CHAPTER V

THE PYRAMIDS OF GIZA

The pyramidal development of the mastaba by Senefru led to the adoption of this form by the kings, and culminated in the three great pyramids of Giza, the tombs of Khufu (Cheops) Khaf-Ra (Chephren) and Menkau-Ra (Mykerinos) of the IVth dynasty. These magnificent monuments exhibit grand architecture in its plainest form; yet simple as is their design it is by no means wanting in interest or variety, for their quadrangular plan, whilst ensuring perfect symmetry, gives the intersections of their sides a constantly varying angle as the point of view is changed. Moreover, their impressiveness is increased by their situation on a rocky plateau which is some 150 feet above the level of the Nile and the cultivated area. The largest and oldest, that of Khufu, is about 775 feet on each side, and when it was intact was about 480 feet in vertical height. That of Menkau-Ra, the smallest and latest in date, is about 346 feet square and 215 feet high. The intermediate one, of Khaf-Ra, is only a few feet less in height than Khufu's and from some points of view looks the highest. Except for the small internal chambers and the galleries which led to them, they are solid structures, chiefly of limestone brought from the quarries on the east bank of the Nile. When perfect they had smooth external surfaces, the remains of which are only visible on some of
the upper courses of that of Khaf-Ra, the rest having been removed for use as building material in the modern Cairo. There was an entire absence of minor architectural features, and the entrance in each case was carefully concealed by the casing, which consisted of blocks of stone, fitted on the stepped courses which are now visible, with the outer surfaces carefully chamfered to the required angle.¹ So far as workmanship is concerned they show a complete command of method and material, for in the geometrical exactitude of their laying out and in the fineness of their jointing they are not surpassed or even equalled by the work of any later period.

The internal arrangement of the galleries and the position of the sepulchral chambers varies in each pyramid. In that of Menkau-Ra, which is built over a depression in the bed-rock,² the tomb-chamber is below the level of the soil, but in the case of Khufu's it is in the centre of the mass, and there is another which is known as the Queen's Chamber (though it has no sarcophagus within it) at a somewhat lower level in the pyramid. There is a still lower chamber, below the level of the soil, approached by an absolutely straight passage sloping down from the entrance, the use of which is not apparent. About sixty-three feet from the entrance of this descending passage another gallery branches upwards to a point at which a level passage leads to the "Queen's Chamber," and from the same point a great gallery 26 feet high and 151 feet long ascends to the King's Chamber. The smaller galleries are roofed by inclined stones which meet in an internal ridge so as to diminish the vertical pressure, but the great gallery is covered by corbelled courses of

¹ There are a few small samples of these blocks in the British Museum.  
² P. and C., i, 205.
stone which gradually approach and meet above. The stones of the side walls are admirably fitted together so that the joints are scarcely visible. The King's Chamber, which is 34 feet 6 inches long by about 17 feet wide and 19 high is covered by flat slabs of granite, and the walls, are of the same material, very finely jointed. It contains an empty lidless sarcophagus massively hewn out of a block of red granite without ornament or inscription. Above the King's Chamber is a peculiar arrangement of five cavities separated by horizontal blocks, the uppermost being covered by two inclined rows of stone rafters, with the object of diverting the pressure from the ceiling of the chamber.¹ The galleries are all constructed

¹ Such expedients show that the principle of the radiating arch was not commonly recognized at that period. The earliest arch hitherto found is, however, assigned to the IIIrd dynasty and is of somewhat rude construction. See Breasted, pp. 100, 101, and Murray's Handbook, p. 355.
and concealed with a view to secure the tomb from violation, and at certain points are intercepted by huge plugs of granite which were inserted from above in order to place what seemed to be insuperable obstacles in the way of any depredators. In some cases it was only by excavating new approaches that these obstacles were circumvented.

It is evident from the care and labour which were expended on these vast monuments, that they must have been erected during the lifetime of the kings whom they
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commemorate, and the Prussian egyptologist Lepsius, who conducted an archaeological expedition to Egypt in the middle of the last century, promulgated the theory that they were enlarged at successive periods in accordance with the length of the reigns of their builders, as was almost certainly the case with those which originated in mastabas. Without accepting this theory as literally as some more recent German writers, Dr. Borchardt came to the conclusion that the Great Pyramid actually received additions to the dimensions originally planned, and this fact may explain the existence of the lower untenanted chambers which were superseded as the structure was enlarged. 1

The pyramid of Khufu has on its east side three smaller pyramids, which were the tombs of members of his family, and is surrounded by many mastabas. There are also three small pyramids on the south side of that of Menkaù-Ra. The height of these smaller monuments varies from fifty to seventy feet. It was usual to surround large pyramids with a paved enclosure, and in some cases a causeway leading from the Nile to the enclosure was constructed apparently before the building was

1 See K. and H., p. 110, and also the discussion in P. and C., i, 208ff., which, however, leaves the matter in some confusion.
begun. The shrine or chapel which is found in the more important mastabas, was replaced in the case of pyramids by a temple built at a small distance from the east side, and remains of those attached to the pyramids of Khaf-Ra and Menkau-Ra still exist. Others have been found in connexion with pyramids of the Vth dynasty at Abusir, and in one of these, that of Ne-user-Ra, occur the most ancient specimens known of the clustered columns with bud-like capitals.\(^1\) A simple palm-like capital was also used at this early date. A specimen from the temple attached to the pyramid of Unas at Sakkarra may be seen in the British Museum. (See p. 37.)

There is a building at the east end of the causeway which formerly led up to the second pyramid, the object and date of which have been much discussed. Though partly covered with sand it appears from recent excava-

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\(^1\) K. and H., p. 98. The supposition that these columns and other conventional imitations of nature were suggested by a primitive use of the actual objects represented, seems unnecessary when it is recalled how frequently vegetable and even animal motives are adapted to architectural decoration. See Lepsius' remarks on the subject, Appendix I. It is not easy to say what plant or plants actually suggested the adaptations. When the reed-like components of the shaft have sharp edges, there is little doubt that the papyrus-stalk which has a triangular section was the motive; but in many cases the columns are described indiscriminately as "papyrus" or "lotus." In the illustration from Th's tomb, p. 31, a water plant is represented which obviously suggests the reeded columns and the bell-shaped capitals. It is clearly not a lotus or lily, which had no such rigid stems, and may be a variety of the papyrus though the flowers are unlike its filamentary blossom. The subject is investigated without a very definite result by L. Borchardt in "Die aegyptische Pflanzensäule," and by G. Foucart in his "Histoire de l'ordre lotiforme," as to which see Note at end of Appendix I.
tions to have externally the shape of a large mastaba with two doors; about 150 feet square on plan, with sloping sides originally about forty-two feet high. Internally it consists of a hall fifty-five feet long by thirty-five wide, with a double range of rectangular monolithic pillars sixteen feet high, six in each row, at the east end of which is a transept with a central line of six pillars which includes two of the others. Further to the east is a smaller transept without columns, in the floor of which is a vertical shaft or well, probably of later date. There are several other small chambers and passages. The pillars and walls consist of immense blocks of red granite without the least ornamental detail. The floor is mostly of alabaster. From the

1 See “Das Grabdenkmal des Königs Chefren, von Uvo Hölscher.” Leipzig, 1912.
south-west corner of the large transept a short passage
leads to a double row of three deep niches, and at the
other end of the transept there is a narrow passage,
seven feet wide, which formerly led to a covered way
connecting it with the mortuary temple in front of the
pyramid of Khaf-ra.¹

As it lies about fifty yards to the south-east of the
great figure of the Sphinx, Mariette, who excavated it in
1853, regarded it at the "Temple of the Sphinx" as
representing the god of the rising sun, and it has retained
this name, though there is no evidence that it had
anything to do with it. Dr. Hölsher's investigations
leave no doubt that it was a kind of propylæum or
ante-temple to the larger mortuary temple and pyramid
of Khaf-ra: an arrangement which is found elsewhere.

The gigantic figure of the Sphinx, which is 140 feet
in length and 66 feet high, when not partly covered by
sand, lies about 540 yards to the east of the pyramid
Khaf-Ra with whom a late tradition associates it. It was
carved in situ from a natural mass of rock, the apparent
height of which is increased by the surface of the
surrounding ground having been removed; the body is a
good deal weathered, and has the appearance of having
been patched up with pieces of sandstone. The human
head was formerly painted red, and had the conven-
tional beard common in royal portraits, but is now
much mutilated; on the breast between the forepaws
there is a small open shrine with an enclosed space and
an altar in front. A paved court farther in front with
steps leading down to it is said to date from the Roman
period. The figure was an object of veneration for cen-
turies, and there is a record of its repair by Thothmes IV

¹ P. and C., i, 324 ff.
of the XVIIIth dynasty, but the date of its first carving is doubtful. Mr. H. R. Hall assigns it to the XIIth dynasty, but it seems unlikely that the block was left untouched by the pyramid builders of the IVth dynasty, and it is probable that the tradition connecting it with Khaf-Ra has some foundation. That the art of monumental sculpture had reached great perfection in his day is shown by the fine diorite statue of him which is one of the treasures of the Cairo Museum. It was found with eight other smaller figures, showing him at different ages in the temple near the Sphinx described above.

The body of the Sphinx is perforated by a shaft from the centre of the back indicating an earlier grave below it, and as there are no tombs in the immediate neighbourhood older than Khaf-Ra’s reign, it may be taken for granted that the Sphinx is not of earlier date.

1 J. H. S., xxv.  
2 See Petrie, Hist., i, 52.