to the Nile valley. The site of the pyramid is broad and comparatively flat, requiring no foundation for the masonry; but under the temple the ridge grows narrow, with a knoll of rock under the southwestern quarter of the court, rooms (8) and (10), and the greater part of the portico. In addition to the slope of the limestone stratum to the east, north, and south, there is a sharp fall skirting the knoll on the east and north. The slope of the rock under the temple has been equalized by a platform of enormous blocks of local limestone, varying from five to twenty tons in weight, loosely fitted together without dressing. At the northeastern corner of the temple, the foundation platform is three courses deep; at the southeastern, only one; and over the area of the knoll, the massive walls of the temple rest on the rock itself, which has been cut down inside the rooms to admit a pavement about level with the floor of the great court.

The *causeway* toward the valley is structurally a continuation of the foundation platform and runs eastward down the slope to the valley temple, where it joins the foundations of that temple.

The approach to the temple (Pl. I, 1) was through a corridor of crude brick built on the causeway, with walls plastered white inside and out (Pl. 5, a, b), and a roof of wooden logs. Just before the entrance doorway of the temple the corridor widens to form a sort of hall and the corridor walls were broken on each side by a doorway giving exit north and south. Around the outside of these exits on each side was a rubbish heap, evidently thrown out from the temple, consisting of thousands of small offering vessels, together with some potsherds of larger coarse vessels.

The entrance doorway (Pl. I, 2) was built of crude brick in continuation of the casing of the temple. The walls of the causeway corridor were built against the crude-brick masonry of the temple casing. The threshold of the doorway was a single slab of limestone (Pl. 3 b). The weatherworn limestone stela (Reg. 07–1–21) was in the débris in the northwest corner of the causeway corridor, and probably stood either as a jamb in the doorway of the temple, or just outside it. The doorway opened into the entrance corridor (Pl. I, 3), with plain casing walls of crude brick built against the old limestone core wall, and plastered white. At the western end, on the north side, there was a block of stone in which a niche was cut, the purpose of which was obscure. The masonry on the opposite side was destroyed, but there was possibly a similar stone niche on the south. A straight doorway (Pl. I, 4) led from the entrance corridor to the great open court (Pl. 3 e).

The great open court (Plan I, 5) is 85 ells (44.60 meters) across from north to south, measured between the faces of the mud-brick casing walls. There was no trace of columns, and the court was obviously open to the sky (Pls. 3 a, e; 4 a, b, d). The white plastered crude-brick walls presented a series of niches on all the faces — three simple rectangular niches, and then a compound niche, in regular alternation. This system of niches, to which brickwork lends itself so readily, is known from the First Dynasty down, and when fully preserved, the niches are roofed with logs of wood, or stone imitations of logs. The niches appear thus to represent doorways roofed with wooden logs such as are found in the tombs of the First Dynasty. In the Mycerinus temple these niches must have had a considerable height, and it is not clear how the wall was finished at the top. The only niched walls comparable in height were in the mastaba tombs of the pyramid cemetery, and these were finished with an entablature, above which the wall continued plain to the roof.

By analogy with other contemporary chapels, the court should have contained a stone basin. These basins have no fixed position, but are usually near the center of the court. In the Mycerinus Queen's temple (Pyramid III-a), it is in the centre; but in the Mycerinus valley temple it is four meters south of the centre. In the court of the pyramid temple there is a sunken place in the pavement north of the centre, where I judge the basin to have stood. Probably it was exposed and removed in a search for subterranean treasure.

The pavement of the court consisted of limestone slabs laid on a bed of mud which rested on the foundation platform. A pathway, 2.5 ells (131 cm.) wide, crosses the court from the entrance corridor to the portico (see Pl. 3 e). It is of yellow limestone slabs and is quite level from end to end; but the pavement of the court slopes from all sides toward the centre, in order to facilitate the drainage of rain water, and thus sinks in the centre to a level about ten centimeters below the level of the pathway. At the lowest point in the pavement of the court, a small drainage trench crosses the middle of the

pathway from north to south, and discharges on each side into a small hole in the pavement. The difference in level between the pathway and the pavement was compensated on each side by an embankment of stone slabs, which increased in width from nothing at the two ends to about 20 cm. at the middle. By means of this pathway, a man might cross the wet court dryshod.

The crude-brick casing of the great open court had been originally interrupted on the western side by the wide opening formed by the portico; but when excavated, this opening was found closed by a thick screen wall (6) of crude brick, shutting off the view of the portico from the court (Pl. 4 a). Its ends were built against the casing wall of the court, which proves that this screen wall was of later construction. In the middle of the screen was a doorway, shown by marks on the floor to have been cased on each side with stone or wooden slabs, probably limestone, and closed by a wooden door.

The portico (Pl. I, 7) and the outer offering room (8) both bore on their floors and walls the emplacement marks of a granite casing, which had reached to the tops of the walls (Pls. 3c, d; 4a, d). The blocks of red granite with dressed surfaces found in these two rooms proved that this casing had been completely finished and was of red granite. The pillars in the portico, shown by the empty sockets, appear to have been also of red granite, as at the Chephren Valley Temple. A lintel-block of red granite, with an upper socket for the door-post, was found in the portico and probably formed the roof of the door-way between the portico and the offering room. The roofs of the two rooms were, no doubt, likewise of red granite. The emplacement marks of the casing at the western end of the offering room indicated a niche in the granite casing in that wall.

Returning to the screen wall, a passage led westward from the southern end of the portico through room (9), which was cased in crude brick, to the large unfinished apartment (10). This apartment contained a construction platform of rubble, and in the southeastern corner a rough rubble room (11), which had perhaps been a shelter for the workmen (Pl. 9 b). This room was later, however, than the time of Mycerinus himself, when the granite blocks were being worked, for it is built on débris which contained at a depth of about 30 cm. a layer (about 20 cm. thick) of powdered granite resulting from the dressing process used on the casing blocks. Apparently some of the granite casing blocks had been rough dressed in this place preliminary to setting in the walls.

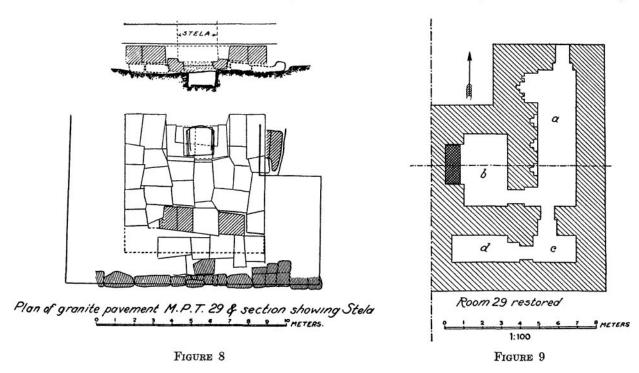
Opposite this to the north lies the path taken by the offering procession. Passing northwards behind, or west of, the screen wall, it turned west into the corridor (13), to its western end (Pls. 4b, d; 5c, d; 6a, b, c). Here were three doorways, one (14) to the northern magazine, one (21) to the southern magazine (and stairway to the roof), and the third (25) to the inner temple. During the last period of occupation, the doorways right and left to the magazines were closed with rough walls of crude brick; but the doorway (25) to the west was open, leading to the inner temple of limestone. The magazines and corridors to this point were cased with white plastered crude brick; the walls of the inner temple were of limestone.

The doorway (25) gave access to the inner temple of limestone. This limestone temple consisted of two parts, a kernel structure containing the inner offering room and its approach (29), and a later addition formed by rooms (26) to (28), and (30) to (35), of which (27) and (30) to (34) had never been finished. The doorway (25) opened into the antercom (26), which had a single square pillar supporting the roof. The anteroom had in the right end of each of its four walls a doorway which had been closed by a wooden door of the usual type. On the east was the doorway (25) by which the procession entered from the outer temple; on the north, the doorway led into the exterior room (36), and through this to the pyramid enclosure. The doorway on the south led into the unfinished hall of pillars (27), and the doorway on the west (Pl. 9 c) led to the sloping corridor (28) (Pl. 9 d), and so on to the inner offering room (29) (Pls. 10, 11). A pathway had been worn in the stone pavement of the anteroom by the procession passing to the right of the pillar into the sloping corridor. The stone paved floor of the corridor (28) rose in a slope from the level of the floor of the anteroom to the higher level of the granite pavement in the inner offering room. The sloping corridor had a doorway in the west wall directly opposite the entrance from the anteroom, and this doorway led into an unfinished corridor (30), running north and south parallel to the sloping corridor itself. From the unfinished corridor (30), four doorways opened into four unfinished magazines (31) to (34). Magazines (33) and (34) had each a stone shelf. In (33)

the floor of the shelf was on a level with the floor of the room numbered (35), which was in fact merely an enlargement of the shelf of (33). Room (35) was high up, having been built in the thickness of the back wall which, abutting on the pyramid, widened upward with the slope of the pyramid. Magazine (34) was built against the wall of the kernel in the L, and had new walls only on the west and the north. The stone shelf was supported, as in (33), by grooves cut in the walls. All these rooms had been roofed with stone slabs, still well preserved.

The wooden blocks for the sockets of the door-posts were already in place, but only a beginning had been made with dressing the walls in (30), and the rooms were still half full of the masons' débris, which formed, I judge, the basis of the construction platform. The heights of the shelves and the roofs proved that the floors of the unfinished rooms (30) to (34) were intended to be about on a level with the floor in the anteroom (26), or about 90 cm. lower than the top of the granite pavement in (29).

The hall of pillars (27), which was perhaps intended for a statue room, was also unfinished. The western wall was formed by the older eastern wall of the kernel structure (29) for a distance of 13.40 m. from the exterior of the southern wall, and beyond that point the remaining 3.40 m. was taken by the



later wall (the eastern wall) of the corridor (28). The old wall was dressed to about the floor level of the granite pavement, but below that had been left rough. The eastern wall of the hall of pillars was formed by the massive limestone core wall of the outer temple. On this a beginning had been made at dressing the face from the top down, but the work had made little progress. The walls specially constructed to form the hall of pillars — that is, the southern wall, the northern wall, and the northern end of the western wall — were still undressed. It is improbable that the pavement, which would have been of stone, was ever laid.

The inner offering room (29) was an older L-shaped structure of Turah limestone, which formed the kernel of the inner temple (Pls. 10, 11). This L-shaped kernel was built around and over a massive red granite pavement 7.35 m. wide (north and south), by 6.30+ m. long (east and west), which clearly belonged to the work of Mycerinus. The upper surface of the pavement was at level 63.14 m., 12 centimeters lower than the top of the first course of the pyramid casing. The surface of the rock was about 140 to 160 cm. lower, and had been dressed in emplacements to take the limestone slabs which almost everywhere intervened between the rock and the granite. The eastern side of the pavement had been torn up by the Arab quarrymen and the eastern edge of the pavement could not be exactly determined, because the outer line of the emplacements was quite irregular, not coincident with the edges of the pavement where both were preserved. Nevertheless, I have no doubt that the granite pavement had been finished to a straight line on the east and was nearly square, measuring about 7.35 × 7.40 m.

(see Fig. 8). The east-to-west axis of the pavement was approximately in the east-to-west axis of the temple and the pyramid. Adjoining the face of the pyramid, two granite blocks sat with their upper surfaces about 50 cm. below the floor of the pavement, and in their upper surfaces an emplacement had been cut which was 208 cm. wide (north to south), and 50 to 70 cm. thick (east to west). The bottom of this emplacement sloped slightly downward toward the pyramid and had manifestly once contained a large upright stone, certainly a stela, probably of granite, but possibly of alabaster. The stela was, of course, missing, and the three or four granite paving blocks which adjoined the stela had also been removed. The paving block on the north, however, had not been taken away but only turned up out of place, and was found by us leaning against the face of the pyramid. Whether the stela was removed by the Arab quarrymen or previously, the Arabs had cut each of the two granite emplacement stones in half with their steel chisels, and had either cut a hole or enlarged an emplacement in the limestone rock which underlay these two blocks. In any case, they had attempted to cut under the casing of the pyramid in a manifest search for hidden treasure.

As stated above, the L-shaped structure of Turah limestone had been built against and over the massive granite pavement of Mycerinus. The foundations of the exterior wall were preserved on the south, east, and north, together with the greater part of the first course and parts of the second course. The wall which formed the entrant angle of the L was preserved on the east, and securely fixed on the north by the ends of the walls of the later rooms (34) and (35), which had been built against it. The upper part of the exterior wall above the first course, and the whole of the internal dividing walls which stood on the granite pavement, had been removed, probably for the sake of their fine white limestone, while the surrounding walls of local nummulitic limestone had been spared. As a result of this destruction, the plan of the rooms of the kernel structure could not be traced. There are, however, one or two valuable indications of the plan (see Fig. 9):

- (a) In the débris south of the inner temple were several large roofing slabs of Turah limestone, which manifestly came from the kernel structure. Three of these have the following measurements:
  - (1)  $231 \times 142$  cm.  $\times 47$  cm. thick.
  - (2) 236 × 130 cm. × 50 cm. thick.
  - (3)  $295 \times 140 \text{ cm.} \times 50 \text{ cm.}$  thick.

These indicate two different widths for the rooms — one of about 200 to 210 cm. and the other of about 250 to 260 cm.

- (b) Along with these roofing slabs was a niched stone which must have stood upright as do the stones in the niches of the mastabas of Dynasty IV.
  - (4)  $282 \times 109$  cm.  $\times 73$  cm. thick.
  - Niche, 21 cm. wide by 23 cm. deep.
  - Therefore, at least one large niche must be provided for in the reconstruction. By the analogy of the temples of the small pyramids, III-a and III-c, this niche would be in a long corridor east of the inner offering room.
- (c) The kernel was built about the stela (208 × 50 to 70 cm.), and the form of the inner offering room must be calculated with regard to the size and place of that stela.
- (d) The interior face of the southern wall is preserved with an interior SE and an interior SW angle. This face presents a projection, probably a door-jamb, 71 cm. long, placed 228 cm. from the SE angle and 355 from the SW angle.
- (e) The width of the entrance doorway from room (28) is visible and its internal lines seem to be indicated, but not beyond a doubt.
- (f) The L-form of the building, which is certain from the outline of the external wall, must be taken into account. The internal lines, as indicated by a, d, e, above, indicate that the western wall of the L was considerably thicker than the other walls of the structure (150 cm.).

Now the plans of the crude-brick temples of the small pyramids, as built by Shepseskaf, require as a minimum a main offering room, a secondary offering room or magazine, and a long corridor with niches. The jamb on the interior southern face (d) and the lines of the entrance doorway (e) indicate a long corridor (29 a), along the eastern side of the structure, with a doorway at its southern end leading into a deep narrow room (29 c) along the south wall, the secondary offering room or magazine. The western wall of (29 c) is fixed by the interior SW angle and by a construction line cut in the limestone pavement. The face of the stela must have projected 40 to 50 cm. eastward of the indicated western wall of (29 c); and as stelae are as a rule set back in the wall instead of projecting, I think another

room (29 d), must be assumed, with the face of its western wall 50 to 60 cm. eastward of the face of the western wall of (29 c). In the temples of the small pyramids, the main offering room, corresponding to (29 d), opens on the long corridor ("hall of niches") and is not directly connected with the secondary offering room or magazines corresponding to (29 c). The two sizes of roofing slabs seem to indicate that room (29 d) was wider than the others; and the thickening of the western wall of the L, that this part of the wall contained a deep compound niche, with an offering table, as in the temple of III-a. Within limitations marked by these facts, a number of reconstructions are possible. In Fig. 8, I give what seems to me to be the best interpretation of all the facts.

The pyramid enclosure (37) was bounded by a wall of crude brick 2.65 m. thick placed with its inner face about 10 m. from the base line of the pyramid. It probably enclosed the whole pyramid. After the construction of the later inner temple of limestone, the part of the enclosure south of the inner temple was not accessible by any doorway through the southern wall of the temple, and nearly its whole width was blocked by the construction plane of worn boulders used in building the inner temple of nummulitic limestone. The lower part of the surface of the plane, on the west, and the ground to the south of it were found by us littered with limestone roofing and casing blocks as well as with granite casing blocks, or fragments of such stones. The part of the enclosure which was north of the inner temple was accessible from the temple through the northern doorway of the anteroom (26), which led into the small room (36), and thence by another doorway into the enclosure itself (Pl. 9 e, f). The ground in this part of the enclosure was covered by a heavy deposit of mud débris and limestone chips.

#### 7. HISTORY OF THE CONSTRUCTION AND DECAY OF THE TEMPLE

Three major building periods are easily discernible in the Mycerinus pyramid temple, and several minor reconstructions:

- I. The massive unfinished temple of Mycerinus.
- II. The crude brick walls which completed this unfinished stone temple; the temple built by Shepseskaf.
- III. The screen wall of crude brick, and various minor walls which are probably to be dated to Dynasty V or Dynasty VI.
- IV. The inner limestone temple, probably to be ascribed to Mernera.

#### (A) THE MASSIVE UNFINISHED TEMPLE OF MYCERINUS

The massive unfinished temple of Mycerinus consisted of the following kinds of masonry:

- (a) The massive masonry of enormous limestone blocks, which forms the foundation platform and the causeway.
- (b) The red granite pavement under room (29) of the inner limestone temple.
- (c) The massive core walls of limestone forming the outer temple.
- (d) The finished red granite casing, the pillars and antae of the portico and outer offering room.
- (e) The unfinished black granite casing of the entrance corridor, the open court, the ends of the portico, the northern corridor (13), and the southern storeroom (24).

The plan of the Mycerinus temple, as revealed by these different kinds of masonry consisted of:

- 1. Entrance corridor, cased in black granite, room (3).
- 2. Great open court, cased in black granite, room (5).
- 3. Portico, cased in red granite with pillars and antae of the same stone, room (7).
- 4. Outer offering room, cased in red granite, room (8).
- 5. Northern corridor, cased in black granite, room (13).
- 6. Space north of corridor (13), in which the crude brick magazines (15) to (20) were afterwards built; intended, no doubt, to be divided into similar magazines by walls of granite or fine limestone.
- 7. Space south of corridor (13), partly cased in black granite, afterwards cased with crude brick and provided with a stairway of crude brick leading to the roof.
- 8. Large space, room (10), south of the outer offering room, never used; symmetrical in size and form with the space north of the offering room and perhaps intended to contain the same series of corridors and apartments, rooms (12) to (24).
- 9. Inner temple of red granite, of which the only indication is the pavement of red granite under room (29), the inner offering room.

These indicated parts supply all the rooms which were functionally necessary for a funerary temple of this period. No two of the pyramid temples of the Old Kingdom are even remotely similar in the details of their plans, and yet all satisfy the same functional requirements, as does this temple of Mycerinus.

# (B) The Crude-Brick Temple of Shepseskaf

When, presumably on the death of Mycerinus, the completion of the original plan for a granite temple was given up, a beginning was made at constructing the temple in Turah limestone. The kernel of the inner temple, rooms (29 a), (29 b), and (29 c), had been built of this fine white stone, in striking contrast to the later walls of nummulitic limestone which surround it. Inasmuch as Turah limestone was used in the upper courses of the pyramid casing, it is more than probable that the kernel of the inner temple was contemporary with the limestone casing of the pyramid and previous in date to the crude brick walls of the outer temple. But the completion of the temple in Turah limestone appears to have proved too great a task; and the use of that stone was abandoned for a much cheaper material—crude brick, which lent itself also to rapid construction.

The portico (7) and the outer offering room (8) were the only parts in which the granite casing had been finished, or so nearly finished that they required no great labor. The entrance corridor, the great open court, the northern corridor (13), the spaces (14) to (20) and (21) to (24), north and south of that corridor, the ends of the portico north and south of the granite casing, and all the outside walls of the temple were cased in crude brick heavily plastered with yellowish mud and coated white. This crude-brick casing covered the unfinished granite casing, hiding it completely from view (Pl. 6). The walls were plain except in the great court, where they were built in the system of niches already described. The doorways, represented in the original structure merely by openings in the core walls, were built also of crude brick and provided with wooden doors hung on posts set in stone sockets below and wooden sockets above. The floors were of beaten mud laid on hard packed limestone débris in all the apartments except the court. In the court a pavement of stone slabs was laid on the mud, probably the same pavement which we found in place. In addition to this work of casing, the following free-standing walls were built also of crude brick:

- (a) The dividing walls in the space north of the corridor (13), which formed the rooms (15) to (20).
- (b) The enclosing wall of the pyramid, which was bonded with the outer casing walls of the temple.
- (c) The walls of the causeway corridor the upper ends of which were built against the casing walls of the temple (Pl. 5 a).
- (d) Probably that part of the inner temple which was later occupied by rooms (26) to (28) and (30) to (35).

The inference that the space now occupied by the limestone walls forming rooms (26) to (28), and (30) to (35) was formerly filled with a structure of crude brick contemporaneous with the crude-brick walls of the outer temple, is based on the following considerations:

- 1. The walls of nummulitic limestone forming rooms (26) to (28) and (30) to (35) were built after the kernel structure of Turah limestone and after the crude brick casing of the outer temple.
  - (a) The walls were built against the kernel and with overhanging ends to correspond with the batter of the older wall.
  - (b) The crude-brick casing wall of the outer temple on the outside of the west wall of the unfinished compartment (10) shows a broken end at a point two meters south of the southern wall of the inner temple; in the break, and against the casing, rests the construction plane leading to the roof of the inner temple (Pl. 2 b). The casing wall on the north of the inner temple is broken by the later room (36).
- 2. The rooms (26) to (28), (30) to (35) were constructed after the plundering of the temple had been begun.
  - (a) Under the floor of room (27), a number of fragments of stone vessels were found, which were of the ceremonial types of the temple furniture, not in daily use (see p. 98).
  - (b) In the construction débris filling rooms (30) to (34), and especially in (33), fragments of similar stone vessels were also found, together with potsherds and fragments of copper which must by association have come also from the temple furniture; this débris had certainly not been disturbed from the time of the construction of these rooms.
- 3. The rubble-lined pathway leading from the pyramid enclosure to the Queen's temple (Pyramid III-a) demands an exit in the southern wall of the inner temple and this exit does not exist in the limestone temple now in place.

4. The inner temple, as it stood at the time of the construction of the crude-brick casing, presents no connecting rooms between the inner offering-place (29 a) and (29 b), and the outer temple.

The most plausible inference from these facts appears to be that when the crude-brick walls were built in the area around the outer temple, the rooms connecting that temple with the inner offering rooms (29 a) and (29 b) were also constructed of crude brick.

The crude-brick temple was the first completed temple attached to the pyramid, and I ascribe it therefore to Shepseskaf, the son and probable successor of Mycerinus, and identify it with the "monument" mentioned in the memorial stone of Shepseskaf, which we found in the portico (Pl. 19 b). This stella bears the following inscription:

Under the Majesty of the King of Upper and Lower Egypt, Shepseskaf, the Horus, Shepsesy-khet, in the year of the first census of the large and small cattle, he made it as his monument for his father, the King of Upper and Lower Egypt [Menkauwra].

The name Menkauwra is not preserved on this fragment; but on another, which to all appearances belongs to the same stela, the name of the pyramid, Menkauwra-netery, is plainly written (Pl. 19 d). At all events, it is impossible to find any other plausible restoration for the text than the name of Mycerinus.

The crude-brick temple built by Shepseskaf, the first completed temple of the Third Pyramid, consisted, then, of the following apartments:

- 1. The causeway corridor.
- 2. The entrance corridor.
- 3. The great open court.
- 4. The portico.
- 5. The northern corridor (13).
- 6. The magazines (16) to (20) and the magazine corridor (15).
- 7. The southern storeroom (24), and the stairway to the roof (23).
- 8. The inner temple of crude brick with a limestone kernel, but of unknown plan and about the size of the later inner temple of limestone.

The plan of the temple of crude brick followed closely the lines of the original stone temple, adding merely the northern magazines, which may in fact have been included in the original plan. The southern apartment (10) was left unfinished. The departure from plan in the inner temple it is impossible to follow because the original plan of the massive temple is only faintly indicated by the granite pavement in room (29), while the inner temple of Shepseskaf has been almost completely destroyed. The kernel of Turah limestone was taken away by Arab quarrymen and the crude-brick walls, probably fallen into decay, were swept away when the later limestone temple was built (by Mernera?). The L-shaped form of the limestone kernel is, however, certain, and this suggests that the plan of the kernel should be reconstructed on the analogy of the temples of the smaller pyramids III-b and III-c, with a long corridor and a small offering room (see Fig. 7, rooms [29 a] and [29 b]). The long corridor would correspond to the hall of niches in III-c.

## (C) THE INNER LIMESTONE TEMPLE OF MERNERA (?)

The second complete form of the temple was that presented after the substitution of the limestone rooms (26) to (28) and (30) to (35) for the corresponding crude-brick parts of the inner temple of Shepseskaf. The old kernel structure of Turah limestone formed the kernel of the new temple. The new walls were built against the old walls, as may be seen from the joints shown in the plan; but they were of local nummulitic limestone, not of white limestone. Thus, when the Arab quarrymen removed the white limestone for sawing into pavement slabs and other purposes, the walls of nummulitic limestone were left practically intact. Most of the roofs even were preserved and the rooms have been described above.

The building of rooms (26) to (28) and (30) to (35), which are as stated of nummulitic limestone, is probably recorded in one or two of the three limestone decrees found in the temple (Pl. 19 e–i). One of these bore the name of Mernera and another was probably of Dynasty VI, possibly issued also by Mernera. It may be noted that a decree of Pepy II, the successor of Mernera, was found in the Valley Temple.

These rooms of Dynasty VI are not only of inferior limestone, but they are less carefully built than the kernel structure, and were never completely finished. Only rooms (26) and (28), which provided access to the offering room (29), were finished and showed marks of usage. The rooms (30) to (34) had the walls left rough, almost as when first constructed, and were half filled with the rubbish which formed the construction platform. Room (27) was probably left in a similar condition, but it had been cleared out to provide a place for Roman communal burials, which we found there. The workmanship is no better than that of the ordinary private mastabas built by officials in the Giza cemetery, in Dynasties V and VI; and even if the temple had been finished, it would have been a comparatively inexpensive work for a king to undertake.

The seal impressions (Pl. 17 a, b) found in room (22) prove that the temple service was maintained in some degree during the reigns of Neweserra and of Isesy, the latter of whom ruled toward the end of Dynasty V. Nevertheless, it is apparent from the plundering and the decay of the crude-brick inner temple, that the whole Pyramid Temple was neglected like the Valley Temple during Dynasty V. But in Dynasty VI, both these temples, for reasons which now escape us, became the object of a certain amount of pious attention.

## (D) MINOR ADDITIONS

Of the minor additions to the temple, the most important is the thick screen wall shutting off the portico from the great open court (Pl. 4 a). The bricks were about the same size as those of Shepseskaf, but of a blacker color and more uniform in texture. The wall was built on the limestone pavement of the court, and the doorway was symmetrically adjusted to the pathway crossing the court. The sides of the doorway appear to have been cased with limestone or wooden jambs set in grooves in the floor, and the doorway itself had probably been closed by a wooden door, although the sockets were missing. The effect of the screen was to cut off the view from the courtyard of the magnificent portico of red granite; but its purpose was certainly a very practical one for the funerary priests, probably to conceal their proceedings from the gaze of the laity, and to enhance the sanctity of the place. A similar heavy screen wall of crude brick had been built against the front of the portico of the Mycerinus valley temple in its first completed form. A lighter screen wall had also been added to the portico of the Queen's temple (Pyramid III-a). All these screen walls appear to have been constructed comparatively early in the history of the temples by the same masons and for a common purpose, and they are probably to be dated to the beginning of Dynasty V.

Room (36) in the pyramid enclosure, around the northern exit from the anteroom (26), is later in date than the limestone temple, but probably not much later, perhaps only a few weeks. The walls are of loosely laid rubble, mud-plastered and coated white, but in the northern doorway and high up in the south wall are small blocks of crude brick. The northern, or outer doorway, contained a stone threshold of three pieces, of which the thin middle piece was elevated to close the space at the bottom of the door, and the inner slab presented a hole for a door-socket on the eastern side. Thus the doorway had been closed by a wooden door, opening inward. The doorway from room (26) had been provided in the original masonry of the later temple; and the dressing of its eastern jamb had been continued northward by cutting back the face of the old limestone core wall to a projection even with the inner face of the northern wall of room (36). Thus a room similar to (36) may have been part of the original plan of the second inner temple (Mernera?), and the room as it now exists may have been built immediately after the finishing of that restoration. The purpose of the room is not very clear except as a connecting room between the temple and the enclosure.

The doorway of crude brick with stone threshold and lintel, which had been inserted in the eastern end of the magazine corridor (15), and thus formed a small square anteroom in front of magazine (16), belongs to the time of occupation, and may be of almost any period previous to the closing of the magazines.

The door-blocks of crude brick inserted in the doorway (14) to the northern magazine corridor (15), and in doorway (21) to the stairway corridor (22), closed to use the northern magazines, the southern storeroom, and the stairway to the roof. The funerary service was still maintained, and the closing of these rooms was perhaps due to the unsafe condition of the wooden roofs of the magazines. The seal

impressions found in room (22) range in date from the latter part of Dynasty V to the time of Tety, the first king of the Dynasty VI. The blocking of the doorways was therefore made in or after the time of Tety. Since the time of Shepseskaf, over one hundred and thirty years had passed, and the roofs may have become insecure. But the long corridor (13) remained in use, so that its roof must either have been still in a sound condition or have been repaired. Thus the possibility remains that the door-blocks in question were inserted at a later date, perhaps in the latest period of the use of the temple.

On the great mass of masonry which separates the northern magazines from the northwestern quarter of the open court, the foundations of two rooms, (38) and (39), were found, built partly of crude brick and partly of rubble. It was quite impossible to fix the date of these walls. They might even have been shelters erected by the Arab workmen who attempted to destroy the pyramid. On the other hand, the stairway in (22) gave access, no doubt, to the roof, and similar stairways gave access to the roofs of the temples of Dynasty V excavated by the Germans at Abu Sîr. The roofs of these temples were used for some purpose — observation of the sun, moon, and stars, for the fixing of times and seasons, habitation for temple servants, or storerooms. And the possibility must remain that rooms (38) and (39) belonged to the Shepseskaf temple and were connected with the object for which access to the roof was provided.

## (E) THE DECAY OF THE TEMPLE

The course of decay of the temple appears to have been as follows:

- 1. Beginning of decay of crude-brick walls in court; plundering of magazines; shattering of some statues; collapse of inner temple of crude brick. Dynasties V and VI.
- 2. Reconstruction of the crude-brick part of the inner temple in limestone, and general clearance of temple (dump-heap in rooms [9] and [10]); replastering of crude-brick walls. Dynasty VI.
- 3. Abandonment of temple soon after (within a century) the end of Dynasty VI; collapse of roofs of magazines; decay of crude-brick casing walls and formation of a mud surface of decay in the court and the entrance corridor; the exposure to rainfall would have been sufficient to form this surface within a century after the abandonment of the temple, and would have tended to denude the surface; this is not the surface of decay which we excavated, but an older surface.
- 4. Removal of the red granite casing and the pillars in the portico and the outer offering room; removal of the black granite casing in the court and the entrance corridor; the blocks in place in the northern wall of corridor (13) were found by burrowing under the intact wall, but not removed; those in the south wall were not found; those in room (24) were found and partly removed; Dr. Hoelscher assigns this removal of hard stone to the time of Ramses II.<sup>1</sup>
- 5. Formation of second surface of decay (that excavated by us) in the court, in which process the holes broken in the crude-brick casing walls during the removal of stone were filled up with mud débris.
- 6. Drift sand banked up in the space between the pyramid and the outer temple, north of the inner temple, to the tops of the walls and drifted over the whole temple, filling all hollows and especially the great court; depth of sand varied from about one meter in centre of court to three or four metres around the walls; highest line of erosion formed.
- 7. Used as a cemetery in first to second century A.D.; room (27) cleared out (paved floor already removed?) and made a communal burial place, entered by a stair descending from surface level of sand through northern doorway of (26); isolated burials in court and in Mycerinus quarry.
- 8. At indeterminable dates, stones were removed from the SE and NE corners of the great court, resulting in the formation of second and third erosion lines as the sand drifted out in two or more separate stages; the last removal may have been made by Arab treasure-seekers and stone cutters.
- 9. From the eleventh to the thirteenth century A.D. Arab quarrymen and treasure-seekers caused the greatest damage to the temple: the treasure-seekers dug five great holes through the massive stone foundations: (1) in the entrance doorway; (2) in the middle of the court, north of the pathway; (3) in the western part of the court opposite the doorway (12); (4) in room (20); and (5) outside the northern wall of the temple. The quarrymen appear to have been responsible for the destruction of the limestone walls in the inner temple (west wall of [27], walls of [29a] to [29d]); the upper layer of mummies in room (27) were thereby disturbed; the granite pavement in room (29) was partly removed, and a hole cut under the pyramid in the axis of the room; the granite casing of the pyramid was attacked and the blocks cut up for various purposes, one of which was the manufacture of circular milling stones; the white limestone casing was entirely removed, partly before and partly after the granite casing.
- 10. After the thirteenth century A.D. the temple suffered from the natural decay caused by exposure to wind and weather; aside from the disturbance made by Vyse, the deposits seemed to have been little altered during the last two or three centuries.

<sup>&</sup>lt;sup>1</sup> See Hoelscher, Das Grabdenkmal des Königs Chephren, p. 67.