

INSTITUT FRANÇAIS  
D'ARCHÉOLOGIE ORIENTALE



à Jean  
**LECLANT**



Hommages

V O L U M E 1

ÉTUDES PHARAONIQUES



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# Hommages à Jean LECLANT

VOLUME 1

ÉTUDES PHARAONIQUES

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# THE PASSAGE UNDER THE SPHINX\*

Zahi HAWASS and Mark LEHNER

It is an age-old notion that the Sphinx conceals some sort of passage, tunnel, grotto, or chamber. The idea enjoys wide currency today in popular non-scientific publications about the Giza monuments.

During our work at the Sphinx, three elderly men in the employ of the Antiquities Organization at Giza told us of a passage under the rump of the Sphinx. They said that they saw the passage when Baraize revealed it in 1926 during his clearing of the Sphinx, for which they worked as basket carriers.<sup>1</sup> They said that the passage opened at floor level on the north side of the rump as it curves from the beginning of the tail. One of these men Mohammed Abd al-Mawgud Fayed, recalled, some fifty-seven years after Baraize's excavation, that the opening of the passage was a round hole just under the masonry veneer. The passage descended to the water table under the Sphinx.

Like so much of Baraize's work, the passage went entirely undocumented and, since it was covered with masonry, it was nearly forgotten. Since the water table is a critical factor in the preservation of the Sphinx, and because such a passage would be an important part of the history of the statue, we decided to investigate these claims.<sup>2</sup> Baraize covered the opening of the passage with stones and cement. It had been almost six decades since Mohamed Abd al-Mawgud had last seen the opening. Nevertheless, Mohammed was able to point to a specific brick-sized stone, bonded with modern cement, that could be moved to reveal the opening.

\* It gives us great pleasure to dedicate this work to Pr Leclant. I (Hawass) have known Pr Leclant over the years as a very good friend and colleague. We first met in 1976 during the First International Congress of Egyptology in Cairo. He helped me with his consultations about excavation techniques during a trip to Merimde Beni Salama where I was planning to excavate. Since then he has always visited my excavation sites and brought helpful advice. Pr Leclant continued to send his offprints to me during the time of my doctoral program at the University of Pennsylvania. I have been very impressed with his recent work at the Pyramid of Pepi I at Saqqara, including his remarkable reconstruction of the

Pyramid Texts inside the burial chamber. The discovery of the subsidiary pyramids and the names of the queens is simply the latest in a long series of achievements. His restoration of these monuments deserves the highest commendation of all. It is to Pr Leclant that we dedicate this article.

1. P. LACAU, *CRAIBL* (Nov. 1926), p. 284 sq.

2. See K.L. GAURI, "Deterioration of Stone of the Great Sphinx", *NARCE* 112 (Spring 1981), p. 35-47; "Geologic Study of the Sphinx", *NARCE* 127 (Fall 1984), p. 24-43; M. LEHNER *et al.*, "The ARCE Sphinx Project: A Preliminary Report", *NARCE* 112 (Fall 1980), p. 3-33.



On October 16, 1980, we moved this single small slab to expose a grey cement packing characteristic of Baraize's repairs on the Sphinx. We forced a small hole through this packing and found that the bedrock floor dropped off into a cavity immediately under the brick-sized veneer masonry that Baraize had replaced [fig. 2, 6]. Behind the brick-sized and cement/limestone packing Baraize had set a large limestone slab to bridge the opening of the passage. We removed the bridging slab to allow easier access. Behind it were two larger slabs set end to end to bridge the opening [fig. 4, 5, 6, a view of the covering of the passage looking up].

### General Description

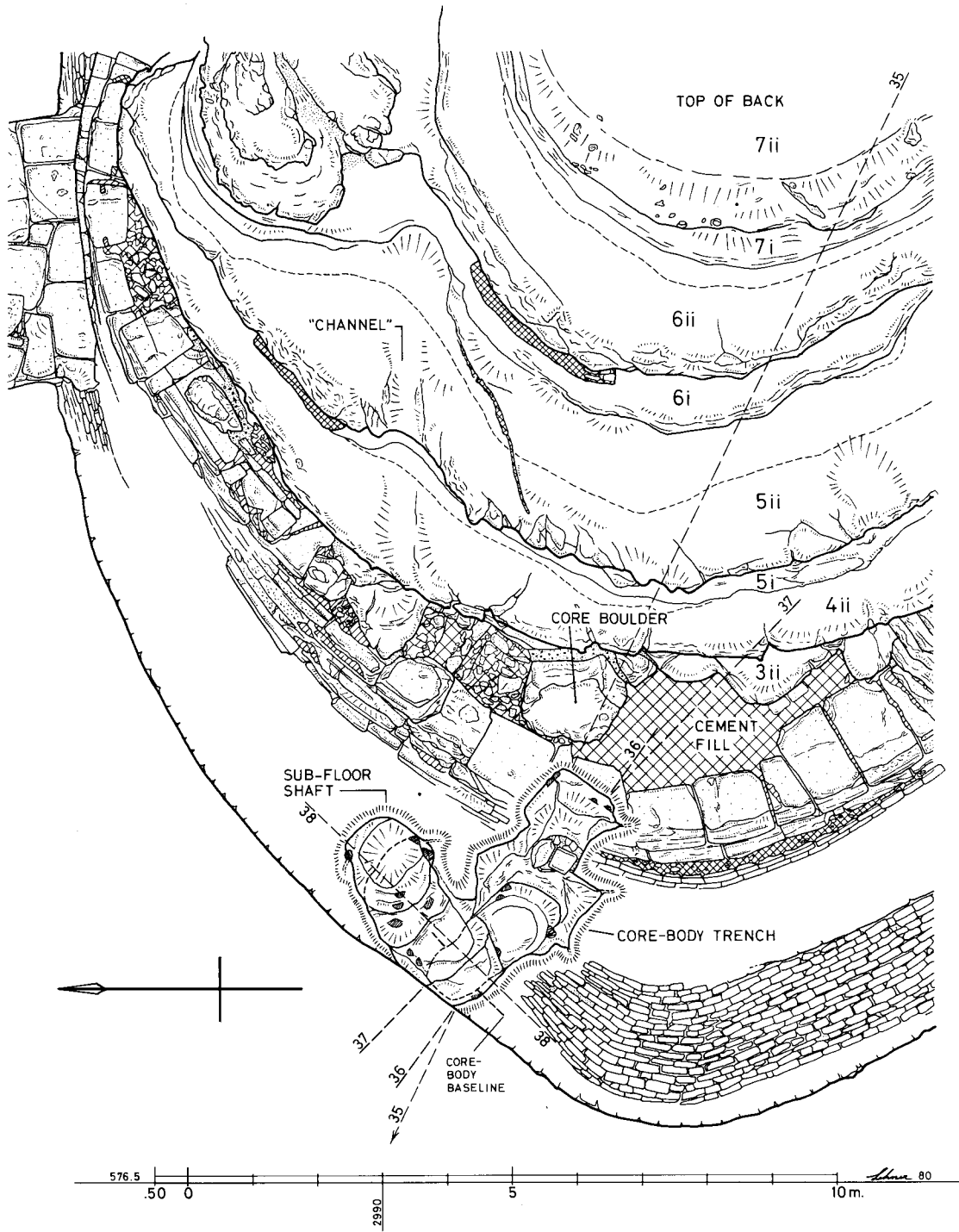
The opening to the passage is at the base of the Sphinx at the north side of the rump just beside the beginning of the tail, about 15 m. from the west side of the north large masonry box [fig. 9, where the man is standing].

The passage consists of an upper and lower part that lie roughly 90 degrees to one another [fig. 1, 4]. The lower part descends from a circular hole in the floor where it meets the rise of the bedrock core body. It slopes downward at a very steep angle toward the northeast, for a distance of 4 m. and a depth of 5 m. and terminates in a cul-de-sac in the natural rock [fig. 2, 3]. Just inside the entrance, the passage is 1.30 m. wide and narrows to 1.07 m. near the bottom. The sides of the shaft show long, stroke-like tool marks made with a pointed chisel, and small, half-cup-shaped footholds. We found the bottom of the passage clogged with debris.

The tool marks and foothold cuttings continue along the upper part of the passage. The highest footholds are located at the very top of the passage where the passage is sealed off by large limestone slabs of masonry that constitute the earliest ancient restoration (Phase I) of the Sphinx body [fig. 2]. The upper part of the passage rises to a height of 4 m. above the Sphinx floor and ends in a niche about 1 m. wide and 1.80 m. in height. It is about 1 m. wide at the lower end and measures 1.80 m. in width just before the niche. The passage runs along the curve of the bedrock profile of the statue but is covered by large Phase I restoration blocks. These blocks are covered in turn by the thinner Graeco-Roman (Phase III) and 1926 masonry. Without these layers of masonry, the upper part of the passage would be an open trench in the Sphinx core body [fig. 7]. It is interesting to note that the point at which the passage is sealed off corresponds to the major division between the very hard Member I bedrock and the softer Member II geological layers [fig. 2].<sup>3</sup>

The top of the passage is sealed off by the Phase I blocks and a large patch of modern cement [fig. 2, 8]. Although it is difficult to know for sure, it seems most likely that the Phase I blocks do not entirely seal off the passage. The cement probably spilled down into the passage from the filling of the space between the

3. GAURI, "Geologic Study"; M. LEHNER, *Archaeology of an Image: The Great Sphinx of Giza* (Ph. D. Yale University), 1991, p. 159-162, 168 sq.



SPHINX: NWc1

Fig. 1.

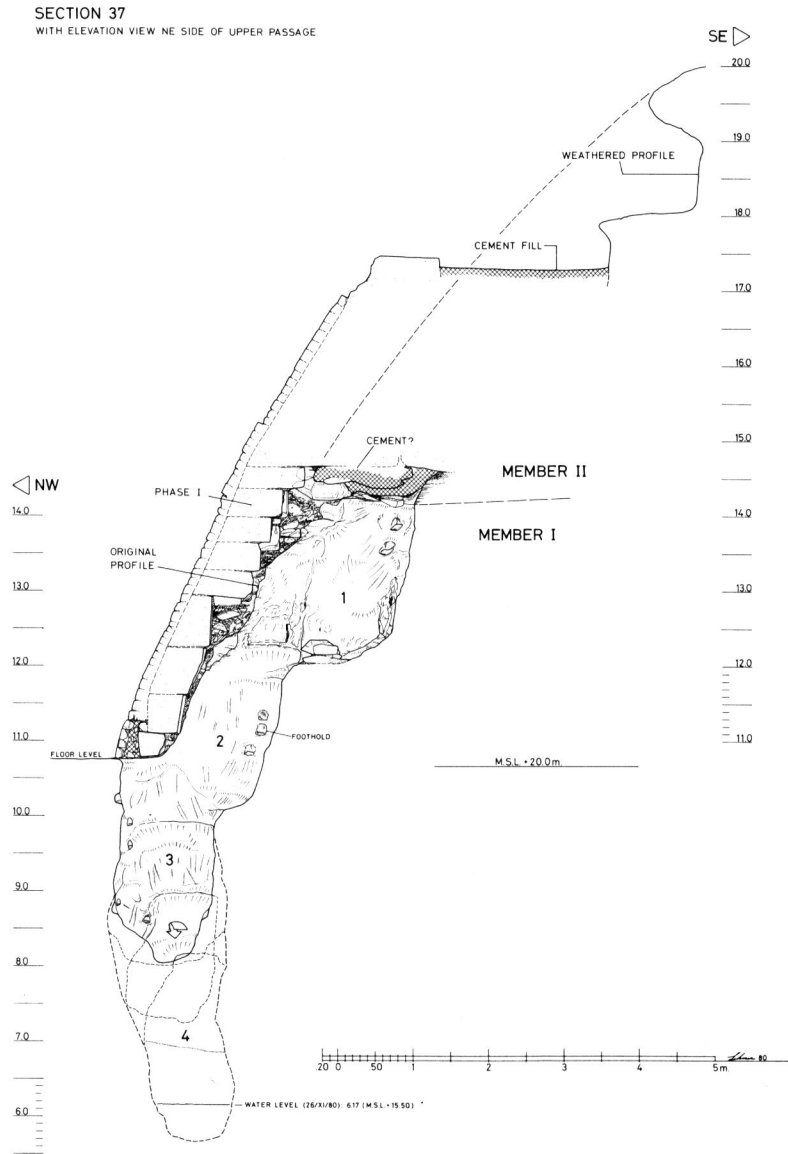


Fig. 2

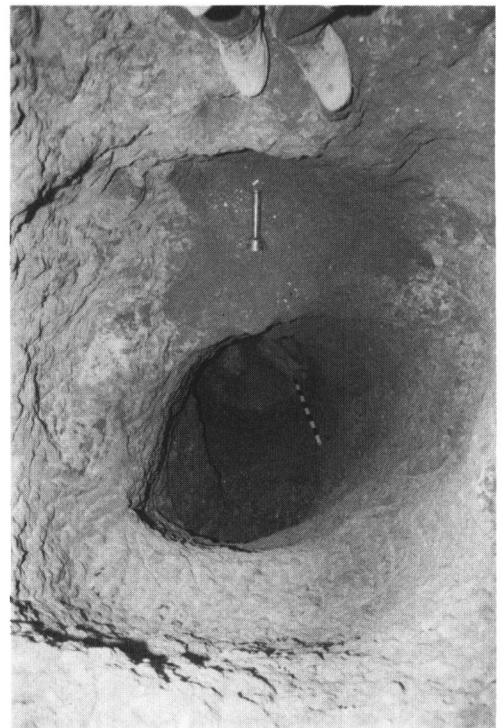


Fig. 3. - BW 18: 15  
Sphinx, NW, Rump passage (fcl), looking down  
Chambers 3 and 4; rubble fill cleared from  
Ch. 4, water beginning to infiltrate. 12/x/80.

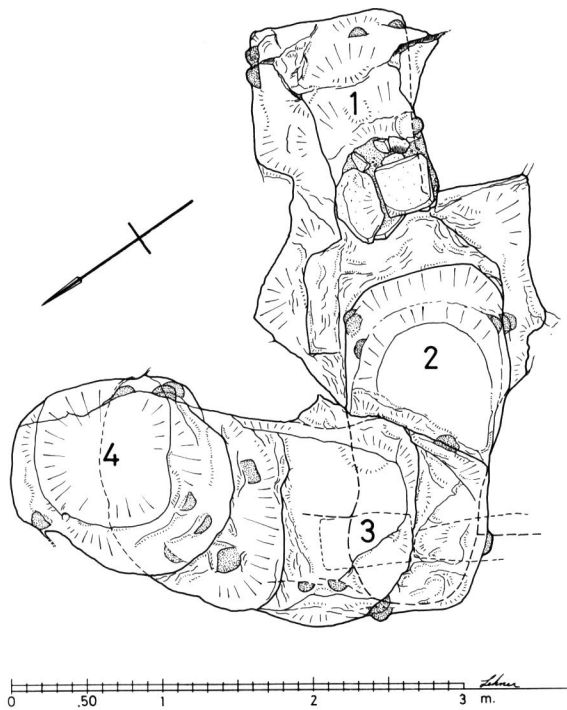


Fig. 4

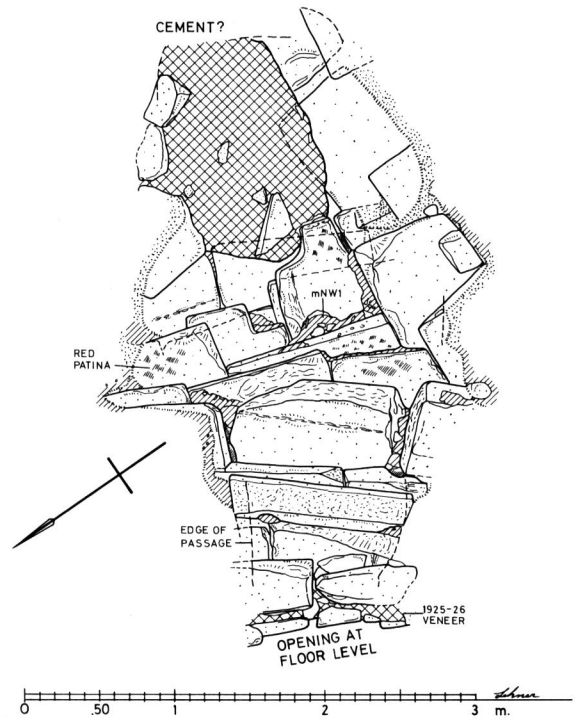
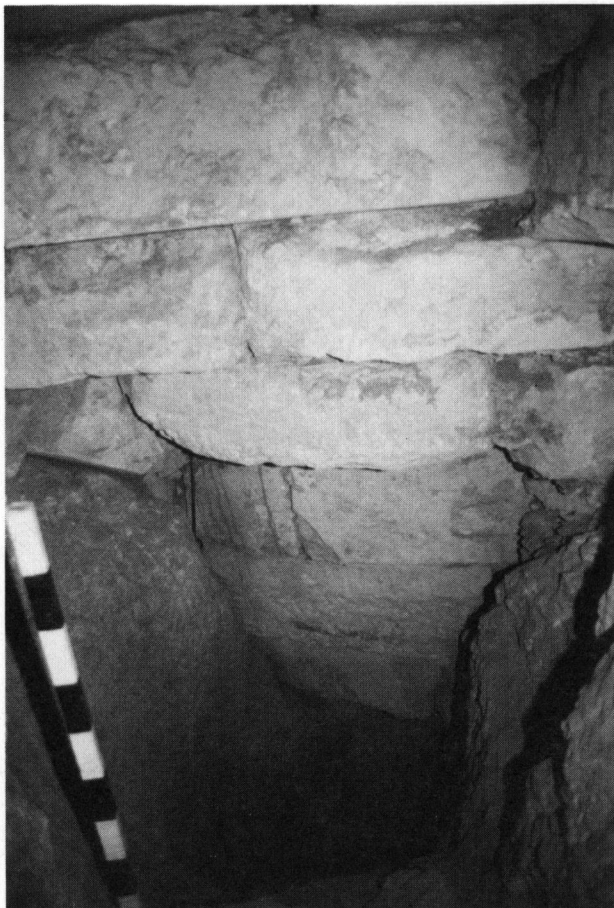


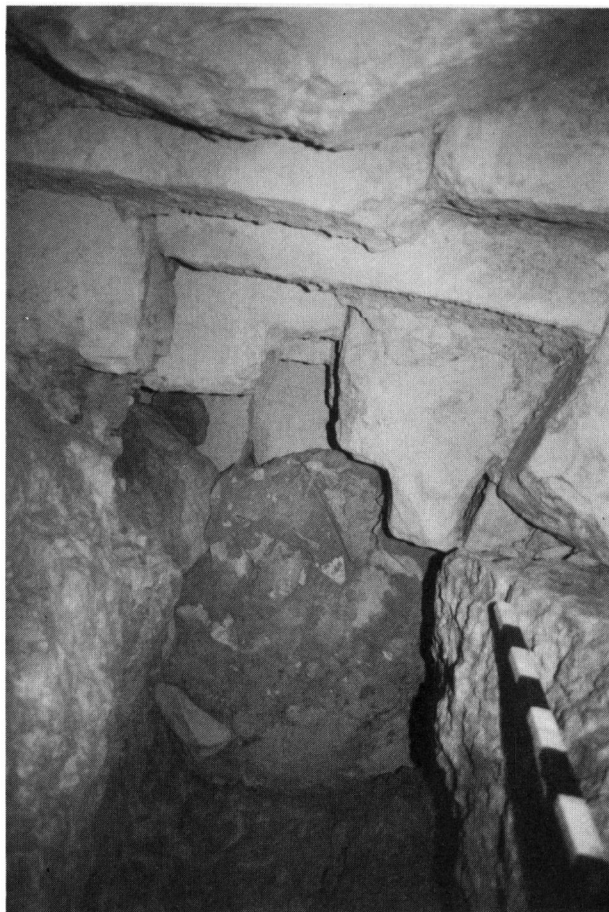
Fig. 5



Fig. 6. - BW 17: 9-28  
Sphinx, NW, Rump passage (fcl): opening to passage, modern replacement slabs removed.  
17/ix/80.



*Fig. 7. - BW 17: 9-28  
Sphinx, NW, Rump passage (fcl): Looking down  
Chamber 2; Phase I masonry abutting to bed-rock core.  
17/ix/80.*



*Fig. 8. - BW 17: 9-28  
Sphinx, NW, Rump passage (fcl): Looking up into  
Chamber 1; Phase I masonry to core and cement (?)  
application at top. 17/ix/80.*



*Fig. 9*

Phase I slabs and the bedrock core on the ledge of masonry at the upper part of the rump [fig. 1 and 2], about 3 m. above the passage.

The passage provides a valuable profile of both the Phase I veneer and the condition of the lower part of core body of the Sphinx, presumably as it was left by the original builders.<sup>4</sup> The bedrock profile in the passage shows that the curve of the rump was generally shaped but not dressed smooth or finely finished [fig. 2].

### Excavation and Detailed Description

We delineated four main areas in the passage for the purposes of description [fig. 2 and 4]: (1) the niche at the top of the upper shaft, (2) the shaft leading up to the niche, (3) the shaft descending immediately from the floor-level entrance, and (4) the cul-de-sac pit at the bottom of the lower part of the passage.

*Area 1:* the patch of modern cement at the top of the passage is 0.30 to 0.35 m. thick. It seems to adhere to the underside of the adjacent Phase I blocks at the top of the niche [fig. 2, 4, 8]. The material is a cement or sandy mortar containing limestone fragments, spots of tan clay, and many carbon spots that are probably charcoal. It looks like the same cement mixture that fills the wide space between the Phase I slabs and the bedrock core on the rump ledge 3 m. higher [fig. 1, 2]. The cement patch runs over the bedrock cutting at the upper west end and sides of the niche, except on the south-southeast where a space between the cement layer and the bedrock cutting exposes the Phase I slabs [fig. 5, a view looking upward of the ceiling of the passage]. At the south front corner of the niche, the cement layer rests upon an irregular limestone fragment which in turn rests upon the corner of a protruding Phase I block. Along the west edge of the cement layer (facing into the passage), the cement hangs free on its edges and underside but is attached to the underside of the broad Phase I slabs above it [fig. 5, 8].

The bedrock at the top of the niche (SE side) is a layer of very soft clay-like bedrock, 0.20 m. to 0.26 m. thick. This is Bed 1i, the first layer of Member II, marking the division between Members I and II.<sup>5</sup> A layer of loose sand, fine limestone chips and mortar about 0.16 m. thick lies between Bed 1i and the phase I slabs that rest on the top of the niche.

The foothold cuttings appear on all three sides of the niche, two on each side [fig. 2, 4]. As noted, they occur very near to the top of the niche. They measure about 0.10 m.- 0.18 m. in height and width and they are cut to a depth of about 0.10 m.

A ledge, about 0.80 m. to 1.0 m. wide, marks the bottom of Area 1. On the ledge, we found a deposit about 0.30 m. deep consisting of loose fine sand, discovering

4. See also HAWASS, *The Funerary Establishments of Khufu, Khafre, and Menkaure During the Old Kingdom*, University Microfilm, Ann Arbor (Mich.),

1987, p. 206-227.

5. GAURI, "Geologic Study"; LEHNER, *The Great Sphinx of Giza*, p. 168 sq.

numerous isolated small bits of charcoal, small ceramic particles and flakes, 2 small snail shells, more limestone fragments and several fragments of grey cement of the type that seals off the niche. At the edge of the ledge, there were several mortared limestone fragments [fig. 2, 4]. The largest of these is a square piece that measures 0.32 m.  $\times$  0.15 m. at the south side of the ledge. The pieces were in two courses, with one of the lower slabs also squared.

After we removed the sand, the bottom of the niche appeared to be covered by a thin layer of buff-white gypsum which passed to and under the limestone pieces set across the threshold. A thin application of mortar on the bottom of the limestone pieces held them in place. Although gypsum also partially filled fissures on the north and south back corners of the niche, some doubt was cast upon the gypsum layer because elsewhere in the passage a similar surface seemed to be more likely a softening of the bedrock surface where it had been covered with deposits.

We found that one of the larger limestone fragments in the sands and limestone-chip fill (located behind and slightly under the larger piece on the ledge) showed blackening as if it had been scorched. The loose sand on the bottom of the niche might have remained from Baraize's work, perhaps used as material for the cement closing off the top of the niche. However, it may have poured down gradually from the space between the Phase I blocks and the bedrock core body. The limestone pieces that seem to have been mortared into place on the ledge are possibly the remains of packing or fill for the Phase I casing.

*Area 2:* Area 2 consists of the 2 meter-long section of the shaft between the niche and a ledge 0.64 m. below the floor-level entrance to the passage [fig. 2, 4]. The semi-circular-shaped ledge, about 0.90 m. deep and 1.0 m. wide marks the lower boundary of Area 2. On the ledge, we found a small deposit of loose quartz sand with small bits of charcoal, pottery, ancient mortar and cement (probably modern). After we removed the sand, we found that the ledge showed a thin layer of off-white gypsum which matched the place where the deposit had covered the ledge. We wondered whether the gypsum layer was merely a chemical reaction of the bedrock surface with salts in the sand.

*Area 3:* The bottom of Area 2 opens onto the shaft leading down below the floor level of the Sphinx. Area 3 ends at a 0.85 m-wide ledge 2.08 m. below the ledge at the bottom of Area 2 and 2.76 m. below floor-level [fig. 3]. The passage is 1.22 m. wide at the bottom of Area 3.

The Area 3 ledge also contained loose sand, although here it was a darker color than the sand in Areas 1 and 2. The deposit contained one cut limestone piece (0.08 m.  $\times$  0.12 m.  $\times$  0.22 m) along with small limestone fragments, bits of charcoal, one alabaster chip, one granite chip, the base of a modern ceramic water jar, and a small bit of tin foil.



*Area 4:* Area 4 extends 2.26 m. below the ledge of Area 3 and narrows from 1.52 m. wide at the top to 0.60 m. wide at the lowest point [fig. 2-4]. The long stroke-like tool marks continue down the sides to the bottom of the shaft and are most prevalent on the face of the drop from the Area 3 ledge. When we opened the passage, very damp debris clogged the bottom for a depth of 1.46 m. This turned out to have been deposited entirely by Baraize, as it included metal foil, modern cement, and two old shoes. After the debris was removed entirely, ground water filled the bottom 0.39 m. of the shaft.<sup>6</sup>

### **Phase I Masonry in the Passage.**

The large slabs of Phase I masonry that cover the upper part of the passage are clean and white and are cut from homogeneous fine-grained Turah-quality limestone. As noted, they are part of the earliest and largest restoration work on the Sphinx in ancient times when the entire lion body of the Sphinx was probably reconstructed after the Member II bedrock of the core body had weathered considerably.<sup>7</sup> This reconstruction was probably that of the XVIIIth Dynasty kings who renewed the cult of the Sphinx under the name, Horemakhet.<sup>8</sup>

The exposed surfaces of these slabs show no appreciable secondary breakage which might be expected if the passage had been forced down behind them after they were in place. On the interior of the passage these slabs project progressively inward in increments ranging from 0.20 m. to 0.66 m. to meet the upward curve of the Sphinx's rump [fig. 2, 7, 8]. Six or seven of the slabs covering the passage are not supported by the natural rock of the core body at the sides of the trench but instead rest entirely on the blocks below them. Fig. 4 is a drawing of the underside of the blocks roofing the passage.

We measured the total breadth of four slabs: 0.60 m., 0.80 m., 0.96 m. and 1.16 m. Smaller slabs bridged the mouth of the passage at the floor level of the Sphinx. Baraize probably split these smaller slabs off of a Phase I block that was originally 0.36 m. thick. The *in situ* Phase I slabs at either side of the opening are also 0.36 m. thick (vertical measurement). Above these blocks, there are three courses of thicker blocks, measuring 0.47 m., 0.63 m. and 0.67 m. from the bottom up on the SW side and 0.42 m., 0.62 m., and 0.67 m. respectively on the NE side. Above these, six courses of blocks have a thickness of only 0.31 m. to 0.36 m. Finally, judging from the profiles obtained outside and inside the passage [fig. 2], the Phase I blocks in the passage range, perpendicular to the Sphinx body, from about 0.30 m. to 0.60 m. in width.

6. The passage was one of several places in the vicinity of the Sphinx where the ARCE Sphinx project measured the water table over a six month period in 1981-1982. At that time the water level was rather uniform at elevation 15.50 m. above sea level. In recent

years the water table seems to have gone down and either for this reason, or because sand and debris have again fallen into the passage, the bottom is dry (1991).

7. LEHNER, *op. cit.*, p. 212-243.

8. *Ibid.*, p. 395-405.

On the underside of the blocks that hang out over the middle of the passage, we found residual patches of limestone chips, calcareous tan clay, charcoal flecks, and flat mortar. This residue indicates that at one time, the slabs must have been bonded to other slabs or to a fill of the adhering material between the slabs and the natural rock core.

The space between the Phase I blocks and the bedrock core on either side of the passage contains a fill of clean quartz sand packed with concentrated limestone chips with sharp edges — probably produced by the trimming of the blocks when the Phase I casing was built [fig. 2]. We also found a few small spots of grey mud in the loose fill. Larger fragments of limestone (e.g. 0.35 m. × 0.09 m. × 0.14 m) occurred loosely in the sand between the cement patch and the surrounding Phase I blocks at the top of the niche in Area 1 [fig. 5].

At the northeast side of Area 2, we found a fragment of red granite, 0.06 m. × 0.13 m., in a triangular space formed by two Phase I blocks and the curve of the natural rock. The granite was in the characteristic packing of limestone chips, sand and mortar.

We carefully checked the surfaces of the Phase I blocks for incised or painted marks but none were found. Two blocks showed chiseled lines, probably marking where the block was to be cut. A few others had a red patina on the bottom but we never determined whether it was paint or merely the result of iron oxide in mortar which had fallen away from the surface of the blocks.

### **Date of the Passage**

We need to consider several facts in determining the date and significance of the passage:

1. The footholds which occur from the lowest to the highest parts of the passage look like the footholds found in the sides of ancient tomb shafts.
2. The top of the passage corresponds to the boundary between the weathered Member II and the hard Member I bedrock layers in the Sphinx core body [fig. 2].
3. On the ledge formed by the removal of masonry veneer, three meters almost directly above the top of the passage, a boulder has separated from the core and lies wedged against the back of the Phase I blocks [fig. 1, 9].
4. A shallow channel runs from the top of the haunch down over the weathered core body roughly in the direction of the core boulder on the masonry ledge [fig. 1]. During a hard rain, water would flow down this channel and onto the ledge.
5. The backs and underside of the Phase I blocks are not damaged but have an occasional residue mortar, limestone chip, sand and clay packing.
6. The limestone pieces on the ledge of Area 1 are solid in their position and may be mortared to the floor of the passage [fig. 3].

It is possible that the passage was cut after the ledge had already been created higher on the rump by the removal of the masonry veneers. Thus, the shaft may have

been cut from the top down beginning at the ledge. Perhaps the large core boulder had separated earlier and attracted attention as though it concealed an opening [fig. 1]. Subsequently, an explorer may have channeled behind the casing through the bedrock on the curve of the rump rather than stripping off the large blocks of the Phase I casing. The lower part of the Sphinx could have been encumbered with debris: it was simply easier to cut down behind the casing than to mount a large excavation and strip the veneer.

There is some indication that the explorer may have been Howard Vyse. During his aggressive explorations at Giza in 1837, Vyse drilled and tunnelled through the pyramids, using dynamite where he deemed necessary. In Vyse's report, diary-style entries begin with a series of headings on the work done that day: on February 23, Vyse lists "Sphinx Boring" and comments: "I began to bore through the shoulder of the sphinx, in order to ascertain whether or not it is hollow..."<sup>9</sup> During this procedure, he bored into the middle of the back just behind the head for a depth of 27 feet until his boring rods became stuck. Subsequent attempts to free the drill rod created a small crater just behind the head.

Undaunted, Vyse resumed his boring activities on February 27 and 28, reporting in his diary "Sphinx. Boring near the shoulder, and near the tail".<sup>10</sup> He did not discuss the boring near the tail; the location of the boring has not been identified. We must suspect that Vyse could have been cutting the passage in the rump. We might compare the passage to the "gallery" Vyse cut into the north side of the Third Pyramid and down through its core, as illustrated opposite page 198 in Volume I of his report. Vyse also refers to this as a "boring" and notes additional explorations in the pyramid: "I also ordered Paulo to hire for a passage in the lower chasm, behind the granite blocks that form the base of this pyramid".<sup>11</sup> In a similar manner, Vyse may have ordered a boring down behind the blocks which form the casing of the Sphinx.

Whether or not Vyse or some other explorer created the passage, it is remarkable that the tunneling did not damage the backs and underside of the Phase I blocks. The mortar and packing residue on these surfaces suggest that the blocks were originally bonded to either the natural rock core or a packing and fill of the passage. If explorers channelled down behind the Phase I casing, they may have found nothing from the ledge down to the floor level where they broke through the lowest course. Then, they may have turned their probe to the NE to tunnel under the base of the statue. After the passage was made, rain water would have run down one side of the rump, onto the masonry ledge and through the passage to the bottom.

A less likely alternative is that the passage was forced down from floor level in two directions, upward behind the Phase I casing and downward under the floor.

9. H. VYSE, *Operations Carried Out at the Pyramids of Giza in 1837*, Vol. I, London, 1840, p. 168, 170.

10. *Ibid.*

11. *Ibid.*, p. 158.

This is a very difficult and impractical way to cut the upper part. The tool marks on the sides of the passage suggest that the excavation work proceeded from the top down.

It is possible that the blocks set at the threshold of Area 1 are all that remain of a masonry packing of the passage. The passage could be a trench from the first attempts to isolate the massive bedrock core from which the Sphinx's body was sculpted. If so, the passage may have remained because it was cut "too" deeply and therefore had to be filled in when later masons reconstructed the Sphinx body with Phase I casing. An early date for the passage would be more probable if Baraize's cement packing was not obscuring the top of the passage and if we could be certain that the Phase I blocks seal off the top.

On the other hand, this patch of cement may itself be the clue that the passage is older than the Phase I masonry. Baraize's workmen must have poured the cement from 3 m. above the passage when they filled the space between the Phase I masonry and the bedrock core on the rump ledge [fig. 1, 9]. It is hard to understand how this thick patch of cement could have hung freely at the top of the passage [Fig. 2 and 5] unless the passage was filled to the very top of the niche when the cement was poured from above.

Baraize began his repairs on the Sphinx before he had cleared the base of the statue. He started repairing the head, for example, as soon as he began his excavation in the area of the forepaws. The most likely explanation for the cement patch is that Baraize filled the rump ledge with cement, between the Phase I slabs and the bedrock core, before he had discovered the passage. At that time the upper part of the passage was filled with ancient masonry and packing. The cement that the workmen dumped in from above ran down onto this fill. Later, probably when he cleared the base of the rump, Baraize found the opening at floor level and proceeded to clear out the passage, removing the ancient packing from the upper part. This left the patch of his own cement hanging at the top of the passage, partly adhering to the underside of adjacent phase I slabs. This would explain why there is a residue of sand, ceramic and charcoal bits, and limestone fragments adhering to the underside of the cement.

From the profile obtained in the passage it appears that, while the Member I rock preserves the original bedrock surface, up to 1.5 m. weathered away from the profile in the Member II rock [fig. 2]. This weathering of Member II happened before the Phase I masonry was laid down, since the Phase I blocks bridge at least part of the top of the shaft as they reconstruct the profile of the rump. Before the most recent restorations (1981-present),<sup>12</sup> there were several places on the statue where one could

12. From 1981 to 1988 large areas of deteriorating masonry veneer were removed from around the lower part of the Sphinx and replaced with slabs that were freshly cut. This operation gave many opportunities to observe the condition of the Sphinx behind the veneer cover. Since 1989 the Egyptian Antiquities Organization has been replacing the stone masonry

that was added from 1981 to 1988, returning to the stone sizes that had existed prior to 1981. The EAO is utilizing for this purpose the maps and elevation drawings that were produced by the American Research Center in Egypt Sphinx Project, with the help of the German Archaeological Institute, in 1979.

see clearly that the Phase I masonry filled in deep recesses caused by the weathering of the softer layers of Member II. The evidence is that by the time of the Phase I restorations, the Member I rock jutted out, in a shelf pattern, from the weathered back profile of Member II all around the base of the Sphinx.

We might consider the possibility that the lower casing blocks are part of an earlier, IVth Dynasty, casing that finished off the lion body of the Sphinx. The three courses of Phase I casing next to the bottom course are thicker than the blocks immediately above them. The thick blocks continue around the curve of the rump to the north large masonry box that is attached to the haunch, as evidenced by the veneer removal of the 1980s.<sup>13</sup> Prior to that they were covered by small Graeco-Roman and 1926 restoration slabs; now these large blocks are covered by the replacement veneer stone of the 1980s.

In profile, the lower veneer of large blocks [fig. 2] looks like the masonry casing on Old Kingdom mastabas at Giza, especially the casing that Reisner typed "x" and "y".<sup>14</sup> The condition of the core body in Member I and the nature of the earliest casing at the rump passage (as at other points on the statue) suggest that the lion body was shaped only roughly from the bedrock. A casing of fine Turah-quality limestone blocks complete the sculpture of the body. The question is, was this casing begun already in the IVth Dynasty, or was it entirely a reconstruction of a later Pharaonic period?<sup>15</sup>

The blocks above the lower three or four courses, are thinner, but they also have the appearance of Old Kingdom casing; the range of their thickness is matched by that of slabs forming the walls of the Khafre causeway near where it meets the Valley Temple (0.36 m.- 0.38 m. is a common thickness). Nothing in the profiles exposed in the passage suggests a structural break between the thick lower courses and those above. The Phase I casing, seen from within the passage, is continuous with the Phase I veneer exposed on the upper part of the north rear haunch and the masonry ledge at the upper rear of the Sphinx. The same casing forms the back upper curve of the rump where it is exposed in section; here the casing abuts to the part of the core body carved from Member II [fig. 9]. As mentioned, it is clear that the natural Member II bedrock of the core body was severely weathered before the application of Phase I casing. The major obstacle in assigning Phase I to the IVth Dynasty as the finish work for the Sphinx body, is the Phase I masonry fills in the deep recesses caused by the weathering away of the softest beds.

13. LEHNER, *The Great Sphinx of Giza*, p. 250-253.

14. G. REISNER, *A History of the Giza Necropolis* (Cambridge, MA), 1942, p. 179, fig. 84-85.

15. A core of natural rock with a casing of Turah-quality limestone is similar to the way in which

the 4th Dynasty builders made a rough core for the mastaba and pyramid tombs, and the Khafre and Menkaure Temples, and then encased these structures with a harder and finer quality of stone, either fine limestone or granite.

It is also clear from a detailed study of the Sphinx chapel, located between the forepaws, that the earliest phases of masonry on the statue, including Phase I masonry on the chest and very large blocks behind the granite stela of Thutmose IV, are, in fact, XVIIIth Dynasty.<sup>16</sup> At this time the Sphinx was excavated, found in weathered condition, and its lion body reconstructed. The XVIIIth Dynasty restorers probably took the Phase I blocks from the Khafre causeway, in effect taking apart the monuments of the Horus User Ib, to reconstruct the Sphinx as Horus-in-the-Horizon.

### **Additional Passages**

Several of the Archive Lacau photographs that document the excavations of the Sphinx during 1926-1928 show another spot where it appears that there might be a passage cut in and under the Sphinx. Arch. Lacau photos CI 17-20 show the north flank of the Sphinx when Baraize cleared the debris down to the floor level in 1925. The workers found a large number of Phase I-sized blocks toppled about in the debris at the base. CI 19 shows a close view of the base of the north belly where they found a large gap in the Phase I casing. A man is standing below floor level in what may be a niche cut into the bedrock core body; another man stands on a small mound of sand just outside the gap. We identified this same spot on the basis of fissures showing in the core body above the casing. It is sealed off now by large stones, some of which are replaced Phase I slabs, sealed with grey cement.

The Archive Lacau photographs indicate that another large gap existed in the lower masonry veneer inside the south large masonry box where it attaches to the body of the Sphinx. CI 63 shows the box being cleared in 1925. Two large stone blocks lie in sand just inside the gap in the masonry. One of the blocks is semi-circular in shape, which leads one to believe that the stones may be part of the Osiride statue, perhaps the torso, that Mariette claimed to have found near the box. Arch. Lacau CI 194 shows the natural rock core body just underneath the Phase I and Phase II casing stones around the top of the gap. None of the records show the condition of the core inside the gap closer to floor level. By the time of our work at the Sphinx in 1979, the gap was closed by limestone patching with modern mortar.

In 1853, Mariette cleared enough of the north flank of the Sphinx to discover the masonry boxes attached to the statue. He mentioned three boxes on this side. It is plausible that Mariette himself created the gaps in the masonry on both sides of the Sphinx. Nor should we rule out Howard Vyse, who would have had no qualms about making a gap in the core body. However, Vyse seems not to have excavated the flanks of the statue to any depth. It is possible that the passage in the north side of the Sphinx, like that at the rump, is ancient.

16. LEHNER, *The Great Sphinx of Giza*, p. 308-318.

**Purpose of the Passage**

The purpose of the passage in the rear of the Sphinx remains uncertain. The evidence favors the conclusion that the passage was made in antiquity, and before the Phase I restoration of the Sphinx body. This restoration is likely XVIIIth Dynasty. If the passage is, in fact older than the XVIIIth Dynasty, it rules out the suggestion that it was cut in the Late or Graeco-Roman Periods when the Sphinx was already a popular focus of pilgrimage and even tourism. Otherwise we might speculate that the passage is an unfinished tomb shaft, cut into the Sphinx for the burial of some personage from the nearby Graeco-Roman settlement of Busiris, mentioned by Pliny the Elder and evidenced by Roman Period material found in excavations to the northeast just across the modern road from the Sphinx. On the other hand, if the passage is not an unfinished tomb shaft, it could be a search for chambers and treasures rumored to be buried within or under the statue. The way that the passage winds down through the rear of the statue, turning as it descends below the floor level of the Sphinx does suggest it is an exploratory tunnel.

If the passage does predate the Phase I (XVIIIth Dynasty) reconstruction of the Sphinx body, it can hardly be exploratory, since it was an open trench down the curve of the Sphinx rump until the Phase I masonry covered it. In this case it may be a lead channel for the quarrymen who first fashioned the Sphinx out of the natural rock by excavating a U-shaped quarry around the core that they isolated for the lion body. There is clear evidence that Khafre's workmen did not quite finish cutting back this quarry just behind the Sphinx. They may have left the channel because it had been cut too deeply into the intended profile of the lion body, or, they may have intended to encase the crude bedrock profile in a masonry veneer, and thereby conceal the channel, although the evidence indicates that this encasement was only completed some 1,200 years later in the XVIIIth Dynasty.