

Type (10 a): square or nearly square room with one or two pillars supporting roof; with one or two niches in west wall; entered by doorway from outside.

(1) G 2136: Junker; Kahify; against north end of G 2135.

Mastaba, VIII c; area, 54.05 sq. m.; prop. 1/2.44; 6 shafts.

Chapel, (10 b); square room with one pillar in centre; entered from east at north end of east wall. 3.2 × 2.4 m.; area, 7.68 sq. m.; prop. 1/1.33.

(2) G 7244-7246: mastaba, type VIII c (1) (composite); area, 49.95 sq. m.; prop. 1/0.4; eight shafts; chapel, 2.5 × 2.15 m.; area, 5.37 sq. m.; prop. 1/1.16; relation 1/9.3; two shallow monolithic stelae in west wall; pillar in middle of room; entered from south by doorway in east end of south wall; partly decorated.

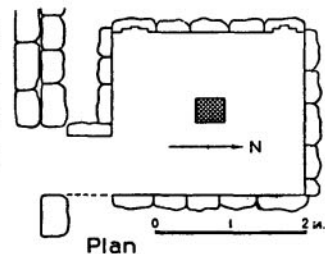


Fig. 181. G 7244

Type (10 b): like (10 a), but entered from end of a corridor.

Examples at Saqqarah; see Steindorff, *Das Grab des Ti*, Pl. I, 'Kapelle'; see also MM C 21.

Type (10 c): recess room, opening on corridor, and separated from it by pillar or pillars and pilasters.

(1) G 2091: Kapi; mastaba, type VIII c (1); area, 94.36 sq. m.; prop. 1/1.43; 4 shafts.

Chapel: offering-room (a) separated by column and pilasters from corridor (b); 3.0 × 1.8 m.; area 5.4 sq. m.; prop. 1/1.66; room (b), long N-S corridor entered by doorway at north, and with alcove in east wall at south end; 9.3 × 1.05 m.; area 9.76 sq. m.; alcove 1.05 × 1.0 m.; area, 1.05 sq. m. Total area of rooms a and b, 16.21 sq. m.; relation, 1/6.0. See Fig. 182.

(2) G 2094: mastaba, type VIII c (1); area, 75.48 sq. m.; 5 shafts; chapel, offering-room (a) separated by pillar and pilaster from corridor (b); 2.15 × 1.5 m.; area, 3.22 sq. m.; prop. 1/1.43; room (b), long N-S corridor entered by doorway at north, 9.05 × 1.5 m.; area, 13.57.

Total area, a-b, 16.79 sq. m.; relation 1/4.49; undecorated.

(7) *The Portico Chapel of Type (11)*

The portico chapel consists of a wide and rather shallow recess in the east façade of the mastaba with the roof supported by one or more pillars. This type of chapel first appears after the middle of Dyn. V, but before the end of the reign of Isesy. It continues in use in Dyn. VI, probably to near the end of that dynasty. The walls of the portico were often decorated, and in general the form presents a resemblance to the pillared portico in which opens the entrance doorway of the complex chapels of Dyns. V-VI. The portico chapel is not as a rule symmetrically placed in the façade but nearer one end.

The variations of chapel type (11) are distinguished by the means of approach to the recess, (a) with an open court, (b) opening on a N-S passage, or (c) opening on a street between two mastabas.

Type (11 a): portico chapel with open court.

Examples:

(1) G 2375: Akhet-mehuw.

Mastaba, type IX a (2); area, 79.9 sq. m.; prop. 1/1.72.

Chapel, portico chapel of type (11 a), with exterior c.b. court in which was built later the small mastaba of Ankh-ir-ptah.

(a) portico, 3.67 × 1.3 m.; area, 4.77 sq. m.

(b) open court obstructed by intruded structures but originally 9.35 × 8.0 m.; area, 74.8 sq. m.

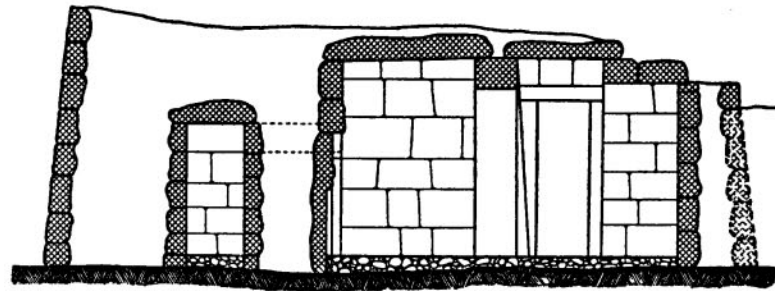
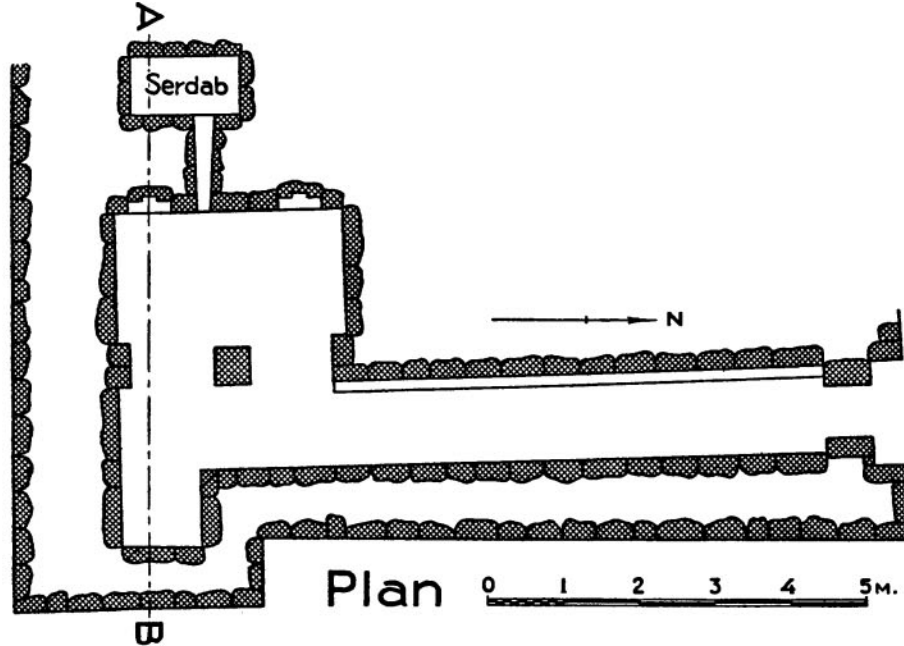
Total area, a and b, 79.57 sq. m.

- (2) G 2001: built on debris against the east face of G 2000, south of chapel; Thetuw.

Mastaba, type IX c (1); area, 27.52 sq. m.

Chapel, type (11 a); with two pillars supporting roof; subsidiary niche north of chapel and another south; with exterior c.b. court entered from north by decorated doorway in east end of north wall.

- (a) portico recess, 4.13 × 1.2 m.; area, 4.95 sq. m.; prop. 1/3.42.



Section A-B Looking North

Fig. 182. G 2091

- (b) formed by c.b. on north and east; 7.3 × 3.05 m.; area, 22.26 sq. m.

Total area, a and b, 27.21 sq. m.

Portico of white limestone decorated with painted reliefs. See Fig. 183.

- (3) G 2004: on independent site.

Mastaba, type IX c; area, 63.51 sq. m.; prop. 1/1.19.

Chapel, type (11 a); with three pillars supporting roof; one niche in chapel; exterior stone court entered from east, north of middle.

- (a) portico recess, 6.15 × 1.5 m.; area, 9.22.

- (b) court, 7.15 × 1.15 m.; area, 8.22 sq. m.

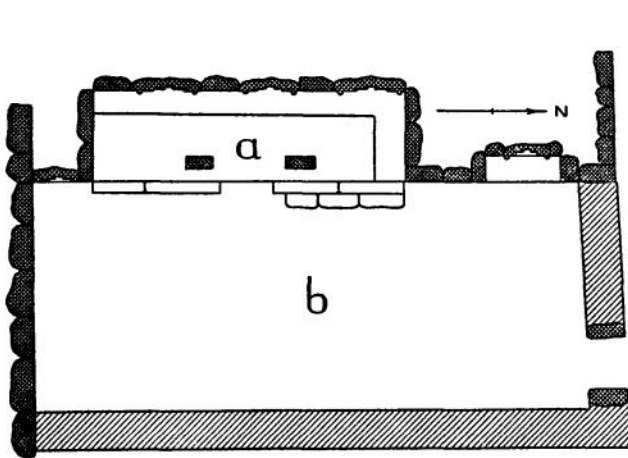
Total area, a and b, 17.44 sq. m. See Fig. 184.

Type (11 b): portico chapel as (11 a) opening on a N-S corridor or a connecting passage.

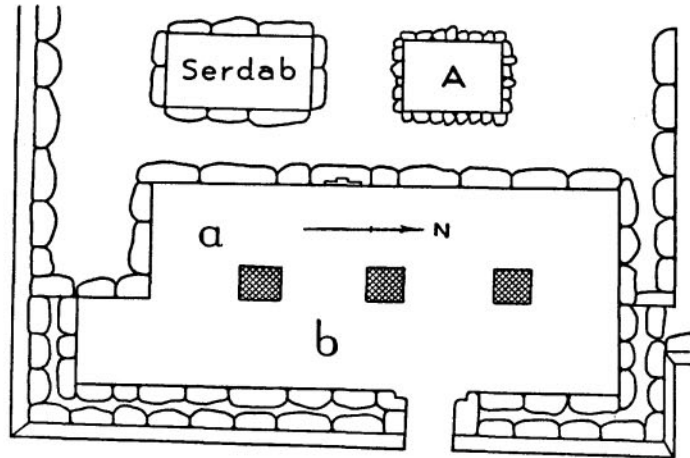
- (1) G 4513: built against the south end of G 4510 and west of G 4512 and G 4517.

Mastaba, type IX c (1); area, 53·81 sq. m.; prop. 1/1·95.

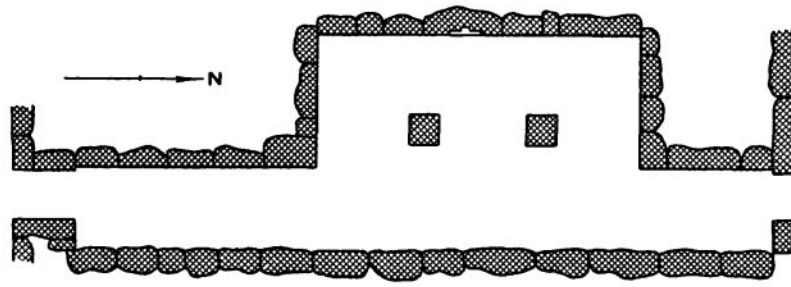
Chapel, type (II b); portico built in recess in east face of mastaba; 4·3 × 1·75 m.; area, 7·53 sq. m.; prop. 1/2·45; opening on a long N-S corridor which actually gave access to G 4516, the chapel was entered by a roofed corridor along its east and north sides; the corridor from which opened the portico chapel of G 4513 was separated from the corridor of G 4515 by a doorway and was entered by a doorway at its own south end; probably roofed, 9·3 × 1·05 m.; area, 9·77 sq. m.



Plan 0 1 2 3 4 5m.
Fig. 183. G 2001



Plan 0 1 2 3 4 5m.
Fig. 184. G 2004



Plan 0 1 2 3 4 5m.
Fig. 185. G 4513

Total floor area of portico and corridor, 17·3 sq. m.

One stela in west wall of portico; no decorations. See Fig. 185.

(2) G 2092+2093. Mastaba, type VIII c (1); area, 144·73 sq. m.; prop. 1/1·32; 8 shafts.

Chapel, offering-room opening from middle of west wall of corridor, 4·15 × 2·25 m.; area, 9·33 sq. m.; prop. 1/1·84. One pillar found displaced, no pilasters. Corridor N-S, 9·1 × 1·05 m.; area, 9·55 sq. m.

Total area, 18·88 sq. m.; relation, 1/7·66. See Fig. 186.

Type (II c): portico chapel without court, opening on street.

(1) G 2414: mastaba type, IX c (1); area, 33·66 sq. m.; prop. 1/2·91.

Chapel, portico chapel in recess in east face, probably with roof supported by two pillars (now missing); with two niches in west wall; c. 7·3 × 1·8 m.; area, 13·14 sq. m.; prop. 1/3·1. See Fig. 187.

(2) G 2371: mastaba of type IX e (1); overbuilt by G 2370; area, 283.35 sq. m.; prop. 1/1.81.

Chapel, portico chapel lined with nummulitic masonry; pillars not found; measurements not exactly recovered.

(8) *Complex Chapels of Type (12)*

The interior chapels consisting of two or more rooms do not appear until Dyn. V. All their wall spaces were available for decoration in relief or painting, and it may be assumed that the design in each

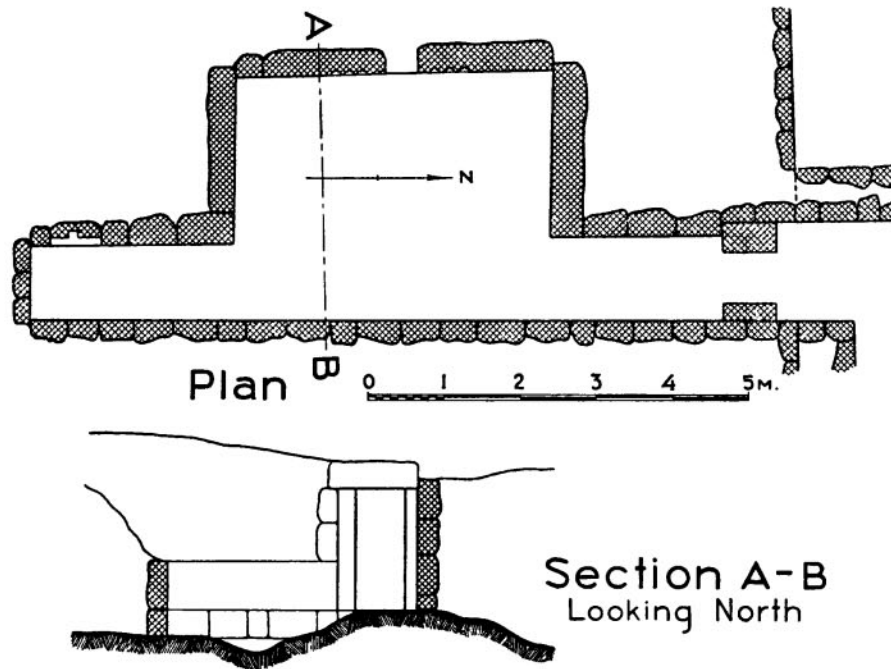


Fig. 186. G 2093

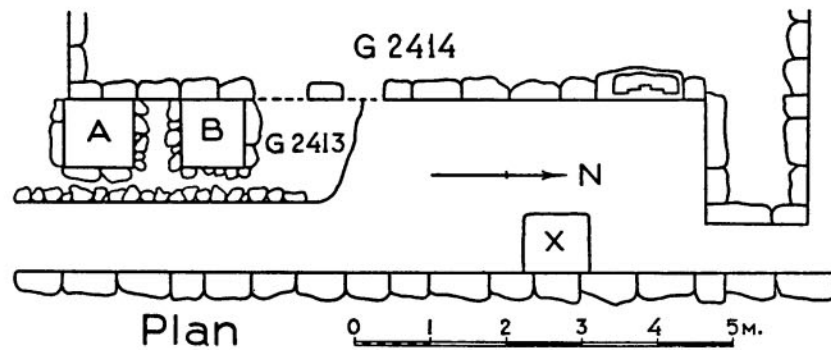


Fig. 187

case included the complete decoration of the walls, although the decoration was rarely completely carried out. These multiple-roomed chapels present the maximum reached by the Egyptians of the Old Kingdom in the decoration of mastaba chapels. The first step in this direction was the addition of exterior stone rooms (decorated or available for decoration) in the twin-mastabas of Cem. G 7000. This was at the end of the reign of Cheops or a little later. The next was the introduction of the great rock-cut tombs of the family of Chephren in the Cheops-Chephren Quarry, and these appear to have combined the interior and exterior stone chapels in a large interior apartment, of type RC (i). The rock-cut tombs developed during the later part of Dyn. IV, and include multiple-roomed chapels like that of Meresankh III, elaborately decorated. During the first half of Dyn. V a number of mastaba chapels were constructed which under the influence of the rock-cut tombs had wall surfaces considerably larger

than the old L-shaped interior chapels of types (3) and (4). These have been described above as chapel types (5), (7), and (10). Corresponding to the interior chapel type (5) an exterior decorated chapel, type (8), was also introduced. The mastabas concerned were largely multiple-shaft or family mastabas. The size of the chapel was necessarily limited to the size of the mastaba. About the middle of Dyn. V certain very large mastabas were made with many rooms nearly filling the mastaba and crowding the part available for burial-shafts into a corner or a narrow strip at the back of the mastaba. A great many of these complex chapels were formed around a nucleus of two rooms (see type (7 c, d, e)): others had a complicated series of rooms and halls around a single offering-room, either a N-S room or an E-W room. In a few cases the chapel served for two or three persons of the same family, each with a separate complex of rooms, and one at least of the secondary chapels had been added later.

The complex chapel may also be formed by the connexion of a number of mastabas built separately with exterior chapels. The three chief examples of composite complex chapels at Giza are (1) the Shepseskaf-ankh complex (G 6010-6040), (2) the Senezem-ib-Yenti complex (G 2370-2387), and (3) the Rawer complex excavated by Professor Selim Bey Hassan in the Cheops-Chephren Quarry.

Each of the great complex chapels has a plan of its own. The great complexes mentioned above consist of separate chapels, and each of these also is built on an individual plan. In examining them for common features as a basis of classification, it is seen that groups may be isolated which contain an E-W offering-room and others which contain a N-S offering-room, but still others have offering-rooms of both forms. Thus it becomes practically impossible to subdivide type (12), and I am reduced to listing them together.

(1) G 6040: Shepseskaf-ankh; built on independent site with G 6020, G 6030, and G 6010 added on south.

Mastaba type VII a, converted into type IX a; area, 144.3 sq. m.

Chapel: interior offering-room of type (4 a), converted into a serdab; large exterior chapel built on east face of mastaba, consisting of rooms (b), (c), (d).

(a) first offering-room of type (4 a); 2.75×1.13 m.; area, 3.1 sq. m.; prop. 1/2.43; with two niches in west wall; entered from east by doorway in north end of east wall; converted into serdab by blocking the doorway.

(b) open-air corridor chapel bounded on east by high wall with rounded top; 9.9×1.1 m.; area, 10.89 sq. m.; prop. 1/9.0; with two niches in west wall; with serdab in south wall; entered from east from room (c), by doorway in north end of east wall.

(c) small nearly square vestibule, roofed; 2.3×1.0 m.; area, 2.3 sq. m.; room enlarged by embrasure of door to room (b), 1.8×0.78 m., area, 1.4 sq. m.; total area, 3.7 sq. m.; entered from north by doorway in north wall from north (outside); doorway to (b) in west wall, doorway to open court (d) in south wall.

(d) open court of nummulitic limestone, with pillared colonnade along north and east sides; open court, 7.95×3.6 m.; area, 28.62 sq. m.; north pillared colonnade, including pillars and eaves, 2.4×2.2 m.; area, 5.28 sq. m.; east pillared colonnade, 10.15×1.6 m.; area, 16.24 sq. m.; total area of court (d), 50.14 sq. m.

Total area, b-d, 64.73 sq. m.

Total area, a-d, 67.83 sq. m.

(2) G 6020: Iy-mery; on independent site with exterior chapel enclosing south end of G 6030; with G 6010 added on south.

Mastaba: two-niched mastaba of type IX a; area, 224.77 sq. m.

Chapel: exterior chapel of type (8 f), of nummulitic limestone, built around chief (southern) niche; consists of three rooms and long serdab; rooms fully decorated; also court.

- (a) N-S offering-room with south niche of mastaba north of middle of west wall; 3.9×1.4 m.; area, 5.46 sq. m.; prop. $1/2.78$; entered by doorway in north end of east wall from room (b).
- (b) long E-W corridor; 1.5×6.45 m.; area, 9.67 sq. m.; entered from east from room (c) by doorway in east wall; doorway to offering-room in west wall; doorway to open court (d) in west end of north wall; long serdab parallel to room in south wall connected with room by three slot windows.
- (c) N-S vestibule room; 3.2×1.6 m.; area, 5.12 sq. m.; entered from east, from outside, by doorway in south end of east wall; doorway to room (b) in north end of west wall.
- (d) open court between east face of mastaba north of stone chapel and the back of G 6030; entered by doorway from south, from room (b), by doorway in east side of south wall; 10.4×2.8 m., area, 29.12 sq. m.

Total area, a-c, 20.25 sq. m.

Total area, a-d, 49.37 sq. m.

- (3) G 6010: LG 15: Ptah-nefer-bauw; a mastaba of type VII a with an exterior stone chapel connecting the mastaba with the southern end of G 6020, Iy-mery, father of Ptah-nefer-bauw.

Mastaba type VII a; area, 144.32 sq. m.

Chapel: interior two-niched chapel, room (a); exterior stone chapel consisting of four rooms, open court, and pillared portico.

- (a) interior offering-room of type (4 a) with two painted niches; 3.55×1.6 m.; area, 5.68 sq. m.; prop. $1/2.22$; entered from pillared hall (b) from east by doorway in north end of east wall.
- (b) pillared hall, nearly square; 4.15×3.25 m.; area, 13.48 sq. m.; roof supported by two pillars in N-S row; serdab in south wall; entered from north from (c) by doorway in east end of north wall; doorway to room (a) in embrasure in middle of west wall.
- (c) N-S corridor with vaulted stone roof; 6.35×1.1 m.; area, 6.98 sq. m.; with roof supported by four pillars and architrave on west side; opening into the narrow N-S court (d) by the spaces between the pillars; doorway to (b) in south wall.
- (d) narrow N-S open court along face of mastaba, west of corridor (c); 6.35×1.3 m.; area, 8.25 sq. m.; no subsidiary north niche in mastaba; opening to room (c) between the pillars on the east side; entered from pillared room (e) from north, by doorway in north wall.
- (e) vestibule room north of (d), separated from open court (f) by two pillars and two pilasters; 4.6×1.2 m. excluding the pillars; area, 5.52 sq. m.; entered from east from pillared portico (g) in middle of east wall; opening into court (f) by spaces between pillars; doorway to (d) in south wall.
- (f) large open court west of vestibule (e); 4.35×5.17 m.; area, 22.49 sq. m.; with standing life-size statue of Ptah-nefer-bauw in middle of west wall; entered from east from vestibule (e) by spaces between the pillars.
- (g) pillared portico east of the entrance to the vestibule (e); 3.9×2.07 m., including two pillars in N-S row; area, 8.07 sq. m.; opening to the east; doorway to vestibule (e) in middle of west wall.

Total area, b-e, 34.23 sq. m.

Total area, b-g, 64.79 sq. m.

Total area, a-g, 70.47 sq. m.

Dated to Dyn. V, about end of Neweserra. See Fig. 188.

- (4) G 2370: Senezem-ib = Yenty; chapel type (7 c), No. 1.
 (5) LG 28: S-ankh-n-ptah: see type (7 c), No. 2 (Fig. 163).

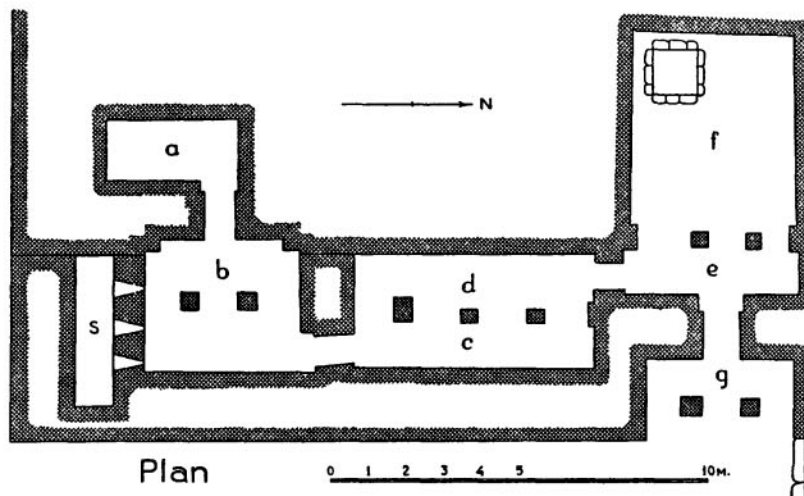


Fig. 188. G 6010

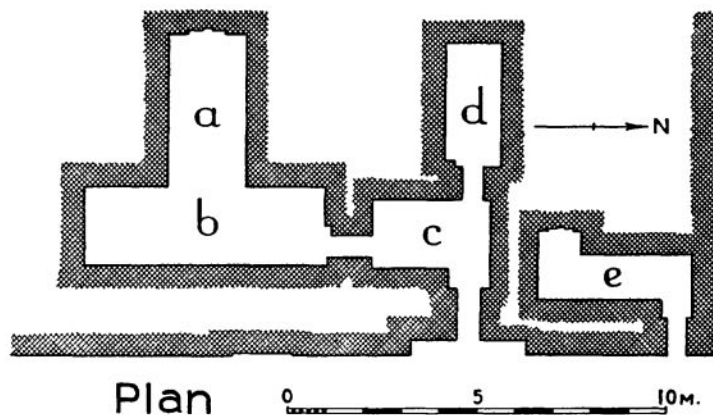


Fig. 189. LG 53-54

- (6) G 2385: see type (7 d), No. 2.
 (7) G 2175: Inezuw and Khnumnefer; see type (7 d), No. 4.
 (8) G 4811+4812: Ptah-ir-ankh; see type (7 d), No. 5.
 (9) Saqqarah, MM D 62: Ptah-hotep; see type (7 d), No. 1.
 (10) LG 53-54: Seshem-nofer and Hetep-heres; see type (7 e), No. 1 (Fig. 189).
 (11) Saqqarah, MM D 64: Akhet-hetep and Ptah-hotep; see type (7 e), No. 1.

(9) *Anomalous Chapels grouped under Type (13)*

After classifying all the chapels known to me at Giza, two chapels remained which could not be entered under any of the types. There may be other anomalous chapels excavated by others at Giza, and for these I reserve the designation chapel type (13).

One of the two chapels to which I refer is that of the c.b. mastaba G 1221, which is certainly of Dyn. IV. The chapel consists of a deep niche in the place of the chief (or southern) niche, lined with stone (decorated), and closed with jambs. It recalls the deep cased niches of the first form of the mastaba of

Neferma'at of Medum, but is smaller. Outside was built an exterior c.b. chapel. This I enter here as chapel type (13 a).

(1) G 1221: *rh nswt* Shad; mastaba type VIII e (2); area, 468.16 sq. m.; prop. 1/2.02.

Chapel, type (13 a); with exterior c.b. chapel.

(a) interior chapel with deep compound stone niche in west wall and drum over entrance; 1.2 × 2.55 m.; area, 3.06 sq. m.; doorway afterwards closed by c.b. wall; relation, 1/152.9.

Exterior c.b. chapel consisting of two rooms:

(b) main room, 2.1 × 3.9 m.; area, 8.19 sq. m.

(c) anteroom, 0.9 × 2.1 m.; area, 1.89 sq. m.

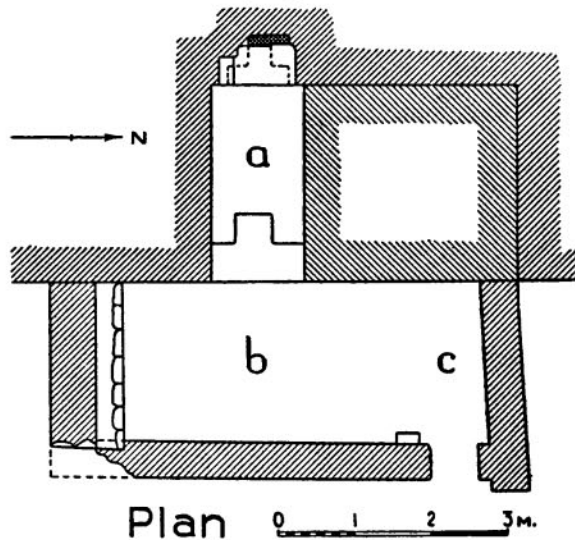


Fig. 190. G 1221

Total area of exterior chapel, 10.08 sq. m.

Total area, (a)-(c), 13.14 sq. m. See Fig. 190.

The other chapel was in G 2197, belonging to Pen-meruw, and certainly of the latter part of Dyn. V.

(2) G 2197: Pen-meruw; mastaba type X c (2) with area of 48 sq. m.; prop. 1/2.09.

Chapel: deep roofed recess in south end of façade with one niche in its west wall; type (13); 1.0 × 0.8 m.; area, 0.8 sq. m.; connected by slot window with N-S serdab south of south wall, which contained three limestone statuettes (a family group, a triad, and two pair statuettes); on the south wall of the recess is incised an inscription giving the will of Pen-meruw.

e. Development of the Offering-chapel in Dyns. IV-VI

(1) *The Older Forms of Chapels and Mastabas which preceded the Giza Chapels*

The chapels at Giza of the reign of Cheops are based on those of the transition period, Dyns. III-IV (end of Dyn. III and reign of Sneferuw). The latter were in turn developed directly from those of Dyns. I-III (see *Tomb Development*, pp. 256 ff.). The whole series of known chapels from Dyn. I to the reign of Sneferuw presents three main forms, the open-air chapel, the roofed exterior chapel, and the interior chapel of cruciform type. All the chapels down to the accession of Khasekhemuwy appear to have been open-air chapels with more or less well-protected offering-niches.

(a) Open-air chapels:

(1) The four-space chapel around multiple-niched mastabas (palace-façade or simplified panelling) in Dyn. I; around two-niched mastabas in Dyn. II.

(2) Open-air chapel usually with offering-room and vestibule, around twin niches of Tarkhan mastabas; Dyn. I.

(3) Corridor along face of two-niched mastabas, often closed by low walls at the end; in Dyns. II–III. The last-named, the open-air corridor chapel, persisted throughout Dyns. IV–VI as the cheapest type in a crowded cemetery.

The roofed exterior chapel appears to have been introduced in the reign of Khasekhemuwy or perhaps a little earlier, and continued in use until the accession of Cheops. It also took several different forms.

(b) Roofed exterior chapel:

(1) Chapel covering whole façade of two-niched mastaba:

i. Simple corridor chapel.

ii. Corridor with multiple-roomed chapels around the southern niche: begins in reign of Khasekhemuwy.

iii. Two-room corridor chapel, with wider room around south niche or entrance to south chapel.

(2) Chapel usually one-roomed, around one niche only: late Dyn. III and Sneferuw. The purpose of these exterior chapels was primarily to protect the painted decorations of the façade, but the multiple-room addition provided a storage-place for the funerary utensils, and later for the statue or statuette.

The interior chapel or offering-room was introduced also in the reign of Khasekhemuwy. It was designed as an improvement on the protected niche and amounted to a withdrawal of that niche within the body of the mastaba. As a result it took the symmetrical form of the offering-niche, with the niche itself opposite the doorway. This is the chapel which I call cruciform and divide into three variations according to the type of niche-work in the west wall. Only one of the early cruciform chapels had an asymmetrical entrance, QS 2407, and that actually had two doorways. The valley face of many of the mastabas with cruciform chapel was further protected with a roofed exterior chapel, particularly the mastabas with panelling on that façade. The cruciform chapel was lengthened in the N–S direction, when the custom was introduced, early in Dyn. IV, of decorating the walls with scenes in relief or painted.

All the mastabas to which the above-mentioned chapels were attached were c.b. mastabas, either multiple-niched or two-niched. In the multiple-niched mastaba it was one of the many niches which was actually used as the chief offering-place. In other words, the chapels attached to multiple-niched mastabas were in practice one-niched chapels. The roofed exterior chapels also had one niche, the southern niche, indicated as the chief offering-place, and this niche was actually or theoretically opposite the burial within the mastaba. The interior cruciform chapel replaced the southern niche and was in consequence also a one-niched chapel. The interior one-niched cruciform chapel was characterized not only by its form, but by its position in the SE corner of the mastaba, a position which arose out of the fact that it actually contained the southern niche of the two-niched mastaba. Its doorway opened directly in the façade of the mastaba (usually in an embrasure corresponding to the outer recess of the compound niche), and was connected with the offering-chamber by a passage of variable length, sometimes 2 or 3 m. long. North of the doorway, in the façade of the mastaba, towards the north end, the northern niche of the two-niched mastaba was constructed in the brick-work (hereafter called 'the north subsidiary niche'). The offering-room even after it was lengthened by the introduction of wall scenes occupied only a small part of the mastaba. The relation of the floor area of the chapel to the area of the mastaba varied approximately with the size of the mastaba, from about 1/300 in large mastabas to 1/50 in small mastabas.

The characteristics of the early interior chapels of cruciform type are to be held in mind for the development of the chapel at Giza:

- (1) The position in the SE corner.
- (2) The single niche opposite the doorway, representing the chief offering-niche.
- (3) The symmetrical entrance from the east.
- (4) The subsidiary northern niche.

(2) *The Chapel Types used in finishing the Fifteen Initial Cores of the Three Early Nucleus Cemeteries*

At Giza the introduction of the stone mastaba in the reign of Cheops started a new line of development for mastaba chapels. The fifteen initial stone mastabas of the three nucleus cemeteries in the Western Field were all begun as mastabas or mastaba-cores consisting of a stepped retaining wall of small stones, either filled or solid, with the same proportions as the c.b. mastabas of Dyn. III. These cores differed essentially from the old c.b. mastabas in that the eastern façade contained no niches of any sort. It is uncertain whether these cores were designed to be used as mastabas or to be cased with fine white limestone. At least ten of the fifteen had a slab-stela fixed in an emplacement cut in the retaining wall near the south end, approximately opposite the burial-chamber, that is, the place of the southern niche of the two-niched mastaba. Four of the cores, all with slab-stelae, were uncased, and had an exterior c.b. chapel of type (1 a) built around the slab-stela, which was exposed in a niche in the western wall of the chief offering-room. None of the four had a subsidiary north niche. Four others, two of which had slab-stelae, were cased with fine white limestone with an exterior chapel of the same material, chapel type (2), but the casing and the chapel were only found well preserved in one mastaba (G 2110). The subsidiary northern niche was cut in the casing in the finished mastaba G 2110. The stone chapels of type (2) were completed with subsidiary c.b. rooms of types (1 b) and (1 e). In two cases the c.b. chapel had the slab-stela exposed in the offering-room (cf. type (1 a)), and the stone room south of the stela appeared to have served to contain scenes in relief. Five of the mastabas had received additions of massive core-work (type IV iii), cased in fine white masonry, and intended to contain an interior chapel. Four of these cores had a slab-stela still in place behind the added masonry. Finally, one of the cores cased in fine white limestone had an interior chapel built in a hole broken in the core. Thus the fifteen initial mastabas present six types of chapel:

- (1) The exterior multiple-room c.b. chapel of type (1 a), built around a slab-stela set in the place of the chief or southern niche; four examples: G 1203, G 1205, G 2100, G 4250.
- (2) A similar chapel, type (1 b), built around a slab-stela, but against an exterior stone chapel of type (2 a); two examples: G 4160, G 4260.
- (3) An exterior stone offering-room with one niche; type (2 b), supplemented by subsidiary exterior rooms of type (1 e); two examples: G 2110, G 2120.
- (4) Interior one-niched chapel of type (3 a) in core-work of type IV iii; five examples: G 1201, G 1223, G 1225, G 4150, and possibly G 2210.
- (5) Similar chapel of type (3 a), built in hole broken in mastaba-core; one example: G 2130.
- (6) Interior two-niched corridor chapel, type (5 a), constructed in core-work of type IV iii; one example: G 4000.

All but one of these chapels are one-niched chapels in which the niche is the chief or southern offering-place approximately opposite the burial-chamber, and each of the mastabas contained originally only one burial-place after the manner of the old c.b. mastabas of Dyn. III. The exterior c.b. chapels are attached to the slab-stela at or near the south end of the east façade. Two of these chapels have an addi-

tional exterior stone room, like the rest of the chapels of type (2), attached to the southern niche of cased mastabas of the two-niched form. The interior one-niched chapels type (3) are situated in the SE corner like the cruciform chapels, and have a similar relation between the floor area and the mastaba area. The one finished example, G 2130, had a subsidiary northern niche cut in the casing, and it is probable that the other four were also designed with subsidiary northern niches. The one two-niched chapel of type (5 a), G 4000, is contained in the additional core-work of a two-shaft core, cased in fine white masonry.

The cores of these fifteen initial mastabas were the first to be built in the necropolis. The dates at which they were finished and used for burials are not so certain, and obviously covered a much longer period than the construction of the cores. All but one of the burial-shafts and burial-chambers are lined with fine white limestone, characteristic of the reign of Cheops, and it is probable that all these lined chambers were finished in the reign of Cheops. The forms of the chapels raise two questions of vital importance:

- (1) When was the interior L-shaped chapel introduced at Giza?
- (2) When was the two-niched offering-room introduced?

(3) *The Chapels of the Twenty-eight Succeeding Cores*

The fifteen initial cores in the Western Field were followed by twenty-eight other cores as follows:

- (1) Five cores of type II a in Cem. G 1200.
- (2) Six cores of type II a in Cem. G 2100.
- (3) Eight cores, one of type III and seven of type IV, in Cem. G 4000 (rows 5-6 and lines 3-6).
- (4) Nine cores, one of type III and seven of type IV, in Cem. G 4000 (in row 4, lines 1-7, G 4750 and G 4760).

Of these, seventeen have the lined burial-chamber of the fifteen initial mastabas:

- 5 in Cem. G 1200.
- 1 in Cem. G 2100.
- 7 of the 8 mastabas in Cem. G 4000 (second group, see (c), p. 193).
- 4 of the 9 in Cem. G 4000, in the third group of which 4 had lined chambers and 5 had lined chambers designed but not executed.

Ten of these have slab-stelae and ten contained reserve heads. The finishing of these twenty-eight mastabas is to be dated to the reign of Cheops, while the use for burials probably extended into the reign of Chephren. The chapels of these twenty-eight mastabas as far as preserved are classed as follows:

- Type (1 a): 10 examples: 9 with slab-stelae; 10 lined chambers.
- Type (1 c): 4 examples: none with slab-stela; 3 lined chambers.
- Type(2): 6 examples: 1 with slab-stela; 5 with reserve heads; 4 with lined chambers, and 2 with lined chambers designed but not built.

In addition, three mastaba-cores of this group of twenty-eight had been reconstructed in later times and five had had the chapel otherwise destroyed.

It is clear that during the period covered by the forty-three mastaba-cores of the period dominated by lined chambers, slab-stelae, and reserve heads, the common type of chapel was the exterior one-niched chapel. Obviously from the examples preserved and the width of the N-S streets, it was intended to build exterior chapels for all these cores, leaving uncertain whether these were designed as c.b. or stone chapels. Certainly the cores of type IV i were intended to be cased and to have exterior stone

chapels. The interior chapels arose by means of reconstructions, five by the addition of the core-work of type IV, and one by breaking a hole in a core of type II b. The sealing in the burial-chamber of the mastaba with the interior chapel intruded in the core, G 2130, dates the burial to the reign of Cheops, and it may be concluded that this interior chapel of type (3 a) was constructed before the end of the reign. The other chapels of this type in massive core-work added to cores of type II a and b were also constructed in that reign, probably also towards the end, as three of them were never completely finished.

(4) *The Introduction of the Interior L-shaped Chapel with One Niche in the Twin-mastabas of the Eastern Field*

All the cores in the three nucleus cemeteries of the Western Field were built without any recess for an interior chapel, types II a, II b, III i, and IV i. After the middle of the reign, and after the final plan of the pyramid of the king had been begun, a cemetery of twelve mastabas of type IV i, also without recesses, was laid out in the Eastern Field. The date I estimate at about years 15-17 of Cheops. These twelve were one-shaft mastabas intended to be cased in fine white limestone with exterior stone chapels (like row 4 of Cem. G 4000). Before the original plan could be carried out, the cemetery was altered to contain eight twin-mastabas to be cased in fine white limestone and to have in each two interior chapels of type (3 a) each with a subsidiary north niche. The core of each of the four northern twin-mastabas was composed of two of the original cores connected by massive core-work, and in the case of the man's chapel reconstructed with massive masonry (not stepped). I consider it probable that the interior Giza chapel of type (3) originated in this reconstruction of the eight northern cores of the Eastern Field, and that the interior chapels of the Western Field were later in date. These four northern twin-mastabas were finished in the reign of Cheops, on the evidence of the quarry mark on a casing block. Their construction left the southern row of four original cores of type IV i, much too short to be used as twin-mastabas. As a result a block of core-work was added to the southern end of each to adapt it to the length of a twin-mastaba. This addition was of type IV iii with a chapel recess constructed in the core-work, and these are the first dated cores intended *ab origine* to contain an interior chapel. They correspond closely in date to the four cores of the Western Field for which additional core-work of type IV iii had been begun, but left unfinished. The westernmost of the southern twin-mastabas was finished slightly later than the northern twin-mastabas, but in a similar manner, and while the southern chapel was built in the recess in the southern addition, the northern was in a hole broken in the old core. While the second mastaba from the west was being cased, I presume that Cheops died, for the casing was only just begun. This and the third had only one poor interior chapel, each constructed of c.b. or rubble, in the original chapel recess of the southern addition. The eastern core, completed in the reign of Chephren, had a chapel built in a hole broken in the northern end, while the recess built in the southern end was covered by the casing and filled with stones.

Thus it may be definitely concluded that the interior one-niched chapel came into use towards the end of the reign of Cheops. The position of these interior chapels of type (3), their relation to the mastaba area, their direct entrance from the east in an embrasure in the façade, and the use of a subsidiary north niche, were similar to the cruciform chapels of Saqqarah. They differed, however, in having an asymmetrical entrance with the offering-niche not visible through the doorway. After the introduction of the interior chapel in the mastabas of important persons at Giza, the exterior chapel continued to be used but was attached as before to the chief niche, and used in less important mastabas. All the important chapels after the reign of Cheops were interior chapels. Nevertheless, the cores constructed in the two last nucleus cemeteries, the Cem. en Échelon and Cem. G I S, were built without chapel recess and the interior chapels in these cemeteries were built in holes broken in the old cores.

(5) *The Transition from the One-niched Interior Chapel to the Two-niched Chapel*

The single niche of the exterior chapels of types (1) and (2) is in the place of the chief or southern niche. The single niche in chapels of type (3) represents the chief or south niche of the two-niched mastaba withdrawn within the mastaba. As shown in *Tomb Development* (p. 263), the single niche of the old cruciform chapel also represented the withdrawal of the chief niche within the mastaba in order to protect the painted decoration. Thus the type of mastaba with interior one-niched chapel and subsidiary north niche was based on the two-niched, one-shaft mastaba. The two-niched, one-shaft mastaba had in Dyn. II an open-air corridor chapel. About the time the interior cruciform chapel was introduced an exterior multiple-roomed chapel was also introduced around the chief or south niche as an alternative device for protecting the decoration of the niche and providing subsidiary rooms for the funerary services.

When the stone mastaba cores were built at Giza by Cheops, none of the early examples in the three earlier nucleus cemeteries of the Western Field presented the two-niched façade. It is to be remembered that the royal masons at that time appear not to have solved the problem of constructing a deep compound niche in a stepped wall with steps 8-11 cm. wide. The problem was solved later by inserting a framed monolithic *ka*-door in the face of the stepped wall. Nevertheless, the old core-mastabas used as built had a slab-stela inset in the stepped wall, around which the exterior c.b. chapel of types (1 a) and (1 b) was built. This slab-stela was in the position of chief south niche, and it is obvious that the core-mastabas were conceived as two-niched, one-shaft mastabas. They even reproduced the general proportions of the older c.b. two-niched mastabas. Furthermore, all the mastaba-cores cased with white or nummulitic limestone had two niches in the casing.

The early exterior chapels of types (1 a) and (1 b) at Giza were built around a slab-stela conceived as the south niche of a two-niched mastaba, and those of type (2 b) around the south niche of an actual two-niched mastaba. The interior one-niched chapels of type (3) represent, as already said, the withdrawal of the chief south niche of a two-niched mastaba within the mastaba. The two-niched, one-shaft mastaba appeared in its full form in the stairway mastabas of Dyn. II, in which the chief south niche was opposite the burial-chamber and the minor north niche opposite the upper end of the stairway. All of the early stone mastabas at Giza with chapels of types (1), (2), and (3) were conceived as two-niched mastabas, and all had only one burial-shaft.

The principle that one burial-shaft should be represented by two niches was further exemplified by the old c.b. twin-mastabas, and the five twin-mastabas at Giza in Cem. G 7000. In all these there were either two niches or an interior one-niched offering-room with subsidiary north niche for each of the two burials, man and wife, in the twin-mastaba. The principle was later applied in two-shaft and multiple-shaft mastabas by the use of two or more pairs of niches, one pair for each burial (see chapels of types (5 a), (8 b), and (9 b)).

Thus the west wall of the chapels of types (1), (2), and (3) is actually, or represents, that section of the façade of the mastaba which contained the chief or southern niche of a two-niched, one-shaft mastaba. The west wall of the two-niched offering-room, on the other hand, appears to present a representation of the façade of the two-niched mastaba. Of the two niches in the chapel, the southern represents the chief niche of the two-niched mastaba and the northern the subsidiary north niche. In spite of this symbolic representation of the façade, the two-niched offering-place when of type (4 a) was accompanied by the old traditional subsidiary north niche in the face of the mastaba. The great majority of the two-niched chapels of type (4 a) were attached to two-shaft mastabas. In the later chapels of types (4 b) and (5) the

subsidiary north niche was omitted, and the two niches were used for one, two, or more burial-shafts. In the chapels of types (5), (8), and (9) the west wall has either a nearly full-length representation of the mastaba façade or the façade itself, and these chapels had a variable niche-work, one pair of niches for all burials, one pair of niches for each burial, or even one niche for all burials. I infer that it was the conception of the west wall of the chapel as representing the façade of the mastaba which led to the development of the chapels of types (5) and (8) with their varied niche-work, while in type (9) the offering side of the chapel was actually that façade. In these chapels the principle of one pair of niches for each burial was often replaced by the principle that one or two niches might serve for all the persons buried in the mastaba.

The use of the two-niched chapel depended (1) on the conception of the west wall as representing the façade of the mastaba, (2) on the use of the two burial-shafts in the mastaba, and (3) on the weakening of the principle that each burial should be represented by a pair of niches. Of these points, the introduction of the two-shaft mastaba is the most significant. The mastaba cores of the three nucleus cemeteries of the Western Field had been constructed as one-shaft cores. Four of them had received an annex with one burial-shaft on the north end, and these were thus converted into a sort of twin-mastaba with two shafts. Three of these annex mastabas had a slab-stela on the south, and were being increased in size with a casing and a subsidiary north niche opposite the annex. Several others, to be mentioned later, had received one or more secondary shafts intruded in the body of the mastaba. The twelve original cores of the Eastern Field were also constructed as one-shaft mastabas, but when the two northern rows were incorporated in the four northern twin-mastabas, a new shaft was constructed for the man, and the original shaft left unused. Thus the man's part of these four mastabas presented a fallacious appearance of a two-shaft mastaba. The four southern twin-mastabas which incorporated the southern row of the old cores, increased by additional core-work on the south, had two shafts in the old nucleus core, of which one was the original shaft and the other intrusive. Only one, G 7130 + 7140, was really finished as a twin-mastaba with two pairs of offering-places. The other three, G 7230 + 7240, G 7330 + 7340, and G 7430 + 7440, had only one offering-room. G 7430 + 7440 had, however, two subsidiary niches, one on the north and one on the south. These three mastabas were practically two-shaft mastabas. The next large mastaba in that field, G 7510, probably earlier than the finishing of G 7430 + 7440, had one shaft in the position of the chief shaft of a two-shaft mastaba and appears to have been designed as a two-shaft mastaba. The succeeding thirteen large mastabas were all two-shaft mastabas. Thus in the Eastern Field the two-shaft mastaba appears to have been introduced in the beginning of the reign of Chephren at the latest.

In the Western Field, aside from the annex-mastabas, there were two early mastabas which had or were designed to have two shafts, G 2000 and G 4000. G 2000 was an enormous mastaba of type III apparently designed as a sort of twin-mastaba with two interior chapels and two subsidiary niches. The northern chapel recess had been walled off with a subsidiary north niche in the face of the blocking wall. Like its mate in the Eastern Field, G 2000 had one shaft in the position of the man's shaft in the two-shaft mastaba. This mastaba I assign to the end of the reign of Cheops, a little earlier than G 7510. G 4000 enclosed one of the fifteen initial cores which had been increased by massive core-work and cased with fine white limestone. It had one shaft in the position of the shaft of the owner in the old one-shaft cores and a second shaft for the wife, intruded immediately south of the chief shaft. Of these two mastabas, one was designed as a one-shaft mastaba, and the other as a twin-mastaba.

In addition to G 4000, two other cores of the three nucleus cemeteries had been converted into two-shaft mastabas by the intrusion of a second shaft south of the original 2-metre shaft, G 4840 and G 2150. G 2150 was finished after the reign of Mycerinus and G 4840 was earlier, probably in the reign of Cheph-

ren or Mycerinus. One other early core, G 2100, had received four intrusive shafts made long after the original shaft, and is rated by me as a one-shaft mastaba.

None of the cores in the three early nucleus cemeteries was built as a two-shaft mastaba. The two-shaft mastaba first became common in the Cem. en Échelon, for the majority of the cores in that cemetery were built with two large 2-metre shafts. These two-shaft cores I assign to the latter part of the reign of Chephren, although most of them were finished in the reign of Mycerinus and later, to the end of Neferirkara. The mastabas lying outside the nucleus cemeteries were mostly two-shaft mastabas down to the end of Neferirkara, although one-shaft mastabas still occurred. The three-shaft mastaba also occurred in this period and was in general originally a two-shaft mastaba converted by intrusion. Towards the end of the period, multiple-shaft mastabas began to appear, and thereafter became the common type, especially in medium and small mastabas.

The facts show that the early one-shaft mastabas had one-niche chapels of types (1), (2), and (3). The great majority of the early two-shaft mastabas of the reigns of Chephren and Mycerinus had one-niched chapels of type (3). In the period of one-niched chapels down to the end of the reign of Mycerinus there are five two-niched chapels (see Nos. 1-5, above). The pyramid chapel, G 1-b, was attached to a tomb with a single burial, a queen of Cheops himself. As far as our evidence goes the two-niched chapel was introduced by this chapel, which was actually similar to the mastaba chapels of type (6), a cruciform chapel with two niches. I assume that the two-niched west wall represented the façade of the old two-niched mastaba, but whatever the reason for the adoption of the two-niched form, the example set by the pyramid chapel of a great queen was sure to be followed by other members of the royal family. The other early two-niched chapels belonged to three princes of the blood royal, and to a princess (or to a princess and her mother, a queen). The importance of the persons involved is emphasized by the sizes of their mastabas. G 2000 and G 7510 were enormous constructions, the largest mastabas in the necropolis, one in the Western Field and the other in the Eastern Field. G 4000 was the largest of the mastabas constructed in the three earlier nucleus cemeteries of the Western Field. The smallest of the four, G 7650, was still a large mastaba with an area of 936 sq. m., only a little less than the large twin-mastabas or the mastaba G 4000. In the two decorated chapels, G 7510 and G 7650, the minor northern niche in the chapel was decorated in the name of a princess of the blood royal. G 2000 was designed as a twin-mastaba to contain two burials, although only one shaft was actually used. G 7510 appears to have been designed as an ordinary two-shaft mastaba, as the man's shaft was in the place of the chief shaft in a two-shaft mastaba. The other two, G 4000 and G 7650, were finished one with two shafts and the other with three shafts, of which one was unused. I believe that in the mastaba chapels, following the example set by the pyramid chapel, the two-niched west wall represented the two-niched façade of a mastaba, and this is quite clear in the case of the corridor chapel of G 4000.

After the reign of Chephren, the favoured place for the tombs of members of the royal family was transferred from the Eastern Field to the Cheops-Chephren Quarry south of the Chephren Causeway. These tombs which began in the reign of Mycerinus had rock-cut chapels with one or two shafts sunk in the floor. These chapels, which continued the main line of development at Giza, had one-niched and two-niched offering-rooms with a preponderance of two-niched offering-rooms. One large mastaba, G 5110, in the Western Field, constructed for a son of Chephren in this same period, had also a two-niched chapel of type (6 b), although the mastaba contained only one shaft. The obvious effect of the chapel development in the reign of Mycerinus was to fix the two-niched chapel in use. It is, therefore, not surprising that after the reign of Mycerinus the two-niched chapel of type (4 a) came into common use in the large mastabas of the Western Field. These mastabas were in general two-shaft mastabas.

In these chapels of type (4 a) the west wall with its two niches obviously represented the façade of the two-niched mastaba, but still retained the exterior subsidiary northern niche. It is significant that the decoration of these chapels showed that they were intended for the funerary services of the man and the wife who were buried in the two-shaft mastaba. Thus the subsidiary north niche became superfluous, and in the later two-niched chapels of type (4 b) was omitted.

(6) *The Use of the Rock-cut Tombs instead of Mastabas for Members of the Family of Chephren*

Early in the reign of Mycerinus the members of the royal family of Chephren began to make their tombs in the old Cheops-Chephren Quarry. The rock-cut tomb, sometimes cased or surmounted by a dummy mastaba, replaced the old masonry mastaba of the reigns of Cheops, Radedef, and Chephren.

As I have repeatedly insisted, the main line of development is presented by the tombs of the royal family and of the great nobles connected with the court. The tombs of this class began at Giza with the three nucleus cemeteries of the Western Field and were taken up by the twin-mastabas of the Eastern Field, followed by the six mastabas with massive cores added in the reign of Chephren. With the construction of these mastabas, the Eastern Field became the primary field and the Western Field fell into secondary importance. The tombs of the Eastern Field were followed by the rock-cut tombs in the Cheops-Chephren Quarry, which were also placed in an eastern field, that of the Chephren pyramid. The main line of development runs, therefore, in these rock-cut tombs during the reign of Mycerinus.

The earliest of these rock-cut tombs, type RC (i), being the tombs of members of the royal family, had a decisive effect on the subsequent development of the mastaba chapel. This effect was produced by five characteristic features of the early rock-cut tombs:

- (1) Most of the rock-cut chapels contained two or more rooms.
- (2) The great size of the chapels increased enormously the wall area available for decoration.
- (3) The nature of the rock in which these chapels were cut caused the rapid development of a technique (sized reliefs) which differed essentially from that used previously, for both white and nummulitic stone.
- (4) A great majority of the chapels had two offering-niches.
- (5) The increased wall areas resulted in a considerable expansion of the types of scenes used in chapels; in particular harvest scenes, swamp scenes, picture lists of offerings, craftsmen at work, &c.

The increase in the number of rooms had been begun by six mastabas of the main line of development in the Eastern Field, G I-b, G 7120, G 7410, G 7140, G 7430, and G 7050. These exterior stone chapels were of the same character as the c.b. subsidiary rooms used with chapels of types (2) and (3), and were undoubtedly based on the multiple-roomed c.b. chapel of type (1 a). They had one essential difference in that they increased the wall area available for the carving of reliefs. The exterior rooms of G 7120 were certainly partly decorated with reliefs, and probably all were intended to be decorated. The scenes in these rooms as far as now preserved included scenes from life which were so characteristic of the rock-cut chapels. Thus both the increase in wall space and the expansion of the scenes had begun in these earlier mastaba chapels, and the great increase of size and of reliefs in the rock-cut chapels was a direct development of a movement already begun in mastaba chapels. The technique of making sized reliefs was apparently invented for these rock-cut chapels, and greatly developed by use in their decoration. Even the use of the two-niche offering-room was not new, having already been used in five chapels constructed for members of the royal family. The conclusion is clear that the rock-cut chapels represent

a direct development from the chapels of the royal mastabas of the reigns of Cheops and Chephren, but the features on which they were based were greatly increased in size and in usage in the rock-cut tombs.

(7) *Effect of the Rock-cut Chapels on Mastaba Chapels*

The first effect of the rock chapels of the reign of Mycerinus was that the two-niched chapel of type (4 a) came into common use and that the use of the new sized technique was introduced for mastaba chapels of nummulitic limestone.

The one-niched chapels of type (3) predominated in mastaba chapels down to the end of Mycerinus together with one pyramid chapel with two niches and four mastaba chapels, one of type (5 a) and three of type (4 a), all made for great persons of the royal family. After Mycerinus there were thirteen large mastabas enclosing old cores which were provided with chapels of type (4 a). These included twelve fully decorated chapels. With them are associated at least seven chapels of this type. Scattered through the period from Neferirkara to Isesy are another ten chapels. Contemporaneous with the ten last chapels are recorded seventeen chapels of type (4 b), two-niched chapels without subsidiary north niche. These forty-seven two-niched chapels which followed the reign of Mycerinus show similar sizes, proportions, and relations to the mastaba. The earlier chapels of type (4 a) were of white limestone with the reliefs carved by the old technique. The later chapels of type (4 a) and all those of type (4 b) were of nummulitic limestone, and in all those which were decorated in relief the new sized technique of the rock-cut chapels was used. In fact, after Neferirkara the great majority of the chapels of other types were also built of nummulitic limestone and in these the sized technique was used.

In the period from Neferirkara to Isesy the old two-niched chapel of type (4 a) was degenerating, and at the same time other types of chapels were introduced and came into common use, chapels of types (5), (7)–(12). In these the full effect of the rock-cut chapels is seen in the enlarged wall spaces and the expansion of the wall scenes (see Chapter VIII). Intervening between the rock-cut tombs of the family of Chephren with their expanded wall scenes and the enlarged chapels at Giza stand the great decorated pyramid temples of Weserkaf, Sahura, and Neferirkara, and the enlarged chapels were probably based on the pyramid temples, and thus indirectly on the rock-cut chapels of the Chephren family.

The rock-cut chapels continued in use during Dyns. V and VI while mastaba chapels of types (4 b), (5)–(12) were in use in the other parts of the necropolis. The two sets of chapels affected each other mutually. For example, the mastaba chapel of Prince Duwanera, G 5110, of type (6 b), was undoubtedly based on the rock-cut chapels of his elder brother, Prince Nebemakhet, LG 86, of type RC (ii c). It is also clear that the rock-cut chapels of type (iii b) were of the form of mastaba chapels of type (4 b), and probably based on their form. It is probable that the simplified chapels of type RC (i c) had some influence on the introduction of the chapels of RC (iv), and also on the introduction of the mastaba chapel of type (5).

(8) *New Types of Chapel introduced in Dyn. V*

At Giza the two-niched chapel of type (4) was succeeded in Dyn. V by new types which presented increased wall areas, the corridor chapels of type (5), many of them decorated, the chapels with E–W offering-room, type (7), and the complex chapels of type (12). These chapels of Dyns. V–VI abandoned the position in the SE corner of the mastaba, although the chief offering-niche was still generally towards the south. In the corridor chapels the entrance became variable, being either from the east or from the end (north or south end). The west wall of the chapel represented the full façade of the mastaba (sometimes shortened by a serdab or shaft), and the subsidiary north niche in the actual façade was no longer used even in mastabas in which the chapel was entered from the east. Another noticeable

change was the decrease in the relation of the floor area of the chapel to the floor area of the mastaba, resulting from the increased size of the chapel. The relation in the mastabas with chapels of the new types varied from about $1/20$ down to $1/3$.

At Giza, after the reign of Neferirkara, the prevailing type of chapel was the corridor chapel in its three forms, the interior corridor of type (5), the roofed exterior corridor chapel of type (8), and the open-air chapel of type (9). In these the west wall clearly represented the façade of the mastaba or was actually the façade of the mastaba. At the end of the reign of Neweserra or soon thereafter, the E–W offering-room was introduced at Giza, with a false-door stela in the west end of the offering-room. This room was derived from the E–W offering-room of the pyramid chapels of Dyn. V with asymmetrical approach. The common form was the two-roomed type with a N–S room, also an offering-room, usually north of the east end of the E–W room, and entered from the east or north. Several large chapels consisted of a number of rooms built around a two-roomed nucleus of type (7 b). A number of variations occur in complex chapels with E–W offering-room. The chapel with E–W offering-room containing one false door may be definitely dated as later than the reign of Neweserra, but may be as late as Dyn. VI.

At Giza the chapels of types (5)–(11) did not succeed one another in turn, but were used simultaneously in Dyns. V–VI.

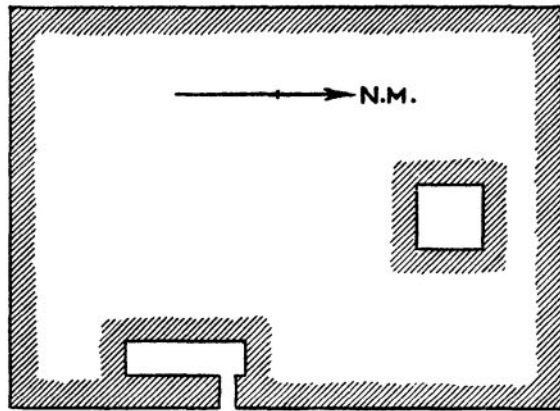
(9) *Contemporary Development of the Chapel at Saqqarah*

At Saqqarah the development of the chapel parallel in time to that of the Giza chapels followed a somewhat different course. One-third of the ninety chapels recorded by Mariette for Dyns. IV–VI were cruciform chapels or modified cruciform chapels with the flattened west wall. These were as a rule in the normal position in the SE corner with symmetrical entrance from the east and, as far as sufficiently recorded, with subsidiary north niche. With the exception of one very late example (D 55), all had a single niche or shallow stela in the middle of the west wall. The modified cruciform chapel became the traditional descendant at Saqqarah of the older cruciform chapel and continued in use until the end of Dyn. V or perhaps later. It appears from the defective record that some at least of the mastabas with modified cruciform chapels had no subsidiary north niche.

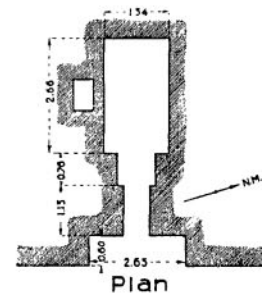
The chapels of Dyn. V at Saqqarah show the modified cruciform chapel as the prevailing type. The general corpus of chapel types differs widely from that of Giza. Type (5) is absent at Saqqarah and the modified cruciform chapel is wanting at Giza. There is apparently, however, one type which seems to connect the two groups of chapels, type (4 b). Mariette has recorded twelve chapels, mostly decorated, which present the general appearance of Giza type (4 b) without the subsidiary north niche. Ten of these were one-niched chapels (eight with stela at south end of west wall and two with stela in the middle). Only two were two-niched chapels, and one of these, D 46, had each niche dedicated to a different person. These chapels, with a mean proportion of $1/3.56$, are slightly longer than the modified cruciform chapels ($1/3.0$), and considerably longer than the chapels of type (4 a) at Giza ($1/2.66$). They are in fact short corridor chapels, and their decoration varies from that of the Giza chapels of type (4 a). I believe that these short corridor chapels, labelled Saqqarah (4 b) (see Fig. 191), which range in date from early Dyn. V to early Dyn. VI, were developed independently of the Giza types and that the asymmetrical entrance may have been taken from interior chapels of the Zoser complex and not from the Giza chapels.

While the chapels of Giza type (5) are wanting at Saqqarah, the exterior corridor chapel of type (8) is represented by six examples. These, however, appear to have been derived not from the Giza chapels, but from the exterior corridor chapels of the old c.b. mastabas at Saqqarah.

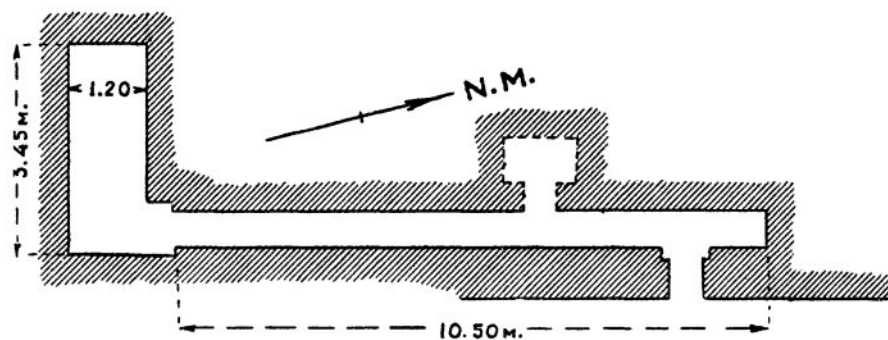
A second type of chapel subsidiary to the modified cruciform chapel is type (7 a (1)) (see Fig. 192). This chapel resembles in position, in the asymmetrical entrance from the east, and in relation, the cruciform chapel, and is in fact a symmetrical cruciform chapel itself, but with a one-niched E-W room instead of a N-S offering-room. There are only three of these remarkable chapels, and they are all later in date than Neweserra. Noteworthy is the fact that six of the one-niched E-W offering-rooms (type 7 a (3)) (see Fig. 193) have the normal position in the SE corner, but instead of opening from the east by



Plan 0 10M.
Fig. 191. C 19



Plan
Fig. 192. D 60



Plan
Fig. 193. D 53

a doorway are entered at the east end of the north wall by a long narrow corridor passage which debouches in the north face of the mastaba or at the north end of the east face. One of these corridors (D 53) has a small subsidiary chapel of modified cruciform type in the corridor passage towards the north end of that passage.

The Saqqarah mastabas with the chapel in the normal position of the type cruciform and modified cruciform, supplemented by those with chapels of type (4 b) and type (7 a (1)), amount to a total of over half (about forty-seven) of the mastabas recorded by Mariette. The Giza types (3) and (4 a) are not definitely represented at Saqqarah, although two, D 22 and D 33, might be classed under these types. All but two or three of these forty-seven chapels are one-niched. Beginning about the end of the reign of Neweserra or a little later, a considerable increase in size takes place, marked by the use of the E-W offering-room. The number of chapels including all the variation of type (7) is twenty-four (the same as the modified cruciform chapels). It was in the period of the E-W offering-room towards the end of Dyn. V and the beginning of Dyn. VI that the great complex chapel became frequent, and many of

these had one or more E–W offering-rooms. Some of these complex chapels were composed of groups of rooms each devoted to the funerary service of related persons (husband, wife, son, &c.). Each of the groups in these family complexes had one or two offering-rooms, sometimes of the N–S type and sometimes of E–W form. It is the complex chapels of Saqqarah and Giza which represent the final effect of the Giza rock-cut tombs on the size and the expansion of the wall scenes.

(10) *Summary: Chronological Order of the Chapel Types at Giza and Saqqarah*

The chronological series of the chapels at Giza and Saqqarah is set forth in the following table:

Giza	Saqqarah
(1) Dyn. IV to end of Mycerinus; types (1), (2), (3), (4 a), and one of type (5 a); few examples of type (6).	Dyn. IV; types, true cruciform, modified cruciform, and type (8).
(2) From end of Mycerinus to end of Neferirkara; prevalence of type (4 a); introduction of type (5) in small mastabas.	Modified cruciform chapels.
(3) Dyn. V, after Neferirkara; types (4 b), (5), (8), and (7).	Modified cruciform chapels; types (4 b) and (7).
(4) End of Dyn. V and Dyn. VI; types (5), (8), (7), (10), (11), and (12).	Modified cruciform; types (7), (10), and (12).
(5) The one-niched chapel predominates from Cheops to Mycerinus.	The one-niched offering-room predominates, Dyns. IV–VI.
(6) The two-niched chapel began early in Dyn. IV for members of royal family, was extended in use in the rock-cut chapels of the family, and came into general use thereafter in chapels of types (4 a), (4 b), (5 a), and (8 a).	The two-niched offering-room was not in common use: only a few sporadic examples occur.
(7) The new scenes of the rock-cut chapels became common in types (5) and (7).	At Saqqarah, the new scenes appeared in types (4 b), (7), and (12).

The differences in the development of the chapels at Giza and at Saqqarah prove conclusively that the chapels were developed from a different basic form and by two separate sets of craftsmen. The chief feature common to the two was the E–W one-niched offering-room, derived by both sets of workmen from the pyramid chapels of Dyn. V, but the development of this chapel was far from similar at the two cemeteries.