

VII

THE FINISHED MASTABAS: CORES, CASINGS AND CHAPELS

I. DISTINCTION BETWEEN CORES OR FACED CORES AND CASED MASTABAS

THE distinction between the retaining wall of a mastaba, the facing of a core, and the casing requires some explanation. In cores of type II a the stepped wall of low courses is obviously a retaining wall which may or may not serve as a finished mastaba, as in the case of the c.b. mastaba from which it is derived. The cores of type II b provide an exact parallel to the c.b. mastabas built of solid brickwork. On the analogy of the c.b. mastabas each of these two types may be considered as finished mastabas which could be provided with a casing but required no casing to finish them. Both were built without any recess in the retaining wall for either a false door or an interior chapel. In this regard the parallelism with the c.b. mastabas at Medum fails completely. The offering-niche in those Giza mastabas which were left uncased was a simple niche constructed in the west wall of the exterior c.b. chapel, and in this the slab-stela with its table scene, titles, and name and lists of offerings was set in an emplacement which was cut in the stepped retaining wall of the mastaba. In Cem. G 1200 seven mastabas were used (uncased) with exterior c.b. chapels, and five of these had slab-stelae. Three others had been increased by additional core-work, leaving the slab-stela in the wall of the original core. In Cem. G 2100 two mastabas (G 2100 and G 2135) were thus used with c.b. chapel and slab-stela. G 2160, G 2170, used later than Cheops, appear also to have had c.b. chapels, but without slab-stelae. In Cem. G 4000 four of the five mastabas of type II b had stelae affixed in the retaining wall. One of these (G 4250) was completed with c.b. chapel, two (G 4160 and G 4260) with stone casing and exterior stone chapels, and the fourth (G 4150) with additional core-work and casing. Thus, of the twenty-six early mastabas of types II a and II b, eleven were finished with c.b. chapels and of these eight had slab-stelae. In view of these facts it is uncertain whether the cores of types II a and b were intended from the beginning to be cased or to be used as mastabas. The next type, III a, was built of massive masonry (like type IV i), but had been faced with stepped courses of exactly the same appearance as the retaining wall of core types II a and b. There are two examples in Cem. G 4000 that have the slab-stela in the stepped facing, not in the massive core. One of them was finished with a c.b. chapel and the other (G 4140) had an unfinished stone chapel and casing. Thus it is clear that types II a, II b, and type III a all had the same outward appearance and were used without any casing as often as they were cased. This low-course stepped facing of small blocks persisted in use as an actual casing in mastabas of late Dyn. IV, but in these the material was a better grey nummulitic limestone. In one case, G 2150, a core of type II a was cased in this way in the reign of Shepseskaf or a little later. The other examples are on independent sites and usually have a core of mud-plastered rubble.

From these facts I conclude that when the low-course stepped cores of types II a, II b, and III a were constructed they were intended to be used as mastabas and that the casings added later were in alteration of the original plan.

The cores of type IV present a similar problem. They were also filled cores like II a with a retaining wall of massive stones set in high-stepped courses. After the facing of core G 4350 (type III a)

the following massive cores (type IV i) were left unfaced. The slab-stela was fixed in the massive stepped wall as in types II a and b in a shallow emplacement cut in one of the courses. In Cem. G 4000 four cores in rows 5 and 6 had slab-stelae which stood exposed in niches in the west walls of c.b. chapels (as type II), while two others had c.b. chapels but no slab-stelae. The parallel between G 1200 and the rows 4 and 6 of Cem. G 4000 is very close. It appears as if after the facing of G 4350, to bring it in line with the types II a and b, the massive core itself was treated as a finished mastaba needing only the addition of a c.b. chapel to finish it. Nevertheless, it is probable that the massive cores of type VI i were intended to be either faced or cased. The outward appearance of these cores was very rough, in no way comparable to the neat outward appearance of the mastabas of types II a and b and III a. The fact that two cores were actually cased with small-stepped masonry proves that the Egyptians of that time felt, as we do, the lack of finish in these cores. I believe that the original intention was to face them and that a number of them by force of circumstances had been used without facing. Later, a number of them in row 4 were cased with white limestone as an improvement on the facing. All the early mastabas, five in number, which received additional cores had this massive core cased in white limestone. For convenience I designate all these constructions of types II a, II b, III a, and IV i as cores.

The alteration of cores of type IV i by breaking out a hole and reconstructing to form a recess for an interior chapel shows plainly a change of plan, and signifies that from this point at least a stone casing was intended. The construction of cores of type IV iii means that these cores were intended from the beginning to be cased and finished with interior stone chapels.

2. TYPES OF CASINGS

a. Classification of Casings

The casing used on the cores of the Western and Eastern Fields is of fine white (Turah) limestone and presents two types:

Casing x: finely fitted and smoothly dressed to a sloping surface: blocks of stone laid with the grain horizontal; see Fig. 84.

Casing y: similar appearance to x but with higher courses and with the blocks (or slabs) set with the grain slanting (parallel to the dressed face of the casing); see Fig. 85.

(Casings of mixed masonry, x and y, also occur.)

Other types of casing occur, but were constructed after the reign of Cheops, as follows:

Casing z: grey nummulitic limestone: small blocks set in low-stepped courses; see Figs. 86, 87.

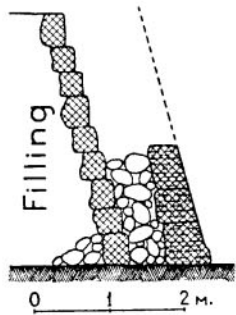
Masonry w: grey nummulitic limestone: great slabs set in high courses and roughly dressed to a sloping surface; see Figs. 88, 89.

Masonry u: grey nummulitic limestone: small blocks set in correspondingly low courses, to form a rough sloping surface; see Figs. 90, 91.

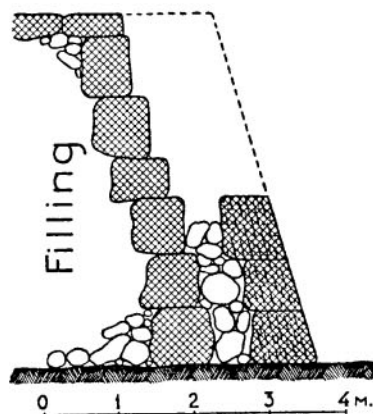
Masonry zu: late combination of z- and u-masonry: small blocks of nummulitic limestone: sloping-faced courses: narrow steps; see Fig. 92.

b. Distribution of Casings x and y

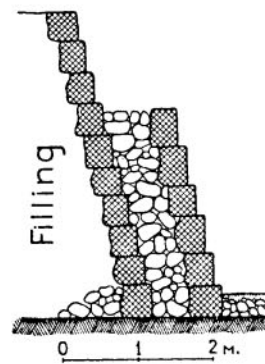
The x-casing is the most expensive, especially in its best examples. The y-casing required less stone measured by its cubic contents, and with its higher courses rose more rapidly and was more easily dressed. The x-casing was used in the Zoser enceinte at the beginning of Dyn. III. It may be that it was the earlier in use even in mastabas and that the y-casing was a cheaper substitute for the x-casing,



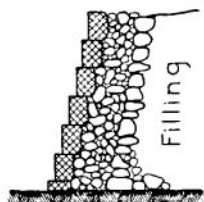
Casing type X G5080
Fig. 84



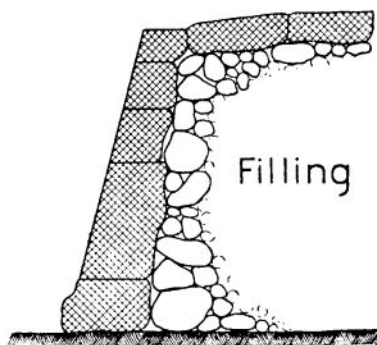
Casing type Y G 7350
Fig. 85



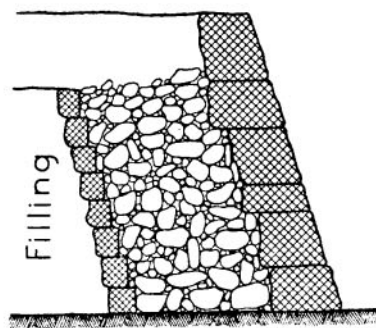
Casing type Z G2150
Fig. 86



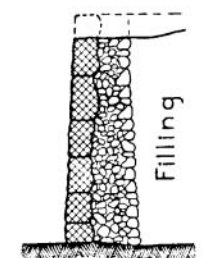
Casing type Z
G1020
Fig. 87



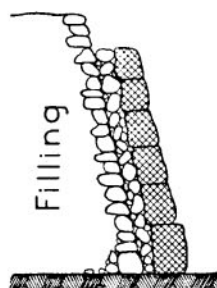
Casing type W G 7550
Fig. 88



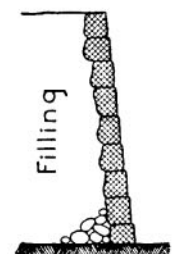
Casing type W G 4940
Fig. 89



Casing type U
G 1029
Fig. 90



Casing type U
G 2330
Fig. 91



Casing type ZU
G 2352
Fig. 92

but the facts now known do not permit a certain proof of this. I therefore take the casings x and y together, marking them when possible. I also note the type of chapel and the condition, whether finished or unfinished. The list is as follows:

xun. = unfinished x-casing; xfin. = finished x-casing.

yun. = unfinished y-casing; yfin. = finished y-casing.

Core	Casing	
(1) G 1201: II a+IV iii	yun., with interior chapel	Prince Wepemnofret
(2) G 1223: II a+IV iii	yun., with interior chapel	Prince Ka-m-aha
(3) G 1225: II a+IV iii	yun., with interior chapel	Princess Nefert-yabet
(4) G 2000: III ii	yun., with interior chapel	
(5) G 2110: II a	yfin., with exterior chapel	<i>rh-nšwt</i> Nofer
(6) G 2130: II b	yfin., with interior chapel; recess broken in core	Prince Khent-ka (?)
(7) G 2120: II a	yun., with exterior c.b. chapel	monolithic stela; Prince Ses- hat-sekhentiuw
(8) G 2155: II a	casing mixed y and w	
(9) G 4000: II b+IV iii	xfin., with interior corr. chapel	Prince Hemyuwnuw
(10) G 4160: II b	yun., with exterior stone chapel	emplacement for slab-stela; name lost; reserve head
(11) G 4150: II b+IV iii	yun., with interior chapel	Prince Yuwnuw
(12) G 4260: II b	xun., exterior stone chapel	emplacement for slab-stela
(13) G 4140: III i	yun., exterior chapel	slab-stela, Princess Merytyetes
(14) G 4240: IV i	xfin., exterior stone chapel	Prince Sneferuw-seneb
(15) G 4340: IV i	xun., exterior stone chapel	reserve head
(16) G 4440: IV i	xun., exterior chapel	prince by reserve head
(17) G 4640: IV i	xun., exterior stone chapel	reserve head
(18) G 4750: IV i	xun., exterior stone chapel	Akhi
(19) G 5080: II a	xfin., interior chapel	Seshem-nofer
(20) G 5110: IV iii	xfin., interior chapel	Prince Duwanera
In the Eastern Field the cased mastabas are as follows:		
(21) G 7110+7120: IV ii+IV	xfin., 2 interior chapels	Prince Ka-wab and his wife
(22) G 7210+7220: IV ii+IV	xfin., 2 interior chapels	Prince Hordedef and his wife
(23) G 7310+7320: IV ii+IV	xfin., 2 interior chapels	Prince Ra-bauwf (?) and his wife
(24) G 7410+7420: IV ii+III ii	xfin., with 2 interior chapels	a prince and Meresankh II
(25) G 7130+7140: IV ii+IV iii	xfin., with 2 interior chapels	Prince Khufuw-khaf and his wife Nefert-kauw
(26) G 7230+7240: IV ii+IV iii	xun., interior chapel	
(27) G 7430+7440: IV ii+IV iii	xfin., interior chapel	Prince Min-khaf
(28) G 7510: IV iii	xfin., interior chapel	Prince Ankh-haf
(29) G 7650: IV iv	xfin., interior chapel	Merytyetes and Akhet-hetep
(30) G 7530+7540: IV iv, shifted	xfin., interior chapel	Hetep-heres II
(31) G 7050: V	xfin., interior chapel	Queen Nefert-kauw
(32) G 7350: IV iii	yfin., interior chapel	Hetep-heres II (?)

In cemetery south of Cheops pyramid:

Core	Casing	
(33) G I S 1: IV i	xfin., exterior c.b. chapel	
(34) G I S 2: IV ii	yfin., interior chapel	Ka-m-nofret
(35) G I S 3: IV ii	z- and x-casing, interior chapel	Prince Khufuw-dedef
(36) G I S 6: IV ii	xfin., interior chapel	
(37) G I S 8: IV ii	yfin., interior chapel	Sekhem-ka

The total number of cores cased in white stone (x or y) is 37. Of these 20 are in the Western Field, distributed as follows:

	Finished	Unfinished	Total
Western Field: 20 mastabas:			
Cem. G 1200	..	3	3
Cem. G 2100	3	1	4
Cem. G 4000	2	8	10
G 2000	..	1	1
Cem. en Échelon	1	..	1
G 5110	1	..	1
	7	13	20

In the three earlier nucleus cemeteries there are 62 mastaba-cores, excluding G 2000. Of these only 17 had a finished or unfinished casing of white stone, and 45 had been finished with other types or had been left uncased. The mastabas on which the white casing had been begun or finished form 27.4% of the whole 62. The finished white casings form only 8% of the 62.

In the Échelon Cemetery only one of the cores had been cased in white stone (G 5080) and that was a finished casing—4% of the 25 mastabas. The rest had been cased in c.b. or in grey stone or used uncased.

In the Eastern Field, of the 8 mastabas of the Cheops cemetery, 6 had a finished white casing of which 1 was of poorer quality, and 1 had an unfinished casing and 1 was uncased. The percentage of white casings finished and unfinished in this cemetery is 87.5%, and of finished white casings is 75%, a very much higher percentage than in the Western Field.

In the rest of the Eastern Cemetery, of the 6 cores of the reign of Chephren, 5 had a finished white casing, that is, 82.5%.

In the core-cemetery south of the First Pyramid, Nos. 1, 2, 3, 6, and 8 are cased in white stone of type x or y, while 5, 7, and 9 are uncased. The percentage of finished white casings is high, at least 50%.

Only one of the old cores was cased with the stepped grey stone in low courses of type z. This was G 2150, and that was made after the reign of Mycerinus. G I S 3 was originally cased with z-masonry, but this was later covered with fine white x-masonry.

The masonry of type w, of large slabs of grey nummulitic limestone roughly dressed to a sloping surface, first appears in the princely mastabas of the Eastern Field, the mastabas added to the older cemetery—G 7750, G 7760, G 7660, G 7550, G 7060, G 7070, G 7820, and G 7810. These are not core-mastabas but have been built as filled mastabas of type VI. In the Western Field the earliest mastaba of w-masonry on an independent site is that of 'Prince' Khnum-baf, presumed to be the son of Duwanera. But in the older cemetery this type appears in the tomb of Prince Mer-ib, built against the old core-mastaba G 2100. Other examples appear in Cem. G 4000 and in the Cem. en Échelon, used as casing to the old cores—G 4710, G 4410, G 4920, G 4940, G 4970, G 5150, and G 5170. The date of the smooth white casing x or y appears to cover the whole period of Dyns. IV and V as exemplified by the

pyramids. But it carried with it a chapel of the same material and was an expensive form of masonry beyond the means even of some princes and princesses of Dyn. IV. It may, however, be within the means of a favourite of the king or an unusually wealthy noble of Dyn. V. A certain doubt must therefore arise as to the placing of manifestly later examples in Dyn. IV or in Dyn. V.

c. Summary Table: Distribution of Fine White Casing through the Six Nucleus Cemeteries

Considering the fine white casing from the point of view of the chronological order of the cores of the Western Field, the following summary table may be set forth:

(a) The fifteen initial cores:

	Finished	Unfinished	Total casings	Total mastabas
Cem. G 1200 . . . . .	..	3	3	5
Cem. G 2100	2	1	3	5
Cem. G 4000	1	3	4	5
	3	7	10	15
	20.0%	46.66%	66.66%	100%

(b) The twenty-three succeeding mastabas and G 2000:

Cem. G 1200 . . . . .	..	..	..	5
Cem. G 2100 . . . . .	..	..	..	1
Cem. G 4000	1	5	6	17
G 2000 . . . . .	..	1	1	1
	1	6	7	24
	4.16%	25.00%	29.16%	100%

(c) The eight twin-mastabas in G 7000, of which five were finished in Cheops' reign:

Northern row, 4 twin-mastabas	4	..	4	4
Southern row, 4 twin-mastabas	2	1	3	4
	6	1	7	8
	75%	12.5%	87.5%	100%

(d) Cemetery G 7000, mastabas assigned to the reign of Chephren (1 assigned to Shepses-kaf):

Mastaba succeeding nucleus cemetery	4	..	4	5
Mastaba assigned to Shepses-kaf	1	..	1	1
	5	..	5	6
	83.3%	..	83.3%	100%

All these six mastabas were the tombs of members of the royal family.

(e) The mastabas in Cem. G I S:

Cem. G I S	5	..	5	9
	55.5%	..	55.5%	100%

(f) Mastabas in the Western Field unused at the death of Cheops, or built thereafter:

Cem. G 2100	1	..	1	4
Cem. G 4000 . . . . .	..	..	..	20
Cem. en Échelon	1	..	1	25
Outliers	1	..	1	1
	3	..	3	50
	6.0%	..	6.0%	100%

In the reign of Cheops only white casings were used, but at the king's death a large number of cores were left uncased or with a casing unfinished. The persons concerned were all of the family or of the court of the king. Some time after the death of Cheops, certainly not before the reign of Chephren, the nummulitic mastaba of type VI was introduced, and some of the old cores were altered by w-casing to this form. Thereafter the use of white casing marks the owner as a person of unusual means.

3. CHAPELS OF THE CORES AND FINISHED MASTABAS

It has been shown in *Tomb Development* (pp. 239 ff.) that all the chapels of Dyn. I were open-air spaces enclosed by a low wall. This open-air type was succeeded by a variety of roofed exterior chapels in large mastabas, although open-air chapels continued to be used down to the end of the Old Kingdom (see chapel type 9). The roofed exterior chapel was first used for the two-niched mastabas (sometimes with intervening panelling). The interior chapel was first introduced in the reign of Khasekhemuwy (last king of Dyn. II), or perhaps just before that reign. It amounted to a withdrawal within the mastaba of the southern or chief offering-niche of the two niched mastabas. Thereafter the west wall of the interior offering-room always represented a section of the façade of the mastaba or later a miniature of the whole façade. Down to the beginning of the stone mastabas the interior chapels were 'cruciform chapels' of several different types (see *Tomb Development*, pp. 263 ff.). It was in the two-niched mastabas that inscribed stones ('primitive niche stones') were first introduced, and it was in the cruciform chapel that reliefs were first used on the walls of the offering-room.

When the mastaba-cores of stone were built at Giza in the reign of Cheops, the chapels did not continue directly the forms developed at Saqqarah and Medum during the reign of Sneferuw. The introduction of stone masonry may have been the reason for the omission of niches in the core-work. But before the end of the reign of Cheops the old two-niched mastaba had again become the prevailing form. All the early finished mastabas had exterior chapels, either of c.b. or of stone, and it was not until the end of the reign of Cheops that the interior chapel again appeared. All the stone chapels of Dyn. IV, whether exterior or interior, present a form distinctly different from the old cruciform chapels. This form I have named the 'L-shaped chapel'. It was, however, like the cruciform chapels in having only one offering-niche. In the cruciform chapel the offering-niche was in the middle of the west wall, and the entrance, with few exceptions, was in the east wall directly opposite the offering-niche. In the L-shaped chapel the niche was at one end of the west wall and the entrance doorway at the other end of the east wall, on the western bank of the Nile. For the eastern bank the positions were reversed. The L-shaped chapel appears definitely in the chapels of the Zoser complex at the Step Pyramid of Saqqarah in the beginning of Dyn. III. While the direct connexion of this form with the early Giza chapels cannot be definitely traced, it is reasonable to suppose that the Giza chapels were derived from the Zoser chapels or from a common basis of which we are ignorant.

The chapel of a mastaba consists of the offering-room and such subsidiary chambers (open court, magazines, statue-chambers) as suited the means or the desires of the owner. At Giza the most important fact is the position and form of the offering-room itself. This is sometimes outside the core or body of the mastaba and sometimes inside. When the offering-chamber is inside the body of the mastaba (interior chapel) the subsidiary rooms, if any, are outside, built of material the same as or different from that of the offering-room inside. The use of the terms exterior and interior chapel refers only to the offering-room itself in Dyn. IV.

The exterior chapel against the face of the mastaba or bonded with its casing may have in its west wall one or more niches according to the relation of the whole chamber to the mastaba façade. The exterior

chapel may be built around a single niche of the two-niched mastaba or it may cover the whole façade of the mastaba with its various styles of niching. Thus when the exterior chapel is much shorter than the mastaba itself it covers only one niche and is a one-niched chapel. When the chapel is about the same length as the mastaba, it will have the same number of niches as the mastaba itself, two in a two-niched mastaba and more than two in a multiple-niched mastaba. The interior chapel has its niches constructed in its west wall as part of the chapel *ab origine*. The interior chapel amounts, as said above, to a withdrawal of the chief niche within the mastaba. At Giza the L-shaped interior chapel presents forms with one and with two niches. The one-niched chapel represents obviously the withdrawal of the chief niche or a section of the façade of the mastaba within the body of the mastaba. The two-niched chapel reproduces in its west wall the whole façade of the two-niched mastaba in miniature or symbolically. In Dyn. V another interior chapel (the 'corridor chapel') came into use in which the west wall presented the façade of the mastaba in extended form like one group of the exterior chapels.

The mastaba chapels at Giza begin in the reign of Cheops and range in date to the end of Dyn. VI. During this time chapels were being constructed at Saqqarah parallel in time for the whole period. These two parallel chronological series of chapels ran independently, although they touch at certain points, and were obviously constructed by two different schools of builders. The two series are similar in presenting both exterior and interior chapels. But the exterior chapels of Giza in the beginning were entirely of the old one-niche type of Dyn. III. In both places the interior chapels of Dyn. IV were situated in the SE corner of the mastaba with a direct doorway in the east wall of the chapel and a subsidiary north niche in the façade. All these chapels of Dyn. IV consisted of one N-S offering-room, but at Saqqarah the majority were cruciform chapels, while at Giza they had asymmetrical entrances (the L-shaped chapel). Here I give the Giza types alone with references to similar examples at Saqqarah.

a. Classification of Giza Chapels of Dyns. IV-VI

For convenient reference I give here a complete list of the type designations used in the discussion of the chapels of Dyns. IV-VI at Giza:

Exterior chapels:

Type (1): exterior c.b. chapel built against the face of the mastaba or mastaba-core, in the place of the chief niche or subsidiary to stone chapel.

Type (1 a): exterior c.b. chapel built around a slab-stela or the place of the slab-stela: a multiple-room chapel; see Fig. 93.

Type (1 b): subsidiary to stone chapel of type (2 a) and built around a slab-stela; see Fig. 94.

Type (1 c): exterior c.b. chapel built around a deep recessed niche; see Figs. 95, 96.

Type (1 d): exterior to stone chapel of type (2 b).

Type (1 e): exterior to stone chapel of type (3).

Type (1 f): exterior to stone chapel of type (4).

For a derivative of this chapel see type (8 f-g).

Type (2): exterior stone chapel, L-shaped.

Type (2 a): N-S room apparently without *ka*-door built against the east face of the mastaba beside the slab-stela which was left exposed in the exterior subsidiary c.b. chapel of type (1 b); see Fig. 94.

Type (2 b): N-S room, with one niche: built around the chief niche in a cased mastaba; see Fig. 97. See also exterior chapels of type (8).

Interior chapels:

- Type (3): interior stone L-shaped chapel with one niche in west wall in place of south niche: with or without rooms.
- Type (3 a): with deep compound niche at one end of west wall; see Figs. 98, 99.
- Type (3 b): with single shallow niche in middle of panelled west wall; see Fig. 100.
- Type (3 c): with traditional niche or stela in middle of west wall.
- Type (4): N-S offering-room with two niches in west wall in SE corner of mastaba: asymmetrical entrance from east; see Fig. 101.
- Type (4 a): with subsidiary north niche.
- Type (4 b): without subsidiary north niche.
- Type (5): long N-S offering-room (interior corridor chapel), extending more than half the length of the mastaba; entered from east at one end of east wall or from north or south end of chapel; one or more niches in west wall as mastaba façade.
- Type (5 a): plain corridor with one or more niches in west wall.
- Type (5 b): one or more niches in west wall and subsidiary small interior one-niched chapel at north end of this wall.
- Type (5 c): with deep recess or alcove entering mastaba at south end of west wall with or without other niches; chief niche in alcove.
- Type (5 d): with alcove entering mastaba at north end of west wall; with or without niches in alcove: one or more niches in rest of west wall.
- Type (5 e): with east alcove at south end of east wall.
- Type (6): exterior or interior symmetrical chapel (cruciform) with one or two niches in west wall.
- Type (6 a): exterior pyramid chapel of stone or c.b., each built on a separate plan.
- Type (6 b): interior mastaba chapel of form based on RC ii c.
- Type (6 c): exterior mastaba chapel with symmetrical design.
- Type (7): single E-W offering-room, or a multiple-room chapel based on an E-W offering-room: the chief niche is a 'false door' stela in the west end of the offering-room: rarely two plain niches in west wall.
- Type (7 a): single E-W offering-room: at Saqqarah type (7 a) is represented in a few chapels in the SE corner of the mastaba with entrance from the east.
- Type (7 b): two-room chapel with E-W offering-room (with stela) in west end and N-S offering-room (with or without niches in west wall) placed north or south of the east end of the E-W room; the entrance is in the N-S room, from the east or north or south; common at Giza and rare at Saqqarah.
- Type (7 c): interior chapel with three or more rooms based on a nucleus of type (7 b).
- Type (7 d): interior multiple-room chapel with one E-W offering-room and one or more other rooms variously placed: each chapel was built on a separate design.
- Type (7 e): complex interior chapel based on a symmetrical (cruciform) nucleus consisting of an E-W offering-room opening in the middle of the west wall of the N-S hall.
- Type (8): roofed exterior chapel built against the façade of a mastaba with the niche-work of the mastaba appearing in the west wall of the corridor.
- Type (8 a): against ordinary two-niched mastaba.
- Type (8 b): against mastaba with two or more pairs of niches.

Type (8 c): against mastabas with abnormal niche-work (one, three, or more niches) or with niches irregularly placed: abnormality often due to bad preservation of mastaba façade.

Type (8 d): against mastaba without niches or with no niches preserved.

Any of these types may have an east alcove at south end of east wall, the presence of which is indicated by an x attached to the type designation.

Type (8 e): exterior chapels of anomalous forms: covering the façade of the mastaba.

Type (8 f): exterior multiple-room chapel, around chief niche of two-niched mastaba: of type (1 a-c).

Type (8 g): exterior one-room chapel around chief niche: of type (1 d).

Type (9): open-air corridor chapel: enclosing wall or partial wall rarely used.

Type (9 a): with a mastaba with two niches in the east façade.

Type (9 b): with a mastaba with two or more pairs of niches in the façade.

Type (9 c): with a mastaba with abnormal niche-work (see 8 c).

Type (9 d): with a mastaba without niches or with no niches preserved.

Type (10): interior square or nearly square offering-room with one or two niches in west wall.

Type (10 a): small room with one niche in west wall, like the small north chapel in type (5 b).

Type (10 b): large chamber with one or two pillars supporting roof; with one or two niches in west wall.

Type (10 c): room like (10 b) approached by a corridor; cf. type (5 c).

Type (11): the portico chapel: a wide recess in the façade of the mastaba (over half the length): with roof supported by pillars.

Type (11 a): with court, usually of c.b., in front of mastaba and portico chapel.

Type (11 b): with covered connecting corridor passing the front of the mastaba and portico chapel.

Type (11 c): with no evidence of court or other features.

Type (12): complex interior chapels, or partly interior and partly exterior, which cannot be classed under the above types; each built on its own design.

Type (13): abnormal chapels, usually a roofed niche in the place of the chief niche.

b. Chapels of Dyn. IV: Types (1)-(4 a), Rock-cut Chapels and Chapels of Type (6)

The chapels assigned to Dyn. IV are as follows:

(a) The chapels of the 15 initial cores of the 3 nucleus cemeteries of the Western Field: Cems. G 4000, G 2100, and G 1200.

(b) The 37 mastabas finished in the same 3 nucleus cemeteries after the 15 initial mastabas.

(c) The 8 twin-mastabas of the nucleus cemetery G 7000 in the Eastern Field.

(d) The massive core-mastabas of the Eastern Field built after the twin-mastabas, 6 in number.

(e) The 8 nummulitic mastabas of type VI a built around the last-named mastabas: and 3 other mastabas in this field: total 11.

(f) A number of mastabas of the Western Field which are built around or attached to nucleus mastabas or for other reasons are to be dated to Dyn. IV.

(g) The 10 mastabas of Cem. G I S (excavated by Junker).

(h) A certain number of rock-cut tombs in the Cheops-Chephren and Mycerinus quarries, recorded by Lepsius or excavated by Professor Selim Bey Hassan or by our expedition.

The chapels of these tombs yield mastaba chapels of types (1)-(4 a), rock-cut tombs of type RC i, and mastaba chapel type (6).

(1) *The Exterior Crude-brick Chapel of Type (1)*(a) *Chapels of type (1 a).*

The exterior c.b. chapel at Giza was the common type used with mastaba-cores of core types II a, II b, and IV i. These cores have no offering-niche or recess in the valley face. The c.b. chapel is built against that face at the southern end where the chief niche is usually placed. It has an open recess in the west wall of the inner offering-room in which the stepped face of the core appears, and in this recess was seen the slab-stela which had been previously set in an emplacement cut in the retaining wall of the core. These exterior chapels of c.b. consist of an L-shaped offering-room, a magazine, and often an anteroom and open court (see temples of pyramids G III-a, b, and c in *Mycerinus*, Chapter IV). The separate rooms were roofed with semi-cylindrical leaning-course vaults in every case in which the

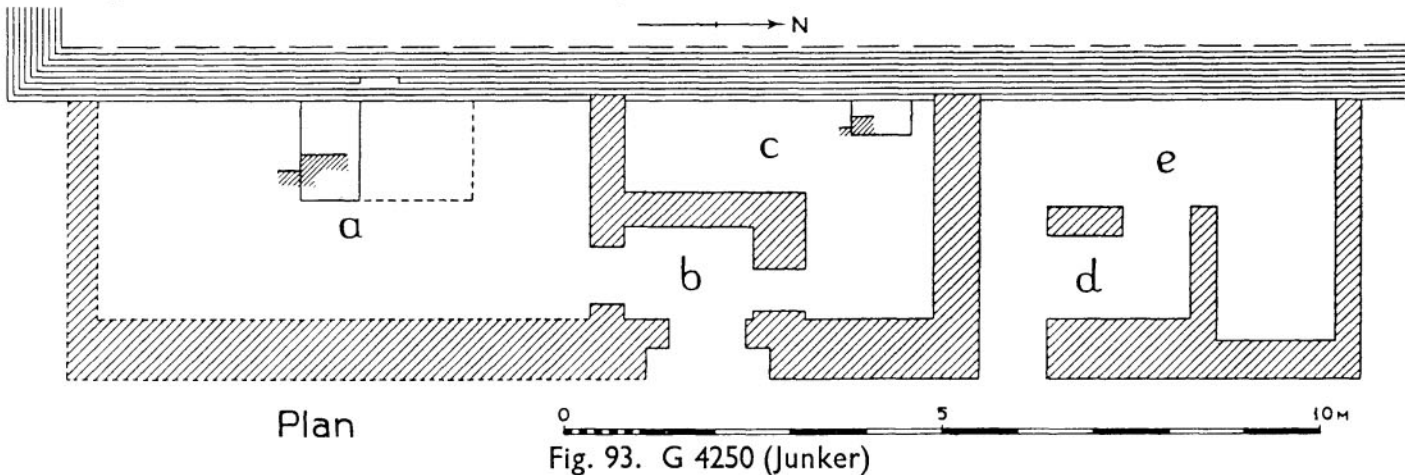


Fig. 93. G 4250 (Junker)

walls were sufficiently preserved to show the type of roofing (G 1203, G 1225). In one case (G 1203), in which the vaults were unexpectedly well preserved, the north wall of the offering-room had four windows, vertical rectangular slits half a brick wide separated by half-brick partitions and about five to seven courses high. A similar window was found in G 1406, of later date. The entrance doorway, closed by the usual wooden door swung on door-posts, was placed in the outer wall wherever convenient, east, north, or south. The other doorways are also closed by wooden doors, usually one-leaf doors.

Many of the c.b. chapels of type (1 a) had been repaired or altered before the service was discontinued, and a few appear to have been completely rebuilt on a simpler ground-plan.

Examples of chapels of type (1 a) built against a core of a nucleus cemetery:

(1) G 4250 (Junker): core type II b; emplacement for slab-stela.

Chapel: five rooms: from S to N, N-S offering-room, magazine with vestibule room; increased later by a similar magazine and vestibule on N.

(a) 6.5×3.0 m.; 19.5 sq. m.; prop. $1/2.17$.

Total floor area: 42.52 sq. m.

See Fig. 93.

(2) G 1203: core type II a; slab-stela and reserve head; *imy-r3 wptwt*, Kanofer.

Chapel: three rooms and court: N-S offering-room, magazine, and vestibule roofed with leaning-course c.b. vault: vertical slot windows in offering-room.

(a) 5.9×1.7 m.; 10.03 sq. m.; prop. $1/3.47$.

Total area, a-c: 17.36 sq. m.

Area, a-c and d (court): 26.15 sq. m.

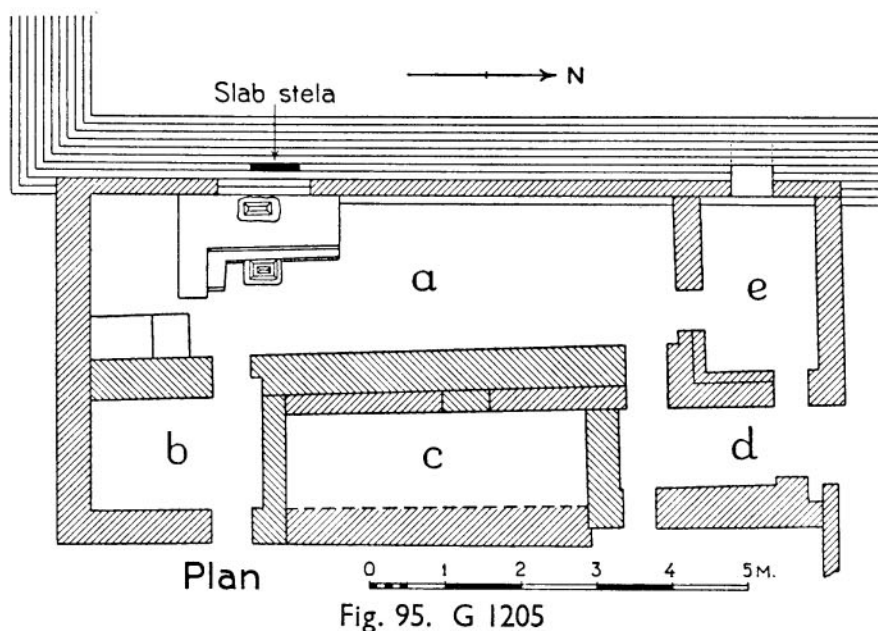
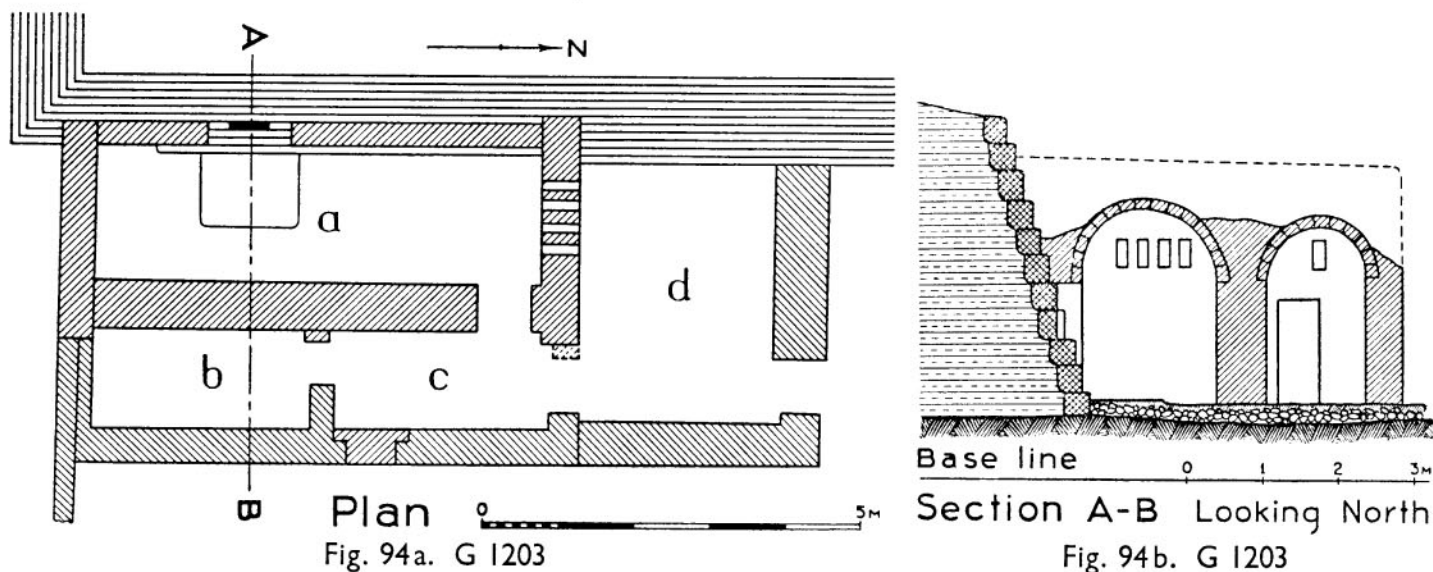
See Fig. 94.

- (3) G 1205: core type II a; emplacement of slab-stela.

Chapel: five rooms, two on west and three on east: N-S offering-room with magazine on north; on east, vestibule giving entrance to offering-room, magazine, and to rooms south of it.

(a) 7.7×2.05 m.; 15.78 sq. m.; prop. 1/3.76.

Total area, a-e: 28.88 sq. m.



Open court probably on north covered by a later mastaba, 1204.

See Fig. 95.

- (4) G 2100: core type II a; emplacement of slab-stela.

Chapel: remains only of c.b. chapel; intrusive later burial-shafts.

- (5) G 4360: core type IV i; slab-stela.

Chapel: four rooms (five?): N-S offering-room (a); magazine (b) on south; magazine (c) on north; on east vestibule corridor entered from north.

(a) 3.4×2.1 m.; 7.14 sq. m.; prop. 1/1.62.

Total area: 22.29 sq. m.

See Fig. 96.

(6) G 4460: core type IV i; slab-stela.

Chapel: four rooms: N-S offering-room with magazine (b) on south; magazine (d) on east and vestibule (c) north of (d).

(a) 6.3×2.1 m.; 13.23 sq. m.; prop. $1/3.0$.

Total area, a-d: 32.19 sq. m.

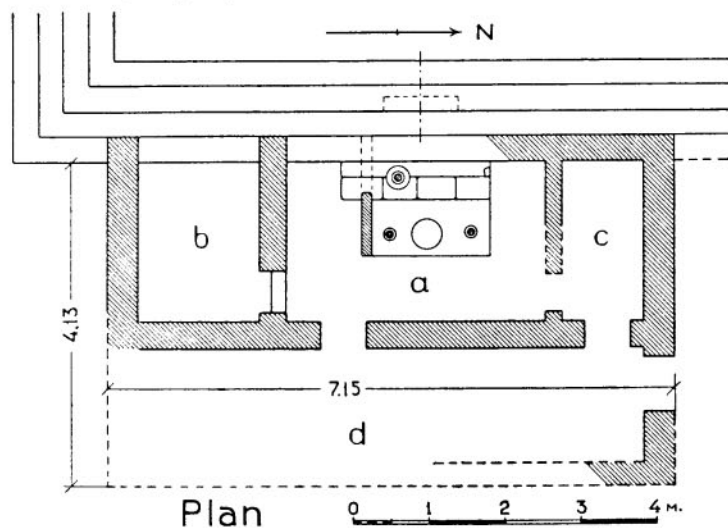


Fig. 96. G 4360 (Junker)

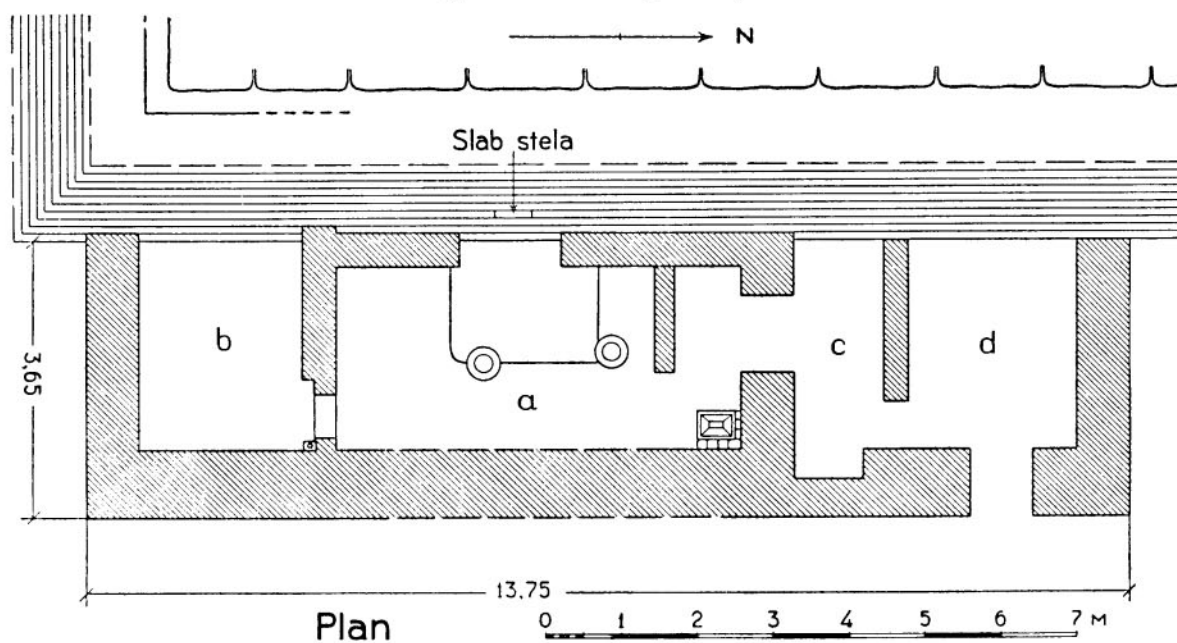


Fig. 97. G 4350 (Junker)

(7) G 4560: core type IV i; slab-stela.

Chapel: traces of three rooms nearly destroyed; street north of chapel, closed by mastaba of Ka-m-ankh.

(8) G 4350: core type III i; slab-stela.

Chapel: four rooms in N-S line: N-S offering-room (a); magazine (b), south of (a); E-W room (c), with statue niche in east wall, north of (a); on north, a vestibule room, entered from east.

(a) 5.3×2.25 m.; 11.93 sq. m.; prop. $1/2.35$.

Total area, a-d: 27.61 sq. m.

See Fig. 97.

- (9) G 4450: core type IV i; slab-stela emplacement.

Chapel: three rooms: N-S offering-room on west; on east, magazine on north and small vestibule on south, entered from north.

(a) 4.7×1.7 m., area, 7.99 sq. m.; prop. $1/2.75$.

Total area: 14.06 sq. m.

See Fig. 98.

- (10) G 2135: core type II a; slab-stela.

Chapel: probably five rooms; two rooms on west, N-S offering-room and magazine on south; three on west, vestibule, connecting room, and magazine; entered from north.

(a) 5.4×2.5 m.; area, 13.5 sq. m.; prop. $1/2.16$.

Total area: *c.* 33.0 sq. m.

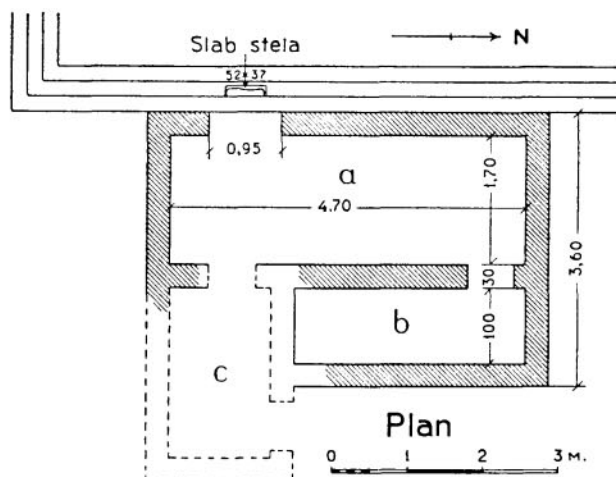


Fig. 98. G 4450 (Junker)

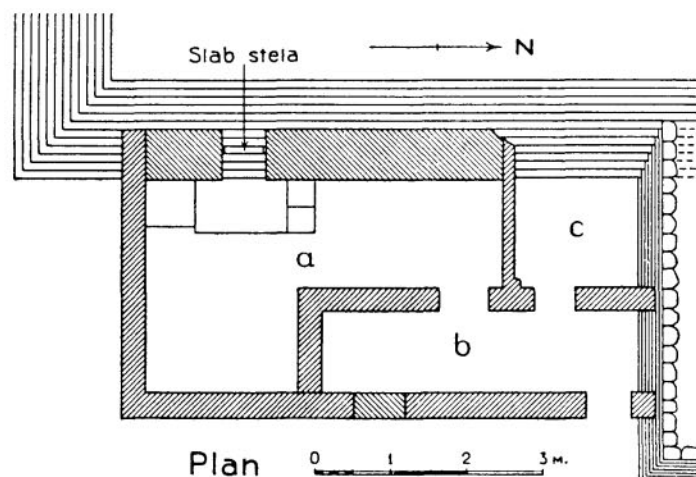


Fig. 99. G 1207

- (11) G 1207: core type II a; slab-stela; *rht nswt*, Nofret.

Chapel: rebuilt chapel of three rooms: N-S offering-room with vestibule room in NE corner, and a magazine north of offering-room; street occupied by G 1206.

(a) originally 4.67×2.8 m.; 13.07 sq. m.; $1/1.66$: now a long room with alcove on east with

(1) 4.67×1.45 m. and (2) 2.0×1.35 m.; area, 9.47 sq. m.

Total area, a-c: 16.22 sq. m.

See Fig. 99.

- (12) G 1209: core type II a; no slab-stela.

Chapel: rebuilt two-room: old chapel partly destroyed by G 1208; N-S room with vestibule in NE corner.

(a) orig. 3.9×2.7 m.; area, 10.53 sq. m.; prop. $1/1.44$; as reconstructed, a N-S room with west alcove on south: net floor area, 8.42 sq. m.

(b) vestibule, 1.55×0.75 m.; 1.16 sq. m.; entered from east.

Total area, a-b: 9.58 sq. m.

Originally other rooms, now obstructed by G 1208.

See Fig. 100.

- (13) G 1235: core type II a; slab-stela; *rh nswt*, Yeni.

Chapel: four rooms, a on west and b, c, d on east; alterations and destruction by G 1674. N-S offering-room on west; on east, vestibule on north and two connecting rooms: originally

three rooms, N-S offering-room with west alcove on south around rooms b and c; alcove later converted into room d:

(a) 5.4×1.75 m.; area, 9.45 sq. m.; prop. $1/3.09$.

Total floor area, a-d: 14.09.

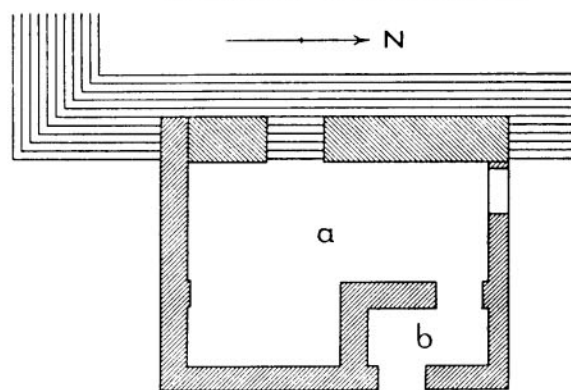
See Fig. 101.

(14) G 1227: core type II a; slab-stela; *rht nswt* Sethy-hekenet.

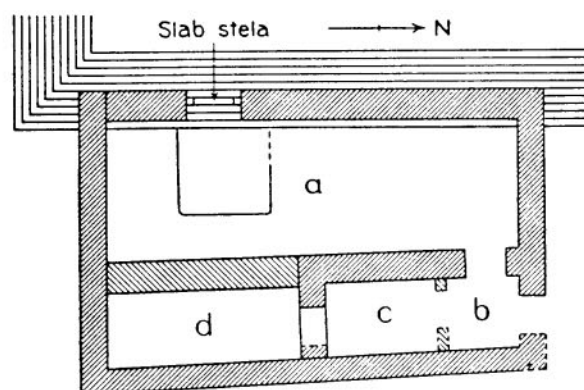
Chapel: nearly destroyed by intrusions; remains of three rooms: on west, N-S offering-room entered from east on south; on east, on south, vestibule-room, and on north, N-S room.

(a) 4.8×1.68 m.; area, 8.06 sq. m.; prop. $1/2.86$.

Total area, not measurable.



Plan 0 1 2 3 m
Fig. 100. G 1209



Slab stela 0 1 2 3 m Plan
Fig. 101. G 1235

For other c.b. exterior chapels based on slab-stelae see type (1 b), secondary to stone chapels of type (2 a). All but one of these fourteen chapels were built around a slab-stela. The one exception, G 1209, had a vertical strip of the core-face exposed in the niche, but no slab-stela.

No two of these chapels are exactly alike, but they fall roughly into three groups:

(a) Without magazine (or statue-chamber) south of offering-room:

G 4250, G 1203, G 1205, G 2100 (?), G 4450, G 1227—6 examples.

(b) With magazine or statue-chamber south of offering-room:

G 4360, G 4460, G 4560, G 4350, G 2135—5 examples.

(c) With vestibule-room built in NE corner of offering-room: altered or rebuilt chapels:

G 1207, G 1209, G 1235—3 examples.

The general use of a vestibule room connecting the outer entrance (usually on north) with the doorways to the other rooms is a characteristic feature.

(b) *Exterior c.b. chapels of type (1 b), based on slab-stela but secondary to stone chapel of type (2 a).*

Closely related to chapel type (1 a) in time is the peculiar c.b. chapel which in G 4160 and G 4260 was built around a slab-stela but adjoining a small stone room which was built against the core at the south end of the east façade. Both the stone chapels were badly preserved and showed no trace of a niche in the west wall. The chapel of G 4260 appears to have been decorated, and it is possible that the stone chapel was intended to contain reliefs subsidiary to the slab-stela.

(15) G 4160: core type II b; cased with y-masonry; slab-stela; reserve head.

Chapel: one stone room (a), and five c.b. rooms (b-f):

(b-c) offering-room with E-W arm (slab-stela in west end) and N-S arm extending

northwards; on west, from north, small magazine (d), N-S connecting-room (e), and vestibule (f) with doors to a and e.

Area, b-f: 19.02 sq. m.

Total area, a-f: 21.45 sq. m.

See Fig. 102.

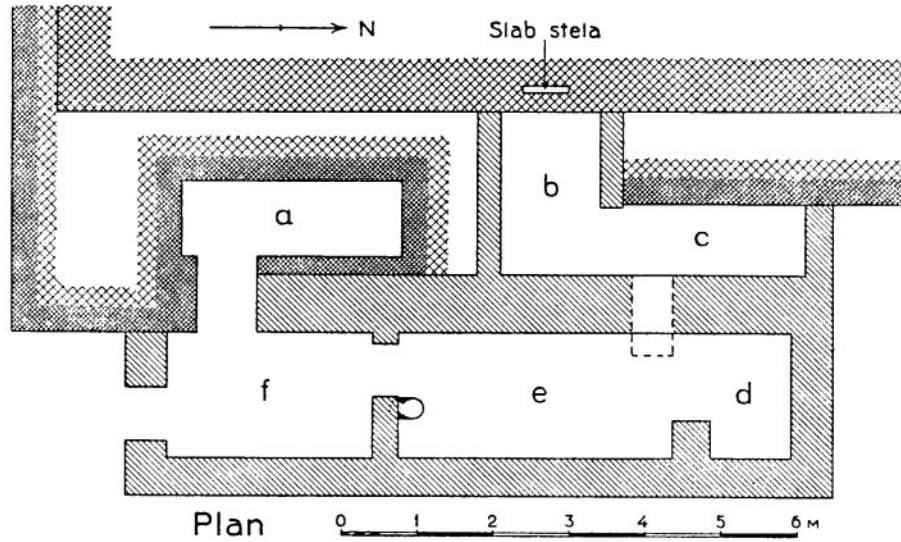


Fig. 102. G 4160 (Junker)

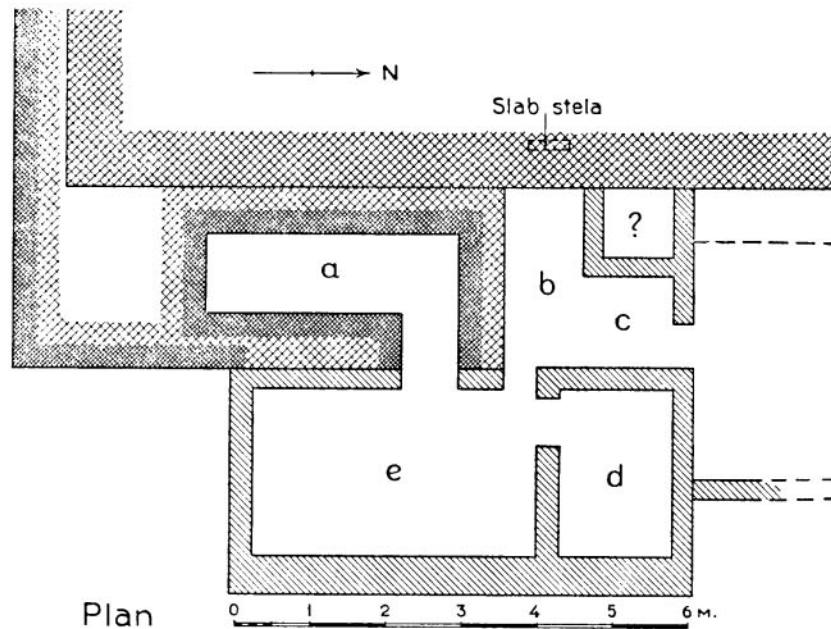


Fig. 103. G 4260 (Junker)

(16) G 4260: core type II b; cased with y-masonry; slab-stela.

Chapel: one stone room (a) and four c.b. rooms (b-e):

(b-e) offering-room with E-W arm on south (slab-stela in west end), and N-S arm extending northwards with entrance from north; on east, from north, small magazine (d), and hall (e) with doors to a, b, and c.

Area, b-e: 15.45 sq. m.

Total area, a-e: 18.97 sq. m.

See Fig. 103.

(c) *Miscellaneous exterior c.b. chapels related to type (1 a), attached to core-mastabas of the nucleus cemeteries: type (1 c).*

A number of core-mastabas, particularly of type IV i, have no slab-stela, but have, usually attached to the south end of the façade, exterior c.b. chapels of type (1). These chapels marked (1 c) are by the position of their mastabas and other circumstances later than the chapels of type (1 a), groups a and b, and those of type (1 b). All are multiple-room chapels roofed with c.b. vaults or wood. The variations include:

(1) C.b. chapels constructed to complete unfinished stone chapels of type (3).

(2) Chapels with the face of the core showing in the west wall of the offering-room: perhaps an accident of preservation.

(3) Chapels built around a monolithic stela set in the core.

(4) Chapels with offering-niche in the west wall.

(5) Chapels with two parallel rooms.

The examples are as follows:

(17) G 1201: core type II a; with cased addition of type IV iii (unfinished); slab-stela in place behind added masonry; Prince Wepemnofret.

Chapel: unfinished type (3 a) completed as c.b. chapel; offering-room, open court containing magazine and vestibule.

(a) 4.9×1.85 m.; area, 9.06 sq. m.; prop. 1/2.65.

Total area, a-d: 43.11 sq. m.

See Fig. 104.

(18) G 1225: core type II a; with addition cased, of type IV iii; slab-stela behind added masonry; Princess Nefert-Yabet.

Chapel: unfinished type (3 a) completed with c.b. walls of type (1 a); badly preserved; two rooms, N-S offering-room and vestibule-corridor entered from south probably with exit to subsidiary north chapel.

(a) 5.92×2.1 m.; area, 12.43 sq. m.; prop. 1/2.82.

Total area, not measurable.

(19) G 4540: core type IV i; reserve head.

Chapel: probably four rooms, altered and damaged; built against bare façade of core; on west, offering-room and on south, magazine; on east, vestibule (on north), and another room badly destroyed.

(a) 5.75×2.6 m.; area, 14.95 sq. m.; prop. 1/2.21.

Total area, a-d: 27.45 sq. m.

(20) G 4550: core type IV i; no slab-stela; face of mastaba exposed.

Chapel: five rooms: on west, three, N-S offering-room, magazine on south, and room on north; on east, two rooms, vestibule on north (entered from north), and magazine on south.

(a) 2.75×2.45 m.; area, 6.74 sq. m.; prop. 1/1.12.

Total area: 22.73 sq. m.

Probably altered from a four-room chapel.

(21) G 4660: core type IV i; slab-stela (?).

Chapel: five rooms, a and b on west, c-e on east: on west, offering-room with small chamber on south; on east, vestibule on north, with two other rooms south of it.

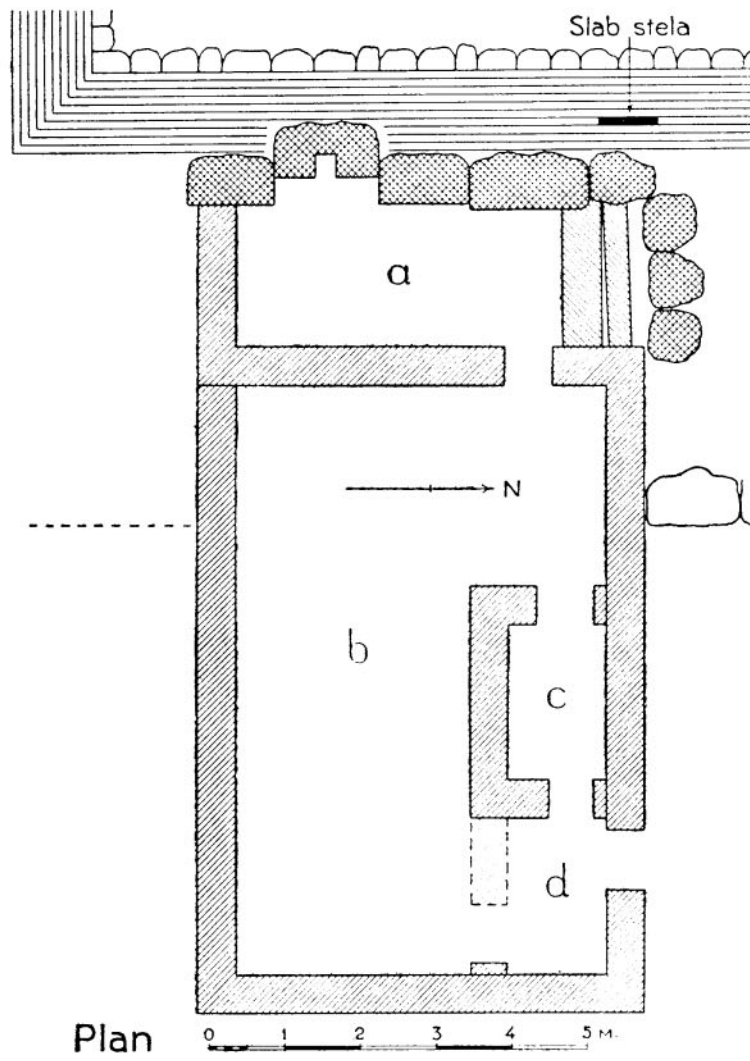


Fig. 104. G 1201

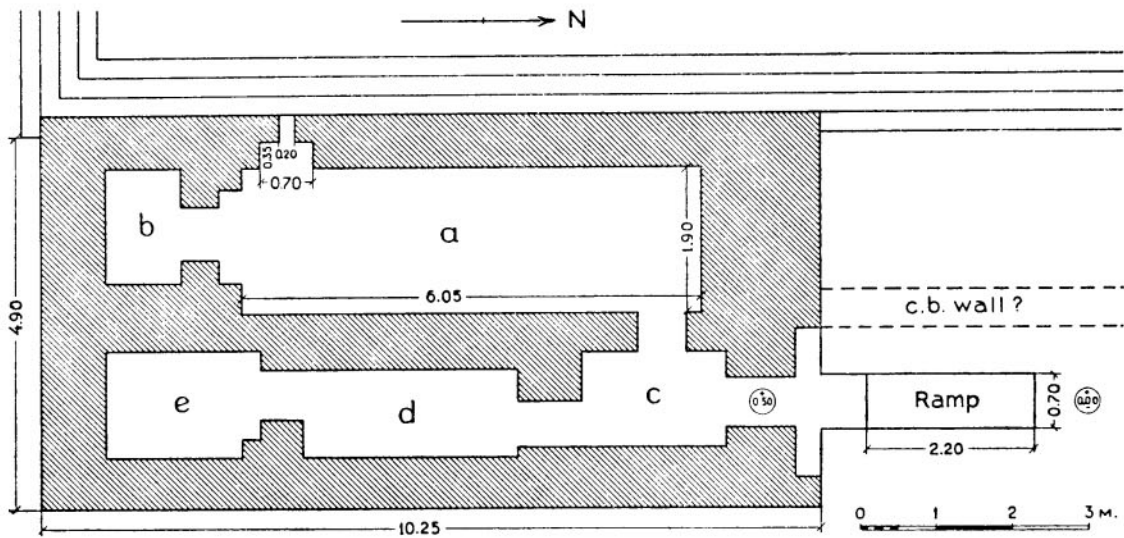


Fig. 105. G 4660 (Junker)

(a) with compound c.b. niche in south end of west wall: 6.05×1.9 m.; area, 11.5 sq. m.; prop. $1/3.18$.

Total floor area, a-e: 23.5 sq. m.

See Fig. 105.

(22) G 4430: core type IV i; no casing; monolithic stela inset in core, in east face near south end.

Chapel: built around inserted stela; three c.b. rooms: N-S offering-room on west, vestibule and magazine on east:

(a) 4.42×1.8 m.; area, 7.96 sq. m.; prop. $1/2.46$.

Total area, a-c: 12.13 sq. m.

See Fig. 106.

(23) G 4650: core type IV i; no slab-stela but stone niche; Princess Yabtyt.

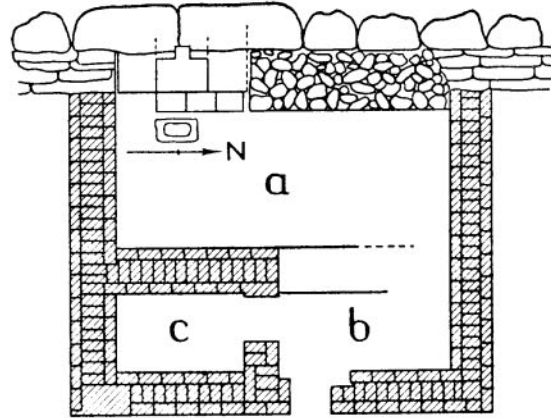
Chapel: five rooms: on west, N-S room with façade of mastaba exposed in west side (a); and south of it an E-W offering-room with stone-cased niche; on east, vestibule on north and two other rooms.

(a) 4.75×2.5 m.; area, 11.88 sq. m.; prop. $1/1.88$.

(b) 1.35×2.9 m.; area, 3.82 sq. m.; prop. $1/0.46$.

Total area, a-e: 27.45 sq. m.

Date: Dyn. V.



Plan 0 1 2 3 m.

Fig. 106. G 4430

(24) G 4330: core type IV i, uncased.

Chapel: towards middle of mastaba: two parallel rooms:

(a) N-S offering-room with recess in c.b. at south end of west wall: 3.65×1.4 m.; area, 5.05 sq. m.; prop. $1/2.6$: entered from b at north end of east wall.

(b) N-S room, vestibule corridor built later; entered from north: 3.65×2.05 m.; area, 7.48 sq. m.

Total floor area, a-b: 12.53 sq. m.

(25) G 4630: core type IV i, uncased.

Chapel: at south end of east façade with an intrusive mastaba, 4631, filling street north of chapel: two rooms and court south of them:

(a) N-S offering-room with two stone stelae set in west wall: 3.9×1.3 m.; area, 5.07 sq. m.; prop. $1/3.0$: entered from east, from b, in north end of east wall.

(b) square vestibule with one column in middle, entered from south from court (c); door to a in west wall; door to later corridor on north.

(c) open court south of chapel, entered from east, at south end of east wall: embrasure of b in middle of north wall.

Total area, a-c: 30.82 sq. m.

See Fig. 107.

All these twenty-five chapels are actually or theoretically attached to the chief offering-niche of the mastaba, in contrast to the exterior corridor chapel which covers the whole façade of the mastaba. They are obviously related to the exterior multiple-room chapels of Dyn. III. The above list gives all the chapels attached to the façade of mastabas of the nucleus cemeteries, which seem to be based on the

earlier chapels of type (1 a). The series is continued by a small number of multiple-room chapels attached to later mastabas and these are entered as type (8 f-g). The series of exterior c.b. chapels attached to the chief niche or in place of the chief niche is continued by a number of one-room chapels, listed here as type (1 d):

(d) *One-room exterior chapels in place of chief offering-niche: type (1 d).*

The one-room chapels, like type (1 c), may have the face of the mastaba exposed in the offering-room or a niche in the west wall. Two are attached to annexes of nucleus mastabas and cover practically the whole length of the annex, but as they are certainly subsidiary to the chapel of the main mastaba

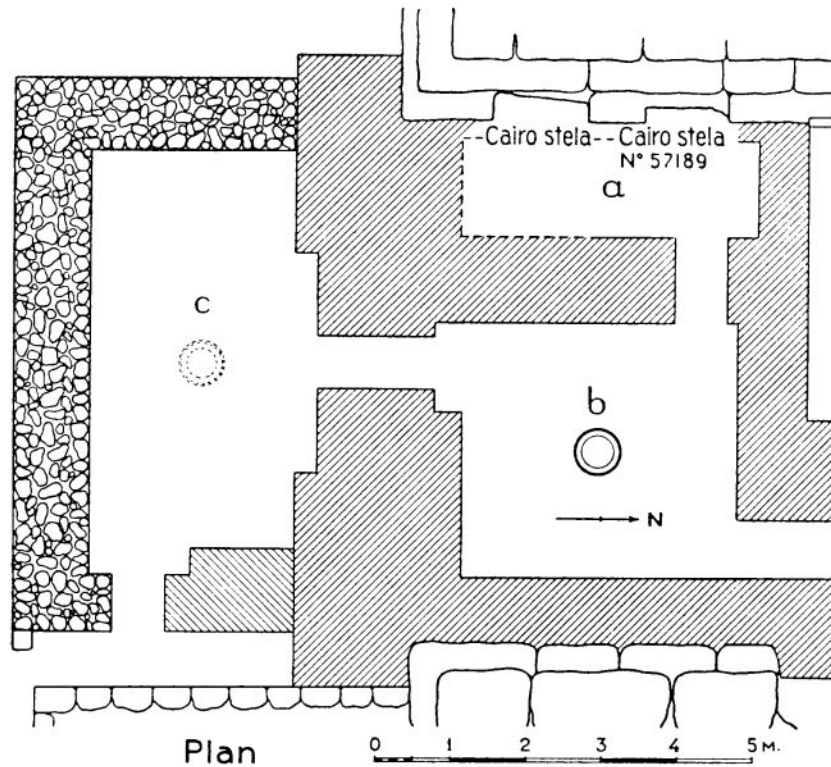


Fig. 107. G 4630

I do not class them as corridor chapels. This type is continued by chapel type (8 g), one-room exterior chapel attached to the chief niche of later mastabas.

(26) G 1225—annex: core type II a; subsidiary to mastaba of type II a with slab-stela; husband of a princess.

Chapel: single-room c.b. chapel around a monolithic stela set against the face of the core; entered from south:

3.4 × 1.65 m.; area, 5.61 sq. m.; prop. 1/2.07.

(27) G 1228 (annex to 1227): type II a of grey limestone.

Chapel: single N-S offering-room built with c.b. niches at south end of west wall; entered from north:

4.65 × 1.3 m.; area, 6.04 sq. m.; prop. 1/3.58.

(28) G 4530: core type IV i, uncased.

Chapel: rubble, near south corner with core façade exposed in west side; entered from east at north end of east wall:

5.0 × 2.4.; area, 12.0 sq. m.; prop. 1/2.09.

See Fig. 108.