

# **CHAPTER TWO**

## **THE GENERAL LAYOUT OF THE CONSTRUCTION**

### **PRELIMINARY NOTE**

**This section shall lead us to an understanding of the whole layout of the funerary monument as it probably looked before its destruction. We therefore disregard today's ruined state, with all that has befallen it, but also all detail which the material has offered us towards the reconstruction. These the critical reader will find in the third section, collected together as completely as possible.**

**Generally speaking, it will suffice for the understanding of this section to look at the layout plan of Plate Two and the overview plan of Plate Three and to compare them with the view of Plate One.**

**At the time of the Old Kingdom, that is, about the first half of the third millennium BC, the pyramid field of Giza may have looked like what we have shown in Plate One. Like twins from a race of giants, the pyramids of Cheops and Chephren rise up amidst the graves of their courtiers; they overtower them just as the absolute ruler in his lifetime overtowered his subjects.**

**Already from far away, the complete layout can be surveyed: up on the heights stands the funeral building presiding over all, the pyramid, surrounded by walls. In the east, in front of it, lies the temple from which a long covered causeway leads down into the valley, where it ends in the so-called Valley Temple, - a layout which is already known through the funerary monuments of the kings of the Fifth Dynasty at Abusir.**

**One may say beforehand that the building which here as well as with the Abusir layout, is being defined as the Valley Temple, is more than simply a portal. It is an important building with extensive interior rooms which were dedicated to the cult. It is even bigger than the actual funerary temple in front of the pyramid. The Valley Temple is the front part of the temple layout. One can actually say: the temple extends from the height of the pyramid down into the valley in principle as one unified building, because of local conditions separated into two parts which are on the other hand as closely as possible connected by a solid covered passageway.**

**One can hardly deny it is a strange and aesthetically not very happy architectural concept to tear apart a layout in this way and then to cobble it together again afterwards. One might want to ask, would the Greeks and the Romans also have led the axis to the funerary temple through a long, dark alleyway? Would they not rather, just as we might, have laid out a splendid via**

sacra, an open way leaving a free view on all sides and culminating at the top in front of a monumental temple gate?

But this is how we cannot argue with the ancient Egyptians. Because these ancient creations have not been born out of refined art sensitivity, but from the practical challenges which life put to them. In early times, there are no purely arbitrary aesthetic choices. Every form has its practical purpose or its old meaning.

And just so, there must have existed reasons of a practical nature for this strange arrangement: Valley Temple, Causeway, Funerary Temple. Of what nature might these reasons have been? It is certain that the funerary monuments of the kings did not lie solitary at the edge of the desert as they do today but enclosed proximity of larger human settlements. These would have developed through the artisans and soldiers who were commanded to build the monuments, through supervisors and civil servants, through businessmen and all those who were directly or indirectly occupied with the gigantic construction. But also more noble people, men in high and honorary positions, probably the royal ruler himself, would have resided here at times in order to watch with their own eyes the growing of the edifice which became the most important of the reign of the pharaoh, and which was designed to give him 'eternal life'.

One may well suppose, following the opinion of [Georg] Steindorff, that the king had several residences, just as the kings of the New Kingdom had them. For instance, Amenophis IV had several residences in the area of the city area of Tell Amarna. The main palace as a rule should be looked for as a rule in or near the capital of the country. One of the only temporarily inhabited sub-residences belongs to the temple dedicated to the death- or memorial-cult.<sup>1</sup> It may have been just like that, with the conservative Egyptian customs, also in the Old Kingdom: a royal residence would also have belonged to the royal funerary monument in which the king resided at times during the construction period and also perhaps later during certain times of festivals. In contrast to this stands the opinion first pronounced by [Adolf] Erman<sup>2</sup> that each king of the Old Kingdom had only one single residence, which alternated or was changed according to the actual position of the funerary monument under construction, stretching from Abu Rouash down to Dashur, while the capital remained steadily in the same location. One wonders whether it could possibly have been pleasant for the king to live constantly next to such a construction site!

Of such pyramid towns which are often mentioned in texts,<sup>3</sup> quite a few remains have been demonstrated. Next to Dashur a town existed in front of the Pyramid of Sneferu. High walls were very close to the Valley Temple of Sahu-Re. Also a huge stone wall [*today known as the Wall of the Crow*] with a gate was visible next to the Giza pyramids in the valley, which probably was part of such a pyramid town.

Evidently the Valley Temple regularly lay inside the walls of this city. On the other hand, the funerary monument seen from faraway up on the hill was surrounded by walls of its own; two separate single enclosed places which however required a connection. And the covered Causeway served for this.

Of the 'city of Chephren' which may still have existed at the time of Sixth Dynasty, as a gravestone found during excavations shows,<sup>4</sup> we could certainly not ascertain any direct traces. Therefore we have refrained from depicting them in the picture drawn for Plate One.

We now want to guide our steps to the Valley Temple of Chephren.

### **A. THE VALLEY TEMPLE**

When in the summer the rushing floods streamed down from the Abyssinian highlands and made the Nile swell, then the whole of the cultivated land between the mountains slopes of the Arabic and the Libyan deserts became a single water plain from which there rose up only individual high positions, towns, and high palm trees. Then the whole of the traffic from village to village is carried out by water. With the appearance of the high waters, the farming towns at the edge of the desert became overnight harbour towns, with lively developing ship traffic.

The city of King Chephren which we must imagine at the foot of the Giza Plateau may have looked similar to this. Here a wide quay spread out, as has been shown many times in front of the valley temples of Abusir. The grain which the peasant/serfs were obliged to deliver for the sustenance of the workers was put into boats; rafts with heavy building material from foraway quarries arrived, drifting downriver.

In front of us rises up the granite Valley Temple, an unsegmented colossus of a square ground plan with sloping walls. It is 45 meters long and about 30 meters high, completely without ornamentation, without ledges and sections, crowned only with semi-circular capping stones.

The Valley Temple is actually a massive stone structure with sloped outer walls in which single rooms have been left as voids in the manner of caves. It would be an error to try to relate its construction with the building of houses; it must have developed from the massive structure, of the mastaba type.<sup>5</sup> Later of course, with the beginning of the Fifth Dynasty, when the art of dwelling construction has developed further, this also begins to have an influence on the funerary temples. The motif of the open columned porch is taken over, such as the grooved ledge and round bar, etc., are added to it, as the excavations at Abusir have revealed.

Here our Valley Temple does not have anything of this kind, but only the simplest imaginable external form. However, this structure appears enormously imposing through the impact of its appearance and the precious nature of the material. Everything which one can see outside and inside consists of a red polished granite from Aswan and polished alabaster.<sup>6</sup> In no other Egyptian edifice is such a luxury encountered.

We now look at the façade in detail as shown in reconstruction in Figure 5. Two enormous portals, left and right, almost at the corners of the Valley Temple, simple openings only surrounded by the large royal inscriptions. In front of each portal lie two large sphinxes which are guarding the entrance. In the middle of the façade stands a relatively delicate pavilion, an open naos, which probably was closed by gates on three sides (?) and which opened on the front by folding doors. Within this may well have stood the image of the great builder.

What an imposing picture is the façade of this ‘granite temple’! Doesn’t the old architect show here his abilities in a radiant light? Does it not appear modern to us, how he understood how to give us a scale by the small pavilion for the simple and monumental granite wall, how he replaced the lack of decoration on the architectural segments through decorative figures?

The Valley Temple has two portals, one at the northern corner and one at the southern corner. Probably the origin for this lies in the position of the king as the ruler of the two united lands, the northern kingdom and the southern kingdom, for each of which a special portal has been designed. This duality which is also known from the palace façade which is always shown with two portals, and in the hieroglyphic way of writing one puts [SYMBOL] after ‘palace’, the determinative sign for two ‘houses’.<sup>7</sup> So we also need to see in the double structure of the main gate of the funerary monument the influence of old political ideas. Later, already in the Fifth Dynasty, this double division of the entrance disappears.

Of the inscriptions surrounding the portals, unfortunately the lower part is preserved. On the north portal we read:

*‘... beloved of Bastet, forever living.’*

And on the south portal:

*‘... beloved of Hathor, (forever living).’*

How the complete inscription may have read we may infer from the door surrounding in the Sahu-Re Temple<sup>8</sup>, by means of which Figure 5 has been completed.<sup>9</sup>

The individual signs are on average 50 cm high, cut about 2 cm deeply into the granite, and of the finest and cleanest execution.

These royal titles are the only inscriptions which can be found at or in the Valley Temple, but at the same time, also the oldest inscriptions on any monument that we know of.

The sphinxes which flanked the portals were each 8 metres long and were probably made of red granite. In the valley temples of the Fifth Dynasty can be found reliefs with depictions of the king in the form of a sphinx or a griffin, trampling his enemies under his feet. Borchardt has already pointed<sup>10</sup> out that the sphinx as the image of the king in his power especially found its place at the

valley temple of the funerary monument, and thus has also pointed to the Great Sphinx next to our Valley Temple.

At this place let us just take a glance at the Great Sphinx, since it also stands in a certain relationship to the monument precinct of Chephren. It is said to be 57 meters long and almost 20 meters high, and is made of carved natural rock. Originally there may have stood here a rock structure the shape of which resembled a prostrate lion. While stones were being cut here, this may have been artificially shaped further, and finally been given the features of the king.

A lot of arguments have ensued concerning the question of the date of origin of the Sphinx. But when looking at the question from the standpoint of the history of construction, there cannot be any doubt. For before the Sphinx could have been given its full shape, a large rock must have been lying there which was even larger than today's Sphinx. Is it imaginable that one would have built the granite Valley Temple next to such a bare rock, which considerably overtopped the building in height and hid it? No, when they built the Valley Temple of Chephren, they either had to remove the rock which was lying next to it, or render it artistically to give it a reason for being there.

If somebody still has doubts, then he may look at this question from an archaeological standpoint. We have seen already with the portal sphinxes that the Fourth Dynasty was familiar with the form of the sphinx. The stylistic details also point to this time. The [*nemes*] headdress, which the Sphinx wears around its head, shows, as Daressy explained,<sup>11</sup> the same stripes which also occur on the Mycerinus statues found in 1908 by Reisner. Finally, the uraeus on the forehead of the Sphinx shows a form which considerably deviates from later ones, which, however, agrees completely with the one which is found on a uraeus fragment which probably stems from the Fourth Dynasty.<sup>12</sup>

If we accept that the Great Sphinx is from the Fourth Dynasty, that refers of course only to the Sphinx itself, but not to the later additions like the sanctum between its paws, the lion statue in front, and the staircase. Yes, I am not even sure if the now strongly eroded figure standing in front of the chest of the lion is an original. It could also have been chiselled out at a later date, as when people began to see represented by the Sphinx the god Harmachis. Then the statue would have depicted a king who stood under the protection of Harmachis. Otherwise, of course, it could be the other way around, an image of a god which the king is holding in front of him.

The two portals leading into the interior of the Valley Temple, which are by the way absolutely equal, are of enormous dimensions. Each half of the double door must have been about 2.80 meters wide and about 6 meters high. It was probably, as similar examples show us, constructed of hardwoods which were joined on the inside by crosspieces. From the outside one could see on the smooth surface only the nail-heads.

In the door fitting one can still see the holes for the big double bolt (Plate XI). They were artfully worked into the granite wall so that it was possible to

pull out the bolt, but no further than its fitting permitted. Traces indicate that in addition to this, other locks existed, for example edge bolts.

The entrance hall which we enter has an inside height of 9.40 meters, as high as was at all possible, considering the height of the building. It was at the same time the highest of the interior halls of the entire temple precinct, and each subsequent room in the Valley Temple is lower than the preceding one.

This entrance hall is made all round, - that is, walls, ceiling, and floor, - of red granite.<sup>13</sup> [*Note: there are a few isolated black granite blocks, which he does not mention.*] On the narrow side, opposite the entrance, opens up to a great height a niche in which probably a statue may have stood as the only decoration in the room.

Now we are turning sideways, walking slightly ascending through a high two-winged door and entering the lengthy anteroom, in which the multitudes which stream through the north and south doors come together. It is about 4 meters wide, quite a size considering its granite ceiling beams must as a result be at least 5 meters long. The floor is made here, as in all other rooms of the Valley Temple from now, of polished alabaster; the walls as well as the ceiling are made of granite.

We must now briefly turn our attention to a passage which has been worked roughly into the rocky underground of this room. It is the now-famous well in which Mariette found in 1860 the beautiful Chephren statue which now belongs to the most famous pieces of the Cairo Collection. This passage does not stem from the time of the Valley Temple but, as one can see clearly, has been worked later, probably as a funerary passage, into the probably already half-ruined Valley Temple by then partially covered in sand (see Sections III and V).

But now we want to enter through the great door in the central axis into the main room of the Valley Temple, the pillared hall. It is a hall in the form of an inverted T. Sixteen monolithic granite pillars divided into one main arm with three naves and two horizontal arms with two naves each. A hall of extraordinary effect! No ornament and no profile lessens the ceremonial serenity of this architecture; only unadorned walls and undecorated square pillars, not a single line which does not necessarily belong to the construction. On the other hand, along the walls sits a large group of supernaturally sized royal statues, 23 of them, all in the same stern posture, gazing straight ahead, one hand in a fist, the other resting flat on the thigh, an image of royal dignity and strength (Plate 5).

Even if essentially the same, none of the figures resembles another completely. Each one is the work of an individual artist. Especially, however, they distinguish themselves from each other by the material. Most of them are of a white luminous alabaster, others of a blue-grey veined diorite, the tones of which play between white and black. Others are again of a metamorphic greenish slate.

It is an overwhelming impression which this hall makes upon us. The dark red granite walls and the white luminescent floor in which the statues mirror themselves in different changing hues; in addition, a light which streams at an angle in many beams through the windows which are cut partly into the wall and partly into the ceiling, shimmering as it penetrates the room, and causing the polished walls to give off numerous reflections.

The later art of the Egyptians may have produced richer and more highly developed architectural creations, but has it ever produced a more serene and ceremonial room than this one?<sup>14</sup>

In this pillared hall one seems to have already reached the end of the walk. Only the attentive observer notices in the furthest western corners of the horizontal nave, almost hidden behind statues, two doors. The southern one leads to a group of magazines. Here chambers are arranged in two rows of three each, one row on top of the other, which are connected via a high common corridor. In them probably oil jars were stored, candelabras, and lamps, vases and bowls, and whatever else might have belonged to the cult of the statues. The upper row of the magazine chambers can only be entered with the aid of ladders, because stairs as we found them in the Sahu-Re Temple did not yet exist here. At the top, on the ceiling of the connecting corridor, one notices at three places a weak light falling indirectly from the top through window-like apertures, hardly enough to serve as lighting, these passages were most likely mainly created to let out the smoke of the lamps and the smells which develop in such magazines.

The door in the northwestern corner of the pillared hall leads to the Causeway. We only need to take a few steps into the ascending passageway, then we are standing at two doors opening to the left and the right. The left leads through a short slanted passage down to a chamber, the purpose of which cannot be made out for certain. It might have served for the storage of some tools or as a guard room, guards who were entrusted with watching over the Causeway and also the entrance to the funerary temple. Therefore we have named this room the Porter's Lodge. It cannot have been bright within, however, because air and light penetrated solely through a shaft with two bends, as we find repeatedly in the magazines.

The door opposite the Porter's Lodge leads to the roof. A ramp, which is bent twice within the ground plan ascends with a slope of about 16 degrees. In the alabaster floor one may well have cut horizontal grooves just like in the corresponding places of the Sahu-re Temple to avoid slipping on the rather steep slope.

Now we step out into the open, onto the platform of the roof. Actually, it appears more as if one stands on a courtyard surrounded by high outer walls covered in limestone. Its shape corresponds with the rooms lying below it. And one can see clearly that the roof has been kept low only in those places under which rooms are lying which make it desirable that the weight of the ceiling would not get too heavy. Otherwise one would have built up the whole roof up to the height of the outer walls, just like a mastaba, which in terms of the

development of the Valley Temple out of the massive structure would have been the most natural thing.

It is characteristic of our roof area that depending on the height of the rooms below, the height of the roof is also different (Plate XII). It is divided into five terraces. The lowest lies over the magazines and the Porter's Lodge, north and south of the main arm of the pillared hall. Over the latter rises up the second terrace. The third lies over the horizontal nave of the pillared hall, the following over the anteroom, the fifth and last finally is over the entrance rooms and goes along at the same height as a flat cover of the massive wall right around the Valley Temple. In the northwestern part of the courtyard the covering of the Causeway comes at an angle out of the roof area.

In a downpour the water was led from each terrace to the next one below so that it collected in the lowest parts. From there two drains led through the thick western wall to the outside where two granite water spouts ejected it.

## **B. THE CAUSEWAY**

For the building of each pyramid and its temples it was necessary to have a firm sloping causeway on which one could pull up the building materials which had been moved on rafts up to the foot of the hill during the times of flood. In our case, one had used the tongue of the rock which stretched from the pyramid plateau down into the valley as a natural causeway. And as it does not run precisely eastward, but rather east/southeastward, this determines the slanted angle of the Causeway and the relative positions of the funerary temple and the Valley Temple.

On this Causeway, as at the Abusir precinct, was erected a covered passage which was supposed to create the connection between the Valley Temple and the funerary temple. It starts, as already mentioned, in the Valley Temple, in the northwestern corner of the horizontal nave, and runs from there in a straight line up to the temple where it ends suddenly at the anteroom. Its beginning and end therefore do not develop in the axis of the main rooms but are shifted to subordinate architectural locations. The Valley Temple was therefore, according to its design, not only the entrance to the Causeway and the funerary temple, but also had its own significance and evidently also served individual cult purposes.

The passage itself is a narrow and rather dark corridor which ascends with a slope of about 1:11. For the small requirements of lighting of the ancient Egyptians, narrow slit windows which may well have been situated in the ceiling plates might have sufficed. Such a lighting system from above had obviously a drawback that during rain, water easily penetrated which then ran along the floor in a small rivulet and would then have collected in the rooms of the Valley Temple, had one not collected it below at the end of the Causeway via a small channel in the floor, and led through the thick walls into the open.



**The Causeway is characterised as a utilitarian construction; it is built outside and inside completely out of white unadorned limestone. Reliefs on the inner walls of causeways are only found in the Fifth Dynasty. Its walls are rather thick, on the outside slightly sloping, and at the top closed off with the usual semicircular shape. Its length is 494.6 meters.**

**(END OF WHAT IS TRANSLATED OF CHAPTER II)**

---

<sup>1</sup> See [Uvo] Hölscher, *Das Hohe Tor von Medinet Habu*, p. 48 ff.

<sup>2</sup> [Adolf] Erman, *Ägypten*, p. 242 ff. See also [James Henry] Breasted, *Geschichte Ägyptens*, p. 76 [note that this page reference is to the German translation of Breasted's *History of Egypt*], and [Ludwig] Borchardt, *Sahu-re*, Vol. I, p. 5.

<sup>3</sup> *Ä.Z.*, Vol. 42 (1905), p. 1 ff. [This strange abbreviation is apparently a reference to a journal usually abbreviated *ZÄS*, namely the *Zeitschrift für Ägyptische Sprache und Altertumskunde*.]

<sup>4</sup> See Section VI. B.

<sup>5</sup> The mastaba consisted originally of a massive structure erected over the subterranean grave, with a cult area in front. Only after the transition from the Third to the Fourth Dynasty, did the sacrificial area begin to be constituted as a special room in the interior. Then further rooms were added until, at the end of the Fifth and during the Sixth Dynasties, a formidable number of interior rooms had develop out of this, which had hollowed out the building structure of the mastaba almost completely. It may perhaps seem odd that one characterizes a valley temple externally like a mastaba, as if it were an actual grave building. However, we have to keep in mind that no other monumental art of building which arose from grave structures existed yet.

<sup>6</sup> The material known in Egypt everywhere as 'alabaster' is not true alabaster, i.e. calcium sulphate, but rather a special, finely-veined transparent type of calcium carbonate.

<sup>7</sup> See Breasted, *History of Egypt*, p. 76. [German edition pagination]

<sup>8</sup> *Ibid.*, Plates 10 and 11.

<sup>9</sup> In the restored portion of the text of both door lintels, both the vulture and the cobra are drawn similar to manner of the Sahu-Re Temple. One must leave open whether the division into northern and southern parts is correct.

<sup>10</sup> *Ne-User-Re*, pp. 12 ff.; *Sahu-Re*, Vol. I, pp. 8 and 11.

<sup>11</sup> [Georges] Daressy, *Annales du Service des Antiquités*, Vol. X, p. 41.

<sup>12</sup> See Section VI, B.

<sup>13</sup> The name Granite Temple which was often used formerly to describe our Valley Temple had therefore a certain justification. [*Petrie called it this.*]

<sup>14</sup> At this place we should like to point to the similarity of our pillar architecture with those of the prehistoric English stone circles. (See Schuchardt, *Stonehenge in Prähistorische Zeitschrift*, Vol. II, Part 4.) Also the details in construction and technique (stone plugs in the architraves, stone hammers, etc.) have their parallels. This relationship confirms to us how close our Chephren construction is to the primitive prehistoric culture.