## CAHIER $\mathrm{N}^{0} 3$

## ROYAL EXCAVATIONS

# AT <br> SAQQARA AND HELWAN (1941-1945) 

BY
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LE CAIRE
IMPRIMERIE DE LINSTITUT FRANG̣AIS
D'ARCHÉOLOGIE ORIENTALE

MCMXLVII

Unto HIM who revives and protects THE ANCIENT CIVILISATION OF EGYPT

HIS MAJESTY
FARUK THE FIRST
KING OF THE Nile VALLEy

I humbly present
the following collection of preliminary reports

Zaki Safd

## AVANT-PROPOS.

Maintenant que les relations normales reprennent graduellement entre les peuples cultivés, les égyptologues de toutes les parties du monde éprouvent un vif désir d'être mis au courant des découvertes archéologiques faites en Égypte pendant la guerre. Mais il faudra encore du temps, et des collaborateurs, et des crédits, pour pouvoir publier in extenso tous les matériaux que le sol égyptien, généreux en cela comme dans le reste, a livrés à l'étude depuis le début de la grande tourmente.

En adoptant, pour deux des plus importants parmi les sites actuellement explorés, la formule d'un Cahier des Annales qui groupe les rapports préliminaires de l'habile et consciencieux fouilleur qu'est Zaki Youssef Saad Effendi et des notes obtenues de savants connus, nous pensons satisfaire ce besoin universel d'information. C'est dans le même esprit que nous avons particulièrement développé l'illustration de ce Cahier.

Mais nous voulons aussi, en renseignant ainsi nos collègues par les moyens les plus rapides, les amener à s'associer à l'hommage que la science doit rendre à l'illustre patronage sans lequel rien de ce qu'on trouvera sommairement décrit ici n'aurait été accompli. C'est parce que Sa Majesté le roi FAROUK, glorieusement régnant, les a voulues, et nous en a donné les moyens, que ces découvertes, dont l'importance n'est pas à souligner, on été faites. L'intérêt qu'll continue à leur porter est le meilleur garant de leurs futurs développements.

Étienne Driotos

Directeur général du Service des Antiquités.

## INTRODUCTION.

The subject of this publication is a collection of successive preliminary reports of the Royal Excavations at Saqqara and Helwan which were regularly given for publication in the Annales du Service des Antiquités, each time the season's work was closed.

Two of these preliminary reports have already been issued (see Annales, vol. XLI, p. $381-40 \mathrm{~g})$. The others have not been published as yet due to some, technical reasons. This explains to reader the cause of certain repetitions which could not be avoided. The results of the excavations ought to be published separately in detail every season. But, as I am working quite single handed without assistants, these detailed publications could not be issued for the time being. I have to attend the excavations all the day long, I have to record down the tombs, I have to examine the objetcs and to look after the restoration and arrangement of each, as well as, keep an eye on the photography.

My thanks are due to the Director General, Mr. E. Drioton, for his repeated visits and sound advice, also to Professor D. Derry of the Faculty of Medecine for examining the human remains and for his report; and to H. E. Dr. M. Kamel Hussein Bey, for studying some diseases and strange features of some of the bones. My thanks are due to H.E. Dr. G. Sobhy Bey for correcting the English manuscript.

Fawzi Ibrahim Eff. of the Department of Antiquities is in charge of the survey work and has made a complete general plan and a site plan for the excavations showing the respective situation of Saqqara and Helwan. I thank him for what he has done and for what he will do.

My thanks to Mahmoud Shadoof the photographer of the Department at Saqqara and his assistants for the photographs which appear here. I have to thank also Mr. J. Leibovitch for the great work he has done in printing and taking care of this publication.

Ezbit-el-Walda, 21 March 1947.

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## PRELIMINARY REPORT

ON THE

## ROYAL EXCAVATIONS AT SAQQARA

1941-1942.

When I closed the season work of the Department of Antiquities on May 31 st 1940 , I was compelled to leave a Saitic tomb only partially excavated ${ }^{(1)}$. It was intended that the excavations should be resumed on November 1940 , but for various reasons all work of such nature was stopped.

As soon as His Majesty King Farouk, who has always been keenly interested in Egyptology and has always encouraged scientific work, heard about the Saitic tomb, He ordered the Department to complete the excavation of the tomb at his own expense.

On 8th March 1941 clearance was started. The tomb which was found intact belonged to a very wealthy official of the Saitic period. After the work on this tomb had been completed during the season 1941-1942, His Majesty ordered the Department to continue the excavation of some more tombs of that period which had been located in the vicinity. The result was the discovery of three other tombs situated to the south of the Pyramid of User-Kaf. One of these three tombs was found intact, one completely plundered, and a part of the third was found untouched. This report deals only with the two intact tombs. It is necessary to mention here that a full publication will be issued when all material for such work is available.
${ }^{(1)} \mathrm{Z}_{\Delta \mathrm{KI}} \mathrm{Y} . \mathrm{S}_{\text {AAD }}$, Annales du Service des Antiquités de l'Égypte, t. XL, p. 693,

PI. LXXXII, A preliminary report on the excavations at Saqqarah», 1939-1940.

## 

On 8th March 1941 we resumed work in the Saitic tomb the clearance of which had not been completed in the previous season. On March ${ }_{17}$ the vault of the burial chamber was revealed (fig. 1), well built of limestone and measuring 790 cms . east-west and 590 cms . north-south.


Fig. 1.
The depth of the shaft, from ground level to the top of the burial chamber, is 22 metres. On the 18 th we cleared the part between the burial chamber from the east and the wall of the shaft. At a depth of ${ }_{2} 7^{5} \mathrm{cms}$. from the top of the burial chamber we came across a slab of white limestone which was found to be the roof of the passage leading from the small shaft to the burial chamber (fig. 2). We started raising it from the south side end, on the 2 oth we were able to get down to the
passage, which was constructed with two blocks of limestone on both sides. It was found partly cleared of the sand. The door of the burial chamber was not blocked and it was filled with a sloping bank of sand coming from the interior of the chamber. When the roof of the chamber


Fig. 2.
was completely cleared, we found on top of it and exactly in the middle from east to west three circular holes at equal distances from each other (fig. 3 ).

The clearing of the door from the sand took us a long time as every time we removed the sand from it, a fresh stream poured in from the chamber which was completely filled with sand. When it was cleared, we were able to enter into the chamber. The circular holes on top of
the roof were found to be fitted with pottery jars the bottoms of which were broken (fig. 4).

The function of these holes was to supply the chamber with sand from the source kept in the big shaft. This explains why the door was left unblocked, and why the tomb had not been plundered. There were


Fig. 3.
marks showing that some plunderers had been in the passage before us, but they were unable to proceed any further than the end of the passage. From my own experience in dealing with this sand I can well imagine the fury and despair of the robbers at their failure to clear sufficient to gain an entrance. The more sand they cleared, the more poured in until eventually they must have been forced to abandon this enterprise, leaving for us the burial intact.

On the 21 st at about 11 o'clock in the morning, I was able to enter the chamber although it was not yet cleared of all the sand. The vault was built of limestone and covered with carefully engraved inscriptions. When all the sand was removed, the sarcophagus was found filling the whole width of the chamber. It measures 420 cms . from east to west


Fig. 4.
and 260 cms . from north to south, and the height of the lid is 100 cms . One column of inscriptions runs from west to east in the middle of the lid, containing, with the names and titles of the deceased, a resurrection formula, to which the mention of Nefertum gives a specifically Memphitic character :

Rise, o Osiris $N$, as Nefertum the lotus, the sight of whom Reé rejoices and the Ennead is purified every day.

The name of the deceased was $1 \underset{\sim}{=}$ Amen－lefnakht，he bore also the surname $O$ O which was in use at the court，places him under the reign of Apries． His mother was called $\boldsymbol{2}$ İret－erōw．

He was possessor of the following titles ：
$1^{\circ}{ }^{\circ} \underset{\sim}{\circ}$ ：Chief of the life－guard．
$2^{\circ} \neq$ ， $\mathbf{y}$ Priest of the king．
$3^{\circ} \downarrow 1 \backslash$ 贾 Commandant of the recruits with on two occasions the


His military titles are summarised in the expression 掅别通通通 $-\downarrow^{\circ \infty}$ Commandant of the recruits of the royal guard．

The religious texts，carved with great care，are distributed according to a logical plan on the inner sides of the tomb．

Eastern side．
This side includes the door which communicates with the pit．It is dedicated to Isis，who provides the deceased with the breath of life （which is introduced through the door together with the wind）and who protects him against enemies coming from outside．

The upper portion of this side，contains an inscription in three lines ：




0 Osiris！royal priest，chief of the life－guard，Amen－tefnakht！Thy sister Isis comes to thee，rejoicing in thy love．She perceiveth thee，she protecteth〈thee〉 and pusheth thy legs so that thou mayest not drown．She giveth thee the air for thy nose，that thow mayest live；she makes thy throat to breathe，that thou mayest never die， 0 Osiris Amen－tefnakht！

This text, describing the rescue of the body of 0 siris and its revival by Isis, is undoubtedly taken from an ancient source, which is apparently not the Pyramid Texts. The protective function of Isis which is defined in it, is completed by 48 .columns of inseriptions arranged above and on each side of the door, reproducing spells from the Pyramid Texts, $\mathbb{\$}{ }_{2} 46$, $229,238,237,239,241-243,228,247,225-226,244-245$.

## Western side.

This side is dedicated to Nut, who deifies the deceased: Two lines, carved on the top, reproduce the well known formula (Pyr., \$\$ $638 a-b$ and 1607):


0 Osiris Amen-tefnakhl, whom heaven hath brought forth and whom Nut hath conceived, heir of Geb who loveth him, thy mother Nut hath stretched out herself over thee in her name of Mystery of heaven. She hath caused thee to be a god withoul any enemy, $O$ honoured of the greal god, Amen-lefnakht!

Under this legend, are inscribed in columns, the texts relating to the ritual deifying the deceased by the purifying with natron ( $P_{y r} ., \S_{27}$ ), and the offering of perfumes (Pyr., § $\$ 06-51$ ) and clothes (Pyr., §§5657).

Southern side.
This side is devoted to the feeding of the deceased in the underworld. The dedicatory text, which runs horizontally at the top, is the old formula of the "proscynemata" to Osiris for the $\mathrm{T}_{\mathrm{o}} \circ$ at the principal funerary feasts of the year.

Below this, the side is filled with a "placard" of 88 squares, followed by the oblation formulae. (Pyr., $\$_{214-215}{ }^{2}, 17-18$, and $22-23$.)

## Northern side.

This contains, at the top, the traditional "proscynemata" to Anubis for the burial in the necropolis and using the "beautiful roads" ascribed to the imakhu.

The commentary which is very important for understanding of the Egyptian exegesis of this formula is to be found in the mythological texts contained in Pyr., §§ 364-369 and 376 -387.

Finally, two more texts, inscribed near the sarcophagus, on the spaces between the lateral niches contrived on this side for handling the sarcophagus, are taken from compilations later than the Pyramid Texts. They are pronounced by the deceased. These are, at the south, a text relating to navigation in the Solar Boat, a prototype of the LXVIIth chapter of the Book of the Dead (cf. Annales du Service des Antiquités, I, p. 255, lines $488-493$ ); at the north, a formula for obtaining food (Id., p. 256, lines $495-498)$.

The architecture of the chamber shows great skill. The sarcophagus, which is a single block of hard limestone, must have been lowered to the bottom of the shaft and the chamber was built around it. The lid must also have been lowered before the chamber was built and was kept supported upon four columns of stone until the construction was completely finished. The lid has four projecting handles, two on each side. Each handle fits in to a niche, two in the east and two in the west walls. The four niches were closed by beams of wood about 12 cms . thick and filled with sand. At the bottom of each niche there was a square opening above a wide shaft 400 cms . deep (fig. 5). These openings were kept closed until the time came to lower the lid upon the sarcophagus after the mummy of the owner had been placed inside. Once these openings were opened, the sand poured into the shafts below and gradually the heavy lid slipped down by its heavy weight, crushing under it the timber beams. The openings at the bottoms of the four niches were made narrow to make the sand pour out slowly in order to prevent the lid from falling down precipitately and thus save it from breaking ${ }^{(1)}$. This operation was followed by the final work of smashing the bottoms of the pottery jars fitted in the three openings in the vaulted

[^0]cendre sur la cuve le gros couvercle des sarcophages en calcaire *.
roof of the burial chamber. The three jars being broken one after the other, the chamber began to fill with the sand flowing from the big shaft and thus it was impossible to enter the chamber unless the enormous amount of sand in the shaft was removed to the last grain.

We began to raise the lid of the sarcophagus by means of jacks. The operation was very difficult owing to its heavy weight-3o tons-and


Fig. 5.
also because of the narrowness of the only place in which the jacks could be placed. We spent 15 days in lifting the lid to a height of about one metre.

The removal of the lid revealed the receptacle for the body filled with sand and small pieces of stone. This was only a temporary disappointment, for further clearance revealed a very fine greenish slate anthropoid coffin, beautifully carved and decorated with neatly incised inscriptions (PI. I). The features of the face are clearly cut. The pectoral, the ritual beard and the goddess Nut are amazingly incised in full detail.

The text, in six columns, which covers the front of this sarcophagus, reproduces, applying it to the deceased, the passage $\$ \$ 640-643 a$, of the Pyramid Texts.

On each side of the sarcophagus, three mummiform divinities are depicted in three registers :-


Each of them is accompanied by the same legend, inscribed vertically in front of him :

## 

This is thy protection.
The lid was cemented to the body of the coffin. To lift the lid up we used two jacks and a beam of wood to which was tied a rope and this was passed round a projecting piece at the foot of the lid. In two days we succeeded in lifting up the lid.

In the coffin, the mummy was found intact, wrapped in cloth which was carbonised and badly affected by the embalming material (PI. II). It was surrounded with pinkish liquid of which I gathered five bottles for analysis. The body was of an aged man 180 cms . long. The left hand was placed on the chest while the right was extended on the right thigh.

The unwrapping of the mummy failed to produce a single object. Not a single amulet of any kind was buried with the deceased. Inspite of his high rank, the general Amen-tefnakht was buried without being accompanied with any of the religious amulets which were usualiy found in abundance in burials of this type ${ }^{(1)}$. The lack of objects in so wealthy an interment is extraordinary, for this great noble was buried as poorly as his humble neighbour.

The mummy must have been buried immediately after death, without having been submitted to the usual lengthy process of embalming. The
(1) Barsanti, Annales du Service des Antiquités de l'Égypte, t. I, p. 230 and
${ }_{262}$; t. II, p. 97 ; I. III, Pls. I, II, III, and IV.
embalming material must have been placed on the body in the coffin. The analysis of the material, some of the parts of the mummy and the liquid was in charge of Zaki Effendi Iskander the chemist of the Department and the results will be issued in the full publication.

## 2.-Tomb of Н̣ов. <br> M

On the 31 st of January 1942 , we started the clearance of a Saitic tomb situated to the south of the Pyramid of User-Kaf. The main shaft measures about 950 cms . from east to west and 800 cms . from north to south. On the $9^{\text {th }}$ of February we reached the vault of the burial chamber at a depth of 12 metres below ground level (PI. III $a$ ). The communicating shaft to the west is 120 cms . square and about 14 metres deep. The passage between both this shaft and the burial chamber was a mud brick vault which was found intentionally broken to let the sand in the main shaft pour down and close the door of the burial ( PI . III $b$ ). The removing of the sand and the falling walls of the vaulted passage which were blocking the door of the burial chamber was finished by the 12 th. The burial chamber was found occupied by a big limestone sarcophagus measuring 320 cms . east-west and 180 cms . north-south. It was intact and the lid was inscribed with one tine of text in the middle, giving, as on the same place on the sarcophagus, of Amen-tefnakht, the Memphitic formula of the lotus of Nefertum, and two more inscriptions running as a frame on the edges of the rectangular surface (Pl. IV).

According to the texts, the owner of this tomb was called , Hor, son of $T \equiv$ Smatawi-tefnekht, and the lady -1 Irel-erów. We learn from the other texts of the same tomb, that he possessed besides this, a surname. But while in the carved inscriptions, this surname is the brush on a side of the chapel gives it as $\odot+\frac{2}{\Omega} \simeq$ Wahibre -em-akhet.

The identity of the titles leave no doubt as to their owner, and we are forced to conclude that $H o r$ changed his surname during the construction of his tomb. He modified $\circ$ な
name of Psammeticus I into $\circ$ meticus II. It is very probable that he died under the reign of this latter king.

The following are his titles:

$$
\begin{array}{ll}
\text { The only friend. } \\
\text { chief of the imiw-khent. } \\
\text { father of the god. } \\
\text { the king's relative. } \\
\text { an } & \text { chief of the mysteries of Ro-stav. }
\end{array}
$$

The operation of opening the lid took us two days and a half. On the ${ }^{1} 7^{\text {th }}$ at 12 o'clock the mummy was revealed. It had been placed within the sarcophagus without an interior coffin. In the presence of the Director General of the Department of Antiquities, Zaki Effendi Iskander the chemist of the Department and prof. Macramallah of the Farouk I University in Alexandria, we unwrapped the mummy. The body was lying on the back, head west and the arms extended on the thighs.

Among the amulets found in the chest, were scarabs of dark green jasper, haematite, lapis-lazuli, and sacred eyes, one of which is of obsedian and the others of haematite, red jasper, and olivine. The other stone amulets were a head-rest, a heart of carnelian, dad emblems, Horus-birds, a Thot, and wadj columns. The gold amulets consisted of an Usekht necklace in the form of a pectoral, some divinities, a dad, a sacred eye, an Uræus and twenty stalls for the fingers and toes.

In the burial chamber two niches were to the south and two to the north of the sarcophagus each containing two canopic jars made of alabaster. The walls of the chamber were not well dressed and were not inscribed. On the wall to the east of the sarcophagus, the owner of the tomb was drawn in black ink, seated in front of a table.

When all the sand was removed from round the chamber and from above the vault, it was found inscribed. On top of the vault there is a line of inscription in the middle from west to east reproducing the formula of the lotus of Nefertum already found at the same place on the sarcophagus of Amen-tefnakht and that of Ḥor himself. The very same complex of inscriptions which decorates the tomb of Amen-tefnakht, is carved on the exterior of the chapel with the exception of some transpositions and some gaps due to the work being uncompleted :

East side :
Text of Nut, with the formulæ Pyr., §S 506-51, 52-53, 56-57.
South side :
Proscyneme to 0 siris, with a placard of 140 squares.
North side :
Proscyneme to Anubis, commented by Pyr., §\$364-366a.

The decoration of this side has been left incomplete, and the western one has received none at all.

Sakkarah, 3o. 1. 1943.


The anthropoid coffin.


The mummy as found in the coffin. The liquid is shown round it.

a. - The burial chamber of Hor.

b. - The mud brick vaulted passage as it was found broken.


The burial chamber occupied by the sarcophagus with the lid inscribed in the middle and the four sides


Inscriptions on the south wall from outside.

## PRELIMINARY REPORT

## ON THE

## ROYAL EXCAVATIONS AT HELWAN (1942).

When his Majesty King Farouk realised the Archaeological value of the desert land situated about 2 kms . to the North of Ezbit el-Walda and about 5 kms . to the West of Helwan, He ordered the Department of Antiquities to excavate the site at his expense. The science of Egyptology will be ever grateful for his Majesty's beneficence, and no wonder for He is, and will be, always the guardian of Egyptian culture.

I had the honour to be appointed as field-director of these Royal Excavations under supervision of the Department. Work was started on the 8th of July 1942 . A camp was prepared near the site for the workmen. The necessary material for the evcavation was brought over from Saqqara. Surface clearing and testing for dumping (Pl. VI) occupied us until the 3rd August.

On the 4th of August we started excavating the tombs. The site has suffered greatly from previous plunder and digging. It was the aim of the ancient tomb robbers to find objects of intrinsic value. These robbers, usually never disturbed anything in a tomb except the head of the deceased. On a few occasions the hands were also removed : they just turned the head to one side and left every other object in its place (Pl. VII and VIII a). The objects which they were looking for, must have been previously known to them, and their places were always round the necks and the wrists of the bodies.

In tomb No. 9 H ., the hole opened by the plunderer had collapsed on the plunderer and buried him. We found his body under the wall through which the hole was tunnelled and which had fallen on him.

Moreover, the Sabbakhin damaged a great deal of the superstructures of most of the tombs. The people who were digging before we took over the site also destroyed the majority of the tombs which had escaped the plundering of the ancient tomb robbers.

From the types of the tombs and the different kinds of objects found in them one can date this cemetery without any hesitation to the Ist Dynasty ${ }^{(1)}$. On two of the pottery jars, the name of King Semer-Khet who was the sixth king of the Ist Dynasty was found engraved (PI. VIII $b$ ).

In spite of the above-mentioned damage which had befallen this site, I was fortunate enough to find 141 intact tombs among the 735 which were excavated before I closed down on the 26 th November 1g42. These tombs had happily escaped the robbers and other diggers who were plundering the site.

Apart from this site, there are many other sites to the North which are well worth excavating. The tombs in those other sites are apparently bigger, for there are high mounds over them. They seem to be less damaged, apparently because the modern diggers have not tried to exploit them on a large scale, in the same manner as the site which we have happily saved to some extent.

Systematic excavation of the site yielded a number of large and interesting tombs as well as small ones (PI. IX). From the intact tombs and also from the plundered ones, we collected a quantity of vessels, vases, and jars of alabaster, schist, yellow limestone, breccia, diorite, dolomite, and pottery ${ }^{(2)}$. The known types belong to the Ist Dynasty; some others are quite new (PI. X and XI a). Model granaries of pottery and unburnt clay were also found (PI. XI $b$ ).

In some of the intact tombs, many necklaces of semi-precious stone and faience beads were found round the necks and wrists of the skeletons (PI. XII $a)^{(3)}$. On some of them we found ivory, schist and flint bracelets. On one particular body in tomb No. 659 H ., we found seven

[^1]The Early Dynastic Cemeteries of Naga-Ed-Der, Part I, PI. 46-56.
${ }^{(3)}$ Ibid., PI. 8 and 42 .
necklaces of faience beads, four strings of faience beads at the wrists (bracelets), three bracelets of schist and two of ivory (PI. XII $b$ ).

In addition, some ivory objects such as gaming pieces, hair-pins, one tiny vase, and a model boat (hind part missing) were found (Pl. XIV a). We came across some ivory objects representing heads of animals with long narrow bodies (PI. XIII). These might be either sickles or objects for ritual purposes.

Four very interesting pieces have drawn my attention. Two pieces ( Pl . XIV $b$ ) represent the symbol of the god 0 siris. This representation is, to my mind, the most ancient example of the well known Dad. The third piece is the symbol of the goddess Isis, in the form of a toilet spoon (PI. XV). The fourth piece, partly broken, represents a lid of a small box in the form of a cartouche. The two symbols of the goddess Isis are carved in high relief $\stackrel{\&}{\boldsymbol{h}}$ and so is the sign e. under them (PI. XV). The composition might be read : Sawi-Hotep. These pieces will be the subject of a more detailed study in the coming publication.

A big collection of flint knives, scrapers and blades ${ }^{(1)}$ (PI. XVI) as well as some copper needles and other implements (PI. XVII $a$ ) were also found ${ }^{(2)}$. A quantity of copper vases were discovered but unfortunately they were all in a very broken condition and beyond restoration.

The Ancient Egyptians of this remote period must have been very clever in restoring their belongings when broken. We have found many examples which show great skill in mending and restoring broken pieces in many different ways; some of the methods are still in use to day. Not only did they replace with particular skill a piece in its place but they succeeded in patching the vessels and vases of different sizes and material with pieces of the same material that fitted the place with amazing perfection. It takes an expert a long time to discover the mend in some objects (PI. XVII $b$ ).

[^2]
## GENERAL OBSERVATIONS.

Most of the big tombs must have had superstructures, but unfortunately nothing of them has remained beyond a few rows of mud brick belonging to some of these tombs. It is very difficult to tell now how high these superstructures were.

Our attention was drawn to a new feature in two of the tombs we excavated. In the west wall to the north, a rectangular niche was found. This niche corresponds to the niches usually found on the east walls of the mastabas, to the south of which the false-door or the chapel in which the false-door is usually built, is situated.

The substructure of the tombs is not the same in all the tombs as it varies from a pit cut in the gravel to a well shaped chamber with mud brick walls built against the gravel. The substructure in tomb No. 9 is composed of big limestone slabs carefully cut and well dressed. The floor is paved with blocks of the same stone. The roof was made of two enormous blocks of stone also. The burial chamber in tombs Nos. 589 and 601 was lined with small pieces of white limestone. These pieces were built against the mud plaster which was above the mud brick walls.

The descent to these substructures varies from a complete staircase with well shaped steps built with mud bricks to a symbolic flight of steps either cut in the gravel or also built with mud bricks. The orientation of the steps is not the same in all the tombs. Some are from the north, some from the south and some from the west. The majority are from the north.

In the substructure the magazines are either on the north or on both the north and south. In one tomb only (No. 576) there were magazines on the north, south and east. These magazines were usually found full of pottery jars as a provision for the use of the owner of the tomb.

The body was generally buried in a wooden coffin measuring approximately $90 \times 50 \times 40 \mathrm{cms}$. The bodies were contracted. Sometime they were tightly contracted and sometime they were loosely contracted.

In some cases the bodies were buried without coffins. No trace of mummification was found in any of the bodies. They were wrapped in very thin linen or in thin mats of straw. Around some of the bodies we found different kinds of ritual objects. On some of them were found necklaces and bracelets of various materials.

At the foot of the steps leading to the burial chamber just in front of the portcullis in the big tombs, large pottery jars were found. These must have been placed after the deceased was buried and the door of the tomb was finally closed. The contents of these jars were most probably some of the ritual provisions which the deceased might want in the other world.

Helwan, Ezbit El-Walda, on ist December 1942.



Partly plundered tomb. Head of deceased only removed to one side. Everything of the vases and vessels in position.

a. - Head of deceased removed away. Objects in position.

b. - Name of King Smrht.


A big tomb surrounded by small ones. The superstructure of the big tomb is quite clear.



a. - A collection of bowls and vessels.

b. - Granary models of pottery and unburnt clay.

a. - A collection of necklaces.

b. - Collection of necklaces and bracelets of ivory, schist and faience beads found in tomb no. 659 H .


a. - Ivory boat.

$b$. - The two ivory pieces in from of the symbol of the god Osiris.

(A.) Ivory symbol of goddess Isis and (B.) the box lid with name of Sawi-Hotep.


$\square$
a. - A collection of copper needles and other implements.

b. - Some examples of the restoration and patching.

## PRELIMINARY. REPORT

ON THE

## ROYAL EXCAVATIONS AT SAQQARA

## 1942-1943.

The first season's work on the First Dynasty site at Helwan was finished on the 23 rd of November, $1942^{(1)}$. We then moved immediately to Saqqara where excavations started on the 3rd of December, 1942 , in the area between the Step Pyramid and the Pyramid of Unas. His. Majesty the King showed great interest in the discovery of the big trench which we had left uncompleted at the end of the season $1939-19^{40}{ }^{(2)}$. The section already excavated from the East to the mastaba of Queen Nebet in the West was about 80 metres and that from the West to the mastaba of Queen Khenut 30 metres.
My plan was to clear the area to the North-West of the Pyramid of Unas in order to reach the end of this great trench. The amount of debris in this area was enormous. Some of it had come from previous excavations while some dated from ancient times namely the period of the Persian tombs in the vicinity. In this debris we came across a number of papyri containing demotic inscriptions. One of these papyri bore Aramaic inscriptions. On examination it was found to be part of a letter sent by one of the Babylonian Kings, to one of the Pharoes. The translation reads ${ }^{(3)}$ : "To the Lord of Kings Pharo, your servant . . . the skies and the land... Pharo... from the King of Babylon... the Lord of Kings, Pharo knows. . . that your servant. . . for sending... your servant..."

Under the dumpings of earlier excavators to the North-West of the pyramid of Unas a small mastaba was discovered. It was built partly

[^3]with mud bricks and partly with limestone．This mastaba had been previously found and published by Barsanty ${ }^{(1)}$ and then re－buried． It belongs to an official called Seshem－nefer $\rho \rightarrow{ }_{\oint}$ ，probably of the Vth Dynasty．There is a rectangular court to the North to which one descends by way of a symbolic staircase of seven steps built with local stones and leading to a chapel in the South．The façade of the chapel is nicely built with white limestone．On the lintel are the following inscriptions．It is to be noted that the two upper lines are complete and the two lines beneath them incomplete（see Pl．XVIII）．The in－ scriptions run from right to left．

13明三玩
 $\stackrel{4}{4}$



In front of these inscriptions the owner of the tomb is represented as seated，in front of him one vertical line of inscriptions．


Below the four lines of inscriptions and above the door of the chapel two figures of the owner are represented in a standing attitude．Between them

[^4]are two vertical lines with the name and titles of the owner. (See pl. XVIII).
The chapel is a small chamber with a vaulted mudbrick roof which was plastered and whitewashed. The walls are plastered. Some of the representations on the walls are unfinished.

In the West wall there is a white limestone false door. (See Pl. XIX). 1 m .06 high and 0 m .55 wide. In front of it is a limestone offering table 1 m .05 long and 0 m .30 wide. Above the panel are three horizontal lines of inscriptions running from right to left.


After these lines is a vertical line of inscription by which the owner is represented as standing.


Below this group in the centre, is the panel. On it the owner is represented seated, in front of him the table. His right hand is stretched towards it. In his left hand he holds a tubular vase close to his mouth. Above the table is a horizontal line of inscriptions reading from right to left.

Behind the table are two registers, the upper consisting of four lies jars, the lower consisting of an insence burner and a ewer in its basin on a chair. Below the panel is a horizontal line of inscriptions from right to left.

On the outer jambs, on each side of the panel, are two vertical lines of inscriptions. The two to the right run down from left to right. Those
to the left run down from right to left. Each of the four lines ends with a figure of the owner standing and holding the stick and kherp.


Under the line below the panel is the drum. On each side is a line of inscriptions; one to right and one to left. Each ends with a figure of the owner holding the stick and kherp.


On the wall above the false door are represented four tables on each of which are drawn in red colour four vases of different types. The order of placing these vases differs on each table. As an example, the following (fig. 6) shows the second table from the right-the others are partially damaged. To the South of the false door, on the West wall, is represented the following ( $\mathrm{Pl} . \mathrm{XX}$ ). The owner of the tomb is seated on a chair. Above


Fig. 6. his head are four vertical lines of inscriptions partially written in red and partially in black.


The red colour was probably used first as there are other representations in red unfinished. Some of the letters in these inscriptions are drawn in detail but without finishing touches. The first two lines are longer than the two which end with the name of the owner, from left to right. Behind the owner are three registers, one above the other. That at the top consists of one group of inscriptions running borizontally from left to right.


The last part is missing. Below the inscriptions are represented two tubular jars.

The second register has at the top a group of inscriptions in a horizontal line from left to right.

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\rightarrow R_{0}^{\prime}=\nabla
$$

The last part is missing. Below the inscriptions two vases are represented.

The third register has at the top a group of inscriptions in a horizontal line from left to right.

$$
-\geq \text { 를르를 }
$$

Below are two tubular jars.
In front of the owner are several different objects around the table. The usual list of offerings on top of the table is unfinished. The vertical lines and the dots for the horizontal lines, all in black colour are visible. The portrait of the owner, the table and all the objects around are coloured and completely finished. (Pl. XXI).

South Wall.-The upper part below the vault was mud plastered and whitewashed. A small piece of the plaster remaining on the left side depicts a section of the punt on which the owner of the tomb is represented in a fishing scene. The only part of him still visible is the hand which is very carefully drawn with a part of the harpoon in the fingers. One of the owner's legs is also seen, in black. A dim figure is visible down between the legs most probably that of his wife.

The wall below the curve of the roof is in a very good state of preservation. There are five registers in red colour although the lines dividing them are black. The first three registers from the top down show different objects of offerings. The last two registers below them represent figures bearing offerings. In each of the registers there are seven figures of men. The work is not completely finished. (Pl. XXII).

East $W_{\text {all. - On }}$ the South section the owner is represented in a standing attitude, holding his staff in his right hand. His wife is shown kneeling with her left arm around her husband's front leg. In her right hand she holds a lotus flower before her face as if enjoying the perfume. Above her head is a vertical line of inscriptions in red colour.


From them one learns that she, the wife, was acquainted with the King (noble) and that her name was Krft $\underset{\sim}{\stackrel{4}{8} .}$.

Above the head of the owner of the tomb are five vertical lines of inscription, the beginning of them being effaced.


In front of the owner and the group of inscriptions above him are four registers which cover the whole length of the wall. The two upper registers are badly damaged from the middle northwards. The work is incomplete. The first register contains six female figures. They are facing the owner of the tomb and carry on their heads and in their hands various offerings. The draughtsman's horizontal line is drawn in a dark red colour. Then comes a representation of two women in a kneeling position carrying the upper parts of musical instruments on their heads. They face North. The representation in front of them which is indistinct, shows a figure seated under a canopy. Above the heads of the kneeling figures are the following inscriptions.


The inscriptions tell us that the first figure is that of his wife, the other his daughter.

The second register below contains two boats, in each of which is represented a party of men. The two parties are engaged in fighting each other using long sticks as weapons. Between the two boats lies a man as if he had fallen into the water. Behind the two boats a smaller boat is represented. On its forepart stands a boy gazing at the fighters
and holding in his hand lotus flowers as though about to offer them to the victors in the fight. Another boy leans over the side of the same boat, his hands in the water plucking lotus flowers. The remaining part of the register is completely effaced.
The register below represents, from right to left, a man holding in his hand a rope to which two oxen are tied. Behind, a man sits on the ground engaged in forcing a bull to lie down. Above these figures is drawn a line on which two bulls are shown as attempting to rise from the ground; behind them are two calves tied with ropes around their front left legs. Behind is represented a cow with her baby calf in front of her. A man is milking the cow into a vessel which stands in front of him. The falling milk is represented in the form of wavy lines.
Some of the representations depict a man weaving. Another man, behind him, holds the neck of a bird between his toes while plucking its feathers. Below is a hunting scene of birds being caught in a net. (PI. XXIII).

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To the West of the tomb of Seshem Nefer we came across a chamber roofed with three blocks of limestone, in position but badly cracked. This chamber was partly cut in the rock and partly constructed of mud bricks. On the North wall was placed a wooden beam to relieve the weight of the roofing blocks. The walls were entirely plastered with mud and whitewashed. There are traces of the representations, all of which were brightly coloured, faintly visible. (PI. XXIV). The roof blocks were coloured in imitation of dark granite. On the West wall was found a false door composed of three pieces. The upper lintel is in two pieces and the lower part in one piece. All these pieces are of white limestone painted to simulate granite. A rectangular block of white limestone was found in front of the false door. (PI. XXV).
On the lintel is a horizontal line of inscriptions from right to left. The signs are large and the workmanship excellent.
"The elder daughter of the King, of his body, Khent-Kaw-Es". Below the lintel is the panel where the Princess is represented, seated on a chair and smelling a lotus blossom held in her left hand. In front of her, her name is inscribed in a vertical group without the usual representation of the table.


On the outer jambs on each side of the panel, is a line of vertical inscriptions.


At the bottom of each the Princess is represented in a standing attitude. The figure on the right jamb lays her right hand on her breast while that on the left lays her left hand on her breast. Beneath the panel is the lower lintel on which is inscribed a horizontal line from right to left.

Below the lower lintel is the drum, on both sides of which are the two inner jambs. On each of them is inscribed the name of the Princess.


Below each is the representation of the Princess in a standing attitude.

According to name and title Khent-Kaw-Es was the elder daughter of a King, she must have been a Royal Princess, i. e. the heiress of the throne in the event of the King, her father, not having a male issue. To the West of the false door we discovered a square shaft 5 metres deep and 2 metres along each side. The burial place on the West was found to be blocked with mud bricks and pieces of stone. (PI. XXVI). Fragments of animal bones, probably of the sacrifice, were found in front of the blockage. Removing the obstruction we found a white limestone sarcophagus. It filled the width of the burial chamber which is a rectangular cave cut in the rock and which measures 2 m .40 North and South, 1 m .60 East and West, and 1 m .15 in height. The sarcophagus is 1 m .90 long, o m. 86 wide and om .80 high (including the lid). The lid is slightly longer than the receptacle. On the lid I observed very faint inscriptions, not properly cut, giving the name of the Princess. (Pl. XXVII).


To the North of the sarcophagus were lying the following objects :

1. A wooden head-rest. The upper part was detached and was lying on the ground with a bundle of coarse cloth on it.
2. Two wooden boomerangs underneath the above object. The ends of both boomerangs are decorated with engraved cross lines.
3. Ten reed arrow shafts with pointed flint ends attached to them with leather. (PIs. XXVIII and XXIX).
To the South of the sarcophagus were found several sacrificial bones.
On lifting the lid of the sarcophagus the mummy was found, covered with a large quantity of coarse cloth. (PI. XXX). Removing the first layers of cloth we found a sealed pottery jar at the feet (at the Southern end of the receptacle), a big staff of coarse wood and an excellent wooden longbow. An interesting point is that we noted several dots, painted white, on the centre part of the bow. These dots are 13 in number and
are placed in a curious way. (PI. XXXI, A). At first I took them for a form of decoration, but later an authority on archery examined the bow and gave it as his opinion that the dots are there to indicate angles of altitude according to the hunter's distance from his target.

We found on removal that the cloth covering the mummy consisted of 43 pieces each folded separately. The length of these pieces varies from 0 m .50 to 5 metres. The width in each case is 1 m .10 . Seven of the pieces have cursive inscriptions on them. (PI. XXXI, B). Under all this cloth the mummy was found to be wrapped in material which was in a poor state conditioned by the decomposition of the body.

On the face of the body was a mask of plaster, inaccurately made. (PI. XXXII). The bones were in a very good state of preservation. When I examined the pelvis I was astonished to find it was not that of a female, as I had been anticipating, but of a male. Dr. Douglas Derry of the Kasr-el-Aini Hospital kindly examined the pelvis and the head of the mummy and confirmed that they are those of a male of approximately 40 years of age. All this was very puzzling. The burial place is intact, to the West, the false door bears the name of the Princess Khent-Kaw-Es; the lid of the sarcophagus, as already described, bears faint inscriptions of the same name and yet the body within the sarcophagus was not that of a female as it should have been. Had the tomb been re-used for another person, then the Princess's name would have been erased from above the false door and also from the lid of the sarcophagus according to a religious custom always strictly followed by the ancient Egyptians when burying their dead; in its place they would have inserted the name of the new owner of the tomb. Thus after marshalling all the facts the solution would appear to be that the Princess was in reality a hermaphrodite buried, as she lived, a Princess. In our times of course such cases can be rectified by a surgical operation and the patient would have assumed his rightful sex and in this case have become a Prince.
The objects found in the burial chamber were of the kind usually associated with men indicating that the princess was fond of activities of the opposite sex, e. g. hunting etc. These propensities were not
un-natural under the circumstances, the supposed princess being in reality a man.

## THE TRENCH.

We noted that the chapel and burial place of Khent-Kaw-Es were exactly in the line of the Trench, and came to the conclusion that its end would be found to the east of this tomb. We started the clearance of the area to the east of the chapel of Seshem-nefer and soon encountered a rough construction of local stone and mortar. It resembled the buildings which were discovered on the south tomb under the temenos wall of the Step Pyramid (Pl. XXXIII).

GROUND LEVEL


Fig. 7.

We cleared all around these buildings from West to East until we came to a section of the rock which was accurately cut. This was therefore the end of the trench, we decided. The width at this point is 3 metres. The length of the rough buildings from the West to the point reached at the end of the trench is about 14 metres. We then proceeded to dig downwards. I noticed niches cut in the face of the southern rock wall of the trench from above the end of the trench towards the East. There are ten of these niches all similar with the exception of the ninth
which is larger. Nine metres below these niches were found three smaller ones. The first from the West is in one line with the ninth niche above it. The distances are equal.

At a depth of 26 metres we found that the filling of the trench resembled a pavement of stone and mortar. (Pl. XXXIV). This was very hard in texture. We removed it and penetrated further to a depth of 27 m .50 in the hard rock but found no entrance. (Pl. XXXV). We continued the removal of the filling to the East of where we had encountered the hard layer described above in the hope of finding an entrance in this direction. It is not possible to complete the removal of all the filling in the trench without tunnelling under the two mastabas of Queen Nebet and Queen Khenut which are built above it. The overall length of the trench from where we started in $1_{9} 39$ to the section to the east of the tomb of Seshem-nefer, is 235 metres.

Should this not have been the actual tomb of a very great personality, it must in any case have been the projected tomb for such a person. Not until the whole trench is completely cleared shall we know the truth of the matter.

Zaki Y. Sadd.
Ezbit-el-Walda, Helwan, 28-12-44.

The entrance to the chapel of Seshem-nefer


False-door of Seshem-nefer.


The part to the south of the false-door on the west wall



The south wall showing five registers.


A man weaving, another plucking a bird; below, men pulling the net's rope



The false-door of Khent-Kaw-Es with the white limestone block in front.


The blocking of the burial place with mud bricks and pieces of stone. (Tomb of Khent-Kaw-Es).


Sarcophagus and lid on which a faint engraving shows the name of Khent-Kaw-Es,


The objects to the north of the sarcophagus in position.

a) Head-rest, two Boomerangs and a bow.

b) Ten arrows with the bow.


a) Dots on the middle part of the bow.

b) Piece of cloth $\mathrm{n}^{\circ} 6$ with cursive inscriptions.


Plaster mask on the face of the mummy.




The end of the trench East of West.

## PRELIMINARY REPORT

ON THE

## ROYAL EXCAVATIONS AT HELWAN

1943-1944.

We started the excavations this season on November ist 1943 and closed down on May 31 st $194 / 4$. In the first part of the season we excavated the area to the west of the site of the previous season of $19^{4} 2^{(1)}$. In the second part of the season we excavated a part of the site to the north of the farm-house of Ezbit-el-Walda ${ }^{(2)}$ and made some soundings to the west of Helwan-les-bains and few places deep in the desert to the north west of Helwan-les-bains.

The site to the north of the farm-house of Ezbit-el-Walda was chosen personally by His Majesty the King on his visit to the excavations on January 29th $19^{4} 44$. His Majesty's idea was to begin the excavations from the beginning of the site in the south and to carry on with the work systematically to the north where the site ends.

In the area excavated on the first part of the first season from November ist to February 15 th we uncovered 1266 tombs in which we found some new features unknown to us in similar tombs of this period (First Dynasty). We have found as well some interesting tombs of a later period (probably fourth Dynasty). These tombs are worth noting in details :

Tomb No. 299 H. 2 Intact; rectangular, cut in gravel. It measures ${ }^{1} 75 \mathrm{cms}$. long. $\times 60 \mathrm{cms}$. wide $\times 70 \mathrm{cms}$. deep. Part of the east

[^5]side has some mud bricks. The body was found lying extended on the back, head to north, bones in bad condition, skull smashed and turned downwards the mandible was found broken in two pieces on both sides of the skull. Pelvis in bad condition for a female adult. Near the left leg were found two rectangular pieces of limestone placed by the east side of the tomb (Fig. 8). When these two objects were examined they


Fig. 8. - Tomb no. 299 H. 2 showing position of the ostraca.
were found to bear hieratic inscriptions. Those two pieces were originally one stone which was broken into two and used as ostraca put in the tomb. One ostracon bears three horizontal lines of hieratic and contains the name of King Khafra in a cartouche (PI. XLII, a). The second contains five horizontal lines of the same character.

Tomb No. 305 H. 2 : Plundered, rectangular, cut in gravel and had walls built with mud bricks, mostly denuded. It measures 225 cms . long $\times 60 \mathrm{cms}$. wide $\times 100 \mathrm{cms}$. deep. In the tomb was found the bottom of a rough pottery jar in the debris of which were found two limestone ostraca (PI. XLII, $b$ ). The first ostracon is nearly rectangular
and bears four horizontal lines of hieratic inscriptions from right to left. The determinative at the last line has got a sign above it in red ink. The second ostracon is nearly triangular. On it are five horizontal lines of hieratic inscriptions. The determinative on the fifth line has got a sign above it in red ink.

Tomb No. $3_{22}$ H. $2:$ Plundered, rectangular cut in gravel. It measures : ${ }_{2} 30 \mathrm{cms}$. long. $\times 120 \mathrm{cms}$. wide $\times 190 \mathrm{cms}$. deep. In the debris of a broken pottery jar were found two stone ostraca (PI. XLIII, a). The first ostracon is nearly triangular and on it are five horizontal lines of hieratic inscriptions. The second ostracon is nearly rectangular and the inscriptions on it are not clear.

Tomb No. 335 H. 2 : Plundered, rectangular cut in gravel. It measures 160 cms . long. $\times 60 \mathrm{cms}$. wide $\times 145 \mathrm{cms}$. deep. It contained the remains of a skeleton extended on the back and leaning slightly on the left side. The head is missing, but was originally to the north. The bones are in a bad condition for a female adult. Against the east side of the tomb were found two stone ostraca in front of the legs. The first is nearly triangular and on it are four lines of hieratic inscribed horizontally. The second is nearly rectangular and on it are four horizontal lines of hieratic which are not clear (PI. XLIII, $b$ ).

## NEW FEATURES.

The types of steps leading down to the burial chambers in the archaic period are either one group of steps in a straight line leading directly down to the burial chamber, or a group of steps which turns either to the left or right to another group which ends at the entrance of the burial chamber. In tomb No. 553 H. a we came across a stair-caise of a unique type. It begins from north to south with a flight of four steps and then turns sharply, parallel to the first flight, and leads down in the opposite direction (i.e. south to north) in five steps to the burial chamber (Pls. XXXVI and XLIV).

The burial chamber in tomb No. 559 H. 2 revealed us a new type which has not previously been found in tombs of this period. The two
magazines on both sides of the steps are also of an unknown type because of their openings. The tomb is a big one built with mud bricks. The descent is a straight stair-case built with mud bricks containing 21 regular steps. At the fifth step from the end of the stair-case there are two grooves opposite each other in the walls of the stair-case. At the last step there are two similar grooves. These grooves mark the position of the two portculli which were to


Fig. 9. - The tortoise above the skeleton. be lowered down in them. In the space between the two portculli there are two magazines on each side of the steps. Instead of finding doors as a means of communications with the two magazines we found niches only. This mode of communicating is known in the Old Kingdom tombs for the serlab.

The burial chamber is rectangular and built with mud brick. In the south east corner was found a small chamber with a small door on west side. This was most probably where the body of the owner of the tomb was buried (Pls. XLV and XLVI) see plan (PI. XXVII). Such a feature has not been discovered previously.

Tomb No. ${ }^{6} 64 \mathrm{H} .2$ : Intact, oval cut in gravel (east-west). It measures 120 cms . long. $\dot{\times} 8 \mathrm{cms}$. wide $\times 90 \mathrm{cms}$. deep. Above the skeleton was found a tortoise (PI. XLVII). On taking away the tortoise (Fig. 9) the body was found lying contracted on the right side, head to east, face looking to north (fig. 10). The legs from a distance of 12 cms . below the knees together with the feet were missing. The owner of the tomb must have been buried in this condition. Very probably he had met with an accident which made him as a cripple.

This is the only tomb found intact in which the owner is found without his feet and with a tortoise buried above his skeleton. One might suggest that the tortoise was buried as a symbol of the way in
which the owner used to move about crawling on his hands and knees and thus going slowly like a tortoise.

In tomb No. 982 H. 2 which was found plundered we came across the biggest flint knife ever found. The knife is skillfully cut out of a flint piece. It was found broken in two pieces but was restored. It measures 48 cms . long and 8 cms . wide at the widest part. With it was found a big part of a similar knife (PI. XLVIII).

In the area which was selected by His Majesty the King and excavated in the second part of the season from February the 15 th to May the 31 st 1944 , we uncovered 366 tombs some of which were of a large size and contained interesting objects.

Tomb No. $133_{1}$ H. 2 is a big tomb built with mud briks. The staircase starts from west and then turns to south. A


Fig. 10. stone portcullis was found blocking the entrance to a passage on both sides of which are two magazines to east and west. In them were found big actual granaries of pottery (PI. XLIX). At the end of the passage there is a door blocked with a slab of limestone. This door communicates with the burial chamber which was found paved with three slabs of white limestone (Pl. L). In the north west corner of this chamber we found the biggest pottery jar ever found until now in tombs of this period (Pl. LI). It was found in situ but broken in numerous fragments and was restored immediately.

In the débris of this tomb we found some pottery stoppers some of which bear seal impressions. These stoppers were in a bad state of preservation. On one of them we were able to read the name of King $\mathrm{Adj}-\mathrm{Ib}$ (Pl. LII, a). On another the name of the king was very faint and with it was a name of the official to whom the tomb belonged. Unfortunately the name of the official is beyond recognition (Pl. LII, b).

According to this evidence this tomb was for one of the officials who lived during the reign of King $\operatorname{Adj}$ - $[\mathrm{b}$, who was the sixth king in the First Dynasty ${ }^{(1)}$.

Tomb 1374 H. 2 was found very badly damaged. First, the old canal which was cut in this area had caused the denudation of the north east corner of the superstructure. Second, the sabbakhin seemed to have been helping themselves generously of its mud brick walls. The remains of the superstructure show us that it was (PI. LIII) panelled on the four sides of the interior and surrounded with an outer enclosure wall like the big tombs which were discovered at Saqqara ${ }^{(2)}$. The descent to this tomb is a stair-case from west straight to east, where it ends in the burial chamber which is built with mud bricks. There are two magazines to the south of the burial chamber and on a higher level. The tomb was set on fire so the mud brick walls of the burial chamber, magazine, and a part of the entrance with the steps look as though they were built of burnt brick. In the magazine to west we found some pottery jars. In the hole made by the plunderers we found a pottery lamp, most probably left behind by the men who plundered the tomb and set it on fire. The lamp is of the Roman period and thus it is a document which gives us an idea about the date at which the tomb was plundered and burnt (see plan Pl. XXXIX).

In tomb No. 1380 H. 2 was found a part of a pottery stopper which bears the name of King Den who was the fifth king in the First Dynasty (PI. LIV).

In tomb $1_{1} 48_{1}$ II. 2 which was plundered, were found two flint knives with two sets of flint implements. Each of these sets is different from the other and is composed of 10 pieces ( $\mathrm{PI} . \mathrm{LV}$ ).

Tomb No. 1502 H. 2 was found burnt. The stair-case was at first made straight from north to south, but it seems that the plan of the steps was changed. The alteration was made after the steps had been

[^6]${ }^{(2)}$ W. B. Emery and Zaki Y. Saad, Tomb of Hemaka and Tomb of King Hor-Aha.
built. The steps started from the west where they met the original steps (PI. LVI and plan PI. XL). The step ends by the entrance of the tomb. There is a passage on both sides of which there are two magazines one to east and another to west. In the magazines to east were found four big pottery granaries in excellent condition (PI. LVII). In the magazine to west were found some small pottery jars and two nice intact dishes one made of albaster and another made of breccia.

The burial chamber was blocked with a portcullis made of white limestone and was paved with limestone slabs, covered with a layer of white-washed plaster. The walls were built with mud brick and covered with plaster which was white-washed. On the east and west walls were four grooves of the same height as the walls (Pl. LVIII and plan PI. XL). The tomb was roofed with big beams of wood, traces of big, burnt pieces of wood being found on the walls.

To the south of the tomb was found a grave boat. Traces of wood which were found on the sides and bottom indicate a wooden solar boat (PI. LIX and plan PI. XL).

There is a theory by Dr. Junker that the solar boats are usually built to the north of the tomb but in the present instance the boat was on the south side.

In tomb No. 1627 H. 2 we found a pottery jar which bears the name of King Ka (fig. 11). In tomb No. $165_{1} \mathrm{H} .2$ a pottery jar was found bearing the same name in an inverted way (fig. 12 ). The two pottery jars are of similar type ( $\mathrm{Pl} . \mathrm{LX}$ ). King Ka is supposed to have ruled Egypt before the First Dynasty.

All this evidence establishes firmly the dating of this site to the First Dynasty and removes all the doubts of some Egyptologists who were not sure of this dating.

The objects found in this season are like those found in the first season ${ }^{(1)}$; except for some pottery objects. These pottery objects are big pottery jars and although they are of known types they are of enormous sizes which have never been found before. Models of pottery

[^7]for granaries used to be found, but in this site we came across large genuine granaries for the first time and in some of them were seeds among which I have been able to recognise wheat.

The soundings to the west of the city of Helwan-les-bains revealed some buildings of Roman Period. Some of them are of considerable height and were probably built on older settlements. We came across


Fig. 11.


Fig. 12.
remains of houses one of which has plastered floors painted with white and faded red. It would be very important and interesting to excavate this area as we might discover in it one of the cities of the First Dynasty people who were buried in the big necropolis close by which we have partially excavated. One of the places sounded to the north west of Helwan deep in the desert was found to contain First Dynasty tombs reused in the Roman Period. The other place revealed a tomb of the M. K. in which we found fragments of pottery and thin leaves of gold.

Ezbit-el-Walda, 12.3.1945.


Tomb No $5 \mathrm{~S}_{3} \mathrm{H} .2$.
Cahier $\mathrm{n}^{\circ} 3$.


Section A-A Looking East.


## Section B-B Looking South



Tomb No 559 H. 2.


Section B-B Looking South .


Tomb No ${ }_{1371}$ H. 2.


Tomb No 1374 H. 2.


$0 \quad 4 \quad 2 \quad 3 \quad 4 \quad 3 \mathrm{Ms}$.

Tomb No 499 H. 2.

a. - Stone broken in two on each part of which are inscriptions in hieratic.

b. - Two stone ostraca with hieratic inscriptions.

a. - Two stone ostraca with hieratic inscriptions.

b. - Two stone ostraca with hieratic inscriptions.


The steps leading down to tomb no 553 .


Tomb no 559 from south to north showing the stéps, magazines and grooves.


Tomb no 559 , from north to south showing the small chamber in the south-east corner of the burial chamber.


Tortoise on skeleton in tomb no 264 H. 2.


The big flint knife and the part of a similar one from tomb 982 H .2 .

Two magazines in tomb no 1371 showing the actual pottery granaries.


General view of tomb no 1371 .


The biggest pottery jar found in the north west corner of the burial place in tomb no 1371.

a. - Part of a stopper with the name of king Adj-Ib.

b. - Part of a stopper with the name of the official of king Adj-Ib.

A panelled corner of the inner superstructure of tomb no 1374



Two flint knives with two sets of flint implements composed each of ten pieces.

The alteration of the beginning of the stair case.


East magazine containing four big actual granaries of pottery

Burial chamber showing portcullis, pavement, walls and grooves


Grave boat south of tomb 1502 H. 2 .


Two pottery jars bearing the name of King Ka.

## PRELIMINARY REPORT

ON THE

## ROYAL EXCAVATIONS AT HELWAN

1944-1945.

The third season's excavations started on the 22 nd of $O$ ctober 1944 and closed on the 31 st of May $\mathbf{1 9 4 5}$. The tombs all belong to the Ist and IInd dynasties except some very few which are either predynastic or of later periods. In this season we discovered 847 tombs among which 149 were intact.
The area excavated in this season is about 3 kilometres to the North of the area of the two previous seasons. We had to excavate this part because of irregular previous excavations that were undertaken ${ }^{(1)}$. Our intention was to excavate the whole site systematically from South to North according to the orders of His Majesty the King ${ }^{(2)}$.
The objects found in the tombs were very interesting. Some of the objects are quite unique in type. The following interesting features were discovered. Besides being new, they throw a new light on obscure phases of the remote civilisation of the Ist dynasty.
(1) At the request of the Director General Mr. Et. Drioton we will relate at the end of the article the curious story of these previous irregular exca-
vations.
${ }^{(2)}$ Preliminary report on the Royal Excavations at Helwan 1943-1944.

The use of stone in buildings.

The discovery of big tombs with burial chambers built in big white limestone blocks well dressed to some extent and steps of the same material is something quite new in the Ist dynasty ${ }^{(1)}$. The walls of the burial chambers in these tombs are built all-round with big blocks of white limestone, one by the side of the other and not in rows. The chambers are paved also in stones. Until this discovery, all that we knew was that the use of stone started at the middle of the Ist Dynasty in the pavement of the tomb of King "Den" or "Oudemou". At the end of the 2nd Dynasty the tomb of king Khasekhemui was built with limestone ${ }^{(2)}$.

## The two holes in the portcullis.

The two holes on the upper part of the portcullis were understood to enable the soul of the deceased to see the parents or the priests when visiting or at services. It is said that the two holes might have been used for passing the perfume of the incense which is burnt to be enhaled by the soul of the deceased. Finding the holes in many cases in the lower part, sometimes two and in one case four holes pointed to more sensible explanation, that is, to help tightening the rope round the portcullis and lower it down. Holes were found on the upper parts of the blocks walling up all sides of a burial chamber in one of the tombs. One portcullis was found without holes. The upper sides as well as the lower had grooves cut in the stone. The absence of holes and the cutting of the grooves in this manner show us that the portcullis in this case was lowered down with the rope which was tied round it firmly passing in these grooves.
(1) The Egyptologist's idea is that in the IIIrd Dynasty, stone building started and the stones were small and in the IVth Dyn. they started to big
blocks.
(2) Étienne Driotos, Les peuples de l'Orient Méditerannéen, II. L'Égypte, p. 152 .

## The necropolis of old Iwnw "Heliopolis".

In a tomb of a later period which might be the XIth dynasty was found a sarcophagus built with well prepared white limestone. On the inside walls of the sarcophagus was an inscription describing the necropolis as that of the "imakhw" $i m$ 'hw of the temple of Heliopolis. The importance of this fact to determine the expanse until now indeterminate of that immence necropolis and the greater importance which may result for the successive sites of the most ancient Heliopolis, will be seen later.

The position of the "Tableau".
The "tableau" or panel representing the owner of the tomb in-front of an offering table has become during the Old Kingdom a part of the false door ${ }^{(1)}$. Some- specimens, recently discovered seem to prove that it had at its origin, an independent motive, as the stela, in the cult room of the tomb, facing West. We came across a second dynasty tomb with steps cut out in the gravel leading down to a burial chamber hewn under ground. In the ceiling of this burial chamber on the West part we found a rectangular hole in which was placed a "tableau" with its representations directed downwards facing the deceased. Another tomb was found with a "tableau" in the same position. The hole which holds the tableau is dug vertically from the ground level downwards and at its end above the place of the deceased is put the tableau. Similar holes in four other tombs were found. It means that the soul of the owner of the tomb passes to heaven through the above mentioned hole.
Tomb No. ${ }_{1} \mathrm{H} .3$ was found to be a very big one of the Ist dynasty. The stair-case starts from West to East and then turns to the South towards the burial chamber. The steps were made of stone and the walls were built with mud bricks and encased with white limestone

[^8]slabs. In the walls of the stair-case are grooves for the portculli of which two are still in position (Pl. LXVII). One of the portculli has four holes in the lower parts (PI. LXVIII). At the end of the steps are two magazines on each side cut out in gravel. The burial chamber was hewn in gravel and then built up with mud-brick walls on the four sides. The mud-brick walls were encased with big white limestone blocks placed on one end one beside the other and not in rows (PI. LXVII). The stone block in the South East corner of the burial chamber is seen with two holes at the upper part. One of the holes is closed with plaster. The use of these holes is for the rope to pass through with which rope was tied the block. This being the last block which was lowered down in its place. The small pieces of stone to the East of this last block were put there after the block was lowered down (PI. LXIX).

The burial chamber was roofed with big timber beams and then covered with wooden planks. The marks left by the timber beams are still visible in the East wall (see plan PI. LXI). The tomb was set on fire and the mud-brick walls behind the stone blocks were turned red as a result of the fire; so that one may think that the walls were originally built with red bricks.
There are very few traces left of the superstructure which was built round the tomb. The whole area was continuously used by the "sabbakhine" who have denuded most of the site. On the East and West sides of the tomb we found holes filled with Nile mud. The two lines of holes run the whole length of the tomb from North to South (see Pls. LXI and LXVII). The only explanation of such a feature is that there were trees planted on each side of the tomb.

Tomb No. 40, is from the Ist Dynasty (see Pl. LXII). The staircase is from North to South. The steps are built with stone and the walls are built with the same material. Two portculli are still in their places. The burial chamber with the two magazines to the North were first cut out in gravel and then walled up with big white limestone blocks in the same manner as in tomb No. 1. The two magazines are on each side of the entrance with two doors on the passage between them. The stone blocks walling both the burial chamber and the two magazines are reinforced by blocks of the same stone placed on their sides to prevent
the standing blocks from falling (Pl. LXIX). The floor of this tomb is paved with small white limestone blocks. The last portcullis is partly broken at the top and one can see, one of the holes in the remaining part (Pl: LXIX). The other portcullis before it, has the two holes in the lower part (PI. LXX).

These two tombs were found thoroughly plundered except for very few alabaster fragments and broken pottery jars which helped us in dating them to the Ist Dynasty. We were able to restore one tubular alabaster jar from tomb No. 1 only.

In the debris on the surface of the area round those two tombs we came across some interesting and important objetcs (Figs. 13 and 14).
$a$


Fig. 13.
One piece of faience, rectangular, in form of a "Serekh" bears on both faces the two signs of which the name of king Narmer is composed, namely the fish and the piercer 9 . These signs are incrested in a black material. The piece measures o m. 026 long, 0 m .020 wide and 0 m . oo6 thick (Fig. 13, a). Another similar piece was found. It bears on both faces the "hawk" and below it the sign which denotes the name of king "Djer", both incrested in black material (Fig. 13, b). This piece measures om . o3o long, o m .026 wide and om m .014 thick. We found a cylinder seal made of soap stone o m. o3o long and om. oog in diameter (Fig. 14). On it is incised the figure of a man in a standing attitude and his head is like that of a bird with a long beak. Two giraffes are represented facing each other on each side of a tree between them. The giraffe to the left has infront of it the sign
of the god "Min" while in the space above it is the representation probably of a crocodile. In the space above the giraffe to the right is a representation of a "hawk" standing on a "serekh" and holding most probably both the mace and the shield, and if this is so, the whole group would be the name of king "Ḥor-Aha"" (1). Fig. 14, shows a print of the cylinder seal on a piece of paraffin wax.

We found some pieces of faiences and alabaster in the form of the emblem of god "Min" (Pl. LXXI). Other pieces of faience and limestone in the form of the "hawk" which represents god "Horus" (Pl. LXXII, A, B, C and D). One piece of faience in form of the vulture


Fig. 14. - The cylinder of soap stone showing the figure of a man and two giraffes.
which is the representation of goddess "Nekhbit" of the nome of "Nekhen" (El-Kab) (Pl. LXXII, E).

The pieces in the form of the emblem of god "Min" have holes in the middle. The pieces which represent the god "Horus" have holes in the lower part below the legs. At first these were thought to have been placed originally on some sort of a stand in the manner of totem posts until we found an intact object made of copper representing the god "Horus" crouching on the emblem of the god "Min" (Fig. 15). The emblem of the god "Min" must have been surmounted by the god "Horus", but as the pieces which we found are made of faience for both gods they must have been seperated from each other.

Some of the tombs to the South of No. 40 were found containing
(1) Walter B. Embry and Zaki Sald, The tomb of Hor-Aha, Excavations at Saqqara, ${ }^{9} 9^{3} 7^{-1} 938$, p. 74 , plates 20-24.
skeletons of dogs. The tombs were dug in the same way like those which were intended for human beings. Tomb No. 421 was found intact, cut out in gravel and rectangular in shape. The body of the dog was buried in a contracted position on the left side with the head to


Fig. 15. - The god Horus crouching on the emblem of god Min.

North. In front of the front legs were placed two tubular pottery jars (PI. LXXIII).
Tomb No. 615 was found containing three skeletons of donkeys. The two upper donkeys were found disturbed. The third one which was luckily buried deep at the bottom was found intact (PI. LXXIV). To my mind this is one of the oldest donkeys ever found buried in a necropolis of this period.

Tomb No. 359 was found built with mud bricks on four sides and rectangular. It measures 4 m .80 from North to South, 3 m .40 from East to West and 3 m .70 deep. The tomb has no entrance of any
nature, in resemblance to many of the Ist Dynasty tombs which were built to contain only the body of the owner of the tomb and then refilled in order not to be accessible. I thought it was a Ist Dynasty tomb until we arrived to a big sarcophagus occupying the whole space of it. It is in white limestone, built in rows and not one block hewn as usual (Pls. LXXV and LXXVI). It measures 2 m .87 long, 1 m .15 wide and 1 m .40 deep, and was found full of mud and water. The lid which was to cover it was made of four slabs of the same material. One piece on the North end was found broken but in position (Pl. LXXV). The three other pieces were found as follows : Two placed one on top of another on the South edge and the third was found against the East mud brick wall of the tomb. Finding these pieces in such a condition makes one think that the sarcophagus was not covered. When the sarcophagus was emptied of the mud and water we have not found any traces of either bone, pottery or any other material. This showed that this tomb was not used. If it were used and then plundered there must have been many signs to show that it was plundered and more than that, the plunderers would never take the trouble to put the pieces of the lid in such an order in which they were found. The sides of the sarcophagus were all inscribed on the second row below the ledge which was intended for holding the lid pieces. These inscriptions date the tomb probably to the XIth Dynasty and not to the Ist as we thought at the beginning. The inscriptions are very badly damaged because of the water and dampness to which they were exposed for such a long time. The sarcophagus, being below the water level was immediately filled with water after it was emptied (PI. LXXVI).

The line of inscriptions on the North side (PI. LXXVII) runs from right to left ${ }^{(1)}$
${ }^{(1)}$ I am fully indebted to the help of the Director General M. Ét. Drioton in the translation of the text and the remarks about the prehistoric Heliopolis. Also about the references.
${ }^{(3)}$ The sign in the original is composed of the solar bark placed over an oblong stand with fixed rings to hold brancards.
...great god, lord of heaven... great of the king of the North, master of the secret of the speech of the god, Hotpi-Sokar.

The inscriptions on the South side are from left to right and very little of them remain...

$$
\rightarrow \ldots .
$$

...all "thing" secret, Hotpi-Sokar.
The inscriptions on the East side are from left to right and a big part from the beginning is completely damaged. The rest is clear (PI. LXXVIII)...


...of Busiris, great god, lord of Abydos. Funerary offerings to the im'hw, chancellor of the king of the North, the only friend, in charge of all the officials without having been blamed ${ }^{(2)}$ by anybody, chief chancellor Hotpi-Sokar.
The inscriptions on the West side are from left to right. Some of the signs are mutilated ${ }^{(3)}$.


A favour (boon) given by the king and Anubis who is on his mountain, the dweller of the oasis, the lord of the necropolis : a beautiful sepulture of the necropolis in the Western desert of the $i m^{\prime} h w$ of the chateau of the prince. The chief chancellor, Hotpi-Sokar.
(1) The sign 1 occurs in Jusker, Giza, I, Vienne 1929, p. 151 and fig. $23 b$.
${ }^{(2)}$ Cf. Newberry, El-Bersheh, II, pl. XXI, 1. 6-7: 云8) 돈… $\Rightarrow y \leq 1 \leq$.
${ }^{(3)}$ Thanks to the help of the Director

General and Mr. Alexander Varille for copying the inscriptions.
${ }^{(4)}$ Name of the temple of Heliopolis. The sign which was used for writing the Princes is mutilated. It looks as if without legs, and ends as a "fetich" on a post.

The name of the owner of this tomb according to the inscriptions is Hotpi-Sokar, who was apparently one of the high officials in his time. As it was mentioned above, he was not buried in this tomb.

The name of the necropolis as mentioned in the inscriptions on the West side of the sarcophagus proves a new theory of Dr. Junker. He thought that the establishments discovered by Mustafa Bey Amer at Maadi were the remains of the prehistoric Heliopolis Iwnw of which the site of our excavations was the necropolis.

In one of the letters which the Director General was so kind to send me he wrote the following paragraph :
"Pour la question d'Héliopolis préhistorique, je vous mets ci-joint copie des passages dans lesquels le professeur Junker a exprimé sa nouvelle hypothèse, que vos fouilles semblent en train de vérifier. En résumé, Junker suppose que les restes d'établissement préhistorique trouvés par Mustafa Amer serait l'ancienne capitale du nom, l'Héliopolis primitive. Elle se serait reportée plus tard, après sa destruction, plus au Nord'".
The passages written by Dr. Junker are :
"Junken, Der Tanz der Mww und das butische Begräbnis im Alten Reich, dans les Mitteilungen des deutschen Instituts fïr ägyptische Altertumskunde in Kairo, IX, fasc. I, ${ }^{1940}$, p. $3_{7}$, note 1 .
Mit der Annahme des Einheitsreiches von Heliopolis ist natürlich nicht alles in vorgeschichtliche Zeit zu versetzen, was später mit der Stadt verknüpft wird. Die Hauptstadt des Gaues lag ursprünglich wohl südlicher ; $H_{r j}{ }^{\prime} h$ ' ist später noch ihr Hafen, und bei Maadi, dem $H_{r j}{ }^{\text {' } h} h^{\prime}$ näher liegt als Heliopolis, grabt Professor Mustafa Amer eine Stadt aus, die nach den letzten Sondierungen an Ausdehnung alles weit übertrifft, was in Aegypten jemals als Siedlung zutage getreten ist. Es scheint ganz ausgeschlossen, dass diese gewaltige Stadt nicht auch eine grosse politische Bedeutung gehabt habe. Sie wurde gegen die Mitte der zweiten Naqâda-Periode zerstört, es ist sehr wohl möglich, und passte zeitlich aufs beste, dass ihr Untergang mit dem Aufhören des alten Einheitsstaates in Zusammenhang steht.
Junker, Die politische Lehre von Memphis, Abhandlungen der Preussischen Akademie der Wissenschaften, Jahrgang 1941. Phil.-hist. Klasse, Nr. 6, p. ${ }^{2} 7$.

Nun haben die Grabungen der Uneversität Fuad I. bei Ma'adi Teile einer riesigen vorgeschichtlichen Siedlung freigelegt, die ohne Zweifel eine besondere politische Bedeutung gehabt haben muss. Die ersten Berichte über die Ergebnisse der Untersuchung lassen die einzigartige Bedeutung der Stadt noch nicht erkennen. Unterdessen hat Professor M. Amer zur Bestimmung (p. 28), der Grenzen des Feldes Stichgrabungen nach verschiedenen Richtungen unternommen mit dem überraschenden Ergebnis, dass die Spuren der Siedlung weit nach Süden bis vor Tura reichten, siehe die beigegebene Karte und Ma'adi I, Taf. 1 und 3. Das ergibt für die Stadt eine Länge von mehreren Kilometern bei einer Breite von etwa einem Kilometer. Eine solche Ausdehnung ist fur ägyptische Verhältnisse ganz unerhört, und der Schluss bleibt unausweichlich dass hier eine grosse Hauptstadt lag.
"Ajan bezeichnet in der späteren Zeit die Steinbruchgegend von Tura und Maasara. Ob die Siedlung diesen Namen trug, bleibt offen. Man, könnte in Erwägung ziehen, ob nicht ursprünglich sie İwnw hiess und der Name später nach ihrem untergang von dem nördlich gelegenen Heliopolis weitergeführt wurde".

Tomb No. 48 o was found plundered and its roof collapsed. In its debris we found a white limestone "tableau" (PI. LXXIX). When the tomb was completely excavated, we found on the West side of the burial chamber a rectangular hole which was understood afterwards as the place of the "tableau" found in the debris. The owner of the tomb is represented seated on a chair the hind leg of which is only visible in form of the hind leg of an ox. The name of the owner is carved in high retief E) $b ; t$ in the space above the head ${ }^{(1)}$. The owner wears the hair long on the back and a part of it is on the right shoulder. The left arm is put to the chest while the right is extended towards a table placed on a stand. On the table are represented four objects probably loaves of bread ${ }^{(2)}$. In front of the owner from the upper part of the tableau
${ }^{(1)}$ Petrie, Royal tombs, vol. II, pl. V, 8 .
${ }^{(2)}$ L. Keimer, Annal. Serv. Remarques sur quelques représentations de
downwards are represented three registers. On the first are represented clothes. On the second below are four vases like those we usually found in the tombs. On the third are probably bread loaves with number $n$ ten, above each group. Above the objects on the table is represented a leg or a big piece of flesh. In-front there are three registers of offerings of sealed jars and two geese necks.

In the debris of tomb No. $7^{12}$ which was plundered we found a white limestone "tableau". The name of the owner is not clear. The workmanship is very bad in comparison to the first "tableau" (PI. LXXX). The owner is figured seated on a chair in-front of a very crude table. The owner is represented in a crude handwork. The artist failed to show the two hands as one hand only is seen extended to the roughly represented loaves of bread on the table. The name of the owner is in the space above the head, carved in bigh relief but it is unfortunately beyond me to decipher. The register at the top is composed of four groups, and each consists of two objects one on top of the other. In each group the upper part represents cloth and the lower part is the number. The register below it represents three loaves of bread to the left. The objects to right are bizarre, perhaps a rope tied to the tops of two poles with objects hanging on to it. There are two registers below in which are jars and other different objects.

Tomb No. 810 (PI. LXV) was found plundered but in it we found the "tableau" in its place. The descent to this tomb is on the North and is cut out in gravel in form of rough steps. The burial chamber is hewn under ground. In the ceiling of the burial chamber on the West part we found a hole reaching from the ground level to the ceiling, rectangular in form and in it was placed the "tableau", one metre higher than the ceiling level (Pls. LXXXI and LXXXII). The "tableau" was found fixed between two limestone slabs (PI. LXXXII, a), with its representations downwards facing the place in which the deceased was buried, that is above the owner of the tomb. On the "tableau", the owner is represented seated on a chair (PI. LXXXII, $b$ ) with one hand

Divin. Beliers et sur un groupe d'objets de culte conservés au Musée du Caire,
p. 397 , fig. 32 and 34 , pl. XI, fig. 38,39 and 40 .
extended towards the objects on the table infront of him. His name is carved in high relief ${ }^{\bullet} \mathbf{y} H w-i t-f^{(1)}$. The workmanship is crude and does not show any art beyond the primitive style.
Finding this "tableau" in a place like that in the tomb, was never found before. If this was the only tomb with such a feature we would have said that it happened with no intention, but as we have found four other tombs besides Nos. 480 and 810 with similar holes in the ceiling, we are forced to consider this feature as a new one. It means that this system was practised for some religious purpose. It means that the soul of the deceased passes to heaven through the above mentioned hole (see plan PI. LXV).
Tomb No. 701 (Pl. LXVI) is one of the new types to us. It was cut out in the gravel. The burial chamber and the magazines were built in mud-bricks. The stair-case starts from East to West and then turns to South. At the end of it there is a passage with three magazines on both sides (East and West) (PI. LXXXIII). The magazines to West were found intact, the one in the middle, B, was found containing a big quantity of broken vases and fragments of different stones (Fig. 16). When they were restored, there was a number of 28 nice vases of different stones and types (PI. LXXXIV). Among the vases are some new types, the most interesting of which is an alabaster chalice (Pl. LXXXV).

The following photographs show different objects which were found in the tombs: (Pl. LXXXVI) is for a portcullis in tomb No. 8og. The grooves on the upper and lower sides are clear. At the bottom we see two semi-circular holes. Both the grooves and the semi-circular holes at the bottom were used for the fixing of the rope round the portcullis to lower it down to close the door of the tomb. The portcullis in tomb No. 665 is in its place (Pl. LXXXVII). A hole was cut at the lower part. In tomb No. 304 we found an intact axe-head made of copper (PI. LXXXVIII). The tomb is not of the Ist Dynasty but of a later
${ }^{(1)}$ The reading of the name is Hw - $t \mathrm{t}-\mathrm{f}$ "He who protects his father". The feminine occured in Borchardt, Das Grabdenkmal des Konigs Sahu-rê, Leipzig
${ }^{1913}$, p. $7^{3}$, in the form -- $\int H w-t-i t-s$ "She who protects her father. It is the name of the Lybian princess.
period, most probably the first intermediate. In tomb No. 363 we found a very interesting object made of pottery. It is a model for a granary store-house (PI. LXXXIX). It is rectangular in shape and has a door which opens to a passage with four magazines on both sides.


Fig. 16. - Tomb no. 701 H. 3 showing the magazine containing broken vases and fragments of stones.

The passage ends with a stair-case leading up to the top of the magazines. Each magazine has got a hole in its roof, which was supposed to pass the grains down into it and then closed. In tomb No. 538 was found a nice ivory spoon with the end of the handle in form of a gazelle's head, with two horns (Pl. XC). In tomb No. 788 we found an ivory "kohl"
stick for painting the eye. The top is decorated with a small roughly sculptured statuette (PI. XC). Plate XCI shows a variety of vases made of alabaster except the one in the second row to right which is made of rock crystal. The two vases in the same row to left are inscribed. Plate XCII shows six vases. The one in the middle of the first row is of porphyry and intact.
The work was finally honoured on the 4th June 1945 by the visit of H. M. the King who gracisouly encouraged me with his kind words.

## APPENDICE.

## A Modern Treasure-Hunter in a Ist Dynasty tomb.

C'est à ma demande que Zaki Saad Eff. a rédigé la note publiée ci-dessous en appendice à son Rapport.
Maspero n'a pas déduigné julis de rapporter dans les Annales (II, p. 146153) les on-dit qui couraient encore vers 1900 au sujet d'un temple mystérieux situé dans le désert à l'ouest d'Assouan. Il relie ces croyances aux récits des géographes arabes du moyen-âge et il en conclut que les légendes ont la vie longue en Égyple.
Il en va de mème des pratiques des chercheurs de trésors. Celles qui sont encore en usage viennent de trés haut. Elles expliquent au mieux toute une série de déprédations, dans les anciens tombeaux, qui semble absurde à première vue. Je n'en veux pour exemple que la destruction sauvage, dans le caveau de la pyramide de Djedhérè couverte cette année, de toute la paroi ouest pour pénétrer avant dans les œuvres vives du monument, où l'on ne pourait raisonnablement espérer aucune trouvaille. Le vandale, d'époque romaine sans doute, qui l'a opérée n'avait certainement, ni d'autres motifs, ni d'autres imaginations, ni d'autres procédés que l'intéressant "gentleman" observé sur le vif par Zaki Saad Eff. en l'an de grâce 1 g44.

During my summer vacation in 1944, after the second season's excavations was finished, I was worried by a gentleman who tried to convince me with his knowledge of the whereabouts of places full of treasures of great intrinsic value. He wanted me to start looking for a treasure on the site of the Ist Dynasty necropolis at Helwan. As a matter of fact I was so tired and wanted to get rid of him by any means. The only way which I thought of was to make him see by himself that his supposed knowledge was false. I obtained permission to let him show us the special place. With the permission granted I accompanied him to the site. He wanted to be left alone and be allowed some workmen to help him. I accorded him his demands. One day I received a message from an official in the Palace who wanted to go with me to the site to see what that gentleman had done. We arrived and found him digging holes here and there, in the same way as the illicit diggers. One of the holes revealed a red brick corner under which were big blocks of white limestone which were apparently burnt by fire. When I asked him what was that building, he answered that it was an intact temple. I told him that according to my long experience in excavating that site, there was nothing but one of the big tombs like the many which I have excavated in the area. But, he was so sure of himself and told me frankly that that was something entirely new. But it was mere waste of time to argue with him and was ordered by the official from the Palace to stop working. We decided that the third season's excavations would be in this area (PI. XCV) ${ }^{(1)}$.

Work started as mentioned at the beginning of this report on the 2 2nd of October. The tomb which was indicated by the gentleman was a big tomb of the Ist Dynasty (PI. XCIV). When the tomb was completely excavated, the gentleman came back and told me that in the South wall, behind the stone block in the South East corner there was a door. He said that that door lead to two chambers, one containing the bodies of a man and his wife. Around them were big quantities of gold objects. The other chamber containing the body of a man surrounded by very

[^9] Royal Air Force for making such a nice
photograph for the whole area from Ezbit el-Walda south to Maasara north.
nice objects of gold and valuable jewels. But, although I tried to make him understand that there was nothing behind the stone block except a wall of mud-bricks and then the living rock, he insisted on taking away the stone block to open the door which lie behind it. To let him see by himself and to give him a lesson, I removed away the stone block which was broken to many pieces. Behind it was revealed a mud brick wall as I have told him. We pulled down the mud brick wall and the living rock was quite clear behind. The gentleman said that that was the plaster with which the door was covered. He asked for some fire which was immediately brought. He held the pot containing the fire in his hands, and put some material in the fire and a cloud of smoke rose in the place. He started moving round the place and meanwhile his lips were moving. He evidently was saying something in a low voice, and as I have been told afterwards he was speaking to the spirits of the place "the Khoddam" (Servants of some influence in the under-world). He ordered the workmen, after finishing his prayer, to take the plaster off the door. The workmen started, but as there was no plaster to be taken off, they were only breaking the living rock. They continued breaking the rock which was just soft yellowish limestone layer until a hole about one metre deep was made (Pl. XCIII). I told the gentleman that it was mere waste of time. I simply said that if we continued tunnelling we will find nothing but rock. There are no chambers behind this burial chamber. He told me that he had a guidebook in which many places full of treasures were described. I simply told him that a man must be a fool to spend his time in writing about a treasure which he can obtain with the slightest effort. He will be a fool who also believed in such nonsense. He was reluctant to accept that he was defeated and to save a bit of his pride, he promised me to come again with the guide-book. But he went away for good.
I think that this is a lesson which this gentleman will never forget. This shows that Archaeology could never be practised by charlatans and it is a Science which although very interesting is fatiguing.
On His Majesty's visit to the site on the 4th of June 1945 I related all the above story to His Majesty. When I arrived to the point where the gentleman asked for the fire to burn the incense, His

Majesty laughed and said : "When a man asks for incense to open a tomb with, he must be a charlatan." His Majesty ordered me to put back the stone block which we have taken off according to the charlatan's plan. The pieces were gathered and put together as shown in Plate XCIV.

Helwan, Ezbit el-Walda, 29-1-1946.
 B-B
SECTION LOOKING EAST



(2)

$$
\underbrace{}_{\text {Tomb No } 1 \mathrm{H} .3}
$$




SECTION A.ALOOKING EAST


Tomb No so H. 3.


Tomb No 359 H. 3.


SEGTION A. A. LOOKING EAST


SEGTION B. B. LOOKING SOUTH
Tomb No 480 H .3 .



Tomb No 810 H. 3 .


Tomb $\mathrm{N}^{\mathrm{o}} 7 \mathrm{OL} \mathrm{H} .3$.


General view of tomb $n^{\circ} I_{\text {H. }}$ H from south showing the steps and the portculli with the holes on the lower parts.


Portcullis in tomb no 1 H. 3 with four holes at the lower part.


Tomb no 40 H .3 , Steps, portculli, stone blocks walling the chamber, stone blocks as reinforcement and the stone pavement. One of the holes on the upper part of the last portcullis.


Tomb no 40 H .3 from north to south. Two holes on lower part of the portcullis.


Faience pieces in form of the emblem of god Min. Piece with letter F is of alabaster.


Pieces of faience in form of the hawk. Piece with letter E represents the vulture.


Skeleton of dog with two tubular pottery jars.



Sarcophagus full of mud. One piece of lid put on the north part. Two, one on top of the other, on the south part. The fourth is put beside the east wall.




The part of inscriptions from the middle of the line to the south on the east side of the sarcophagus.




The hole in which the stela was found at a metre's distance above the ceiling level.

a. - Stela between two limestone slabs.

$b$. - Stela found in the ceiling of the tomb


Tomb 701 showing three magazines on both sides of the passage.



Calyx of alabaster from magazine $B$ in tomb 701 .


The portcullis with the grooves and semicircular holes.


Portcullis in tomb 665 with one hole only at the lower part

Bronze Axe-head


Model store house of pottery.


Ivory spoon and ivory Kohl stick.

A collection of vases from different tombs.


Six interesting vases of different material. The one in the middle of the first row


The plac: of the stone block, the mud brick wall behind it and the hole dug in the rock.


Block of stone which was pulled down and the pieces were gathered again The two holes could be seen.
$-46.4506$

Photographed by the Egyptian Royal Air Force for the site of the royal excavations
from Ezbit el-Walda south to Maissara north.

## PRELIMINARY NOTE ON THE HUMAN REMAINS

## FROM THE

## ROYAL EXCAVATIONS AT HELWAN.

The First Dynasty cemetery excavated by Professor Zaky Saad on the property belonging to His Majesty King Farouk at Helwan is of great interest. Although the large number of graves opened yielded comparatively little human material in a condition which permitted measurement of the bones, yet the few skulls which were preserved and submitted for examination have proved of the greatest value in confirming the statement already made as to the racial characters of these people.

As long ago as the year 1909 it was first definitely shown that the people of the Early Dynastic period were not the descendants of the Predynastic Egyptians, as had been believed and taught up to that date. Cranial measurements of the people buried in the great necropolis surrounding the Pyramids of Giza, showed unmistakably that these people were of a different origin from the Predynastic Egyptians. Since that time further cemeteries of the Pyramid age have been brought to light, and their contents both archaeological and anthropological have been carefully examined and reported upon. These have revealed an advanced culture with artistic ability of a high order. Previous to the appearance of these people in Egypt, writing, painting, carving in relief, sculpture and building in stone were unknown.

The discovery in 1936 at Sakkarah in the neighbourhood of the Serapeum by Macramallah Effendi, of a First Dynasty cemetery was an event of the first importance. Examination and measurement of the crania showed that they were identical with those of the Fourth Dynasty from the Giza necropolis, as well as with various series of skulls from
other places measured by different observers. Our knowledge of this alien race was thus brought up to the date of their first arrival in Egypt about 3.400 B. C. The cemetery at Helwan provides us with further valuable evidence in support of that already collected. Although the 32 skulls, since belonging to men and thirteen to women, would not by themselves have been admitted as sufficient evidence in support of the theory of a different race, the figures obtained from their measurement become of marked significance when compared with those already collected from a variety of sources. These include the skulls of the First Dynasty from Sakkarah measured by the present writer, already referred to ; of the same period from Abydos measured by Mac Iver ; of the Fourth Dynasty from Sakkarah measured by Broca; of the same period from Deshasheh and Meydum measured by Mac Iver ; of the same period from the Giza necropolis measured by Elliot Smith and the writer and the Fourth to Ninth Dynasties from Qau measured by Flinders Petrie. The results obtained by the measurement of these six groups are remarkable in the closeness of the figures. The only difference of note is in the group from Abydos and it is significant that this is from the South and may therefore denote a mixture with people of the Southern Race. The other Southern group, that from Qau, Fourth-Sixth Dynasties, corresponds exactly with the 4th-6th Giza series. When these figures are compared with those of the four Predynastic series from cemeteries excavated by Reisner, Petrie, Mac Iver and Brunton, we cannot doubt that we are dealing with two different races. Years ago we suggested calling these two, the Northern and Southern Races, because the majority of the remains of the former have been found in Lower Egypt, whereas the most typical Predynastic Egyptian cemeteries are situated in the South. These titles also fall into line with the tradition of the union of the North and South by Mena, and his assumption of the double crown as king of the North and South, king of the Two Lands. There is a further advantage in the use of the term as applied to the Predynastic people, since it is certain that the culture belonging to the latter, persisted for centuries after the establishment of the Dynasties, so that the people to whom it belonged and who still carried it on, were no longer Predynastic in time. There was, in other words, an overlapping of the
two cultures, the two races living side by side and only gradually becoming interningled.
In the following Table the length, breadth and height measurements of the several series of skulls of both Predynastic and Early Dynastic periods are shown. The mean of the few measurements from the Helwan men are given in a separate column to show how closely these figures agree with those of the Northern Race. The mean of the corresponding measurements of the 13 female skulls are given in the same Table for comparison with Early Predynastic women and the women from the Early Dynastic cemetery at Giza Pyramids.
A remarkable difference in the relation between the width of skull and its height is brought out in the Table. Whereas in the Predynastic people height of skull exceeds width in every one of the four series, the reverse is the case in the Dynastic skulls. Here width exceeds height in every group by a significant amount. It is also noteworthy that, except in the Abydos group, the height of the skull in the Dynastic people exceeds that in the Predynastic race. This implies a greater cranial capacity, both width and height being greater in the Dynastic skulls. The Helwan crania fall into line with all the other Dynastic groups, but the fewness of the skulls and the fact that only four male skulls yielded height measurements, render the results less reliable. In the female group nine skulls gave height measurements and in eight of these width is greater than height. Nevertheless the closeness of the results is remarkable and there can be no doubt that the Helwan cemetery contains the remains of a community closely allied to, if not identical with, the earliest Dynastic people.

D. E. Derry.

TABLE.

| measuremevts. | naga-ed-dele. | predymastic. |  | $\begin{gathered} \text { badari } \\ 1925 \cdot 1988 \\ 1999 . \end{gathered}$ | sakkara serapeum ast onx. | $\begin{gathered} \text { hRLWAN } \\ \text { Roxal bxca:" } \\ \text { as orm. } \end{gathered}$ | dynastic |  | DESHASHEH <br> merdem <br> 4th-5th-otx. |  | $\begin{gathered} \text { QAU } \\ \text { 4th-9th- } \\ \text { ors. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | mapadi. |  |  |  |  | abroos <br> ist orn. | SAKMARA ath ors. |  |  |  |
| men. |  |  |  |  |  |  |  |  |  |  |  |
| Glab-occip. length | 184.2 | 184.7 | 183.5 | 182.0 | 186.5 | 188.3 | 184.8 | 185.0 | 184.9 | 184.0 | 184.7 |
| Maximum width | 132.0 | 13.2 .7 | 131.4 | 131.7 | ${ }_{1} 39.7$ | 140.3 | $137 \cdot 7$ | 141.0 | ${ }_{1} 3_{9} .3$ | ${ }_{1} 39.1$ | 139.6 |
| Basi-breg-height | 1.32 .9 | 133.8 | 134.0 | 134.3 | 135.5 | 136.7 | '132.8 | 137.0 | 136.0 | 136.3 | 136.9 |
| women. |  |  |  |  |  |  |  |  |  |  |  |
| Glab-occip. length | 179.0 | - | - | 174.4 | - | 175.6 | - | - | - | 176.5 | - |
| Maximum width | 129.7 | - | - | 127.6 | - | 136.4 | - | - | - | 135.9 | - |
| Basi-breg. height | $1 \geqslant 9.1$ | - | - | 129.9 | - | 128.3 | - | - | - | 131.3 | - |




The same skulls (side view).

## A DESCRIPTION

## OF SOME BONES EXAMINED.

The five bones examined were as follows :

1. $13 \mathbf{1 2 ~}_{2} \mathrm{H}_{2}$ A left tibia showing an united oblique fracture of the lower $1 / 3$.
2. 760 H 3 A right femur showing a consolidated pertrochanteric fracture.
3. 5o5 H3 A left femur showing a benign tumour : osteoma.
4. 126 H3 A skull (calvarium) showing the characteristic lesion associated with meningioma of the brain.
$5.125 \mathrm{H} \quad$ A sacrum and innominate bone.
5. The tibia shows an oblique fracture of the lower $1 / 3$ with shortening of about $1 \mathrm{~cm} .1 / 2$. The union is quite firm which shows that the fracture was old. The patient must have been able to walk on it for years after the accident. The case must have been treated, at least by splinting, for it is beautifully straight though short. This was the best possible result with the methods available anywhere in the world up to the xixth century when traction methods for correcting shortening became known. It is safe to assume that the fracture was a closed one, was due to indirect injury and that the fibula was also broken (Pl. XCVIII).
6. The right femur shows a pertrochanteric fracture with impaction of the neck and separation of the lesser trochanter. It is quite firmly united with shortening and coxa-vara. A good deal of callus formed around the lesser trochanter. The patient could have walked on this leg. There was no eversion. Such a result could have been achieved without any special treatment (Pl. XCIX).
7. The interest of this case is in the rarity of tumours of bone in the
ancient egyptian bones so far excavated. This tumour is peculiar for it is due to epiphyseal cartilage rests and is in fact a growth abnormality. It is of a big size and a broad base and is a long way from the region of the epiphyseal line showing that the patient must have had it for quite a long time. It may have begun at a very early age possibly seven or ten years after which it continued to grow till the age of 22 . He could not have failed to notice it but being situated at the side it could not have caused him much trouble in walking as this is more likely to happen in tumours growing at the back of the femur (Pl. C).
8. The skull is a most interesting specimen. It shows a tumour the size of a walnut which involves the whole thickness of the bone being about as much developed on the inner as on the outer side. The bone is expanded and spicules of bone are present on both sides.

The $x$-ray shows the typical reaction of the skull to an underlying meningioma of the brain (Pl. CI).

The interest of the specimen is twofold. First it is a fairly rare lesion in any case. In the museum of Kasr-el-Aini Hospital there is no specimen of the same nature. Secondly it is an indirect proof of the existence of a soft tissue tumour. The existence among the Ancient Egyptians of tumours of the soft tissues was very difficult to prove as soft tissues disintegrated very soon after burial. This specimen is a proof that meningioma of the brain which is a rare tumour did exist. Prof. Derry has in his collection of ancient Egyptian skulls another example of the same disease.
5. Sacrum and right innominate bone. There is complete ossification of the two bones most marked on the upper and anterior part of the sacro-iliac joint. The radiogram shows an appearance very suggestive of the type of spondylitis known as spondylitis rhizomelique which most commonly starts in the sacro-iliac joints. Around the small intervertebral joint between sacrum and the 5 th lumbar vertebra the ligaments are also ossified. The disease therefore must have spread upwards as it most often does resulting in the stiff backs common in this disease. The other side of the sacro-iliac joint (right side) does not seem to be affected (Pl. CII).

Kamel Hussein.


A left tibia showing an united oblique fracture.


A right femur showing a consolidated pertrochanteric fracture.


A left femur showing a benign tumour : osteoma.


A skull showing the characteristic lesion associated with meningioma of the brain.


SITE PLAN
OF THE

## ROYAL EXCAVATIONS AT HELWÂN






[^0]:    ${ }^{(1)}$ Barsanti, Annales du Service des Antiquités de l'Égypte, t. I, p. 283 , - Note sur le procédé qui servait à des-

[^1]:    (1) Compare with Dr. G. A. Reisser, The Early Dynastic Cemeteries of Naga-Ed-Der, Part I, text and plates.
    ${ }^{(7)}$ Compare with Dr. G. A. Reisver,

[^2]:    ${ }^{(1)}$ Compare with Dr. G. A. Reisver, The Early Dynastic Cemeteries of Naga-Ed-Der, Part I, PI. 40 $a, b$ and $c$. - ${ }^{(2)} \mathrm{Ibid}$., PI. 40 d .

[^3]:    ${ }^{(1)}$ Annales $d u$ Service des Antiquités, t. XLI, p. 4o5-434.
    ${ }^{(2)}$ Annales du Service des Antiquités,
    t. $\mathrm{XL}, \mathrm{p} .692$.
    ${ }^{(3)}$ I owe this translation to Mr. J. Leibovitch of the Department of Antiquities.

[^4]:    ${ }^{(1)}$ Annales du Service des Antiquités，t．I，p． 150.

[^5]:    ${ }^{(1)}$ Annales du Service des Antiquités, t. XLI, page 4o5-4og. Zakt Y. Sasd, Prelim. report on the Royal Excav. at Helwan 1942. - ${ }^{(2)}$ See general plan.

[^6]:    (1) Dr. Étienne Drioton, Les Peuples de l'Orient médilerranien, 11 , l'Égypte, p. $136,138,142-3,147,150,159$, $160,163-4$ and 200 .

[^7]:    (1) Zaki Y. Sand, Annales du Service des Antiquités, t. XLI, Preliminary report on the Royal Excavations at Helwan 1942, p. 405.

[^8]:    (1) Cicil M. Firth and Battiscomb Gunn, Excavations at Saqqara. Teti Pyr. Cemeteries, I, p. 179-202; Selm Hassan : Excarations at Giza, V, p. 65-168.

[^9]:    (1) Thanks for the staff of theEgyptian

