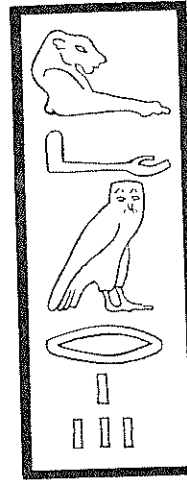


THE
PYRAMIDS

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I

Introduction

If you ask a world traveler which famous monuments made the strongest impression on him, he will probably reply, "the pyramids of Giza." The reasons differ; one visitor may admire their colossal scale, another, their architectural perfection, a third, their antiquity, a fourth, their romantic situation, a fifth, their history. I have lived from time to time in excavation houses near the pyramids, and for the past ten years in a house in the desert less than a quarter of a mile west of the Great Pyramid of Khufu. I find that there is no limit to their inspiring beauty. On very dark nights those huge, black, triangular shapes loom up against the sky to connect heaven and earth. People are gay and noisy when they visit the pyramids by day, but at night the romantic beauty of the site and the realization of its antiquity turn the frivolous visitor into a quiet and serious admirer.

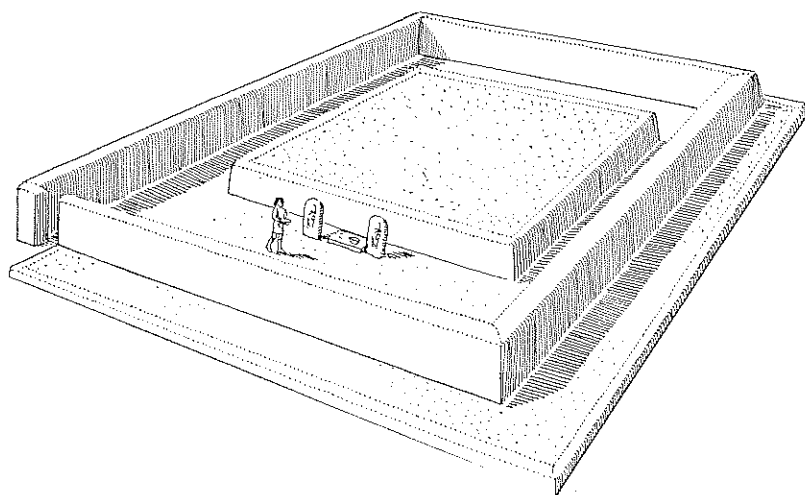
Whenever the pyramids are mentioned, that of Khufu—the Great Pyramid of Giza—springs to mind. But visitors to Egypt see many others at the edge of the plateau west of Cairo, and there are others as far south as the Sudan. Altogether, there are more than seventy known pyramids in Egypt, and no one can estimate how many lie hidden under the sands of the desert.

The pyramids can be grouped in several geographic areas, from north

to south. There are ten groups in the Memphite necropolis. The northernmost is that of Abu Rawwash, where Rededef, Khufu's successor, built his pyramid. Here also stood an unidentified pyramid, the ruins of which can still be seen. Apparently there used to be a still more northerly pyramid at Athribis (the modern Tell Atrib), near Benha in the Delta. A French expedition saw this brick pyramid in 1800, but its superstructure has since entirely disappeared.¹ A Liverpool expedition identified the position of this pyramid as recently as 1938. Today the place is marked by a small pile of bricks, which has neither the shape of a pyramid nor any identification of age. The second group of pyramids south of Abu Rawwash is that of Giza, where we find the Great Pyramid and nine others surrounding it. A third group is at Zawiet el Aryan, about three miles south of the Giza group. Three more miles to the south bring us to the fourth group, the famous pyramids of Abusir. Below these is the extensive field of Saqqara, which is divided into Saqqara North and Saqqara South. Then comes the seventh group at Dahshur, where we find the two stone pyramids of Sneferu, and several others of the Middle Kingdom. The eighth group is that of Mazghuna; the ninth, that of Lisht. The pyramid of Meydum makes up the tenth group. It is considered the last pyramid field in the necropolis of Memphis. In addition, there are the famous Twelfth Dynasty pyramids of the Faiyum; a few scattered pyramids in Upper Egypt, which have not been thoroughly excavated and whose dates are not known; and the pyramids of the "Ethiopian" type in northern Sudan.

The pyramids were originally built as tombs for kings. (In later times the right was extended to queens as well.) The earliest attempt to build a tomb in pyramidal form is represented by the Step Pyramid at Saqqara, constructed about 2780 B.C.; the first true pyramid dates from the reign of Sneferu at the beginning of the Fourth Dynasty, about 100 years later. Thus the Great Pyramid of Giza is not the oldest pyramid. When it was planned, more than 4,600 years ago, there were others standing not far from it. The great architects who worked on it were trained less than fifteen miles to the south at the pyramids of Khufu's father, King Sneferu.

¹ *Description de l'Égypte*, Vol. V, Plate 27; also A. Rowe, in *Annales du Service*, XXXVIII, 524.



1. A typical royal mastaba of the Early Archaic Period. A reconstruction of the mastaba of Queen Mer-Neith. (After Ricke, *Bemerkungen*, II, 17.)

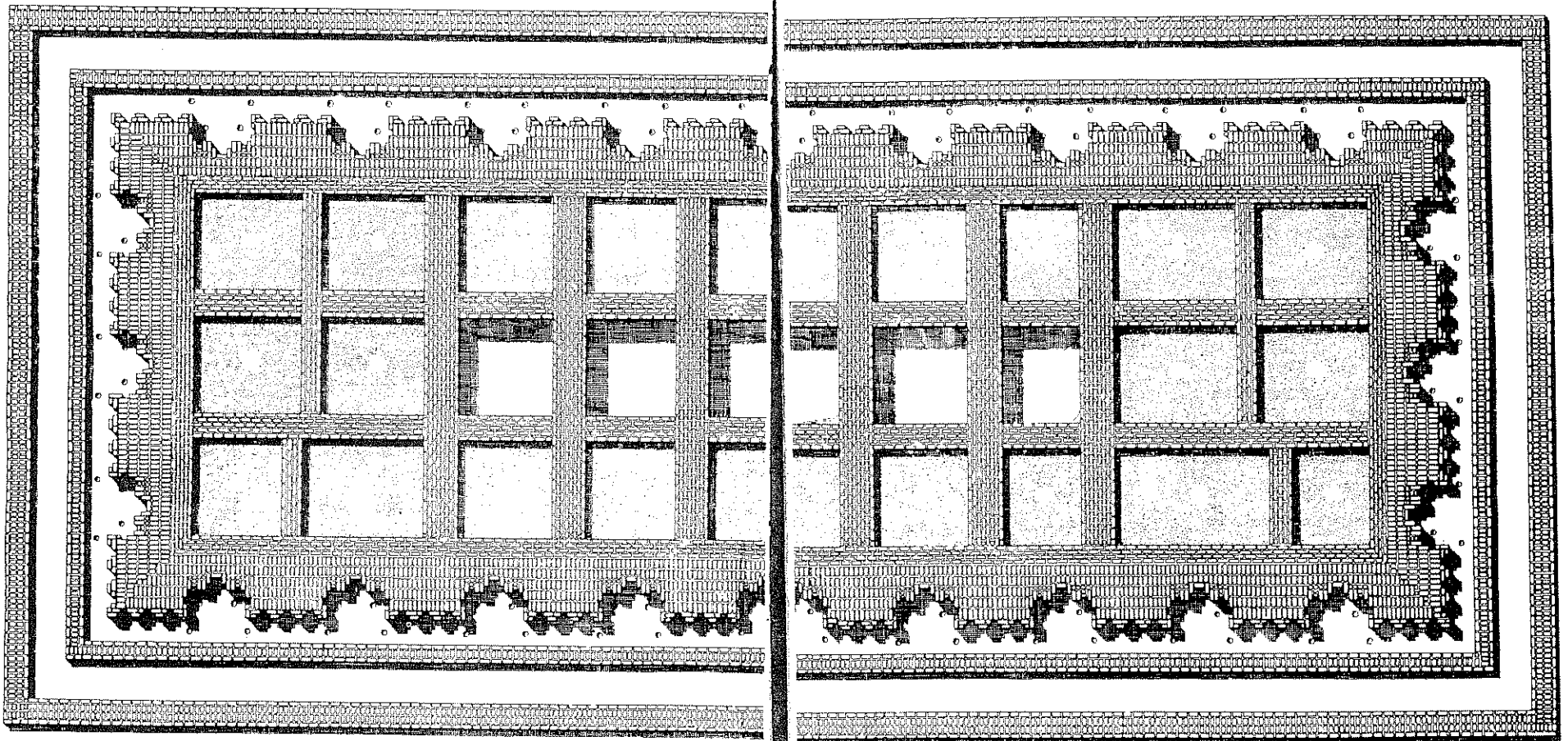
The concept of a pyramidal tomb is in fact the result of centuries of development and experiment. The earliest royal tombs are of considerable interest, because they show the development of funerary architecture prior to the pyramids.

The tombs of the earliest historical kings of Egypt have been found at Abydos in Upper Egypt, 360 miles south of Cairo. Abydos was the royal necropolis of the southern capital, This. The tombs date from about 3200 B.C. At about the same time, the necropolis of Saqqara arose on a desert plateau west of the northern capital, Memphis. One of the difficult problems facing the Egyptologist is the existence of two tombs for the same king, one in the south at Abydos, and one in the north at Saqqara. The dead king could have been buried in only one. Probably the most reasonable solution to this problem is that the Abydos tomb was a cenotaph, an empty tomb in honor of the king. Both sites have revealed royal tombs, and, although they differ in detail, their main features are the same. All are built of mud brick in the form of a huge rectangle. Archeologists call them *mastabas* because they resemble in shape the brick benches of this name outside the houses in Egyptian villages. Under each mastaba lay a burial chamber surrounded by many other chambers and storerooms.

Egyptian kings continued to build mastaba tombs until the beginning of the Third Dynasty, about 2780 B.C., when a new page was written in the history of Egyptian architecture. King Zoser followed the tradition of his predecessors in building his first tomb, a mud-brick mastaba in the south at Beit Khallaf, not far from Abydos. But his second tomb, at Saqqara, was an important milestone in the history of Egypt. Among Zoser's officials was a young architect named Imhotep, whose father had also been an architect. Imhotep's rare abilities were recognized by

his master, who gave him a free hand to plan his tomb. One important innovation was the use of stone, which had been used sparingly in previous times. Imhotep built Zoser's mastaba at Saqqara, including the enclosure wall entirely of blocks of stone. The mastaba itself underwent several fundamental changes. Imhotep superimposed one mastaba upon another, each smaller than the last, until they totaled six. The completed structure had more or less the form of a pyramid with large steps.

Zoser's Step Pyramid dominated the necropolis. A successor copied



2. Plan of the mastaba of King Hor-aha, at Saqqara. (After Emery, *The Tomb of Hor-aha*.)

it, and it became the prototype for later royal burials until the end of the Third Dynasty. King Sneferu, the founder of the Fourth Dynasty (about 2680 B.C.), tried to build his royal tomb in the form of a true pyramid at Dahshur, about seven miles south of Zoser's Step Pyramid. The result was the famous Bent Pyramid, so called because it has two angles. It is unique among Egyptian pyramids, and was certainly not intended to have this form. The builders finished it in haste, and had to diminish the angle. But, in constructing the small pyramid at the southern side (part of the pyramid complex), they kept the sides at a single angle. King Sneferu built still another great pyramid about one mile north of the Bent Pyramid. Its angle was smaller, so that its sides were not as steep. Both monuments stand on the western plateau, dwarfing the pyramids which were built east of them in later times.

It was at Dahshur that the ancient masons were confronted with new problems and had to find solutions for them. The names of some of the overseers and masons are known, and it is noteworthy that the leading men among them belonged to the royal family. These men respected and developed the great traditions of Imhotep. The results were appreciated when Sneferu's son and successor, Khufu, built his pyramid.

The pyramids can be understood only in the context of the religious and social background of the Old Kingdom. From the beginning of Egyptian history, the people believed in life after death. They could not imagine their future life as essentially different from life on earth, although they thought it would be more elaborate and comfortable. They did their utmost to preserve their bodies, believing that these were necessary to the well-being of the *Ka*.

Ka is an ancient Egyptian word which is very hard to translate into a single word of any modern language. Alan Gardiner has remarked, after a detailed study of this point: "The term appears to embrace the entire 'self' of a person regarded as an entity to some extent separable from the person." He adds that "this *Ka* corresponds occasionally to 'personality,' 'soul,' 'individuality,' 'temperament' or even can mean a man's 'fortune' or 'position.'" The Egyptian wanted his *Ka* to be able to recognize its body after death and to be united with it; for this reason he felt that it was very important to have his body preserved. This is

why the Egyptians mummified their bodies and excelled in embalming them.

Other measures were also necessary. Offerings and prayers in a chapel were essential. Representations of utensils and food provisions were carved in relief on blocks of stone, so that they would act as substitutes if the offerings ran short or failed. The Egyptians also made statues and placed them in tombs and temples to act as substitutes for the body if it should perish. By the time of the Fifth Dynasty, it was also considered necessary to have inscriptions of the Pyramid Texts on the walls of interior passages and chambers. These texts, used in the priests' liturgy, contain archaic forms in both ideas and language constructions, indicating that the texts were much older than the inscriptions themselves, and probably date back to the earliest Egyptian civilization.

Egyptian tombs thus grew more and more elaborate with time. As to why they became pyramidal, scholars have offered various explanations. Some Egyptologists believe that the development of the pyramid represented simply an architectural evolution. Others have seen in it the triumph of one religious cult over another.

Conflicting religious beliefs existed from earliest times. The texts show that the individual, after his death, wished to avoid the horrors of darkness. Because the sun made its journey in a boat, model boats were, in later periods, placed in the tomb for this solar journey. According to other beliefs, the *Ka* mingled with the fixed stars in the northern half of the sky. The life after death also had close connections with the cult of the god Osiris.² During the earliest period, sun worship had the strongest appeal, and the kings considered themselves representatives of the sun-god on earth. There must have been a connection between the pyramid form and the sun cult.

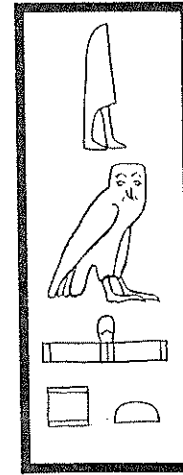
From the beginning of Egyptian history, a symbol of the sun-god in the form of a pillar stood in the temple of Heliopolis. In the Archaic period, it was replaced by a symbol of a phoenix perching on the *benben*, an object of pyramidal shape. We can readily imagine a link between the

² Osiris was a god who died at the hands of his brother Seth and was avenged by his son Horus. The kings of Egypt and eventually all Egyptians were identified with Osiris after death. The Osiris cult appealed to the imagination of the people more than the sun cult and fulfilled their religious needs as the sun cult never did.

benben and the pyramid, but it is difficult to understand the relation between the *benben* itself and sun worship. Egyptologists offer as an explanation the appearance of the sun's rays shining through a break in the clouds, which look like gigantic pyramids connecting heaven with earth. In several statements in the Pyramid Texts, the dead king is described as using the rays of the sun as a ramp by which to ascend to the heavens. The texts say that the heavens strengthened the rays of the sun to enable the king to accomplish his ascent. In view of this, it is a reasonable hypothesis that the change from the step pyramid to the true pyramid was accompanied by a development in the cult of pyramid builders, and that the true pyramid was a colossal *benben*, which could also be a substitute for the rays of the sun and thus enable the dead king to rise to the heavens.



3. *The phoenix perching on the benben.*
(*Papyrus of Anhai, British Museum, London.*)



2

Building and

Administering a Pyramid

Of the problems concerning the pyramids, their construction is the most puzzling. Even the Roman writer Pliny, who condemned the pyramids as an "idle and foolish exhibition of royal wealth," found much to wonder at. "The most curious question," he wrote, "is how the stones were raised to so great a height." Probably every visitor since that time has stared up at these colossal monuments and wondered how they were built. In the Great Pyramid alone, there are over two and a quarter million stone blocks, some of them weighing seven and a half tons. The imagination is staggered by the amount of work involved, even if done with modern equipment. And one must always bear in mind that the ancient Egyptians built these masterpieces with the simplest methods; even the pulley was unknown in Egypt before the Roman period. Both in quarrying and building, workmen used copper chisels and possibly iron tools, as well as flint, quartz, and diorite pounders.¹ The only additional aids were large wooden crowbars and, for transportation, wooden sledges and rollers. If any special skill has disappeared, it is that of the overseers who supervised the timing of the various operations.

However, moving blocks that weighed between eight and ten tons

¹ Dunham and Young, in *Journal of Egyptian Archaeology*, XXVIII, 57 f.

(and some as much as twenty-five) was not considered difficult by people who later transported the colossus of Rameses II to the Ramesseum at western Thebes. (This giant statue, made from one block of stone, weighed not less than 1,000 tons.) Another such feat involved the granite obelisks which still stand in the temple of Karnak at Luxor, at Mataria near Cairo, at Tanis in the eastern Delta, and in many countries outside Egypt. Some of them weigh not less than 300 tons. They had to be brought from the quarries far to the south of Aswan, unloaded from barges, and set upright upon their bases in confined spaces among already existing buildings.

Indeed, the process of quarrying, transporting, and erecting these monuments was such an ordinary matter that the Egyptians did not always consider it worthy of record. Most of the information we have is based on the study of the monuments themselves, especially those left unfinished when their builders died.

In the early years of his reign, each new king was occupied with several important matters. First, there were lengthy and complex coronation ceremonies and the smoothing-out of administrative difficulties occasioned by a change in rulers. He may also have supervised construction required by his obligation to give his predecessor a good burial. Eventually, however, the king decided to build a tomb for himself and gave orders to his architects and overseers to carry out such a project. The choice of a place for a new pyramid depended on many circumstances. The king might choose a site near the monuments of his ancestors, or he might prefer a new location. But it had to be on the western bank of the Nile overlooking the valley. This location was preferred for two reasons: the Egyptians believed that the realm of the dead lay in the west, where the sun sets; the western plateau, especially near the ancient capital of Memphis, suits the purpose much better than other areas. It is near the cultivated land; it rises precipitously to a height of about 200 feet; and its surface is almost flat, with very few natural defects. Moreover, the plateau can be reached by valleys, which in ancient times were used by the laborers as ramps for moving materials. The site also had to be composed of a solid mass of rock to support the enormous weight of the projected monument. There had to be enough space around it for the various parts of the pyramid complex and for the tombs of the courtiers,

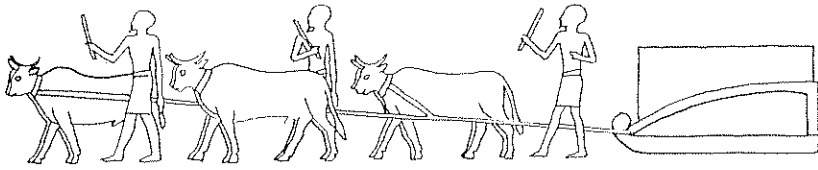
whose ideal it was to be buried by special favor near the king they had served during life. Another necessity was a sufficient supply of good stone in easily accessible places.

Preparations began on the day the site was chosen. The king's highest officials directly supervised the building of his pyramid, and the ruler himself came to see the progress of the work from time to time. The builders left nothing to chance. Architects worked from a plan, which usually included all the interior passages and chambers, although some were hewn out afterward from the solid mass of masonry. The overseers calculated exactly what they needed; gangs of stonecutters (each with its own name) began to cut stone to measure. Most of the stone used in the pyramids was limestone from the immediate vicinity. Certain parts, such as the lining for the passages and chambers, required a better kind of limestone, also quarried near Memphis. The casing was almost invariably of fine white limestone from quarries at Tura, on the eastern bank of the Nile, a little south of modern Cairo. Expeditions also went to Aswan for granite, and to other specially selected quarries.

Meanwhile, architects fixed the exact position of the pyramid. A pyramid was generally built with the sides facing the four cardinal points, possibly so that the entrance, on the north, would be toward the North Star. This orientation would not have been difficult, because the Egyptians had enough knowledge of astronomy to evolve a workable calendar at an early stage of their civilization. Next came the task of leveling the site. It has been suggested that this could easily have been done by erecting dikes around the proposed area and filling it with water. However, all the elevated parts did not have to be removed, because some could be included in the building itself.

Workers would then begin cutting the substructure of the pyramid. The best example of this stage of the work is the unfinished monument of King Neb-ka at Zawiet el Aryan, between Giza and Abusir, where one can see the descending passage, the excavation for the burial chamber with its floor of granite blocks, and the granite sarcophagus. (It is significant that the sarcophagus was put in place at this early stage.)

Meanwhile, workers had built ramps from the valley, where the quarries lay, to the plateau. Stones quarried across the river or in remote regions had been carried on barges along the Nile and deposited on the



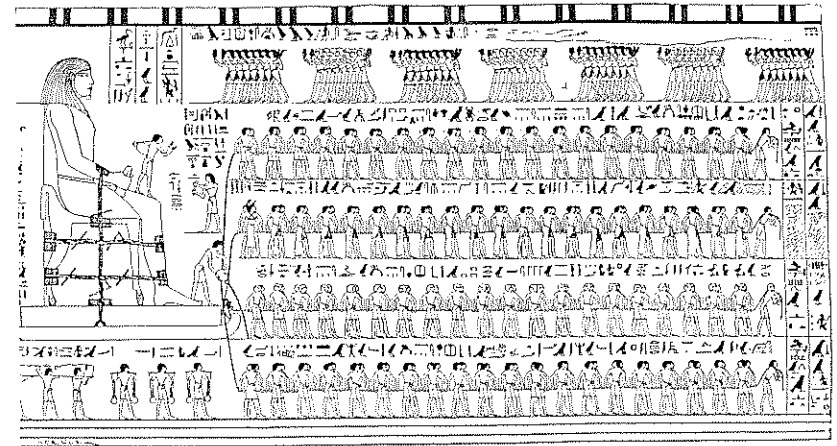
4. The transportation of stone blocks in a quarry at Tura.

shore nearest the pyramid. Now the actual transportation could begin. There is a scene showing the transport of blocks of stone from the quarries of Tura, in which we see oxen dragging the sledges. This was not usual. Power for most hauling was supplied by a large number of men, who dragged the sledges with ropes. According to another scene and the inscriptions accompanying it, 172 men worked to drag an alabaster colossus of the Twelfth Dynasty nomarch, Dhutihotep, from the quarries of Hatnub to nearby El Bersheh, in Middle Egypt. This statue measured over 6.5 meters high, and must have weighed more than sixty tons. The scene also shows men carrying crowbars, and others pouring liquid from pots in order to prevent the wooden runners of the sledges from catching fire as a result of friction. It is generally thought that this liquid was water, but if we examine the copies of the scene, especially those made at the beginning of the nineteenth century, when the colors were fresh, we see that it could be also another material. The Egyptian text mentions a word which means "liquid"; some time ago I suggested that it was probably milk but I prefer to leave it as an open question. The number of men working for this provincial governor was considered remarkable. The author of the text took pride in referring to their strong arms, and said that every one had the valor of a thousand men.²

It was the custom when transporting especially large or important monuments to set out offerings upon them and to burn incense, presumably in order that the gods should look kindly upon the operation and bring it to a successful ending.

Workmen smoothed the sides of the stone blocks very carefully and laid them in place with a thin layer of mortar. After the workmen had laid the first few courses of masonry, it would have been impossible to

² The principal publication of this scene is P. E. Newberry, *El Bersheh*, Part I, pp. 19-26, Plate 15.



5. Transporting a colossal statue. From the tomb of Dhutihotep, El Bersheh. (Newberry, *El Bersheh*, Part I, Plate 15.)

proceed on the work without a new arrangement—something to enable the builders to reach the higher courses. From the monuments which have been left unfinished, we are quite certain that ramps of earth and rubble served this purpose. Brick retaining walls held the rubble in place, and the whole structure was removed when the work was finished. The recent discoveries at Saqqara show that such ramps were built around the Unfinished Step Pyramid, and, because it was not completed, they are still there. We may presume that the Egyptians also used this method of construction in building the true pyramids. Building the ramps was almost as great a task as building the pyramid itself. Specialists have discussed the problem in great detail; they offer various suggestions, but most agree that no pyramid was ever built without ramps.³

The pyramid may have been cased from the bottom upward as the work proceeded, or from the top downward, when the monument was completed and the ramps were being removed. Both methods are pos-

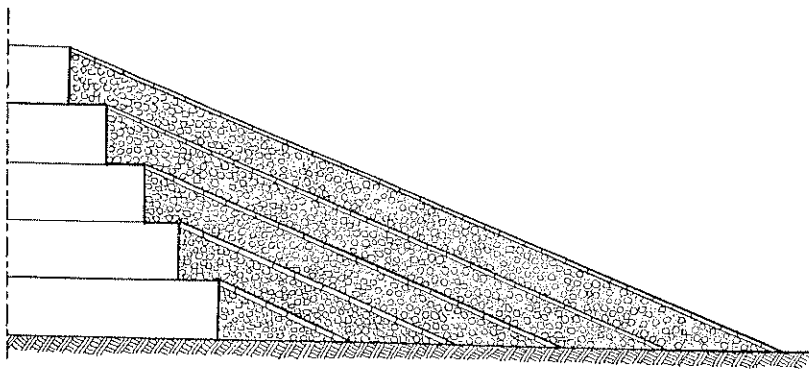
³ W. M. F. Petrie, *The Pyramids and Temples of Giza* (London, 1883), pp. 163 ff.; and more recently his article, "The Building of a Pyramid," *Ancient Egypt* (1930), Part II, pp. 33 ff.; L. Borchardt, *Die Entstehung der Pyramide, an der Baugeschichte der Pyramide bei Mejdum nachgewiesen* (Berlin, 1928), p. 37; S. Clarke and R. Engelbach, *Ancient Egyptian Masonry: The Building Craft* (London, 1930), pp. 117 ff.; and J.-P. Lauer, *Le Problème des pyramides d'Égypte* (Paris, 1948), pp. 161 ff.

sible. Judging from the construction of some of the mastabas, it is more reasonable to suppose that workmen put the casing in place as they went along, and dressed the surfaces down when demolishing the ramps.

Additional problems involved feeding and housing the men working on the pyramids, and obtaining water for drinking and building. The barren, rocky plateau is waterless, and no wells can be dug there. The answer to these problems again lies in the Egyptians' splendid powers of organization. They built primitive barracks; in every room lived a gang of not more than ten workmen. A special group prepared food and carried water for drinking and washing. Clothes and tools were distributed from the royal storehouses.

Such work could never be done in a few years. The only record of the time necessary to build a pyramid is that left by Herodotus. He mentions that it took thirty years to construct the pyramid of Khufu, of which ten were spent in building the causeway and cutting the substructures. Herodotus gives the number of workmen as 100,000, and says that they were changed every three months. When we examine the pyramid, and if we accept his figure for laborers, we must conclude that the completion of such a monument by ancient methods can hardly have taken less time or effort.

Because of the elaborate ceremonies connected with the cult of the dead, pyramids were surrounded by several other structures. The whole made up what is called the *pyramid complex*. In the mastaba tombs of the



6. A section of the type of ramp used in building a pyramid. (After Croon.)

First and Second Dynasties, storerooms for offerings surrounded the burial chamber of the owner and members of his family and household. All were hidden for eternity, and the entrance to the tomb, on the north, was blocked and sealed. Outside the eastern side of the tomb stood a simple chapel, the main elements of which were a *stela*, or gravestone, and an offering table. The royal tombs of Abydos were robbed and have been destroyed, and much has been lost forever. We should not forget that the methods of excavating in the last century were less careful than those used now, and archeologists may have overlooked details which would seem significant to us. For example, in the more recent excavations of the tombs of this period at Saqqara and Helwan, archeologists have found pits for boats. These were dug at the sides of the mastabas, regardless of whether they belonged to royalty or private individuals. Perhaps they also existed at the Abydene tombs, but escaped the notice of nineteenth-century excavators.

As we have seen, a great change in the construction of a royal tomb took place at the beginning of the Third Dynasty. A new form, the Step Pyramid, had a temple at its northern side and a large tomb for the king at the south. Actually, the latter must have been used for a purpose other than burial, because Zoser was buried under his Step Pyramid. No remains of a chapel at the eastern side have been found, and to this date no boats have been located.

The reign of Sneferu, the founder of the Fourth Dynasty, marked a new era in Egyptian architecture. The first true pyramid and pyramid complex date from this time and became the accepted models for later pyramid builders. The complex consisted of the following parts:

The pyramid in its stone inclosure (sometimes called a *temenos*).

A mortuary temple in front of the eastern face of the pyramid.

A chapel in front of the entrance, on the north.⁴

A small ritual pyramid in its own inclosure outside the southern inclosure wall of the parent pyramid. This pyramid also had a small chapel with two stelae in front of its eastern face, and per-

⁴ The remains of a mud-brick chapel, or rather an offering place, were found in front of the entrance of the pyramid and the remains of a stone chapel in front of the small ritual pyramid at its southern side.

haps a chapel in front of the entrance on the north side. It was never used for burial, and its small interior chamber contained only vases of pottery.

Rock-cut, boat-shaped pits around the pyramid. These have not yet been found around the pyramids of Sneferu, as the places where they are likely to exist are still incompletely excavated, but they occur at the pyramid of Sneferu's son Khufu, as well as at Abu Rawwash, at the Second Pyramid of Giza, and elsewhere. Long before the discovery of the large wooden boats to the south of the Great Pyramid, pieces of gilded wood and rope were found in one of the other boat-pits belonging to the same complex.⁵

A long ramp, called a causeway, connecting the upper pyramid inclosure with the Valley Temple near the edge of the cultivated land.

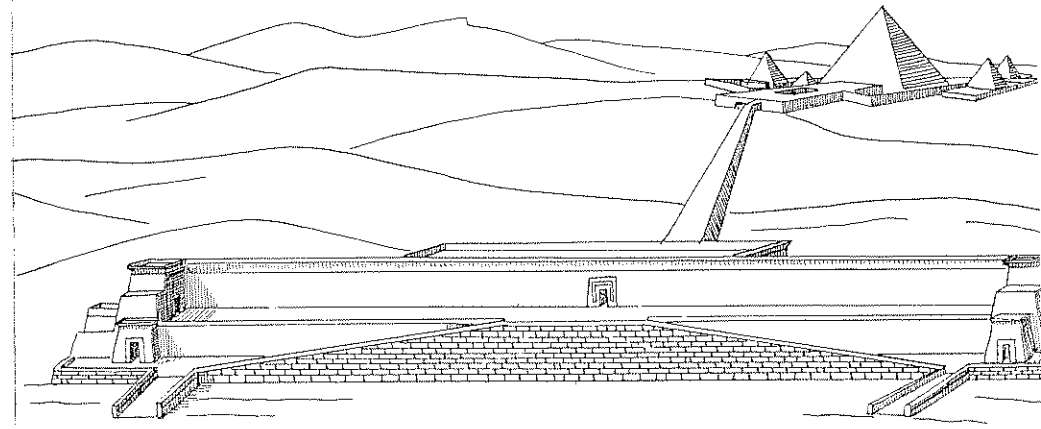
The Valley Temple at the lower end of the causeway, which served as an entrance to the entire complex. In it stood many statues and stelae.

The body of the dead king was brought to the Valley Temple in order to be washed and purified and to undergo the various processes of mummification. Scholars have shown that, at the time of the Fourth Dynasty, three important ceremonies took place in the Valley Temple.⁶ The first of these was the washing and purifying of the body, a ritual which took only a short time. The second, mummification, lasted much longer. (It is recorded in a queen's tomb at Giza that 272 days elapsed between her death and her burial.) The third ceremony, called "The Opening of the Mouth," was performed after the mummification was complete, on the day of the burial. It was a magic rite designed to enable the body to speak once more and to enjoy the offerings in the second and more important life which he was about to begin.

The washing of the body may have been done in the first hall of the Valley Temple, or possibly on the roof. It is not known where the em-

⁵ Selim Hassan, *Excavations at Giza*, Vol. VI, Part I, pp. 41 ff.

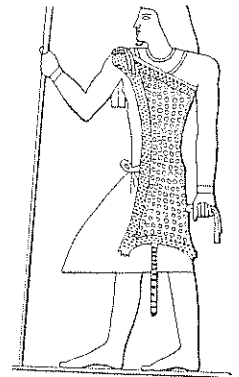
⁶ B. Grdseloff, *Das Ägyptische Reinigungszeit* (Cairo, 1941). See also E. Drioton, in *Annales du Service*, XL, 1007-14, and Selim Hassan, *Excavations at Giza*, IV, 69 ff.



7. The pyramid complex of Pepi II at Saqqara South. (After a restoration by Jéquier, *Le Monument funéraire de Pepi II.*)

balming was carried out. All authorities agree, however, that "The Opening of the Mouth" ceremony was performed in front of the statues in the great hall of the Valley Temple. In later times these ceremonies took place in the Mortuary Temple east of the pyramid.

After the mummy had been placed in its tomb, the pyramid entrance was closed forever and hidden behind one of the casing stones, and priests began the services that were to last for eternity. The services for a dead king in the pyramid temples consisted mainly of presenting daily offerings, each item of which was accompanied by a special prayer or



8. A hem-neter priest.
From a tomb in the Giza necropolis.

other ritual. This presentation of offerings resembled the serving of an earthly meal. It was preceded by the purification ceremony, in which incense, natron pellets, and pure water played a part. Libations and a final purification followed the serving. There were also special duties and ceremonies on the official feast days, of which the Egyptian calendar had many. The public probably took part and had access to parts of the temples.

The son of the deceased king had to prepare for his father's burial, take part in some ceremonies, and complete the unfinished parts of the tomb. Some did this thoroughly and others only partially, if at all. The political situation at the time of the change was no doubt an important factor.

Priests who served gods, kings, and queens were called *hem-neter* priests (God's servants). Those in the cults of non-royal persons were called *hem-ka* (Ka servants). The cults of both royal and private persons also demanded the services of the *we'b* priests (purificators). *We'b* priests served the king during his lifetime, and the title was common among physicians. Both *hem-neters* and *we'bs* had different grades. Some were novices; others were inspectors and overseers. Priests recited the prayers and incantations in a special way, with specific gestures and postures. If they were not performed according to ritual tradition, the ceremony was considered ineffective.⁷ Every pyramid required a great number of priests attached to its cult, because they were divided into shifts which were on duty for certain hours of the day and for certain days of the month. Most priests also held secular posts. Women could hold certain offices in the priesthood of the pyramid cult, and the highest rank of all, that of *hem-neter*, was not barred to them.⁸ Some of the priestly posts were hereditary in certain families for many generations. This explains the occurrence of the same name among priests of different periods. For example, we may find a man of the Old Kingdom named Sneferu-hotep, who held the title of "Inspector of the Priests of

⁷ For a study of the priests and officials of the pyramid cult, see H. Junker, *Giza*, VI, 6-25.

⁸ See, for example, the rock-cut tomb of Queen Bu-nefer at Giza; Selim Hassan, *Excavations at Giza*, III, 176, and the numerous examples of women who were *hem-neters* to certain goddesses, such as Hathor and Neith.

Sneferu," and a man of the Middle Kingdom bearing the same name and title. He may have been a descendant of the older man. Persons devoted to a cult of a god or king often bore names compounded with that of the god or king they served.

Kings endowed their monuments with large estates, so that the priests could present the offerings forever. The endowments were permanent, and the cults of kings buried during the Old Kingdom continued to exist for thousands of years. It is known that priests for Sneferu, Khufu, Rededef, and Khafre were still officiating in the ruins of their respective temples in Ptolemaic times. A great number of secular officials looked after the estates. There were guards, scribes, masters of secrets (secretaries), overseers, and men who looked after the temple property. In addition, there were tenant farmers, who worked the lands of the pyramid endowments and in return supplied the temples with produce. The administrative buildings of these properties usually stood near the temples, and near them the houses for the priests.

The now silent ruins of the pyramids and their temples were thus once crowded with priests bringing offerings to the dead kings. Today we see nothing but stone, debris, and occasional walls. But once the pyramids, with their dazzling white casings, illuminated the whole neighborhood, the splendid temples were complete, and their halls resounded to the hymns and prayers of the venerable priests, grave and dignified in their white robes. The altars were heaped with offerings and covered with flowers, and the perfume of incense added to the sacred atmosphere. But, even though the prayers are no longer heard and the walls no longer echo to the chanting of the priests, paintings and inscriptions buried deep within the tombs and temples bear witness to the bustling activity silenced by the centuries.