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# NCIEN FGYPT

1923.

PART II.

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#### EDITOR, PROF. FLINDERS PETRIE, F.R.S., F.B.A.

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# ANCIENT EGYPT.

#### THE TOMB AT BYBLOS.

WE have noticed in past numbers the reports of a tomb of the XIIth dynasty, found last year by an accidental fall of the shore-cliff at Byblos, 20 miles North of Beyrut. The discovery has now been published fairly completely in the French journal Syrie (1922, pp. 273-306, with nine plates), which must be studied in detail by anyone dealing with the eastern Mediterranean archaeology. Here we can only give a few outlines of the forms which are most important in their bearing on Egyptian subjects.

The shape of the tomb is complicated. The burial chamber is rather irregular,  $17 \times 14$  feet at the largest. About 3 feet has been walled off by rough stonework to support the roof, leaving it about 14 feet square. Opposite that wall is a filled up pit, the whole width of this chamber, made for lowering the sarcophagus. The access was in a third wall, by a bent and sloping passage,  $47 \times 66$  inches at the smallest; this is 44 feet long and was reached by a shallow pit from the surface. Accidentally a small circular chamber has broken through the side of the passage ; it is about  $8\frac{1}{2}$  feet across and had its own pit for access. This system is entirely native and not copied from Egypt.

The form of the limestone sarcophagus is likewise not due to Egyptian influence (Figs. 10, 11). The four large knobs on the top, for lifting the lid, are unlike anything in Egypt, as also is the curving of the top edges and of the lid to fit that. Happily, accurate measurements are given in the plate, though not repeated to show the variations in accuracy. These show considerable care in the proportions, and also the unit of measure. They are here reduced to inches, as being familiar to our sense of size.

| Out length | <br>$111 \cdot 14 \div 40 = 2 \cdot 778$ inches. |
|------------|--|
| Out width  | <br>$58.35 \div 21 = 2.778$ ,,                   |
| In length  | <br>$83.07 \div 30 = 2.769$ ,,                   |
| In width   | <br>$33 \cdot 39 \div 12 = 2 \cdot 782$ "        |
| Depth in   | <br>$48.54 \div 17\frac{1}{2} = 2.774$ ,,        |
| Depth out  | <br>$66 \cdot 18 \div 24 = 2 \cdot 757$ ,,       |

The deficiency in the last measure may be due to the bottom being invisible, and the measurement being only made from the ground. The mean of these, omitting the last, is 2.776, mean error  $\cdot 004 \pm \cdot 002$ . This palm measure being multiplied by 12, 24 and 40, was probably a quarter of a foot of  $11 \cdot 10 \pm 01$  inches.

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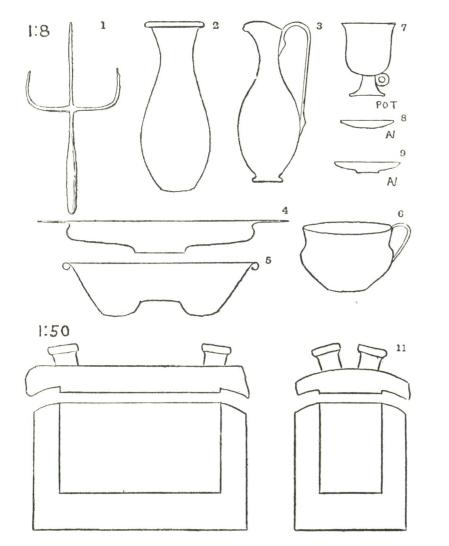
University College, Gower Street, London, W.C. 1.

Subscriptions received in the United States by :--

Miss Helen Gardner, Art Institute, Michigan Boulevard, Adams Street, Chicago, Ill. Forty-six years ago, I published deductions from measures of monuments, with which we may compare this foot (*Inductive Metrology*).

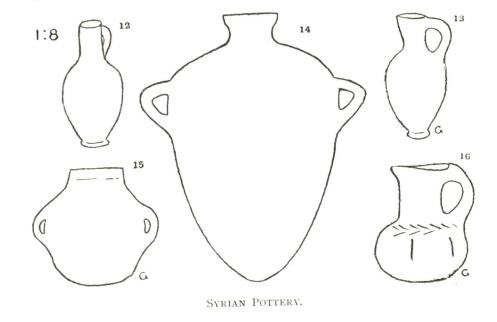
| Hauran       | <br> | <br>    | $11 \cdot 08$ | inches | = | $\cdot 4362$ | metres. |
|--------------|------|---------|---------------|--------|---|--------------|---------|
| Byblos, 1922 | <br> | <br>••• | $11 \cdot 10$ | ,,     | = | $\cdot 4374$ | ,,      |
| Syria        | <br> | <br>    | $11 \cdot 13$ | ,,     | = | $\cdot 4382$ | ,,      |
| Sardinia     | <br> | <br>••• | $11 \cdot 14$ | ,,     |   | $\cdot 4386$ | ,,      |
| Carthage     | <br> | <br>    | $11 \cdot 16$ | ,,     |   | $\cdot 4394$ | "       |
| Asia Minor   | <br> | <br>    | $11 \cdot 17$ | "      | = | $\cdot 4398$ | ,,      |

These regions are all of Syria or the Phoenician Colonies, and this leaves then no doubt as to the true home of this foot.



The lid of the sarcophagus was in place, and the gold dishes in it suffice to prove that it had never been opened. The contents of it are difficult to interpret. The place of the feet is shown by two silver sandals. With those were the jug, Fig. 3, the fluted silver vase, 17, a silver bowl with double spiral pattern interlinked. Rather further up was a gold saucer, Fig. 8; and a falchion lay with the handle toward the feet. By the head end was the other gold dish, 10, and an obsidian ointment jar and lid, with gold mounting, like that found at Lahun, but with the name of Amenemhat III inlaid in the lid. Near this was a gold plating which had covered a wooden bracelet, a silver mirror and dish. The puzzle is that no skeleton was found. There were only some patches of broken bones, one patch on the sandals, and a patch in each corner of the head end. When such slight bones, as some of these are, had remained, it seems incredible that the massive limb bones could have entirely disappeared. Of these fragments of bone two were human, beside two teeth, others were of goat, ox, partridge and fish, apparently remains of food offerings.

In the chamber, outside of the sarcophagus, were ten large jars (Fig. 14), many plates, a copper vase (2) and three tridents (1), one of them inside a broken jar. There were also two large copper basins (4, 5), and a pot with handle (6). A most interesting pottery cup (7) was found lying on the floor, with the stem broken off. Some large copper rings with long stems, had evidently come from woodwork, probably 9 inches thick, indicating massive furniture. These lay together in one corner. It is also stated that some pieces of Roman glass were found in the chamber. There are strong suggestions that it had been entered and partly routed over, yet copper basins and vase were left behind, and no attempt was made upon the sarcophagus.



Within the sarcophagus everything was covered with a thin layer of ashes (cendres) : " this was a black substance, brittle, shining in places, very damp, and bearing here and there the impression of woven stuff of more or less closeness." This layer was nowhere more than a couple of inches thick. From this description it seems that over linen there had been poured a layer of cedar resin, so often used in Egypt as a preservative : this perishes and falls into little blocks with glittering faces, by long exposure to damp. This layer makes the absence of a skeleton still more inexplicable.

We can now turn to consider the connections of the objects found. The date of the obsidian vase under Amenemhat III is beyond doubt, as it bears his name and closely resembles one of his in Egypt. That this was not an older object

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reburied is shown by the string of 102 amethyst beads and an amethyst scarab, as such are hardly ever found except in the XIIth dynasty, when the vein of amethyst was known. Other Egyptian works are a gold uraeus, a heart amulet, a silver plate with part of a spread vulture embossed, ferrules with lotus flower pattern, a silver mirror, two alabaster vases, typical of the XIIth dynasty, and pieces of ivory and glaze panels from the sides of decayed caskets, like that of Lahun. These inlays were blue and green glaze, but most have faded to white and yellow by the damp.

The Syrian objects are the important matter, as they give us for the first time many things exactly dated to the XIIth dynasty. The peculiar sarcophagus has been noted (Figs. 10, 11). A most interesting discovery is that of the jug and basin for washing hands, like the modern *abryq* and *tisht* (Figs. 3, 5). The raised centre to the basin marks the purpose of it distinctly—as in present use. It serves for the jug to stand on, to prevent it dripping when lifted up; it marks distinctly that the use was for slight ablution by successive persons, the waste water lying round the central island. No one would have credited these objects with half the age had they been found undated. So far as we know, the Egyptian never used such till after the Arab conquest; they show, like other things, the independent and superior civilisation of Syria. The pottery cup (7) is again a Syrian invention, which later produced the lotus cup of the XVIIIth dynasty,



after the Syrian craftsmen were taken by Tehutmes III. This also explains the source of clumsy forms of the cup with a foot, which are found during one or two dynasties, after the Syrian invasion of Egypt in the VIIth and VIIIth dynasties. The two golden platters or saucers (8, 9) are probably Syrian, as such are not found in Egypt. The copper bowl with a handle (6), the tall jar (2) and the dish with a wide flat brim (4) are probably all Syrian. The flesh hooks of copper (1) are not to be compared with heavy agricultural forks (Tools and Weapons, LXVII), but with the light flesh hooks of various forms (Tools and Weapons, LXXII, 61-5). The silver sandals seem to be probably Syrian, as the outline is rather straighter on the inner side than the Egyptian. Such funeral copies in metal are, however, known in Egypt, as there is a pair in thin embossed copper in University College. The pottery is valuable as a starting point in dating. The forms 12, 13 and 14 are from the tomb; but 15, 16 are from the small circular tomb which broke into the passage, and might be either earlier or later. The handles of 15 are found on foreign pottery in Egypt of the Ist dynasty. The falchion is probably North Syrian or Asiatic. The Cretan vases of silver are excellent examples, now fixed in relation to Egyptian history. The fluted vase with a spout carries on in metal the idea of the many stone vases with long spouts from Mochlos. Along with it lay a silver bowl with a double row of interlaced spirals, each centre having three branches. Such design lasted long, as it is also found on scarabs of Hatshepsut, and on a golden vase in the fourth tomb of the ring at Mykenae.

This tomb is thus a firm starting point for the dating of Syrian work, the definition of Syrian types, and the relations of Egypt, Syria, and Crete. Let us hope that this most important site of Byblos—temple and tomb—will be soon worked with full record and publication of all *groups* of objects, which alone can put the Syrian archaeology on a firm historical basis.

W. M. FLINDERS PETRIE.

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#### NOTE SUR UNE TOMBE DÉCOUVERTE PRÈS DE CHEIKH-FADL PAR MONSIEUR FLINDERS PETRIE ET CONTENANT DES INSCRIPTIONS ARAMÉENNES.

Lors de sa campagne de fouilles 1921-22, à Bahnésa, M. Flinders Petrie découvrit—au cours d'une excursion sur la rive droite du Nil, et à 8 kilometres environ à l'E.N.E. de Cheikh-Fadl-un tombeau creusé au sommet de la montagne arabique dont les parvis portaient les restes d'importantes inscriptions peintes. Le savant anglais, avec sa maîtrise ordinaire, reconnut de suite qu'il avait affaire à des textes araméens. Il voulut bien, avec un libéralisme auquel je suis heureux de rendre hommage, me demander de relever ces textes afin d'en entreprendre le déchiffrement. En mars 1922 je pus profiter de deux journées pour aller examiner les lieux et copier sommairement les inscriptions, mais je n'avais rien de ce qui aurait été nécessaire, pour établir une bonne copie. Le travail était rendu très-difficile par le manque d'éclairage du tombeau et les ombres portées par les accidents des parois qui empêchaient de distinguer nettement les caractères subsistants. Je pus néanmoins me rendre compte de l'importance de la découverte de M. Flinders Petrie pour l'épigraphie araméenne. Je dus attendre décembre 1922 pour faire une nouvelle visite à Cheikh-Fadl en compagnie de M. Lacau, Directeur Général du Service des Antiquités, qui avait tenu à examiner lui-même la nouvelle découverte et qui-pour sauver ces textes à la science avant qu'ils n'aient été endommagés davantage par l'air ou les arabes du voisinage-avait amené avec lui M. Busutil, l'excellent photographe du Musée du Caire. En trois jours, nous pûmes cette fois avec les moyens appropriés-miroirs pour éclairer la tombe, plaques panchromatiques, écrans colorés à cause de la polychromie des peintures—obtenir de bonnes photographies de la presque totalité des textes<sup>1</sup> et prendre de nouvelles copies. C'est à l'aide des unes et des autres que je tente aujourd'hui de donner un aperçu, malheureusement bien incomplet, du contenu des inscriptions du tombeau de Cheikh-Fadl.

Ce tombeau s'ouvre face à l'est au sommet de la montagne. Il se compose d'un vestibule dont les parois ont été taillées à même la roche. Anciennement un toit fait de matériaux rapportés—peut-être soutenu par des colonnes du côté de la plaine—devait couvrir cette première salle et il est possible également qu'une rampe d'accés ait été ménagée en avant pour gravir la pente. Cette première partie du tombeau n'ayant pas été déblayée je ne saurais garantir l'exactitude de cette description. Étant donné l'importance que présenterait la découverte de nouvelles inscriptions, M. Lacau doit charger un inspecteur du service des antiquités de dégager entièrement ce vestibule. À la suite venait le tombeau proprement dit, une pièce rectangulaire d'environ 4 m. de large sur 5 m. de long et 2 m. de hauteur creusée dans le calcaire dont le plafond est constitué par la plateforme même du sommet de la montagne. Au fond, en retrait, une

<sup>1</sup> Par suite du manque de plaques, nous n'avons pu photographier les textes numérotés ci-après 1, 6, 7, 10, 14, 15 et 17. niche béante aujourd'hui et qui devait être autrefois fermée par la stèle-fausseporte qu'on retrouve dans les tombeaux congénères. Dans l'angle, sud-est de la tombe, s'ouvre un puits carré qui donne accés à trois (?) chambres que nous n'avons pu visiter. Ce tombeau se présente donc à nous avec les caractéristiques générales des monuments funéraires du Moyen Empire, et il est probable qu'il fût creusé à cette époque, mais il a été réutilisé au moins une fois beaucoup plus tard ; c'est la conclusion qu'on peut tirer de ce qui subsiste de la décoration. Cette décoration, fresques en teintes plates, qui orne les quatre parois, occupe un régistre d'une hauteur de 0m.74 à compter du plafond. Au-dessous la roche qui n'a pas été *parée* laisse voir encore les traces de l'outil employé au creusement de l'hypogée.

Voici sommairement la description de ce que l'on peut *deviner* des peintures : sur la grande paroi (Sud) à droite de la porte, un bateau rouge à 21 (?) rameurs dans un double cadre de la même couleur, plus loin des personnages debouts, face à gauche, c'est-à-dire marchant vers la niche, dont les pieds seuls subsistent. Paroi du fond (Est), à droite de la niche, restes d'une barque (décoration primitive ? effacée ensuite ?) au-dessus personnages marchant vers la niche dont un a disparu. Même paroi à gauche de la niche, deux personnages debouts allant à droit : le premier à gauche, peint en bleu, conduit (?) un veau (?) rouge. Grande paroi à gauche de la porte (Nord), deux quadrupèdes (?) momifiés, disque et cornes en tête, encadrés de raies rouges, plus loin un épervier, plus loin encore des personnages face à droite tenant le sceptre 1.

C'est à peine si l'on peut saisir quelques linéaments de ces tableaux et dans ces conditions il devient impossible de préciser la date des figures d'après le style et la facture de ce qui subsiste. Au dire de M. Lacau le bateau à rames *pourrait* (??) dater du Moyen-Empire, le reste de la décoration serait plutôt saïte. Impossible également de préciser si les textes araméens, peints à l'encre rouge et très mal conservés qui coupent les figures, présentent un rapport quelconque avec elles. C'est cependant improbable.

Toute la partie supérieure du registre contenant les figures était peinte sur un banc de calcaire plus friable que le reste, elle a presque complètement disparu emportant avec elle le commencement des inscriptions. En outre, les textes qui subsistent sur les parties conservées ont été endommagés par le frottement du sable, martelés par endroits, et sont coupés dans toutes les directions par les graffiti postérieurs : un araméen, les autres grecs, coptes et arabes. Il est impossible de savoir à quelle hauteur se trouvait la première ligne des textes, et dans plusieurs cas on ne peut également déterminer avec certitude où commençaient et finissaient les lignes. Les difficultés de lecture se trouvent encore augmentées par les couleurs des dessins sous-jacents ; surtout quand ceux-ci sont également peints en rouge.

Je crois cependant pouvoir discerner 17 inscriptions différentes dont l'importance va d'un simple mot à neuf lignes conservées. Les textes ne paraissent pas toujours avoir été tracés par la même main. Partout cependant les mots étaient nettement séparés par des blancs. Pour passer plus facilement les inscriptions en revue, et les situer à leur place respective, je les ai numérotées de 1 à 17 sur le plan reproduit ici, d'après le relevé de M. Lacau. N'ayant pas noté les dimensions de chaque texte, j'indiquerai pour remédier à cette lacune provisoire le nombre approximatif de mots contenus dans une ligne moyenne de chaque texte.

C 4

#### Note sur une Tombe découverte près de Cheikh-Fadl, etc.

#### PAROI (SUD).

No. 1. Sous le grand bateau à rames deux lignes comprenant quelques caractères seulement.

No. 2. Ce texte comprenait au moins 12 lignes (10 mots à la ligne). 9 d'entre elles sont encore susceptibles d'être déchiffrées dans les parties conservées. Je suis incapable, pour le moment, d'affirmer que nous possédions encore le commencement des lignes, mais il est certain que la fin manque.<sup>1</sup> Cette inscription paraît se rapporter à l'ensevelissement du ou des propriétaires de la tombe, l. 8 :

## לא אלל אשבקנה אשכב עמה רחם אנה לחי שגיא ....

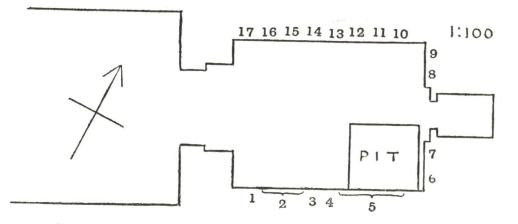
je ne peux l'abandonner, je reposerai avec lui (parce que) j'aime beaucoup Lehi (?)...

On pourrait traduire aussi "j'aime beaucoup la vie" en prenant le 5 comme préposition introduisant le complément. Sous réserve de la vocalisation du nom propre je préfère la première traduction parce que nous retrouvons ligne 3 :

## אשכב עמה רחם אנה לחי שגיא ועלימא ...

je reposerai avec lui (parce que) j'aime beaucoup Lehi (?) et le jeune homme . . .

et à un arrangement conclu avec des tiers à ce sujet :



1. 6, *je donnerai aux prêtres* (?), je crois reconnaître la mention du dieu deux fois, ligne 9, et celle d'un nom divin composé avec le nom du dieu égyptien *Atoum* (?)

<sup>1.5</sup> אתמנרן אלהא זי לה הן אנתן לה .... ATMNRN son dieu. Si je lui donne.

Nos. 3 et 4 ne forment qu'un seul et même texte ; une grande lacune verticale coupe au milieu la partie conservée. On peut déchiffrer quelques lettres de 8 lignes ; il semble que nous possédions la fin des lignes ; tout le commencement manque. Ce texte est séparé du précédent par un espace où tout a disparu excepté deux lettres  $\dots$   $\square \square \dots$  Il ne saurait être question de le regarder comme représentant la fin des lignes du No. 2 parce que sa première ligne (dernière du texte) correspond comme position à la 6ème du précédent. Il était néanmoins la suite logique du No. 2, et devait contenir des clauses défensives contre les tiers

<sup>1</sup> Ici et plus loin je numéroterai les lignes en partant du bas dans l'ignorance où je suis du nombre de lignes manquantes.

qui voudraient éventuellement occuper le tombeau. C'est à quoi font allusion, je crois, les seuls mots pouvant se lire à la suite :

#### $\cdots$ cd אנ[ש] יהוי תמה $\cdots$ Tout homme (?) qui sera là.

No. 5. Le plus important de la série malheureusement dans un état lamentable. Restes d'au moins 11 lignes (12 mots à la ligne), dont 9 semblent susceptibles d'être déchiffrées avec de la patience. Les lignes de ce texte paraissent bien commencer immédiatement à gauche de la robe d'un personnage encore visible. Un large trait rouge vertical marque la fin des lignes de la première tranche du texte, la suite également incomplète par le haut est comprise entre ce trait rouge et un second trait de même couleur qui lui est parallèle. De ce deuxième texte, 5 lignes (7 mots à la ligne) seulement peuvent être utilement étudiées. Je crois retrouver dans ce No. 5 les noms de *Psamétique*, l. 9 et l. 8 deux fois, et de *Taharqa*, l. 6 deux fois, l. 5 une fois, appelé l. 6 :

# תמה יולך בושיא (?) זי מלך תמה Taharqa roi de Kouš (??) qui règne là-bas . . .

Il faut remarquer que le nom de Taharqa est écrit conformément à l'égyptien תהרקא, forme déjà supposée par Oppert<sup>1</sup> comme type primitif de ce nom rendu dans la Bible תרהקה.

La lecture ... כרשיא ... est très douteuse—sans parler de la forme insolite du mot—les deux premiers signes ne présentant qu'une tache informe. Il semble que le peintre avait commencé à ecrire un ים, songeant sans doute à מיצריא, puis qu'il s'est ravisé ne voulant pas donner à Taharqa le titre de roi d'Egypte et de Néchao mentionné comme ... [כרעדה נ[כר] ...

le Pharaon Néchao. Je complète ainsi le nom d'après le texte du numéro 8, voir plus loin.

D'après ce que je crois saisir—ceci sous les plus expresses réserves—le No. 5 relaterait certains évènements se plaçant à l'époque troublée des invasions assyriennes en Egypte. Il retracerait les démêlés de Psamétique I, de son père Néchao, et peut-être d'un autre prince avec Taharqa. Un des morts ensevelis dans la tombe où un de ses ascendants aurait été mêlé à ces évènements comme partisan de Taharqa. La qualification de  $\cdots$  מראי מולאים היישי mon seigneur qu'il donne à Taharqa, l. 5, me semble l'établir. Je ne crois pas que le roi d'Assyrie ait été mentionné dans les parties du texte qui sont conservées et je suppose qu'à la l. 4 l'appellation  $\cdots creat$  de roi mon seigneur s'applique encore à Taharqa.

Entre la fin du No. 5 et l'angle peut-être y avait-il encore place pour un texte où rien ne subsiste.

#### PAROI (EST).

No. 6. Traces de quelques mots dont je n'ai qu'une copie et où je distingue seulement  $\cdots$  אלהא אכר  $\cdot \cdot \cdot \cdot le \ dieu \ dit$ .

No. 7, un seul mot · · · waw · · ·

<sup>1</sup> Mémoire sur les rapports de l'Egypte et de l'Assyrie, dans Ac. des Inscrip. et Belles-Lettres. Mémoires présentés par divers savants étrangers. Tome VIII, lère partie, lère série, page 625.

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Taharqa là-bas . . . l. 4 . . . לפרעה נכו *au Pharaou Néchao* . . . ici nous avons encore affaire aux débris d'un texte historique.

No. 9, texte qui faisait probablement suite au précédent 7 lignes (7 mots à la ligne) reconnaissables, incomplet à droite. Je crois relever l. 5 mention d'une défaite des égyptiens ... הבל מצרין ... de l'envoi d'un message l. 4 פרעה ... et du Pharaou l. 1 הבל ...

#### PAROI (NORD).

No. 10, au moins 4 lignes dont on ne distingue presque plus rien, j'y ai cependant noté la présence du verbe שכב indiquant que ce texte avait un caractère funéraire.

No. 11, une ligne (4 mots à la ligne) incomplète à droite et peut-être aussi à gauche ; il y est question de sacrifices ?

1. 2 et 1

....מתעשתן אנחן אימן המתרקא יישור ....מן כמרן עברן הם קרבא .... .... nous pensons .... Taharqa .... .... des prétres qui font le sacrifice ....

No. 12, traces de 12 lignes très incomplètes ; il y était fait mention, je crois, des pénalités qui frapperaient ceux qui voudraient se faire enterrer dans la tombe et ensuite de certaines fêtes (?).

No. 13, 4 lignes (4 mots à la ligne); ce texte, bien que le commencement des lignes soit très—indistinct, paraît complet. J'y relève la mention .... י בללה בשנת ווו א בללה בשנת '' l'a terminé l'an V.'' Malheureusement de ce qui suit impossible de tirer un nom de roi. Le souverain n'était probablement pas indiqué.

No. 14. Quelques signes tracés au travers d'un reste de peinture.

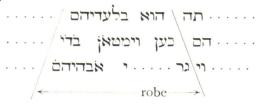
No. 15. Un mot isolé entre un personnage et un objet indéterminé.

No. 16. Restes d'une dizaine de lignes, 4 en haut et 6 en bas du panneau; tout ce qui existait dans l'intervalle a disparu. Les deux textes paraissent avoir été tracés par deux mains différentes. Celui du bas se termine par ....למפרא זי כתב כתבא ..... Entre les deux textes un graffito araméen.

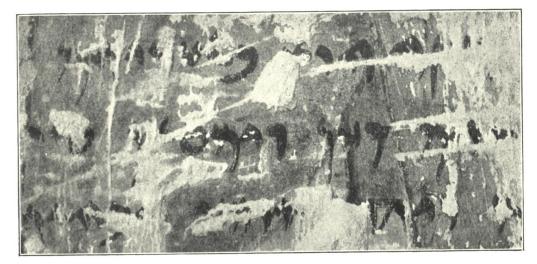
No. 17. Restes de trois mots qui terminaient un texte.

Paléographiquement ces textes ne paraissent pas s'écarter de l'époque des papyrus araméens d'Éléphantine, ainsi qu'on pourra en juger par les quelques lignes reproduites ici.<sup>1</sup>

\* \* \*



<sup>1</sup> Elles appartiennent au début de l'inscription n° 12 et ont été choisies parceque c'est le seul passage où quelques caractères apparaissent entiers. Ils sont peints en rouge sur la robe verte d'un personnage et se transcrivent *matériellement* ainsi :



PHOTOGRAPH OF PRECEDING INSCRIPTION.

La mention de Taharqa, de Néchao et de Psamétique—si elle est confirmée n'apporte pas nécessairement une contre-indication à ce diagnostic chronologique. Ainsi que je l'ai remarqué plus haut, le n° 5 relate vraisemblablement certains évènements quelque peu antérieurs à l'époque où il a été écrit ; au moment où l'Egypte allait passer aux mains des Perses. Le récit nous faisant remonter jusqu'à Taharqa pourrait n'avoir qu'un caractère d'histoire rétrospective rappelant les précédents d'une situation politique qui se serait établie plus tard.

Le tombeau aurait donc été réutilisé pour quelque fonctionnaire civil, militaire, voire religieux, de langue araméenne, dont l'inscription retracerait à grands traits le *curriculum*. Si réellement ce fonctionnaire, comme il semble, dépendait de Taharqa on pourrait songer à un ancien fonctionnaire assyrien qui aurait trahi son roi, Asarhaddon ou Assurbanipal, pour passer au service des maîtres provisoires de l'Egypte. Cela fixerait approximativement la date des inscriptions entre le milieu du VIIème et la fin du VIème siècle avant J.-C. Toutes ces questions ne pourront avoir leurs réponses que lorsque les textes sommairement analysés ici auront été définitivement traduits. Ce travail demandera encore beaucoup de temps et plusieurs visites nouvelles à Cheikh-Fadl pour contrôler la vraisemblance des nombreuses hypothèses qui viennent à l'esprit.

NOËL GIRON.

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#### The British School at Qau.

On coming down to the XIXth dynasty the ivory worker's shop is the principal thing, providing a great number of simple pieces, and some of artistic interest. In late times the importance of the place continued; a batch of 50 solidi of Constantius II, and several Coptic tombstones were found.

The outstanding discovery of the year is one of the earliest Coptic biblical manuscripts. It was a narrow book of nearly a hundred pages of papyrus, containing the gospel of St. John; only a minor part is injured or missing. The handwriting is very regular, most like the Codex Vaticanus in the beginning, and more like the Codex Sinaiticus in the body of it. Thus it ranks in age with the earliest authorities for the text. It differs from the printed version of the Coptic; and when the various readings shall have been collated, it will have much weight in settling which class of Greek readings was recognised by the Egyptians as the authority in the time of our earliest copies. This papyrus book has only one column on the narrow page. It had been evidently buried at a time of persecution, probably under the early Muslimin. It was doubled up twice across the hinge, tightly tied in a cloth, and buried in a jar in the ground, close to Roman graves.

All of this work was carried on by Mr. Brunton, aided by Mrs. Brunton, M. Bach, and Messrs. Frankfort and Starkey. I was prevented from going, owing to the necessity of finishing the publications of previous years. Harageh has been issued; Lahun II is being printed; Sedment, and the Tombs of the Courtiers, are ready for the press. When I was at Oxyrhynkhos in the previous season I found at Sheykh Fadl on the eastern desert a tomb of the Old Kingdom, much defaced, with Aramaic inscriptions. There are very few scholars who can deal with such material, and I asked M. Giron, of the French Embassy, to visit the tomb. He gave much attention to it, and M. Lacau had the inscriptions photographed. The first report on them is in this part, and is of great interest, as pointing to a Jewish settlement so far up in Egypt as early as the reign of Manasseh. Tirhaka is mentioned, showing that the family here went back to eighty years before the fall of Jerusalem. This proves that these people, and doubtless others, were passing freely through the Greek camp of Tahpanhes continually, and must have been familiar with Greek words and objects and thoughts in the time of the earlier prophets. Thus a strong light is thrown on the literary criticism of the prophetic books. M. Giron has preferred now to hand over all his copies and the photographs to Dr. Cowley, who has the greatest familiarity with the subject, and if any further results are possible, we shall be sure to reap them.

W. M. FLINDERS PETRIE.

#### THE BRITISH SCHOOL AT QAU.

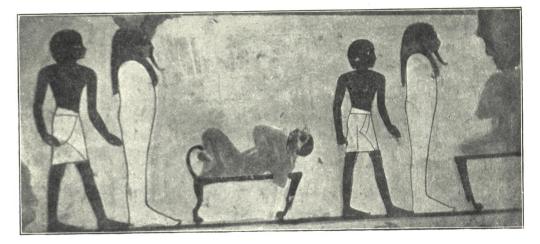
THE work of our Society this year has been entirely at Qau-el-Kebir, a headland of the eastern cliffs, about thirty miles south of Asyut. This was known to have been an important place, probably of the XIth dynasty, under a series of princes, who left large rock tombs. As it was being continually plundered, it seemed desirable to finish what remained. Unfortunately it has in recent times been largely worked by an Italian and by a German, neither of whom have published any account of their work; the Italian plunder is of much artistic importance, yet it lies piled up in a case in Turin, useless at present to anyone. It was therefore rather a work of piety than promise, to follow after so much clearance had been made.

The oldest remains found were a collection of mineralised bones, mostly hippopotamus, but including portions of three human skulls, which, strange to say, had been gathered and piled in an ivory worker's store. The reason is difficult to see, as they are very hard and almost unworkable. The subject may have such importance that it will have to be studied on the spot next year, to find the natural source of these bones. Small prehistoric cemeteries were found of the second period, which we hope to work further next year. A fine group of vases from a tomb of the IInd dynasty were obtained, and many examples of the bright red polished pottery of the IVth dynasty, which has seldom been secured from recorded sites. The historic interest begins with several tombs of the IVth-VIth dynasties, with characteristic alabaster vases. With these are the stone amulets of parts of the body, deities, and animals, which are thus fixed to this period. These amulets continued in use, rather rougher in work, and of ivory and green glaze, along with button badges, which were brought in by the Syrian immigrants, and were continued in use by the Syrian invaders of the VIIth and VIIIth dynasties. With these were also the seals with geometrical figures of men, pyramidal seals with animals, and figures of lions and other beasts with geometrical designs on the base. The whole of these varieties, which have been vaguely known hitherto, are now all tied together, and connected with the two Syrian dynasties. Entirely distinct from this group there appears in the IXth dynasty a revival of the use of the scarab, but always with designs greatly degraded by repeated copying, showing that they are the successors of an earlier class of intelligible designs. These agree with the scarabs of the same period which have been found at Harageh, Sedment, and elsewhere. Thus the use of the scarab has been cleared up evidently as far back as the Old Kingdom.

The great rock tombs still need planning. The architectural system is remarkable. Large sloping causeways were made up to the entrance; in the main tomb the causeway led to a large peristyle court levelled into the rock, like the forecourt of a temple. In the axis a steep gangway of rock sloped up to the portico of the tomb above, cut across by a gap which may have needed bridging when the tomb was visited. The tomb had two rows of columns in the portico, built out in advance of the rock chambers behind it.

these fundamental passages is chapter xvii, 126 following (Budge), and xvii, 79-81 (Pierret), which is accepted by Lefebure and Moret<sup>1</sup> as a reference to Anubis passing over the *Mesqa* skin for Osiris. Budge's translation reads "he who passes through the place of purification within the Mesqet is Anubis who is behind the chest which contains the inward parts of Osiris." The pertinent portion of Pierret's French rendering may be translated "I have traversed the liquid of purification in the place of rebirth . . . this liquid of purification in the place of rebirth shows the box containing the entrails of Osiris." The true meaning of this important text will be perhaps settled by the German version of the Book which is in process of publication.

The *mesqa* however is associated with an Ancient Egyptian rite which has every appearance of being a skin rite, namely, the *Tekenu*.



THE WAPRA SCENE. See next page.

This, as is well known since Maspero first quoted the name,<sup>2</sup> is the designation in many of the chapel tombs of the nobles at Thebes, and at El Kab, of an arresting object, roughly describable as pear-shaped, which is dragged by men upon a small sledge in the funeral procession. It is evidently a man, with a bull's hide about him. That it is a hide is proved, taking all the representations of it together, by the colour and markings. The walls of the chapels in the Theban necropolis are so often seriously damaged where the Tekenu sledge would have probably been—namely, near the ox-drawn hearse—that it is permissible to suppose that in the XVIIIth dynasty it played a significant part in the rites, and was represented pictorially in the majority of the larger chapels. The suggestion has been made that the frequency with which one part of the funerary pictures has been marked out for destruction, points to the work of a single objector, probably Akhenaton, and not to personal enmity to the deceased, as in Menna's

<sup>1</sup> Moret, *Mystères égyptiens*. This work is the most exhaustive that has been written on the subject: based mainly on Egyptological material, the classics, and Golden Bough. He argues that qeni, mest, shed (sed) seshed, shedt khen, khensu, are other names for skins of rebirth, local perhaps, other than the bull. If qeni is a hide, the meaning of mesqen seems clear.

<sup>2</sup> Mission Archéologie française, V. II, p. 435. Mentuherkhopeshef.

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#### THE MAGIC SKIN.

#### (Continued from page 8.)

WHEN we turn to consider the question of Skin Magic from the point of view of Ancient Egypt, little that is decisive can be discovered, although it is clear enough that skin rites were known and practised, the material is too elusive and enigmatic to interpret with certainty.

The most definite piece of evidence is the statement of a certain Wapwatua : "His Majesty allowed me to slay oxen in the temple of Osiris Khent Amenti in Abydos . . and I went forth over the hides there owing to the greatness of the favour with which His Majesty favoured me."<sup>1</sup>

Turning to the next source of evidence we are no longer on such sure ground. This is the body of references to the Mesqa in religious texts. Lefebure has made a valuable contribution to the subject in his discussion of this word.<sup>2</sup> His conclusion is that the Mesqa was originally the skin used in rites of rebirth, and that meska (mesek), mesken, mesqet, which occur fairly frequently in the Book of the Dead, and in tomb-chapel inscriptions occasionally, are cognate words which came to be applied to media and objects and places connected with ceremonial rebirth in more or less contingent degree. To traverse the Mesqa came to be a synonym for passing to the New Life; the roads traversed, and the places reached, country, island, lake, mansion, city, sky, all came to be designated by words of this root with or without the appropriate termination or determinative ; at the same time these same names were used symbolically of the skin. This clearly opens a very wide field for diffuse and mystical theorising. A further flight of esoteric fancy represented the skin as the wings by which the dead reached the sky, or the Cow that bore them across the Sacred Lake.<sup>3</sup> Fantastic symbolism of this sort is characteristic of Ancient Egypt, and indeed all mystical philosophy, and there is no inherent difficulty in accepting Lefebure's results.<sup>4</sup>

The main hindrance is that the texts upon which so much depends, are so variously rendered by different translators. This applies especially to the Book of the Dead. Budge translates Mesqet as the chamber of torture, which is clearly the significance when the deceased prays that he may escape it.<sup>5</sup> One of

<sup>1</sup> Crum, S.B.A., xvi, 133, translation of a Munich stela of the XIIth dynasty.

<sup>4</sup> Crawford (*Thinking Black*, p. 457) mentions that among the Luba (W. Africa), in a certain village, he found he had a reputation for making the roaring in the mouth to cease. His fame for drawing teeth had preceded him. "Demon that roareth in the mouth" might well be a denizen of the Ancient Egyptian inferno from the Book of the Dead, and many apparently mystic names may have a similar matter-of-fact meaning. For example, ch. lviii. 4, "making the hair to stand on end is the name of the oars." If the lake is Osiris, spray may well be regarded as his hair : hence a suggested explanation of the name of the oars.

The products of the sub-consciousness of the savage and the civilized mystic would not unnaturally have the same family complexion.

<sup>5</sup> Naville, *B. of D.*, ch. XVII, accounts for the difference of meaning of the words by comparing the English words "hide," "skin," and "hiding," "beating."

<sup>&</sup>lt;sup>2</sup> S.B.A., xv, 433.

<sup>&</sup>lt;sup>3</sup> Sphinx, viii, 15.

chapel, for instance. In either case the importance to the deceased of the part destroyed is emphasised by the act of erasure.

The earliest representation of the Tekenu known is that of Antefaker, Qurna (early XIIth dynasty). Schetepabra<sup>1</sup> is also of Middle Empire date. With the single possible exception of Mentuherkhopeshef, it does not appear in chapels of the XIXth and later dynasties until the Saitic period, nor in the tombs of the Kings.<sup>2</sup>

But although the archaistic revival of the Saitic brought back Old and New Empire styles of tomb-chapel decoration, the lifeless disjointed manner in which the scenes are displayed are eloquent of ignorance of what they really represent, and there is no reason to suppose that the rites themselves were reintroduced in the old manner.<sup>3</sup> The inscription attached to the Tekenu scene throws no light on its significance, nor does the word itself yield any radical illuminating meaning.<sup>4</sup>

The following are the translations given to some of the best known examples :

a. <sup>5</sup>Antefaker (xi-xii) . . Dragging the Tekenu.

b. Sehetepabra (xii) ... To the West, to the West in peace to Osiris Lord of the place of Eternity. c. Renni (xvii ? El Kab) Dragging the Kenu to this Khent Amenti.

d. Paheri (xviii El Kab) To the West, to the West, the place where thou

art, the land of sweet life, I come (? he comes).6

The following are at Thebes, and of the XVIIIth dynasty :---e. Nebamon ... .. Dragging the Tekenu to Khentamenti in peace

f. Amenemhat

with the people of Pe, Dep, and Hatehe. .. Dragging the Tekenu by the people of Ked (?)

and the Sa Serget priest, going forth and coming in four times (?) by the northern nomes (?) (text corrupt).7

g. Mentuherkhopeshef, which is of peculiar importance for our subject, is considered separately later.

<sup>1</sup> Quibell, Ramesseum.

<sup>2</sup> The figure on the ox-legged bed in the Wapra scenes before the statue, is considered to be the Tekenu by Budge (Book of Opening the Mouth) and Moret (op. cit.) on rather insufficient evidence in view of Maspero's very convincing translation of the text, and the general nature of the Wapra rites (Maspero, Revue de l'histoire des Religions, 1887, p. 164).

<sup>3</sup> In Ramesside and later times the rites centred about the Tekenu Maspero suggests (Mentuh, M.A.F.) may be the theme of the curious vignette to ch. 168, Book of Dead, and stela C15 Louvre. Illustrated Moret, op. cit., pp. 56 and 64. Ancient public rites naturally devolve into secret mystic cults.

<sup>4</sup> Moret translates an inscription in Renni as "he who passes under the skin is this imakhy Renni," whereas Griffith (Tylor, Renni and Paheri) takes the word "khensu" (skin according to Moret) in the usual sense of "travelling." A figure in a leopard's skin stands on the sledge and a man pours " water and milk " in front of it. A damaged part of the scene, however, appears to represent, as Moret remarks, a woman draping a man in a long garment in a shrine on the sledge. See Appendix.

<sup>5</sup> References to above chapels are: a. Davis, Antefaker. b. Quibell, Ramesseum. c. Tylor, Renni and Paheri. d. idem., and Naville and Griffith, Ehnas and Paheri. f. Davis, and Gardiner, Amenemhat. g. Maspero, Mentuherkhopeshef, Missn. A. Français.

<sup>6</sup> Moret renders this : "land of renewal of life" (uhem ankh). But Tylor and Naville both copied it "nozem ankh." Moret relies very largely on his rendering of these two texts.

<sup>7</sup> This text was restored by Gardiner from Menkheperaseneb which is of the same type but also damaged. The peoples mentioned in these texts appear to be denizens of a heavenly Delta whose living forbears accompanied Osiris on earth. For Sa Serget, and the theory that the serget-like object is a human skin, v. op. cit. under f. and Petrie, Apries, Egyptian

In Rekhmare the sledge-drawn Tekenu does not appear, but one may be sure it occupied its place on the surface which has been broken away.

Above we dealt only with the sledge-drawn Tekenu.<sup>1</sup> He is also shown in several chapels lying face downwards wrapped in his egg-shaped skin, on a bull-legged bed.<sup>2</sup> The same scene, without inscription, occurs in Sennofer, where a rope held by men, and the front of a sledge, alone remains of what was probably the sledge-drawn Tekenu. In Rekhmare the inscription reads " Bringing to the city of the skin (Meska with skin determinative) as a Tekenu one who lies under it in the pool of transformation." Here is another of the few tangible pieces of evidence that the Tekenu on the couch is engaged in a skin rite of some kind, as Meska here very clearly indicates.

The following are the usual concomitants in other chapels where it is shown more or less fragmentally and without inscription. Two men stand at either side of small twin-altars facing each other. One hand of each hangs next the edge of the altar nearest him : the other arm of each is raised above the altars towards his companion's. A double stream of blood (?) flows arch-wise under the raised arms over the outer edges of the altars. Next to them a man digs with a large scythe-shaped mattock. Behind him two men stand with their arms raised as over the altars, but these latter are replaced by two small obelisks. Beyond them again, a girl kneels towards the previous scenes at a small altar with pots containing wheat and "bread wrapped up" as superscriptions indicate : bit and taou respectively. Over her head is the legless carcass of a bull, which bears a general resemblance in shape to the Tekenu on the couch. Virey,<sup>3</sup> who has studied all the elaborate funerary scenes in detail, and puts upon them, in their entirety, a rather involved mystical interpretation, sees in the groups just described part of a symbolical representation of incidents in the story of Anpu and Bata (The Tale of Two Brothers). The blood of the bull into which Bata was changed became two persea trees, and these are represented by the obelisks. That the story conceals an ancient Osiris myth is undoubted : the Bitau (Bata) bull is a form of Osiris, "the bull ever born afresh."<sup>4</sup> The offering of the bit taou pots, the corn mixed with earth and spices for germination,<sup>5</sup> the bread representing the body ready to be resuscitated, fit suggestively into a mystical and magical resurrection drama-rite. The evidence is, however, on the whole inconclusive and the rest of the scenes which fill the wide wall space in the corridor of Rekhmare's chapel, in spite of names of officiants<sup>6</sup> and inscriptions, leave the uninitiated as unenlightened as before ; such was probably the intention. The fact that inscriptions occur without scenes, or attached to the wrong scene, and scenes are without inscriptions, and that in no two chapels are the scenes in

<sup>1</sup> Moret's reason for regarding the swathed figure as the Tekenu in the Neferonpet fragments (Capart Donation, Museum de Bruxelles) is not evident.

<sup>2</sup> There is an object in the Eastern Upper Gallery of Cairo Museum very much like an ox-hide rolled into a ball. It rests on a bed of similar form to the above.

<sup>3</sup> Virey, Rekhmare, Mission du Caire, V. 1.

<sup>4</sup> Anpu and Bitau were worshipped at Letoplis. Lefebure.

<sup>5</sup> Virey, op. cit. That this interpretation of the pots is correct is borne out by the Dendera inscriptions relative to the Osiris cult. Moret, Revue de l'H. des Rel., 57, 87.

<sup>6</sup> In Mentuherkhopeshef at least twenty different officials take part, but their titles, as in Rekhmare throw no light on their actions or duties.

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#### The Magic Skin.

the same order, or are all the same scenes shown, render elucidation of the mystery of Egyptian funerary ritual at present impossible.

In the list of tomb-chapels from which material has been drawn for the purposes of this study Mentuherkhopeshef was reserved above for special consideration separately. The scenes have been carefully studied by Maspero and Davis. The difficulty of decipherment has been increased in recent years, as Davis found that the walls had suffered considerable damage since the artist whose drawings Maspero employed made his visit, and that his work is not to be relied upon in view of the errors which he (Davis) has discovered. There is no internal evidence of the date of this chapel. Maspero places it early XIXth from the resemblance of the style to that of Setil's tomb walls, and from the name "Tasuit" of his wife. Davis implicitly regards it as of early XVIIIth, from the style, and from the fact that the only other chapel containing remains of similar scenes is that of Amenemapt, of which sufficient remains to date it by a cartouche to Amenhotep II. It was only recently discovered, and Maspero would have had to weigh it against the evidence of the name Tasuit. This chapel presents many unique and remarkable features in connection with the Tekenu. He is shown leading the procession in front of the ox-drawn hearse. He is not clothed in the skin, and crouches on hands and knees on what appears to be the edge of the sledge; *i.e.*, the sledge is drawn on edge. This has been interpreted to mean that he is lying on his side. In front of the oxen is a shrine containing a ram and a large zad emblem.<sup>1</sup> Over the Tekenu is written "Come drag the Tekenu that he may depart to his city." His sledge is drawn by men in the usual way. Another inscription at this stage reads, "M. coming to see the Tekenu being brought (dragged ?) and the ointments conducted to the mountain top (?)." These ointments or oils are on a sledge between him and the oxen. On another part of the wall, over the Tekenu, still on the sledge, is read, "M. coming in peace to see the dragging of the Tekenu on his sledge." "The Tekenu enters" is above a walking figure in front of M., and "the Tekenu sets out" over a sledge drawn by men as before. In front of the four men who drag it is a feature, on which the bad state of the wall, and the doubtful accuracy of the artist above mentioned, cast some doubt. The latter represented it as a large skin, held up by a man, with the work Meska<sup>2</sup> written over it. A tail remains, however, and does a good deal to restore confidence. In fact it can hardly be doubted that it was as shown in the drawing reproduced by Maspero. At this stage then it would appear the Tekenu was wrapped in the skin, and then set out again in the manner more commonly represented; having reached the city for which he had departed. in the skin.<sup>3</sup>

<sup>1</sup> Griffith (Mendes) considers that the straight horned ram really represents a goat. classical writers being unanimous that the goat was the sacred animal of Mendes. Durst (Lortet, Gaillard Faune Mommifère, p. 107) thinks that the goat replaced the straight-horned ram in the New Empire in the Mendes cult. Lortet's opinion is that the ancient writers confused the straight-horned ram and goat, and that the former only replaced the ram in Ptolemaic times. The fact that the goat was sacred to Dionysos whose cult is traced to Egypt, as well as the bull, weighs in favour of Durst and Griffith. But there is apparently no other evidence that the goat was sacred to Osiris as well as the bull. As god of herds as well as agriculture, one would expect to find it.

<sup>2</sup> Meska written with the ka sign suggests that the skin was a regenerator of the spirit.

<sup>a</sup> In adjoining registers there is a picture of a man flaving a bull. Another man holds the horns of an animal's head, to which is attached the hide. This is clear from the inscription " putting a *skin* behind him." Davis translates "em sa ef" as " behind him." Perhaps " on his back " is a possible rendering :--with reference to the Tekenu ?

No useful purpose would be served by describing the scenes on the two upper registers,<sup>1</sup> in which now and then we get details reminding us of some of the more stereotyped ceremonies seen in Rekhmare and elsewhere. Men digging with the large mattocks before described and several large holes (represented as circles) in two of which are bulls, several slaughtered cattle, and goats evidently being driven to the slaughter constitute their subject.<sup>2</sup>

In the lowest register, however, below the Meska skin, is the scene for which this chapel is famous. Two men kneel facing one another. About their necks, or rather across their necks, are short ropes, the ends of which are held by four men, two to each kneeling figure. Here is evidently a scene of real or mock strangling. Over the heads of the standing men is the sekhem sign of power. The kneelers are "Nubian Anu," and above each of them is a crenelated cartouche containing the double sign kes or keres; each cartouche being supported by two small kneeling figures. To the right of the group two figures lie extended : "laid aside" or "laid on their side." Beyond them again is a pit containing a sledge, towards which two men are bearing the object in question. To the left of the group is a fire-encircled pit containing the word " Tekenu," above signs representing the hair, heart, haunch and hide of a bull; the hide following and perhaps forming a word-group with the word "Tekenu."

The above scene is well known as a unique representation of human sacrifice, or a ceremony which is the survival of it. Moret considers it an actual sacrifice and of the Tekenu, Maspero and Davis consider it very probably the real thing, but not proven; but the latter leans to the side of the mock ceremony more than the former. Davis considers the crenelated cartouches containing the word qeresui or qasui (qasi) to be the name of the place the Anu came from. Maspero inclines to the view that they are destined to be "swathed" and therefore for death in the rite. That the word in the crenelated cartouche is not necessarily a "city name" is shown by the form of a pit containing "black hair" besides which a man is digging with a large mattock; which is of identical shape.

There is a clue perhaps to the reason why such a barbarous practice-of which, however, Egypt with all its high civilisation was not entirely guiltlessshould have been introduced into Egyptian funerary ritual and proudly recorded for posterity in this way. One of M.'s titles was "King's Son"; another "Fan Bearer on the King's right hand." He was also Governor of the Southern Nomes. King's Son Governor of the Southern Lands was the best known title of the Governors of Kush in the XVIIIth dynasty. But King's Son, Fan Bearer, etc., was also the title of some of the Governors.<sup>3</sup>

Reisner's excavations at Kerma in the S. Sudan showed that Hepzefa of Assiut, Governor of Kush in the XIIth dynasty, was buried at Kerma in a

<sup>1</sup> The walls are divided into three registers, partitioned off by vertical lines.

<sup>2</sup> In connection with the pits, goats, and slaughtered bulls, the following is of interest described by Tremearne (Ban of the Bori, 33) which is the continuation of the sacrifice of bull and goat, and skin dance (v. above):-On the 4th day another bull was sacrificed and the 7th day, midnight, a he-goat; every part of this except the flesh being buried in the hole made for the bull's blood. The worshippers washed their hands over the hole. (The magic influence was not to be brought into the house.)

<sup>3</sup> v. Gauthier, Fils r. de K., Receuil des Trav., xxxix, p. 179 seq., criticising length of rule of Reisner's list. (Reisner, Sudan Notes and Records, I, iv, 231.) Davis calls M., Viceroy of Kush, but gives no reason for so doing. His name does not occur in Reisner's or Gauthier's list.

D 2

tumulus in which was discovered upwards of 350 human skeletons grouped about the body on its couch and in the passages.<sup>1</sup> A similar custom appears to have been perpetuated in the Sudan until as late as  $1350 \text{ A.D.}^2$ 

It is a plausible reason at any rate to account for the unusual scenes, in spite of the legend "the Prince coming to see the procedure practised in Kenemt." This is the name both of Kharga Oasis and Diospolis Parva in the Delta, as well, apparently, as a spiritual region like Dep, Pe, and the rest.

Was he Governor of Kharga, and did such practices prevail there also? In any case, whether the *Qasi* are human sacrifices or not, there is no reason to imagine that they and the Tekenu are the same, or subject to the same treatment.<sup>3</sup> This is the opinion of both Maspero and Davis. Nevertheless the Tekenu is, on the strength of the Qasi reliefs, spoken of by a number of writers as a supposed or possible human sacrifice.

It is not certain in what order the registers should be read. It may be that the Tekenu's hide is burned in the pit with the hair of the bull, and that the procession in which his sledge precedes the ox-drawn hearse,<sup>4</sup> which is the bottom register of all, is the representation of the final stage of the journey to the mountain chapel, and that M.'s Tekenu goes to it skinless; having completed the ceremonies at the chapel in the plain below designed for these rites. On the other hand, the remains of the hide of the bull from which the Tekenu's skin was taken, together with the other portions of the animal, may have been burnt in the pit; the designation "Tekenu" applying to the remainder of the hide, or perhaps to the animal which supplied the hide for him. The suggestion is often made that at the last moment the bull is substituted as a victim for the Tekenu. But, as Davis notes, there is nothing in the inscriptions in other chapels to suggest that there is an element of sacrifice at all about the Tekenu. He usually accompanies the hearse-sledge, preceded by dancers to perhaps the cry of the legend " to the West, to the West, the land of sweet life." The concluding words in Paheri, "I come" or "he comes," might, of course, be taken in a sinister sense, but the tomb may be meant. Moreover, the inscription, which is similar to one often written over the ox-drawn coffin, may, in Paheri, be an instance of a legend written to serve instead of a scene, for the coffin sledge and ox-team are not shown, no doubt on account of the small dimensions of the chapel.

To summarise : the following is a suggested explanation of the rôle of the Tekenu, based upon examples of skin and analogous rites quoted from various sources above.

There is clear evidence that the skin played its part in Egypt as a vehicle of magic power, which a human body could absorb by contact with it. The rôle of the Tekenu was to come out of the skin as he lay on the couch. He possibly

<sup>2</sup> Baker, *Ismailia*, Vol. II, 205, quotes the Arab historian Ibn Batuta, whose informant was an eyewitness of the burial of a chieftain, at which many servants and some 30 notables were buried with him; he himself had been selected for the honour but had been able to buy himself off.

<sup>3</sup> In Amenemhat the funeral cortège with bull-drawn hearse is depicted in the bottom register with the Tekenu above it. In Mentuherkhopeshef Antefaker (and probably) Rekhmare, both are (were) in the bottom register. In Anena, Tekenu is in bottom register, cortège not shown. In Horemheb, Nebamon, Ramose, Renni, cortège and Tekenu are in topmost register.

<sup>4</sup> The chief argument against the identity is the obvious one that there are two Qasi.

played the part of Anubis who seems to have performed a similar rite for the dead Osiris.<sup>1</sup> By contact with a sacrificial bull-hide, the Tekenu is the Bull: the Bitau Bull, and when he emerges he is born, like an embryo issuing from the womb, as the bull.<sup>2</sup>

This idea is a natural development from a complex of ideas depending on an implicit belief in the real, almost material potency of the skin; analogous to the development which resulted in a ceremony like the Indian *diksha* described above: the skin represents a kind of uterus, like the Indian antelope skin. The *prana* of this Bitau Bull—the spiritual counterpart of which is brought into being by the acts of the Tekenu thereafter—and all the rites associated with him, react on behalf of the deceased, who himself is thus enabled to revive in his new environment by "sympathetic action." The blood of the bull whose hide covers the Tekenu also plays its part in the drama and causes the persea trees to spring up.<sup>3</sup> The bull is dead but the potent *prana* of his skin can materialise a spirit bull, incarnated temporarily or when required for the purpose of the drama, in the Tekenu, who lives and moves and acts: the blood plays its own and equally important part. "Transformation" or "becoming" (kheper) as a function of the skin (the bed or skin being the lake where the Tekenu lies) is thus intelligible.

In the XVIIIth dynasty another striking rebirth or resurrection rite was employed, perhaps simultaneously with the Tekenu, as an extra reinforcement of power. This is the corn-growing practice, a development no doubt of the other corn-germinating rites, practised in the Osiris temple ritual, which almost certainly forms the subject of pot-offering scenes and other pictures which are met with on the tomb-chapel walls. This is the Osiris corn figure, formed by seed grown in an earth-covered figure of Osiris drawn on canvas, or in other ways. Corn was grown from seed-filled models of Osiris in mud and spices<sup>4</sup> to promote the crops. By an easy transition of ideas, familiar to us from St. Paul's allegory, the life-giving principle was transferred from vegetable life to human life. Each individual seed was a corpse, capable by the magic of water and soil of producing life : the seedling is born out of the grain. When once the close parallel with human life and death seized men's minds it is easy to understand why the vegetative rite should have superseded the animal ; the latter being relegated to an esoteric mystery sublimated so as to be hardly recognisable.<sup>5</sup>

Why is not the Tekenu shown in the funerary scenes in the tombs of the Kings? A plausible answer is, that the King was Osirified in life and therefore there was no need for the funerary rite. A good deal of evidence has been

<sup>1</sup> In tomb chapel 54 Qurna, there is a picture of Anubis being dragged on a small sledge by men, with a chest which is perhaps the chest of oils which generally accompany the Tekenu. Anubis's head also appears above the destroyed area over the small sledge referred to previously as probably the Tekenu's.

<sup>2</sup> The mes root in mesqa is significant. For discussions of other manifestations of the part played by emblems of the concomitants of birth in A.E. ritual, *vide* Blackman, J.E.A., iii, 235, and Seligmann and Murray in *Man*, XI, 11, 97, also Moret, *op. cit*.

<sup>2</sup> For other possible indications of Bitau elements in the ritual, v. Davis, *Five Theb. Tombs*, p. 16, models of the bull, fish emblem, olive tree representing the persea flower, or reed-crowned men representing the soul-flower. These are at present unique scenes occurring in Mentuh. and Amenemapt only.

<sup>4</sup> Fraser, Adonis, Attis, Osiris, 321, 324 seq. Moret, Revue de l'Hist. des Rel., lvii, 87.

<sup>5</sup> Moret, Mystères, pp. 56 and 65.

<sup>&</sup>lt;sup>1</sup> Reisner, op. cit., Vol. I, ii, 68.

established to show that the Sed festival was fundamentally a rite of Osirification.<sup>1</sup> In the scenes representing the King, from Den onwards, he is always shown in the tight-fitting shroud of Osiris, holding the flail. Now on the North Wall of the Birth House of the temple of Amenhotep III at Luxor, there is, almost certainly, among the almost defaced sculptures **a** representation of the Tekenu lying on a sledge, entirely wrapped in the skin.<sup>2</sup> On the East wall the Sed festival scenes are displayed.<sup>3</sup> The King follows the sledge with a long rod held horizontally, directed towards the Tekenu. He is probably about to strike him, but the action does not necessarily imply violence. Purification is a much more likely object.<sup>4</sup> Campbell regards this scene as referring to "ceremonies required to be performed to ensure the new birth celebrated on the East wall." The scene does not suggest two consecutive acts : namely, that the King himself is in the skin. It is more likely that the rebirth rite is being performed by deputy ; an interesting link in that case with the similar rite performed for the dead.<sup>5</sup>

Frazer, in support of the theories he advances to explain the customs and rites he deals with in the *Golden Bough*, justifies his appeal to analogous rites in other parts of the world in support of his explanations by an argument which with the change of a word applies fittingly to this study. "The positive and indubitable evidence of the prevalence of rites in one part of the world, may reasonably be allowed to strengthen the probability of their prevalence in places for which the evidence is less full and trustworthy."

#### E. S. THOMAS.

<sup>1</sup> Moret, Mystères, 73 seq., 188 seq. C. Campbell, Miraculous Birth, 79.

Petrie, *Apries.* Murray, *Man*, xiv, 2, 12. The last two writers would contend that the Sed festival took place when the Crown Prince took up the regency with his ageing father, and that the Osirification replaced the killing of the King. The drama would be completed by the burial of a statue of the King. The large Osiris statue of Mentuhetep IV (?) from the hill-tomb behind the Mentuhetep temple at Deir el Bahri, has been referred to in this connection by Professor Petrie.

<sup>2</sup> Campbell, Miraculous Birth, 73.

<sup>3</sup> Gayet (*Luxor Temple, M.A.F.*) thinks the object on the sledge is the trussed Bitau bull. But Campbell could find no trace of the requisite bodily features.

4 cp. Frazer, G.B., ii, pp. 215, 216, 233, for examples of ceremonial "striking" to dispel bad influences; to make healthy, and to purify generally, living things and inanimate objects.

<sup>5</sup> Campbell says that at Soleb the King and his Ka are dragged into the Hall of Eating wrapped in skins, on sledges, but I have not been able to find the scene on the plate of the publication of Soleb temple. If this is so, a Tekenu rite would appear to have persisted in temple ritual long after it ceased to figure in funerary ritual : *i.e.*, after, roughly speaking, the end of the XVIIIth dynasty.

#### APPENDIX.

The following are passages in the Book of the Dead (Budge) in which the word Tekenu occurs, with the exception of No. 5.

- (1) 58.2. Separate thou from him head from head when thou goest into the divine Mesgen chamber.
- (2) 64.6. Hail ye two hawks who are perched upon your resting places who hearken to the things said by him who guides the bier to the hidden place who lead along Ra.
- (3) 64.11. Make thou thy roads glad for me and make broad for me thy paths when I shall set out from earth for life in the celestial regions. I am one of those about to enter in. (Addressed to Ra.)
- (4) 64.27. I have come as the envoy of my Lord of Lords . . . from Sekhem to Anu to make known to the Bennu bird there concerning the events of the Duat.
- (5) 72.7. I know also the name of the mighty god before whose nose ye set your celestial food and his name is Tekem. When he opens up his path in the Eastern heaven . . . . may he carry me along with him. . . . . Let not the Mesqet make an end of me . . . let not your doors be shut in my face because my cakes are in the city of Pe and my ale in the city of Dep, and there in the celestial mansions of heaven which . . . . Tem has established let my hands lay hold on the wheat and barley. . . .
- (6) 78.3. Let not him that would do me harm draw nigh unto me.
- (7) 100.11. If this be done for the deceased he *shall go forth into* the boat of Ra.... every day.
- (8) 125.4. . . . my protector (?) *advanced to* me and his face was covered and he fell upon the hidden things.
- (9) 149. VIII. 4. The 8th Aat. The name of the god therein is Qahahetep and he guards it gladly so that none may enter. I am the Ennur bird...IX... and I have brought the possessions of the earth to the god Tem.
- (10) 149. IX. 6. The 9th Aat. He has made the city so that he may dwell therein at will, and none can *enter* in except on the day of great transformations.
- (11) 149. XIII. 6. The gods and the khus though they wish to *enter* into them cannot do so.
- (12) 169.13. Thou shall keep away from thee death so that it shall not come nigh thee.

The word Tekenu  $\stackrel{\frown}{\bigcup}$  (also spelt thekenu, kenu  $\downarrow \stackrel{\frown}{\bigcup}$ ,  $\stackrel{\frown}{\bigcup}$ ), is rendered *approach* in the dictionaries, and is, as will have been seen, translated in this sense by Budge in the above passages; transitively in No. 2.

In 6, 7 and 12, this seems the obvious meaning; 9, 10 and 11 perhaps also. In 1, 2 and 8 the obscurity of the text seems to suggest that the word may be used in another hidden sense. No. 1 is especially interesting, as the word taken

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#### The Magic Skin.

is immediately followed by the "skin" word Mesqen, and Lefebure (S.B.A., loc. cit.) has drawn attention to it as a reference to the Tekenu. Nos. 2 and 4 are from one of the oldest chapters of the Book, and are sufficiently obscure to make it probable that the true sense has not yet been discovered.

In 6 out of the 11 passages above quoted there are references to Sun gods or their emblems, the hawk and the bennu bird.

Tekem is mentioned nowhere in the Book except in the passage quoted under No. 5, and is clearly a name of a Sun god. Is it possible that the final syllable was nu? It will be noticed that the Mesqet is referred in the context, as well as the inhabitants of Dep and Pe who accompany the deceased's ox-drawn hearse, with the Tekenu, according to some inscriptions, as we have seen (v. pp. 14 and 20). Tem is also mentioned, the old sledge-drawn Sun god. The sledge-drawn Tekenu would thus be a solar rebirth ceremony.

Two derivations of the word Tekenu have been suggested; both of sinister import: viz., Maspero's (Mentukh, M.A.F.) tek, to cut up, and nu formative and Lefebvre's Tektenu Libyans (Sphinx, 8, 5).

#### WAS APRIES OF ROYAL BLOOD?

THE XXVIth dynasty consisted of the following kings (Petrie, A History of Egypt, Vol. III, p. 325) :---

|                |     |      |      |    | B.C.      |
|----------------|-----|------|------|----|-----------|
| Psamtek I      |     | <br> | <br> | 54 | 664-610   |
| Nekau          |     | <br> | <br> | 16 | 610-594   |
| Psamtek II     | • • | <br> | <br> | 5  | 594 - 589 |
| Uahabrā (Aprie | es) | <br> | <br> | 19 | 589-570   |
| Aāhmes         |     | <br> | <br> | 44 | 570-526   |
| Psamtek III    |     | <br> | <br> | 1  | 526-525   |

It has long been accepted on the authority of Herodotus that Nekau, Psamtek II, and Uahabrā (Apries) were the son, grandson and great-grandson respectively of Psamtek I; and more recently the evidence of the Second Adoption Stele has been regarded as establishing conclusively that Apries was the son of Psamtek II. It will therefore be convenient before putting forward the grounds on which this view may be doubted, to consider what the evidence really amounts to. The Second Adoption Stele informs us that Psamtek II died in his viith year on the 23rd of the 1st month, and that "thereupon his son  $\begin{pmatrix} 2 \\ - \end{pmatrix}$  Apries rose up in his place." The question is whether the word here translated " son " implies physical relationship, as has been assumed. There is well-known evidence that it does not always do so, but into this we need not enter, since the stele goes on to say that Nitocris died on iv.12.4. of Apries, and her daughter Ankhnesneferabrā carried out all the ceremonial of the burial.<sup>1</sup> Now the two Adoption Stelae have demonstrated, what had been conjectured before their discovery, that the succession to the Theban principality was kept up by adoption. Ankhnesneferabrā (daughter of Psamtek II and Takhuat) was the *adopted* daughter of Nitocris, just as the latter (daughter of Psamtek I and Mehitenusekhit) was the adopted daughter of Shepenapt. We thus see that the mere use of the words which we customarily translate by "son" and "daughter" does not compel us to believe in a blood relationship if there is sufficient evidence to displace the normal meaning.

The primary ground for not accepting the ordinary meaning in this case is that the hypothesis of adoption enables us to explain an anomaly, which it is believed has never been satisfactorily accounted for; viz., that Uahabrā, the throne name of Psamtek I, is the *personal* name of his supposed great-grandson Apries. No parallel case occurred in the whole course of Egyptian history, and surely we are entitled to look for some very unusual cause to account for it. The learned Dr. Hincks, of Dublin, discussed the problem as far back as 1855.

<sup>1</sup> Gauthier, Livre des Rois, Vol. IV, pp. 94, 105.

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and came to the conclusion that Apries received his name because he was born in the reign of Psamtek I.<sup>1</sup> It is almost certain that this was so; but Dr. Hincks did not explain why this particular prince was given the throne name of the reigning monarch when others were not. A personal name was often repeated within the same dynasty, and a throne name might be repeated after a long interval in a different dynasty; but there is only the one instance of a king's throne name becoming a later king's personal name. Why? All kings must, except in periods of chaos, have been born in somebody's reign; and it was therefore clearly the rule that princes of the blood were not named in the way so common among the nobility. This is precisely the rule that would be expected to prevail, if only as a matter of convenience. We are therefore forced to one of two conclusions : that the rule was departed from in this one instance only, or that Apries was the son of some high officer, who named him, after the manner of his class, in honour of the reigning Pharaoh. It is submitted that the latter conclusion is by far the more probable.

The circumstances of the times and of the persons are consistent with our hypothesis. Egypt, no longer dominating the neighbouring nations, was in danger from more than one quarter; and there is every probability that Psamtek II left no son of sufficient age to take command in the field. This seems to result from what we know of his daughter Ankhnesneferabra. She was alive in the short reign of Psamtek III,<sup>2</sup> some 70 years after her adoption by Nitocris in the first year of her father's reign, and may of course have lived longer. Assuming her to be 80 years old at this time, she would have been 10 years old at her father's accession, and therefore about 15 to 16 at his death.<sup>3</sup> It is quite possible that any son he may have had was even younger, and there was not likely to be a son very much older. What more natural than to provide by adoption, or even by pretended adoption, for the succession of a king capable of commanding the national forces? It will be seen from the list of the dynasty that anyone of suitable age to discharge this office must have been born in the latter part of the reign of Psamtek I; and, other things being equal, such believers in omens as the Egyptians were would be likely to give the preference to one who bore a royal name. Finally, if Apries, having no claim by descent, were chosen for military reasons, his overthrow by Aāhmes, when he had been found incapable, would be regarded with far less disfavour than a revolt against one who had succeeded to the crown in ordinary course.

And there is a yet further confirmation. Not only does the name of Apries suggest that he was not of royal birth; not only do the circumstances existing at the death of Psamtek II render an adoption highly probable; but there has been fortunately preserved to us a record of a man who fulfils in the most striking manner all the requirements of the situation. A very interesting

<sup>•</sup> Although Psamtek II lived into his seventh year (dying on the 23rd day), he had probably not reigned much longer than five full years. Prof. Breasted has argued (*Ancient Records*, Vol. IV, p. 502) that the adoption of his daughter by Nitocris was a political device that would probably be carried out as early as possible in the reign. If this be so, Psamtek would have come to the throne not long before the eleventh month, his daughter having arrived at Thebes from Saïs on i.11.29. With this agrees the earliest known date of the reign, i.11.9, when the Apis was installed which was born on xvi.2.7. of Nekau, doubtiess in the same calendar year.

find of bronzes at Mitrahiny (the site of the ancient Memphis) described by M. Daressy<sup>1</sup> includes a plaque greatly injured but still in large part legible. The first register shows Psamtek II presenting an offering of incense to certain

(1) Uahabrā-aāqenen was a general, and the son of a general. He did not bear the military title associated with other offices: it was his *only* title. We may therefore conclude that he was of military stock, and that he, like his father before him, made soldiering the serious business of his life.

(2) He was living and holding high office in the reign of Psamtek II. It is important to observe that the plaque is not at all of a funerary character. It was one of eight objects in the same find, all clearly dedicated in a temple as a means of securing the divine favour for living persons.

(3) The general Psamtek-aāneit was born in the earlier part of the reign of Psamtek I and received the king's personal name. When his son Uahabrā was born in the later part of the reign, this son was given the king's throne name. This hypothesis alone will fit the facts.

If it be permissible to look for the future king outside the royal family, no other candidate for the position so eligible as this one is ever likely to be found.

#### F. W. READ.

<sup>1</sup> Annales du Service, Vol. III, p. 139, and Plate II, Fig. 1.

<sup>&</sup>lt;sup>1</sup> Transactions, Royal Irish Academy, Vol. XXII, pp. 432-3.

<sup>&</sup>lt;sup>2</sup> Annales du Service, Vol. VI, p. 131.

#### The Obelisks of Pylon VII at Karnak.

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#### THE OBELISKS OF PYLON VII AT KARNAK.

An article has appeared in the *Annales du Service*, Vol. XXII, p. 245, by M. M. Pillet, Director of Works for Karnak, in which he carefully estimates the height of the two large obelisks which stood before the pylon which we know as Pylon VII. He arrives at 51 metres for the height of these obelisks by calculation, which he cuts down to some 46 metres as the probable height. To me, this seems an over-estimate.

Let us set out the problem, much as the scribe Hori in ancient times put them to the scribe Amenemôpet :—Before Pylon VII we have the base of an obelisk of unknown taper and height. The obelisk dates to Tuthmôsis III. Find the height.

M. Pillet tackles it in this way (I translate from page 245): "The obelisk must have been much larger than the standing obelisk of Hatshepsôwet. Actually, the south side of its base, which is still intact, measures  $3 \cdot 17$  metres, while the mean of the sides of the base of that of Hatshepsôwet measures  $2 \cdot 44$  metres and that of Tuthmôsis I  $2 \cdot 107$  metres only. The difference of heights of the obelisks of Hatshepsôwet and Tuthmôsis I is, in round numbers, 10 metres (29.50 metres and 19.60 metres), that of their bases  $0 \cdot 34$  metre or 34 millimetres per metre (difference in height?). Applying these figures to the obelisk of Tuthmôsis III, which measures at its base 724 millimetres more than that of Hatshepsôwet, one finds  $51 \cdot 77$  metres for the total height."

Generalised, this is equivalent to saying that, if the difference in the height of two obelisks of very different taper<sup>1</sup> correspond to a certain difference of base measurement, then the difference in height between another obelisk of unknown taper and the larger of the two known obelisks is proportional to the difference in their bases !

The height, on this assumption, appears to have been calculated as follows :---

- A base difference of 34 millimetres corresponds to a difference in height of 1 metre.
- Therefore 724 millimetres will correspond to a difference of  $\frac{724}{34}$  or 21.3 metres.

Hatshepsôwet's obelisk is  $29 \cdot 50$  metres high, therefore Tuthmôsis III's obelisk must be  $29 \cdot 50 + 21 \cdot 3 = 50 \cdot 8$  metres.

Have we any other obelisk of the same date having a base large enough to make a useful comparison with that of Pylon VII? That now known as the Lateran Obelisk has a base of 2.87 metres.<sup>2</sup> Let us apply the above calculation to this obelisk, assuming that its height is to be determined from its base-measurement; here the difference in base measurements is 430 millimetres, so that its height will be  $\frac{430}{34}$  or 12.65 metres higher than the obelisk of Hatshepsôwet, making a total height of 42.15 metres. But its height is 32.15 metres only.

<sup>1</sup> By taper I mean the number of units of height required before the obelisk decreases one unit in width.

On the obelisk of Aswan there is the outline for a smaller obelisk, which it was proposed to extract when the original scheme proved to be impossible owing to the granite being flawed (see my *Aswan Obelisk*, p. 8). The base of this is almost of identically the same size as that of the obelisk before Pylon VII; moreover, the width just below the pyramidion is  $2 \cdot 02$ , while that of Pylon VII is found, from a fragment, to be  $2 \cdot 08$  a trifle lower down the shaft, yet this obelisk is only  $32 \cdot 10$  metres high.

The late M. G. Legrain's calculation of the height of this obelisk is correct only if it is assumed that its taper was the same as that of Hatshepsôwet, and that it was *similar*<sup>1</sup> to it in Euclid's sense. This assumption was not justifiable, as the Queen's obelisk tapers 1 in  $42 \cdot 8$ , which is far less than any other known obelisks, whose mean taper is about 1 in 28. Legrain estimated the length of the obelisk at  $37 \cdot 77$  metres,<sup>2</sup> which M. Pillet comments on as being an underestimate.

As I have pointed out in *The Aswan Obelisk*, p. 42, all known obelisks could have been supported at any point in their length without breaking owing to the stress set up internally due to their own weight, and in ANCIENT EGYPT, 1922, Part IV, I show that, if the upper part of an obelisk now at Constantinople formed part of the problematical 108-cubit ( $56 \cdot 7$ -metre) obelisk mentioned in the inscription of Thutiy,<sup>3</sup> then the stress set up, if supported at its centre of gravity, would be far in excess of the ultimate breaking stress of granite.<sup>4</sup> In other words, it would do what a ship often does in an ice bank, and that is break in two. If we assume that, in the adventures of an obelisk between its quarrying and its erection, it never was liable to be supported for an instant at its centre or its ends, then we must look upon obelisks as evidence, not of clever engineering, but of magic.

Taking M. Pillet's most conservative estimate of 46 metres for the height, let us assume the top and bottom bases to be 2.08 and 3.2 metres (that is a slightly stronger obelisk than that which he assumes was erected) and find what stress is set up when the obelisk is supported at its centre of gravity. I will not give this extremely wearisome calculation at length; a similar one is given in full in the volume on the Aswan Obelisk on page 42. The stress which would be set up in the 46-metre obelisk would be more than 1950 pounds<sup>5</sup> per square inch. Granite, if free from flaws, breaks at 1500 pounds<sup>6</sup> per square inch.

It will be seen from the above remarks that (a) mathematically, (b) by comparisons with known examples, and (c) mechanically, the calculations given in M. Pillet's article might be questioned.

Though obelisks seem to have no very definite relation between base and height as was the case of pyramids, where the height is about equal to the radius of a circle having a circumference equal to the circuit of the base, yet all obelisks, about which I have notes, have their height between 9 and 11 times the length of the base, with the sole exception of Hatshepsôwet's obelisk of which the height factor is  $12 \cdot 3$ .

<sup>1</sup> It should be noted that obelisks having the same taper are not necessarily *similar* to (that is scale-models of) one another ; further obelisks, whose upper portions are identically equal, cannot be similar unless the obelisks are of equal length.

- <sup>2</sup> Legrain, Annales du Service, Vol. V, p. 12.
- <sup>3</sup> Breasted, Ancient Records, II, p. 156.
- <sup>4</sup> 2,560 pounds per square inch (180 kg. per square cm.).
- <sup>5</sup> 137 kg. per square centimetre.

<sup>6</sup> 105 kg. per square centimetre.

<sup>&</sup>lt;sup>2</sup> Gorringe, Egyptian Obelisks, p. 145.

#### The Obelisks of Pylon VII at Karnak.

When M. Pillet informed me that he estimated the height as over 45 metres, I pointed out on my plan of the Aswan Obelisk the outline of the reduced scheme, and its close resemblance to the Lateran Obelisk and the base of the obelisk of Pylon VII. It may be that his proofs had been passed before his statements could be amended.

#### R. ENGELBACH.

[The simplest point of view is that most obelisks have a height which is between 9 and 11 times the base. The obelisk of Tahutmes III, at Karnak, was probably therefore between  $28 \cdot 5$  and 35 metres, 94 and 115 feet, high; so it need not have exceeded the Lateran Obelisk.—F. P.]

#### [Correction to ANCIENT EGYPT, 1922, p. 102.

I have been checking the calculations in my article on the Constantinople Obelisk, which appeared in ANCIENT EGYPT, as I have long suspected that an error had somehow crept in, since the figure of 5120 lbs./sq. in. seems so very excessive. I find that, by a slip, I have calculated the stress-formula using the Moment of Inertia instead of the Modulus of Section, which is *one-sixth* the cube of the depth of the obelisk and not, as written, *one-twelfth* the cube. This makes the stress set up exactly one half of that given, namely, 2560 pounds per square inch.

This error does not occur in my volume on the Aswan Obelisk, and I am quite unable to account for my lapse. Fortunately, the error does not in any way affect my argument that the Constantinople Obelisk is not part of the 108-cubit obelisk of Thutiy.

R. ENGELBACH.]

#### REVIEWS.

Egyptian Art.—By JEAN CAPART; translated by W. R. DAWSON. 1923. Large 8vo. 129 pp., 64 pls. (Allen and Unwin.) 16s.

This work is introductory to the general study of Egyptian Art, explaining what should be the common stock of knowledge before entering on the details of monuments. The country, its historic setting, the growth of the art, and the various elements of the architecture are each set out. All this is excellent for the beginner, and worth noting by the student who knows more. There are some points in which it would have been well if the translator had asked for more precision. It must be very confounding to a beginner to find early works spoken of as debased imitations of later designs (p. 53); or prehistoric drawing as a crude rendering of one of the usual figures of late times (p. 53); or the prehistoric knife handle of Gebel Arak described as "imitating the productions of a more accomplished art." Considering that nothing in Egypt before or for centuries after that carving is in the least comparable with its beauty, and that the motives are certainly of foreign origin, the whole treatment of it seems misleading. Regarding the use of bronze, it is certainly not common in the Middle Kingdom, and probably the use of metal statues is as old as Khosekhemui (p. 95). It is rather awkward to say that the Nile soil is incapable of compression, in reality it moves up and down some inches at every inundation. It is misleading to say that there was any "proposal" to add another Sothaic period to the history; it always was recognised by the Egyptians, and the only proposal is that of Berlin to cut it out, and shorten the history. Whether right or wrong in that scheme, at least the source of the difference should be fairly stated. The translator has hardly followed the subject, or there would not be "trenches" for divisions of a period (p. 46), or stoneware (p. 50), or enamel (p. 60), or brick arches upholding masonry (p. 91). More references to English publications might be given, "Royal Tombs " and " Prehistoric Egypt " are not in the extensive bibliography. The plates unfortunately have no link with the text, either by position, or reference on the plates or in the text; these matters need proper editing to make the work intelligible as a whole. With some revision of such detail, and of other minor errata, the manner would correspond with the excellent matter here laid before the public.

The Glory of the Pharaohs.—By ARTHUR WEIGALL. 1923. 8vo. 286 pp., 16 pls. (Butterworth.) 15s.

This is an interesting and amusing series of sketches, or essays, out of the author's full experiences in Egypt; but the title must surely be due to the publisher, as there is little about Pharaohs, and nothing about their glory. In the first paper the right note is struck about the necessity of knowing the country, if one is to understand the past or the present of the people. Mr. Weigall's indignation has been stirred by the removal of antiquities from Egypt; but it is the injury to things which remain there which is reprehensible. Whatever stays in Egypt waits to be destroyed, by the dealer, or the engineer, or the stonemason, or the lime burner, or the fanatic, or the small boy with a big stone. The heart-rending thing is to see the destruction going on, and know that it will always go on, Egyptians



#### Reviews.

being Egyptians. When anything can be removed to safety without damage, it had better be at the North Pole or the Equator than be left in Egypt. There is a reference to the "immediate purchase" of the letters from Tell Amarna; would that it had been immediate, for they were ground about in a sack on donkey back, and waited for months to find a purchaser. It is not personal greed that wishes to see things removed. Rather should every portable valuable go to Arizona than be left in a country where no native cares for it except to sell, and where it may be exposed any year to a fanatical mob which will delight in destroying an image and would be urged to do so by its leaders.

An essay on the preservation of antiquities is occupied with the analogy between Futurists and Prussians; the real enemies to preservation are utter ignorance which has no interests, and mad fanaticism. Till those can be cured, at home and abroad, all antiquities have a short life when they are visible.

In the "Morality of Excavation," the constant destruction going on in Egypt is rightly pointed out as the only alternative to clearing out and removing things by trained hands. It is useless to sentimentalise over leaving the dead as they were laid, when to leave them is to ensure their destruction by their descendants. The conscientious course is to observe, record, and preserve everything that can be of importance. Even here there are plain limitations, or the world would not contain the books that would be written. The sieve needful is a full knowledge of what is known and published already, thus sifting out the new material that is wanted, from the much larger mass of repetitions of familiar things. For this reason, a beginner's notes are of little value; for, if complete, the new facts are lost in the common mass; if incomplete, it is generally the essential matter that is missed. It needs years of experience to know what to neglect, in order to give hours and days to the things that have never been seen before, and from which every scrap of knowledge must be extracted.

The Temperament of the Ancient Egyptians is well illustrated, and a true sketch of conditions of work is in the chapter on excavations. Two chapters are given to a permanently valuable record of the opening of the tombs of Tyi, Akhenaten, and Horemheb. The "Nubian Highway" and "The Alabaster Quarries" recount interesting exploration in the deserts. Some amusing native letters are quoted, showing the real working of the mind, as well as the pathetic attempts at writing English, which are much better than almost any Englishman's Arabic letters. Two gems are not given here: the plaguey hanger-on who tries to recommend himself by saying proudly, "My name is The Limit"; and the hydraulic ram which was put into Arabic by an engineer, and then re-translated as "A watery sheep." Such are enough to cure one of venturing on a foreign language; how innocent, and how impossible, are such attempts. Other chapters are also worth having; and we may thank the author for so truly dwelling on the value of the consciousness of the historic past as an ethical background for present action.

The Exodus in the Light of Archaeology.—By J. S. GRIFFITHS. 1923. Sm. 8vo, 79 pp. (Robert Scott.) 2s. 6d.

This is a well-packed book, written with insight and thought. The position regarding the historic details is reasonable, and after setting that out fully, the various other views are stated, and the reasons for and against them. It is as good and as impartial a statement of the historical position as could be found, and it deserves the widest circulation.

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