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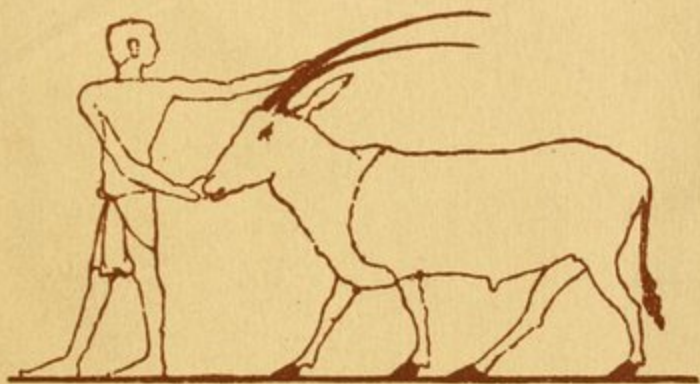
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THE TOMB OF
PERNEB



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THE TOMB OF
PERNEB

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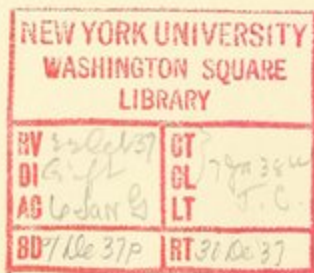
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THE METROPOLITAN MUSEUM OF ART

FEBRUARY, 1916



THE TOMB OF PERNEB
WHICH ORIGINALLY STOOD
IN THE CEMETERY OF THE ANCIENT MEMPHIS
AND WAS ACQUIRED
FROM THE EGYPTIAN GOVERNMENT IN 1913
WAS PRESENTED TO
THE METROPOLITAN MUSEUM OF ART
BY
EDWARD S. HARKNESS

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THE TOMB OF PERNEB

CHAPTER I

THE HISTORY OF THE TOMB
AND THE PRINCIPAL FEATURES
OF ITS CONSTRUCTION

CHAPTER I

THE CEMETERY OF MEMPHIS

MORE than four thousand five hundred years ago—we may say approximately 2650 B. C.—an Egyptian dignitary named Perneb, who held high office under the king at Memphis, erected in the great cemetery of the capital a tomb which should afford enduring protection to his body and likewise stand as a fitting memorial to his name. During the long period when Memphis served as the seat of the kingdom, its cemetery, which lay along the desert edge west of the city, reached such widely separated points as Abu Roash on the north and Dahshur on the south—a stretch some twenty miles in length. In this particular period when Perneb lived—the Fifth Dynasty—the kings selected principally the region centering about the modern Sakkara for the erection of their pyramids; and near these royal mausolea, if possible, the dignitaries of the court always elected to place their own. Thus, Perneb and one named Shepsesre, who was in all likelihood Perneb's son, constructed their tombs side by side at Sakkara, in an area some two hundred

and fifty yards north of the "Step Pyramid" of King Zoser and just outside the great enclosure-wall of that pyramid and its precinct. This king had lived some three hundred years before this time, and with the ambition to erect a monument more imposing than those of any of his predecessors, had constructed this first royal tomb in the semblance of a pyramid, although in the strictest sense it did not have this form. This monument, therefore, was already one of some antiquity in Perneb's time, but we may almost take it for granted that his own sovereign was one of those who had erected their pyramids in the district, and so Perneb had chosen this position for his final resting-place as being as near that of his lord and master as circumstances allowed.

THE MASTABA-TOMB

The cemetery of Sakkara at this period must have formed an imposing sight. With here and there a pyramid towering above its surroundings, the space between was filled with a vast number of these private tombs such as that of Perneb. In many cases they were undoubtedly arranged with a considerable degree of regularity, row by row in streets, with occasionally a broad avenue to afford easier access to the area; while in other sections their positions, following the natural contours of the surface, could not have had so regular an aspect. The tombs were all similar in outward appearance, of a type prevalent throughout Egypt during these earlier periods of its history. Their origin dated back to the very first Egyptian dynasty, since which time their construction had advanced through several definitely marked stages, until at the period we

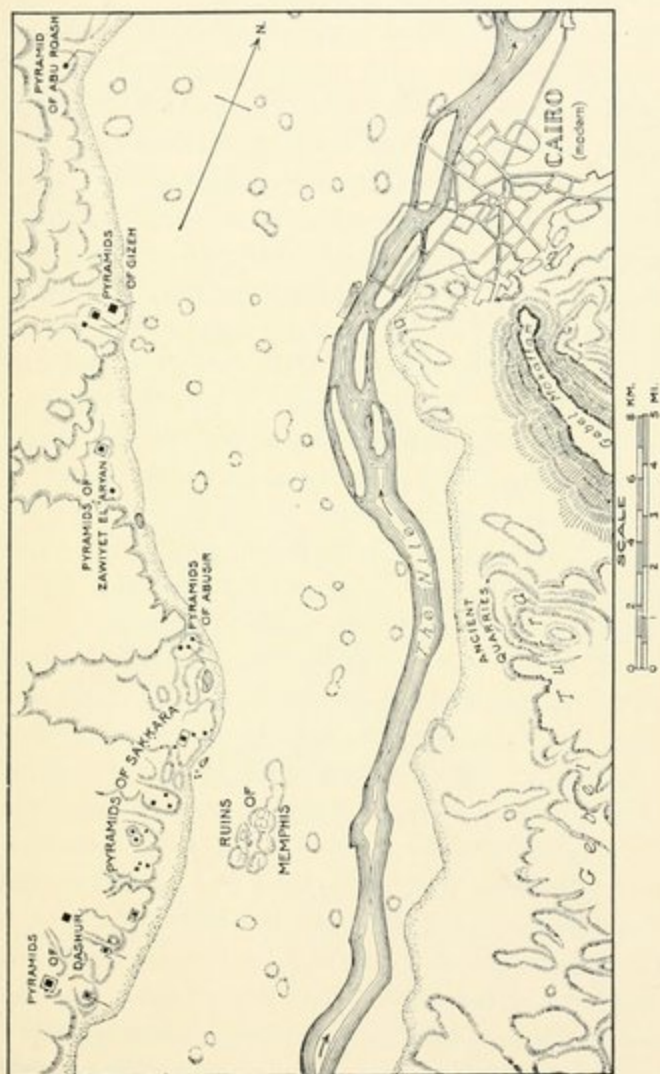


FIG. 1. MAP SHOWING POSITION OF MEMPHIS AND ITS CEMETERY

are considering they had reached their highest point of development. Rectangular in plan, with axis north and south, they were oriented to the points of the compass, as was the case, also, with the pyramid; and, like the latter, their principal face was that towards the Nile, the direction from which they were approached as people came up from the towns and villages in the valley. Constructed generally of limestone, their sides rose in an abrupt slope, at an angle considerably steeper than that of the pyramid, and their tops were flat. Although varying somewhat in size, they averaged quite forty to fifty feet in length, thirty to forty feet in width, and fifteen to twenty feet in height. From their resemblance to the long, flat benches or seats in use in the Egyptian house, they have been given the name of "mastaba" in modern times.

Deep down beneath this superstructure of the tomb was the burial-chamber, reached by a shaft descending perpendicularly through the tomb-structure and the bed-rock of the plateau, forty, fifty, and even sometimes ninety to a hundred feet in depth. In the chamber was the sarcophagus, massive in size and generally of limestone or granite. After the interment the chamber was sealed by a great portcullis, or by blocking the doorway with masonry, and then the shaft was completely filled with rock and gravel and sealed over at the level of the top of the tomb above.

The superstructure itself contained two other essential features of the tomb. The first of these was the chapel or offering-chamber, sometimes elaborated into a series of rooms and columned halls, their walls covered with sculptured and painted scenes depicting the offer-

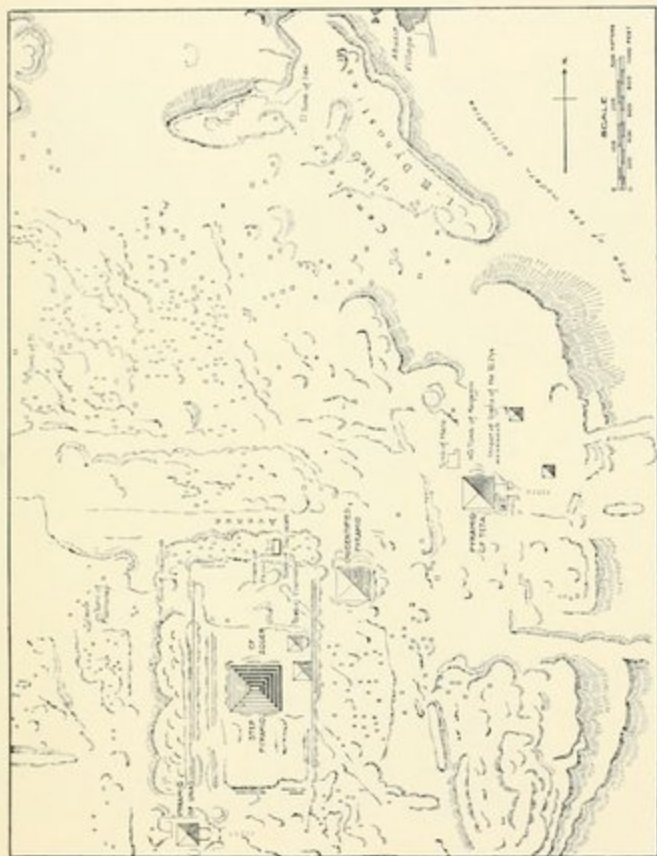


FIG. 2. MAP OF SAKKARA CEMETERY SHOWING POSITION OF TOMB OF PERNEB
 ADAPTED FROM DE MORGAN, CARTE DE LA NÉCROPOLE MEMPHITE, PL. 10

ing-ceremonies, and very often, too, the various activities and pleasures which the owner had pursued in the life he had left behind, and which he expected to continue in the life hereafter. These chambers were entered through a doorway, which was generally in the

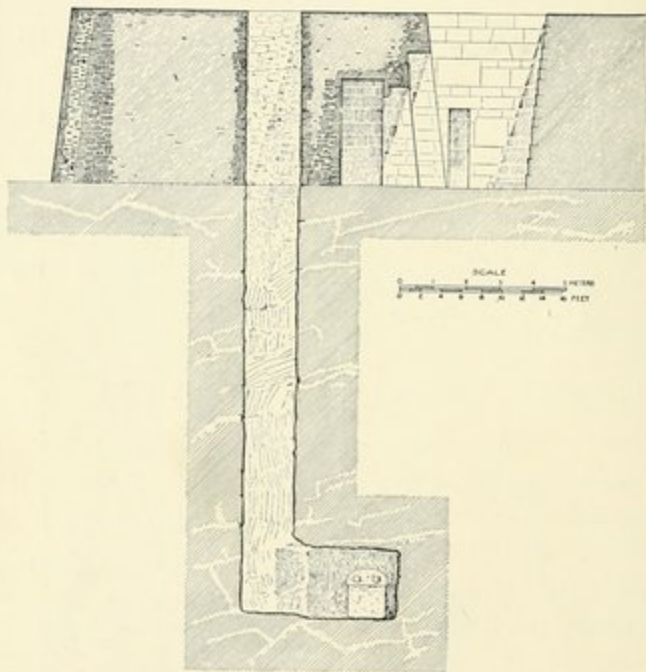


FIG. 3. TOMB OF PERNEB. SECTION EAST AND WEST THROUGH COURTYARD AND BURIAL-CHAMBER.

eastern façade of the tomb, though oftentimes an entrance on the north or south end led to them through a corridor or hall. The Egyptian thought of the deceased as sojourning in the tomb, accompanied by his *ka* or "double," and it was necessary therefore that

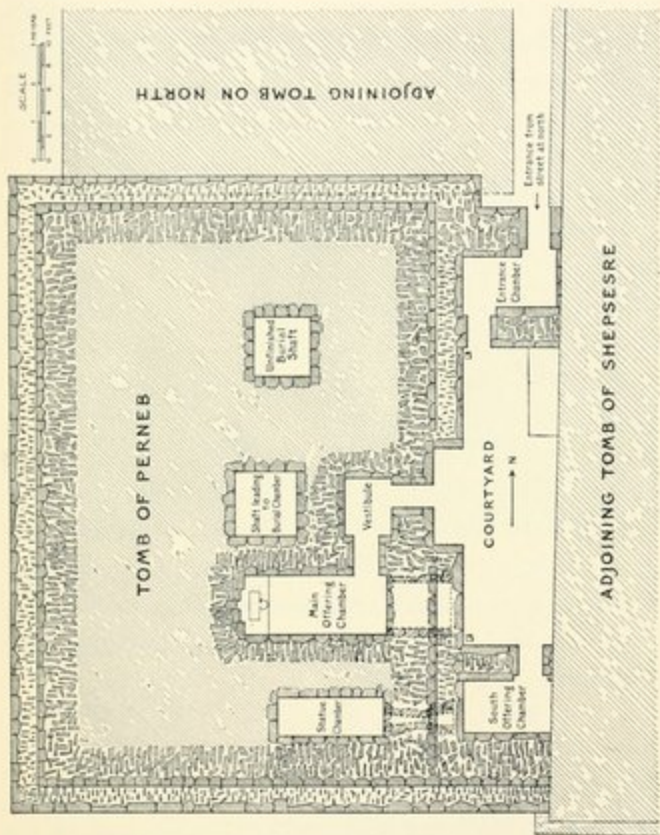


FIG. 4. PLAN OF TOMB OF PERNEB

food and drink be provided for their sustenance. Thus, a noble of Perneb's position often ensured this provision by leaving an endowment, the income from which was to be devoted to the maintenance of the tomb and its ritual. Estates were sometimes included in this endowment, which was the fact in Perneb's case (see page 61); and in one instance it is recorded that a court official of this dynasty appointed as many as eight mortuary priests for the service of his tomb.

The other and final feature of the tomb was the secret statue-chamber, or "serdab," as it has been called, where the portrait-statue of the owner and sometimes those of members of his family stood. This chamber was never accessible, but was constructed in the tomb superstructure somewhere in proximity to one of the offering-chambers. If connected at all with them, it was merely by a narrow slot, which was provided apparently that the deceased, on his visits to the statue-chamber to look again with pleasure on the likeness of his earthly form, might be attracted by the smell of the incense and offerings in the outer chamber and come to partake of the meats and fruits and other delicacies which had been brought.

THE TOMB OF PERNEB

The tomb which Perneb erected at Sakkara conformed in general to this description, though in its arrangement of chambers it was less pretentious and elaborate than the adjoining tomb of Shepsesre. From common features in their construction it is clear that both these tombs were built at one and the same time. The evidence for this, as we shall see later, lies in the

HISTORY AND CONSTRUCTION

manner in which two projecting wings from the façade of Perneb's tomb abutted on that of Shepsesre, and the way in which the construction of the latter was finished in order to meet this feature.

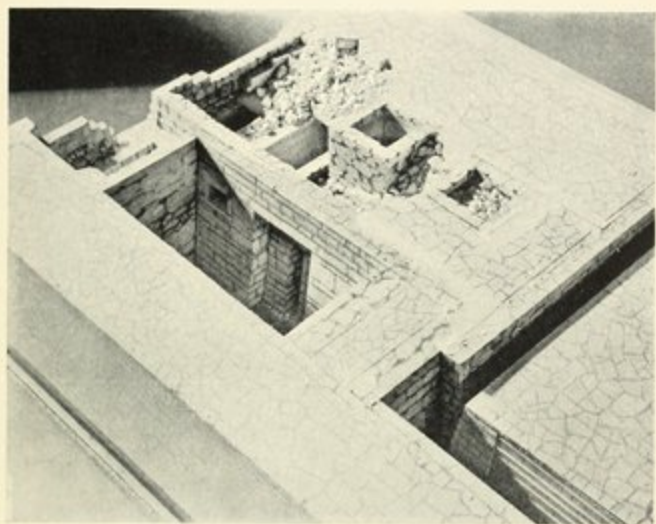


FIG. 5. MODEL OF TOMB OF PERNEB SHOWING ABUTMENT AGAINST TOMB OF SHEPSESRE AND A TOMB TO THE NORTH

ITS POSITION

The tomb of Shepsesre stood to the eastward of that of Perneb, with a space of some eight feet between them, while their southern sides, which were practically in alignment, were about fifteen or twenty feet distant from the enclosure-wall of Zoser's pyramid, and abutted on a street which ran close alongside the base of the wall on that side. Perhaps a hundred feet or more to the north a great avenue, following a natural depression, crossed the cemetery east and

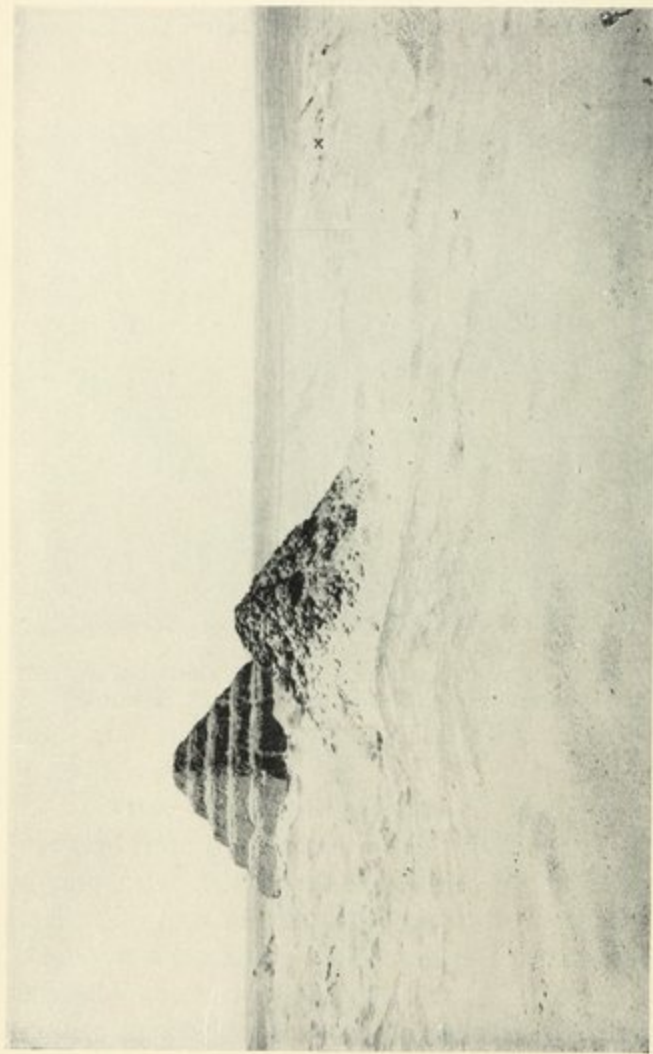


FIG. 6. VIEW SOUTHWEST FROM PYRAMID OF TETA SHOWING POSITION OF TOMB OF PERNEB AT THE RIGHT. IN THE MIDDLE DISTANCE AN UNIDENTIFIED STONE PYRAMID, THE STEP PYRAMID, AND THE SMALL PYRAMID OF UNAS

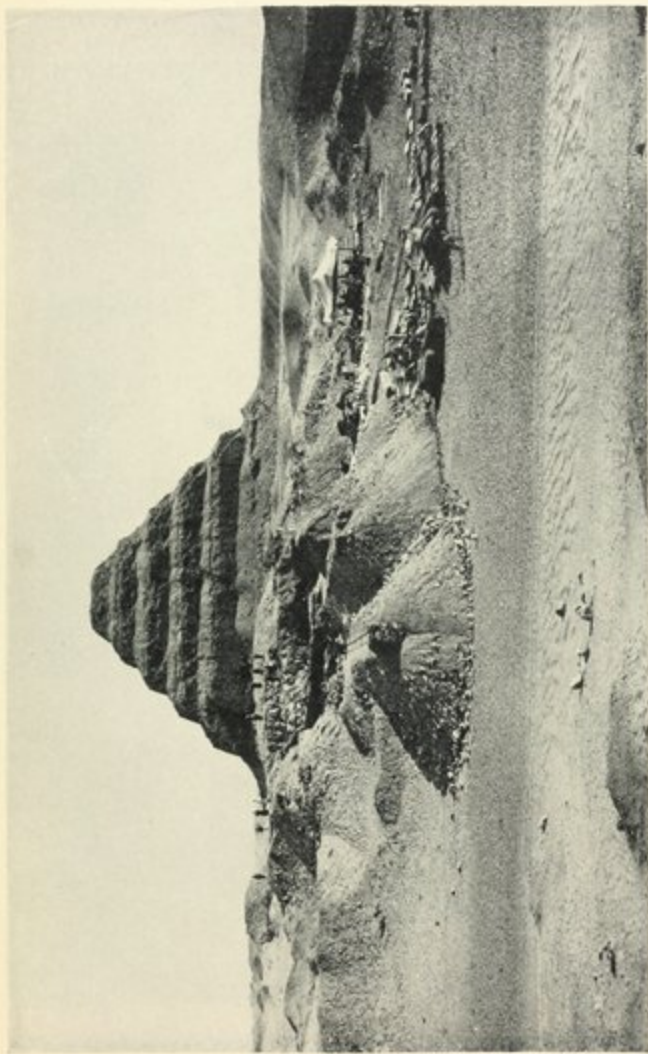


FIG. 7. EXCAVATION AND REMOVAL OF TOMB OF PERNEB. VIEW FROM NORTH.

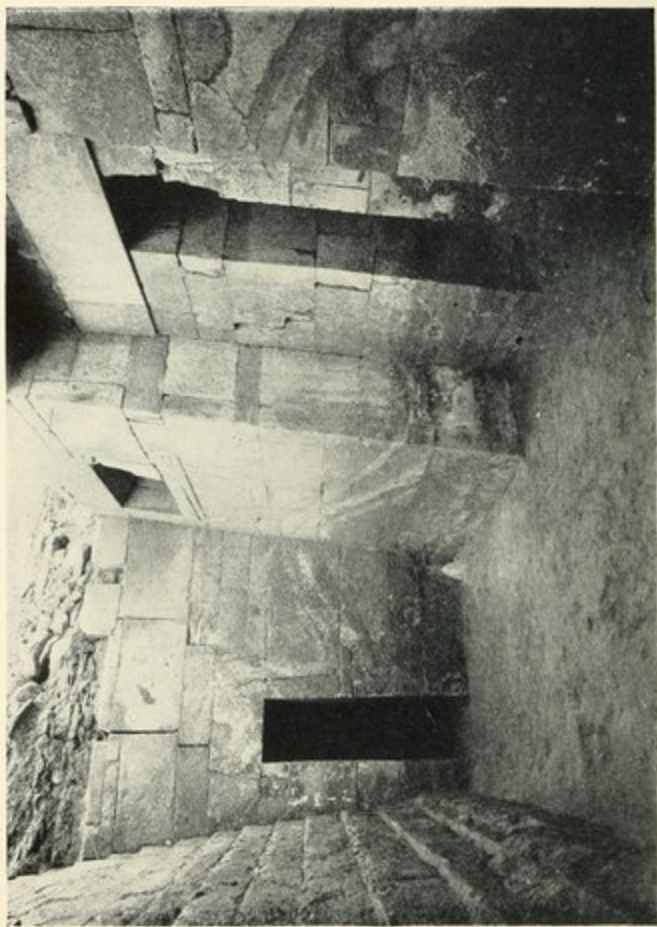


FIG. 8. COURTYARD OF PERNEB LOOKING SOUTH

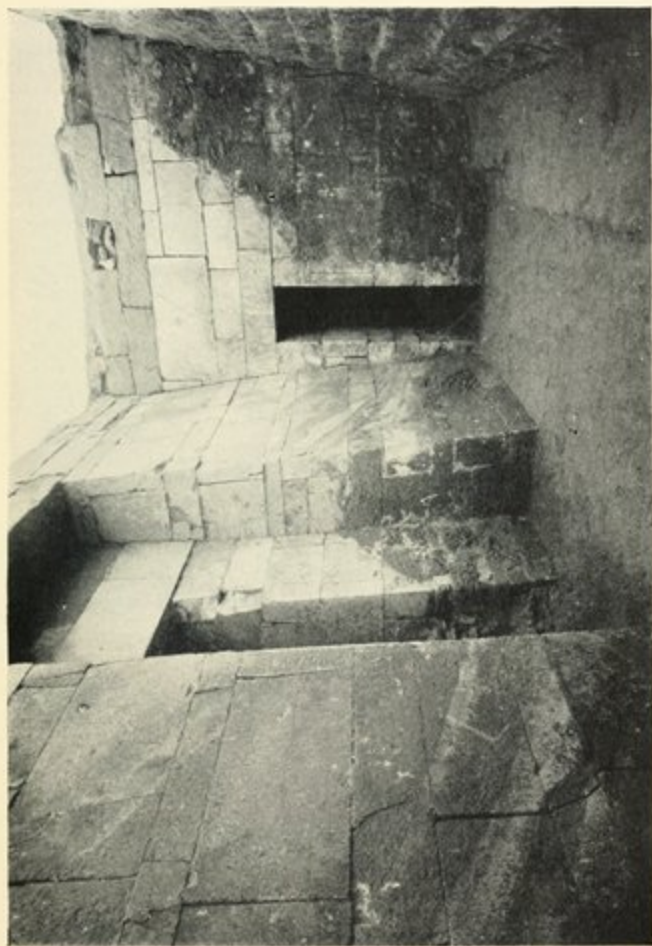


FIG. 9. COURTYARD OF PERNEB LOOKING NORTH

west, and although it is now drifted in with the desert sand its position stands out prominently at the present time (see fig. 2). Shepsesre's tomb was planned to cover in length the entire space between this avenue and the street at the south which skirted the base of



FIG. 10. CLEARING COURTYARD OF PERNEB

the great enclosure-wall. But that of Perneb, whether from lack of space or the fact that it was designed on less pretentious lines, was made to fit in between the street at the south just mentioned and a tomb of similar size, which already stood on the avenue to the north of it. In fact, the space available at this spot for the erection of the tomb of Perneb was actually insufficient to take its length as apparently already planned, and this difficulty was met not by reducing its length at all, but by allowing the sloping north side of the tomb to

HISTORY AND CONSTRUCTION

rest against the end of the earlier tomb, as may be seen in fig. 4. Between this earlier tomb and that of Shepsesre a passage was left from the main avenue as a means of access to the former, and advantage was taken of this in the planning of Perneb's tomb, that



FIG. 11. CLEARING COURTYARD OF PERNEB

it might serve as the means of entrance to his tomb also.

ITS PLAN

The tomb of Perneb followed the regulation rectangular form (see plan, fig. 4), and measured about fifty-four feet in length, forty feet in width, and eighteen feet in height. This plan, however, was amplified by the addition of the two projecting wings on the façade already mentioned, thus forming a courtyard about twenty-five and one-half feet long and eight feet wide

THE TOMB OF PERNEB

between the façade of the tomb and the back of that of Shepsesre. Entrance to the tomb was provided, from the avenue and passage described above, through a doorway and chamber in the northern wing, and so into the courtyard beyond. On the southern side of the



FIG. 12. VIEW SOUTH ACROSS TOMB AFTER REMOVAL OF UPPER COURSES

court a doorway in the other wing led into an offering-chamber and in the western wall of this a slot opened through into the serdab constructed in the tomb proper.

Another, and the principal, offering-chamber was reached through a great recessed doorway, thirteen and one-half feet high and eight feet wide, in the center of the façade. Passing through the doorway in this recess, one entered first a small vestibule and then through a doorway on the left into the chamber itself. This part of the tomb alone was decorated. Outside, to the right

HISTORY AND CONSTRUCTION

and left on the face of the main doorway, was a large figure of Perneb in painted relief, standing in the conventional attitude, with one foot advanced and grasping his staff in his hand. On the roll-shaped lintel of the doorway a painted panel bore his name and title—



FIG. 13. VIEW SOUTH ACROSS TOMB WITH ONLY LOWER COURSES REMAINING

“Perneb, Sole Companion (of the King) and Lord Chamberlain.”

The decoration of this main offering-chamber and its vestibule offers interesting evidence, which will be described in detail in a succeeding chapter, that the tomb was hurriedly finished, and, in so far at least as its decoration was concerned, never completed. This fact, moreover, is borne out by certain conditions in another part of the tomb; for in the southern chamber described above, the walls exhibit an inferior and hap-

hazard type of masonry entirely out of keeping with that in any other part of the structure. If, as seems likely, Perneb had left the erection of his tomb until the later years of his life, perhaps some warning of his approaching end or even death itself rendered the hurried finishing of these features necessary.

Referring again to the courtyard, on the façade of the tomb high up on the left of the main doorway was a window which opened through into the decorated offering-chamber. Hardly of pretentious size as it appears in the façade, this window narrows down toward the inside until it becomes hardly more than a mere slit in the chamber itself. It must be borne in mind that in Egypt, with the blinding glare of the sun on the desert outside, some such reduction in size of the window would be necessary if the lighting of the chamber were to be subdued and in keeping with its purpose.

Of the doorways in the tomb, three had been provided with wooden doors, or at least had been fitted to receive them. These were the two doorways in the northern wing—the outermost, by which persons entered from the street, and the second one, which led into the courtyard—and, on the opposite side of the courtyard, the doorway leading into the southern chamber. In all three cases the doors were single, of the regulation type, with a pivot at top and bottom, swinging in holes in the lintel and the floor. It could be seen that both doorways of the northern wing, moreover, had had sockets, presumably of bronze or wood and containing the pivot holes, which had been set into pockets about six inches square in the lintels; for in each case those who had

stripped the tomb had chiseled away the stone sufficiently to extract them. In the doorway in the southern chamber, however, the pivot hole was simply cut in the lintel itself and was about three inches in diameter. Only the outermost doorway on the street had been provided with a bolt, but the nature of this could not be determined, for the block in the door-jamb, in which presumably it had been set, had been torn out of the wall by the plunderers and was missing.

In the northwest and southwest corners of the courtyard, where the two wings join the façade, was in each case a small blunted obelisk, of limestone and uninscribed—symbols of the Sun-god. In a third corner of the courtyard, the northeastern one, a low bench was constructed of Nile mud covered with white stucco. This measured about six feet in length, two and one-half feet in width, and six inches in height, and may have been intended as a seat on which visitors might rest or as a place where offerings might be placed before they were taken into the tomb during the ceremonies.

The burial-chamber, the position of which can be seen in fig. 3, was reached by a shaft about five feet square and fifty-five feet in depth. The chamber, which opened out of the shaft on its eastern side at the bottom, was roughly cut out of the solid rock and somewhat irregular in shape, measuring approximately thirteen feet in length, nine feet in width, and six and one-half feet in height. It was provided with a limestone sarcophagus, placed along its eastern side, having a rounded lid and measuring in length eight feet ten inches, in width three feet nine inches, and in height four feet ten inches.

THE TOMB OF PERNEB

A few yards to the north of this burial-chamber and its shaft, Perneb, as if to make provision for the burial of his wife or some member of his family, had begun the construction of another shaft which was carried down as



FIG. 14. PROGRESS OF THE EXCAVATIONS

far as the bed-rock and excavated in the latter to the depth of about one yard, but never completed farther.

THE HISTORY OF THE TOMB

Following the death of Perneb, we can trace the history of the tomb through the succeeding ages, both from the evidence which it itself affords and also from the general conditions which prevail throughout the Memphite cemetery. For several generations, at least, the mortuary priests and Perneb's descendants fulfilled their pious duty of visiting the tomb and providing the necessary offerings of food and drink for his sustenance.

HISTORY AND CONSTRUCTION

Then gradually this care ceased, and as neglect fell upon the tomb it was visited by thieves and plunderers who searched it for whatever could be found of value. With considerable labor they cleared the burial shaft of the boulders and rubble, with which it had been filled for



FIG. 15. PREPARING TO REMOVE UPPER COURSES OF DECORATED CHAMBERS, WHICH ARE FILLED WITH SAND TO PREVENT THE COLLAPSE OF THEIR WALLS

the very purpose of thwarting such efforts, and gained an entrance to the burial-chamber. Then breaking open the sarcophagus, they stripped the mummy of its ornaments and scattered about the floor the Canopic jars of limestone, the pottery vessels containing food and drink, and many tiny stone vases and dishes with which the deceased had been provided. At the same time, entering the offering-chamber in the south wing of the façade, they ripped out the masonry framing the slot

which opened into the serdab, and dragged out the life-size cedar statue of Perneb, as well as other smaller wooden statues which stood there. These they broke up on the spot and carried away as fire-wood, leaving on the floor of the offering-chamber a fragment of the head of the cedar statue and an arm and a foot from the smaller ones, as evidence of their work of destruction. Small pottery dishes, evidently representing an offering, had originally been placed by Perneb's descendants on a limestone slab or shelf on the wall of this southern chamber just beneath the serdab-slot, and these the plunderers likewise scattered upon the floor.

And so the tomb remained until, as time passed and political disruption fell upon the kingdom at the end of the Sixth Dynasty, in common with all the others in the cemetery it was drifted over by the shifting desert sands until practically lost to view. Later kings and nobles, from the Middle Kingdom on, found these tombs at Sakkara a convenient quarry from which to obtain well-worked blocks for the construction of their own edifices on other sites, and thus many of them were depleted to hardly more than half of their original height. Moreover, it is only within recent years, since the establishment by the Egyptian Government of its present system of guarding such ancient sites and the still more recent enactment of rigorous laws, that this wholesale destruction of monuments has been stopped. As late as 1843, Lepsius, the leader of the great Prussian archaeological expedition to Egypt, in a letter written from the Pyramids of Gizeh in January of that year, says: "It is really revolting to see how long lines of camels from the neighboring villages come here daily,

and march off again, loaded with building stone. . . . Yesterday a beautiful standing pillar, covered with inscriptions, which was just going to be sketched, was overturned by the robbers behind our backs. They do not seem to have succeeded in breaking it to pieces.



FIG. 16. REMOVING LINTEL OF MAIN DOORWAY

The people here are so degenerate that their strength is quite insufficient, with all their assiduity, to destroy what their great predecessors have erected."¹ That the Sakkara cemetery itself was suffering in the same manner at this time is to be seen in the modern villages of Abusir and Sakkara, just below the plateau, where the walls of many of the houses contain blocks from these tombs bearing inscriptions or relief.

By a fortunate circumstance, however, Perneb's tomb

¹ R. Lepsius, *Letters from Egypt, Ethiopia and the Peninsula of Sinai*, London, 1853, p. 63.

escaped this fate. Aside from a few blocks which had been taken from its uppermost courses at some ancient period, presumably not long after the end of the Old Kingdom, the walls of the tomb remained intact, for apparently at that very time the top of this tomb had been chosen as a convenient spot for dumping the broken stone, rubble, and other debris resulting from the stripping down of neighboring tombs, and thus a great mound was formed above it which blanketed and protected it till its discovery in recent years.

In the spring of 1843, Lepsius, following his work at the Gizeh Pyramids just referred to, moved on to Sakkara, where for two or three months he carried on excavations. In the course of these he discovered the tomb of Shepsesre and cleared its chambers, the plan of which he afterwards published in his *Denkmäler*, as well as the interesting scenes on their walls.¹ He did not clear the exterior of the tomb, however, and so the adjoining tomb of Perneb continued to remain unknown.

Between 1850 and 1860, Mariette, in the progress of the excavations at Sakkara which he conducted for a series of years on behalf of the Cairo Museum, cleared a number of tombs in the immediate neighborhood of that of Perneb, including one of a certain Prince Raemkaï not far to the west of it. Then in 1907 the Expedition of the Metropolitan Museum made application to the Egyptian Government for permission to obtain by purchase the sculptured walls from one of these Sakkara tombs. For this purpose Mr. J. E. Quibell, then Director of

¹ *Denkmaeler aus Aegypten und Aethiopien*, Plates, Vol. I, Pl. 39; Vol. II, Pls. 60-64 bis; Text (edited by Naville, Borchardt and Sethe), Vol. I, pp. 165-170.

HISTORY AND CONSTRUCTION

Government Excavations at Sakkara, carried out the clearing of a number of tombs in the particular part of the cemetery which we are considering. In these excavations he re-opened the tomb of Raemkaï mentioned above, and the offering-chamber of this tomb, together



FIG. 17. HAULING LINTEL OF MAIN DOORWAY

with a wall from the tomb of Nyherkau and his wife, Sekhemhathor, about a hundred yards eastward, was afterwards transported to New York, where they are now exhibited in our Third and Fourth Egyptian Rooms.

THE DISCOVERY OF THE TOMB

In the course of the work mentioned, Mr. Quibell attacked the great mound of debris already described as heaped up on the tomb of Perneb. After cutting

away one side of it he exposed the upper part of the tomb on its northern end, including the roofing blocks of its main offering-chamber. One of these had been broken by the mass of debris which it had been bearing and a part of it had fallen through into the chamber below. Through this opening we were able to drop down into the chamber, and although it was filled to almost half its height with sand which, completely blocking the outer doorway, had drifted in many centuries ago through the vestibule in a gradual descending slope, we were able to examine its condition. The effect of the great weight of the debris which had been thrown upon the tomb was at once discernible, for this mass bearing upon the loose gravel filling composing the core of the tomb had buckled the long southern wall of the chamber inward to such an extent that a great section of it had collapsed into the sand in the bottom. The other walls were warped to a considerable degree and the blocks of several courses shifted from their original positions; consequently it was clear that the tomb could never be opened at any time for public inspection, as has been done by the Egyptian Government in the case of a number of the important tombs at Sakkara, unless the walls of these chambers were taken down and completely re-erected from their foundations.

THE EXCAVATION AND REMOVAL OF THE TOMB

It was for this reason that several years later, in the spring of 1913, Sir Gaston Maspero, then Director General of Antiquities at Cairo, with a constant and friendly interest in the work of the Metropolitan Museum, gave his consent to the proposal for the pur-

chase of the tomb by the Museum and its shipment to New York. Mr. Edward S. Harkness, a trustee of the Museum, generously offered to meet all the expenses incurred in its purchase, as well as in the work of excavating and taking down the tomb and transporting it to



FIG. 18. PACKING LINTEL OF MAIN DOORWAY

the Museum. Preparations were made to begin the work at once, and by the first week in April the writer, accompanied by Mr. Ambrose Lansing, a member of the Museum's Egyptian Expedition, was encamped near the Pyramid of Teta, on the edge of the Sakkara plateau. We had brought with us from the Expedition headquarters at Thebes a group of our most experienced native overseers, who were to undertake the direction of various sides of the work, and these were supplemented by other workmen, to a total of about seventy-five, kindly placed at our dis-

THE TOMB OF PERNEB

posal from the government excavations at Sakkara by Mr. Quibell, to whom we were constantly indebted for advice and help on many sides throughout the undertaking.

In order to dispose of the sand and debris from the



FIG. 19. CLEARING THE STATUE-CHAMBER

clearing of the tomb, a double line of railway was first laid out from the tomb northwards to the edge of the depression marking the broad natural avenue already described. Then, after cutting back the mound over the tomb southward to a point where the enclosure-wall of the Step Pyramid began to appear, the excavation of the courtyard of Perneb was undertaken and afterwards the clearing of the exterior of the tomb on its northern, western, and southern sides, in the order mentioned. With the structure thus exposed, the work of removing

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its walls, block by block, was begun. It was our intention to remove the whole façade of the tomb with the two wings forming the courtyard, as well as all the chambers of the superstructure, in order that when it was re-erected in the Museum its original appearance



FIG. 20. REMOVING BLOCKS FROM FAÇADE

would be reproduced to visitors as it had presented itself to those who had visited it in antiquity. In the case of the south chamber and the serdab, it proved later, however, that owing to the extensive use of plaster-filling in their hastily constructed walls (see p. 19), these could better be shown in the Museum in reproductions, and hence they were not removed.

DETAILS OF ITS CONSTRUCTION

As the work of removal went on, the details of the construction of the tomb began to appear clearly and

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proved to coincide with those found in other similar structures of the period. A core had first been constructed with a facing of roughly dressed blocks of ordinary limestone, which had been quarried locally, laid in mortar and arranged in stepped courses, the face of



FIG. 21. FALLEN BLOCKS FOUND AT THE BOTTOM OF THE MAIN CHAMBER

each course set back one and one-half to two inches from that of the course upon which it rested. This core-facing was backed by a rough supporting wall of rubble, averaging about two feet and a half in thickness, and laid in Nile mud. Then the space comprised within these walls was filled simply with loose limestone chips and gravel to the level of the top. This core of the superstructure finished, the whole was then enveloped in a casing of smoothly dressed and fine-grained limestone blocks, laid in a thin bed of mortar, a space of about a foot being left between this outer casing and the

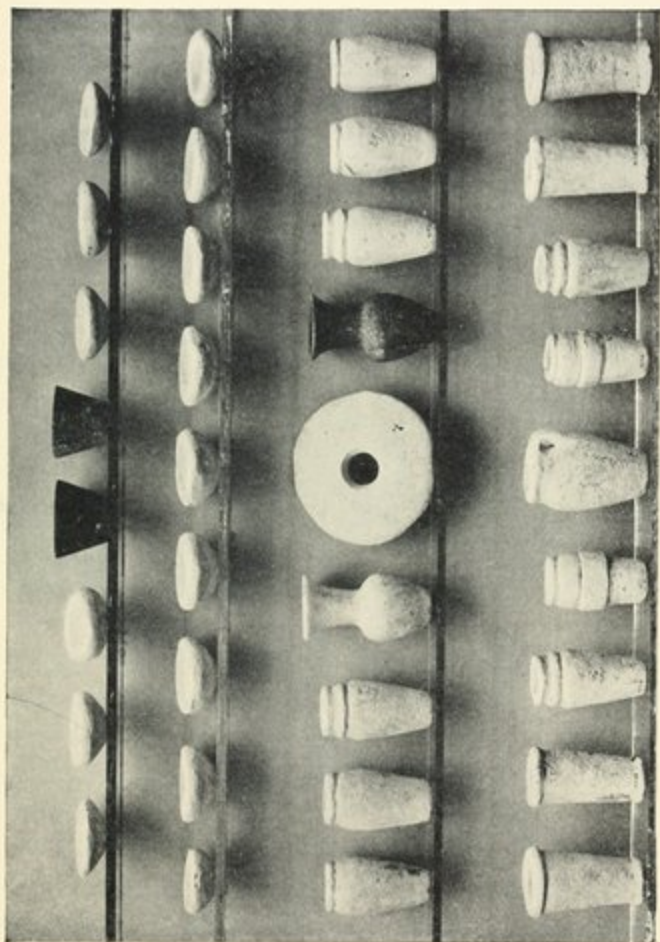


FIG. 22. MODEL VASES AND DISHES OF STONE FROM THE BURIAL-CHAMBER

face of the stepped core, which was then filled with rubble.

Mention was made earlier in this article of the fact that the adjoining tomb of Shepsesre was built at the same time as that of Perneb. The proof of this lies in the fact that the two wings of Perneb's tomb which abutted on the back of the tomb of Shepsesre, were fitted against the stepped core of the latter at the particular moment when that tomb had reached that point in its construction. Then Shepsesre carried forward the final stage in the erection of his tomb by adding its smooth outer casing, but he was obliged to end it abruptly here on the rear side at the points where the wings of Perneb's tomb abutted. Thus that particular portion of the rear of Shepsesre's tomb which lay inside these wings of Perneb's courtyard remained with the stepped face of the core exposed; but these steps were afterwards filled out with white plaster to a smooth sloping face and so presented a finished appearance.

The limestone from which the outer casing-blocks of these Memphite tombs were made, as well as those used in the lining of the offering-chambers, was generally obtained from a quarry renowned throughout Egypt for the fine quality of its stone. This was situated on the eastern bank of the Nile at the modern Turra, almost opposite Sakkara (see the map in fig. 1). In the construction of Perneb's main offering-chamber and its vestibule, the lining of Turra blocks was supported at the back by a construction wall of rubble, in the same manner as in the case of the stepped facing of the tomb. To a certain extent the care used in the erection of these partic-

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ular chambers was disappointing, though entirely characteristic of the methods employed in many of the tombs of the period. In so costly and representative a structure one would have expected, in these chambers especially, where the walls were to be covered with beauti-



FIG. 23. METHOD OF CARRYING BLOCKS

fully sculptured scenes, that the courses would have been laid with fine, closely fitting joints. But this apparently seemed an unnecessary labor to the builders and they used, instead, a liberal amount of plaster in the face of the joints to fill in and conceal the defects. Thus, in the sculpture on these walls wherever a figure happens to cross a joint, its lines have often been modeled across as much as an inch or two of plaster with which the ragged edges of the blocks had been filled out. This difference in material, of course, was rendered practically invisible when the painter after-

wards finished the work by covering it completely with his colors.

In the work of taking down such a structure one has an opportunity which rarely occurs in archaeological work of seeing, though in reverse order, all the various details of its erection. Thus very many of the blocks bore on their backs "mason's marks" scrawlingly written in red ochre, while a great patch of the paint itself was found in the sand just north of the tomb where it had been thrown. At the backs of the walls, too, the mortar bore the hardened imprints of the fingers of the workmen as distinctly as on the day when the blocks had been placed in position, while in some cases little wooden wedges still in sound condition remained where they had been driven into the back of a joint to bring some imperfectly fitting block to a proper bearing. Such realistic traces of the work of the ancient builders go far in the imagination to bridge the ages that have passed, as was the case particularly when we found under the remains of the plaster and mud flooring of the offering-chamber the scattered shells of a number of nuts which some workman had had for his luncheon on the day he was laying the floor.

PACKING OF THE BLOCKS

The method which we followed in the removal and packing of the blocks was in outline as follows: Plans to a scale of 1:20 were made of the face of each wall, showing the blocks of which it was composed, and to each block was assigned a number, which was painted upon its back as fast as this was exposed in the clearing. In this way their position was recorded for the exact

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reconstruction of the walls in the Museum. Moreover, a careful photographic record was made throughout the various stages of the work, and a series of more than four hundred negatives was obtained of the constructive features of the tomb. With certain excep-



FIG. 24. WRAPPING AND PACKING BLOCKS

tions, none of the blocks gave particular difficulty by their weight in the work of removing them, for even the larger ones could generally be lifted out of position by five or six workmen. But it was a different problem in the case of the roofing-blocks of the chambers, and especially the great lintel-block, weighing at least a ton and a half, which spanned the main doorway. These were slowly raised by means of heavy wooden levers and finally dragged away by a line of twenty to thirty men, pulling together in unison and encouraged by the refrain of some stirring native song. It was in this self-

same manner that these blocks were brought to the site and handled in ancient times, but this is only one of many similar instances in Egypt today in which the natives still go on working with the same primitive methods and with no thought of using modern appliances of any kind.

As the workmen dug out the core-filling of chip and gravel and each course in turn was exposed, the blocks were removed and laid upon a flat-car which carried them to a point outside the excavations westward. Here native carpenters and their assistants, engaged from neighboring villages in the valley, were occupied in making the boxes, while camels were bringing the supplies of lumber and packing materials which were being sent out from Cairo day by day whenever our stock showed signs of depletion. A special group of men was assigned to the work of packing. Those blocks which had sculptured or painted faces were specially prepared beforehand by carefully covering those surfaces with tissue paper and cotton held firmly in position by bandaging. The larger blocks were packed separately, one in a box, but in most cases a box could hold two of the blocks without too great weight for transport by camel.

TRANSPORT OF THE BOXES

Each night about midnight the results of the day's packing were loaded on to some fifteen to twenty camels and started on their way to Cairo, where the boxes were deposited in the yard of the Cairo Museum in good time in the morning. Finally, after two months, when the work ended on one of the last days of May, there remained about seventy boxes containing the larger

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blocks of too great weight to be carried by camels. These were loaded on a train of ten flat-cars, specially adapted to the purpose, which were sent out from the Cairo Museum through the kindness of the Director General of Antiquities. In the charge of a native *reis*



FIG. 25. CAMELS BRINGING LUMBER AND PACKING MATERIALS

and twenty men, these cars had been shipped from Cairo by rail to Bedrachein, a station on the railway in the valley, about four miles from Sakkara. After being unloaded at Bedrachein this little train had been hauled along the top of irrigation dikes across to the edge of the desert and then up the slope of the Sakkara plateau to the cemetery. Progress was necessarily slow, for the cars ran on rails fastened together in sections which had to be constantly brought forward in turn from behind the train and laid before it again as it advanced.

When loaded with our heavy boxes it took the train

THE TOMB OF PERNEB

a week to make the return journey to Bedrachein, but once there they were shipped by railway into the yard of the Cairo Museum. The total number of boxes which we finally assembled there, containing the blocks of Perneb's tomb, was six hundred and one. These



FIG. 26. LOADING HEAVIER BOXES ON CARS

were afterwards sent down by railway to Suez, where they were finally shipped in two separate lots on steamers sailing through the Canal direct to New York.

ARRIVAL AT THE MUSEUM AND TREATMENT FOR PRESERVATION

The shipments reached the Museum in August (1913), and then for the period of a year the blocks were carried through a process of treatment for the preservation both of the stone and of the color on the painted reliefs. All

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Egyptian limestone contains, in varying quantity, certain salts which, in the dry climate of Egypt, remain practically inactive, but with the humidity which characterizes our own, are likely, if they exist in the stone to any considerable degree, to cause its disintegration



FIG. 27. TRAIN READY TO LEAVE SAKKARA

within a comparatively few years, and in some cases within a corresponding number of months. The problem as to the best method to be followed in any particular case is by no means an easy one and for many years the authorities of some of the older museums abroad have been engaged in a very careful study of the matter. When the Egyptian department of this Museum was created in 1906 and its expedition was sent to Egypt to begin the work of excavation there, the problem almost immediately became a serious one to us because of the

unusually large amount of limestone relief-sculpture yielded by the work in the pyramid-field at Lisht. Treatment of the stone by some of the older methods did not prove entirely satisfactory and, accordingly, for some five years a chemist was employed in the department in carrying out experiments in the use of other mediums than those previously employed. Experience has proved that, if the fibre of the stone is strong enough, the method to be preferred is that of immersing the blocks in water until the salts have been removed in solution, and thus the stone is freed of these destructive agents for good and all. But this cannot be done without first subjecting the sculptured or painted surfaces to treatment which will enable them to withstand the action of the water during the long period that the block may be immersed. Our experiments on this side have produced very satisfactory results and under ordinary conditions this process would have been employed in the case of Perneb's tomb. It was seen to be impossible, however, owing to the liberal use which had been made of plaster on the faces of the painted blocks, in order to fill out and conceal imperfections in the stone, over which the color had afterwards been applied. These blocks would have been injured by immersion, and so the exactly opposite process was adopted of treating the entire surfaces of the blocks in such a way as to "bottle up" the salts and prevent the air from getting access to them.

RE-ERECTION OF THE TOMB IN THE MUSEUM

While this work was being carried through during the winter of 1913-14, preparations were begun for the

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re-erection of the tomb. The position which had been chosen was in the large gallery known as D₄ at the northern end of the Fifth Avenue Hall, one of the few galleries in the Egyptian department which afforded possibilities for the purpose. Here, back of the north-



FIG. 28. HAULING TRAIN IN THE DESERT

ern wall of the room, advantage could be taken of an interior courtyard in the Museum, where, by breaking through the wall, a special building could be constructed to house the main offering-chamber and the serdab. The expense of this construction in the courtyard, as well as of structural changes which were necessary in the gallery itself, was again generously borne by Mr. Harkness.

In August, 1914, the re-erection of the façade and chambers was begun, and was successfully brought to

completion at the beginning of February, 1916. In rebuilding the tomb a few changes have been made at certain points in the structure, which were rendered necessary in order to adapt it to its present surroundings or more readily to permit the entrance of visitors to its chambers. Thus, the main doorway in the façade has been widened about ten inches over its original width of one foot ten and one-half inches, and, on account of the thickness at this point of a wall of the Museum which this doorway pierces, the entrance passage into the vestibule has been lengthened four feet three inches. The doorway between the vestibule and main chamber has also been widened six and one-half inches. A number of blocks, taken for the purpose from other parts of the tomb which were not to be re-erected, have been introduced into the uppermost courses of the façade, to take the place of the missing ones stripped from these courses in ancient times. The reproduction of the south chamber and the serdab has been carried out in plaster blocks, following as closely as possible the original arrangement of the courses in their walls, and, in order to illustrate the manner in which the portrait-statues of the deceased occur in these tombs, a cast of another statue found in a Sakkara tomb, and now in the Cairo Museum, has been placed in the serdab in the position occupied by the missing wooden statue of Perneb destroyed by the ancient plunderers. Also in the entrance-doorway in the north wing a wooden door has been hung, which has been reproduced from the representation of a door on the walls of a contemporary tomb at Gizeh and from known facts regarding their details.

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Thus, this tomb of Perneb, the most imposing monument that has come to any museum from Egypt, may be said both to illustrate in an unusually complete degree the massiveness and dignity of the funerary architecture of the ancient Egyptians, and at the same time, in the fortunate preservation of its brilliantly painted walls, to express something of that gaiety of color with which the sombreness of the tomb was tempered in their minds.

ALBERT M. LYTHGOE.



FIG. 29. OUR CAMP AT SAKKARA

THE TOMB OF PERNEB
CHAPTER II

A STUDY OF THE DECORATIVE
AND INSCRIPTIONAL FEATURES
OF THE TOMB

CHAPTER II

THE FIGURES ON THE FAÇADE

THE ancient visitor to Perneb's tomb was greeted at the very doorway by figures of the great man carved in low relief and representing him in the full dress of an Egyptian of high rank (figs. 30 and 31). To the immediate survivors these sculptured figures must have been a startling reminder of the appearance of the departed nobleman as they had often seen him in life, issuing, staff in hand, from the door of his house. Even the features, with the slightly arched nose and firmly modeled mouth, while not a detailed portrait, were strongly reminiscent of the proud and noble countenance of the deceased grandee. The impression of his presence there before them must have been the more vivid in that among the complex and often contradictory views about the life after death was the belief that the departed could walk forth from the tomb to revisit familiar haunts as freely as in the past he had gone in and out of his earthly house.

While the conception underlying these figures is of the deceased just leaving or entering his dwelling, the

theme was treated with regard for decorative effect and with that feeling for balance which is particularly characteristic of Egyptian composition. We have Perneb represented not once, but twice, in figures which are nearly symmetrical rather than repetitions of each other. Both figures are directed toward the door. The staff in one instance is in Perneb's left hand, in the other in his right; it is the left foot which is advanced in one figure, the right foot in the other, thus keeping in advance the limbs which are the more distant from the eye. The symmetrical arrangement was doubtless extended, following the usual scheme, to the vertical lines of hieroglyphs, now almost obliterated, in which, above the figures, the long list of titles of the dead man was recorded. The hieroglyphs were so placed that all the birds, animals, and human figures faced the doorway, with the result that, on one side, the columns and the individual signs must be read in the order from left to right, on the other side, in the order from right to left. Indeed, few forms of writing lend themselves to use in decoration so readily as did the Egyptian on account of the pictorial character of its signs and the fact that it could be written vertically, horizontally, from the right, or from the left. The figures of Perneb face the doorway, not, we may be sure, to particularize that the deceased is in the act of entering the tomb, but because the front of the figure with its more open composition looked better turned toward the opening and the sturdy, almost closed outline of the back better toward the unbroken stretches of the façade.

The figures exhibit many faults of drawing—the eye placed in front view when it should be in profile; the

outer side of the foot drawn as the inner side, with only the great toe showing; the unnatural grasp of the hand on the staff and the confusion in the position of the thumbs in the figure looking to the left; and especially the twisting of the figures due to rendering the shoulders in front view, the trunk of the body in three-quarters' view, and the legs and head in profile. All these obvious departures from familiar canons are too apt to blind the untrained modern observer to the simple dignity of conception, beauty of line, and fitness as architectural decoration of much of this early work. It is surprising, however, how soon the eye becomes accustomed to the Egyptian conventions and ceases to be disturbed by them. What wonder, then, that the average Egyptian, who knew no other way, found in them an entirely lucid and satisfying representation of the human form! We cannot in this brief consideration go into the difficult and fascinating inquiry as to how the minds of the men who set the standards for drawing operated, but it is well to recall the fact that the early Egyptians had no precedents to influence them, no wealth of inheritance from past civilizations to affect their own way of analyzing and of recording what they saw about them. Their conventions, once established, were cherished and handed down in the schools with characteristic conservatism. Yet it would be a mistake to suppose that Egyptian wall-decorations are all monotonously uniform. The figures before us are typical of the formal and correct way of representing important personages, which was only slightly modified as time went on; here and there, however, among minor figures, where the accepted standards held less rigidly, one finds interesting



FIG. 30. FIGURE OF PERNEB ON THE FAÇADE TO THE LEFT OF THE DOORWAY



FIG. 31. FIGURE OF PERNEB ON THE FAÇADE TO THE RIGHT OF THE DOORWAY

experiments in drawing, such as a shoulder sketched from the side, showing that bolder spirits among the draughtsmen were groping for other methods; and in the subtler qualities of style there are changes from generation to generation which render the reliefs of the different periods, and of the various schools of decorators, full of individual interest and charm.

The costume of the figures does not impress one today as especially elaborate, yet it presents certain refinements as compared with the dress of the humbler folk of the time. The one garment is a kilt of white linen reaching barely to the knees and extending in front in a triangular projection which it would seem must have been held in shape by some kind of starch or support. A more awkward style can hardly be imagined, as the fullness in front was much in the way especially when the person was seated. The costume includes, besides the kilt, sandals on the feet, a broad collar made up of rows of cylindrical beads and finished along the lower edge with beetle-like pendants, a wig covering the ears and extending down on the shoulders, a short false beard on the chin, and an amulet or decoration suspended about the neck by a cord on which cylindrical beads are strung at wide intervals, leaving the cord visible between the beads. The amulet—or decoration, as the case may be—imitates in form a knot of cloth, and was probably cut in some hard stone. The same knot occurs among Egyptian hieroglyphs, but its significance when thus worn is lost to us. The beads composing the collar and those strung on the cord were of semi-precious stones and gold, or of the less expensive materials, glazed and gilded compositions having the

appearance of the stones and gold. The object in the lowered hand is a long, narrow piece of white linen folded over. It is carried only by men in the higher stations of life, but is hardly an insigne of rank; we may with greater probability imagine Perneb wiping his brow with it or using it to flirt the ever-annoying flies away!

DATE OF PERNEB'S ACTIVITY

It would be interesting to know which of the monarchs of Egypt Perneb served, but we can only say that it was one of the later kings of the Fifth Dynasty, and that his activity probably fell mostly or entirely within the twenty-seventh century before Christ. This opinion is based on a number of bits of evidence, among them a quarry mark on one of the largest of the lintel blocks, giving the name "Ankhisesy." Building material was marked in the quarries, usually with the name of the person for whose tomb it was intended, that there might be no mistake in delivery (see Perneb's own quarry mark, fig. 32). In this instance, either by error or gift, the block got diverted to Perneb's use. Ankhisesy—"Isesy lives"—must have been born in the reign of King Isesy, next to the last of the Fifth Dynasty kings, or he would not have been so named, and he is probably to be identified with the "king's son, Ankhisesy," whose tomb was not far distant from that of Perneb.

TITLES ON THE LINTEL IN THE ENTRANCE PASSAGE

For the visitor to the tomb who did not pause to read the long inscriptions on the façade, the name and two principal titles of Perneb were made evident on the

lintel (fig. 33) at the inner end of the entrance passage, just above the opening into the first chamber. They are inscribed in large ornamental hieroglyphs, the colors of which were originally much stronger before the drifting sand wore away part of the paint. The inscription exemplifies well the monumental decorative style of writing as contrasted with the cursive of ordinary use, represented in the quarry mark of figure 32. This short inscription is written from right to left in what was the normal direction when no considerations of composition imposed another. The first four signs compose the title "Sole Companion," which denoted a rank at court. When work on the tomb began, Perneb was only a "Companion," as the quarry marks present on the majority of the blocks of the façade and chambers attest (fig. 32), but by the time the decoration was in progress he had risen to the higher rank. The title "Sole Companion" of the monarch, whatever its origin may have been, was not at this time understood in any literal sense, but was borne by a large proportion of the higher officials and men of distinction of the day. It seems especially appropriate to Perneb, however, for he occupied a somewhat intimate position in the king's household. The next two signs, intervening between "Sole Companion" and the last four, which spell the name, give a hint of his real occupation in life; we may render them freely "Lord Chamberlain"; literally they mean "Palace-Leader" and the word used for "palace" is that which denotes the inner private living-rooms of the king and his family, as distinct from the public rooms where he held audience and conducted the business of the realm.

SCENE IN THE VESTIBULE

The scene on the farther wall of the first small chamber, or vestibule, was one to recall to the visitor Perneb's private activities when on earth (fig. 34). He is repre-



FIG. 32. QUARRY MARK, "THE COMPANION, PERNEB," IN CURSIVE WRITING

sented inspecting the cattle and produce which are being brought to his tomb, as the legend in the first of the vertical columns of hieroglyphs (counting from the right) makes clear: "Looking at the gifts brought from



FIG. 33. INSCRIPTION, "THE SOLE COMPANION, THE LORD CHAMBERLAIN, PERNEB," IN ORNAMENTAL HIEROGLYPHS

the villages of the North and the South." Even so he must have appeared in life when his servants bore him out in his litter to review the work on his estate and receive the reports of his accountants. The litter has

been set down on the ground and a scribe holds an open papyrus roll before the master; two other accountants follow with their reports under their arms, while the writing utensils are deposited on the ground. In two of the registers cattle are being led forward for inspection; the powerful animals are controlled by ropes passed under the lower jaw, through the mouth, and several times about the neck. But the oryx which appears at the top of the wall was gentle enough to be guided by the attendant's grasp on his horns and muzzle. The third register counting from above contains a representation of Perneb's wife and sons. The wife was of nobler birth than her lord, being a "King's Descendant," but her name is not recorded. Behind her are "his eldest son, the priest Userneter," and "his son Shepsesre." There are reasons for believing that the sons may be identical with the Shepsesre and Userneter whose tombs were in the immediate vicinity of Perneb's (see map, fig. 2). Mother and sons are crouched on the ground in characteristic Oriental postures and their subservience to the head of the family is emphasized by the disparity in the size of their figures. Perneb himself is comfortably ensconced on a low seat which scarcely raises him above the floor of the litter; a cushion, the end of which is thrown over the back of the seat, contributes to his ease, one hand rests on the high arm of the seat, his knees are drawn up to his breast, and he is protected from the hot sun by a canopy roof and side curtain of matting. He appears here in morning dress, for he wears a plain, tight-fitting kilt and has left off his wig and false beard, exposing his closely cropped hair.

The five short, vertical lines of writing above the lit-



FIG. 34. PRELIMINARY SKETCH, PERNEB INSPECTING GIFTS OF
ESTATES OF THE NORTH AND SOUTH

ter give our dignitary's titles and epithets in full: "Sole Companion, Chief Nekhebite, Keeper of the Crowns, Privy Counsellor of the Duat-Bureau, He who Decks the King, Favorite of His Lord, Privy Counsellor of All Messages, In Honor before the Great God." Keeping the crowns and decking the king were among his prerogatives as "Lord Chamberlain"; the nature of the Duat-bureau has yet to be investigated, but it may well have had to do with the administration of the king's private estate rather than with public affairs, while "Chief Nekhebite" was an old and honorable priestly title which had its origin in Nekheb, the capital of the South, before the union of all Egypt under one king.

It has been pointed out that Perneb's tomb was never finished (p. 19), and this fact is obvious in the outer chamber. The scene we have been considering is incomplete; we have merely the head of the trains of men leading animals and bearing produce, and the main part of the procession would have been continued on the adjacent wall to the right; very likely the other wall spaces within the vestibule and the sides of the entrance passage, too, would not have remained bare had the decoration of the tomb been carried out as first planned. Then in technic the wall before us exhibits the combination of a preliminary sketch in red line, intended as a guide for sculpture in low relief, and some washes of solid color, evidently put on rather hastily to give a semblance of finish when it appeared that the original scheme of decoration must be abandoned.

We may congratulate ourselves, however, on the mischance that prevented the completion of the tomb, for it has been the means of saving to our day this

masterly sketch by an early Egyptian artist. The work has a fascination comparable to that exercised by the drawings of the old Italian masters, delighting one's aesthetic sense by its confident and firm strokes and its freedom from puttering or merely painstaking lines. It brings one nearer to the genius of the leaders of art in the remote age when Perneb lived than anything to be seen in the finished inner room. The sketch is interesting, too, in what it teaches of the artist's methods, for we can still trace the perpendicular lines which he used as a help in drawing the majority of the figures. He was not slavishly dependent on them, however, for other figures are drawn with only the position of the toes checked on the ground line (see two top registers), and the animals are sketched in boldly without a preliminary mark of any kind.

DECORATION OF THE PASSAGE BETWEEN THE VESTIBULE AND THE MAIN CHAMBER

The figures on the walls of the passage between the two rooms personify estates, which were to furnish in perpetuity the Lord Chamberlain's mortuary income (see p. 10). We have here only another treatment of the theme which we found represented in the outer chamber and shall encounter again in the main chamber, namely, that of the all-important provision for the material wants of the dead man. These figures are walking in the direction of the inner room and bear in baskets, or in the hand, jars of beer, joints of meat, live birds, and other good things. In front of them are written the names of the estates which they represent, such as "Figs of the Companion, Perneb," "Onions of

the Companion, Perneb" (right-hand wall, upper register), names made up apparently of the word expressing the product for which the estate was chiefly noted and "Perneb" to distinguish the estate as belonging to him. The sex of the figures was determined by the grammatical gender of the names, and the decorator usually provided some slight correspondence between the objects borne and the names; thus, the two estate-figures just mentioned have among their produce respectively a trayful of figs and a bunch of onions, but "Bat-grain of Perneb" is bringing the grain made up in loaves of bread, if she carries it at all.

As in the outer chamber, so here, the work was prematurely interrupted, with the result that we have before us preliminary sketches daubed over with a certain amount of paint. Again we are able to see the draughtsman's construction lines; here it was desirable to bring the figures of the upper and lower rows in alignment and therefore perpendiculars were dropped from the horizontal line at the top of the wall to the bottom line. The draughtsman then checked on the perpendiculars the proportions of the figures. A check may be seen, for instance, on the second figure above on the right of the passage to indicate the level at which the wig and forehead should meet, and still others are visible; but many must be lost in the breaks or hidden by the paint. Crudely as the color is put on, the scheme of it is not a haphazard one, but the whole composition is deliberately arranged to afford a pleasing alternation. Whether regarded in a horizontal or a vertical direction, the red of the male figures alternates with the yellow flesh tints of the women, while white on

the kilts and dresses unites all the figures and the greater importance of the horizontal direction is emphasized by the line of yellow carried through one register and of white through the other on the baskets and trays.

THE MAIN CHAMBER

Once within the main chamber, the ancient visitor would have turned first of all toward the farther end wall, the "false door," through which he believed that the deceased could enter the room at will. There, if reverently inclined, he would have felt himself indeed in the very presence of the departed one and would have uttered some of the prayers for the dead inscribed on the panels of the door. It was in this room, too, that formal rites for the benefit of the deceased were performed by the mortuary priests—not once, but at least on every important feast day. The rites consisted in large part of placing actual beverages and articles of food on the low offering-table before the "false door," accompanying each by a prescribed incantation. The entire decoration of the room was appropriate to its use as a cult-chamber, whether, as some authorities think, the pictures had mystical efficacy and could take the place of the offerings if the latter should fail at any time, or whether, as others say, they were only the expression of the artistic impulse and were selected much as a symbolic figure of justice might be considered a fitting decoration for a court room.

But let us examine the walls, beginning with the "false door" (fig. 35). Four small figures of Perneb, similar in dress and pose to those on the façade of the

building, flank the door at the bottom of the wall, and the vertically written inscriptions here, as on the façade, are alike in content and wording on the two sides and have the signs symmetrically placed, all turned toward the door. The door itself—the innermost recess—is very narrow, as its proportions have been accommodated to the desire to leave ample space for vertical lines of hieroglyphs. On the inner, shorter panels occurs the following selection of Perneb's titles, "Sole Companion, Keeper of the Crowns, Chief Nekhebite, Daily Favorite of His Lord, Privy Counsellor of the Duat-Bureau, He who Wins the Favor of the King Daily." The signs on the small rounded lintel block above the narrow door read "Sole Companion, Perneb," while on the wider lintel with flat face covering the inner jambs, or panels, is the petition that Osiris grant mortuary offerings "at the New Year's feast (of the solar year), at the Feast of Thoth, at the New Year's feast (of the civil year), at the Wag-feast, and at every feast!" On the outer, taller panels, besides the repetition of titles before Perneb's name, is a prayer to Anubis to grant that he may "tread the goodly paths which the honorable ones (the beatified dead) tread"; on the topmost lintel the prayer is again addressed to Anubis and relates to a good burial. The space between the lintels surmounting the two pairs of jambs is nearly filled by a square panel, with a representation of the deceased seated before an offering-table, and the narrow recesses each side of it probably correspond to windows in the house façade.

Turning to the two long sides of the room, we find compositions which are closely similar to each other (fig. 36). Nearest the "false door," but with his back

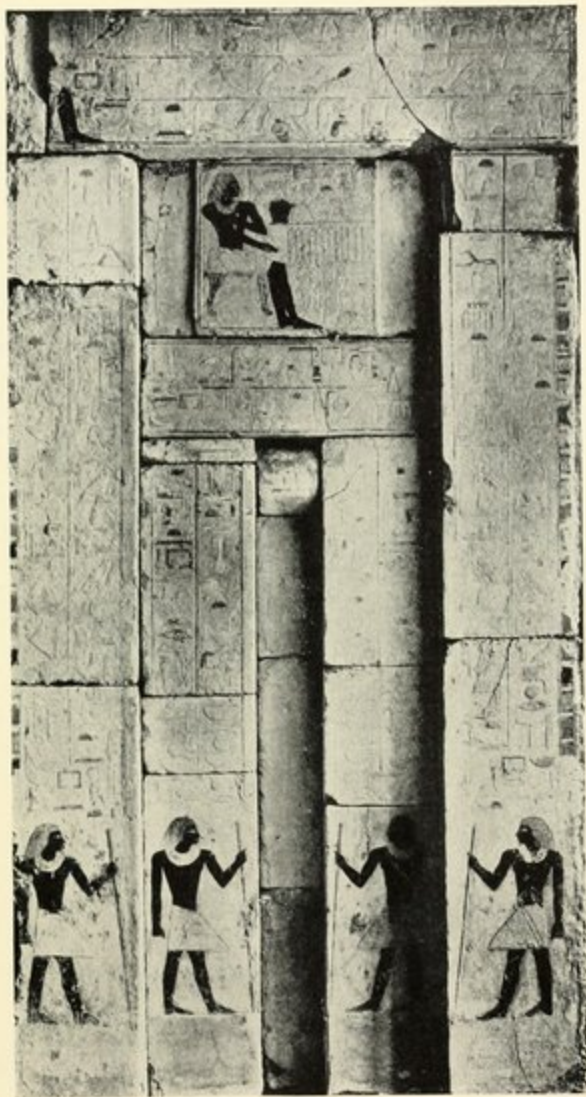


FIG. 35. FALSE DOOR IN MAIN CHAMBER INSCRIBED WITH PRAYERS FOR THE DECEASED LORD CHAMBERLAIN

to it, is a large figure of Perneb, just as he might have come forth from the hidden part of the tomb and seated himself expectantly to receive the ministrations of the living. Above his head the four vertical lines of larger hieroglyphs give his titles, which vary here only in order and in small points of orthography from the lists which have been quoted. In front of him is a table covered with a highly conventionalized representation of half-loaves of bread and under it, on the farther side, lies a confused heap of offerings which, like those crowding the upper registers of the wall, have been deposited by men approaching from the direction of the outer door of the tomb, while other men are still bringing in the supplies. Between his knees and the table is written, "A thousand loaves of bread, a thousand jars of beer, a thousand portions of beef, a thousand portions of wild fowl, a thousand changes of clothing"—no mean petition, but one corresponding well with the opulence of the offerings as pictured (see fig. 37).

The rectangles filled with hieroglyphs occupying the entire area above the offering-table comprise what we may term facetiously the dead man's menu card. Each compartment contains the name of an offering and with a few exceptions, like "incense," the offerings are articles of food; beneath each item the vertical strokes, one, two, or four in number, indicate how many portions he is to receive of each thing. But the menu card is a very special one, which does not correspond entirely with the menu of the living, for it excludes some kinds of food as ceremonially impure, such, for instance, as fish, which we know to have been eaten by the Egyptians. It does present, however, a long array of joints of meat, birds,

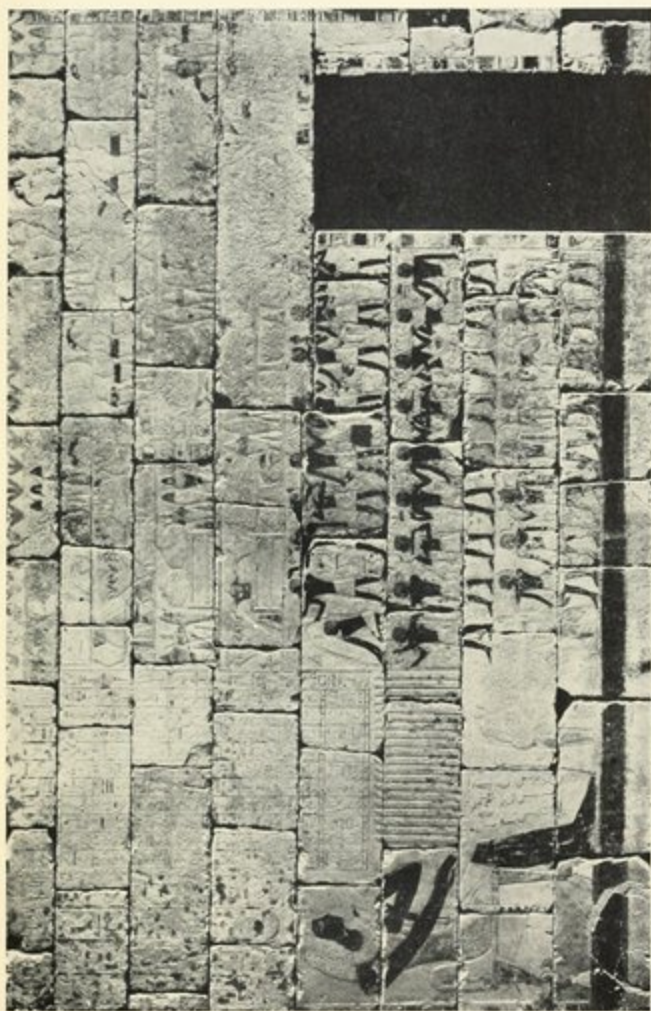


FIG. 36. SIDE WALL IN MAIN CHAMBER SHOWING DOOR FROM VESTIBULE AND SCENE OF OFFERINGS BROUGHT TO THE TOMB

drinks, fruits, and loaves of bread and cake, while the pictured offerings tally with the written list, although, out of consideration for artistic effects, not in any rigid way. The offering-list acquires special interest from the fact that it is found also on the walls of the royal tombs of the late Fifth and Sixth Dynasties where the various items are enumerated in the same order and quantity as here, but are accompanied by the words of the ritual to be recited over each offering. It was the natural desire of well-to-do Egyptians to imitate, so far as their means allowed and the etiquette of the day permitted, the splendid funerary equipment of the monarch. Very shortly after this time the royal ritual, too, was inscribed in the tombs of private Egyptians, and it is possible that even now it was employed in the services held in Perneb's chapel.

In the second and third registers from the bottom the small figures nearest to that of Perneb represent priests performing the introductory acts of the service (see fig. 37). The foremost figure in the second register lifts the cover from the incense-burner to let the fragrance escape and behind him another priest is represented holding up two strips of linen which we may recognize as probably the same thing as the napkin or handkerchief held in the hand by Perneb both in this scene and in the majority of the other occurrences of his figure. The scene above depicts the washing of the offering-table and behind the two priests engaged in this ceremony stands the lector, on the one wall making the correct ceremonial gesture and carrying his papyrus roll of texts still in his lowered hand, on the other wall already reading from the roll held open before him.

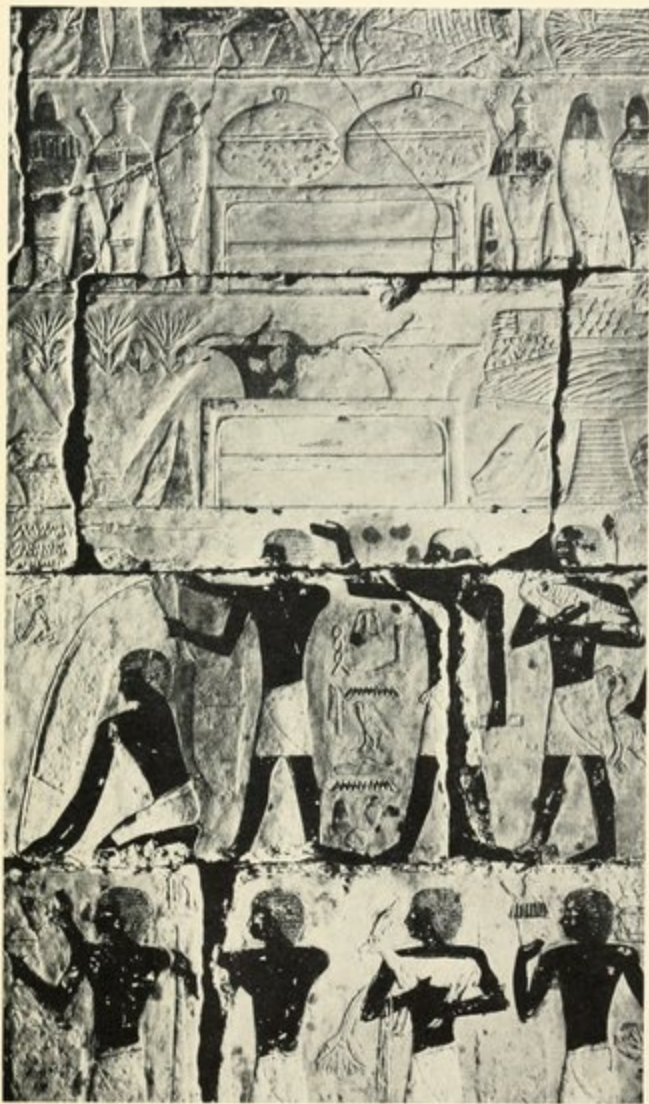


FIG. 37. DETAIL FROM SIDE WALL IN MAIN CHAMBER SHOWING OFFERINGS AND PRIESTS PERFORMING CEREMONIES

The lector is distinguished by a band of linen passed diagonally across the breast over one shoulder and under the other arm and he wears a wig like Perneb's, but the other participants in the ceremonies are dressed like the offering-bearers in plain, close-fitting kilts and less pretentious wigs and are without the broad collar of beads. At this time the Egyptian priesthood had not yet assumed great importance as a special class but was composed of lay members who had other interests besides their duties as priests. We have seen that Perneb bears a priestly title and here on the long walls of the main chamber he appears in his priest's costume, the distinguishing garment of which is a leopard skin held in place by bands tied on one shoulder.

The upper part of the wall in which the window opens is filled with the representation of offerings contained in a variety of receptacles and set, some on stands, others on the ground, while lower down on the wall oxen are being led to the tomb or are being slaughtered; we see the butchers sharpening their knives, severing the joints, and catching the blood in bowls. A pleasing motive included here, as well as on the long walls, is that of an attendant carrying a calf or a young gazelle.

THE TECHNIC OF THE DECORATION

The unusual amount of color remaining today on the walls of the main chamber affords a rare opportunity to study the technic of the ancient Egyptian decorator. The walls are in just the condition to be most instructive, for enough is left of their top surface to enable one to re-create in imagination their original appearance, and

in the places where the upper pigments have dropped off it is possible to trace the processes of the work. As the walls were set up for photography, in the course of the preparation for the final installation (see p. 40), every square inch of their surface was gone over with a magnifying glass in the endeavor to distinguish the different levels of the paint and determine as far as possible what the decorators did first, what next, and so on through their entire procedure. Only a summary of the results of this study will be of interest here.

In the first stage of the work a preliminary sketch, similar in character to those seen in the vestibule and passage, doubtless covered the walls of the main chamber. As the Egyptian draughtsman at this time was without crayons or chinks with which to execute his sketch, he was obliged to use liquid paint and learned to draw without making erasures and with little correcting; he employed red paint for sketches rather more commonly than black, presumably because it was cheaper and more easily prepared. The quarry marks, too, to which reference has been made above, are all in the same brown-red pigment, which indeed is still used in Egypt for common purposes. When long trains of figures, such as the offering-bearers, were to occupy a wall, it was customary to draw not only perpendiculars for each figure but a series of horizontal guiding lines passing through the entire register and cutting the perpendiculars at points which were prescribed in the system of proportions learned by every young apprentice. One such sketch from a Fifth Dynasty tomb is shown in the accompanying illustration, fig. 38, in which, however, the perpendiculars present on the original have

been omitted. Sometimes, as on the walls of the passage in Perneb's tomb, the prescribed points were simply checked on the perpendiculars and the draughtsman spared himself the trouble of drawing horizontal construction lines. In general, it may be said that the artist at this time was less dependent on aids in placing his sketch than were his successors in later generations. By the next dynasty we find an additional horizontal line through the calves of the legs, not as yet represented among the known sketches of the Fifth Dynasty, and a few hundred years later an elaborate system of small squares, spread like a network over the entire register, was developed from the earlier guiding lines.

Both the guiding lines and the sketched figures naturally disappeared during the next stage of the work, the cutting of the design in low relief. In a few exceptional places on the walls of Perneb's tomb, however, the background was left at the original level and fragments of the horizontal guiding lines have come to light where the covering paint, which originally rendered the casual workmanship unnoticeable, has dropped off. Thus, two such lines may be seen plainly on the wall to the right between the priest who is pouring water from a ceremonial vessel and the kneeling figure (fig. 37).

The plaster filling along the joints (see p. 35) presented no special difficulties to the knife or chisel, but could be carved as readily as the soft limestone. Indeed, entire cult chambers decorated in plaster reliefs have been found at Meir in Upper Egypt. In carving the walls a furrow was first cut outlining the design, then the background was lowered and the figures modeled. The quality of the sculpture in Perneb's tomb is

uneven, being poorest at the ends of the long walls away from the large seated figures, where the design here and

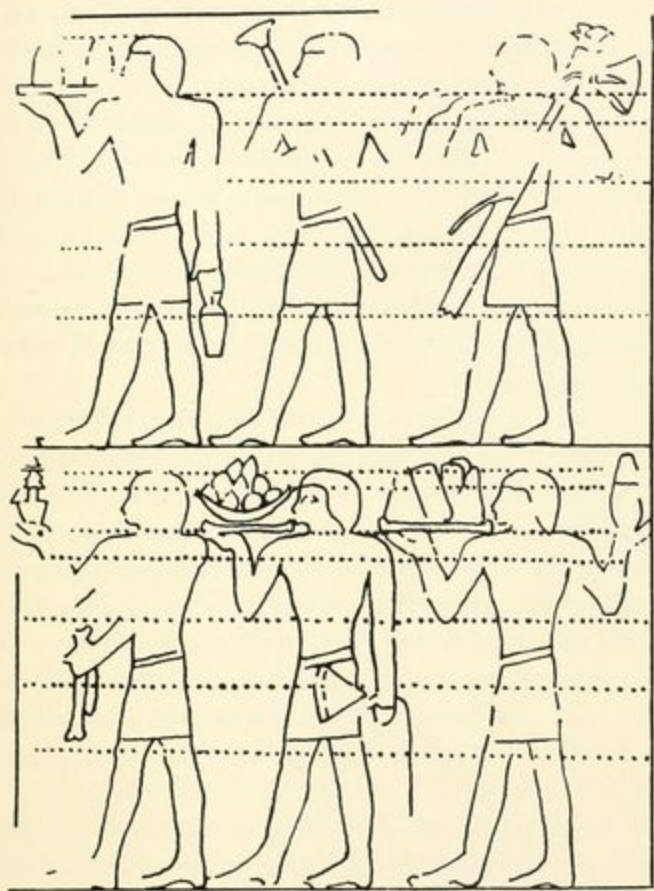


FIG. 38. DETAIL FROM A FIFTH DYNASTY TOMB SHOWING HORIZONTAL GUIDING LINES

AFTER DAVIES, THE MASTABA OF PTAHHETEP AND AKHETHETEP AT SAQQAREH, II, PL. 17

there is merely scratched in. Some details seem to have interested the sculptor more than others; certain of the

hieroglyphs and, for instance, the calves' heads among the offerings are extraordinarily subtle and vivid.

The work of decoration now entered upon the third and last stage, that of coloring the reliefs. It was not painting in the ordinary sense of the term as denoting a major art, for the colors were used only in flat tones and the decorator relied for his play of light and shade on the relief. Shading with pigments is not, however, as some of the commonly-used handbooks state, unknown in Egyptian art, because in ceiling paintings of later date, found by the Museum's Expedition, the rotundity of the bodies of flying ducks and pigeons clearly is indicated by this means.

But before the final colors could be added to the walls of Perneb's tomb a number of preliminary processes were considered essential. After the sculptor had finished his part, a thin layer of fine plaster was added over the coarse plaster to render the surface of the latter uniform in texture with the limestone, and then the entire wall was washed over with a still thinner coating of white gypsum, which may be detected here and there as a film capable of being peeled off, or, where the binding medium—possibly white of egg—has deteriorated, as a white powder.

The next step is a surprising one. Instead of proceeding to lay the final colors, using the sculptured outlines as a guide, the decorators went over the design again, in whole or in large part, in red line. These lines of the second sketch may be found repeatedly spilling over on the background or sinking into the depressions of the carving, that is, occurring on surfaces which were not by any possibility exposed before the carving was

done; they are not to be confused with the final outlines which lie at a higher level and are usually narrower. Occasionally in the second sketch the spelling of a word is corrected or a cucumber not to be found in the sculpture is added to a heap of offerings! In fig. 39, showing one of the vessels, the broken lines indicate the second sketch, the continuous lines the sculpture; the lip of the vase is drawn in the sketch, although it had been left out in the sculpture and was to be completely hidden in the final surface by black paint representing a mud seal.

The walls were now ready for the colors which were to form their visible surface. Mineral pigments were used and included blue, green, black, gray, white, brown, yellow, ochre, orange-red, and brown-red. The bright blue pigment forms a thick granular coating which has been grayed very slightly on the surface but reveals the original color where broken. The green, too, lies in granules and except here and there has decomposed to a very pale hue. The brown-red is very slightly darkened and the black has lost something of its intensity, but the other colors where extant are much as they appeared when first laid on the wall. The pale blue and pale ochre to be seen at a lower level are probably mere stains due to the sinking in, and to some extent decomposition, of the overlying colors.

The order of procedure in laying down the colors may have varied somewhat according to convenience in

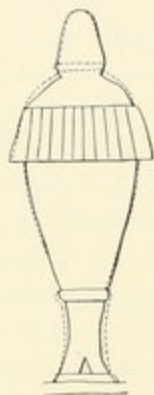


FIG. 39. OFFERING-VESSEL

manipulating the brushes and pigments, but generally, as recognizable by the overlapping of the different pigments, the gray of the background was laid down first, the black and brown-red of the final outlines were added next, and the body colors were put on last of all. A notable exception to this order is found in the brown-red outlines of the half-loaves of bread on the offering-tables; here the outlines were ruled and were left to the last. After the main body colors were in place various details were rendered by superimposed bits of paint. Thus we find black dots on blue to suggest the individual grapes of a bunch of grapes, black on white and on ochre to indicate the spots of the leopard's skin.

There is no evidence to support the view that the Egyptians sometimes used brushes of hair in painting; rather it is almost certain that all this decoration in Perneb's tomb was produced with brushes of various widths formed of reeds with their fibres frayed out at one end. The brush strokes are readily followed in many places.

When the chamber was finished and still in perfect condition, no part of the walls was untouched by color. Brown-red appeared on the skin of the male figures, black on their wigs, white on their kilts, blue on many vases, yellow on others, ochre and brown on loaves of bread, green on vegetables—to mention only a few of the prominent masses of color. Bright rectangles of the various colors bordered the window and framed the side walls; each little hieroglyph was a sprightly colored picture in itself; and everywhere the gray of the background knit together and toned the whole color scheme. Though perhaps less pleasing to modern taste than the

uniform creamy tint of the natural limestone—in which the majority of mastaba reliefs, having lost their painted surface, are seen today—nevertheless the gay colors made the place a cheerful living-room for the spirit of the deceased “Lord Chamberlain,” whenever it should linger on earth, and a more attractive resort for the relatives and friends who survived him. While we may be confident that the instinct to make the tomb-chambers less gloomy was back of the custom of painting the mastaba reliefs, there was the influence as well of inherited methods of decoration, as they had been developed on the plastered walls of mud-brick buildings—not only tombs but houses. In judging the aesthetic effect of the bright colors, as they were originally, one must recall that Egyptian reliefs were commonly seen either under glaring conditions of light, as on the façade, or where the daylight was subdued or wholly lacking, as in tomb interiors; artificial means of lighting at this time were of course wholly inadequate to illuminate the reliefs and under too little light as under too much light intense colors were needed.

CONVENTIONS IN THE USE OF COLOR

Today, if we can steer our course advisedly amid the conventions of the drawing and painting and the limitations in the selection of themes, such painted reliefs as these on Perneb's walls prove a fruitful source of information about life as it went on in the Nile Valley in Pharaonic times. Too often, however, because the color has disappeared, the objects represented in the reliefs have necessarily been interpreted on the basis of their apparent form only; here the large amount of

color surviving adds to the usefulness of the reliefs when we endeavor to visualize Egyptian dress, furniture, vessels, food-products, ceremonies, and the like. We may give only a single illustration of the value of the color from this point of view: the offerings include many trays of small fig-shaped fruits, commonly thought to be sycamore figs; these are now found on the evidence of the color to be only in part the yellow sycamore fig, while the others are a still unidentified red fruit.

In many instances the color is employed in a way which is at once intelligible to the modern sense. Consider the bowls of "blue lotus" flowers (*Nymphaea caerulea*) which grace Perneb's mortuary feast; the green on the leaves and sepals, the blue on the petals, the red on the stems, and the touches of yellow at the base of blossoms and buds inspire confidence in the truth to nature of the Egyptian use of colors. Another obvious attempt at realism is the light red dotted over with black to give the effect of red granite which was to be seen on the limestone blocks of the ceiling and on the undecorated walls of the vestibule. But often the color on the walls does not so nearly approximate the natural colors of the objects represented. The convention of brown-red for the male and yellow for the female figures, although corresponding to a difference in the complexion of men and women, was, of course, not intended to be taken literally; indeed, the red of the male figures varies considerably on Egyptian monuments, being sometimes a light terracotta-red, sometimes almost a chocolate color; in Perneb's chamber while the usual brown-red is employed on the large

figures, the hieroglyphs which represent parts of the body are painted orange-red.

But the most unexpected conventions occur in the application of blue, the latest of the colors to make an appearance in Egyptian wall-decorations. Paintings in early tombs and the earliest examples of painted relief do not include blue in their repertory of colors, and still others, somewhat later but antedating the decoration in Perneb's tomb, show only a sparing use of blue. The color seems to have been introduced as a substitute here and there for black: thus, the copper points of harpoons and other implements, at first painted black, after the introduction of blue were more commonly colored blue; the hair of animals and the wigs, or closely shorn hair, of men were occasionally painted blue instead of black; and hieroglyphs which represent the plans of mud-brick structures appear now black, now blue. Even so in Perneb's tomb, side by side with the more comprehensible use of blue for the bluish tips of the lotus petals or for bunches of grapes, we find blue on certain vases, presumably to indicate copper, and on some hieroglyphs which elsewhere in the decoration, following an older tradition, are painted black.

Far from being crude and all too simple, as a superficial acquaintance might suggest, these painted reliefs reveal vividly conceived scenes, a facile technic, and a sophisticated color scheme, all the result of a long development and suited admirably to the physical conditions and purposes of the building in which they occur and to the temper and beliefs of the age which produced them.

CAROLINE L. RANSOM.

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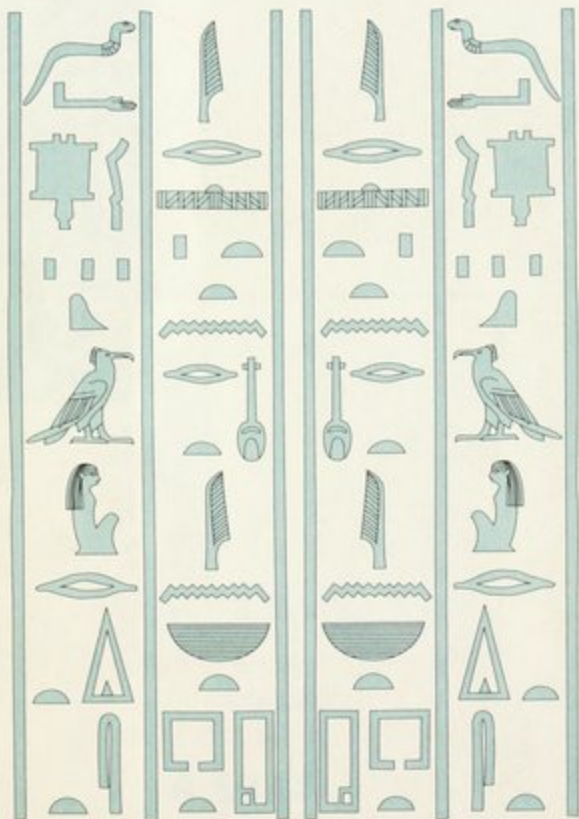
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