a general decline in the arts and architecture, and it is apparent that the Nubians, who did a good deal of raiding of their own in their hey-day,[8] are now on the defensive. We can, then, symbolically mark the beginning of the Late Christian period with the accession of Salah ed-Din and the raid of Shams ed-Din in A.D. 1171.[9]

More than anything else, the prevalence of defensive arrangements distinguishes the Late Christian period from its predecessor. Beginning in the middle of the twelfth century we find a new form of domestic architecture characterized by massive walls, labyrinthine plan, and difficult access. The houses of this period usually had at least one and sometimes several rooms which could only be entered through the roof.[10] Later, massive communal structures were built which incorporated the same features, and served also as look-out towers.[11] In contrast to these 'keeps', the churches of the Late period are notably small and inconspicuous—perhaps from considerations of expendability.[12] They are little different in size and construction from the family 'unit house' which came into use at the same time.

[1] Cf. Adams, *JARCE* 4 (in press).

[2] For a discussion of the chronological development of Nubian fresco painting at Faras see Michalowski, in *Christentum am Nil* (ed. K. Wessel), 79–94.

[3] See Adams, *Kush* 11, 42–44, and especially *Settlement Archaeology*, ed. K.-C. Chang (in press).

[4] Shinnie, *Medieval Nubia*, 6. [5] See Lewis, *The Arabs in History*, 152–3. [6] Shinnie, op. cit. 7.

[7] For condensed chronicles see Clarke, op. cit. 11, and Monneret de Villard, *Storia della Nubia cristiana*, 15–16. [8] See esp. Arkell, *History of the Sudan*, 188–92. [9] Shinnie, op. cit.

[10] Adams, *Kush* 12, 231. [11] Ibid. 222 and 231–3.

[12] The Late Christian church is essentially Somers Clarke's Type B (*Christian Antiquities*, 32) and Monneret de Villard's Basilica a cupola (*Nubia medioevale*, III, 31–39). For a fuller description see Adams, *JARCE* 4 (in press).

Defensive considerations are further reflected in the abandonment of outlying settlements and the concentration of population in a few protected localities. By the end of the thirteenth century it appears that there were no more than six settlements of importance in the whole of Lower Nubia.[1] We do not find, however, a return to the building of girdle walls as in earlier Nubian fortifications.[2] The peculiarities of Late Christian defensive architecture set them apart from those of earlier times, and reveal a good deal about the nature of the enemy. This question will be discussed further in part III of this study.

The effects of enemy pressure, although manifest, were probably not the only factor contributing to the decline of Christian Nubia in the Late period. From earliest times, the economic and political importance of the region had depended less upon its indigenous resources than upon its position astride one of the world's great trade routes. This was particularly true in post-Pharaonic times, when Nubian gold production was virtually exhausted.

We are dealing here with one of the phenomena of history which must be explained in economic, rather than geopolitical, terms. It is generally easier and more profitable to control distribution than to control production; hence, from ancient Crete and the Punic wars in antiquity down to the Far East in our own times, wars have been fought and empires built as much for the control and exploitation of trade as for territorial expansion.

In Africa, whoever controlled the Nile had a virtual monopoly on the commerce in gold, ivory, and slaves—the commodities for which Europe and the Near East principally depended on the southern continent. This circumstance helps to explain both the frequency and the pattern of Egyptian intervention in Nubia, from King Djer[3] down to Mohammed Ali. It also accounts to a considerable extent for the special prosperity of Nubia during her periods of political independence, when she controlled the Nile trade herself.

At no time in Nubian history is the importance of trade more apparent than in the Christian period. Not only is it manifest in the archaeological remains; it is the recurrent theme throughout the documentary history of this era, beginning with the *baqt* treaty of the seventh century.[4] Abu Salih tells us that the city of Bausaka was 'full of people and of all commodities',[5] and that at Upper Maks (Akasha), 'no one is allowed to pass by the inhabitants of this place without being searched, even if he be a king; and if anyone pushes on and refuses to be searched, he is put to death. The people carry on their trade in kind, and selling and buying among them is done by exchange; thus they exchange woven stuffs and slaves, and all that is bought and sold is exchanged.'[6]

[1] Six towns between the First and Second Cataracts are named in the list of dominions of the Mameluke Sultan Bybars, A.D. 1276. See Griffith, *LAAA* 14, 102.

[2] Except in cases, as at Serra East, where the girdle wall was already standing. However, the Late Christian settlements at Qasr Ibrîm and Gebel Adda were not confined within the earlier girdle walls.

[3] The First Dynasty king who led the first known Egyptian expedition into Nubia. See Arkell, op. cit. 39–40.

[4] For a translation of the treaty see MacMichael, *History of the Arabs*, I, 157–158.

[5] *Churches and Monasteries* (tr. Evetts-Butler), 262. The actual location of Bausaka has not been determined.

[6] Ibid. 262–3. For an indication of the importance of trade to the population of Upper Egypt at the same time see Abdin, *Sudan Notes and Records*, 40, 59–60.

In this last passage we have perhaps the clue not only to the prosperity of medieval Nubia but to its ultimate decline. So long as the Nile provided the only passable route through the deserts, its inhabitants had a virtual strangle-hold upon the African trade, and it appears from Abu Salih's account that they made the most of it, either by engaging in trade themselves or by 'shaking down' the trading expeditions which passed through. However, with the introduction of the camel and the development of the trans-Saharan caravan trade the importance of the Nile was abruptly lessened. Probably it declined still further with the coming of the Portuguese maritime trade. For the first time in history, commerce between Africa and the Mediterranean was freed from its dependence upon the river route, and in effect the Nubians lost their monopoly on slaves and ivory. The new caravan routes via the oases were more direct than the winding course of the river; they opened up an enormous and previously untapped hinterland; and, perhaps equally important, they avoided the settled population which had long exacted its tribute from the African trade. In short, the desert trade offered all the classic advantages of sea trade, as opposed to overland trade.

To the west of Nubia, a whole series of medieval kingdoms—Bornu, Benin, Mali, Songhai, and others—came into being partly or largely as a result of the caravan trade. In a sense, then, these states may be regarded as the rivals and ultimately as the successors to Nubia; their growth is a measure of Nubia's decline. In the later Middle Ages the preference for the desert routes became so marked that European travellers were entering the Sudan over the *darb el arbaʿin*[1] more than a century before Burckhardt made his celebrated ascent of the Nile in 1813.[2]

The crescendo of discord in the last century of Christian Nubian history does not end on a dramatic final note. At the end of the fourteenth century both the documentary and the archaeological records fall silent, and we are left in ignorance of the ultimate fate of the Christian population as surely as in the case of their A-Group, C-Group, and Napatan forebears. Recent discoveries have shown that there was still a bishop at Qasr Ibrîm in 1372, but the fact that his see had been combined with that of Faras is a measure of the diminished size of his flock.[3] Probably Christianity had already vanished from a large part of Nubia by this time, and we know that the 'royal' church at Dongola had been transformed into a mosque 50 years earlier.[4] There is some evidence that the Nubians were converted, at first piecemeal and then wholesale, to Islam;[5] other evidence suggests that the majority of them abandoned their homes and fled southward, leaving the region depopulated for the third time within the historic era.[6] We can only be certain that by the fifteenth century the Christian communities and the Christian population as such had ceased to exist.

To sum up the archaeological and historical picture of Christian Nubia as it now appears:

[1] E.g. Poncet, *Voyage to Ethiopia* (1698); Krump, *Hoher und Fruchtbarer Palmbaum* (1710); Browne, *Travels in Africa* (1792).

[2] Burckhardt, *Travels in Nubia*.

[3] See Plumley, *Illustrated London News*, July 11, 1964, 51; also id. *JEA* 50 (1964), 3 f.

[4] See Crawford, *Fung Kingdom*, 35.

[5] Arkell, op. cit. 196–8; Monneret de Villard, *Storia della Nubia cristiana*, 219–21; Shinnie, *Medieval Nubia*, 7.

[6] See esp. Ibn Khaldun, quoted in Crowfoot, *JEA* 13, 148.

Christian beliefs began to penetrate Nubia from the time of their establishment in Egypt in the fourth century, and by the end of the X-Group period there were certainly professing Christian Nubians. The first formal missionaries arrived in the middle of the sixth century. There appears to have been active competition between advocates of the Monophysite and Melkite persuasions, but the official position and imperial support of the latter in Egypt probably secured its establishment in Nubia as well. However, the situation was reversed after the Arab conquest of Egypt, when the Coptic sect was tolerated while the Orthodox was suppressed. Deprived of contact with the Byzantine hierarchy, the Nubian churches in the eighth century became Coptic.

The coming of Christianity did not have an immediate and marked effect upon the culture of Nubia. However, the Arab conquest of Egypt and the Abbasid persecutions of a century later weakened the formerly close tie between Egypt and Nubia, and a growing local prosperity added to the general trend toward Nubian cultural independence. It reached its full fruition between the ninth and eleventh centuries, when there were outstanding local developments in the arts and architecture, and for a time the Nubian language was written. The Nubian kings were powerful enough to intervene intermittently in Egyptian affairs as well. The prevailing stability and prosperity of the times were only briefly interrupted by a succession of very high Niles in the ninth and tenth centuries.

After the eleventh century there was increasingly frequent border warfare with Egypt, in the course of which the Nubians were gradually driven on to the defensive, and the sources of their power and prosperity destroyed. They gradually withdrew into a few protected localities, in which they were repeatedly under attack during the late thirteenth and fourteenth centuries. Eventually the combination of Egyptian intervention in the north, nomadic pressure in the south, declining trade, and long cultural isolation led to the disintegration of the Christian kingdoms and society. The inhabitants of Nubia were either driven out, killed off, or converted to Islam, and we hear no more of them until the nineteenth century.

A MICHIGAN PAPYRUS WITH MUSICAL NOTATION[1]

By O. M. PEARL AND R. P. WINNINGTON-INGRAM

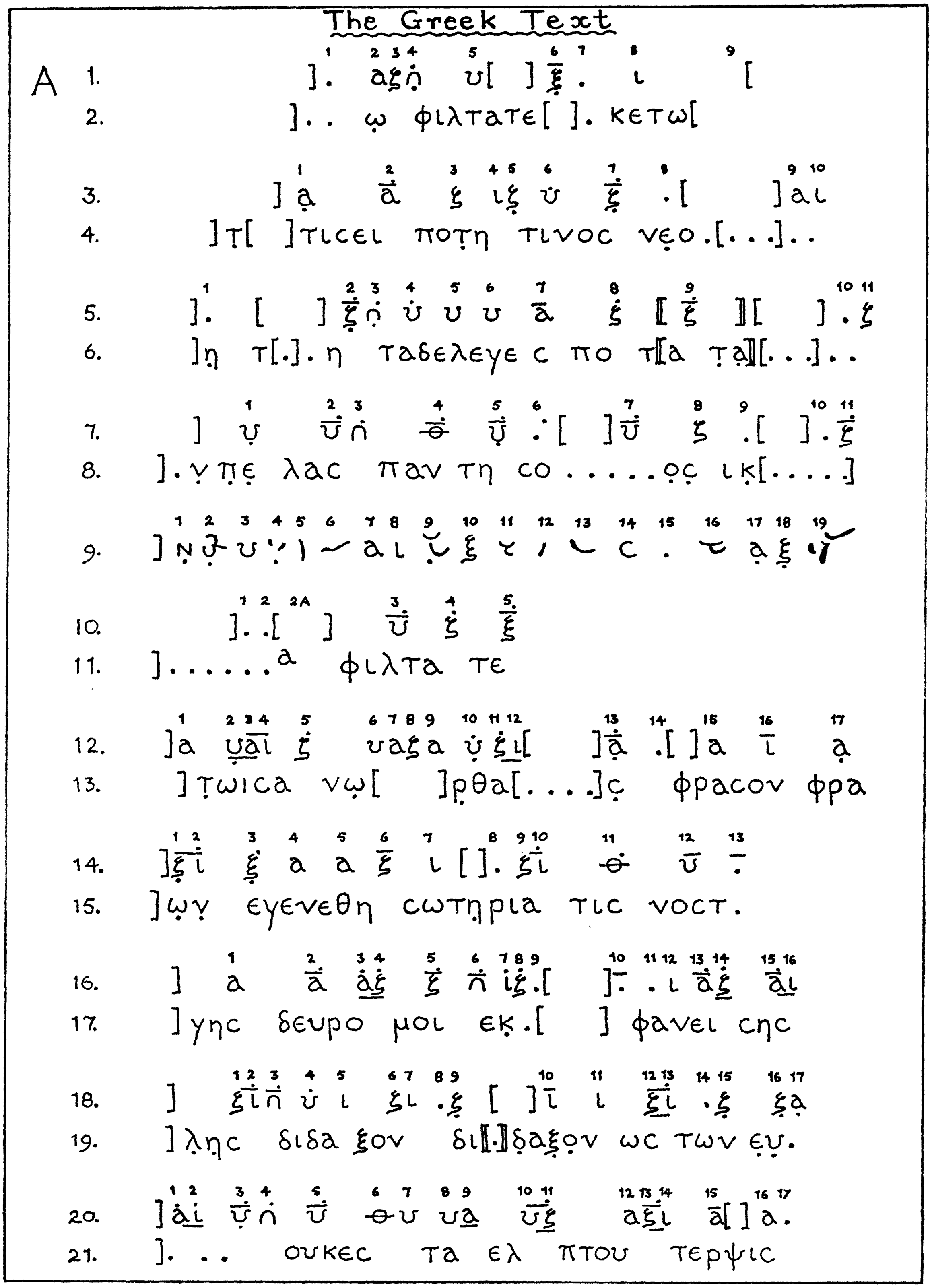
P. Mich. Inv. 2958 18×30·3 cm. Second century A.D.

THE papyrus was of good quality and the horizontal fibres on which the musical text was written offered a smooth surface. A narrow strip of lighter coloured material, as seen on the photograph (pl. XIX), runs across between the upper portion of the text (designated A) and the lower section (termed B); these sections are separated by a space of 2 centimetres. There is no difference in the texture, and there was no need to space the writing to avoid this area. The writing is a highly skilled and almost calligraphic hand, compatible with second-century book writing of not quite the best style, or with the more careful commercial hands of this period. The literary text, then, was probably written in the mid-second century; the accompanying musical signs were written by the same pen and hand.

The conjecture as to the date of the writing is supported by other evidence. A probability is suggested by the documents found with Inv. 2958. Thirty-seven of these have thus far been accurately dated; ten antedate A.D. 150, and twenty-seven fall between A.D. 155 and A.D. 216.[2] Evidence more specifically related to the principal text is supplied by a fragmentary account on the verso of the papyrus. At the left side on the projection toward the top of the papyrus is a very much damaged portion of a list of names and payments, amounting to one or two hundred drachmae each. The list apparently began at the top of the sheet, perhaps with the damaged and illegible first line surviving (a total is accurately drawn for the amounts in ll. 2–7) and continued below the broken lower edge. Twenty-six lines or traces of lines survive. One item offers dubious prosopographical evidence as to date; line 16 reads Val( ) Val( ) (dr.) 100. In *Tax Rolls from Karanis* (P. Mich. IV), vol. 2, p. 195, a Valerius, bastard son of Valeria, is recorded as a taxpayer making payments between A.D. 171 and A.D. 175. The character of the writing would place the list in the late second or early third century, establishing this period as the *terminus ante quem* for the musical text. The papyrus was beyond doubt first put to use as a vehicle for the music on the recto, and later—perhaps twenty-five to fifty years later—utilized for the list.

[1] This article is the product of collaboration between the authors, but O. M. Pearl is primarily responsible for palaeographical matters, R. P. Winnington-Ingram for the music. They acknowledge with gratitude the help which they have received from Professor and Mrs. Herbert Youtie and from Professor E. G. Turner.

[2] The local number, indicating the specific area of this find, is 24-5006E²-A. Eighty-nine inventoried papyri were among the objects found here. See *P. Mich.* VI, 244 for a listing of twenty-seven papyri recorded under this local number.


The Greek Text
A
2.]. . ω φιλτατε[ ]. κετω[
4.]τ[ ]τιcει ποτη τινοc νεο.[. . .]. .
6.]η τ[.]. η ταδελεγε c πο τ[α τα][. . .]. .
8.]. υ πε λαc παν τη co . . . . . oc ικ[. . . .]
11.]. . . . . .α φιλτα τε
13.]τωιcα νω[ ]ρθα[. . . .]c φραcον φρα
15.]ων εγενεθη cωτηρια τιc νοcτ.
17.]γηc δευρο μοι εκ.[ ] φανει cηc
19.]ληc διδα ξον δι[.]δαξον ωc των ευ.
21.]. . . ουκεc τα ελ πτου τερψιc

1 2 3 4 5
22.] . . . ụ̇ ụ[
23.] . [. . .] προς νυν

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
24.] . . α ῃυα α ξι . υ . . ξ ι . ụ
25.]αλλο δαυ με τι εϲπευδε̣ προς ημα . [

1 2 3 4 5 6 7 8 9 10 11 12
26.]ᾱ / ξ θ ξ θυα θυ[ ]υθ .
27.] . ι/ ουκ ανειδειην ταδ[ε π]αροντα

1 2 3 4 5
28.] . [ ] ι ιᾱξ′
29.] . βος εμποει

1 2 3 4 5 6 7 8 9
30.] . ιξ ι ι :ξι φ
31.] . ϲων πεφαϲμενων

1 2 3 4 5 6 7 8 9 10 11 12 13 14
32.]α ạ ị αι θ θ′ θụ̇ . . ξ υ ạ
33.]τ̣ον αιγιϲθουλ . . ειϲ τω . . [ ]τα[ ]να

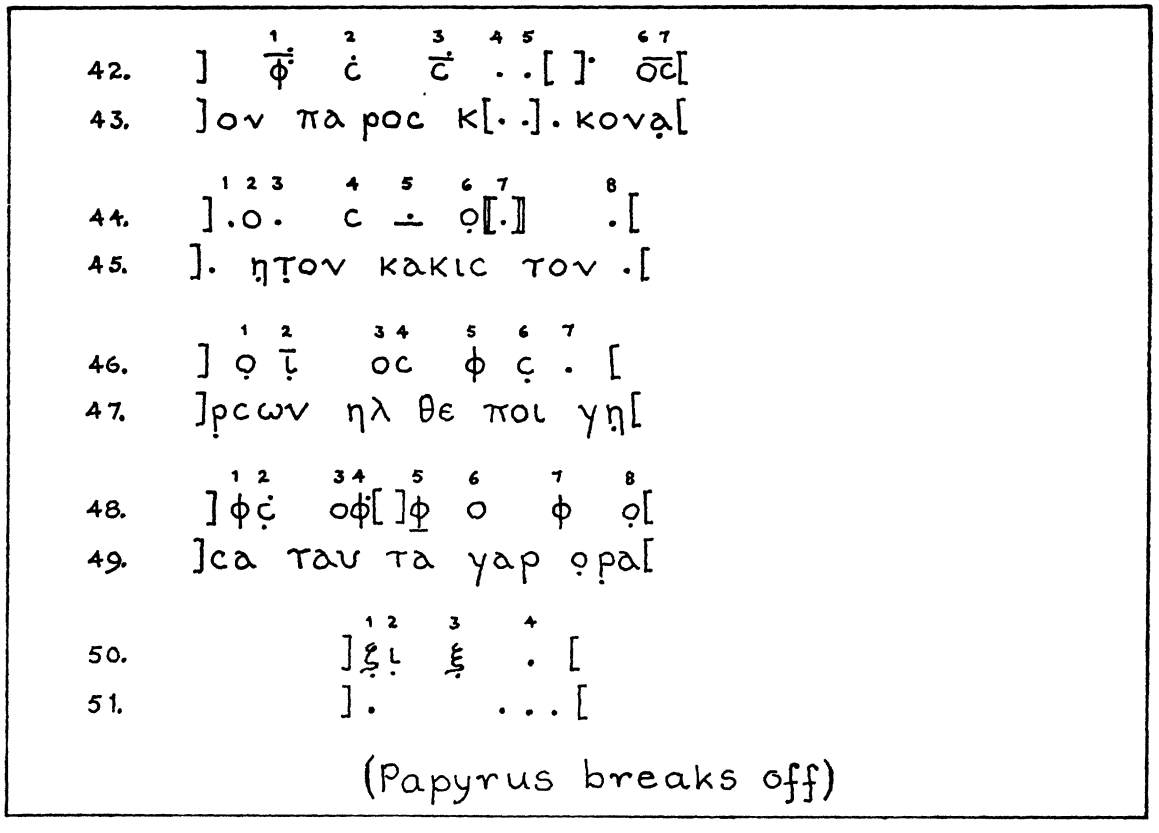
1 2 3 4 5 6 7 8 9 10 11
34.] . [ ]ạ θ /ῡ αι ξ . [ ] . α ῡ [
35.]ϲκ . α τη/ ποιον φοβηθειϲ δειμα[

(Space of 2 cm. blank)

1 2 3 4 5 6 7 8
B 36.]ο̄ ξ [ ] . ξ ο ξ ο . [
37.]ϲ̣ι̣ωτι τινε πι το . [. .]οι[

1 2 3 4
38.] ϲ ο φ ξ[
39.]α γνωμην π̣ . . . [

1 2 3 4 5 6
40.] ϲ̣ R . ι [ ] ξι̣[
41.] . νοϲ *ϲαφω̣ϲ τ̣ο̣ . [



Palaeographic Notes

L. 1. The line of notation is situated about 1 cm. below the top of the surviving papyrus. It was almost certainly the first line on this sheet.

L. 2. [ ].κε: a possible reading is [ ]ικε, which may have stood in a phrase like μηδέν, ὦ φίλτατε, [ε]ἶκε τῷ [θυμῷ. The desperate condition of the papyrus here even allows the possibility of ὦ φίλτατ', εἶκε τῷ[, since letter spacing is irregular; it is impossible to be sure that a letter stood in the lacuna in line 2, and note 7 in line 1 may be non-existent. The diseme over the note 1, 6 could be explained either thus or by lengthening of epsilon at the end of a kolon (cf. l. 11).

L. 3, 8. The papyrus is rubbed above the note, which may have been a badly formed zeta, or even xi.

L. 3, 10. The surface is rubbed above the note, where a diseme or dot may have stood.

L. 4. ποτη: the papyrus is badly damaged here, and theta is not ruled out. τίς εἶ ποτ' ἢ τίνος κτλ. would seem a plausible suggestion.

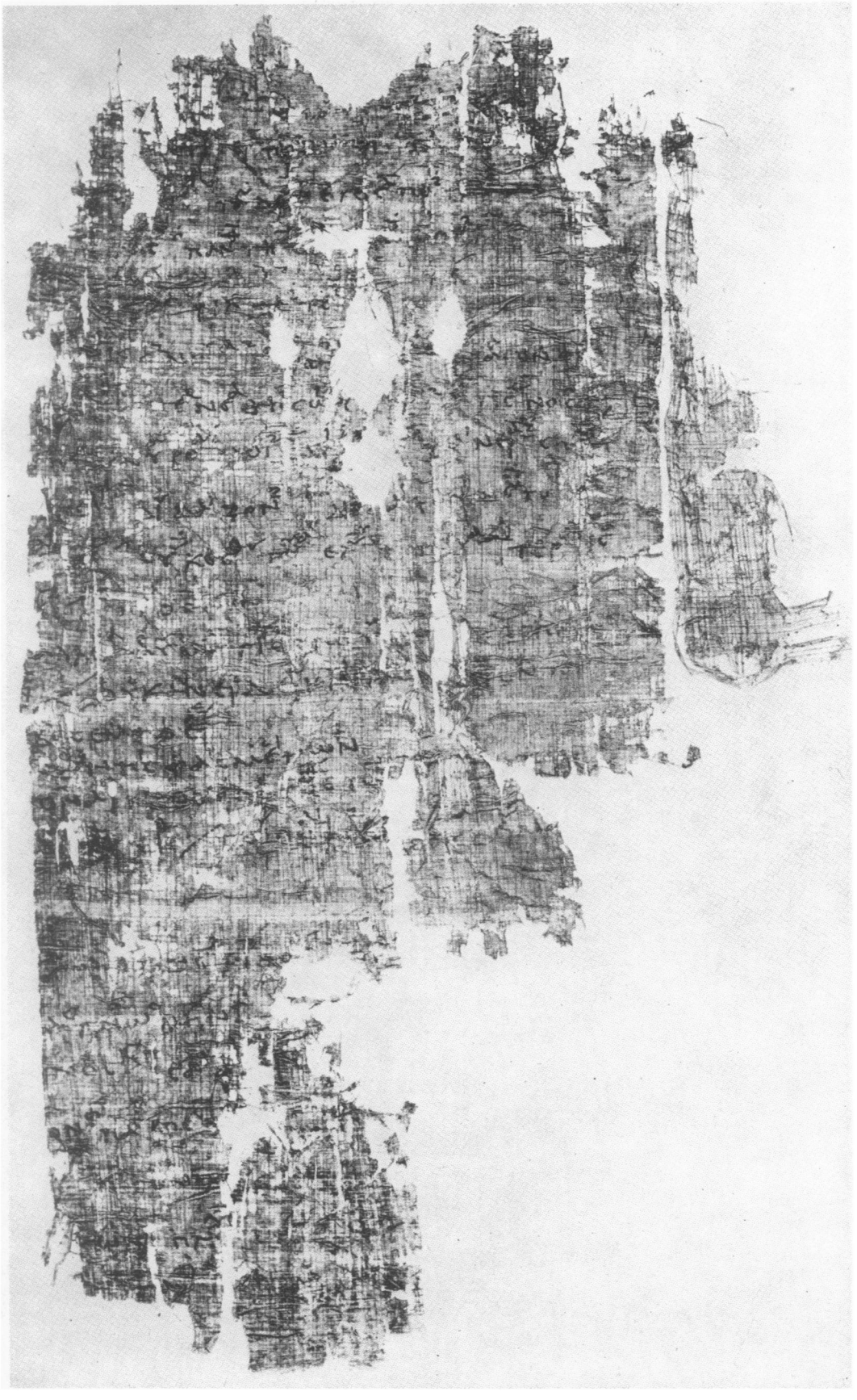
L. 5, 2–3. Very doubtful readings.

L. 5, 4. Carelessly written, but tolerably certain.

L. 5, 11. The lower horizontal stroke is unusually long: perhaps a sign that the scribe had reached his margin.

Ll. 5 and 6. The indicated cancellations were effected with heavy horizontal strokes.

L. 6. ελεγεc: between epsilon and sigma the papyrus is damaged; the space is slightly more than



PAPYRUS MICHIGAN Inv. 2958

is normal between the letters. Perhaps iota stood here; slight evidence for its presence is the fact that the bar of the epsilon is extended and is horizontal.

L. 7, 9. Possibly a trace of a diseme stands over the trace of a note.

L. 8. .ọ̣ι̣κ̣: the traces before the doubtful omicron may be reconciled with mu or phi. The existence of text to the right of ικ̣ is a matter of probability without proof, but any letters written might well have been lost.

L. 9. Where the signs are comparable, they seem to be in the same hand as the notes with the text. (For this line, see the discussion on p. 188.)

Ll. 10 and 11. The alpha before φιλατε stands at a level which makes it uncertain whether it is a letter of the text or a note of the melody. It has, therefore, been assigned a note-number, tentatively.

L. 10, 2. The note was possibly iota; no suprascripts could have survived.

L. 12. The irregular disposition (both horizontally and vertically) and the large number of the notes make it difficult to determine by position the exact relation each bears to the text.

L. 12, 3–4. Only a trace of the diseme remains; a dot may have stood over 4.

L. 13. νῳ: the supposed omega may have been omicron, of the careless open type seen in -τον of αελπτον, line 21. The surface of the papyrus seems fit to have retained some trace of the second loop of omega, yet none appears.

L. 14, 1–3. The suprascripts are very doubtful. At 14, 3 xi (if correct) gives the interval of a tritone with the following note.

L. 14, 7. The surface which may have borne a diseme is lost.

L. 15. After νοcτ, two possibilities, both resting on very faint traces of ink: a doubtful omega, a doubtful omicron-sigma. ? πόθεν . . . . ἐγένεθ' ἡ σωτηρία; τίc νόcτοc . . . . ; (The diseme at 14, 3 implies the scansion – – for νοcτ.)

L. 16, 2. The suprascript bar seems plainly to have been made in two strokes: so also that of 18, 12–13.

L. 16, 7–8. Although a hyphen would be appropriate, and the papyrus should have retained at least a trace of it, no ink remains.

L. 17. Note the hiatus between μοι and εκ̣, which may be between kola. The number of letters missing between εκ̣ and φανειcηc cannot be accurately estimated. ἐκ τῆc? ἑκάc? ἑκάθεν? The diseme at 16, 10 suggests that a long syllable has been lost. This, and the general metrical context, are against ἐκπροφανείcηc.

L. 18, 8, 9, 15–17. Suprascripts, if any were written, would have been lost.

L. 19.]λ̣ηc: perhaps chi instead of lambda, but there is no other chi in the text to serve for comparison. Eta can be read only on the assumption that the top of the vertical stroke has been lost, yet the surface of the papyrus appears to be intact.

δι[: above, between the lines and close to the preceding line of text, with a broken edge to the right, two boldly written letters, of which the second may be epsilon; possibly δε[.

For the repeated imperative we can compare, stylistically, line 13, where φράcον φράcον is plausible. But see also p. 186, n. 1.

L. 20, 1–2. The two dots may well be portions of a single diseme.

L. 20, 15–16. Between these notes the papyrus is broken. At the base of 15, alpha, there is ink resembling the extension of the slanted stroke which can be seen in 16, 15. Possibly iota stood in the lacuna.

L. 20, 16. To the right, at a distance of $3\frac{1}{2}$ mm., traces which might be of a vertical stroke, inclining slightly to the left at the top.

L. 21.]. . .: the second and third dots represent what could be epsilon-tau.

L. 22, 5. Possibly a diseme was drawn slightly to the right.

L. 24, 4. Doubtful. If a leimma, it is unusually small.

L. 24, 16–17. Very much damaged above: no suprascripts could have survived. Elsewhere in the line, traces of disemes, if they had been written, should appear.

L. 25. Divide: ἄλλο δ'αὖ μ'ἔτι? The following hiatus is between kola? At the end of the line, the papyrus is badly rubbed; slight evidence of ink or stain three letter-spaces beyond the dot.

L. 26. In the latter part of the line, though the papyrus is in good condition, there is no sign of the expected disemes (but the same is true in ll. 30, 32, and 34).

L. 27. τάδε or ταδί.

L. 28, 1. Possibly the initial stroke of an inverted omega.

L. 29.].βοc: e.g. θάμβοc, βλάβοc—a direct object is likely.

L. 32, 7. The suprascript is carelessly drawn, in two strokes, with a kind of hook at the left, an upward pitch at the right.

L. 33. λ..ειc: no room here for the larger letters.

L. 34, 9, 10. The papyrus above is rubbed.

L. 35. α τη: having blotted the alpha, the scribe leaves a small gap before tau?

Ll. 36 ff. Throughout Section B, the incidence of disemes is markedly sporadic.

L. 39. π̣ . . . [: possibly π̣α̣τ.[.

L. 40, 3. The ink traces may be of the top and right side of the note omicron.

L. 42, 2. The reading appears to be sound, but the note is placed unusually low.

L. 42, 6, 7. The diseme is doubtful.

L. 44, 3. The note may have been xi.

L. 44, 5. A subscript hyphen, with an illegible trace above it.

L. 46, 3, 4. The papyrus is rubbed above and below the notes.

L. 46, 7. The note is possibly xi.

L. 47. The papyrus is broken between ηλ and θε, but there is no reason to suppose that anything is lost.

L. 48, 1, 2. Above the line midway between notes 1 and 2, and over alpha of the text, a curving stroke, perhaps intended as a dot associated with the note phi.

Note 2 may be omicron.

L. 48, 4, 5. Between these notes the papyrus is broken. If the hyphen below note 5 is genuine, a note may be missing, since a hyphen would hardly be used to join identical notes. However, the hyphen may have been intended to belong to the whole group 3–5, all set to ταυ.

L. 48, 7, 8. The notes are mutilated. Over 7, perhaps a dot, but the surface fibres are rubbed away, and if genuine, this ink must have stained through to the back fibres.

L. 49. A large space stands between ταυ and τα, within which the papyrus is broken, but there is no reason to suppose that any letter is lost. The large gap may be due to the fact that three (or more?) notes are given to ταυ. In the second syllable, the scribe botched his first attempt at alpha and rewrote it, drawing the bar of tau through the abortive first attempt.

Discussion of the text

The text or texts are unidentified. Between lines 34/35 and 36/37 there is a change of musical scale, but this need not mean that the texts are separate—unconnected or loosely connected. There is also a blank space on the papyrus at this point, equivalent to a line of text with notation, but we cannot be sure that this space was not utilized in the missing portion on the left (see below). If the texts were separate, this might

be another example of a collection of extracts, as in the Berlin and Oslo musical papyri. For convenience of reference we call these Sections A and B.

In Section B few words are read with certainty and no coherent sense has been obtained at any point. There is more connected text in Section A. Here imperatives (ll. 13, 19), and vocatives (ll. 2, 11), the first personal pronoun (ll. 17, 25) and first and second personal forms of the verb (ll. 4, 6, 27), strongly suggest a dramatic text. There are requests for information (ll. 13, 19) and, probably, interrogative pronouns (ll. 4, ?6, ?15, 35). Drama may also be suggested by the occurrence—tantalizingly enough—of the name Aigisthos. There are references to safety, to a return (of Agamemnon?), to the unexpected, to the fears of a male person. Since the vocative φίλτατε (l. 2, if correctly interpreted) and the question τίς εἶ (l. 4) cannot be addressed to the same person, there is probably a change of speaker here: less probably, the same speaker is addressing two persons in succession. Changes of speaker may well occur elsewhere, but have not been identified with certainty.

The metre or metres are uncertain, but a strong iambo-trochaic tendency appears in those portions of Section A which can be read with plausibility: e.g. lines 4, 15, 21, 27, 31, 35. Some of these phrases have the ring of iambic trimeters (or possibly trochaic tetrameters), so that it is a hypothesis worth considering that some or all of Section A is written in a dialogue metre of drama. Lyric forms are not exemplified. Evidence is provided by the second Oslo piece (cf. *Symb. Osl.* 31, 27 f.) that iambic trimeters might be set to music in the Hellenistic period.

The right-hand margin of the column seems to be preserved. The ends of lines 3/4, 5/6, 7/8, 12/13, 14/15, 16/17, 18/19, 20/21, 24/25, 26/27 (probably 32/33, perhaps 34/35) roughly correspond; the papyrus to the right is badly rubbed in places, but some traces of writing would have been found, if it had in fact been used. The missing portions of the lines are thus to the left, and they may have been of considerable extent, since it seems to have been the practice to write musical texts in unusually broad columns (cf. E. G. Turner in *Oxyrhynchus Papyri*, XXV, 113). Four of our lines, however—11, 23, 29, 31—stop short of the right-hand margin. With the exception of 23 (προς νυν), the instances all end with a cretic, the metrical patterns being: – ∪ – (φιλτατε, 11); ∪ – ∪ – (-βος εμποει, 29), – ∪ – ∪ – (σων πεφασμενων, 31). If this is more than coincidence, it looks as though these may be the ends of iambic (or trochaic) kola: where two follow in succession, i.e. 29 and 31, we may have a clue to the length of line. It is at least not impossible that 31 contained a complete iambic trimeter (with seven elements missing) or trochaic tetrameter (with ten elements missing), the shorter kolon being on the whole more probable. On the assumption that some six or seven syllables are missing to the left, a good deal of the text of A, particularly towards the end, can be interpreted as iambic trimeters.[1] The seductions of this hypothesis must, however, be treated

[1] E.g.

31 × – ∪ – × – ∪] σῶν πεφασμένων
33 × – ∪ – × –] τον Αἰγίσθου λ..εις/x – ∪ –
35 × – ∪ – × –] σκ.ατη / ποῖον φοβηθεὶς δεῖμα
35A – × – ∪ –

(There would be ample room for line 35A in the missing portion.)

with caution. It breaks down in 19 (δίδαξον δίδαξον), except on a supposition which is quite uncertain,[1] and in 25, unless we assume a licence abnormal even in comedy (ἔcπευδε πρὸc ημα.). Hiatus in 17 and in 25 might be interlinear (in which case note the breach of Porson's Law in 17), but not in 27 (where, as in 35, we have the additional problem of the slanting line: *v. infra*).

It is of course possible that iambic trimeters (or trochaic tetrameters) were combined with other metres, e.g. dochmiac or cretic-paeonic. The rhythmical notation, if it were clear and consistent, should help to identify the metre or metres. As it is, the problems interlock: we need the metre to interpret the symbols, the symbols to interpret the metre. A further difficulty is that we do not know for what purpose the writer wrote or whether the text was continuous, though the consistency of the melodic scale suggests that it was. Still, there may be false starts and missing conclusions. In 23 writing ends in mid-line with προc νυν! Further uncertainty is injected into the interpretation by the use in lines 26/27 and 34/35 of a diacritical mark unexampled in musical papyri.[2] A long upward-slanting line, boldly written, rises from the bottom level of the text to the top level of the notation. The following texts differ in their metrical shape: the line is followed in 26/27 by a trochaic, in 34/35 by an iambic movement. It can be neither asserted nor denied that in each case we have the opening of a metrical kolon or of a new speech (there is hiatus between the words on either side of the line in 26/27). The function of the lines may be to separate or to connect: if to separate, it could be that the writer has used this mark instead of beginning a fresh line (as, e.g., after 29 and 31).

As to the metre of Section B, it can merely be said that what can be read is consistent with an iambo-trochaic interpretation.

The Music

(i) *Melodic notation*

As stated above, the musical notation was written by the same pen and hand as the text. The size of the notes and the care with which they were written vary considerably, as does the positioning of the notes in relation to the text. The Oslo and Oxyrhynchus (2436) musical papyri have texts written continuously without marked word-division, the notes being placed above the relative syllables, generally over the vowel. In the

[1] There is no real objection to the repetition of δίδαξον, stylistically or metrically (e.g. ∪ – ⏑/∪ – ∪ –), nor to the apparent repetition of melody between 5–9 and 11–15. The notes repeat as follows:

5	6	7	8	9
ι	ζ	ι	.	ζ

10	11	12	13	14	15
ī	ι	ζ̲ι		.	ζ

It may be worth suggesting that perhaps the scribe made a false start, omitting the second iota; started again (making and correcting an error in the text), but failed to return and delete the first δίδαξον. The absence of rhythmical symbols in 5–9 could be accounted for by the state of the papyrus, but perhaps they were never written. However, no great confidence should be placed in this hypothesis.

[2] Professor Turner has called attention to the following instances of dashes within texts: Berlin Euripides, *Phaethon*—KKT v, 2, p. 79; Chariton—*Oxy. Pap.* vii, 1019; Euripides—N. Lewis, 'Greek Literary Papyri from the Strasbourg Collection', *Ét. de pap.* iii, 52 ff. In these instances kola or sections are set off; in *Oxy. Pap.* iii, 413, the dashes seem to serve a different purpose, perhaps cueing the action in the mime.

Berlin papyrus gaps are left after the vowels (and sometimes after the final consonant of a word); the notes are written above the gaps and not (with rare exceptions) above letters. In our papyrus there is a strong tendency to divide words and to place notes above the resultant gap (though it is not always so used). Internal division is less common, and it is sometimes between consonants. Examples: 16/17 (*φανει cηc*), 20/21 (*ec τα ελ πτου*), 46/47 (*ηλ θε*), 48/49 (*ταυ τα*).

With the exception of line 9, the melodic notation raises no problems. There is a change of *tonos* after the gap between lines 35 and 36; and we therefore distinguish 1–35 (apart from 9) and 36–49 as Section A and Section B respectively. The extant notes, with conventional modern equivalents, are as follows.

Section A.	g	c'	d'	e'	f'♯	g'	a'
	ϕ	*ξ*	*ι*	*ζ*	*α*	ʊ	⊖

The symbol ʊ is a form of the note described by Alypius as *ω τετράγωνον ὕπτιον*. It occurs in a rounded form in P. Berlin 6870; flatter and more carelessly written in P. Oxy. 2436. Here also it is rounded, and its true character is clearly seen at 18, 4, but the writing is often careless, almost angled at the lowest point (in l. 20 notes 5, 8, and 10 show various degrees of care). This series of notes is proper to the Hyperionian *tonos*, which is employed also in the Berlin paean and in parts of Oslo A. The note *ϕ* is read once only, but with certainty (30, 9). The notes of the scale which intervene between *ϕ* and *ξ*, i.e. c (a) and o (b), are not instanced, but may be lost. The range of pitch corresponds to that of the Berlin paean, being slightly higher than that of Oslo A. The most striking melodic feature is the small compass within which the extant scraps of melody are seen to move. Since the musical phrases are incomplete and cadences cannot be identified with certainty, it is unprofitable to speculate about tonality.

Section B	f	g	a	b	c'	d'	e'
	ʀ	*ϕ*	c	o	*ξ*	*ι*	*ζ*

The symbol ʀ (*βῆτα ἐλλειπές*) occurs only at 40, 2, but seems certain. The form is closely similar to that of P. Oxy. 2436 (i, 2, 3 and 4, 1), Oslo B 17, 3; it is found with a somewhat different shape in the recently published Vienna fragments (cf. *Wiener Studien*, 75, p. 67 f.). This series of notes is proper to the Hypolydian *tonos*, which is employed also in the Second Delphic Hymn, the Oxyrhynchus Christian Hymn (P. Oxy. 1786) and Oslo B. The extant compass is less than an octave: the notes (not instanced) above and below are, respectively, ᴇ (f[1]) and ⅂ (e). Nothing can usefully be said about the melody, except to observe the preponderance of the three notes *ϕ* c o.

One point of substantial interest seems to be established. There is a sufficient number of cases in which both text and music are certain or highly probable to demonstrate that the melody—of both A and B—paid a high degree of regard to the word-accents.[1] In only one case (*Αἰγίcθου*, 32/33)—and not all the notes are read with certainty—does an unaccented syllable carry a note higher than that of the accented syllable.[2] The instances can be studied conveniently in the transcription into staff

[1] The evidence of earlier musical documents is examined in *Symb. Osl.* 31, 64–73. See also *Oxy. Pap.* xxv, 116 f.

[2] Moreover, *Αἴγιcθ' οὐ* (or *οὖ*) is a possible division.

notation, but the following may be cited here: 5, 4–7 (τάδ'ἔλεγες or τάδε λέγεις); 12, 15–16; 16, 12–16; 20, 8–14; 30, 4–9; 34, 4–6; 38, 2–3; 46, 3–5. There are several cases in which a circumflex-accented syllable seems to be set to a falling pair of notes: 24, 5–6 (?); 28, 4–5; 30, 2–3 (?); 40, 5–6 (?); 46, 3–4. On the other hand, the subordination of grave accents to the following acute or circumflex (as in the Delphic Hymns) is not always found: cf. 26, 3. This seems to have been the first feature of the accentual system to break down. Our pieces thus fall with the Berlin paean and P. Oxy. 2436 rather than with the Delphic Hymns; observance of the accents is slightly stricter than in the two Oslo pieces. Unfortunately, it is only the Delphic Hymns that can be dated (*c.* 130 B.C.).[1]

It is worth bearing this practice in mind in interpreting the text. Thus, in line 4, τίνος is more probable than τινὸς; in line 35, we should hesitate to read e.g. ⟨κ⟩ράτη. In line 6, the notes suit ἔλεγες (or λέγεις) but not ἔλεγές ποτ'.

The series of note-forms in line 9 constitutes a special problem. That they are musical notes is certain; and there is some probability that they were written by the same hand as the notation associated with the text. In what relation, if any, do they stand to the surrounding context? The fragmentary texts of lines 8 and 11 do not help in determining this, since it is not clear whether there was a natural break which might, for instance, have given occasion for unaccompanied melody.[2] Line 9 may not indeed have formed part of the original plan. The distance between 7/8 and 10/11 is not in fact greater than that between 16/17 and 18/19. The notes may have been written there, because there was space, rather than space left for the notes. They are lightly, and perhaps quickly, written.

The notes may or may not be melody: if not melody, they might be a scale or just writing-practice (less likely). The fact that (with the exception of a slanting line at the end) there are no suprascript symbols does not rule out melody. But the main problem is to identify the notes and the system of notation to which they belong. The Greeks had two systems of notation, generally distinguished as 'vocal' and 'instrumental'. The vocal notation is used for the settings of words in all our documents, with one exception. The instrumental notation is used for the Second Delphic Hymn and for the pieces without words on the Berlin papyrus (and probably for notes of accompaniment in the text line of the Orestes papyrus). If line 9 represented an instrumental interlude, one might have expected, though one could not demand, the instrumental notation.

To which notation do the notes of line 9 belong? Perhaps the most striking fact is that, of the notes which can be clearly read, the majority seem to belong to the vocal notation and to the *tonos* employed in A: cf. 3, 7, 8, 10, 14 (not exemplified in the noted text). In addition, 2 may be ⊖, 9 ζ, 19 ϩ. But 14 is also a symbol belonging to the instrumental notation, to which we should naturally ascribe 5–6 and 12–13. The combination of notes from both notations might occur in the writing of a scale, but we have been unable to identify the series as such.

[1] Cf. *Oxy. Pap.* XXV, 117.

[2] The vocative in line 11 might, but need not, have occurred towards the beginning of a speech.

(ii) *Rhythmical notation*

The papyrus probably exemplifies all the five symbols known to us from other musical documents: the diseme line, the stigme or arsis-dot, the hyphen, the leimma, all seem to be certain, and there may be an instance or instances of the double-point or colon.[1]

(*a*) *Hyphen.* Where more than one note is given to a syllable, we find a subscript hyphen in some 17 or 18 cases. (The state of affairs is sometimes rather obscure, e.g. at 32, 13; 44, 5; 48, 5.) In a smaller number of cases no hyphen can be read, but the condition of the papyrus is often bad and some hyphens may be lost. There are, however, instances in which, if a hyphen had been written, it could probably still have been read (e.g. 16, 7–8). It is hard to say whether the absence of hyphens has significance, rhythmical or melodic, or is due to carelessness.

There is one clear case in which three notes are given to a syllable: 20, 12–14. The hyphen covers the last two notes only, but may have been intended to cover all three, representing a triplet rhythm.[2] In a similar group of three, at 12, 2–4 (where the text is obscure), the hyphen covers the first two notes. (See also the comment above on 48, 4–5.) Two notes, with a hyphen, are found over a short syllable at 16, 3–4 and 20, 8–9; without a hyphen, at 30, 7–8 (see below). This implies a halving of the basic time-unit; and there is a parallel to this in line 3 of the Oxyrhynchus Hymn (over the first syllable of χᾰ́γιον, which is scanned short). There are also two rather dubious instances in the Oslo papyrus (4, 8–9 and 14, 12–13).

(*b*) *Double-point.* There is no absolutely certain occurrence of this symbol in our papyrus. At 7, 6 the upper dot is not immediately above the lower, which may be the trace of a note. 30, 6, however, is a probable instance. The function of the symbol in our musical texts is obscure (cf. *Symb. Osl.* 31, 85–87). On the whole it would seem to have been used in order to clarify the relation between notes and text; and, from this point of view, there would be a good reason for its employment in line 30. The composer has set the third syllable of πεφασμένων to two notes (*v. supra*), despite the fact that it is short; the preceding long syllable carries only one note; he wishes to ensure that this unusual distribution is observed, and so employs the double-point. No hyphen is read under 30, 7–8. This may not be significant, but one must refer to the observation of R. Wagner (*Phil.* 79, 207) that, in the Berlin paean and the Christian Hymn, a double-point is found preceding a group of notes belonging to a single syllable and not linked with a hyphen (cf. *Oxy. Pap.* XXV, 117). One must ask why the double-point and not the hyphen was used in this case.

(*c*) *Leimma.* This symbol occurs in the form ∩, as in the Berlin papyrus and the Oxyrhynchus Hymn: contrast the careless form, approximating to a straight line, of Oslo A and the angled lambda of the MS. hymns and P. Oxy. 2436. There are several occurrences, not all certain, in Section A, none in Section B. Elsewhere the leimma serves more than one function (cf. *Symb. Osl.* 31, 81–84; *Oxy. Pap.* XXV, 118). (*a*) In Oslo A and the Oxyrhynchus Hymn it is found at the end of catalectic anapaestic

[1] The evidence of earlier documents is examined in *Symb. Osl.* 31, 73–87; *Oxy. Pap.* XXV, 117–19. A few rhythmical symbols are found in the Vienna fragment (c): cf. *Wiener Studien*, 75, p. 59.

[2] It is also possible that the group should be rhythmized  (cf. *Oxy. Pap.* XXV, 117, n. 4).

kola, representing a pause or prolongation. (*b*) In P. Oxy. 2436 it represents a prolongation of the preceding note over a long syllable which appears to have the value of three time-units: the metre is apparently iambic with 'suppressed' short syllables. A similar function is seen, in a logaoedic metre, in the Hymns of Mesomedes. (*c*) In the Berlin paean and Ajax fragment also, the leimma seems to have the function of protracting the preceding note. In the paean it always occurs at the end of a phrase, but sometimes precedes the final note; in the Ajax fragment two cases out of three are within the phrase. It might be expected that in any given piece the leimma would have a single consistent function. Our instances are as follows:

1, 4; 5, 3. Neither certain, the latter very doubtful. Both follow a note (or notes) associated with a long syllable (doubtful in 1) and are followed by a text of cretic-paeonic shape. $\overset{\smile\smile}{—}\,\smile -\,/\,\overset{\smile\smile}{—}\,\smile -$ would be a possible rhythm: trochaic with suppressed short syllables (cf. (*b*) above)?

7, 3. A cretic rhythm is possible here also, but is given no support by the following word and notes. The text could also be interpreted as the end of one trimeter and the beginning of another. The employment of a leimma at such a point would be a new phenomenon (but see below).

18, 3. The suppression of a short syllable at this point is not out of the question, but the rhythmical interpretation of the context is problematical (see p. 186, n. 1). In this case alone the leimma, which always has a dot, carries a diseme also.

20, 4. Follows a long syllable; precedes what appears to be the beginning of a trimeter.

24, 4. The relation of notes to text is uncertain, but here at least there could be no question of a break between kola. The reading is, however, very dubious.

(*d*) *Disemes*. In all cases where the text is read, these occur over long syllables. Where one note only is given to the syllable, the diseme is placed directly above the note or slightly to the right. Where two notes are given, the position varies: sometimes the diseme covers both notes (e.g. 20, 10–11), sometimes the first only (e.g. 28, 4–5), sometimes the second only (e.g. 14, 9–10). There are also cases of three notes to the syllable: e.g. 12, 2–4 (where the diseme covers the second and third, the hyphen is below the first and second), 20, 12–14 (where the diseme is over the second note only, the hyphen below the second and third).

Clearly disemes relate to the syllable and not to the note. Not every long syllable, however, by any means carries a diseme. Where a diseme is absent, there are three possible explanations. (*a*) The physical disappearance of the diseme, in a broken or rubbed piece of papyrus: and this is doubtless the correct explanation in some cases. (*b*) Accidental omission (through carelessness in copying?). Suprascript symbols seem notably absent in some portions of the papyrus: e.g. 24/25, 26/27, 30/31. (*c*) Deliberate omission. It may be remarked that, in the Oslo papyrus, the employment of disemes is regular in A, but selective in B, on a principle which has not been established. If we could reach a proper understanding of the metre and rhythm, we could no doubt assign each case where (*a*) does not operate to either (*b*) or (*c*).

A question of some importance is whether the symbol is ever to be read in the form

of ⅃, i.e. as a triseme. This is exemplified in the Seikilos inscription;[1] and it would appear there to be used for the same purpose for which the leimma is used in some other pieces, i.e. to indicate that a note is prolonged to the length of three time-units (because of the 'suppression' of a short syllable or otherwise). It is possible, though not certain, that the leimma is so used in our papyrus; it is probable, though not certain, that both notational conventions would not be used in the same piece. The writing of dots and disemes is here so careless[2] (and the condition of the papyrus often so bad) that we should not lightly assume that a triseme was intended. A form approximating to ⅃ is indeed seen at 10, 5; 20, 3 and 13; 40, 2; and possibly also at 18, 2 and 42, 3. In few of these cases is there an inherent likelihood of a triseme: it is much more probable that the writer has amalgamated diseme and dot into a single stroke. 20, 10 is remarkable, in that there seems to be a dot in addition to an upward prolongation of the diseme. But could a triseme stand over *two* notes joined by a hyphen? At 32, 7 the diseme ends with an upward-slanting line; at 28, 4–5, in addition to the diseme and dot over 4 (or 4 and 5), there seems to be a slanting line upward from the top edge of 5. In both cases the end of a trimeter is to be suspected; and it may, therefore, be worth observing that in Oslo B (at 16, 9; 17, 2; 18, 7—in all three cases at the end of an iambic trimeter) the diseme has a curious upward prolongation.

(*e*) *Dots*. Our one theoretical pronouncement (Anon. Bell. §§ 3/85) tells us that the ϲτιγμή was used to mark the arsis. It is so used, strictly and consistently, in the Christian Hymn[3] and in Oslo A in the case of an anapaestic metre; in the Berlin paean, to give a dactylic/anapaestic rhythmization to a text in long syllables; in Seikilos, in the case of an iambo-choriambic metre. The employment of the dot in the Berlin Ajax fragment and in the Orestes papyrus (dochmiacs)[4] is less clear (cf. *Symb. Osl.* 31, 77 ff.). Dots are rare in Oslo B (iambic trimeters?) and in P. Oxy. 2436, except in ii, 6–8, where they are used in association with a cretic text (? iambic metra with suppressed short syllables). The problem in our papyrus is a superfluity (in many parts) rather than a scarcity of these symbols. Since, in our other evidence, they tend on the whole to be carefully and intelligibly used, there is some probability that here they have on occasion been misread or miswritten, and that some cases may even be blots from a careless pen. We can discern no consistent and intelligible pattern which might help us in the interpretation of the metre. We add, however, a number of observations in the hope that they may help other students towards a solution of these problems.

If the dots read over 7, 2–7 (including probably 6) and over 16, 2–8 are all genuine, then, even allowing for possible breaks between kola and for our ignorance of the function of the leimma, we might as well give up the attempt to interpret them in

[1] It is found once in the Vienna fragments, in line 2 of fragment (c).

[2] In two cases, at 16, 2 and 18, 12–13, the diseme is clearly written with two strokes, meeting in a kind of peak. This seems to have no bearing on the question of trisemes.

[3] With this qualification, that in the later portion of the piece the practice is reversed, the dots appearing, but still consistently, over the thesis-syllables (cf. *Symb. Osl.* 31, 81).

[4] The scheme would appear to be: ⏒̇ ⏖ –̇ ⏑ –. Dots are also found over the squarely written zeta (? an instrumental note) which occurs between dochmii in the line of text. The Orestes papyrus has been re-edited by H. Hunger and E. Pöhlmann in *Wiener Studien*, 75, pp. 76–78.

the light of our other evidence. On a lesser scale, the same might perhaps be said of 10, 3–5 (which might well be a test case). The diseme at 5 indicates that the last syllable of φίλτατε is lengthened (and the written text ends at this point). The cretic *lexis* might then be: a cretic as such, the end of an iambic metron (α? φίλτατε), an iambic metron with suppressed short syllable, a catalectic trochaic metron (though more complex metres are not ruled out). The dot over 4 is quite certain. It seems improbable that there was a dot as well as a diseme over both 3 and 5. It is possible (to revert to an earlier suggestion) that one or the other was a triseme (or intended as such). If the former, we should have a syncopated iambic metron, the second half of which is treated as arsis; if the latter, a syncopated (or catalectic) trochaic metron, in which the first half is treated as arsis.

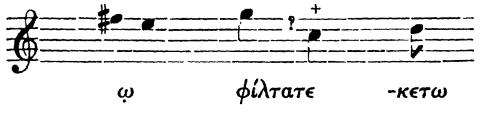
Lines 3/4 are relatively intelligible. The metre is apparently iambo-trochaic (without syncopation). The presence and absence of dots are fairly clear between 2 and 7. If we could assume that note 1 has lost a dot, we have a series: ⏑ ÷ ∪ – ⏑ ÷ ∪ –, implying (on the iambic hypothesis) metra of the form ∪ – ⏑ ÷ or ⏑ ÷ ∪ –.

16, 2–5 may be comparable with 10, 3–5. The dots over 3 and 4 (two notes set to a short syllable) are certain. It is improbable that both 2 and 5 were intended to carry dots, but that over 2 (unless a blot) seems certain. Perhaps 5 has a triseme? (The following leimma, with diseme and dot, is surprising. One may hazard the suggestion that the writer sometimes placed a leimma at a sentence break or change of speakers, with or without diseme, to mark a pause and that such a leimma was not necessarily integrated with the rhythmical scheme. This might explain the fact, if it is a fact, that leimmata are found in addition to trisemes.)

The following transcription of the melodies into modern staff notation should enable the relationship between melody and word-accent to be studied with greater ease; it also displays the narrow range of the melodies, but no less their floridity in certain passages. Since it is intended to be studied in close relation to the palaeographical transcription, some simplification has been introduced and conjectural word-divisions and accentuation admitted. Where time-values are quite uncertain, notes have been printed without 'tails'. The mark + above a note indicates that it is doubtfully read. The mark ? has been used to indicate, where this seemed useful, that a note is missing.

A

1/2



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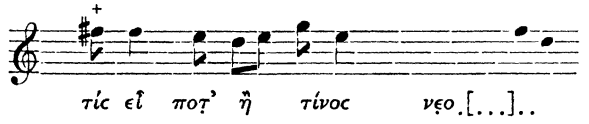

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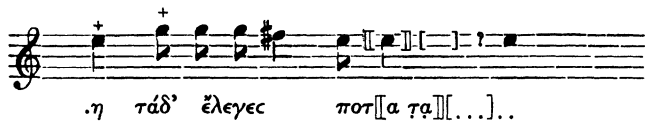

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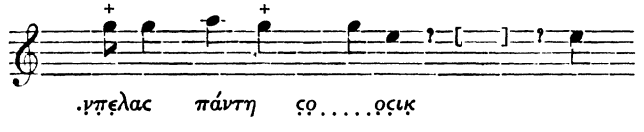

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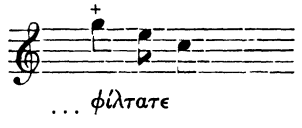

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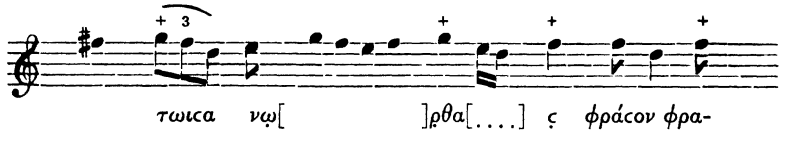

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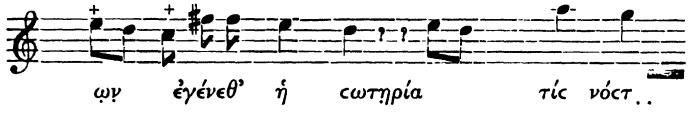

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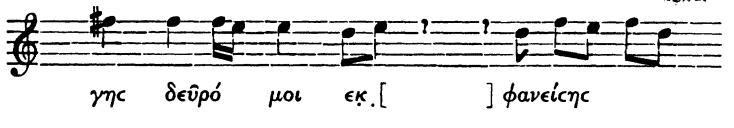

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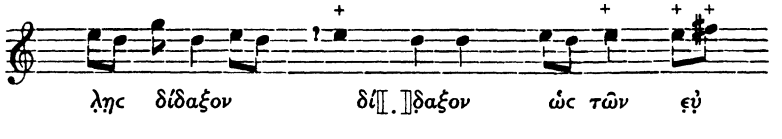

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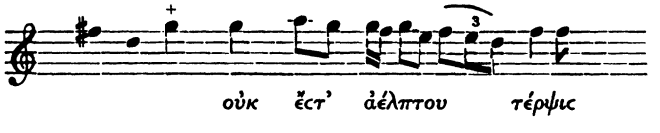

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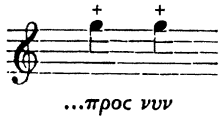

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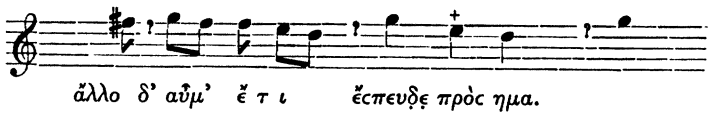

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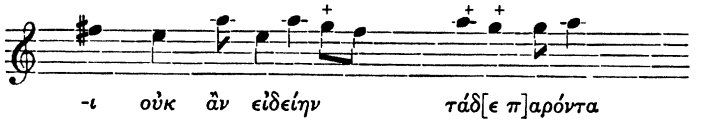

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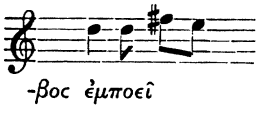

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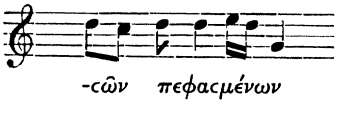

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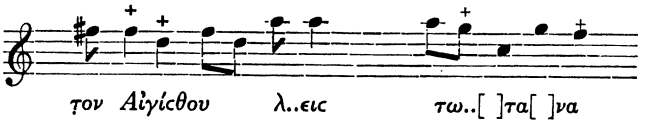

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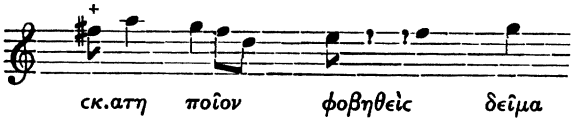

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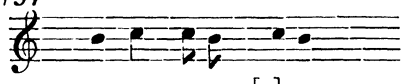

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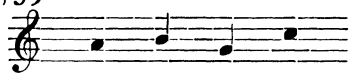

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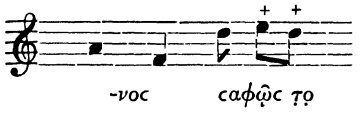

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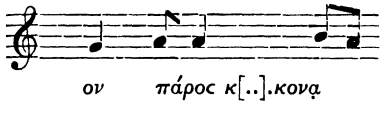

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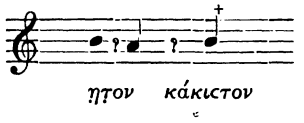

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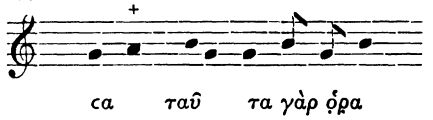


ANNA MACPHERSON DAVIES

ANNA MACPHERSON DAVIES, usually known as Nina, was born in Salonika on January 6, 1881, the eldest of the three daughters of Cecil J. Cummings who had gone to Thessaly to join another Englishman in experimental farming. When this enterprise failed, he accepted the agency of the Johnson Shipping Line, married a Scotswoman, Sarah Macintosh Tannoch, and settled down in Salonika. As the result of a holiday which he and his wife spent on the slopes of Mount Pelion overlooking the Gulf of Volos, he became so enamoured of the view that he had a house built on the side of the mountain with grounds laid out in the style of an English garden. It was in this environment that Nina grew up, a quiet, thoughtful girl, and a great companion to her mother. This possibly made her somewhat old for her years, for one of her sisters recalls that she preferred the novels of Scott to the fairy stories of her sisters, though only four years separated Nina from the youngest. All three children spoke Greek as soon as they could speak English, but Nina refused to speak anything else till her mother threatened to send her to the Greek village to live, and it was not until the mule was at the gate that she decided to relent.

The mountains around Pelion were still at that time infested with brigands, and rumour had it that because the family was English, and therefore naturally wealthy, a plan was afoot to kidnap one or all of the children and hold them to ransom. The situation became ugly and when Mr. Cummings fell ill with malaria, they all returned to Salonika where he died when Nina was thirteen. Their mother brought the three children back first to Aberdeen and then to Bedford where they attended a large private school, at which they acquitted themselves well, a tribute to the upbringing of their mother who alone had been able to give them what schooling they received during their sojourn in Greece.

From Bedford the family moved to London where Nina trained at the Slade School of Art and the Royal College of Art under Walter Crane. In 1906 she took a step as decisive for our science as for her own career when she decided to visit some friends in Alexandria, for here it was that she met Norman de Garis Davies and became engaged to him. They were married in London the following year, and thus began one of the most fruitful partnerships in all Egyptology.

In 1907 Norman, who had achieved a well-deserved reputation for his work in copying the tombs at El-ʿAmarna, was commissioned by the Metropolitan Museum of Art to supplement excavations upon which its newly formed Egyptian Expedition had embarked by providing 'a record through copies, drawings and photographs of the principal painted tombs of Thebes'. As Davies pointed out, 'copying in colour was impossible to most of the earlier workers, owing to the magnitude of the task, only Prisse d'Avennes achieved anything noteworthy in this respect'. The Davieses and their

assistants, Francis Unwin, H. R. Hopgood, Lancelot Crane, Norman Hardy, and Charles K. Wilkinson, were to set new standards of achievement in copying in line and colour, but admirable as were the copies produced by Norman, they were by common consent surpassed by the facsimiles in colour to which Nina now began to devote herself. She, like all other copyists, had begun by working in pure water-colour, but it was Unwin who introduced the Davieses to painting in egg tempera which in his view was the only way to make proper facsimiles since, like Ancient Egyptian processes, it was not transparent. Thereafter, Nina made all her copies in tempera using special materials for the purpose which she obtained from Germany. An additional advantage of the use of this medium is that it achieves a more permanent record, and there is no reason to doubt that, if normal precautions are observed, the copies she has made will endure for centuries with very little change.

In 1908 Norman and Nina settled down in Qurna in a house placed at their disposal by Robert Mond and there they were to pass every season up to September 1939 when Norman retired from service with the Metropolitan Museum. For one day every week, Nina ran a clinic for the local Qurna women and children, many of whom benefited from her ministrations. Like her father before her, she tried to make some corner of the foreign field an English garden and succeeded in turning a part of the inhospitable *gebel* above Qurna into a flowering plot.

At the same time as the Davieses were beginning their new life and work at Qurna, Arthur Weigall, recently appointed Inspector-General of Antiquities for Upper Egypt, was pressing on energetically with the conservation of the Theban necropolis initiated by Howard Carter during his period in office. In this task Weigall received the co-operation of Robert Mond and particularly of Alan Gardiner who saw not only the necessity of clearing, protecting, and cataloguing the private tombs but also of making accurate records and publishing them. The proximity and availability of the Davieses encouraged Gardiner in his ambitions, and before the end of 1909 a scheme had been agreed whereby Nina was to assist her husband with his colour copies on behalf of the Metropolitan Museum and to provide Gardiner at the conclusion of each season with as many paintings as he could afford to acquire. Gardiner also agreed to start a new series of memoirs under the auspices of the Egyptian Exploration Fund (Society) which were to be known as 'The Theban Tomb Series'. From 1915 to 1933 five volumes were produced, each containing several colour-plates to supplement the line-drawings which were likewise by the hand of Nina, though she was helped in some of these by her husband during such time as he could spare from his duties with the Metropolitan Museum. The plates of three of the five volumes are the entire work of Nina, Gardiner making himself responsible for the general editorship including the checking of the inscriptions, as well as the cost of the undertaking.

This enterprise had got well under way when the mother of Robb de Peyster Tytus, the American Egyptologist who died in 1913, financed a more sumptuous series of folio publications for which the Davieses were largely responsible, though Charles K. Wilkinson who joined them fresh from the Slade in 1921, and to whom this note owes much, also made a valuable contribution until his diversion to field archaeology and

Persian studies in 1934 left Norman and Nina to carry on alone. Except for excursions to El-ʿAmarna in 1925–6 and Beni Ḥasan in 1931–2, all her copying was done at Thebes.

By 1923 Gardiner had accumulated a considerable collection of Nina's facsimiles which were exhibited at the Victoria and Albert Museum in July and August of that year and subsequently in Brussels and Oxford. This fired Gardiner with the desire to see a worthy publication of some of these copies, but it was not until 1929 when, through the interest of James H. Breasted, a patron was found in John D. Rockefeller able to put up the large funds required to finance such an undertaking, that the project took tangible shape. The two folio volumes of *Ancient Egyptian Paintings* which ultimately appeared in 1936 are a splendid monument to American munificence as well as to Nina's skill, and the sensibility of the Ancient Egyptian artist. Copies of her work in the possession not only of Gardiner but also of the Museums in Berlin, New York, and elsewhere were included in this publication. In 1954 Nina produced in miniature 'King Penguin' form a selection of some of the reproductions in the folio volumes, accompanied by her own descriptive notes, which succeeded in making her work and its subject matter known to a far wider public. In 1958 she published a further series of colour facsimiles from originals in the British Museum and the Bankes Collection.

To a large extent the work of Norman and Nina is inseparable, but while he as the more dynamic personality has left his imprint firmly on the texts of the volumes they produced together, her own quieter but no less dedicated contribution is there for all to see.[1] Though she took sporadic lessons in Egyptian from Gardiner at Qurna, she did not claim to be an epigraphist. Nevertheless, she has contributed valuable papers to this *Journal* and the perceptive notes on the various scenes published in *Ancient Egyptian Paintings* are the work of her hand. She also greatly assisted in the search for good Eighteenth Dynasty originals on which the hieroglyphs in Gardiner's fount were based and a little volume *Picture Writing in Ancient Egypt* published by the Griffith Institute, 1958, is a by-product of her activity in this field. After the death of her husband in 1941, she was zealous in preparing for publication some of the records they had amassed and the two volumes *Private Tombs at Thebes*, vols. I and IV published by the Griffith Institute bear witness to her ceaseless activity. In retirement at Oxford she continued to work until arthritis obliged her reluctantly to lay aside her brush, though the seriousness of her early years still found her a keen supporter of artistic and intellectual pursuits.

Nina Davies worked rapidly and methodically with great concentration and conscientiousness. She was very facile and could draw a very good line with the brush, reproducing in fact the original strokes of the ancient artist. Charles Wilkinson observed that she thoroughly enjoyed making her copies and never tired of the work, feeling that it was of great importance that they should be preserved in Museums and reproduced in book form. This determination found expression in her seventies when she went at Gardiner's instigation to the Cairo Museum to complete her copying of the painted box of Tutʿankhamūn. Everything about her was neat, well poised, and tidy,

[1] A convenient list of her unpublished copies is given as Appendix B of Porter and Moss: *Top. Bibl.* I, 2nd edition, Part i.

ANNA MACPHERSON DAVIES

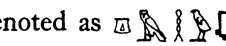
and no matter how arduous the journey was to the tomb in which she was working, she always came back looking fresh and unruffled. To all who were privileged to know her it was clear that quietness and confidence were her strength.

The death of Nina, on April 21, 1965, closes a chapter in the history of British Egyptology; and the sad indications are that an unrivalled tradition, established by such copyists as Burton, Bonomi, Hay, Wilkinson, Arundale, Catherwood, Carter, and Norman de Garis Davies, has died with her, but in splendour.

CYRIL ALDRED

BRIEF COMMUNICATIONS

An Old Kingdom word for 'door-socket'

Two objects denoted as  are among the fittings for the tomb of Weni shipped from the quarries at Tura as a gift of the king in reply to the requests of his follower. The term has been left untranslated by Erman (*ZÄS* 20 (1882), 7) and Breasted (*A.R.* 1, § 308) and even the authors of the *Wörterbuch* offer as an explanation only the ambiguous 'doppelter Teil an der Tür' (*Wb.* v, 171, 13). The etymology proposed by Lemm (*ZÄS* 25 (1887), 115) linking the term with *gmḥt* 'wick' and consequently explaining it as denoting an oil basin, has found little or no acceptance. A connexion with the verb *gmḥ* 'to see' was proposed by Tresson[1] who considers the word to denote 'les deux blocs faisant joindre la stèle-porte à la paroi', and followed by Stracmans'[2] rendering 'deux blocs de jonction'. This explanation remains unsatisfactory; it does not take account of the proposed etymology, nor does its architectural significance seem convincing. The false-door is not linked with the masonry of the adjoining walls, so there seems no place for any such 'blocs de jonction'.

The context indicates clearly that the term is connected with a doorway. This feature makes an etymological connexion with *gmḥ* doubtful as there is no apparent element in the structure of a door which could be linked with 'seeing'. The determinative is not particularly clear, except that it shows a block of stone with a distinct protrusion at one corner.

The difficulties dissolve if the first sign is read not as *g* but as *nst*. Accordingly the term is to be read *nst-mḥw*, 'seat of *mḥw*', which immediately suggests that the object in question is designed as a receptacle. In connexion with a doorway only a 'door-socket' suits this description, so that *mḥw* would have to denote the 'pivot' fitted into it. As Egyptian doors were set up by placing one pivot into the socket and pounding the other pivot into the other socket with the help of a slanting cut in the stone,[3] the block called *nst-mḥw* is presumably the lower socket. *Mḥw* itself is to my understanding an *m*-formation of *ḫwi*, 'to pound', denoting that which is pushed in place in the socket, i.e. the doorpost or door-pivots.

HANS GOEDICKE

The phonetic value of the sign 

SPORTIVE or rare spellings are often considered a characteristic feature only of 'late' inscriptions and little attention is paid to early occurrences. One exception is the rare Old Kingdom hieroglyph , apparently depicting a donkey-head, which has been discussed by Junker, *Gîza*, v, 48 and *Gîza*, xi, 199 ff. with remarks on the thesis proposed by Grdseloff, *Ann. Serv.* 44 (1944), 302 ff. The two scholars arrived at different conclusions, Junker proposing the reading *šw*, Grdseloff suggesting *smn*, to which Kaplony[4] added the reading *sw*. The sign is attested five times during the Old Kingdom and once on an archaic cylinder seal. The latter was used by Grdseloff as the key for his

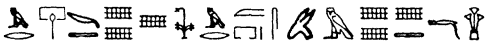
[1] Tresson, *L'Inscription d'Ouni* (Bibliothèque d'étude 8), 44.

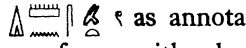
[2] Stracmans, 'La carriére du gouverneur de la Haute-Égypte Ouni', *Annuaire de l'Institut de philologie de d'histoire orientales*, 3 (1935), 511.

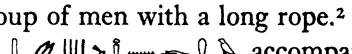
[3] See Königsberger, *Die Konstruktion der ägyptischen Tür* (Ägyptol. Forschungen 2), 26 ff.

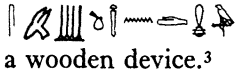
[4] *Die Inschriften der ägyptischen Frühzeit*, 1, 624.

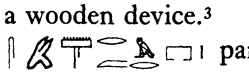
interpretation, who saw in the inscription a male proper name *Smn-Nt*. The same inscription was considered by Kaplony to be a name *Smn-sw-Nt-šps*, a rather curious form for a name and hence difficult to accept. This wide divergence shows the uncertainty in the reading of archaic inscriptions, despite assurances to the contrary, so that it seems well advised not to base the argument on such feeble grounds. The five other instances are:

1.  in the titulary of *Izi*.[1]

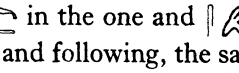
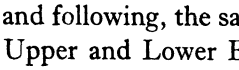
2.  as annotation to a nautical scene showing the pulling of the funeral bark by a group of men with a long rope.[2]

3.  accompanying the representation of two men holding a piece of cloth over a wooden device.[3]

4.  part of the same scene as the preceding and placed before one of three participating men.

5.  name of a place in the tomb of *Sšm-nfr* IV.[4]

In all instances, except the last, the sign  is preceded by  which allows the safe conclusion that the phonetic group indicated by the hieroglyph in question commenced with *s*. The next step in the understanding is taken with the help of instance 1, which, allowing for the apparent internal parallelism, could also be written

In either case we have in the beginning an administrative title, one *imy-r pr-ḥḏ*, the other *imy-r gs-pr*. The parallelism extends also to the geographical indication, *spꜣwt Šmʿ* in the one case, *spꜣwt Tꜣ-mḥ* in the other. Thus there remains  in the one and  in the other part, and in view of the parallelism of the elements preceding and following, the same can justly be postulated for these two groups. By placing the reference to Upper and Lower Egypt side by side, Kaplony's hypothetical reading **swy* (as part of an equally conjectural *imy-r gswy*)[5] can be justly rejected, for  has to be an independent word corresponding to  . By recognizing it as one word we can make a further step in our investigation, concluding that in the spelling, which includes phonetic complements, the written consonant *s* and *m* may be taken to be the first and last consonants of the word. Since it is so much like its counterpart  (*sšm*) it is most tempting to consider  as an orthographic variant and to read the word and also the sign  as *sšm*. This explanation differs from that proposed by Junker; however, he arrived at his reading (*šw*) by postulating a meaning for the word written with the sign in question, supporting it with an ambiguous word *šw* listed in *Wb.* IV, 433, 16 with the meaning 'donkeys', but attested only once in Brugsch, *Thesaurus*, 1527, 8.

In order to substantiate the reading *sšm* we must apply it to the other occurrences of the sign. In example 2 the word denoting a rope is to be read *sšmt*; connecting it with the verb *sšm* it would

[1] Glyptothèque Ny Carlsberg A 670, Mogensen, *La Collection*, pl. 93; Koefoed-Pedersen, *Recueil des inscriptions*, pl. 1. The administrative significance of the indication is discussed in *MDAIK* 20 (1965) (in press).

[2] Macramallah, *La Mastaba d'Idout*, 12, pl. viii, 2nd register and the improvement of the text by Černý, quoted and illustrated by Grdseloff, *Ann. Serv.* 44, fig. 33. Cf. also Lüddekens, *MDAIK* 11 (1943), 22 f.

[3] Capart and Werbrouk, *Memphis*, 370, fig. 357; Junker, *Gîza*, V, 47, Abb. 9.

[4] *LD*, II, 80b; Schäfer, *Aegyptische Inschriften Berlin*, I, 11; Junker, *Gîza*, XI, 199 f., fig. XX *a*; cf. also H. Jacquet-Gordon, *Les Noms des domaines funéraires* (*Bibl. d'Ét.* 34), 309.

[5] Kaplony's rendering '*sšm-tꜣ* der Gaue Oberägyptens, Vorsteher der beiden Hälftenverwaltungen (*gswj-pr*) in den Gauen Unterägyptens' not only disregards the obvious parallelism of the two terms, but also ignores the particularity that an administrative title uses the direct genitive and not a construction with the preposition *m*. Furthermore, the title *imy-r gswy-pr* occurs only from the later Fifth Dynasty, which excludes its use here, in addition to the presumed, but totally unparalleled spelling.

have to be rendered 'leading rope'. The invocation thus would read: 'Cause that the leading rope is stable!'; such a meaning agrees fully with the picture showing a man sitting in the funerary bark and giving instructions to the men pulling it.

Example 3 can be read: *sšm ỉfdw sšr tpy n ỉdmy*;  cannot be the determinative, as Junker seems to assume in his translation, 'Das Zusammenlegen des roten Zeuges aus bestem Leinen'; the determinative for cloth is  and not and no such determinative is used in the instances 1 and 2. His rendering *swš*[1] is prompted by his interpretation of the scene as showing the folding of cloth following its delivery by the weavers. A different explanation has been put forward by Borchardt[2] and, following him, by L. Klebs[3] who saw in the scene the distribution of cloth to the servants. Next to this scene a man is depicted with a strip of cloth in his hand standing before two flat chests. Over them is written *šdt ḥbsw* 'taking out of cloth' which agrees with the pictural representation. However, it would seem strange to assume that cloth was taken out of storage just to be measured for no particular purpose and thus the explanation of the scene as showing the distribution of cloth seems the more likely to me. This would agree with the accompanying saying *ỉw ḥr ḫt* 'it is under the (measuring) rod',[4] and also with the other annotation which should be rendered 'distribution of four-thread cloth of best quality of two-threaded *ỉdmy*-cloth'.[5] For the proposed rendering 'to distribute' for *sšm*, cf. Sethe, *Übersetzung und Kommentar der altägyptischen Pyramidentexte*, IV, 333.

The reading *sšm* and its suggested meaning suit also instance 4 which is to be translated 'distribution of cloth in the presence of the majordomos' (*sšm ḥbsw r-gs ỉmy-r-pr*). The presence of the steward of the house (and also of the 'overseers of the weaving-shop') indicates by itself that an administrative act is being shown, exceeding thus in significance a mere 'folding up of cloth'. This rendering also fits the example 1 where it, as shown in another place, refers to the distribution of land. The remaining example 5 differs in its nature in being a geographical name. According to our findings it should read *ḥwt-sšmw*. It is the only name of an estate in this tomb not composed with a royal name, and I consider it most probable that we have a reference to the tomb-owner *Sšm-nfr*, here called by a short name *Sšmw*.[6]

The reading *sšm* suits all available instances in the best way and should thus be considered the phonetic value of the sign . In view of the obscurity of the reading of archaic seals it seems advisable to refrain from making an attempt to translate the inscription which Grdseloff used as the basis for his theory.

HANS GOEDICKE

A Sealing of Khyan from the Shephela of Southern Palestine

DURING the very rainy winter 1963–4 a clay sealing (fig. 1, *a* and *b*) bearing the name Seuserenrēʿ was picked up at Tell Zafit (Tell es-Ṣâfi), just south of the remains of the crusader castle, near the summit of the Tell.* This is the throne-name of Khyan, one of the 'Great Hyksos' (Fifteenth Dynasty, 1674–1567).[7] The sealing is made of well levigated clay, light brown in colour. It is 4 cm.

[1] The verb, which occurs first in *Hatnub*, Gr. 33, 7, has not the connotation of orderly 'folding up' but rather of 'twisting together', cf. also Deines-Westendorf, *Wörterbuch der medizinischen Texte*, II, 732 f.

[2] *Das Grabdenkmal des Königs Saʾḥu-reʿ*, II, 63, Abb. 9. [3] *Die Reliefs des Alten Reichs*, 25, Abb. 13.

[4] Of the two possible explanations, 'it is short of the rod' and 'it agrees with the rod', the latter appears the more likely.

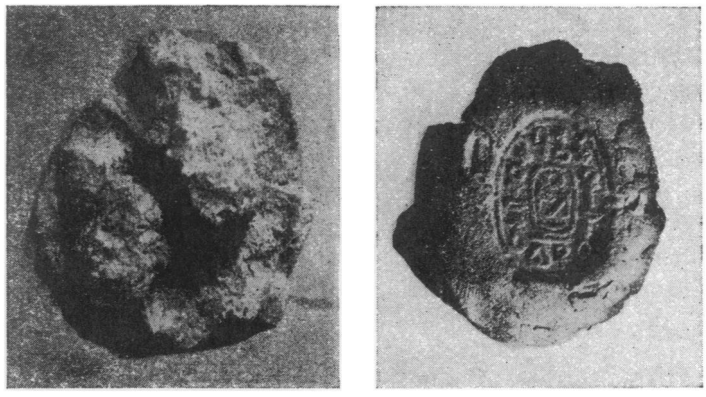
[5] For the specifications of cloth, cf. Smith, 'The Old Kingdom Linen List', *ZÄS* 71 (1935), 134 ff.

[6] Although such a short name is not attested in the tomb, the similarity with the man's full name supports the view tendered.

* I wish to thank Mr. S. Barski, Daliah, who submitted the find to me, told me of its circumstances and allowed me to publish it.

[7] W. C. Hayes, *CAH* II², ch. II (1962), 19.

long and 3 cm. wide. The seal impression itself is 2 cm. long and 1·5 cm. wide. Its back shows the impression of a jar-rim of small diameter and of the string which served to close the vessel.



a *b*

The main part of the inscription, the name of the king, is inscribed in a cartouche, preceded and followed by two groups of signs: *nṯr nfr s-wsr-n-rᶜ dì ᶜnḫ* 'The good god, Seuserenrēᶜ, to whom life is given'.

The impression is clear, but the writing on the scarab was of poor quality; this is seen in the execution of most of the signs, especially in the sign 𓊹 *nṯr* which resembles rather 𓇋 *i*.

On each side of the central column there is a column of hieroglyphs. They can be regarded as purely decorative: the use of signs in this way was common in the Hyksos period.[1] On the other hand, their sequence lends itself to an interpretation: *nsw ᶜnḫ nb nfr* 'Living king, Good lord'.

Here we may have a decorative use of a sequence of hieroglyphs incorporating a motto appropriate to a royal scarab. The sign for *nsw*, king, is inverted on the right side of the inscription for reasons of symmetry. Otherwise the two lateral columns are identical.

This is the only document so far found in Palestine bearing the throne name of Khyan.[2] Hyksos occupation at Tell Zafit (for which an identification with Gath or Libnah was suggested early in

[1] H. Stock, *Studien zur Geschichte und Archäologie der 13. bis zur 17. Dynastie Ägyptens* (Glückstadt, 1955), 44.

[2] Theoretically it seems possible that to Khyan should be assigned only those scarabs, which have his 'private' name and all scarabs having *s-wsr-n-rᶜ* to king Seuserenrēᶜ of the Seventeenth Dynasty. (Opinion of Mr. J. Leibovitch, in conversation, summer, 1964.) Seuser..rēᶜ of the Turin Canon (II, 8) is listed as having ruled for twelve years (Gauthier, *Livre des rois*, II, 137, no. 12). Drioton identifies this king with Userenrēᶜ of a scarab in the Greg Collection (*Ann. Serv.* 45 (1947), 57) and in the Karnak List (Prisse d'Avennes, *Monuments égyptiens* (Paris, 1847), pl. i, left, 28.) The throne name Seuserenrēᶜ appears together with the 'private' name Khyan on various documents: a fragment from Gebelein (G. Daressy, *Rec. trav.* 16 (1894), 42); a fragmentary statue from Bubastis, originally from Middle Kingdom times, re-used by Khyan (E. Naville, *Bubastis* (London, 1981), pl. xii, xxxv A); the Knossos jar-lid (A. J. Evans, *The Palace of Minos*, I (Oxford, 1927), 419, fig. 304); the fragment of an obsidian ointment jar from Bŏgasköy (H. Stock, *MDOG* 94 (1962), 73 with a recent bibliography of the problems concerning Khyan and Hyksos rule in general. Th. Beran, *AfO* 20 (1963), 246, relates the circumstances of the find). The two names are never associated on scarabs; however, scarabs bearing the name Seuserenrēᶜ have been found in regions typical for Hyksos rule and improbable as areas of influence of the kings of the early Seventeenth Dynasty. From a Hyksos tomb at Abusir el-Melek, north of Memphis comes a scarab (C. Möller, ed. A. Scharff, *Die archaeologischen Ergebnisse des vorgeschichtlichen Gräberfeldes von Abusir-el-Meleq* (Leipzig, 1926), 92, pl. 71, no. 499); another scarab comes from Tell el-Yahûdîya (G. Frazer, *PSBA* 21 (1899), pl. i, 9 = Gauthier, *Livre des rois*, II, 136, no. v) and a gold-mounted scarab from Gezer (see below, p. 204, n. 9). For the possible origin of the granite lion from Baghdad (*Hieroglyphic Texts . . . in the British Museum*, V (London, 1914), 18, no. 340 = Porter–Moss, *Top. Bibl.* VII, 396) see below p. 204, n. 8. To this material our sealing can now be added.

the history of archaeological research in Palestine) is proved by the characteristic pottery found there[1] and by scarabs with debased hieroglyphs, typical of the period.[2] A further scarab decorated with this type of hieroglyph and a scroll design from the Tell is in the Kefar Menahem Regional Museum and mentioned in its mimeographed guide-book.[3]

The only other inscription of Khyan found so far in Palestine comes from the excavations at Gezer.[4] It reads in its central column: *ḥḳꜣ ḫꜣswt Ḥyꜣn*, 'The ruler of foreign countries, Khyan'. On both sides there are columns having three *ꜥnḫ* signs each. Tell Zafit is some 20 km. south of Gezer; both towns were situated on a road which skirted the western foothills of Juda, both guarded important lateral roads from the coastal plain into the mountains. (The Valley of Elah and the Valley of Ayalon.)

The Khyan documents from southern Palestine are related to other objects of this ruler found outside Egypt: the Knossos lid, the Bŏgasköy jar fragment, and the Baghdad lion.[5] Stability of rule in the Delta capital of the Hyksos, control or influence in Egypt up to Gebelein, south of Thebes,[6] enabled Khyan to create conditions of security in the neighbouring countries; the prestige of Egypt abroad made widespread commercial and diplomatic activities possible at this period.

As Stock has pointed out,[7] the objects from Knossos and Bŏgasköy may have been presents brought by Egyptian emissaries to Crete and Syria (whence the obsidian jar may have reached the Hittite capital as booty from a Syrian war).[8] The seal from Gezer and the new sealing from Tell Zafit are witnesses to commercial relations.[9] The jar-sealing with the royal name may be, in addition, a pointer to the way Egyptian administration and external commerce were interconnected in the Hyksos period.

R. GIVEON

Who were the *Mnṯyw*?

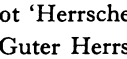
IT has been suggested both by Y. Yadin[10] and by the present writer[11] that the ceremonial slate-palette

[1] F. J. Bliss and R. A. S. Macalister, *Excavations in Palestine* (London, 1902), pl. 24; Y. Aharoni and R. Amiran, *BIES* 19 (1955), 223.

[2] Bliss–Macalister, op. cit., pl. 83, nos. 19 and 30.

[3] Ibid. 22, no. 16.

[4] R. A. S. Macalister, *Excavation of Gezer*, II (London, 1912), 316, no. 85; III, pl. cciv *b*, 16.

[5] For these, see above p. 203, n. 3. The cylinder seal at Athens (W. M. F. Petrie, *A History of Egypt*, I (London, 1894), 119, fig. 74) has been quoted by J. A. Wilson, *The Burden of Egypt* (Chicago, 1951), 162 as another extra-Egyptian document of Khyan. Efforts I made in 1964 to trace the seal and the way it reached the Athens Museum were of no avail owing to the present condition of the Egyptian collection there. Prof. Wilson agrees (letter, dated July 6, 1964), that owing to its obscure origins, this piece cannot be used as evidence of foreign activities of Khyan. Concerning the peculiar title preceding the name of Khyan on the Athens cylinder seal:  this is not 'Herrscher der jungen Mannschaft' (M. Pieper, quoted in Gauthier, *Livre des rois*, II, 137, no. x), nor 'Guter Herrscher' (Pahor Labib, *Die Herrschaft der Hyksos in Aegypten und ihr Sturz* Glückstadt, 1936), 31) but a conflation of the title *ḥḳꜣ ḫꜣswt* with *nṯr nfr*; the sign for foreign countries has been omitted and only its plural strokes remain.

[6] See above, p. 203, n. 3.

[7] Op. cit., 76.

[8] The Baghdad lion may have been part of booty as well; it is reported as having been found built into the wall of a house: thus it must have reached Mesopotamia before the antique-dealers became aware of its value. As Stock suggests (see preceding note) it may have been put originally in a temple in Mesopotamia or Syria. It does not possess non-Egyptian characteristics but is of poor standard in conception and execution. It seems possible that it belongs to a category of Egyptian objects, some of markedly inferior quality, found in Palestinian sites of a somewhat later period, for instance, the Beth Shan temples.

[9] E. Meyer, one of the exponents of the theory of an Hyksos empire at the time of Khyan, interprets the Gezer scarab (he speaks of 'Skarabaeen' in the plural) as a sign that Gezer served as a sort of outpost for Hebron which Numbers xiii, 22 links with the Hyksos capital; see *Geschichte des Altertumes*, 7th ed., I, pt. 2 (Basle, 1954), 506, n. 319.

[10] Y. Yadin, *IEJ* 5 (1955), 1 ff. and pl. I.

[11] S. Yeivin, *Studies in Egyptology and Linguistics in honour of H. J. Polotsky* (Jerusalem, 1964), 22 ff.

dedicated by king [*Mr(y?)*]*Nʿr*[1] in the temple of Hierakonpolis[2] celebrates, in a combination of pictorial scenes with an early attempt at a written record, not only the final victory of the southern Hierakonpolitan kingdom on a chieftain of the north-west, but also the first attempt at an 'imperial' expansion abroad, to the west (eastern Libya) and north-east (southern Canaan).

Such an understanding of the decoration of the slate-palette in question implies either a knowledge of the names of the subjugated populations or a capability to describe them by characteristic appellations.

In the case of the western neighbours of (Mer)Nar's Egypt we have evidence, apparently earlier than his reign, that a name was already applied to that population. On the so-called Louvre palette[3] there appears a hieroglyph later associated in Egyptian writing with *Ṯḥn·w*, *Tmḥ·w*, and even *Rbw*, all of which denote various ethnic (?) groups in Libya. Moreover, as the present writer has attempted to show, a name of a locality on the Libyan border apparently occurs in the 'exergue' of the obv. of Nar's palette.[4]

The two groups of the population of (Sinai and) southern Canaan, occur on the rev. of Nar's palette; they are indicated, however, not by name, but by symbols: the sedentary and consequently (at least by assumption) agricultural population by a sign of a fortified city; the pastoral, semi-nomadic group by a symbolically conventional sign of a 'kite'.[5]

The question now arises whether these two signs not only possessed visual, pictorial associations in the mind of their recorder, but also conveyed linguistic ideas, representing proper nouns or words with descriptive connotations.

In somewhat later Egyptian documents occur two terms for the north-eastern neighbours of Egypt. One is an appellation that can be interpreted literally from the Egyptian: *ḥr·yw šʿ*,[6] i.e. Those(-who-wander)-on-(the)-sand. Furthermore, there is no doubt whatsoever to whom it applied; it always designated the roaming Bedouin, partly shepherds, partly robbers. The present writer knows of no context, where this appellation ever applies to any other group of people.

The second of these terms is *Mnṯ·yw* (*šṯ·t*).[7] The comparatively later occurrence of this appellation in texts of the Fifth and Sixth Dynasties does not mean that it was unknown before that time.[8]

So far no ethnic or geographical name has been found that could be even remotely connected in a plausible way with this name.[9] However, several explanations based on the Egyptian root have

[1] For the suggested inversion of the two components of the name of this early Egyptian ruler, usually read Narmer, see Gebron, *Ann. Serv.* 49 (1949), 217 ff. For the possible dropping of *mr*, leaving the hieroglyph *nʿr* (*Nar*) as the sole and real name of that king see S. Yeivin, *Or. An.* 2 (1963), 206 ff.

The author wishes to take this opportunity of stating that since the publication of this last-mentioned article he has found that his distinguished teacher, the late Sir Flinders Petrie, already put forward both suggestions: 'Several sealings of Narmer were found which show that Nar alone is the true name, and that *ner* is an epithet separately applied' (*RT* II, 91–92). However, this very keen observation of Petrie passed unnoticed and ignored like so many other hypotheses of his, later proved to have been correct.

[2] Frequently reproduced; cf., e.g. J. Vandier, *Manuel*, I, 1, 595 ff. and figs. 391–2.

[3] Ibid., I, 1, 590 ff. and fig. 386 (rev. (?) of the palette in the lowest register on the r.). The palette is probably to be dated to the reign of King Scorpion.

[4] Yeivin, *Studies . . . Polotsky*, 28 ff.

[5] See Yadin, op. cit.; Yeivin, op. cit. Even in the case of the fortified settlements the symbol seems to be very true to the actual state of affairs as represented by the massive wall of Chalcolithic Tell ʿErany (formerly known as Tell 'Gat'); cf. Yeivin, *Israel Expl. Journal*, 10 (1960), 193 ff.

[6] The earliest occurrence of the term is in the autobiography of *Wnì* (*Urk.* I, 101), where it is ethnically identified as *ʿ3mw*.

[7] The earliest occurrence of this name according to the *Wb.* is in Saḥurēʿ's stela at Wâdi Maghâra in Sinai (*Urk.* I, 32) and Pepy I's stela in the same locality (ibid., p. 91). Sethe restores the name *mnṯw* also in an inscription of Khnum-khufu (*Urk.* I, 8). But it is extremely problematic how far the restoration is justified. It also occurs in a stela of Neuserrēʿ at Wâdi Maghâra (*Urk.* I, 54).

[8] See below.

[9] A. Reubeni's attempt in *Shem, Ham we-Yafeth* (Tel-Aviv, 1932), 15 ff. (in Hebrew) to connect *mnṯw* with מִדְיָן is far fetched both historically and linguistically; it seems, therefore, that it can hardly be entertained.

been suggested.[1] These, however, seem unsatisfactory. The present writer, therefore, proposes to explain this appellation as a *nisbe*-form from the verb *mnṯ*, to winnow.[2] Winnowing is one of the most typical of agricultural activities; it is therefore quite likely that it came to be used as a descriptive appellation of an agricultural people.

It will be undoubtedly pointed out that in both of the Old Kingdom inscriptions the name is associated with chieftains from Sinai, and hence definitely refers to a group of people in Sinai. But in this connexion it must be remembered that the nearest concentration of inhabitants in Sinai both to the mines in the Wâdi Maghâra and to Serabîṭ el-Khâdim is in the oasis of Wâdi Feyran, where agriculture was practised from the earliest times.[3]

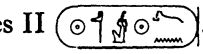
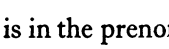
It would have been easier for the Egyptians to exact their forced labour for the mines from such a settlement rather than pursue and round up the elusive wandering groups of nomadic shepherds and raiders; furthermore, the former could be described as defeated, captured, and slain much more easily than the latter. Consequently the application of the term *mnṯyw* to the inhabitants of Sinai in the Wâdi Maghâra need not be in opposition to its original meaning as the designation of an agricultural, settled, population.

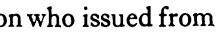
Once this is admitted we have in the linguistic field a dualism of terms parallel to the dual depiction on the (Mer)Nar palette: (i) the inhabitants of the fortified cities become (or possibly are already) known as *mnṯyw* (= 'the winnowers'); (ii) the shepherds symbolized by the kites, become (or possibly are already) known as *ḥryw-šʿ* (= 'those on the sand', i.e. the wanderers of the border lands).

The later combination of the term *mnṯyw* with *šṯ·t* presents a different problem, which need not concern us here.

S. YEIVIN

The meaning of the royal nomen and prenomen

THE meaning of many royal names is little known. For example, the prenomen Menkheperrēʿ which is usually translated 'Rēʿ is firm of being', or the like, makes little sense. One would expect the king to be the person referred to, not the god. All the other names in the royal titulary support this view. Let us take, for example, the prenomen of Ramesses II  . The phrase *stp n Rēʿ* must be translated 'he whom Rēʿ chose', and obviously refers to the king. From which it may be inferred that the preceding phrase *wsr mɜʿt Rēʿ* also refers to the king. This would necessitate a translation such as 'he who is strong in truth (like) Rēʿ'. Again the Horus name  'he who is divine of being' must refer to the king. And the same phrase is in the prenomen , giving the translation 'he who is divine of being (like) Rēʿ'.

Thus by inserting the preposition 'like' we obtain a probable meaning. But how can we justify the use of this preposition? A passage in the coronation inscription of Tuthmosis III provides a clue. In line 14 we read 'I am his son who issued from him, noble of birth like () the Chief of Hesert. He united all my beings, in this my name of "Son of Rēʿ, born (like) Thōth, and united of being  ."'[4] Thus, 'I am his son who issued from him' corresponds to the 'Son

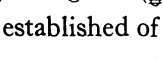
[1] M. W. Müller, *Asien und Europa* (Leipzig, 1893), 15 ff.

[2] Cairo, 1534. It is noteworthy that in the two Old Kingdom instances the name is spelt *mnṯw* (probably to be read *mnṯyw*) with *ṯ*.

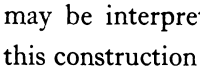
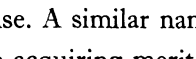
[3] A hasty exploration of the largish tell in the Feyran oasis during the Sinai campaign (1956–7) was inconclusive. However, evidence of a settlement of the ninth–seventh centuries B.C. came to light; Y. Aharoni, *The Holy Land* (= *Antiquity and Survival*, II, 1957), 288. Without proper excavations it is impossible to say to what period can be dated the *earliest* settlement of this site.

[4] *Urk.* IV, 162.

of Rēᶜ'. 'He united all my being' becomes in the name 'who is united of being'. And 'noble of birth like the Chief of Hesert (i.e. Thōth) should become 'who was born (like) Thōth', i.e. born noble.

Earlier in the inscription Sethe restores: 'He caused that I appear as King of the South and North, he established my being like (𓂋𓏏) Rēᶜ, in this my name of King of the South and North, Lord of the Two Lands, established of being (like) Rēᶜ  .'[1] Thus the statement corresponds to the name as in the former passage.[2]

It appears, therefore, that the purpose of the royal names was to show the king's likeness to a god. This 'likeness' is stressed in many texts. At El-ᶜAmarna we find it in close proximity to the prenomen thus: 'You place him like (𓂋𓏏) the sun-god. When you rise eternity is given to him, and when you set you give to him everlastingness. You bear him in the morning like (𓂋) your (own) being. You build him in your likeness like (𓂋) the sun-god.'[3] This is followed after a few words by the prenomen 'Beautiful of being (like) Rēᶜ and only one of Rēᶜ'.[4] And there are many other examples especially in the sun hymns at El-ᶜAmarna, e.g. *Amarna*, VI; XXV, 9, 10, 13; XV, 3; XIV.

Among names that may be interpreted in this way is  . The name has always been a puzzle; but if we use this construction we obtain the meaning 'He appears in splendour like Rēᶜ', which makes good sense. A similar name is  'He appears in splendour like King Isesy'. Thus we have a noble acquiring merit by comparing his 'appearance' to that of the king, just as the king compares his own 'appearance' to that of the sun-god.

To sum up, I suggest that the adjective or phrase in a royal name refers to the owner of the name; and the god's name is joined to it as a qualification by means of the preposition *mi* 'like'. Finally, it may be asked why *mi* was not written in the name, and the answer must be, for the sake of brevity. In the two passages quoted at the beginning of this article, although the statement and name correspond, several words of the statement are omitted in the name. I would therefore suggest that we accept the clue given in the coronation inscription and insert *mi* 'like' in royal names when feasible.

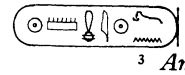
JOHN BENNETT

Notes on the 'aten'

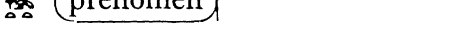
IN translations the word 'aten' is given a capital letter and treated as the personal name of the sun-god; but it is surely a common noun. The name of the god is contained in the twin cartouches. In the god's titles the word 'aten' stands in apposition to the name as if in designation. It occurs beside such titles as 'Lord of heaven and earth', etc. And in the hymn of Suty and Ḥor in the British Museum it is even used to address Amen-rēᶜ, who is called 'aten' of the day. It was suggested by Anthes (*ZÄS* 90, 1–10) that the word was originally used as a designation of the sun-god, and later became his name. While agreeing with the former statement I can find no evidence to support the latter view. Rather should I agree with Breasted (*History*, 360) that it is always a designation, with the meaning of 'sun-god' or 'sun'. And such is its use until Ptolemaic times. In translations, therefore, I suggest that the word 'aten' be always translated, and no longer treated as a name.

The name of the god written in the twin cartouches is Rēᶜ. For Rēᶜ is the constant factor in the earlier and later forms of the name; he actually is stated to be the sun-god (e.g. *Amarna*, VI, XXVII, 3).

[1] I am unable to trace the text from which Sethe made this restoration.

[2] In one prenomen the preposition *mi* 'like' is actually written viz.  'He who is established like Rēᶜ, and whom Rēᶜ chose' (*LD.* III, 201c).

[3] *Amarna*, VI, XXV, 4.

[4] Cf. also the stela of Damanhûr, Budge, *Decrees of Memphis and Canopus*, I, 185, where we find 

If an Egyptian were to describe the scene of the royal family worshipping the sun-disk, he would say that the figures represented the sun-god, the king and the queen, whose names were Rēʿ, Akhenaten, and Nefertiti.

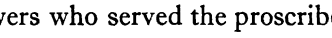
It has been pointed out that the god's name is written in two cartouches like the names of a king.[1] The prenomen starts with Rēʿ like the royal prenomen, and the nomen contains the 'didactic' name. But so far their meaning has not been explained satisfactorily. The 'didactic' name has received various interpretations, such as Heat which is in the Aten, Heat which is the Aten, Heat which is in the sun, Shu who is the Aten, Shu who is in the Aten, Sunlight which is the Aten, etc. From the list we can delete translations involving the *m* of predication because the phrase *nṯi m* 'which is' is unknown; at least it does not occur in the *Wörterbuch*. We can also delete 'heat' which is now translated 'sunlight' or 'light'.[2] The god Shu suggested by Sethe (*Nachrichten der Kgl. Ges. der Wiss. zu Göttingen. Phil.-hist. Kl.* 1921, 101–30), and followed by Gunn and others has largely fallen out of favour, though it is still retained by Fecht (*ZÄS* 85, 103). Fairman, however, points out that *šw* at El-ʿAmarna does not take the god determinative, and therefore is unlikely to represent the god.[3] In view of this I suggest that the most likely meaning of the phrase is 'light which is in the sun', or simply 'sunlight' or 'sunshine'. Thus the meaning of the words in the two cartouches would appear to be that Rēʿ (the invisible) is happy in the horizon at dawn, and shows his pleasure by appearing as sunshine. In other words, sunshine is the manifestation of Rēʿ's pleasure.

The phrase *m rn·f m* which joins the names has given rise to speculation because it differs from the usual phrase *m rn·f n* 'in his name of'. Anthes translates 'rejoicing in his name and in the sunlight'.[4] Most, however, see it as a variation of the usual phrase. But Fecht suggests that it is an emphatic form which stresses the idea of identity.[5] This may well be so; and we may perhaps translate 'in his aspect of' or 'in his role of'.

The later version of the 'didactic' name was rendered by Breasted 'Fire which comes from the Aten' (op. cit. 361), but it is difficult to understand how he arrived at it. Gunn favoured 'Rēʿ the father who has returned as Aten'. Other suggestions are Rēʿ the father who has come in the sun-disk, and Rēʿ the father who comes as sun-god, etc. A further possibility is Rēʿ the father who comes from the sun. I am, however, not convinced by the translation 'Rēʿ the father' because it involves a tautology. The name would mean merely 'Rēʿ in his guise of Rēʿ'. I should prefer something like 'Rēʿ in his guise of the sun beams', which presents a concrete image similar to the earlier name 'Rēʿ in his guise of sunshine'.[6] In any case whatever meaning we give to the phrase  it must, I think, embrace the idea of light or sunshine. The earlier name would stress Rēʿ's manifestation as the transcendent light of the sun, and the later as the sunlight coming down to earth, i.e. the sunbeams. It is tempting to see in these two notions a reference to the two main parts of the solar symbol, 'the light in the sun' represented by the sun-disk, and 'the light which comes from the sun' by the descending rays. The solar symbol itself, the old sun-disk with the addition of sunbeams ending in protective hands, proclaims the king's sense of insecurity. The hands reach down to protect him from the enmity of the offended priests and their followers who served the proscribed gods. As the reign advances the king's insecurity increases, and is reflected in the change of the sun-god's name.

The change in the prenomen from Horus to *ḥḳꜣ* 'ruler' lays emphasis on the sun-god as a ruler,

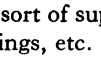
[1] Gunn, *JEA* 9, 168, describes him as 'a sort of super king'. The same idea occurs in the Bible where God is described as King of Heaven, King of Kings, etc.

[2] Compare the so-called Stela of the Banishment where Amen-Rēʿ is addressed as  'light of day' in contrast to 'light of night'. (Brugsch, *Oase*, XXII, 13; and Breasted, *AR*, IV, § 650.)

[3] Moreover in a Ptolemaic text (*Urk.* II, 3) we lean that *šw* 'light' is the soul of the sun-god.

[4] *ZÄS* 90, 1–10.

[5] *ZÄS* 85, 103.

[6] Another vague possibility is 'the coming of light from the sun', the verb being the infinitive and inverted, with the subject ⊙ as a shortened form of  of the earlier name.

from which we gather that he 'comes from the sun' as a ruler to help his son rule. It seems that the king wishes to stress his closer relationship to the sun-god, probably for political reasons. He seeks the aid of the supreme ruler in his struggle against growing opposition.

These conceptions of god in heaven 'who illumines the two hands', and god descending to earth, are seen also in the titulary of the god. In *JEA* 9, 168, Gunn gives a translation of the titulary: and here I would offer another version. 'Live the good god, who takes pleasure in truth, lord of all that the sun encompasses, lord of heaven, lord of earth, the great living sun-god who illumines the two hands. Live the father, divine and royal, Rēʿ-Ḥerakhty the living, who rejoices in the horizon in his role of the light which is in the sun, giving life for ever and ever, the great living sun-god who is in jubilee, and dwells in his temple in Akhetaten.'

Finally, I would suggest that we are not far from the truth if we translate the names of the sun-god simply as 'Rēʿ-Ḥerakhty the living who rejoices in the horizon in his role of sunshine', and 'Rēʿ the horizon ruler the living who rejoices in the horizon in his role of the sunbeams'.

JOHN BENNETT

The death of Cleopatra VII: A rejoinder and a postscript

DR. B. BALDWIN does well to remind us in his brief communication (*JEA* 50 (1964), 181 f.) that there was more than one ancient theory about Cleopatra's death. In writing my article (*JEA* 47 (1961), 113–18) I was fully aware of this and duly cited Stähelin in *PW* (1921), s.v. Kleopatra, 777–8 as a good survey of the classical evidence. Attention was concentrated, however, on the theory which has become almost a *communis opinio.*

Dr. Baldwin complains that Henry's parallels to *Aen.* viii. 697 were not cited. The complaint is groundless: see my p. 116. Certainly the elucidation of Virgil's use of *gemini angues* four times (not three, as Dr. Baldwin states) is a matter of some relevance if it can be shown that in all four cases they have an identical significance. Henry justly emphasizes the similarity of locution in *Aen.* vii. 454 where Allecto tells Turnus *respice ad haec* and in *Aen.* viii. 697 where it is said of Cleopatra *Necdum etiam geminos a tergo respicit angues*; but when he talks of the '"geminos angues" which Allecto commanded Turnus to look at and consider' he is violating both grammar and sense. *Haec* is neuter and refers to what follows:

> respice ad haec: adsum dirarum ab sede sororum,
> bella manu letumque gero.

Henry is equally unconvincing when he goes on to argue that in all four instances Virgil intends the *gemini angues* to be regarded as merely presaging doom. In the case of Allecto they are simply two of the serpents which are raised (from among many) on the Fury's head; in the case of Laocoon and his sons (*Aen.* ii. 203–4) they are serpents that actually kill; in *Aen.* viii. 289, quite differently, they are serpents that are killed by Hercules, and Henry's theory is but feebly defended when he urges that even these 'were typical of evil fate in store for Hercules, and only averted by the precocious might of the infant hero, who, strangling the evil messengers, averted the omen'. Cleopatra's serpents in *Aen.* viii. 697 merely indicate, according to Henry, 'that her death and ruin are impending', although he admits that commentators and translators before him have been unanimous in referring them to the mode of Cleopatra's death, while being puzzled, at the same time, why two and not one should be mentioned. Heyne's approach was wiser: *Sequiter forte Virgilius famam aliquam, duos eam angues sibi admovisse.* Such a tradition I have shown to be consonant with Egyptian iconography and thought, and the manifest variety of background from which Virgil draws his

gemini angues encourages the belief that in his allusion to Cleopatra's death he was showing familiarity with a very specific tradition. Dr. Baldwin himself would like to posit Virgil's acquaintance with a little Egyptian background ('The snakes as a symbol of death are most apposite in the context of an Egyptian queen who has relied upon the aid of animal deities against the gods of Rome'). It is surely preferable to give the snakes a less vague significance and to make them still more apposite as the Egyptian royal uraei.

As for the plurals used by Horace and Propertius, Dr. Baldwin glides over these with a smoothness that is almost serpentine. He admits that Propertius is referring to the depiction of Cleopatra's suicide, but maintains that 'even if two snakes were shown in the representation, this would not prove that two were actually used'. He suggests that Augustus, like other military conquerors, was exaggerating for effect. Apparently we now have to entertain a new category, the 'military plural'. But the sense of its application here is rather mysterious. If Cleopatra was depicted as killing herself with two snakes rather than the truthful one, how could this exaggeration have redounded to the glory of her conqueror? It might well have been construed rather as a token of the queen's determination to end her life indubitably. Certainly Horace, who also uses a plural, lauds her proud courage: *non humilis mulier*. The plural, however, is more likely to derive from historic fact, and not from the ability of a general or a poet to multiply by two.

Finally, Dr. Baldwin objects to my citation of Plut. *Ant.* 86 in connexion with the image of Cleopatra which was carried in the triumph, as though I had interpreted this to imply a reference to two asps. But shortly after this citation I specifically said, 'One asp is mentioned by the great majority of sources, including Plutarch, *Ant.* 85–86 . . .'.

It would seem appropriate to add here a few remarks on other related matters. I am indebted to Mr. Bernard V. Bothmer for comments on points relating to statuary and reliefs. For the use of the double uraeus with queens he refers to Roeder's important study, *Statuen ägyptischer Königinnen* (Leipzig, 1932, Vorderasiatisch-ägyptische Gesellschaft, Mitt. 37, 2). With regard to the possible occurrence of Cleopatra as Ḥaṯḥor-Isis in a relief at Dendera (my p. 118, n. 2), Mr. Bothmer would explain this figure as Isis and would see Cleopatra herself 'behind the king on the far left', in which case the queen is here shown with a single uraeus. My pl. ix, 2 = Berlin 10114, described as 'a Ptolemaic queen', following the caption noted in the museum, is dated by Mr. Bothmer to an earlier era; he refers to this statue in his *Egyptian Sculpture of the Late Period* (Brooklyn Museum, 1960), 126, though without allusion to its date, and his view seems to be shared by J. Vandier, 'Trois statues égyptiennes au Musée du Louvre', *La Revue du Louvre et des Musées de France*, 11 (1961), 250, n. 28, a study brought to my knowledge also by Mr. Bothmer. My p. 117, n. 6 refers to a statue in Leningrad, the Hermitage, no. 136: this I likewise examined in the museum itself, but the number in general use seems to be 3936. It is described in the museum as a statue of Arsinoe II and is discussed by Bothmer, op. cit. 126, where he concludes that the work, 'if indeed it was meant to represent Arsinoe II, was probably created in her memory, for her cult'. In communications to me (June 20 and October 1, 1962) Mr. Bothmer expresses the revised view, based on a scrutiny in Leningrad, that the statue does not represent the queen at all. I am very happy to acknowledge Mr. Bothmer's authority on these points. They do not affect the conclusions reached, as he himself remarks.

The view was expressed in my article that Iras and Charmion probably took poison. The possibility that they were killed by the same two cobras as Cleopatra used (if I am right) seemed to be excluded by the statement made by Bevan, *A History of Egypt under the Ptolemaic Dynasty* (London, 1927), 382, n. 2, where he is summarizing Nöldeke: 'A snake, when it has once ejected its poison in a bite, does not secrete more poison till after a considerable period of time.' Bevan observes too that Galen, *De Ther. ad Pisonem*, says that the maidservants died by snake-bite. In a letter to me (March 23, 1962) the late G. A. Wainwright questioned the validity of Nöldeke's statement:

'. . . when I accompanied a snake charmer on his rounds clearing snakes from the Zoo gardens at Gizeh, he caught a great cobra and immediately made it bite his cloak to free it from poison. The first bite produced quite a flood, the second quite a lot, but by the third bite only a small quantity came, then the creature was harmless. But it took three bites to empty his poison sacs.' If this is generally true of cobras, then two of them could have quickly destroyed three persons, and it may be that the maids wanted to share in the manner of the queen's death. On the other hand, there was something distinctively royal about that, and the maids would have known as much. Probably, therefore, they drank poison.

J. GWYN GRIFFITHS

REVIEWS

The Early Dynastic Period in Egypt. By I. E. S. EDWARDS. Volume I, Chapter XI, of the revised *Cambridge Ancient History*. Cambridge University Press, 1964. 8*s*. 6*d*.

When planning the revised edition of the first two volumes of the *Cambridge Ancient History*, of which the first edition appeared some forty years ago, the editors and publishers made a decision for which all students and scholars must surely be grateful, namely to publish individual chapters in separate fascicles as they were completed, a policy which not only has made contributors' work available at once instead of holding everything over until the whole task was completed, but also has tempered the wind to the impecunious undergraduate by enabling him to buy an essential volume in low-priced instalments. For this procedure all concerned owe gratitude.

The fascicle here under review contains Dr. Edwards' study of the Early Dynastic Period, which to my mind is just what the student requires. Such disputed questions as, for example, the identity of the historical Menes, are discussed fairly and without dogmatism, though the author inclines to the view that Narmer and Menes are identical, while on the question as to whether the kings of the First and Second Dynasties were buried at Saqqâra or at Abydos, he leans to the opinion that the kings were buried in the north and that the tombs at Abydos are cenotaphs. As regards the name of the fifth king of the First Dynasty, it is a good thing that Dr. Edwards has followed Sir Alan Gardiner in reverting to the old reading Den for his name; whatever form the writing *d*+*n* may conceal, *Dn* is what is actually written, and it is time that the fanciful Udimu invented by Sethe was abandoned.

As regards the Second Dynasty, the principal interest centres around the intrusion of the name of Seth into the royal titulary, Peribsen assuming a Seth-name instead of a Horus-name, and Khaʿsekhemwy having a Horus-and-Seth-name. Dr. Edwards suggests that the Seth-king Peribsen may have ruled conjointly with Khaʿsekhem and that the later Khaʿsekhemwy (if he be not identical with Khaʿsekhem), who called himself a Horus-and-Seth monarch, reconciled the rival factions. In this connexion the author might have quoted the following from the *Memphite Theology* (Shabaka Stone), ll. 7 ff.: 'The Nine Gods assembled for him (Ptaḥ), he judged between Horus and Seth, he prevented them from contending, he placed Seth as King of Upper Egypt in the land of Upper Egypt, in the place where he was born in Su, and Gēb placed Horus as King of Lower Egypt, in the place where his father was drowned, in Division-of-the-Two-Lands (*Pss-tꜣwy*). And so Horus stood in his realm and Seth stood in his realm, and they pacified the Two Lands in ʿAyin, which was the boundary of the Two Lands. But it was displeasing to Gēb that the share of Horus was only equal to Seth's share, and so Gēb gave his (Seth's) inheritance to Horus.' This passage is surely a reflexion of real historical events, and it fits remarkably well the theory of a dual kingship at one stage of the Second Dynasty which was later merged into a unitary monarchy.

Apart from the dynastic history this fascicle has sections on 'Royalty and the State', summing up what is known of the organization of court and government; 'Foreign relations', in which, *inter alia*, are discussed the obvious evidences of Mesopotamian connexions in the protodynastic culture of Egypt; 'Religion and Funerary Beliefs', where again the Horus-and-Seth question crops up; and 'Architecture, Sculpture and the Small Arts', where of necessity most space is given to the design and construction of the mud-brick tombs at Saqqâra. This fascicle is a general study of the period which is to be strongly recommended.

R. O. FAULKNER

Nestor l'Hôte (1804–1842). Choix de documents conservés à la Bibliothèque Nationale et aux archives du Musée du Louvre. By J. VANDIER D'ABBADIE, with preface by ROSALIND L. B. MOSS. *Documenta et monumenta orientis antiqui*, Volume II. Leiden, 1963. Pp. 62, pls. 45. No price quoted.

In this excellently produced volume Mme Vandier d'Abbadie has done Egyptology a notable service in

that she has reproduced ninety drawings and sketches made mostly by Nestor l'Hôte in and after the lifetime of Champollion, but also including a few made by the architect Huyot. Six drawings are in colour and the remainder in black and white, recording in some cases monuments which have since been lost. The drawings range in space from Bahbît el-Ḥigâra in the Delta to Es-Sebuaʿ in Nubia, and in time from the Sixth Dynasty to the Graeco-Roman Period. We cannot discuss here the many points of interest to be found in the plates, but attention may perhaps be drawn to the costume worn by Onuris on a block from Samannûd (pl. 5, 2) and to the officiant wearing a toga who is depicted on the walls of a late chapel at Ṭihna (pl. 10). Each drawing is accompanied by a printed commentary which gives the relevant entry in Porter–Moss, *Top. Bibl.*, a general account of the site, and a description of the monument in question with a transcription of l'Hôte's notes.

The collection of drawings is preceded by a biographical sketch of Nestor l'Hôte's career, and one cannot but be impressed not only by the skill of his work, but also by his devotion to Egyptology, for his work in Egypt was often performed in physically arduous conditions which might have repelled anyone of less determination, and which without doubt contributed materially to his early death. It is perhaps no wonder that, when working with Champollion at Qurna, he had a sudden, even though temporary, revulsion against hieroglyphs; possibly later Egyptologists may on occasion have suffered like attacks.

It is of interest to all scholars, especially to anyone considering visiting or excavating any of the sites included in this book, to have such first-hand evidence of the state in which they were to be found in the earliest days of Egyptology, and, as Dr. Moss remarks in her preface, it is to be hoped that someone will be inspired to do the like for Hay and Wilkinson.

R. O. FAULKNER

Manuel d'archéologie égyptienne. Tome IV. Bas-reliefs et peintures. Scènes de la vie quotidienne. Part I. By J. VANDIER. Paris, 1964. Pp. 858, figs. 468, pls. 40 in separate album. Price N.F. 90.

The third volume of Vandier's *Manuel*, which appeared as recently as 1958, has already become a vital part of the equipment of the student of Egyptian sculpture. Comprehensive treatment of the subject in a detailed and well-organized manner, supported by excellent lists and indexes, has immensely facilitated the study of this rich and complicated field.

Vandier now further puts us in his debt by turning to Egyptian wall-decoration, both in relief and painted. This fourth volume of his *Manuel* promises to be bigger by far than any of those already published. The part here reviewed deals chiefly with scenes and representations in private tombs, and it covers the principal activities which properly fall within the scope of 'la vie quotidienne'. Scenes on temple walls will be dealt with separately in a later part.

Several chapters deal with the doings of the master—the tomb-owner. In one (Chap. II) are discussed those representations in which he is shown alone, or with his wife, sitting or standing. The attitudes adopted by the man and his wife are analysed in detail, and elements in the scenes, notably the furniture, are carefully examined. Such scenes frequently accompany the representations of the funerary banquet and, by extension, this too is treated closely in the same chapter.

Chapter III is devoted to less formal scenes—the master and his family, the non-funerary banquet, the preparation of food, and the activities of scribes. A further chapter (V) brings together the scenes of feudal pomp and ceremony with which the public life of the master was invested. Here particular attention is paid to the formal progress in carrying-chair or other conveyance, with surprisingly fruitful results.

Other aspects of daily life which receive special attention are baking and brewing (Chap. IV), and music and dancing (Ch. VI). With the last are included games—a most valuable analysis is here given of some of the most incomprehensible activities shown in Egyptian tombs.

Two chapters deal specifically with the king. In the first (VII) the whole range of ceremonies pictured in private tombs is discussed, including tribute-scenes and scenes showing the distribution of royal gifts. In the second (VIII) the special series of royal representations found in the tombs of El-ʿAmarna is reviewed. The unusual character of the scenes portraying royal activities found in these tombs is well emphasized by the concentrated treatment they receive here.

The two last chapters of this part (IX and X) review the scenes of hunting in the marshes and on the river, and hunting in the desert—activities with royal, and in part religious, undertones. Vandier here includes, although they are not found on tomb walls, the hunting scenes from the painted box of Tut-ʿankhamūn, and the lion hunt of Ramesses III at Medînet Habu.

Throughout this part the attention to detail lavished by Vandier on his subject, allied to a masterly grasp of what has been written on each topic, reveals in remarkable manner how much can be extracted from Egyptian tomb-scenes by careful and comprehensive study. He has not, however, been content only with describing and analysing. In his first chapter he provides a background study of tomb decoration which is of paramount interest. Technique, conventions, materials, and style are succinctly discussed and suitably illustrated. The whole work is in fact very suitably illustrated, mostly by line figures reproduced from the standard publications of the tombs. The separate album contains good photographic plates of additional subjects. We all owe Vandier much once again for giving us a masterly treatment of a vast subject. The next part, which will deal with temple scenes, will be eagerly awaited. It will, no doubt, contain indexes for the whole of *Manuel* IV.

T. G. H. JAMES

Leben und Werk in Selbstdarstellung. By HERMANN JUNKER. Österreichische Akademie der Wissenschaften, Philosophisch-historische Klasse. Sitzungsberichte, 242. Band, 5. Abhandlung. Vienna, 1963. Octavo. Pp. 59, pl. 1. Price 48 Sch.

Early in the 1950's Hermann Junker wrote an account of his life which has been made available to the Austrian Academy for publication by the kindness of his sister Maria. It is written in a simple interesting style while having an atmosphere of modesty and charm which surely reflects the man.

Junker was no childhood Egyptologist. At the end of his schooldays his interests were theology and science (Wissenschaft) although he confesses that he was not sure what he meant by the latter. In the seminary for priests at Trier he naturally began Hebrew, but becoming interested in oriental languages he tackled Syriac, Arabic, Ethiopic, and even Sanskrit in his spare time. Ordained in 1900, he spent a year as curate in Ahrweiler. While there he went once a week to the University of Bonn, studying Syriac, Cuneiform, and, at first from mere curiosity, Egyptian under Wiedemann. His interest grew apace and soon he decided that Egyptology should be his main subject. The facilities at Bonn being limited from an Egyptological point of view he went on to Berlin to study under Erman and obtained his doctorate in 1903. In the years that followed he became a Privatdozent in Vienna in 1907 and a professor in 1908. From 1929 to 1939 he was director of the German Archaeological Institute in Cairo.

Junker's Egyptological work falls broadly into three sections: the texts of the Ptolemaic and Roman temples, the excavation of a number of primitive sites, the excavations at Gîza. In his first years he worked on the preparation of slips for the Wörterbuch for Dendera and Edfu and then Philae. The intention with respect to Philae was complete publication but, although the recording was done, the troubles that have overwhelmed Europe during the present century made it impossible even to complete the slips. Only in the last few years has any progress in publication been made and that has been confined to the Great Pylon. Later he excavated at Ṭura, El-Kûbânîya, Armenna, Tôshka, and Merimda and with the exception of the last named place produced meticulous reports of his work. He enlarges upon the excavator's duty to publish his excavation and expresses his sorrow that a proper publication of Merimda has not been possible. Between 1912 and 1929 he excavated at Gîza, except, of course, during and just after the 1914 war. To this excavation he devoted twelve volumes—to my mind a monumental effort: a complete report yet with the subject so widely conceived that it is also a compendium of archaeological and philological information on Old Kingdom Egypt.

In 1945 the autobiography breaks off on a sad note because of the unhappiness of the times.

R. Meister has added an introduction and a two-page appendix which covers the period from 1945 to the death of the author in 1962. A full bibliography of Junker's works is also included.

C. H. S. SPAULL

Histoire de la civilisation de l'Égypte ancienne. By JACQUES PIRENNE with artistic help from ARPAG MEKHITARIAN. Tome I, pp. 366, pls. 104 (photographic)+9 (coloured); Tome II, pp. 554, pls. 115+11, 8 text-figures; Tome III, pp. 447, pls. 110+9; folding map in each volume. Neuchâtel and Brussels, 1961–3. No price given.

In the 1,300 pages of these sumptuous volumes, Count Pirenne (whose long-standing interest in Egyptian institutions, society, and law are well known) presents a sweeping survey of the course of Egyptian history and civilization from its prehistoric beginnings to the Roman conquest in 30 B.C.

These volumes are superbly produced and magnificently illustrated. The colour plates are relatively few, but nearly all very fine. The more than 300 photographs are of the utmost clarity almost throughout, including many lesser-known items alongside old favourites. If heavy to handle, the work is certainly a delight to the eye.

In this book, Pirenne presents his own scheme of the development of Egyptian culture, conveniently summarizing it in his *Avant-propos.*[1] For Pirenne, the key to Egyptian history lies in the relations between the Delta and Upper Egypt. For him, the Delta is a land of towns, agriculture combined with commerce abroad, marked by an 'individualistic' society, whereas the long, narrow Valley always required a strong, centralized authority and collective effort to maintain its irrigation-works. When under strong control, and open to full commercial intercourse with the Delta, Upper Egypt shared the latter's economic prosperity and consequent development of private property-ownership and individual liberty of action. But in times of decline, with administrative failure and reduced cultivation, Upper Egypt relapsed into a closed economy, dominated by large 'feudal' estates (with workers bound to their domains), mainly self-sufficient. The varying interplay of Delta and Valley ways of life, of strong and weak central rule, the advance and retreat of a commercial/individualistic economy—this, in Pirenne's view, 'explains the whole history of ancient Egypt' (I, p. 12).

Furthermore, in Pirenne's view, these oscillations within Egyptian history from prehistory to the fall of the Ptolemies develop through three successive and corresponding cycles. They cover respectively: predynastic age to Sixth Dynasty (Vol. I); Seventh–Tenth to Twentieth Dynasties (Vol. II); Twenty-first Dynasty to Roman conquest (Vol. III). Terminology in terms of Old, Middle, and New Kingdoms, etc., is eliminated; dynasties, of course, are retained.

Each of the three cycles:

(i) begins with an essentially disunited Egypt (commercial, individualistic Delta towns; estate-dominated Upper Egypt);

(ii) moves on to the establishment (or restoration) of a unified monarchy, which

(iii) becomes centralized (career bureaucracy; no privileged class), and

(iv) then absolute (emphasis on royal supremacy and deity); thus

(v) privileged classes emerge, administration becomes top-heavy, large domains form with decline in royal power; and

(vi) Egypt relapses into virtual disunity (Delta towns, Upper Egyptian estates as in (i)).

Using (i) to (vi) as an index to Pirenne's cycles and their phases, Egyptian history in terms of dynasties emerges as follows:

Cycle I	*Period*	*Cycle II*	*Period*	*Cycle III*	*Period*
(i)	Phase 1: Predynastic	(i)	Phase 1: Dyns. 7–10	(i)	Phase 1: Dyns. 21–25
(ii)	,, 2: Dyns. 1–2	(ii)	,, 2: Dyns. 11–13; Hyksos; early 18.	(ii)	,, 2: Dyns. 26–30
(iii)	,, 3: Dyn. 3	(iii)	,, 3: Dyn. 18 until	(iii) (iv)	,, 3: Ptolemies
(iv)	,, 4: Dyn. 4	(iv)	,, 4: Akhenaten to Ramesses II		
(v)	,, 5: Dyns. 5–6	(v)	,, 5: Late Dyn. 19 to Ramesses III	(v) (vi)	[,, 4: Roman rule]
(vi)	,, 6: Dyn. 6 ff.	(vi)	,, 6: Dyn. 20		

This gaunt skeleton cannot possibly do justice to the detailed evolution of society, law, economics, and institutions presented by Pirenne; but any fuller summary would occupy far more space than is available. Besides the outline of political events and the evolution of society and institutions, Pirenne takes care to

[1] A summary outline by Pirenne will be found in *Bull. de la Soc. fr. d'Ég.* 34/35 (Dec., 1962), 11–21.

include at appropriate points chapters or sections on art and architecture, religion and literature. In Volume III he considers also Egypt's possible influence on thought and practice among her neighbours (especially early Greece). Each chapter is followed by notes to the text.

In evaluating a book of this kind, two questions impose themselves: (*a*) Is it a good presentation? (*b*) Is the picture presented a true one? The first question has been abundantly answered in the affirmative. The second and vital question is infinitely harder to answer correctly. The reviewer's impression is that Pirenne's exposition varies in validity at different points between largely illusory and substantial truth. To delineate precisely a line between truth and error (or even just probably, where facts did not suffice) throughout the whole work would be a colossal task, requiring also the close scrutiny of nearly all Pirenne's earlier writings since the 1930's on ancient Egypt. This cannot be attempted here; instead only one or two critical points may be touched on in each volume.

Volume I draws very heavily, for the predynastic epoch, upon Sethe, *Urgeschichte und älteste Religion der Ägypter* (1930). Pirenne adopts (with minor changes) Sethe's brilliantly worked out series of prehistoric kingdoms—a scheme widely rejected today on grounds mythical (e.g. Kees, Schott) and archaeological (e.g. Baumgartel). Despite knowledge of this, Pirenne presents the slightly modified scheme with the same note of certainty as for the thirty historic dynasties. In a work for a wider public, this is misleading and hence undesirable. If there be any truth in the theses of Schott, *Mythe und Mythenbildung im Alten Aegypten* (1945), Sethe's whole method and scheme would be undermined. Except for art and dubious reference to El-Omari and Merimda for an urban Delta culture, Pirenne makes no use of predynastic archaeology, and cites no period or site except El-Badâri once.

For the first six dynasties, Pirenne draws mainly on his earlier *Histoire des institutions et du droit privé . . .*, 3 vols. (1932–5); his picture here depends on the validity of that work (cf. Fairman, *JEA* 25 (1939), 123–4). Much depends on the correct interpretation of titles; little use seems to be made of, e.g. Helck's *Untersuchungen zu den Beamtentiteln des aeg. A.R.* (1954).

In Volume II more varied sources are used. Pirenne's picture of the gradual restoration of royal power in the Middle Kingdom and early Eighteenth Dynasty agrees well enough with the admitted development of those times. But he lacks adequate control of sources, both original and scholarly. Thus he repeatedly cites Winckler's obsolete edition (1894) of the ʿAmarna letters alongside that of Knudtzon. Knudtzon has all that is in Winckler; inconvenience of reference results; use of Winckler has cluttered Pirenne's pages with erroneous and confusing forms of names, e.g. Kalima-Sin (II, 232 ff.) for Kadashman-Enlil and Radimour (II, 212, 220, n. 89). Accumulation of errors or outdated theories sometimes blurs or distorts the general picture. Thus, in the ʿAmarna period, Abdi-ashirta preceded not succeeded Aziru (II, 324 f.); Mutemuia (225–6) and Nefertiti (291, 294) were not Mitannian, nor Akhenaten 15 at accession (241, 292). Tiye was not necessarily Syrian (205, 292; Hall's cup implies an Egyptian official in Syria, not vice versa—Djahi is an Egyptian term). Aten is not Semitic Adon (271); nor Khinatuni an Aten-foundation but Henathon (Joshua xix. 14). No one minds a few slips, but concentrations are more disturbing.

Pirenne's arguments and evidence can be less than convincing on broader questions, e.g. when he emphasizes the supposed autonomy and inviolability of the priesthoods as great corporations (states-within-the-state), using the Nauri decree for Sethos I's Abydos temple (p. 394, and article in *Arch. hist. dr. or.* I (1952), 19 ff.). But such decrees were simply safeguards against misappropriation of personnel and property; they did not imply immunity from taxation (cf. Gardiner, *Wilbour Papyrus*, II (1948), 202/3, 207/8). And the great foundation of Sethos I hardly appears as a powerfully autonomous state-within-a-state in the account by Ramesses II, even if overdrawn (Gauthier, *Inscription dédicatoire*, ll. 32–33). Evidence needs to be stronger than this.

Volume III has the merits and defects of Volume II. Pirenne well points out that Egypt's ills in the Twentieth and Twenty-first Dynasties were mainly of her own making. He omits fundamental works like Wiseman's *Chronicles of Chaldaean Kings* (1956) for the Egypto-Babylonian clash, 601 B.C., while a glance at Gauthier, *Livre des rois*, IV, 113–31 *passim* disproves his assertion that Amasis' reforms included ceasing to be Son of Rēʿ, Osiris, etc. Pirenne's treatment of Diodorus' report of the 'code of Bocchoris' (89–93; *Arch. hist. dr. or.* 4 (1949), 35 ff.) is ingenious and attractive. But Seidl long ago noted that several of the items long antedated Bocchoris, presenting a different view (Scharff and Seidl, *Einführung in die aeg. Rechtsgeschichte . . .* (1939), 61–62).

One admires Pirenne's courage in attempting so ambitious a work, even when he fails to convince. Available data (and our understanding) are still inadequate for a fully rounded synthesis. While with Pirenne (I, 13) syntheses are necessary and desirable, the need is all the more urgent for execution of the more limited, accurate technical studies on the collected results of which the reliability of syntheses must now depend. These volumes pose a challenge for future works of both kinds. K. A. KITCHEN

Egypt of the Pharaohs. By SIR ALAN GARDINER. Oxford Paperbacks No. 85. Oxford, 1964. Octavo. Pp. xviii+461, pls. 22, figs. in text 17, maps 3. Price 12*s.* 6*d.*

This is a reprint of the book which first appeared in hard covers and a larger format in 1961. It was reviewed in *JEA* 48 (1962) by Dr. R. O. Faulkner. Naturally no further review is called for in a book which differs from the first edition only in the correction of a few misprints and in the inclusion of some Addenda on page 454 giving the latest information on certain points. Nevertheless, I feel that the attention of the public should be drawn to the fact that this magnificent work, produced originally at the already low price of 35*s.* is now available at 12*s.* 6*d.* C. H. S. SPAULL

Egyptian Astronomical Texts, II. *The Ramesside Star Clocks.* By O. NEUGEBAUER and RICHARD A. PARKER. Brown University Studies, V. London, 1964. Folio. Pp. x+78, pls. 28 collotype+39 lithographic. Price £7.

This second volume of Egyptian Astronomical Texts deals solely with a series of star tables which are to be found upon the ceilings in the tombs of Ramesses VI (two sets), Ramesses VII, and Ramesses IX, and which obviously have the purpose of enabling the time to be known at night. They are in that sense 'clocks'.

There are twenty-four tables, one for each half-month of the year, the epagomenal days being ignored. Each consists of a rectangular grid with the stars positioned by the vertical lines and timed by the horizontal lines as in a modern graph. The vertical lines have names: 'opposite the heart' which is the central line, 'on the right [left] eye' for the next line on either side, then for the succeeding lines 'on the right [left] ear', and finally 'on the right [left] shoulder'. The horizontal lines are numbered as hours from one to twelve and the name and position of the star concerned given. Each table is accompanied by the figure of a seated man, drawn full-faced in a manner uncommon for Egypt. The names given to the vertical lines must refer, at least in origin, to this figure. It is to be presumed that in reality one man sat as a target while another observed the stars as they came over various parts of the target-figure's body. No hint appears in the ancient Egyptian material of this second man. Nevertheless, the authors accept this idea, I think correctly, although they are fully aware of the inevitable gross inexactitude of the primitive procedure thus involved. The whole constitutes a very crude method of determining time by observing the transits of stars. It is demonstrated that the hours indicated are those of actual darkness, twilight being excluded, and that the first star marks the beginning of the first hour of the night and the last the end of the final one. Thus thirteen stars are needed each night to mark the division into twelve hours. The number of hours being constant it follows that, as the night varies in length throughout the year, so must the length of the hours. The authors suggest that this very cumbersome division was effected with the aid of the water-clock. However that may be, I feel in some doubt as to the usefulness of such tables once water-clocks were available. It is obvious that the division attained was very inaccurate and that the hours were often far from being exact twelfths of the night in question.

The stars selected for transit observation are twenty-seven in number. Only one or two of them are also used in the decan-tables which were the subject of the first volume of this series. The stars are nearly all members of a limited number of constellations, but unfortunately these constellations cannot be identified. The only star about which there is any certainty is Sirius. Arguing from the astronomical facts concerning the movement of Sirius and from characteristic errors in the transcription from a presumed hieratic original which point to the Eighteenth Dynasty the authors propose a date of about 1500 B.C. for the composition of these tables. I would have expected an earlier date, but there seems to be no gainsaying the evidence put

forward. A certain result could only be obtained if some more of the stars could be identified and this the authors prove to be quite impossible with the evidence provided by the tables. It occurs to me that it might be possible to place a number of the stars relative to one another by considering the sort of shape that the constellation name calls to mind in Egyptian art (e.g. *nḫt* 'giant', *ꜣpd* 'bird'). The results could be compared with star-maps calculated for appropriate dates in the past to see if identifications suggested themselves.

In the book each table is the subject of a transcription in Roman letters, a tabular comparison with its immediate predecessor and a diagram illustrating the relationship of the hours and stars with those of this predecessor. In addition there are extensive notes and a commentary in each case. This is necessary because, although the tables descend from a single archetype, they nevertheless contain many corruptions and errors. However, the regular laws which govern the movement of stars enable a convincing restoration of the original tables to be made based on the assumptions made by the authors. These assumptions and corrections are kept to the very minimum and the final results presented under the title 'Concluding Remarks' in Chapter III show that this editorial work has produced quite a measure of success.

The production of the book fully equals the excellence of the first volume. Each table is produced in collotype and is given also on a series of lithographic plates which are essential as the state of the originals is often not such as to produce a legible collotype.

This book has also a page of corrections and additions to volume one. C. H. S. SPAULL

Die Geburt des Gottkönigs. Studien zur Überlieferung eines altägyptischen Mythos. By HELLMUT BRUNNER. Ägyptologische Abhandlungen ed. W. Helck und E. Otto, Bd. 10. Wiesbaden, 1964. Pp. vii+224, pls. 24. DM 36.

A theme much treated of in Egyptological literature, but neglected outside it; this is how Professor Brunner characterizes the subject of the present work. Even the Egyptological literature does not include a reliable and comprehensive presentation of the New Kingdom material, as distinct from the evidence in the Mammisi of the Ptolemaic and Roman eras, which has been studied by Daumas. The later material regards the God-King as the son of a divine pair; the earlier tradition views him as fathered by a god but conceived by an earthly mother.

Attention is focused in this volume on the relevant texts and representations from the temple of Ḥatshepsut in Deir el-Baḥri, the temple of Amenophis III in Luxor, an annex to the peripteral temple of Medînet Habu, and the north-east temple in the precinct of Mut in Karnak. The two first mentioned are the important sources, and of these Brunner gives a new and full publication of the material from Luxor. It is a pity that the material from Deir el-Baḥri has not been included in the same way. Brunner considers, however, that the publication by Naville, *The Temple of Deir el Bahari*, vol. II, pls. 47–55, is in general sufficiently reliable. The texts are also found in Sethe's *Urkunden*. We must be grateful for Brunner's provision of a valuable list of suggested corrections, together with references to the full translations and discussions included in the present volume. There are also a number of admirable photographs which reproduce parts of the various sources. The author's plan is first to discuss in detail the fifteen separate scenes, describing the representations, translating the texts, and adding a linguistic and general commentary which includes a discussion of the criteria of age. This fundamental task occupies the greater part of the work (pp. 10–166). Then come chapters on the literary forms, on indications of the time and place of origin (including grammatical and orthographical questions), and on the development and meaning of the whole cycle. There is a brief index of the main subjects discussed, and also a detailed table of contents, though the latter is not very helpful on the important Chapter II since it merely repeats fifteen times the quintuple subdivision of the treatment.

A sharp contrast emerges between the extreme reticence of the representations and the occasional plain speaking of the texts. In the depiction of Amūn's sexual union with the queen (pl. 4) the artist contents himself with the most formal symbolism: the *ꜥnḫ*-sign is held to the queen's nose and below are the goddesses Selkis and Neïth (as Brunner shows) supporting the feet of the mating pair. The flavour of the linguistic portrayal is admittedly not easy to assess; as so often in the approach to Egyptian one has to be satisfied with a semantic approximation without hoping to enter into the exact nuance or *Gefühl*. Brunner on p. 16 translates one sentence as *Amun geht, um sie zu begatten*; he observes on p. 17 that the second verb,

mḏꜣ, is a *hapax leg.* whose meaning is clear even if the nuance is not. Brunner cannot avoid a choice, of course, in his translation, and he chooses wisely. The general tone of a work is helpful in such matters. P. Chester Beatty I ('The Contendings'), for instance, is unmistakably playful, but the present texts are seriously ceremonious and religiously austere; and this is confirmed by the representations, although these may be following, as Brunner points out, a slightly different tradition. In some cases Brunner rejects a physical interpretation in the textual narrative; he believes, for instance, that the sentence *He surrendered his heart to her* (*IV D a*: *św rdi ib·f r·s*), while it has a more precise meaning than the modern locution might suggest, since the heart as the seat of being or the hidden core of the person is involved, yet is not to be explained in line with a suggestion mooted by Grapow, that the heart as the source of male semen is intended. In the latter case the sentence would denote the act of sexual union. Brunner is doubtless right in making it refer rather to the god's self-revelation as a divine person, since his first appearance is in the form of the king and since the following sentence is *He allowed her to see him in his divine form.* He rejects Gardiner's version of a later sentence (*After this the Majesty of the God did all he wished with her*: *Eg. Gr.*, § 389, 3), preferring the view of Sethe and others that this is a subordinate clause; both versions are grammatically possible, but a comparison of the form in *L* enables Brunner to decide convincingly in favour of the second, while resolving also the grammatical difficulty of the demonstrative *r·n* being followed by a feminine relative form. His literal version recognizes too an instance of badal-apposition: . . . *after this which the Majesty of this God had done, namely everything that he wanted to do with her.* He adduces, moreover, a compelling argument from the narrative sequence. The whole commentary is indeed a model of clear and careful exposition.

A linguistic feature of these texts is the use of *św śḏm·f* or *św* with the participle (cf. the instance quoted above). It is a narrative form in these examples, denoting a slight advance in the sequence of events. Brunner agrees with Erman, Sethe, and Lefebvre in regarding it as an ancient construction deriving from 'Early Egyptian' (*Frühägyptisch*: a phase preceding classical Old Egyptian), but admits that this is only an hypothesis. Another archaic feature is the use of the old personal pronoun *ṯwt* / *śwt* rather than the later *ntf*.

It is not often that one is impelled to disagree with the author's explanations. On p. 43 Jacobsohn's suggestion that the plural in the sentence *they found her* refers to Amūn and the king is a little too brashly rejected, especially as the text has just mentioned the assumption of the king's form by the god. On p. 5 there is a too easy acceptance of Sethe's claim that the Dramatic Ramesseum Papyrus, 39 refers to the adultery of Osiris and Nephthys.

A rigorous examination of linguistic and artistic factors leads Brunner to the conclusion that the origin of the myth goes back to the period before the Fourth Dynasty. He demonstrates, further, that the Luxor material is not a copy of that in Deir el-Baḥri, and he rejects the view that Ḥatshepsut used the cycle as propaganda to legitimatize her position. It is only an accident, he urges, that accounts for the full preservation of the cycle in the two known instances. It is a striking fact, which agrees with the posited early origin, that the whole concept is free from Osirian influence. Already in the Fourth Dynasty, however, as Brunner notes, occurs the idea that the king was the son of a god; and the evidence of P. Westcar is given full place. The difficult question of ritual significance is closely examined. Brunner rejects Maspero's view that generation and birth actually took place in these rooms, nor does he accept the suggestion of Daumas that a dramatic representation of the cycle was enacted, although he thinks that this may have happened in the Mammisi of the Graeco-Roman era. He rightly points to the absence of dramatic features in the texts; and he shows that the interrelation of texts and vignettes in the *Book of the Dead* is somewhat different from the more independent functions of the texts and pictures in this cycle. Here, then, we have myth divorced from ritual and expressed in a unique double form. Brunner must be congratulated on a masterly study.

J. GWYN GRIFFITHS

Wandrelief und Raumfunktion in ägyptischen Tempeln des Neuen Reiches. By DIETER ARNOLD. Münchner Ägyptologische Studien, ed. H. W. Müller and W. Westendorf, Bd. 2. Berlin, 1962. Pp. 138, pls. 33. No price given.

While this work is based on a dissertation presented at Munich, Dr. Arnold has also embodied in it the results of researches in Egypt, including the examination of wall-reliefs in some temples which have hitherto been unpublished or only partly published.

The Egyptian temple is shown to have been regarded as an image of the world, the centre of creation, and as a stage for the cult of the gods. These meanings are expressed by representations and inscriptions which indicate the validity of rites enacted in the past and guarantee, at the same time, through the magic power of the depictions, the temple's efficacy in times of possible ritual neglect. What is implied, it seems, is a meaningful order of representations within the building and the linking of a scene with the place where its action occurs. The representations, accordingly, together with the few building inscriptions, point to the function of the rooms, passages, and halls, and in this study eleven groups of rooms in New Kingdom temples are examined: cult-statue chambers, rooms for barks, offering-table halls, royal funerary offering-rooms, cult-places for the king's statues, purification chapels, chambers for ointments and clothes, treasuries, slaughtering-courts, appearance halls, and festival courts. The author's method in discussing these, one by one, is to give first a descriptive account of his conclusions and then to append a detailed catalogue of the evidence from each temple. His general account naturally refers often to his appended catalogue and also to the useful plans and plates with which the book ends. It is a well-ordered investigation. Some of the plates are not quite adequate because difficulties of lighting were not fully overcome in the photography.

One important conclusion reached is that the theme of the temple reliefs is not related everywhere with equal strictness to the ritual function of the place where they occur. The relation is best preserved in the rooms for cult statues and the offering-table halls, where the sacred nature of the objects and rites furthered a correct location of the scenes. In several cases the reliefs refer, not to the room where they occur, but to a neighbouring room; this applies usually to representations in the vicinity of doors and particularly to many depictions of the king. An interesting point emerges with regard to the direction in which the representations face: the men engaged in ritual activity are shown facing inwards, whereas the deity venerated faces outwards from the temple. A continuous movement can be observed extending from the temple façade to the back wall of the *sanctum sanctorum* behind the cult-statue, and this stream of figures reveals a significant trait of Egyptian architecture in the attempt to accompany one who enters the temple and to lead him eventually to the middle point of the building. The rear wall is the point of vision which attracts the eye of the incomer; and here he is told who is the lord of the sanctuary, what king has endowed the building, and in what favour the king consequently stands with the god. There is some variation in the location of gods. Not unnaturally perhaps, the lord of the temple can intrude into reliefs on the rear wall of chapels devoted to subordinate deities; and Amūn can thus intrude even when the temple includes no specific cult of his.

An inherent difficulty in this investigation is the initial identification of the several rooms. The criteria are described on p. 5 as consisting of the Egyptian designations, the building-inscriptions, and other descriptive texts; but the basic pointer is seen in the content and grouping of the wall-reliefs. This seems a reasonable approach provided one realizes the nature of the underlying assumption in the last statement: it means that from the start there is a disposition to favour a nexus of the room's function with the theme of the wall-reliefs. Inevitably there are occasional doubts even when the criteria are accepted. On p. 17 we are told that Kees designated a certain room (here no. 29 in Plan 15) in the Festival-temple of Tuthmosis III at Karnak as the *pr-dwꜣt*. Arnold believes it is the cult-statue chamber, arguing that its situation in the temple makes it unsuited to be the *pr-dwꜣt* and that, further, the representations of purification form only a small part of the varied scenes depicted, which offer, in fact, a cross-section of numerous rites, but do not belie the function of the room as a cult-statue chamber. It is noteworthy that an argument relating to structural position has been adduced here; actually it figures fairly prominently in the criteria applied and its application is perhaps too confidently pursued. In the particular instance cited, Arnold may well be right. He must in any case be thanked for a valuable study of a significant theme.

In a discussion on p. 109 of the representations of the king smiting his amassed enemies with a club or sword, the possibility is suggested that an ancient rite of human sacrifice is implied. This is obviously hypothetical. Arnold's further remark, that an apotropaic intent is apparent, is in some ways more acceptable. The representations are located on the outer wall near the gate, overlooking the temple court, and these, as Arnold points out, are 'critical places' in a temple, since they are the barriers which separate the ordered cosmos of the gods from the chaos of the surrounding world; they therefore need special protection. The smitten prisoners, however, refer rather to countries outside Egypt, and the increasing importance of such scenes in the New Kingdom, as Arnold goes on to show, probably reflects Egypt's

contemporary experiences in war. Through these scenes the king's battle-triumphs are seen to be blessings bestowed by the gods, and the implied link between religion and the nation's military prowess is, of course, a widespread phenomenon. J. GWYN GRIFFITHS

Gott und Mensch nach den ägyptischen Tempelinschriften der griechisch-römischen Zeit. Eine Untersuchung zur Phraseologie der Tempelinschriften. By EBERHARD OTTO. Abhandlungen der Heidelberger Akademie der Wissenschaften, Phil.-hist. Klasse. Heidelberg, 1964. Pp. 196. DM 36.

Gott und Mensch stands out typographically as the substantive title of this work. As such, of course, it is too expansive, but an accurate complementary description follows. Lest even this might be deemed to be too ambitious a denotation, Professor Otto has added a sub-title, and in his introduction he explains that his study is based on the analysis of a large number of religious phrases and expressions emanating from the temples of the Ptolemaic and Roman eras. The phrases studied are derived mostly from texts relating to cult and ritual, and their selection is based on their relevance to the general theme. It is stressed that an exhaustive record is not intended and that this is not a 'phraseological lexicon of the temple-inscriptions'; furthermore, it was not possible to use the recent publications by Junker, Sauneron, and Firchow of texts from Philae, Esna, and Thebes respectively. A considerable range of material has none the less been included, and the results of a detailed study are presented under the headings 'Statements about God', 'Man and the World before Deity', 'The Role of the King', and 'The Idea of God and Cult Reality'. An excursus deals with 'The inter-relation of the polarized concepts *wnmt—ỉ3bt* (right and left eye); *nḥḥ—ḏt* (endlessness and eternity): *nyśwt—bity* (King of Upper Egypt and King of Lower Egypt)'. There is a long (pp. 95–163) alphabetical compilation of the more common expressions and epithets, followed by a word-index and an autographed hieroglyphic appendix.

It is difficult to indicate in a review the usefulness of this wide-ranging study. In essence it is a careful and well-documented compilation which is equipped also with illuminating remarks on a large number of separate items. In addition the author attempts a general synthesis. A strongly anthropomorphic picture of the gods emerges, save that omnipotence, omniscience, and related qualities are often assigned to them. The claim to uniqueness is often ascribed too in expressions like *nn wn mỉty·f*, 'his like does not exist'. The formula is used of the king as well, and also of buildings; it is shown to derive from the biographical literature of the Middle Kingdom. It follows that no monotheistic tendency can here be associated with the concept of uniqueness. A constant feature of the treatment is the attempt to correlate and derive the ideas encountered, and in this way the book is much more than a guide to concepts attested in the eras with which it is specifically concerned. Very often there are abundant earlier prototypes. An interesting exception is the idea of a primitive paradise in *Edfou*, v, 85 which Otto thus translates: 'Maʿat came from heaven to earth. She consorted with all the gods. Nourishment and food were abundant without limitation. There were no evil-doers (*ỉsftyw*) in this land. The crocodile did not ravage, nor did the serpent bite in the time of the primaeval gods.' Similar allusions were collected by Sethe, *Amun und die acht Urgötter von Hermopolis*, 63; cf. Sethe–Firchow, *Urk.* VIII, 76 and 81. Otto concludes, 'with all due reserve', that the idea is not of Egyptian origin, and tentatively suggests that there may either be Gnostic influences, with an equation of Maʿat and Sophia, or that Hesiod's scheme of ages may be reflected here. One is reminded of Walcot's thesis that the Instructions of ʿOnchsheshonqy reflect the influence of the *Opera et Dies*: see *JNES* 21 (1962), 215–19; certainly he has discovered some striking resemblances. It may be questioned whether Otto has given proper weight to the early Egyptian ideas of a primitive age of bliss when the gods ruled, notably Horus or Rēʿ.[1] Whereas the texts of the Graeco-Roman era to which he refers introduce new details into the picture, the contrast between Maʿat and *ỉsft* (cf. *ỉsftyw* in the passage quoted) is as early as *Pyr.* 1775 b (N); see further Morenz, *Ägyptische Religion*, 121 f.

A remarkable feature of the king's role in these inscriptions is his frequent assumption, in certain ritual procedures, of priestly titles, a phenomenon which apparently occurs first in the Ptolemaic era. Otto notes

[1] In addition to Grapow, 'Die Welt vor der Schöpfung', *ZÄS* 67 (1931), 34 ff. which Otto cites, cf. F. Ll. Griffith in Hastings, *ERE* I (1908), 192 *a*; J. Gwyn Griffiths, 'Archaeology and Hesiod's Five Ages', *Journal of the History of Ideas*, 17 (1956), 109–19; R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt* (London, 1959), 263 f.

that some of these titles, such as *ỉwn-mwt·f*, *sȝ-mr·f*, and *śm*, had in origin denoted functions of gods, so that their earthly bearers derived an exaltation therefrom. In the Ptolemaic era a generally heightened valuation of priestly titles is observable in the sense that they are applied to both gods and kings. It is suggested that since the New Kingdom the priesthood achieved a measure of independence *vis-à-vis* the kingship and released itself from its merely representative position. At the same time the kingship became secularized, and in order to justify anew the king's essential ritual roles, he was received into the circle of the legitimate partners of deity, namely the priests. This is a convincing explanation of the change.

Perhaps the most difficult of the tasks here essayed is the interpretation of the ideas implicit in the procedures of cult and ritual. Offerings to a god are often made on the principle of *Do ut des*, while in other rites mythical events are enacted in order to maintain the universe in order. Otto feels that the approach of the Ptolemaic temples is somewhat different: there is now a special directness or immediacy of relationship between gift and counter-gift, and the prominence given to this idea is achieved by the exclusion of the mythical element. The presentation of the *wḏȝt*-eye, for instance, in spite of its rich mythical associations, concentrates its attention in these texts on the concept of physical health, which God is expected to preserve, and on the happy conjoining of God and man through light; one is constrained to give a very wordly sense to one's application of the term 'symbol' to the object of the offering or of the rite. At the same time the cult-object and ritual procedure achieve a new and wider currency of meaning, even if it is fully anthropocentric; and the original intention of the rite is actualized in a new way. Otto cautiously adds reservations to this interpretation: the approach may be attested before the Ptolemaic era, and in any case it does not affect the context of the daily ritual or the mythological background of festival rites.

There are acute remarks on the fluidity of the gods' functions and of their epithets in these texts; this is contrasted with the reality effected in the cult, a reality which becomes an expression of a new and direct cosmic relation between the deity, the cult-object and the world. One wonders whether the interchangeability of the gods may not be a mark rather of an attenuated belief in their distinctive powers. Otto well stresses that it is the rite that confers a particular association on the god, and not the traditional epithet which may be attached to him; for instance, the presentation of the Maʿat-figure demands of the deity to which it is presented a care for righteousness and correctness even in earthly matters, without regard at all to whether this deity is primarily and mythologically connected with the concept of Maʿat. Otto queries the value of applying terms like immanence and transcendence, or polytheism and monotheism, to the elucidation of Egyptian religion, but he has little doubt that the Egyptian gods are regarded in this era as being active in the world; their activity, in fact, is considered to be basic in the world of nature and man.

The interpretative sections of this important study may seem to contrast with the objective wealth of its assemblage of material. While the interpretations are inevitably open to be debated, their speculative element is always related to data faithfully observed. J. GWYN GRIFFITHS

Katoche, Hierodulie und Adoptionsfreilassung. By LIENHARD DELEKAT. *Münchener Beiträge zur Papyrusforschung und antiken Rechtsgeschichte*, 47 Heft. München: C. H. Beck, 1964. Pp. xiv+191. 4 Photographs. No price quoted.

The subject of temple-κατοχή has attracted considerable attention ever since the first publication of the large collection of Ptolemaic papyri from the Serapeum at Memphis. Delekat was led to examine the problem while preparing a book on *Asylie und Schutzorakel am Zionheiligtum*. He thus approaches it from a fresh angle and is able to relate it to its Near Eastern background and to compare it with what he believes to have been similar practices in neighbouring lands. Basically the solution he arrives at is that first put forward by von Woess, that the ἐγκάτοχοι were mostly *Asylflüchtlinge*, but he introduces many new ideas in presenting this view and in developing it further.

In his first two chapters Delekat tries to establish that there were three sorts of ἐγκάτοχοι in the Serapeum: those allowed to leave, at any rate temporarily, those confined to the Astartieion, and those who could not leave the temple precincts. The last group, which was probably the largest, consisted of people who had fled to the temple for refuge. As examples Delekat gives Heraclia, the Twins, Taûs and Thauês, and (probably) Ptolemaeus, the most famous of the ἐγκάτοχοι. In Chapters III and IV, where Delekat introduces

comparisons with temple-institutions in other Near Eastern lands, notably Judaea, he argues that these *Asylflüchtlinge* dedicated themselves as slaves to the god. As, however, it was not the practice to use slaves for cult-services, the institution of κατοχή was evolved. This enabled a temple to retain the services of a slave who had been nominally freed, and was thus analogous to manumission with παραμονή (as Westermann suggested) and *Adoptionsfreilassung*, both of which were devices to bind a freed slave to the service of his former master until the latter's death. In the Serapeum this bondage lasted until the death of the Apis-bull, but premature release could be purchased or one could be expelled for misdemeanours (as happened to Ptolemaeus). This section includes a valuable examination of the term ἱερόδουλος (pp. 98–106). In his final chapter Delekat makes general remarks on the origin of κατοχή, which he believes to be Syrian, and on the use of κατοχή to mean both divine possession and detention in a temple, to which he adds a useful note on the terminology employed.

This summary gives what I hope is a fair picture of Delekat's main conclusions, but it cannot indicate more than a small part of the many original suggestions he puts forward. These are nearly always controversial, often differing from the views of earlier scholars, notably those of Wilcken. In support of them Delekat employs a great many detailed arguments, springing from a careful study of the relevant texts. Of some of these he proposes new interpretations, the most important being his reconstruction of the demotic papyrus *UPZ* 6a in such a way as to lend powerful support to his thesis. *UPZ* 3, 4, 63, and 78 of the Greek papyri are re-edited, with occasional departures from Wilcken's readings. Some of these look promising from accompanying photographs, e.g. ἀτυχῶι *UPZ* 63, 5, ἐξάπ[ινα] *UPZ* 78, 7 and ἵπατε (*l.* εἵπατε) *UPZ* 78, 44, and Delekat is rarely betrayed by a lack of specialist knowledge (e.g. in his failure to recognize *Hakenalpha*, p. 48, n. *a*). But the text of *UPZ* 4 (pp. 51–52), leaving out of account the strange νε]ᾶνην [*sic*] in l. 1, is often mere guesswork for which the papyrus is incapable of providing any proper control. In consequence the theories Delekat proceeds to construct on it rest on a very shaky foundation. This is an extreme example of what seems to me to be a recurrent feature of the book, namely that the evidence with which Delekat supports his arguments is frequently unreliable or open to more than one interpretation, with the result that a high proportion of his conclusions remain purely speculative. A few points from the history of the Twins will illustrate this. (i) It is fundamental for Delekat's thesis that the Twins should be ἐγκάτοχοι, otherwise the two long sections he devotes to them (pp. 30–47 and 136–55) are irrelevant. Yet Delekat is unable to prove this, as the only piece of direct evidence in favour of it can be explained away: see Wilcken *ad UPZ* 79, 14. (ii) It is equally fundamental that the Twins should be *Asylflüchtlinge*. Delekat therefore attempts to show that they could not leave the Serapeum, and that they originally fled there to seek refuge from their mother. But the evidence for the former is ambiguous and falls well short of proof, and the latter is contradicted, as Delekat admits, by what the Twins themselves say. (iii) The Twins ceased to be ἐγκάτοχοι before the death of the Apis-bull. Delekat explains this by saying that they were expelled because one of them became pregnant by Apollonius, brother of Ptolemaeus. He produces several bits of evidence for this, but as they all come from dream-papyri, sceptics are unlikely to be convinced.

Nearly every page of this book will, I suspect, provoke doubts and disagreements similar to those just indicated, but this is perhaps largely inevitable when the evidence is frequently insufficient to prove or disprove a particular hypothesis. Further, I must make it clear that there are parts of Delekat's work on which I am not competent to pass an opinion, in particular his reconstruction of *UPZ* 6a mentioned above, and his use of the Semitic evidence in general. In favour of Delekat's theories it may be urged that they are consistent and rest on a thorough study of the sources, ancient and modern. They will undoubtedly serve to stimulate research along fresh avenues into this complicated, much debated subject.

J. David Thomas

L'Édit de Tiberius Julius Alexander. By Gérard Chalon. (*Bibliotheca Helvetica Romana*, V.) Urs Graf-Verlag Olten et Lausanne, 1964. Pp. 279, with five plates. No price quoted.

Since the publication in 1938 of *The Temple of Hibis* II by Evelyn White and Oliver (referred to below as EW), we have possessed a dependable text of the edict promulgated in A.D. 68 by the prefect of Egypt,

Tiberius Julius Alexander. There has, however, been no comprehensive modern survey of this important document, and it is this gap which Chalon's book is intended to fill. This is an extremely thorough piece of work; the commentary on the edict runs to some two hundred pages—over half a page often being devoted to footnotes in minute print—and the book as a whole will prove most useful.

The work falls into three main sections, in the first of which (pp. 21–39) a text of the edict is given, together with a translation. The text is that of EW with the following modifications. Chalon sensibly relegates to the notes EW's supplements for ll. 45, 46/47, 50/51, 58/59 and 62/63; on the other hand, he rashly accepts Martin's *οὐδ' ἐπὶ τοὺς ζ̄ νομούς* into his text at 47/48; 48/49 he suggests *νομόν. Διὸ κελεύωι το]ῖς*; 53/54 he adopts the reading *ὑ[πογραφ]ῆς*; 56 he defends the text of the stone, *ἀρχαίας ἑτέρων*. The text is not intended to supersede that of EW, but even so its presentation is barely adequate. Not only are stonecutter's errors not indicated, but doubtful letters are not properly marked, which sometimes gives a false impression of the reliability of a reading.

The second section deals with general topics connected with the edict, and while containing very little that is new, it usefully brings together much widely scattered material. It is arranged in three chapters, in the first of which Chalon considers the relationship between Alexander and Galba. He examines carefully the purpose of the edict and relates it to the historical background; *inter alia* he expresses himself in favour of the view that Alexander was acting in collusion with Galba before Nero's death. The second chapter is devoted to the economic background. Chalon insists that the edict reflects real conditions and is not merely anti-Neronian propaganda, and takes a very gloomy view of the economic state of Egypt in the latter part of Nero's reign. The final chapter is entitled *nature et caractères essentiels de l'édit*. In it Chalon considers both the similarities between the edict and other comparable documents, and the extent to which it is unique. There is a lengthy refutation of Reinmuth's view that it is an *edictum provinciale*, and an interesting section in which Chalon well brings out the similarity between the wording used and that found in Ptolemaic *philanthropia* decrees.

The third part of the book (pp. 91–236) is the longest and the most important. In it Chalon goes through the edict section by section, devoting a chapter to the exposition of the argument of each clause and dealing at great length with all the problems raised. His treatment is generally judicious and he is cautious in drawing conclusions. His examination seldom leads him to propound new theories, but the proposed division of the clauses in lines 35–45 (justified on pp. 183 ff.), and the explanation of *τούτωι* in line 39 as referring to the *ἐκλογιστής*, should be noted. At the end of this section there is a brief conclusion in which Chalon emphasizes the conservative nature of the edict and expresses doubt as to its efficacy. The book is then completed by comprehensive indexes, including a list of edicts of the prefects of Egypt.

This is not the place to discuss the many points of detail that arise, but a few general criticisms may be offered. Parts of the book, notably the second section, would have benefited from pruning; there are many instances of modern writers being quoted in full when a reference would have sufficed, and of their being paraphrased in the text while at the same time being cited verbatim in the notes. Chalon expressly disclaims any intention of discussing the language and style of the edict (though it does arise here and there, e.g. in n. 57 on p. 79); this omission seems to me to be unjustified. In the Greek, which is quoted liberally throughout, it is much to be regretted that doubtful readings are not indicated by dots. The bibliographies which head each chapter in the second and third sections are less helpful than they might have been, since they include without distinction important references and passages where the edict is simply referred to *en passant*. Occasionally too one gets the impression that they are not as comprehensive as could be wished. Thus there is nowhere any mention of N. Lewis's writings on liturgies, nor of Pflaum on procurators; Gauthier, *Les Nomes*, should have been referred to on the Alexandrian *chora*, etc.; the note on *Πέρσης τῆς ἐπιγονῆς* (p. 116, n. 28) is very much out of date.

Despite these points I feel that Chalon's book is successful in achieving what it set out to do. It will now be possible for anyone interested in a particular topic touched upon in this wide-ranging edict to find out at once all that has been said on the subject by earlier scholars. This will prove an invaluable service for all who will have occasion to refer to the edict in future, which is to say all students of the law and history of Roman Egypt.

J. DAVID THOMAS

Documenti per la storia dell'esercito romano in Egitto. By SERGIO DARIS. Società Editrice Vita e Pensiero, Milan, 1964. Pp. 262. Lire 5000.

Dr. Sergio Daris has written a number of useful papers on disputed points concerning the Roman army in Egypt, and is well known for his useful collection of Latin words that established themselves in the Greek vocabulary in Egypt. In the present volume he collects 108 representative documents, Latin and Greek, which illustrate such features as status, enrolment, pay, requisitions, rights of veterans, etc. The period ends with Diocletian, and texts from outside Egypt are not here collected. The texts are reproduced with brief critical apparatus and bibliography, and take account of recent work done on them. A spot check suggests that reproduction is reliable and thoughtful. In 103,21 (C. B. Welles, *JRS* 28 (1938), 41 ff.) it may be suggested that γειcθε is better taken as κεῖcθε than γεί[νε]cθε. Under No. 35 it might have been mentioned that another small piece of this papyrus is in Aberdeen (P. Aberdeen 133, published in *JEA* 33 (1947), 92). E. G. TURNER

Die koptischen Rechtsurkunden aus Theben. By WALTER C. TILL. Österreichische Akademie der Wissenschaften, Philosophisch-historische Klasse, Sitzungberichte, 244. Band, 3. Abhandlung, Wien, 1964. No price quoted.

This is the last work, published posthumously, of the late Walter Till. One pauses to reflect that Till's later years were sorely troubled by ill health. Yet his scholarly output was greater than ever. These years are dated by such works—*doctis Iuppiter et laboriosis!*—as his *Die koptischen Rechtsurkunden der Papyrussammlung der Österreichischen Nationalbibliothek* (1958), *Die koptischen Ostraka der Papyrussammlung der Österreichischen Nationalbibliothek* (1960), *Datierung und Prosopographie der koptischen Rechtsurkunden aus Theben* (1962), and, finally, the present work.

In it he has continued his useful practice of collecting and translating for students who may have no Coptic the documents in that language bearing on different subjects, e.g. medicine and, especially, law. It contains in translation a great number of Coptic legal texts of all kinds from Thebes, notably the fine ones from Crum's *Koptische Rechtsurkunden aus Djême* (Thebes) not already translated by Till in his *Erbrechtliche Untersuchungen auf Grund der koptischen Urkunden* (1954).

Many of the texts have never been translated before. Of some only a Russian version exists. Many find a more correct translation than they have had hitherto. In any case, they were scattered in different publications, some hard to come by, and it is convenient to have them all together.

Apart from their juristic aspects, these documents often illustrate interesting customs of the time and place. Thus clerics just ordained or about to be ordained give to the bishop a written undertaking that they will *inter alia* learn by heart and be able to recite a specified one of the four Gospels within a period varying from roughly two to four months.

Then there are the Schutzurkunden or promises of immunity sent to persons who have fled from their homes, usually because they have not paid their taxes. These seem to come nearer to the Byzantine λόγοι ἀσυλίας than do the Bürgschaftsurkunden where a third party goes bail, as it were, for the person in jeopardy and undertakes to produce him on request. Indeed, the Bürgschaftsurkunden sometimes specifically provide that the person in jeopardy shall be produced ⲡⲁⲧⲗⲟⲩⲟⲥ, i.e. without resorting to any promise of immunity.

An elaborate series is that of the Schenkungsurkunden or legal instruments whereby a parent donates his son to a monastery 'to serve this holy place for ever like a slave bought for money'.[1] Occasionally it is even provided that, if the son shall beget sons, they too shall belong to the monastery.[2]

Commentators recall pre-Christian parallels. These Christian parents, however, do seem to betray a certain unease about the ethics of what they are doing. Thus one preamble says, 'The royal and divine laws ordain that it is in the power of each one to do what he will with his own; and this practice did not begin with me but obtained in the time of Samuel the prophet whose parents gave him to the temple of the Lord'.[3]

It is probable, however, that in practice the custom did not work out so harshly as the precautionary wording of the legal instruments suggests. Even these sometimes specify certain freedoms of choice for the

[1] *KRU* 82.15, 16. [2] *KRU* 80.34; 93.22, 23; 95.22. [3] *KRU* 85.27 sq.

child donated; and other documents in the book show expelled monks signing humble promises of amendment in their anxiety to be taken back by their monasteries.

But it is to students of the law in the papyri through the different periods that this book will be specially useful. In it they will find ample materials for the Coptic period presented in a translation on which they can confidently rely. Till was well equipped for this kind of work. He had an exact knowledge of Coptic grammar. He had the instinct and feeling for idiom and the general sense of proportion that come only from a large experience of one's subject over many years. Also, though he edited all sorts of Coptic texts in his time, the legal ones were his favourite child. They had a kind of logic and matter of fact that appealed to him. 'There is no nonsense in them', was how he put it.

With this, then, the last of his works, we sadly take leave of one to whom not only Coptic students owe much.

J. DRESCHER

1. *Joshua I–VI and other passages in Coptic.* By A. F. SHORE. Chester Beatty Monographs No. 9. Dublin, 1963. Pp. 76; pls. 2. No price quoted.
2. *Papyrus Bodmer XXI, Josué VI. 16–25; VII. 6–XI. 23; XXII. 1–2; XXII. 19–XXIII. 7; XXIII. 15–XXIV. 23; en sahidique.* By R. KASSER. Bibliotheca Bodmeriana 1962(3). Pp. 137. No price quoted.

These two books go together. Between them they give all the known surviving contents of a papyrus codex now divided between the Chester Beatty Library at Dublin and the Bodmer Library at Geneva. The Dublin part edited by Shore has Joshua i–vi. 16; vi. 25–vii. 6; xxii. 2–19; xxiii. 7–15; xxiv. 23–33*b*, as well as the last few lines, xiv. 13–15, of Tobit. So together they give all the text of Joshua except chapters xii–xxi omitted by the original translator or some scribe.

Shore's edition has Introduction, autographed Text with pages and lines according to the manuscript, Translation, short Notes, and Indices of Coptic and Greek words and Proper Names, as well as two collotype plates. The book has soft paper covers and is likely soon to need a visit to the binder.[1] Kasser's edition, as befits its cost, is more of a *de luxe* affair like previous volumes in the Bodmer series. It has Introduction, Text with pages and lines according to the manuscript, Translation opposite each page and line of text, Notes under text and translation, and Indices of Greek words and Proper Names. A splendid feature is the complete set of excellent photographs of not only the Bodmer leaves of the manuscript but the Chester Beatty ones as well. Also, whereas Shore, except for general remarks in the Introduction, confines himself to his part of the text, Kasser's Introduction, Notes, and Indices cover the whole of it. Shore's Introduction deals briefly but judiciously with most of the important points. Kasser's is much more detailed and exhaustive.

Turning to the manuscript itself, a word may first be said about the deliberate omission by translator or copyist of the middle ten chapters, xii–xxi, of Joshua. Kasser seems right in his view that these chapters were omitted because they were uninteresting. The historical books of the O.T. were clearly not considered by the early Church in Egypt as important as, for example, Genesis and the Psalms. They seem to have been little used in the Liturgy. But for the most part they told a good story such as the Copts, judging from their later literature, would enjoy for its own sake; and this was perhaps their main appeal. If so, the duller parts might sometimes be left out. The part omitted here reminds one of the Catalogue of the Ships in Homer.

About the date of the manuscript, Shore's view is that it can hardly have been written later than the first half of the fourth century. Kasser does not go beyond attributing it to a professional scribe of the fourth century. Shore goes on to comment on the remarkable number of unusual forms and irregular spellings that the text displays. He finds these 'characteristic of early Sahidic texts written down before the full standardization of Sahidic as the literary dialect in the second half of the 4th century or early part of the 5th'. Kasser, too, describes the text as 'marqué par toutes sortes de bizarreries orthographiques et d'influences dialectales diverses'. Something here depends on the place and the scribe. Unfortunately, it

[1] So apparently did the manuscript itself. The last leaf of Joshua is by a different hand. It was also the outside leaf of the quire and, as such, was subject to the greatest strain. The original leaf probably split away from the other half, the first leaf of the quire, and was damaged or lost. So another was substituted with the missing text recopied by someone else.

is not known where this manuscript came from. Shore considers (Introduction, p. 12) that the influence of Subachmimic forms in both spelling and grammar suggests Middle Egypt, perhaps the region of Akhmîm. Kasser, however (Introduction, p. 25), inclines to find more Fayyumic and, especially, Bohairic influence than Middle Egyptian. Students of the dialects, their location and history, will find material here.

Apart from spellings and dialectal forms, one sees that it is the copyists, not the original translator, who are to blame for some of the peculiar readings of this text of Joshua. Kasser (Introduction, p. 29, n. 3) has an illuminating note on this. The following are examples. In ii. 14 ⲟⲩⲙⲉⲩⲉ is for ⲟⲩⲙⲉ (*ἀλήθεια*). In v. 6 ⲉϯ ⲛⲁⲩ ⲙ̄ⲡⲕⲁϩ should probably be ⲉⲧⲙⲛⲁⲩ ⲉⲡⲕⲁϩ (*μὴ ἰδεῖν αὐτοὺς τὴν γῆν*). In v. 10 ⲙ̄ⲡⲉⲙ̄ϩⲉⲓⲧ seems a corruption of ⲙ̄ⲡⲉⲙⲉⲛⲧ (*ἐπὶ δυσμῶν*). In ix. 10 (16), in (ⲁⲉ) ⲁⲩϣ ⲛⲁϩⲣⲏⲧⲛ̄ may be discerned the *disjecta membra* of ⲁⲩⲱ ϩⲉⲛ ϩⲉϩⲁⲉⲓⲙ (*καὶ ἐν Ἐδραεῖν*). In xi. 8 ϩⲛ̄ⲛ̄ ⲙ̄ⲙⲁ ⲙ̄ⲡⲉⲧⲣⲁ may come from ϩⲛ̄ ⲙ̄ⲙⲁ ⲙ̄ⲡⲉⲓⲣⲉ (*κατ' ἀνατολάς*). In xi. 17 ⲡϣⲱⲡⲉ ⲙ̄ⲡⲗⲓⲃⲁⲛϩ[ⲥ] can only represent ⲡⲓⲥⲱϣⲉ ⲙ̄ⲡⲗⲓⲃⲁⲛⲟⲥ (*τὰ πεδία τοῦ Λιβάνου*). Cf. xi. 8 ⲉⲡⲓⲥⲱϣⲉ ⲙⲁⲥⲙⲱϫ (*τῶν πεδίων Μασσώχ*). Elsewhere, too, one smells lurking corruption. In vii. 8 for ⲟⲩ ⲛⲉ ⲉⲧⲛ̄ⲛⲁϫⲟⲟϥ one would have expected ⲟⲩ ⲛⲉϯ(ⲙ)ⲛⲁϫⲟⲟϥ (*τί ἐρῶ*;) while in i. 15; xxii. 4 *ὁ θεὸς ἡμῶν* could easily have taken the road ⲛⲉⲛⲛⲟⲩⲧⲉ>ⲛⲉⲛⲟⲩⲧⲉ>ⲛⲛⲟⲩⲧⲉ. In v. 1 the seeming confusion between ϩⲟⲧ(ⲉ), 'presence (?)', and ϩⲟⲓⲉ, 'fear', which both editors notice (Shore, n. 17/15; Kasser, Introd., p. 33, n. 6) could not have been that of the original translator who had before him the Greek *ἀπὸ προσώπου* for which he would naturally use his pet phrase ⲙ̄ⲡϩⲟⲧ(ⲉ) ⲉϧⲟⲗ. Nor need he be held responsible for attaching ⲙ̄ⲡⲉⲟⲩⲟⲉⲓϣ ⲉⲧⲙ̄ⲙⲁⲩ to the end of this verse instead of to the beginning of the next.

Incidentally, neither original translator nor scribe is responsible for one or two mistakes. In vi. 10 (Shore, pp. 39, 60) we should read ϣⲁ ⲛⲉϩⲟⲟⲩ ⲉⲧⲟⲩⲛⲁϫ[ⲟⲟⲥ ϫⲉ (? ⲉ- ?)] ⲁϣⲕⲁⲕ ⲉϧⲟⲗ or the like, which would give the meaning of the Greek. In x. 14 (Kasser, p. 83, ll. 17, 18) we should read ϩⲱⲥⲡⲧⲉ ⲛ̄ⲧⲉ [ⲛⲛⲟⲩⲧⲉ] ⲧⲉⲣⲟⲩⲉⲓⲙⲉ ⲛ̄ϫⲉ ⲛ̄ⲣⲣⲱⲙⲉ or, in ordinary Sahidic, ϩⲱⲥⲧⲉ ⲛ̄ⲧⲉ [ⲛⲛⲟⲩⲧⲉ] ⲧⲣⲉⲩⲉⲓⲙⲉ ⲛ̄ⲥⲓ ⲛ̄ⲣⲱⲙⲉ. And in xi. 16 (Kasser, p. 98, ll. 11, 12) the photograph shows that for ⲛⲥⲓ ⲛⲉⲧϩⲁ ⲡⲧ[ⲟ]ⲟⲩ we should read ⲛⲥⲟⲛ ⲉⲧϩⲁ ⲡⲧ[ⲟ]ⲟⲩ.

It must also be noticed that J^{os} [1] has conflations not found in the Greek, e.g. xi. 8 ⲙⲁⲣⲥⲱⲙⲁⲉⲓⲛ ⲙ̄ⲡ ⲙⲁⲥⲉⲣⲱⲛ̄; xxiv. 20 ⲛⲉⲛⲕⲉⲛⲟⲩⲧⲉ: ⲛ̄ϣⲙⲙⲟ combining *θεοῖς ἑτέροις* and *θεοῖς ἀλλοτρίοις*; xxiv. 23 ⲛⲛⲓⲛⲟⲩⲧⲉ ⲛ̄ϣⲙⲙⲟ ⲙ̄ⲡ ⲡⲁⲗⲟⲫⲩⲗⲟⲥ [*sic*] combining *τοὺς θεοὺς τοὺς ἀλλοτρίους* and *τοὺς θεοὺς τῶν ἀλλοφύλων*. In vii. 21 J^{os} adds to the articles stolen by Achar from the spoils of Jericho ⲟⲩϩⲟⲉⲓⲧⲉ ⲛⲉⲡⲁⲛⲁⲁ of which the Greek knows nothing. One suspects that this was originally a gloss on *ψιλήν*, just as a Greek manuscript, k in the larger Cambridge Septuagint, has in the margin against *ψιλήν* the glosses *στολήν*, *ὕφασμα*, *ἱμάτιον*. In our own text *ψιλήν* has been changed to the commoner word ⲯⲉⲗⲓⲟⲛ though the accompanying ⲉⲛⲉⲥⲱⲥ ⲉⲥⲟ have been left feminine in gender.

So J^{os}, early as it is, already has a history. But it has not been systematically revised.[2] It fits well into a pattern that is gradually taking shape for the early history of the Coptic version of the Bible. The general picture suggested is of early texts which sometimes differ markedly from the consensus of the later ones. These early texts may have been the first translations of the Bible into Coptic made unofficially by local amateurs[3] in unfavourable circumstances. Later, when the Church was properly established and living in peace and had time to take stock of things, their defects caused a thorough revision to be made. We do not know what part, if any, ecclesiastical authority played in all this. There seems no surviving documentary evidence on the subject. At any rate the revised text soon becomes dominant and forms the *textus receptus*.

For Joshua we have the testimony of several later manuscripts, which all show one and the same text, differing greatly from J^{os} in wording and on the whole rendering the Greek more literally. In fact, so different are they, one sometimes feels that what they give is not a revision of J^{os} but a new, independent

[1] This is the symbol used by Kasser for the text now edited. He uses S for the other Sahidic witness to Joshua.

[2] Nor has it the intrusions characteristic of late Coptic biblical manuscripts, e.g. the explanatory ⲉⲧⲉ ⲁⲛⲟⲕ ⲛⲉ after ⲛⲉⲕϩⲙ̄ϩⲁⲗ (cf. vii. 7; x. 6) and the introductory -ⲧⲱⲟⲩⲛ of colloquial narrative (cf. ix. 4 (10), 6 (12), 25; x. 6). Cf. the Arabic use of ثُمَّ.

[3] There is a homely, colloquial touch about the idiom ϣⲁⲛⲧⲏⲉⲓ ⲉϩⲣⲁⲓ, 'until you come to', for ϣⲁ ⲉϩⲣⲁⲓ (*ἕως*), e.g. ix. 27 ⲁϥⲕⲁⲑⲓⲥⲧⲁ ⲙ̄ⲙⲟⲟⲩ . . . ⲛ̄ⲣⲉϥⲡⲉϩ ϣⲱⲡⲉ: ϩⲓ ⲣⲉϥⲙⲉϩⲙⲟⲟⲩ . . . ϣⲁⲛⲧⲏⲉⲓ ⲉϩⲣⲁⲓ ⲉⲡⲟⲟⲩ ⲛ̄ϩⲟⲟⲩ, 'he made them hewers of wood and drawers of water until you come to the present day'; xi. 8 ⲁⲩⲥⲟⲥⲥ̄ ⲙ̄ⲙⲟⲟⲩ ϣⲁⲛⲧⲏⲉⲓ ⲉϩⲣⲁⲓ ⲉⲥⲓⲁⲱⲛ ⲛ̄ⲛⲟⲥ, 'they slaughtered them until you come to Sidôn (the) great'.

translation of the Greek. This is probably not so but it is certain that any revision was a most drastic one. Not that all the changes were for the better. Other Greek manuscripts were used; and the readings of J^{os} sometimes seem preferable. This is a question which the editors have only touched upon. It was not within the scope of their editions. But they have provided the materials for someone to undertake a collation of the Coptic with the Greek.[1] There are signs that such a collation would be a useful contribution to the textual study of the Septuagint. For example, in the very first sentence of the book, where J^{os} with the Vaticanus reads simply 'after the death of Moses', S with other Greek manuscripts adds 'the servant of the Lord', which is also marked as a Hexaplaric addition.

Enough has been written to show the abundance of interest provided by J^{os}. As Shore justly says, 'By reason of its early date, its range, its dialectal peculiarities, and its textual tradition, the codex must rank as one of the most important manuscripts of any part of the Coptic version of the Bible'.

Acknowledgement should also be made of the painstaking and competent way in which its editors have done their part.

Papyrus Bodmer XXII et Mississipi Coptic Codex II. Jérémie XL. 3–LII. 34; Lamentations; Epître de Jérémie; Baruch I. 1–V. 5; en sahidique. By R. KASSER. Bibliotheca Bodmeriana, 1964. Pp. 340. No price quoted.

Here again we have a Coptic Biblical manuscript divided between two libraries, but fortunately this time it has been possible to publish it as a whole in the one book. It seems that besides this edition in French there will be another in English. The manuscript is a parchment one and, like other early parchment manuscripts, is of small format. This probably explains why it begins with the last chapters of Jeremiah. Three manuscripts of this format would probably be needed to include the whole corpus of Jeremiah; and, as the editor suggests, the present manuscript may have been tome III of such a corpus.

The edition follows the same pattern, an excellent one, as previous editions of the Bodmer manuscripts, and again Dr. Kasser has done his work thoroughly. The complete set of photographs shows the hand of an accomplished scribe of the fourth or fifth century who had the advantage of writing on parchment and not on the rougher papyrus of Bodmer XXI.

Incidentally, it is perhaps time that a new, serious study were undertaken of Coptic palaeography. It is specially desirable that manuscripts such as this, an early witness to the text of the Bible, and other similar ones in the Bodmer collection and elsewhere, as well as the Gnostic manuscripts from Nagᶜ Hammâdi, should be dated as nearly as possible.

The editor compares the handwriting of this manuscript with that of the Sinaiticus. As it happens, the order of the texts differs from that in the Vaticanus and the Alexandrinus but may be the same as that in the Sinaiticus; cf. H. J. M. Milne and T. C. Skeat, *Scribes and Correctors of the Codex Sinaiticus*, 5, 6.

As for the Coptic version here, the editor finds the text of Jeremiah, Lamentations, and the Epistle of Jeremiah broadly the same as that found in later Coptic fragments but that of Baruch very different. He notes the importance of a text going further back than the one officially adopted by the Coptic church of the 'classical period'.

He also (Introduction, p. 25) gives some examples of readings found in this manuscript which seem to presume a Greek text different from that chosen by Rahlfs in his edition. Most of these readings are found in the Greek in Ziegler's edition, Volume XV of the Göttingen Septuaginta. He also gives 'some passages where the Coptic is nearer to the Hebrew than to the Septuagint as we know it today'. For all these, too, Ziegler's apparatus provides Greek authority.

The Coptic treatment of some passages is interesting. For example, in Lam. iv. 7 it has ⲁⲩⲧⲱⲛ ⲉϩⲟⲩⲉ

[1] As the translations are presumably intended as instruments of textual criticism for students of the Bible who have no Coptic, it may not be unduly captious to note a few slips. Shore: i. 15 'setting' *l.* 'rising'; iv. 7 'it was because' *l.* 'it was that'; iv. 18 'they rose' *l.* 'the priests who bore the ark of the covenant of the Lord rose'; v. 6 'command of the Lord' *l.* 'command of God'; *id.* 'he swore' *l.* 'the Lord swore'; v. 9 'I have taken' *l.* 'they have taken'; vi. 10 'they shall cry out' *l.* (?) 'they shall say, Cry out'; vii. 5 'the way they had come up' *l.* 'the way coming down'; xxii. 9 'at the command of Moses' *l.* 'which they were allotted at the Lord's command by the hand of Moses'. Kasser: vii. 24 'ils les amenèrent' *l.* 'il les amena'; ix. 8 'où allez-vous?' *l.* 'd'où êtes-vous venus?'; x. 14 'avant lui' *l.* (?) 'dorénavant'; xi. 7 'alla' *l.* 'qui (était) avec lui'; xi. 9 'de faire' omit; xxiv. 15 'vous habiterez' *l.* 'vous habitez'.

ⲛⲉⲣⲱⲧⲉ showing that it read *ὑπὲρ γάλα ἐτυρώθησαν*, not *ἐπυρώθησαν*. Cf. Ps. cxviii. 70 ⲁ ⲡⲉⲩⲣⲏⲧ ⲧⲱⲕ ⲛ̄ⲑⲉ ⲛ̄ⲟⲩⲉⲣⲱⲧⲉ. The whole verse is rendered, 'Her Nazarites set apart were purified. They were whiter than snow. They were fatter than milk. Their aspect was more excellent than a sapphire stone.'

In a few cases, where Ziegler's apparatus offers no Greek parallel to the Coptic, one may perhaps indulge in conjecture. In Lam. ii. 5, 7 for *βᾶρις*, 'palace', the Coptic has ⲙⲛⲏⲩⲉ, 'multitude', suggesting a confusion with *βάρος* in the sense of 'abundance'. Cf. Lam. iii. 7 *ἐβάρυνε χαλκόν μου*, ⲁⲩⲧⲁϣⲟ ⲙ̄ⲡⲁⲣⲟⲙⲧ̄ and J. Moschos, Migne *P.G.* LXXXVII, 3, col. 3005C *τὰ ἁμαρτήματά μου τὰ βαρύτερα ψάμμου θαλάσσης*, 'my sins more numerous than the sand of the sea'.[1] Lam. iv. 18 ⲁⲛⲁⲣⲉϩ ⲉⲡⲉⲡϣⲛⲣⲉ ⲕⲟⲩⲓ̈ suggests a possible reading *ἐτηρήσαμεν μικροὺς ἡμῶν* for *ἐθηρεύσαμεν κ.τ.λ.*. Bar. iii. 38 ⲁⲩⲥⲁⲡⲱ̄ seems a translation of *συνανετράφη* rather than the *συνανεστράφη* of the Greek. Bar. iv. 26 ⲁⲩⲉⲓ ⲛ̄ⲑⲉ ⲛ̄ⲡⲓϩ[ⲣⲉ] probably represents *ἤλθοσαν ὡς ποίμνιον* rather than *ἤρθησαν κ.τ.λ.* Finally, Bar. iv. 31, 32 [. . .]ϫⲱⲡϩ̄ ⲉϩⲟⲗ and ⲥⲉⲟⲩⲟⲡϩ̄ [ⲉϩⲟ]ⲗ suggest that for *δείλαιοι οἱ* and *δείλαιαι αἱ* the Coptic read *δῆλοι οἱ* and *δῆλαι αἱ*. Ziegler does indeed give these last readings, though not in his apparatus but on p. 112 of his Introduction.

There are also signs of conflation. Lam. ii. 14 ⲁⲩⲛⲁϥ ⲁⲩⲱ ⲁⲩϯ seems to imply a conflation of *εἶδοσαν* with an unrecorded variant *ἔδοσαν*. In Lam. iii. 43 for *ἐπεσκέπασας* or *ἐπεσκίασας* the Coptic has ⲁⲕⲡⲱⲣⲡ̄ⲓ̄ ⲉϩⲟⲗ ⲁⲕⲭⲓ ⲟⲩⲱ. In Coptic usage phrases like ⲭⲓ ⲟⲩⲱ, 'take news', are sometimes almost a synonym for 'visit'. Cf. 1 Sam. xvii. 18 ⲡⲧⲉⲛ ⲡⲟⲩⲱ ⲙⲡⲉⲕⲥⲡⲏⲩ ϩⲡ̄ ⲟⲩⲉⲓⲣⲏⲛⲏ, *καὶ τοὺς ἀδελφούς σου ἐπισκέψῃ εἰς εἰρήνην* and 2 Sam. xiii. 5 ⲡⲉⲕⲉⲓⲱⲧ ϥⲡⲁⲉⲓ ⲉϩⲣⲟⲩⲛ ⲯⲁⲣⲟⲕ ⲉⲥⲉⲙ ⲡⲉⲕⲟⲩⲱ, *εἰσελεύσεται ὁ πατήρ σου τοῦ ἰδεῖν* (*a.l. ἐπισκέψασθαι*) *σε*. Possibly, then, ⲭⲓ ⲟⲩⲱ here represents a Greek variant *ἐπισκέπτειν* or *ἐπισκοπεῖν* for *ἐπισκεπάζειν*.[2] Finally, Lam. v. 13 ⲛ̄ⲥⲱⲧⲛ̄ ⲁⲩϩⲙⲟⲟⲥ ⲁⲩⲣⲓⲙⲉ ⲁⲩⲡⲟⲩⲧ ϩⲙ̄ ⲡⲙⲁ ⲛ̄ⲡⲟⲩⲧ seems a conflation of the usual reading, *ἐκλεκτοὶ κλαυθμὸν ἀνέλαβον*, and the Lucianic one, *ἐκλεκτοὶ ἐν μύλοις ἤλεσαν*.

Corruption has also taken place in the Coptic text itself. In Jer. xlviii. 10 ϣⲛⲣⲉ has ousted ϣⲉⲉⲣⲉ (*θυγατέρας*). In Lam. iii. 5 ⲁϥⲕⲱⲧⲉ ⲉⲣⲟⲓ should be ⲁϥⲕⲱⲧ ⲉⲣⲱⲉⲓ (*ἀνῳκοδόμησε κατ' ἐμοῦ*) as in v. 7. In Ep. Jer. 49 ⲡⲁϩⲙ ⲟⲩⲣⲱⲙⲉ should be ⲡⲁϩⲙⲟⲩ ⲣⲱ (*σῴζειν ἑαυτούς*) as in v. 13. And, if ⲣⲱⲙⲉ has supplanted ⲣⲱ here, it may equally have supplanted ⲣ̄ⲣⲟ (*βασιλέα*) in v. 58. In Bar. ii. 17 ⲛⲥⲉϫⲱ for ⲏ ⲥⲉϫⲱ and in Bar. ii. 29 (ⲉⲧⲛⲁϣⲱⲥ) ⲥⲉⲡⲁⲕⲧⲟ for (ⲉⲧⲛⲁϣⲱⲥ) ⲉⲡⲁⲕⲧⲟ should probably be read.

The editor's translation of these texts is careful and accurate. In so long a work a few minor slips can hardly be avoided. Jer. xlii. 15 has ⲁⲛⲁⲓ, not ⲣ̄ ⲁⲛⲁⲓ, and, therefore, means 'grow better', not 'please me'. Jer. xliv. 4 ⲉϩ[ⲟⲗ] ϩⲡ̄ is for *διά*+Genitive and means 'through'. Cf. 1 Sam. ix. 4 *καὶ διῆλθον δι' ὄρους Ἐφράιμ καὶ διῆλθον διὰ τῆς γῆς Σελχά*, ⲁⲩϩⲱⲕ ⲉϩⲟⲗ ϩⲡ̄ ⲡⲧⲟⲟⲩ ⲛⲉϥⲣⲁⲓ̈ⲙ̄ ⲁⲩⲱ ⲟⲛ ⲁⲩϩⲱⲕ ⲉϩⲟⲗ ϩⲡ̄ ⲡⲕⲁⲣ ⲛⲥⲉⲗϫⲁ; Jer. xliv. 5 ⲁⲩⲥⲱⲧⲙ̄ⲙ̄ . . . ⲉⲡⲉⲩⲟⲩⲱ is 'they heard news of them', *ἤκουσαν . . . τὴν ἀκοὴν αὐτῶν*. Jer. xlv. 7 ⲡⲉϫⲉ is not 'he said' but ⲡⲉ belongs to ⲡⲉϥⲣⲏ̄ ⲡⲛⲓ and ϫⲉ to ⲁϥⲥⲱⲧⲙ̄ⲙ̄. Jer. li. 26 ⲁⲉⲓⲱⲣⲕ̄ . . . ⲉⲱⲡⲉ is 'I have sworn that . . . not. . . . Cf. Crum, *Dict.* 580b, ll. 12, 11 up. Lam. ii. 10 ⲛ̄ⲥⲱⲧⲛ̄ ⲙ̄ⲡⲁⲣⲑⲉⲛⲟⲥ is 'the choice virgins'. Ep. Jer. 9 ⲉϩⲟⲗ ϩⲡ̄ ⲛⲉⲩⲡⲟⲩⲧⲉ is out of place and the translation should be 'the priests take gold and silver (from their gods) and spend them on themselves ⟨from their gods⟩ and also give (some) of them to the prostitutes'. Ep. Jer. 40 ϣⲁⲩⲁϫⲓⲟⲩ ⲛ̄ⲃⲏⲗ is 'they are wont to request Bêl'. As for Lamentations generally, neither the Coptic nor the French translator can have had an easy time with it and one admires the way in which they solved their problems, *docti sermones utriusque linguae*.

Altogether, then, this is a book which should enhance the prestige of Coptic studies. In these texts we have a fourth- or fifth-century witness to the text of the Bible in the form of a faithful and scholarly translation from the Greek. The manuscript itself is written in an elegant hand that would not disgrace a Greek uncial manuscript. And, finally, with a slight reservation about the aesthetic appeal of the Coptic type used, the whole work is presented very satisfyingly in this edition.

J. DRESCHER

Other books received

1. *Wanyanga and an archaeological reconnaissance of the S.W. Libyan Desert.* The British Ennedi Exp. 1957. By A. J. Arkell. Oxford University Press, London, 1964. Quarto. Pp. ix+24, pls. 57, figs. in text 23, map and frontispiece.

[1] For *βᾶρις* confused with *βαρύς* in the Coptic and Latin versions of the Psalms, xliv. 9; xlvii. 4, 14; cxxi. 7, cf. A. Rahlfs, *Septuaginta-Studien* 2, § 29[5], p. 145 sq.

[2] The reading of Hamb. ⲥⲁⲙϫ ⲁⲕⲭⲓⲙⲓ ⲙ̄ⲡⲉⲡϣⲓⲙⲓ ⲓⲙⲡⲟⲩϩⲱⲗⲕ would seem to support this suggestion.

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9. *The Spirit of Ancient Egypt.* By W. A. Ward. Khayats, Beirut, 1965. Octavo. Pp. xix+251. Pls. 20, figs. 17, and a frontispiece. Price $7.

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11. *Everyday Life in Ancient Egypt.* By Jon Manchip White. B. T. Batsford Ltd., London, 1963. Octavo. Pp. 200, figs. 120 (including figs. on pls.). Price 21*s*.

12. *Signs and Wonders upon Pharaoh.* A History of American Egyptology. By John A. Wilson. Chicago and London, 1964. Octavo. Pp. xxv+243, pls. 32. Price 44*s*. 6*d*.

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14. *Studien zur Papyrologie und antiken Wirtschaftsgeschichte.* Friedrich Oertel zum achtzigsten Geburtstag gewidmet. Rudolf-Habelt-Verlag, Bonn, 1964. Octavo. Pp. xvi+209, pls. 3+frontispiece.

15. *Studies in Egyptology and Linguistics in Honour of H. J. Polotsky.* The Israel Exploration Society, Jerusalem, 1964. Octavo. Pp. xi+189, pls. 3+frontispiece. Price $6.

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