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THE EXCAVATION OF MEDINET HABU—VOLUME IV

THE MORTUARY TEMPLE
OF RAMSES III
PART II

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VOLUME LV

THE EXCAVATION OF MEDINET HABU—VOLUME IV

THE MORTUARY TEMPLE OF RAMSES III

PART II

BY
UVO HÖLSCHER

WITH CONTRIBUTIONS BY RUDOLF ANTHES

TRANSLATED BY ELIZABETH B. HAUSER



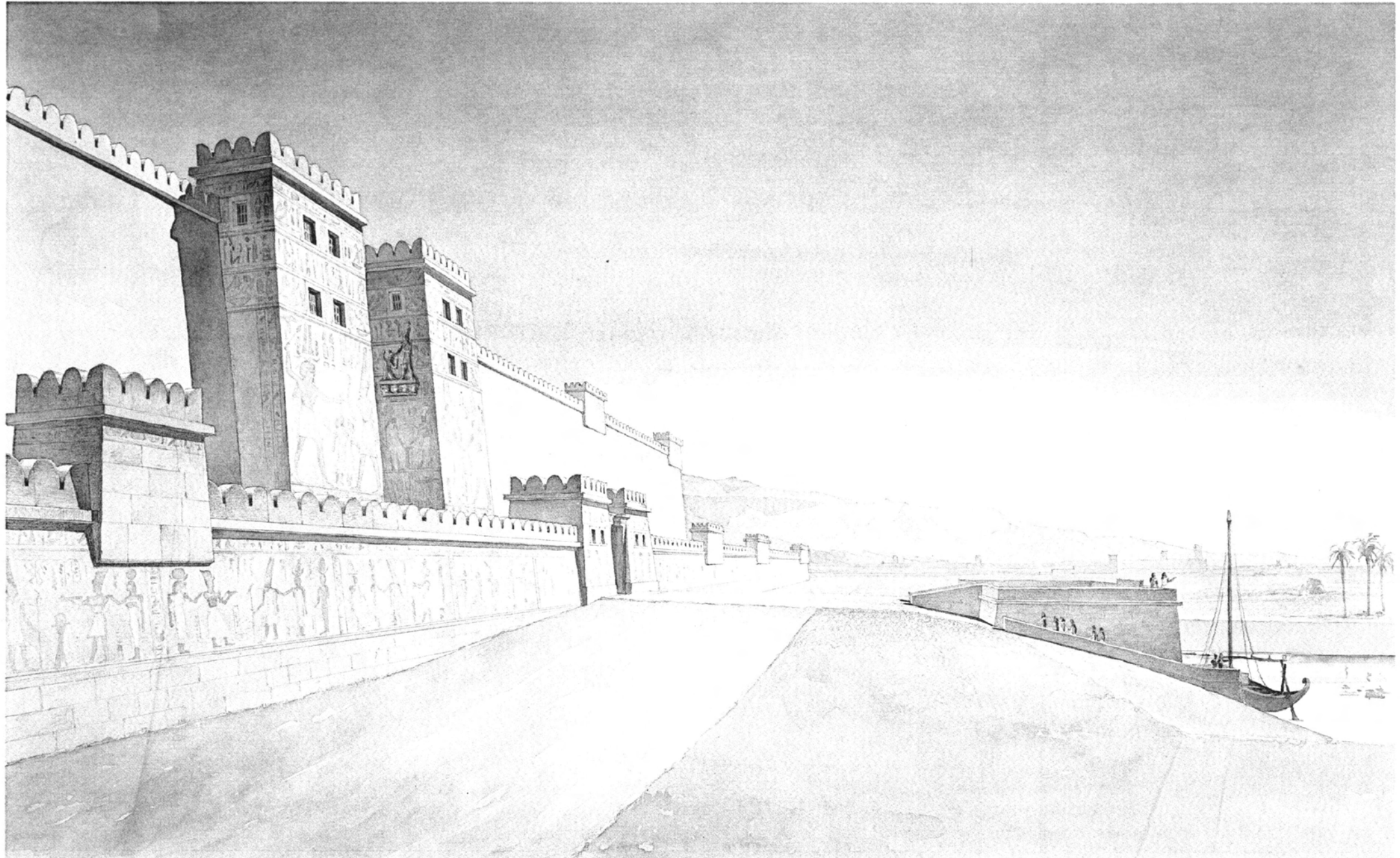
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LIST OF ABBREVIATIONS

<i>ASAE</i>	Egypt. Service des Antiquités. Annales (Le Caire, 1900—).
<i>JEA</i>	Journal of Egyptian archaeology (London, 1914—).
<i>LD</i>	LEPSIUS, RICHARD. Denkmäler aus Aegypten und Aethiopien (Berlin, 1849–1913).
<i>Medinet Habu I</i>	Epigraphic Survey (HAROLD H. NELSON, field director). Medinet Habu. I. Earlier historical records of Ramses III (<i>OIP</i> VIII [1930]).
<i>Medinet Habu II</i>	Same. II. Later historical records of Ramses III (<i>OIP</i> IX [1932]).
<i>MJ</i>	Pennsylvania. University. University Museum. The museum journal (Philadelphia, 1910—).
<i>OIC</i>	Chicago. University. The Oriental Institute. Oriental Institute communications (Chicago, 1922—).
<i>OIP</i>	Chicago. University. The Oriental Institute. Oriental Institute publications (Chicago, 1924—).
<i>PMMA</i>	New York. Metropolitan Museum of Art. Publications of the Egyptian Expedition (New York, 1916—).
<i>RT</i>	Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes (Paris, 1870–1923).
<i>WVDOG</i>	Deutsche Orient-Gesellschaft, <i>Berlin</i> . Wissenschaftliche Veröffentlichungen (Leipzig, 1900—).
<i>ZAS</i>	Zeitschrift für ägyptische Sprache und Altertumskunde (Leipzig, 1863—).

I

THE OUTER TEMPLE AREA

AFTER Ramses III had completed or at least almost finished his original building plan, including temple, palace, and magazines—in short, all that normally belonged to a royal mortuary temple complex—and surrounded it with the Inner Inclosure Wall, he proceeded to enlarge the layout to more than double the original area. He erected a new and stronger inclosure, the Great Girdle Wall, with two mighty gates, and the Outer Wall. The front gate is immediately behind the quay which terminated the canal connecting with the Nile, and the rear one faced the mountains of the Libyan Desert. The new temenos was so large that it abutted the inclosure wall of the temple of Harmhab still standing¹ to the north and embraced the old and sacred Small Temple² erected by Hatshepsut and Thutmose III (see Fig. 1). The new, outer temple area contained buildings for the use of the king and his court rather than structures related in the strictest sense to the temple. The original palace was replaced by a larger one which suited the king's increasing demands and included quarters for the royal harem.³ Thus we are justified in assuming that the enlargement was undertaken more for the convenience of the royal house-

hold than for the sake of actual temple management.

The Great Girdle Wall formed a rectangle with outside dimensions of 210×315 meters (= 400×600 Egyptian ells). The rear half of the north course slanted a little. This was the only irregularity in the otherwise strictly rectangular and symmetrical layout and is easily explained by the history of the site. Ramses III's original layout, the inner temple area, although near the temple of Harmhab (Fig. 1), which originated at the end of the Eighteenth Dynasty and was still in use, did not encroach upon it. The axes of the two temples diverged about 7°. But when Ramses III enlarged his temple area, it conflicted with that of Harmhab to the north. In pious regard for the latter, therefore, he not only slanted the north course of his inclosure wall so that it paralleled Harmhab's wall but also placed the Outer Wall closer to the main wall at this point. The Outer Wall apparently was never properly finished; at least it was faced with stone on the outside of its east course only, that is, on the front, whereas the other three sides were left in their weak and shabby mud brick. Along these three sides was a moat which apparently was not dug until the late Ramessid period.

THE GREAT GIRDLE WALL

Since the Great Girdle Wall was built of mud brick, which was cheap but not very substantial, it was not only possible but also desirable for it to be exceptionally thick and high. Its thickness is 10–11 meters at the base of the socle, that is, as much as 20 Egyptian ells (= 10.5 m.). Its foundations rest on bedrock 2–3 meters below ground, so that it could not easily have been tunneled under. Above ground, within as well as without, are remains of the socle with sloping sides; the wall itself, as far as we could tell, has a greater slope or curve on the outside than on the inside. South of the Eastern Fortified Gate (in D 5–6) a section of the wall is still preserved to a height of 15.20 m. above datum. On the west, where the ground is 7.40 m. higher, the wall was razed to a height of about 11 meters above datum, 3.60 m. above the ground, presumably during a systematic destruction at the hands of enemies toward the end of the Twentieth Dynasty. Later, however, it was repaired at various times and in part strengthened by a facing on the outside (Pl. 41 and Folio Pl. 15⁴).

The top of the Great Girdle Wall is nowhere preserved. However, at the point where the wall abutted the north side of the Eastern Fortified Gate (Pls. 18 A and 11, north

elevation) there are traces indicating the original height of the wall, including parapet, as about 18.40 m. above datum. We have assumed that there was a promenade (at +16.43 m. according to the roof of the gate) and a ledge (at +17.05–17.20 m.; see p. 8) behind the parapet. On the basis of ancient Egyptian representations we have assumed that the parapet was formed of crenelations. Rounded mud-brick crenelations such as we have reconstructed are still preserved on the near-by Ptolemaic or Roman inclosure wall of Deir el-Medinah. It would further seem that our wall had small towers (see Pl. 2) of the type known as cavaliers, similar to those still partially preserved on the Outer Wall. Compare the Inner Inclosure Wall, which also had towers, though because of the insufficient strength of the wall they did not ride it but were built against the outside.⁵ The front corners of the Great Girdle Wall are square, but the rear ones are rounded (see Fig. 1 and Pl. 14 A). Rounded corners are technically better in soft mud-brick fortifications, since they offer an attacking enemy no easily destructible sharp edges. We do not know whether towers occurred at the rounded corners but would assume very large and strong ones at those points, where they would have been particularly important for defense.

The wall rises with the ground from east to west. The socle was built in generally level courses and rises—like

1. Vol. II 65.

2. *Ibid.* pp. 1–62.

3. Vol. III 49–56.

4. The plates of Vol. I are referred to throughout as "Folio" plates. See Vol. V for later history of Medinet Habu.

5. Vol. III, Fig. 53.

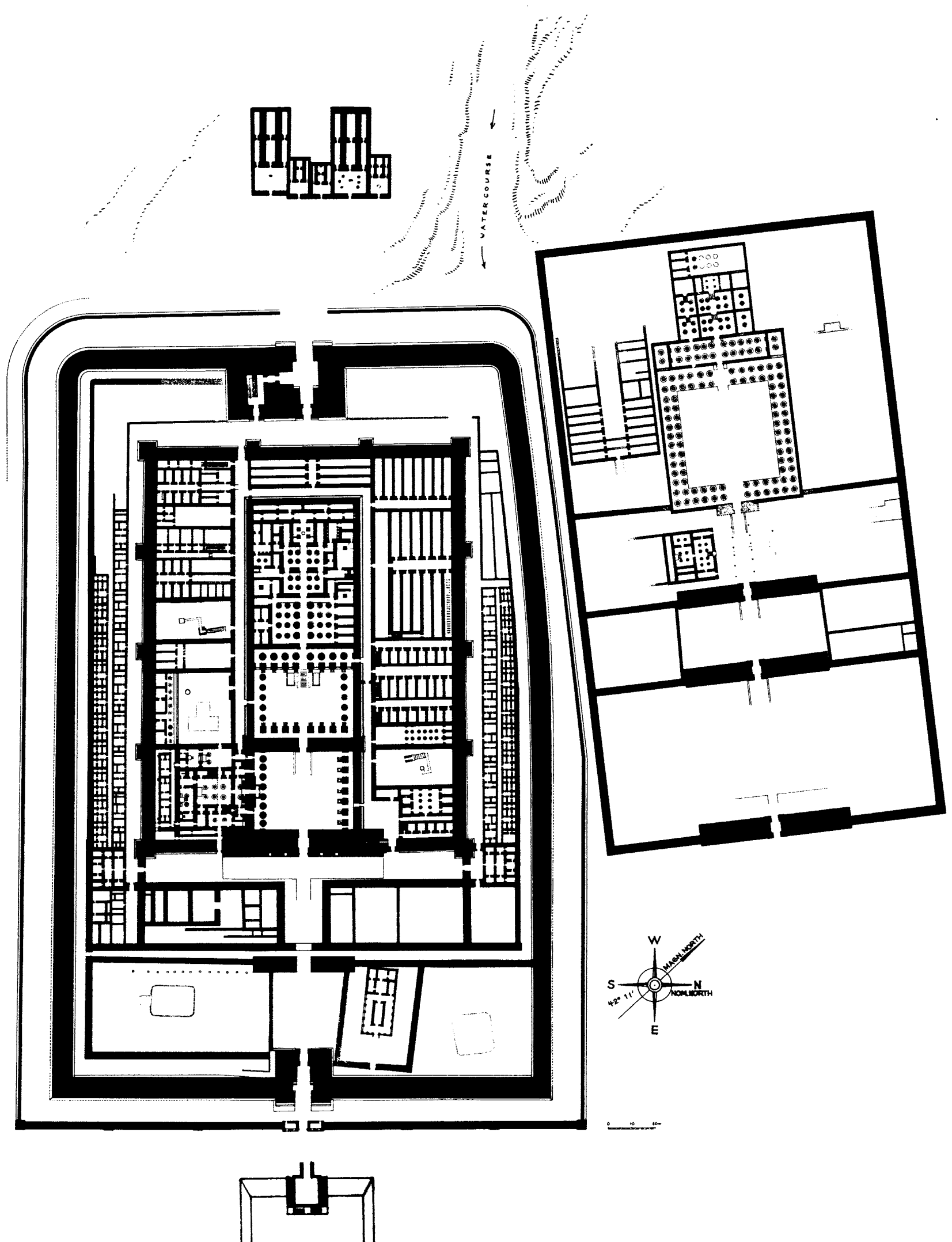
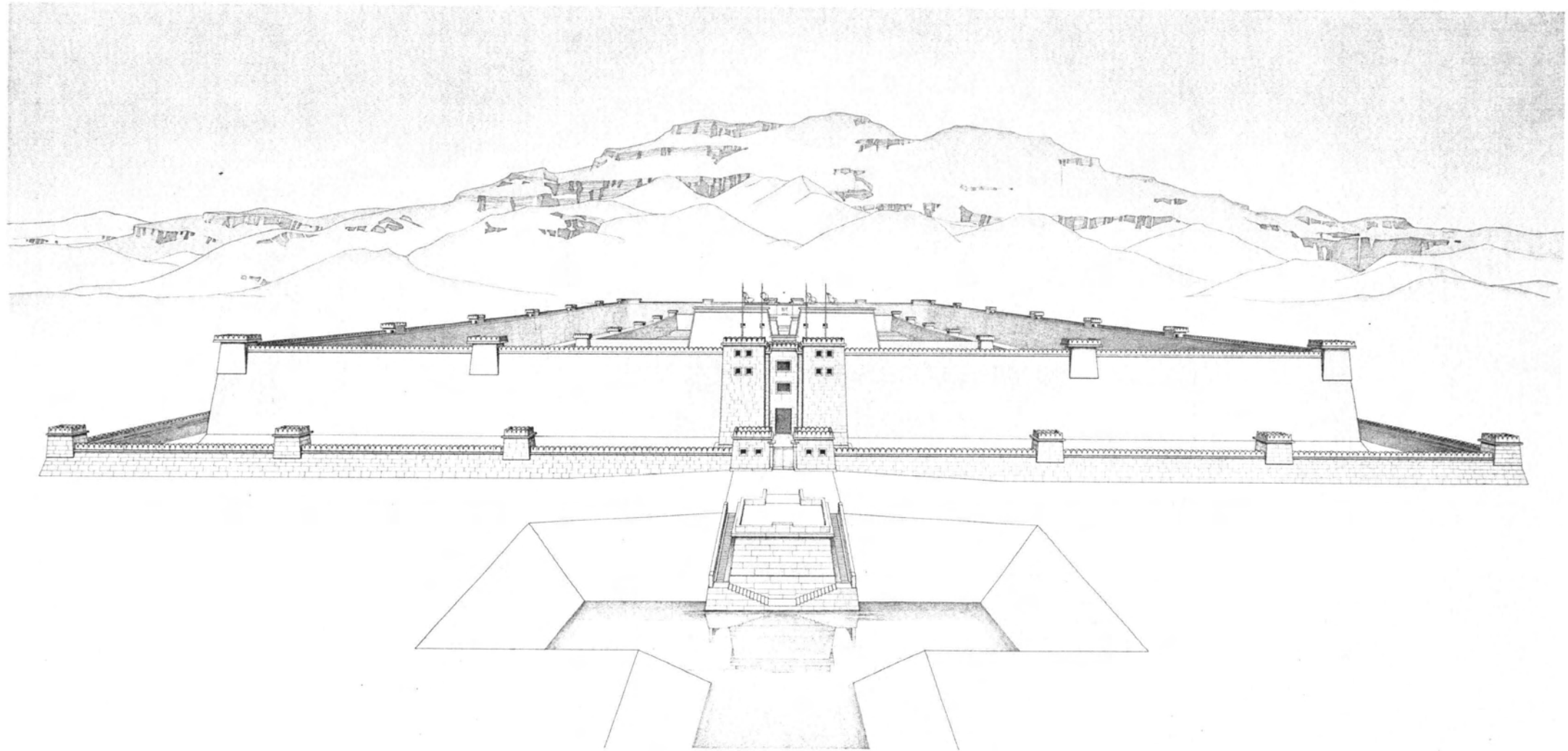


FIG. 1. PLAN SHOWING THE RELATIVE POSITIONS OF THE TEMPLE OF RAMSES III (*left*) AND THAT OF EYE AND HARMHAB (*right*)



RAMSES III'S TEMPLE COMPLEX. AIR VIEW FROM THE EAST. RECONSTRUCTION

the socle of the temple⁶—in four steps. In certain places along the sides, however, the socle and the wall above it were built with pitched longitudinal courses, from which fact it may be concluded that the top of the wall also was partly stepped and partly pitched. The transverse courses “hang” like slack rope throughout, so that they form almost right angles with the sloping wall surfaces (see Pl. 41). In this way relatively smooth rather than stepped surfaces were obtained (Fig. 2). But above all the sloping joints prevented easy tearing-down of the wall.⁷

The sun-dried mud bricks, with average size of $43 \times 21 \times 13$ cm., are black and soft and regularly unstamped. Mortar was used very sparingly. On the outside both the vertical and the horizontal joints were thoroughly filled, but in the interior either a thin coating spread over each course sufficed or no mortar at all was used (Pl. 41, Section 1). Consequently the courses are 1–2 cm. thinner in the middle than at the outside. To offset this difference, about every sixth course in the interior of the wall was laid with bricks standing on end and thus was 8–9 cm. taller than the others. The almost complete lack of mortar within the wall⁸ made it easily destructible, either by enemy attack or by later inhabitants of Medinet Habu. The socle inside as well as outside is about 1.50 m. high, with its sides pitched at an angle of about 50° . It too was constructed of sun-dried mud brick and like the rest of the wall plastered with mud mortar and whitewashed. One stairway to the top of the wall apparently was located in the Western Fortified Gate (see p. 9), and the Eastern Fortified Gate no doubt contained another (see p. 7). Apparently stela had been let into the inside or the outside face of the wall at various points. We found four pieces (e.g. Pl. 14 C–D) lying close to the foot of the wall. They are all rather similar in style but vary in size. Each shows the king wor-

shipping before Amon, but all the scenes are different in detail.

We did not attempt to free the entire course of the wall on the outside, since there were enormous quantities of rubbish (see Pl. 14 A) resulting from its own destruction, from the collapse of later houses, and from various earlier excavations. We confined our efforts to test cuts through the wall at various points. The resulting cross sections are given on Plate 41. The ground outside the Great Girdle Wall was raised by means of artificial filling and then leveled (see Fig. 15). This filling, consisting of broken bricks and gravel, is 10–11 meters wide all around except at the point which abuts the temple area of Harmhab, where it is only half as wide (Pl. 41, Section 4). Against its

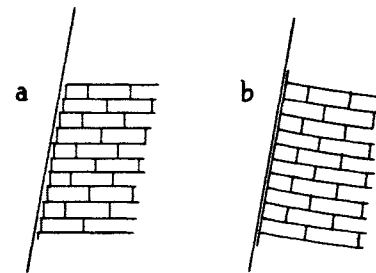


FIG. 2. SECTIONS THROUGH BRICK WALLS WITH BATTER, SHOWING (a) HORIZONTAL AND (b) “HANGING” COURSES

outside was a sharply inclined retaining wall consisting mostly of mud brick and carrying the Outer Wall, now destroyed to a large extent except for its east course, which was faced with stone on the outside. Here it is so well preserved (Pl. 41, Sections 6–7) that it can be reconstructed with some degree of certainty. We might assume that it was of the same height on the other three sides, though of course not so strong.

THE OUTER WALL

The stone-faced east course of the Outer Wall has a batter on each side and is 4.20 m. thick at the bottom. The earth inside it was banked about 2 meters higher than that outside. Consequently, without the crenelations, it rises 4.40 m. above the terrain on the outside and only 2.40 m. on the inside. There are some beam holes (possibly of later origin) in the wall where it abutted the south

6. *Ibid.* p. 22.

7. In an earlier publication, *Das Hohe Tor von Medinet Habu* (WVDOG XII [1910]) p. 27, I concluded that the wall was erected in separate sections, designated *Türme und Breschenmauern*, in which the longitudinal courses were alternately convex and concave (*ibid.* Fig. 21)—as may be observed in Ptolemaic and Roman walls. However, this conclusion was erroneous. Any convex or concave longitudinal courses resulted from either faulty construction or the contour of the ground.

8. In a few places reed grass was used in the joints of every second course to hold the bricks together.

guardhouse of the Eastern Fortified Gate (see Folio Pl. 29), and there seem to have been a ledge behind the parapet and a passage 75 cm. deeper (cf. Pl. 41, Sections 6–7). However, in other places the presence of such a passage seems doubtful to me, so that I did not venture to reconstruct it in Plate 11. Small towers were mounted on the Outer Wall. The corbeled foot of one is still preserved (see Pl. 41, Section 7) and seems to indicate that the tower walls were almost vertical; but that cannot be gauged with certainty, since the Outer Wall has sunk backward considerably at this point (in C 12–13). We have assumed that the towers with their crenelated tops were of the same height as the guardhouses with their crenelations (see Pls. 1–2). After the death of Ramses III the front of the Outer Wall was decorated with reliefs which with monotonous regularity picture Ramses VI before various gods.

THE MOAT

The moat which lay outside the Outer Wall on the north, west, and south sides is clearly recognizable in T 3-4 (see Pl. 41, Section 5). It is 6.60 m. wide and about 1.10 m. deep. The bottom is 85 cm. below the base of the retaining wall which carried the Outer Wall (see above). At the north the moat lies above ruins of Harmhab's inclosure wall (see Pl. 41, Section 4). Since Ramses III in enlarging his temple area was careful to spare the temple of Harmhab and its inclosure wall (see p. 1), obviously he did not construct the moat which damaged the latter. Our excavations have shown that the moat was filled with bricks and brick debris from Ramses III's Great Girdle Wall, which was destroyed toward the end of the Twentieth Dynasty.⁹ The moat, then, must have been constructed before that time and hence in the time of the later Ramessid kings. Thus it did not belong to the original fortification system of Medinet Habu under Ramses III.

Surprisingly the moat did not extend along the east of the temple area. That which appeared to be a moat and which before our excavations I had called such¹⁰ was a wide Roman street. The value of a moat for defense is self-evident. But apparently that was not the fundamental reason for the moat here, or it would have been con-

structed on all four sides. What, then, can have been the reason for its existence? In discussing the temple of Harmhab we have already mentioned¹¹ that after occasional heavy rainstorms torrents from the mountains gushed down into the valley with overwhelming force. Our excavations have shown that such a watercourse, which flowed through the Valley of the Queens and the valley of Deir el-Medinah, ran between Harmhab's inclosure wall and the Inner Inclosure Wall of Medinet Habu (see Fig. 1). After Ramses III had extended his temple area close to that of Harmhab and thereby obstructed this watercourse, during stormy weather the turbulent flood waters must have been dammed in front of the west wall of Medinet Habu. In order to create an outlet for them apparently the moat was constructed along the rear and the two sides of the temple complex; along the front naturally it was unnecessary. The urgent necessity for a regulated outlet was demonstrated soon after the moat was filled with debris resulting from the destruction of the Great Girdle Wall. On the next occasion the flood waters forced an outlet through the temple of Harmhab and caused incredible damage. It follows therefore that our moat was actually dry most of the time and served not for purposes of defense but as a watercourse for torrents.

THE HIGH GATES

Two mighty citadel-like gates were built into the Great Girdle Wall on the axis of the rectangular temple area, one at the front and one at the rear. The east gate formed the main entrance to the complex. Festival processions arriving on the canal from the Nile proceeded through it to the temple. It provided access also to entrances to the royal palace and the temple magazines. The west gate, facing the desert, led to the necropolis and a settlement for necropolis workmen. It probably was intended for daily use, since it appears to have been the more essential and the more advantageous of the two gates to employees and workmen who lived at Medinet Habu. It was also larger and more strongly fortified than the front gate, perhaps because attack was to be feared more from the west, that is, from the higher desert. It was at least as lavishly equipped as the east gate.

These two gate structures can be understood only when considered in connection with the Great Girdle Wall, into which they were built. They were cubic structures of the same height as the wall, each containing a small court with its front open to the outside and the actual gate closure in its rear wall (see Pl. 3). They were constructed of mud brick, like the girdle wall, for the most part; but all the faces accessible to an enemy, that is, the front, the court walls, and the part containing the real gate passage (rear as well as front) were built entirely of sandstone.

The stone portions of the east gate, in part including the crenelations, are well preserved. But the brickwork, except for a fragment on the south side, is destroyed. Its last

remains were carried away during the *déblaiement* of Medinet Habu which took place at the end of the last century, so that we could recover the original form only by excavating the foundations. The situation at the west gate, on the other hand, was entirely different. The stonework has disappeared except for slight remains of socles and foundations in a few spots, which sufficed to indicate the ground plan (Pl. 40), but some of the brickwork still stands to a height of 3-4 meters. Fortunately, numerous blocks from the upper part of the building which had been thrown down by the destroyer were found in the rubbish. They are very similar to corresponding parts still *in situ* in the east gate. We could, therefore, with the aid of the ground plan and these discarded blocks, determine that the west gate closely resembled the east gate in construction and in decoration of the surfaces intended for display. We can utilize what the west gate has to tell us to complete the picture presented by the east gate and vice versa.

THE EASTERN FORTIFIED GATE¹²

In the center of the stone-covered east course of the Outer Wall is a gateway between two stone guardhouses which resemble small towers. Its two-leaved gate was 3.50 m. wide and therefore of about the same width as the doorway in the high gate. It is an open-lintel doorway only 3.90 m. high. Its power of resistance against attack could not therefore have been very great. The guardhouses themselves, in spite of their crenelations, likewise are not to be considered as fortified structures. This is shown by the

9. See Vol. V.

10. *Das Hohe Tor von Medinet Habu*, pp. 21 f. and Pl. I.

11. Vol. II 65.

12. Folio Pls. 25-29, which show the present state of the structure, should be used together with the reconstructions given on Pls. 6-11 of the present volume.

relatively large windows facing the outside, which an enemy if necessary presumably could easily have broken open and forced his way through. Emphasis was laid on the decorative effect of the buildings. All the walls were covered with reliefs executed partly under Ramses III¹³ but mostly under his successor, Ramses IV. Even Ramses VI, who decorated the adjoining stone-faced Outer Wall too (see p. 3), immortalized himself on the window frames. The chambers were left undecorated inside.

The Great Girdle Wall with its very imposing high gate, which has no equal in Egypt, rises behind the Outer Wall and the guardhouses (see Pls. 2-3). The front of the gate is formed by two towers which project beyond the wall and 2 meters above it—the same motif as at the guardhouses, but on a gigantic scale. In front the towers slant and have the usual sloping socles with platforms underneath. They stand on immense projecting stone plinths which give the impression of firm and substantial foundations. The tops are formed by moldings crowned with crenelations, just as in the case of the guardhouses. The court opens between these two towers, which are separated by a distance of 7.10 m. First it widens to 9.20 m. and then narrows to 5.40 m. between two projecting tower-like parts. The walls of the court are perpendicular, except the two tower-like parts, which have sloping socles at the front like those of the front towers, but somewhat smaller (see Pl. 7). Obviously it was desired to create the impression of a second pair of towers behind the first (see Pl. 3). The actual gateway lies in the rear wall of this narrow court, where assailants advancing against it could have been showered with missiles from all sides. The gate passage was closed at the front with a mighty single door. This door, upon which depended the weal or woe of the stronghold, was 3.80 m. wide and 5.70 m. high and doubtless was constructed of heavy beams and planks presumably overlaid with metal. It pivoted on a large black granite socket (see p. 35 and Fig. 44).

The lower part of the gate structure is solid throughout, and thus the rooms are high above ground. In the rear half of the building they begin with the second floor, and in the front with the third floor (Pl. 8). Finally, each tower has a fourth-floor room. The windows are rather small, except those in the two main rooms above the actual gate passageway, where the large openings seem scarcely consistent with the otherwise defensible nature of the layout.

The spectator's impression of the Eastern Fortified Gate must have depended largely upon the colored reliefs which adorned its outside walls (see Pl. 6). While the Great Girdle Wall and under Ramses III the Outer Wall also were simply whitewashed, the walls of the gate were covered with the profusion of colorful pictorial decoration which Egyptian art decreed. Since the window openings were placed high above ground, the walls offered space for large-scale representations, similar to but different in style from those on the Great Pylon of the temple. They are warlike as well as religious; both types belonged together, since victory over the enemy was achieved as the result of participation by the god, who had bestowed upon his son, the king, the right and power to conquer and before whom captured enemies were led to be killed. The main scene

occurs on the front of each tower (Pl. 15). The king on a gigantic scale holds his enemies by the hair and smites them before Amon,¹⁴ who offers him a sickle-sword. Below this scene on either side, just above the socle, kneel seven enemy princes bound as living captives, who can be identified by their features and dress and by accompanying inscriptions: on the left tower are princes of the south and west—Negro, Ethiopian, and Libyan; on the right are princes of the north—Hittite, Amorite, *Tkr*, *Šrdn*, *Šrkš*, *Trš*, and Philistine.¹⁵ On the side of each tower facing the court (see Pl. 7) two registers of scenes on a somewhat smaller scale show the king before various gods. The figure of Ptah (left) was set off by fayence inlays, and the frame of his baldachin with ornamental metal strips. The figure of Seth (right) has been chiseled away (Pl. 21 A). Between these scenes and the cornice the walls are covered with symbolic representations and inscriptions.

Another very striking type of decoration is preserved on the walls of the court. Sculptured busts in rows of four spring from the walls above heavy projecting slabs (see Pls. 7, 16 B, and 21). Apparently they represent captives who seem to be lying in the walls on their stomachs. Sculptured figures which fitted into corresponding grooves in the walls must have stood above each console. The front console on each wall was placed higher than the center one, and the latter is higher than the rear one. Their widths also vary, being respectively 2.05, 1.60, and 1.50 m. On the north side the background for the middle set of figures projects about 15 cm. beyond the rest of the wall. It is about 1.75 m. high and is inscribed with the king's names in large hieroglyphs (Pl. 16 B). On the south side the king's names occur in the same relative position above the rear-most console (Pl. 21 B), but there is no projection. There were windows behind all the other statue groups (see p. 7 and Fig. 5).

The sculptured groups which stood on the prisoners' heads were attached by means of their bases, which were bonded deep into the walls and fastened with gypsum mortar and stone fragments. Above each console two vertical grooves, deeper at the bottom than at the top, are chiseled into the wall; the back pilasters of the sculptures may well have been fastened in these grooves. The fact that there are two grooves in each case leads to the conclusion that each plastic group consisted of two figures on a single base. The background in two cases bore the king's names in monumental size, which must have been visible between the two figures. One of the figures therefore was no doubt the king; the other must have been an adversary whom he was slaying. We have already found sculptured heads of conquered and captive enemies projecting from the palace façade, where it is clear that they were associated with the victorious king, who stood above them either as represented in reliefs or actually in the flesh in his Window of Royal Appearances.¹⁶ Therefore let us imagine here on the outer walls of the high gate six statue groups, each representing the king slaying an enemy. However, they cannot have been statues in the round, for then the consoles would have been too narrow. Instead

14. As Amon-Re^c on the left tower and as Amon-Re^c-Harakhte on the right tower.

15. Walter Wreszinski, *Atlas zur altaegyptischen Kulturgeschichte II* (Leipzig, 1933) Pls. 160a-b = LD III 209 a-b.

16. Vol. III 40 and Pls. 3 and 33 G.

13. Keith C. Seele has called my attention to the fact that on the west wall of the north guardhouse the name of Ramses III is followed by *m3c-hrw*, "deceased"—the only such occurrence at Medinet Habu.

they must have been flat, about 25 cm. thick, almost like high reliefs when seen from the front. Whether in every case the two figures of the group were carved from a single slab or whether each figure was formed separately remains uncertain; that might depend upon the material of which they were made. In any case they were not made of sandstone; otherwise they could have been safely worked, together with the consoles, in the walls themselves instead of being inserted separately. The most suitable material would have been granite or some other hard stone; but the deeply bonded base and the back pilasters argue against that. Hence we would suggest metal or wood, possibly a combination of the two. Wood partly overlaid with gold and inlaid with stones of various colors seems by no means impossible, though somewhat unsuitable, for free-standing statues. The Egyptian was not averse to using wood, as shown by the wooden Balcony of Royal Appearances in

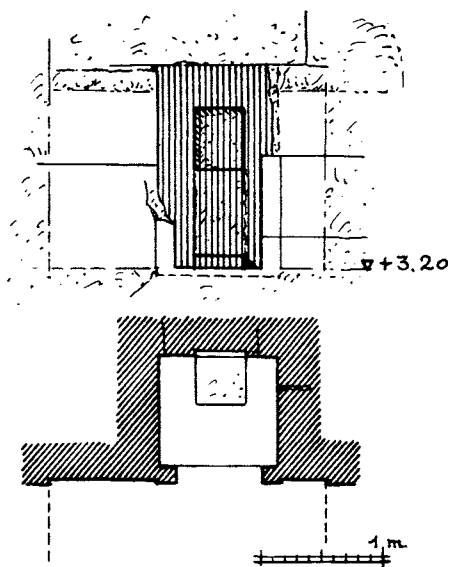


FIG. 3. NICHE FOR A CULT STATUE CUT IN THE STONWORK OF THE SOUTH SIDE OF THE EASTERN FORTIFIED GATE (cf. Pl. 17)

front of the palace and a form of decoration found on palace doorframes in which wooden "cloisons" were used to form cells for holding inlays (see p. 40). Perhaps Bonomi observed correctly in 1859 when he reported concerning the consoles under the windows as follows: "Fragments of statues made of wood, combined with other materials, have been found, such as might be supposed to have been placed out at this opening and the opposite one, on state occasions, for the admiration of the Egyptian public."¹⁷

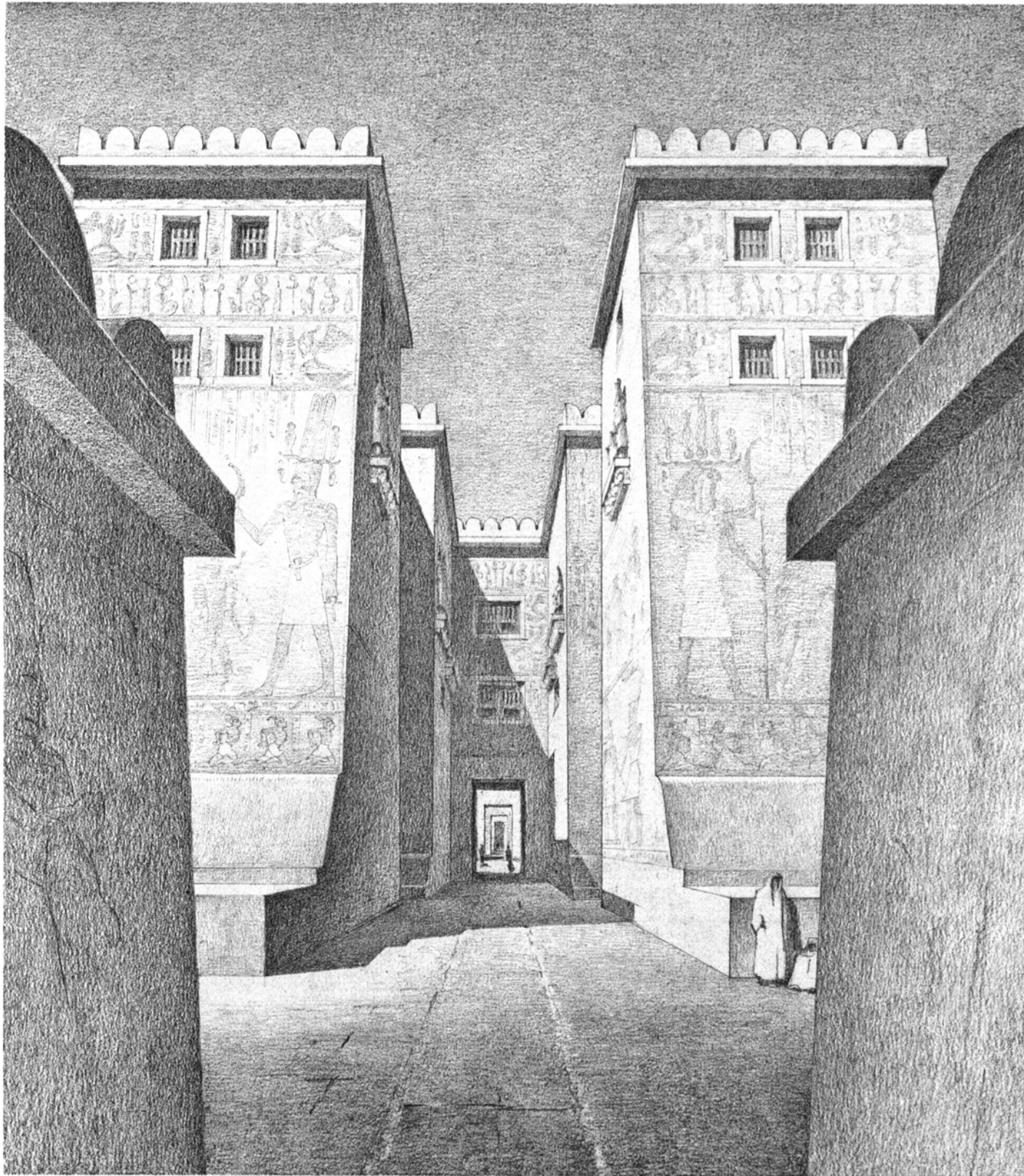
We have already noted that the Eastern Fortified Gate gives the impression of having two pairs of towers one behind the other; furthermore, the rear pair appears to be of the same height as the front pair (see Pl. 3). This deception is brought about first by the fact that the distance between the rear "towers" is less than that between the front towers and second by the most striking element of the wall decoration, namely the statue groups, which, as mentioned above, diminish in height above ground and in size from front to rear. These tricks, like wings in the theater, make the court look deeper than it really is. I do not venture to contend that Ramses III's architect tried to create this optical illusion with conscious knowledge of the rules of perspective, but he must have felt what the result of the expedients which he chose would be.

17. *Egypt, Nubia, and Ethiopia*. Illustrated by 100 stereoscopic photographs, taken by F. Frith . . . with descriptions and numerous engravings by J. Bonomi, and notes by S. Sharpe (London, 1862) p. 62.

At the rear of the gate only the middle section, that is, the section which contained the actual gate passage (Pl. 19), was constructed of stone. The side wings, now destroyed, were built of mud brick. Their outer walls probably were simply whitewashed like the Great Girdle Wall and furnished with small windows wherever necessary (see Pls. 6 and 11). They must have been crowned with crenellations, as may be inferred from the presence of crenellations on the stone structure (see Pl. 18 A). The middle section, which is still completely preserved, has large windows on the west and east. The reliefs outside (see Pls. 6, 15, and 19) and in the gate passageway (see Pl. 7) again show the king as he leads his enemies before Amon and slays them.

Since we have said that the entire ground floor of the gate was built as a solid structure, that is, without any hollow spaces, two points where there appear to be ground-floor rooms should be explained. One is on the north side at ground level where a space 1.70 m. wide by 2.40 m. high in the otherwise rough stonework has been worked smooth to form the stone wall of a room. Obviously this is not original but belongs to the cult chamber of the Twenty-fifth Dynasty tomb whose underground vault is labeled "Tomb No. 4" on Folio Plate 3. The other place is on the south side where, at the lower landing of the modern staircase, a niche 89 by 94 cm. and 1.70 m. high has been cut into the stonework (Folio Pls. 25 and 29). At the rear of the niche (Fig. 3) is a small pedestal under a shallow rectangular recess into which presumably a small slab was once inserted. On the frame of the niche (see Pl. 17) are very small scenes (21 cm. high), each showing the king before a deity. This niche belonged to a barrel-vaulted room. A support for the vault was cut into the stone 1.50 m. above the floor of the niche. The style of decoration and the technique indicate that this room was not built until later, when most of the brickwork of the gate had been removed, probably in Ptolemaic or Roman times. It is thus true that the ground floor originally contained no rooms, not even a stair well. In fact, outside stairs or a ramp built onto the south wall led to the second floor (+7.41 m.). Only the substructure is preserved (see Fig. 4 and Folio Pl. 25).

The second floor contained several rooms (Pl. 8), but only the one above the gate passageway (Fig. 4:2 and Folio Pl. 26) is preserved. It measures 4.15×4.50 m. and had a flat ceiling (see Pl. 7) with wooden beams (see p. 33). At the front and rear are large window openings which had wooden grilles and folding wooden shutters (see p. 34 and Figs. 40–41). At the sides are doorways of moderate size, whose outside frames are decorated with the usual royal inscriptions and crowned with cavetto cornices (see Pl. 20). In the center of the lintel in each case is a small scene showing the king seated on a chair with a harem maiden before him. Near the doorframes are traces which show where the brick side walls and barrel vaults of Rooms 1n and 1s (2.40 m. wide) once adjoined. Of the other second-floor rooms we know only what is indicated where their walls were built against the stonework. On the south was a room (3s) 5.40 m. long by 2.10 m. wide which received its light through a window 1.05×1.10 m. Beside this was space for a second room of the same size (3s') of which, however, no trace is preserved. On the north side was a room (3n) corresponding to 3s but only 1.50 m. wide,



THE EASTERN FORTIFIED GATE, SEEN FROM THE
FRONT. RECONSTRUCTION

which therefore was probably merely a passageway. Beside it was space for a stairway to the third floor (see below).

The third floor (Pl. 8 and Folio Pl. 26) was laid out in the rear exactly the same as the second floor. The main room (Fig. 5:5) in the center measures 4.15×4.85 m. It too was spanned by a wooden-beamed ceiling (see p. 33). The windows resemble those of the room below. The doorways, however, are larger (1.50×2.65 m.) and have on the outside elaborate *Supraporten* (see Pl. 20) such as we have already encountered in the temple and the palace.¹⁸ The

continuation of the assumed stairway from the second floor (see below).

We have already noted that the stairway or ramp leading from the ground level to the second floor was built onto the exterior south wall of the gate. But there must have been an inside stairway from the second floor to the roof terrace, though no traces of it remain. The only place where such a stairway could have existed is in the north half of the structure beside the passageways (3n and 6n). Though our reconstruction (Pls. 8–10) is based on supposition, it cannot be far from the truth.

Finally, we must call attention to an interesting feature of the third floor. Rooms 6n and 6s each have two windows of unequal width. The two wider ones are directly opposite each other, but the two smaller ones are not. On the contrary, the narrower window in 6n was behind the rearmost of the statue groups which were once fixed to the north wall of the court (see Pl. 16 B) whereas that in 6s was behind the middle statue group of the south side and was accessible only by means of a narrow passage in the thickness of the wall (see Fig. 5). Windows were located behind

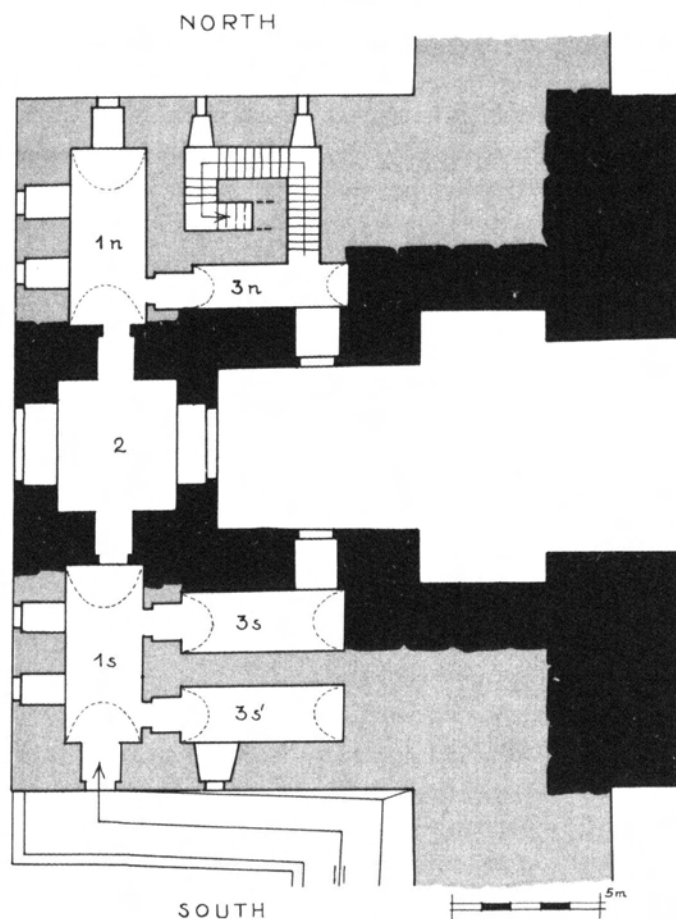


FIG. 4. PLAN OF THE SECOND FLOOR OF THE EASTERN FORTIFIED GATE RECONSTRUCTION (SEE PL. 8)

adjoining rooms (4n and 4s) were about the same as the corresponding rooms below except for greater height (see Pl. 10). Rooms 6n, 6s, and 6s' too closely resembled those below them. The floor level was 1 meter higher in the front than in the rear (see Pl. 10). The rooms in the north half are similar to but not exactly like those in the south half. The main room on each side is the tower room (9n and 9s). They are of modest size (2.00×4.60 and 2.00×4.80 m.) but were built of stone on all sides and therefore are comparatively well preserved. The ceilings again were constructed with wooden beams. Three windows, two at the front and one facing the court, gave each room abundant light. These tower rooms are connected by means of large openings (1.60 and 1.80 m. wide respectively) to ante-rooms (8n and 8s) which belonged with them, since the openings have no doorsteps and hence had no doors. Rooms 7n and 7s, of unequal size, were presumably separated from 8n and 8s by doors. The steps which must have connected the two levels of the third floor on each side are not preserved. At the south side, in my opinion, they could scarcely have been located anywhere except between Rooms 6s' and 7s. On the north they probably formed a

18. Vol. III 27 and Pls. 21 B and 36–37.

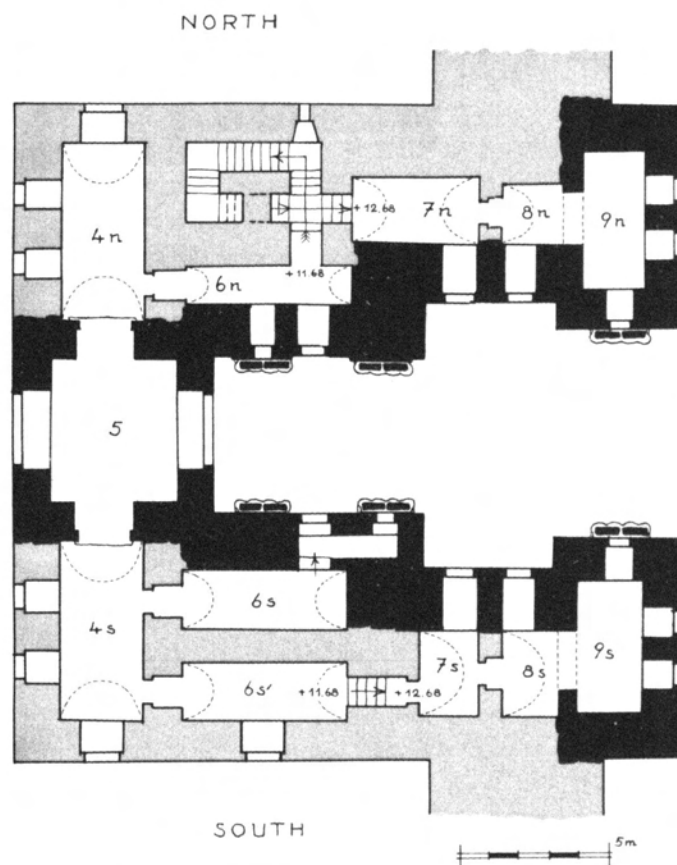


FIG. 5. PLAN OF THE THIRD FLOOR OF THE EASTERN FORTIFIED GATE RECONSTRUCTION (SEE PL. 8)

the two front statue groups also (see Pl. 7). What purpose could have been served by these windows behind statues? That they were not intended as decoration can be seen from their asymmetric arrangement, and that they were not essential for illumination is indicated by the position of the window in Room 6s. Hence they must have had some practical or structural purpose which I cannot divine. We must therefore be satisfied for the present with the facts as established in the hope that in the future the solution to the problem will be discovered.

The roof of the high gate (Pl. 9) was flat and surrounded by crenelations (cf. p. 34). It was terraced at various levels, whose heights are indicated on the stone walls, but the crenelations were all at the same level except, of

course, on the front towers, which were higher than the rest of the structure (see Pl. 7). In the west half the roof lay at +16.43 m., that is, at the same height as the assumed promenade (see p. 1) of the adjoining Great Girdle Wall. At the east above Rooms 7 and 8 it rose to +17.20 m. on the south side and +17.05 m. on the north, that is, to about the same height as the ledges behind the crenelations of both the building itself and the Great Girdle Wall. The topmost tower rooms (fourth floor) were at a somewhat lower level (+16.23 m.) than the roof and were accessible from it by means of steep passageways close behind the crenelations. Unfortunately these two rooms are destroyed except for part of the north wall in the north

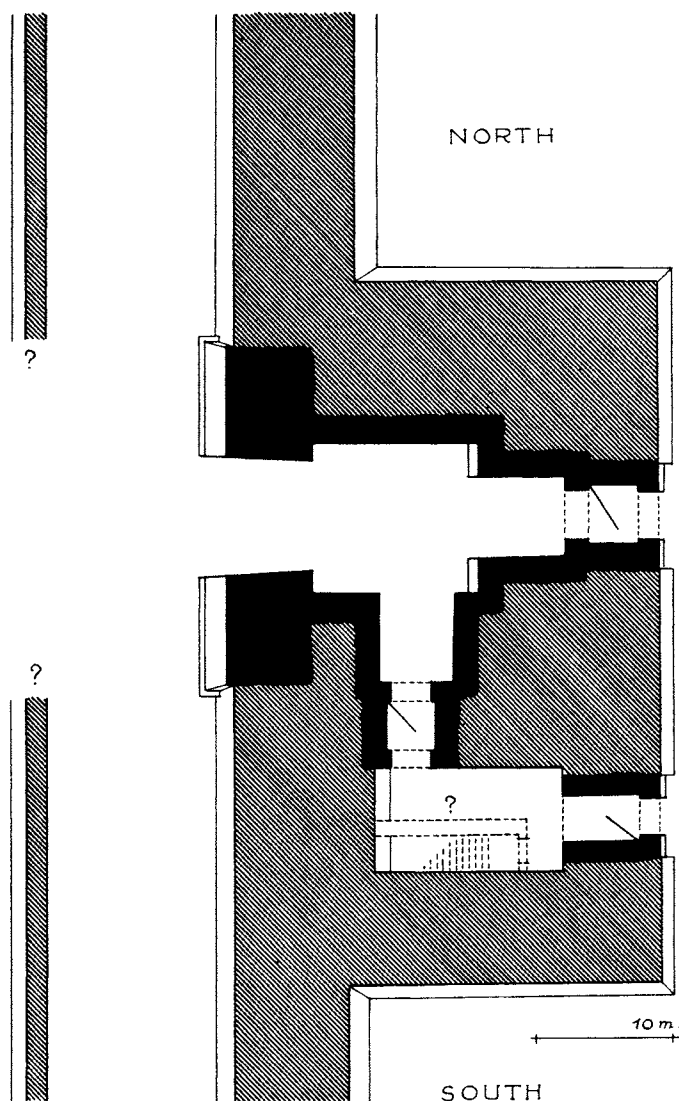


FIG. 6. GROUND PLAN OF THE WESTERN FORTIFIED GATE
RECONSTRUCTION (cf. Pl. 41)

tower with a window jamb and the adjoining west wall with holes for wooden ceiling beams (see Pls. 15, 16 A, and 18). The holes indicate that the inside height of the room was 2.40 m. (see Pl. 10).

The walls in all the rooms of the Eastern Fortified Gate, so far as they are preserved, are decorated in relief with scenes from the private life of the king. We see him sitting on a chair and greeted by members of his harem, who present him with flowers, fruit, and other gifts in baskets. He caresses one maiden and plays a game of draughts or the like with another (see Pls. 16 A and 22-23). If we can judge by the now colorless reliefs, in such scenes the king as well as the maidens were represented entirely in the nude. But perhaps their garments, tunics or the like, were merely painted, as in one relief fragment from the Western Fortified Gate (Pl. 26 F). In the rooms above the gate pas-

sageway and in the doorways the king is seen walking with scepter in hand and evidently accompanied by a fanbearer. But in such instances he is always clad in the usual royal garb.

In the side doorways and in the window openings the wall surfaces against which the door or window leaves opened are as a rule merely painted with the usual baskets of flowers and fruits etc. and not carved in relief. The ceilings of the window niches are for the most part painted with tapestry patterns (Pl. 24). In the more favored rooms the soffits of the window and door lintels show vultures with protective outspread wings or similar motifs. Under the flat roofs or the impost moldings of barrel-vaulted rooms are usually friezes of hanging lotus blossoms and the like occasionally with bands of inscription below them (Pl. 22). The lunettes usually show the double cartouche in the center with the winged disk above and falcons, winged uraei, or the like arranged symmetrically at the sides (Pl. 20). Nothing is preserved of the decoration of the barrel vaults, but we can scarcely be wrong in assuming that they were plastered and painted in the same fashion as the ceilings of the window niches, that is, with geometrical tapestry patterns, and possibly on the crowns with bands of inscription.¹⁹ Fragments of doorframes probably from the brick rooms of one of the fortified gates were found reused in the tomb of Horsiëse (Twenty-second Dynasty).²⁰

THE WESTERN FORTIFIED GATE

The west gate was destroyed toward the end of the Twentieth Dynasty,²¹ together with the adjoining Great Girdle Wall, and then used as a stone quarry. Consequently the stone walls have for the most part disappeared down to the foundation level (Pl. 40), though large sections of the brickwork were left standing. The lower courses of the socle of the south tower and some foundation blocks were all that remained *in situ* of the stonework. In addition, blocks from the upper part of the structure which had been thrown down during the destruction were so soon buried under high piles of rubbish that they escaped the notice of stone-robbers and were built over when the Great Girdle Wall was restored.

The Outer Wall, which, as we have seen, was flimsily built of brick except along the east, has only a few courses preserved on the west (see Folio Pl. 15). In the center there must have been a gate between guardhouses, as on the east side, or at least such a structure must have been planned. But we found no traces of any such structure in the excavations. The west gate itself was very similar in construction to the east gate; its layout is most easily understood from the reconstructed ground plan (Fig. 6). There were two towers at the front, then a rectangular court with two tower-like members projecting into it, and finally the actual gate. The dimensions were in many respects even greater than those of the east gate. The towers were of the same width (8.10 m.) as those of the east gate but much deeper, and the distance between them (8.10 m.) was 1 meter greater (cf. p. 5). The court was a

19. Cf. Ludwig Borchardt, "Die Entstehung der Teppichbemalung an altägyptischen Decken und Gewölben" (*Zeitschrift für Bauwesen* LXXIX [1929] 111-15).

20. E.g. Vol. III, Pl. 35 B, the legend of which should read: "Found outside the palace in the tomb of Horsiëse."

21. See Vol. V.

little wider and considerably longer, obviously because it was adjoined on the south by a smaller court with a side gate somewhat smaller than the main gate. We have here apparently a characteristic feature of fortified structures. The side gate was set back far enough so that the enemy could not see it from outside, and thus it could be opened without being noticed; the defenders could burst forth unexpectedly and plunge into hand-to-hand combat with the aggressors, or withdraw under the protection of the walls and towers if the enemy was too powerful. This side gateway led to a rectangular room which probably contained stairs to the top of the Great Girdle Wall and to the upper floors of the high gate. This room gave access also to the inside of the stronghold. The purpose of connecting the side gate and the stairs was probably to allow the defenders, if they could not hold their own in open pitched battle and had to withdraw, to hasten up the stairs to protect the high gate and the wall.

Now let us observe the structure in detail. The towers, the walls of the court, and the gate passageways were constructed of sandstone and all else was of mud brick, just as in the east gate. The room which we have assumed to be the stair well was a new feature. It measured 7.25×14.00 m. and was entirely of mud brick. Its west wall had a socle with sloping side (Pl. 40 *C-D*) which was later hewn away. It is assumed that the room was roofed, since its walls were vertical. Not the slightest trace of steps was found. This room with its massive walls together with the high gate formed a unit, as indicated by the sloping socle around the outside of both, which is at the same height as that of the Great Girdle Wall but somewhat steeper. After the destruction of the high gate tombs were built into this room with their floors as much as 2.29 m. below the level of the original floor.

The front elevation of the west gate corresponded, so far as we can tell, to that of the east gate. The towers had similar projecting socles (Pl. 40 *E-F*). The blocks from the upper part, especially of the south tower, even in all details are shaped and decorated in the same style as corresponding blocks in the east gate. There were similar large-scale scenes in low raised relief (Pl. 25) under a frieze and band of inscription in sunken relief, the same type of consoles with prisoners' heads, and the same kind of cornice crowned with crenelations (see p. 34). The reliefs were merely whitewashed and otherwise left unpainted and therefore no doubt unfinished (see p. 38). We have fragments from the inside showing window niches with tapestry patterns on the ceilings and reliefs with scenes from the private life of the king (Pl. 26).

The main scene on the front of the south tower covered its whole width (8.10 m.) and was at least 5 meters high. It showed the king in his war chariot advancing toward the right and crushing Negro enemies. The following fragments of the scene were found:

1. Several pieces of the upper left-hand corner (Pl. 25 *A*), showing parts of the head, arms, and bow and arrow of the king, with a square panel containing his cartouches, and an inscription (bottom missing) which states: "The king, lord of . . . , lord of strength, Userma'ne Meriamon, appears on the chariot, to²² crush. . . ."

2. Various parts of two chariot horses—neck and head (Pl. 25 *B*), hoof (Pl. 25 *C*), and uplifted forelegs (Pl. 25 *G*)—together with fallen or fleeing Negroes.
3. More Negroes (Pl. 25 *D-E*). The edge of the tower shows at the right on *E*, which was found on the quay in front of the east gate.

Other relief fragments from the outside of the west gate include the following:

4. Chin and neck of the king facing left (Pl. 25 *F*). Belonging to a scene of the same size as that on the south tower, perhaps its counterpart on the north tower; found built into the tomb of Horsiēse (see n. 20).
5. Outstretched arm of the king facing right with drawn bow and the bridles of the horses (not illustrated).
6. Feet of Ptah(?) turned left, with the lower end of a scepter and the foot of the worshipping king turned right (not illustrated); about half the size of the representations in Nos. 1–5.
7. Several large pieces of the ornamentation and a band of inscription from the upper part of the south tower (not illustrated), resembling corresponding parts of the east gate.
8. Two prisoners' heads from the consoles (Pl. 25 *H*); eyes and hair painted black, the face of one yellow.

Fragments of reliefs from the interior are shown on Plate 26:

9. A maiden presenting papyrus flowers to the king, who offers her in return a drink from a vessel which looks like a cup (*A*).
 10. A maiden offering the king a bowl with three fish (*C*).
 11. Two more gift-bearing maidens (*B*).
- Numbers 9–11 are unpainted, but the following unfortunately very small fragments still show well preserved remains of color which indicate how richly and elegantly the reliefs were or were to have been executed:
12. Fragmentary figure (middle part) of a maiden (*F*); red body with piece of skirt painted in colored checks showing at back; background painted with loose branches and leaves.
 13. Flowers (*G*) from the headdress of a maiden (cf. Pl. 22);²³ yellow flowers with red lines and blue and green dots; red background.
 14. Bust of a prince(?) with characteristic graceful head-dress (*H*); red face and body, white collar; no other traces of color preserved.

We have the following fragments from unfinished rooms in which the wall scenes were merely sketched:

15. Head of a maiden (*E*) finely outlined with black brush strokes on white ground.
16. Inscription containing the cartouches of Ramses IX (*D*). Other painted fragments of the late Ramessid period (not illustrated) show the king worshipping before a god.

Naturally nothing was recovered of the scenes on the brick walls. However, we did find fragments of two engaged cluster-columns (Pl. 4) in the debris of the Western Fortified Gate. They are made of fine-grained limestone and are of modest size (1.10 m. high). Apparently one stood on either side of a niche faced with limestone slabs. Numerous fragmentary limestone slabs were found with the

23. This type of headdress must have had special significance, since in the relief shown on Pl. 23 *B* it has been cut away.

22. [— for —?]—KEITH C. SEELE.]

columns, but they do not suffice for reconstructing the form and shape of the niche. The largest fragment (Fig. 7) could have belonged to its rear wall. Obviously this niche with its richly decorated frame was in one of the vaulted mud-brick side rooms. Traces on the columns show that they carried a wooden architrave painted red. Perhaps the brick vault rested directly upon it.

Apparently each column together with its back piece (6 cm. thick) was worked from a single slab of stone. Each has three capitals superimposed one above another—"lily" over papyrus over lotus. We are acquainted with such strange combinations from mural paintings in tombs of the Ramessid period.²⁴ But here for the first time we find such columns in plastic art and can explain their strange form. Imagine a thick cluster of reed stems, the inner ones being longer than the outer ones. The innermost ones are bound together and bear a so-called "lily" capital; the stems tied around them are shorter and bear open papyrus clusters; the outermost stems are the shortest and

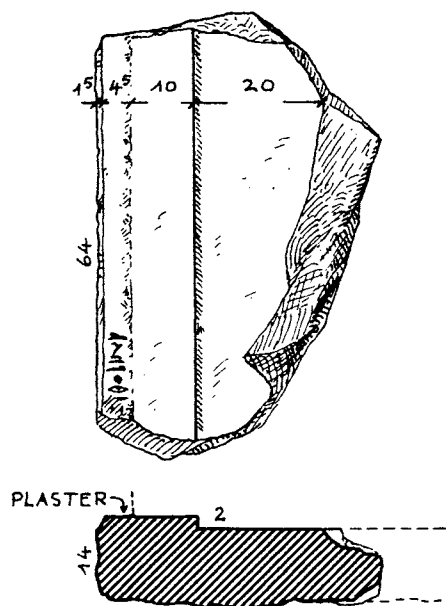


FIG. 7. LIMESTONE FRAGMENT APPARENTLY FROM REAR WALL OF NICHE FRAMED BY ENGAGED CLUSTER-COLUMNS SHOWN ON PLATE 4. ILLEGIBLE REMAINS OF A HIERATIC INSCRIPTION IN LOWER LEFT-HAND CORNER

bear lotus blossoms. Thus the entire length of the stalks is visible only in the case of the lotus plants. These are colored alternately blue and green and are ornamented with basal leaves. The lotus blossoms are painted blue with green sepals, enveloped in turn by large yellow sepals with red contours. The papyrus umbels have similar yellow sepals, black lines on blue-green to represent the rays, and small red blossoms. The "lily" capitals are painted bright blue and red. Beside each of these cluster-columns, close to the edge of the niche, stands a slender engaged column consisting of a single papyrus stem with an open-papyrus capital. On this a uraeus rears itself, with its body and tail twined around the shaft below. The rich coloring of the columns was still almost fully preserved when we found them and will be permanently preserved in a water color by Leslie Greener (Pl. 4).

In connection with the decoration of the west gate we must mention also numerous fragments of fayence tiles which no doubt belonged to doorframes or the like. They are as finely executed as similar tiles from the palace, with

24. See e.g. Jean Capart, *Egyptian Art, Introductory Studies*, translated from the French by Warren R. Dawson (London, 1923) pp. 124 f. and Pl. XLVI.

which they are treated below (pp. 42-44). They are decorated with representations of foreign prisoners (Pls. 33 a, e, g and 34 l, n, q, r), *rhyt*-birds (Pl. 35 c), floral designs (Pl. 35 a and d), and simple patterns (Pl. 35 b).

CONCLUSIONS

The outer temple area with its Great Girdle Wall, Outer Wall, and two mighty gates definitely has many features of a fortress, and thereby Medinet Habu differs from all other temple complexes with which we are acquainted. The Ramesseum, on which we are wont to draw for comparison,²⁵ with its weaker walls, had no outer wall, and, as far as we know, no fortified gate. It is possible, of course, that there were fortified temple complexes of the same type in other parts of Egypt, perhaps in the Delta,²⁶ where there was always danger of invasion by the Libyans or other foreign peoples. But the fortification of the temple complex at Medinet Habu was apparently an innovation in Upper Egypt. It evidently took strong hold on the imagination of following generations, since Herihor (Twenty-first Dynasty) on a relief in the temple of Khonsu at Karnak dedicates to the god a model shrine which shows a fortified inclosure wall²⁷ similar to the Great Girdle Wall as reconstructed at Medinet Habu.

We have remarkably little information concerning fortresses in Egypt proper. Excepting the very early examples at Abydos, el-Kab, and Hierakonpolis we know of fortresses only in Nubia and in the Delta, that is, in the borderlands. We are specially interested in Ramses III's fortification at Tell el-Yahudiyyah, on the edge of the Delta not far from Heliopolis. It has a fortified gate resembling ours in ground plan, size, and brick measurements, though according to Petrie²⁸ it appears to have been without stone facing.

A citadel-like gate structure with its passageway protected by two projecting towers is known in simpler form apparently as early as the archaic period at Hierakonpolis, though to be sure it does not lie on the axis of the fortified area.²⁹ But such gate structures in the more highly developed form found at Medinet Habu, as far as we can see, were not used until the time of the wars with Asia Minor and presumably had Syrian prototypes.³⁰ The important factor at Medinet Habu, however, is that this type of fortification was adopted for a temple complex. Medinet Habu was thereby to a certain extent converted into a citadel on the west of Thebes. Whether Ramses III feared that danger of foreign invasion of Thebes was acute or was preparing for internal revolt is difficult to determine.

25. Vol. III 71-82.

26. A similar fortified temple compound in the Delta, but perhaps belonging to a much later period, is represented in a mosaic found at Palestrina; see M. Rostovtzeff, *The Social & Economic History of the Roman Empire* (Oxford, 1926) Pl. XLI 1.

27. Vol. III, Fig. 36.

28. W. M. Flinders Petrie, *Hyksos and Israelite Cities* (London, 1906) p. 30 and Pl. XXXV.

29. J. E. Quibell and F. W. Green, *Hierakonpolis II* (London, 1902) Pl. LXXIV.

30. Cf. the gates of Zincirli (Sendjirli) as illustrated after Koldewey in Hölscher, *Das Hohe Tor von Medinet Habu*, Figs. 63-65. The Semitic designation "migdol" for such tower-like buildings was taken over as a loan word in New Kingdom Egyptian (see Hermann Kees on "magdolon" in Pauly-Wissowa, *Real-Encyclopädie der classischen Altertumswissenschaft* XXVII [1928] 299 f.).



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ENGAGED CLUSTER-COLUMNS FROM THE WESTERN FORTIFIED GATE. CAIRO 59891 (LEFT)
AND CHICAGO 14089 (RIGHT). SCALE, ABOUT 1:4

As a matter of fact, Medinet Habu, since it was the most strongly fortified place on the west of Thebes, was the seat of administration for the necropolis under the later Ramesid kings and finally during the unsettled times toward the end of the period was besieged, conquered, and in part destroyed by enemy forces.³¹

In the second millennium B.C. a wall 18 meters high and 10–11 meters thick at the base was probably impregnable as long as it was earnestly defended. Every attack had to be directed first against one or both of the high gates, which would seem to us vulnerable in many respects. The guardhouses, which had to withstand the first onslaught, had very large outside windows through which entrance could have been forced. Furthermore, the open-lintel door between the guardhouses offered little protection, since it could easily have been forced or climbed over. Even in the main structure itself the unusual size of the gate opening and of the windows above it seems scarcely consistent with the provisions for defense. Obviously in the construction the aim was for an imposing reception of processions rather than for protection against attack.

The contradiction is still more apparent when one views the arrangement and decoration of the rooms over the gates. These seem to have been intended exclusively for the enjoyment of the king with the ladies of his harem. Hence earlier writers have considered them the harem dwellings. But no doubt they were wrong, since the plan of the rooms in the Eastern Fortified Gate at least corresponds in no way to the plans of dwellings known to us, not to mention the lack of side rooms (e.g. bathrooms). Finally, it is very unlikely that there were at Medinet Habu two harem dwellings outside and away from the royal palace—one in the east gate, the other in the west gate. The only reasonable interpretation is that the rooms

over the gates served merely as occasional retreats for the king and his favorites—kiosks on the walls, so to speak, whence there were beautiful views of the temple and its grounds, of the desert mountains and the necropolis, of the fertile green fields and the distant Nile. Even today in the Orient one occasionally finds a special room added above a gateway (Fig. 8).

So we see that all sorts of elements were included in the inclosure wall of Medinet Habu. The mighty gates especially were of triumphal character, built in commemora-



FIG. 8. GATEWAY TO THE MODERN VILLAGE OF SHANHUR, NEAR LUXOR

tion of battles and victories of the king and intended to give a formidable impression of his might to processions bound for the temple of Amon. Within, the gates, equipped as luxuriously as the palace itself, served particularly the pleasure of the court. Hence the fortified appearance of their walls and towers is not to be taken entirely seriously.

THE CANAL AND QUAY

Directly in front of the Eastern Fortified Gate we cleared an extensive quay which had formed the termination of a canal connecting Medinet Habu and the Nile. Presumably this waterway ran along a continuation of the main axis of the temple and therefore, regardless of

the same time. We assume that the canal was constructed before the actual building of Medinet Habu was begun so that the stone blocks could be brought from the Nile on ships. Later it was used for processional journeys of Amon when he crossed from Karnak to attend festivities

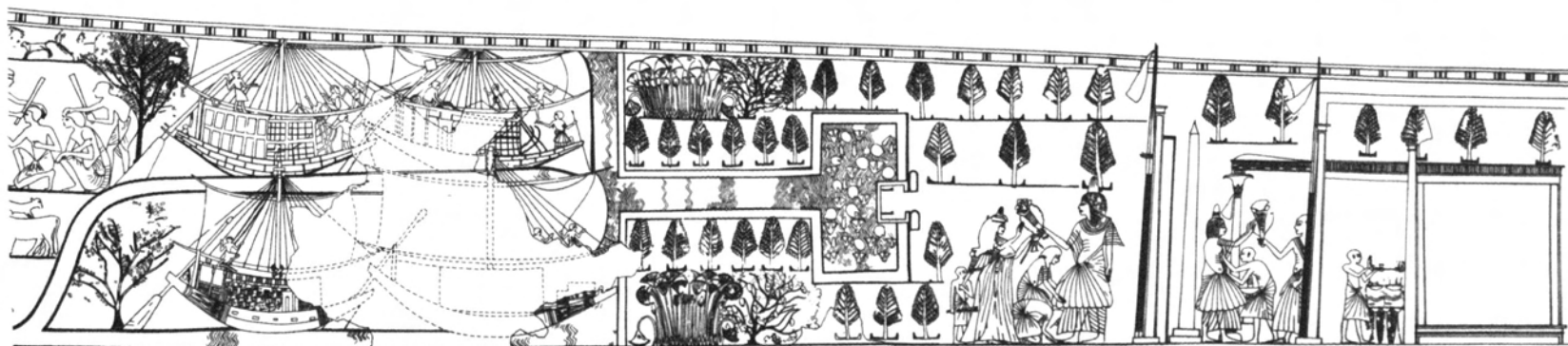


FIG. 9. SCENE SHOWING THE TEMPLE OF AMON AT KARNAK (right) WITH ITS CANAL AND QUAY (center) AND SHIPS ON THE NILE (left)
After Norman de Garis Davies, *The Tomb of Nefer-hotep at Thebes* (PMA IX [1933]) II, Pl. III

whether the Nile then flowed close by the Luxor temple, as it does today, or farther to the west, must have joined the Nile a little above the Luxor temple. At the quay the canal probably was widened to form a T (cf. Fig. 9), so that several vessels could be moored or turned around at

31. See Vol. V.

on the west bank. Today, however, practically nothing of the canal is to be seen, since it ran through cultivated land which now is about 3 meters higher than it was at the time of Ramses III, and we were not in position to make deep excavations there. We determined the slope of the banks only at the end near the quay. Canals apparently were

constructed in front of all mortuary temples on the west of Thebes, though all may not have existed at the same time, and can be proved likewise before the temples of Amon and Montu at Karnak, the temple of Medamud, and others. If we judge by ancient Egyptian representations (Fig. 9),³² they always had a T-shaped terminus and usually a quay, as at Medinet Habu.

The quay at Medinet Habu is an immense square platform constructed of large stone blocks. It rose about 1.40 m. above the banks of the canal. It was surrounded by a stone parapet³³ decorated with scenes and inscriptions and accessible only from the rear (west). It was, therefore, not intended for mooring ships but rather served as a place to await approaching ships of the gods and the king and to greet them with offerings and festive splendor. Two stair-

ways extended along the sloping sides of the quay to the water. The steps had 38-cm. treads and 14-cm. risers; for the most part every three steps were worked from a single stone block. They lay in part directly on the sloping banks of the canal without any foundations at all (Fig. 10), in part on a course of foundation blocks. With such

in ground water (see Pl. 13 B). In June, 1930, at low-water level (-7.05 m.) we were able to work down only as far as the steps which lay exactly in line with the front of the platform, 7.08 m. below our datum, that is, 70.01 m. above sea-level. Beyond that by means of sounding with an iron rod we were able to discover only that the stone foundations projected at least 1.50 m. farther. The question is whether more steps lay below our lowest step (-7.08 m.). In order to answer this question, important for reconstruction, we must determine the level to which the canal, or the Nile just above Luxor, with which it was connected, sank in the Ramessid period.

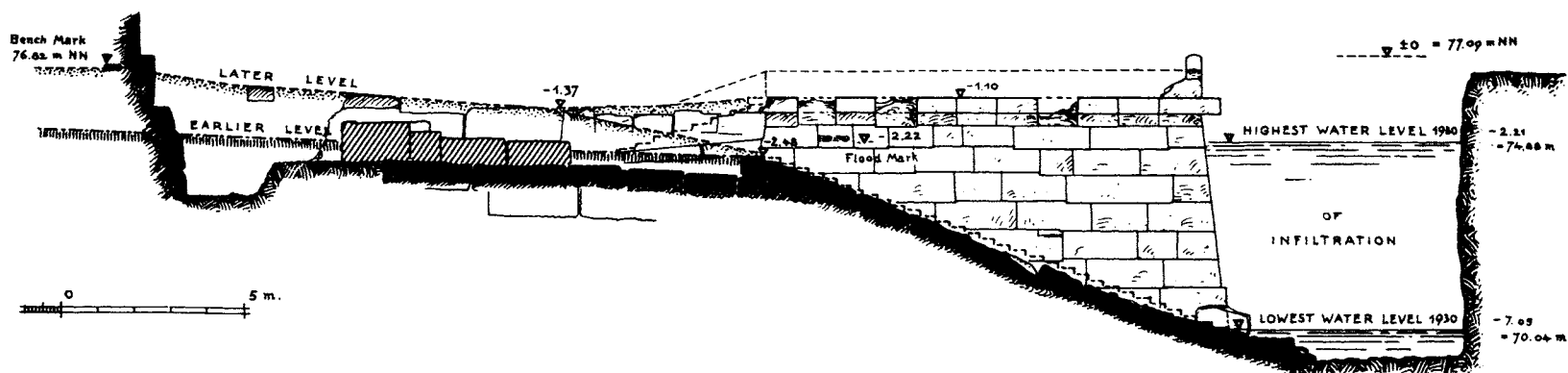


FIG. 10. SECTION THROUGH SOUTH STAIRWAY OF THE QUAY AT MEDINET HABU

An inscription of the seventh year of Ramses IX (Fig. 11) on the quay indicates the high-water level of that year

ways extended along the sloping sides of the quay to the water. The steps had 38-cm. treads and 14-cm. risers; for the most part every three steps were worked from a single stone block. They lay in part directly on the sloping banks of the canal without any foundations at all (Fig. 10), in part on a course of foundation blocks. With such

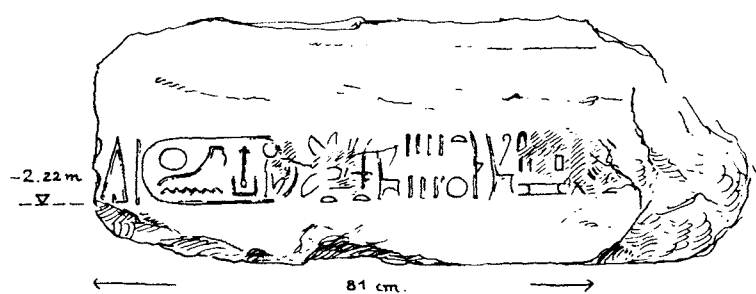


FIG. 11. INSCRIPTION OF THE SEVENTH YEAR OF RAMSES IX ON THE QUAY (CF. FIG. 10)

inadequate foundations it is no wonder that the steps have slipped and sunk. The lower ends of the stairways could not be thoroughly examined and measured while they lay

in the course of history the bed of the Nile owing to mud deposits rose 2.68 m. in an average period of twenty-eight hundred years, that is, 9.6 cm. per century.³⁴ We can therefore assume with great plausibility that the low-water level of the Nile and the canal at Medinet Habu was almost 3 meters lower at the time of Ramses III than it is at present, that is, about 66.50 m. above sea-level or 10.59 below our datum. The lowest step on which one could disembark from a boat can be assumed at most to have been 1.50 m. higher or about 9.09 m. below our datum, that is, about 2 meters below the lowest step which we found (-7.08 m.). Accordingly we have assumed at least twelve to fifteen more steps, which are shown along the front of the platform in our reconstruction (Fig. 12).

More interesting even than the question of the low-water level in the Ramessid period is that of the high-water level of the canal in that period. On the south wall of the quay is an inscription which reads: "Nile of the year seven of the King of Upper and Lower Egypt Neferkare Setepenre (Ramses IX) given life" (Fig. 11). The inundation in about 1135 B.C. must have been exceptionally high, since normally the levels were not labeled. Unfortunately there is no mark to indicate the exact water level. We have therefore taken the bottom of the cartouche as the level. It lies 2.22 m. below our datum, that is, 74.87 m. above sea-level.³⁵ The water at that time thus rose 26 cm. above the banks of the canal (-2.48 m.).³⁶

The quay was remodeled during the latter part of

32. A few good examples are listed herewith: (1) The mortuary temple of Amenhotep I as shown in the tomb of Amenmose (Theban Tomb 19; 19th dyn.); see Wreszinski, *Atlas I* (Leipzig, 1923) Pl. 118. A ship carrying a statue of Queen Ahmose-Nefertere is being towed by a rowing barge. There are steps on both sides of the quay. On the platform are tables with offerings, and near by before two altars stand priests ready to greet the statue. (2) The mortuary temple of Thutmose III as depicted in the tomb of Khonsu (Theban Tomb 31; time of Ramses II); see *ibid.* Pls. 128-29. (3) The best example known to me is in the tomb of Neferhotep (Theban Tomb 49; beginning of 19th dyn.), where we see the Nile with ships, a canal adjoining it at right angles, and a quay before the temple of Amon at Karnak (Fig. 9). There are trees along the shores of the canal. The quay shown here, however, is not the one still present at Karnak but apparently an earlier one which was located near the third pylon (Amenhotep III).

33. On Pls. 1-2 and 6-7 the parapet was drawn at the same height (110 m.) all around, but it was actually only 73 cm. high except in the front center (see Figs. 12-13).

34. F. Ventre, "Crues modernes et crues anciennes du Nil" (*ZAS* XXXIV [1896] 95-107) p. 103.

35. Incorrectly calculated in Vol. I 3 and in Hölscher, *Excavations at Ancient Thebes, 1930/31* (OIC No. 15 [1932]) p. 7.

36. Similar flood marks, 45 in all (published by Georges Legrain in *ZAS* XXXIV 111-21), occur on the quay in front of the temple of Amon at

Ramses III's reign in connection with the enlargement of Medinet Habu and the construction of the Eastern Fortified Gate. We have assumed (p. 12) that the canal and quay were constructed before the building of the temple

of the Great Girdle Wall and the high gates, the ground around the outside of the wall was raised by means of artificial filling (see p. 3). Consequently the causeway had to be raised, about 1.25 m. (to *ca.* -0.28 m.) behind the East-

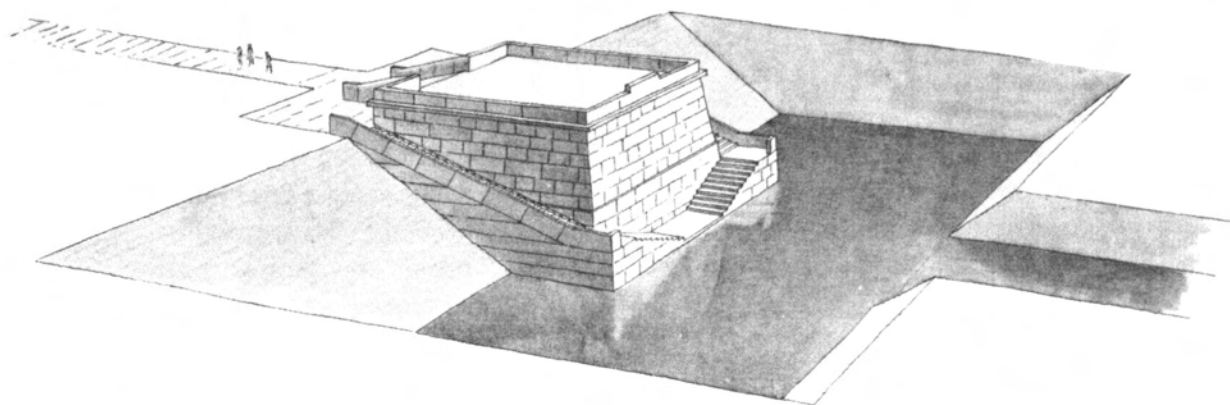


FIG. 12. CANAL AND QUAY BEFORE CONSTRUCTION OF THE EASTERN FORTIFIED GATE. RECONSTRUCTION

was begun and thus were present before the temple area was extended. At that time a causeway paved with large stone slabs led from the quay to the Great Pylon, a distance of 140 meters. We found remains of it directly behind the Eastern Fortified Gate at -1.53 m. (see Pl. 13 A), in front of the guardhouses in the Outer Wall at -2.10 m., and on the edge of the canal at -2.48 m. (see Folio Pls. 7 and 25). Later, at the time of the construction

of the Eastern Fortified Gate and 1.11 m. (to -1.37 m.) at the lowest point in front of the quay (see Fig. 10), that is, almost to the height of the platform itself (-1.10 m.). For this reason the steps which originally led to the platform on the west (Fig. 12) were done away with and the stairways leading up from the water, which hitherto had terminated at -2.48 m., were continued to the level (-1.37 m.) of the new causeway (Fig. 13).

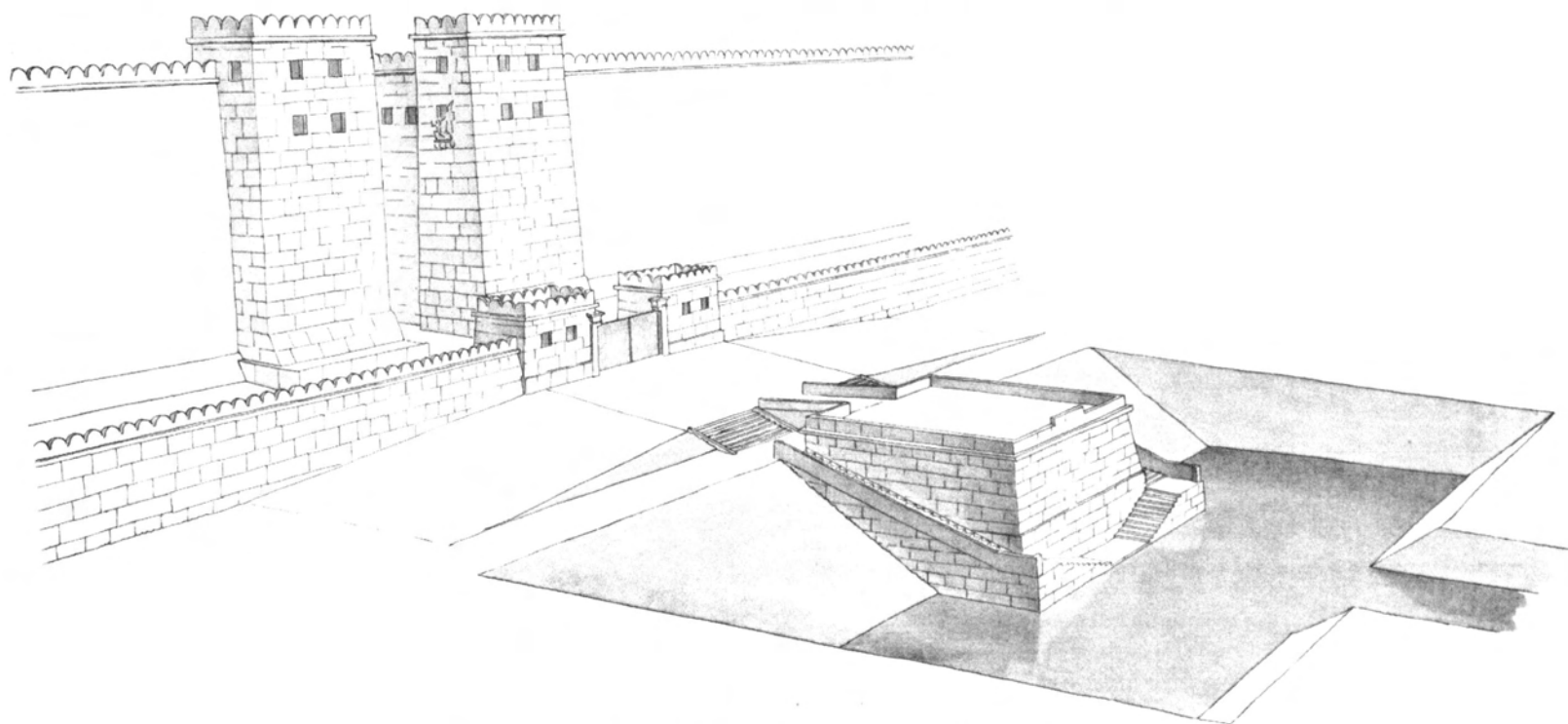


FIG. 13. CANAL AND QUAY WITH THE EASTERN FORTIFIED GATE. RECONSTRUCTION

STREETS AND BUILDINGS

The outer temple area, between the Inner Inclosure Wall and the Great Girdle Wall, was very systematically planned (Fig. 14 and Folio Pl. 2). A "highway" at the level of the new causeway from the canal (see above) formed a thoroughfare between the Eastern Fortified Gate and the

Karnak, but they are all later (22d-26th dyn.). According to Legrain the highest inundation (No. 34) was that of the 6th year of Taharka (*ca.* 682 B.C.), which rose to 75.09 above sea-level. If we wish to compare the height of Ramses IX's flood mark at Medinet Habu and that of Taharka's at Karnak, we must first subtract 18 cm., the fall of the Nile between Luxor and Karnak, from 74.87 m. The height above sea-level of the Medinet Habu mark is thereby reduced to 74.69 m. Then we must determine the amount which the Nile

Great Pylon. A wide "esplanade" ran at right angles to it in front of the pylon. A narrower "street" along the other three sides of the Inner Inclosure Wall adjoined both ends of the esplanade, which thus completed a passage around

bed rose in the time between Ramses IX and Taharka (4½ centuries) and add it to the height of our flood mark. According to Ventre Pasha the Nile bed rises 9.6 cm. in the course of a century, i.e., *ca.* 43 cm. in 4½ centuries. Adding this amount to 74.69 m., we get a height of 75.12 m. for the inundation at Karnak under Ramses IX if it had occurred in the time of Taharka. This is 3 cm. higher than the inundation as recorded under Taharka. We see therefore that the inundation of the 7th year of Ramses IX was a very unusual phenomenon.

the inner temple area. A second circuit road extended around the inside of the Great Girdle Wall, except in the northeast corner. It was left free of buildings for defense purposes and is therefore designated the "pomoerium." The distance between these two circuits varies. Along the north and the south was space for two rows of small houses separated by a narrow blind "alley." At the front were various building complexes, a garden, and the Small Temple of Medinet Habu. A "transverse passage" through the front section connected the north and south courses of the pomoerium with the highway. Much farther toward the west, on either side of the temple, was a cross connection, between the pomoerium and the street

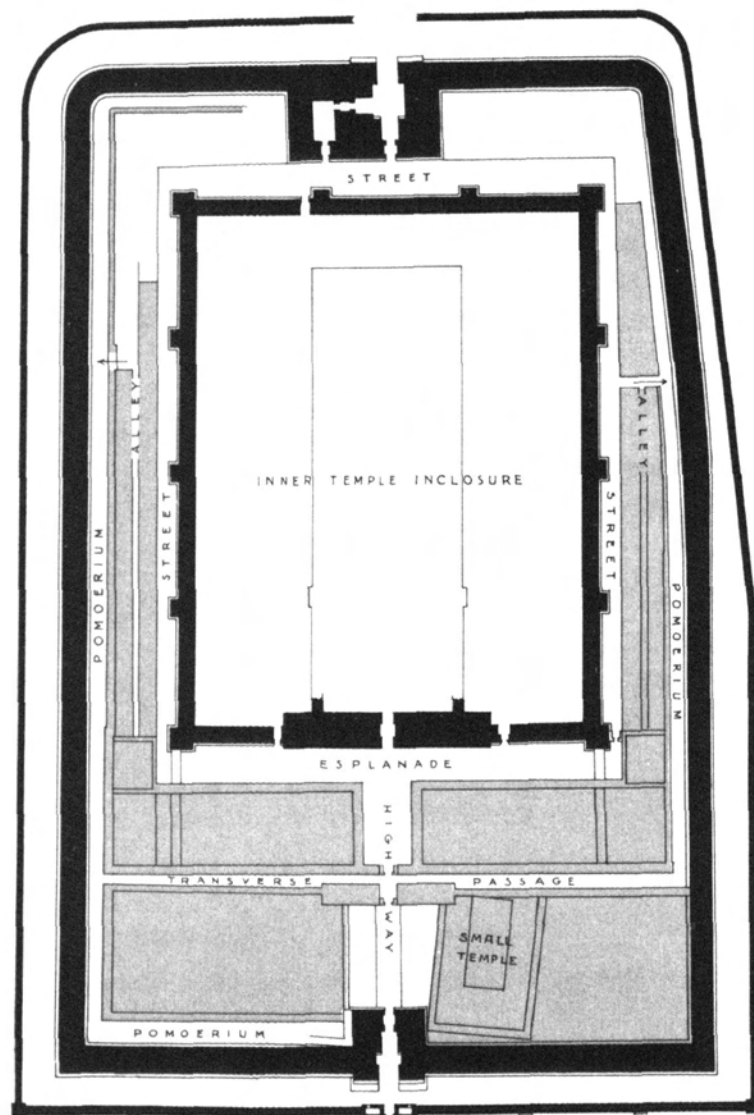


FIG. 14. GENERAL LAYOUT OF THE OUTER TEMPLE AREA

on the north and between the pomoerium and the alley on the south.

The esplanade was about 12 meters wide and formed an open place in front of the inner temple area. Adjoining it were entrances to the temple, the palace, and the magazines. Each end was closed off from the street by a heavy cross wall with probably a gate of which there are now no traces. Apparently these cross walls were later additions (see pp. 17 and 19), so that originally the esplanade was not separated from the street. The street was only about 6.50 m. wide and even narrower where the towers projected from the Inner Inclosure Wall. It sloped upward from east to west, like the wall. Its west course was roughly level and considerably higher than the base of the wall, so that the socle of the wall was entirely buried below the street level. The reason for the high street level is that it had to conform with that of the Western Fortified Gate, which was

presumably the more frequently used entrance to the outer temple area.

The north and south courses of the street gave access to the adjoining houses, but the houses in the rear rows could be entered only from the narrow alleys. The pomoerium, as far as we can see, did not provide entrance to a single house but belonged exclusively to the defense system of the Great Girdle Wall. It was at the same level as the ground outside the wall, that is, considerably higher than the rest of the area inside the wall (Fig. 15). The difference amounted to about 2.60 m. at the east and gradually decreased toward the west. The embankment was made of gravel filling and supported by a retaining wall. On the east the pomoerium was wider than at the sides, perhaps because of the stairway or ramp to the second floor of the Eastern Fortified Gate. There is no clear evidence of any ramp or other kind of access to the pomoerium along the east.

After the destruction of Medinet Habu at the end of the Twentieth Dynasty private people settled in the district. At several points (e.g. in O-P 4; see Folio Pls. 13-14) they removed the gravel filling of the pomoerium and built houses between the Great Girdle Wall and the retaining wall.³⁷

Now that we have gained an impression of the layout of the outer temple area through consideration of the street plan, let us examine the individual groups of buildings. As already stated, on each side between the street and the pomoerium were two rows of houses built close together, with just a narrow alley between the rows. They were all constructed of relatively small mud bricks ($37 \times 18 \times 11$ cm.). Due to activity by ancient and modern *sebakh*-diggers very scanty remains, for the most part only the foundations or fragments thereof, are preserved, as may be seen on our survey drawings (Folio Pls. 11 and 13). The ground plan given in Figure 15 was recovered only by combining evidence from all the houses. Those in the front row were each about 16.5 m. wide and 6.2 m. deep. The narrow entrance (82 cm. wide) was near the center. It led to a small court (*A*) adjoined at the rear by a hall (*A'*) with two octagonal sandstone columns 28 cm. thick and 2.25 m. high. The spaces between the columns and the walls were closed with stone slabs 1.03 m. high, but the space between the columns was left open for passage (Fig. 16). The living rooms were accessible from one side of the court through doorways 67-75 cm. wide. They were arranged exactly the same as the private harem apartments at the rear of the Second Palace:³⁸ first a narrower room (*B*), then a wider living-room (*C*) with two adjoining side rooms (*D* and *D'*). Perhaps one of the side rooms was a bathroom, though there are no building remains to indicate it. The rooms on the other side of the court included a rather large, almost square one (*E*) which may have been a workshop, stable, or the like. Adjoining it at the side and rear were two corridor-like chambers (*E'*) in or above which apparently the stairway was located. From the comparatively large scale of the foundations for the stairway we concluded that the roof was habitable, that is, used perhaps as a deck. The rooms, as shown by their size and form, no doubt had flat ceilings, probably with wooden beams, rather than barrel vaults.

37. See Vol. V.

38. Vol. III 56 and Fig. 29.

Very few furnishings were found, and it is doubtful whether they belonged to the period in which the houses were built or to the following centuries when individual rooms elsewhere, either still preserved or restored, were used for living purposes.³⁹ The size of the houses and the careful working of the monolithic columns show that these dwellings were intended not for people of lowly position, such as poor workmen or slaves, who were no

but the width (*ca.* 11 m.) was considerably less. Each house was divided into many surprisingly small chambers (see Fig. 15) which, as may be seen from their size and from the thickness of their walls, were probably vaulted. The rooms were grouped around a vestibule (*M*). It is not clear whether the latter was vaulted or an open court similar to *A* in the houses of the front row. Connected with *M* by a relatively wide doorway was a small room (*M'*)

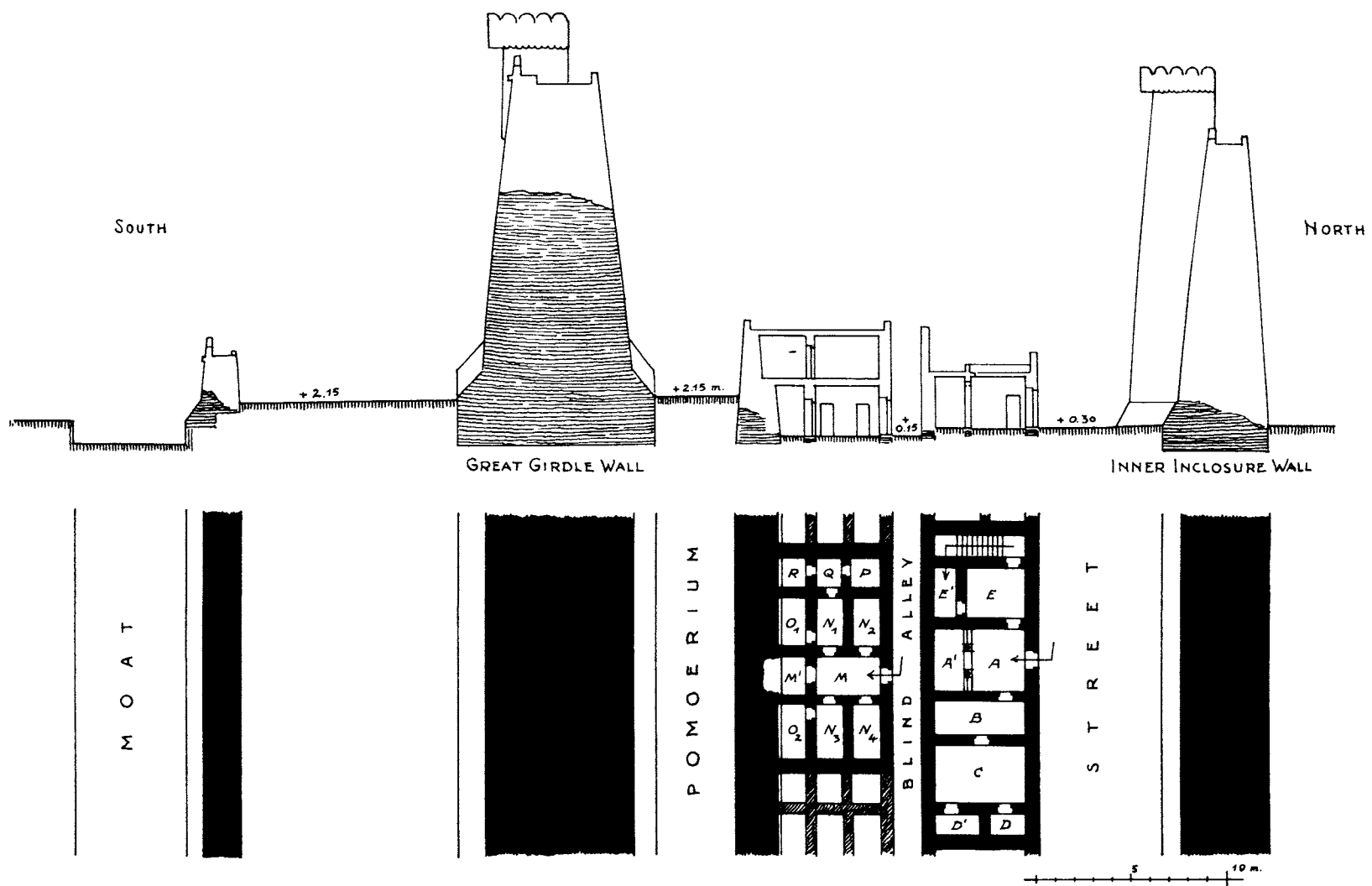


FIG. 15. GROUND PLAN AND CROSS SECTION OF THE STRUCTURES IN K 3-5 (CF. FOLIO PL. 2)

doubt employed in great numbers in the temple precinct,⁴⁰ but probably only for employees or officials.

There were six of these houses along the north side (see Folio Pl. 2) beginning opposite the east corner of the Inner Inclosure Wall and continuing to the cross connection between the pomoerium and the street in P 12-13. West of these was a long building of which unfortunately only the main walls but not the interior subsidiary walls are recognizable. There were eight instead of six houses along the south side. The significance of some extra rooms at the east end of the row is not clear. The space to the west of the houses appears to have been left vacant or filled only with light shelters or the like.

The second row of houses was accessible only from the narrow alley (1.60 m. wide). It should be noted that the houses of the front row had no rear doorways opening onto the alley and therefore had no connection with the houses of the rear row. The ground plan of the latter was entirely different. The depth of the houses was about the same,

which in some cases had later been enlarged by a niche in its thick rear wall. The latter was formed by the retaining wall of the elevated pomoerium. On each side of *M* and connected by narrow doorways were two side rooms (*N* 1-4) which in turn led to Rooms *O* 1-2. The ground plan

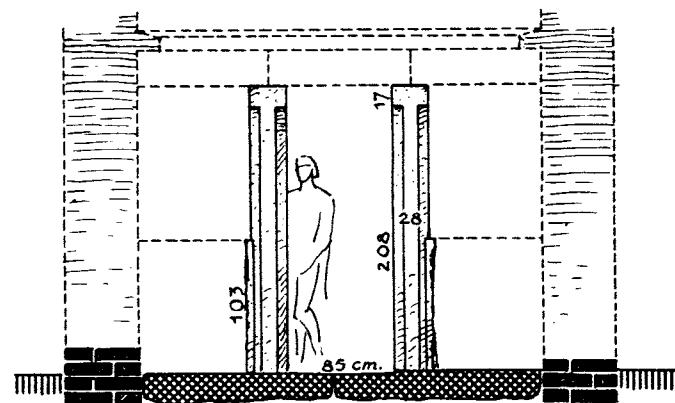


FIG. 16. COLUMNS IN THE COURT OF A ROW HOUSE IN K 5

suggests that these six rooms were vaulted lengthwise. If so, the span of the vaults was only 1.50-1.90 m. or occasionally even less. The stairway appears to have been located in Room *O* 1; remains are preserved in at least one house (in L 2.80 4 12.30). So far the ground plan is sym-

39. See Vol. V for further discussion.

40. In Papyrus Harris I iv 5 (see Vol. III 2) Ramses III boasts that the temple was filled with captives and their offspring whom he raised by the ten thousands. I presume that most of these slaves were employed and housed on the property belonging to the temple or just outside the temple area.

metrical; however, there is a narrow addition on the west consisting of three very small rooms (*P-R*) and accessible through a single doorway (see Fig. 15). All these rooms were on the ground floor and thus underground in relation to the elevated pomoerium—a fact which explains why they were apparently vaulted, in contrast to those in the front row of houses. No doubt there was an upper story, perhaps with beamed ceilings. I would think that the upper story was limited to the symmetrically planned main part of the building and that the narrow addition (*P-R*) was covered merely by a roof terrace, which separated the upper story from that of the next house.

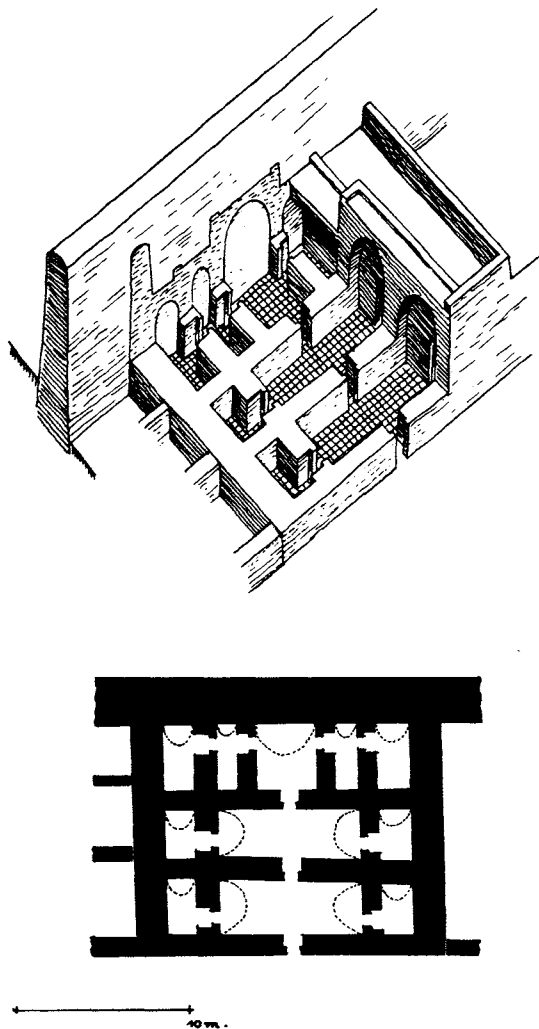


FIG. 17. GROUND PLAN AND SUGGESTED RECONSTRUCTION OF THE SOUTH ADMINISTRATION BUILDING

The type of house with which we have become acquainted in the second row is vastly different from dwellings known to us before. To the best of my knowledge it has not hitherto been excavated in Egypt. We are thus dependent upon what we can learn here at Medinet Habu and must remain in doubt as to whether we have barrack-like dwellings, perhaps for slaves or soldiers, or houses of an entirely different order.⁴¹ From our meager finds, which are the same as regularly occurred in dwellings, we can conclude only that they were used as dwellings, at least by later generations. A boxlike hole in the floor of Room *M'* (at J 16.20 4 12.00), measuring 70 × 80 cm. and 25 cm. deep, obviously served for storing provisions. The bottom was spread with pebbles the size of a fist and plastered with mud. Two drop-shaped pots (at K 9.00 4 12.00) and a so-called "pilgrim's flask" (at L 0.80 4 12.60) were found in the same room. There was a white limestone seat in Room *N* 3

41. Two larger buildings (e.g. Fig. 17) discussed below are similar in plan.

(at M 10.30 4 14.00). A sandstone jug-stand was found in the niche in the rear wall of Room *R* (at M 8.50 4 11.50), and on the opposite side were ruins of a fireplace and a small clay oven(?).

East of the rows of houses on each side of the inner temple area (in H-I 4-5 and 12-13) was a large building facing the esplanade (see Folio Pl. 2). These two structures were symmetrical in plan and had very sturdy mud-brick (37 × 18 × 11 cm.) walls. Most of the rooms were relatively long and narrow, so that we may venture to assume barrel vaulting (Fig. 17). In the middle were two transverse rooms one behind the other and an almost square rear room with two narrow side chambers. Three small chambers adjoined at each side. The positions of the doorways in the two rear-corner chambers is uncertain. No trace of a stairway was found. The reconstruction given in Figure 17 is intended merely to suggest the possible appearance of such a building. These two structures probably served the same purpose as one with similar ground plan in the inner temple area which has been called an "administration building."⁴² Their important position opposite the esplanade also testifies to such use, whereupon it must be recalled that the heavy walls which appear to separate the esplanade from the street apparently were not built until later.

This type of building is very interesting and deserves closer inspection, since it shows a stage in the development of Egyptian architecture. The nucleus of the plan consists of a transverse room and an adjoining square room. We are acquainted with such a group of rooms in the Egyptian dwelling, where it served as reception room and dayroom for the master of the house and was separated from the intimate living rooms. From the dwelling this group of public rooms—regardless of whether they had flat or vaulted ceilings, were constructed with or without columns—was carried over into the earlier type of royal temple palace discussed in Volume III.⁴³ The same group, moreover, formed the nucleus of the normal temple of the New Kingdom. This is most clearly seen in smaller and less pretentious examples, for instance the recently excavated temple of Amenhotep son of Hapu near Medinet Habu.⁴⁴ The latter has a large transverse hall (almost 8 m. wide) followed by a square sanctuary between two side sanctuaries and was, like the administration buildings at Medinet Habu, constructed of bricks and vaulted. In buildings where there was increased demand for space, two or even three transverse halls of the same size either with or without columns were included, as in our administration buildings and in great royal temples like Medinet Habu and the Ramesseum. We have, therefore, the same fundamental plan in private dwelling, in office, in palace, and in temple and hence can probably assume the same fundamental purpose for all, namely reception hall for the master, be he private individual, official, king, or god.⁴⁵

Two small structures in G-H 4-5 (Fig. 18), reminiscent of the row houses discussed above, adjoined the south ad-

42. Vol. III 63 and Fig. 38.

43. Pp. 58 f.

44. See C. Robichon and A. Varille, *Le temple du scribe royal Amenhotep fils de Hapou I* (Institut français d'archéologie orientale du Caire, "Fouilles" XI [Le Caire, 1936]) Pl. V.

45. Cf. Vol. III 27.

ministration building. They were accessible from a dead-end extension of the street 1.60 m. below the level of the street itself. They were arranged one behind the other, but without an alley between them. The front building was clearly a dwelling of the same type and size as those in the front rows of houses (cf. Fig. 15). Beside it was a small open court through which probably the rear building could be reached. The latter was of the same type as but considerably larger than the houses in the rear rows (cf. Fig. 15). There appears to have been an open court or corridor at each side. Adjoining the west court were two small side rooms, in one of which a small built-in stone inclosure (bath?) is preserved. It is doubtful whether the inclosure belonged to the same building period. We are of the opinion that the building had two stories as shown in the reconstruction (Fig. 18) but have not determined where a stairway could have been. These two buildings and the street along the front appear not to have been separated originally from the equally low court adjacent to them on the north, which we believe contained the royal stables and barracks for the king's bodyguard (see pp. 18-19). The partition wall therefore was probably later. On the opposite side of the highway a space of the same size originally was cut off at the north but as far as we know left free of buildings (see Folio Pls. 3-4, G-H 12-13).

We have now arrived in the front part of the outer temple area. As we have seen above (Fig. 14), it was divided by the intersecting highway and transverse passage into four rectangular sections or courts. Each court was inclosed by a high wall. At the intersection (in G 8-9) was a brick pylon (see Folio Pl. 2), but only scanty remains of its foundations were discovered. It should be noted that it stood so close in front of the Great Pylon that it hid the latter from anyone entering through the Eastern Fortified Gate. Moreover, even after one had passed through this brick pylon and the gateway in the wall close behind it, he was still shut in between side walls, so that he could not command a full view of the Great Pylon with its rich pictorial ornamentation. This is another very characteristic example to support our contentions⁴⁶ that the Egyptian temple actually was not intended to be viewed from the outside and that our conceptions of the art of building are not criteria for Egyptian architecture (but see n. 48).

The four courts were considerably below the level of the highway. The southeast court was more than 2 meters lower, and the two at the west over 1 meter. This difference is explained by the elevation of the highway above the level of the original causeway (see p. 13). The courts contained only a few scattered buildings, and hence their purposes are not easy to determine. Since the southeast court contained trees and a "pool," we have called it a "garden." Opposite it on the north lay the venerable Small Temple of Medinet Habu, which with its environs was drawn into Ramses III's enlarged temple layout. The two west courts no doubt served domestic purposes. In fact, we have ventured to assume that on the south were the royal stables and barracks for the king's bodyguard and on the north a grove and accommodation for cattle to be taken to the temple as offerings. These assumptions, as we must expressly emphasize, rest on rather unsure footing, first because it is doubtful whether the inclosures were even finished and put into use in the layout as

46. *Ibid.* pp. 32-36.

planned under Ramses III. Second, extensive alterations were made in the course of the Twentieth Dynasty; and, third, shortly after the destruction of Medinet Habu, the whole area in question was built up with private houses⁴⁷ whereby traces of the older walls were almost entirely obliterated. And to complete the disaster, the ground has recently been thoroughly disturbed, in some parts to great depths, by *sebak*-diggers. Hence we have been able to learn very little of the original buildings (see Folio Pls.

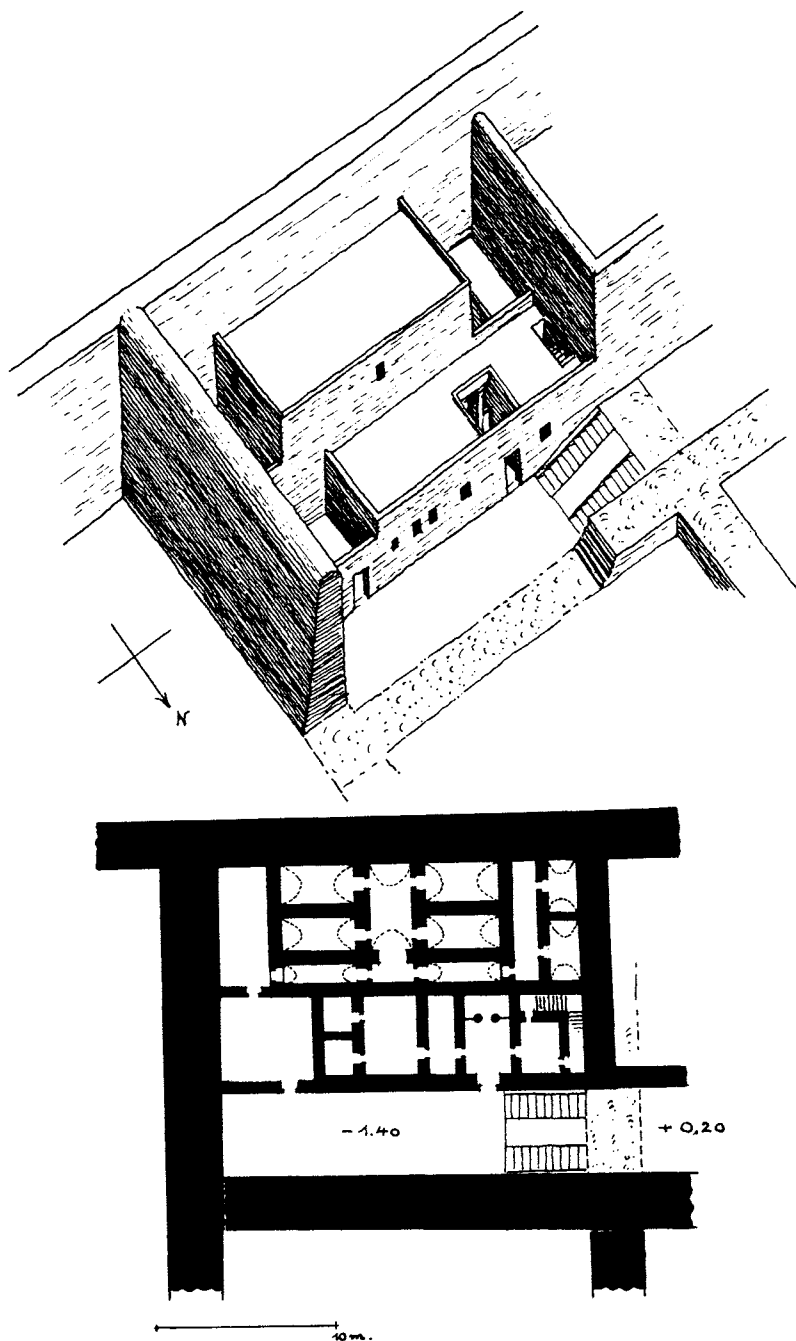


FIG. 18. GROUND PLAN AND SUGGESTED RECONSTRUCTION OF THE TWO STRUCTURES EAST OF THE SOUTH ADMINISTRATION BUILDING

3 and 7), as discussion of the individual structures must reveal.

The southwest court (see Fig. 14 and Folio Pl. 2) apparently once extended to the pomoerium (see above) but later was reduced to three fourths of its original size by the cutting off of the strip on the south which contained the two buildings reconstructed in Figure 18. The inclosure wall was 3.15 m. thick, its east course being part of a wall which extended across the entire temple area from the south to the north course of the pomoerium. In the center of this cross wall, that is, behind the brick pylon, was an opening 7.50 m. wide. It probably once had a stone doorframe whose sill was presumably at the level of the

47. See Vol. V.

highway, that is, 0.35 m. below our datum and 1.35 m. above the level of the opening.⁴⁸ The esplanade, which lies at the same level as the highway, is paved with stone slabs in front of the Great Pylon. However, the wall of the court stood not at the edge of this pavement but about 80 cm. to the east (see Folio Pls. 7-8)—a fact which indicates that it belonged to a later building period or a different plan than the stone pavement. The entrance to the court is not preserved; it was probably at the west (Fig. 19) opposite the south end of the Great Pylon, since that is the only place in sight of the buildings within the court where a gate could have stood and where the top of the foundation was deep enough so that a stone sill could have lain above it. The ground inside the court was considerably lower than that outside, at about -1.40 m. and in some places even lower. This difference of over a meter was no doubt overcome by a ramp or stairway to the gate. To the right of the assumed gate lay the main structure, a large

foundation deposit of Ramses III (see p. 47). The size of the building and the strength of its walls as well as the fact that it was the only building in the outer temple area in which a foundation deposit of Ramses III was discovered indicate that it was of great importance. To the left of the assumed entrance to the court stood a building with thinner walls (76-94 cm.) and smaller but nevertheless quite imposing rooms. The layout resembles somewhat that of the main building. Unfortunately we do not know the significance of two long narrow walls which extended the full length of the court from north to south and had narrower cross walls between them.

The question of particular interest to us, the purpose served by this court and its buildings, has not been answered with certainty by the results of the excavation. But from innumerable scenes it is known that the king used chariots and horses not only for hunting and war but also at his residence on all possible occasions. It is there-

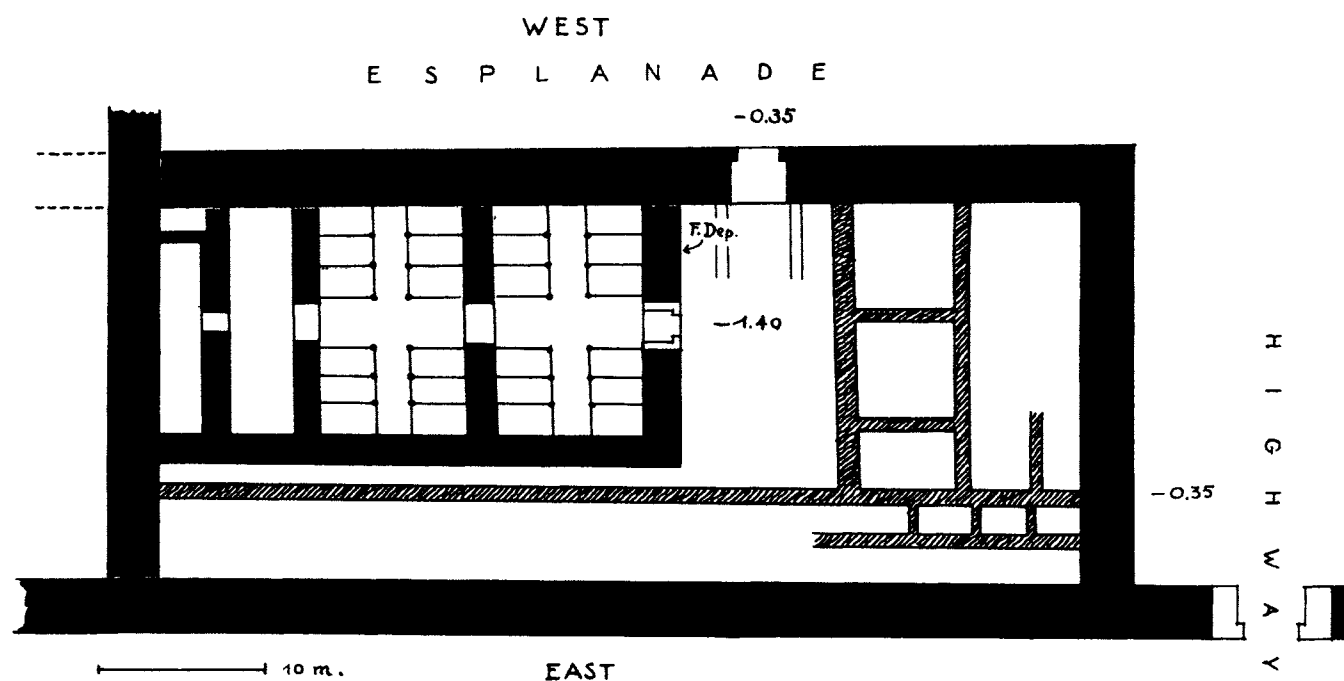


FIG. 19. GROUND PLAN OF THE ROYAL STABLES AND QUARTERS FOR THE KING'S BODYGUARD. PARTIAL RECONSTRUCTION

rectangular building with three cross walls. The front wall was unusually thick (2.20 m.), the others somewhat thinner (1.75 and 1.53 m.). In the front wall is a doorway 3 meters wide with brick sill at -1.67 m. On top of the latter presumably was a stone sill at about -1.30 m. and a huge doorframe. There was no evidence for the other doorways shown in Figure 19. The first and second rooms were very large (14 m. wide by 8.85 and 8.60 m. deep). We do not know how they were roofed. Brick vaults, though unknown to me in Egypt with such a long span, are not improbable.⁴⁹ The rooms could also have had flat ceilings with wooden beams and earth covering. However, that is less likely, since neither foundations for nor imprints of pillars were found. The walls consisted of mud bricks in the smaller size used by Ramses III (37×18×11 cm.), while the inclosure wall of the court was made of bricks of the larger size (ca. 43×21×12 m.). Under the front wall of the building, not far from the doorway, we discovered a

fore to be assumed that when Ramses III came to Medinet Habu he brought with him his spans as well as part of his court and his harem. This is substantiated by a scene⁵⁰ on the palace façade labeled: "The king appearing . . . to see the horses which his (own) hands have trained for the great [stable] of the palace which the Lord of the Two Lands: Userma'at Meriamon made."⁵¹ This representation, showing eight pairs of horses, proves that great importance was attached to the royal stables. Hence in my opinion there can be no doubt that horses and chariots for the king's use and attendants for them were quartered within the temple precinct and not far from the royal palace. The court in question seems to be the only place inside Medinet Habu free for this purpose and appears especially suitable in view of its position exactly opposite the side entrance to the palace. Our only question is whether one of the buildings was suitable as stabling for horses and can be considered in that light.

Though no large layouts of stalls for horses are known

48. This surprisingly low level suggests that the brick pylon perhaps was present before the elevation of the highway and therefore part of the original, more modest layout of Medinet Habu.

49. The longest span known to me in Egypt is 7.70 m. and occurred in the large rooms of the temple of Amenhotep son of Hapu; see Robichon and Varille, *loc. cit.*

50. *Medinet Habu* II, Pl. 109.

51. William F. Edgerton and John A. Wilson, *Historical Records of Ramses III. The Texts in Medinet Habu Volumes I and II Translated with Explanatory Notes* ("Studies in Ancient Oriental Civilization," No. 12 [Chicago, 1936]) Pl. 109:6.

to me in ancient Egypt in either building remains or scenes,⁵² stables for cattle belonging to the Aton temple are portrayed in the tomb of Merire^c at Tell el-Amarnah. There are two stalls side by side, each with a row of ten cattle on either side of a passage.⁵³ Therefore probably we may venture to assume similar stalls in Egypt for royal horses. Remains of two extensive and imposing stable compounds for King Solomon's horses were preserved at Megiddo.⁵⁴ Each stable unit consisted of a passage about

these original walls were removed, and the whole section was newly laid out. This alteration, though possibly planned under Ramses III, was executed under Ramses IV, as indicated by foundation gifts of the latter (see p. 48) at the point where we have ventured to assume the entrance from the esplanade (see Fig. 20).

Over half the section was occupied by a grove with three rows of trees. Behind the grove lay a large building with a court in front of it (Fig. 20). The trees stood at intervals

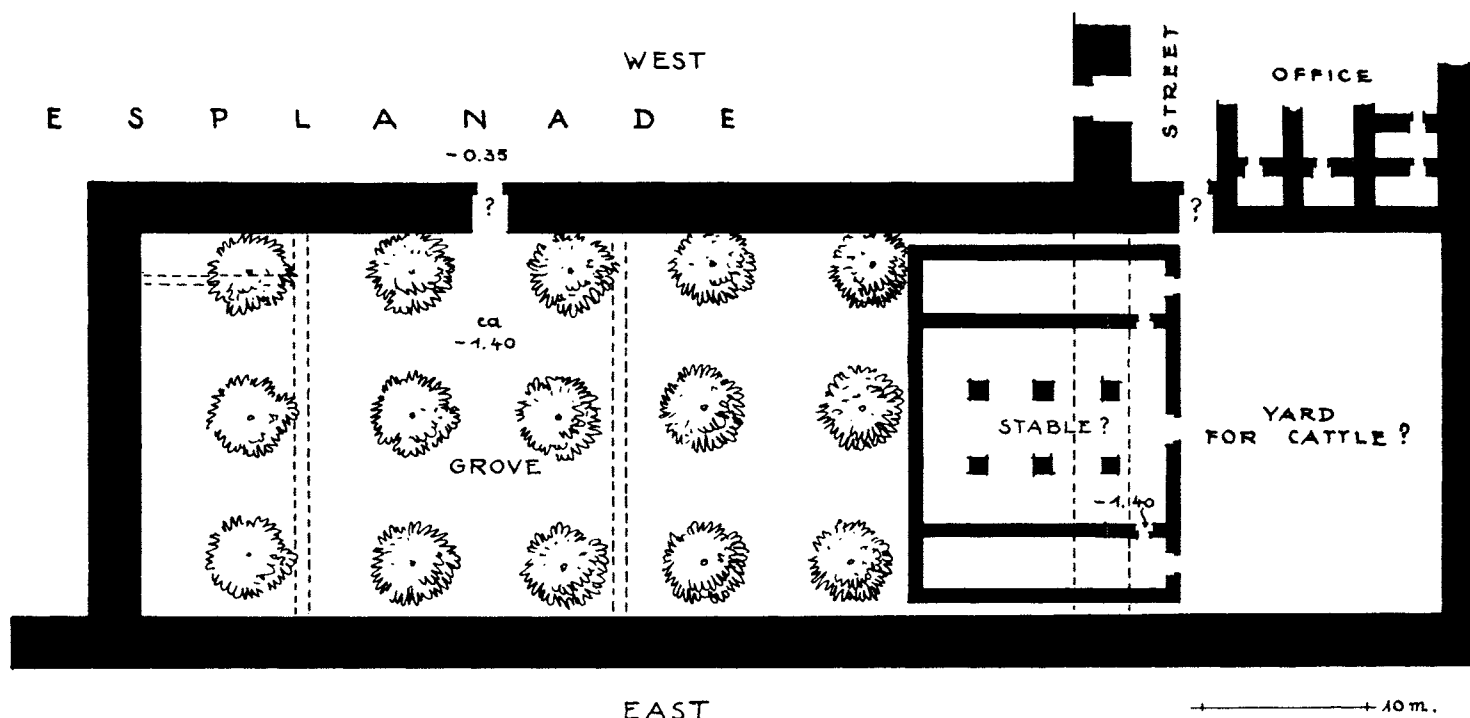


FIG. 20. GROUND PLAN OF THE GROVE AND THE STABLE AND YARD FOR CATTLE TO BE SACRIFICED. PARTIAL RECONSTRUCTION

3 meters wide between two aisles of about the same width, each separated from the central passage by a row of stone pillars about 50 cm. square alternating with stone mangers 1.2×0.6 m. The pillars carried the roof and served also as tethering posts.⁵⁵ The width of such a unit thus amounts to about 9 meters.

At Medinet Habu the corresponding dimension of the two large rooms in the main building in the court amounted to 8.60 and 8.85 m. (see p. 18), which seems quite reasonable if wooden supports instead of stone pillars were used or if the central passage was somewhat narrower than at Megiddo. Thus twelve horses could have been stabled in each room, as shown in Figure 19. We have assumed that the chariots and the attendants as well as the king's bodyguard were housed in the smaller rooms and in the other buildings of this court. Even though this explanation rests largely on supposition, at least it suggests a use for this section of the outer temple area.

The corresponding section north of the highway was originally divided into two unequal parts by a heavy wall. The smaller part at the north was apparently free of buildings, as mentioned above (p. 17), while the larger part was further divided by thinner walls (see Folio Pls. 3-4). Later

52. Royal stables supposedly were found recently at Tell el-Amarnah. They "were cobbled and had mangers and tethering stones at regular intervals. They appear somewhat narrow, and it cannot have been a very pleasant job to walk the length of one of them if the horses were restive" (J. D. S. Pendlebury in *JEA* XX [1934] 136).

53. See Norman de Garis Davies, *The Rock Tombs of El Amarna* I (London, 1903) Pl. XXIX.

54. See Robert S. Lamon and Geoffrey M. Shipton, *Megiddo I* (*OIP* XLII [1939]) 32-47.

55. *Ibid.* p. 35.

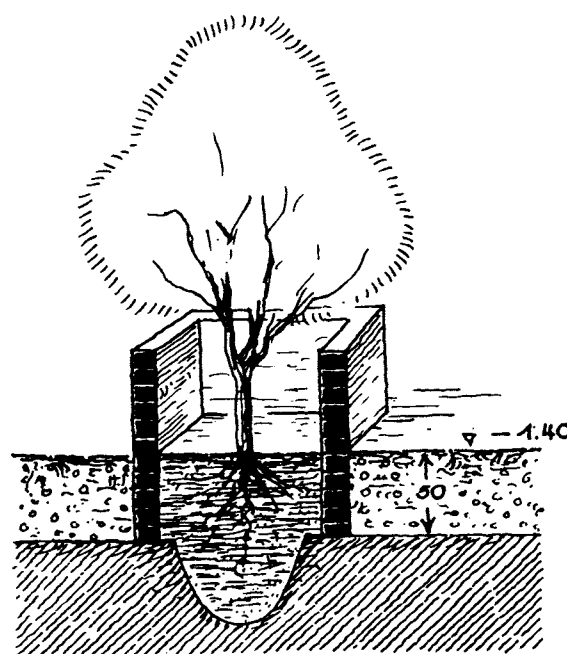


FIG. 21. SECTION THROUGH A HUMUS-FILLED TREE HOLE IN THE GROVE. PARTIAL RECONSTRUCTION

of about 9 meters. The outside rows were close to the inclosure wall, and one end was close to the large building. Thus it may be assumed that neither the building nor the trees were very high. Possibly small plants which have left no traces stood between the trees. In order to plant trees in the dry desert ground or in rather deep gravel filling it was necessary to dig roundish pits in the bedrock. These were inclosed by mud-brick fences and filled with humus (Fig. 21). It is to be assumed that the fences were carried above the ground high enough to protect the young trees from injury by wind and to prevent sheep and goats

from eating the young shoots. Such fences are seen in ancient Egyptian wall scenes and can still be found today along Egyptian highways. The plantings were of course artificially watered.

The building behind the grove stood free of the inclosure wall, so that a narrow passage was left on each side (see Fig. 20). It contained a very large six-pillared hall between two side rooms which possibly were subdivided. From the position of the trees it is to be concluded that the entrance,

This building with its court seems to be the only place where cattle for such offerings might have been sheltered and perhaps even slaughtered.

The court in the southeast corner of the outer temple area measures 74.5×36.5 m. (Fig. 22 and Folio Pls. 7-8). It was about 2 meters below the level of the streets which surrounded it (see p. 17). The walls that inclosed it thus served at the same time as retaining walls for the streets. The wall that bounded the highway was the thinnest. Only

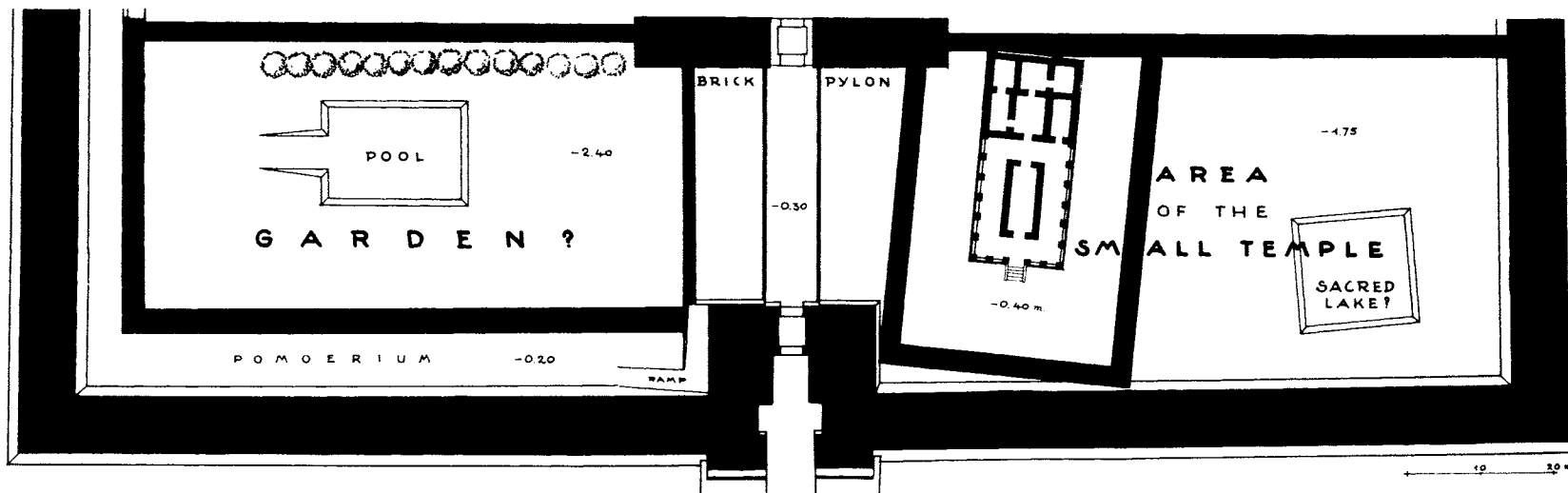


FIG. 22. GROUND PLAN OF A GARDEN AND THE AREA OF THE SMALL TEMPLE OF MEDINET HABU

which we assume was on the axis of the building, lay not on the side toward the grove but rather on the court side, that is, toward the north. No doorways are preserved, since the building is destroyed down to its foundations, but a stone doorsill lay at a level of -1.40 m. between the pillared hall and the east side room. The walls were comparatively thin (78 cm.). The mud-brick foundations for the pillars are 96 cm. square. Whether the pillars themselves

its east end is preserved; the rest was completely destroyed when chapels of the Twenty-fifth and Twenty-sixth dynasties were built. The floor of this court was a filling consisting of gravel mixed with earth. We found in it early stone implements and potsherds which no doubt were put in with the gravel.⁵⁷ Near the center of the court was clearly visible a depression with rather steep sides (Fig. 23) which we excavated to ground water (-5.30 m.) without reach-

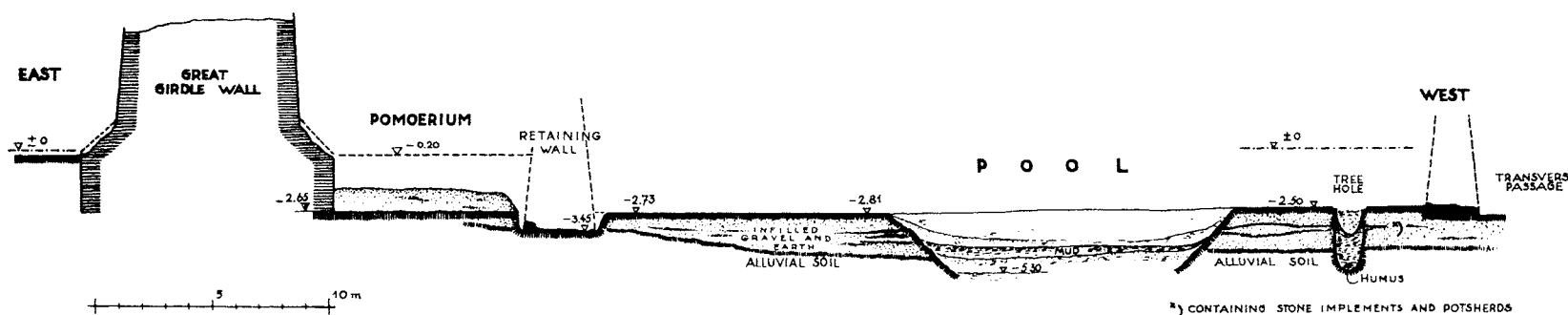


FIG. 23. CROSS SECTION (IN D-G 6) OF THE GARDEN

were built of brick or consisted of stone or wood columns or posts remains uncertain. This six-pillared hall is larger in area than any secular columned hall found at Medinet Habu. However, it was no doubt considerably lower and roofed with wooden beams rather than with vaults; therefore it was not of monumental form, nor presumably of ceremonial character. The court in front of it must have belonged to this building, since the latter seems to have opened on it. No traces of construction of any sort were found in it. We have assumed that its entrance was in the southwest corner, next to the building, opening on the street. The fact that the court was opposite the street rather than the more elegant esplanade allows the conjecture that it and the building belonging with it served domestic rather than ceremonial purposes. In order to suggest a use we must recall that offerings were brought into the temple through the side entrance to the portico.⁵⁶

56. Vol. III 9.

ing the bottom. We have called this depression a "pool," but it may have been a well with built-in steps such as has been found at Amarnah.⁵⁸ The north-south outlines of the "pool" were not entirely clear. It appeared to us as though there had been a ramp at the south end. After the destruction of Medinet Habu at the end of the Twentieth Dynasty the "pool" was filled with gravel, earth, and debris to a level of 3.60 – 3.80 m. below our datum and built over with private houses.⁵⁹ A row of tree holes extended along the west wall of the court. Thirteen of these may still be seen at intervals averaging 3.50 m. They are rounded pits lined

57. Numerous implements of the same kind have been found in the hills behind Medinet Habu whence the gravel necessary for leveling the ground for the temple presumably was brought.

58. Also the *bassin* in the first court of the temple of Amenhotep son of Hapu (Robichon and Varille, *op. cit.*, p. 35) upon further excavation has proved to be a well hole.

59. See Vol. V.

with a thick layer of clay to make them more or less waterproof and filled with humus, in which we found charred remains of wood (Fig. 24). Though one of the holes, which happened to be in a test excavation, extended deep into alluvial soil, its upper part was lined in the same way in the shape of an eggcup (see Fig. 23), perhaps an alteration of an earlier deep shaft. Because of the tree holes we have called this section a "garden." We found no traces of any buildings.

Across the highway, in the northeast corner of the outer temple area, the sacred old Small Temple of Medinet Habu⁶⁰ stands oblique to the axis of the Great Temple of Ramses III (Folio Pls. 3-4). We know that Ramses revered the Small Temple because he included it in his large temple compound and decorated its outer walls with reliefs. Hatshepsut had inclosed it with a high brick wall which presumably was still standing in the time of Ramses III, either in its original state or partially restored. Even when Medinet Habu was enlarged the inclosure wall was spared on three sides, the positions of the Great Girdle Wall and the Eastern Fortified Gate being accommodated to it (see Fig. 22). Ramses replaced its rear course, however, with a new wall which stood at right angles to the axis of his own temple. Originally the Small Temple stood on a low hill ($- .40$ m.). Later, after the highway had been constructed at about the same level ($- .35$ m.), its elevated position was no longer noticeable. The ground north of the temple, which fell away to about $- 1.75$ m., appears to have belonged to it. We do not know whether it was

60. See Vol. II 2-62.

occupied by buildings or gardens. The sacred lake which we excavated there belonged probably to the Ptolemaic period, but we assume that an earlier, similarly located lake was present when Medinet Habu was built.⁶¹ The position of the present lake oblique to both the Small Temple and the Great Temple but parallel to the near-by temple of Eye and Harmhab (see Fig. 1) suggests that the earlier lake may have been dug after the time of the latter and

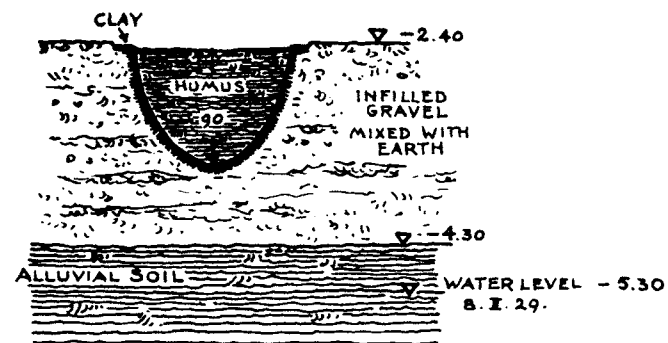


FIG. 24. SECTION THROUGH A HUMUS-FILLED TREE HOLE IN THE GARDEN

before Ramses III. The pomoerium, which as part of the fortification system skirted the inside of the Great Girdle Wall, was lacking around the area of the Small Temple. This helps to confirm our belief that Ramses III purposely left the Small Temple untouched and that defensibility was not the first consideration in the building of the Great Girdle Wall.

61. *Ibid.* p. 41.

II

THE MORTUARY CHAPELS BEHIND MEDINET HABU

ARCHITECTURAL INVESTIGATION

BEHIND Medinet Habu, opposite the Western Fortified Gate, was a group of seven mud-brick chapels, five earlier and two later ones (Pl. 42), which had disappeared except for a few foundation courses. Excavation therefore revealed only their ground plans, which, however, were fairly complete. Our plan of Medinet Habu (Folio Pl. 2), which includes only the five earlier structures,¹ shows that these were built on the axis of and obviously with reference to the Western Fortified Gate and therefore originated while the gate was still in use. They apparently were destroyed at the same time as the gate, at the end of the Twentieth Dynasty. Sometime during the Twenty-second to Twenty-fifth dynasties they were in part restored and used as tomb-chapels for private individuals. At the same time the two later chapels were built for the same purpose. Actually only the earlier structures belong in the present volume, which covers the period of Ramses III, and the others should be treated in Volume V. However, since they are all closely related, I prefer to discuss them all here.

The seven chapels are numbered in their chronological order (see Pl. 42), which was revealed by the way in which they were built onto or overlapping one another. Chapels VI and VII partly overlapped the side walls of I and V, and part of the court of VII was built over the rear rooms of II and III; II and IV were built onto I, III was built onto II, and V onto III. Hence VI and VII were later than I–III, V, and apparently IV. Chapel III dates from the latter part of the reign of Ramses III, as shown by foundation deposits (see below). Therefore we are probably not wrong in considering the entire earlier group contemporary with the later building period of Ramses III at Medinet Habu.

Two larger (I and V) and three smaller (II–IV) chapels are to be distinguished in the earlier group. Each had a forecourt whose front wall was thicker and therefore probably higher than the side walls. The fronts of Chapels I–IV were aligned, and it may be assumed that their front walls were all of the same height. Chapel V, on the other hand, stood back a little. In each structure the sanctuary was wider than the side rooms, but the sanctuaries varied somewhat in details. Let us consider the smaller chapels first. The sanctuary of II was 3 meters wide and had against the rear wall a mud-brick foundation which perhaps was the pedestal for a statue or a stela. The side rooms were very narrow (1 m.). In III the sanctuary was of the same width but divided into two rooms by a cross wall; the side rooms were a little wider (1.40 m.) than those in II. In IV the sanctuary was somewhat narrower

(2.70 m.), but the side rooms were wider (1.60 m.) than those in II and III. Its rear part had completely disappeared. Hence in our reconstruction we have merely placed the rear wall so as to include in the sanctuary the shaft of Tomb 19 together with its entrance stairway. Because of the length thus attained for the structure, three rear chambers behind the three front ones have been assumed, as found in the two larger chapels (I and V). Almost exactly in the center of the forecourt was a humus-filled tree hole which belonged to the later period, as we shall see (pp. 24 f.).

Chapels II–IV were constructed of mud bricks measuring about $36 \times 17 \times 9$ cm.; but in the lower courses numerous older bricks of various sizes were reused. Thus we found, for example, in the southwest corner of III three bricks ($33 \times 14.5 \times 10$ cm.) bearing a rectangular stamp (6.5×11 cm.) with the double cartouche of Amenhotep III and the usual double feather. In the same building, foundation deposits were discovered at three corners in the sand bedding under the walls. They included fayence rings and beads, a fayence model animal offering, and other fragments like those which occurred frequently in deposits of Ramses III at Medinet Habu (see p. 47). Not far away, in Chapel V (on bedrock in Y1.40 8 1.30, but not under or near a wall), was a scarab of Ramses III (“Ramses, Ruler of Heliopolis”).

The two larger chapels in the earlier group (I and V) were alike in ground plan. They each had six elongated chambers in two rows of three, one behind the other. The rooms in the front row were 9.50 m. long in both chapels, and those in the rear 10.55 and 10.10 m. long respectively. The middle rooms, or sanctuaries, were 4.30 and 4.20 m. wide respectively, and the side rooms 2.80 and 2.60 m. In V the rear chamber of the sanctuary apparently was subdivided by a thin stone cross wall, as in the sanctuary of III. The striking feature of the ground plan is that the sanctuaries had very thick side walls (2.10 and 2.30 m. respectively) whereas the outer walls of the side rooms measured only 1.2 and 1.0 m., that is, not more than the adjacent court walls. This shows more clearly than the smaller structures do that the sanctuaries were spanned with heavy vaults whereas the side rooms had lighter, lower vaults or flat roofs, if they were not left entirely unroofed. In any case the sanctuaries extended considerably above the side rooms, as indicated also by the fact that in V the front wall of the sanctuary was 2 meters thick while the front walls of the side rooms were only .80 m. thick and were set back .70 m. We would reconstruct these two chapels with pylons as suggested in Figure 25.

In the rear chamber of each sanctuary, that is, in the actual cult chamber, small banquettes were built against

1. The whole group was called “chapels of the royal family” (see Folio Pl. 2) before the completion of our excavations.

the side walls, and, as stated above, the cult chamber of V was apparently subdivided by a cross wall. The banquettes were about 45 cm. wide and only one course high. They extended just a trifle below the floor level instead of 30–50 cm. as the walls did. They were built of apparently reused bricks of smaller size.² Obviously they formed foundations for stone blocks with which the side walls of these rooms were faced. Since no banquettes were found along the end walls, it is doubtful whether they too were faced with stone. Unfortunately no stone slabs were preserved *in situ*. However, a curious happenstance has preserved for us numerous stone blocks together with their reliefs. After the destruction of the Western Fortified Gate toward the end of the Twentieth Dynasty, tombs were constructed in it (*ca.* Twenty-first Dynasty). The floor in the largest of these tombs (at +5.11 m.) and that in the pillared hall near by (in T 8 at +7.44 m.; see Folio Pl. 15) were made of reused sandstone blocks.³ Their reliefs and inscriptions show that most, if not all, of these blocks belonged originally to a mortuary structure of Paser,⁴ an official during the time of Ramses III. This structure must have been located in the vicinity and by the Twenty-first Dynasty must either have been destroyed or in such a ruinous state that it was considered ownerless—conditions which surely describe our chapels behind Medinet Habu, since it can scarcely be assumed that they were still intact after the fall of the Ramessid dynasty and after the destruction of the Western Fortified Gate and the Great Girdle Wall. Furthermore, there are no other buildings at Medinet Habu to which these blocks could be assigned. Unfortunately, however, we do not have sufficient evidence for assigning a specific chapel to Paser. One of the chapels belonged presumably to the *sm*-priest Minmes, since we found in the vicinity of the chapels, in debris in front of the small gateway in U 12, three bricks stamped with his name. Minmes was, as indicated by an inscription on one of Paser's blocks, a contemporary, perhaps even a relative, of Paser.

It should be noted that Chapels II and III, which were overlapped by a later building (VII), contained no tomb shafts but that the other three (I, IV, and V) did. We shall see below that, as far as can be determined from the finds (p. 25), all the tomb shafts belonged to the later restoration of the chapels in the Twenty-second to Twenty-fifth dynasties. Hence originally the earlier chapels contained no burials and were, like the large royal mortuary temples, not sepulchral chapels in the strictest sense but rather small mortuary temples with no actual physical connection with the tombs, which presumably were situated somewhere in the hills.⁵

2. In order to show that the banquettes and the cross wall in the sanctuary of V were built as additions to the foundations of the main walls, i.e., that they were not constructed at the same time, they are shown on Pl. 42 in the hatching which represents a later period, in general 22d–25th dyn. However, they belong to the 20th dyn., since there was present in Chapel III a similar cross wall which certainly belongs to the 20th dyn.

3. See Vol. V.

4. The reliefs and inscriptions on these blocks have been studied by Siegfried Schott and will be published elsewhere. A sandstone block inscribed with the name of Paser was found in the debris of the Great Girdle Wall; see Burr C. Brundage, "Notes on Some Blocks from the Excavation of Medinet Habu" (Doctor's thesis, University of Chicago, 1939) No. XIV. See our Vol. V, Pl. 35 A2, for a scarab bearing the name Paser.

5. Similar small mortuary temples without burials lay behind Amenhotep III's large mortuary temple, as shown by excavations of the Institut français

That the tomb shafts found in I and V belonged to the later period is proved by architectural observations also. The shaft of Tomb 11, in the cult chamber of V, lay just behind the doorway in the cross wall (see Pl. 42). Since such an arrangement would have made it impossible to use the doorway when the shaft was open, the cross wall was probably no longer in existence when the shaft was constructed. The fact that the shaft of Tomb 9 lay in the line of the south wall of Chapel V means that that wall had already been destroyed when the shaft was built. We see, therefore, that in the restoration some of the destroyed original walls were not rebuilt and that the tomb shafts belonged to the later period. Holes found in the floors of the forecourt and the sanctuary in Chapels I and V which suggest trees or some sort of elaborately mounted equipment (see below) also belonged to the later period.

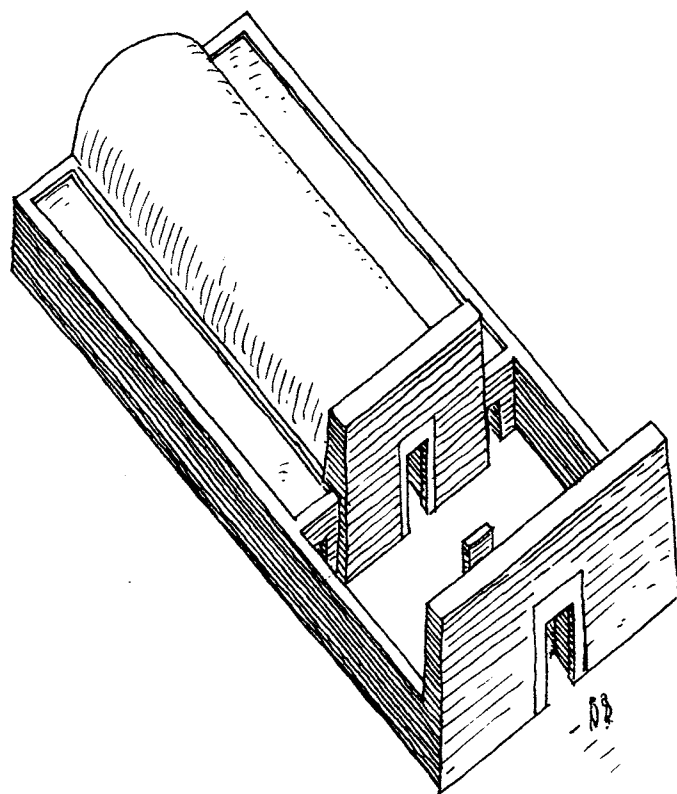


FIG. 25. TWENTIETH DYNASTY MORTUARY CHAPEL (No. V) BEHIND MEDINET HABU. RECONSTRUCTION

The two later chapels (VI–VII) differed from the earlier structures but resembled each other very decidedly (see Pl. 42). Each included pylon, forecourt, transverse hall, and three cellae. Chapel VII had in addition an outer forecourt and pylon. Detailed study of the plans of the new structures shows us their physical and temporal relationship to the earlier ones. Chapel VI was built south of V but partially overlapped the latter's destroyed south wall. From the fact that the second pylon of VII fitted exactly between I and V it may be assumed that their outer walls were still standing at this point when the pylon was built. The first pylon of VII, on the other hand, overlapped II and III and the court walls of I and V. We see therefore that at the time of the construction of VI and VII the two smaller chapels (II and III) had disappeared and the court walls of I and V were either in disrepair or did not need to be taken into consideration. The pylons of the

in 1934/35 (see Robichon and Varille in *Chronique d'Égypte* X [1935] 237–42). The most important of these belonged to the renowned Amenhotep son of Hapu (see Robichon and Varille, *Le temple du scribe royal Amenhotep fils de Hapu* I).

new structures thus thrust themselves arrogantly in front of the façades of the earlier chapels.

Let us now examine the new buildings in detail. We found a brick pedestal 1.40×1.65 m. in the transverse hall of VI. Remains of a perhaps similar foundation lay in the same relative position in the forecourt. Were these structures supports for statues? In the second court of VII a small portico presumably consisting of two columns and side screen walls led to the transverse hall. We discovered

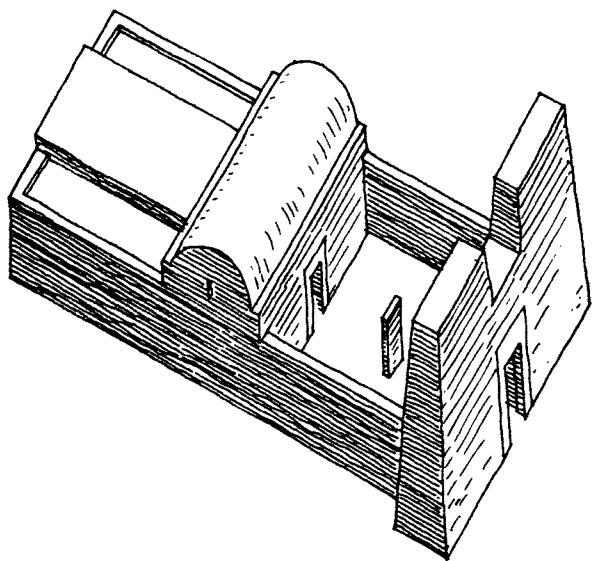


FIG. 26. TWENTY-SECOND TO TWENTY-FIFTH DYNASTY TOMB-CHAPEL (No. VI) BEHIND MEDINET HABU. RECONSTRUCTION

two sizes of reused bricks ($40 \times 20 \times 14$ and $29 \times 14 \times 8$ cm.) in the foundations of both structures. But otherwise apparently the walls throughout were built of bricks measuring about $32 \times 16 \times 10$ cm. The latter therefore characterize the period of the new buildings (Twenty-second

vaulted and extended above the flat roofs or vaults of the three cellae (Fig. 26).

In the new chapels, as in the earlier ones which were still in use in the later period (I and V), tomb shafts 3–10 meters deep had been dug in the rock floors and led to underground tomb chambers (Fig. 27). The entrances to the chambers had been walled up with stones before the shafts were filled with debris. Among the stones thus used were some from Medinet Habu (in Tombs 2 and 7) with cartouches and relief fragments of Ramses III. All the tomb chambers had been broken into and robbed before we found them. Those whose shafts were in the sanctuaries were distinguished by greater size and more careful workmanship. No doubt therefore they belonged to the family heads, while the burials in the side rooms and forecourts were those of other members or relatives of the families. As far as we can judge by the remains of the burials they all belonged within the period from the Twenty-second to the Twenty-fifth Dynasty (see p. 25).

In the new structures as well as in the earlier ones which were still in use—but not in II–III, which had already been abandoned—we found in the floors numerous pits and other traces of various kinds which throw light on the equipment of these tomb-chapels. There was a pit on the axis of the building in each forecourt. These were to be seen most plainly in V and VI, where they were rectangular (ca. $.40 \times 1.20$ and $.70 \times .80$ m. deep). We found them filled with debris, but apparently stone plaques about 1.10 m. wide had stood in them. It is uncertain whether such plaques were merely stelae or served also as screens to hide the rear rooms from view⁷ as did screen walls apparently crowned with cavetto cornice and sometimes with uraeus frieze found in a chapel⁸ and pictured in tomb wall scenes⁹ at Tell el-Amarnah. A considerably larger pit (1.50×3.00

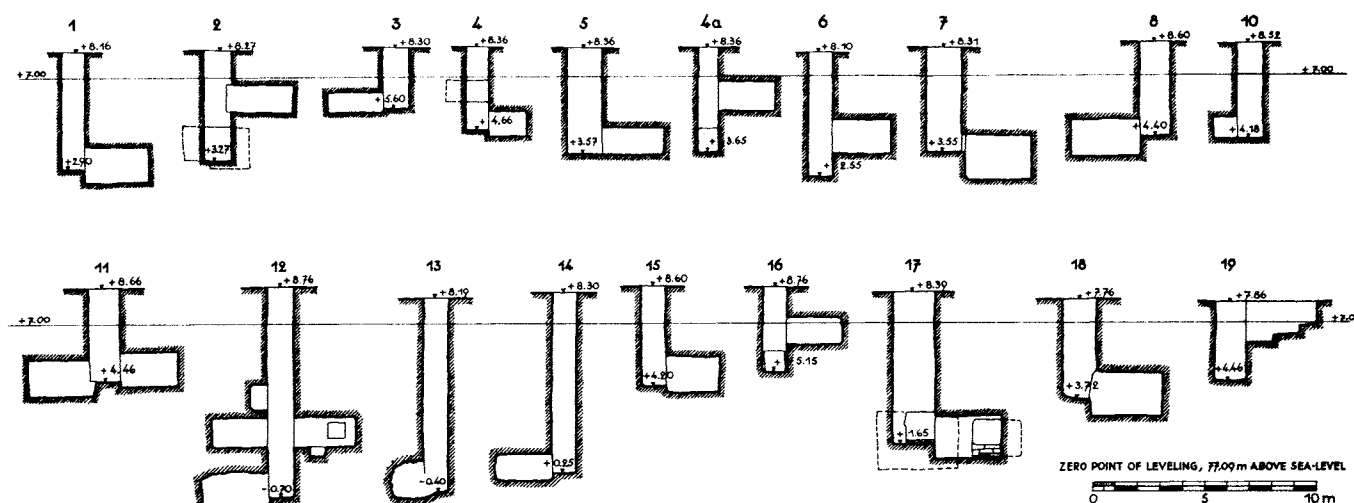


FIG. 27. CROSS SECTIONS OF SHAFT TOMBS IN THE CHAPELS BEHIND MEDINET HABU (CF. PL. 42)

to Twenty-fifth dynasties).⁶ The inner walls of VII—but not those of VI—were built into the exterior walls of the building, which fact seems to indicate that here the cellae were vaulted in brick. The cella walls of VI, which were only 85 cm. thick, would seem to have been too weak to carry vaults. On the other hand, the walls of the transverse hall in VI were unusually thick (1.65–1.85 m.), considerably thicker than those in VII (1.00–1.10 m.). It may be concluded therefore that the transverse hall in VI was

and 1.40 m. deep) occurred in the forecourt of VII. It was filled with humus, but within it was a rubbish-filled pit of the same size as those in V and VI. Five irregularly spaced dark spots (20–30 cm. in diameter) in the humus suggested that shrubs or flowers had been planted around a stela (see Pl. 42). The same arrangement seems to have occurred before the entrance to a small shrine built into

7. Cf. Vol. II 50.

8. Herbert Rieke, *Der Grundriss des Amarna-Wohnhauses* (WVDOG LVI [1932]) p. 49 and Fig. 46.

9. E.g. Heinrich Schäfer, *Von ägyptischer Kunst* (3. Aufl.; Leipzig, 1930) Figs. 84 and 86–88 (after Davies, *The Rock Tombs of El Amarna III* [London, 1905]) Pl. XI, and I, Pls. XVIII and XXVI).

6. Brick sizes do not provide reliable evidence for dating, however, since, for example, bricks measuring $29 \times 14 \times 8$ cm. were used regularly in the 25th–26th dyn. houses within the complex of Medinet Habu (see Vol. V).

III

RETROSPECT

NOW that we have considered the parts of Medinet Habu individually, let us summarize what we have learned of the temple complex as a whole. As to its location, it should be recalled¹ that at the death of Amenhotep III the Theban necropolis terminated on the south with the gigantic mortuary temple of that ostentatious king and the smaller temples of his courtiers behind it. Immediately to the south was the "Town of Amenhotep III" with numerous private and official buildings, including the royal palace at Malqata with the reservoir known as "Birkat Habu" extending in front of it. Under Akhnaton the royal mortuary temples, because they were dedicated to Amon, appear without exception to have been closed, desecrated, or even destroyed. At the same time the "Town of Amenhotep III" was probably abandoned, since the royal residence was transferred to Tell el-'Amarnah. Then reaction set in under Harmhab, and the cult of Amon was re-established. However, the situation in western Thebes was and continued to be entirely different than it had been in the days before Akhnaton. Many of the violated royal temples, whose incomes had been squandered and whose cults had been neglected, presumably were not restored—so perhaps the largest of them all, the temple of Amenhotep III. And the royal residence was not shifted back to Thebes but remained in northern Egypt. This probably explains why the half-deserted "Town of Amenhotep III" never flourished again and why the first new mortuary temple, that of Eye and Harmhab, was erected without much difficulty on its site and above the ruins of its buildings. This new temple then became the southern termination of the necropolis and remained so until the end of the Nineteenth Dynasty. There was no further expansion to the south until the Twentieth Dynasty, when Medinet Habu was constructed under Ramses III. Medinet Habu therefore was situated beside the temple of Eye and Harmhab, separated from it by the bed of torrents which after occasional cloudbursts flowed into the valley from the mountains. The original area of Medinet Habu was of modest dimensions and was set back from the cultivated land far enough so that the new building did not encroach upon the Small Temple of Amon *ḏšr-š.t*, "Sacred of Place,"² which stood in front of it.

Ramses III's building project began with terracing the land, which inclined gently toward the mountains. During this procedure the higher parts were cut away and the lower parts filled with rubbish, gravel, and sand. Thus it happened that ruins of houses belonging to the "Town of Amenhotep III" or traces of them were preserved under the filling in the lowest parts of the area.³ The original or

inner temple area is rectangular and was inclosed by a turreted wall. The main feature of the inner area was the Great Temple of Amon, but it contained also the magazines, which were ranged around the temple, administration buildings and workshops, wells, and the royal palace. The temple was constructed not of the fine-grained limestone to be found in the vicinity, as were most temples of the Middle Kingdom and even at the beginning of the Eighteenth Dynasty in our district, but of sandstone from distant Gebel Silsilah, which had already been used regularly for the large temples of the Nineteenth Dynasty.

The large and heavy blocks, which came on the Nile, were transported to the building site on a hard road or, when it was impossible to build a road in the inundated area, by means of a canal leading to the hard, dry desert land. After the completion of the temple complex the canal was used during the great festivals when the sacred bark of Amon and accompanying ships crossed from Karnak to the royal temple on the west bank. No doubt the other great stone temples in the necropolis also were provided with such canals originally. However, most of them, when after the death of the builder his cult was abandoned or died out entirely, fell into decay, became silted up, and were filled with mud, so that probably only a few canals existed at the same time. We have not been able to determine the course of our canal through the now cultivated land but have assumed that it led directly to the Nile along the axis of the temple. We excavated only the west end of the canal, 140 meters from the Great Pylon of the temple. There, at the point of transfer from water to land, is a square platform which rose about 1.40 m. above the banks of the canal and sloped steeply to the water. It was constructed of stone blocks and inclosed by a parapet. Here the priests of the temple could await processions arriving from Karnak by boat and greet them with hymns of praise and burning incense. At both sides of the platform stairways led to the water.

In its original, more modest form Medinet Habu on the whole resembled the great mortuary temples of the Nineteenth Dynasty, as far as our knowledge of them goes. There are, however, in the details differences in principle which are interesting from the viewpoint of architectural and cultural history.

1. The temple of Medinet Habu has three parts: the first court, the second court, and the roofed portion of the building. The last is the temple in the stricter sense of the

3. Cf. *ibid.* p. 68. Most of the remains of older dwellings occurred in the western half of the area (marked in red on Folio Pls. 12 and 14-15). They were, as far as we can see, small and rather poor houses. Their walls are almost parallel to the axis of the temple of Eye and Harmhab. The objects found in them seem to belong to the end of the 18th and the 19th dyn. Farther to the east are remains of thick walls which belonged to temples or other official buildings. We have identified the strongest of these as inclosure walls of the Small Temple of Medinet Habu (*ibid.* pp. 32-38).

1. See Vol. II 110 and Fig. 53.

2. See *ibid.* p. 44.

word. To it we must add the raised colonnade at the west end of the second court, which accordingly we call the portico of the temple proper. The second court is the forecourt of the temple. With its surrounding colonnades—Osi-ride pillars at front and rear, columns to left and right—it creates the impression of a completely centralized unit; but by its very nature the raised colonnade at the rear, as we have said, does not actually belong to the court. It is essential, while the other colonnades are merely for decoration. The second pylon forms the entrance to the second court. Its portal is the only one at Medinet Habu constructed of costly red granite from Aswan. The first court is less closely related to the temple, since it is at the same time the forecourt of the royal palace, which opens on the south with a mighty colonnade. The axes of the temple and the palace intersect therefore in the center of the first court. A colonnade with statue pillars facing the palace was added on the north side, opposite the palace portico, for the sake of architectural symmetry.

The difference in significance of these three parts of the temple—first court, second court, and temple proper—is expressed by the wall scenes also. The representations in the first court show the king entering the temple from the palace on the occasion of the Feast of the Valley or as divine king in successful combat with an enemy. Then follow in the second court scenes showing further deeds of the king, mostly of a religious nature, especially the preparations for the great feasts in honor of Amon, Sokar, and Min. In the temple proper, beginning with the raised portico, occur for the most part only the usual cult scenes, in which the king, entirely impersonally, worships and presents offerings to the various deities.

These three parts of the temple were fused into one architectural unit for the first time, as far as we know, at Medinet Habu. Let us recall some earlier temples for comparison. In that of Seti I at Qurnah the temple proper and its portico were constructed of stone, whereas the two courts and their pylons were built of brick and thus treated as subsidiary structures. In the Ramesseum, though the second court had by this time coalesced with the temple proper and the first pylon was constructed of monumental stone, the side walls of the first court and their colonnades were in scale with the relatively small palace rather than with the immense temple structure. At Medinet Habu for the first time all three parts were constructed of the same material and on the same scale. Thus we have here the final development.

2. The temple proper resembles older temples, especially the Ramesseum, in the arrangement of its main rooms adjoining one another along the axis. But the similarity is confined to the main rooms. In earlier temples the side rooms were grouped in two or four parallel sections, each section directly accessible from the portico. At Medinet Habu, on the other hand, all the side rooms are accessible from the right or the left of the axial main rooms. The lucidity of the plan has thereby suffered considerably.⁴

3. The royal palace, because of its close relationship to the cult of the temple, was built directly onto the outside of the temple, so that the south wall of the first court and the colonnade in front of it formed the façade and portico respectively of the palace. The front of the palace therefore was completely drawn into the temple architecture.

4. See Vol. III, Pl. 2.

This too is something new! We recall that in the temple complex of Eye and Harmhab the palace had absolutely no architectural connection with the temple⁵ and that in the Ramesseum—however similar its layout may be to that of Medinet Habu—the palace façade is on a much smaller scale than the temple proper⁶ and therefore had no aesthetic relationship with the temple.

4. The remaining subsidiary structures, that is, the magazines, administration buildings, and courts, show few particulars in contrast to older temple layouts, as far as we know. They surrounded the main building on three sides and were separated from it by a rather narrow passage or street which ended as a blind alley at the palace. This passage, connected with the outside by gates at the northeast and the rear, formed the only access to all these subsidiary structures. It was, so to speak, the main artery for traffic within the actual temple area. The magazines and storehouses themselves were not especially large. Their size no doubt corresponded to that of the temple income, which therefore must have been considerably smaller than that of the Ramesseum for instance. This should be kept in mind if one would correctly evaluate Ramses III's fantastically long lists of offerings and his enormous gifts to temples, especially that of Medinet Habu.⁷

5. The inclosure wall of the original temple area differs from all temple inclosure walls observed elsewhere in that it had towers and thus resembled a fortified wall. No doubt the walls of cities and fortresses which at that time existed or were being erected in Syria or on the borders of Lower Egypt served as models. But it is difficult to say whether the wall at Medinet Habu was actually to be seriously defended if the need arose. Probably more depended on creating the impression of a very strong, almost impregnable place (see below).

But Ramses III was not satisfied with his achievement, for in the second half of his reign he enlarged the temple layout on a grand scale, bestowing upon it to an even greater degree the character of a fortress. What was the reason for enlarging Medinet Habu? We have, indeed, discovered an extension of the original layout at the Ramesseum,⁸ but this, as far as we know, involved only the magazines and therefore was probably occasioned by an increase in the temple income. At Medinet Habu, on the other hand, the magazines were not increased but rather diminished by the extension of the temple layout and in the inner area only the royal palace was enlarged, apparently in preparation for longer sojourns of the king and his court. Buildings which were required by the royal household and rows of houses for employees or soldiers were added in the outer temple area. The enlargement was undertaken therefore not actually for the benefit of the temple, that is, because of demands of the cult or on account of increased income, but rather in the interest of the royal court, to provide accommodation for the staff, and to strengthen the fortification and complete the architectonic composition of the place.

5. Vol. II 81.

6. Vol. III 73.

7. See Harold H. Nelson, "The Calendar of Feasts and Offerings at Medinet Habu" (*OIC* No. 18 [1934] pp. 1-63), and Herbert D. Schaedel, *Die Listen des Grossen Papyrus Harris* ("Leipziger ägyptologische Studien" VI [Glückstadt-Hamburg-New York, 1936]).

8. See Vol. III 81.

The expenditure involved in the enlargement was very great in proportion to the practical results achieved. The building of the defenses alone (Great Girdle Wall, Outer Wall, and both high gates) was an enormous undertaking. We know of no other place in Egypt which creates so strongly the impression of a fortress as Medinet Habu. Yet, strange as it may seem, combined with the strictly fortress-like architecture were all sorts of features which in my opinion were inconsistent with it. Religious splendor and royal pomp to some extent determined the form of the high gates, and these aspects were emphasized in scenes which occupied a great deal of space on their walls, sometimes at the expense of defensibility. Indeed, even the interiors of these gates, which were so important for defense, were devoted almost entirely to the private life of the pharaoh and his court, as shown by the harem scenes on the walls. One continues to wonder whether the king was actually seriously concerned with building a fortress, that is, whether he actually thought that the temple area would some day have to be defended against an enemy, be it hostile armies or roving Bedouin tribes or rebellious populace. Or was there merely the desire to create the impression of an impregnable stronghold in order to make a display of the power of the king? Might not overpowering forms and boastful scenes be exhibited in order to impress friend and foe—a scheme which in fact succeeded for a time? In reality, however, it seems that the king no longer had the power and courage for vigorous action but was limited to the defensive or even only the pretense of being able to defend himself.

Thus the fortified temple of Medinet Habu seems to us an excellent picture of the history of the decline of the pharaonic period. The Egyptian position in world power established by the conquerors of the Eighteenth Dynasty

and to some extent restored by the kings of the Nineteenth Dynasty was, in spite of the initial success of Ramses III, completely shattered. The Egyptian people had become unwarlike; numerous foreign mercenaries carried arms without loyalty and without permanent achievement. Defense was now the only concern, and attempts were made to impress and frighten friend and foe with reminders and representations of past might and splendor. Above all, the pharaoh lacked the necessary economic support for a strong program of expansion, since a disproportionately large part of the land had passed into mortmain, that is, into the possession of the great temples, and since the tribute of metals and other riches, of men and beasts, which had once flowed regularly from conquered lands, had gradually ceased. An abnormal fondness for building had caused poverty and need throughout the land. As a result, during the construction of Medinet Habu unrest among the working classes is reported for the first time in history.⁹

So the glorious kingdom of the pharaohs was approaching its end,¹⁰ and no mighty fortifications, no magnificent display of former splendor and power could save it. The fortress of Medinet Habu was not to survive the downfall of the pharaonic kingdom.¹¹

9. See Wilhelm Spiegelberg, *Arbeiter und Arbeiterbewegung in Pharaonenreich unter den Ramessiden* (Strassburg, 1895) esp. pp. 17 f., and Schaedel, *op. cit.* p. 72.

10. Cf. T. Eric Peet, "The supposed revolution of the high-priest Amenhotpe under Ramesses IX" (*JEA* XII [1926] 254–59) and *The Great Tomb-Robberies of the Twentieth Egyptian Dynasty* (Oxford, 1930); James Henry Breasted, *Ancient Records of Egypt* IV (Chicago, 1906) §§ 499–556; V. Struve, "Ort der Herkunft und Zweck der Zusammenstellung des Grossen Papyrus Harris" (*Aegyptus* VII [Milano, 1926] 3–40).

11. See Vol. V.

IV

TECHNICAL AND ARTISTIC DETAILS

BRICK CONSTRUCTION

MOST of the buildings at Medinet Habu were constructed of sun-dried mud brick. Ramses III used bricks of two different sizes: the larger size ($43 \times 21 \times 13$ cm.) for all main walls in both the inner and outer temple areas and the smaller size ($37 \times 18 \times 11$ cm.) for the thinner walls of subsidiary buildings in the outer temple area. The bricks of the earlier building period are in general sandier and firmer; those of the later period are weaker and softer and often contained an admixture of

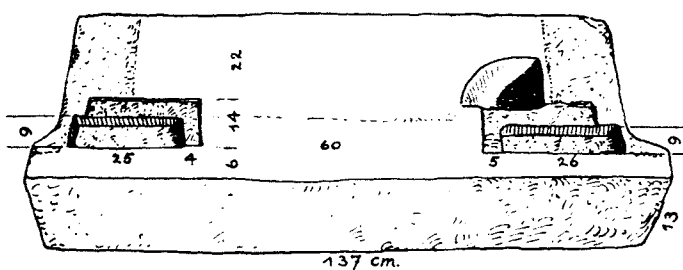


FIG. 28. STONE DOORSILL FROM THE PALACE WITH SOCKETS FOR A SINGLE DOOR AND WOODEN FRAMES OF TWO DIFFERENT PERIODS

chaff (chopped or crushed straw) which for the most part has been eaten away by white ants. Ramses III's own bricks were not stamped. Numerous bricks from older, destroyed structures were reused in his later buildings, however, and stamps of Amenhotep III¹ are especially frequent on these.

The construction of the Great Girdle Wall has already been discussed (pp. 1-3), and we may here describe briefly the other brick structures.² The lowest brick course, that lying on the ground, was usually a rowlock course bedded in mortar in the earlier period and in fine sand in the later period. Many of the floors in the dwellings, magazines, and courts consisted of thin square mud-brick slabs ($43 \times 43 \times 6$ cm.) bedded in sand and covered with mud mortar. In the palace we found whitewash over the mortar but no traces of painted decoration. The walls were always plastered with mud and whitewashed both inside and outside. Those of the inner rooms of the Second Palace at least had

painted decoration, as shown by traces preserved in Room N (see p. 38).³

The rooms in most of the brick buildings were obviously barrel-vaulted, but nothing of the vaults themselves is preserved. The greatest span was 4.60 m., in the reception hall (K) of the harem in the Second Palace.⁴ From what is known of brick vaults elsewhere in ancient Egypt, especially at the Ramesseum,⁵ we assume that those at Medinet Habu too were constructed for the most part without temporary wood supports or centering. There is evidence, however, to prove that occasionally during construction vaults were supported lengthwise by three or five or seven beams. The holes that held the ends of such beams in the Second Palace—but not in the First Palace—may be seen in the south wall of the temple.⁶ Similar holes occur in one wall of the Eastern Fortified Gate (see Pl. 18 B), where it is quite evident that the beams were removed after the vault was finished and the holes patched with matching stone set in gypsum mortar so as to be invisible under the colored wall decoration.⁷ The larger rooms were constructed with columns which carried stone architraves to receive the brick vaults. Before the excava-

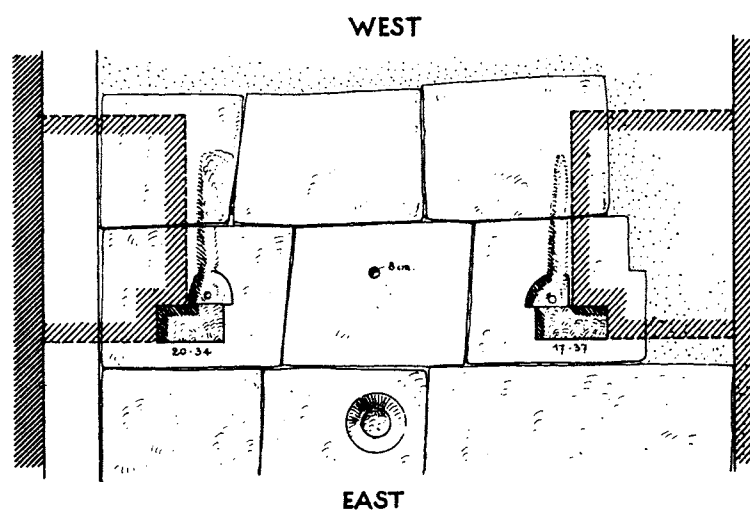


FIG. 29. STONE PAVEMENT IN N 10 WITH SOCKETS FOR A DOUBLE DOOR AND WOODEN DOORFRAME

tion of Medinet Habu it had not been known that such vaulted columned halls existed in ancient Egypt. But now

1. Cf. Vol. II, Fig. 6f-g.

2. A special difficulty is encountered in studying mud-brick walls which lie low enough to become damp or moist as a result of infiltration. Then it is hard to distinguish the bricks from the mortar, which is made of about the same material. It is usually possible, however, to make the bonding pattern stand out in the following way: The top surface of the wall is very carefully worked away and the new surface thus formed allowed to stand for several days until it begins to dry. At the moment when the sandier and more porous material—usually the mortar in the joints—is dry and stands out against the denser material, which is still damp and darker in color, a trained workman marks the joints with a blunt knife in order to make them permanently visible. Otherwise the joints would quickly disappear when the surface is entirely dry. The same method, of course, may be used for vertical surfaces and sections.

3. See Vol. III, Fig. 29, for lettering of rooms in the Second Palace.

4. *Ibid.* Fig. 29 K.

5. *Ibid.* p. 81.

6. *Ibid.* p. 39 and Pl. 26.

7. Borchardt pointed out (in "Die Entstehung der Teppichbemalung an altägyptischen Decken und Gewölben" [*Zeitschrift für Bauwesen* LXXIX 111-15]) that occasionally in brick-vaulted tomb chambers of the Ramessid period one beam or three beams were placed lengthwise beneath the vault and decorated along with it. His resulting assumption that the beams of which we found evidence at Medinet Habu were likewise left in place and decorated along with the vaults is surely disproved by the patched holes in the Eastern Fortified Gate.

we see that apparently they occurred in many other buildings also, for example the Ramesseum.⁸ Imitations of such vaulted columned halls were rooms of the same shape hewn out of the rock as early as the Middle Kingdom.⁹ At Medinet Habu apparently wooden-beamed ceilings generally were used in buildings of minor importance, such as

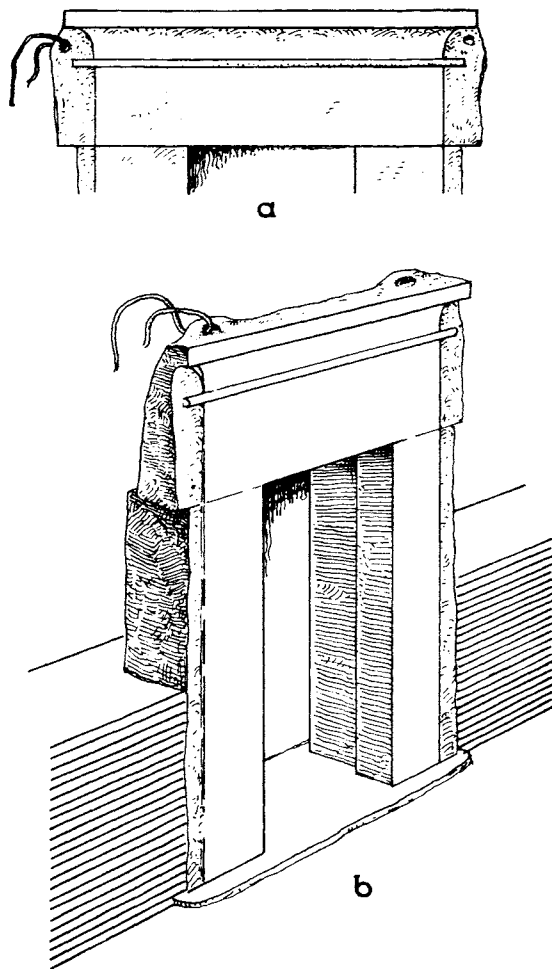


FIG. 30. STONE DOORFRAMES WHOSE LINTELS WERE APPARENTLY LIFTED INTO PLACE AND FASTENED TO THE BRICKWORK WITH CORD

the row houses (see p. 14), though nothing of the woodwork is preserved anywhere. Traces of such ceilings in the stone section of the Eastern Fortified Gate are discussed below (pp. 33 f.).

The doorways in brick buildings were provided with wooden or stone frames and stone sills. The wooden frames were cut from timbers and let into the sills to a depth of 3–8 cm. A sill found in the palace, but not *in situ*, has sockets for frames of two different periods, made of timbers measuring 14×25 and 9×25–26 cm. respectively (Fig. 28). Similar frames were used for double doors also, for example those in N 10 (Fig. 29) and R 7 (see Folio Pl. 2) which served to block off the street around the temple.¹⁰ Their timbers were surprisingly heavy (*ca.* 18×36 cm.) and perhaps were fastened to wood blocks imbedded crosswise in the brickwork. Stone doorframes were usually so heavy and strong that no special fastening in the brickwork was necessary. Sometimes, if the lintel was very high and rather thin and crowned with a cavetto cornice, presumably it was fastened in the brickwork with cord (Fig. 30). The same cord no doubt was first used to lift the heavy stone slab into place. The small rooms of the harem apartments had lintels with sloping rear faces and arched projections to receive barrel vaults (Fig. 31). The sills, on which the doorposts stood, consisted usually of very large and heavy stones. In the Second Palace they were always bedded in sand, in which foundation gifts were strewn, as proved in the main entrance to the throneroom (see p. 47).¹¹ The positions of the stone posts on the sills were usually indicated by incised lines.

In the bathrooms of the Second Palace¹² the brick walls were faced part way up with stone slabs to protect them from splashing. The walls of one of the Ramesseum magazines were treated in the same manner for protection against gnawing by rats and mice.¹³

STONE CONSTRUCTION

The entire temple and for the most part the two high gates were built of sandstone quarried at Gebel Silsilah (140 km. upstream). New stone only, specially cut for the purpose, was used.¹⁴ It is in general yellow and softer than the Gebel Silsilah stone used for the Ramesseum. Many of the blocks bear a stonecutter's inscription giving an address and a date, presumably that of delivery (see p. 48). Most of the blocks are from $\frac{1}{8}$ to 1 cu. m. in size, but considerably larger blocks were used for such parts as lintels, architraves, and roof slabs. The portal in the second pylon of the temple is of red granite, and the sill of the entrance to the great hypostyle hall is of quartzite. An idea of the technical achievement involved in quarrying and transporting such an enormous quantity of huge blocks is obtained from a hieratic inscription which occurs in one of the quarries at Gebel Silsilah. It states that three thousand

8. Vol. III 81.

9. E.g. in the tombs of Khnumhotep and Amenemhet at Beni Hasan (see *LD II* 126–27 and 130; Capart, *L'Art égyptien. I. L'Architecture* [Bruxelles and Paris, 1922] Pl. 70).

10. Vol. III 62.

12. *Ibid.* pp. 54 and 56.

11. See *ibid.* p. 51.

13. *Ibid.* p. 82.

14. Blocks such as one in the west wall of Room 17 of the temple which, as shown by traces of reliefs, originated in an earlier building were very exceptional.

men and forty-four ships were engaged by Setemhab, overseer of an expedition to fetch stone for building the temple of Medinet Habu.¹⁵

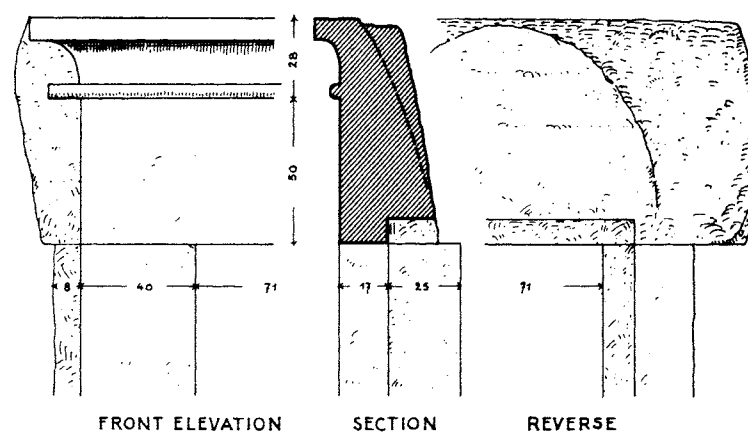


FIG. 31. LINTEL OF A DOORWAY IN THE HAREM, SHOWING SLOPING REAR FACE AND ARCHED PROJECTION TO RECEIVE A BRICK VAULT

The ground on which the temple was built rises from east to west and was leveled in separate terraces. Gravel filling for leveling was removed from the higher spots of the area or brought from the near-by mountain slopes.

15. See James Henry Breasted, *Ancient Records of Egypt IV*, §§ 18–19.

The temple foundations extended on an average of 1.50–2.00 m. below the leveled surface. Foundation trenches dug in filling, where there was danger of caving in, were faced with bricks on each side (Fig. 32),¹⁶ but this was not necessary for trenches dug in virgin soil or rock. The lowest foundation course was usually bedded in a thin layer of fine sand, and finally the trenches were backfilled on both sides of the foundation with sand, gravel, and crushed stone.¹⁷

In a later period (*ca.* Twenty-sixth Dynasty) numerous tombs¹⁸ were constructed beneath the rear rooms of the temple. Floor slabs were taken up, and the gravel between the brick facing-walls of the foundation trenches was removed and the shafts dug deeper into virgin soil (see Fig. 32). Daressy,¹⁹ having misunderstood the method of construction, assumed that the hollow spaces thus formed were originally crypts, that is, underground temple rooms in which valuables were hidden for safekeeping. But it has been determined that there were no underground chambers and passages at Medinet Habu such as occurred in many Ptolemaic temples.

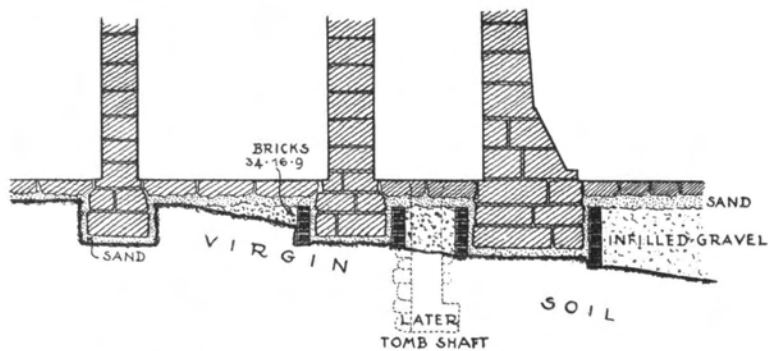


FIG. 32. SCHEMATIC SECTION OF THE TEMPLE FOUNDATIONS

The stone blocks of the walls were laid in general without mortar. We get an idea of the carelessly masoned foundation courses, which were out of sight, from the ruins of the Western Fortified Gate (Pl. 40). The stones of the lowest course, though very large, were not squared but were crammed into the sand bedding just as they came from the quarry, with wide irregular joints and hollow spaces between them. The only concern was to have all the blocks of the same height or to make them so by subsequent cutting in order to provide a relatively level and even surface for the next course. The latter, whose upper surface was about 50 cm. below the pavement level, was laid a little more carefully, but even its blocks were not squared and hence fitted together very loosely. In the third course, which extended above ground, the blocks to

16. This method, by no means limited to our temple, has occasionally been misunderstood by excavators who have mistaken the thin brick facing-walls for later additions between the stone foundations and painstakingly freed them to search for objects between or under them only to discover to their disappointment that as a rule nothing but gravel was to be found.

17. It should be noted that foundations bedded on sand are dependable only as long as the sand because of its frictional resistance stays firm and cannot be squeezed out by the load. The latter can happen, however, when the sand becomes wet and slippery, e.g. when foundations are freed and ground water enters the trenches. I presume that the catastrophe of 1891 at Karnak, when nine columns in the great hypostyle hall suddenly collapsed, occurred because the sand bedding all around was cleared and water from the inundation was deliberately left in the open trenches.

18. See Vol. V.

19. *Notice explicative des ruines de Médinet Habou* (Le Caire, 1897) pp. 169 f.

some extent were squared and laid with tight horizontal and vertical joints. Since for the most part the blocks were piled one above another without mortar, the weight was distributed very unevenly among the more or less rough stones and hence concentrated at isolated points, causing many blocks to crack. Mortar²⁰ was used only occasionally,

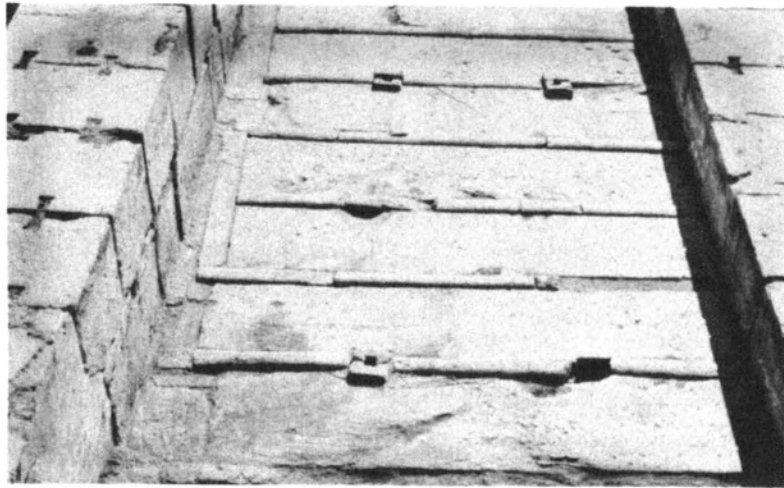


FIG. 33. ROOF OF NORTH COLONNADE IN FIRST COURT OF TEMPLE (cf. Figs. 34 and 37)

to fill empty spaces, to repair faulty places, and to flush joints. However, the blocks were fastened together with wooden dovetails 30–40 cm. long (Fig. 33). This wood²¹ has stood up so well in the dry climate of Egypt that even now some exposed cramps are still undecayed (Fig. 34).

All the stone blocks were laid undressed. They were hauled up a brick ramp to a platform which was used instead of wooden scaffolding. This platform was con-

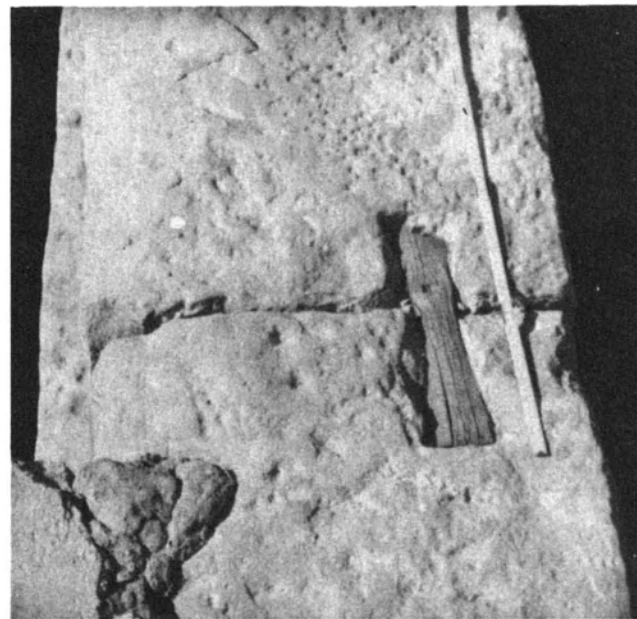


FIG. 34. WOODEN CRAMP FOR DOVETAILING STONE BLOCKS (cf. Fig. 33)

structed by means of a brick retaining wall outside the building and mud-brick, gravel, and chipped-stone filling inside (Fig. 35). The ramp and the platform were raised course by course as the work progressed. Thus the stone walls and columns, enveloped by brickwork and masses of rubbish, were at first left unfinished and undressed. To indicate the final lines of the surfaces and how far the rough

20. Consisting of gypsum, with lime, and more or less fine sand.

21. Apparently *Dalbergia melanoxylon*, the so-called African granadilla wood or Senegal ebony, according to a sample analyzed by Professor Elisabeth Schieman, Berlin-Dahlem.

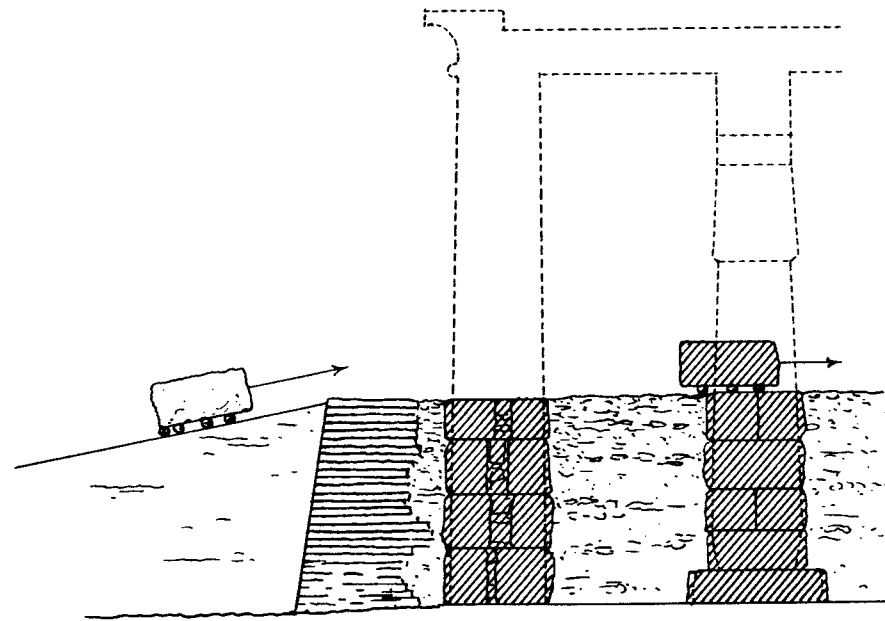


FIG. 35. SKETCH SHOWING METHOD OF TRANSPORTING AND LAYING
ROUGH STONE BLOCKS. RECONSTRUCTION

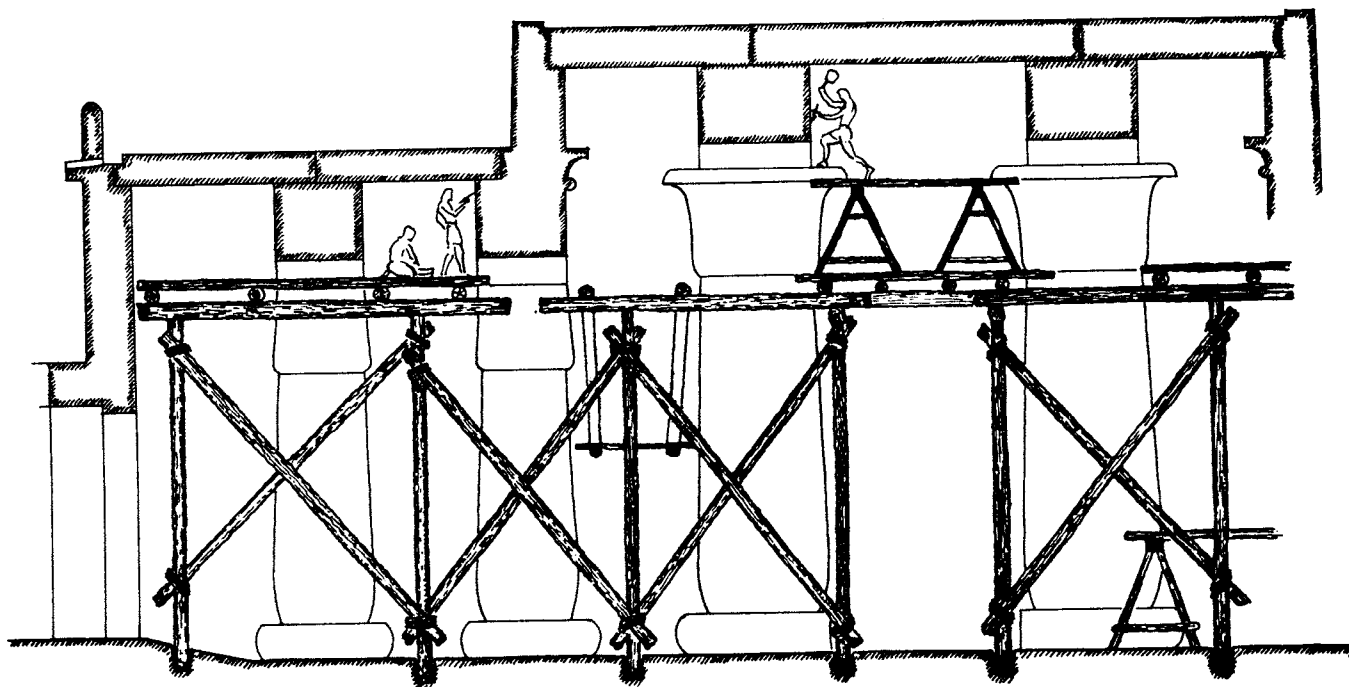


FIG. 36. TEMPORARY WOODEN SCAFFOLDING IN THE GREAT HYPOSTYLE HALL. RECONSTRUCTION

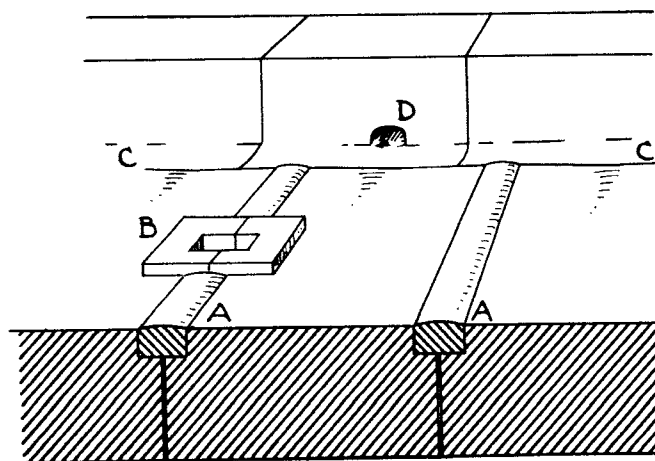


FIG. 37. ROOF CONSTRUCTION OF COLONNADES IN FIRST COURT
(cf. FIG. 33)

stone was subsequently to be hewn away, masons' lines or marks were cut with a pick hammer on top of each block and transferred from one course to the next.²² After all the stone walls and columns had been erected to their full height and the roof blocks placed over them the filling inside and the brick retaining wall and ramp outside were removed course by course, and the stone walls and columns were thus freed from their casing. At the same time, that is, course by course, the rough stone was hewn away almost to the indicated final lines so that relatively smooth

Wooden-beamed ceilings were unusual in stone buildings. We found traces of them only in the Eastern Fortified Gate, where they were used in all the upper rooms enclosed entirely by stone walls but in none which had any brick walls. We can best study those in the rooms above the gate passageway. Traces in the walls indicate on the second floor a flat ceiling 38 cm. thick and in the room above a similar one 41 cm. thick (Fig. 38). The supports for these ceilings were beams (Fig. 38 A) with clear span of 3.75 m. placed at intervals of about 1.05 m.²⁵ Under

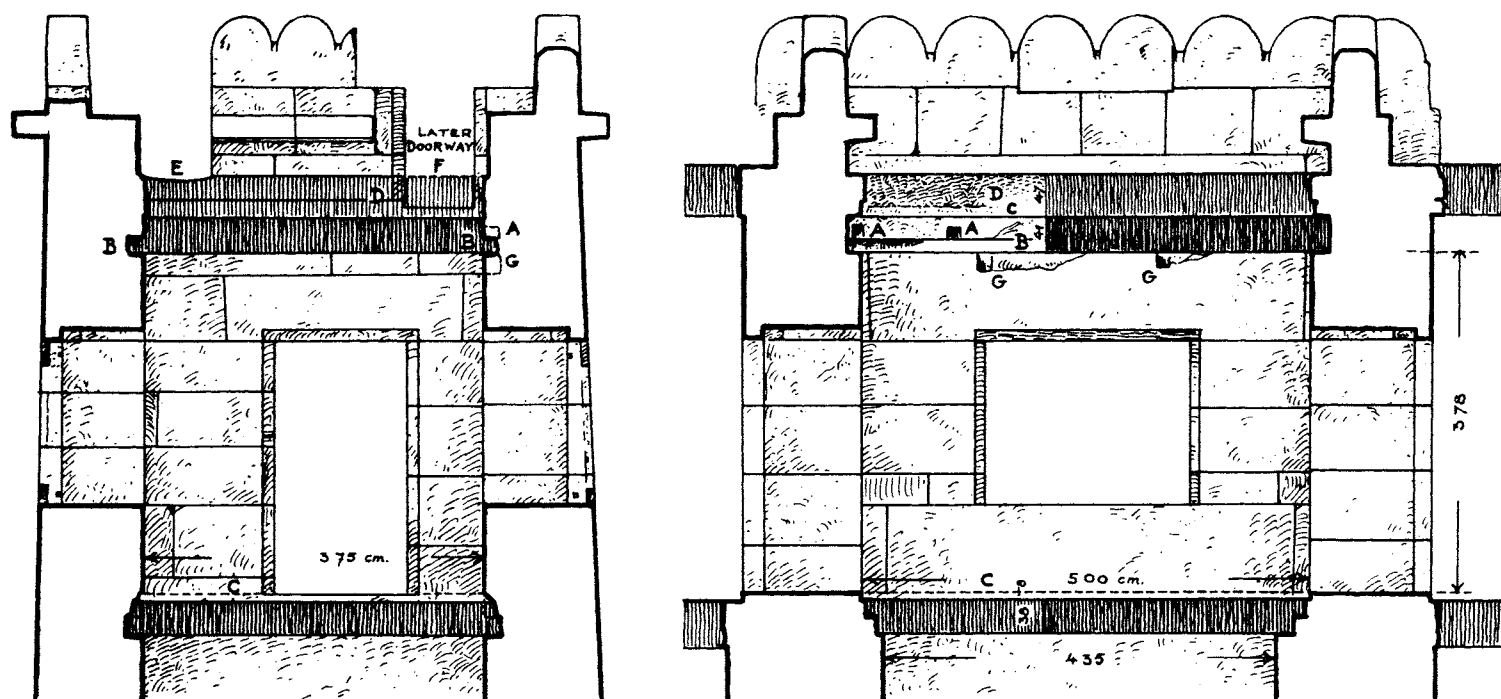


FIG. 38. SECTIONS THROUGH ROOM 5 OF THE EASTERN FORTIFIED GATE, LOOKING SOUTH (left) AND WEST (right)

surfaces were achieved. The final dressing and decorating was then done from a light scaffolding, probably usually constructed of wood. We found holes for posts of such a scaffolding in the floor of the great hypostyle hall (Fig. 36).²³ In some instances apparently hanging scaffolds were used. Small square openings in the roofs of the colonnades in the first and second courts (Figs. 33 and 37 B and Folio Pl. 21) were not necessary for light and ventilation and, as far as we can see, could have served no other purpose than for holding cords used to raise and lower scaffolds.

The ceilings in most of the rooms consisted of stone slabs 40–60 cm. thick which at the same time formed the flat roofs. With such simple construction it was difficult to make the joints between the slabs watertight and to drain off rainwater.²⁴ Therefore the joints were closed with stone fillets rounded on top and set in gypsum mortar (Figs. 33 and 37 A). The tops of the roof slabs are almost imperceptibly pitched so that the water flows toward the outside and collects there in very shallow gutters (C) and thence flows through small tunnels (D) to the gargoyles on the outside (see Fig. 36).

22. In the Western Fortified Gate masons' marks appeared first on the second course, 50 cm. below ground, and on every following course.

23. Vol. III 12 and Folio Pl. 20.

24. Contrary to widespread opinion (see e.g. Henri Chevrier, *Le temple reposoir de Ramsès III à Karnak* [Le Caire, 1933] p. 8) occasional subtropical cloudbursts occur even today in Upper Egypt in spite of its proverbial lack of rain. In November, 1934, in the desert not far from Luxor I saw a valley 60 m. wide transformed into a river and holes 1.35 m. deep torn by whirlpools. In antiquity perhaps it rained even more in Upper Egypt than it does today. Note the damage caused by torrents in the temple area of Eye and Harmhab (p. 4 above and Vol. II 65).

them were fastened smooth ceilings which fitted into grooves (B) on all sides. We can imagine these ceilings to have been constructed of palm ribs or papyrus stalks and gypsum.²⁶ The spaces between the beams were probably

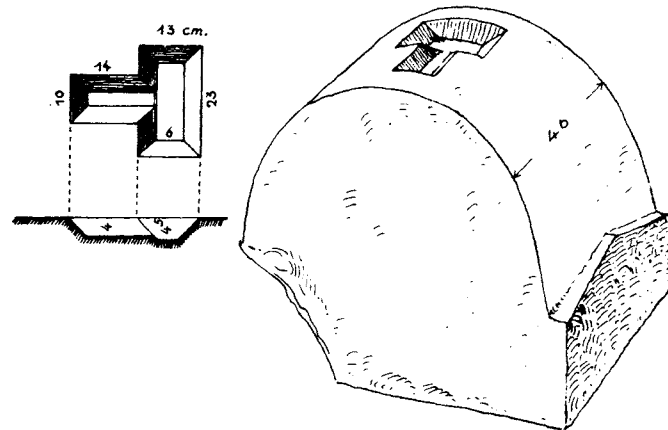


FIG. 39. CRENELATION FROM THE WESTERN FORTIFIED GATE WITH T-SHAPED DEPRESSION ON TOP

filled with clay. Above them was flooring (C) about 8–12 cm. thick, made perhaps of gypsum or thin stone slabs. The ceiling of the upper room received a special covering (D) to make it waterproof. It was about 35 cm. thick and probably consisted of greasy mud covered with gypsum

25. Two larger beams under the ceiling in the third-floor room (Fig. 38 G) were apparently added later when the ceiling was repaired or renewed. They cut into the wall frieze (see Pl. 22 B).

26. Wooden beams covered with twigs and mats or palm ribs and mud plaster were used in Amarna dwellings; see Borchardt, "Ausgrabungen in Tell el-Amarna 1911" (Deutsche Orient-Gesellschaft, Berlin, *Mitteilungen* XLVI [1911]) p. 25, and H. Frankfort and J. D. S. Pendlebury, *The City of Akhenaten* II (London, 1933) 9 f. and Fig. 2.

pavement or stone slabs. The water which no doubt collected on this flat roof flowed through a doorway (*E*) onto the roof terraces at the sides.²⁷

A peculiarity of the crenelations of the Western Fortified Gate is still to be mentioned. Of three found there in the rubbish two have T-shaped depressions on top (Fig.

39). The latter are so evenly and carefully made that one can scarcely consider them later additions. Whether such depressions occur in the numerous crenelations still *in situ* on the Eastern Fortified Gate has not been determined. So far I have not found a plausible explanation for them.

WINDOWS

The columned halls of the temple, not only the great basilican hall but also the two smaller hypostyle halls,²⁸ probably had clerestory windows (see Folio Pl. 21)²⁹ con-

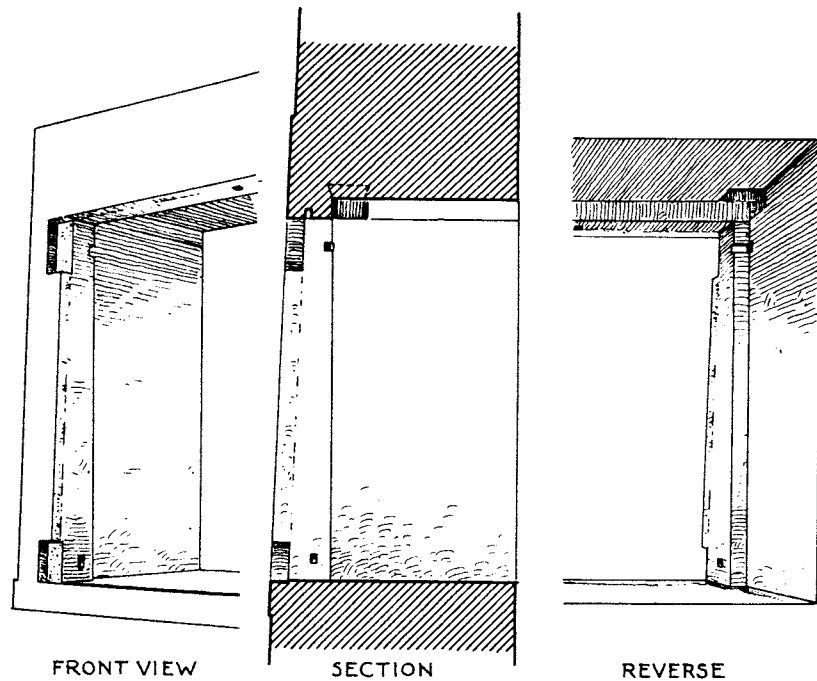


FIG. 40. WINDOW IN ROOM 2 OF THE EASTERN FORTIFIED GATE, SHOWING WHERE A WOODEN GRILLE AND WOODEN FOLDING SHUTTERS WERE FASTENED

sisting of stone grilles, as in the great hypostyle hall at Karnak and the halls of the Ramesseum. But no trace of them is preserved. On the other hand, numerous grilles were found in and near the palace and presumably belonged to the Second Palace.³⁰ Some are rectangular, and some are rounded at the top. They are pleasingly decorated with the king's names in pictorial writing and symbols. One³¹ is only a false window and was obviously used to

balance a real window of the same shape. Red, yellow, and blue paint is still recognizable on many of the fragments. There were no windows in most of the small rooms of the temple, for example Rooms 1-4, 6, and 19,³² whose roofs are still preserved. The faint light which came through the open doorways from the hypostyle halls or the courts had to suffice. Where, however, the adjoining rooms were themselves so dark that no light could enter from them, small holes (*ca.* 10 cm. square) for light and air were made in the roofs (Rooms 9-13, 20, and 46).³³

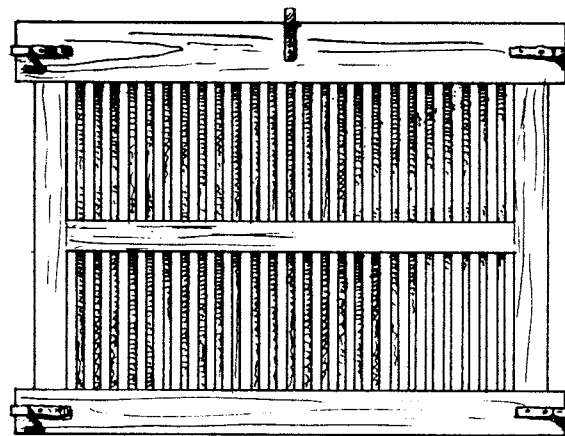


FIG. 41. WOODEN GRILLE FOR WINDOW SHOWN IN FIGURE 40
SUGGESTED RECONSTRUCTION

The living rooms in the high gates had single- or double-leaved shutters, made exactly like doors (see below), for opening and closing the windows. Some of the windows in these rooms had wooden grilles also, sockets for which are preserved in their stone frames (Figs. 40-41 and Pl. 22 *B*).

DOORS

First we must say that at Medinet Habu nothing is preserved of the wooden door leaves with their pivots and bolts. But their construction is well known from examples preserved elsewhere.³⁴ They consisted of vertical boards or planks usually held together by crosspieces on the inside.

27. The other doorway (*F*) was not broken through until later.

28. Vol. III, Fig. 5 *C-E*.

29. See also *ibid.* p. 11 and Fig. 3.

30. *Ibid.* p. 52 and Pl. 38.

31. *Ibid.* Pl. 38 *E*.

32. See *ibid.* Fig. 5 for numbering of the temple rooms.

33. Similar openings, which, however, were not for light and air, were made in the roofs of the colonnades in the first and second courts (see p. 33).

34. See e.g. Otto Königsberger, *Die Konstruktion der ägyptischen Tür* ("Ägyptologische Forschungen" II [Glückstadt, 1936]) pp. 15-24; Somers Clarke and R. Engelbach, *Ancient Egyptian Masonry* (London, 1930) pp. 162-64.

They had cylindrical pivots at the top and pointed ones at the bottom. In the more carefully executed doors both pivots were covered with strong sheet copper or fitted into cast bronze shoes (Fig. 42 *a*). The upper pivot turned in a bearing usually made of hard wood (Fig. 42 *d*), the lower one on a socket of hard stone let into the doorsill (*e-f*). This style of construction involved difficulty in hanging the door. First, by holding the door at an angle, the upper pivot was inserted into its bearing; then, as the door was moved to a vertical position, the lower pivot was guided to its socket in a groove cut into the sill (*b*). Finally the groove was filled with stone (*c*) so that the door could not easily be removed.

There were doors of all sizes at Medinet Habu, from the small ones for statue niches³⁵ to the enormous one in the

35. Vol. III, Fig. 12.

Great Pylon.³⁶ Some details of construction are particularly clear. That the upper bearing usually was made of wood and fastened in the lintel with gypsum mortar is seen from imprints of the grain of wood in the mortar. The bearing was made in the form of a dovetail so that it could not fall out of the lintel. Our sketch (Fig. 42 *d*) shows the clever way in which it was inserted. First it was put in the hole marked *B*, then raised to *A*, and finally shoved to the front

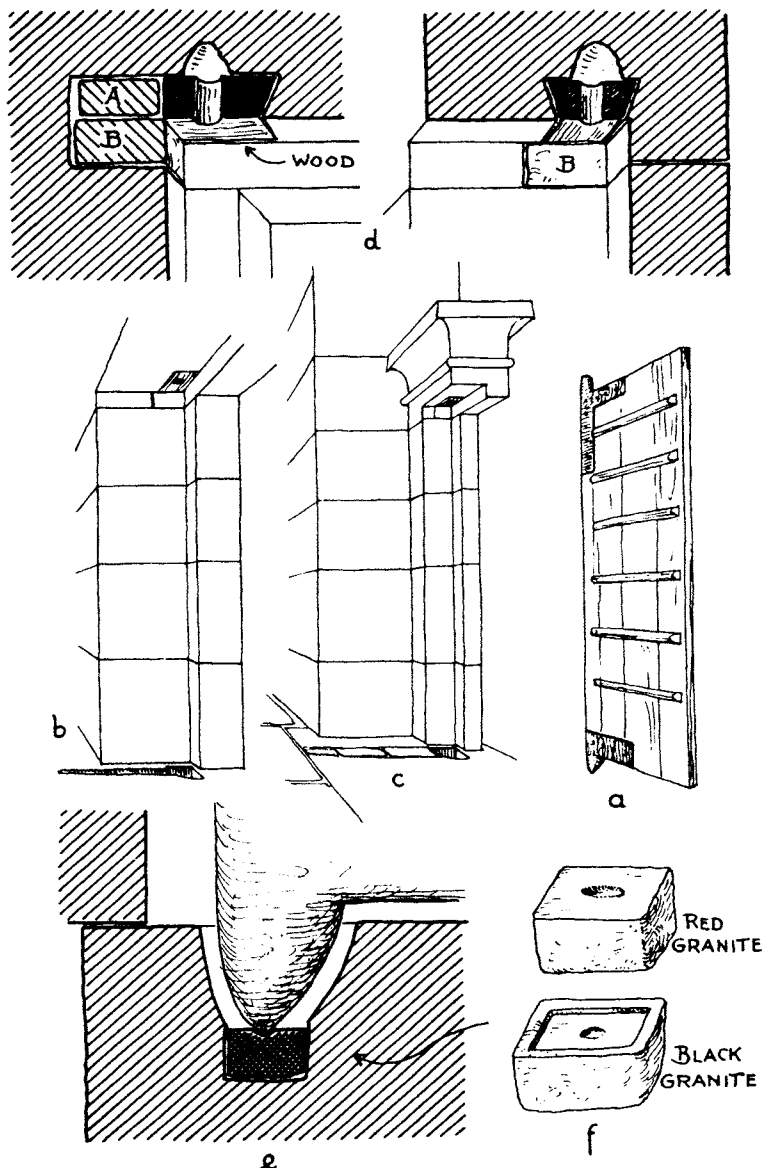


FIG. 42. SKETCH SHOWING METHOD OF HANGING DOORS IN THE TEMPLE

in a dovetail-shaped guide and squeezed into the gypsum mortar and at the same time fastened with wooden wedges. *A* and *B* were then filled with stone. Wooden bearings were naturally much smoother than holes bored into the coarse sandstone lintels would have been and thus allowed the pivots to turn more freely. Wooden bearings were unnecessary, however, in lintels of hard stone in which very smooth borings could be made. Such borings were made with cylindrical drills, perhaps with the aid of emery powder, before the lintels were put in place. In the one granite doorframe at Medinet Habu (in the second pylon)³⁷ a bronze(?) lining (or ring) held by side pegs which were probably wedged and clamped was inserted in the cylindrical socket (Fig. 43). The lower sockets, which were usually let into the sills (Fig. 42 *e-f*), consisted of diorite or red or black granite. The upper surface was usually polished and had a very flat depression in which the pivot turned. In one instance (entrance to the great hypostyle

hall) we found such a socket with a raised margin (*f*). I do not know whether this margin served originally to receive a metal plate or to hold oil on the socket. An entirely different type of socket was found at the main door of the Eastern Fortified Gate. It is a round black granite stone about 60 cm. in diameter (Fig. 44) which looks almost like a column base and is reminiscent of the sockets commonly used in Mesopotamia. It has a square depression on top which apparently held a bronze(?) plate. It is not known whether this socket was part of the original layout of the gate, but I presume that it belonged to a later restoration.

This method of hanging doors left a space between the bottom of the door and the sill through which small animals could easily squeeze. Occasionally, for example in Room 29 of the temple and in one of the storerooms in Magazine K (Fig. 45),³⁸ a curved stone was fitted between the doorposts to prevent this.

Two-leaved doors were constructed and hung in the same manner as single doors. Even the lighter two-leaved open-lintel doors were the same in principle (Fig. 42 *c*). A short piece of lintel at each side held the necessary bearings. This peculiar method of construction led to the typical form of open-lintel door found in all later Egyptian architecture.³⁹ At Medinet Habu there are examples in the Great Pylon,⁴⁰ in the temple portico,⁴¹ in the room of the sacred bark of Amon,⁴² and between the guardhouses of the Eastern Fortified Gate (see p. 4).

Concerning methods of fastening doors at Medinet Habu we know only what is revealed by the stone frames or may be inferred from them. We can see where bolts or other fastenings were attached. But whether they were used from within or without or from both sides and whether they worked with or without keys can be determined with certainty only in a few cases. We found six different types of fastening used for single doors (Figs. 46–47), three of which involved bolts. In types I and II the bolt was fastened to the door, on the outside and the inside respectively, and in III to the doorframe. Type I, that is, a simple bolt on the outside of the door, occurred in most of the small chambers of the temple where it was unnecessary to bolt the doors on the inside. If it was

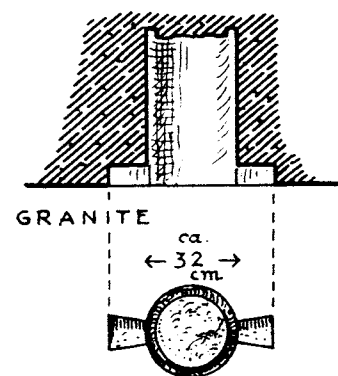


FIG. 43. DOOR SOCKET IN LINTEL OF THE PORTAL IN THE SECOND PYLON

feared that an intruder might open the door, it was fastened with cord also and apparently the knot was sealed

38. See *ibid.* Fig. 34 for location of magazines.

39. Such open-lintel doors were used as early as the time of Amenhotep III; see the third pylon of Karnak as sculptured by Tutankhamon on the east wall of the processional colonnade of Amenhotep III in the Luxor temple and illustrated in Walther Wolf, *Das schöne Fest von Opet* (Ernst Von Sieglin-Expedition in Ägypten, "Veröffentlichungen" V [Leipzig, 1931]) Pl. II 4.

40. Vol. III 5.

41. *Ibid.* p. 9.

42. *Ibid.* p. 19.

36. *Ibid.* p. 5.

37. *Ibid.* p. 8.

(see below). In type II, where the bolt was on the inside of the door, the door could be locked and unlocked only from within. However, this type was used in many instances where there could have been no question of bolting from within, for example Rooms 12-13 of the temple treasury and Room 21b, which may have been a treasure chamber also.⁴³ Therefore such bolts must have been

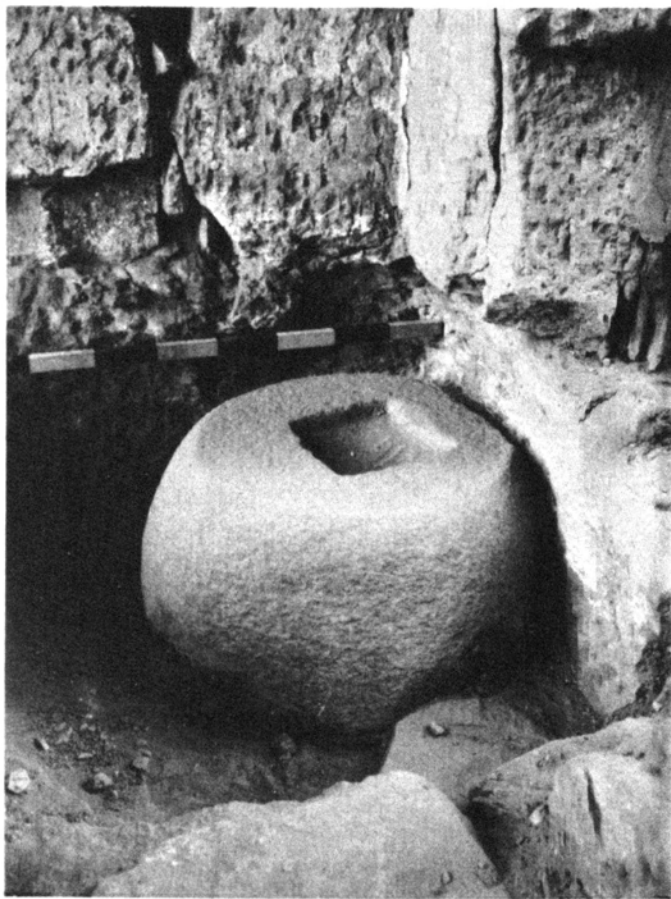


FIG. 44. BLACK GRANITE DOOR SOCKET IN THE EASTERN FORTIFIED GATE

operated from the outside by means of sliding bars, cord, or keys. As a matter of fact, it should be noted that this type of lock was very crudely constructed, and, as far as I can see, it occurred only in rooms which were reused as dwellings in the Coptic period. Hence I am not sure that it was not of late origin. As a rule wall bolts (type III) were used in the Ramessid period for inside locks. The bolt was fastened to the stone doorframe rather than to the wooden door. A rough hole about 15 cm. deep was chiseled in the stone to receive the bolt. A wooden block about 4-5 cm. thick with a boring in the center to fit the bolt was then fastened in the hole to guide and hold the bolt, which was enlarged at the end inserted in the hole so that it could not fall out of the boring in the block (Fig. 47 III). A technical difficulty was involved in fastening the block so that it could not be pulled out. It was therefore made as a dovetail, set in gypsum, and fastened with a wooden wedge. For the most part only imprints of the blocks and wedges in the gypsum mortar are preserved, but occasionally a wedge still clings to the mortar. Apparently wall bolts could be operated from the outside also, since they were used in the temple treasury (Rooms 9-13) not only for the entrance but also for the doors to the individual chambers. It must therefore be assumed that such a bolt could be pushed back and forth from the outside by means of a key⁴⁴ or the like inserted in a hole in the door. Such locks

43. See *ibid.* p. 16.

44. Cf. Königsberger, *op. cit.* pp. 58-63.

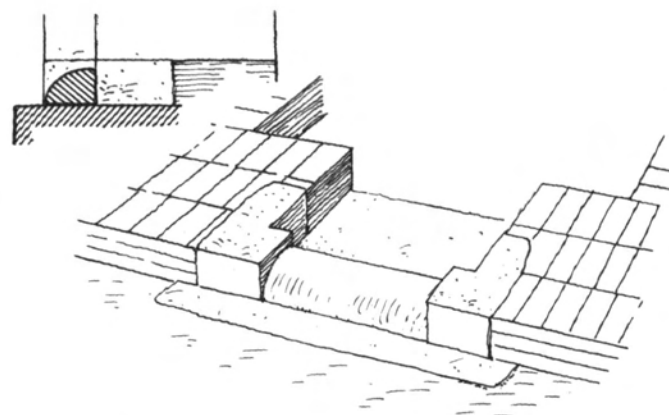


FIG. 45. DOORWAY IN MAGAZINE K, WITH EXTRA CURVED SILL

were used in the temple for many of the chapels and treasure rooms and on all the important doors in the palace, for example the entrances to the harem apartments and the doors to their main rooms. Their side rooms had no locks.

Types IV-VI (Figs. 46-47) served apparently to fasten doors or bolts with cord which was tied to the doorposts and then sealed.⁴⁵ Type IV seems to have had a metal knob on the outside around which the cord was tied. The knob usually had a rectangular peg (6×1-8×1.2 cm. in cross section) which was inserted into the frame to a depth of 5.5-8 cm. and fastened with gypsum (Fig. 47 IVb). The knobs used for larger doorways as a rule were up to

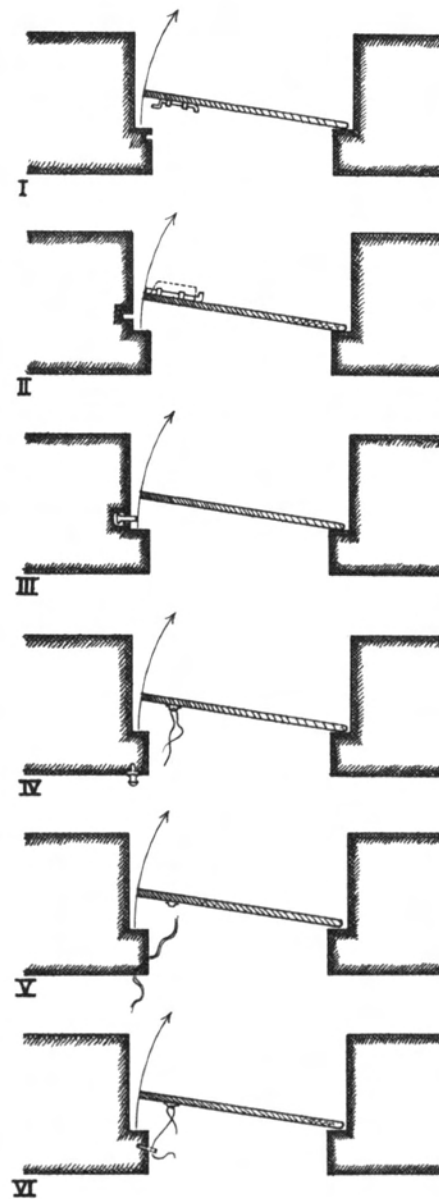


FIG. 46. SKETCH SHOWING METHODS OF FASTENING DOORS

45. Cf. *ibid.* pp. 45-49.

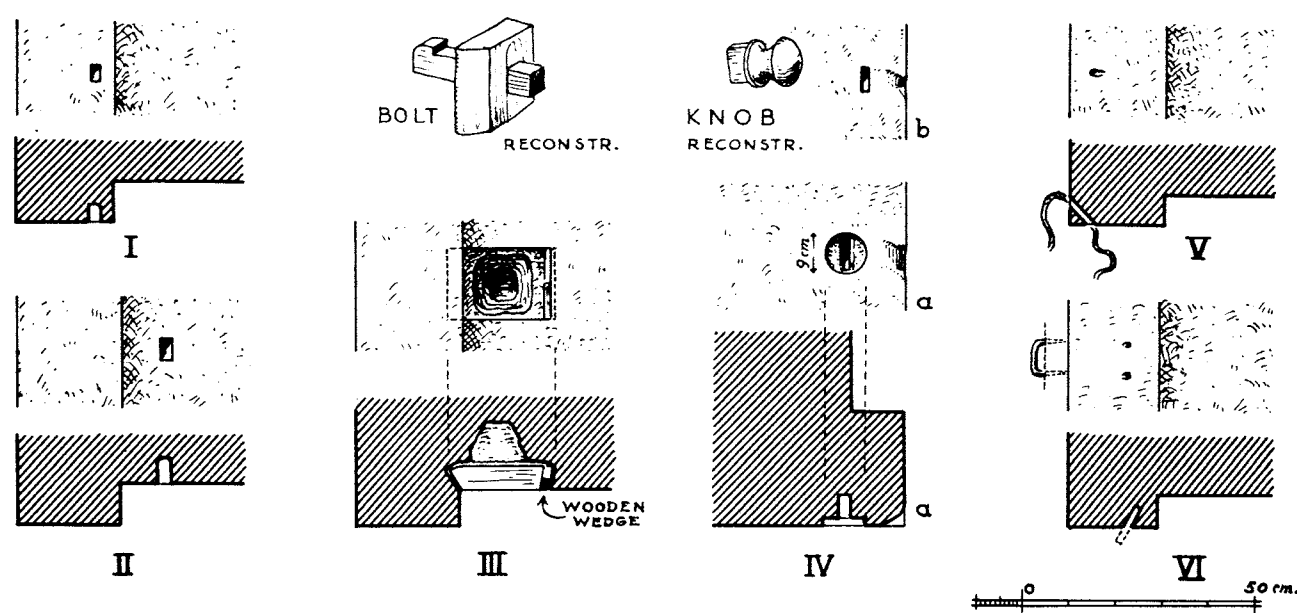


FIG. 47. DETAILS OF FASTENINGS SHOWN IN FIGURE 46

9 cm. in diameter and were fastened to pegs 2.5 cm. thick (Fig. 47 IVa). The sharp edge of the doorframe was rounded off so that it could not cut the cord. We found knobs in the main doorways of the palace and the harem as well as in some of the temple rooms, namely Room 9 of the treasury, Room 5 of the "slaughterhouse," and Room 20 of the sanctuary of Osiris. They occurred also on some doorposts which were found at Medinet Habu but which belonged to neighboring destroyed buildings. Type V was a less substantial fastening. The cord was pulled through a hole (ca. 8 mm. in diameter) carefully bored diagonally through the corner of the doorpost. It must have been tied and finally sealed at the front. We found this type of fastening in the less important doorways of the palace, for example most of the harem doors, but only occasionally in the temple. Many other doorways had roughly chiseled perforations which served the same purpose but obviously were not made until later. Type VI consisted of two slightly diagonal borings (ca. 7 cm. deep and 8 mm. in diameter), one 6–8 cm. above the other, in the reveal. We found remains of wooden plugs in a few of them, in one instance (doorway to Room 48 of the temple) the end of a bronze drill which had broken off deep in the boring and then the wooden plug. Presumably these holes held the ends of a U-shaped piece of metal to which the cord was tied (Fig. 47 VI). This method was used in almost all the smaller doorways in the temple, where almost without exception bolts (type I) were used also. Obviously therefore types I and VI belong together.

Often several of the six types of fastening occurred on the same door (Fig. 48). It may be that in such cases fastening V, for example, was added later to replace the original knob IV, which had been destroyed. Finally it should be mentioned that some single doors had no locks at all, neither bolts nor cord; but this happened only in

unimportant rooms, for example the side rooms of the harem apartments.

Double doors were usually fastened by means of cross-bolts attached to both leaves. No traces of such locks are preserved at Medinet Habu, but elsewhere there are numerous examples.⁴⁶ As a rule double doors were fastened also by vertical bolts which slid into holes in the lintel and the sill. Such holes occur at Medinet Habu for example in

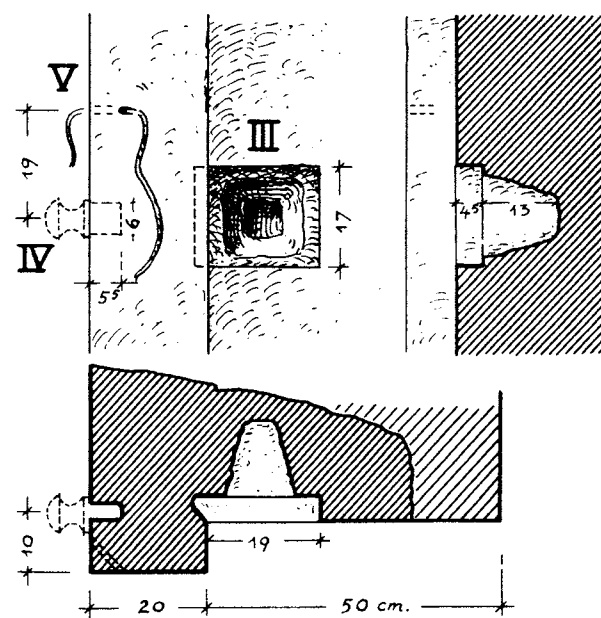


FIG. 48. THREE DIFFERENT TYPES OF FASTENING ON ONE DOOR IN THE HAREM

the entrance to the great hypostyle hall and in the doorsill shown in Figure 29. In any case, however, double doors were not locked against forced opening as securely as single doors. Therefore single doors were preferred for the most important entrances, even the very large ones, such as the Eastern Fortified Gate, the two pylons, and the palace entrances.

FALSE DOORS

In many rooms of the Second Palace⁴⁷ wall niches were located so as to balance the doors and were supposed to give the same impression as the latter. Such niches there-

46. *Ibid.* pp. 41–45.

47. Rooms C, D, F, J, K (see Vol. III, Fig. 29)

fore had mighty stone frames and sills and wooden rear walls constructed like door leaves with pivots at top and bottom but naturally not arranged for opening. Behind the door leaves were usually stone wall slabs (Fig. 49). The construction was especially difficult because the door

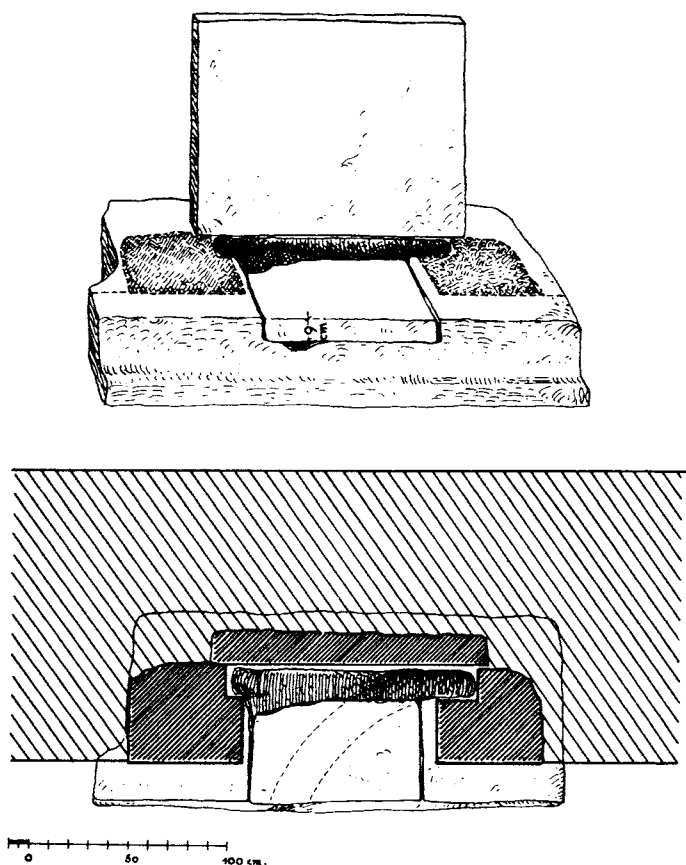


FIG. 49. REMAINS OF A FALSE DOOR

leaf with its pivots was larger than the opening in the frame. Hence the opening had to be enlarged temporarily by chiseling the sill deeper and then cutting a curved groove in which the lower pivot could be guided. Finally, after the door had been hung, the level of the sill was raised again by means of a thin stone slab.

DECORATION

Under Ramses III wall scenes and inscriptions were as a rule executed in hollow relief with the contours cut deeper (up to 15 cm.) than in any period before or after. The reasons for this deepening of the contours, which to us appears excessive in many cases, have already been discussed.⁴⁸ We found occasional scenes in raised low relief, but even in these the inscriptions are mostly incised. In the temple itself only the walls of the holy of holies and the side rooms (Nos. 39–41 and 44–46) directly connected with it⁴⁹ were ornamented in low relief. Certain stone members of the First Palace and, finally, in large part both the outer and inner walls of the two high gates were decorated in low relief. Obviously this technique was considered more elegant and distinguished than the common hollow relief.

The reliefs were usually painted. The desired detail in the otherwise crude looking scenes was brought out by minute treatment with colors. Red, blue, green, and yellow in pure unmixed shades, as well as black and white, were used. The pigments were mixed with a strong binding agent and sometimes applied very thickly. This is true particularly of blue and green, which often because of too much size eventually peeled off and left bare stone. Where we find unpainted reliefs (on and in the Western Fortified

Gate; see p. 9) we no doubt have unfinished work. The background was regularly white. On specially significant parts, such as double false doors, the Window of Royal Appearances, and important doorways, it was golden yellow and probably was supposed to represent gilding. Preliminary drawing was usually done in red brush strokes.

Painting alone, without reliefs, occurred for the most part only on plastered mud-brick walls. It is unfortunate that so little of it is preserved, since with brick walls also the decoration unquestionably contributed to a correct impression of the effect of the room.⁵⁰ Traces were found in a passageway (N) of the Second Palace and on certain stone surfaces, chiefly in the window niches of the high gates. The latter show on the sides tables of flowers and other gifts painted in very loose and flowing style and on the ceilings tapestry patterns with rows of flowers, rosettes, and leaves in various forms and colors (Pl. 24).

Doorframes in ancient Egypt were usually very richly decorated. We found two different styles at Medinet Habu.⁵¹ In one (Fig. 50 a), which was used regularly for the temple and the pylons, that is, for stone structures, the two sides and the lintel were each treated as a separate unit. The decoration consisted mostly of vertical and horizontal lines of inscription, seldom of scenes. In the other type (Fig. 50 b), found for the most part in the palace and the Eastern Fortified Gate and regularly in Ramessid brick buildings, the whole frame was handled as a unit. Bands of inscription extended down each side from a panel in the center of the lintel containing a scene or the royal titulary. It is a well known fact that in brick buildings the stone or wooden doorframes were erected first and the brick walls fitted around them. For that reason from the aesthetic viewpoint also the doorframe seemed more of a unit in brick structures than in stone structures and was decorated accordingly. The same is true of brick buildings

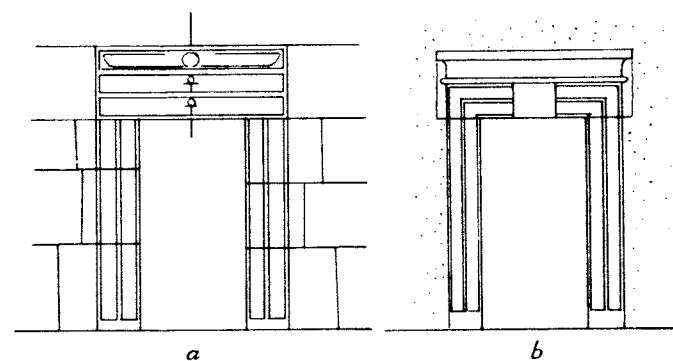


FIG. 50. DECORATION SCHEMES FOR STONE DOORFRAMES IN (a) STONE AND (b) BRICK BUILDINGS

which outside were partially covered with stone, for example the palace and the high gates. Finally, it should be noted that in certain special cases the doorway was ornamented with a rounded *Supraporte* above the cavetto cornice (Pl. 20).⁵²

Doorframes and their decoration involve all sorts of technical details which hitherto have attracted little attention and which in my opinion can be studied at Medinet Habu better than in any other buildings. First let us ob-

50. In our reconstructions of the main halls of the First Palace (*ibid.* Pls. 6–7) the wall painting has to be imagined.

51. Cf. Königsberger, *op. cit.*, pp. 65–73.

52. See Vol. III 27.

48. *Ibid.* p. 36

49. *Ibid.* p. 20.

serve the Window of Royal Appearances⁵³ in the palace façade as a simple example. Since its frame is constructed like that of a door, it can be considered in this connection. As we have seen,⁵⁴ the jambs were removed in the later years of Ramses III, but small fragments found in the rubbish indicate the style of decoration. The rear face of each jamb, that is, the side facing the interior of the palace, bore two columns of royal names and titles in deep-cut and carefully painted hieroglyphs.⁵⁵ The outer faces, as well as the reveals, had no such inscriptions but on the contrary had been smoothed and showed remains of a thin coat of gesso (see n. 59) applied on very fine fabric glued to the sandstone. Obviously the surfaces of the frame which were exposed to view from the outside were not less elegantly finished than the rear; therefore the gesso must have been richly and splendidly decorated (see below).

Similar gesso decoration has been encountered elsewhere in the course of our investigations, for example at the Ramesseum. The outside of the doorway between the second and third hypostyle halls was originally decorated with scenes in low relief. In a later building period, however, but no doubt still under Ramses II, these reliefs were cut or ground away and the surface was covered with fabric and coated with gesso. It is assumed here also that the gesso was applied in preparation for rich and showy ornamentation. The entrance to the second hypostyle hall too shows a carefully smoothed stone surface covered with gesso, or more exactly with several layers of fabric and gesso. But here we found no traces of earlier reliefs and therefore assume that this type of decoration was intended for this doorframe from the very beginning.⁵⁶ Other buildings in which I have found this same technique include the temple of Seti I at Qurnah (doorway between the room of the sacred bark and the holy of holies of Amon⁵⁷) and the temple of Ramses III within the great inclosure of Amon at Karnak (doorway to the room of the sacred bark of Amon⁵⁸).

The most important doorways in the temple of Medinet Habu were decorated in this manner—those on the main axis from the great hypostyle hall to the holy of holies, the side doorways between the second and third hypostyle halls which formed processional passages to the sanctuaries of Mut and Khonsu, and finally the doorway to one of the king's mortuary cult chambers (Room 21a).⁵⁹ In these cases this type of decoration is indicated, even if no trace of gesso remains, by the carefully smoothed stone surfaces and by lack of the usual painted scenes. In some places we could determine that the gesso, which was only

about 1 mm. thick, had been delicately carved in very low relief and painted, for example in the entrance to the great hypostyle hall, where a vulture with spread wings is clearly discernible on the soffit (Pl. 27 A) and traces of the paint—yellow background and red preliminary drawing—are still visible. There is blue paint in spots on the jambs. We must therefore imagine these doorframes as being perfectly smoothed, ornamented with delicately carved scenes, and painted on a yellow background.⁶⁰ The golden yellow of the background was no doubt in imitation of real gold, and we may probably assume that the most magnificent doorways were actually gilded over yellow or red background.⁶¹

Where figures in somewhat higher relief were desired—such as the almost life-size figures of the king on the huge gesso-decorated doorframe of the entrance to the great hypostyle hall (Pl. 27 B)—they, of course, had to be carved in the stone itself and covered with gesso later. We assume that these figures were once covered with gesso from the fact that no trace of color was found on them. It should be noted further that the exposed parts of the body—face, hands, and feet—were made of colored inlays, probably dark red fayence, since there were shallow cavities of corresponding outlines. In a similar way the blue crown and the presumably red sun disk above it were inlaid. The garments also were inlaid, with small bits of glass and fayence, and likewise the accompanying inscriptions.

This technique, that is, artificially or naturally colored inlays set in corresponding depressions cut in the stone background, though not a new invention in the time of Ramses III,⁶² apparently reached the peak of its development under him.⁶³ Toward the end of the pharaonic period and later it played such an important role in the decoration of special building parts that we will try to describe it in detail and give an idea of its artistic effect.

A fragmentary doorjamb (Pl. 27 D) found during the excavation of the palace at Medinet Habu was most carefully smoothed on the front and on the reveal, and the

60. It is conceivable that the colors put on the gesso were, by aid of copious admixture of the binding agent, thickly applied and produced shiny surfaces—in contrast to the colors in the usual wall scenes.

61. We searched in vain for gold leaf on the gesso found *in situ*. Fragments of gold leaf did occur frequently on stucco found in the rubbish, and sometimes on inlays apparently from doorframes (see below pp. 45, Pl. 37 c, and 46, Pl. 37 d), but never *in situ* or so that we could conclude with certainty that any given doorframe was partially gilded. However, the probability or at least the possibility exists, since Petrie found at Amarnah palm-leaf capitals which on excellent grounds he assumed had been gilded (Petrie, *Tell el Amarna* [London, 1894] Pl. VI and p. 10). Gold "of heavy leaf laid over red paint" was found also on columns and other architectural members in the throneroom of Merenptah's palace at Memphis (Clarence S. Fisher in *MJ XII* [1921] 32 f.). Cf. also gilding over yellow background on wooden vases apparently made in imitation of pure gold vases (Borchardt, *Das Grabdenkmal des Königs Nefer-ir-ke3-re* [WVDOG XI (1901)] pp. 59–66).

62. The most important earlier occurrences known to me are the following: Thutmose III's double false door in the east wall of the court south of the vestibule to the granite sanctuary in the temple of Amon at Karnak (Königsberger, *Die Konstruktion der ägyptischen Tür*, Fig. 22); buildings of Akhnaton at Amarnah (see Petrie, *Tell el Amarna*; T. Eric Peet and C. Leonard Woolley, *The City of Akhenaten I* [London, 1923]; Frankfort and Pendlebury, *The City of Akhenaten II*); the residence of Ramses II at Qantir (see Mahmud Hamza, "Excavations of the Department of Antiquities at Qantir," *ASAE XXX* [1930] 31–68; William C. Hayes, *Glazed Tiles from a Palace of Ramesses II at Qantir*, The Metropolitan Museum of Art, "Papers," No. 3 [New York, 1937]); the palace of Merenptah at Memphis (see Fisher in *MJ XII* 32 f.).

63. Cf. Émile Brugsch-Bey, "On et Onion" (*RT VIII* [1886] 1–9).

53. *Ibid.* Pl. 3.

54. *Ibid.* p. 40.

55. *Ibid.* Pl. 34 B.

56. See *ibid.* p. 74 for mention of other Ramesseum doorframes decorated with gesso.

57. *Ibid.* Fig. 13.

58. Epigraphic Survey, Harold H. Nelson, Field Director, *Reliefs and Inscriptions at Karnak. I. Ramses III's Temple within the Great Inclosure of Amon. Part I (OIP XXV [1936])* Pl. 41 B.

59. The late Alfred Lucas very kindly examined samples and reported as follows: "The three samples of the entrance gateway of the great hypostyle hall at Medinet Habu were alike and consisted of plaster and several layers of woven fabric. The plaster was gesso, that is to say, a mixture of whiting and glue, and the fabric was linen. Both examples from the west gateway of the hypostyle hall in the Ramesseum are practically identical."

latter at least was covered with gesso and painted yellow. Large hieroglyphs and ornamental borders were incised on the front and inlaid with bits of glass etc. bedded in gypsum. The inlays have naturally in the course of time fallen out (except for a small piece of now colorless glass in the 𓆎 sign), but their imprints in the gypsum make certain their original forms. Such inlays of alabaster, glass, glaze, and fayence⁶⁴ were found by the hundreds in our excavations.

Frequently the mortar in which the inlays were bedded was colored blue, green, or red to match them. Hence if some of the mortar was left visible around the edges of the inlays, as was practically unavoidable, it was not disturbingly conspicuous, since it matched the inlays or the background more or less in color at least. And now where

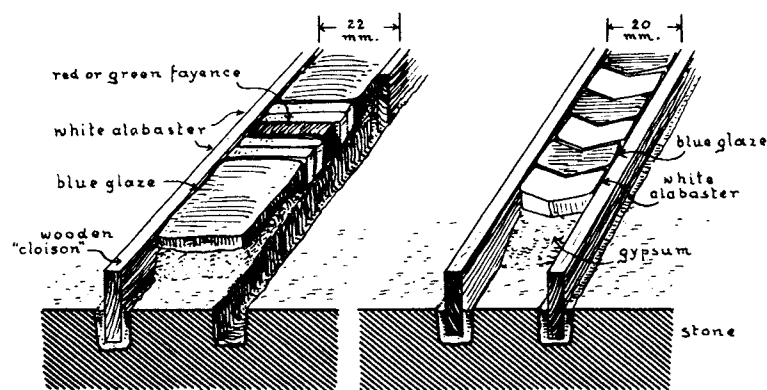


FIG. 51. INLAIS SET IN CELLS FORMED BY WOODEN "CLOISONS"
(cf. FIG. 52)

the thin inlays have almost entirely vanished only the colored gypsum beds are visible.⁶⁵ The larger inlays were more securely fastened with copper nails⁶⁶ in addition to the gypsum mortar. Very large and heavy pieces, for example the blue crown mentioned above (see Pl. 27 B), were also tied to the stone background with string.

The characteristic features of this inlay technique are that the inlays were set in depressions cut to receive them and that the stone surface—whether covered with gesso, painted, or gilded—remained visible between them. Another technique was used when inlays were placed close together in mosaic fashion, so that no stone surface was left between them. In such cases it was impossible to cut a cavity in the stone for each tiny piece, and there was no cement or the like which would adhere strongly enough so that the pieces could simply be pasted on the stone surface. Hence another method of fastening was devised, in which the goldsmith was imitated. It is well known that

64. The ancient Egyptians for the most part used not real fayence (i.e., glazed clay) but glazed frit (i.e., a calcined mixture of fine sand and fluxes), which popularly and in the present publication is called "fayence." "Glaze" is the so-called fayence with most of the sandy background ground away; hence it is usually very thin (ca. 2 mm.). Small pieces of such glaze (I remember only blue ones) were very frequently used as inlays, but larger pieces (up to 10 cm.) too occur.

65. This inlay technique is a continuation and refinement of one used as early as the 4th dyn. in which hieroglyphs were inlaid with colored paste, e.g. in the mastaba of Nefermaat from Maidum (Cairo 43809) and the statue of Hem-On from Gizah; for the latter see Günther Roeder, *Die Denkmäler des Pelizaeus-Museums zu Hildesheim* (Berlin, 1921) p. 48, and Junker, *Giza. I. Die Mastabas der IV. Dynastie auf dem Westfriedhof* (Akademie der Wissenschaften in Wien, philos.-hist. Klasse, "Denkschriften" LXIX, 1. Abh. [Wien und Leipzig, 1929]) p. 155.

66. Driven into wooden plugs the size of a lead pencil. The nails themselves, from the few specimens found *in situ*, were pointed and ca. 20 mm. long. Anthes remarks that he observed no traces of nails on the prisoner tiles described on pp. 43-44.

from ancient times he has understood how to fasten ornaments made of bright semiprecious stones to a gold background piece by piece by means of thin gold cloisons soldered vertically to the background. For decorating stone architectural parts, however, the "cloisons" were made of thin wooden slats (ca. 4×16 mm.) which were pressed to half their height into grooves chiseled in the background and filled with fresh gypsum mortar. The "cloisons" thus protruded above the stone background and formed cells (ca. 8-10 mm. deep) in which the small inlays were cemented (Fig. 51).⁶⁷ The "cloisons," to be sure, in the course of time have usually fallen out or been pulled out by idle hands. We found preserved *in situ* only a few fragments, on the soffit of the right entrance from the first court of the temple to the palace (Pl. 28 C). They had escaped notice because the soffit was in the dark and was entirely smoke-blackened.⁶⁸ Occasionally isolated heavier pieces of fayence were set in depressions or fastened with nails or string or the like among the inlays set in cells.

The richest decoration was provided by large fayence tiles, very beautifully ornamented with inlays, patterns, and figures, which were fastened in depressions in the doorframes. At Medinet Habu such artistic masterpieces occurred in sizes up to 10×30 cm. and in one case (Pl. 33 q) as wide as 18 cm. Best known are those depicting foreign peoples (see pp. 42-44). The fragments found during our excavations are catalogued on pages 43-44. Here we are concerned with the problem of their original locations and their artistic effect as parts of large colorful compositions. Let us examine a few instances of doorframes decorated in this fashion.

One is now in the Cairo Museum;⁶⁹ it came from the Second Palace,⁷⁰ where still further similar fragments occurred. The front (Pl. 39⁷¹) was divided into wider and narrower strips or cells by means of wooden "cloisons" let into the stone. Thin inlays (ca. 6×7-12 cm.) were cemented with gypsum in the three wider cells and fastened with small copper nails in the vertical joints. Daressy⁷² stated that these inlays (now lost) were blue. Apparently therefore he saw remains of them. His statement appears to be corroborated by our excavations, which produced larger glaze fragments of this color. The narrower cells were filled with small inlays lined up one beside another in mosaic fashion, as indicated by a few pieces still *in situ* (Fig. 52 and Pl. 28 A). Blue glaze alternated with white alabaster (see Pl. 37 g and p. 45) and red glass or red or

67. Similar decoration occurred on Old Kingdom wooden vases (see Borchardt, *Das Grabdenkmal des Königs Nefer-ir-ke3-re*, Pl. 6:1-2).

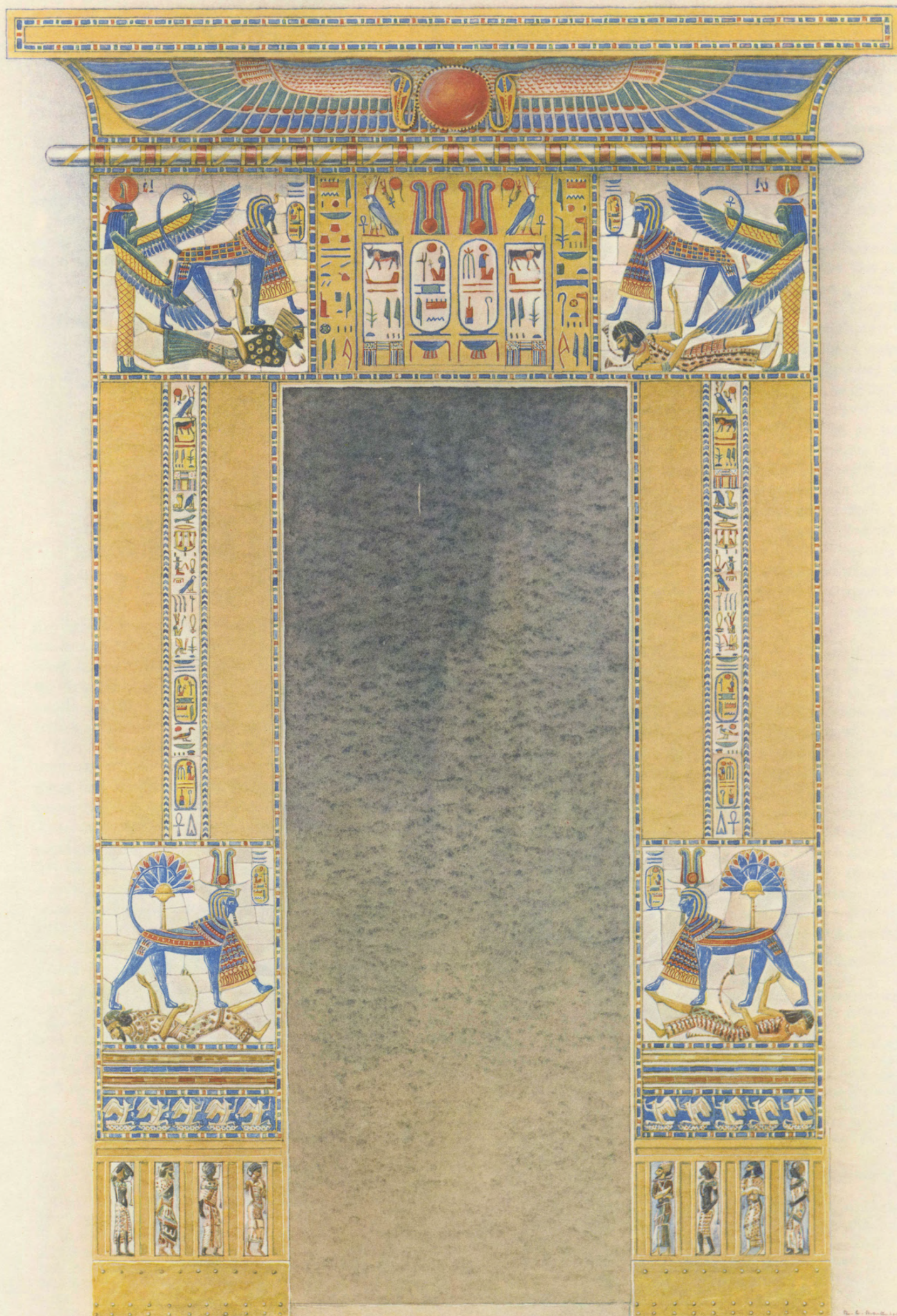
68. On a few spots next to the wood were small blobs of hardened material concerning which the late Alfred Lucas kindly reported as follows: "The sample consisted of a sticky material, black on the outside, but light brown inside. This material is essentially gum, that has been artificially blackened on the outside, probably by smoke. It is suggested that the gum may have exuded naturally from the wooden cloisons, between which the inlays were fastened, which seems to be confirmed by the drop-like formation in certain spots only. If so, the wood must be acacia. The only other alternative that can be suggested is that the gum was used as an adhesive to fasten the inlays [or the wooden 'cloisons'?—Hölscher]. Such a use of gum is not known to me from ancient Egypt."

69. Vol. III, Pl. 35 D; G. Maspero, *Guide du visiteur au Musée du Caire* (4th ed.; Le Caire, 1915) No. 677 (p. 184).

70. Found in 1903 by *sebakh*-diggers and taken to Cairo by Howard Carter; see Daressy, "Plaquettes émaillées de Médinet-Habou" (*ASAE* XI [1911] 49-63).

71. The drawing is due to the kindness of Otto Königsberger.

72. *Op. cit.* p. 50.



Printed in Germany by Ganymed, Berlin

RIGHT ENTRANCE TO THE PALACE. RECONSTRUCTION (CF. PL. 28 B)

green fayence (Fig. 51). The striding figures of the king below were composed entirely of inlays, while on a similar doorpost still at Medinet Habu⁷³ only the bare parts of the body were inlaid and the robed parts were merely painted, presumably on gesso background. On the Cairo doorframe, underneath the figures of the king are horizontal panels in which large tiles, presumably picturing *rhyt*-birds, are to be imagined. At the very bottom are vertical depressions in which tiles picturing foreign prisoners were inlaid.⁷⁴

Even more richly decorated than these doorframes from the interior of the Second Palace were the three entrances to the palace from the first court of the temple. Now, to



FIG. 52. REMAINS OF INLAIS IN CELLS ON A DOORFRAME FROM THE SECOND PALACE. DETAIL OF PLATE 28 A

be sure, they seem very dilapidated and unattractive,⁷⁵ since they show traces of two different styles of decoration executed in different periods. Originally the fronts and the reveals were ornamented with deep-cut painted hieroglyphs. Later, however, but still under Ramses III, they were decorated with inlays set in cells formed by wooden "cloisons" and with reliefs. The grooves chiseled out to hold the "cloisons" were cut without consideration for the earlier inscriptions. The lintels (e.g. Pl. 28 B), on the other hand, were left unchanged in design. In a rectangular field in the center containing the king's names and titles the hieroglyphs were originally very carefully cut and painted but nevertheless later filled with small inlays. At each side is a scene in relief showing the royal sphinx standing upon a fallen enemy and partly enveloped by the wings of the protecting goddess Ma'at. These scenes originally were merely hollow reliefs, but later inlays and apparently glazed backgrounds were added. The cavetto cor-

73. Vol. III, Pl. 35 A. The exact original location of this doorframe, as well as that of the Cairo one, cannot be determined. We have erected it arbitrarily on a palace doorsill of proportionate size (between Rooms A2 and B). By close scrutiny it may be observed that a different representation (king slaying an adversary) on a smaller scale than the final scene was first sketched on the stone background.

74. In 1936 Guy Brunton replaced the prisoner tiles, which had fallen out (Daressy, *op. cit.* Pls. I-IV), as may be seen in Vol. III, Pl. 35 D.

75. *Medinet Habu* II, Pls. 62 and 66.

nices also were altered. Originally they were elegantly decorated with incised and painted cartouches between vertical reed leaves inlaid in cells; later, a large winged sun disk with uraei was overlaid on each cornice.

I have attempted to reconstruct one of these palace entrances with its later, richer decoration (Pl. 5) by using all the evidence provided by the three doorframes as well

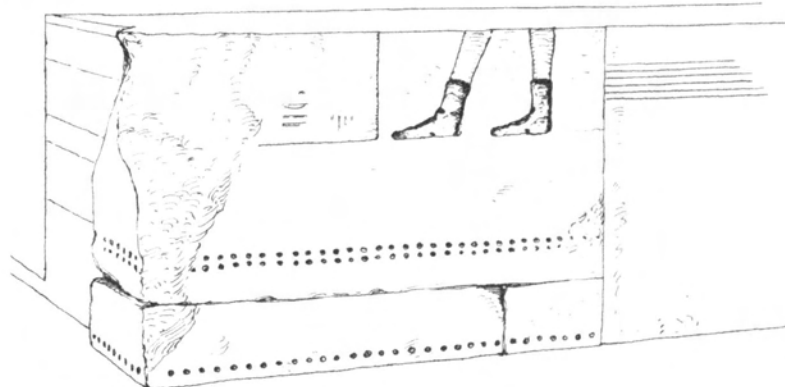


FIG. 53. REMAINS OF DOORJAMB IN ENTRANCE TO THE SECOND HYPOSTYLE HALL

The king's feet were inlaid. The holes along the bottom were for copper nails which held strips of metal in place.

as the innumerable inlays found in various places during our excavations (see pp. 42-47). A few words concerning the details should be added. Each jamb was apparently, as indicated by nail holes, covered to a height of about 60 cm. with sheet metal which is assumed to have showed a

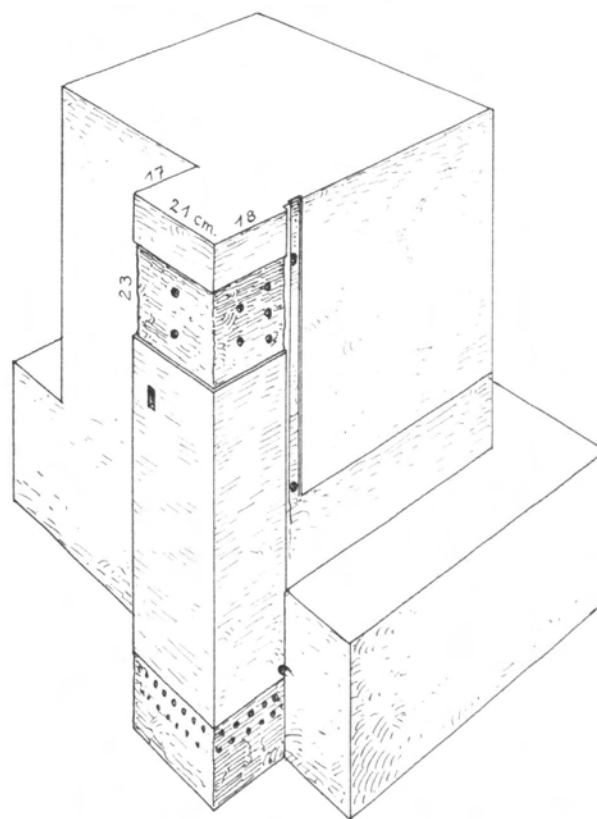


FIG. 54. JAMB OF OPEN-LINTEL DOORWAY IN THE ROOM OF THE SACRED BARK, SHOWING HOLES FOR NAILS USED TO FASTEN METAL STRIPS

paneled pattern already encountered elsewhere in the palace.⁷⁶ The panels were inlaid with foreign prisoner tiles.⁷⁷ Above the metal was a frieze of tiles presumably

76. Vol. III, Pl. 35 D and Fig. 30.

77. Bonomi apparently saw one tile still *in situ*, for he wrote as follows to T. Hayter Lewis: "I have seen at Medinet Haboo a porcelain figure inserted into the jamb of a door leading from the Great Court into the second [*sic*]. The flesh of a red-brown colour, and every part of the dress of its proper colour, in porcelain. It was excellent work of that period." (Society of Biblical Archaeology, *Transactions* VII [1882] 180 f.)

with representations of *rhyt*-birds (cf. a tile from the Western Fortified Gate; Pls. 35 *c* and 38 *d*).⁷⁸ Above the birds was a larger scene showing the royal sphinx standing on a fallen enemy. It was executed partly in relief and partly (flesh of sphinx and of victim) with inlays of glass or fayence. The background was apparently filled in with thin glaze inlays. The upper half of each jamb was divided into three vertical strips. The narrower, middle strip consisted of tiles (note deep boreholes; Pl. 28 *B*) apparently with hieroglyphic inscriptions, while the outer strips, in which there are no boreholes, appear simply to have been covered with gesso.⁷⁹ Between the strips and along the margins of the jambs were narrow cells with inlays set in mosaic fashion.

Such richly ornamented doorframes were naturally very easily subject to damage. Hence they were usually protected with metal strips along the edges and wider pieces at the bottom,⁸⁰ which presumably were gilded. The latter were from 28 to 40 cm. high, according to the size of the doorframe, and fastened with two or three rows of copper

nails (see Pl. 27 *B* and Figs. 53–54). We found a few of the nails *in situ*. They are about 20 mm. long by 3 mm. at one end and pointed at the other end. They were held by small wooden plugs which had been driven into holes 40 mm. deep and 7 mm. in diameter. The side strips which occurred on many doorframes (see e.g. Pl. 39) must have been considerably thicker than the bottom strips, since they were fastened only at intervals of 60–100 cm. (Fig. 54) with strong nails. The holes for these nails were 13 mm. in diameter and 80 mm. deep.

I should like to mention in this connection much thicker metal plaques which had been fastened at a height of about a meter above the floor to the jambs of the open-lintel doorway in the room of the bark of Amon (Fig. 54). They extended around three sides of the jambs like girdles. They were 23 cm. wide and about 1 cm. thick and were fastened with strong metal bolts, parts of which had broken off and were still in the holes. I cannot claim that these plaques were entirely decorative but assume some technical purpose which I have not, however, been able to discover.

CATALOGUE OF TILES AND OTHER INLAYS

By R. ANTHERS

Since 1903 *sebakh*-diggers have found great numbers of fayence tiles (see p. 40) at Medinet Habu. Most of them are now in the Cairo Museum;⁸¹ some were purchased by the Museum of Fine Arts in Boston⁸² and still others, though apparently isolated and without sufficient proof of origin, by other collectors. The general importance of these tiles and those found elsewhere (see p. 39, nn. 61–62) lies in the fact that they reveal, in a medium more lasting than paint, forms of wall decoration and color combinations used in the time of the New Kingdom. Moreover, they present voluminous material for the study of fayence-work. A comprehensive treatment of them should therefore give valuable results in various fields. The present catalogue, however, is primarily an inventory of the pieces from our own excavations and gives the naturally incomplete observations made in Luxor during the digging.⁸³ The catalogue includes tiles showing representa-

tives of conquered peoples, purely ornamental designs, and inscriptions, also miscellaneous inlays and pieces ornamented with inlays. It follows the order of the plates on which the pieces are illustrated (Pls. 30–38). The objects were found in rubbish heaps unless otherwise noted.

PRISONER TILES

Because of the fragmentary condition of the prisoner tiles from our excavations, five practically complete specimens from earlier accessions of the Cairo Museum are depicted and put at the head of the list.

Plate 30 *a*. Libyan. 25 cm. high. Cairo J 36457*d*. Daressy⁸⁴ No. 9 = Meyer⁸⁵ No. 4 *B*.

b. Syrian. 25.5 cm. high. Cairo J 36457*a*. Daressy No. 5 = Meyer No. 4 *A*.

31 *a*. Hittite in Libyan costume. 25.5 cm. high. Cairo J 36457*f*. Daressy No. 12 = Meyer No. 2 *B*.

Daressy called this figure a *Tmhw*, Meyer a Hittite. Face and hair are Hittite, and the Syrian cap harmonizes with them. The combination of short skirt and long open mantle is Libyan, and the pattern on the skirt is known only from Libyans and Negroes. So we may assume an error on the part of the artist,⁸⁶ though similar figures occur in the temple reliefs at Medinet Habu.⁸⁷ A mantle which seems similar is worn by Hittites also,⁸⁸ but either it covers the entire body or, if open, it is worn over a long dress.

b. Northerner. 24.8 cm. high. Cairo J 36457*g*. Daressy No. 13 = Meyer No. 9 *B*.

able to me not to alter my observations or to force a consistency between them and those given by Hayes on his pp. 8 ff. In any case, I do not know whether the techniques of Medinet Habu are exactly the same as those of Qantir.

84. *Op. cit.* The sizes and museum numbers of the Cairo specimens are after Daressy.

85. *Op. cit.*

86. So also Wilhelm Hölscher, *Libyer und Ägypter* ("Ägyptologische Forschungen" IV [Glückstadt, 1937]) p. 37, n. 2.

87. See *Medinet Habu* II, Pls. 99, top row, 1st prisoner (=Wreszinski, *Atlas* II, Pl. 150:1), and 98, middle row, 4th prisoner (= *Atlas* II, Pl. 149:4), the latter with Libyan phallus sheath instead of short skirt.

88. Wreszinski, *Atlas* II, Pl. 24, bottom row, 1st prisoner.

78. At first the *rhyt*-birds were executed merely in relief, as may now be observed (see *Medinet Habu* II, Pls. 62 and 66).

79. The color of the gesso in the reconstruction has not been proved but is based on analogy with numerous other doorframes which were painted yellow, e.g. the entrance to the great hypostyle hall and the double false doors in the holy of holies and the palace.

80. See Borchardt, *Allerhand Kleinigkeiten* (Leipzig, 1933), where in his discussion "Metallbelag an Steinbauten" he mentions occurrences at Medinet Habu (p. 4).

81. See Daressy in *ASAE* XI 49–63 and Pls. I–IV. Photographs of the prisoner tiles are in the photograph collection of the Berlin Fremdvölker-expedition; see Eduard Meyer, "Bericht über eine Expedition nach Ägypten zur Erforschung der Darstellungen der Fremdvölker" (Preussische Akademie der Wissenschaften, Berlin, *Sitzungsberichte*, 1913, pp. 769–801) Nos. 1–11.


82. Museum of Fine Arts, *Bulletin* VI (1908) 47–50; two are reproduced in colors in Capart, *Documents pour servir à l'étude de l'art égyptien* II (Paris, 1931) Pl. 77.

83. For this reason generalizations have been avoided. I am greatly indebted to Günter Groschopf for advice on technical ceramic questions. Mr. Edwin L. Hynes was kind enough to add some observations concerning pieces now in the Oriental Institute Museum in Chicago. The publication by William C. Hayes on *Glazed Tiles from a Palace of Ramesses II at Kantir* (New York, 1937) appeared when the present catalogue was already in manuscript. Since I could not again examine the objects and since the purpose of this catalogue is not and cannot be a technical examination, it seemed prefer-

Daressy considered this figure a *Šrkš*, as did Wreszinski.⁸⁹ Both perhaps based the identification on a figure of a *Šrkš* represented on the Eastern Fortified Gate.⁹⁰ However, the headband of the latter seems to differ from that on the tile.

32 *a*. Negro. 25 cm. high. Cairo J 36457. Daressy No. 17 = Meyer No. 3 *B*.

b. Northerner. 9 cm. wide. Western Fortified Gate. Chicago.⁹¹ [1801].

The headdress or cap is similar to that of the *Šrkš* or of a *Trš*, both depicted on the Eastern Fortified Gate.⁹² More exact identification seems impossible at present. The dress, like that of the Northerner of Plate 31 *b*, shows a form of the  sign, meaning "north," twice just under the girdle.⁹³

The back and the side edges of the tile are not glazed. The surfaces of the garment, of the rope, including the elbow binding, and perhaps of the hair are formed by plane or roughly modeled and glazed elevations of the core. The borders of the variously colored glazes are, where touching, distinctly separated from one another. Some parts of the blackish-brown pattern on the garment and the dots on the rope are merely painted. Such painting was done here and as a rule on the other tiles before firing, since it is covered by the glaze. The face and the arm consist of thick, modeled glaze⁹⁴ inlays, colored throughout, which were fastened on less elevated ground. The deep background around the figure is filled with white and bluish gypsum, and thin glaze (see p. 40, n. 64) inlays are still preserved in the white.

b. Negro. 7.5 cm. wide. Palace. Chicago 16740.

The face is dark gray or brown, the hair is black, the earring and the collar are white with red and brown. The hair was merely painted, and the white ground shows through the black in places. A piece of light blue glaze inlay is bedded in white gypsum at the back of the neck between the hair and the collar. The signs shown in Figure 55 are incised on the reverse.

c. Syrian. 7.5 cm. wide. Palace. Chicago 16741.

The garment is white with red and black pattern, some details being merely painted. The arm, now lost, was inlaid on less elevated ground and probably was made of "glass paste."

d. Negro. 6.2 cm. wide. Palace. Chicago 16742.

The garment is white with red and gray pattern, some details being merely painted in dark brown or black. Legs and feet are of dark brown or black "glass paste." A turquoise-blue glaze inlay is bedded in white gypsum between the feet.

e. Negro.⁹⁵ 8.5 cm. wide. Western Fortified Gate. Chicago 15490.

The dress, which has modeled folds,⁹⁶ is white with blue fading into it at the top; a diagonal band of red glaze is inlaid in gypsum between gray glaze and brown painted

stripes. Hands are bound. They are modeled of black "glass paste" and inlaid on less elevated ground. A blue glaze inlay is bedded in white gypsum at the left beside the hanging hand.

f. Negro with white dress like that of *e*. Chicago 15491.

g. Negro. 18 cm. wide. Western Fortified Gate. Chicago 15506.

No glaze remains. The figure is roughly modeled in the core. Rope, earring, and shoulder collar are more elevated than the other parts, showing the difference between the ground for thicker, modeled "glass paste" and that for simple thin glaze layers. Traces of gray-black "glass paste" on the face and red on the hair supplement the headdress, earring, and shoulder collar as evidence for the identification as a Negro.

34 *h*. Syrian. 9.5 cm. wide. Square G 13. Chicago 15505.

There are remains of white glaze on the side edges of the tile. Cap and rope are white with painted stripes of black and brown respectively. The hair is black. The face, now mostly lost, was of modeled yellow "glass paste." White glaze inlays set in gypsum are preserved between the cap and the rope and below the loop at the back.

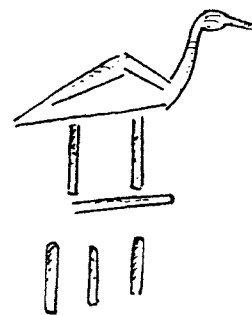


FIG. 55. HIEROGLYPHS INCISED ON REVERSE OF TILE FRAGMENT SHOWN ON PLATE 33 *b*

i. Negro. Chicago 15493.

The shoulder collar is light blue, dark blue, and green. The rope is light blue with brown painted stripes.

j. Syrian cap. Southeast of palace in G 4-5. Chicago 15496.

k. Libyan mantle and skirt (cf. Pl. 30 *a*)? Square E 5. Chicago 15502.

There are traces of white glaze on the left edge of the tile. The costume is white with brown painted pattern.

l. Negro. 7.5 cm. wide. Western Fortified Gate. Chicago 15494.

The background of the obverse and the side edges of the tile have light blue-green glaze. The dress is black with yellow and red pattern. The girdle is green with black dots. Forearm and hand are black.

m. Skirt(?) fragment. Squares G 4-5. Chicago 15503.

White with brown or black painted stripes.

n. Libyan or Negro skirt fragment (cf. Pl. 31 *a*). Western Fortified Gate. Chicago 15499.

White with gray inlaid and brown painted pattern.

o. Libyan or Negro skirt fragment (cf. Pl. 31 *a*). Chicago 15504.

White with violet-blue inlaid and black painted pattern; remains of red "glass paste" at bottom of fragment.

p. Libyan. 8.5 cm. wide. Chicago 15492.

There are remains of yellow glaze on the background of the obverse and on the bottom edge of the tile. The mantle is white with dark blue, red, and traces of green. Feet are modeled of yellow "glass paste" and inlaid on less elevated ground.

q. Syrian. Western Fortified Gate. Chicago 15497.

There are remains of white and yellow glaze on the background of the obverse and of white only on the right edge of the tile. The mantle is white with blue and green painted pattern. The foot is of thin yellow glaze instead of thick "glass paste" and is therefore not on less elevated ground.

89. *Ibid.* Pl. 160*b*.

90. *Ibid.* Pl. 160*a-b* 5 = LD III 209 *b* 5 = Meyer No. 498.

91. [This piece was included in a packing list of objects sent to Chicago, but it was not received; in 1951 it turned up on the antiquities market.—Ed.]

92. Wreszinski, *Atlas* II, Pl. 160*a-b* 5-6 = LD III 209 *b* 5-6 = Meyer No. 498.

93. On the tile shown in Pl. 31 *b* a trace of the painted sign is apparently still recognizable on the light patch toward the front. Even more of it shows in Meyer's photograph (No. 9 *B*).

94. This material is hereafter called "glass paste"; cf. too Pl. 33 *g*. Since the word "paste" is unsatisfactory and perhaps misleading (cf. A. Lucas, *Ancient Egyptian Materials & Industries* [2d ed.; London, 1934] p. 127), the term "glass paste" is used always with quotation marks. I am not sure whether the designation of this "glass paste" as glaze meaning true glass (see *ibid.* p. 105) is correct, since the inner mass at least in some cases is dull in contrast to the vitreous-looking surface. For the technical process of modeled "glass paste" inlays cf. Hayes, *op. cit.*, pp. 9 *f*., method 2.

95. Cf. Daressy, *op. cit.* Nos. 19-22.

96. [The modeling was done in the core of the tile.—Ed.]

- r. Nubian. 6.7 cm. wide. Western Fortified Gate. Chicago 15501.

The costume is yellowish white, red, gray, and brown, the brown being painted. The noose for the wrists, between less elevated areas for black "glass paste" arms, shows traces of white and brown.

- s. Negro. 5.8 cm. wide. Southeast of palace in H 5-6. Chicago 15500.

The dress is white with gray and red inlaid and brown painted pattern. Feet and legs are of modeled black or brown "glass paste."

FRIEZES


- 35 a. Garland of petals (Pl. 38 e). Western Fortified Gate, palace vicinity, and elsewhere. Cairo J 59731-32; Chicago 15476 and 15478.


These tiles were made to ornament a curved surface, probably a column. There are remains of gypsum mortar on the reverse of some of the fragments. The unrecessed parts are white glazed, and the recessed parts are unglazed. The pattern is composed of bands with hanging white petals. Some of the glaze inlays were cut to fit the depressions very exactly. The red pieces are bedded in red, the dark blue in blue, and the light blue in blue, light green, or white gypsum. One fragment (not illustrated) differs in color scheme: the second row, otherwise light blue, has now white glaze inlays bedded in white gypsum, and the small triangles are lacking; the third row, otherwise red, has colorless glass inlays bedded in white gypsum.

- b. Horizontal stripes (Pl. 38 f). Western Fortified Gate. Cairo J 59730.

The unrecessed parts are white glazed, and the recessed parts are unglazed. The inlays were bedded in gypsum. Occasionally instead of the red-blue-red sequence shown on Plate 38, a sequence of white-red-blue gypsum beddings is preserved, signifying probably a light-blue-red-dark-blue sequence of inlays.

- c. *Rhyt*-birds (Pl. 38 d). 10 cm. high. Western Fortified Gate. Chicago 16719-30.

The pattern is a pictorial writing of , "All men praise the Lord of the Two Lands, Userma'at-Re Meriamon (= Ramses III)." The foremost signs of the phrase are turned toward the name of the king.

There are remains of white glaze on one edge of one fragment. The recessed parts are not glazed; they are inlaid with large pieces of blue glaze bedded mostly in blue, occasionally in white, gypsum. The figures consist of rather thick finely modeled white "glass paste" fired on the elevated parts of the core. The broken head of one bird has fallen away, revealing a plane but rough ground. In the eyes of the birds are remains of blue gypsum, probably bedding for blue glaze or glass inlays. The pattern of the baskets is formed by dark blue and red, in some cases light blue and dark blue, or light blue and red glaze or glass inlays; the blue inlays are bedded in blue and white gypsum, the red ones in red gypsum. One basket has now colorless glass inlays. The king's name is cut in a yellow glazed vertical band. The incisions are inlaid with tiny light and dark blue and red rods, apparently of glass, set in blue and red gypsum. The rods were not formed to fit the incisions exactly. The largest fragment, bearing the name of the king, is slightly curved in both directions and therefore either fitted a convex surface or was warped in firing. The hieroglyph  is incised on the reverse of one fragment.

- d. Lotus pattern (Pl. 38 c). Western Fortified Gate.⁹⁷ Cairo J 59733.

97. Fragment shown at extreme right on Pl. 35 d was found elsewhere (in G 5); its glaze is greenish white.

The unrecessed parts are white glazed;⁹⁷ the rosettes are painted. The incisions are unglazed and contain remains of white, dark and light blue, light green, and red gypsum; glaze inlays are preserved in some. At the left in the illustrations, where the points of two petals come together, the original edges of two tiles touch.

INSCRIBED TILES AND OTHER ORNAMENTS

- e. Horus falcon from beginning of royal name. 10 cm. wide. Southeast corner of temple area. Cairo J 59783.

The color of the glaze is greenish on the edges of the tile and now white on the obverse. No gypsum bedding is preserved in the unglazed depressions. The top and side edges of the obverse are rabbeted, but its bottom edge is plane to fit an adjacent tile.

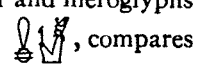
- f. Upper part of tile like e. 10 cm. wide. Found near e. Chicago 16673.

The glaze was like that of e; there are remains on the right edge only. Only the top edge is rabbeted.


- g. Yellow-glazed fragment with end of fifth name of Ramses III. 10 cm. wide. East of palace, not far from find-spots of e-f. Chicago 16672.

Two pieces of inlay are still in place; they were light bluish when found, but are now white, and are set in red gypsum. Most of the other depressions show bluish-gray gypsum.




- 36 h. Lower end of green-glazed tile.

The right edge is broken away. Border and hieroglyphs are white.⁹⁸ The fragment of inscription, , compares the king to the god Atum.






- i. Two fragments of green-glazed tile in same technique as h.

Signs are white. The inscription(?) on the upper fragment is not clear;  below.




- j. White-glazed fragment with end of fourth name of Ramses III.

There is red gypsum⁹⁹ in the  sign and blue in the  and  signs and in the cartouche.

- k. Two fragments of yellow-glazed tile. Cairo J 59734-35.

Inscribed with  and  respectively. There is red gypsum in the  and  signs and in the bottoms of the  signs, blue gypsum in the other signs. In the unglazed rabbets at the sides there are traces of yellow gypsum at the right and white at the left.

- l. Fragments of tile with dark blue glaze.

Side edges are glazed; top and bottom edges, where other tiles adjoined, are unglazed. Border and hieroglyphs are light blue in same technique as h-i: , , and .

- m. Two white-glazed fragments of double feathers, the lower being a corner of a tile, with remains of yellow gypsum bedding.

- n. Fragment of double feather covering full width of a tile. 10.6 cm. wide. Chicago 15995.

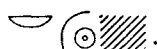
The yellow-glazed feathers are in relief on unglazed background. Gypsum beddings in sequences of blue-red-blue-white suggest dark-blue-red-dark-blue-light-blue (or green) inlays.

98. Border and hieroglyphs are flush with the background and are formed by white glaze in the same fashion as the garments on the prisoner tiles (see under Pl. 33 a). As indicated where border is lost at right on this tile, border and hieroglyphs seem to have been added after the background, though before firing, their outlines having been cut through the glaze into the core. For the technical processes employed cf. Hayes, *op. cit.* pp. 9 f., methods 1-2.

99. It is assumed here and in similar cases that gypsum remains are beddings for glaze or glass inlays. It is open to question whether any were for "glass paste" inlays such as were used in the prisoner tiles (see under Pl. 33 a).

- o.* Yellow-glazed fragment of double feather with yellow gypsum bedding and one now colorless glass-rod inlay.
p. Yellow-glazed fragment with double feathers from two adjacent cartouches.

There is blue gypsum in the border at the top. A repair(?) hole about 5 mm. in depth and in diameter is unglazed inside.

- q.* Fragment with dark blue glaze and light blue φ in same technique as *h-i* etc.
r. Yellow-glazed fragment inscribed with .

There are no traces of gypsum.

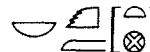
- s.* Yellow-glazed fragment.
 There is white gypsum in the \odot sign, blue in the sign below (which is surely not β) and in the line of the cartouche.

- t.* Two white-glazed fragments with part of fifth name (Seti-mri-n-Pth) of Seti I or Seti II.

Hieroglyphs are brown in left-hand fragment and blue in right-hand fragment in same technique as *h-i* etc.

- u.* White-glazed fragment.

There are remains of gypsum in the hieroglyphs:

, "Lord of Egypt."

- v.* Piece of yellow-glazed torus molding presumably from a lintel (cf. Pls. 28 *A-B* and 5). 4.5 cm. in diameter. Found in rubbish in P 11 together with cornice fragment (see Pl. 38 *b*¹⁰⁰). Chicago 16090.

It has a red band in center in same technique as *h-i* etc. Sides are glazed, reverse is unglazed.

- w.* Fragment with yellowish-white glaze.

The design is uncertain but is probably not part of a cartouche; it is in red and blue in same technique as *h-i* etc.

- x.* Fragment of white-glazed globular object, perhaps a vessel. Western Fortified Gate. Chicago 15715.

The design is similar to that of the frieze shown on Plates 35 *a* and 38 *e*; the inlays are of red and blue glaze.

FIGURAL INLAYS¹⁰¹

- 37 *a.* Head from figure of king or god.¹⁰² 4 cm. high. Palace. Cairo J 59754.

The material is light green glass; eyebrow and eye are outlined in now white glass; the eyeball is of alabaster and obsidian or black glass. The figure is in higher relief than figures shown in *c*.


- b.* Upper torso. 5.2 cm. high. Shaft of Tomb 23 below holy of holies. Cairo J 59753.

The material is red glass with blackish-green discoloration outside caused by formation of copper silicate from red copper oxide (cf. Pl. 37 *h*). The left shoulder is rounded, not broken off, where the hand joined.

- c.* Hieroglyphs. 21st-24th dyn. houses in F 7.

The material is light greenish glass with reddish surface.¹⁰³

The φ is 4.5 cm. high. Cairo J 59755. There are remains of leaf gold on mouth and beard.

The fragment of  is 3.3 cm. high. Cairo J 59756.

Legs are broken off; wings (not found) were inlaid separately;

100. The reconstruction is not based on find circumstances.

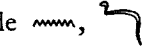

101. Concerning the objects shown on Pl. 37, in most cases the find circumstances or other characteristics do not provide evidence for dating them to the time of Ramses III. On the other hand, we must consider the fact that inlaying in wood and other materials was common during the 21st-22d dyn. Hence some pieces may belong to that time (e.g. *c*, *d*, *h*, *i*; the date of *e* is uncertain too).

102. Cf. contour of headdress in LD III 208 *e* and 211 (king with head-cloth) or *Medinet Habu* II, Pls. 104-5 (Ptah), or *Medinet Habu* I, Pls. 11 and 43 (Mut).

103. The reddish color seems to be due to external influence; however, the material has not been analyzed.

There are traces of red and green in depressions below eyes.

The \odot is 3.4-3.9 cm. in diameter and .35 cm. thick. Chicago 16635. There are remains of leaf gold. As a result of decomposing the material is now iridescent.

Other hieroglyphs from the same find-spot are of fine light-colored fayence or glass, the surfaces and ancient breaks now appearing reddish. They include ,  (Chicago 16633), and \odot .

- d.* Face. 3.3 cm. high. Cairo J 59752.

The material is greenish fayence. The front is in high relief; the reverse is smooth and unglazed.

Other figural inlays include the following pieces:

Alabaster thigh fragment (Fig. 56 *a*). 10 cm. long. Chicago 16291.

Part of sacred eye made of unglazed blue "glass paste" (Fig. 56 *b*). 5.7 cm. long. Chicago 16337.

- e.* Molds for figural inlays. Rubbish in Tomb 29 in temple.¹⁰⁴ Chicago 16681-85.

The molds are of baked clay and include a chest with outstretched arms, a head and chest with upraised arms, an arm with fist and part of shoulder, a chest with uncer-

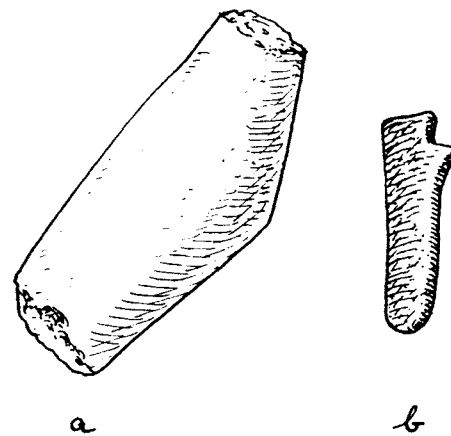


FIG. 56. RELIEF INLAYS OF (a) ALABASTER AND (b) UNGLAZED BLUE "GLASS PASTE"

tain object,¹⁰⁵ and an upper arm(?).¹⁰⁶ The forms are rough and no doubt necessitated extensive working of the molded pieces.

MISCELLANEOUS INLAYS AND PIECES ORNAMENTED WITH INLAYS

- f.* Fragmentary sandstone capital (Pl. 38 *a*). *Ca.* 35 cm. in diameter. Western Fortified Gate. Cairo J 59736 *a-c*.

The three fragments found are from the broadly projecting upper edge. The top was painted white. The underside (here shown) has depressions containing glaze and fayence or glass inlays. The red inlays are bedded in red, the light blue, gray-blue, and green ones in white gypsum.

- g.* Alabaster and glaze inlays.

Several alabaster lancets (*ca.* 5 mm. thick) and blue glaze inlays (illustrated at left) were found still fastened together. Glaze inlays, usually blue but occurring in greenish and whitish also, were found in fragments as large as 7.5 cm. square. Rectangular alabaster pieces (e.g. 20 × 6 × 3 mm.) were often laid on edge (see Fig. 51). Rectangular and lanceolate alabaster pieces were found in one place, in the palace, set in red gypsum, but otherwise they were regularly set in white gypsum.

- g* 1. Blue fayence piece from a uraeus (cf. Pl. 38 *b*). Chicago 16061.

- h.* Glass and various kinds of stone (except alabaster) inlays.
 The chevrons, scales, and lancets are always smaller

104. See Vol. V.

105. It cannot be considered a fist if we judge by the fist shown just above.

106. Perhaps from a figure of Amon with shoulder bands, but even this explanation is not satisfactory.

than the corresponding shapes in alabaster and very thin. Blue, red, and white glass was used for these shapes. All the other shapes illustrated are of blue glass. The scalloped piece at the right (Chicago 16062) belonged to a uraeus (cf. g 1). Some of the red glass has blackish green on the surface, which according to Lucas is due to formation of copper silicate from red copper oxide (cf. Pl. 37 b). The kinds of stone used are green feldspar and occasionally carnelian, lapis lazuli, and rose quartz(?). The green feldspar chevrons were bedded in blue gypsum in the only case¹⁰⁷ where the bedding is determinable. Numerous broken pieces of thin carnelian whose original shapes cannot be determined were found in one place in the palace.

- i. Slate slab with inlaid floral design. Provenience unknown. Chicago 16632.

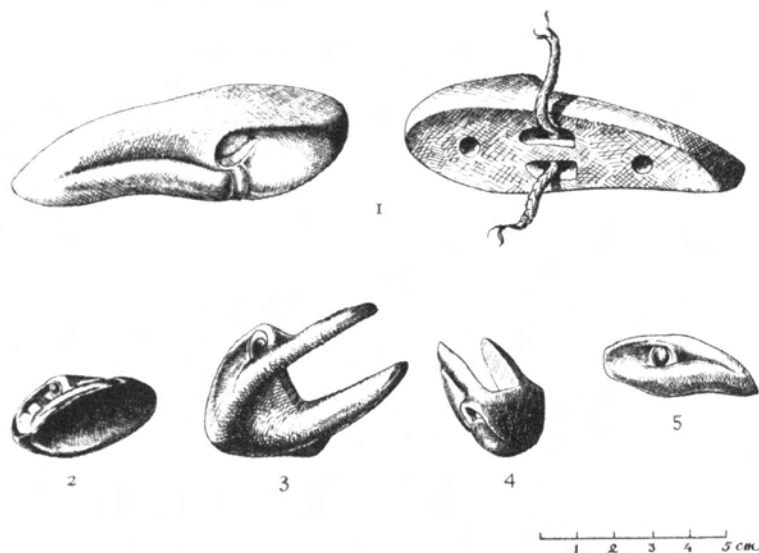


FIG. 57. SMALL BLUE SERPENT HEADS (SEE PL. 37 I)

All the depressions contain remains of white gypsum, and in one an alabaster inlay in the form of a flower petal is intact. It is doubtful whether this piece belonged to any of the buildings.

- j. Fayence lotus blossom. Chicago 16631.

The front is arched, the back flat and unglazed; the corners are broken away. The sepals are yellow with green points, and the petals are blue.

- k. Fayence rosettes.¹⁰⁸

The type at the left (Chicago 16023-51) is usually gray, in some specimens brown or buff, with white petals in the technique of the tile fragments shown on Plate 36 h-i etc. and often has a raised yellow center. The backs are white or gray glazed. The type at the right (Chicago 16622-30) is molded with depressions for inlaid petals and completely white glazed. The petals are of red fayence or glass bedded in red gypsum and light and dark blue fayence or glass bedded in white gypsum. Both types show occasional examples with glazed center perforation for a peg of some sort.

- l. Serpent heads.¹⁰⁹ Found in various rubbish heaps and therefore not definitely attributable to Ramses III, but probably so. Chicago 16020-21 and 16613-21.

At least 17 heads were found. Since all are different, it cannot be assumed that they belonged to uraeus friezes. They are all blue, though the material varies: fayence, unglazed clay, and one specimen (Fig. 57:2) is perhaps

107. Found in a vessel which contained also blue glass inlays, chain links, beads, and scarabs, all pieces of fine quality, belonging mostly to the New Kingdom but found in a post-Ramessid level.

108. [Similar rosettes were apparently used to decorate large architectural members; cf. fragments of enormous palm-leaf capitals from Tell el-Yahudiyyah in the Cairo Museum (Nos. 463-64).—HÖLSCHER.]

109. Similar specimens were found at Amarnah (Petrie, *Tell el Amarna*, Pl. XVII 322-27 and p. 29). I know of specimens in Cairo and Berlin, and they occur no doubt in other collections too.

of glass. Further, they were all molded as separate pieces, and hence the bodies, if any, consisted of other material. There are no traces of crowns, sun disks, or other head-dresses. Figure 57:1 shows a head of light blue unglazed clay (Chicago 16020). It is the only one which was used in relief on a wall surface. The back is slightly arched. Two pivot holes and a loop served to fasten it in gypsum. One end of the underside is flattened for attachment to the body. The eye was inlaid. The rest of the heads are all entirely in the round. The eyes were either inlaid or molded with the head. Both types occasionally show remains of green on the eyes, but it is uncertain whether they represent actual color or oxidation. The head shown in Figure 57:2 (Chicago 16021) is of glass, or at least looks like glass, and is very shiny; the eyes are inlaid in carnelian or red glass. This unforked form is represented by other pieces; two of them, illustrated on Plate 37, are lapis-colored. One has remains of gypsum in the hollow underneath. The forked form (Fig. 57:3-5) is the most common. Between the prongs underneath usually, but not always, is a flat surface for attachment. In one specimen a hole between the prongs connects the eye holes, which contain remains of white gypsum. One head (Chicago 16614) has red color over the blue; its eyes are bedded in gypsum and show remains of gilding.

- m. Fayence grape clusters. Isolated specimens were found in the palace and among foundation gifts of Ramses III, but most had no clear associations. Chicago 16053-60.

The fully modeled grape clusters may have hung suspended from the architraves of royal baldachins like those frequently depicted in the earlier New Kingdom but well known in Ramessid times also.¹¹⁰ Half-clusters seem to have been used as inlays at Tell el-Yahudiyyah.¹¹¹ Fifteen to twenty pieces were found at Medinet Habu, ranging from light to dark blue in color, from 3 to over 8 cm. in height, and from spherical to ovoid in form. They were attached by means of horizontal or vertical pegs (Fig. 58). Suspension loops¹¹² could have been fastened in

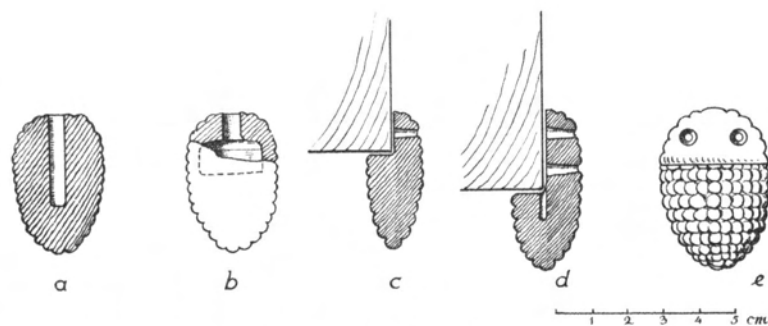


FIG. 58. SKETCH SHOWING VARIOUS METHODS OF ATTACHING FAYENCE GRAPE CLUSTERS (SEE PL. 37 m)

the pegs or used in place of them. The clusters were molded and glazed in two parts. The connecting surfaces were often made somewhat concave, so that the parts could be easily separated.

- 38 a. See under Plate 37 f.

- b. Fragment of sandstone cavetto cornice ornamented with inlays (Pl. 27 C), presumably from a doorframe (cf. Pls. 5 and 28 A). 19 cm. high. Found in rubbish in P 11 together with fragment of torus molding (Pl. 36 v) shown with it (see n. 100).

At the right edge is part of the circular depression for the inlaid sun disk with remains of gypsum in it. The uraeus is an inlay of yellow fayence bedded in white gypsum. Its details are formed of red and blue glaze inlays

110. E.g. in a Theban tomb (No. 157) of the time of Ramses II (see *ZAS* LXVII [1931] Pl. I); see also the reconstruction of the Balcony of Royal Appearances at Medinet Habu (Vol. III, Pl. 4).

111. See Brugsch-Bey in *RT* VIII, Pl. I 5.

112. Bronze suspension loops apparently fastened in gypsum are preserved in grape clusters from Amarnah (Berlin 22127 etc.).

bedded in yellow gypsum.¹¹³ At the left is a wing of the sun disk decorated with inlays set in cells (see p. 40 for description of this technique). The wooden "cloisons" (now replaced by debris of white ants) which formed the cells

were not let into the stone so deeply as usual (cf. p. 40 and Pl. 28 *A*).¹¹⁴ The inlays are of blue and red glaze bedded in white gypsum.

c-f. See under Plate 35 *a-d*.

FOUNDATION DEPOSITS

RAMSES III

We did not find any foundation gifts under the Great Temple. To be sure, this does not prove that none are present there, since we felt under the walls only in a few places—where such finds usually occur in other temples—and could search thoroughly only in the few main doorways whose sills are destroyed. However, we were reconciled to these negative results when we were able to determine that no foundation gifts were deposited elsewhere within the inner temple area during the earlier building period of Ramses III.

We did discover foundation gifts associated with construction of the later period of Ramses III. Many of the objects, however, were not carefully placed in pits especially constructed for them, as for example in the temple of Eye,¹¹⁵ but were scattered haphazardly in foundation trenches and pits or beside them in the sand. Objects scattered in this manner were found only in places where apparently building activity occurred at the beginning of the later period:

1. Throneroom of the Second Palace, in the sand bedding for the columns and for the doorsill of the main entrance and the adjoining pilasters.¹¹⁶
2. Palace "garden," under and beside foundations of the second and fourth building periods.¹¹⁷
3. Gravel filling of the street surrounding the inner temple area, especially in S 6-7 and H-I 11-12.

In contrast to these scattered objects, groups of objects purposely combined to form foundation deposits occurred in three places:

4. Palace "garden," in a corner of the building of the fourth period.¹¹⁸
5. Under a wall of the so-called royal stables (Fig. 19 *F. Dep.*).
6. Mortuary Chapel III behind Medinet Habu, at three corners in the sand bedding (see p. 22 and Pl. 42 *Found. Depos. and F. D.*).

The scattered objects, according to Anthes' notes, consist of the following categories. The number of objects found is of little significance, since in many places we could have increased it at will by further sifting of the sand or gravel.

MODEL ANIMAL OFFERINGS OF FAYENCE (PL. 29 *a-o*)

The color varies between light blue and light green. Forms *a, d, g, j, k* occur in red also. Of the fifteen types of offerings, four (*d, e, g, o*) occurred in the foundation deposits of Eye¹¹⁹ and six others (*a, b, i-k, m*) in the deposits

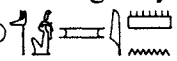

of Ramses IV¹²⁰ in the temenos of the temple of Eye and Harmhab.¹²¹ The new types are as follows:

- c.* Animal of unidentified breed
- f.* Goose or duck
- h.* Calf(?) head (perhaps the same as Vol. II, Pl. 58 *K 7 a-b*)
- l.* Bovine head
- n.* Unidentified; only the 3 examples illustrated were found. From the originals Anthes suggested that this form is a "goose on a plaque," but it still is not clear. The two at the left, when turned upside down, remind one of a bird on a plaque in a deposit found by Petrie.¹²² Perhaps our third piece represents another type.

BEADS, RINGS, AND OTHER ORNAMENTS

Beads (Chicago 14705 and 14755) were very numerous and of various forms: thick cylinders (Pl. 29 *r*) in blue and green fayence, small specimens (*q*) of various shapes and colors in glass and fayence, balls in fayence, glass, and carnelian. There are also a fayence sacred eye (*x*), a fayence tube (*t*) with an angular projection at each end (only one intact), and finally a symmetrical trapezoid (*s*) of fayence with two holes perhaps intended for sewing the object on a garment (no loop at the top!).

FAYENCE SCARABS AND PLAQUES WITH THE KING'S NAMES

Isolated examples of roughly executed greenish scarabs¹²³ were found under the other objects. Blue and green rectangular plaques (Pl. 29 *u-v*) perforated the long way were inscribed on one side. Inscriptions read  and . The Δ is omitted on two scarabs.

PIECES OF AGATE

Pieces of agate were found in two places only.

MISCELLANEOUS

It cannot always be determined whether certain isolated objects are foundation gifts. In all probability all sorts of valued or colorful trifles from the workshops, such as fayence grape-cluster inlays (Pl. 37 *m*), a fayence ring with ibex bezel (Pl. 29 *w*), and small alabaster inlays, found in the palace, belong to this category. On the other hand, a clay model of a wash pitcher (3 cm. high) found in H 7 (not illustrated) is questionable.

The grouped deposits consist mainly of scarabs, rings, and beads. Deposit No. 4 contained three scarabs of the type mentioned above, three gold beads, and many fayence beads (Pl. 29 *q-r*) and rings (*p*). Deposit No. 5 had one

120. Vol. II 117 and Pl. 58 *K*.

121. [Five of Ramses III's forms (*a, c, f, h, l*) face left, while those of Eye all face right. A bovine head from the Ramesseum (Berlin 13359) faces left, but I wonder whether there are any such left-facing objects from before the time of Ramses II.—ANTHES.]

122. *Op. cit.* Pl. XVI 17.

123. Illustrated in Hölscher, *Excavations at Ancient Thebes, 1930/31*, Fig. 14 (cartouche belongs to Ramses IV). Anthes notes that these scarabs have the usual perforation in contrast to that of Ramses IV from the temenos of Eye and Harmhab (Vol. II, Pl. 58 *f*).

113. Blue fayence and glass inlays from similar uraei are shown on Pl. 37 *g 1* and *h*.

114. [We do not know whether the tops of the wooden "cloisons" were visible between the rows of inlays. In Pl. 38 *b* it is assumed that they were covered with gypsum or gesso.—HÖLSCHER.]

115. Vol. II 85.

116. Vol. III 51.

117. *Ibid.* p. 67 and Fig. 41 *D*.


118. *Ibid.* p. 67 and Fig. 41 *FD*.

119. Vol. II 87 and Pl. 52 *Aa*. Unillustrated forms of *o*, pieces of meat (rib pieces), correspond to the two forms of Eye (Vol. II, Pl. 52 *Aa 6*); cf. Petrie, *Six Temples at Thebes* (London, 1897) Pl. III 30.

scarab, several fayence rings, and a single model animal offering. The three deposits of No. 6 included fayence rings and beads, one model "kidney" (j) of dark blue¹²⁴ fayence, and fragmentary pendants and inlays. A scarab of Ramses III found near by (see p. 22) may have belonged with one of them.

RAMSES IV

Foundation gifts of Ramses IV were found in the grove at the point where we have assumed an entrance from the

esplanade (see Fig. 20). They indicate that building at Medinet Habu did not cease with the death of Ramses III. They consist of a blue fayence cartouche inscribed on both sides,¹²⁵ a bovine head,¹²⁶ numerous rings and beads (like those on Pl. 29 p-r), green fayence fragments of a ring and of a small pendant in the form of a  sign. A second cartouche, of the same form but made of violet glass, was found in the debris and near it a plaque of Ramses III like those described above.

HIERATIC QUARRY INSCRIPTIONS AND DEMOTIC GRAFFITI

Two hieratic quarry inscriptions (125 and 135 cm. long) were written in red ink on doorsills in the Second Palace (in L 7).¹²⁷ Professor William F. Edgerton, to whom I am

have held the office at the end of the reign of Ramses III or even during the greater part of that reign. Among the other titles of Ramses-nakht are "chief steward in the temple of Medinet Habu" and "overseer of works on all monuments of the estate of Amon of Karnak."¹³¹

Two other almost identical hieratic quarry inscriptions were written in red ink by the same hand (Fig. 60):

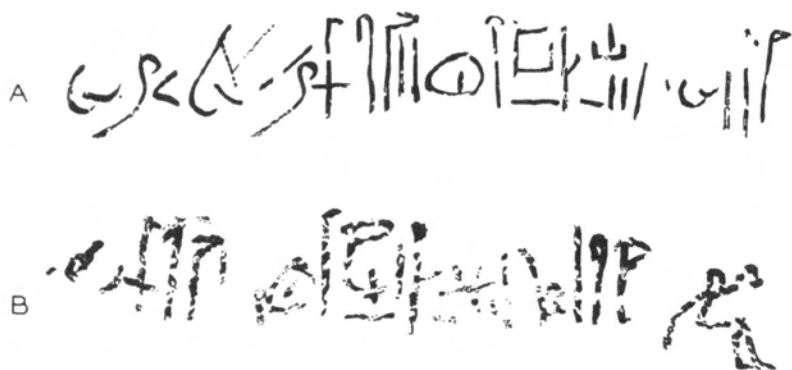


FIG. 59. HIERATIC QUARRY INSCRIPTIONS (A-B) OF RAMSES-NAKHT ON DOORSILLS IN THE SECOND PALACE

also indebted for the drawings in Figure 59, has made the following comments on these inscriptions:

They were written by different hands, but are nearly identical, sign for sign:



"High¹²⁸ Priest of Amon, Ramses-nakht."


A certain Bekenkhonsu was High Priest of Amon under Setnakht and during the earlier years of Ramses III.¹²⁹ Ramses-nakht was High Priest under Ramses IV,¹³⁰ and there is no reason why he may not

124. Therefore of the same color as model offerings of Ramses IV from the temenos of Eye and Harmhab (Vol. II 117).

125. Cf. *ibid.* Pl. 58 H.

126. Cf. *ibid.* Pl. 58 K 7.

127. See Vol. III 51, n. 39, for location of A; B was found 10 m. away.

128. I cannot explain the sign  at the beginning of B; it probably has no direct connection with the text which follows.

129. Gustave Lefebvre, *Histoire des grands prêtres d'Amon de Karnak jusqu'à la XXI^e dynastie* (Paris, 1929) p. 163.

130. *Ibid.* p. 177.

131. *Ibid.* p. 266.

132. See Vol. III 67.

C.                

Finally, two Demotic graffiti (Fig. 61) on the north wall of the Eastern Fortified Gate about 1.50 m. above the ground (see Folio Pl. 29) read as follows in transliteration and translation, according to Spiegelberg:

E. [P3]-dj-Mnt s3 P3-dj-Hr-p3-Rc, "[Pe]temonthes, Sohn des Petcharprês."
F. P3 sin mh II Thwtj-stm, "Der zweite Sethon-Priester Thotsytmes."¹³³

The two lines were carved by different hands. Inscription *F* may be dated to the second half of the Ptolemaic period (ca. 200–50 B.C.), and *E* appears to be somewhat later.

133. As published in Hölscher, *Das Hohe Tor von Medinet Habu*, p. 47, n. 1; see also Edgerton, *Medinet Habu Graffiti. Facsimiles* (OIP XXXVI [1937]) No. 207.

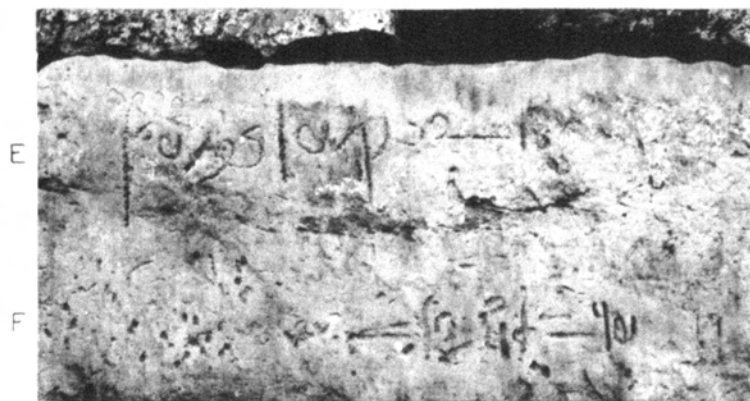


FIG. 61. DEMOTIC GRAFFITI (*E-F*) ON THE EASTERN FORTIFIED GATE

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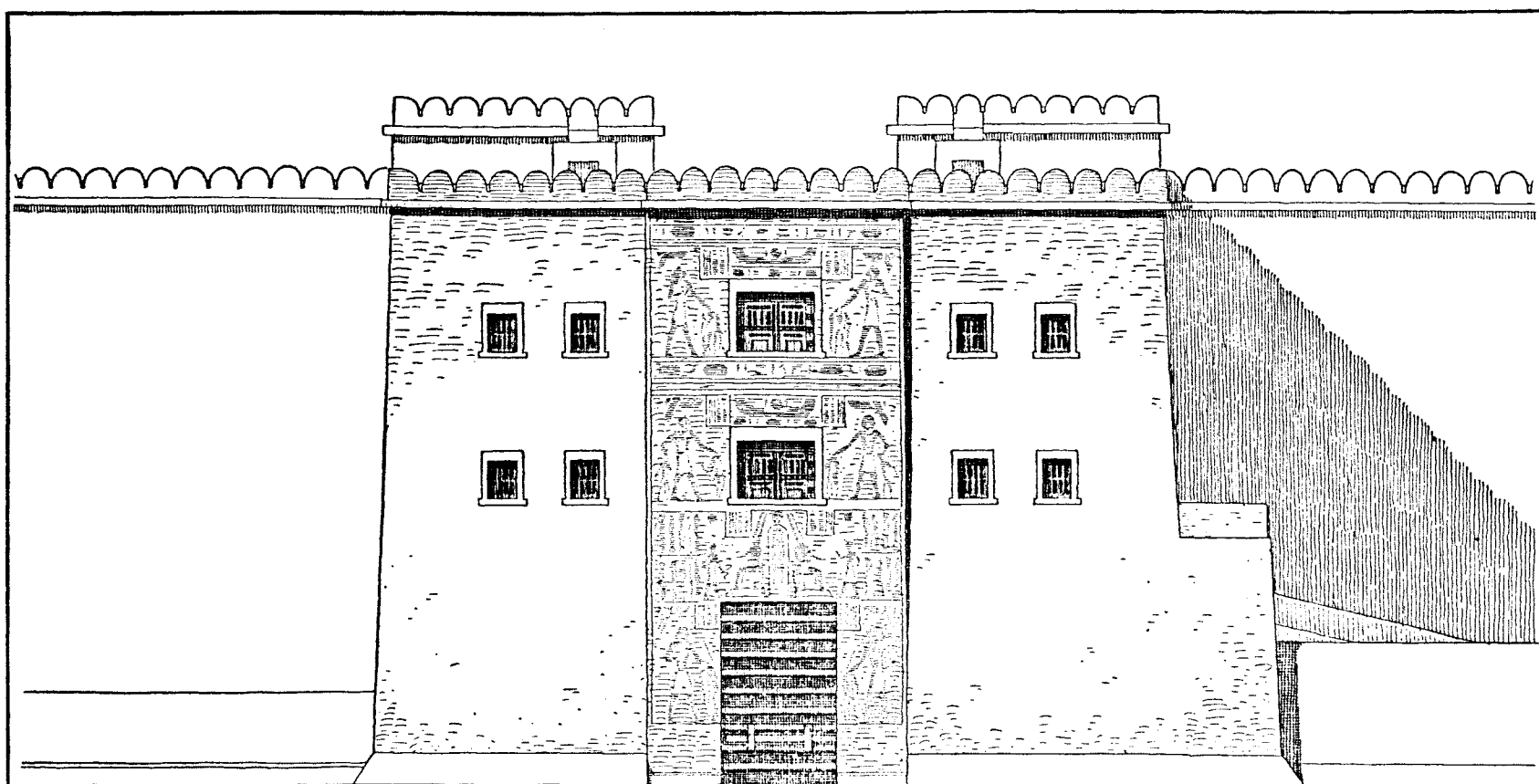
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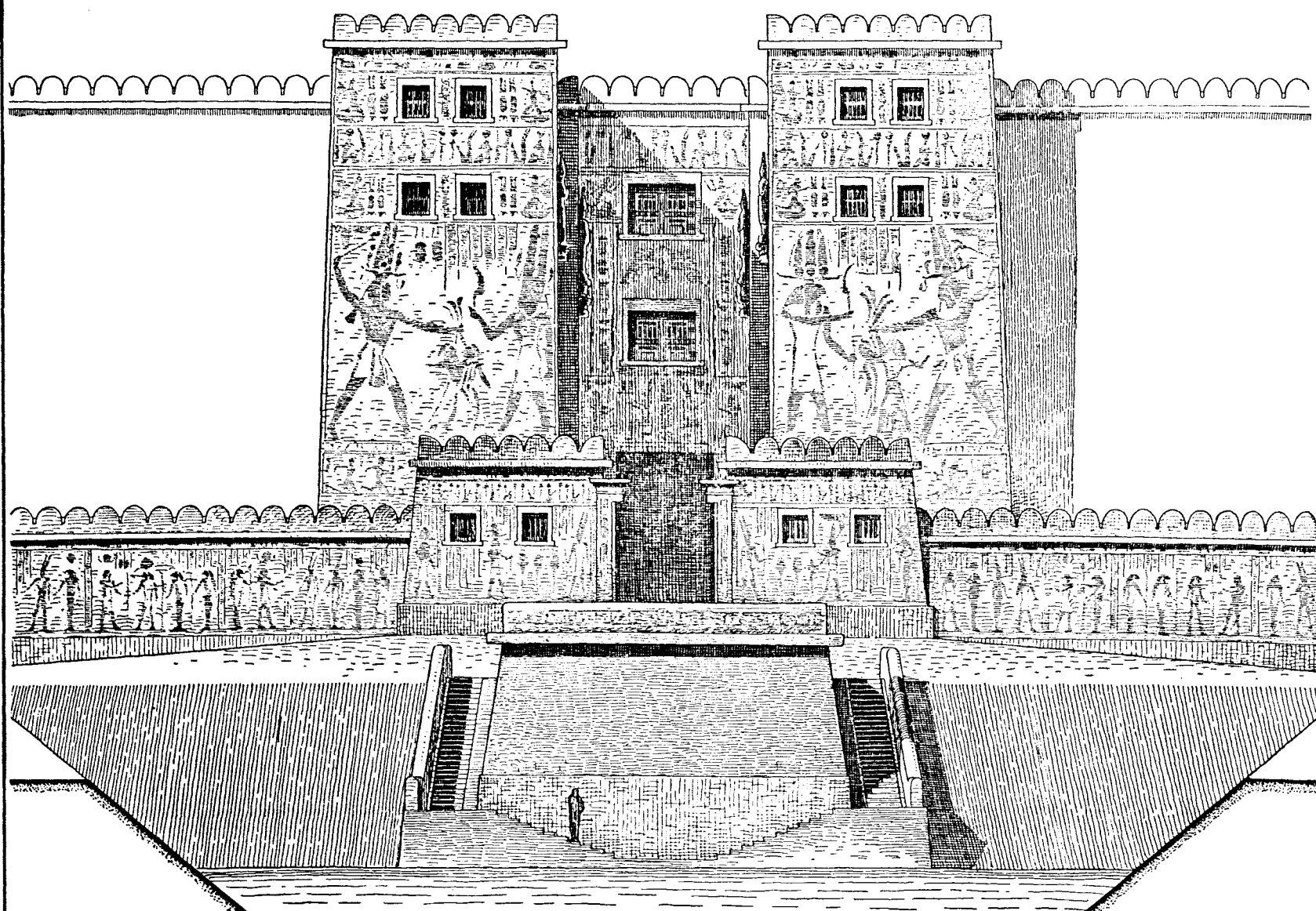
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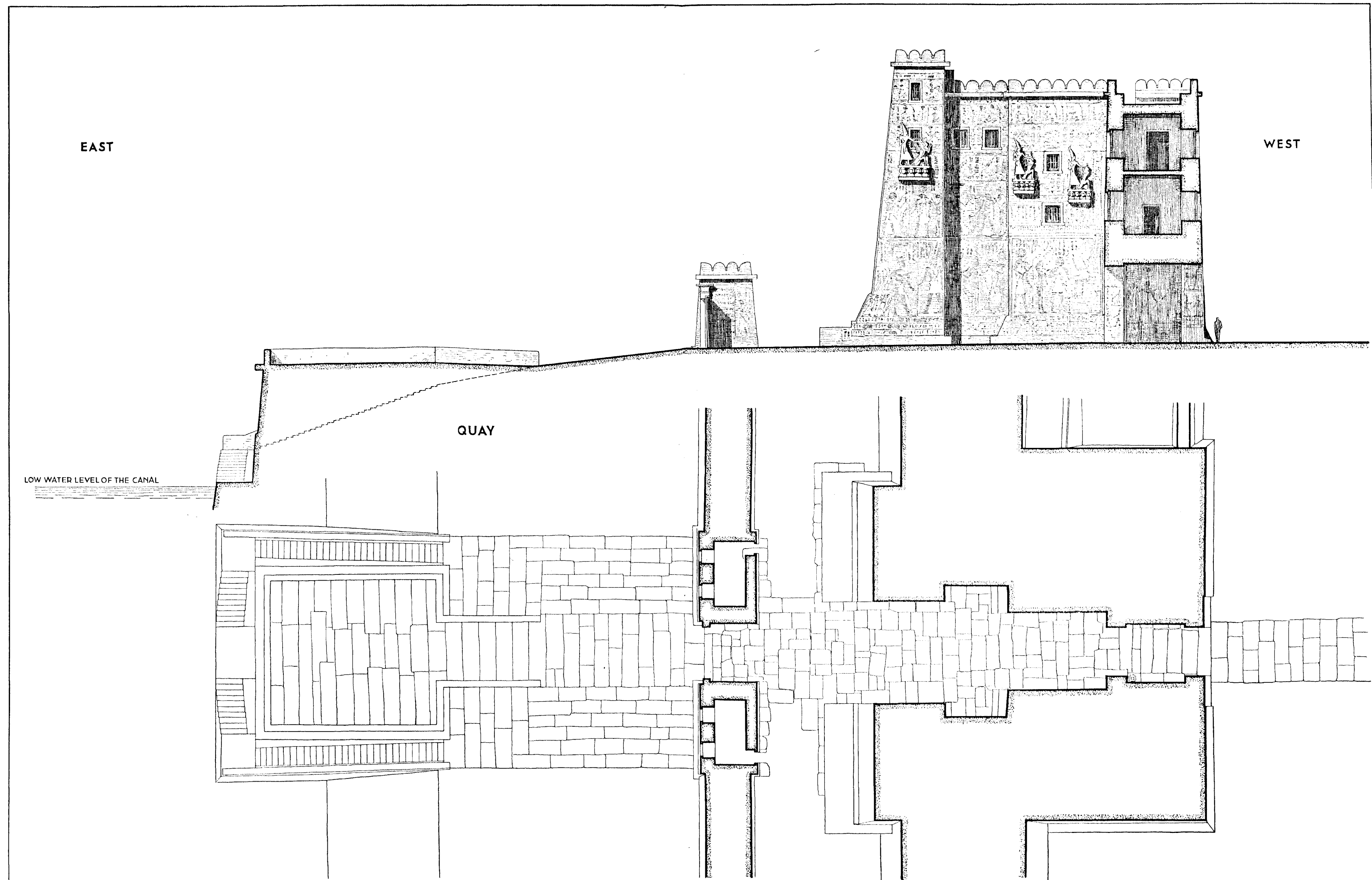


WEST ELEVATION



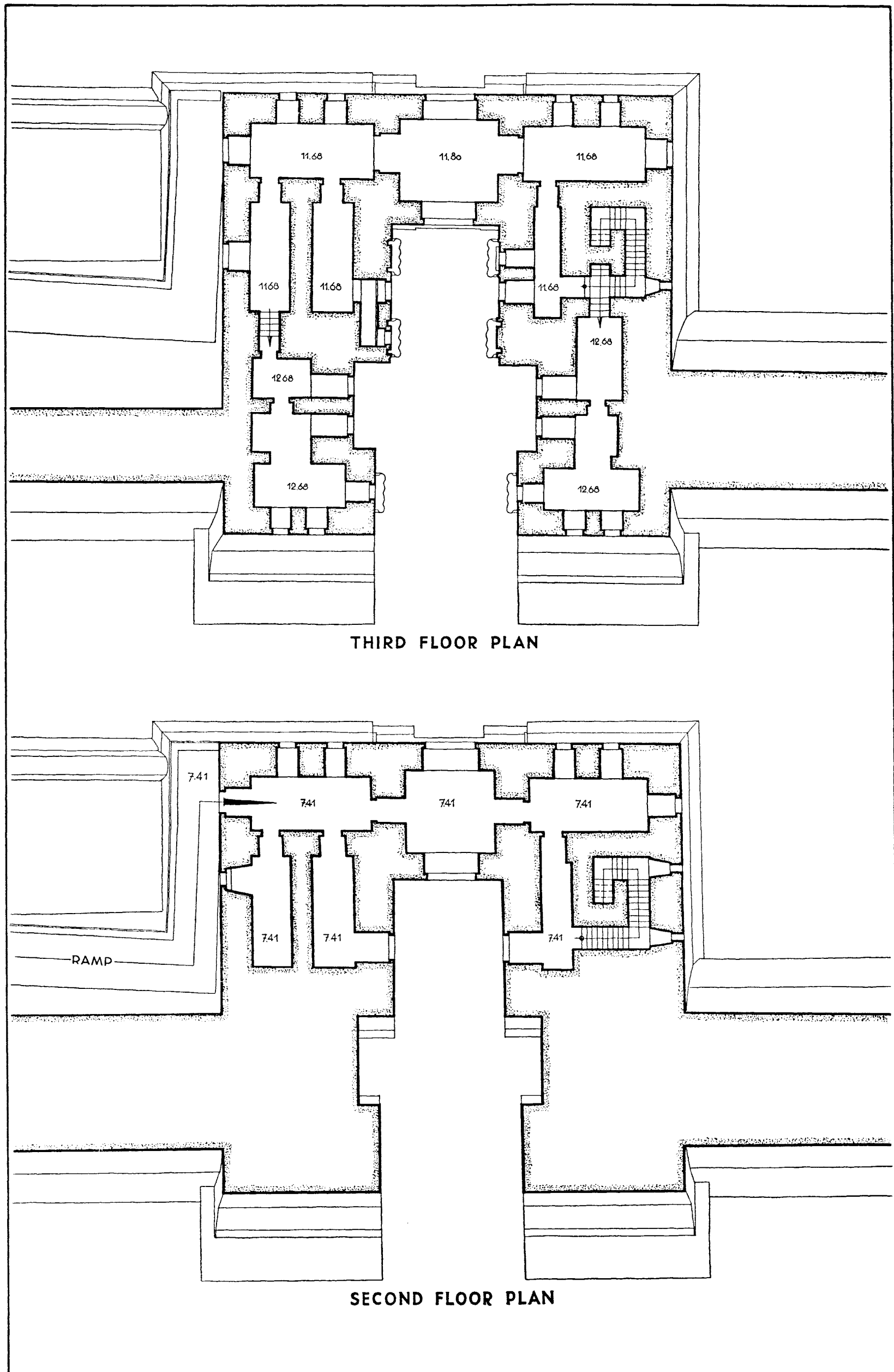
EAST ELEVATION

THE EASTERN FORTIFIED GATE. RECONSTRUCTIONS (CF. FOLIO PL. 28). SCALE, 1:200

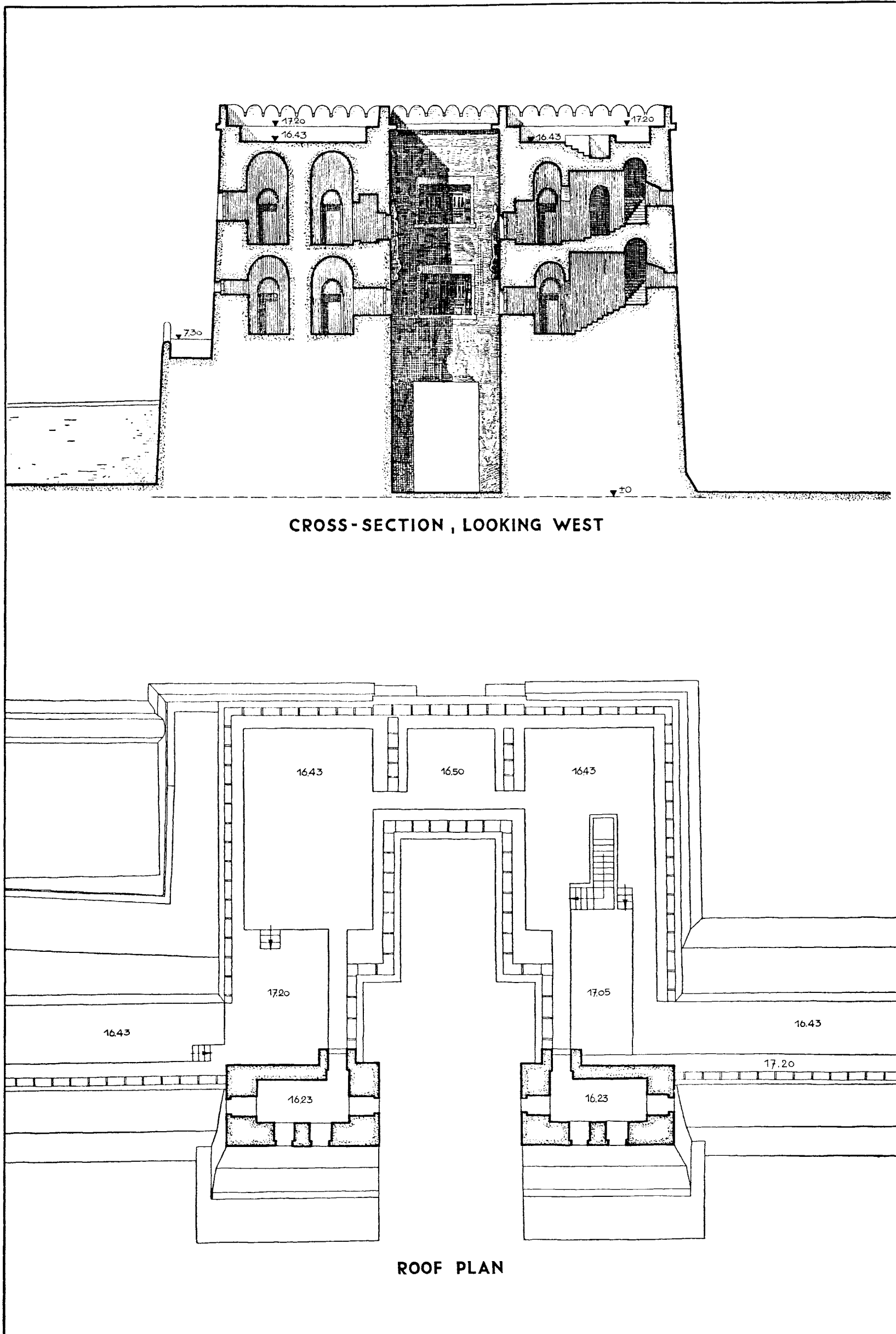


THE EASTERN FORTIFIED GATE. LONGITUDINAL SECTION AND GROUND PLAN. RECONSTRUCTIONS (CF. FOLIO PL. 25). SCALE, 1:200

PLATE 8

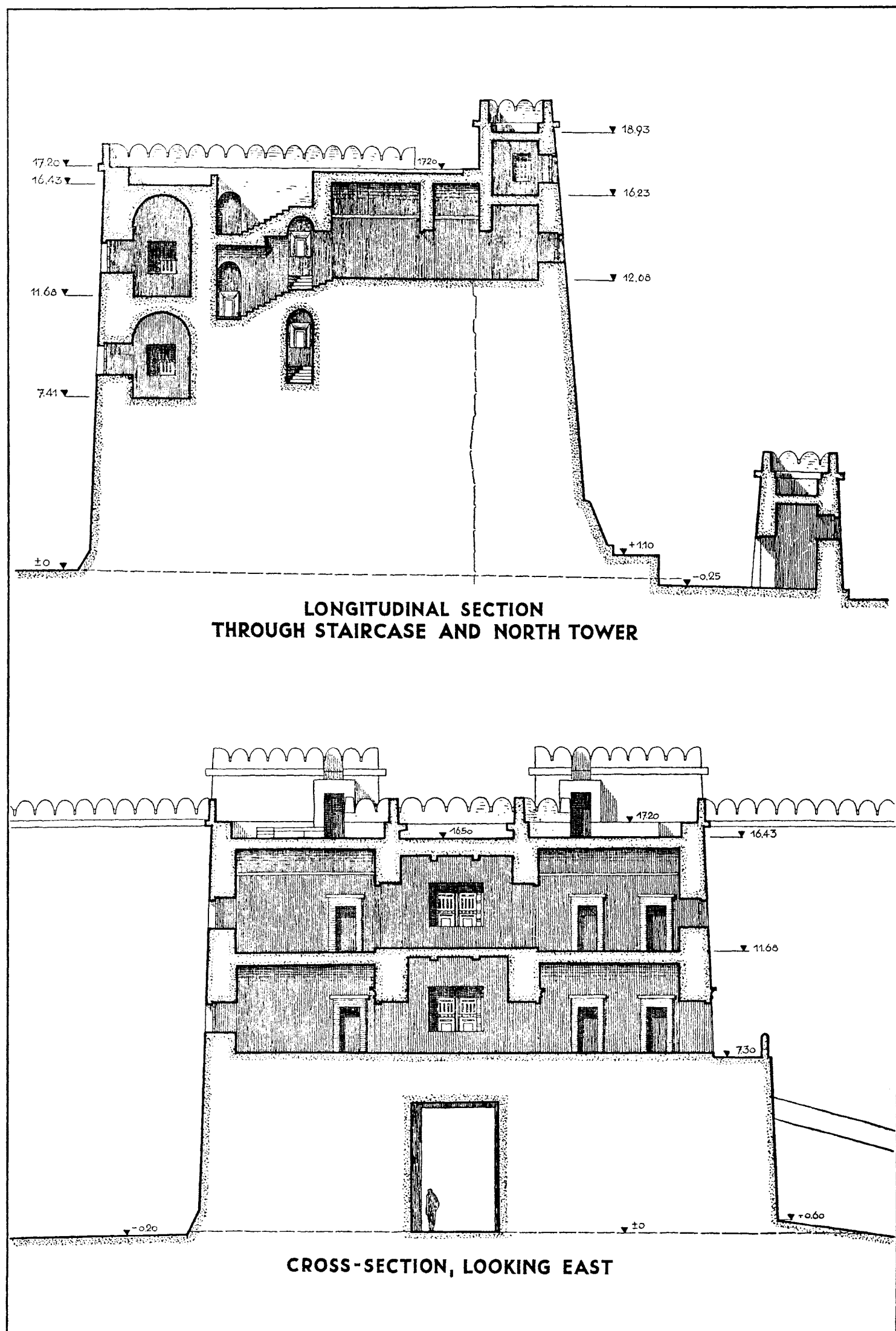


THE EASTERN FORTIFIED GATE. RECONSTRUCTIONS (CF. FOLIO PL. 26). SCALE, 1:200

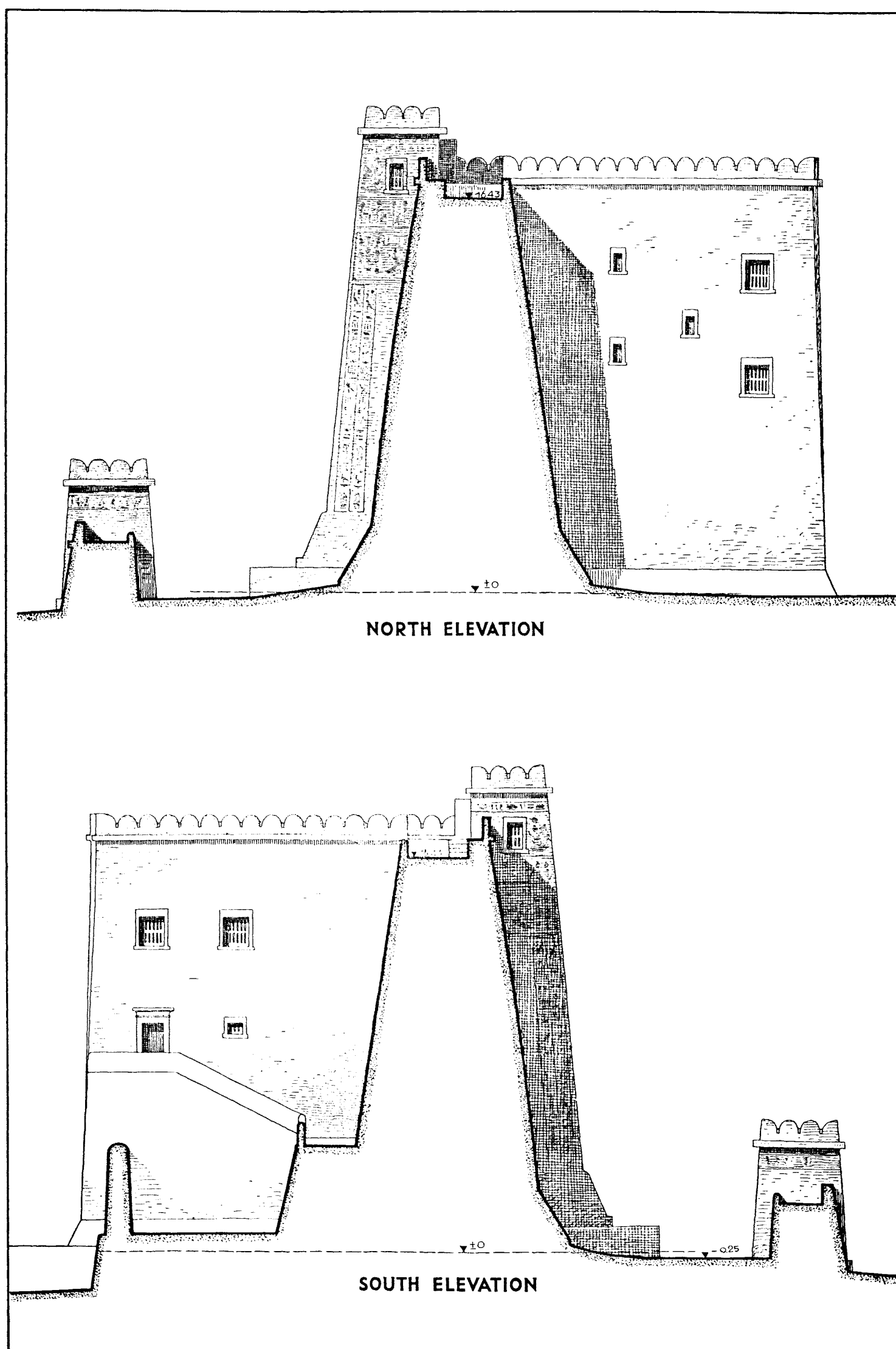


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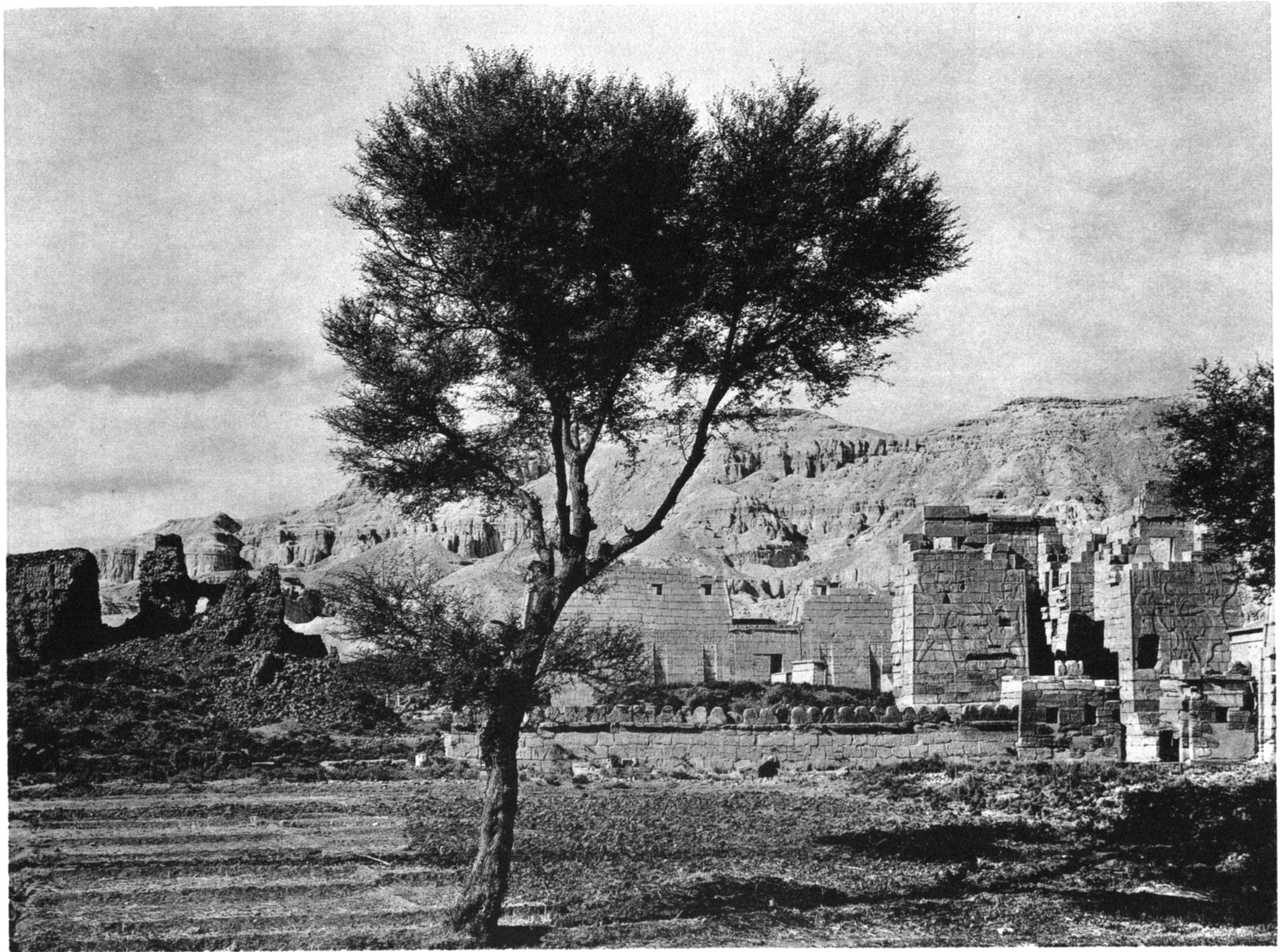
PLATE 10



THE EASTERN FORTIFIED GATE. RECONSTRUCTIONS (CF. FOLIO PLS. 27 AND 29). SCALE, 1:200

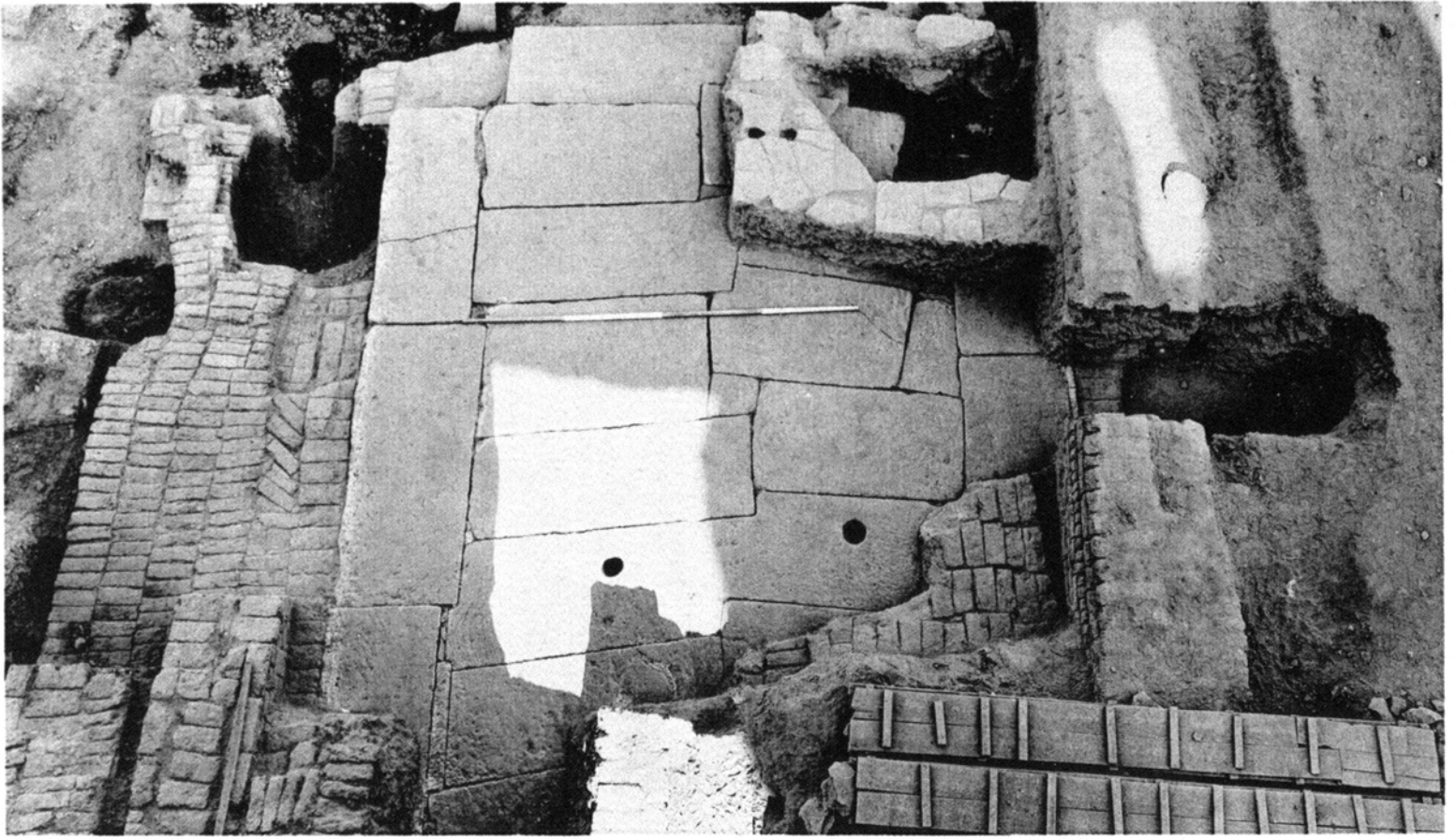


THE EASTERN FORTIFIED GATE WITH CROSS SECTIONS OF THE GREAT GIRDLE WALL
RECONSTRUCTIONS (CF. FOLIO PL. 29). SCALE, 1:200



MEDINET HABU, SEEN FROM THE SOUTHEAST

PLATE 13

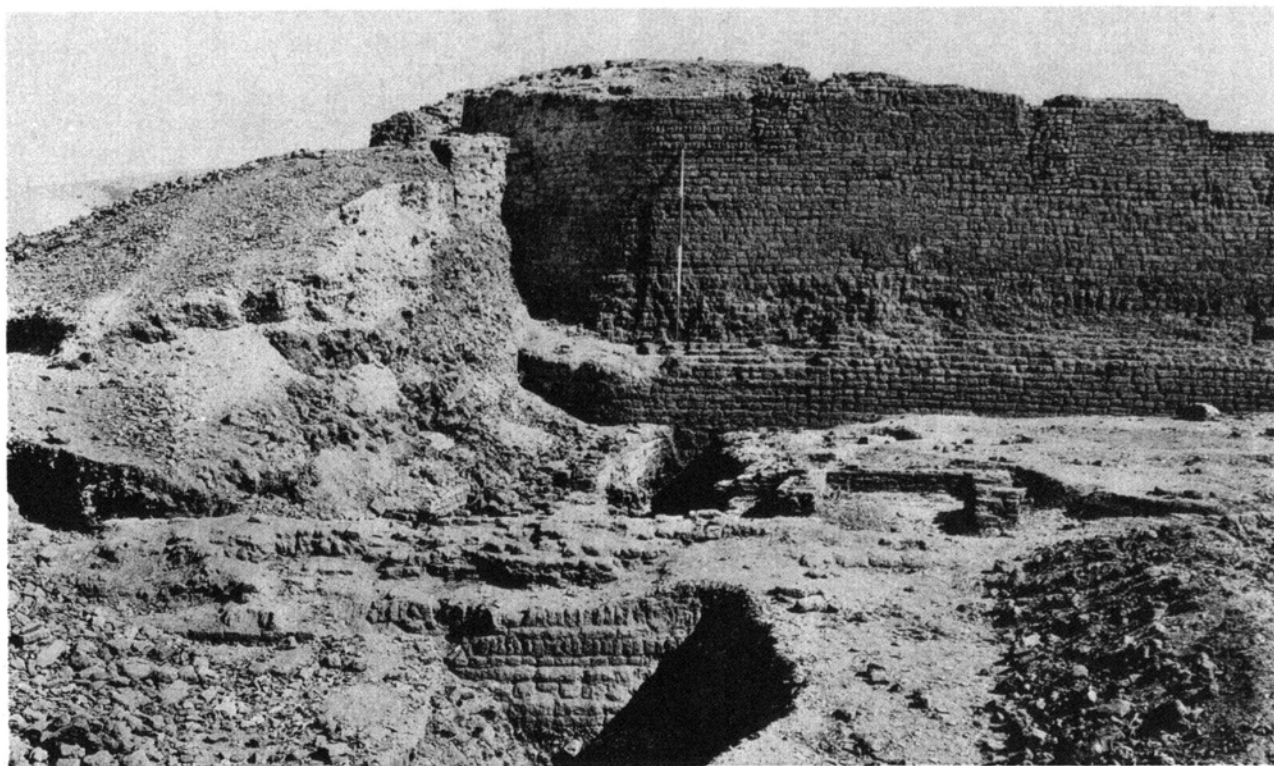
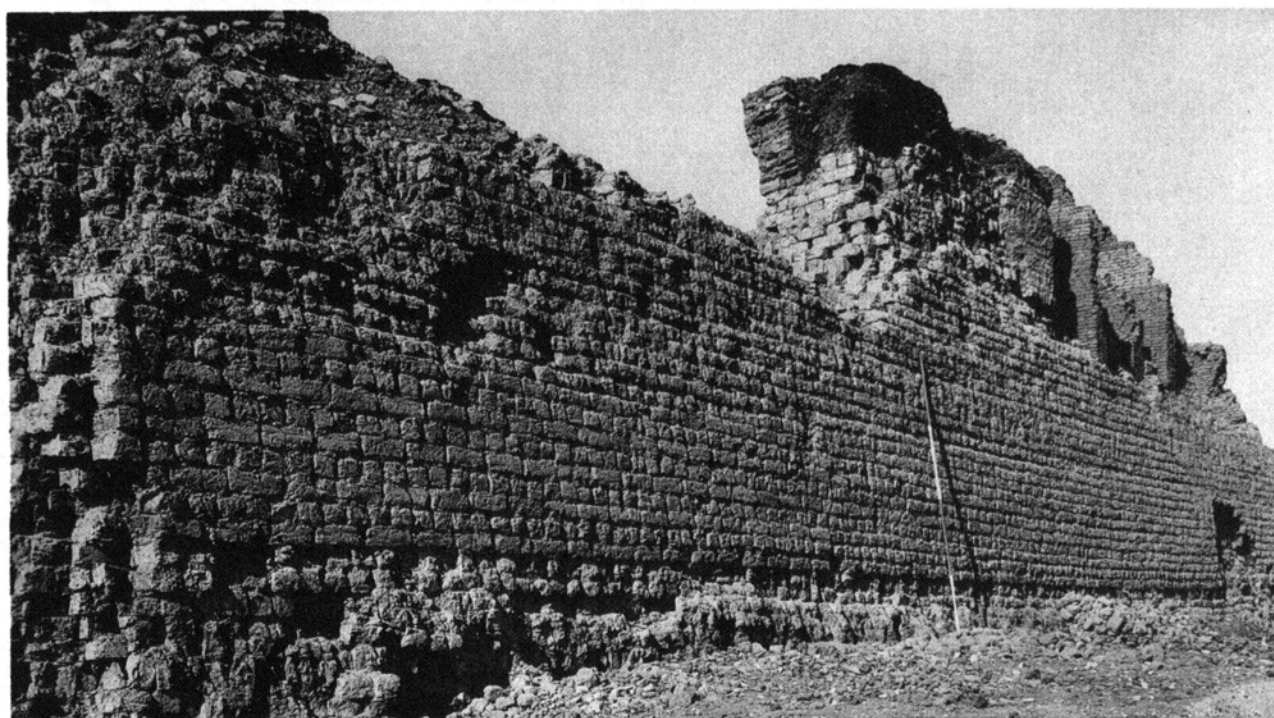
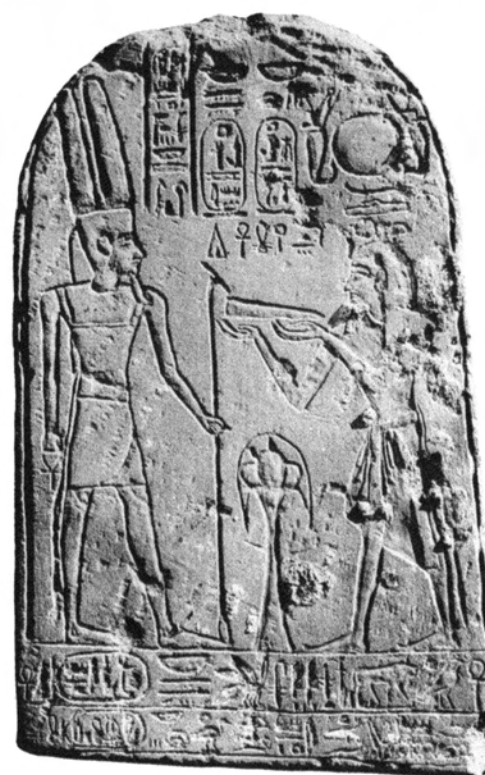


A

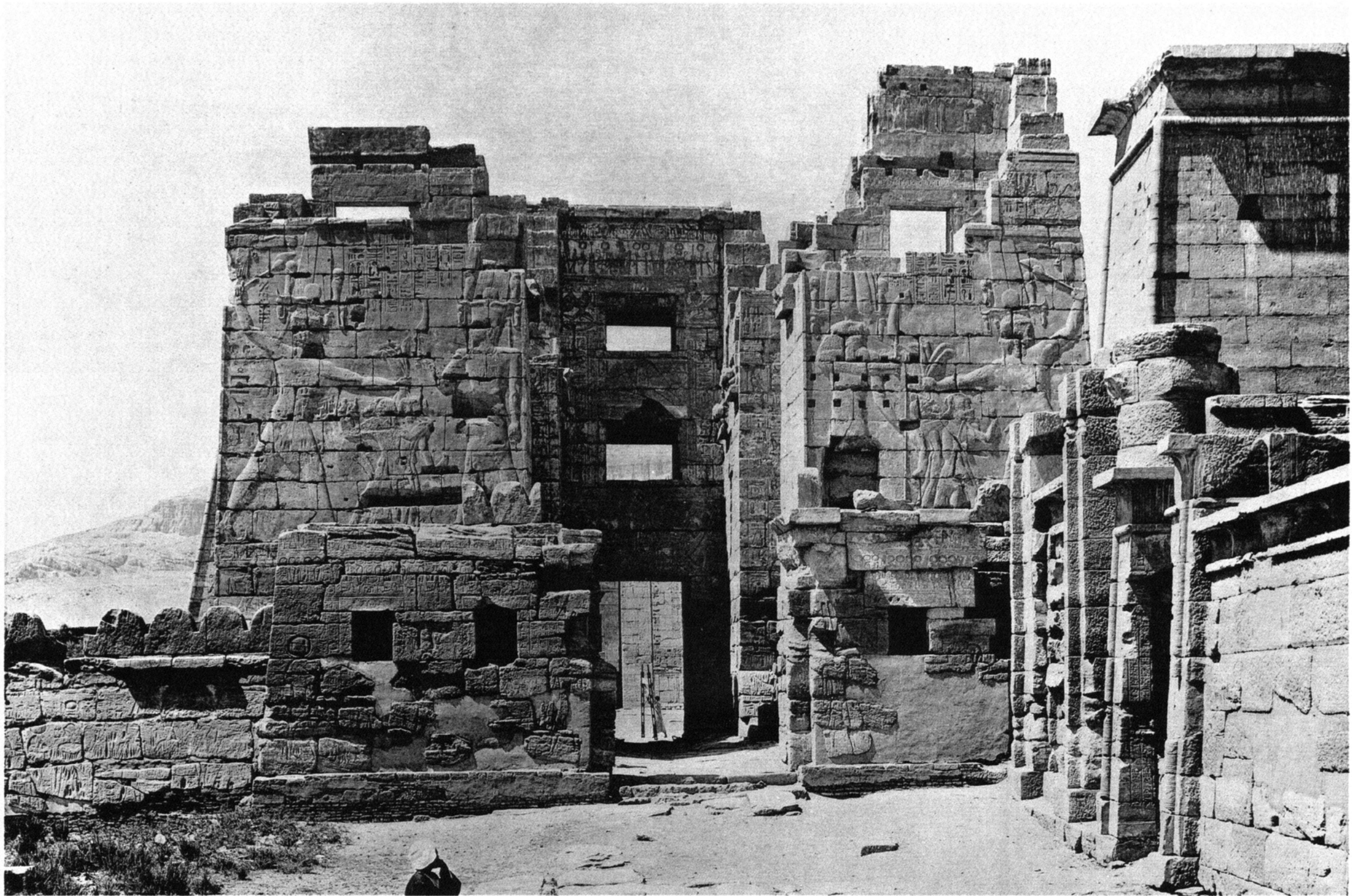


B

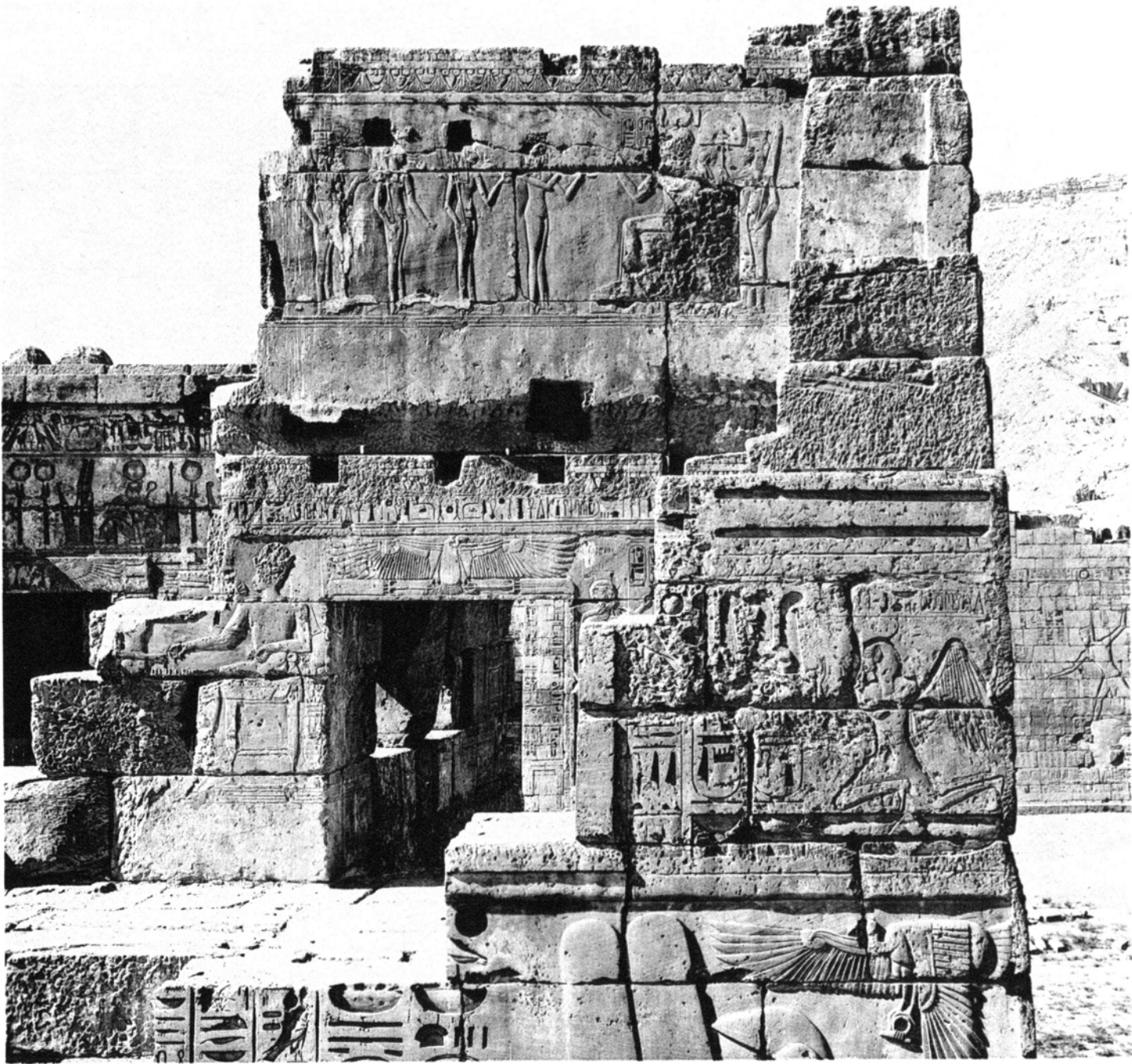
A. REMAINS OF THE STONE-PAVED EARLIER CAUSEWAY JUST INSIDE THE EASTERN FORTIFIED GATE, LOOKING WEST. B. THE QUAY, SEEN FROM THE SOUTHEAST

*A**B**C**D*

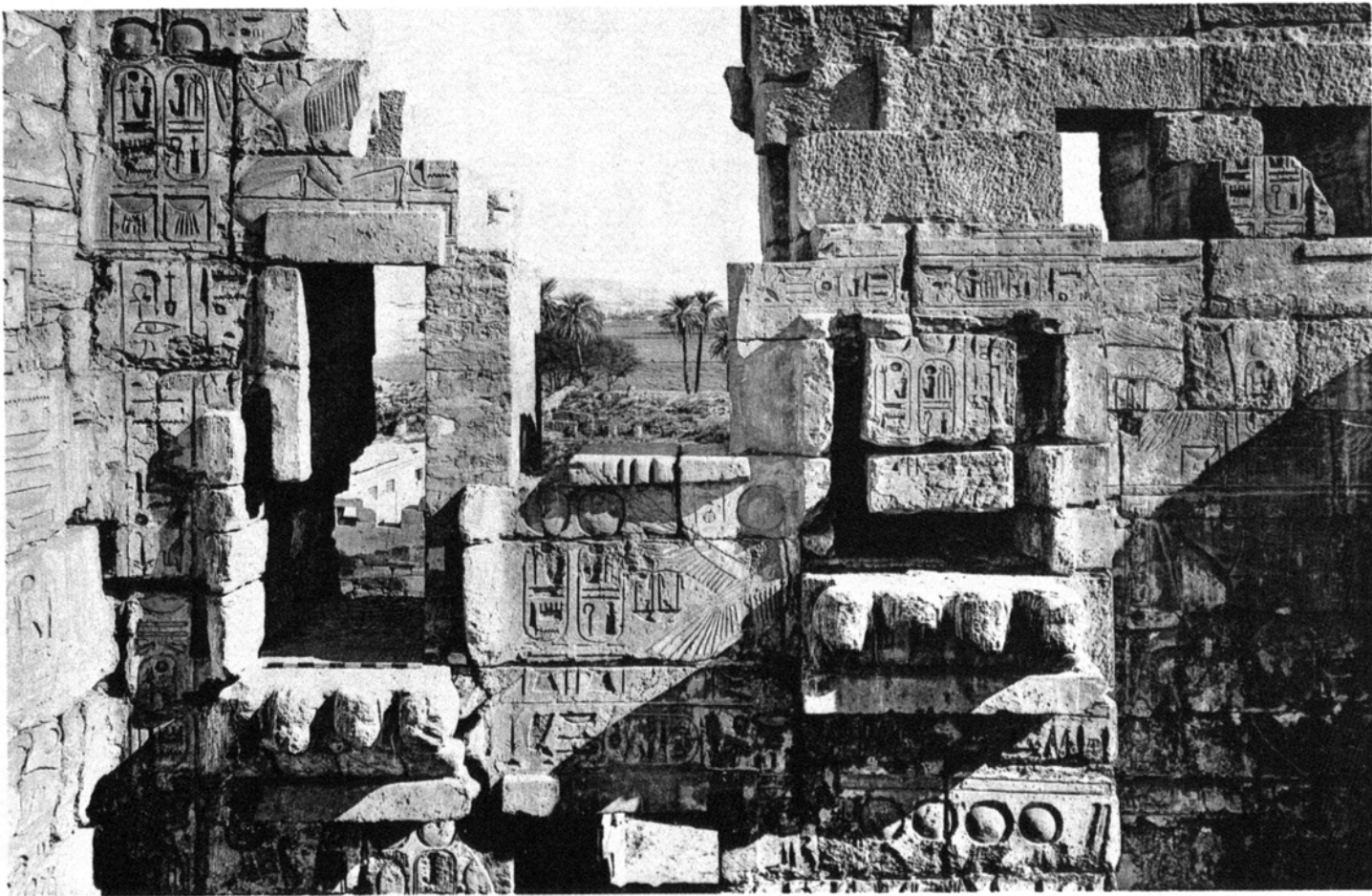
A. ROUNDED SOUTHWEST CORNER OF THE GREAT GIRDLE WALL. *B.* NORTH COURSE OF THE WALL, LOOKING SOUTHWEST. *C-D.* STELAE FOUND BESIDE THE WALL



THE EASTERN FORTIFIED GATE, SEEN FROM THE FRONT. PART OF SMALL TEMPLE OF MEDINET HABU VISIBLE AT RIGHT



A

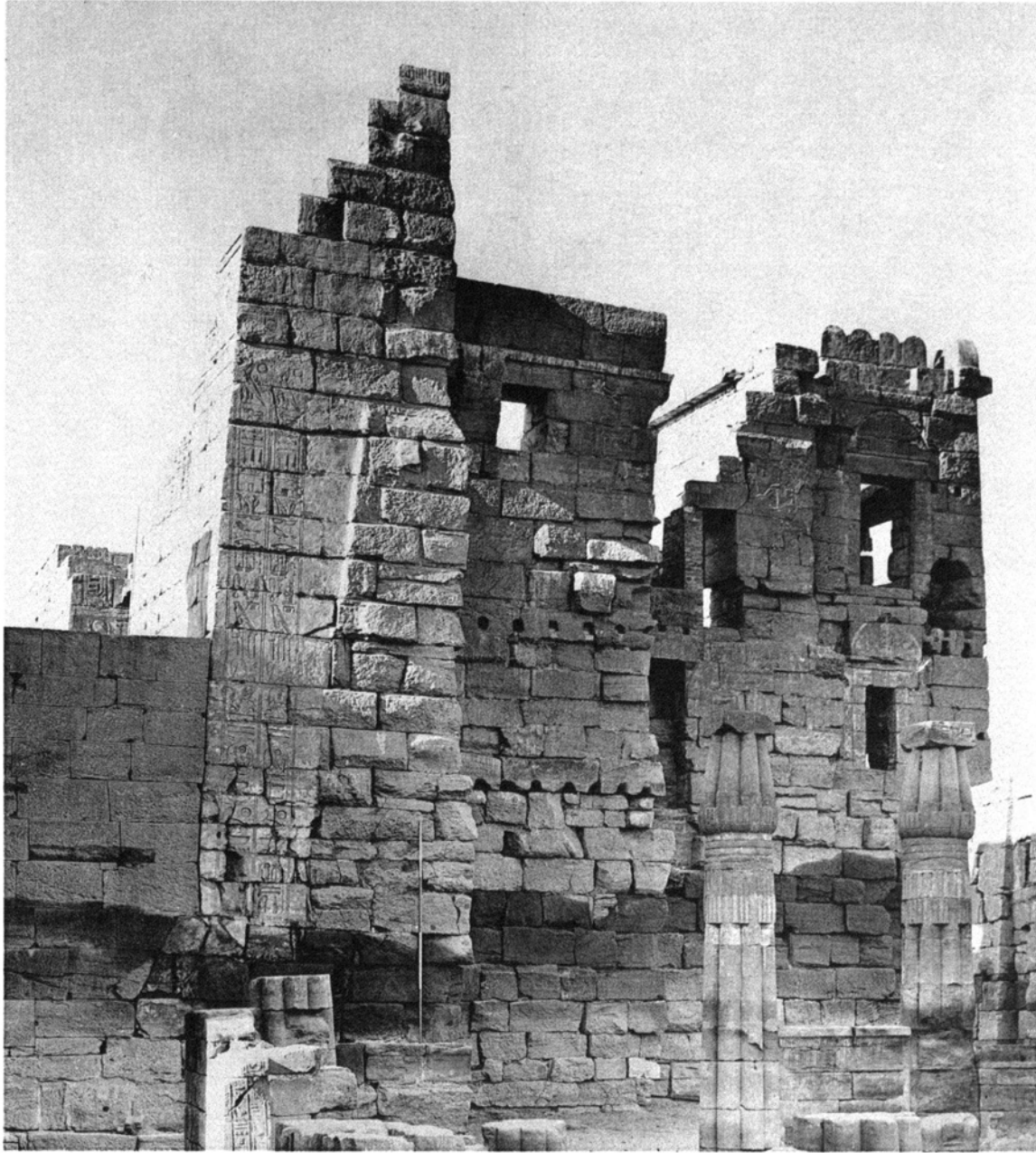
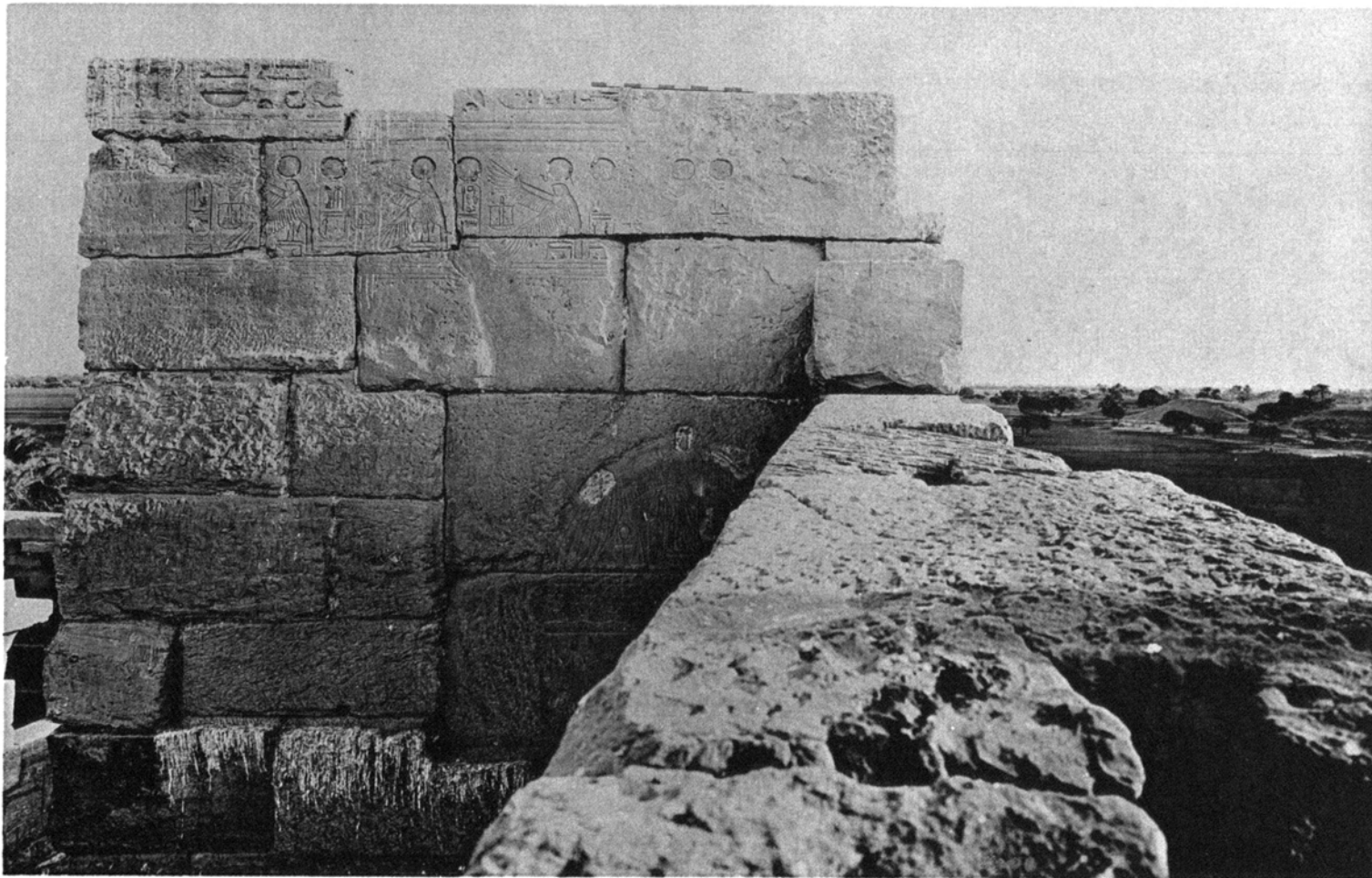


B

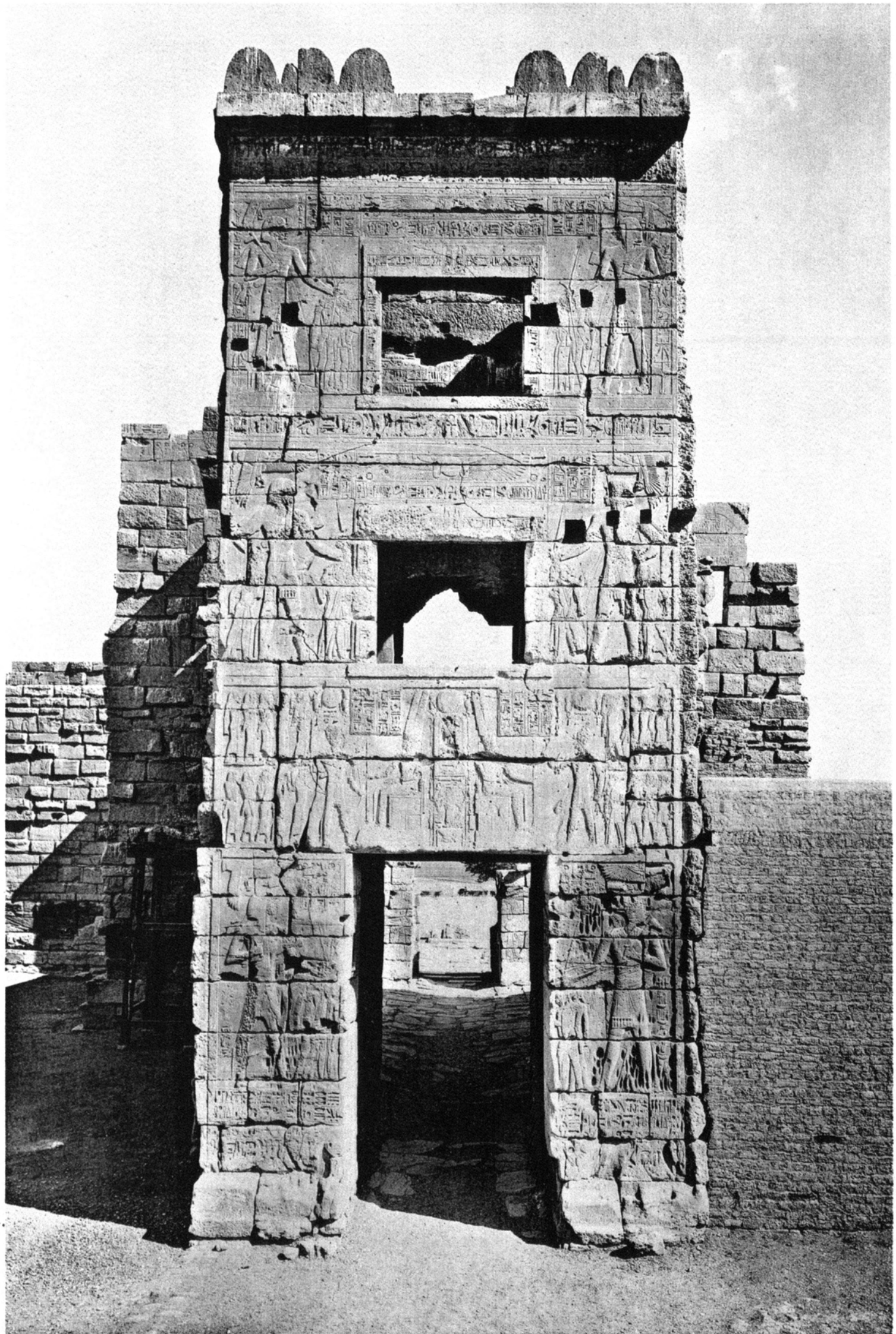
THE EASTERN FORTIFIED GATE. A. TOP OF NORTH TOWER, SEEN FROM THE EAST (CF. PL. 15).
B. NORTH SIDE OF COURT, UPPER PART OF LEFT HALF (CF. PL. 21 A)



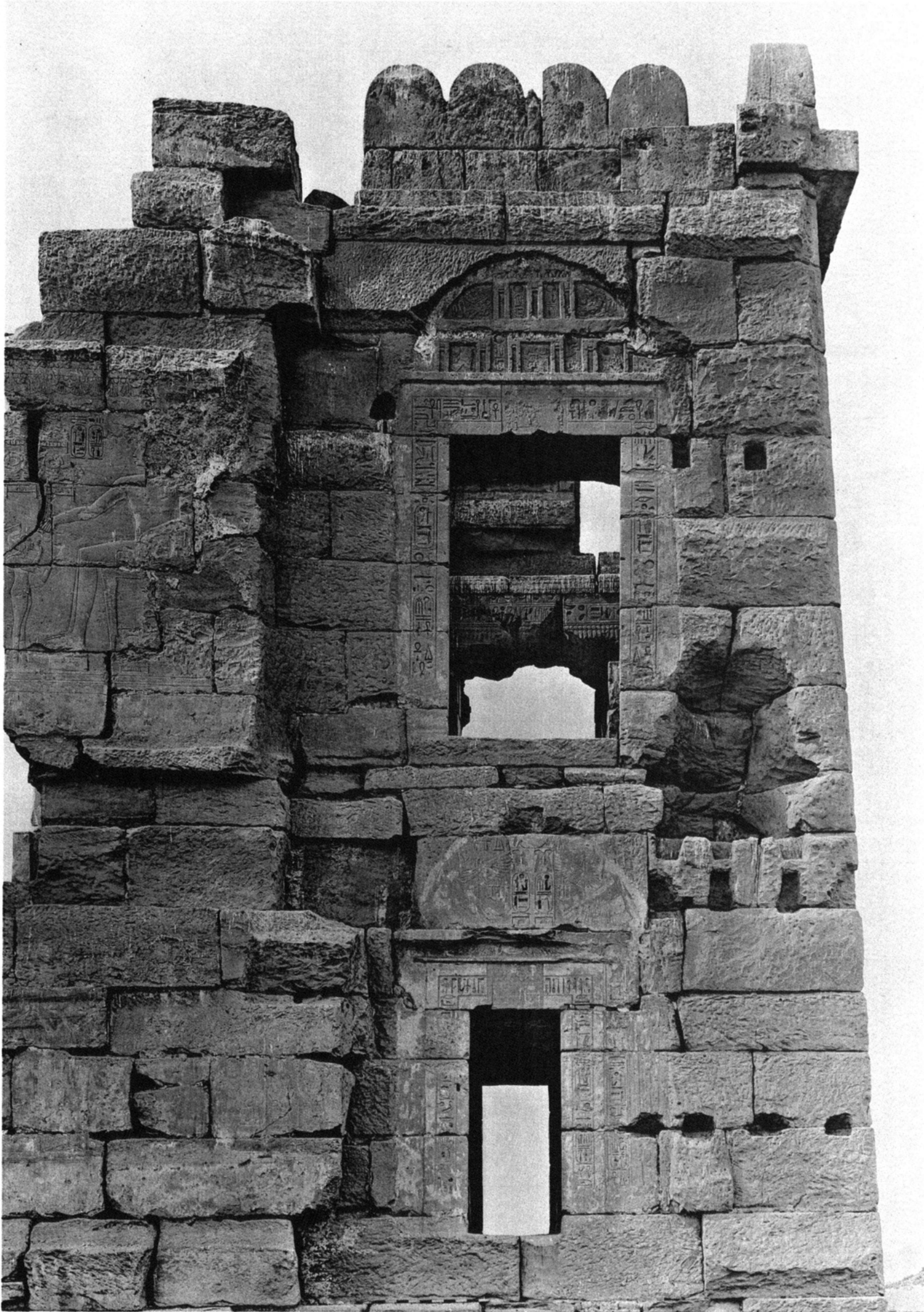
THE EASTERN FORTIFIED GATE, SEEN FROM THE SOUTH

*A**B*

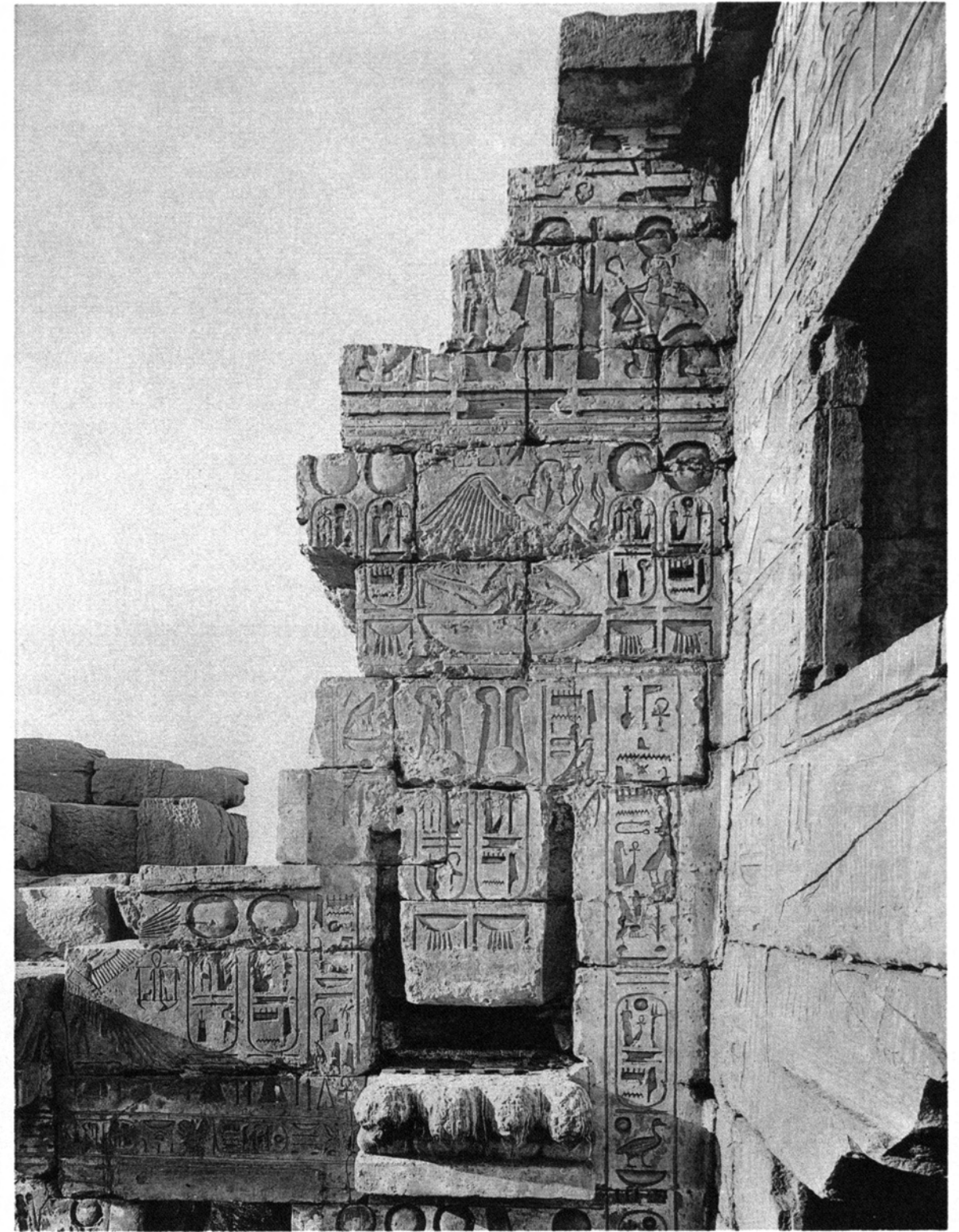
THE EASTERN FORTIFIED GATE. *A.* VIEW FROM THE NORTH. *B.* TOP OF
NORTH TOWER, SEEN FROM THE WEST



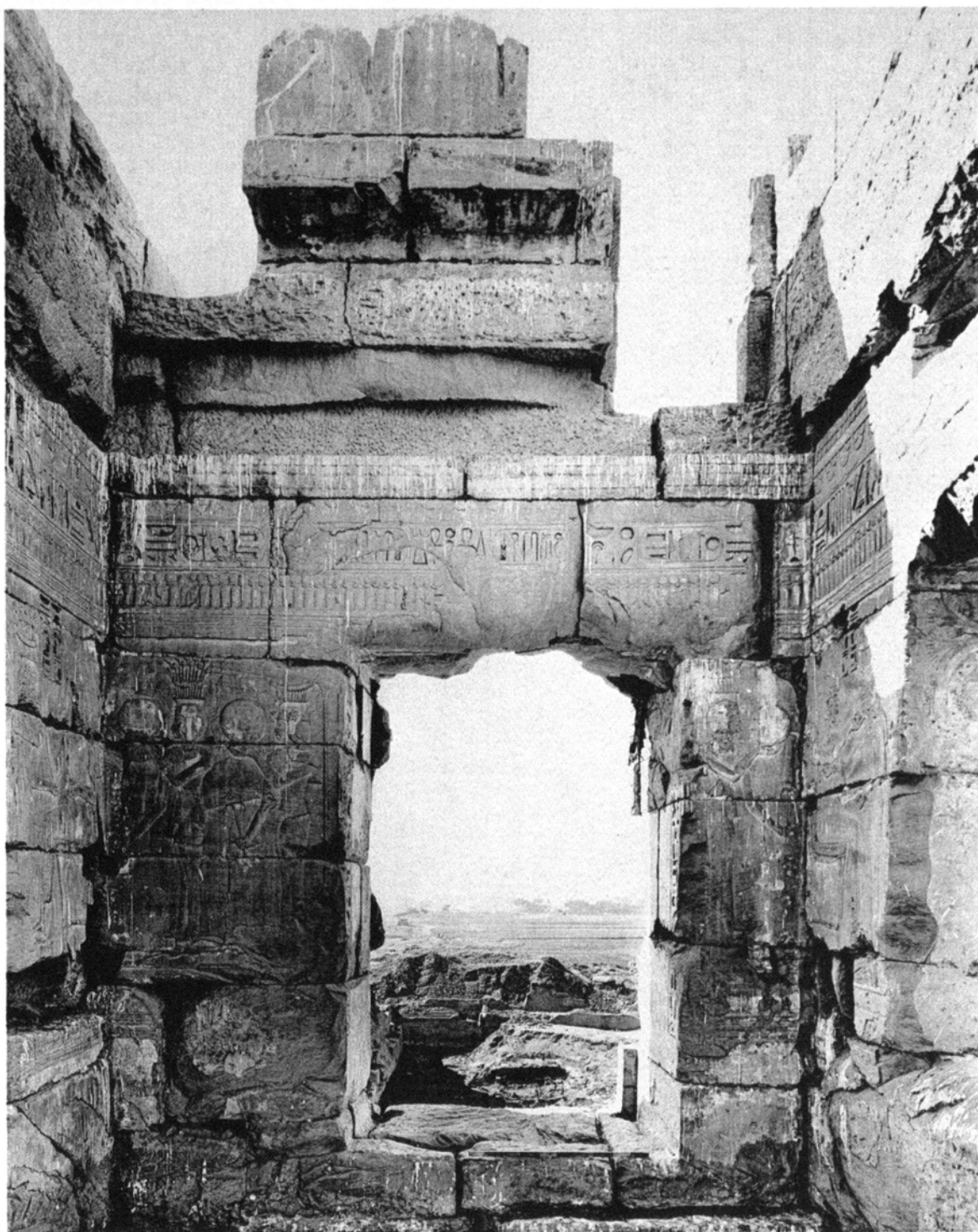
THE EASTERN FORTIFIED GATE, SEEN FROM THE WEST



THE EASTERN FORTIFIED GATE. DETAIL OF NORTH SIDE (CF. PL. 18 *A*)

*A**B*

THE EASTERN FORTIFIED GATE. *A*. NORTH SIDE OF COURT, UPPER PART OF RIGHT HALF (CF. PL. 16*B*).
B. SOUTH SIDE OF COURT, UPPER PART OF RIGHT HALF

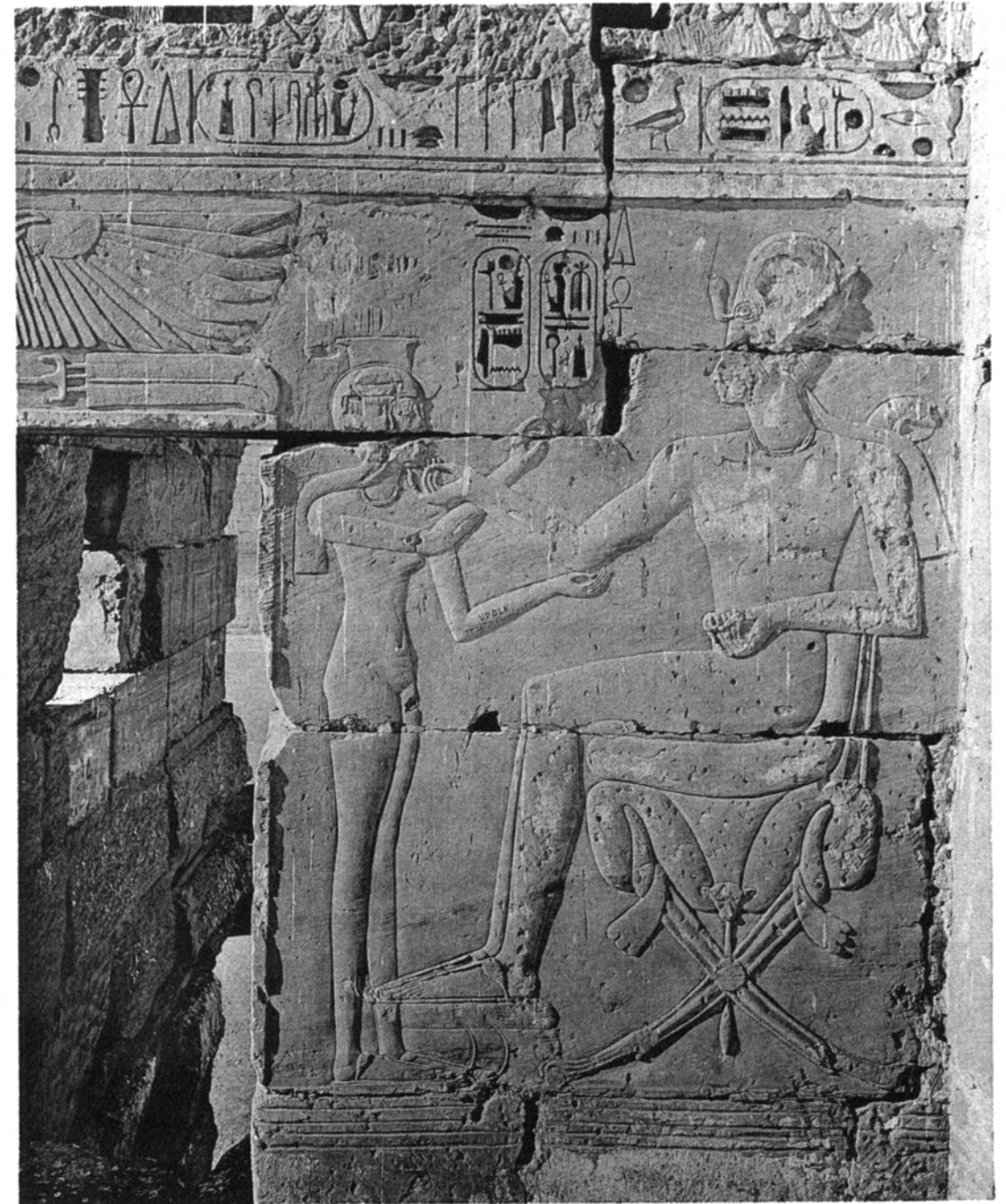
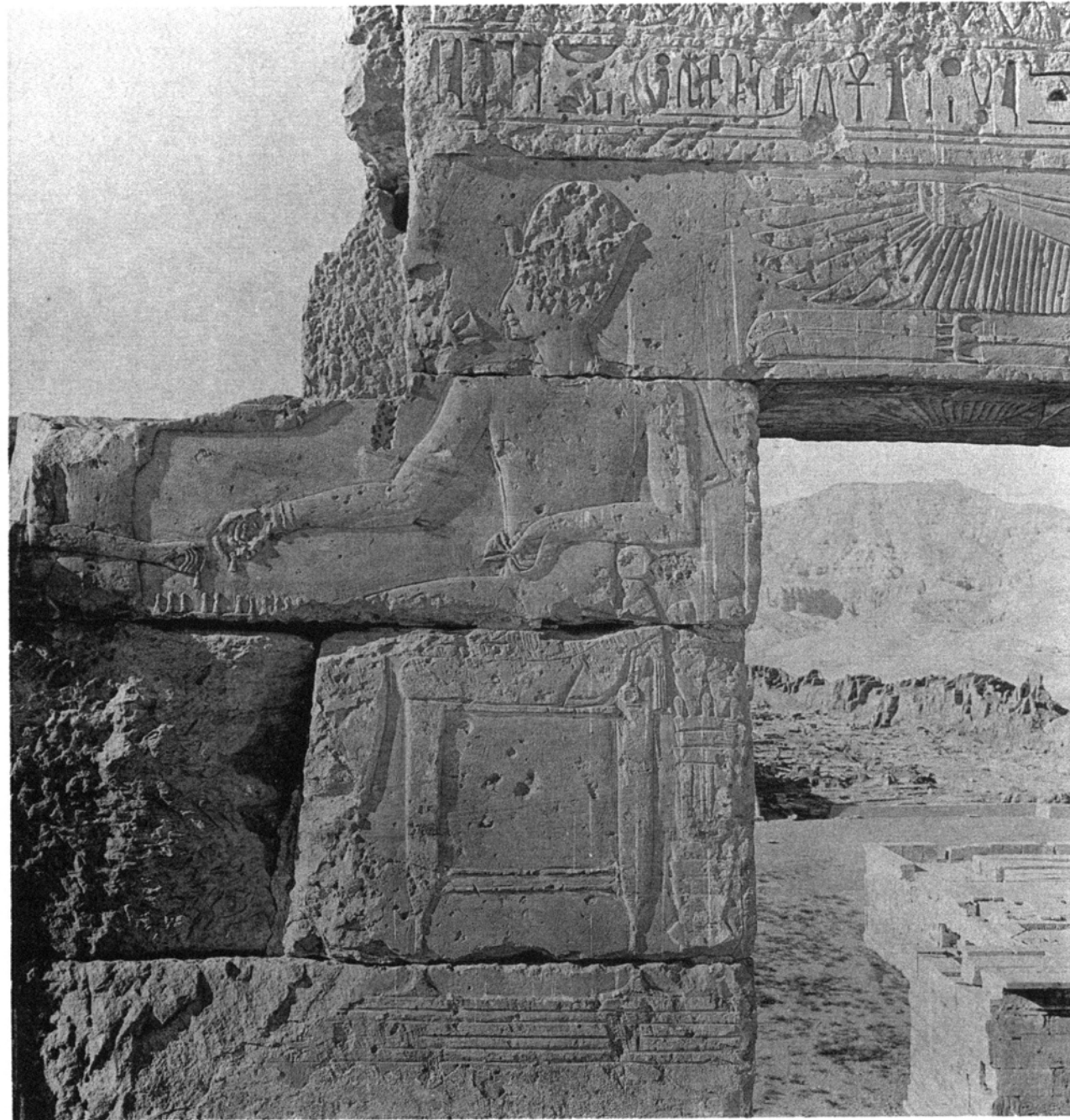


A

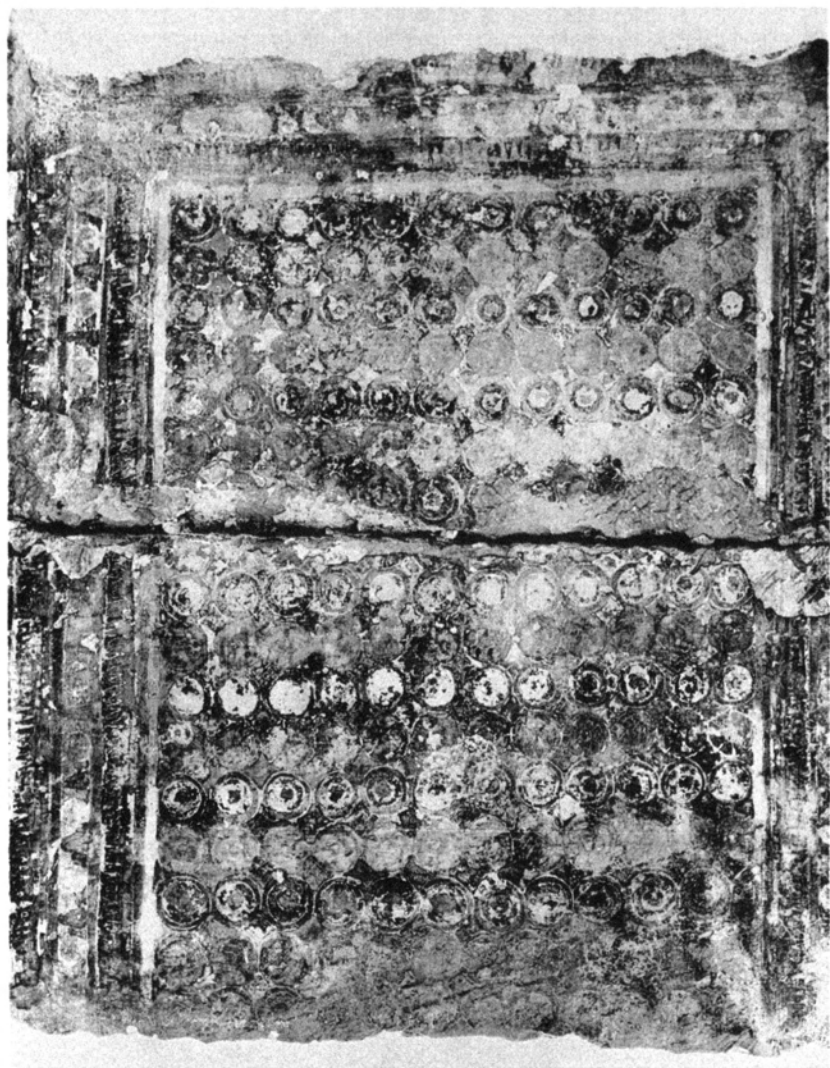
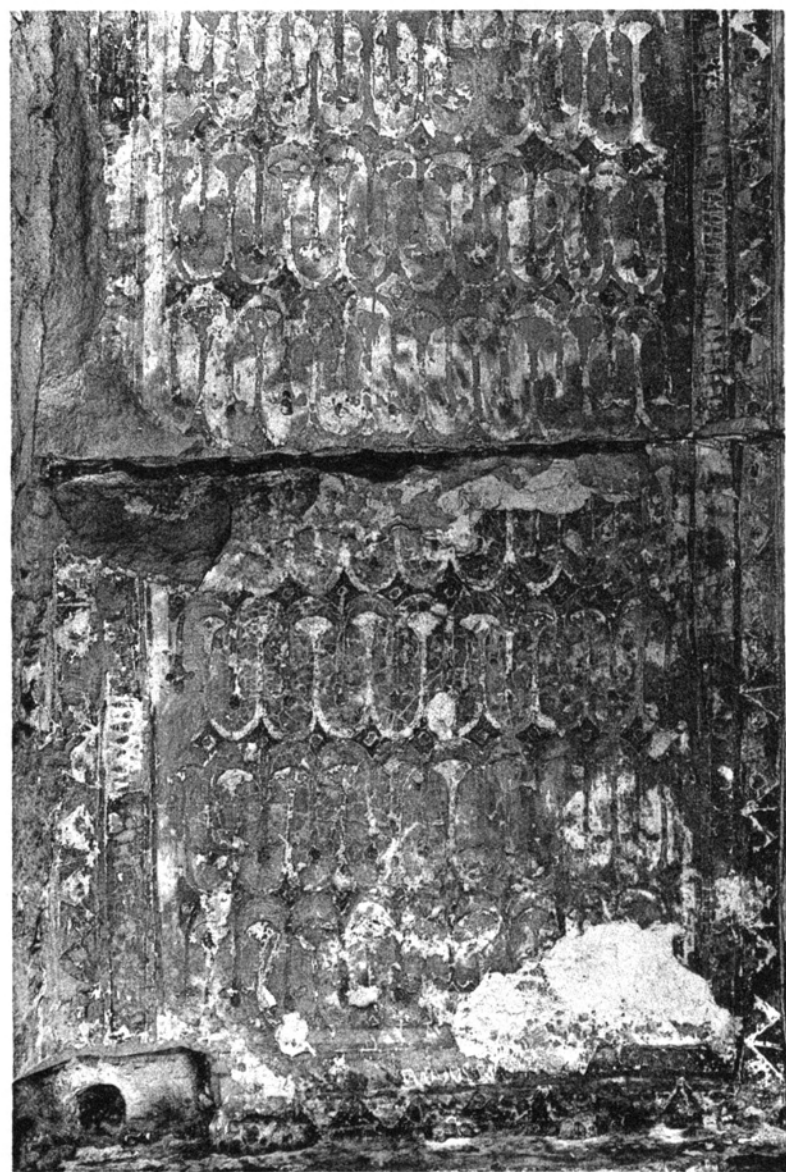
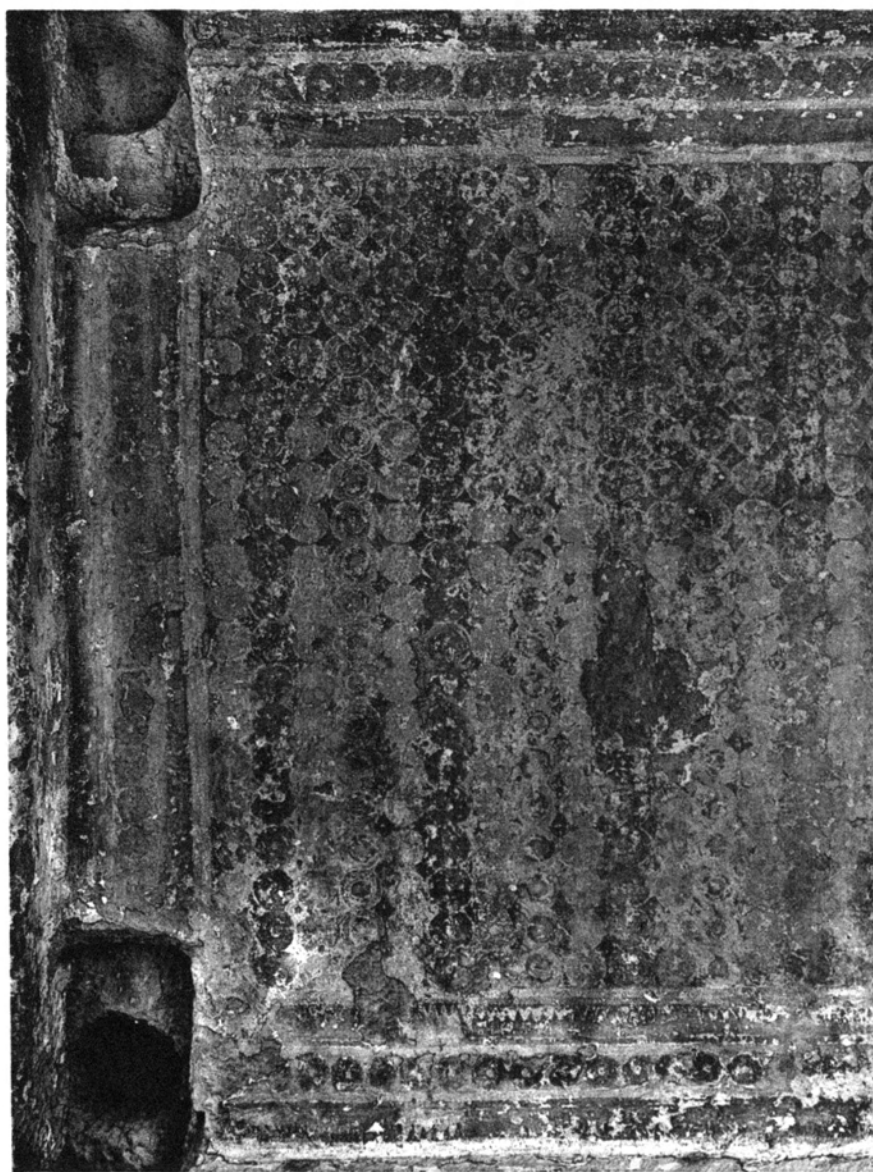


B

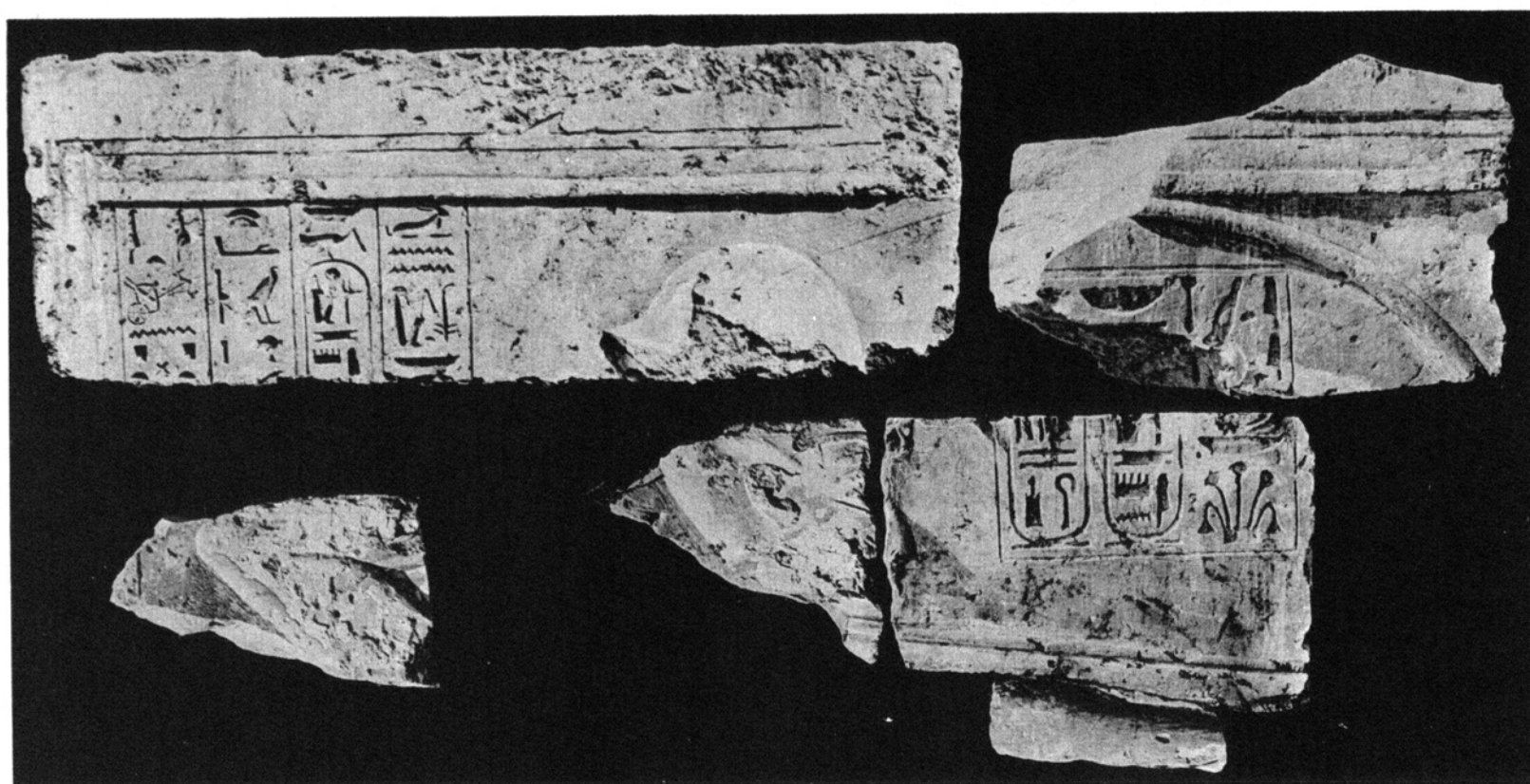
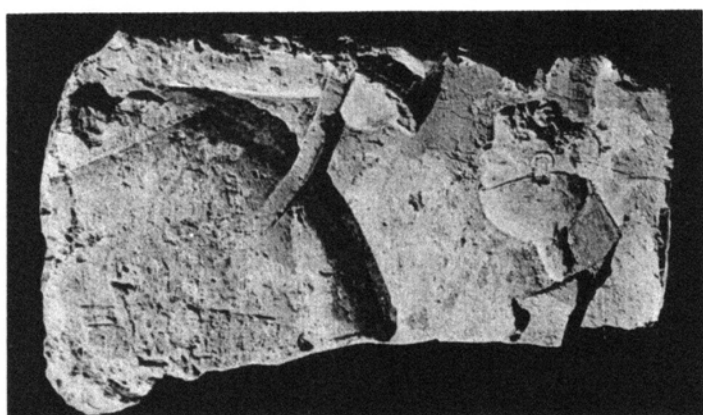
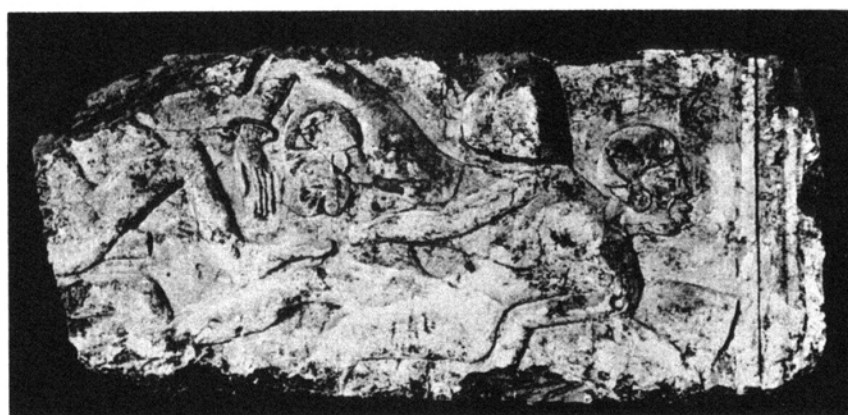
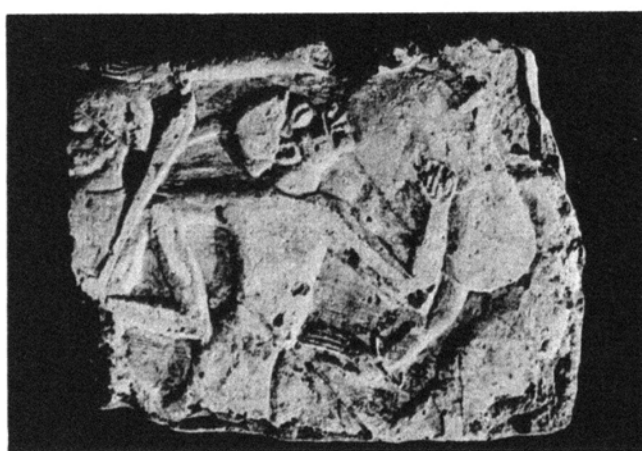
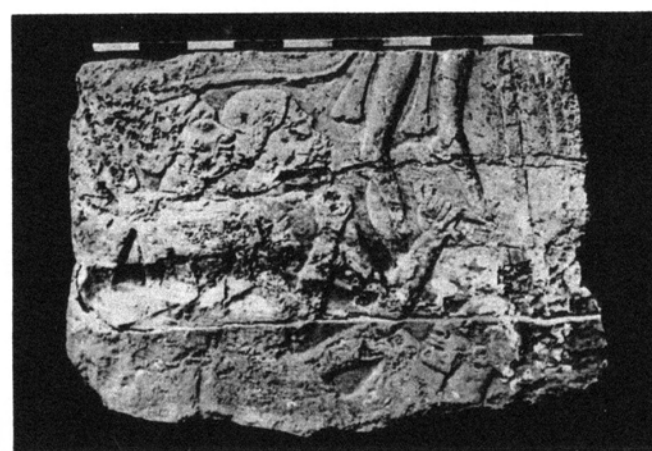
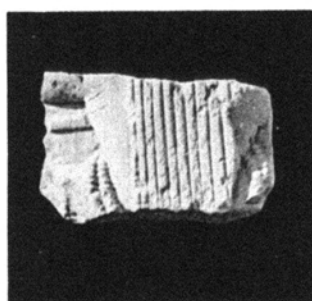
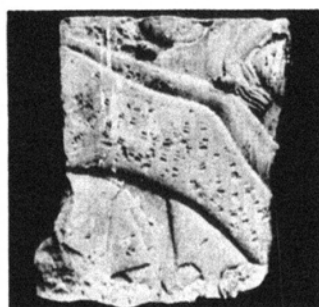
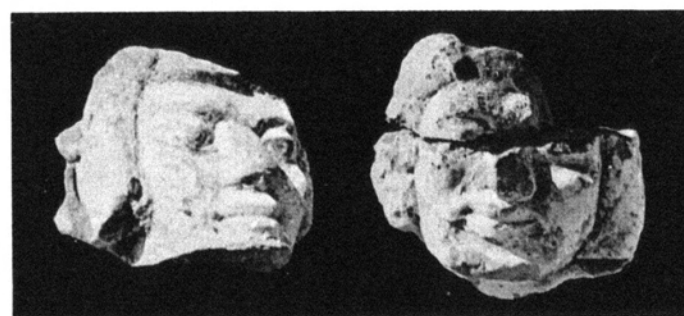
THE EASTERN FORTIFIED GATE. CENTER ROOM OF THIRD FLOOR, LOOKING
(A) SOUTH AND (B) WEST



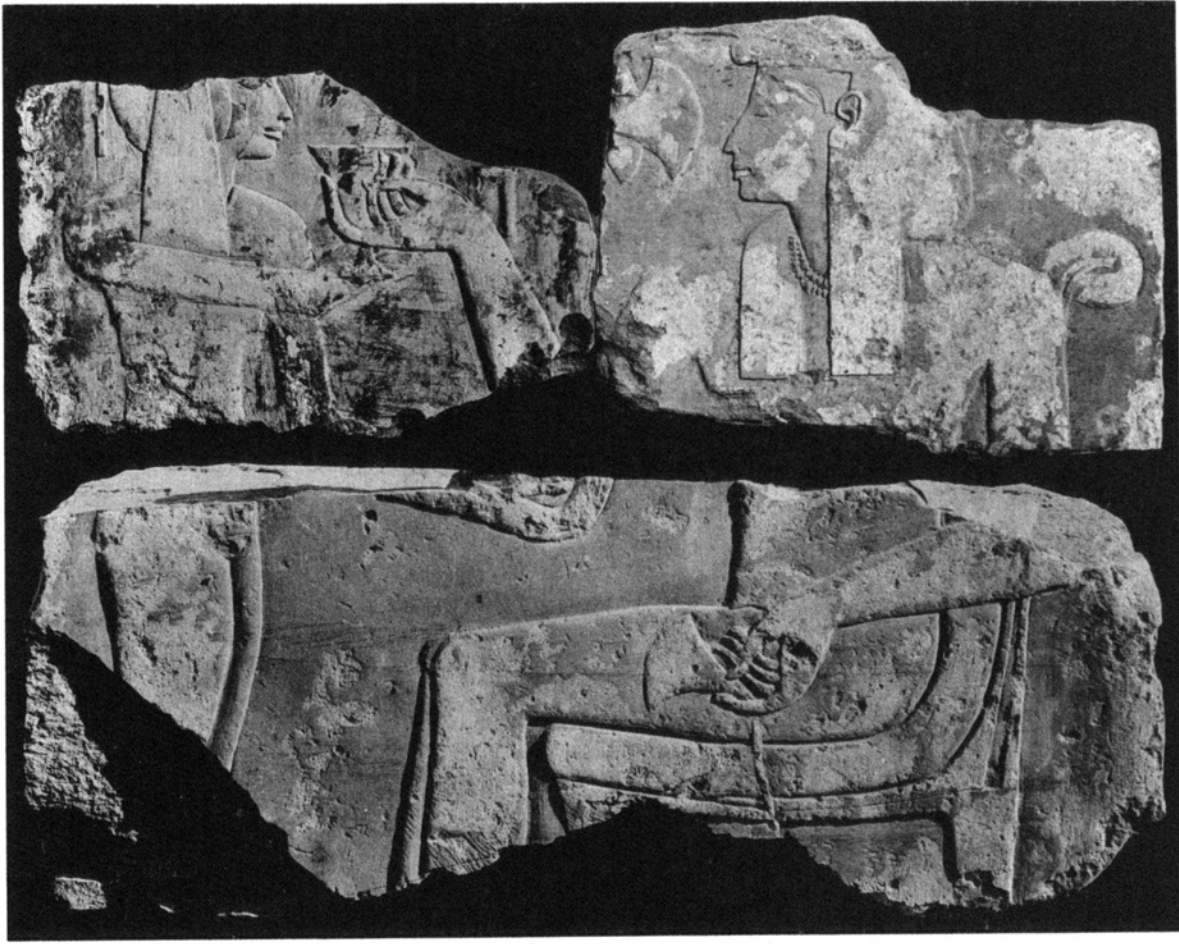
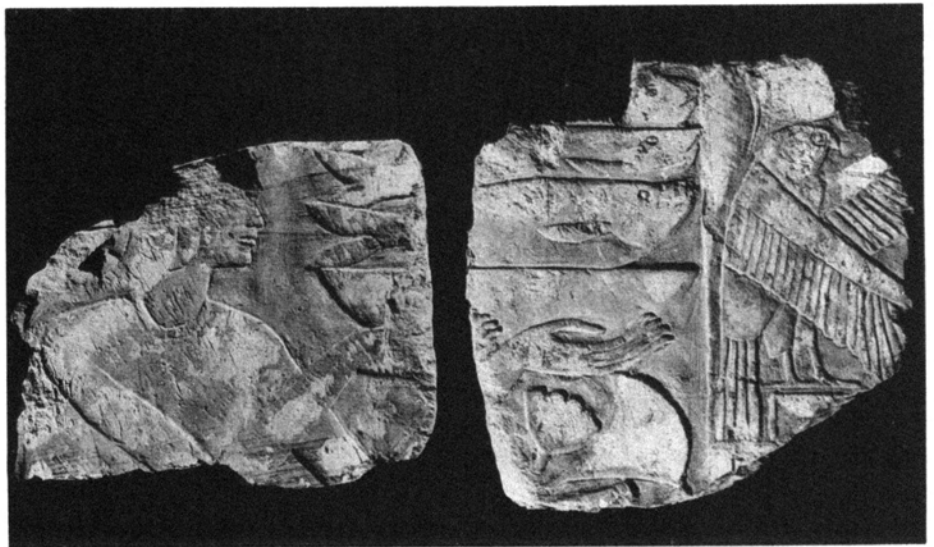
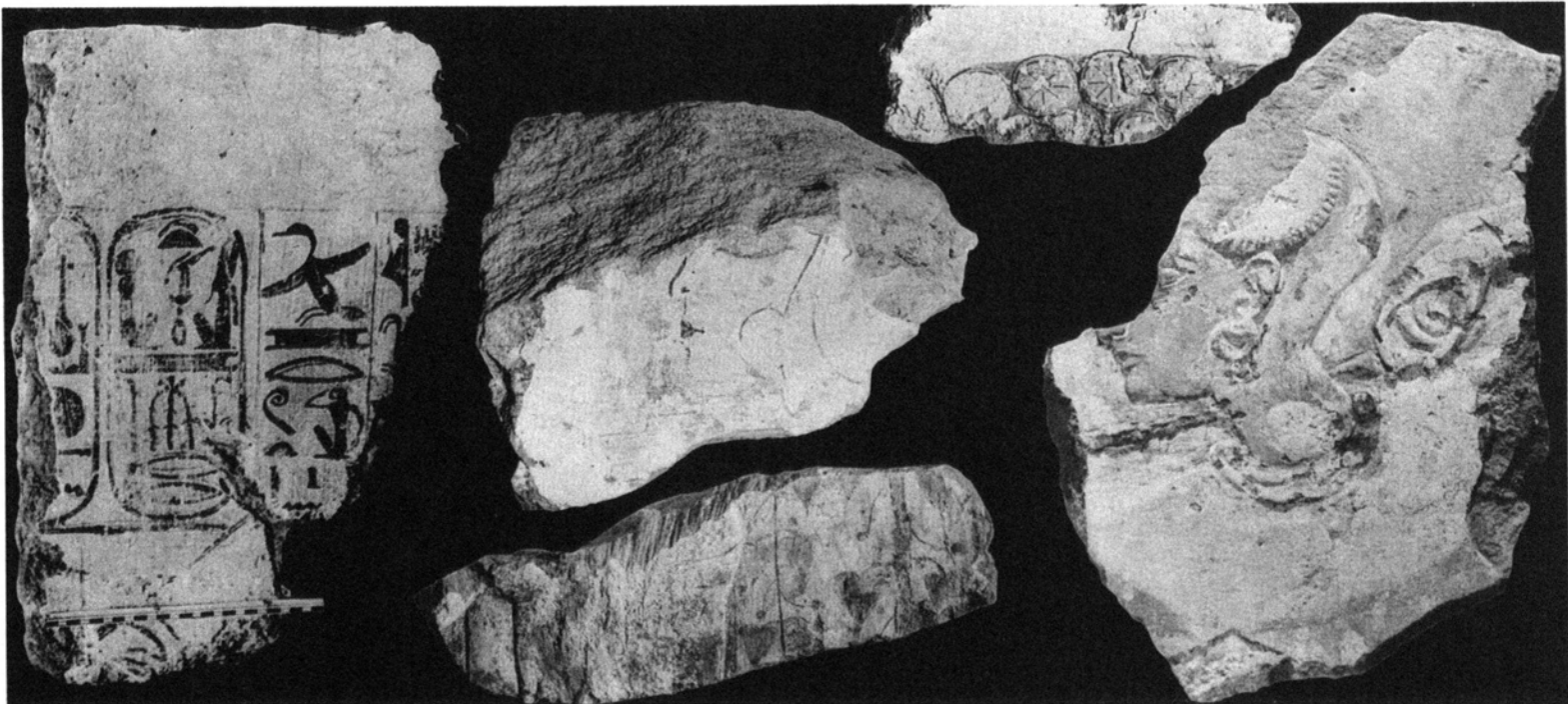
THE EASTERN FORTIFIED GATE. NORTH TOWER. WEST WALL OF FRONT ROOM OF THIRD FLOOR (CF. PL. 16 *A*)

*A**B**C**D*

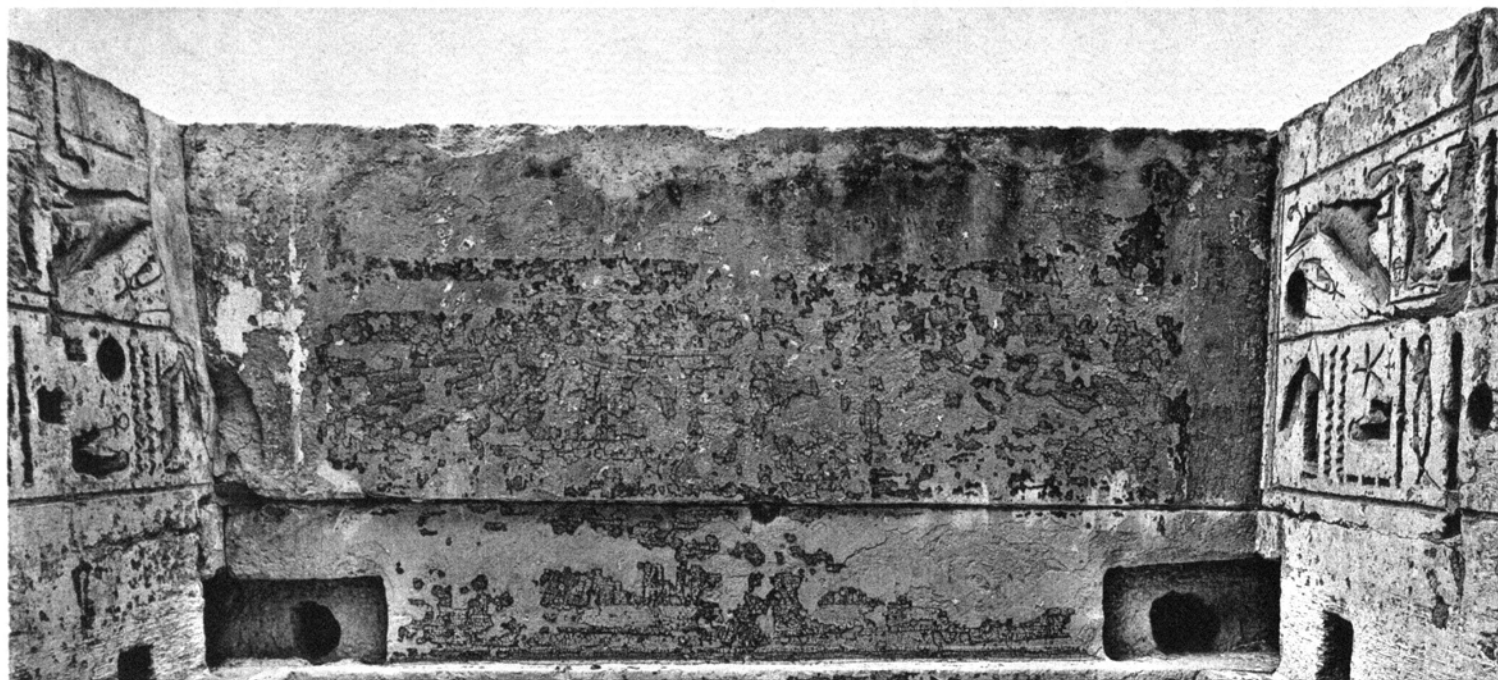
THE EASTERN FORTIFIED GATE. PAINTED CEILINGS OF WINDOW NICHES (*A*) IN ROOM 7_n, (*B*) IN ROOM 8_n, (*C*) IN ROOM 6_n, WEST WINDOW, AND (*D*) IN ROOM 3_s. SCALE, ABOUT 1:10

*A**B**C**D**E**F**G**H*

THE WESTERN FORTIFIED GATE. *A-G*. RELIEF FRAGMENTS FROM FRONT OF SOUTH TOWER.
SCALE, 1:15. *H*. SCULPTURED HEADS OF VANQUISHED ENEMIES

*A**B**C**D**E-F**G**H*

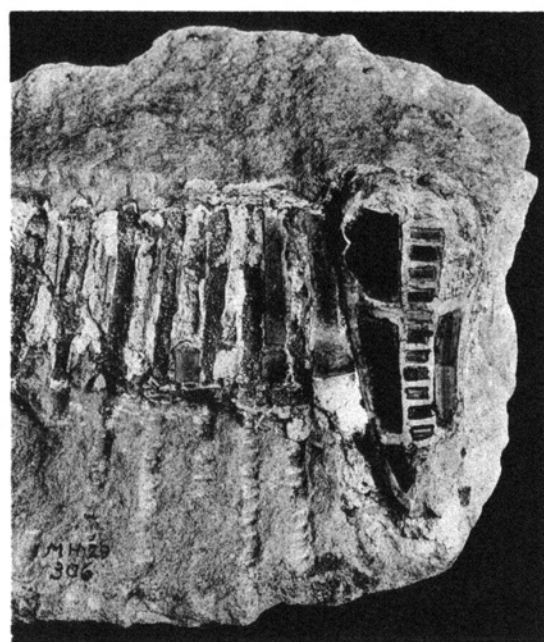
THE WESTERN FORTIFIED GATE. FRAGMENTS OF RELIEFS AND PAINTINGS FROM THE INTERIOR WALLS



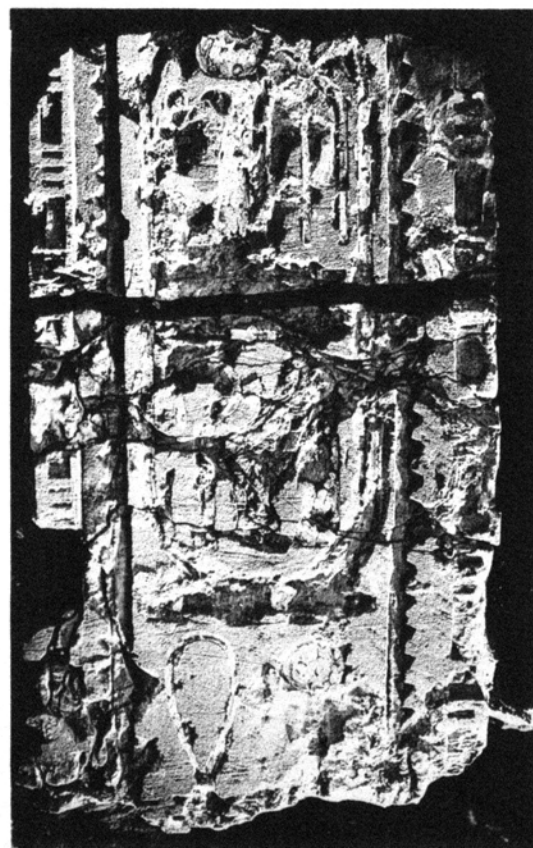
A



B

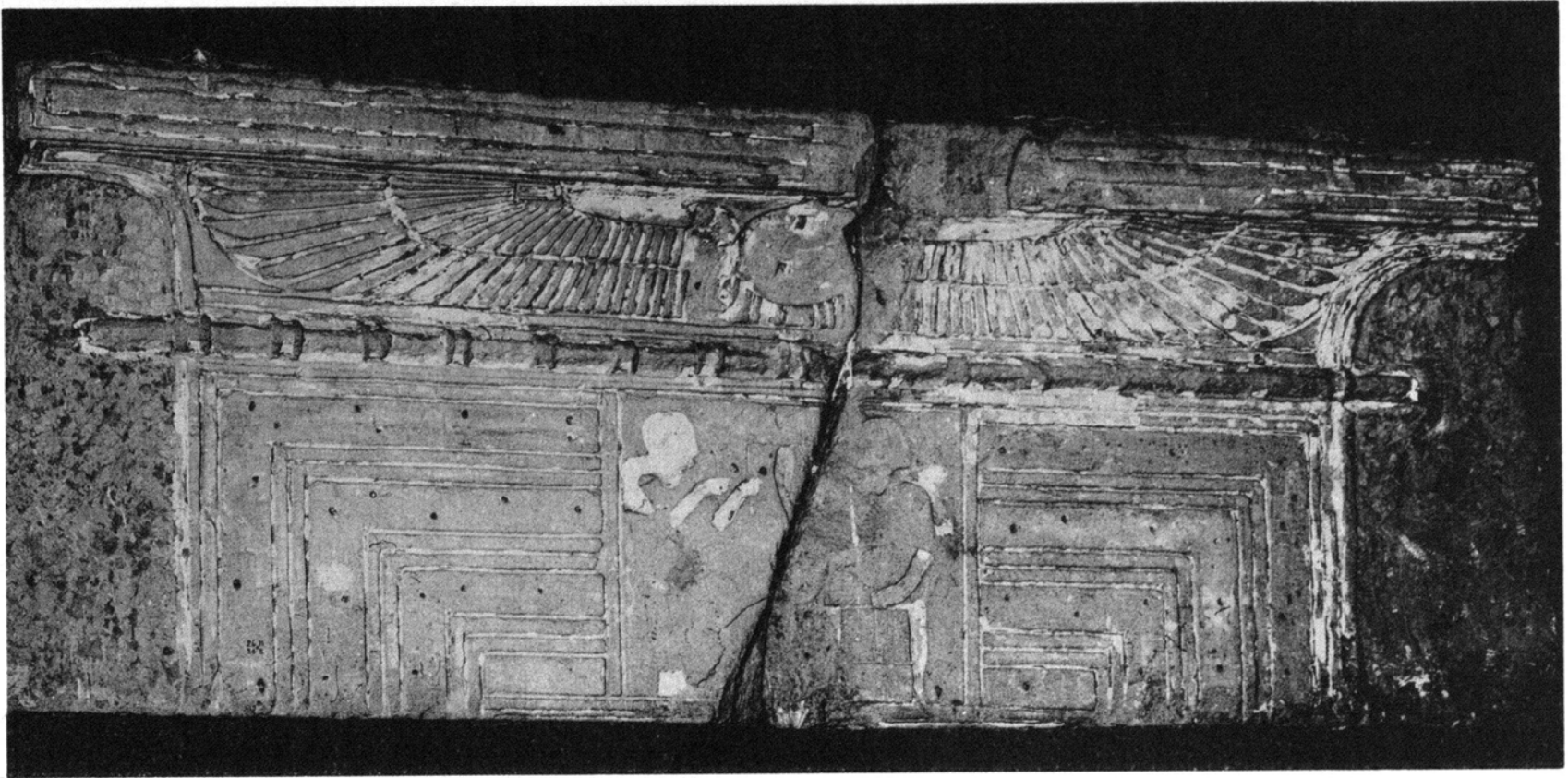


C



D

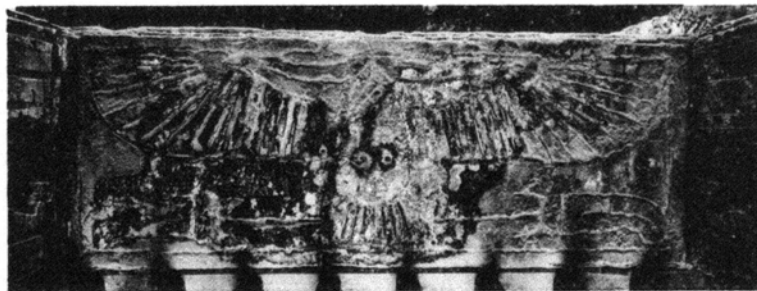
A. SOFFIT OF LINTEL IN ENTRANCE TO THE GREAT HYPOSTYLE HALL, SHOWING REMAINS OF CARVED AND PAINTED GESSO. B. RIGHT JAMB OF SAME DOORWAY. C. CAVETTO CORNICE FRAGMENT, SHOWING INLAYS SET IN CELLS FORMED BY WOODEN "CLOISONS" (CF. PLS. 38 b AND 5). CHICAGO 15994. D. DOORJAMB FRAGMENTS



A



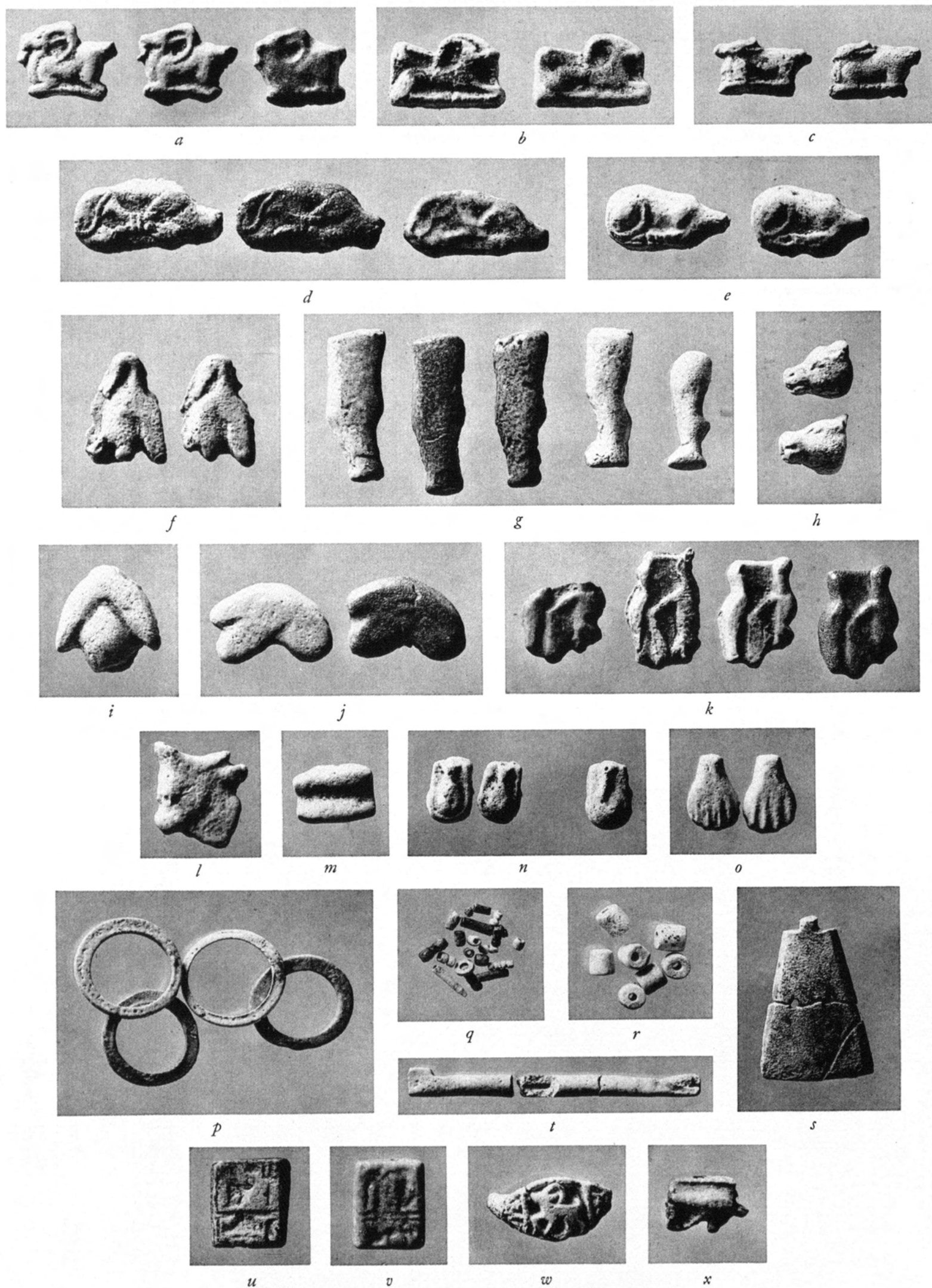
B



C

A. LINTEL FROM THE SECOND PALACE, WITH REMAINS OF INLAIS SET IN CELLS FORMED BY WOODEN "CLOISONS" (SEE PL. 39 AND FIG. 52). B. LINTEL OF RIGHT ENTRANCE TO PALACE (CF. PL. 5).
C. SOFFIT OF B, WITH INLAIS SET IN CELLS

PLATE 29



FOUNDATION GIFTS OF RAMSES III. ACTUAL SIZE



Printed in Germany by Ganymed, Berlin

a



b

FOREIGN PRISONER TILES, (a) LIBYAN AND (b) SYRIAN



Printed in Germany by Ganymed, Berlin

a



b

FOREIGN PRISONER TILES, (a) HITTITE IN LIBYAN COSTUME AND (b) A NORTHERNER



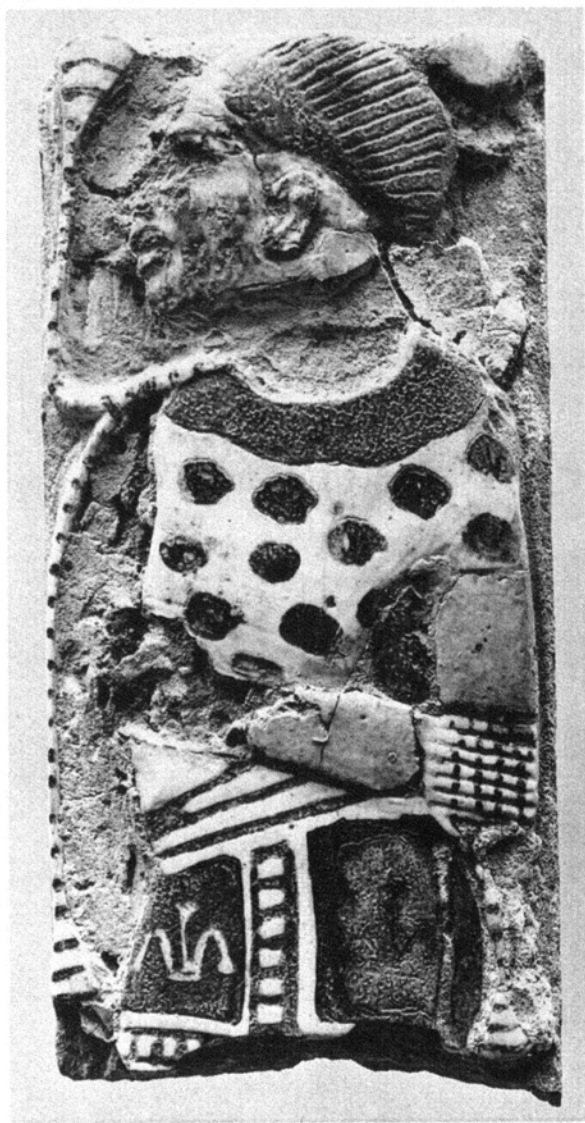
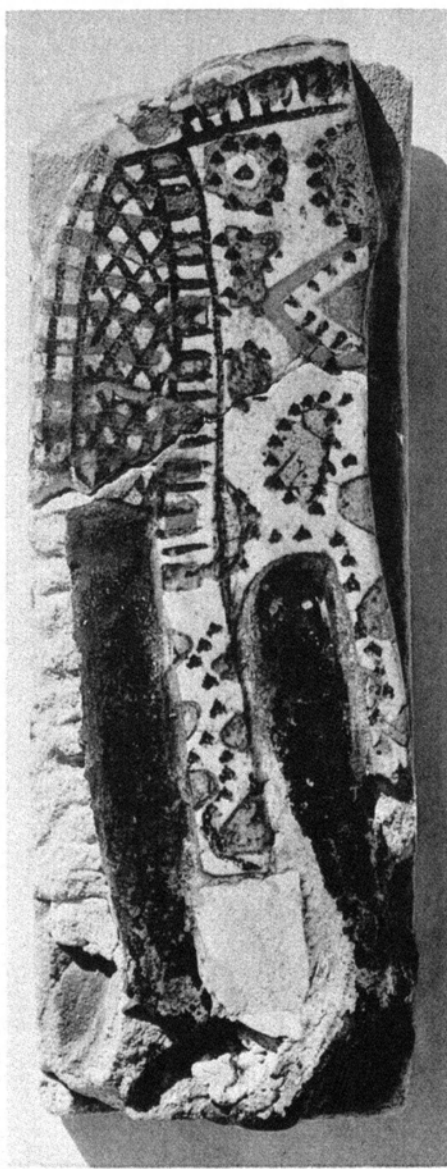
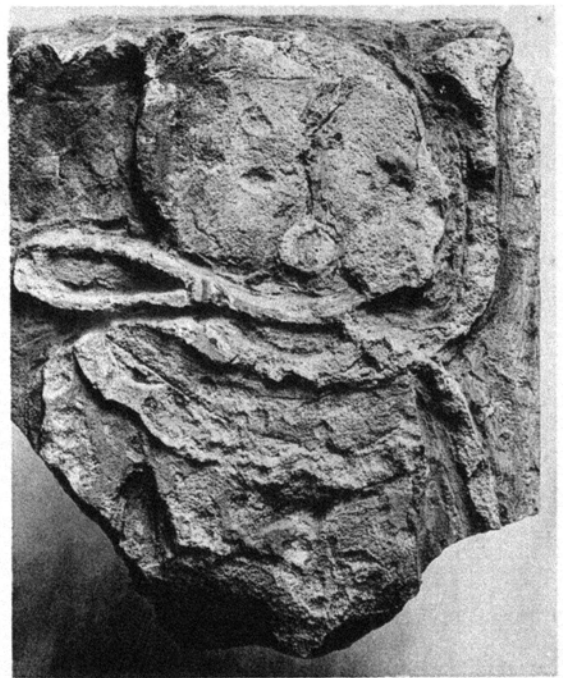
Printed in Germany by Ganymed, Berlin

a

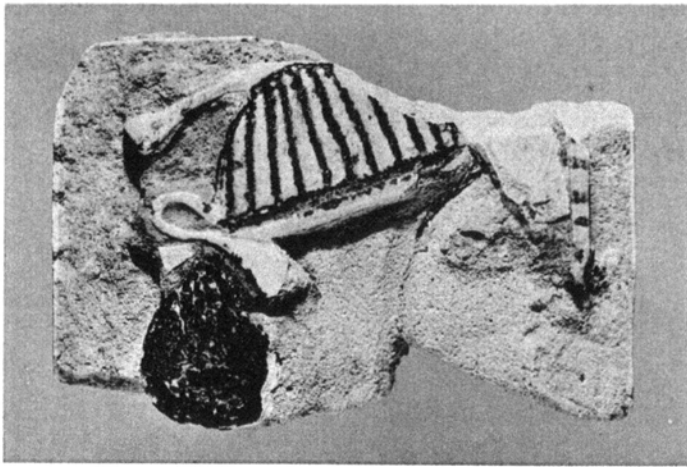
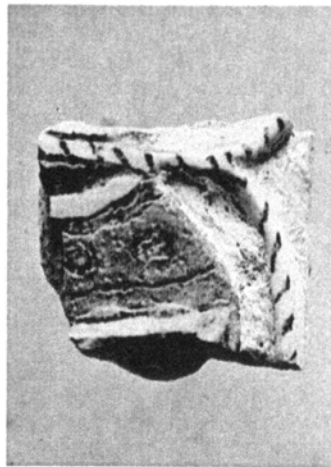
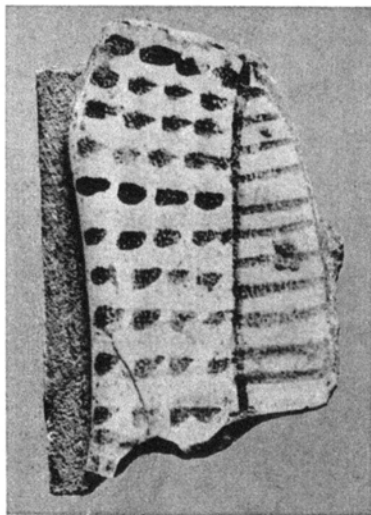
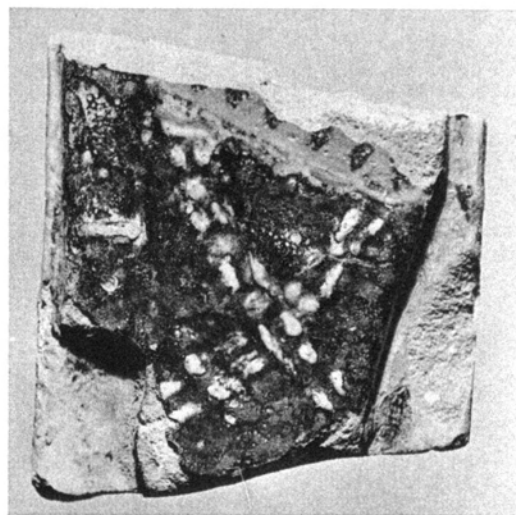
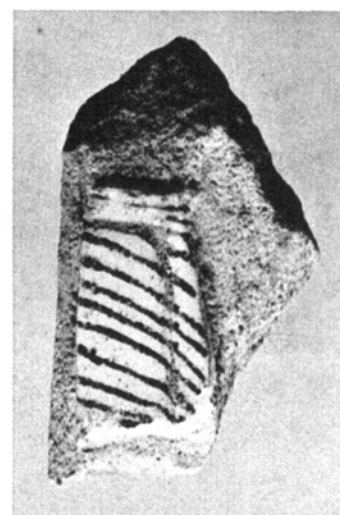
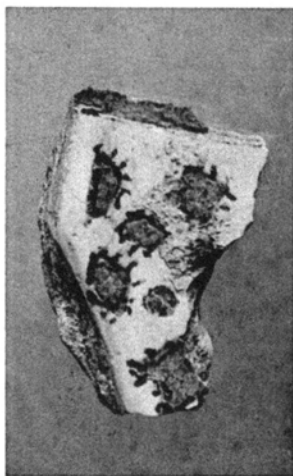
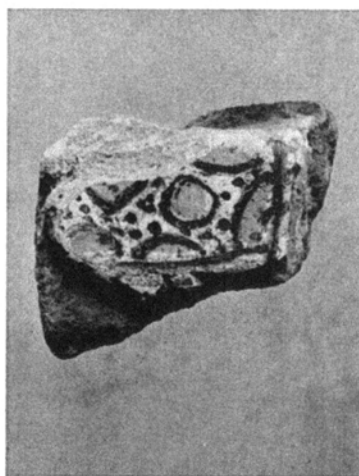
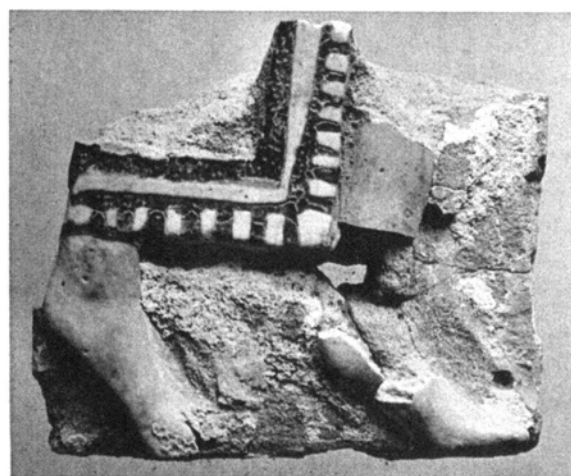
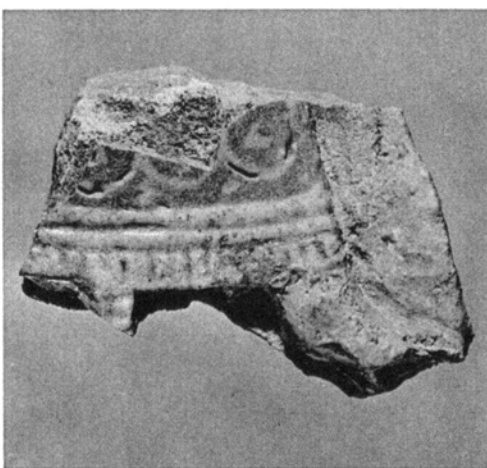
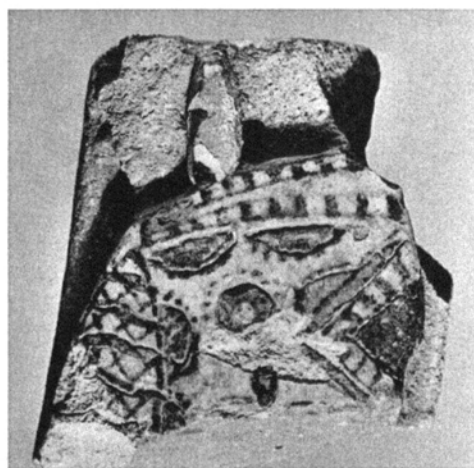
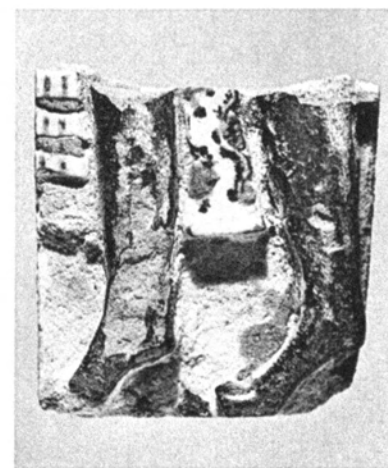


b

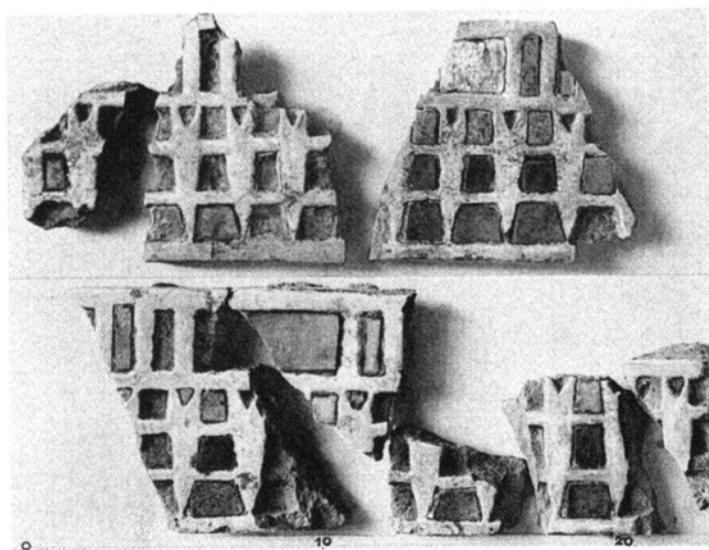
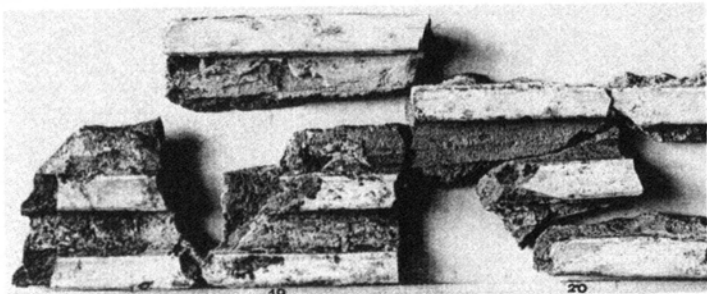
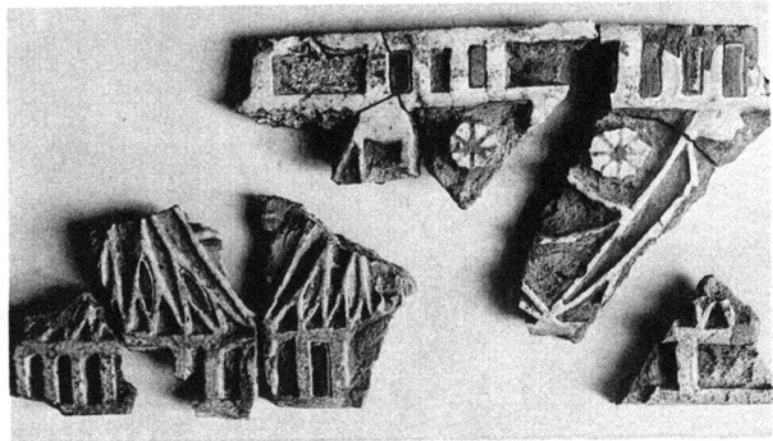
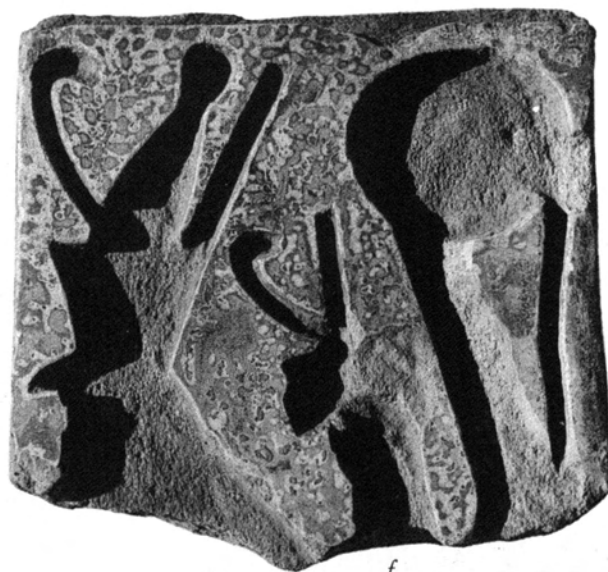
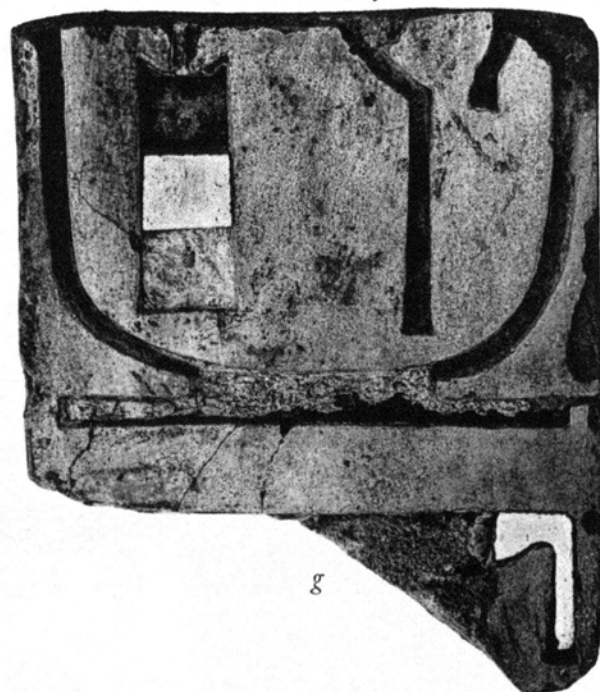
FOREIGN PRISONER TILES, (a) NEGRO AND (b) A NORTHERNER (SEE PL. 33 a)

*a**b**c**e-f**d**g*

FRAGMENTS OF FOREIGN PRISONER TILES. SCALE, 4:5 (*a-f*) AND 2:5 (*g*)

*h**i**j**k**l**m**n**o**p**q**r**s*

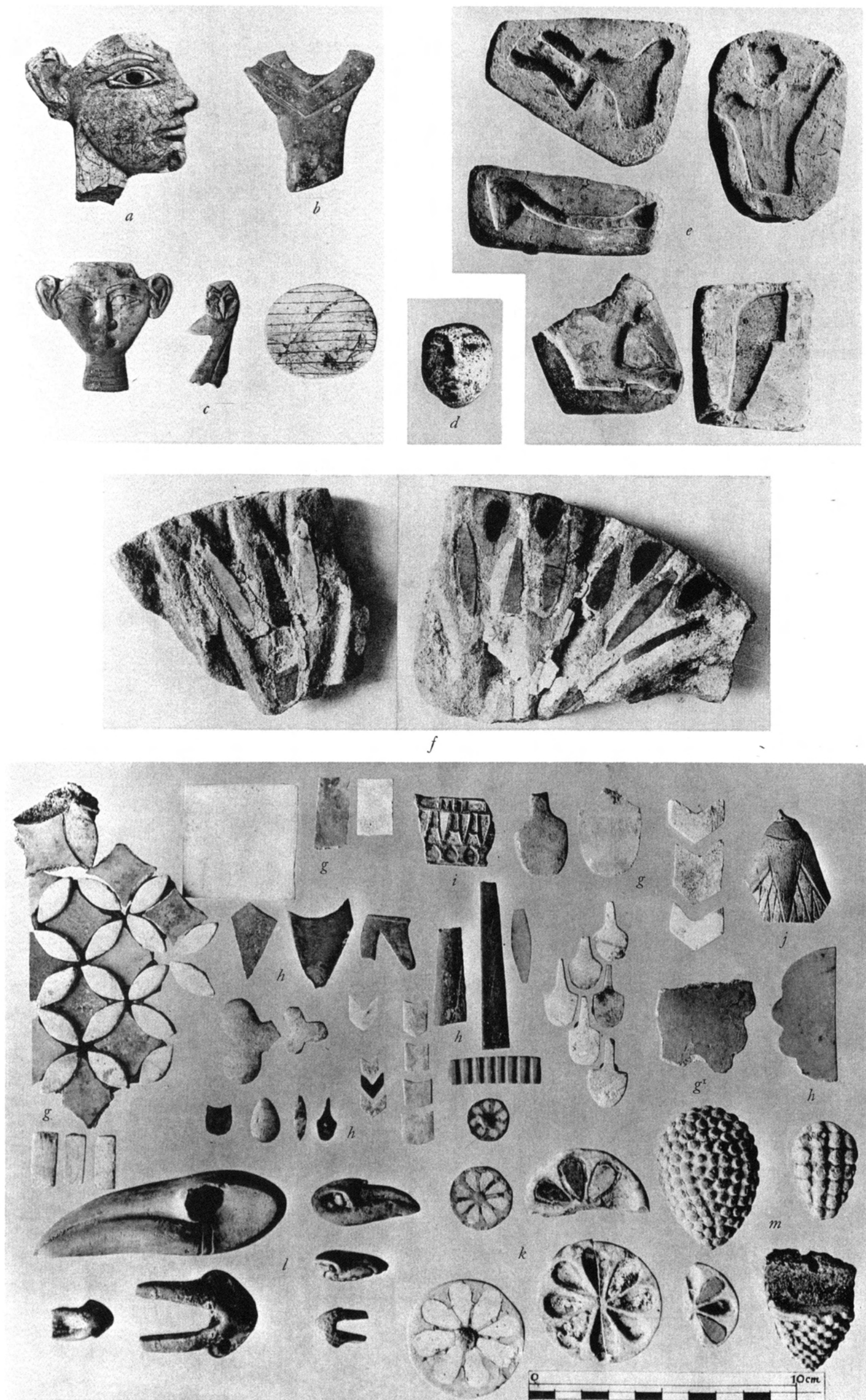
FRAGMENTS OF FOREIGN PRISONER TILES. SCALE, 4:5

*a**b**c**d**e**f**g*

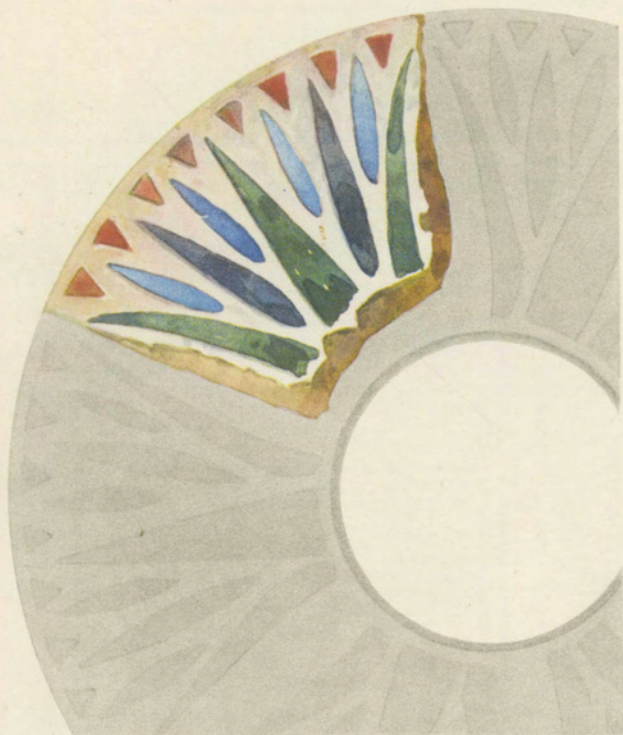
FRAGMENTS OF FRIEZES AND INSCRIBED TILES. SCALE, 2:5 (*a-d*) AND 4:5 (*e-g*)



FRAGMENTS OF INSCRIBED TILES AND OTHER ORNAMENTS. SCALE, 4:5



INLAIS AND MOLDS FOR INLAIS. SCALE, 3:5



a



b



c



d



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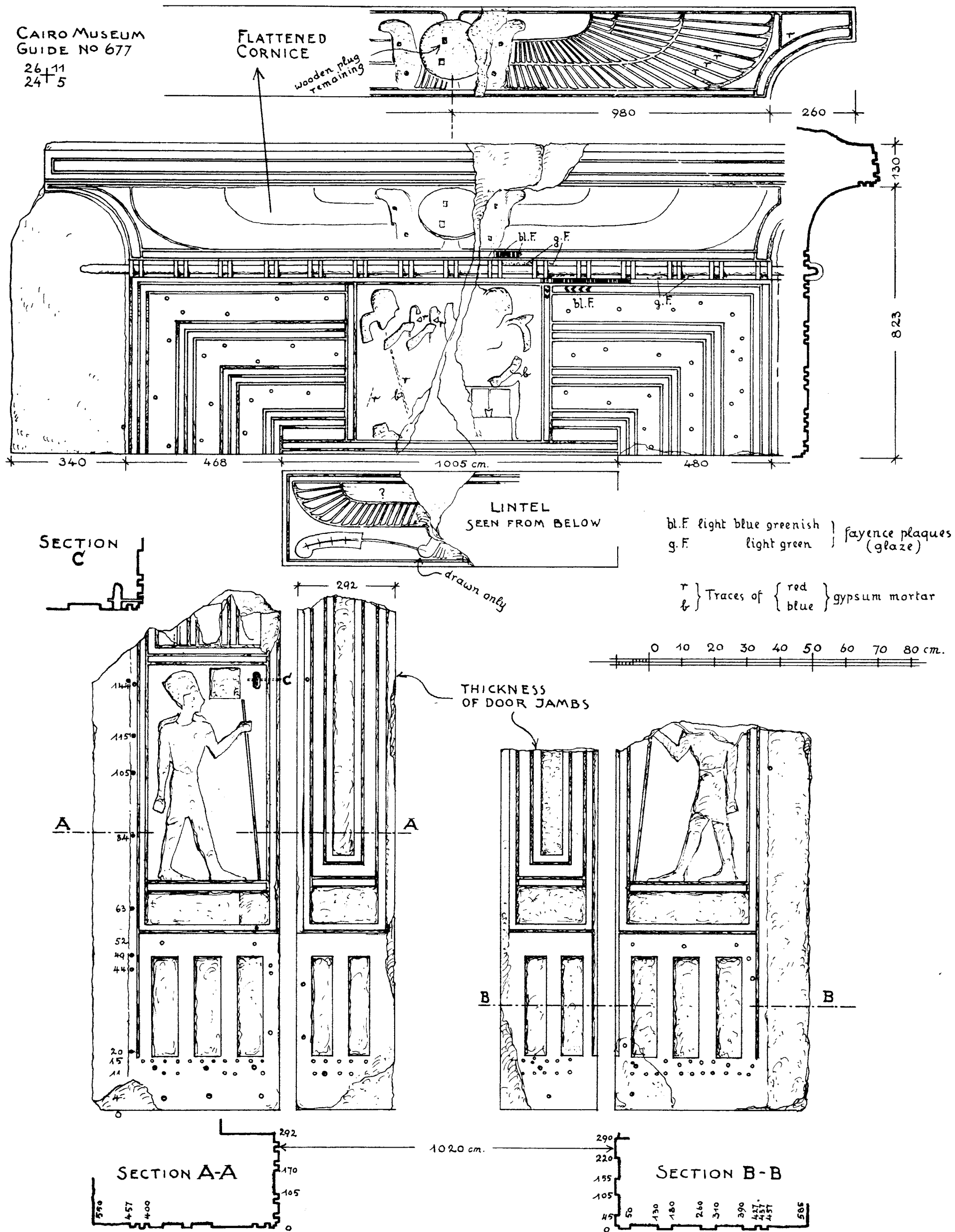
e



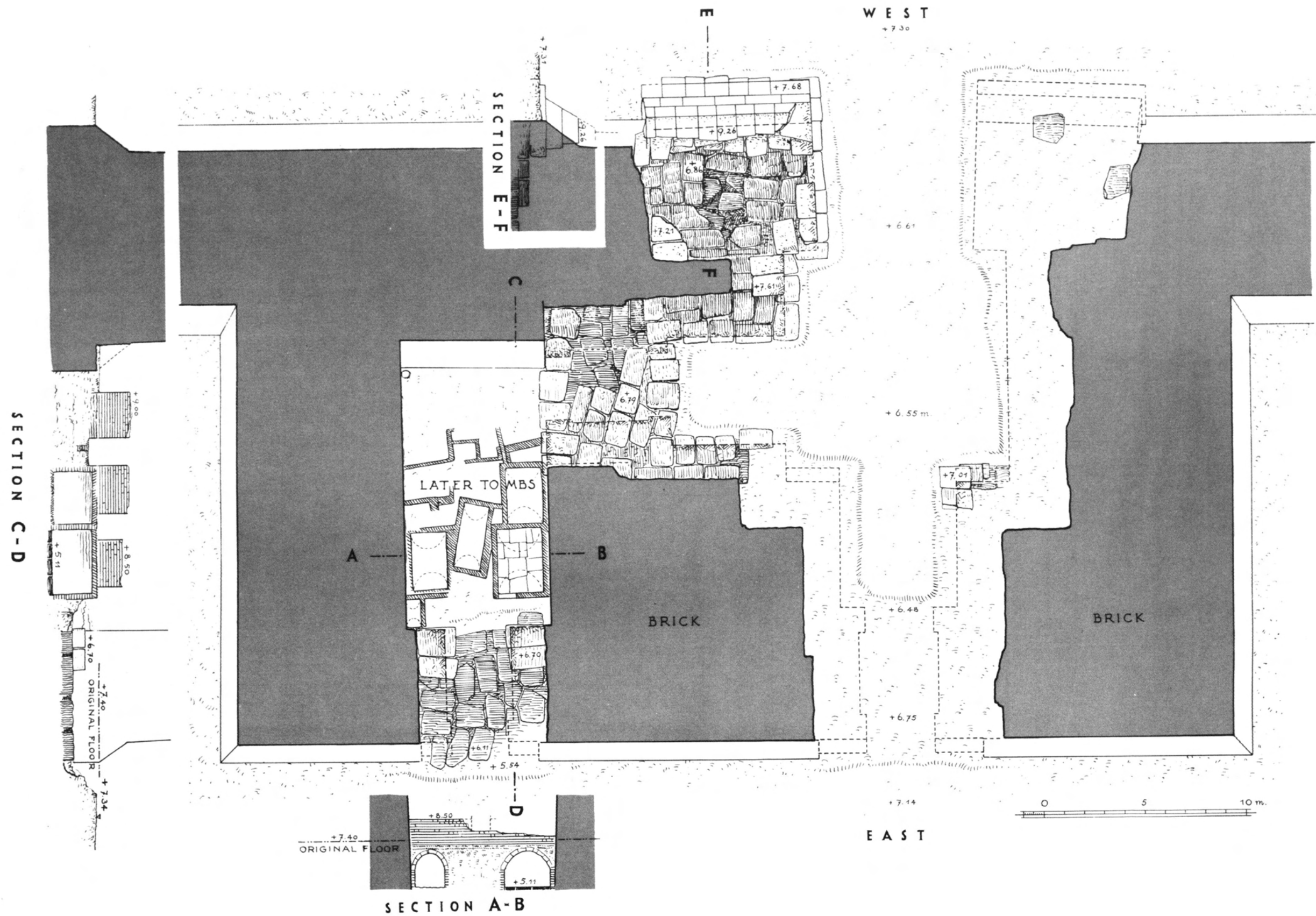
f

INLAID WORK (SEE PLS. 35 *a-d*, 36 *v*, AND 37 *f*)

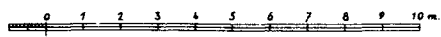
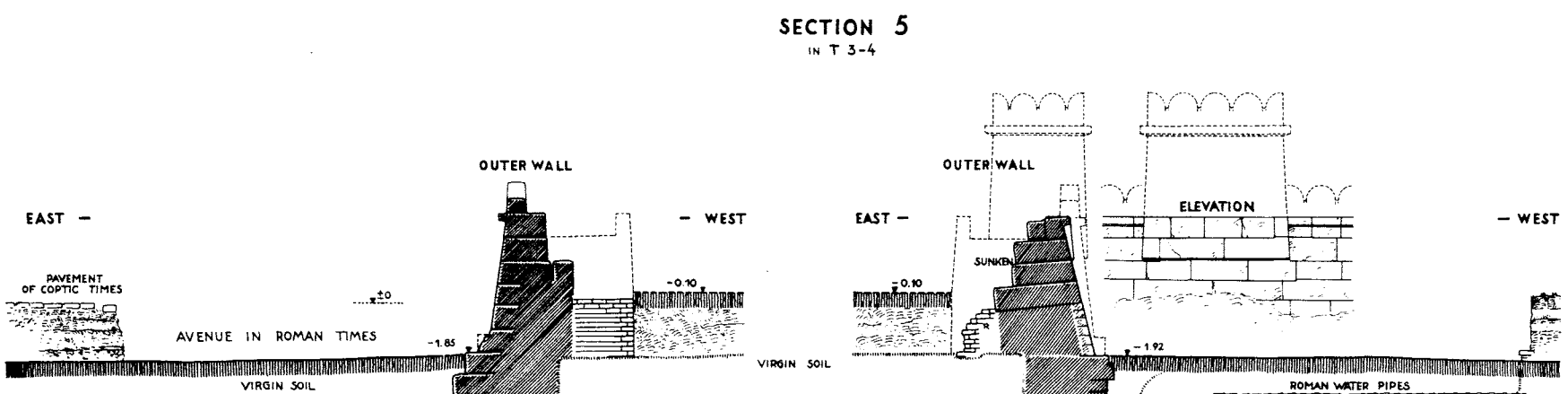
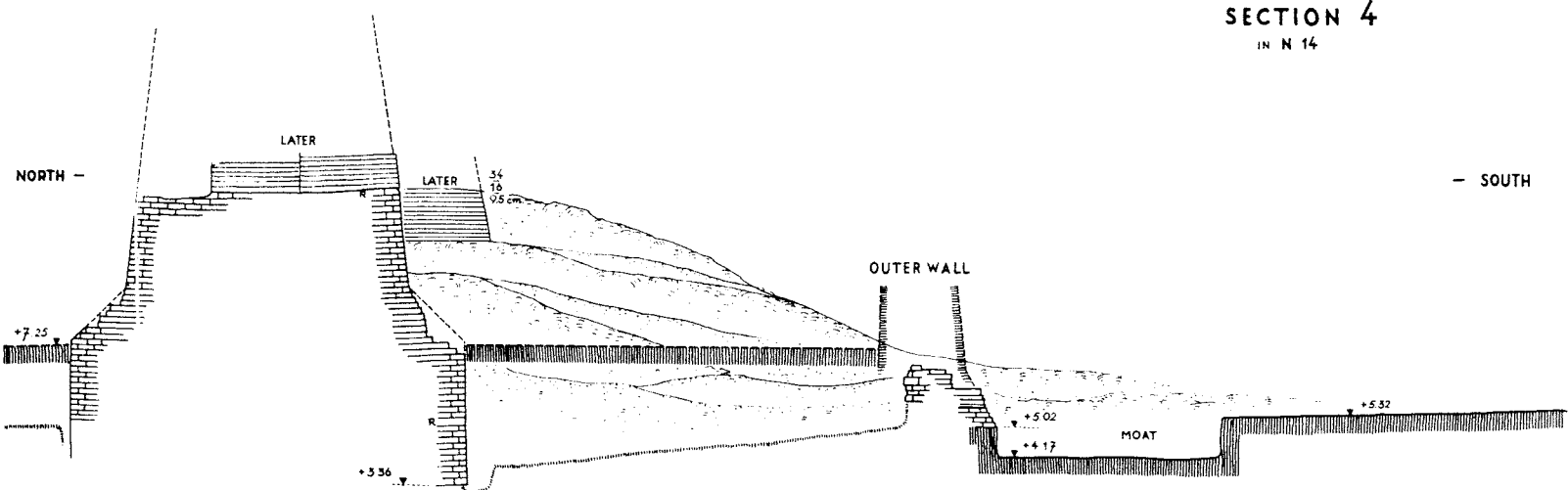
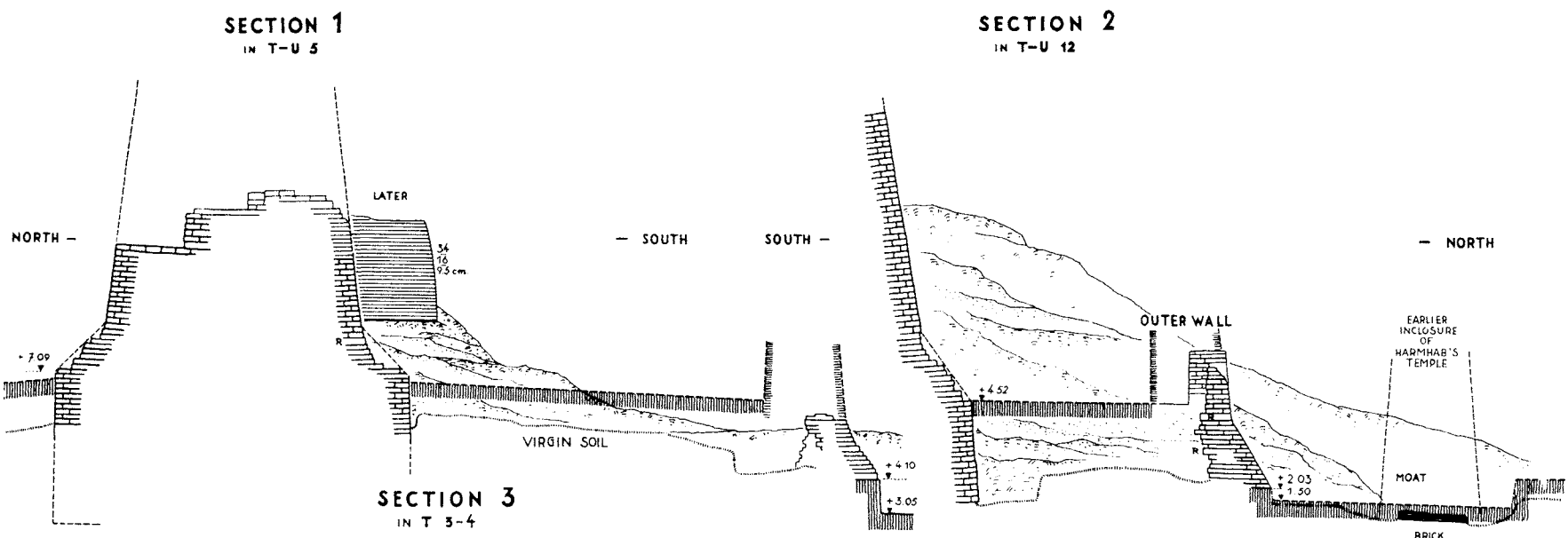
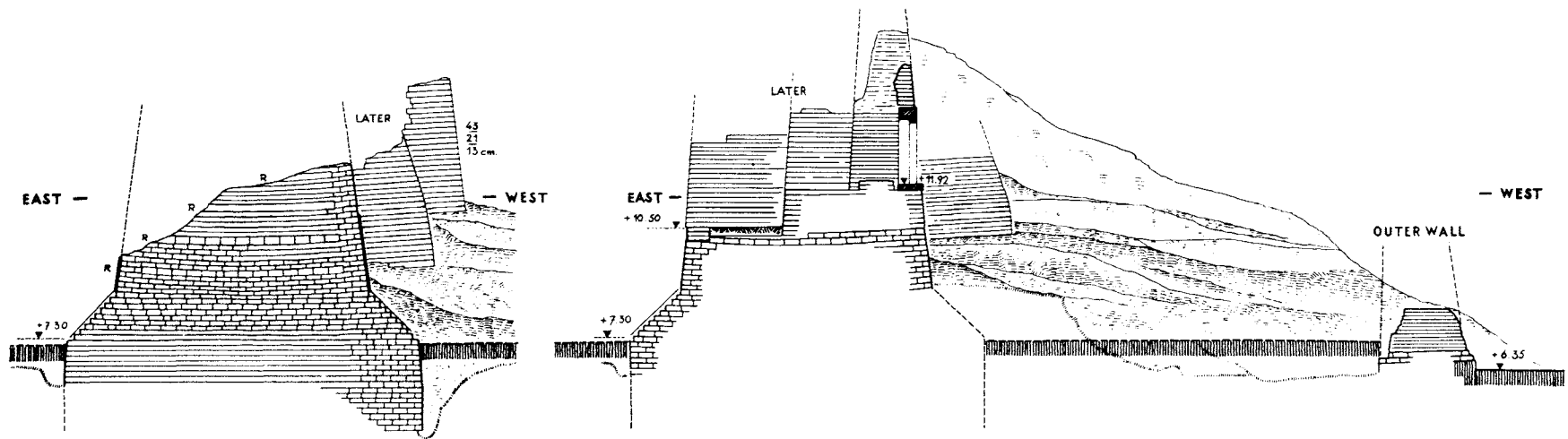
0 1 2 3 4 5 10 cm



DOORFRAME FROM THE SECOND PALACE, NOW IN CAIRO (CF. PL. 28 A).



THE WESTERN FORTIFIED GATE. EXCAVATION PLAN (CF. FOLIO PL. 15). SCALE, 1:200



ZERO POINT OF LEVELING, 77.09m NN

CROSS SECTIONS OF THE GREAT GIRDLE WALL (CF. FOLIO PLS. 2-15). SCALE, 1:200

