

**A Study of the Architecture of the Cemetery of El-Hawawish
at Akhmim in Upper Egypt in the Old Kingdom**

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I, Elizabeth M. Thompson, certify that the work presented here has not been submitted for a higher degree to any other university or institution.

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SUMMARY

The thesis examines the architectural features and measurements of the rock hewn tombs in the necropolis of El-Hawawish at Akhmim, the capital of the ninth province in Upper Egypt and a major administrative centre. The cemetery contains the burials of high and middle rank officials who administered the province in the Old Kingdom from the Fifth to the Eighth Dynasties (c. 2400–2160B.C.). The tombs are examined firstly, to determine whether architectural features could assist in the dating of their owners and secondly, whether certain features and measurements are indicative of the rank of these officials.

Comparisons are made with tombs in the Memphite and provincial cemeteries and a study of the various elements of tomb architecture at El-Hawawish showed a chronological development similar to that observed in the tombs of the royal necropoli at Giza and Saqqara. Particular features which were introduced in certain reigns here can be found in what appear to be contemporary tombs at El-Hawawish and other provincial cemeteries. The rank of tomb owners is clearly revealed in the larger or smaller dimensions of chapels and burial chambers, and by the inclusion of certain features. Using the styles and features found occurring at a particular period, an estimate for dating large and obviously important, but uninscribed tombs, is also given.

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INTRODUCTION

The necropolis of El-Hawawish is found on a spur of the desert escarpment on the eastern bank of the Nile, some 450 kilometres south of Cairo. It covers an area of 0.50 square kilometres with the lowest tombs at 126 m above sea level and the highest at 230 m above sea level, although the mountain itself reaches a height of 309.75 m.¹ The escarpment consists of conglomerate limestone, a poor-quality rock formation which, together with the large nodules of flint found throughout, forms a difficult medium for the cutting of tombs.

El-Hawawish is the principal cemetery of Akhmim, capital of the ninth Upper Egyptian nome, and contains more than 884 tombs, the greater number of which are uninscribed, unfinished or damaged. Sixty-seven tombs were selected for the base study of the architecture of the cemetery. These consisted of all the inscribed tombs, 59 in number, and 8 uninscribed examples, which are of major proportions and/or are closely situated to an inscribed tomb.² The tombs are all cut into the face of the escarpment; none are free-standing mastabas, although one of the earliest tombs, G84 of *Mnw-ḥ*, has a mastaba-like façade.³ Many consist only of a single room but a number have additional rooms excavated further into the mountain. All have burial passages and chambers cut into the floor or walls of these rooms as well as into façades and forecourts. Most of the tombs are of small dimensions, but in the areas of more compact rock formation on the southern and south-western side of the mountain, larger tombs of the earlier and more important tomb owners are found.⁴ There are no other architectural monuments on the mountain although remnants of a causeway defined by irregularly-laid large stones

¹ See the survey of the site in Kanawati, *El-Hawawish*, Vol. X, 24, figs. 12–21. In the present study the tombs are referred to by the number allocated to each in the survey.

² The publication of these tombs is found in ten site reports: Kanawati, N., *The Rock Tombs of El-Hawawish: The Cemetery of Akhmim*, Vols. I–X (Sydney, 1980–1992).

³ H I, pl. 1(a); H X, pl. 6. Tomb G84 is below the H group of tombs, to the left of the centre.

ascending from the base of the mountain possibly indicate a processional way. The rock-cut tombs, which form the basis of this thesis, are the burial places of the highest provincial officials including two known viziers and eight governors of Upper Egypt, as well as numerous middle- and lower-rank officials. Inscriptional and stylistic evidence indicates that these tombs date from the Fifth to the Eighth Dynasties.

Early in 1912, twenty-eight tombs in the cemetery of El-Hawawish were visited by Newberry who reported the tomb owners' names and titles with some mention of scenes but only minimal architectural information. Vandier published a further tomb following his visit in 1936.⁵ A complete recording of the tombs was undertaken by Kanawati between 1979 and 1992 and published in ten site reports (see Footnote 2). The detailed study of the administration of the province, which followed these reports, proposed a chronological order for the officials buried in the inscribed tombs and this order is followed here.⁶ Features and measurements of uninscribed tombs are also listed since the data from the base group may provide a guide in placing the remaining uninscribed examples in a chronological sequence. In addition, the tombs of the three major groups of officials concerned with the administration of the province, i.e., the Nomarchs, the Superintendents of Priests and the Overseers of Fields and Serfs, are also isolated in order to discover whether certain features were peculiar to, or reserved for, one or more of these groups of officials.

While the plans, sections and dimensions of these tombs are provided in the published site reports, in this thesis the various architectural elements and measurements are compared and analysed with the aim of forming a base of information for further research into provincial funerary architecture in the Old Kingdom in Egypt. An

⁴ See *H X*, pl. 6.

⁵ Newberry, *LAAA* 4 (1912), 99-120; Vandier, *ASAE* 36 (1936), 33-44.

⁶ Kanawati, N., *Akhmim in the Old Kingdom. Part I: Chronology and Administration* (Sydney, 1992).

exhaustive study of the tombs of all the provincial cemeteries is beyond the scope of the present thesis.

The architectural aspects of the tombs are analysed in the following order: forecourts, façades, porticos and entrances, chapels, shrines, secondary chambers, burial passages and burial chambers, that is, proceeding from the exterior of the tomb to the burial chambers usually cut below the chapels. Features such as lintels, drums, pillars and niches are studied as they occur within each of these areas. The study uses the original architectural drawings which are reproduced in a reduced form in the ten volumes of the El-Hawawish cemetery , photographs, and the detailed descriptions prepared for the publications, as well as extensive on-site notes. The references to the El-Hawawish site reports are abbreviated as follows: *H VIII*, 17, pl. 6, fig.8, which refers to Volume VIII of the El-Hawawish publications, page 17, plate 6, figure 8.

Basic data on measurements, architectural elements and features etc., is provided in a series of Tables (1–18) at the end of the study. Throughout the study reduced drawings of plans, sections and elevations illustrate the features being studied and are listed under Figures, pp.11-15.

In the final section, comparisons are made with tombs in the Memphite necropoli, particularly Giza and Saqqara, and with burials in other provincial cemeteries although this is often limited due to the lack of published information for many of the tombs. Lastly some uninscribed tombs will be analysed to discover whether a comparison of their measurements and features with those in inscribed tombs indicates a particular dating period for these unknown tomb owners.

The TOMBS

Part A

Alphabetical Order of the Inscribed and Uninscribed Tombs with their architectural references from the reports, *The Rock Tombs of El-Hawawish*, Vols. I-X.

Base group of INSCRIBED TOMBS (including some selected, but uninscribed, tombs)

Tomb No.	Name	Volume	Pages	Plates	Figures
B6-B7	<i>B3wj</i>	IX	34, 35	1a	16
B12	<i>Mmj</i>	VII	20		9a
B62	...	IX	38		19a
B83	<i>B3wj</i>	IX	40, 41		20
C3	<i>Bhn</i>	I	38, 39		23
C8	...	X	17-19		7, 8
C9	<i>Jjj/Mrjj/Jdjj</i>	VII	15		7a
F1	<i>Hzzj-Mnw/Zzj/Ddwjj</i>	VI	10, 11		1
F12	<i>Mrrw...</i>	IX	16		4, 5
F15	...	IX	44, 45		4, 6
G22	...	VII	43, 44		1a
G23	<i>Hnj</i>	VII	7		1a
G42	<i>Hzzj-Mnw/Zzj</i>	VII	10, 11		2
G49	...	IX	19		9a
G66	<i>Mddj</i>	IX	21, 22		10a
G79	<i>Wnw-Mnw</i>	III	33		22
G84	<i>Mnw-^cnh</i>	I	9, 10	1	2, 3
G95	<i>Nhwt-dsr/Mrjj</i>	VIII	10, 11	5a	1, 2
G97	...	VIII	14, 15	5a	1, 2
G98	<i>Spsj?</i>	VIII	17-19	5, 6a	1, 2
G119	...	IX	24, 25		12a
G124	...	IX	27		13a
G126	<i>B3wj</i>	IX	30		14
H4	...	IX	49-51		26
H6	...	IX	51, 52		27
H15	<i>Hnj-^cnhw</i>	IV	33, 34		22-24
H24	<i>Hnj/Spsj-pw-Mnw</i>	II	15-17		1-3
H26	<i>K3(j)-hp/Ttj-jqr</i>	I	14-17		5, 6
H26	<i>K3(j)-hp/Ttj-jqr</i>	IX			10c
H27	<i>Nbt</i>	III	39, 40		24, 25
H27	<i>Nbt</i>	IX			10b
H41	<i>Ttj-^c3</i>	VIII	30		11
I49	<i>Ttj</i>	VIII	26, 27		9a
J2	...	VIII	24		8a
K1	<i>Mddj</i>	VIII	33, 34		14
K4	<i>B3wj</i>	VIII	35, 36	10a	16
K5	<i>B3wj/Jd</i>	VIII	39, 40		16
K 16	...	VIII	42, 43		20

Tomb No.	Name	Volume	Pages	Plates	Figures
K18	<i>Hzzj-Mnw/Mrjj</i>	VIII	44		22a
K21	...	VIII	46		24a
L6	<i>Dw3-Mnw</i>	VI	16, 17		4
L8	<i>‘3-Mnw</i>	VI	23, 24		7
L21	<i>Sfhw/Hn-Mnw</i>	VI	29-31		10
L23	<i>Ppjj-‘nh-ns</i>	IX	10, 11	1b	1
L31	<i>Q3r</i>	VI	35, 36	7a	13
L42	...	IX	13		3a
M8	<i>Ttj/Ttj-K3.j-hp</i>	III	14-17		1-4
M8	<i>Ttj/Ttj-K3.j-hp</i>	X	20		
M21	<i>‘nhw</i>	V	58-61		23
M22	<i>Hzzj-Mnw</i>	IV	10-16	6	1-4
M23	<i>Mmj/Nnj</i>	V	38-43	6	11-14
M43	<i>Hm-Mnw</i>	V	10-18	5	1-5
M44	...	V	29-31		1, 3, 4
M45a	<i>Jff-jrt</i>	V	28		1, 2, 4
M51	...	X	16, 17		1, 2a
M52	...	X	8, 9		1
N15	...	VIII	49, 50		25, 26
N16	...	VIII	51-53		25
N20	<i>Tjj</i>	VI	53		23a
Q2	<i>W3h. . .</i>	VI	39, 40		17a
Q4	<i>Whnw</i>	VI	41-43		18a
Q13	<i>. . . -hrj-jb</i>	VI	45, 46		19a
Q15	<i>Qrrj</i>	VI	48	8a	20a
BA14	<i>B3wj</i>	VII	29, 30		17a
BA17	<i>Rhw-r-3w.sn</i>	VII	24, 25		12
BA48	<i>B3wj</i>	VII	36, 37	6a	22a
BA63	<i>Jn-jt.f/Bhnt</i>	VII	33, 34		19a
CA1	<i>B3wj</i>	VIII	21, 22		6a
GA11	<i>Ghs3/Nbjj</i>	VII	39, 40	4b	26a

UNINSCRIBED TOMBS

Tomb No.	Name	Volume	Pages	Plates	Figures
B9		VIII	56		29b
B13		VIII	56		57,30a
B14		VIII	57		30b
B15		IX	48,49		23a
B57		VIII	57,58		30c
B84		IX	49		20
C6		VIII	58,59		31a
C7		VIII	59		31b
F13		IX	42,43		4,5
F14		IX	43,44		4,6
F15		IX	44,45		4,6
G1		VIII	53		27,28
G2		VIII	53		54,27
G3		VIII	54		27,28
G4		VIII	55		27,28
G70		IX	45		23b
G72		IX	45,46		24
G73		IX	46,47		25
G76		III	43	11	29,30
G77		III	45,46	11	31
G78		III	46	11	32
G80		III	46-48	11	33
G120		IX	47		48,12a
G125		IX	48		14
H12		IX	52,53		23c
H14		IV	46-48		33
H25		II	48		28,29
H26Pitf		III	36		23
H28		II	49		30a
H28a		II	49		30b
H29		II	49		31
H30		II	49		32
H31		II	50,51		33
I4		VIII	55,56		29a
I50		VIII	48		9a
L1		VI	55		24a
L2		VI	55,56		24b
L7		VI	56,57		4
L8a		VI	25-27		7,8
L8b		VI	27,28		7
L24		IX	42		22
M24		V	52		11-13
M25		V	52,53		11-14
M26		V	53,54		11-14
M27		IV	44		1-5
M28		IV	45		1-3
M29		IV	45,46		1-3,5
M39		V	34		1

Tomb No.	Name	Volume	Pages	Plates	Figures
M39a		V	34		1,5
M40		V	33		1,5
M41		V	33		1,3,5
M42		V	32,33		1,3,5
M42a		V	31,32		1,3,5
M42b		V	31		1,3,5
M42c		V	32		5
M45		V	28,29		1,2,4
M45b		V	27,28		1,4
M46		V	27		1,2,4
M47		V	26		1,2,4
M47a		V	26		1,2,4
N13		VIII	48		25,26
N14		VIII	48,49		25,26
N15a		VIII	51		25,26
BA16		VII	47		12

Part B

Chronological order of tombs⁷

DYNASTY 5

Neuserre	Djedkare	Beginning Unis
G84	Early M23	M43
L6	M21	M44
	L8	M45a
	Late M22	N15
		N16

DYNASTY 6

Teti	End Teti–beginning Pepy I	Early–mid Pepy I
Early F12	G95	CA1
F15	G126	G97
G98	G22	
K16	G23	
Late F1		

Late Pepy I	End Pepy I–beginning Pepy II	Early–mid Pepy II
Q2	C9	M8
Q4	G119	M52
Q15	G124	M51
B12	K21	L21
Q13	L42	L23
K5	L31	BA63
N20	K18	G79
	K1	BA48
	K4	H27
		B62
		G42
		H15
		H4
		H6
		C8
		H26

Mid–late Pepy II	End Dynasty 6–beginning Dynasty 8	
B83	H41	
G49	I49	
H24		
GA11		

DYNASTY 8		
C3		
J2		
B6-B7		

⁷ Reference: Kanawati, N., *Akhmin in the Old Kingdom, Part I: Chronology and Administration*, pp. 295–96.

G66 BA17 BA14		
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Note: Last four tomb owners probably second half of Dynasty 8.

OFFICIALS

Nomarchs	Overseers of Fields and Serfs	Superintendents of Priests
G98	F1	Q15
G95	K18	N20
M8	K4	C9
H15	B12	K18
H26	G42	K1
H24	BA48	G42
H41	GA11	L21
C3	G66	L31
		B62

LIST of FIGURES

References are from *The Rock Tombs of El-Hawawish*, Vols I-X, N. Kanawati

Forecourts

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5.	M43, section	Vol. V, fig. 2
6.	B9, section	Vol. VIII, fig. 29b
7.	M21, section	Vol. V, fig. 23
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24.	G126, vertical façade, section	Vol. IX, fig. 14
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108.	G95, Shaft 1, main burial position in chapel, plan	Vol. VIII, fig. 1
109.	B12, Shaft 1, main burial position in chapel, plan	Vol. VII, fig. 9a
110.	BA48, Shaft 1, main burial position in chapel, plan	Vol. VII, fig. 22a
111.	H26, main burial in chapel, plan	Vol. I, fig. 5
112.	H12, main burial before pillars, plan	Vol. IX, fig. 23c
113.	C3, main burial between pillars, plan	Vol. I, fig. 23
114.	C8, main burial behind pillars, plan	Vol. X, fig. 7
115.	L8, square, vertical shafts, plan and section	Vol. VI, fig. 7

116.	G95, rectangular, vertical shaft, plan and section	Vol. VIII, fig. 2
117.	M43, complex shaft (vertical and sloping combined), section	Vol. V, fig. 2
118.	C9, horizontal passage, plan and section	Vol. VII, fig. 7
119.	Q15, shallow, horizontal passage (i), section	Vol. VI, fig. 20a
120.	G66, shallow, horizontal passage (ii), section	Vol. IX, fig. 10a
121.	M8, shallow, horizontal passage (iii), section	Vol. III, fig. 2
122.	G126, shallow, sloping passage, section	Vol. IX, fig. 14
123.	K4, deeper, sloping passage, floor and ceiling parallel, section	Vol. VIII, fig. 16
124.	B7, sloping, irregular passage, section	Vol. IX, fig. 16
125.	G42, burial passage mouth perpendicular to entrance wall, plan	Vol. VII, fig. 2a
126.	Q4, burial passage mouth parallel to entrance wall, plan	Vol. VI, fig. 18
127.	H26, raised floor of chapel on 3 sides of mouth, plan, section	Vol. I, fig. 5
128.	H12, ledge on 4 sides of mouth, plan, section	Vol. IX, fig. 23c
129.	C3, ledge on 3 sides of mouth, plan, section	Vol. I, fig. 23
130.	BA48, vertical 'screen' at entrance to passage, section	Vol. VII, fig. 22a
131.	G22, angled 'screen' at entrance to passage, section	Vol. VII, fig. 1
132.	G42, no 'screen' at entrance to burial passage, section	Vol. VII, fig. 2
133.	G66, vertical drop to passage, section	Vol. IX, fig. 10a
134.	N20, a step at the entrance to a horizontal passage, section	Vol. VI, fig. 23a
135.	M22, a step at the entrance to a sloping passage, section	Vol. IV, fig. 3
136.	G95, steps within the passage, section	Vol. VIII, fig. 2
137.	B57, a step within the passage, section	Vol. VIII, fig. 30c
138.	B12, a step at the end of the passage, section	Vol. VII, fig. 9a
139.	G22, enlargement at end of passage, section	Vol. VII, fig. 1
140.	L8, vertical shaft with step down into chamber, section	Vol. VI, fig. 7
141.	L2, vertical shaft with a step up to chamber, section	Vol. VI, fig. 24b
142.	F1, angles in floor of burial passage, section	Vol. VI, fig. 1
143.	G98, 'steps' in ceiling of passage, section	Vol. VIII, fig. 2
144.	K21, increase in ceiling height before chamber, section	Vol. VIII, fig. 24a
145.	G98, vertical shaft widening before chamber, section	Vol. VIII, fig. 2
146.	BA14, jambs in burial passage, section	Vol. VII, fig. 17a
147.	G42, horizontal corridor before chamber, section	Vol. VII, fig. 2a
148.	BA48, sloping corridor before chamber, section	Vol. VII, fig. 22a
149.	B6, antechamber before burial chamber, section	Vol. IX, fig. 16
150.	M8, antechamber, plan and section	Vol. III, fig. 4
151.	M43, niche in vertical shaft, section	Vol. V, fig. 2
152.	H6, niche in sloping passage, section	Vol. IX, fig. 27

153.	C3, niche level with burial chamber, section	Vol. I, fig. 23
154.	H41, niche below burial chamber, section	Vol. VIII, fig. 11
155.	BA48, a niche at 90' to burial chamber, plan and section	Vol. VII, fig. 22a
156.	L8, burial chambers associated with vertical shafts, section	Vol. VI, fig. 7
157.	M23, burial chamber of complex shaft, plan and section	Vol. V, fig. 14
158.	CA1, burial chamber associated with a horizontal passage, plan, section	Vol. VIII, fig. 6a
159.	L23, burial chamber of a shallow, horizontal passage, plan, section	Vol. IX, fig. 1
160.	N20, wider chamber of a shallow, horizontal passage, plan, section	Vol. VI, fig. 23a
161.	G126, chamber associated with shallow/medium sloping passage, plan, section	Vol. IX, fig. 14
162.	G22, burial chamber of sloping passage, type (1), plan, section	Vol. VII, fig. 1
163.	K18, burial chamber of sloping passage, type (2), plan, section	Vol. VIII, fig. 22a
164.	H41, burial chamber, plan and section	Vol. VIII, fig. 11
165.	K4, burial chamber of sloping passage, type (3), plan, section	Vol. VIII, fig. 16
166.	I49, burial chamber of an irregular sloping passage (1), plan, section	Vol. VIII, fig. 9a
167.	G66, chamber of an irregular sloping passage (2), plan, section	Vol. IX, fig. 10a
168.	BA14, chamber of an irregular sloping passage (3), plan, section	Vol. VII, fig. 17a
169.	B6, regular burial chamber, irregular passage, plan, section	Vol. IX, fig. 16
170.	BA14, burial chamber of unusual shape and size, plan, section	Vol. VII, fig. 17a
171.	G49, ceiling of chamber sloping up to rear, section	Vol. IX, fig. 9a
172.	K21, ceiling of chamber sloping down to rear, section	Vol. VIII, fig. 24a
173.	B62, ceiling of chamber rises in centre, section	Vol. IX, fig. 19a
174.	H26, ceiling of chamber higher than passage, section	Vol. I, fig. 5
175.	K18, angled wall of chamber, plan and section	Vol. VIII, fig. 22a

PLAN and SECTION of a TOMB

a. Tomb M23 (*Mmj*) showing the distinctive parts and features of a rock-cut tomb at El-Hawawish (ref.: *H.V*, figs.11-14)

b. Section of tomb L8 ('3-*Mnw*) showing the main shaft and burial chamber (ref.: *H.VI*, fig.7)

A. Forecourt with secondary tombs (M24-M26)

B. Burial pits in the forecourt (a. -n.)

C. Façade with recess

D. Entrance with internal recess

E. Chapel

F. Shrine

G. Secondary chamber

H. Free-standing and engaged pillars

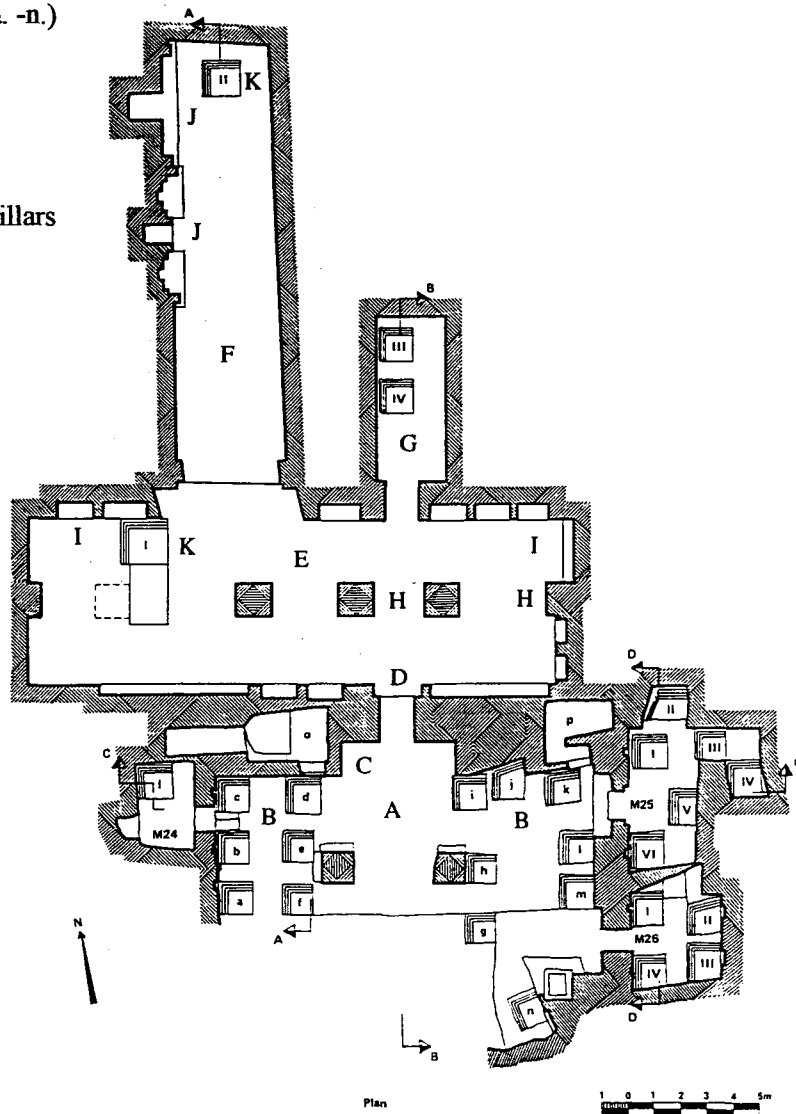
I. Statue niches

J. False doors

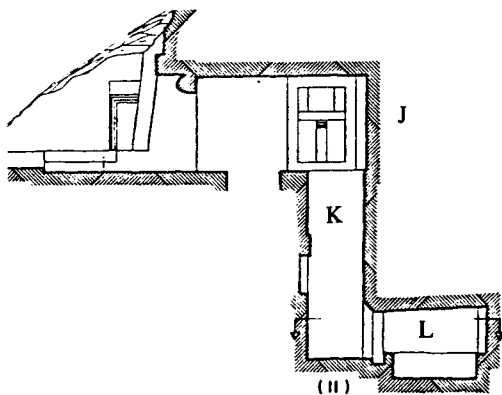
K. Burial shafts

L. Burial chamber

a.



b.



THE STUDY

THE FORECOURT

(Table 1, base group of tombs; Table 18, uninscribed tombs)

At El-Hawawish the tombs are cut, often deeply, into the face of the mountain in order to gain a desired height for the façade. The cleared area before the tomb caused by this excavation has provided an impressive approach in a number of tombs.

Well-defined forecourts are found before the tombs of *Mmj* (M23), *Hzzj-Mnw* (M22), *‘nhw* (M21), *Mnw-‘nh* (G84), *B3wj* (CA1), *Hm-Mnw* (M43), *Bhn* (C3), and the uninscribed tombs G22, H4, and H6, while incomplete or irregular forecourts occur before *Nhwt-dšr* (G95), *Špsj-pw-Mnw* (G97), *‘3-Mnw* (L8), *Wbnw* (Q4), *Tjj* (N20), *Mmj* (B12), *Hzzj-Mnw* (G42), . . . (G49), *B3wj* (BA48), *Jn-jt.f* (BA63), *K3.j-ḥp* (M8), M51, M52, *Q3r* (L31), *Ppj-‘nh-n.s* (L23), *Hnj-‘nhw* (H15), *Hnj* (H24), *Ttj-jqr* (H26), *Ttj-‘3* (H41), . . . (I49), . . . (J2), *B3wj* (BA14), *Rḥw-r-3w.sn* (BA17), *B3wj* (B83), and the uninscribed tombs B9, C7, G2, G72, H14 and L8a. The cramped position on the mountain of some of this last group of tombs and the eroded nature of the areas in front of many of them makes the inclusion of some of these examples doubtful.

There are four variations in the **shape** and **proportion** of the forecourt:

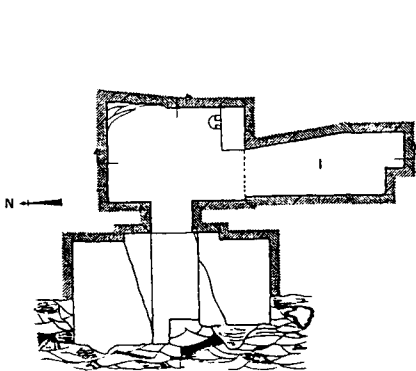


Fig. 1- CA1

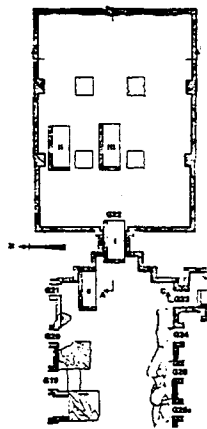


Fig. 2- G22

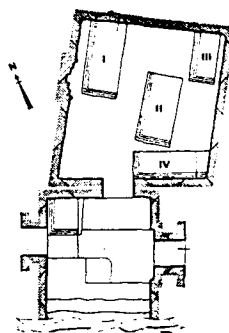


Fig. 3- L31

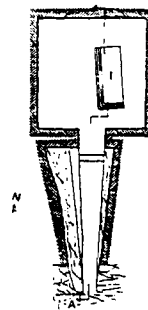


Fig. 4 - J2

1. **broad and shallow** with the main axis parallel to the entrance wall.

Decorated tombs with this type of forecourt are G84, M23, M21, L8, CA1. (Fig.1)

2. **elongated**, with the **main axis perpendicular** to the entrance wall.

Inscribed examples are M22, M43, G22, M8, H15, H4. The proportion of 1(width):

2(length) is evident in M43, G22 and perhaps M8 which shares a forecourt with tombs

M51 and M52. A less deep proportion of 3:4 is seen in the forecourts of H15 and H4.

(Fig.2)

3. almost **square**.

Inscribed tombs with this shape of forecourt are G95, G97, Q4, N20, G49, B12, G42,

L31, L23, BA48, BA63, H24, H26, H6, H41, BA14, BA17.⁸ (N20, BA48, H6 and H24

are almost square but slightly wider than deep). The smaller, undecorated tombs, B9, C7,

G2, G72, L8b are of this proportion. (Fig.3)

4. a **long, narrow** access, resembling a path is found in C3, I49, J2. (Fig.4)

Officials

Nomarchs : G98, G95, M8, H24, H26, H15, H41 and C3, although the forecourts of G98, G95, M8 and H15 are unfinished.

Overseers of Fields and Serfs: B12, G42, BA48

Superintendents of Priests: N20, G42 and L31

The **side walls of forecourts** follow the natural slope of the mountain and the

floor level of the court is horizontal except for a small number of tombs. The floor of the

forecourts of M23, M22 and M43 slope up with an inclination of approximately 5 degrees

to the façade, while before M8 and L23 the floor slopes down to the façade at 5 degrees,

and before G22, H24, H26 and B9 the slope down to the façade is approximately 10 degrees (Figs.5, 6).

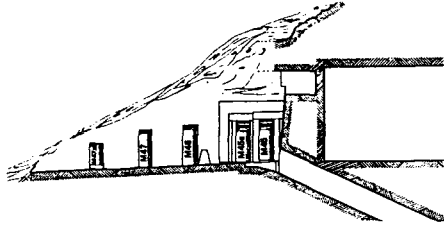


Fig. 5 - M43

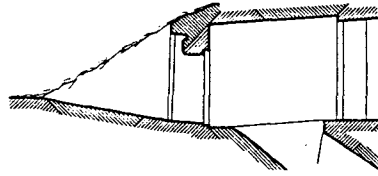


Fig. 6 - B9

The **secondary tombs** of minor officials and/or family members are cut into the side walls of forecourts of tombs M23(3), M22(3), M43(13), G22(8), M8(?4), L31(2), H4(3), H26(1), BA17(1), G2(3).

(see Plan of tomb M23, p.15 above, showing the tombs M24, M25 and M26 cut into the north and south walls of the forecourt).

Although the definition of the **front boundary** of many forecourts is unclear because of erosion, a small number feature a difference in level between this and the surrounding area. Before tomb M21, the beginning of the forecourt is defined by a step down of 0.20m and a low wall, 0.60m high and 0.35m thick. Two steps down are seen at the beginning of the forecourt of L23, measuring 0.15 - 0.20m. (unfinished?), and a smaller step of 0.10m occurs at the front boundaries of M23 and L8. In one tomb only - CA1 - the beginning of the forecourt is defined by a step up, and this measures 0.25m. (Figs.7, 8)

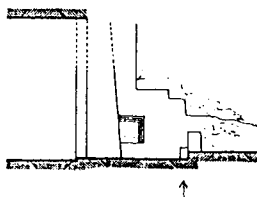


Fig. 7 - M21

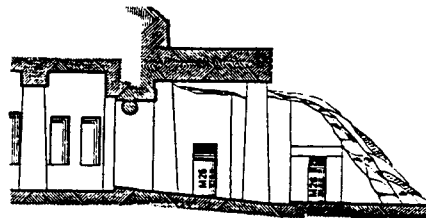


Fig. 8 - M23

⁸ Tombs BA14 and BA17 combine the characteristics of both Points 3 and 4 having almost-square forecourts approached by a narrow path.

Features in Forecourts

Burials

In a number of tombs secondary burials are found in forecourts and porticos or, if no formal forecourt is present, in the approach area before the tomb.

Burial pits are dug into the floor of these areas usually around the perimeter with one or two sides of the shaft mouths contiguous with the side wall of the forecourt, the façade or the portico. Isolated pits independent of the walls are also found either singly, as in Pit a. tombs F12-15, or, in one instance, in tomb M23, in two rows parallel to the side walls of the forecourt/portico. (Fig.9)

Among the base group of tombs studied, four tombs of the period Dynasty 5-Teti have forecourts with burials: M23(14 pits), M22(9), M21(3), N15(1) and M43(15). All these burials are simple vertical shafts with square mouths (see below, p.115, Burial Shafts, Category 1a.), with one exception - the horizontal shaft (Category 3, see below p.115) of M21(Pit c.).

Only two tombs dated to the period Pepy I have minor burials before their entrances: Q4 (2 pits) and G119 (1 pit). These are shallow burials (Category 4, see below pp.66, 68) with Pit a. of Q4 having a square mouth, and Pit b. of Q4 and the single pit of G119 having rectangular mouths.

The uninscribed, large tomb G22 whose suggested date is the beginning of the reign of Pepy I, has a single, incomplete pit with a rectangular mouth.

Burial pits before tombs recur in the period early-late Pepy II: G42(3 pits), L31(1), H15(3), H4(3), H24(5), H26(5), H6(1) and G49. (Fig.10) All are shallow burials with rectangular mouths (Cat. 4), except for the single pit in the forecourt of G49 which is vertical with a square mouth.

Most of the undecorated tombs have ill-defined forecourt areas. Of these, L8b and N15-N16 have square-mouthed, vertical shafts in the area before the chapel, while B14, C7, G73, G80, H14, H30 and I4 have shallow burials with rectangular mouths.

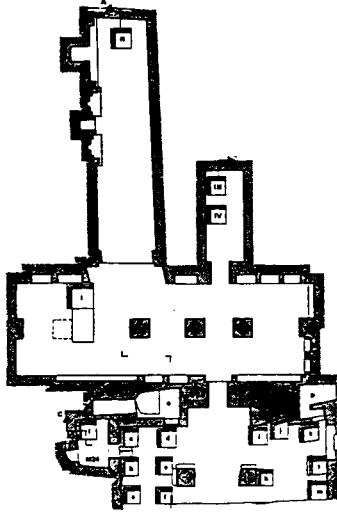


Fig. 9 - M23

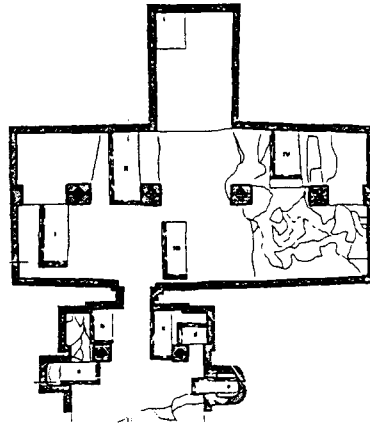


Fig. 10 - H24

False Doors are carved into the side walls above certain pits in the forecourts of the Dynasty 5 tombs, M23 (Pits a., b. and c.) and M22 (Pit e.). (Fig. 11)

Niches (Table 11) are found cut into the walls of forecourts over pits in tombs dated from early-mid Pepy II. These are G42, which has 3 niches above Pits a., b. and c., H15, a niche with a lintel above Pit b., H24, a niche with a drum over Pit a., H26 with plain niches over Pits a., d., e. and H6, a plain niche over Pit a. (Fig. 12)

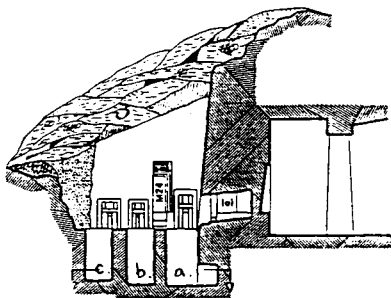


Fig. 11 - M23

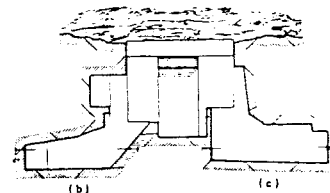
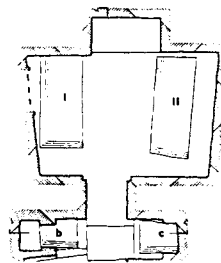


Fig. 12 - G42

Ledges or benches are found along the sides of the approach to the tomb in C3, along north side (left on facing the entrance) of the forecourt, 0.15m high and 0.25m wide, (Fig. 13) in H41, along both side walls (and the façade), 0.30m high and 0.50m wide, (Fig. 14) and in tomb J2, on the western side (left on facing the entrance) of the entrance path, 0.65m av. high and 0.20m av. wide. (Fig. 15)

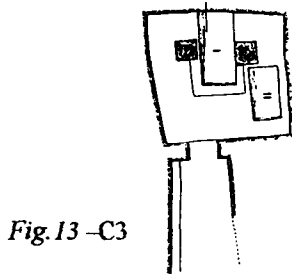


Fig. 13 -C3

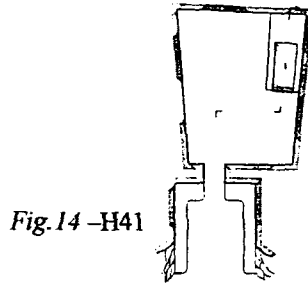


Fig. 14 -H41

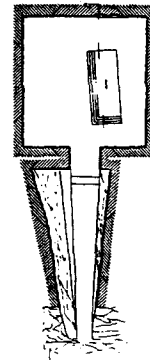


Fig. 15 -J2

Dating comment

In tombs dated to Dynasty 5-Teti the main axis of the forecourt is the same as that of the major area within the tomb, the chapel. An exception to this orientation is found in the tomb of *Hzzj-Mnw* (M22), but in this tomb unlike other Fifth Dynasty tombs with shrines, the area of the chapel is exceeded by the area of the shrine. The main axis of the forecourt is then the same as the shrine. If the shrine here is to be considered the major area in the tomb then the orientation of the forecourt is the same as found in the other Fifth Dynasty examples.

From the reign of Pepy I to the end of Dynasty 6 the shape of the forecourt becomes almost square while in a small group of tombs dated to the end of Dynasty 6-Dynasty 8, the approach becomes long and narrow.

Minor burials in forecourts are found in the two periods, Dynasty 5 - Teti and the reign of Pepy II, with the exceptions, Q4 and G119, dated to Pepy I.

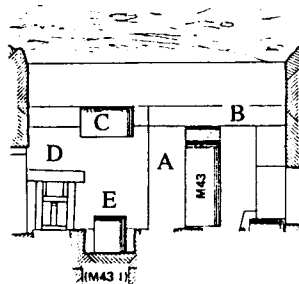
THE FAÇADE

(Table 2, base group of tombs; Table 5, uninscribed tombs)

The façades of tombs are cut either vertically or with a slight slope into the mountain to form an appropriate, and often imposing, setting for the entrance doorway. In a small number of tombs the entrances are protected by a portico or a projecting overhang of rock.⁹ While the main focus is the entrance, other features on façades include lintels, niches, and engaged pillars.¹⁰ The façade of *Hm-Mnw* (M43), has a false door and the entrance to the main burial chamber cut into it¹¹ while the façade of M23 has two burial pits embedded within it.¹² Painted or carved inscriptions and figures are found at the entrances of the tombs of *Mn-^cnh* (G84), *Mmj* (M23), *Mrrw...* (F12), *Ttj-jqr* (H26), *Hnj* (H24), and *B3wj* (B7), and may have originally been present in many more.¹³

Fig. 18: façade of M43, showing -

- A. recessed entrance
- B. lintel
- C. niche
- D. false door
- E. entrance to main burial chamber



Measurements and Proportions

Height

In the period Dynasty 5 - Teti the range of heights of façades was 5.40m - 2.25m with the height of most of the façades being between 3.50m - 3.15m.

⁹ See Porticos, p.37.

¹⁰ Lintels: see pp. 35-6; niches: e.g. *H V*, pl. 5, fig. 3; engaged pillars: e.g. *H IX*, fig. 26.

¹¹ *H V*, pl. 5a, figs. 1-4.

¹² Pits O and P: *H V*, figs. 11, 12.

¹³ See respectively *H I*, fig. 4, pl. 16; *H V*, fig. 15; *H IX*, fig. 7a; *H I*, figs. 7, 19; *H II*, pp. 17, 18; *H IX*, fig. 18c.

During the period of Pepy I the average height drops to 2.10m, rises in the period of Pepy II to 3.00m then drops at the end of Dynasty 6 - Dynasty 8 to 2.20m.

The façade heights of tombs of Nomarchs ranges between 4.20m (H26) - 2.10m (C3). The height of the façades of these tombs increases from the earlier Nomarchs G95 and G98, dated to Teti -early Pepy I and measuring 2.45m and 3.05m respectively, to a maximum of 4.20m in H26 dated to mid-Pepy II. Façade heights then decrease gradually to the minimum of 2.10m in the tomb of the Eighth Dynasty Nomarch, C3.

The same variation in façade heights is observed in the tombs of the Overseers of Fields and Serfs. The highest is found in the tomb of BA48 (3.00m) dated to mid-Pepy II, and the lowest in tomb G66 (1.95m) dated to Dynasty 8.

The range of façade heights for the tombs of Superintendents of Priests is 3.30m (L21) - 1.35m (Q15).

Width

In the Fifth Dynasty the range in the larger tombs was 11.40m (M23) - 6.30m (M21). The early Fifth Dynasty tomb G84, is an exception here with its mastaba-like façade measuring 21.50m in width. The width in the smaller tombs such as L6 and L8 was 2.50m - 2.10m. At the end of Dynasty 5 and in the reign of Teti, the façade width becomes narrower, the range being 3.85m (F1) - 2.00m (F15).

During the following period, Pepy I, the façades of most tombs remain narrow with a range of 2.90m (K5) - 1.15m (Q15). Two exceptions dated to this period are CA1 and G22, both with façade widths of 5.25m.

The same narrow façades continue to be found early in the period of Pepy II with a range of 3.10m (L31) - 1.30m (L42). The width then increases sharply in the mid-late Pepy II period, for example in H4 (6.40m) and H24 (5.70m), before dropping to an average of

2.10m in tombs dated to the end of Dynasty 6 - Dynasty 8, i.e. J2 (2.50m), C3 (2.10m), I49 (1.75m), BA14 (2.45m), BA17 (2.10m).

The façade widths of tombs of **officials** follow the changes noted above in the dating periods (see Table 3 for complete list of measurements) :

Nomarchs

Range: 5.70m (H24) - 1.75m (C3)

Overseers of Fields and Serfs:

Range: 3.85m (F1) - 1.40m (B12)

Superintendents of Priests

Range: 3.10m (L31) - 1.15m (Q15)

Height and Width Relationship

As can be observed from these height and width measurements, the relationship of height

to width in façades varies from period to period. Four main groups (*a. - d.*) are found:

a. where the height is approximately half the width:

8 examples: Fig.19 - M23

M23, M22, CA1, G22, F1, H24, H4, H6

b. where the height is approx. three quarters the width:

10 examples: Fig.20 - M43

M43, M44, F15, K16, K5, M51, L31, H15, H26, H41

c. where the height is approximately equal to the width:

25 examples: Fig.21 - K1

G23, Q15, G97, G95, K4, G119, G124, G126,

G49, K18, K21, K1, G42, M52, L23, BA63, G66, H27,

G79, B62, J2, I49, C3, BA14, BA17

d. where the height is approximately one and a quarter the width:

12 examples: Fig.22 - L8

N16, L6, L8, G98?, Q13, N20, L42, B83, BA48, L21, GA11, C8

A small number of tombs fell outside these proportions. For tomb M21 the height was approximately one third of the width of the façade and for B12, the height was one and a half the width.

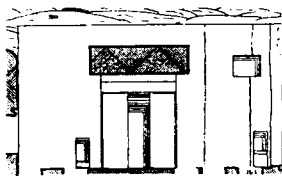


Fig.19 - M23

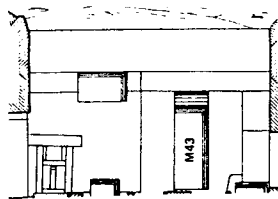


Fig.20 - M43

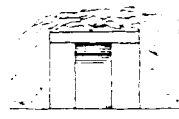


Fig.21 - K1

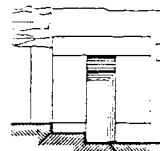


Fig.22 - L8

The following tombs were damaged or unfinished - N15, F12, Q2, Q4, C9, M8, C8 - and this relationship, together with that of the joint façade of B6-7, could not be accurately calculated.

Officials

Nomarchs

Group *c* - H24

Group *b* - H15, H26, H41

Group *c* - G95, C3

Group *d* - G98?

Overseers of Fields and Serfs

Group *a* - F1

Group *b* - none

Group *c* - K18, K4, G42, G66

Group *d* - BA48, GA11

B12

Superintendents of Priests

Group *a* - none

Group *b* - L31

Group *c* - Q15, C9, K18, K1, G42, B62

Group *d* - N20, L21

Dating comment

Major tombs, generally of the largest façade areas, are found in Groups *a* and *b*, that is, were broader in the façade than high. These tombs can be dated to two periods: Dynasty 5-Teti and Pepy II-end Dyn. 6.

The tombs in Group *c* of almost square proportions are found throughout the period Pepy I - Dynasty 8.

Of the examples in the remaining group (*d*) where the height of the façade is greater than the width, two were dated to Dynasty 5 (L6, L8) and the remainder to the period Pepy I-mid Pepy II. Tomb GA11 is an exception being dated to late Pepy II. (and perhaps may be reconsidered as early-mid PepyII)

Surface Area

The area of the façade is greatest in two periods:

a. Dynasty 5-early Teti: G84 (82.75sq. m), M23 (61.00sq. m), M22 (25.00sq. m), M43 (35sq. m)

b. mid-Pepy II : H27 (11.00sq. m), H15 (14. 65sq. m), H4 (21.45sq. m), H6 (11.40sq. m), H26 (22.00sq. m), H24 (15.70sq. m).

Smaller tombs in the period Dynasty 5-Teti have façade areas with a range of 5.75-7.

40sq. m. Thereafter in the period Pepy I-Merenre, all façade areas remain small with a range of 1.50-6.80sq. m with the exception of G22(13.00sq. m) and CA1(11.35sq. m).

Apart from the tombs with façades of large areas in Group b. above (H27 to H24) dated to mid-late Pepy II, the remaining tombs dated to the period Pepy II-end Dyn. 8 have façades with areas between 3.00 —8. 35 sq. m.

Officials

Nomarchs

G98 - 7.30sq. m (unfinished)

G95 - 5.65sq. m

M8 - 3.10sq. m?(damaged)

H15 - 14.65sq. m

H4 - 21.45sq. m

H26 - 22.00sq. m

H24 - 15.70sq. m

H41 - 8.35sq. m

C3 - 3.60 sq. m

Overseers of Fields and Serfs:

F1 - 8.00sq. m

K18 - 3.25sq. m

K4 - 4.60sq. m

B12 - 3.08sq. m

G42 - 6.25sq. m

BA48 - 8.00sq. m

GA11 - 5.85sq. m

G66 - 3.60sq. m

Superintendents of Priests:

Q15 - 1.50sq. m

N20 - 5.80sq. m

C9 - 1.65sq. m?(unfinished)
 K18 - 3.25sq. m
 K1 - 3.65sq. m
 B62 - 3.05sq. m
 G42 - 6.25sq. m
 L21 - 7.00sq. m
 L31 - 8.20sq. m

Sloping and Vertical Profiles on façades

(see Table 2 for the base group of tombs; Table 5 for uninscribed tombs)

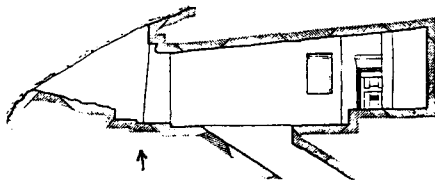


Fig. 23 - GA11

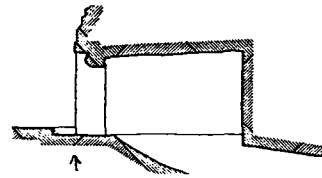


Fig. 24 - G126

Amongst the base group of tombs, 30 have façades which possess an inward sloping profile or batter (Fig.23) and 34 have façades which are vertical. (Fig.24). The remainder are too damaged to assess. This slope varies between 3 and 8 degrees with two tombs having the greater inclinations of 10 degrees (G95, H15) and another of 15 degrees (G84).

Tombs of the period Dynasty 5 (M23-N16) were found to have sloping façades with the two small tombs L6 and M45a being exceptions with vertical façades.

From the reign of Teti until early Pepy II both vertical and sloping façades appear. Then, in the period early-mid Pepy II, sloping façades again dominate with BA63 and H6 being exceptions. From late Pepy II-Dynasty 8 both vertical and sloping profiles are found but with vertical predominating.

N. B. the façade of G97 is sloping on the north side and vertical on the south side of the entrance.

Among the undecorated tombs with sloping façades are B13, B57, C7, G1-2, G72, G125(?). Those with vertical façade faces are B9, B14-15, B84, C6, F13-14, G3-4, G70, G73, G76-77-78, G80, G120, H12, H14, H25, H26 PitF, H28a, H29, H30-31, H50-51, I4, I50, L1-2, L7, L8a-8b, L24, M24-25, M42, M45, and BA16.

Officials:

Nomarchs

sloping façades: G98, G95, H15, H26

vertical façades: M8, H24, H41, C3

Overseers of Fields and Serfs

sloping façades: F1, B12, G42, BA48, GA11

vertical façades: K4, G126, G66

Superintendents of Priests

sloping façades: K18, L21, B62

vertical façades: Q15, N20, C9, K1, L31

Recesses on façades

(see Table 2, base group of tombs; Table 3, uninscribed tombs)

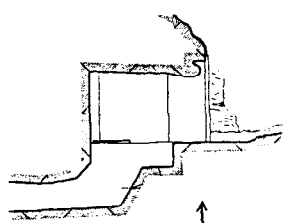


Fig. 25 -N20

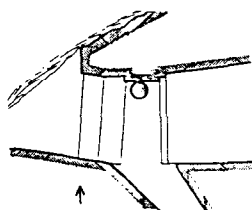


Fig. 26 -G22

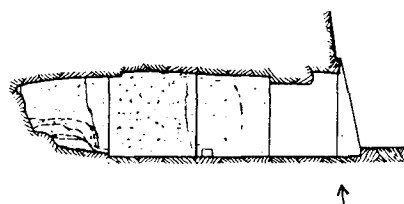


Fig. 27 -G84

The entrance doorway is set back within a recess in the façade in 24 of the base group of tombs dating from Dynasty 5 to mid/late Dynasty 6. The recesses are either sloping or vertical in profile and are found on both sloping and vertical façades.

In Dynasty 5 all the major tombs have recesses. These are either vertical or sloping and set back more deeply than any later recesses, e.g. M23 and N16 (both 1.05m deep), G84 (0.70m), L6, M21 and M22 (0.50m).

During the period Teti - Pepy I, both sloping and vertical recesses are present on eight tombs: G22, G95, G97 (1 side only), and Q13 all have sloping recesses, while F15, K16, CA1 and N20 all have vertical recesses. The façades of tombs F12, Q2, Q4 are too damaged to assess.

The number of recesses present on façades diminishes in the period early-mid Pepy II with only three examples having sloping profiles, M51, L21 and L23, and three with vertical profiles, L31, M8 and BA48. Two further tombs, H26 and H24, dated to mid-late Pepy II, have shallow, vertical recesses. All are very shallow, between 0.05m. (BA48) and 0.18m. (H4) with one deeper at 0.35m (M8).

No recesses appear on tombs dated to Dynasty 8.

Where façades and recesses are present together they may have the same profile, either vertical (Fig.25) or sloping (Fig.26), or combine sloping façades with vertical recesses (Fig.27).

Undecorated tombs with vertical recesses are B9, F13 (1 side only), F14, G3, G4, and H14. Sloping recesses are present in B57, G2 and M45.

Officials

Amongst the tombs of officials, façade recesses are present in the *Nomarchic* tombs G95, M8, H26, and H24, but not found on H15, H41 or C3.

None are present in the tombs of the *Overseers of Fields and Serfs* except for BA48, and only present in two tombs of *Superintendents of Priests*, N20 and L21.

Recess Width and Depth

In relation to the façade width, the Fifth Dynasty tombs have narrower and deeper recesses while from early Sixth Dynasty the recesses become wider and very shallow.

e.g. M23 - recess width, 3.30m, recess depth, 1.05m: façade width, 11.40m

M43 - recess width, 3.00m, recess depth, 0.18m: façade width, 7.25m

G95 - recess width, 1.60m, recess depth, 0.18m: recess width, 2.30m

H24 – recess width, 3.50m, recess depth, 0.10m: recess width, 5.70m

Projected Lintels on Façades

(see Table 2, base group of tombs; Table 5, uninscribed tombs)

Projected lintels are an important feature on façades occurring in 40 of the base group of tombs where the façade is not damaged.

They are found in two positions on the façade:

- a.* above the entrance door and extending the full width of the façade (exception: H4, whose lintel extends from either side of the door) (Figs. 28,29) and
- b.* within the recess and extending the full width of the recess (Fig.30)

Twenty-two undecorated tombs have projected lintels extending the full width of the façade (see Table 5 for list), while one example shows a projected lintel within a recess, M42.

The height of lintels ranges from 0.10m (B7) to 0.80m (G22).

The percentage of the height of the projected lintel to the total façade height is between 10%-20%.

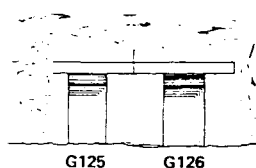


Fig.28 - G126

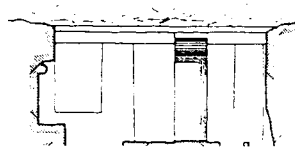


Fig.29 – H4

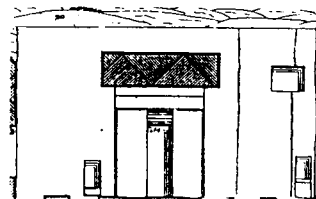


Fig.30 – M23

Officials

Where façades are complete on the tombs of *Nomarchs*, projected lintels are found on all except H26 which has instead, a painted architrave. However, the façades of M8, G95 and H41 are damaged and the presence of these lintels cannot be accurately assessed.

They are found on the façades of the tombs of the *Overseers of Fields and Serfs*, B12, K4, G42, and GA11.

Among the tombs of the *Superintendents of Priests*, they are present in N20, K1, L31, and B62.

Dating comments

Dynasty 5 - Teti: In the tombs of larger dimensions, lintels are found within the recesses of façades in G84, M23, M43, M44, F15 and K16. In two tombs of smaller dimensions without recesses, lintels extend across the façade: L8, and M45a.

Pepy I: Lintels are found in recesses in two examples, CA1, and N20, and extending over the façades in three examples, G22, B12, and Q13.

Pepy II - Dynasty 8: Lintels now extend across the full width of the façade even when recesses are present, with one exception, H24 (where the lintel is within the recess).

The lintel height is greatest in two periods: 1. where they appear on the major tombs of Dynasty 5 (range: .40m-.60m), and 2. in mid-late Pepy II (range: 0.40m- 0.55m).

In the period Teti - Pepy I - beginning Pepy II, the average height of lintels is 0.25m, although three façades have lintels of greater heights: G22 - 0.80m (Teti/early Pepy I), N20 -0.40m (late Pepy I), and L31 -0.45m (beginning Pepy II).

In Dynasty 8 where lintels are present, the height has decreased greatly: B6/B7 (both 0.10m), C3 (0.25m).

THE PORTICO

(Table 1, base group of tombs; Table 18, uninscribed tombs)

Pillared porticos are found before the entrances of seven tombs - the decorated tombs of *K3-j-ḥp/Tj-jqr* (H26), *Hnj/Špsj-pw-Mnw* (H24) and *B3wj* (B6–7), together with the undecorated tombs of H14, H6 and G80 - and may be reconstructed before the tomb of *Mmj* (M23).¹⁴ All existing porticos are cut from the mother rock (Figs. 16, 17)

A portico-type entry without pillars is also noted in three further examples. In the uninscribed tomb of G76 the façade is shadowed by an extension, .40m deep, of the natural rock while the remnants of an overhang are also visible above the entrance to the tomb of *Hm-Mnw* (M43). Two small roofed areas adjoin the forecourt of M43 and provide access to the uninscribed tombs M44 and M45 on the west, and to the group of tombs, M39-M42 on the east.¹⁵ Secondary burials are found in the porticos of H26, H24, H6 and G80.¹⁶

The porticos extend the full width of the façades except, as far as can be ascertained, for M23. In this tomb the roof of the portico is now lost but traces on the façade indicate that it extended slightly beyond the entrance recess and measured 4.50m wide; the full façade width is 11.30m . Bases of pillars found 4.50m in front of the façade possibly provide the depth of the portico. This portico is thus almost square in proportion. All remaining porticos, with the exception of H26, are much more shallow with the general proportion of depth to width being 1:3. The portico of H26, like that of M23, is almost square.

¹⁴ H26: *H* I, fig. 5; H24: *H* II, figs. 1-3; H14: *H* IV, fig. 33; H6: *H* IX, fig. 27; B6-B7: *H* IX, pl. 1a, fig. 16; G80: *H* III, pl. 11, fig. 33; M23: *H* V, pl. 6, fig. 11.

¹⁵ G76: *H* III, pl. 11, figs. 29, 30; M43: *H* V, 12, pl. 5, figs. 2, 3; M39-M45: *H* V, pl. 5, figs. 1-5.

¹⁶ H26: *H* I, fig. 5; H24: *H* II, figs. 1, 2, 3; H6: *H* IX, fig. 27; G80: *H* III, fig. 33.

Each of the porticos is "supported" at the front by two free-standing pillars parallel to the façade,¹⁷ except for G80 which has one only, and for B6-B7 which share a common portico with five pillars. All pillars except those in H14 and G80 taper towards the roof. The average width of the pillar faces is 0.75m. All existing porticos are surmounted by a lintel.

A symmetrical placement of pillars appears to have been preferred with the two pillars positioned the same distance from the central axis of the entrance. Tombs B6 and B7 are an exception with equal spacing between the pillars taking precedence over the relationship of pillars to either entrance doorway.

Engaged pillars in line with the free-standing pillars are present in the side walls of the porticos of tombs H26 and H14, and a single engaged pillar in one side wall (the south) is found in G80.

Where porticos are complete, the ceiling level behind the pillars is horizontal in all examples except for H24 and B6-B7 which show a slight upward slope to the façade.

The floor level within the portico slopes down to the façade except for H6 and G80 whose floor level is horizontal, and for M23 where the floor rises. Two small steps, .10m high, lead down to the floor in H14 and H6.

Dating comment

The single example of a pillared portico before a Fifth Dynasty tomb is that of M23 (end Dyn5). The remaining inscribed examples date from mid-Dynasty 6 to Dynasty 8 and the tomb-owners are officials of the highest rank, either Nomarchs (H24 and H26) or a vizier(B7).

¹⁷ e.g. H24: H II, figs. 1-3 and Kanawati-Scannell, *A Mountain Speaks*, p. 52.

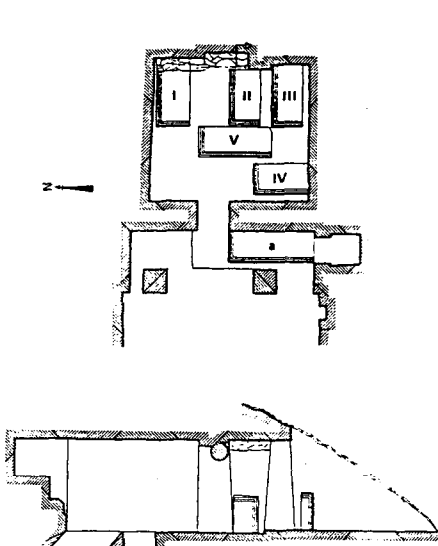


Fig. 16 - H6

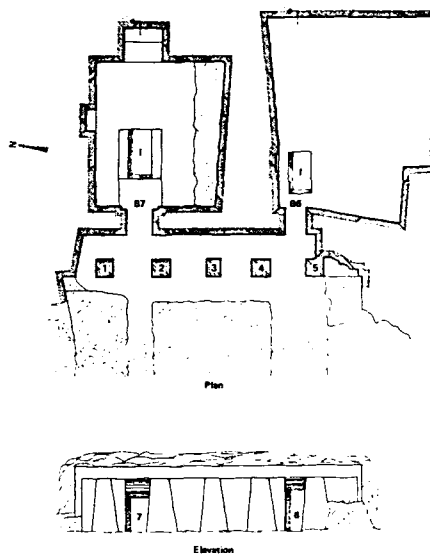


Fig. 17 - B6-7

THE ENTRANCE

(Table 3, base group of tombs; Table 5, uninscribed tombs)

The Position of the Door on the Façade

The preferred position is the centre of the façade with a few entrances being slightly to the left or the right.¹⁸

Measurements of Tomb Entrances

(see Table 4, base group of tombs; Table 3, undecorated tombs)

Entrance Width

Entrance widths range from 1.30m (M8) to 0.55m (M45a).

The average width of entrances, 0.88m, is consistent throughout all periods, although there is a slight narrowing in the period Pepy I-Merenre. The sides of the entrances are perpendicular.

Entrance Height: this measurement is taken from the sill to the top of a drum or internal lintel if these are present.

The range of entrance heights in the period Dynasty 5 -Teti is 3.70m (M23) to 1.40m (M45a). This period has the greatest number of entrances with high doorway measurements: half of the tombs have door heights over 2.25m.

Among tombs dated from the end of the reign of Teti to the beginning of the reign of Pepy II only two tombs have entrances which reach a height similar to those of the major tombs of the previous period. These are tomb G98 and the large, undecorated tomb, G22,

¹⁸ See, for example, the two major Fifth Dynasty tombs of *Hzzj-Mnw* (M22) and *Hm-Mnw* (M43), both with entrances to the right of the façade centre (H IV, fig. 1; H V, pl. 5, fig. 1, respectively). Tomb G97, dated to early-mid Pepy I, and *Ghs3* (GA11), mid-late Pepy II, have entrances to the left of the façade centre (H VIII, fig. 1; H VII, fig. 26, respectively).

both with entrance heights of 2.45m. Two other tombs have entrances above 2.00m: N20, at 2.20m and K5, 2.10m. The remaining nineteen tombs dated to this period have door heights ranging from 1.95m (L31) to 1.05m (G124).

Entrance heights increase again in the reign of Pepy II with the greatest being 3.55m (H26). Eight of the twenty tombs dated to this period have entrances with heights of 2.30m and above (M8, L23, H15, H4, H6, C8, H26, H24). The remainder range from 2.15m (BA48, H27) to 1.50m (B62, G49).

The range in Dynasty 8 is from 2.30m (B6) to 1.50m (I49).

Officials

<i>Nomarchs</i>	<i>Overseers of Fields and Serfs</i>	<i>Superintendents of Priests</i>
G98 - 2.45m	F1 - 1.60m	Q15 - 1.20m
G95 - 1.65m	K18 - 1.40m	N20 - 2.20m
M8 - 2.40m	K4 - 1.80m	C9 - 1.80m
H15 - 2.90m	B12 - 1.80m	K18 - 1.40m
H26 - 3.55m	G42 - 2.10m	K1 - 1.50m
H24 - 2.70m	BA48 - 2.15m	B62 - 1.50m
H41 - 2.20m	GA11 - 2.10m	G42 - 2.10m
C3 - 1.60m	G66 - 1.90m	L21 - 2.10m
		L31 - 1.95m

Entrance Depth

The entrance depth or thickness was measured at floor level and excluded any exterior or interior jambs. The depth of the entrance ranges from 1.60m (G84, N15, N16) to 0.30m (K16).

The greatest depths of all tomb entrances occur in Dynasty 5 with half of the examples measuring between 1.30m-1.60m. The remaining examples have an average depth of 0.95m.

This emphasis on a deep entrance is consistent throughout this period regardless of differences in heights and variations in drum size.

Compare for example the entrances of the two Fifth Dynasty tombs of *Mnw-ḥnh* (G84) and *Hzzj-Mnw* (M22), where the height of the doors and the diameter of the drums vary greatly but the entrance depth is almost the same:

	<i>Mnw-ḥnh</i>	<i>Hzzj-Mnw</i>
door height:	1.85m	2.90m
drum diameter:	0.30m	0.50m
entrance depth:	1.60m	1.50m

In the period Teti-Pepy I the average depth decreases to 0.60m. The undecorated, large tomb, G22, is an exception in this period having a deeper entrance of 1.20m. Like the Fifth Dynasty group of tombs, G22 has a higher than average door height (2.45m) and an entrance drum of 0.50m diameter. Tomb N20 also has a greater depth than the average for this period at 1.00m. Two tombs have much narrower entrances than the average: K16 (0.30m) and Q15 (0.35m).

During the reign of Pepy II and in two tombs dated to Dynasty 8, that of the vizier, *B3wj* B7, and the adjoining undecorated tomb, B6, nine major tombs have entrances of 1.00m or more in depth :

M8, H6, B7 (all 1.00m)

H27, G42, H26, H24, B6 (all 1.05m)

H4 (1.5m), H15 (1.35m)

C8 has an unusually deep entrance of 2.00m av.

The remaining tombs in this period have entrances with an average depth of 0.70m. Most of these have entrance heights of 1.90m av. but both the entrance depth and the drums where present, are of smaller dimensions.

Entrance depth: Officials

<i>Nomarchs</i>	<i>Overseers of Fields and Serfs</i>	<i>Superintendents of Priests</i>
G98 - 0.90m	F1 - 0.60m	Q15 - 0.35m
G95 - 0.70m	B12 - 0.65m	C9 - 0.50m
	K18 - 0.55m	N20 - 1.00m
M8 - 1.00m	K4 - 0.45m	K18 - 0.55m
H15 - 1.35m	BA48 - 0.45m	B62 - 0.85m
H24, H26 - 1.05m	G42 - 1.05m	K1 - 0.80m
H41 - 0.85m	GA11 - 0.75m	G42 - 1.05m
C3 - 0.55m	G66 - 0.70m	L21 - 0.70m
		L31 - 0.55m

Entrance Drums (see Tables 3 and 4, base group of tombs; Table 5, uninscribed tombs)

Where tomb entrances are intact, drums are found in 39 of the base group of tombs, and in 31 uninscribed tombs. Three aspects of drums were considered significant: their shape, their position within the door thickness and their diameter.

Three **shape** types were found: full round; three-quarter round; and a half drum shape.

Three **positions** were also found: at the front, in the centre or at the back of the entrance thickness. (Figs.31, 32, 33)

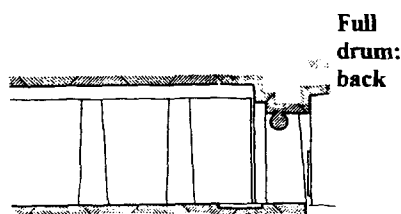


Fig. 31 - M43

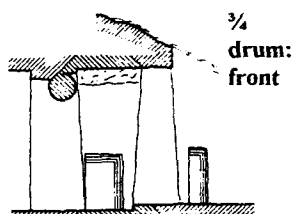


Fig. 32 - H6

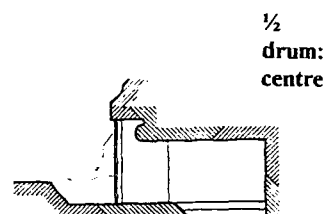


Fig. 33 - G4

There were two major size groups, those having:

- a. a diameter of 0.50- 0.55m, and
- b. a diameter of 0.20-0.30m.

A small number of tombs have drums with diameter measurements between these 2 groups:

0.45m diameter (L6)

0.40m diameter (J2)

0.35m diameter (L8, N20, M52, BA63)

The large tombs of the major officials feature full drums at their entrances. All have diameters of 0.50/ 0.55m. Drums of these larger dimensions whether full, 3/4 round or half round in shape, are found concentrated in two periods:

Dynasty 5-Teti: M23, M22, L6, M43, M44, G98

mid Pepy II: L23, H27, H26, H15, H4, H6

Of the remaining examples, one is presently dated to the end of the reign of Teti or early PepyI (G22) and one to Dynasty 8 (B6).

A **central position** within the entrance thickness for full drums is usual. A smaller number are placed toward the back but none were found at the front of the entrance. For 3/4 drums this preference is reversed with most examples being placed at the **front** of the entrance thickness. This same preference is found also with half drums; the majority are to the **front** of the entrance and a smaller number in a middle position, (see Diagram and list of tombs below). While the largest tombs appear to prefer a central placement for their drums, no particular position is prevalent in any one dating period.

In certain tombs, **internal entrance lintels** are found within the entrances in place of drums.

Among the base group of tombs, seven had lintels in the entrance thickness: F15, Q13, K16, G97, K5, B12, BA17. (Figs.34, 35). All are dated to the period Teti-Pepy I except BA17 (Dynasty8).

Undecorated tombs with lintels within the entrance are I4, L1, L2, L7.

Officials

Amongst the tombs of the highest officials, no *Nomarch* had an internal entrance lintel (G95 is damaged at the entrance, and perhaps a lintel rather than drum may have been intended) nor do any *Superintendents of Priests*.

Only in the tomb of *Mmj* (B12), an *Overseers of Fields and Serfs*, is a lintel found.

Position in the entrance thickness and the height of the lintel:

Front position: F15 (0.30m), K16 (0.20m), B12 (0.20m)

Mid position : Q13 (0.15m), G97 (0.20m), BA17 (0.10m)

Back position : K5 (0.30m)

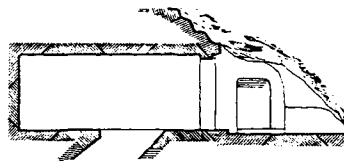


Fig. 34 - BA17

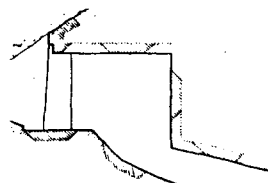


Fig. 35 - B12

A comparison between the **height** and **thickness** of the doorway and the **shape** and **diameter** of **drums** in the entrance thickness suggests the possibility of two groupings :

- a. tombs with door heights above 2.20m and deep entrance thicknesses measuring 1.00m - 1.50m and with large drums of 0.50m -0.55m in diameter.
- b. tombs with door heights below 2.20m which had smaller drums of 0.20m -0.30m in diameter and were 0.90m or less in the thickness of the entrance.

In the first group with **entrances of greater heights**, that is, ranging between 3.70 - 2.20m, 12 tombs have drums measuring 0.50 -0.55m in diameter. The majority - that is, 8

examples - of these drums are full cylinders in shape (M23, M22, M43, G22, G98?, H27, H26, H4), 2 are 3/4 round drums (L23, H6, ? or full) and 4 are 1/2 drums (L6, M44, H15, B6).

A further tomb may be included here: L6, with a slightly smaller drum of 0.45m, but with an entrance height of 2.25m and an entrance depth of 1.00m.

The large, uninscribed tomb, C8, may qualify for inclusion here because of its entrance height of 2.50m and an average entrance thickness of 1.60m, except that it has a drum of only 0.35m diameter.

There were no internal entrance lintels among tombs with doorways of these greater heights.

In the second group with **entrances of lower heights**, that is, ranging from 2.20-1.20m, 21 tombs have drums measuring .20m -.30m in diameter, 5 have door heights in this range but have drums of slightly larger diameter: 0.35-0.40m (L8, N20, M51, BA63, J2), 14 have no drums, and 6 have internal entrance lintels. Only one example (K4) has a drum of the full, round shape. The remaining tombs feature half drums in their entrances.

The uninscribed tombs (see Table 3) showed the same correlation between the height of the entrance and the size of the drum.

Officials

Nomarchs

G98: full drum?(damaged) 0.55m est. diam., in a back position

G95: 1/2 drum, 0.15m diam., in a front position

M8: damaged

H15: 1/2 drum, 0.50m diam., in a central position

H24: no drum

H26: full drum, 0.55m diam., front-central position

H41: no drum

C3: no drum

Overseers of Fields and Serfs

F1: no drum

K18: no drum

K4: full drum, 0.20m diam., in a back position

B12: lintel, 0.20m, in a front position

G42: 1/2 drum, 0.30m diam., in a front position

BA48: no drum;

shrine entrance has 1/2 drum, 0.25m diam., front-centre position

GA11: 1/2 drum, 0.25m diam., in a central position

G66: 1/2 drum, 0.30m diam., in a central position

Superintendents of Priests

Q15: no drum

N20: 1/2 drum, 0.45m diam., in a front position

C9: 1/2 drum, 0.30m diam., in a central position

K18: no drum

B62: 1/2 drum, 0.20m diam., in a front position

K1: 1/2 drum, 0.20m diam., in a front position

G42: 1/2 drum, 0.30m diam., in a front position

L21: 1/2 drum, 0.30m diam., in a front position

L31: 1/2 drum, 0.25m diam., in a front position

Level of ceiling in the entrance thickness.

The predominant ceiling level is horizontal whether drums or internal entrance lintels are present or not but a small number of tombs have entrance ceilings sloping up or down toward the interior of the tomb.

In the base group of tombs, **upward** sloping ceilings in entrances are seen in doorways **without drums** in tombs CA1 and H24, and in doorways with **1/2 drums** in tombs N20, L24, G42, BA63, B62, G66. (Figs.36, 37). There are no examples in doorways with 3/4 drums.

One uninscribed tomb, L1, has an upward sloping internal entrance lintel.

Amongst the tombs of **officials**, the *Nomarch*, H24, the *Overseers of Fields and Serfs*, G42 and G66, and the *Superintendents of Priests*, N20 and B62 have upward sloping ceilings in the entrance thicknesses.

No **downward** sloping ceilings are evident in the entrances of the base group of tombs but these are found in the following undecorated examples: Tomb B57 has an entrance ceiling sloping down behind a 3/4 drum, tombs G2 and G3, ceilings sloping down before and after a 3/4 drum, and tomb L24, a 1/2 drum sloping down. (Fig.38)

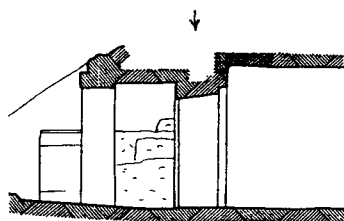


Fig. 36 - H24

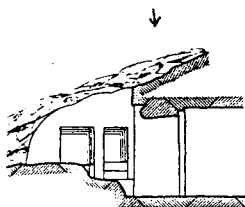


Fig. 37 - G42

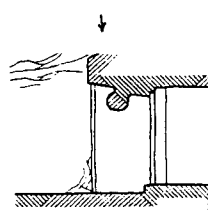


Fig. 38 - G3

Level of floor of the entrance thickness.

The majority of entrances have a horizontal floor, but in a small number of tombs, the entrance floor slopes either up or down to the interior of the tomb.

The base group tombs, M23, M22, H4, BA63 and C8, have floors **sloping upward** from façade into the chapel (Fig.39) while CA1, G98, F1, B83, K21, K1, I49 and H41, have entrance floors **sloping down** into the chapel (Fig. 40).

Undecorated tombs with entrance floors sloping up are C6 and H26 Pit F, and with entrance floors sloping down, B9, B57, G120, G125.



Fig. 39 - M23

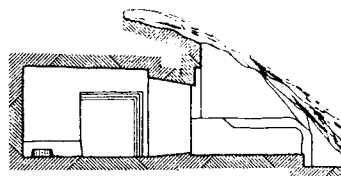


Fig. 40 - CA1

Officials

Nomarchs: entrance floor sloping down into chapel: G98, H41

Overseers of Fields and Serfs: entrance floor sloping down: F1

Superintendents of Priests: entrance floor sloping down: K1

Steps are found at the exterior and interior of the entrances of several tombs whose dating ranges from Dynasty 5 to Dynasty 8.

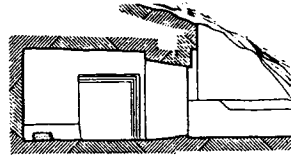


Fig. 41 - CA1

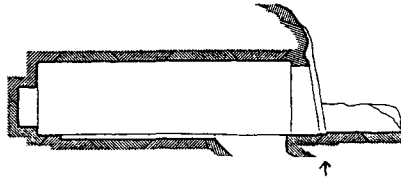


Fig. 42 - G95

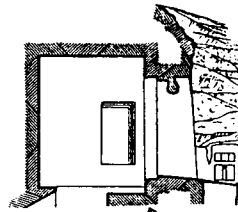


Fig. 43 - M22

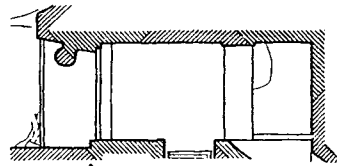


Fig. 44 - G3

At the **exterior** of the entrance a single step **up** into the entrance is found in the base group of tombs, M43, CA1, G98, B83 and L31. (Fig. 41). The of height of the steps ranges from 0.05m-0.25m.

A step **down** to the entrance is seen in tombs F12, Q2, Q13, G95, L23, G66, H15 (Fig. 42). The height of the step ranges from 0.10m-0.40m.

At the **interior** opening of the entrance none of the base group of tombs show a step **up** into the chapel, but steps **down** into it are found in tombs M23, M22, M21, Q2, G98, K16, F1, H15, GA11 and C3 (Fig.43). All have single steps except M22 and H15 which have two. The average height of the steps is 0.12m.

Among the uninscribed tombs, exterior steps **up** are seen at the entrance of tombs F14 and H51, but exterior steps **down** are found in tombs B13, G125, H14, L2 and L24. All

are single steps. A single rising step in the **middle** of the doorway of tombs G76 and M45, and two steps down are found in the entrances of tombs H12 and L2.

At the interior of the entrance, a single step **up** into the chapel is seen in tombs B13, G3, H14, L24 and M45 (Fig.44). In this same position, a single step **down** is found in tombs F13, F14, G70, G78, G125, G120, H25, L2 and M24, and two steps down are present in tombs B9 and M42.

In the tombs of the **officials**, the unnamed *Nomarch* of tomb G98, and the *Superintendent of Priests*, Q3r, L31, have an external step up into the entrance while the *Superintendent of Priests*, Mddj, G66, has an external step down into entrance. The *Nomarch*, G98, and the *Overseers of Fields and Serfs*, Hzzj-Mnw, F1, and Gh3, GA11, all have a single step down into chapel.

Internal Recesses in entrances

These are found at the internal opening of entrance doorways in 22 tombs.

Their depth ranges from 0.10m - 0.40m. The major Fifth Dynasty tombs have recesses of the greatest depth, with those of M23 and M22 measuring 0.35m, and M43, 0.40m. (Fig. 45a). The major Sixth Dynasty tombs, however, have much narrower recesses; for example, G22, L23, H27 and H24 are all .20m deep (Fig.45b).

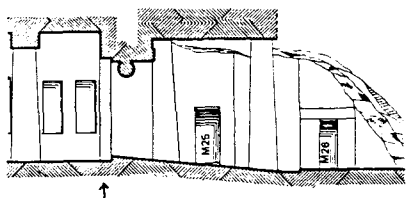


Fig. 45a – M43

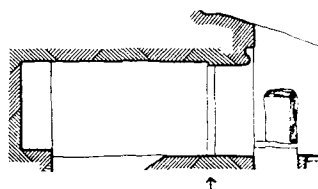


Fig. 45b – H30

Fourteen examples are found in the base group of tombs: M23, M22, M21, N15 (west side only), M43, G98, G22, G42, L21, M8 (west side only), L23, H27, H15, H24, B7.

Eight examples are found among the undecorated tombs: B9, G3, G76, G80, H30, H50, M25, M42.

Officials

Internal recesses occur in the entrances of the *Nomarchs*, G98, M8 (W. side), H15 and H24; and in the *Overseer of Fields and Serfs* and *Superintendent of Priests*, G42 and the *Superintendent of Priests*, L21.

Dating comment

The inscribed examples with internal recesses are found in two periods:

* Dyn. 5-early Pepy I (7 examples, M23-G98), and

* early-mid Pepy II (6 examples, G42-H24).

A later tomb outside these two periods also with an internal recess is B7 dated to the end of Dynasty 6 or to Dynasty 8).

There seems to be no correlation between the presence of these internal recesses and the presence or absence of external recesses, of steps at the entrance or of particular drum types.

Door Sockets and Bolts

Immediately inside the chapel entrance of tomb M43 the floor is cut away to a depth of 0.15m in a quarter-circle. This has a radius of 1.45m. In the corner of this depression at the south (right) side of the door is a smaller quarter-circle, 0.10m deep and with a radius of 0.35m. The outer curved edge of this is finished by a raised, rounded rim thus forming a socket in which a lower pivot of a door would have rested.¹⁹ No hole is found in the top of the entrance for an upper pivot, but rectangular holes cut into the sides of the doorway suggest that an inner wooden frame was used, at the top and sides of the entrance. A door could have then been attached to this. A rectangular bolt-hole is cut into the west side of the door recess, at a point midway in the height of the door to take a sliding bolt.

¹⁹ H V, figs. 1-3

At the north (left) side of the entrance of tomb CA1 of the vizier, *B3wj*, a circular depression in the floor may indicate the position of a door pivot. Above it is a square opening.²⁰

²⁰ *H VIII*, p. 22.

THE CHAPEL

(Table 6, base group of tombs; Table 7, uninscribed tombs)

The tombs at El-Hawawish in their simplest form comprise a single room that gives access to one or more passages leading to burial chambers. A number of tombs have secondary chambers extending from this main room: these appear to have functioned as shrines, serdabs and storage rooms.

The major tombs of the period Dynasty 5-Teti are L-shaped or reversed T-shaped in plan.

The first chamber beyond the entrance is referred to in this study as the CHAPEL.

Extending from the wall opposite the entrance to the chapel and usually perpendicular to the entrance wall, a second major chamber usually containing one or more false doors, is considered here as the SHRINE. The smaller Fifth Dynasty tombs, L6 and L8, consist of only one room whose main axis is perpendicular to the entrance wall like the shrine area of the larger tombs of this period and which contains, like them, one or two false-doors.

Three **PLAN TYPES** are found in the cemetery:

1. rectangular, with the main axis parallel to the entrance wall ²¹ (Fig.46)
2. rectangular, with the main axis perpendicular to the entrance wall (Fig.47)
3. square (Fig.48)

²¹ One of the earliest tombs in the cemetery, that of *Mnw-ḥnh* (G84) stands apart from the three categories above since it appears to have been conceived as a cruciform plan. (Fig. 49) The tomb features a deep entrance recess, an unfinished niche in the north wall opposite the entrance, and two false doors on the southern entrance wall (see *H* I, fig. 2). It has been included under Plan Type 2 however, according to the orientation of its main chapel area.

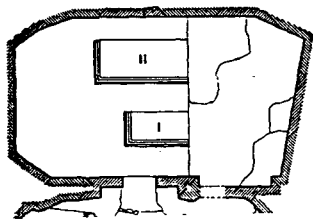


Fig. 46- K16

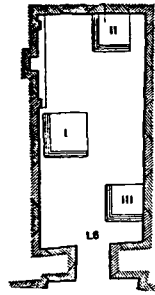


Fig. 47 - L6

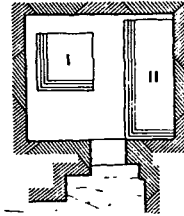


Fig. 48 - Q2

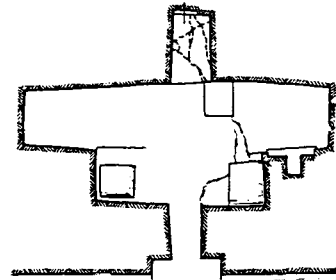


Fig. 49 - G84

1. Rectangular Chapels (axis parallel to entrance wall)

There are 21 examples amongst the base group of tombs. In the period Dynasty 5-early Teti all chapels were oriented with their long axes parallel to the entrance wall with three exceptions. These are the two small earlier Fifth Dynasty chapels of L6 and L8, and the large tomb of M43, dated to the reign of Unis, all of these with axes perpendicular to the entrance wall. The major Fifth Dynasty tombs apart from these have shrine extensions which make the overall plan either an L- or a T-shape.

In the reign of Teti three tombs continue with their axes parallel to the entrance wall, F12, F15 and K16.

In tombs dated to the reign of Pepy I to the beginning of Pepy II, there are three examples, CA1, N20 and K18. During the reign of Pepy II, eight examples are found - L21, BA48, G42, H15, H27, H4, H26 and H24. Of these L21, H4 and H26 have shrine extensions which makes the final plan an L-shape. Tomb H15 may also have been intended to follow the same plan but is incomplete. Likewise, tomb H24 appears to have been originally an L-shaped plan but extensions to the chapel now give it its final T-shaped plan.

No examples are known from the end of Dynasty 6 to Dynasty 8.

Uninscribed tombs with this orientation of chapel are B57, C7, F13, H30, H31, L2, M24, M25, M28, M39, M42, M42a, N15a, N16.

Officials with rectangular chapels, axis parallel to the entrance wall

Nomarchs: H15, H24, H26

Overseers of Fields and Serfs: K18, G42, BA48

Superintendents of Priests: N20, K18, L21, G42

2. Rectangular Chapels (axis perpendicular to the entrance wall)

In the base group of tombs there are 23 examples including M8 in its final form.

Chapels with this orientation are found in two small mid-Fifth Dynasty tombs, L6 and L8 and once in a major tomb dated to the end of the Fifth Dynasty, M43. It is then adopted at the end of the reign of Teti in tomb F1, and in six tombs dated to Pepy I (G95, G126, G22, Q4, Q15 and K5) Thereafter it is found in tombs dated early-mid Pepy II (M8, M51, M52, L23, BA63, G79) and the end of Dynasty 6 - Dynasty 8 (GA11, H41, B6, B7, G66, BA17 and BA14).

Uninscribed tombs with this orientation are B9, B13, C6, F14, G70, G72, G77, G80, G120, H12, H26F, I50, L1, L7, L24, M29, M39a, M42b, M42c, M45, M45b.

Officials with rectangular chapels, axis perpendicular to the entrance wall

Nomarchs: G95, M8, H41

Overseers of Fields and Serfs: F1, GA11, G66

Superintendents of Priests: Q15

The Orientation of the axes of rectangular chapels

The rectangular chapels of the major tombs of Dynasty 5 -Teti (M23, M22, M21, N15, M44, F12) all have their long axes parallel to the entrance wall and are all oriented E-W.

Each has a shrine area oriented N-S which extends from the north wall opposite the

entrance. The two smaller tombs of this period, L6 and L8, have no shrines and their chapels are oriented N-S like the shrines of the larger tombs.

These two tombs (both dated to the reign of Neuserre) and the major tomb of *Hm-Mnw*, M43 (dated to Unis), are the first examples of rectangular chapels with the long axis perpendicular to the entrance wall. The axes of all three chapels are oriented N-S.

During the period of Pepy I to the end of Dynasty 8, the N-S and E-W orientation is found in both types of rectangular plans (either parallel or perpendicular to the entrance wall) ; 13 have a N-S orientation and 17 have an E-W orientation.

3. Square Chapels

In the base group of tombs, there are 23 examples. To these may be added M8 in its original form and perhaps M43, if the pillared area immediately beyond the entrance is to be considered as separate to the inner area.

The first major tomb which is square in plan is G98, dated to early Teti. During the period early Pepy I to the beginning of Pepy II this continues to be the dominating plan although rectangular chapels are also found. During this period, 13 of a total of 20 chapels are square in plan. From early Pepy II, square chapels decrease in number with the preference given to rectangular chapels: 3 are square in plan out of 14 tombs dated from early - mid Pepy II, and 5 out of 13 tombs dated from mid - late Pepy II to Dynasty 8.

Tombs G98, K4 and C8 have shrine extensions.

Uninscribed tombs of this shape are B14-15, B84, G1-4, G73, G76, G78, G125, H25, H29, I4, L8a, L8b, M26, M27, M46, M47, N13, N14, BA16.

Officials with square chapels

Nomarchs: G98, M8 in its original form, C3

Overseers of Fields and Serfs: K4, B12, G42

Superintendents of Priests: C9, K1, B62, G42, L31

Chapel AREA

Chapels with large areas

Among the base group of tombs chapels with **large areas** can be divided into 2 groups:

a. those with a range of 99.35 sq. m - 79.00 sq. m

b. those with a range of 67.60 sq. m-31.00 sq. m

Examples in group a: M23 (79.00 sq.m)
M43 (99.35 sq.m)
M8 (87.00 sq.m)
H24 (86.00 sq.m)
C8 (98.75 sq.m)

Examples in group b: M21 (32.50 sq.m) L23 (66.60 sq.m)
G84 (38.00 sq.m) H27 (38.40 sq.m)
N15 (33.05 sq.m) H26 (44.40 sq.m)
G22 (67.60 sq.m) H4 (50.60 sq.m)
G98 (40.30 sq.m) H41 (31.05 sq.m)
K16 (36.65 sq.m) B6 (40.15 sq.m)
K4 (32.00 sq.m)

The only major tombs whose measurements fall outside either of these two groups are M22 and M44, with chapel areas of 27.75 sq. m and 20.20 sq. m respectively. In both these tombs, however, the area of the shrine exceeds that of the chapel. These shrine areas, 32.50 sq. m (M22) and 38.70 sq. m (M44), are close to that of M23 (38.75 sq. m) which has the largest shrine area in the cemetery (excluding the northern end of M43). The role of the shrine thus appears to exhibit a greater significance than the chapel to the owners of tombs M22 and M44.

Chapels with large areas are found in two periods, Dynasty 5-Teti and early/mid Pepy II, with the exception of four tombs. One is dated to the beginning of the reign of Pepy I (G22), one to the end of Pepy I - beginning Pepy II (K4), and two to the end of Dynasty 6-Dynasty 8 (H41 and B6).

Chapels with smaller areas

Together with the large chapels of the higher officials of the period Dynasty 5 -Teti noted above are the chapels of the lesser officials of the same period (L6, L8, N16, F1) with much smaller areas. These smaller chapel dimensions continue through the reign of Pepy I to the beginning of the reign of Pepy II. In this period, apart from the chapels of larger sizes noted above, the majority of chapel areas fall within the range 8.65 sq. m -2.40 sq. m, although a small number are found with the range 21.00 sq. m -11.70 sq. m, i. e. tombs Q4, G97, G95, K5 . Even the tomb of the vizier CA1, tentatively placed at the beginning of the period Pepy I, follows this trend with a chapel area of only 8.65 sq. m.

As noted above, large chapel areas are usual in the early to mid part of the reign of Pepy II. This changes in the latter part of the reign with a decrease in chapel areas which continues in tombs dated to Dynasty 8. This decrease is not as marked as that of tombs dated to the time of Pepy I (see above). Excluding the two tombs with large chapel areas in group *b*. above, i. e. H41 and B6, the range in tombs dated to mid-late Pepy II to Dynasty 8, is 24.60 sq. m -5.30 sq. m. This decrease affects all ranks of officials. As noted with the earlier vizier CA1, above, two officials with the highest positions in this late period reflect this trend: the Nomarch, C3, with a chapel area of 13.65 sq. m and the vizier, B7, with a chapel area of 24.60 sq. m.

Officials

<i>Nomarchs</i>	<i>Overseers of Fields and Serfs</i>	<i>Superintendents of Priests</i>
G98: 40.30 sq.m	F1: 15.75 sq.m	Q15: 4.50 sq.m
G95: 21.00 sq.m	K18: 3.50 sq.m	N20: 6.80 sq.m
M8: 87.65 sq.m	K4: 32.00 sq.m	C9: 6.75 sq.m
H15: 27.30 sq.m	B12: 6.00 sq.m	B62: 5.45 sq.m
(unfinished)	G42: 14.40 sq.m	K18: 3.50 sq.m
H24: 86.00 sq.m	BA48: 21.90 sq.m	K1: 5.65 sq.m
H26: 44.40 sq.m	GA11: 26.00 sq.m	G42: 14.40 sq.m
H41: 31.00 sq.m	G66: 22.70 sq.m	L21: 25.35 sq.m
C3: 13.65 sq.m		L31: 20.45 sq.m

Comment

In certain Sixth Dynasty tombs which are adjacent to each other or close in situation and where family relationships are known or presumed to exist, a consistent variation of the chapel area - approximately a difference by half - can be observed.

G98 - 40.30 sq. m.
 G95 - 21.00 sq. m.
 G97 - 11.70 sq. m. ²²

K4 - 32.00 sq. m.
 K5 - 16.00 sq. m.

H24 - 86.00 sq. m.
 H26 - 44.00 sq. m.

H41 - 31.05 sq. m.
 I49 - 16.80 sq. m.

B6 - 40.15 sq. m.
 B7 - 24.70 sq. m.

Although the chapel area of each of these closely-associated examples is approximately half the size of the other, there appears to be no relationship between the AREA and the HEIGHT of these chapels, since the height is the same or very similar.

e.g. K5 - 2.10m. high
 K4 - 2.00m. "

H26 - 3.00m. "
 H24 - 3.00m. "

²² See Kanawati, *Akhmin in the O. K.*, p. 49 ff. for the possible relationship between these tomb owners.

Chapel HEIGHTS

In the period, Dynasty 5 - Teti, the ceiling of the chapel of M23 with an average height of 4.40m is the highest in the cemetery.

The remaining tombs in this period have ceiling heights which fall into 2 groups:

- a.* 3.90m. -3.30m (M22, M21, N16, M43, M44)
- b.* 2.60m. -1.75m (L6, L8, N15, F12, F15, G84)

Two tombs dated to the end of the reign of Teti and the beginning of Pepy I have ceilings of 2.80m. (G98, G22) but the remaining chapels dated to the reign of Pepy I have heights within the range, 1.20m. to 2.10m.

Early in the reign of Pepy II, with Tomb M8, there is an increase to a ceiling height similar to that seen in the earlier chapels of the period Dynasty 5-Teti. The construction of M8 appears to indicate an improvement in the tomb-owner's means. The first half of the chapel, nearest the door, has a ceiling height of 2.75m. The inner section of the tomb has a chapel ceiling of 3.55m. similar to that of the major early tombs.

A group of tombs of lesser officials dated to early -mid Pepy II, have chapel ceilings of 2.00m -2.35m: L31 (2.00m), G42 (2.00m.), BA48 (2.15m.), L21 (2.05m.) and L23(2.35m.).

Ceiling heights then rise to 2.75 -3.30m in the following chapels: H4 (2.75m.), H6 (2.85m.), H27 (2.80m.), H15 (3.00m.), H26 (3.00m.), H24 (3.00m.) and the uninscribed tomb, C8 (3.30m.av.).

A drop of 0.5-1.0m. in the ceiling heights then occurs after this peak in Pepy II. Tombs dated to late Dynasty 6 -Dyn. 8 with their chapel heights, are GA11 (2.20m.), H41 and B7

(2.30m.), B6 (2.15m.), and BA14 (2.00m.). The remainder of tombs of this date, including the Nomarch C3, have heights of 1.70m.

The height of the ceiling of chapel is possibly chiefly determined by the spurs of rock available to tomb owners with more powerful, or affluent, tomb owners being able to build in areas of better rock formation. The ability to build a tomb with a large **area** does not necessarily mean that this tomb will have a ceiling of a great **height**. From the beginning of the reign of Pepy I, tombs with larger areas do not have correspondingly higher ceilings. Compare, for example, tombs Q4, with a chapel area of 19. 20sq. m. and a ceiling height of 1.75m, with the nearby tomb Q2, with a chapel area of 6. 85 sq. m and a height of 1.60m.

Officials

<i>Nomarchs</i>	<i>Overseers of Fields and Serfs</i>	<i>Superintendents of Priests</i>
G98-2.80m	F1-1.75m	Q15-1.20m
G95-1.80m	K18-1.40m	N20-2.05m
H15-3.00m (av.)	K4-2.00m	C9-1.55m
H26-3.00m	B12-1.80m	K18-1.40m
H24-3.00m	G42-2.00m	G42-2.00m
H41-2.30m	BA48-2.5m	L21-2.05m
C3-1.70m	GA11-2.20m	L31-2.00m
	G66-1.70m	B62-1.45m

The relationship of Chapel Height and Chapel Depth

Dyn. 5-Teti:

1. square chapels: no examples
2. rectangular chapels (axis parallel to entrance wall): 1:1 - 1:1.5
3. rectangular chapels (axis perpendicular to entrance wall): 1:2 - 1:2.5

Pepy I:

1. square chapels: 1:1 - 1:2.5
2. rectangular chapels (axis parallel to entrance wall):
 - K16, 1:2.5
 - K18, 1:1
 - N20, 1:1.5
3. rectangular chapels (axis perpendicular to entrance wall):
 - M43, 1:5. 5 (total area)

G22, 1:4
 G95, 1:3. 5
 F1, 1:3
 K5, 1:2.5
 Q15, 1:2
 G126, 1:2

Pepy II:

1. square chapels: 1:2 - 1:2.5
 (N.B. first section of M8 also 1:2.5)
2. rectangular chapels(axis parallel to entrance wall): 1:2
3. rectangular chapels(axis perpendicular to entrance wall):
 L23, 1:4. 5
 M8, 1:4
 G66, B6, 1:3. 5
 BA63, H41, 1:3
 BA14, BA17, B7, 1:2.5
 GA11, G79, 1:2

Officials

<i>Nomarchs</i>	<i>Overseers of Fields and Serfs</i>	<i>Superintendents of Priests</i>
G98, 1:2.5	F1, 1:3	Q15, 1:2
G95, 1:3.5	K18, 1:1	N20, 1:1.5
M8, 1:4	K4, 1:2.5	C9, 1:2
H15, -	B12, 1:1.5	K18, 1:1
H26, 1:2	G42, 1:1.5	K1, 1:2
H24, 1:2	BA48, 1:2	G42, 1:1.5
H41, 1:3	GA11, 1:2	L21, 1:1.5
C3, 1:2.5	G66, 1:3.5	L31, 1:2.5
		B62, 1:1.5

Relationships between Façade and Chapel

Façade Height to Chapel Depth

In the basic group of tombs the relation of façade height to chapel depth ranged from 1:7
 in the major tombs M44 and M8 to 1:1 in the small tomb of Q13.

Dynasty 5 -Teti: 1:7 (M44) - 1:2.5 (L6, N15)

Pepy I -Merenre: 1:1.5 - 1:2.5, with the exception of K4, at 1:4

Pepy II -Dyn. 8: 1:7 (M8) - 1:1.5 (H15)

The greatest depth of chapel to façade height occurs in the period Dynasty 5 -Teti . The proportion narrows in the reigns of Pepyl -Merenre to increase again in early-mid Pepy II to almost equal that seen in the period Dynasty 5 -Teti.

The range amongst undecorated tombs is 1:1 - 1:3 with the exception of H12 - 1:4.

Officials

Nomarchs

Range: 1:7(M8) - 1:2.5(H26, C3)

G98-1:2.5

G95-1: 2.5

M8-1:7

H15-1:1.5 (unfinished)

H24-1:4. 5

H25-1:2.5

H41-1:3. 5

C3-1:2.5

Overseers of Fields and Serfs

Range: 1:4(K4) - 1:1.5(B12)

F1-1:2.5

K18-1:1.5

K4-1:4

B12-1:1.5

G42-1:2

BA48-1:2.5

GA11-1:3. 5

G66-1:3. 5

Superintendents of Priests

Range: 1:2(L31, L21) - 1:1.5(C9, B62)

Q15-1:2

N20-1:1.5

C9-1:1.5

K18-1:1.5

K1-1:1.5

L21-1:2

L31-1:2

B62-1:1.5

Façade Width to Chapel Width

The range in both decorated and undecorated tombs is 1:1 - 1:2.5, with one exception, K16, 1:3.5. The most frequently found proportion was 1:1.5, but this average rises slightly in the period mid-Pepy II, to 1:2.

Officials

Nomarchs: 1:1.5, for all except C3-1:2.5.

Overseers of Fields and Serfs: 1:1 - 1:2.5, but the most common relationship is 1:1.5.

Superintendents of Priests: 1:1 - 1:2

Façade Width to Chapel Depth

The range in chapels with their axes parallel to façade in the basic group of tombs is 1:05 (CA1) to 1:2 (K16, L21, B62, J2).

In chapels with axes perpendicular to façade it is 1:1.5 (F1, G126, G79) to 1:5 (L23).

In square chapels the range is 1:1.5 (G98) to 1:3 (K4, I49, C3).

There is a higher proportion of chapels which are deeper in relation to the width of their façades in the period Pepy II - Dynasty 8.

Officials

Nomarchs:

Range: 1:1 - 1:3

Overseers of Fields and Serfs:

Range: 1:1.5 - 1:3.5

Superintendents of Priests:

Range: 1:1 - 1:2

The **CEILING** of the chapel

(see Table 6, base group of tombs: Table 7, uninscribed tombs)

There are four different treatments of chapel ceilings:

1. **Horizontal**: the majority of chapel ceilings are horizontal throughout all periods-

Dyn. 5 - Dyn. 8: 82 tombs - 42 decorated and 40 undecorated. (Fig.50)

2. **Sloping up** towards the rear of the chapel: 35 tombs dating from Dyn. 5 - late Dyn. 6 -

18 decorated, (but some slope at a very slight angle such as CA1, K5 and B83 only at 2 degrees) and 17 undecorated. (Fig.51)

3. **Sloping down** towards the rear of the chapel: 3 tombs - only G49 amongst the decorated examples, (again only a very slight rise is found) with 2 undecorated.

(Fig. 52)

4. A **combination of different levels**:

a. before and after pillars with beams (M23, G22, H4, H15) (Fig. 53)

b. in chapels with pillars supporting architraves (H27?), C3, B9, B57, C6, C7, H12)

c. in chapels without pillars (L24, M8, B6)

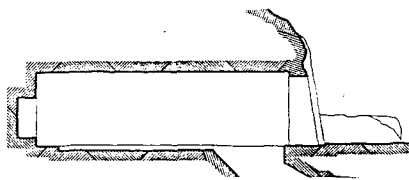


Fig. 50 - G95

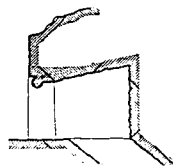


Fig. 51 - G23

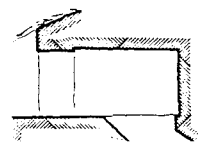


Fig. 52 - G49

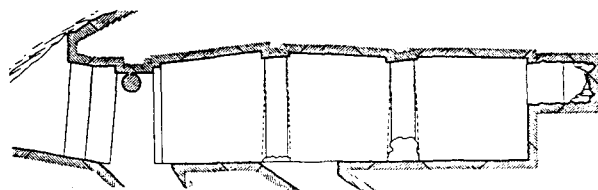


Fig. 53 - G22

Officials

Nomarchs: 3 have more than one level of ceiling (G22, M8, H15, but note that this tomb is incomplete), the remainder are horizontal.

Overseers of Fields and Serfs: 6 have horizontal ceilings and 3 have ceilings which slope up toward the rear of the chapel (K4, G126, GA11).

Superintendents of Priests: 6 have horizontal ceilings while 2 have ceilings sloping up toward the rear of the chapel (N20, B62).

Degree of slope of chapel ceiling

1. Sloping **upward** from entrance to rear:

Range: 2-12 degrees

Inscribed tombs

2°: CA1, K5, B83

3°: L6, G97, G126, N20, M51, B6, B7

Uninscribed tombs

B15, C7

G125, L2, H12, F14, M25

4°: M44, B62, K4, BA63	B14, G73, L1, L24
5°: L23(at rear), GA11	9, B57, G1
6°: -	G77
7°: G22(before pillars), H15	
8°: M23(behind pillars)	M42b
9°: N15	
10°: L42	
12°: G23	

Note: the slope in tombs L6 and L23 commences halfway between the entrance and the rear walls.

2. Sloping **down** from entrance to rear:
Range: 2-6 degrees

<i>Inscribed tombs</i>	<i>Uninscribed tombs</i>
2°: G49	B13
3°: G98 (behind pillars)	H12 (behind pillars)
4°: -	C6 (before pillars)
5°: G22 (behind pillars)	B57 (behind pillars)
6°: H4 (behind pillars)	

Entrance ceiling compared with Chapel ceiling

A comparison of the ceiling of the chapel with the ceiling of the entrance thickness where this is undamaged shows one of two treatments:

- a. The ceiling of the chapel continues at the **same level** as the entrance ceiling, or of the drum/lintel if these are present in 32 of the base group of tombs and in 43 undecorated tombs. (Fig.54)
- b. The ceiling is **raised** to a level higher than the entrance ceiling, or of the drum/lintel in 30 of the base group of tombs and in 18 undecorated tombs. (Fig.55)

Tombs N13 and H4 are exceptions with both having chapel ceilings which commence at a lower level than the ceiling of the entrance doorway.

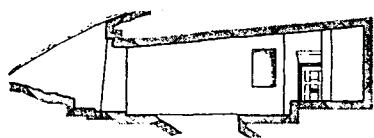


Fig. 54 - GA11

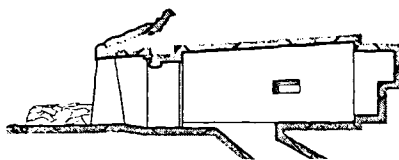


Fig. 55 - B7

Officials

Nomarchs: all have **raised** chapel ceilings except H41 and C3

Overseers of Fields and Serfs: all have entrance and chapel ceilings of the **same level** except G42 and G126 which are raised.

Superintendents of Priests: all have entrance and chapel ceilings of the **same level** except G42, L21 and L31 which are raised.

Dating comment

Raised ceilings in chapels behind the entrance occur particularly in two periods: Dynasty 5 - Teti (M23, M22, M43, L6, M44, N15, F15, G98, G126) and early to late Pepy II (L31, L21, L23, G42, H15, H27, H24, H26, H6, G79, C8).

Outside these two periods, they are found early in the reign of Pepy I only in three chapels: those of the vizier CA1, the Nomarch G95 and the large uninscribed tomb, G22.

Raised ceilings are also found in two tombs dated to Dynasty 8, BA17 and B7(a vizier),

The position of the Entrance Door in relation to the Chapel Width (see Tables 6, 7)

There are five main positions in which the door is found in the entrance wall:

1. in the **centre** (Fig.56)
2. in the **right half** of the entrance wall (Fig.57)
3. in the **left half** of the entrance wall (Fig.58)
4. at the **extreme right** (Fig.59)
5. at the **extreme left** (Fig.60)

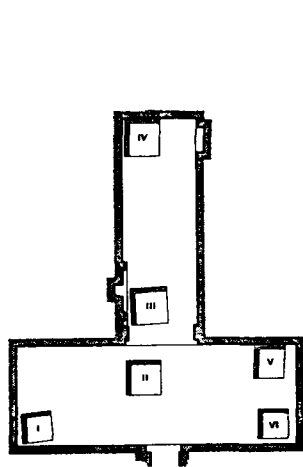


Fig. 56 - M21

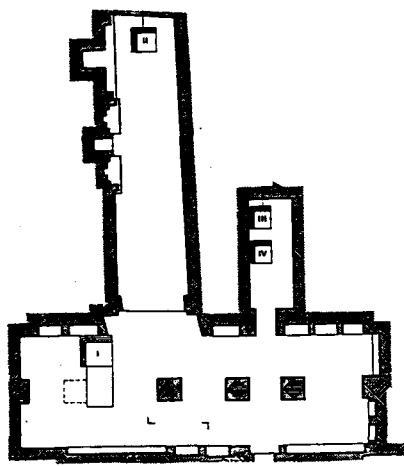


Fig. 57 - M23

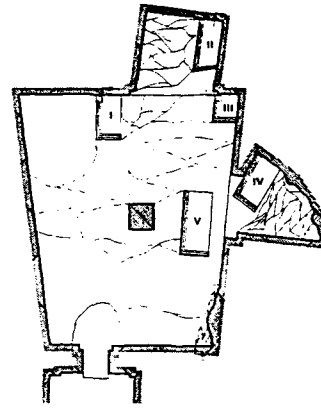


Fig. 58 - L23

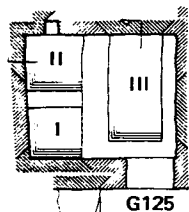


Fig. 59 - G125

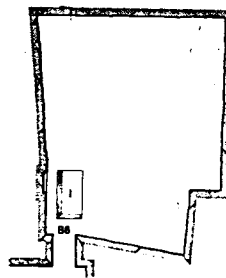


Fig. 60 - B6

1. Centre, or almost exact centre of entrance wall:

Among the basic group of tombs there are 43 examples; of these, 4 were slightly to the right, with the left door jamb in line with the central point of the entrance wall. For two tombs, L21 and H24, the centre would have been the original position of the door in relation to the chapel width. However, both tombs appear to have been extended to the right after the original plan had been laid down, thus the present position of the door is now seen to be in the left half of the entrance wall of the chapel.

There are 26 examples amongst the uninscribed tombs.

2. In the **right half** of the entrance wall:

There are 4 examples from the basic group of tombs, and 12 examples among the uninscribed tombs.

3. In the **left half** of the entrance wall:

12 examples are found in the basic group of tombs, with 14 examples in the uninscribed group.

4. At the **extreme right** of the entrance wall:

There are 6 examples from the basic tomb group, and 6 examples from the uninscribed group of tombs.

5. At the **extreme left** of the entrance wall:

Fewer examples again are found in this position with 4 examples from the basic group of tombs and 3 examples from amongst the uninscribed tombs.

Dating comment

The preferred position is the centre of the entrance wall from Dynasty 5 until late Dynasty

6. In tombs dated to Dynasty 8 the most frequent position is in the left half of the wall.

Dynasty 5 (11 examples): all entrances positioned in the centre except for M23 where the door is to the right, L8 where the door is to the extreme left, and M44 with the door at the extreme right.

Teti-beginning of Pepy I (9 examples):

4 entrances in the centre

2 to the left

3 to the extreme right.

Early Pepy I - beginning Pepy II (20 examples):

14 entrances in the centre of which 3 are to the right of centre

3 to the left

2 to the right and 1 to the extreme right.

Pepy II -end Dynasty 6 (18 examples):

15 entrances in the centre

1 in the right half

3 to the left of which 2 are the present position, not the original - i. e. L21 and H24

1 to the extreme right

Dynasty 8 (9 examples):

2 entrances in the centre

4 in the left half

2 at the extreme left

1 at the extreme right

Officials

Nomarchs

centre- H15, H26, H24 (original position)

right- G95, extreme right: G98, M8

left- H24 (present position), H41, C3

Overseers of Fields and Serfs

centre- F1, K4, BA48, GA11,

slightly left of centre- K18, B12, G42

extreme right- G66

left- none

Superintendents of Priests

centre- Q15, N20 and K1 (both slightly right), L21 (original position)

slightly left of centre- B62, K18, G42, L31

right- C9

left- L21 (present position)

Features in Chapels

1. false doors
2. offering platforms and basins
3. pillars

1. **False doors** (Table 9, base group of tombs; Table18, uninscribed tombs)

In the base group of inscribed tombs false doors appear in shrines and chapel areas in 29

tombs: G84, M23, M22, M21, L6, L8, M43, M44, N15, N16, F12, F1, G95, Q4, C9, K4,

K18, L31, M8, L21, L23, G79, BA48, G42, H26, H24, GA11, J2, BA17. Among the uninscribed tombs, 6 contain false doors, all carved: L1, L2, the minor tombs M25 and M26 to the east of the forecourt of M23, and the minor tombs M27 and M29 on the east side of the forecourt of M22. They are also cut into the west wall of the forecourt of M23 above Pits (a.), (b.), and (c.), and above Pits (e.) and (f.) along the east wall of the forecourt of M22. An uninscribed false door is cut into the western end of the façade of M43 above the mouth of Pit (b).

In **chapels**, false doors are present in 20 of the base group of tombs (or 21 if there is no distinction made between the front and rear sections of M43) ; of these, 11 (12) are carved into the rock and 8 are painted on to a plastered surface. Some of the carved false doors have colour remaining on plaster, e.g. in tombs L6, M22 and M8, which would have been the intended finish for all the carved examples.

Carved false doors: G84(2), L6, L8(2), (M43), N16, G95, Q4, K4, L31, G42, H26, H24(1), GA11, ²³ J2.

Painted false doors: F12(2), F1, C9(2), K18, L23, G79, H24(1), BA17.

Within the chapel, as in the shrine area, the preferred position for the false door is the west wall which is usually the left wall on entering the tomb and toward the northern end of this wall. Seven false doors are sited here: L6, L8, (M43), Q4, L31, G42, GA11. A further three false doors are in the left wall even though this is now the north wall in these chapels: G95, G42 and GA11. Two more tomb owners, N16 and K18, also choose the west wall for the position of their false doors although this is the entrance wall in N16 and the right-hand wall in K18.

²³ See F/N 28 in Shrines.

As well as tomb N16, two other chapels, G84 and F12, all dated from the mid-Fifth Dynasty to the reign of Teti, site their false doors in the entrance wall.

A position in the wall opposite the entrance is preferred in tombs L8 (not the main false door), C9, K4, L23, G79, H24 (the false door of the wife/daughter of the tomb owner), J2 and BA17. The false door is directly opposite the entrance doorway in tombs K4, L23, G79 and J2 and in the uninscribed L2. All of these tombs are dated to the reign of Pepy II with the exception of J2 and BA17 which are dated to Dynasty 8.

False doors occupy approximately 1/4-1/3 of the total wall area and most extend to the full height of the walls in which they are positioned. A small number of tombs dating from mid Pepy II show a reduction in the height of their false doors which now are 2/3-3/4 of the total wall height: G79, H24 (the false door of the wife/daughter), GA11 and BA17. A large flint nodule fills the remaining space above the false door in BA17, but a row of sacred oils has been added over the false doors in G79 and H24. Sacred oils were previously arranged vertically alongside false doors, e.g. F12, C9, K18 L31, L23.

The earliest false doors have a broad, flat frame surrounding the door, an upper panel divided into three almost equal parts above a lintel extending the width of the false door, and two jambs on either side of a central recess. These doors are almost square in proportion, e.g. G84, L6, M23, the northern false door in M22 and N16. Three of these Fifth Dynasty false doors feature an upper lintel: in M21 this does not extend past the side frame, but in the southern false door in M22, in M44 and the external false door on the façade of M43 this upper lintel is wider than the frame. In M23 the southernmost false door has smaller false doors cut into the side jambs with a separate platform before each jamb. The uninscribed false doors follow the style of the major Fifth Dynasty tombs they

are associated with except for the small false door in the façade of M43 which is in the earlier style without a cavetto cornice.

With tomb M43 new features appear which will be seen in all the Sixth Dynasty false doors, namely a cavetto cornice surmounting the door and a torus moulding surrounding the flat frame which now becomes two side jambs and a lintel. During the Sixth Dynasty the central section of the upper panel becomes larger with the two side sections more narrow e.g. L21, H24, or disappearing altogether e.g. C9, G79. The proportion of the whole door also becomes more elongated than the Fifth Dynasty doors.

Officials

Nomarchs: G95, M8, H26, H24

Overseers of Fields and Serfs: F1, K18, K4, G42, BA48, GA11

Superintendents of Priests: C9, K18, L31, G42, L21

2. Offering platforms (Table 10, base group of tombs; Table 18, uninscribed tombs)

Two types of offering platforms are found at El-Hawawish: the first is a plain rectangular platform, and the second is in the shape of a *hṭp* sign. The simple rectangular form is found before false doors in the major Fifth Dynasty tombs from the earliest examples: G84, L6, M23(2), M21(2), M22(2), M43, M44(2), N15, and then in three tombs dated early to mid Pepy II: M8, H24 and H26. The second type, *hṭp* offering platforms, are cut before false doors in tombs dating from late Teti to mid Pepy II: F1, G95, K4 (1) and BA48 (2), but are also present where no false doors exist in tombs CA1 (2), N20 (2), K4 (1), BA48 (1) and adjacent to shafts in the uninscribed tombs, F14 and G120.

Two offering basins are cut into the *hṭp* platforms in N20 (late Pepy I) and BA48 (early Pepy II). A single basin is placed in the shrine/recess above the false door with its *hṭp* platform in K4 (Pepy I).

A variation to these two forms is found in tomb GA11 (dated to late Pepy II) where an oval-shaped platform is cut before the false door.

Offering platforms are the same width or a little wider than their false doors. The plain rectangular form vary in depth from 0.20m (L6) to 1.10m (M8), with heights between 0.10m (M21, G95, K4) and 0.50m (M44). *Htp* platforms have an average depth of 0.65m and an average height of 0.15m.

A ledge of rock in tomb G95 though independent of the false door may be also considered as an offering platform. This small ledge, 0.10m high, commences before a niche, 0.55m wide, at the south end of the east wall and continues along the length of the south wall.

Officials

All the tomb owners who have included the rectangular offering platforms in their chapels or shrines are officials of the highest rank. Of those who include offering platforms in the shape of the *htp* sign before their false doors, G95 is a Nomarch and the remainder are Overseers of Fields and Serfs: F1, K4 and BA48 (as is GA11, owner of the oval-shaped platform). The two remaining tomb owners with *htp* offering platforms - CA1 and N20 - hold the titles of Vizier and Superintendent of Priests respectively, and it is surprising that there is no evidence of a false door in either tomb. In both chapels only partial and fragmentary scenes painted on plaster remain and a painted false door may have been planned but not completed, or originally present and subsequently lost.

3. Pillars in Chapels (Table 6, base group of tombs; Table 7, uninscribed tombs)

Pillars are present in 22 chapels at El-Hawawish. Fourteen of these chapels are in the base group of tombs, M23, M43, G22, G98, M8, L23, H27, H26, H24, H15, BA63, H4, C3 and C8, and eight in the undecorated tombs B9, B57, C6, C7, G3, G80, H12 and H26 Pit F. Pillars are found as free-standing elements and as engaged pilasters. Their inclusion in chapels has no structural purpose and is most probably in imitation of their use in the constructed mastabas of the Memphite cemeteries. As in these mastabas, the pillar faces at El-Hawawish frequently bear carved and painted inscriptions with the name and titles of the tomb owner and representations of his figure.

Pillars are present in two tombs dated to late Dynasty 5, M23 and M43, and in two major, though uninscribed, tombs, G98 and G22, whose proposed dates are Teti/ beginning of

the reign of Pepy I, respectively. None are found in tombs dated to late Pepy I -Merenre, but they reappear in the reign of Pepy II in nine tombs. Thereafter only one tomb includes pillars, C3, dated to the end of Dynasty 6 -Dynasty 8.

All the inscribed chapels with pillars (11 examples), are those of the highest ranking officials in the cemetery with the exception of BA63 whose single recorded title is *hm-ntr Mnw*. Six of these officials are Nomarchs (?G98, M8, H15, H26, H24, C3) or are linked to a Nomarchic family as is possibly tomb H27. Six are Overseers of Priests (M23, G98, M8, H26, H24, H15, C3). All except BA63 are stolists of Min, *sm3 Mnw*.

Officials

Nomarchs: G98, M8, H15, H26, H24, C3. Only two known Nomarchs, *Nhwt-dsr* of tomb G95, dated to the end of Teti-beginning Pepy I, and *Tjt-3*, tomb H41, dated to the end of Dynasty 6, have no pillars.

Overseers of Fields and Serfs: none, although the extension from the back wall of the chapels of GA11 and G66 may be conceived as an engaged pillars.

Superintendents of Priests: none

Number and arrangement of Pillars and Pilasters (indicated by *)

6 pillars + 2 pilasters* in 2 rows: M43* (Fig. 61)

5 pillars + 1 pilaster* in 2 separate rows (3+2): G98* (Fig. 62)

4 pillars + 4 pilasters* in 2 rows: G22*, C8* (Fig. 63)

4 pillars + 2 pilasters* in 1 row: M23*, H24*, H4 (Fig. 65)

3+1 pillars 3 pillars in 1 row, +1 single: M8 (Fig. 64)

2 pillars + pilasters* in 1 row: H26*, H27, G3*, (Fig. 66)

C3, C7, B9, B57, H15

1 pillar:

L23, BA63, G80, H12, C6*, H26 Pit F (Fig. 67)

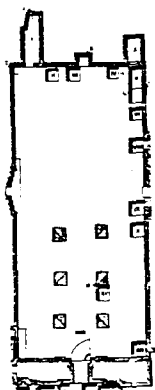


Fig. 61 - M43

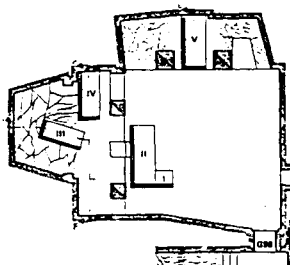


Fig. 62 - G98

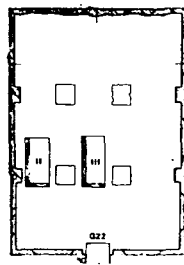


Fig. 63 - G22

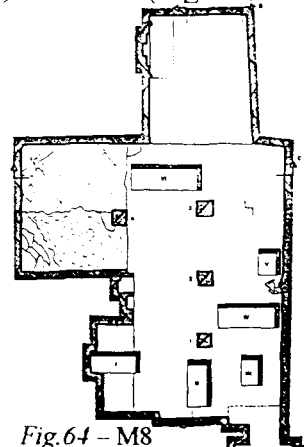


Fig. 64 - M8

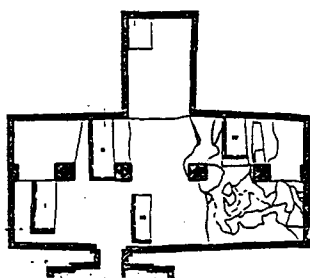


Fig. 65 – H24

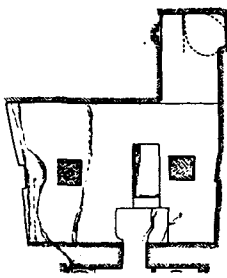


Fig. 66 - H26

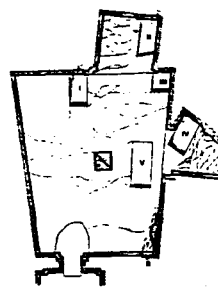


Fig. 67 - L23

Pillars in the rear section of certain tombs, H15, B57, C7, H26 PitF, are unfinished but their final form can be clearly comprehended (Fig. 68) However, the purpose of the extension from the back wall of tombs G66 and GA11 is unclear although these have the appearance of engaged pillars (Fig. 69)

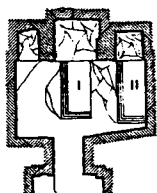


Fig. 68 - B57

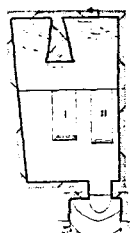


Fig. 69 - G66

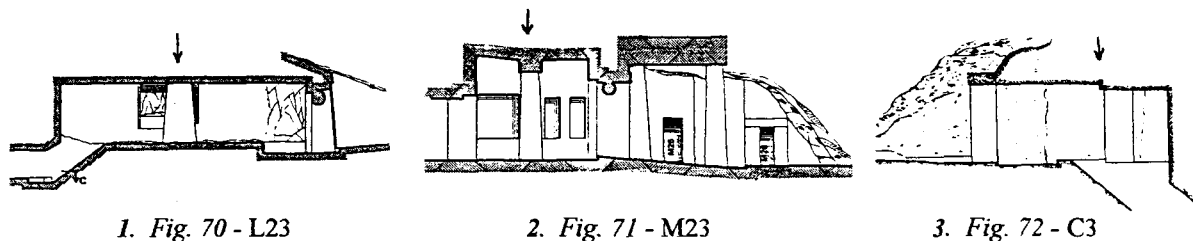
In tombs G98, H27, H12, B57, C7 and B9, the chapel area behind the pillars is differentiated from the area in front of them by a **slight narrowing** of the chapel width, or, in C6 by a widening of the chapel, and a **variation in the ceiling** level. In G98 this area is also separated from the main chapel by a raised step. None of these tombs has a regular shrine but as the two features mentioned are important characteristics of shrines, it may be conjectured that the area behind the pillars in these tombs may have been originally considered as a shrine.

Officials

Nomarchs:

- 4 pillars + 2 pilasters(single row): H24
- 3 pillars + 2 pillars(2 rows), 1 pilaster: G98
- 3 pillars(1 row) + 1 pillar: M8
- 2 pillars + 2 pilasters(1 row): H15, H26
- 2 pillars: C3

Pillars are linked to the Ceiling in 3 ways:



1. **directly** to the ceiling: this is seen in tombs in the base group, M8, L23 and BA63, and the uninscribed tombs, G80 and H26 PitF. (Fig. 70)

2. to a **beam**: found in the base group tombs, M23, M43, G98, H26, H24, G22, H4 and C8 and the uninscribed tomb, G3. (Fig. 71)

3. to an **architrave**: found in tombs in the base group, H27, H15(unfinished), and C3 and in the uninscribed tombs, B9, B57(unfinished), C6, C7 and H12. (Fig. 72)

All beams and architraves overhang the pillars.

Dating comment

Pillars linked **directly** to the ceiling are found in tombs dated to early Pepy II (M8, L23 and BA63).

Pillars joined to a **beam** are found in tombs in two periods:

1. Dynasty 5 - end Teti (M23, M43, G22 and G98)
2. mid-late Pepy II (H24, H26, H4, C8 and possibly H15, unfinished)

Pillars joined to an **architrave** are found in H27, H15 (unfinished) both dated to mid Pepy II, and in C3, dated to the end of Dynasty 6.

The faces of pillars **taper** towards the ceiling in nine of the base group of tombs: M23, M43, G22, L23, H15, H27, H26, H4 and C8. No pillars in the uninscribed group of tombs taper toward the ceiling.

The faces of pillars in thirteen tombs are **vertical**: G98, M8, BA63, H24, and C3, among the base group of tombs, and B9, B57?, C6, C7, G3, G80, H12 and H26 PitF among the uninscribed examples.

The **width of pillar faces which taper from base to ceiling**:

M23: 1.10m (base) - 0.80m (top)

M43: 1.00m (base) - 0.70m (top)

G22: 0.80m (base) - 0.60m (top)

L23: 1.25m (base) - 0.90m (top)

H15: 0.85m av. (base) - front face only

H26: 1.00m (base) - very slight taper

H4: 0.80m (base) – very slight taper

H27: 0.90m (base) – very slight taper

C8: 1.05 av. (base) – very slight taper

Earlier tombs have broader pillars with a more pronounced taper towards the ceiling.

The **average width of pillar faces with vertical faces**:

0.85m-0.70m: G98, M8, H24, H26 PitF, H12, G80

0.65m-0.55m: BA63, C3, B9, B57, C6, C7, G3

Relationship of Pillar faces and Façades:

In all examples from the base group of tombs, vertical faces to pillars are found in tombs with vertical façades and sloping pillar faces with sloping façades.

In tombs H15 and H4, only one face is sloping -the one facing the entrance- and this is the same as the façade.

Among the uninscribed group of tombs, all examples with pillars have vertical faces to the pillars, but three of the tombs have sloping façades, B9, B57 and C7.

The level of the Chapel ceiling behind Pillars

The usual is a **horizontal** level with most chapels having the **same level** behind as before pillars: M43, G98 (north recess), M8, L23, H24, H26, and C8 among the base group, and G3, G80, and H26PitF among the uninscribed tombs. (Fig.73)

Five chapels show a **lower, but still horizontal**, level behind pillars: H27, H15(unfinished), C3, C6 and C7. None have a higher horizontal ceiling behind the pillars. (Fig.74)

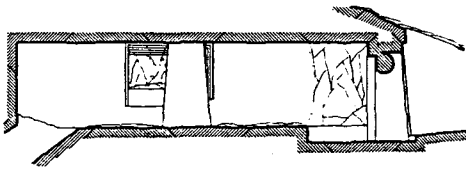


Fig. 73 - L23

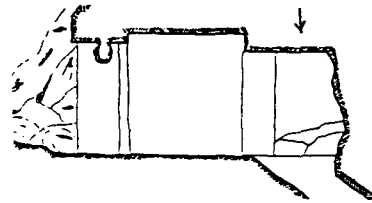


Fig. 74 - H27

A smaller number have a ceiling which **slopes down** (from entrance to rear of chapel): G98 (east recess), H4 and G22 (between the first and second row of pillars), all from the base group of tombs, and H12 and B57(?unfinished) from the uninscribed group. (Fig. 75)

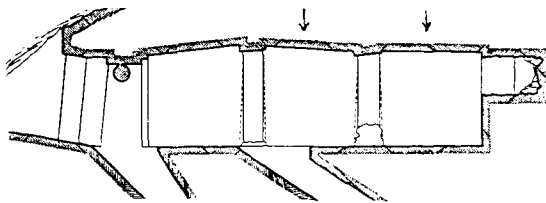


Fig. 75 - G22

A ceiling level which **slopes up** (from entrance to rear) behind pillars is even more rare, but is found in M23 and BA63 among the base group and B9 from the uninscribed tombs. (Fig.76)

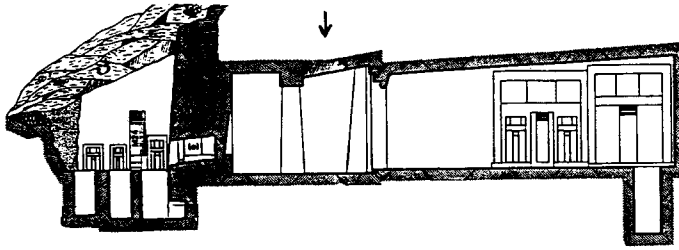


Fig. 76 - M23

The **level** of the lowest surface of **beams and architraves** is usually horizontal, but surfaces sloping up and down (i. e. from the entrance to the rear of the chapel) are also found.

Beams

1. Horizontal: M23, M43, G98 (east recess), H15, C8 from the base group of tombs.
2. Sloping up: G22, G98 (north recess, slight), H24, H26, H4.
3. Sloping down: none

Architraves

1. Horizontal: H27 and C3, inscribed tombs; C6 and C7, uninscribed tombs.
2. Sloping up: none
3. Sloping down: no examples among the base group of tombs; H12(slight) and B57 among the uninscribed tombs.

SHRINES

(Table 8, base group of tombs; Table 18, uninscribed tombs)

Shrines are present in the following tombs: M23, M22, M21, M44, Q4, K4, G42, BA48, M8, L21, L23, GA11, H24, H26, H4, C8, BA14 and B7. To these may be added M43 ²⁴ and G98. ²⁵ All belong to the base group of tombs. Only two examples are found among the uninscribed group of tombs: G2 and H30.

Incomplete cutting in other tombs in the position where shrines are usually found could indicate that more examples may have been intended.

Shrines are found in all the major tombs at El-Hawawish during Dynasty 5. They are not present in tombs dated by style and inscription to the reigns of Teti, Pepy I or Merenre although G98 and Q4 may be exceptions here(see below). Shrines reappear in the reign of Pepy II in eleven tombs, but after Dynasty 6, are only present in two tombs, BA14 and B7, both dated to Dynasty 8. The shrine area in these two tombs is so small as is that of G42 (early-mid Pepy II) and the uninscribed tomb, H30, that these four examples may be more appropriately considered as niches.

Officials

Nomarchs: G98?, M8, H24, H26

Overseers of Fields and Serfs: K4, G42 ?, BA48, GA11

Superintendents of Priests: G42 ?, L21

Area

The importance of the shrine is indicated by the area allocated to it within the tomb.

²⁴ The presence of a false door in the rear section of this tomb is the only feature that may distinguish this area as a shrine (see *H.*, V, 13-15, Figs. 1-3).

²⁵ The incomplete eastern recess opposite the entrance in tomb G98 may be considered as a shrine because of its position and raised floor level, but is probably more correctly designated as a pillared recess (see p. 57, and *H.* VIII, Figs. 1, 2).

Shrines in tombs dated to Dynasty 5 -Teti have the highest percentage of the total tomb (chapel + shrine) floor area. During the reign of Pepy II a marked decrease in shrine areas is noted. While the chapel areas of the major tombs in this period are similar to those of the Dynasty 5 -Teti tombs, the shrine areas are greatly reduced.

Dynasty 5 - Teti

<i>Tomb</i>	<i>Shrine area</i>	<i>Percentage of total chapel and shrine areas</i>
M23	38.75 sq.m	33%
M21	17.20 sq.m	35%
M22	36.95 sq.m	57%
M43	91.95 sq.m	50%
M44	38.70 sq.m	66%
G98	8.20 sq.m	17%

Note that in tombs M22 and M44 the shrine areas exceed the chapel areas.

Pepy I-Merenre

<i>Tomb</i>	<i>Shrine area</i>	<i>Percentage of total chapel and shrine areas</i>
Q4	8.70 sq.m. av.	45%
K4	6.60 sq.m.	16%

If the inner part of the chapel behind the architrave in Q4 is correctly construed as a shrine, then the proportion of this area to the total tomb area (45%) is similar to that of M43 (50%).

Pepy II

<i>Tomb</i>	<i>Shrine area</i>	<i>Percentage of total chapel and shrine areas</i>
M8	28.25 sq.m	24%
L21	7.60 sq.m	23%
L23	8.20 sq.m	11%
BA48	5.00 sq.m	16%
G42	1.50 sq.m	9%
H4	15.20 sq.m	23%
C8	18.35 sq.m	15%
H26	7.85 sq.m	15%
H24	15.10 sq.m	15% ²⁶
GA11	5.30? sq.m	16%

Dynasty 8

<i>Tomb</i>	<i>Shrine area</i>	<i>Percentage of total chapel and shrine areas</i>
BA14	1.25 sq.m	6%
B7	1.40 sq.m	5%

²⁶ This calculation for tomb H24 is made on the final form and measurements of the tomb. An earlier plan may have been L-shaped with the chapel finishing in line with the east wall of the shrine (as in tomb H26 nearby). The percentage of the shrine area to this earlier tomb area is 27.00%.

Uninscribed tombs

<i>Tomb</i>	<i>Shrine area</i>	<i>Percentage of total chapel and shrine areas</i>
G2	5.00 sq.m	26%
H30	0.90 sq.m	5%

Officials

Nomarchs

<i>Tomb</i>	<i>Shrine area</i>	<i>Percentage of total chapel and shrine areas</i>
G98	8.20 sq.m.	17%
M8	28.25 sq.m.	24%
H24	15.0 sq.m.	15%
H26	7.85 sq.m.	15%

Overseers of Fields and Serfs

<i>Tomb</i>	<i>Shrine area</i>	<i>Percentage of total chapel and shrine areas</i>
K4	6.60 sq.m	16%
G42	1.50 sq.m	9%
BA48	5.00 sq.m	16%
GA11?	5.30 sq.m	16%

Superintendents of Priests

<i>Tomb</i>	<i>Shrine area</i>	<i>Percentage of total chapel and shrine areas</i>
G42	1.50sq.m	9%
L21	7.60sq.m	23%

Position of the shrine in relation to the chapel

In all tombs with shrines, the shrine extends from the wall opposite the entrance to the chapel regardless of the shape or orientation of the chapel. It is placed in one of two positions in this wall:

a. in the **centre** of the wall (Fig.77)

The shrine is found in this position in the base group of tombs, M21, M43, G98²⁷, Q4, M8, K4, BA48, G42, H24, C8, and the uninscribed tombs, G2 and H30. It is slightly to the left of centre in M23 and B7.

b. to the **right** side of the wall (Fig.78)

This is the position of the shrine for tombs, M22, M44, L21, L23, H4, H26, GA11?, and BA14.

²⁷ In tomb G98, another recess to the north of this eastern shrine area, contains a smaller unfinished area of 6.60sq. m which shows some features of shrines: at the entrance are two engaged pillars.

The shrine is directly **opposite the entrance** to the chapel in M21, M43, Q4, K4, BA48, G42, C8, B7 and G2.

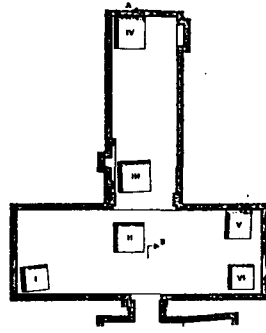


Fig. 77 - M21

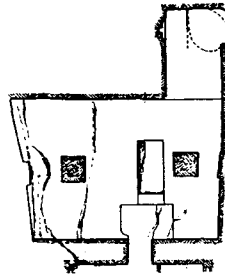


Fig. 78 - H26

Officials

Nomarchs:

in wall opposite entrance-centre: G98, M8, H24 (final plan)

in wall opposite entrance-right: H26, H24 (original plan)

Overseers of Fields and Serfs:

in wall opposite entrance-centre: -

and directly opposite entrance: K4, G42, BA48, GA11

Superintendents of Priests:

in wall opposite entrance-centre: G42

in wall opposite entrance-right: L21

The relationship of Shrine Depth to Chapel Depth

In tombs dated Dynasty 5 -Teti, the depth of the chapel is one half to one quarter of the depth of the shrine.

Tomb Shrine:Chapel

M23 1 : 0.50

M21 1 : 0.50

M22 1 : 0.25

M44 1 : 0.25

In the two chapels, N15 and N16, the depth increases to –

Tomb Shrine:Chapel

N16 1 : 0.75

N15 1 : 1

an architrave and a lintel; within the recess, a lowered ceiling and a burial passage (see *H. VIII*, 18, fig. 1).

When shrines reappear in the period late Pepy I the depth of the chapel in proportion to the shrine increases greatly, up to 4.5 times the depth of the shrine.

Tomb Shrine:Chapel

K4	1 : 2
BA48	1 : 1.50
G42	1 : 3.50
M8	1 : 2
L21	1 : 0.75 (incomplete)
L23	1 : 3.25
GA11	1 : 2.25
H26	1 : 1.75
H24	1 : 1.25
H4	1 : 1.5
BA14	1 : 4.5
B7	1 : 4.5

Officials

Nomarchs:

Tomb Shrine:Chapel

M8	1 : 2
H24	1 : 1.25
H26	1 : 1.75

Overseers of Fields and Serfs:

Tomb Shrine:Chapel

K4	1 : 2
G42	1 : 3.50
BA48	1 : 1.50
GA11	1 : 2.25

Superintendents of Priests:

Tomb Shrine:Chapel

G42	1 : 3.50
L21	1 : 0.75 (incomplete)

The relationship of the Shrine Width to the Chapel Width

In tombs dated Dynasty 5 -Teti the width of the chapel exceeds that of the shrine by three to five times.

Tomb Shrine:Chapel

M23	1 : 5.0
M21	1 : 3.75
M22	1 : 3.25
M44	1 : 3.0

When shrines are again noted at the end of the reign of Pepyl-early PepyII, all subsequent examples except three are found in tombs whose plan is either square or rectangular with

the main axis being perpendicular to the façade. This slightly narrows the proportion between the chapel/ shrine widths.

Tomb Shrine:Chapel

BA48 1 : 2.25

K4 1 : 3.0

G42 1 : 2.5

M8 1 : 1.5

L21 1 : 4.5*

GA11 1 : 2.25

L23 1 : 2.5

H4 1 : 2.75

H24 1 : 4.75*

H26 1 : 3.5*

BA14 1 : 3.0

B7 1 : 3.5

Examples marked * have rectangular chapels with their main axis parallel to the entrance wall.

Officials

Nomarchs

Tomb Shrine:Chapel

M8 1 : 1.5

H24 1 : 4.75

H26 1 : 3.5

Overseers of Fields and Serfs

Tomb Shrine:Chapel

K4 1 : 3.0

G42 1 : 2.5

BA48 1 : 2.25

GA11 1 : 2.25

Superintendents of Priests

Tomb Shrine:Chapel

G42 1 : 2.5

L21 1 : 4.5

CHARACTERISTICS of Shrines

The shrine is usually distinguished from the chapel area in three ways:

- a. by a **raised floor level**
- b. by a **variation in ceiling height**
- c. by the addition of certain **architectural features at the entrance** to the shrine

a. a raised floor level

From the floor of the chapel, a step up of between 0.05m – 0.40m in height into the shrine area is present in the majority of the base group of tombs, and in the two unscripted examples: M23, M21, G98, M8, L21, H26, H24, BA48, G42, GA11, BA14, B7, G2 and H30. (Fig.79)

A higher step of 0.70m -1.5m is found in tombs K4, L23 and H4. (Fig.80)

Six examples had the same floor level as the chapel: M22, M43, M44, Q4 and C8.

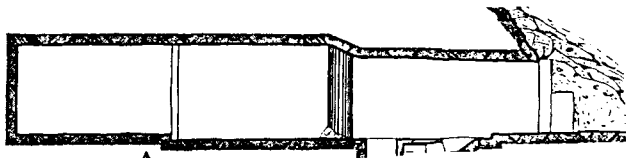


Fig. 79 - M8

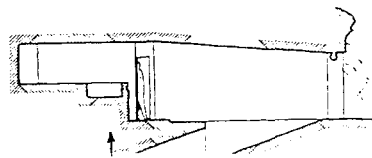


Fig. 80 - K4

b. a variation in ceiling height

The majority of shrines have ceilings which were **lower** than the chapel ceiling at the entrance to the shrine area. Beyond the entrance, the shrine ceiling in tombs M21, Q4, L21, H26, H24, BA14, B7, C8 and the unscripted G2, is **horizontal** (Fig.81). In tombs M23, BA48, L23 and H4 the shrine ceiling **slopes up** to the rear of the shrine (Fig.82).

In two tombs, G42 and GA11, the ceiling at the entrance to the shrine is the **same level** as the chapel ; the shrine ceiling then **rises** towards the back (Fig.83). The entrance to the north shrine or recess in tomb G98 is **slightly higher** than the chapel ceiling, but then **slopes down** to the rear of the shrine (Fig.84).

Five shrines show **no variation**, having the same ceiling height as the chapel ceiling:

M22, M43, M8, K4 and the unscripted tomb, H30. All ceilings were horizontal.

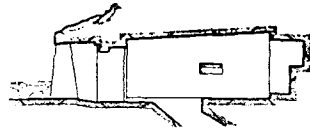


Fig. 81 - B7

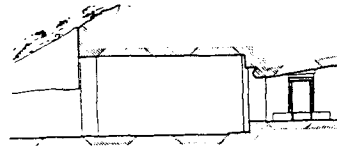


Fig. 82 - BA48

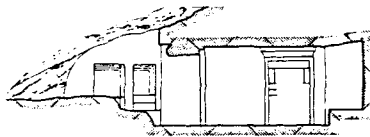


Fig. 83 - G42

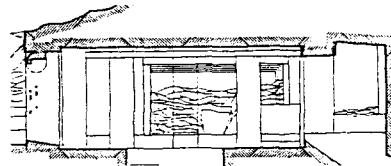


Fig. 84 - G98

c. features at the entrance to shrines

Five architectural features are found at the entrance to shrines: (1) entrance recesses, (2) engaged pillars, (3) lintels, (4) architraves and (5) drums (see Fig.85).

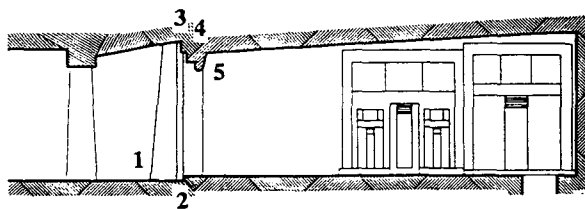


Fig. 85 - M23

Six tombs feature an **entrance recess**: M23, M44, L23, H26, C8 and the unscripted tomb, G2.

Engaged pillars at the side of the shrine entrance are present in: M23, M21, M22, M44, BA48, C8 and the unscripted tomb, G2.

A **lintel** is found above the shrine entrances of M23, M22, M44, G98, L23, L21, H26, C8 and the unscripted tomb, G2.

An **architrave** is present at the entrances to the shrines in M23, M44, G98, Q4, L21, BA48, H4, H26 and H24.

Seven shrines have a **drum** at the entrance: M23, BA48, L21, H26, B7, C8 and the uninscribed tomb, G2.

M23 has all of these features
M44, H26, C8, G2, have 4 of the 5 features
L21, BA48 have 3 features
M22, G98, L23 have 2 features
M21, Q4, H24, H4, B7 have 1

M43, M8, K4, G42, GA11, BA14, H30 do not exhibit any entrance features.

Officials

Nomarchs

G98: an architrave
M8: none
H24: an architrave
H26: an entrance recess, a lintel, an architrave, a drum

Overseers of Fields and Serfs

K4: none
G42: none
BA48: engaged pillars, an architrave, a drum
GA11: none

Superintendents of Priests

G42: none
L21: a lintel, an architrave, a drum

Comment

The inclusion of entrance features appears to be independent of the size of the chapel or shrine. Amongst the five tombs which do not show any entrance features is a tomb which has one of the largest chapel areas, M8 (87.65 sq. m). Tomb H24 also with a large chapel area (86.10 sq. m), has only one entrance feature. Although these two tombs have relatively small shrine areas (M8:24% and H24:15% of the total tomb area), a small shrine is not apparently a limiting factor regarding the inclusion of entrance features. For example, H26, with a shrine area of only 7.85 sq. m (15% of the total tomb area) has four of the five features defining entrances.

Architectural features found within Shrines (Tables 8, 9, 10, 12, base group of tombs; Table 18, uninscribed tombs; Fig.86)

1. false-doors
2. *hṭp*-platforms
3. offering ledges
4. basins
5. niches
6. burial shafts

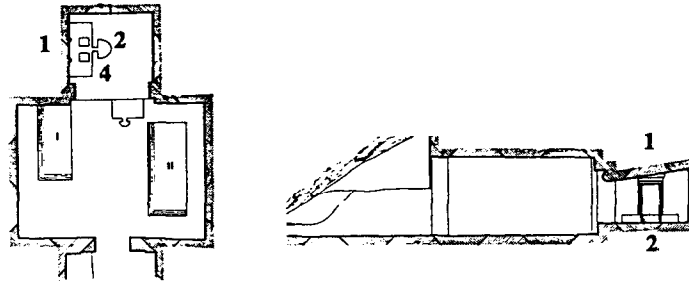


Fig. 86 - BA48

False doors: there are two in each of M23, M22, M44, one in M21, M43, Q4, M8, L21, BA48, ?GA11, ²⁸ H24 and H26, and one on the raised face of the shrine of K4.

They occur in shrines of both very large areas such as in tomb M23 (38.75sq. m.) and very small areas, as in tomb BA48 (5.00sq. m.)

Position:

- a. 15 of the 16 false doors are on the left wall of the shrine in relation to the entrance of the chapel. This left wall is the west wall of the shrine in all examples except for two, BA48 and ?GA11, where the left wall is a north wall.
- b. The false door, in tomb K4, ²⁹ is on the front of the shrine platform. It is interesting to note that this is the west side of the shrine and so still observes the traditional orientation.

A *hṭp*-platform and 2 basins are carved before the false-door in BA48, a single *hṭp*-platform before the false-door in K4, as well as a basin in the floor of the shrine above the false-door in K4.

²⁸ The false door in tomb GA11 is not within the present shrine area, i.e. the raised section abutting the east wall. However it is conjectured that the original intention was to place it there and that this was abandoned because of weak rock formation (see H. VII, 40, Fig. 26).

Offering ledges or platforms are found before false-doors in M23, M21, M22, M43, M44, N15,³⁰ M8, H24 and H26 and GA11, with heights between 0.10m. -0.50m.

Niches occur in:

M21 (east wall), with a sill height of 0.30m

M43 (north wall, sill height: 0.10m-1.35m (4 niches)

M44 (north wall), sill height: 2.00m

L21 (west wall), sill height: 0.80m

Burial Shafts:

The shrine areas in M23, M22, M21, M43, M44, G98, L21 and L23 each contain 1 shaft except M21 which has 2, and M43 which has 7 burials. In two shrines, M21 and L21, these lead to the main burial chamber; the remainder to secondary burials.

Officials

Nomarchs

M8, H24, H26: false-doors with offering ledges

G98 : shaft

Overseers of Fields and Serfs

K4, BA48: false-doors

BA48: a *hṭp*-platform and 2 basins

G42, GA11: none

Superintendents of Priests

L21: a false-door, a niche, the main burial shaft

G42: none

²⁹ See *H.* VIII, Pl. 10a, Fig. 16.

³⁰ This offering platform before an unfinished false door is in the eastern secondary chamber of N15. With these features it may have been considered as a shrine; equally it may have been constructed as a serdab since a slit in the south wall gives access to it from the main chapel (*H.* VIII, 49-50, figs. 25, 26).

Summary

The four major tombs with shrines which are dated to Dynasty 5 (M23, M21, M22, M44) have the main axes of their chapels oriented E-W. From the north wall of the chapel opposite the entrance, the shrine extends as a long, narrow chamber with a N-S longitudinal axis. This appearance changes in M43 (if the rear section of the chapel beyond the pillars is correctly assumed to be a shrine area), and in K4 and M8, to be almost square in plan. During the reign of Pepy II both of these shrine plans are found. Tombs BA48, L23, C8 and H4 have shrines of almost square proportions while H26, H24 and G2 have rectangular shrines with the long axes perpendicular to the chapel and orientated N-S.

The area given to the shrine within the tomb is greatest in Dynasty 5. In M22 and M44 it exceeds that of the chapel while in M43 and Q4, the two are almost equal. Thereafter the proportion of the shrine area to that of the chapel decreases greatly, with shrines occupying an average 16.5% of the total chapel + shrine area in the period of Pepy II, and only 5.5% in Dynasty 8.

The distinctive features which separate a shrine area from the chapel are a raised floor (17 of the 22 shrines), a lowered ceiling, or one that commences at a lower level then rises (13 of the 22 shrines), and the inclusion of architectural features at the entrance to the shrine (15 of the 22 shrines).

Within the shrine, the most characteristic element is the false door. It is consistently found on the left (usually the west) wall.

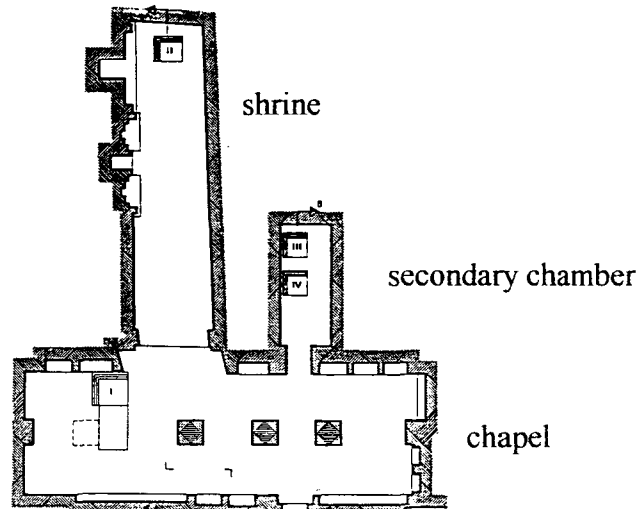
Surfaces in shrine areas - except for a small number of incomplete chambers, such as in G98, L23 and H4 - are well cut and finished, usually with the addition of plaster. Relief decoration is found in the shrine area of Q4, and painted decoration in the shrines of M22, M8, L21, GA11, H26 and H24.

SECONDARY CHAMBERS

(Table 8, base group of tombs)

Secondary chambers are found in the following tombs, M23, M43(4 chambers 1-4), N15 (west chamber, *a.*, and east chamber, *b.*), N16, F12, F13, F15 and L23. (Fig.87) All except one of these tombs, are dated to the period Dynasty 5 -Teti. The exception is L23, which is dated to early-mid Pepy II.

Fig. 87 - M23



The exact purpose of these rooms is not known although features of the eastern chamber (*b.*) of N15 and the secondary chambers in F12 and F13 may indicate their use as serdabs. In N15*b*, a horizontal slit, 1.40m high from the floor of the chapel and 0.90m wide by 0.15m high, is cut in the north wall of the chapel and opens into eastern chamber (*b*). The higher openings in the secondary chambers of F12 (1.5m high) and F13 (1.40m high) above sill heights of 0.75m and 0.40m respectively, may have been closed with blocks of stone.

No secondary chambers are decorated.

Area and Orientation

<i>Tomb</i>	<i>Area</i>	<i>Orientation</i>
M23	9. 80 sq.m	N-S, perpendicular to entrance wall
M43	1.3. 55 sq.m	N-S, perpendicular to entrance wall
	2. 1.50 sq.m	N-S, perpendicular to entrance wall
	3. 1.25 sq.m	N-S, perpendicular to entrance wall
	4. 4. 50 av.	N-S, perpendicular to entrance wall
N15	<i>a.</i> 5. 95 sq.m	N-S, perpendicular to entrance wall

	<i>b.</i> 11.05 sq.m	E-W, parallel to entrance wall
N16	11.00 sq.m	N-S, parallel to entrance wall
F12	9.25 sq.m	N-S, perpendicular to entrance wall
F13	1.25 sq.m	E-W, perpendicular to entrance wall
F15	3.96 sq.m	E-W, perpendicular to entrance wall
L23	9.00 sq.m	incomplete, at present E-W, parallel to entrance wall

The Position of Secondary Chambers within the tomb

All of the secondary chambers except chambers 3 and 4 in M43 and the chamber in L23, open into the **wall opposite the entrance**.

The chambers of M23, N16 and F12 are directly opposite the entrance to the tomb. In this wall the secondary chambers of F12 and N15*a* are to the left of the centre of the wall, N16 is positioned in the centre and those of M23, F13, F15 and N15*b* are to the right.

Features in Secondary Chambers

External entrance recesses to secondary chambers are present in M43 (chamber 2), N15*a* and N16, with N16 also having an internal entrance recess.

External lintels are present in M43, chamber 1, 0.30m high, and chamber 4, 0.45m high.

Half drums at the entrance to these chambers are found in M43, chamber 2 (0.25m diam.), N15*a* (0.40m diam), N15*b* (0.25m diam) and N16 (0.35m diam).

An internal lintel is found in the entrance to chamber 3 in M43 (0.17m high).

The ceiling level in relation to chapel is lower in the secondary chambers in M23, M43, N15*b*, N16, L23 and F13. It is the same as the chapel in F15, while both N15*a* and F12 have the same level at the entrance after which the ceiling slopes up towards the rear.

The floor level in relationship to chapel is the same in M23, M43 chamber 3, N15*a*, N15*b*, F12 and F13, but is raised in M43 chamber 1 (0.15m), chamber 2 (0.12m), chamber 4 (0.40m), N16 (by 1.5m), F15 (0.70m) and L23 (0.50m).

An uninscribed false door is found in M43, chamber 2, and an unfinished false door in N15*b*, a niche in N15*a*, and offering platforms in N15*b* (0.15m high), F12 (unfinished: 0.50m high)

Two vertical shafts are dug into the floor in the secondary chamber of M23, one in M43, chamber 3, and one unfinished sloping passage in L23.

Finish: the external lintel over the entrance to chamber 1 in M43 is plastered and painted with jars of sacred oils.

Pillared Recesses

Two large unfinished recesses or chambers in tombs G98 (dated to the end of the reign of Teti-early Pepy I) and one incomplete recess in tomb M8 (dated to the beginning of Pepy II) may be included here.

In tomb G98 (Fig.62), a roughly cut recess with two free-standing pillars at its entrance, opens from the east wall which is opposite the tomb doorway. A second recess opens from the north, or left wall on entering the tomb, and has three free-standing pillars in a row at its entrance. Tomb M8 (Fig.64) also has a large, almost - square recess leading from this left wall (a west wall) with a single pillar in the centre of its opening. All of

these recesses are entered by a step up of 0.30-0.35m av. The ceilings are slightly lower than that of the adjoining chapel. The areas of the east and north recesses in G98 are 8.20sq. m av. (east recess) and 15.00sq. m av. (north recess), while the area of M8 is 29.00sq. m av. . Because of its position opposite the entrance, the east recess in G98 was originally thought to have been, when finished, the shrine area of this tomb, similar to the shrine at the north of the chapel in M8, and has been included in the SHRINE section. However, consideration of architectural details at both the entrance of the north recess and before a smaller, inner part of the same recess in G98 (two engaged pillars, an architrave and a lintel) indicate that this may also have been planned as a shrine when completed. Both here and in the large recess in M8 no indication of a false door exists. Two architectural aspects of the north recess in G98 and the recess to the west in M8 prevent them from being easily classed as either secondary chambers or shrines: the position in the tomb and the presence of free-standing pillars at the entrance. No other shrine or secondary chamber is found in the left wall of a tomb no other shrine or secondary chamber has free-standing pillars at the entrance. These two tombs have therefore been placed in a separate category from secondary tombs and shrines.

NICHES

(Tables 11, 12, base group of tombs; Table 18, uninscribed tombs)

Niches are found in the exterior and interior walls of tombs dating from Dynasty 5 to Dynasty 8. They are very frequently sited close to shaft mouths or above burial chambers and it may be presumed that small niches in these positions are for offerings. Other large niches contain, or are intended for, statues, e.g. in tombs M23, M22 and K4.³¹

They are present in the walls of the **forecourt** or **approach area** in 11 tombs - the inscribed tombs K21, G42, L21, H6, H4, H15, H24 and H26 and the uninscribed C7 and H14, and on the **façade** of 4 tombs - M22, M23, M43 and Q4, all inscribed - but not on any façade of uninscribed tombs. (Figs. 88, 89, 90) A small niche is also placed in the east wall of the portico of the uninscribed tomb, H14.

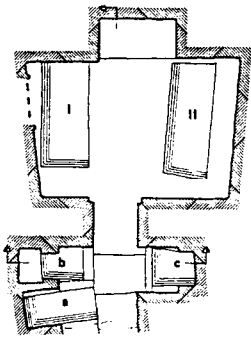


Fig. 88 - G42

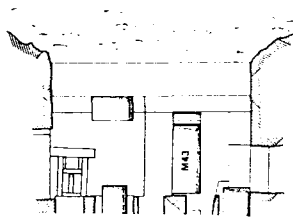


Fig. 89 - M43

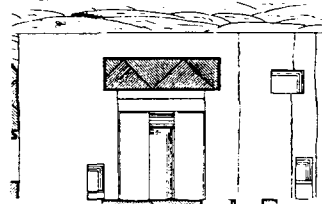


Fig. 90 - M23

The greatest number of niches are found within the **chapel**. Of the 24 tombs, M22, M23, G84,³² N15, M43, F1, G95, K5, K4, M8, M51, M52, L21, GA11, H6, C8, I49, BA14 and B6 and B7 are from the base group, and G72, G76, G125, H30 and H31 from the uninscribed group of tombs. (Figs. 91, 92)

³¹ See plates 7a, 8a, tomb M23 (*H* V); plate 6a, b, tomb M22 (*H* IV); plate 10a, tomb K4 (*H* VIII).

³² The niche in G84 is incomplete and may have been intended to form the fourth extension in a cruciform plan for the tomb (*H* I, fig. 2).

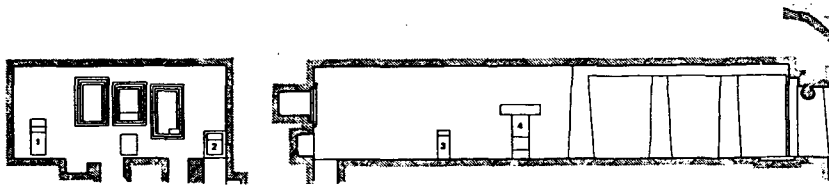


Fig. 91 - M43

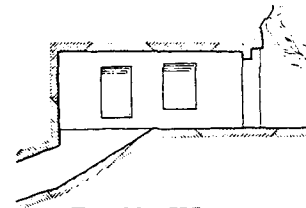


Fig. 92 - K5

Only 4 tombs have niches in the **shrine** area and all are inscribed examples - M21, N15(shrine/secondary chamber), M44 and L21. (Fig.93). M43 may be added to these if the rear section of the chapel is to be considered the shrine area, (see Shrines, p.83)

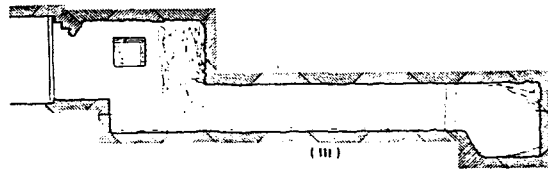


Fig. 93 - L21

Niches are also found in burial **shafts/passages** and chambers (see below, p.138)

The Position of Niches

In the **walls of forecourts** all niches are found above pits or shafts except for K21 and L21, and in both the left and right side walls.

In 5 of the 8 inscribed tombs the floor of the niche has the same level as the forecourt: G42 (over Pits a, b), H15 (above Pit b.), H6, H26, H24 (over Pits d, e); and the uninscribed tomb H14 (above Pits a. and b.).

In five tombs, K21, G42 (over Pit c), L21, H15 (over Pit c), H4, H24 (over Pit a), the floor of the niche commences an average 0.60m above the forecourt or portico.

On the **façade**, in one example, M43, the niche is found directly above the entrance to major Shaft 1. ³³ In the remaining examples they are above minor burial pits and, in M22, above the "fence" left in the rock separating M22 and M23.

³³ See Plate 5a for the façade niche above the entrance to the main burial chamber in M43 (*H. V*) and Plates 6a and b for the niches on the façades of M22 and M23 (*H. V*).

In the three major tombs, M22, M23 and M43, the sill height of the façade niches is high above the forecourt. In M22 this height is 1.50m making it almost level with the the main façade niche of M23. The niche in M23 is 4. 00m above the floor of the forecourt, and in M43, 2.70m.

Within the **chapel** a small number of niches commence at the floor level of the chapel-F1, K4, M8 (west wall), BA14, H6, H30 and H31. The remainder have sill heights between 0.30m and 1.35m with the niche occupying either a position close to the centre of the wall between floor and ceiling, or in the upper quarter of the wall.

The most frequently-found position in **chapels** for niche(s) is the *north* wall: G84, M23, M22, M43, M44, M51, L21, GA11, BA14, B6 and B7 among the inscribed tombs, and G125, H30 and H31 from the uninscribed group of tombs.

Less frequently they appear in the *east* wall: M23, M22, N15, F1, K4, G95, M8 and H6, and in the uninscribed tomb, G72.

A smaller number are present in the *south* wall: M23, K5, M51 and C8, all from the base group of tombs, and in the *west* wall: M8, M51 and M52, and the uninscribed tomb, G76.

In four chapels, niches are found in more than one wall - M23(3 walls), M51(3 walls), M22(2 walls), and M8(2 walls).

The niches found in the **shrine** areas of M21, M43, M44 and N15 (1 of 2 niches) are all positioned in north walls.

In **relation to the entrance**, the wall where niches are most frequently placed is the wall **opposite** the entrance: M23, M22, G84, M43, F1, G95, K4, M51, M52, L21, BA14, H6,

all from the inscribed group of tombs, and F13, G125, G72, H30 and H31, all uninscribed tombs.

A smaller number are found in the walls to **right** of the entrance - M23, M22, N15, K5, M8, M51 and C8 (all from the base list of tombs), and to the **left** of the entrance - the inscribed M8, M51, GA11, B6, B7 and the uninscribed G76.

Niches are placed **close to false doors** in three tombs: the statue niche in K4 is to the right of the false door, as is the smaller and higher niche in L21, while that in GA11 is to the left.

Measurements and Proportions

Niches in the walls of the forecourt:

average *height* : 0.90m (exception, H14-1.50m)

average *width* : 0.75m

average *depth* : two groups - *a.* 0.50m av. (K21, G42, H15, H4)

b. 1.10m av. (G42, H14, H24, H6)
(exception, L21: 0.80m)

Niches in façades:

average *height* : 1.00m (exception, Q4-0.75m)

average *width* : 1.25m (exception, Q4-0.50m)

average *depth* : 0.30m - Q4

0.80m - M22, M23

1.25m - M43

Niches within the chapel and shrine:

average *height* : 1.95m (Dyn. 5-Teti)

1.40m (PepyI)

0.90m (PepyII)

0.40m/0.45m (B7/B6, end Dyn. 6)

average *width* : 1.10m (Dyn. 5 - PepyI)

0.70m (PepyII - end Dyn. 6)

average *depth* : 0.55m

The height to width proportion of niches in forecourts and on façades is almost equal, with forecourt niches being slightly higher than wide, while those on façades are slightly wider than high. The purpose of the façade niches is not clear, but the position and

proportions of those in the walls of the forecourt indicate that they possibly held stelae and/or statues.

Niches within chapels and shrines fall into two types: a. statue niches which are taller than they are wide (Fig.94), unless the niche holds more than one statue as in M23; and b. broad shallow niches as found in M8, M51 and M52, perhaps intended to contain a carved stone inscription (Fig.95).

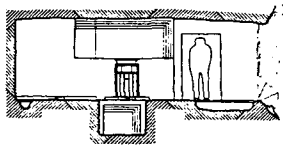


Fig. 94 – K4

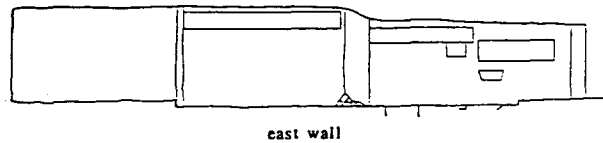


Fig. 95 – M8

Features in Niches

All niches on façades of the Fifth Dynasty tombs are plain without any distinguishing features. Tomb Q4, dated to Pepy I, has a small drum above its façade niche which is positioned over a small burial shaft. Niches are not found on any other façade but do occur in forecourt walls. The niches in the forecourts of tombs K21, H14, H15 have lintels, and in H4, H14, H24 and H26 have drums. Traces of white-painted plaster remain in the niches of H15 and H26.

Niches in the chapels of M23, M21, M22 and K4 contain the damaged remnants of engaged statues, and in M8 a fragment of the foot of a statue was found in front of the niches. The walls of the statue niche in M22 were plastered and painted in cream with red markings to imitate wood graining, while those in the two niches in K5 were plastered and painted red with black spots in imitation of granite.

Each of the three niches in the north wall of M43 are surrounded by three framing elements with an average width of .10m, and plastered. Plaster also remains in the chapel

niches of L21, M51 and M52. A half-drum, 0.35m in diameter, is cut in the niche in the south wall of the chapel in C8.³⁴

Officials

Nomarchs: M8 (chapel), H15 (forecourt), H24 (forecourt), H26 (forecourt)

Overseers of Fields and Serfs: F1 (chapel), H15 (forecourt), G42 (forecourt), GA11 (chapel)

Superintendent of Priests: G42 (forecourt), L21 (chapel)

³⁴ The niche shown in the elevation of the south wall in C8 should be reversed with the half-drum at the top of the niche (*H. X*, p. 18, fig. 8, Section A-A)

BURIAL SHAFTS and PASSAGES

(Tables 13, 14, base group of tombs; Table 16, uninscribed tombs)

Burial apartments in the cemetery of El-Hawawish in their simplest form consist of a passage or shaft leading to a burial chamber.³⁵ In some of the major tombs more complex burial arrangements have been made in an attempt to make the body of the tomb owner more secure. In the tomb of *Hm-Mnw*, M43, for example, an initial sloping passage leads to a burial chamber sited directly below the false door in the chapel above as would be expected for the main burial. However, in one corner of this burial chamber, there is the entrance to another shaft. This vertical shaft descends a further ten metres to a second burial chamber. None of the precautions taken were successful in preserving an intact burial here or in any other tomb except for one uninscribed burial with a poorly preserved body and no grave goods.

Entrances to burial passages and chambers are found outside the tomb in forecourts and porticos and in the thickness of the façade. Within the tomb they are found in chapels and in shrines and occasionally in secondary chambers cut either into the floor or into one of the walls of these rooms.

Shafts and passages outside the Chapel

Secondary burials are found in forecourts or the approach area in front of tombs, either against the façade or the walls of the forecourt, or independently sited within the approach

³⁵ In the description of the burial apartments at El-Hawawish, the term 'shaft' refers to a vertical access to a burial chamber. The term 'passage' refers to a sloping or horizontal access.

area (see Forecourts, p.20-22; Façades, p.25). Two inscribed tombs, H24 and H26, and two uninscribed tombs, H6 and G80, have secondary burials within their porticos.³⁶

External entrances to the major burial of a tomb are found in two late Fifth Dynasty tombs, M43 and M44.³⁷ The position of the shaft entrance in M43 is to the left or west of the chapel doorway. It is cut partly into the forecourt area and partly into the façade. The mouth of the similar main shaft of the neighbouring tomb, M44, is cut solely into the floor of the forecourt immediately to the left/west of the tomb entrance. A further tomb, Q15, dated mid-late Pepy I, also has the mouth of its single burial apartment outside the entrance to the chapel.³⁸

Shafts and passages within the Chapel

Although tombs M43, M44 and Q15 have their main burial entrances outside the chapel and M21 and L21 have their main burials within the shrine, the chapel is the favoured site.

In the period Dynasty 5 -Teti, these contain either 3 or 4 shafts except for N15 (7 shafts), M43 (10 shafts) and M23 which has only 1 shaft in the chapel although 1 in the shrine area and 2 in a secondary chamber. The average number of shafts and passages during the first half of the reign of Pepy I is 2-3 shafts, and in the second half, 1-2 shafts. Three tombs at the beginning of the period Pepy II show a marked increase in the number of burial passages, M8 having 6, L21, 7, and L31, 4, but thereafter until Dynasty 8 the average drops again to 2 except for H24 which has 4 shafts and H4, 5 shafts.

³⁶ H24 (*H.* II, figs. 1, 2, 3); H26 (*H.* I, fig. 27); H6 (*H.* IX, fig. 27); G80 (*H.* III, fig. 33).

³⁷ M43 (*H.* V, figs. 1-4); M44 (*H.* V, figs. 1.4).

³⁸ Q15 (*H.* VI, fig. 20).

No distinctive pattern or trend is evident in the chapels of the three groups of officials, their shaft/passage numbers reflecting the average of the period in which they hold office.

The Position of the Main Shaft/Passage within the Chapel

(main shaft indicated by * in Figs. 96, 97 and 99)

Except for four tombs - CA1, L42, C9, and the uninscribed L24 - where the main burial passage is cut into a wall, shafts and passages are cut into the floor of the chapel. The position of the entrances to these shafts are described in two ways:

1. in relation to the **width** of the chapel -i. e. to the *left*, in the *centre*, or to the *right*.
2. in relation to the **depth** of the chapel -i. e. *against* or *close to the rear wall*, in the *centre*, or at the *front*, near the entrance wall.

Left and rear of chapel (Fig.96):

In the base group of tombs: M23, M22, L8, Q13, K5 (if sloping passage I is the main burial), B12, BA48, G42, M51, M52, G49, M8, L31, BA63, BA14

Among the uninscribed tombs:L2, M42 (Shaft2)

Left and centre of chapel (Fig.97):

In the base group of tombs: L6, N16, F15, G98, Q2, Q4, H27(Shaft1-first main shaft?)

Among the uninscribed tombs:H30, H31

Left and front of chapel (Fig.98):

In the base group of tombs: G97, G95, K18, I49, BA17(Shaft1), B6, B7

Among the uninscribed tombs:G80, I50

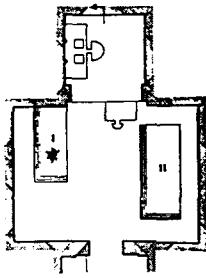


Fig. 96 - BA48

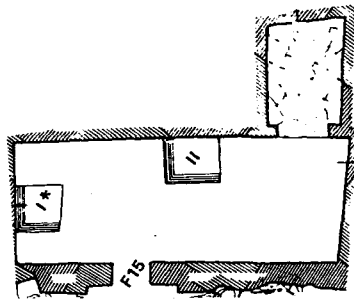


Fig. 97 - F15

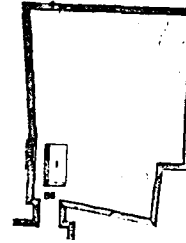


Fig. 98 - B6

Centre and rear of chapel (Fig.99):

In the base group of tombs: N15, K16, G126, N20, L23, H15, H24(original position),
G79, C8, C3

Among the uninscribed tombs: C7, G1, G4, G78

Centre of chapel (Fig.100):

In the base group of tombs: G22, G23, K21, G66, B83, GA11, H26, H4, B62?

Among the uninscribed tombs: B13, B14, B15, B57, G2?, G72(Shaft2), G76, G120,
H51, H26PitF, L1

Centre and front of chapel (Fig.101):

In the base group of tombs: F1, G119, G124, K4 (Q15 may be included here although the
shaft mouth is completely within the entrance to the chapel)

Among the uninscribed tombs: B9, H12, N13

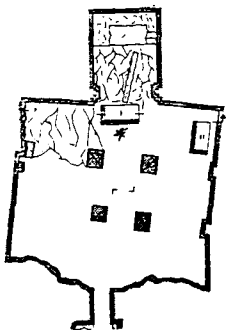


Fig. 99 - C8

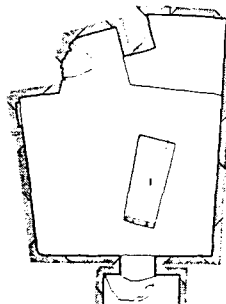


Fig. 100 - GA11

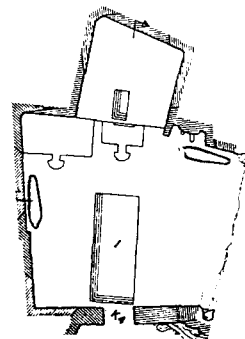


Fig. 101 - K4

Right and rear of chapel (Fig.102):

In the base group of tombs: K1, K5 (if sloping passage II is the main burial), M8 (original main ? shaft 4), H6, H41, BA17 (Sh. 2)

Among the uninscribed tombs: G70, G73, G77, G125, H50, I4, M42 (Sh. 5)

Right and centre of chapel (Fig.103):

In the base group of tombs: F12, ?M52 (2), J2, G66, H27 (?final main shaft 3)

Among the uninscribed tombs: none

Right and front of chapel (Fig.104):

In the base group of tombs: G84

Among the uninscribed tombs: C6, C7?, G72?

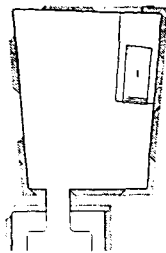


Fig. 102 - H41

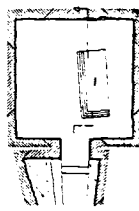


Fig. 103 - J2

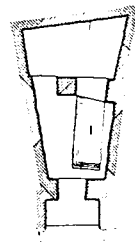


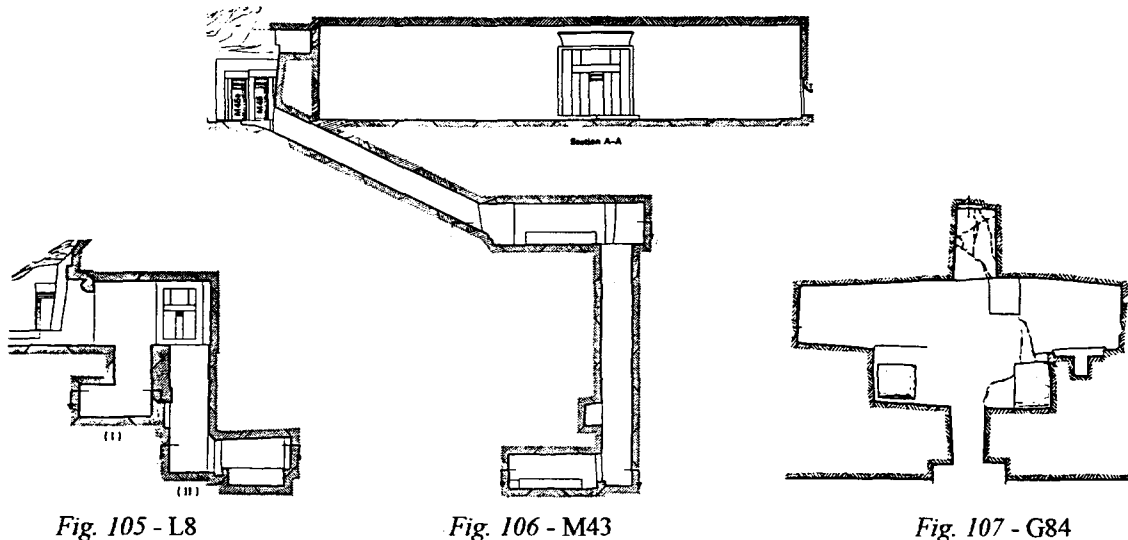
Fig. 104 - C6

Summary

In tombs which are dated to Dynasty 5 up to the beginning of Dynasty 6 the importance of siting burial chambers under the false-doors dictates the position of the shaft mouth within the tomb. These false-doors are almost always situated in the west wall of the shrine or chapel. In tombs without a separate shrine area, shaft mouths are close to the western wall of the chapel, and either adjacent to the false-door if vertical shafts are used or to the south of it if sloping passages are present (see Figs.105, 106). When main shaft mouths are positioned in the chapel in tombs with a separate shrine area these are found

close to, or against, the rear wall of the chapel to the left of centre (exception: N15, in the centre).

Three tombs, G84, N16 and F12, do not follow this pattern and have their false-doors on the entrance wall with shaft mouths correspondingly near/next to them (Fig.107).



Tombs dated from the reign of Teti to the early part of the reign of Pepy I have their main shaft mouths situated either in the left half of the chapel or in the centre in a mid or front position (Fig.108). In the period late Pepy I - early Pepy II the majority of main shaft/passage mouths are in the left rear position (Fig.109) with a smaller number in a central position, while from mid - late Pepy II a placement either against the rear wall in a left or mid position or in the middle of the chapel is preferred (Fig.110). As in Dynasty 5, in tombs where shrines are present, the entrances of these Dynasty 6 burials are positioned so that the passages pass behind the west/left wall of the shrine (Fig.111). When shrines are not present in the Sixth Dynasty tombs, the sloping passages extend beyond the chapel area and burial chambers are found away from the false door, e.g. G42, L31.

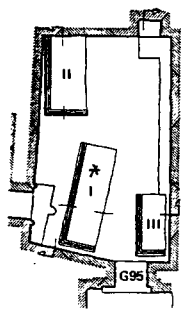


Fig. 108 - G95

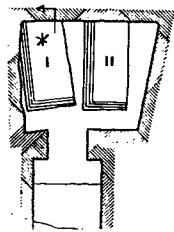


Fig. 109 - B12

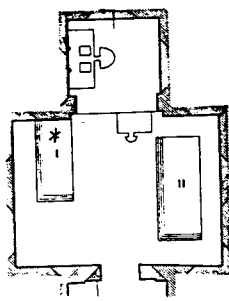


Fig. 110 - BA48

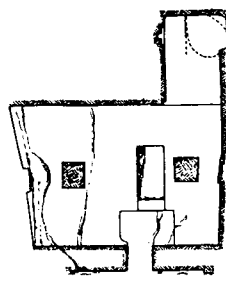


Fig. 111 - H26

From the end of Dynasty 6 to Dynasty 8, a variety of positions for the main burial passage are found. Of the remaining inscribed tombs, I49, B6-B7 and BA17 (if Shaft 1 is the main burial) all have the mouths of their main passage to the left and at the front of the chapel aligned with, and close to, the door. In tomb H41 the entrance to the main passage is to the right and at the rear, as is Shaft 2 of BA17 which may be the alternative main passage. In C3 this is in a central position like Shaft 3 in BA14. The other possible main burial entrance in BA14 is to the left rear, which would be the only example in this position at this time.

Officials

Nomarchs

Left-rear: M8
Left-mid: G98
Left-front: G95

Overseers of Fields and Serfs

BA48, B12, G42
 -
 K18

Superintendents of Priests

C9, G42, L31
 -
 K18

Centre-rear: H15, H24, C3

Centre-mid: H26

Centre-front: -

-

GA11

F1, K4

N20

B62

-

Right-rear: H41

Right-mid: -

Right-front: -

-

G66

-

K1

-

-

Others:

(L21, in shrine)

(Q15, outside entrance)

Position of Main Shaft/Passage in relation to the Entrance

In the base group of tombs, the majority of those dated to the period *Dynasty 5 - Teti* have the main shaft sited to the **left** of the entrance:

M23, M22, L6, N16, M43, M44, (both outside the tomb but to the left)

F15, G98

Exceptions are G84, F12: to the *right*, and M21, L8, N15, K16: *opposite* the entrance.

In tombs dated to the reign of *Pepy I* the predominant position for the main passage mouth is **opposite** the entrance:

G22, G23, Q4, Q13, G97, N20, L42, F1, G126, K4, K1(slightly to right), M51,

M52 (if Sh. 1 main), L31

Exceptions are CA1, Q2, M52, if Sh. 2 main: to the *right*, and G95, K5, C9, B12 to the *left*.

The following main shaft mouths commence in the *doorway* of the chapel -

G119, G124, K18 and K21 - or immediately inside the entrance, G126 and K4,

while that of Q15 is immediately outside the entrance.

Tombs dated to the *earlier part of the reign of Pepy II* have the main passage entrance to the **left** of door:

BA48, G42, M8 (Shaft VI), H27(Sh. I)

Exception: L21: to the *right*, because of position of the main burial in the shrine.

During *mid-late Pepy II* these main passage entrances are again found predominantly **opposite** the door:

G49, B83, BA63, L23, GA11, G66, H15, H24, H26, H4, G79, B62, C8

At the *end of Dynasty 6-Dynasty 8*, the main burial passage mouths found **opposite** the door are I49, B6, B7, and to the right-J2, C3

To the *right*- H41, BA17(Sh. 2)

To the *left*-H6, BA14

In the **uninscribed tombs**, main shafts are:

Opposite the entrance: B9, B13-15, B57, C6, G1-4, G70, G73, G76-8, G120,

G125, H12, H14, H26 Pit F, H30, I50, L1, L2, L24(to R)

Left of the entrance: B84, C7, F14, G72, G80, H25, H31, M42

Right of the entrance: F13, I4, C6

Officials

Nomarchs

Overseers of Fields and Serfs

Superintendents of Priests

Left:M8, G98, G95 BA48, B12, G42

C9, G42, L31, K1

Opposite:H15, H26, K18, GA11, G66
H24 K4

K18, N20, B62

Right:H41, C3

-

-

Position of Main Shaft/Passages in relation to Pillars

Main shafts lie between or adjacent to pillars in the following examples:

1. **before** the pillar(s): G98, G66, BA63, H27, H4, H26(PitF), in the base group of tombs; B9, B57, C6, G80, H12, in the group of uninscribed tombs (Fig. 112).
2. **between** the pillars: G22, H15, H26, H24?, C3, in the base group of tombs and C7 and G3 amongst the uninscribed tombs (Fig. 113).
3. **behind** the pillars: M23, M8(Sh. 6), L23, H24 and C8, all inscribed tombs (Fig. 114).

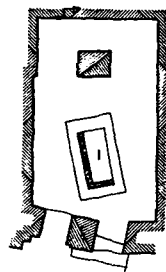


Fig. 112 - H12

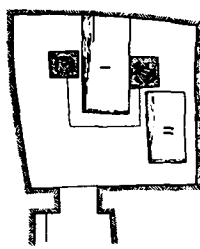


Fig. 113 - C3

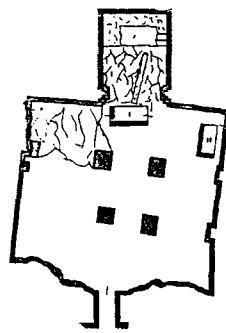


Fig. 114 - C8

Details of position-

* between pillars but not touching: G22, C7

* between pillars with narrow ledge

on one side: H26 (adjacent to one pillar only)

on two sides: H4, ?H15, G3

*between pillars with a narrow ledge on one side and flush with pillar on other side:

H24, C3

*next to pillar, one side flush with pillar face: BA63 (adjacent to one pillar only)

*shafts before pillars with back edge flush with pillar: H27, H26 Pit F

*before pillar(s), close but not touching: G98, B9, G80, H12

Burial Shafts/Passages within Shrines

These are present in the shrine areas in 6 tombs: M23, M22, M21, M44, L21, L23 (all with 1 shaft entrance except M21 which has 2).

Of these examples, two appear to lead to main burial chambers: M21 (Shaft3) and L21 (Shaft3)

Within Secondary Chambers shafts/passages are found in only 2 tombs: M23(2 secondary burials), L23(1 secondary passage)

Typology of Burial Shafts and Passages

Three main types of shafts/passages lead to burial chambers at El-Hawawish: **vertical** shafts, **sloping** passages and **horizontal** passages.

These main shaft types are divided into the following seven categories:

1. *a. square vertical* shafts (Fig.115)
- b. rectangular vertical* shafts (Fig.116)

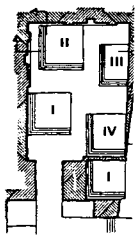


Fig.115 - L8

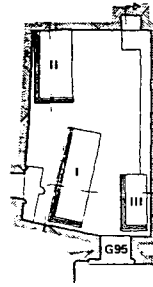
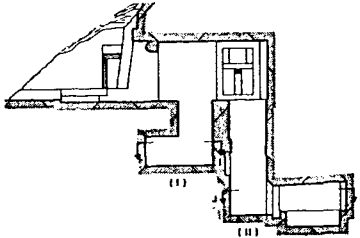
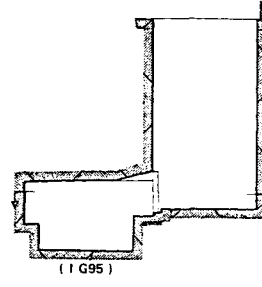


Fig. 116 - G95



2. **complex or combination** passages, combining sloping passages and vertical shafts (Fig.117)

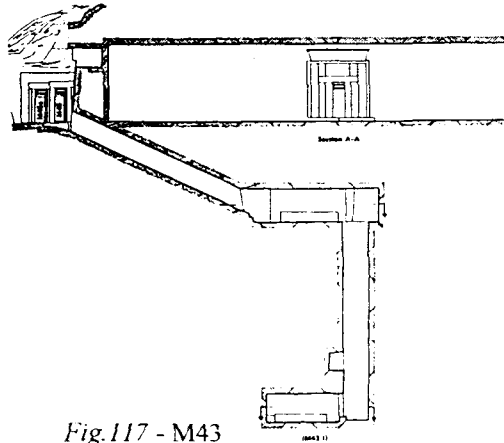


Fig.117 - M43

3. **horizontal** passages cut into walls (Fig.118)

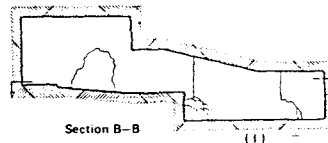
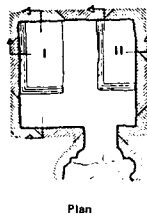


Fig.118 - C9

4. **shallow, horizontal** passages immediately **below the floor** of the chapel
(i) with a vertical access (Fig.119)

- (ii) with a vertical access then a sloping floor before a horizontal passage (Fig.120)
- (iii) with a sloping floor between the entrance and a horizontal section (Fig.121)

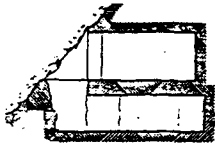


Fig.119 - Q15



Fig.120 - G66

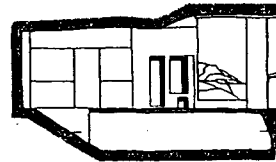


Fig.121 - M8

5. shallow, sloping passages with both floor and ceiling sloping at different degrees (Fig.122)

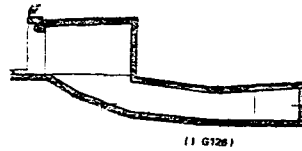


Fig.122 - G126

6. deeper sloping passages with floor and ceiling parallel (Fig.123)

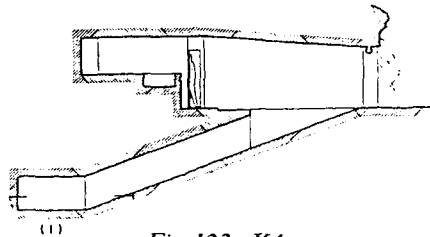


Fig.123 - K4

7. sloping irregular passages (Fig.124)

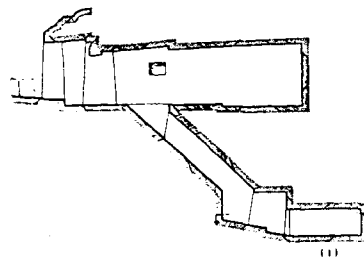


Fig.124 - B6

Main and Secondary Shafts and Passages listed in their Typology Categories

Column 1. number of *tomb*

Column 2. number of *main shaft*; shape of the entrance to the shaft is indicated by:

a. square entrance

b. rectangular entrance

Column 3. number of *secondary shaft(s)*

Column 4. degree of *slope* where present

Column 5. *depth/length* of *main shaft* or *main passage*

Base group of inscribed tombs.

Category 1: *Vertical shafts*

Tomb	Main shaft	Secondary Shaft(s)	Degree of slope (Cats. 2, 5, 6, 7)	Depth/Length
M23		all a.		
M22		all a.		
M21	3a.	all a.		3.80m
G84	1a.	2a.		4.05m
L6	1a.	all a.		4.05m
L8	2a.	all a.		3.50m
N16	1a.	1, 4, 5, 8		4.60m
F12	2a.	all a.		7.30m
F15	1a.	2a.		5.05m
M43		2-12a.		
M44		2a., 3b.		
M45a	1a.			2.80m
G98	2b.			5.95m
G97	1b.	2a.		4.60m
G95	1b.			5.10m
G23		1a.		
M51	1a.	3a.		4.55m
M52	1a., first main shaft?			3.50m
M8	4b., first main shaft?	1b., 5a.		9.30m
BA48		2b		
BA63		1b?		
H15		1b.		
H6		5b.		
B83		2b.		

Category 2: Combination - sloping+vertical

Tomb	Main shaft	Secondary Shaft(s)	Degree of slope (Cats. 2, 5, 6, 7)	Sloping/Vertical
M23	1a.		30	6.80m / 7.00m
M22	2a.		30	6.55m / 7.10m
N15	2b.		30	4.05m / 4.70m
M43	1a.		25	10.45m / 10.05m
M44	1b.		35	7.50m / 3.40m

Category 3: Horizontal passages, cut into walls

Tomb	Main shaft	Secondary Shaft(s)	Degree of slope (Cats. 2, 5, 6, 7)	Length
N15		1		
N16		2, 7		
CA1 ³⁹	1			4.10m?
N16		2, 7		
L42	2			2.90m
G119		2, 3, 4		
C9	1			1.25m
L21		1, 7		
BA63		3		

Category 4: Horizontal passages below the floor

Shaft type either(i), (ii), or (iii)

Tomb	Main shaft	Secondary Shaft(s)	Degree of slope (Cats. 2, 5, 6, 7)	Length
N15		1, 3, 6, 7(i)a. 4, 5, b.		
G98		4(i), b.		
K16		1(ii), b.		
Q2	1(i), a.	2(iii), b.		1.65m
Q15	1(i), a.			1.30+1.80m
Q4		1, 3(ii), b.		
Q13	1(i), b.	2, 3(ii), b.		1.15m
N20	2(ii)b.	1(i)b.		0.65+7.20m
G124	1(iii), b.			2.30+3.00m
L31		4(iii), b.		
M8		2(iii), b.		
L21	3(i), b.	2, 4, 5(all iii), b.		0.80+5.70m
L23	1(iii)b.	4(iii), b.		2.45+2.80m
B62		2(iii), b.		
G42		3(ii), b.		
B83	2(iii), b.	1(ii), b.		2.80m

³⁹ In tomb CA1 there is no indication of a separate burial chamber at the end of the passage. The given length here may include a burial section.

G49		2(ii), b.		
G66		1(ii), b.		
I49		1(i), b.		

Note:

1. In Q2(Sh.1) and Q13(Sh.1), a short vertical shaft opens directly into a burial chamber. These two tombs may be more correctly placed in Category 1., although the depth of these vertical shafts is much less than the other examples in this category.
2. Tombs Q15, Q124, N20, L21 and L23 feature a horizontal section after the access from the chapel which leads to a burial chamber orientated N-S. Note the difference in the length of the horizontal section.
3. The main burial chamber is difficult to identify in B83 because of the alteration in direction of shaft 2 (see Vol. 9, 40-1, fig.20).

Category 5: *Shallow - medium, sloping passages* -
all have rectangular mouths, b., except Shaft13 (M43), a.

Tomb	Main shaft	Secondary Shaft(s)	Degree of slope (Cats. 2, 5, 6, 7)	Length
M43		13a.		
G98		1, 3		
G95		2, 3		
F1	1	2	40, 20	10.40m
G126	1		30, 20	5.85m
B12	1	2	45, 25	4.75m
M52	2(main?)		30, 10	6.65m
L31		2		
G49	1		45, 15	3.00m
H15		2		
BA14		3		

Category 6: *Deeper, sloping passages* -
all have rectangular mouths, b.

Tomb	Main shaft	Secondary Shaft(s)	Degree of slope (Cats. 2, 5, 6, 7)	Length(Main)
K16	2		25	5.60m
G22	3	2	35	10.40m+2.00m
G23	2		40	4.90m
Q4	2		25	7.20m
K5	1	2	30	7.25m
G119	1		25	5.00m
K21	1		35	4.80+1.20m
K18	1	2	35	4.75m
K4	1		20	10.50m
K1	2	1	35	6.25m
M8	6		30	9.40m+3.80m
BA48	1		35	7.45m+1.70m
BA63	2		60	5.70m?
G79	1		45	8.30m+1.10m

Tomb	Main shaft	Secondary Shaft(s)	Degree of slope (Cats. 2, 5, 6, 7)	Length(Main)
H27	1	2	45	7.50m+4.50m
G42	1		35	6.80m+2.55m
H15	3		30	8.90m
H4	2	1	40	4.60m+2.45m
H6	1		50	8.50m
C8	1		35	11.20m
H26	1		35	10.20m
H24	2	1	30	9.80+4.25m
GA11	1		30	8.20m
H41	1		35	5.65m
C3	1	2	40	5.00m
BA17		2		

Category 7: Sloping, irregular passages -
all have rectangular mouths, b.

Tomb	Main shaft	Secondary shaft(s)	Degree of slope (Cats. 2, 5, 6, 7)	Length
L31	1		40, 15	7.50m
B62	1		35	7.00m
H6		2, 3, 4		
H24		3(incomplete), 4		
I49	2		40	3.65m
B7	1		40	6.70m
B6	1		30	4.80m
G66	2		45	5.70m
J2	1		45	5.95m
BA14	2		35	6.75m
BA17	1		45	3.80m+1.30

Uninscribed tombs

Category 1: Vertical shafts

Tomb	Main shaft	Secondary shafts	Degree of slope	Depth/Length
B13	1b			1.30m
B84	1b			2.80m
F13	3a			5.00m
F14	5a			5.70m
G72	?2b			3.00 m
G73	2b	1b		3.55m
G76		1b		
G80	?2b			2.70m
G125	3a			3.45m
H25		2b		
H31	2b	4b, 5b		2.10m
I4	1b			5.65m

L1	2a	1a		2.30m
L2	1a	2b		3.05m
L8a	2b	3, 5, 6, 7, all a		1.75m
L8b	2a			2.15m
M24	1a			2.20m
M25	1a			1.75m
M26	1a			2.45m
M27	1a	2a		2.55m
M28	1a			1.50m
M29	1	2a, 3a		6.00m
M42a	1a	3, 4, 5 all a		2.05m
M45	1a			3.10m
M45b	1a			1.00m
M46	1a			1.65m
M47	1a			2.55m

Category 2: no examples

Category 3: *Horizontal passages, cut into walls*

L7	1			0.80m
L24	1			4.25m
M42b	1			2.05m
M47a	1			-

Category 4: *Horizontal passages below the floor*

B15	1(iii), b			1.80m
B84		2(ii), b		
G125		2(i), a		
H31		1(i), b, 6(ii), b		
N14	1(i)a			0.95m
N15a	1(iii), b			2.70m

Category 5: *Shallow, sloping passages*

G72	1b?		35+45av.	
G80		3b		
I50	1b		45	3.00m
M42	2a		40+12	5.30m
BA16	1b		40+10	5.25m

Category 6: *Deeper, sloping passages - all rectangular mouths, b.*

B9	1		40	7.20m
B14	1		40	3.50m
C7	1		40	5.25m

G1	1		G1-4 all shafts 40-45	5.30
G2	1			7.00m
G3	2			7.20m
G4	1			7.00m
G70	1		55	2.95m
G77	1		30	3.80m
G78	1		35	4.85m
G120	1		30	6.20m
H12	1		40	4.80m
H14	2		35+45	3.70m
H29	1		60	4.50m
H30	1		35	6.00m
H31		3?		
N13	1		40	4.10m

Category 7: Sloping, irregular passages - all rectangular mouths, b.

B57	1		40	4.65
C6	1		40	6.20
G72		3		
G76	2		30	6.00
G80	1		35+50	7.70
H25	1		40	8.35
H26 Pit F	1		50	4.55 +corridor of 2.60m=7.90m

Officials

Nomarchs

Tomb	Categories of main shafts	Secondary shafts	Length of main shaft
G98	Cat. 1, Sh. 2	Cat.4, Sh.1;Cat.5, Sh.3	6.50m
G95	Cat. 1, Sh. 1	Cat.5, Sh.2, 3	5.10m
M8	Cat. 6, Sh. 6	Cat. 1, Sh.4,5; Cat.4, Sh.2	17.00m
H15	Cat. 6, Sh. 3	Cat. 1, Sh. 1;Cat.5, Sh.2	8.90m
H26	Cat. 6, Sh. 1		10.20m
H24	Cat. 6, Sh. 2	Cat. 7, Shs. 3, 4	14.05m
H41	Cat. 6, Sh. 1		5.65m
C3	Cat. 6, Sh. 2		5.00m

Overseers of Fields and Serfs

Tomb	Categories of main shafts	Secondary shafts	Length of main shaft
F1	Cat. 5, Sh. 1	Cat. 5, Sh. 2	10.40m
K18	Cat. 6, Sh. 1		4.75m
K4	Cat. 6, Sh. 1		10.50m
B12	Cat. 5, Sh. 1	Cat. 5, Sh. 2	4.75m
G42	Cat. 6, Sh. 1	Cat. 4, Sh. 1	6.80m
BA48	Cat. 6, Sh. 1	Cat. 1, Sh. 2	9.15m
GA11	Cat. 6, Sh. 1		8.20m
G66	Cat. 7, Sh. 2	Cat. 4, Sh. 1	5.70m

Superintendents of Priests

Tomb	Categories of main shaft	Secondary shafts	Length of main shaft
Q15	Cat. 4, Sh. 1		3.10m
N20	Cat. 5, Sh. 2	Cat. 4, Sh. 1	7.85m
C9	Cat. 3, Sh. 1		1.25m
K18	Cat. 6, Sh. 1		4.75m
K1	Cat. 6, Sh. 2	Cat. 6, Sh. 1	6.25m
G42	Cat. 6, Sh. 1	Cat. 4, Sh. 3	6.80m
B62	Cat. 7, Sh. 1	Cat. 5, Sh. 2	7.00m
L21	Cat. 4, Sh. 3	Cat. 3, Sh. 1, 7; Cat. 5, Sh. 2, 4, 5	6.50m
L31	Cat. 7, Sh. 1	Cat. 4, Sh. 4; Cat. 5, Sh. 2	7.50m

Features of Entrances to Shafts and Passages

(Table 13, base group of tombs; Table 16, uninscribed tombs)

1. Shape and size

Entrances or mouths to burial shafts and passages are either square or rectangular in shape.

Square mouths or give access to-

- a. vertical shafts or
- b. shallow, horizontal passages

Square mouths are found in tombs dated to Dynasty 5-Teti in the base group of tombs:

M23, M22, M21, F12-15, L6, L8, G84, N15, N16, M43, and M45a with two examples

dated to mid-late Pepy I, Q2 and Q15, and two dated beginning Pepy II, M51 and M52. In

the uninscribed tombs: L1, M24-M29, M42, M45.

They are found combined with rectangular mouths in tombs dated Teti-mid/late PepyI:

N15, M44, G23, Q2, G97 and the later tomb, M52 dated to beginning Pepy II, all

inscribed tombs, and in the uninscribed L2, L7, L8a and G125.

Average dimensions are 1.00-1.55m square.

Rectangular mouths give access to-

- a.* vertical shafts, or
- b.* shallow, horizontal passages or
- c.* sloping passages

Rectangular mouths first appear in tombs N15 and M44 dated to late Dynasty 5 (Unis)

and continue until Dynasty 8.

Dimensions range from: 3.35m x 1.20m (M8)-1.40m x 0.80m (I49)

The average dimensions in the period late Dynasty 5-Teti : 2.60m x 1.10m; in the reign of

Pepyl to mid PepyII, 2.50m x 1.05m; and at the end Pepy II to Dynasty 8 2.00m x 0.90m.

2. Orientation of shaft mouths.

In tombs dated Dynasty 5-Teti, all burial chambers and sloping passages leading to them

are aligned N-S and in late Dynasty 5 when rectangular mouths first appear these

entrances are also aligned N-S. From the reign of Teti, with tomb G98, which contains the

earliest instance of a rectangular mouth to a shaft having an E-W axis, rectangular mouths

were aligned either N-S or E-W.

These rectangular shaft mouths, and all later shaft and passage entrances have their **long**

axes perpendicular to the entrance wall (Fig.125), with the following **exceptions** where

the long axes are **parallel to the entrance wall** (Fig.126).

M44 (shaft 3, secondary)

K16 (both shafts 1, 2)

Q4 (all shafts 1, 2, 3)

N20 (secondary shaft 1)

L31 (secondary shaft 4)

M8 (main shaft 6, and secondary shaft 4)

L21 (secondary shafts 1, 4, 5)

BA63 (both shafts 1, 2)
 H15 (secondary shaft 1)
 H6 (secondary shafts 4, 5)
 C8 (main shaft 1)
 B83 (main shaft 2, secondary shaft 1)
 BA17 (?shaft 3, incomplete),

Of these, only 3 are oriented N-S (K16, BA63, C8), the remainder, E-W (M44, Q4, N20, B83, M8, L21, L31, H15, H6, BA17).

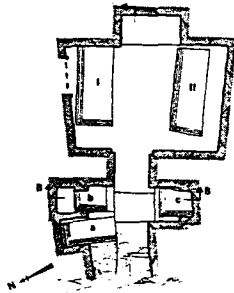


Fig. 125 - G42

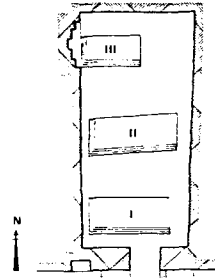


Fig. 126 - Q4

3. Raised Entrances to Burial Passages

Apart from the small number of chapels which have their burial passages cut into the walls (see above, Category 3, p.118), the majority of burial passages descend directly from the floor of the chapel. However, in a small number of tombs the entrances to burial passages are surrounded by a **ledge** or a **raised section** of the floor on 2, 3 or 4 sides.

Inscribed tombs where these occur:

- H24(Sh.2) - chapel floor raised on 2 sides by 0.40m av. (but this may be due to incomplete cutting behind and around pillars 1 and 2).
- H26(Sh.1) - chapel floor raised on 3 sides of the shaft mouth by 0.30m av. (Fig.127)
- B7(Sh.1) - chapel floor raised on 3 sides by 0.15m
- H4(Sh.2) - ledge on 4 sides of 0.10m high
- H12(Sh.1) - ledge on 4 sides of 0.25m high (Fig.128)
- H41(Sh.1) - shaft within platform 0.60m high
- I49(Sh.1, 2)-ledge on 4 sides of 0.10m high
- C3(Sh.1) - ledge on 3 sides of 0.10m high (Fig.129)

All these raised entrances lead to sloping passages and are only noted in the period mid

Pepy II-Dynasty 8.

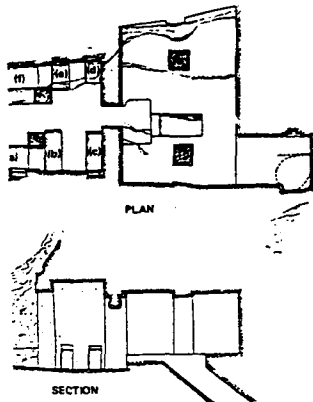


Fig. 127 - H26

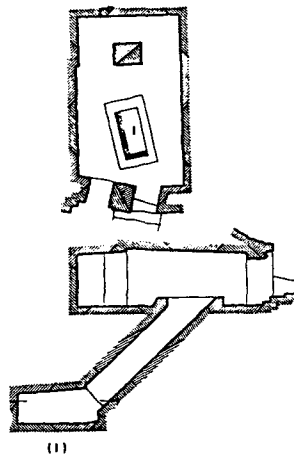


Fig. 128 - H12

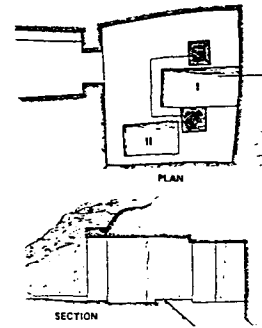


Fig. 129 - C3

4. The vertical 'screen' at the entrance to sloping passages

While the floor of sloping passages descends from the chapel at an angle of varying degrees, the ceiling does not slope immediately like the floor of these passages but commences after a short vertical section, here called a 'screen'. (Fig. 130)

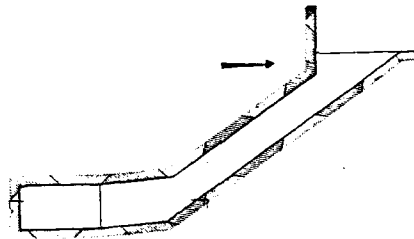


Fig. 130 - BA48

The **height of the 'screen'** was measured and compared with the **height of the burial passage**. If the proportion was not consistent for all passages in each tomb, then individual burial passages are listed.

Proportion of vertical entrance section to height of passage Examples

- | | |
|-------|--|
| 1:1 | M8(Sh. 6), H27(early main shaft 1?) |
| 1:1.5 | G95(secondary shaft 2)
G49(secondary shaft 2)
B62 |
| 1:2 | N15, G23, G98(secondary shaft 4), Q13, N20, BA48, B12,
GA11, H27(Sh. 3), H26, H24, H15, BA63, J2, 149, C3, B7 |

1:2.5 Q15, K5, G124, L31, G79

1:3 G22, Q4, G95(secondary shaft 3), G119, K21

1:4 K16, G126, G66, H41, H4(Sh. 1), BA14, BA17, B6

1:5 F1, K4, K1

The greatest number of burial passages have entrance screens with the proportion 1:2 when compared with the height of the passage. 50% of this group are found in burial passage type Category 6 and are in tombs dated to the period Pepy II. The remainder are equally apportioned to Categories 4, 5 and 7 and date from Pepy I to Dyn. 8.

Very deep screens with the proportion 1:1 are found in two tombs dated early-mid Pepy II: M8(main shaft 6) and H27(shaft 1, possibly the earlier main shaft). Both belong to Category 6 and both feature a corridor section between the sloping passage and the burial chamber.

Shallow screens having the proportion 1:4-1:5 are found in a small number of burial passages dated to two periods: late Teti -early PepyI, and the beginning of Pepy II - Dynasty 8.

The examples are from all the categories of sloping passages(4, 5, 6, 7).

The following burial passages are exceptions to this usual treatment of entrances. In shaft 2 of tomb G22, and shaft 3 of tomb BA14, the ceiling of the sloping passage commences with an **angled**, rather than a vertical, section (Fig.131).

In tombs, G22(Sh. 1), G23(Sh. 2), K18, G42(Sh. 1), L23(Sh. 1), H6(Sh. 2, 3), neither vertical nor angled sections are present; ceiling and floor are **parallel** from the entrance to the passage (Fig.132).

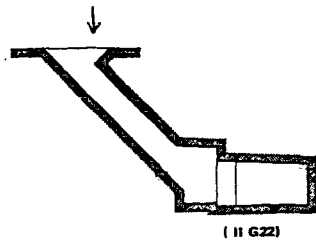


Fig. 131 - G22

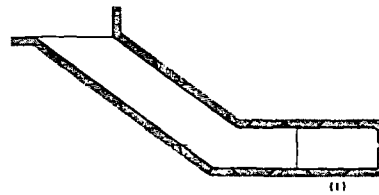


Fig. 132 - G42

5. Vertical access

In 11 tombs access to the shaft proper is by a short, **vertical drop** (Fig. 133).

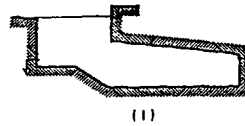


Fig. 133 - G66

Examples and depth of the drop in the base group of tombs :

- 0.20m - M43 (main Shaft 1)
- M22 (main Shaft 1, followed by a second step of 0.95m)
- G95 (Shaft 2, followed by a step of 0.45m)
- 0.45m - G98 (Shaft 3)
- 0.70m - G98 (Shaft 4)
- 0.75m - B83 (Shaft 1), H24 (Shaft 4)
- 0.95m - see M22, above
- N20 (Shaft 2, main)
- ?1.00m - H26 Pit F (Shaft 1)
- 1.30m - G66 (Shaft 1)

N. B. An entrance step also occurs in M23 (Sh. 1), of 0.80m, but is preceded by a sloping passage.

Examples from uninscribed tombs:

- 0.40m - G125 (Sh. 2)
- 0.50m - H31 (Sh. 1)

This entrance step leads to a **horizontal passage** by a short slope in G98 (Sh. 4), N20, (Sh. 2), G125 (Sh. 2), B83 (Sh. 1), and G66 (Sh. 1) (Fig. 134), and to a **sloping passage** in M22 (Sh. 2), M23 (Sh. 1), M43 (Sh. 1), ?H24 (Sh. 4), and H26 Pit F (Sh. 1) (Fig. 135).

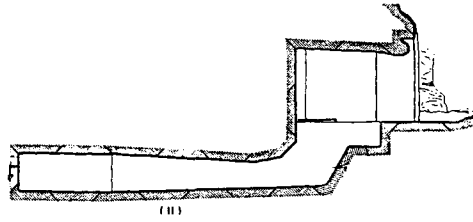


Fig. 134 - N20

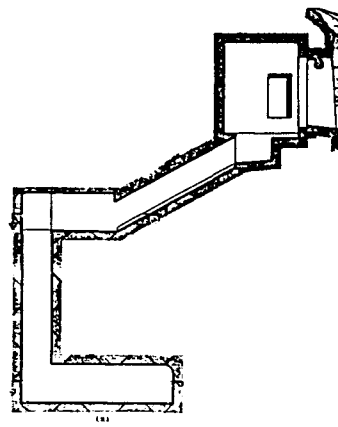


Fig. 135 - M22

Features within Shafts and Passages

(Table 14, base group of tombs; Table 16, uninscribed tombs)

Several features are noted in burial shafts and passages. These include:

1. variations in the floor level
2. variations in the ceiling treatment
3. the presence of jambs
4. corridors
5. antechambers
6. niches and storage chambers

1. The floor of the burial shaft or passage

Steps down in the floor are found:

- a. within the length of sloping passages and
- b. at the end of passages immediately before the burial chamber.

- a. a single example is seen in the inscribed tomb, G95, in a secondary burial passage

(Sh.2): 5 steps with depths of 0.20- 0.30m av. (Fig.136).

Seven examples are found in uninscribed tombs (Fig.137):

B57(Sh 1), G120(Sh.1), with a depth of 0.10m

G80(Sh.1), 0.20m

H30(Sh.1, 3 steps), 0.30- 0.40m av.

H26 PitF(Sh.1), 0.40m

G76(Sh.2), 0.45m

C6(Sh.1, 0.50m+second step of 0.40m)

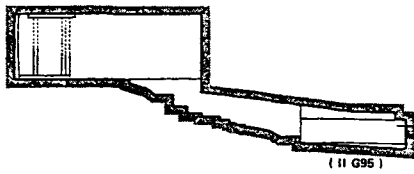


Fig. 136 - G95

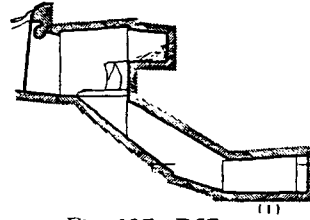


Fig. 137 - B57

b. In two inscribed tombs, M43 and M44, with Category 2 (complex) burial apartments, steps down are present at the end of sloping passages and before **upper burial chambers**:

M43(Sh.1, 2 steps), with depths of 0.15m and 0.25m
M44(Sh.1), a depth of 0.55m

Before **lower burial chambers** steps down appear in the inscribed tombs (Fig. 138):

G98(Sh.5), BA14(Sh.3, 2 steps), 0.15m deep
G95(Sh.2), B12(Sh.1), G79(Sh.1), H27(Sh. 2, 2 steps ?) all 0.20m deep
K5(Sh.1), I49(Sh. 2), B7(Sh 1), 0.25m deep
G22(Sh.2), 0.40m deep
B6(Sh.1), 1.10m deep

Uninscribed examples are:

G120(Sh.1), 0.10m
B15(Sh.1), 0.15m
G4(Sh.1), 0.60m

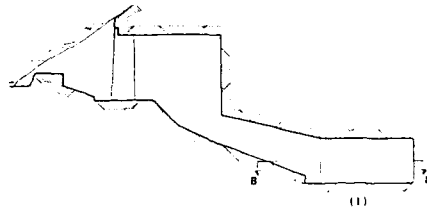


Fig. 138 - B12

Those steps which form part of an enlargement at the end of the shaft would facilitate entry to the burial chamber. In examples such as B6 and G22 (Fig.139) this section appears as an entry/antechamber to the burial compartment.

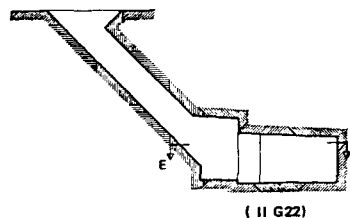


Fig. 139 - G22

Steps also occur before burial chambers in **vertical shafts** (Fig. 140).

A **step down** is present between the vertical shaft and the burial chamber in the following inscribed examples; there are no examples from uninscribed tombs.

M23 (Shaft I), 0.05m deep
L8 (Sh.2); G95 (Sh.1, two steps); Q2 (Sh.1), all 0.10m deep
M44 (Sh.2), 0.20m deep
F12 (Sh.2), 0.30m deep

A **step up** is present in the base group of tombs:

G84 (Sh. b.), 0.70m deep
M45a (Sh.1), 0.40m deep
M52 (Sh.1), 0.15m deep

A step up is found in the uninscribed tomb, L2 (Sh.1), 0.20m deep (Fig.141)

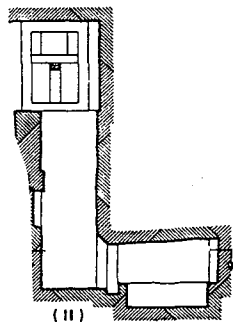


Fig.140 - L8

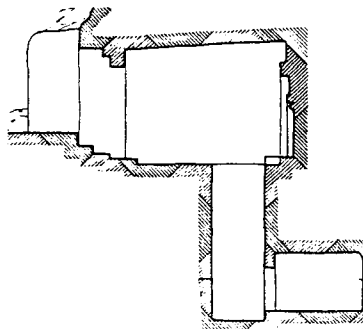


Fig.141 - L2

Footholds are noted in five burial shafts and passages.

In tomb L8, 5 footholds are cut into the east and west walls of the vertical shaft (3). Five footholds are also cut into the centre of the floor of sloping passage 1 in tomb BA48, and at regular intervals into the sloping floors of Shaft 2 in tombs BA14, B6 and B7.

A square-cut **channel** appears in the centre of the upper sloping passage (Sh. 2), in the Fifth Dynasty tomb, M22, 0.30m wide and 0.15m deep.

Angles in floors are found in a small number of shallow, sloping burial passages (Category 5). These are F1(Sh.1), G126(Sh.1), M52(Sh.2), B12(Sh.2), L31(Sh.), and G49(Sh.1). (Fig. 142)

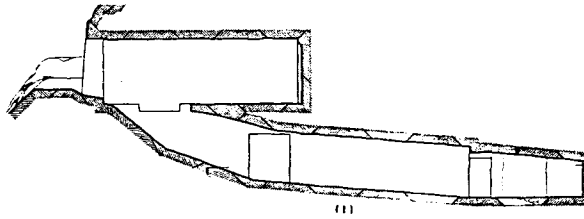


Fig. 142 - F1

2. The Ceiling of the Sloping Passage

Ceilings in burial passages are generally of an even, uninterrupted slope throughout their length ⁴⁰ but two features are noted:

- a. In some tombs the level of the ceiling of sloping passages drops vertically at certain points along its length (see Fig.143). These 'steps' in the ceiling when combined with vertical jambs give the appearance of a frame within the passage. (Fig.146)
- b. An increase in the height of the ceiling before the burial chamber (Fig.144).

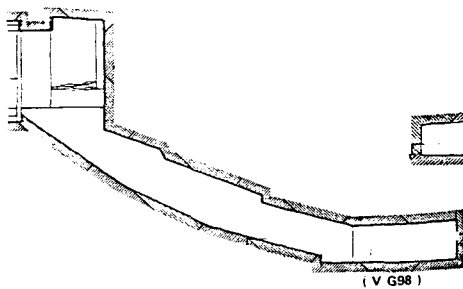


Fig.143 - G98

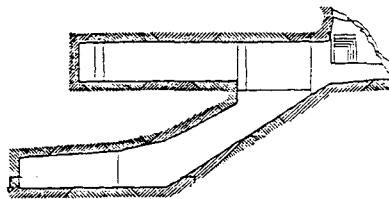


Fig.144 - K21

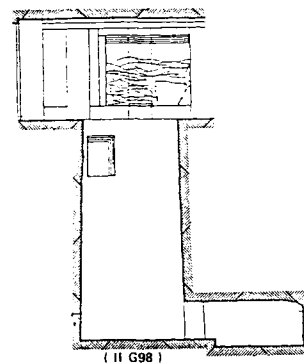


Fig.145 - G98

a. burial passages with ceiling 'steps' are found -

* within the length of the sloping passage in the inscribed tomb G98(secondary shafts 5, 2 steps, and 3, 1 step) .

* both within the length of the passage and at the entrance to the burial chamber in the uninscribed tombs G72(Sh.3); G76(Sh.2); H25(Sh.1).

* at the entrance to the passage and within its length and at the entrance to the burial chamber: the inscribed tomb BA14(Sh.2)

b. burial passages featuring ceilings which increase in height before the burial chamber.

While most shafts have floors and ceilings which are generally parallel to each other, in some tombs the passages increase in height before the burial chamber. This is usually achieved by raising the ceiling, but a step down in the floor of the shaft is also present in some examples (indicated by *).

Examples in the base group of tombs: G22(Sh.2)*; K21(Sh.1); L42 (Sh.2); G66(Sh.1); B7(Sh.1)*; B6(Sh.1)*.

Uninscribed examples: B9(Sh.1)*; B15(Sh.1); G1(Sh.1); G80 (Sh.1); H14(Sh.2) .

The enlargement of the passage before the burial chamber is very slight in G95, K21, J2 and G66, and all the uninscribed examples, but in G22, B6 and B7 it almost gives the appearance of an antechamber.

⁴⁰ Two exceptions where the ceiling level is raised in the centre of the length of a sloping passage are: tombs B62 (Sh. 2) and L42 (Sh. 1), see Fig. 173 .

The above examples are sloping shafts with the exception of G95, L42 and G66, all horizontal passages. Two adjacent tombs, G97(Shs. 1, 2) and G98(Sh. 2), have vertical shafts which also widen toward the floor of the shafts (see Fig.145).

3. Jambs

Side jambs are found in sloping passages, **a.** at the entrance to the burial passage, and **b.** in the main section of the passage. In both vertical shafts and sloping passages jambs are also present at **c.** the entrance to the burial chamber. (Fig.146)

Two jambs are usual, but occasionally only one is found.

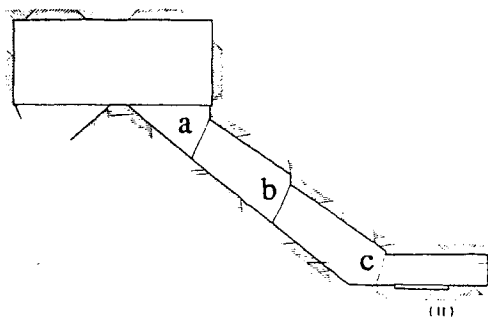


Fig. 146 - BA14

a. jambs at the entrance to the burial passage:

Examples with **2 entrance jambs**, with the width of the jamb:

Inscribed tombs with jambs 0 .05m wide :

H4 (Sh. 2), H15 (Sh. 2), BA14 (Shs. 1, 2, 3), B6 (Sh. 1)

Uninscribed tombs with jambs 0 .05m wide:

B9(Sh. 1), B57(Sh. 1), C6(Sh. 1), G1(Sh. 1), G3(Sh. 2), G4(Sh. 1), G72(Sh. 1, Sh. 3), H14(Sh. 2), H30-31(Sh. 1);

Inscribed tombs with jambs 0 .10m wide:

K4 (Sh. 1), K16(Sh. 2), L31 (Sh. 1)

Uninscribed tomb with jambs 0 .10m wide:

G2(Shs. 1, 2)

Inscribed tomb with jambs 0 .20m wide:

M22 (Sh. 2)

No uninscribed examples.

Inscribed tombs with jambs 0.25m wide:

M43, (Sh. 1)

No uninscribed examples

Examples with **1 entrance jamb**, with width of jamb:

Inscribed tombs:

M44 (Sh. 1) 0.20m wide

M45a(Sh. 1) 0.15m wide

No uninscribed examples

b. jambs within the burial passage:

Inscribed tomb - BA14(Sh. 2,),

Uninscribed tombs - G72(Sh. 3), all jambs 0.05m .

c. jambs at the entrance to the burial chamber:

* examples with **2 jambs**, and width of jambs:

Inscribed tombs - BA48 (Sh.2), BA14(Sh. 2, 3), B6(Sh.1), all 0.05m wide

L8 (Sh.2), 0.05m, and 0.10m

M21 (Sh.1, 3), 0.10m

M23 (Sh.1) 0.15m

F1 (Sh.1), 0.15m

G98 (Sh.2), 0.10m, 0.15m

M8 (both Sh.4 and Sh.6) 0.10m, 0.20m

Uninscribed tombs - B9 (Sh. 1), G72 (Sh. 2, 3), G76 (Sh. 3), H12 (Sh. 1), all with jambs 0.05m wide.

* examples with **1 jamb**, and width of jamb:

Inscribed tombs - G95(Sh.1), 0.05m wide

G84 (Sh.1), M43 (Sh.1), 0.10m wide

M45a (Sh.1), 0.15m wide

The jambs in all of the above examples are vertical except for those jambs found in tombs B6, B9, H4, H12, G76 and BA14 which are sloping

Officials

Nomarchs

G95, G98, M8, H15 -jambs found at the entrance to burial chambers only except for H15 which has jambs at the entrance to the burial passage.

Overseers of Fields and Serfs

K21, K4, BA48, GA11 - jambs at entrance to burial passages

F1 and BA48; jambs at entrance to burial chambers

Superintendents of Priests

L31, jambs only at entrance to passage.

Summary

Jambs are found at the **entrance to main sloping burial passages** in the following tombs dating from Dynasty 5 to Dynasty 8:

M22, M43, M44, K16, K21, K4, BA48, L31, H15, H4, H6, BA14, B6.

All have 2 jambs except for M44 which has 1 only. In each example except for M44, the jamb is on the left (on entering the shaft/passage) which is the northern side. In M44 the jamb is on the right which is the eastern side.

A sloping jamb is cut in the **middle of the sloping passages** in tombs BA14 (Sh. 2) and G72 (Sh. 3).

Jambs are present at the **entrance to main burial chambers** in both vertical shafts and sloping passages. In *main vertical shafts* they occur in M23, M21, G84, L8, M43, M45a, G98, G95 and in *secondary vertical shafts* in M8 (Sh. 4) and BA48 (Sh. 2). In *main sloping passages* they are found at the entrance to the burial chambers of F1, M8(Sh. 6), BA14 and B6.

All have 2 jambs except G95 which has 1 on the east side and M45a having 1 on the north side.

Jambs are found both at the entrance to the burial passage and at the entrance to the burial chamber in two tombs dated Dynasty 5/Teti - M23 and M43 - and in a further two dated to the end of Dynasty 6/Dynasty 8 - BA14 and B6.

4. Corridors

A corridor or an entry is present between the sloping shaft and the burial chamber in a small number of tombs.

The corridor is **horizontal** in the inscribed tombs: K21 (Sh.1); G42 (Sh.1); H15(Sh.2); H27(Shs.1, 2); H24(Sh.2); G79(Sh.1); H4(Sh.2), and the uninscribed tombs G120 (Sh.1) and H26 PitF (Sh.1). (Fig.147)

The corridor **slopes slightly downward** in tombs G22 (Sh.3), M8 (Sh.6) both 5 degrees; BA48 (Sh.1), H15 (Sh.3) both 10 degrees. (Fig.148)

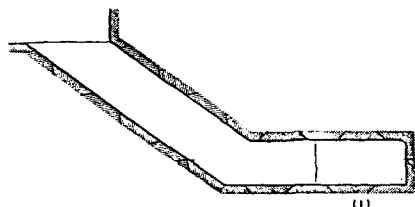


Fig.147 - G42

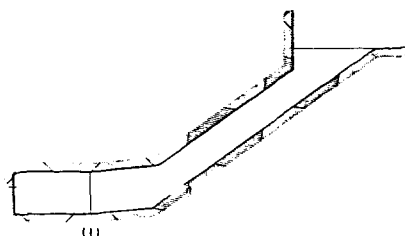


Fig.148 - BA48

The length of both the sloping shaft and the corridor section is approximately the same in H15 (Sh.2) and H27.

In the remaining examples, with the exception of G22, G79 and BA48, the length of the corridor is approximately half the length of the sloping passage: G120, M8, G42, H24, H4, H26 PitF.

In G79 (Sh.1): corridor is 1/8th of length of sloping shaft; in G22 and H15 the corridor is 1/5th of length of sloping shaft; in K21 and BA48 the corridor is 1/4 of length of sloping section.

A short connecting entry is also present between vertical shafts and their burial chambers in M23, M21, L8, M43 and G98.

5. Antechambers

Antechambers appear between the base of two shafts and their burial chambers in tomb M8, dated to the beginning of the reign of Pepy II: the vertical shaft (number IV) and the

sloping passage (number VI). (Fig.149) In the following tombs an enlargement of the sloping passages before the burial chamber through the raising of the ceiling and a lowering of the floor gives the appearance of an antechamber: G22(Sh.2), B6, B7, (both Sh.1), G80(Sh.1), G1(Sh.1) and B9(Sh.1). (Fig.150)

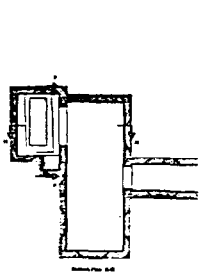


Fig.149 - M8

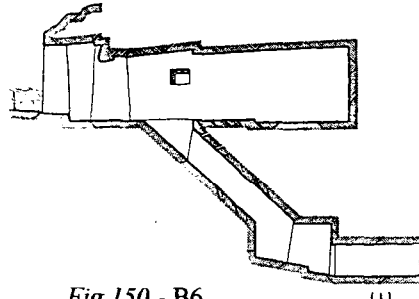


Fig.150 - B6

6. Niches and storage rooms are found in both vertical shafts and sloping passages. Their specific purpose is unknown.

These are present in the **vertical shafts** of the inscribed tombs: L8(Sh.2), F12(Sh.2), M43(Sh.1) and BA48(Sh.2), and the uninscribed tombs B13(Sh.1)? and G125(Sh.3). (Fig.151)

In **horizontal or shallow, sloping passages** they are found in the inscribed tomb, F1(Sh.1) and the uninscribed B14(Pit a).

In **sloping passages** in the inscribed tombs H6(Sh.3), H41(Sh.1), C3(Sh.1) and BA17(Sh.3), and in the uninscribed B9(Sh.1), C6(Sh.1), G76(Sh.2) and H26 Pit F(Sh.1). (Fig.152)

The majority of niches/storage rooms are situated above the burial chamber, but in F1 and B14, both shallow, almost horizontal passages, they are on the same level, as is the storage room of C3, at the end of a sloping passage. (Fig.153) In H41, one chamber is slightly above the other. (Fig.154)

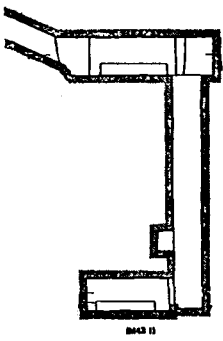


Fig. 151 - M43

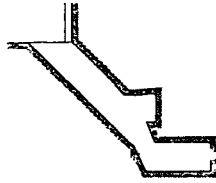


Fig. 152 - H6

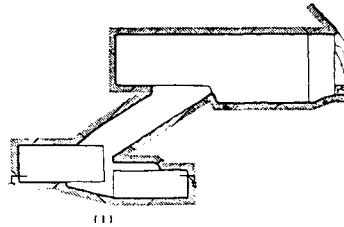


Fig. 153 - C3

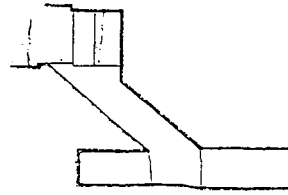


Fig. 154 - H41

The niches/storage compartments are located and orientated in one of two ways in shafts and passages:

a. they are cut into the **ceiling** of sloping passages or into the **same wall** from which the burial chambers extend in vertical shafts, i.e. they have the same orientation as the burial chambers: F12, M43, H6, G76, H26 Pit F and B9, *or*

b. they are cut into the **floor** of the sloping passages in C3, H41 and BA17, or into the **wall opposite** the burial chamber as in the example of vertical Shaft 2 in tomb L8, i.e. they have an opposite orientation to the burial chambers.

Two examples of niches in vertical shafts which are cut into an adjoining wall, i.e. at 90 degrees, to the burial chambers are BA48 and G125. (Fig. 155)

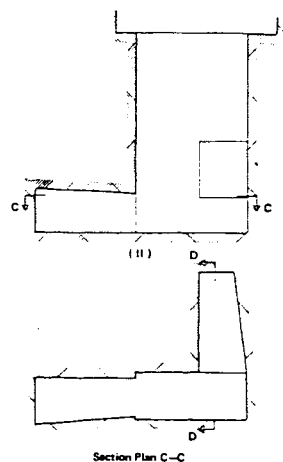


Fig. 155 - BA48

Most niches are shallow in **depth**, ranging between 0.15m - 0.75m, with the following exceptions:

G76(1.20m), G125(1.55m), BA48(2.60m), in vertical shafts, and C3(2.08m), H41(2.50m), in sloping passages.

The **height** of the niches ranges between 0.70m -1.20m with 0.90m the most frequently found height.

Dating comment

Niches are present in vertical burial shafts in 3 tombs dated to the end Dynasty 5 -Teti. They appear in a further 3 examples dated to the period PepyI-early PepyII and thereafter in sloping passages in tombs dated to the end Dynasty 6 -Dynasty 8.

In sloping passages the position of the niche moves from one which is high in the passage in tombs dated to mid/late PepyII, to one which is close to the burial chamber in tombs dated to the end of the period PepyII -Dynasty 8.

BURIAL CHAMBERS

(Table 15, base group of tombs; Table 17, uninscribed tombs)

The **characteristics and features** of **main burial chambers** are described in the following sections:

- * the shape of the chamber
- * its orientation
- * its relationship to a false door
- * steps, jambs at the entrance
- * the presence of a burial pit or a cut sarcophagus
- * the measurements - area, height, relationships with chapel

Burial chambers are listed in the categories of the shaft typology (see pp.115-116 above)

Burial chambers associated with **main vertical/combination shafts** - (*Categories 1 and 2*).

The burial chambers at the base of main vertical shafts are **rectangular** compartments, orientated with their **main axis N-S**. Exceptions to this orientation are N15, N16, F12 (if Sh.2 is the main shaft), G97 and G95, all **E-W**.

Shaft 4 in tomb M8 which may have been the earliest shaft in the tomb is also oriented E-W.

The burial chambers extend from the **west wall** of shaft or of the antechamber/corridor if present except for F12 (Sh.2, which extends from the north wall) and G95 and G97 (where the chamber extends from the east wall).

They are sited **directly beneath** the **false door**.

Exception: F12 (Sh.2); however if Sh.1 were the original main shaft then the burial chamber is beneath the false-door in the south (entrance) wall.

A **step up** into the main burial chamber (which is positioned higher than the floor of the shaft) is found in the inscribed tombs G84 (Sh.2, possibly that of the tomb owner's wife:

step height 0.60m), M43 (0.15m), M45a (step 0.40m high) and M52 (Sh.1: a step height of 0.15m) and the uninscribed L2 (a step height of 0.20m). A step up into the secondary shaft IV of M8, is 0.25m.

A **step down** is present between the shaft and the main burial chamber of the inscribed tombs M23 (a step height of 0.05m), L8 (0.10m), F12 (0.30m), M43 (0.25m), G98 (0.20m), G95 (2 of 0.10m) and in the uninscribed M24 (0.10m high). Secondary shafts of major dimensions also having steps down into their burial chambers are found in M22 (Sh.4), (0.15m high), M21 (Sh.2) (0.50m) and L6 (Sh.2)(0.05m) and M44 (Sh.2) (0.20m).

Note: M43 has a step up of 0.15m then a step down of 0.25m.

Jambs are present at the entrance to the main burial chambers of M23, M21, L8, G98, all having two jambs, and G95, M43 and M45a having one jamb only.

Burial pits are present in the main burial chambers of M23, M22, L8, L6, M43, F12, G98, G95 and the uninscribed tomb L24 and also in secondary burials in M21, M22 and L6.

In M23, M22 (secondary Shaft IV), L8 and M43 raised sides surround the pit.

(Figs.156, 157)

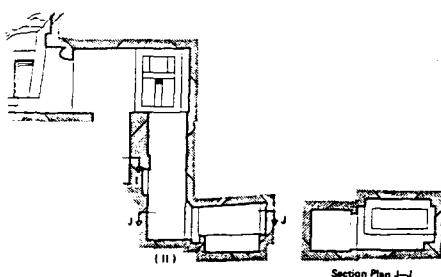


Fig.156 - L8

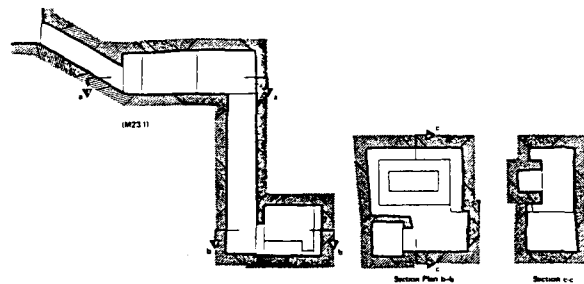


Fig.157 - M23

Burial chambers associated with main horizontal passages cut into walls-(Category 3)

These are rectangular, **corridor-like** compartments which extend from the end of the passage. They are irregular (both passage and chamber) in their orientation, with CA1 extending from the south wall of chapel, L42 and C9 from the east wall. (Fig.158) The main axis of CA1 and C9 is N-S, while that of L42 is E-W.

A **false door** is positioned above mouth of the horizontal passage in C9. A *htp* -platform is to one side of the shaft entrance in CA1, but no false door presently remains.

There is a **step down** to the chamber from the passage in C9 (height: 0.70m).

A **burial pit** present in the uninscribed tomb L24.

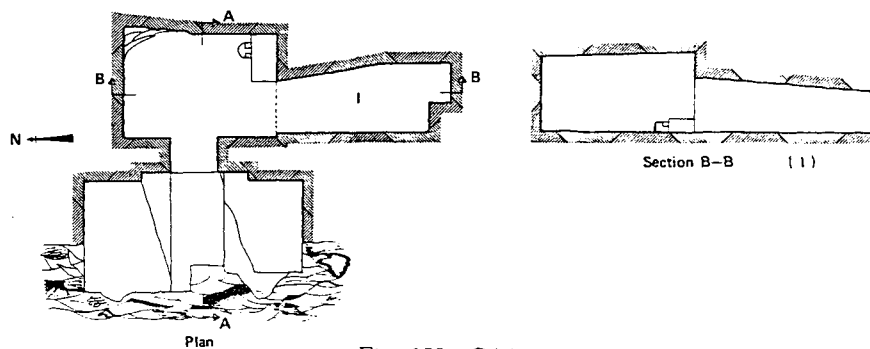


Fig. 158 - CA1

Burial chambers associated with shallow, horizontal passages-(Category 4)

These burial chambers are rectangular, **corridor-like** compartments which widen slightly toward the south in Q2, and to the west in L23. (Fig.159) An exception is noted in N20 where the main burial chamber extends further than in Q2 and L23, and is similar to those of Category 5 (see below, like G49 and B12). (Fig.160)

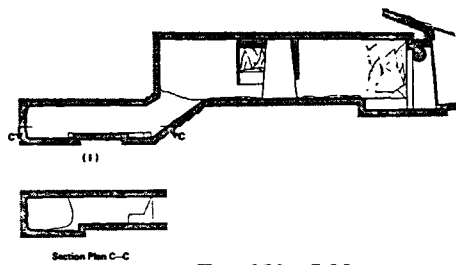


Fig. 159 – L23

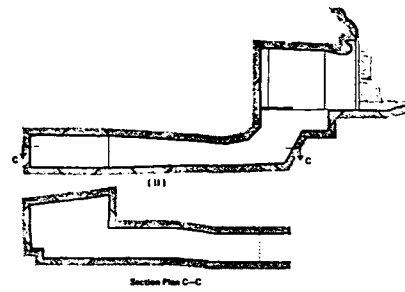


Fig. 160 - N20

The chambers of Q15, G124, ?L21, L23 and B83 are **orientated N-S**, and those of Q2, Q13 and N20, **E-W**.

False doors are found above the mouth of the main shaft (1) in L23 and close to the main shaft mouth (3) in L21. The burial passage continues beyond the false door however, with the actual burial chamber in L23 some 3.50m to the north and in L21, 5.70m also to the north.

A **htp -platform** with two **basins** lies adjacent to the shaft mouth against the north wall of N20 but no false door is present.

There are **steps down** (0.10m in height) to the burial chambers in Q2 and Q13, and in L21 (0.65m in height).

No **burial pits** or **jamb**s at the entrance to the burial chambers, are present.

Burial chambers associated with **shallow to medium, sloping passages** -(Category 5)

Rectangular compartments are predominantly **oriented E-W**: G49, B12, G126 and L31, although F1 and M52 are oriented N-S. (Fig. 161)

The main axis of the burial chamber has the same orientation as the burial passage in G49, B12 and H4, but is perpendicular to the passages of F1 and G126, M52 and L31.

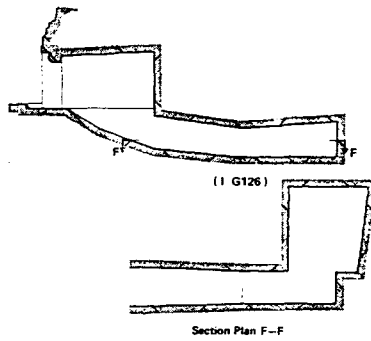


Fig. 161 - G126

As in L23 and L21 above in Category 4, a **false door** is found adjacent to the mouth of the burial passage in L31, but the burial chamber is well beyond.

One **step** and a short horizontal **entry** is present in the entry area of B12 (Shaft I) (step height, 0.20m).

Jambs are found at the entrance to the main burial chamber of F1.

A **burial pit** occurs in M52 associated with the nearby major tomb, M8, and in M42 an uninscribed tomb which is part of the complex of tombs surrounding the large M43.

Burial chambers associated with **sloping passages**- (*Category 6*).

Three variations are found:

1. rectangular, corridor-like compartments with the **same width and orientation** as the shaft. These are oriented N-S in K16, BA63, C8, and oriented **E-W** in G22. (Fig. 162)

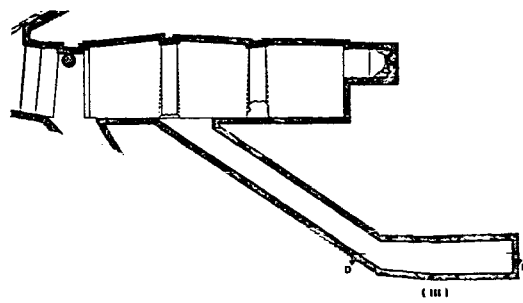
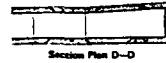


Fig. 162 - G22



2. rectangular chambers with the same orientation as the shaft which is E-W, but whose **width is greater** than that of the shaft because of an extension to one side of the chamber.

This extension occurs in the following chambers:

- on the **north** side of the chamber in G22(Sh. 2), GA11, H4 (Sh. 2), H6(Sh. 1) and C3(Sh. 1),
- on the **east** side in K18, H27(Sh. 3) and H24(Sh. 2). (Fig. 163)

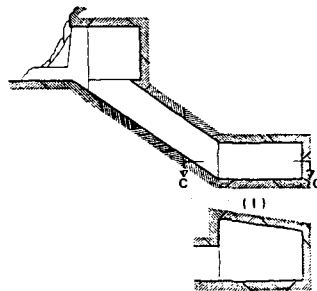


Fig. 163 - K18

Section Plan C-C

Exceptions appear in tombs H26 and H41, where an extension occurs on *both sides of the shaft* (see H. I, fig.5, H26; H. VIII, fig.11, fig.164 here).

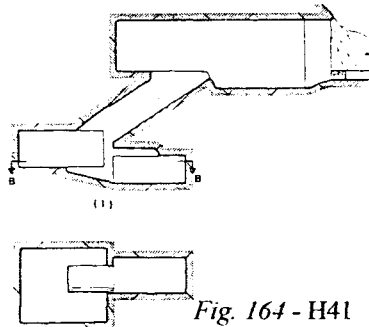


Fig. 164 - H41

3. rectangular chambers whose **main axis is perpendicular to the orientation of the shaft** (Fig. 165)

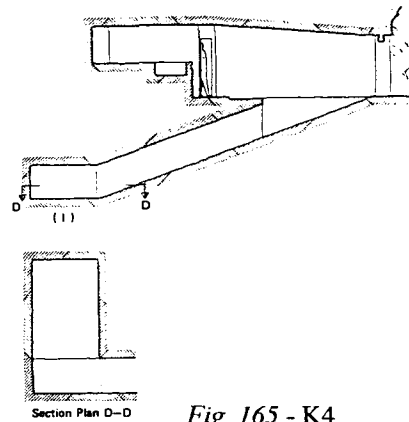


Fig. 165 - K4

The usual **orientation** of these burial chambers is N-S, with the majority of the chambers extending to the north: Q4, K5, K4, G119, G42, M8(Sh. 6), G79 and H6. Two exceptions are K4 and K5 which extend to the south.

Three chambers are oriented **E-W**: H15(Sh.3) and BA48 (Sh.1) both extending to the east, and H27(Sh.1) extending to the west.

A feature which is noted among Category 6 tombs which are dated early-mid Pepy II, is a **horizontal section or corridor** between the sloping shaft and the burial chamber :

M8(Sh.6), G79, G42, BA48, H15(Sh.3), H27(Sh.1) and H24(Sh.2) (see above, Fig.143).

Two earlier exceptions where this feature is also found, are G22 (beginning Pepy I) and K21 (late Pepy I).

A **step down** into the burial chamber is present in:

G22(Sh.2), 0.10m in height, G23(Sh.2), 0.15m high, K5(Sh.1), 0.25m high and M8(Sh. 6), 0.40m high.

Jambs at the entrance to main burial chambers are only found in M8.

Burial pits are present in:

M8(Sh.6), H27(Sh.1), H26(Sh.1), H24(Sh.2) and C8 (Sh.1). All are orientated N-S, except H27, E-W .

False doors

Three burial apartments are close to **false doors** which are all sited in west walls: Q4, H24 and H26 .

In Q4, the mouth of the burial passage is positioned in the centre of the chapel and to the south of the false door, but the passage passes under the west wall and to the west for a distance of 7.05m. The burial chamber then turns to the north and lies parallel to the false door.

Tombs H24 and H26 have false doors in the west wall of their shrines although the mouth of the burial passage is in the chapel. In these tombs the sloping passage passes behind and parallel to the west wall of the shrine with the burial chamber a little beyond the false door.

The position of the burial chamber in other examples in Category 6 of tombs with false doors, shows no close relationship between the burial chamber and the false door. These burial chambers have been cut much deeper and further into the mountain (see Relationships of Position of Burial Chambers): K4, M8, G42, BA48, K18, L31, G79, GA11.

Burial chambers associated with irregular sloping passages -(Category 7)

Three variations are found.

1. **rectangular** compartments with the **same orientation** as the passage but whose **width is greater** than the passage:

This extension of the width is to the *north* of the passage in B6;

to the *south* in B7; to the *east* in BA17; and to the *west* in H26F, J2 and I49 (Fig.166).

A rectangular compartment with same orientation as the passage, but slightly **narrower** in width is B62.

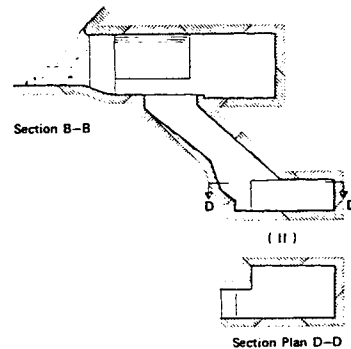


Fig. 166 - I49

2. A **rectangular** compartment with the main axis **perpendicular** to the passage and extending to the north is found in G66. (Fig.167)

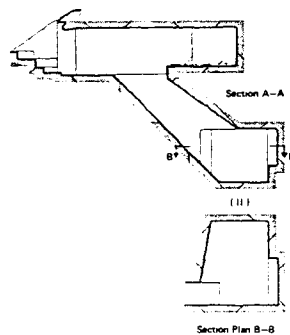


Fig. 167 - G66

3. an **almost square** compartment extending E-W on either side of the passage is noted at the end of the main sloping passage(Sh.2) of BA14 (Fig.168).

This is the same arrangement of passage and burial chamber as H41(see above, Cat.6).

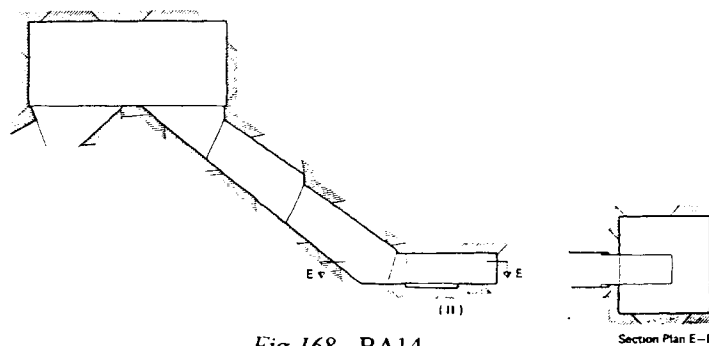


Fig. 168 - BA14

A **step down** into the burial chamber present in B7 (0. 25m high).

Jambs are found at entrance to the main burial chamber in B6 and BA14.

No burial pits are present.

False doors

Two burial chambers in this group are positioned behind the **false door**. In each, the false door is in the wall opposite the entrance. In BA17, the burial chamber(Sh.1) is immediately behind and below the false door and in J2 the sloping passage extends a short distance beyond the false door before the burial chamber turns to position itself behind the false door.

Comment on Category 7 burial chambers

Although irregularities are found in the main burial **passages** of Category 7 examples, this does not necessarily indicate irregularity in the main burial **chambers**; see e.g. those of B6 (Fig.169) and B7.

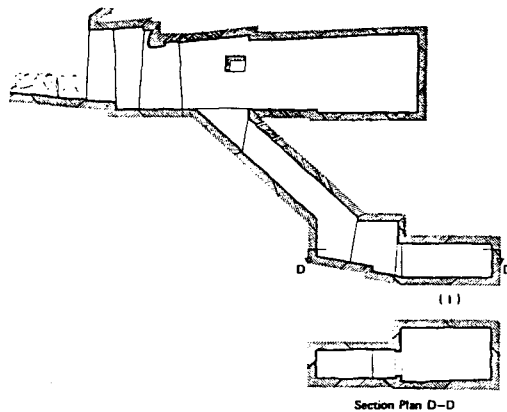


Fig. 169 - B6

However, chambers of **unusual shape or size** are occasionally found in secondary burial compartments, e.g. BA14 (Sh.3), (Fig.170) and in the main chambers of some uninscribed tombs, e.g. I50.

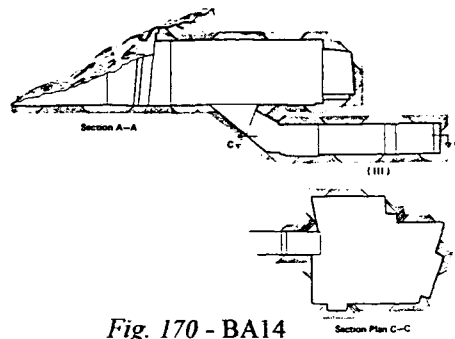


Fig. 170 - BA14

Ceilings in main burial chambers

The **ceiling level** in the main burial chamber is usually horizontal but a number of burial chambers have ceilings which **slope up** or **down** from the entrance to the interior of the chamber.

The ceiling **slopes up** in the inscribed tombs L8, Q13, G126, G49 and L31 and in the unscribed tombs B15 and B57. (Fig. 171)

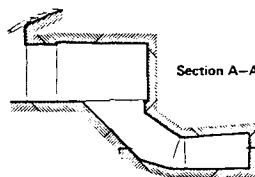


Fig. 171 - G49

The ceiling **slopes down** in the inscribed tombs CA1, G23, B83, F1, K21, H4, BA63, J2, BA17 and B7, and in the unscribed tombs B9, B13-15, C7, G78, H12, L24 and M42. (Fig. 172)

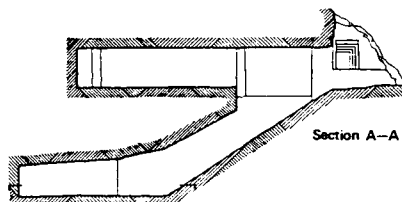


Fig. 172 - K21

In a further two examples the ceiling **rises in the centre** of the chamber then slopes down: the inscribed tomb, B62 and the unscribed G72. (Fig. 173)

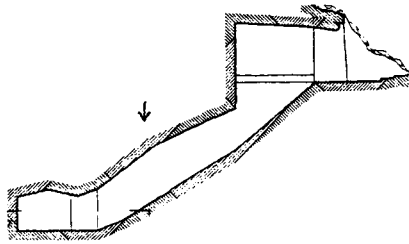


Fig. 173 - B62

In certain burial chambers the **ceiling is higher** than the **entrance** to the chamber.

Among the inscribed tombs this raised ceiling in the chamber is seen in: M22 (in upper chamber of main shaft only), M23 (in both upper and lower main burial chambers), G84 (Shaft b.), M44 (upper main chamber only, very slight) and H26 (main passage). (Fig. 174)

This is also found in the main shaft of one uninscribed tomb, L2.

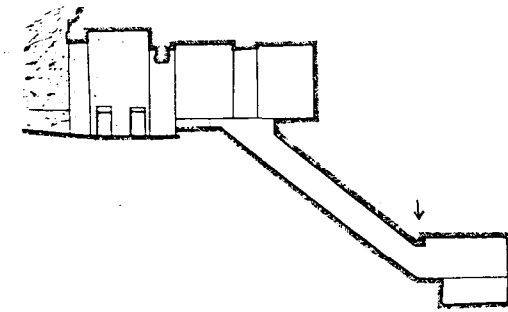


Fig. 174 - H26

Walls in burial chambers

In most burial chambers the walls are positioned at right-angles to each other, although it would appear that poor quality rock in some areas has altered this original intention.

However a noticeable **irregularity** in certain tombs is the setting of one or more walls at an **angle** other than a right-angle to the adjacent wall(s). (Fig. 175)

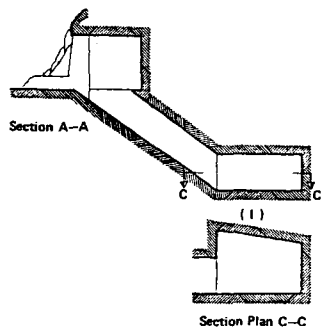


Fig. 175 - K18

Walls are set at an angle in the upper burial chambers of the Fifth Dynasty tombs M23, M22, M44 and M43 (Category 2 burials), and in the period late Teti- Pepy I in tombs F1, G23, N20, K18, K21, G126, G49, B12 (main burial chambers), and G95, K5 and Q2 (secondary burials).

A smaller number are dated to mid-late Pepy II to Dynasty 8: GA11, H4, H6, BA17, G66, J2 (main burial chambers), and H27 (a secondary burial) .

These walls are aligned in almost equal numbers N-S and E-W.

Uninscribed tombs where walls are placed at irregular angles are B57, C6, C7, G72, G120 and H30.

Measurements of Main Burial Chambers (see Table 15)

Area of main burial chambers in the base group of inscribed tombs.

Six burial chambers have *large floor areas 10.00 sq. m and over* :

- M23 - 15.80m sq.m
- M22 - 12.95 sq.m
- M43 - 10.60m sq.m
- G98 - 10.00m sq.m
- L31 - 11.25m sq.m
- H27 - 10.85m sq.m(Sh.1)
- H24 - 10.20m sq.m
- H26 - 14.35m sq.m
- J2 - 13.25m sq.m

All are in tombs of officials holding the highest administrative positions except for J2, where no titles of the tomb-owner remain.

There is a marked decrease in area to the next group which have *floor areas of*

6.00 - 7.50 sq. m:

M22, F12, G23, G95, Q4, F1, K4, G126, BA48, G42, M8(Sh. 6), M52, G66, GA11, H15, H41.

The remainder have areas of 5. 85sq. m or less.

Officials – burial chamber areas in sq.m

<i>Nomarchs</i>	<i>Overseers of Fields and Serfs</i>	<i>Superintendents of Priests</i>
G98 - 10.00	F1 - 6.60	Q15 - 2.55
G95 - 6.25	B12 -4.35	N20 - 5.00
M8 - 6.50	K4 - 6.00	C9 – 3.75 (incomplete)
H15- 6.25	K18 – 3.35	K1 - 3.75
H26 - 14.35	G42 -7.00	K18 - 3.35
H24 - 10.20	BA48 -6.80 (incomplete)	L31 - 11.25
H41 - 7.50	GA11 -6.00	L21 - 3.15+
C3 - 5.20	G66 -6.20	G42 - 7.00
		B62 – 1.45

Height of main burial chambers in inscribed tombs (where the identification of the main shaft is not clear, more than one shaft number is given)

1.95m: M23(lower chamber), G66(Sh. 2)
1.75m: M23(upper chamber), M44(upper chamber), M8(Sh. 6), L21
1.65m: H26, M43(upper chamber)
1.60m: M22(upper chamber), L6
1.55m: M22(lower chamber)
1.45m: G84
1.40m: M43(lower chamber), M21 (Sh. 2)
1.25m: M8(Sh. 4), H41
1.20m: M21 (Sh. 3), ⁴¹ G22, G98, G95, B12, G42, H27(Sh. 1), M51, C8
1.15m: F12, L23
1.10m: N15, F15, CA1, C9, M52, BA48, L31, H24, H4, J2, C3, B7
1.05m: N16, M44(lower chamber), Q4, G97, G126, GA11, H6, H15
1.00m: L8, Q13, K16, N20, K4, K1, G79
0.95m: G23, F1, K18, B62, B6

⁴¹ Shaft 3 adjacent to the false door in the shrine in M21 is considered the main shaft, but Shaft 2 may have been originally planned as the major shaft. Although incomplete and badly damaged, the height of its burial chamber at 1.40m is closer to the measurements of the other large Fifth Dynasty tombs (see *HV*, p. 60, fig. 23).

0.90m: Q2, Q15, K5, G119, G124
 0.85m: L42, K21, G49
 0.80m: B83, BA63, I49, BA17
 0.70m: BA14

Dating comment

Tombs with burial chambers of the greatest heights, i.e. 1.40m -1.95m, are found in two periods:

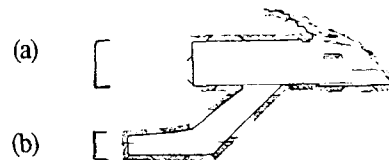
Dynasty 5-Teti (M23, M22, M21 (but only in Sh. 2, see F/N 41), L6, G84, M43, M44) and early-mid Pepy II (M8(Sh. 6), L21, H26, G66).

The average height of the remaining examples which date from Teti to late Dyn. 6-Dyn. 8 is 0.70m-1.25m.

Officials

<i>Nomarchs</i>	<i>Overseers of Fields and Serfs</i>	<i>Superintendents of Priests</i>
G98: 1.20m	F1: 0.95m	Q15: 0.90m
G95: 1.20m	B12: 1.20m	N20: 1.00m
M8: 1.75m	K4: 1.00m	C9: 1.10m
H15: 1.05m	K18: 0.95m	K1: 1.00m
H24: 1.10m	G42: 1.20m	K18: 0.95m
H26: 1.65m	BA48: 1.10m	L31: 1.10m
H41: 1.25m	GA11: 1.05m	L21: 1.75m
C3: 1.10m	G66: 1.95m	G42: 1.20m
		B62: 0.95m

Relationship of height of chapel (a), to height of main burial chamber (b).

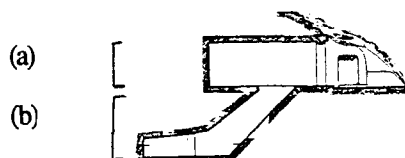


a. b.

3.50:1 M44 (lower chamber)
 3.00:1 N16, M44 (upper chamber)
 2.75:1 M43 (lower chamber), H27 (Sh.1, Sh.3, 2.66:1), H26, H24, H15 (Sh.3), H6, C8
 2.50:1 M23(upper chamber), M22 (upper and lower chambers), M21, H4, BA14 (Sh.2)
 2.25:1 M23 (lower chamber), N15, M43 (upper chamber), M44 (upper chamber),

G22, G98, K5, M8 (Sh.4), B6
 2.00:1 L6, L8, F12-F14, G23, K16, N20, F1, B83, K4, BA48 (Sh.1 and 2), M8 (Sh.6),
 L31, L23, GA11, I49, H41, B7
 1.75:1 Q4, G97, G95, G126, G49, G42, G79, H27 (Sh. 3), BA17
 1.50:1 F15, CA1 L42, C9, G119, K18, K21, B12, B62, J2, C3
 1.25:1 G84, Q2, Q15, Q13, L21
 1.00:1 G124, G66

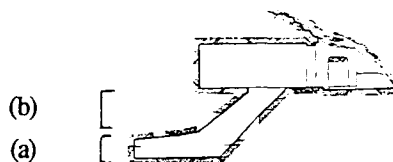
Relationship of height of chapel (a), to total underground depth (from chapel floor to floor of main burial chamber) (b):



a. b.

1:4.00 M43 (lower chamber)
 1:3.00 M22 (lower chamber), N15, N16, F15, G97, G95, M8 (Sh.4), G66, BA63, G79, B62, J2
 1:2.50 M23(lower chamber), G98, BA48 (Sh. 2), K1, H41
 1:2.00 M44(lower chamber), F12, G22 (Sh. 3), Q4, G119, K18, K21, BA48 (Sh.1), G42, GA11, H27,
 H26, I49, C3, BA14 (Sh.2), BA17, B6, B7
 1:1.50 G22 (Sh.2), F1, K5, C9, K4, B12, M8 (Sh.6), L31, H24, H15
 1:1.25 Q2, K16, G49
 1:1.00 all upper chambers of M23, M22, N15, M43, M44;
 M21, G84, L6, L8, G23, Q15, Q13, N20, G124, G126, B83, H4
 1:0.33 L23

Relationship of height of burial chamber (a), to the distance between the chapel floor and the ceiling of the lowest burial chamber (b):



a. b.

1 : 9.00 M43
 1 : 7.00 M44, M8 (Sh.4)
 1 : 6.00 M22, F12, H27 (Sh.3)
 1 : 5.75 N15
 1 : 5.50 BA63
 1 : 5.00 G79
 1 : 4.50 M23, BA14
 1 : 4.00 F15, G95, BA48 (Sh.2), H27 (Sh.1), B6, B7
 1 : 3.50 G22, G97, GA11
 1 : 3.00 L8, N16, H24, H26, H15, B62, J2, I49
 1 : 2.50 K1

1 : 2.25 G42, C3, BA17
1 : 2.00 M21, Q4, K5, K21, K4, M8 (Sh.6), H41
1 : 1.75 G84, L6, K18
1 : 1.50 G23, K16, F1, L31
1 : 1.25 G119
1 : 1.00 B83, G49, B12, L21, G66, H4
1 : 0.75 N20
1 : 0.50 Q2, Q13, Q15, G124, G126

These proportions reflect the type of burial shafts or passages present in the tombs. The difference is greater where the main burial passages are vertical shafts (Types 1 and 2), and correspondingly smaller when shallow passages are present/found (Types 4 and 5).

SUMMARY AND CONCLUSIONS

The various features of tomb architecture at El-Hawawish will now be summarized and compared where possible with similar features in tombs in other provincial cemeteries which are dated to the same period, that is, from the Fifth to the Eighth Dynasties. Tombs in the Memphite cemeteries, in particular at Giza and Saqqara, will also be examined to see to what extent their architectural styles and details were adopted for provincial burials.

At El-Hawawish, where the situation in the cemetery permitted, tomb owners cut **forecourts** as a suitable approach to their tombs. They form an imposing space before the major tombs dated to the Fifth Dynasty and the reign of Teti, with the forecourt area being approximately half the area of the chapel. Very few are found in front of tombs dated to Pepy I, but they form the approach of most of the tombs belonging to the period Pepy II to Dynasty 8 although now the forecourt area, like that of the chapel, is very greatly reduced.

The shape and orientation of the El-Hawawish forecourts in the Fifth Dynasty appear to follow those of the chapels. These are more broad than wide except for M22 and M43 where the forecourts are greater in length than in their width. In M22, the area of the shrine greatly exceeds that of the chapel and the long N-S forecourt may be deliberately following the orientation of the shrine which in M22 is the major area of the tomb. From the reign of Pepy I until the end of Dynasty 6, forecourts are roughly square in shape, with a small number of tombs dated to the end of Dynasty 6 and to Dynasty 8 featuring long narrow forecourts with ledges or benches on one or both sides of these courts. The perimeters of the forecourts at El-Hawawish are occasionally defined by a difference in level and once, before tomb M21, by a low wall. The forecourts of many of the larger tombs give access to secondary tombs around their perimeter, and most forecourts contain

small burial pits. False doors are found above the pits which abut the walls of Fifth Dynasty forecourts, while niches are usual over burial pits in the forecourts of tombs dated mid to late Pepy II.

In provincial cemeteries, weathering of the cliff faces into which the tombs are cut may have caused many forecourts to be eroded away over time. They can be noted however, at Sheikh Said in front of the chapel of *Wr-jr.nj*,⁴² at Deshasha before the tombs of *Jntj* and *Šdw*,⁴³ at Sedment in the tomb of *Mrjir-ḥ3-jst.f*⁴⁴ at Quseir el-Amarna, before the chapels of *Ppj-ḥw* and *Hw.n-wh*,⁴⁵ and at Aswan in front of the tombs of *Mḥw* and *S3bn.j*.⁴⁶

In the dense mastaba fields at Giza narrow passages are the usual access between the smaller tombs but many of the larger tombs feature imposing forecourts. The broad, open courts in front of many of the mid-Fifth Dynasty tombs at El-Hawawish such as G84 and M23, can be found at Giza in forecourts of similarly dated tombs such as the large uninscribed rock-cut tomb south of *Rḥ-wr I* and the mastaba of *Shm-ḥw-Pth*.⁴⁷ All have the same axes as the chapels, i. e. parallel to the façade. Long, narrow forecourts perpendicular to the façade as in the El-Hawawish tombs of M22 and M43 dated to the second half of Dynasty 5, are seen before the mastaba of *Tjj* and the tombs of *ḥw* and *Jrw-k3-Pth* to the south of the Unis causeway at Saqqara.⁴⁸ In the Sixth Dynasty at Saqqara few forecourts are found. In the Teti cemetery to the north of the king's pyramid

⁴² Davies, *Sheikh Saïd*, pl. 7.

⁴³ Kanawati - McFarlane, *Deshasha*, pp. 19-20, pls. 23, 24 (*Jntj*) ; p. 44, pls. 40, 41 (*Šdw*).

⁴⁴ Petrie-Brunton, *Sedment I*, p. 2, pl. LXXXI.

⁴⁵ El-Khouli-Kanawati, *Quseir*, p. 28, pls. 24, 25 (*Ppj-ḥw*) ; p. 39, pls. 29, 30 (*Hw.n-wh*).

⁴⁶ Von Bissing, 'Le Tombeaux d'Assoun' in *ASAE* 15 [1915], pp. 2, 3; see photo in Vandier, *Manuel* 2, fig. 216, p. 313.

⁴⁷ Hassan, *Giza I*, fig. 152 (Uninscribed Mastaba) ; Badawy, *Iteti*, p. 15, fig. 18 (*Shm-ḥw-Pth*).

⁴⁸ Steindorff, *Ti*, pl. 2 (*Tjj*) ; McFarlane, *Irukaptah*, pls. 7, 38a, 39 (*ḥw*, *Jrw-k3-Pth*).

the entrances of most of the mastabas open directly on to 'streets' which may have functioned like communal forecourts.⁴⁹ An open court can be seen however, before the mastabas of *Mrrw-k3.j* and *R^c-wr* and James proposes that an enclosure wall defined such an area before the tomb of *Hntj-k3.j*.⁵⁰

Low walls defining forecourts such as that found before tomb M21 at El-Hawawish, are frequently seen before mastabas at Giza and Saqqara. At Giza, for example, the court at the entrance to the large mastaba of *R^c-wr III* is bordered by a low stone wall, half a metre high, while that of *Njj-^cnh-R^c* is composed of mud-brick on limestone foundations almost to the same height. At Saqqara a similar stone wall defines the narrow area before the tomb of *Mrrw-k3.j*; the temenos wall of *Hntj-k3.j* has already been mentioned.⁵¹

Seven tombs at El-Hawawish have entrances featuring a **portico** with pillars and a further three have a roofed portico without pillars. All extend the full width of the façade except the Fifth Dynasty tomb, M23, and are shallow in depth, the width being approximately three times the depth. The position of the bases of two pillars and traces on the façade of M23 suggest that this portico was square in proportion. No other Fifth Dynasty tombs feature porticos: the remaining examples in inscribed tombs are dated to mid-late Pepy II (tombs H26 and H24) and to Dynasty 8 (tombs B6 and B7, which share a portico).

Porticos supported by columns or pillars can be found at the entrances of numerous Fifth and Sixth Dynasty tombs at Giza, Saqqara and Abusir. These are formed by recessing the portico back from the external wall of the mastaba which continues on either side of the

⁴⁹ E.g. the 'rue des tombeaux' with its two entrance pillars: Firth - Gunn, *Teti Pyr. Cem. II*, pl. 51; El-Khouli-Kanawati, *Saqqara II*, pl. 1.

⁵⁰ Duell, *Mereruka I*, p. 7, pls. 4A, 217-219A; El-Fikey, *Re^c-wer*, pp. 6, 7; James, *Khentika*, p. 19.

⁵¹ Hassan, *Giza 5*, p. 293, fig. 154 (*R^c-wr III*); Hassan, *Giza 4*, p. 152, figs. 106-7 (*Njj-^cnh-R^c*); for *Mrrw-k3.j* and *Hntj-k3.j*, see Duell, *Mereruka I*, p. 7, pls. 4A, 217-219A; James, *Khentika*, p. 19.

portico.⁵² These recessed porticos in private tombs follow the style of entrances of the Fifth Dynasty valley temples of the royal pyramid complexes such as those of Sahure and Neuserre.⁵³ This style of portico is different from those at El-Hawawish which, with the exception of tomb M23, are the full width of the façade. The portico envisioned for M23 is unusual if indeed it both projected in front of the façade and yet did not extend for the full width.⁵⁴ In the provinces, the tomb of Šdw at Deshasha has a pillared portico which, although broad and shallow, gives a recessed appearance as the façade extends further to the north and the south on either side of it.⁵⁵ All the pillars 'supporting' the roof of porticos at El-Hawawish, and at the entrance of the tomb of Šdw at Deshasha, are square in section as are most examples from Memphite tombs⁵⁶ although some porticos in the cemeteries of the capital feature round columns supporting the portico instead of square pillars.⁵⁷

The tombs of the major officials at El-Hawawish have **façades** of large areas with the width of the façade being greater than the height. These major tombs are concentrated in two periods: Dynasty 5 - Teti where façade areas range between 35.00 - 61.00sq. m in tombs G84, M23, M22 and M43, and mid-Pepy II with façades of much reduced areas, ranging between 14.00-22.00sq. m in tombs H15, H26, H24 and H4. The remaining tombs have façades of much smaller area with the majority having the height and width

⁵² E.g. Giza: *Ssm-nfr IV* (Junker, *Giza XI*, fig. 49); Saqqara: *Hwj* (Kanawati - Abder-Razik, *Teti Cem.* V, pls. 2, 47); *Tjj* (Steindorff, *Ti*, pl. 2); Abusir: *Pth-špss* (Verner, *Ptahshepses I*, fig. 1).

⁵³ Borchardt, *Sa3hu-Re*, pl. XI; Badawy, *Architecture*, figs. 71, 75, 77 (Neuserre)

⁵⁴ *H IV*, p. 39, pl. 6, figs. 11, 12.

⁵⁵ Kanawati - McFarlane, *Deshasha*, p. 44, pl. 40; Petrie, *Deshasheh*, pl. III.

⁵⁶ E.g. *R'-wr*, Giza (Hassan, *Giza I*, fig. 2); *Nfr-b3w-Pth*, Giza, (Weeks, *Mastabas of Cemetery G6000*, p. 65, figs. 3-7); *Ttw*, Giza, (Simpson, *Mastabas of the Western Cemetery I*, p. 7, fig. 10, pls. XII-XIV); *Mrw-k3*, Giza, (Junker, *Giza IX*, Abb. 23); *Tjj*, Saqqara (Steindorff, *Ti*, pl. 2); *Nj-nh-Hnmw Hnmw-htp*, Saqqara (Moussa - Altenmuller, *Nianchnum*, pls. 1, 2, fig. 1); *Hwj*, Saqqara (Kanawati - Abder-Razik, *Teti Cem.* V, pls. 2, 47).

⁵⁷ E.g. *Jn-k3.f*, Giza (Hassan, *Giza 7*, p. 22, fig. 7); *Ssm-nfr IV*, Giza (Junker, *Giza XI*, Abb. 49); *Sndm-jb Jntj*, Giza (Reisner, *Giza I*, fig. 162 = Vandier, *Manuel II*, fig. 197); *Pth-špss*, Abusir (Verner, *Ptahshepses*, fig. 1 = *LA III*, Abb. 2).

almost equal. Almost all the façades have a slight batter with the average slope being 5 degrees.⁵⁸ One of the earliest tombs at El-Hawawish, and one which most closely resembles a mastaba in appearance - G84, of *Mnw-ḥnh* - has a façade with a slope of 15 degrees.⁵⁹ Reisner noted that at Giza the usual batter of stone-built mastabas was between 10 and 15 degrees, although greater and lesser inclinations are found,⁶⁰ and some earlier rock-cut mastaba façades are also cut back to slope at 15 degrees, e.g. the tomb of *Dbḥnj* at Giza.⁶¹

Twenty-two façades of tombs at El-Hawawish feature a **recess** framing the entrance doorway. They are found on façades from the Fifth Dynasty until late in the reign of Pepy II. The last recess on a façade is that of the Nomarch *Hnj Špsj-pw-Mnw* (H24). Recesses on Fifth Dynasty façades are narrower in width, in relation to the width of the façade, and more deeply cut than those dated to the Sixth Dynasty which are wider and very shallow.

Lintels are usual on façades in all periods. They are found in almost equal instances across the full width of the façade or within the recess from Dynasty 5 to the end of the reign of Pepy I. Thereafter, in tombs dated from the beginning of the reign of Pepy II to Dynasty 8, lintels extend across the whole façade except for one tomb, H24, whose lintel is within its entrance recess. Their height is greater in tombs dated to Dynasty 5 and mid-late Pepy II, with both periods having lintels of 0.40-0.55/0.60m high. The heights lessen to an average of 0.25m for lintels on façades of tombs dated to Pepy I and to 0.15m for those on façades of Dynasty Eight officials.

⁵⁸ This slope or batter, together with lintels over entrance doorways, appears as an architectural feature from the earliest times; see for example, the models of mudbrick buildings of the pre-dynastic period in Maciver - Mace, *El-Amrah*, p. 42, pl. X, 1-2. It continued to be the usual profile of stone-built mastabas in the Memphite cemeteries in the dynastic period as a means of absorbing the outward pressure of the stone and debris fill of the mastabas (Reisner, *Giza Necropolis I*, p. 6).

⁵⁹ Kanawati, *H I*, pl. 1a.

⁶⁰ Reisner, *Tomb Development*, pp. 258-9.

⁶¹ Hassan, *Giza 4*, p. 163, fig. 116.

In the Memphite cemeteries both broad, shallow recesses as seen on the façade of the tomb of *Jwn-Mnw* at Giza, and narrower, deep recesses, appear. This last type is deep enough to include statues on either side of the entrance in tombs such as that of *Shm-^cnh-Pth* at Giza.⁶² The usual entrance to the Memphite tombs consists of carved and inscribed lintels and jambs level with the façade or slightly recessed. Conversely at El-Hawawish there is little evidence of this type of entrance treatment possibly due to the inferior quality of the rock which presented difficulties for carving and which is now often eroded away. Decorated lintels and jambs are now only preserved in tombs G84, M23, H26, H24, F12 and B7.⁶³

A similar situation exists in provincial cemeteries where façades and entrances, like forecourts, have been lost through erosion or weather damage and the presence of recesses on façades and details of entrances cannot now be determined. However the tomb of *Jbj* at Deir el-Gebrawi has a broad, shallow undecorated recess while well cut jambs and a lintel appear on the façades of the tombs of *Hm-R^c/Jzj*, *Jzj* and *Hnqw/Jj...f*.⁶⁴ At Sheikh Said the tombs of *Ttj-^cnh/Jj-m-htp* and *Mrw* show entrances set within wide, shallow recesses while *Srf-k3.j*, *Mrw/Bbj* and *Wjw/Jjjw* have slightly recessed jambs.⁶⁵ All these façades feature lintels, both across the full width of the façade and within the recess. The original entrances on the façades of the major Fifth Dynasty tombs at El-Hamamiya are lost but the small tombs of B1, B2 and C2 have shallow recesses on their façades.⁶⁶ A similar recess defines the entrance of the tomb of *Ppjj-^cnh-wr* at Quseir el-Amarna, while an inscribed lintel extends the full width of the façade of the nearby tomb

⁶² Hassan, *Giza* 7, figs. 8, 9 (*Jwn-Mnw*); Badawy, *Iteti*, fig. 18, pls. 14, 15 (*Shm-^cnh-Pth*).

⁶³ Kanawati, *H* I, pl. 1b, fig. 4; *ibid* V, fig. 15; *ibid* I, figs. 7, 19; *ibid* II, pp. 17, 18; *ibid* IX, fig. 7a; *ibid* IX, pl. 3, fig. 18c, respectively.

⁶⁴ Davies, *Deir el-Gebrâwi* I, p. 10, pls. II, IIa (*Jbj*); *Deir el-Gebrâwi* II, p. 20 (*Hm-R^c/Jzj*); *ibid*, p. 33, pl. 21 (*Jzj*); *ibid*, p. 28, pl. 22 (*Hnqw/Jj...f*).

⁶⁵ Davies, *Sheikh Saïd*, p. 31, pl. 27 (*Ttj-^cnh/Jj-m-htp*); p. 30, pl. 22 (*Mrw-Hnn.t*); p. 11 (*Srf-k3.j*); p. 24 (*Mrw/Bbj*); p. 28 (*Wjw/Jjjw*).

of *Hw.n-wh*.⁶⁷ At Meir nothing remains of recesses or jambs, but at Thebes, broad, deeply-recessed jambs frame the entrance of the tomb of *Hntj*.⁶⁸ The above tombs are dated to the reigns of Pepy I and Pepy II. While no tombs at El-Hawawish dated after Pepy II to Dynasty 8 show recesses framing their entrances, this feature is found, together with a lintel spanning the full width of the façade, in the Eighth Dynasty tombs of *W3hj* (D4) and *Hffj* (D11) at the cemetery of El-Hagarsa.⁶⁹ At El-Hawawish among tombs dated to the Eighth Dynasty, lintels are only found on façades (without recesses) in the tombs of three high officials, the Nomarch *Bhn* (C3), the Vizier *B3wj* (B7), and its adjoining uninscribed tomb, B6.

With a very few exceptions the **entrance doorways** framed by these recesses, lintels and jambs at El-Hawawish are found in a central, or near central, position on the façade. This position is different to that of the tomb entrance in relation to the width of the chapel. Tombs of the highest ranking officials in Dynasty 5 have doorways of great height ranging from 2.50–3.70 metres. Two tombs in the following period, Teti–Pepy I, tomb G98 whose owner was an *jmj-r hm-ntr* and possibly a Nomarch, and the uninscribed tomb G22, have entrance heights a little lower at 2.45m. These heights are much greater than the average for this period which is 1.55m. Entrances to the major tombs of the reign of Pepy II, such as the Nomarchs *K3(.j)-hp/Tjt* (M8), *K3(.j)-hp/Tjt-jqr* (H26) and *Hnj Špsj-pw-Mnw* (H24) are again high, at 2.40m, 3.55m and 2.70m respectively. Thereafter the heights gradually decrease in the major tombs with the late Sixth Dynasty Nomarch *Tjt-3* (H41) and the vizier *B3wj* (B7) having door heights of 2.20m and 2.10m respectively while the Dynasty 8 Nomarch, *Bhn* (C3), has an entrance height of 1.60m. A number of

⁶⁶ El-Khouli-Kanawati, *El-Hammamiya*, pls. 76, 78.

⁶⁷ El-Khouli-Kanawati, *Quseir*, p. 28, pl. 24 (*Ppji-nh*); pls. 9, 10, 30, 32 (*Hw.n-wh*).

⁶⁸ Saleh, *Thebes*, p. 19, fig. 35.

⁶⁹ Kanawati, *El-Hagarsa* III, p. 14, pl. 18 (*W3hj*), *ibid* II, p. 14, pls. 3, 5a (*Hffj*).

major, but uninscribed tombs also have high entrances and large chapel areas: G22, mentioned above, whose entrance height is 2.45m, C8, also with an entrance of 2.45m and H4 with an entrance of 3.15m, and it may be postulated that like the high officials mentioned above, these tomb owners were also of high rank. This may also apply to another, but later, uninscribed tomb, that of B6, which has a large chapel area and an entrance doorway of 2.30m and which adjoins B7, the tomb of the Eighth Dynasty vizier, *B3wj*.

Widths of doors, unlike the heights, are consistent, averaging 0.90 -1.00m for the major tombs of the two periods, Dynasty 5 and Pepy II, and dropping slightly to an average of 0.75-0.80m. in the remaining periods.

Entrance **thicknesses** again are of the greatest depth in the major Dynasty 5 tombs, ranging between 1.30 and 1.60 metres, even when the door height is less than the usual for this period, as in the case of *Mnw-ḥnh*, G84. The entrance narrows for most tombs through the period Teti – Pepy I even for the highest ranking officials, the Overseer of Priests and possible Nomarch of tomb G98 (0.90m) and the early vizier, *B3wj* of CA1 (0.85m). In the reign of Pepy II the entrances of the Nomarchs' tombs together with the Eighth Dynasty vizier, B7 and the adjoining tomb, B6, are again similar to the thicknesses of Fifth Dynasty entrances though slightly less with a range between 1.00m and 1.35m. Two other officials have door thicknesses equal to those of the Nomarchs. These are *Tjj*, the owner of tomb N20 (dated to the end of Pepy I/Merenre) with a thickness of 1.00m. and *Ḥzjj-Mnw*, of tomb G42 (dated to mid Pepy II) having a depth of 1.05m. Both are Superintendents of Priests, and *Ḥzjj-Mnw* also holds the title of Overseer of Fields and Serfs.

The large uninscribed tombs of G22, C8 and H4 also have deep entrances. G22, with a proposed date of late Teti - early Pepy I, has an entrance depth of 1.20m., slightly lower than the Fifth Dynasty examples and much greater than the average for this period which is 0.60m. Of the two large uninscribed tombs tentatively dated to Pepy II, H4 has a door thickness of 1.15m. equal to those of the Sixth Dynasty Nomarchs, while that of C8 with a depth of 2.00m. exceeds them.

Few entrances in Fifth Dynasty provincial tombs remain intact. At El-Hammamiya the original external doorways of the large tombs of *K3(.j)-hnt* (A2) and *K3(.j)-hnt* (A3) have been lost, but two smaller tombs of mid-Fifth Dynasty date retain theirs: *Df3.j-dd* (A1) with an entrance height of 1.90m and *K3(.j)-hnt* (C6) with a height of 1.85m. Both have entrance thicknesses of 0.70m. No heights can be obtained from the neighbouring tomb of *K3.j-m-nfrt* (C4) although a depth of 0.85m can be measured. Likewise only the thickness of the entrance remains in the early-mid Fifth Dynasty tomb of *K3(.j)-m-nfrt* at El-Hagarsa and in the late Fifth Dynasty tomb of *Jntj* at Deshasha, both being .90m. deep. The door heights of *Df3.j-dd* (A1) and *K3(.j)-hnt* (C6) are close to two Fifth Dynasty tomb entrances at El-Hawawish, those of *Mnw-‘nh* (G84) at 1.85m, and *‘3-Mnw* (L8) at 1.80m, but are much less than the major tombs of this period in this cemetery. The depth of the entrances in the two El-Hawawish tombs are greater however, at 1.60m (G84) and 0.95m (L8), than the El-Hammamiya tombs of *Df3.j-dd* and *K3(.j)-hnt*, both 0.70m deep.

Tombs dated Teti-Pepy I-Pepy II at Deshasha, Meir, Quseir el-Amarna, El-Hagarsa and Thebes where entrance heights are known, range between 1.40m and 1.85m. The greatest heights are found in the tombs of the senior officials at Quseir el-Amarna, the *jmj-r hm-ntr Hw-n-wh* at 1.85m, and the *jrj-p’t, jmj-r hm-ntr* (and possibly vizier) *Ppjj-‘nh-wr* at 1.75m, and at Meir, the *jmj-r Sm’, jmj-r hm-ntr Nj-‘nh-Ppjj-km* (A1) at 1.85m. *Hw-n-wh* is

dated late Teti–Pepy I, like the Nomarch and *jmj-r hm-ntr Nhwt-dsr* (G95) and his similarly-titled (?)son, owner of tomb G97 at El-Hawawish which have entrance heights close to *Hw.n-wh* at 1.65m and 1.75m. respectively. The entrance of *Nj-^cnh-Ppjj-km* at Meir dated early-mid Pepy II, is much lower than similarly-ranked officials of the same period at El-Hawawish: *K3-j-^hp/Ttj* (M8) at 2.40m, *Hnj-^cnhw* (H15) at 2.90m and *K3(-j)-^hp/Ttj-jqr* (H26) at 3. 55m. In tombs dated from the end of Dynasty 6 to Dynasty 8 at El-Hawawish the range of entrance heights is between 1.50m (tomb I49) and 2.30m (tomb B6). A similar range is found at El-Hagarsa for tombs dated to this period 1.40m-2.40m. This last height is in the tomb of the *jmj-r mš^c* and *h3tj-^c W3hj* (D4) and is close to, but exceeds, the entrance heights of the El-Hawawish Nomarchs *Ttj-^c3* (H41) at 2.20m and *Bhn* (C3) at 1.60m, as well as the vizier, *B3wj* (B7) at 2.10m dated to the same period as *W3hj*. The entrance depth of the main Eighth Dynasty tombs at El-Hagarsa, *Mrjj-^c3* (1.05m), *Hffj* (0.70m) and *W3hj* (0.90m) are similar to those tombs dated to the same period at El-Hawawish, H41 (0.85m), B7 (1.00m) and BA14 (0.70m).

Where entrances were undamaged, all the major Fifth Dynasty tombs have **drums** of a large diameter, 0.50-0.55m. Tombs with smaller chapel areas in this period have drums of correspondingly smaller diameters, 0.20-0.30m. During the reign of Teti lintels appear in entrances as well as drums. These are smaller in size with lintels 0.20-0.30m high and drums 0.30m in diameter, except for two examples, the large, full drums with diameters of 0.50m and 0.55m in the entrances of the Overseer of Priests and probable Nomarch, *Špsj* (?) (G98) and the large uninscribed tomb, G22.

In tombs dated to Pepy I lintels within entrances appear with smaller half-drums of

0.25m average in height or diameter. Drums are again usual in the entrance to tombs dated from early to mid Pepy II and these are predominantly half-drums of smaller diameters although a small number are full or three-quarter drums of large dimensions, 0.50- 0.55m in diameter. These larger drums are found in the doorways of tombs linked to the Nomarchic family (with the exception of that of *Hnj*, H24, which has no drum at all) as well as to the large uninscribed tombs of H4 and H6. After late Pepy II drums are less frequently found in tomb entrances and among these only the uninscribed tomb, B6, adjacent to the tomb of the Eighth Dynasty vizier *B3wj*, B7, has a drum of a larger diameter (0.50m).

The entrances of the late Dynasty 6 tombs of the Nomarchs *Hnj*, H24, and *Tjt*-3, H41, and the Dynasty 8 Nomarch, *Bhn*, C3, have neither drums nor lintels, and that of the Eighth Dynasty vizier, *B3wj*, B7, has only a small half drum, 0.25m. in diameter.

From the above summary it would appear that at El-Hawawish, drums or lintels are not an essential feature of tombs whose owners possess high ranks but rather are indicative of certain periods. They are present and generally of large diameters in all complete Fifth Dynasty entrances. In the reign of Teti both drums and internal entrance lintels are found but lintels only are usual during early - mid Pepy I. Lintels do not appear after the end of the reign of Pepy I except for one example, late in Dynasty 8 (tomb BA17) but drums are again usual in entrances, normally a half-drum shape and small in diameter, from the end of the reign of Pepy I to mid Pepy II when some large three-quarter or full drums appear. From late Pepy II to Dynasty 8 drums are rare and, with one exception, B6, are half-drums of small diameter.

In the provinces, as noted before, many tomb entrances, including drums or lintels, have been lost or damaged. While the two major tombs at El-Hammamiya no longer have their original doorways, the tombs of *Df3.j-dd* (A1), *K3(.j)-hnt* (C6) and the uninscribed tomb B1 contain smaller half -drums of 0. 20- 0. 25m in diameter. Most remaining recorded entrances are dated from late Pepy I to mid Pepy II: *Ppjj-^cnh-wr* (Quseir el-Amarna), *Mrjj* (C2, El-Hagarsa), and *Ppjj-^cnh-hrj-jb* (Meir) all have half-drums, 0.20- 0.25m in diameter. *Hw.n-wh* at Quseir el-Amarna, has a lintel 0.20m high as in tombs G95 and G97 at El-Hawawish who are dated, like *Hw.n-wh*, to the end of the reign of Teti or early Pepy I. Three late Dynasty 6 –Dynasty 8 tomb owners at El-Hagarsa have drums: *Hfff* (D11), a three-quarter drum 0.35m in diameter, *Hfff* (D14), also a three-quarter drum but 0.20m in diameter, and *W3hj* (D4), a half-drum, 0.35m in diameter.

A small number of tombs have entrances in which the floor slopes up or down to the chapel. This is sometimes combined with a small step. Two major Fifth Dynasty tombs, M22 and M23, have door sills which slope down to the forecourt from the chapel; another three examples are dated to Pepy II. A small number of tombs dating from early Pepy I to the end of the Sixth Dynasty have door sills sloping down from the entrance into the chapel. These include two Nomarchs but no dating pattern can be discerned here.

In the Teti cemetery the original entrance sill has been preserved in the tombs of *Hzzj* and *S'nh-w(j)-Pth* and both are cut with a deliberate slope from the chapel down to the 'street' onto which they open.⁷⁰

Recesses or rebates on either side of the entrance where it opens internally to the chapel are present in one third of the tombs at El-Hawawish. The Fifth Dynasty recesses are much deeper than those of the Sixth Dynasty. In the late Fifth Dynasty tomb of *Hm-Mn*

⁷⁰ *Hzzj* (Kanawati-Abder-Razik, *Teti Cem.* V, pl. 48a), *S'nh-w(j)-Pth* (ibid, III, pl. 61).

(M43), the deep recess (0.40m) would have accommodated a door. Partly within the recess and extending into the chapel floor is a 1/4 - circle depression with a small section in the right-hand (east) corner with a raised rim in which a lower door pivot would have rotated. A similar depression suitable for a pivot is found in the tomb of the vizier, *B3wj* (CA1) while a smoothed area in the chapel floor having the same level as the entrance in tomb L23 of *Ppjj-nh-n.s* would seem to indicate planning for an inward-opening door.⁷¹ Deep rebates at the inner entrances to chapels are frequently seen in the cemeteries of the capital, for example, in the late Fourth Dynasty tomb of *Jwn-Mnw* and the Fifth Dynasty chapels of *N-sdr-k3j* at Giza, *Nj-nh-Hnmw* and *Hnmw-htp* at Saqqara and *Pth-spss* at Abusir.⁷²

Sockets for door pivots remain in position in many of the Memphite tombs such as *Rhjt-R'*, *Jwn-Mnw*, *Htp-R'*, *Nj-htp-Pth* and *K3-m-nfrt* at Giza, and *Mrrj* and *Nj-k3w-Jzzj* at Saqqara.⁷³ and in the provinces at Sheikh Said in the tombs of *Wjw* (No. 19) and *Mrw Bbj* (No. 20).⁷⁴

The **plans** of most of the El-Hawawish tombs consist of a single chamber, square or rectangular in shape, and referred to in this study as the **chapel**, with some tombs having one or more adjoining rooms. These additional rooms in the Fifth Dynasty give the distinctive L- or reversed T- shape appearance to the plans of the major tombs of this period, for example, M23, M22 and M44 (all L-shaped plans), and M21 (a reversed T-shaped plan). In these mid-Fifth Dynasty tombs, the first chamber immediately beyond the entrance is rectangular with its main axis parallel to the entrance wall and oriented

⁷¹ *Hm-Mnw* (M43): *H V*, pp. 12, 13, fig. 1; *B3wj* (CA1): *H VIII*, p. 22; *Ppjj-nh-n.s* (L23): *H IX*, p. 10, fig. 1.

⁷² Hassan, *Giza 7*, fig. 8 (*Jwn-Mnw*); Junker, *Giza 2*, fig. 1 (*N-sdr-k3j*); Moussa-Altenmuller, *Nianchchnum*, fig. 1 (*Nj-nh-hnmw* and *Hnmw-htp*); Verner, *Ptahshepses I*, fig. 1 (*Pth-spss*).

⁷³ *Rhjt-R'* (Hassan, *Giza 6*, p. 5); *Jwn-Mnw* (Hassan, *Giza 7*, p. 14); *Htp-R'* (ibid. p. 81); *Nj-htp-Pth* (Badawy, *Ny-hetep-Ptah*, p. 1, pl. 2, fig. 17; *K3-m-nfrt* (Badawy, *Iteti*, p. 25); *Mrrj* (Hassan, *Saqqara 3*, p. 28); *Nj-k3w-Jzzj* (Kanawati-Abder-Razik, *Teti Cem.* VI, p. 26).

E-W. A second rectangular room opening in the wall opposite the entrance is oriented N-S, that is, perpendicular to the first room. Together with the large L- or T- shaped tombs of the Fifth Dynasty, are smaller tombs of minor officials constructed with only a single chamber, such as L6 and L8. These are rectangular in shape with their orientation in the same N-S direction as the perpendicular second chamber of the L- and T- shaped tombs. The earliest of the Fifth Dynasty tombs, G84, possibly to be dated to the reign of Neuserre, differs again from these tombs in having a plan which, although incomplete, appears to be cruciform in shape. A similar, although earlier, provincial chapel is that of *Hnw-k3* at Tehna.⁷⁵

In the late Fifth Dynasty, the large tomb of the Overseer of Upper Egypt, *Hm-Mnw*, M43, shows a different plan again. A single rectangular chamber but with its main axis perpendicular to the entrance wall, it has six pillars in two rows in the same axis as the chapel. Beyond the existing pillars more pillars may have been planned in the unfinished rear section but the poor quality of the rock in this area possibly prevented this. There is no separate shrine/offering room although a great false door is placed in the west wall just beyond the pillars. The slightly later, and uninscribed, tomb of the (?)Nomarch, G98, dated to late Teti, shows another concept: an almost-square chapel with two unfinished extensions separated by pillars from the chamber on the north and east sides. A small number of tombs with reduced areas, dating from the reign of Teti to Pepy I continue to use the same plan as M43 (see Table 6), although without pillars, for example F1 and G95, but square chapels predominate throughout Pepy I's reign. Early in the reign of Pepy II, following the example of the major tomb, M8, who appears to be influenced by

⁷⁴ *Wjw* (Davies, Sheikh Said, p. 28, pl. XXI); *Mrw Bhj* (ibid. pp. 24, 25, pl. XVIII)

⁷⁵ Frazer, *Tehneh*, pl. II.

the earlier tombs, M43 and G98, plans are again rectangular with their long axes perpendicular to the entrance wall.

L- and T- shaped plans reappear in tombs dated to mid-late Pepy II, for example L21, H24 and H26 although now the area of the shrine is much reduced. From the end of Pepy II to Dynasty 8 the preferred shape and axis of tombs is once again rectangular with the main axis perpendicular to the entrance wall although some square chapels appear. The tomb owner's rank does not appear to determine the plan in this period. The chapel of the Eighth Dynasty Nomarch, *Bhn* of tomb C3, is square while those of the slightly earlier Nomarch, *Ttj-3*, owner of tomb H41, and the Eighth Dynasty vizier, *B3wj* of tomb B7, are rectangular.

In the provinces the reversed T- shaped plan noted at El-Hawawish in the tomb of *nhw*, M21, dated early Djedkare, is found in the early-mid Fifth Dynasty tombs of *K3(.j)-m-nfrit* (A3) at El-Hagarsa and *K3(.j)-hnt* (A3) at El-Hammamiya although this last chapel is entered by a door in one of the short end walls rather than in the centre of one of the long walls of the main chapel room as in M21 and *K3(.j)-m-nfrit* at El-Hagarsa. In tombs dated to Pepy II, T-shaped plans are found in the tombs of *Jhj* and *D'w* at Deir el-Gebrawi although the shrine area here, as at El-Hawawish, is much smaller than those of the Fifth Dynasty chapels. L-shaped chapels in provincial cemeteries are found in the early-mid Fifth Dynasty tombs of *Df3.j-dd* (A1), *K3(.j)-hnt* (C6) and *K3(.j)-m-nfrit* (C4). This type of plan is rare among later provincial tombs but at El-Hagarsa in the tomb of *Mrjj-3* (D18) dated to the end of Dynasty 6-8, a shrine extends from one side of the rear wall of the almost-square chapel to form an L-shaped plan.⁷⁶

⁷⁶ El-Hagarsa: *K3(.j)-m-nfrit* (Kanawati, *El-Hagarsa* I, pl. 16), *Mrjj-3* (ibid III, pl. 33); Deir el-Gebrâwi: *Jhj* (Davies, *Deir el-Gebrâwi* I, pl. 2), *D'w* (ibid II, pl. 2); El-Hammamiya: *K3(.j)-hnt* (A3) (El-Khouli-Kanawati, *El-Hammamiya*, pl. 52), *Df3.j-dd* (ibid. pl. 25), *K3(.j)-hnt* (C6) (ibid. pl. 74), *K3(.j)-hnt* (C4) (ibid. pl. 71).

The majority of provincial tombs are rectangular chapels with their main axes parallel to the entrance wall. In only a few tombs the main chapel is perpendicular to the entrance wall as first seen in the major tomb, M43, at El-Hawawish dated to early in the reign of Unis. The earliest provincial chapel outside El-Hawawish with this plan may be that of *Wnjs-ḥnh* at Thebes, dated to Unis or Teti. It is then seen in tombs dated from the reigns of Pepy I and Pepy II: *Jhjj*, also at Thebes, *Hnqw/Httj* at Deir el-Gebrawi, *Nj-ḥnh-Ppjj-km/Hpj-km* (A1) and *Ppjj-ḥnh/Hnjj/km* (A2) at Meir.⁷⁷ Chapels with square or almost-square proportions are infrequent, e.g. *Wr-jr-nj* at Sheikh Said, dated to early Unis, and a group of small tombs at El-Hagarsa dated to Pepy II- Dynasty VIII, *Sbk-nfr* (B18), *Mrjj* (C2), *Hfff* (D11), *W3hj* (D4) and *Mrjj-ḥ3* (D18) mentioned above, who adds a shrine area to his chapel.⁷⁸ Throughout the provinces, however, rectangular chapels with their axes parallel to the entrance wall predominate. In some cemeteries, secondary chambers leading off the first room and with the same axis as this room, are usual. At Sheikh Said this is the arrangement of the tombs of *Srf-k3-j*, *Ttj-ḥnh/Jj-m-htp*, *Mrw/Bbj* and *Wjw/Jjjw*, and of *Hm-Rḥ/Jzj* and *Hnqw/Httj* at Deir el-Gebrawi.⁷⁹ The dominant orientation of rectangular chapels throughout the provinces is N-S with the important shrine area in the L- and T-shaped tombs at El-Hammamiya, as in the Fifth Dynasty tombs at El-Hawawish, also oriented N-S. Tomb owners who chose an E-W orientation include *Wnjs-ḥnh* at Thebes, perhaps due to the desire to construct his chapel with its main axis perpendicular to the entrance wall? , *Tw3w* at Naga ed-Der, *Jbj*, *Dḥw*, *Hm-Rḥ/Jzj* and *Hnqw* at Deir el-Gebrawi, *Mrrjr-ḥ3-jst.f* at Sedment, and *Ppjj-ḥnh/Hwj* at El-Kom el-Ahmar.

⁷⁷ Thebes: *Wnjs-ḥnh* (Saleh, *Thebes*, pl. 2), *Jhjj* (ibid, pl. 7); Deir el-Gebrawi: *Hnqw/Httj* (Davies, *Deir el-Gebrawi II*, pl. 22); Meir: *Nj-ḥnh-Ppjj-km/Hpj-km* (Blackman-Apted, *Meir V*, pl. 1), *Ppjj-ḥnh/Hnjj-km* (ibid, pl. 1).

⁷⁸ Sheikh Said: *Wr-jr-nj* (Davies, *Sheikh Said*, pl. 8); El-Hagarsa: *Sbk-nfr* (Kanawati, *El-Hagarsa I*, pl. 23a), *Mrjj* (ibid, pl. 41a), *Hfff* (ibid II, pl. 5a), *W3hj* (ibid III, pl. 18), *Mrjj-ḥ3* (ibid III, pl. 33).

Chapel areas vary greatly, from M43 with the greatest area at 99.36 sq. m. to G124 with one of only 2.40 sq. m. Chapels of large areas are concentrated in two periods - in tombs dated to the second half of Dynasty 5-Teti and to the reign of Pepy II (see Table 6). When shrine areas are added to chapel areas, the largest is M43 at 185.80 sq. m. followed by M23 at 127.55 sq. m. (both Fifth Dynasty tombs, M23 being dated to early Djedkare and M43 to the beginning of the reign of Unis), then M8 with 115.90 sq. m. av. (dated to early Pepy II) and H24 with 101.20 sq. m. av. (end of Pepy II).⁸⁰ Another large but uninscribed and unfinished tomb close in size to these last two, is C8 with an area of 108.45 sq. m. av. In the group of tombs dated to the end of Dynasty 6 - Dynasty 8 neither of the chapels of the two known Nomarchs of this period, H41 (with an area of 31.05 sq. m.) or C3 (with 13.65 sq. m.) approach these, nor does the tomb of the vizier, B7 (with an area of 25.75 sq. m.). Like tomb C8, the tomb adjoining B7, the uninscribed B6, has an area (at 40.15 sq. m.) larger than the known high officials of the time. Both C8 and B6, although uninscribed and lacking any decoration, must themselves have been constructed for high officials.⁸¹

As with chapel areas, major tombs have ceilings of greater heights than smaller tombs, the highest being found in tombs dated to the Fifth Dynasty where heights range between 4.40m (M23) and 3.30m (N16). Two large chapels at the beginning of the Sixth Dynasty reach heights of 2.80m (G98 and G22) which then drop to the maximum of 2.10m (K5)

⁷⁹ Sheikh Said: *Srf-k3.j* (Davies, *Sheikh Saïd*, pl. 3), *Ttj-nh/Ij-m-htp* (ibid, pl. 27), *Mrw Bhj* (ibid, pl. 18), *Wjw Jjjw* (ibid, pl. 22); Deir el-Gebrawi: *Hm-R' Jzj* (Davies, *Deir el-Gebrâwi II*, pl. 16), *Hnqw/Httj* (ibid, pl. 27).

⁸⁰ Kanawati charts similar brief peaks in tomb areas of the higher officials in the Memphite cemeteries, namely in the early part of the reigns of Djedkare, Unis and Teti, in the middle and at the end of the reign of Pepy II. These peaks are also found in the tomb areas of the most senior administrators in the provinces in the same periods (*Egyptian Administration*, pp. 39, 62-66, Graphs I and II).

⁸¹ Roth proposes that tombs such as these large, undecorated examples may be the result of the tomb owner having been promoted to a rank which entitled him to a larger tomb. the construction of which so depleted his financial resources that he was unable to afford decoration (*A Cemetery of Palace Attendants*, p. 53).

amongst tombs dated to Pepy I. The major tomb at the beginning of the reign of Pepy II, M8, has a ceiling which rises from 2.75m in the front section of the chapel to 3.55m in the rear section (which is most probably a later addition in the construction of the tomb), and the two Nomarchs of the mid-late reign of Pepy II, H24 and H26, both have heights of 3.00m. The large, uninscribed and unfinished tomb, C8, tentatively dated to mid-late Pepy II as H24 and H26, with a present ceiling height of 3.30m must also be mentioned here. From the end of Dynasty 6 to Dynasty 8 the heights drop again with the Nomarchs H41 and C3 having ceilings of 2.30m and 1.70m respectively and the vizier of tomb B7, a chapel height of 2.30m. The varying height of the escarpment where tomb owners place their tombs must be a major factor in determining the height of their chapels. This ceiling height of closely-situated tombs remains constant even though the floor areas vary greatly. Tombs H24 and H26 for example with areas of 86.00 sq. m and 44.00 sq. m respectively both have ceiling heights of 3.00m and tombs K4 and K5 with areas of 32.00 sq. m and 16.00 sq. m have ceilings of 2.00m and 2.10m.

The majority of ceilings in chapels are horizontal, 42 examples in the base group of tombs, with 18 sloping up to the rear of the chapel, the greater height in the interior of these chapels being gained as the chamber was cut further into the mountain. One chapel, G49, has a ceiling sloping very slightly down to the rear and the remainder, mostly in chapels with pillars, have more than one level. Both horizontal ceilings and those sloping up to the rear are found equally distributed throughout the time periods, from Dynasty 5 to Dynasty 8. The level of the ceiling in relation to the entrance is either a continuation of the entrance level or raised above it. These higher ceiling levels are found in most of the large Fifth Dynasty tombs (but not in the earliest, G84) and in tombs dated to Teti (except for K16 and F1). They are not raised in tombs dated to the reign of Pepy I except for the vizier, CA1, dated to the early part of the reign. In the reign of Pepy II, the Nomarchs'

tombs, H26 and H24, and two further tombs whose owners are thought to be related to the Nomarchic family, L23 and H27, have raised ceilings, as well as the large uninscribed tomb, C8. In tombs dated to Dynasty 8 ceilings raised behind the entrance are found only in the vizier's tomb, B7.

The chamber adjoining the main chapel room noted in the L- and T-shaped tombs dated Dynasty 5 - Teti and Pepy II, invariably contains false doors, offering basins and platforms, and is called in this study the '**shrine**'. This chamber is separated from the main chapel by differences in ceiling height and floor level, and by entrance features such as architraves, lintels and drums although not all of these features appear in every shrine. Shrines are found in one of two positions: in the centre of the wall opposite the entrance, or at the right-hand end of the wall opposite the entrance. The false doors within the shrine are always sited in the west wall following the tradition of the Memphite tombs from the Fourth Dynasty on. False doors in the same west wall position also appear in the chapels of single roomed tombs. In the rock hewn tombs of the provinces this position of false door placement in west walls was in some instances difficult to observe as tomb position was influenced by the availability of good rock and the orientation of the escarpment.

The early Fifth Dynasty tomb G84, at El-Hawawish with its mastaba-like exterior, cruciform chapel and niche opposite the entrance appears to be modelled on similar early cruciform-shaped chapels in the Memphite cemeteries.⁸² In the provinces a similar plan to that of G84 can be found in the tomb of *Hnw-k3* at Tehna, possibly the earliest of the provincial tombs.⁸³ This tomb is cut into the eastern escarpment with the entrance facing

⁸² Reisner, *Giza I*, pp. 247-9.

⁸³ Frazer, *Tehneh*, pl. II; Brunner, *Anlagen*, pp. 14-20; Kanawati, *Administration*, p. 56.

west and while the plan follows the traditional cruciform type and places a niche opposite the entrance and two false doors in the west wall, this west wall however, is now the entrance wall. Their position in the west wall is usual but the orientation of this wall in the tomb is not. *Mnw-ḥnh*, the owner of tomb G84, also building on the east bank and choosing one of the best areas of stone and most central positions on the mountain of El-Hawawish for his tomb, found that his choice of site necessitated that his tomb entrance face west. Like *Hnw-k3* he also places his false doors in the entrance wall of his tomb. This same placement is followed again by the owners of two slightly later tombs at El-Hawawish, F12 and N16 which are dated to the end of Dynasty 5 or the beginning Dynasty 6. Of these, F12 faces south and has two false doors in this southern entrance wall. At Tehna, regardless of the unusual orientation of the tomb, the traditional placing of the false doors in the west wall has been observed. This same plan with false doors on the entrance wall appears to have been copied in G84, N16 and F12 despite the unusual placement of false doors in this last tomb in a south wall. The influence of earlier, major tombs in the provinces like *Hnw-k3* would seem to be greater than that of Giza in the same period where, for cruciform chapels and chapels in mastabas with offering rooms parallel to the face of the mastaba, false doors were always positioned in the west wall opposite the entrance.

In the remaining Fifth Dynasty tombs at El-Hawawish false doors are always positioned in the west wall. During Dynasty 6 until the last examples in this cemetery dated to Dynasty 8, they are equally sited in north and west walls with one on a south wall.

False doors in entrance walls do not appear at El-Hawawish after the reign of Teti, but at other provincial cemeteries false doors in this position are found in slightly later tombs,

for example, at Sheikh Said, in the tombs of *Tjt-^cnh/Jj-m-^htp* (No. 15) and *Wjw* (No. 19) and *Mrw* (No. 18) and at Quseir el-Amarna in the tomb of *Hw.n-wh*.⁸⁴

As noted above, all the Fifth Dynasty tombs at El-Hawawish except for G84 consistently observe an E-W orientation for the first room and a N-S direction for the shrine/offering room in L- and T-shaped plans. Single-roomed chapels of this period also exhibit a N-S orientation.

These follow the examples of the Memphite tombs of the Fourth and early Fifth Dynasties where all offering rooms were oriented N-S. By the mid Fifth Dynasty an E-W orientation appeared and remained the principal direction of offering rooms into and during the Sixth Dynasty when tombs developed their more complex forms.⁸⁵ False doors remained sited in west walls whether the offering chapel was oriented N-S or E-W. This change in orientation also appears at El-Hawawish in tombs dated to the end of the Fifth/beginning of the Sixth Dynasty. The earliest examples are found in two groups of tombs dated to this period, N13-N16 and F13-F15. The tombs in each of these groups are clustered together with some chapels having a N-S axis and others, an E-W axis. Two have false doors while the remainder have none although painted false doors may have been intended. Both of these tomb groups have secondary rooms, all mostly unfinished, and some possibly functioning as serdabs. Similar plans can be observed in the provincial

⁸⁴ *Tjt-^cnh/Jj-m-^htp* (No. 15), dated to Teti-Pepy I; *Wjw* (No. 19), dated to Merenre-beginning Pepy II; *Mrw* (No. 18), early Pepy II (Davies, *Sheikh Saïd*, pls. XVI, XXV and XXII respectively); *Hw.n-wh*, dated to Pepy I (El-Khouli-Kanawati, *Quseir*, pl. 29).

⁸⁵ E.g. N - S offering rooms, Giza: *Mrs-^cnh* III (Dunham - Simpson, *Merysankh* III, Plan C, D), *Nfr-b3w-Pth* (Weeks, *Mastabas of Cem.* G6000, Plan 7, figs. 3, 6), *Jj-Mrjj*, (ibid. Plan 7, p. 56); Saqqara: *Nfr-K3-^hj* (Moussa - Altenmuller, *Nefer-Ka-hay*, figs. 1, 2); *3ht-^htp* (Davies, *Ptahhetep- Akhetetep* II, pl. 1).

E - W offering rooms, Giza: *Ssm-nfr IV* (Junker, *Giza XI*, fig. 49); *Sndm-jb Jntj* (Reisner, *Giza Nec.* I, fig. 162); *J3sn*, G2196 (Simpson, *Mastabas of the Western Cemetery* I, fig. 28); Saqqara: *Pr-sn* (D45) (Mariette, *Mastabas*, p. 299); *Pth-^htp* I (D62) (Mariette, *Mastabas*, p. 351); *Hntj-k3.j* (James, *Khentika*, pl. III); *Mhw* (Altenmuller, *Mehu*, Plan A); Abusir: *Pth-spss* (Verner, *Abusir* I, Text, fig. 1).

tombs of *Srf. k3.j* (No. 24) and *Ttj-^cnh/Jj-m-htp* (No. 15) at Sheikh Said, and of *Hm-R^c/Jzj* (No. 72) at Deir el-Gebrawi.⁸⁶

During the period late Teti until the beginning of the reign of Pepy II at El-Hawawish, tombs only consist of single chambers and are either rectangular in form, for example, F1, G95, Q4, sometimes with an E-W, sometimes a N-S orientation, or are square in plan like G97, CA1, Q2. Only six false doors are present in this group of twenty-six tombs and only one, Q4, has an area which may have been intended as a shrine. With tombs K4 and M8 at the end of the reign of Pepy I-beginning of that of Pepy II, shrines reappear. In tombs dated to Pepy II, ten of twenty-one complete tombs have shrines, of which nine have false doors. No shrines or false doors appear in tombs dated from the end of Dynasty 6 to Dynasty 8, although niches do, for example in tombs B7 and BA14. Shrine areas are greatest in the Fifth Dynasty being from 33% to 66% of the combined chapel/shrine area, with those of tombs M22, at 57%, and M44, at 66% exceeding their chapel areas. In the following periods they decrease greatly from an average of 18.5% of this total area in Pepy II to an average of 5.5% in Dynasty 8.

Secondary chambers apart from those which appear to function as the major shrine, are rare at El-Hawawish. Opposite the entrance in the large Fifth Dynasty tomb, M23, and with the same axis as the shrine next to it, is a smaller chamber without false doors but containing two burial pits. Four secondary chambers are found in M43, dated to the end of Dynasty 5; two in the north wall opposite the entrance to the chapel and two in the east wall. Chamber 2 has a small drum at the entrance and an uninscribed false door, while chamber 3 has an internal entrance lintel and a burial shaft. The incomplete secondary chamber in tomb L23 also contains a burial shaft. The large entrances and features such as

⁸⁶ *Srf-k3.j* (No. 24), dated Dynasty 5/ late Djedkare; *Ttj-^cnh/Jj-m-htp* (No. 15), dated Teti-Pepy I (Davies, *Sheikh Said*, pls. III and XVI respectively. *Hm-R^c/Jzj* (No. 72), dated to Teti (Davies, *Deir el-Gebrawi II*, pl. XV).

entrance drums, lintels, lintels and the inclusion of shafts in these secondary chambers indicate that they may have been planned as minor shrines, but in tombs N15, F12 and F13 the secondary chambers appear to have been constructed as serdabs. A narrow slit in the north wall of tomb N15 leading to a smaller room from the main chamber suggests a serdab, although this room has a entrance doorway and a false door. In tombs F12 and F13, openings in the north walls opposite the entrance with high sills leading to otherwise-sealed rooms also suggest the intention to create a serdab. Similarly constructed rooms are found in the tombs of *Hw.n-wh* at Quseir el-Amarna, and *Hm-R^c/Jzj* at Deir el-Gebrawi.⁸⁷

The large, unfinished chambers extending from the chapel in tombs G98 and M8, and called in this study, **pillared recesses**, appear to be different from either shrines or secondary chambers. Although the east pillared recess which is opposite the entrance in G98 may have been a shrine when finished, the ultimate purpose of the north recess in G98 and the west recess in M8 is difficult to assess. Two architectural aspects prevent them from being easily classed as secondary chambers or shrines. Firstly, their position in the tomb: both are cut into the left wall of the chapel. No other shrine or secondary chamber at El-Hawawish is found in this position. All have free-standing pillars at the entrance to their recesses: no other shrine or secondary chamber has pillars in this position.

Despite these contra-indications, the entrance to the north recess in G98 has architectural features shared by shrines, i. e. engaged pillars, a lintel and an architrave. It has no false door but is unfinished in its inner part. The large west recess in M8 likewise does not have a false door and is also incomplete but the following points may support the

⁸⁷ El-Khouli-Kanawati, *Quseir*, pls. 3, 21, 29, 30 (*Hw.n-wh*); Davies, *Deir el-Gebrawi* II, pl. XVI (*Hm-R^c/Jzj*).

proposition that this recess might have been originally planned as a shrine. Directly outside the entrance to the pillared recess is the rectangular mouth of the main burial passage (Shaft VI) oriented E-W. This sloping passage passes to the west under the recess and beyond its west wall where the burial chamber is sited and it may be postulated that a false door was originally planned for this west wall. The present large false door of the tomb owner, *K3.j-ḥpTtj*, is in the north of the chapel and is far from the burial chamber. A N-S axis for the burial mouth and sloping passage would have enabled the passage to pass under or behind this false door and thus position the burial chamber close to it. This was the traditional placement for shafts and burial chambers in the earlier Fifth Dynasty burials such as M22, M23, and M43, as well as the later tombs H26 and H24 dated to Pepy II. The second point is the decoration of the recess. No secondary chambers are decorated although shrines frequently are. On the north wall (the other two walls are not completely cut or finished) a layer of white plaster has inscriptions in red line, possibly part of an offering list. A similar white plaster forms the base for the painted decoration in the final shrine area of the tomb, to the north of the chapel. In the recess a second layer of brown plaster has been applied over this and scenes painted. These scenes include a funerary motif, the dragging of a bier by oxen and men, all directed towards the west wall which would normally contain a false door if this were a shrine.⁸⁸ The area of this north recess (29.00sq. m av.) is also much greater than that of any secondary chamber, and is almost the same as the existing shrine area (28.25sq. m av.) with its large false door. Considering these points it is proposed that the west recess in M8 may have been originally planned as a shrine area.

Pillars are found in 22 chapels at El-Hawawish, 14 of which are in inscribed or major tombs. No shrines or secondary chambers contain pillars. All are square in section; no

⁸⁸ H III, p. 22, pl. 3, fig. 12

round columns are found.⁸⁹ They first appear in one of the earliest of the Fifth Dynasty tombs, M23, where four pillars are centrally placed along the main axis of the chapel, i. e. parallel to the entrance wall, with a pilaster in the wall at either end. The later Fifth Dynasty tomb, M43, also incorporates pillars along the major axis of the chapel but here the axis is perpendicular to the entrance wall. Six pillars in two rows extend halfway to the rear wall of the chapel (further pillars may have been intended) with two pilasters on the entrance wall. Of the two tombs with pillars in the following period, Teti to the beginning of Pepy I, the large and well-cut but uninscribed tomb, G22, has four centrally placed pillars in two rows with four pilasters in the side walls. The other, G98, uses a different arrangement again with pillars at the entrance to the unfinished extensions on the northern and eastern extensions of the chapel, three on the north and two on the east. After these no pillars are found in tombs dated to Pepy I.

These arrangements of pillars, i. e. in a single row or as double rows, have already appeared in the Memphite necropoli. Single rows of pillars are seen at Giza in the Fourth Dynasty tombs of *Rhjt-R^c* (three pillars and two pilasters), *Hmt-R^c* (four pillars and two pilasters), and *Dbh-nj* (three pillars), and during the Fifth Dynasty in the tombs of *Nfr-b3w-Pth* (three rooms with either two or three pillars in each), *Spss-k3-f-nh* (five pillars in one room), and in the early Sixth Dynasty tomb of *Nj-htp Pth* (two pillars). At Saqqara, the late Fifth Dynasty tomb of *Tjj* has two pillars in the main offering room, while in the Sixth Dynasty, *K3-gm-nj* incorporates three pillars in a single row in his large pillared hall, *Mrrw-k3.j* in chamber A10 has four pillars and two in chamber B1 of his wife's section of the tomb, and *Hntj-k3.j*, three free-standing pillars and two engaged pillars in

⁸⁹ From the beginning of Dynasty 4, straight-sided pillars are usual in royal funerary monuments (e.g. rectangular forms in the valley temple of Snefru at Dashur, square pillars in the mortuary temples of the pyramids at Giza) although papyriform or lotiform columns appear at the entrance to the valley temple of Menkaure. Straight-sided pillars are still found in the mortuary temple of Userkaf at the beginning of the Fifth Dynasty but thereafter rounded lotiform or papyriform columns are used throughout the temple of Sahure, Neferirkare, Neuserre, Djedkare-Isesi and

room IX.⁹⁰ In all of these chapels the line of pillars follows the main axis of the room as in the tombs of M23 and M43 at El-Hawawish. The different arrangement noted above in the El-Hawawish tomb, G98, of pillars before alcoves on two sides of the main chapel can be found in the tomb plans of *Mrs-ḥnh III* and *Pr-sn(t)* at Giza.⁹¹

Pillars set in two rows rather than a single one are seen in the great pillared hall of the late Fifth Dynasty tomb of *Sndm-jb/Jntj* at Giza where eight pillars are arranged in two rows of four pillars, and at Saqqara in the late Fifth Dynasty joint tomb of *Pth-ḥtp* and *3ḥt-ḥtp* which has four pillars in the hall linking their two offering chapels. In this latter cemetery in the Sixth Dynasty both *Mrrw-k3-j* and *Nfr-sšm-Rḥ* have large chambers with six pillars arranged in two rows of three pillars.⁹²

At El-Hawawish no further pillars appear in tombs until the beginning of the reign of Pepy II when the major tomb of M8 re-introduces their use in chapels. This tomb owner chooses a single row of three pillars centrally placed down the length of the chapel perpendicular to the entrance wall with an additional single pillar at the entrance to an unfinished extension on the western side of the chapel similar to the plan of tomb G98. During the period Pepy II to Dynasty 8 pillars are found in nine chapels: single pillars are centrally positioned in three tombs, L23, BA63 and H15, two pillars in H27, H26 and C3, and four pillars along the main axis parallel to the entrance wall in H4 and H24 (the same arrangement of pillars as in the Fifth Dynasty tomb, M23), and four in the centre of the

Unis. Square pillars replace these rounded forms in the funerary temple of Teti at the beginning of the Sixth Dynasty and in the monuments of Pepy I and Pepy II.

⁹⁰ *Rḥt-Rḥ* (Reisner, *Giza I*, fig. 133); *Hmt-Rḥ* (ibid. fig. 134); *Nfr-h3w-Pth* and *Špss-k3.f-ḥnh* (Weeks, *Giza Mastabas 5*, fig. 3); *Nj-ḥtp-Pth* (Badawy, *Nyhetep-Ptah*, fig. 17); *Tjj* (Mariette, *Mastabas*, pp. 332-3); *K3-gm-nj* (Firth-Gunn, *Teti Pyr. Cem.* II, pl. 51); *Mrrw-k3-j* (Duell, *Mereruka I*, p. facing pl. 2); *Hntj-k3-j* (James, *Khentika*, pl. III).

⁹¹ Reisner, *Giza I*, figs. 131 and 125.

⁹² *Sndm-jb/Jntj* (Reisner, *Giza I*, fig. 162); *Pth-ḥtp/3ḥt-ḥtp* (Davies, *Ptahhetep-Akhethetep*, pl. I); *Mrrw-k3-j* (Duell, *Mereruka*, p. facing pl. 2); *Nfr-sšm-Rḥ* (Kanawati-Abder-Razik, *Teti Cem. III*, pls. 39, 40).

almost square chapel of C8. Two further tombs, GA11 (late Pepy II) and G66 (dated to the end of Dynasty 6 - Dynasty 8) have what appears to be a large engaged pillar at the rear wall of the chapel. Most pillars 'support' a beam although three tombs dated to the beginning of the reign of Pepy II the pillars link directly with the ceiling - M8, L23 and BA63.

In provincial cemeteries single rows of pillars are found from the late Fifth Dynasty. As in tomb M23 at El-Hawawish these are aligned with the main axis of the chapel which is parallel to the entrance wall. At Deshasha the tombs of *Jntj* (late Fifth Dynasty) and *Šdw* (dated to the reign of Teti) each have three pillars with *Šdw* also having two pilasters.⁹³

In the period Merenre - early Pepy II single rows with the same axis as before, i. e. parallel to the entrance wall, appear in the tombs of *Jbj* at Deir el-Gebrawi, *Hr-hw.f* at Aswan, *Ppjj-nh-wr* at Quseir and *Hntj* at Thebes with two, four, two and three pillars in each chapel respectively. As well as the three pillars in the main chapel area of *Hntj* a further single pillar is placed at the entrance to a side alcove on the S-W side of this main chamber.⁹⁴ This position of a pillar at the entrance to an alcove is similar to that in the El-Hawawish tombs of G98 and the later M8 (also dated to the beginning of the reign of Pepy II). Centrally - placed rows of pillars parallel to the façade continue to be found in tombs dated to mid-Pepy II, such as *Jhjj* at Thebes and *Mrw-Hnn.t* at Sheikh Said. At Meir in the chapel of *Nj-nh-Ppjj-km* (A1) (mid-Pepy II) the placement of the row of three pillars is not in the centre but further towards the back of the chapel, a trend seen in El-Hawawish chapels toward the end of Dynasty 6 and later, e.g. in tombs H24, H4 and C3.

⁹⁵ The pillars in the tomb of *Nj-nh-Ppjj-km* do not follow the main axis of the chapel as

⁹³ Kanawati-McFarlane, *Deshasha*, pl. 23 (*Jntj*), pl. 40 (*Šdw*).

⁹⁴ Davies, *Deir el-Gebrâwi II*, pl. 11 (*Jbj*); de Morgan, *Catalogue des mon.*, p. 163 (*Hr-hw.f*); El-Khouli-Kanawati, *Quseir*, pl. 24 *Ppjj-nh-wr*; Saleh, *Thebes*, pl. 7 (*Hntj*).

⁹⁵ Ibid (*Jhjj*); Davies, *Sheikh Saïd*, pl. XXII (*Mrw*); Blackman-Apted, *Meir V*, pl. 1 (*Nj-nh-Ppjj-km*).

they do in these last three El-Hawawish chapels. In this tomb the chapel axis is perpendicular to the entrance wall like tombs M43 and M8 at El-Hawawish. A double row of pillars perpendicular to the entrance wall and following the axis of the chamber like M43, is seen in the first room of the tomb of *Ppjj-ḥḥ-ḥrj-jb* (Merenre – early Pepy II) at Meir. This chamber with its six pillars in two rows, recalls the pillared halls in the tombs of *Nfr-sšm-Rḥ* (Teti) at Saqqara and *Sndm-jb/Jntj* (late Dynasty 5) at Giza.⁹⁶ Other provincial tombs with more than one row of pillars are found at Aswan in the mid Sixth Dynasty in the chapels of *Hw.ns* (8 pillars in 2 rows), *S3bnj/Mḥw* (in *Mḥw*, 14 pillars in two rows, in *S3bnj*, 18 columns in 3 rows) and in the Eighth Dynasty tomb of *ḥḥ-tj.fj* at Mo'alla with its 30 columns in 3 rows.⁹⁷

At El-Hawawish, inscribed tombs with pillars are those of the highest ranking officials with one exception, *Jntf*, owner of tomb BA63, whose only surviving title is 'priest of Min'. The remaining tomb owners are Nomarchs, Overseers of Upper Egypt, Overseers of Priests and all are Stolist of Min. Only two Nomarchs do not have pillars in their chapels, *Nhwt-dšr* of G95 (dated to the beginning of the reign of Pepy I) and *Ttj-ḥ3* owner of H41 (dated to the end of Dynasty 6). While fourteen inscribed chapels contain pillars, they are also found in eight uninscribed tombs. It is difficult to assess the rank or importance of these tomb owners, but their ability to include pillars in their chapels may be due to a close relationship to the tomb owners of high rank whose nearby tombs contain pillars, for example, the uninscribed tomb, H26 Pit F, with its single pillar is found in the court outside the tomb of the Nomarch, *Ttj-jkr* (H26) with its two pillars;

⁹⁶ Blackman, *Meir* IV, pl. XXII (*Ppjj-ḥḥ-ḥrj-jb*). The pillared room in this tomb has been considered an open court but the proportions of the area and the disposition of the pillars is unlike the open courts of tombs such as *Tjj* at Saqqara and *Pth-špss* at Abusir with pillars around their perimeter walls.

⁹⁷ de Morgan, *Catalogue des mon.*, p. 158 (*Hw.ns*); p. 144 (*S3bnj Mḥw*); Vandier, *Mo'alla*, pl. I (*ḥḥ-tj.fj*).

and the uninscribed tomb C7 with two pillars which is adjacent to tomb C8, another uninscribed tomb but one of the largest in the cemetery whose chapel has four pillars.

False doors (see Table 9) appear in both shrines and chapels at El-Hawawish. They are present in all the Fifth Dynasty tombs with G84, M23, M22, L8 and M44 each having two false doors. In tombs dated to the reign of Teti, three have false doors: F12, which also has two and is dated to the beginning of the reign, and F1 and G95 dated late in the reign or at its end. After G95 none are found until Q4, dated to late Pepy I. From the end of Pepy I to the end of the reign of Pepy II, false doors appear again in tombs C9, L31, K18, K4, M8, L21, L23, G79, BA48, G42, H26, H24 and GA11. Two further false doors are found in tombs dated to Dynasty 8, J2 and BA17. They are present in the tombs of all the major officials of the Fifth Dynasty, and in the Sixth Dynasty in the tombs of the Nomarchs G95, M8, H26 and H24 (the remaining Nomarchs' tombs are either incomplete or damaged), in 6 of the 8 Overseers of Fields and Serfs and 5 of the 9 Superintendents of Priests. They are not found in the tombs of the two known Viziers, CA1 and B7, but like the Nomarchs' tombs mentioned above, the chapel of the vizier, *B3wj* (CA1) is damaged and that of *B3wj* (B7) is undecorated. While there is no evidence of a carved false door in these chapels, painted doors or the inclusion of stelae may have been planned.

The preferred position for false doors (see Table 9) is in the west wall of both shrines and chapels following the traditional position of this feature in Memphite tombs.⁹⁸ This west wall is on the left on entering the chapel or shrine in the major Fifth Dynasty tombs at El-Hawawish but because of the limitations on tomb sites on the mountain particularly in the

⁹⁸ e.g. *Mrs-ḥnh III* (Dunham/Simpson, *Mersyankh III*, Plan D), *Nfr-b3w-Pth* (Weeks, *Mastabas of Cemetery G6000*, Plan 6 figs. 3, 6); *Sndm-jb Jntj* (Reisner, *Giza Nec. I*, fig. 162) at Giza; *Nfr* and *K3-ḥ3-j* (Moussa-Altenmüller, *Nefer and Ka-hay*, fig. 2, pls. 28, 29, 32, 36, 39), *K3-j-m-nfr* (Simpson, *Kayemnofret*, fig. 1, pl. 7a), *Nj-ḥnh-Hnmw Hnmw-ḥtp* (Moussa-Altenmüller, *Nianchnum and Chnumhotep*, fig. 1, pls. 80a, 92) at Saqqara.

Sixth Dynasty, variations in their orientation were forced upon their owners. Thus, even when these later tombs did not have the same south-facing orientation as the Fifth Dynasty tombs, the left wall position was still adhered to, for example in tombs G95 and G42, whose entrances face west and where the left wall is now a north wall. Yet another tomb owner continues to place his false door in the west wall of his chapel although this is now the right-hand wall on entering the tomb (K18).

The preference for siting the false door in the west wall is evident in other provincial cemeteries. They appear on left-hand west walls at Deir el-Gebrawi in the chapels of *Hm-R' Jzj* (72), *Hnqw* (67) and *Hnqw/Httj* (39), and at Meir in the chapel of *Nj-^cnh-Ppjj-km* (A1) and the shrine of *Ppjj-^cnh Hnjj-km* (A2).⁹⁹ The west wall is also the preferred site for false doors in other provincial tombs but in these the west wall is now the wall opposite the entrance to the tomb.

At El-Hawawish false doors are found in two other positions: on the entrance wall and on the wall opposite the entrance. The first is chosen by three earlier tomb owners, G84, F12 (both south walls) and N16 (the west wall) whose tombs are dated to Dynasty 5 - Teti. This position in the entrance wall, noted earlier at Tehna (p. 178), is also found at Quseir, in the chapel of *Hw.n-wh*, and at Sheikh Said in the tombs of *Mrw Bhj* (20), *Ttj-^cnh/Jj-m-htp* (15), *Wjw Jjjw* (19) and *Mrw* (18)¹⁰⁰ all of which are west walls.

The second position, in the wall opposite the entrance, is preferred at El-Hawawish in tombs C9 (an east wall, 1 of 2 false doors in this tomb), K4 (an east wall), L23 (a north

⁹⁹ Davies, *Deir el-Gebrâwi* II, pls. XVI, XXII, XXVII (*Hm-R' Jzj*, *Hnqw*, *Hnqw/Httj* respectively); Blackman-Apted, *Meir V*, pls. X, LIII(1) (*Nj-^cnh-Ppjj-km*, A1), XXXIII, LXI (*Ppjj-^cnh Hnjj-km*, A2).

¹⁰⁰ El-Khouli-Kanawati, *Quseir*, pl. 29 (*Hw.n-wh*); Davies, *Sheikh Said*, pls. XVIII-XIX, XVI, XXV, XXII (*Mrw Bhj*, *Ttj-^cnh/Jj-m-htp*, *Wjw*, *Mrw* respectively).

wall), G79 (an east wall) and BA17 (a north wall). The first four tombs are dated from the beginning to the middle of the reign of Pepy II. BA17 is the only tomb in the period from the end of Pepy II to Dynasty 8 to include a false door in the decoration of his chapel. Other unfinished tombs in this period of even the highest officials such as the Nomarch, *Bhn*, of C3 and the vizier *B3wj* of B7, show no indications of carved false doors in their chapels although these owners may have intended to include a painted false door.

The same wall in the chapel, i. e. opposite the entrance, is chosen also in the tombs of *Jntj* and *Šdw* at Deshasha, *Ppjj-‘nh-ḥrj-jb* (D2) at Meir, *K3.j-m-nfrt* (A3), *‘n-‘nhj* (B13) and *Mrjj* (C2) at El-Hagarsa and *Hr-ḥw.f* and *S3bn.j/Mḥw* at Aswan. All of these are west walls.¹⁰¹ At Deir el-Gebrawi, both *Jbj* and *Ḍ3w* have placed false doors in the shrine which in both tombs is positioned opposite their entrances. *Jbj* has had one false door carved in the west wall of the shrine directly opposite the entrance and a second in the north wall of the shrine. *Ḍ3w* places a false door in each wall of his shrine, with the north wall being directly opposite the entrance to the tomb.¹⁰² At El-Hawawish, the false doors of K4, L23 and G79 are placed directly opposite their entrances like *Mrjj* (C2) at El-Hagarsa and *Jbj* and *Ḍ3w* at Deir el-Gebrawi. All are dated to the reign of Pepy II. This position for false doors in the west wall opposite the entrance was usual in chapels at Giza and Saqqara from the Fourth Dynasty, for example, *Mrs-‘nh III*, *Šhm-‘nh-ptḥ*, and *Nj-ḥtp-ptḥ* (all Giza tombs), and *Nfr-jrt-n.f*, *Htp-ḥr-3ḥtj* and *R‘-wr* (Saqqara).¹⁰³

¹⁰¹ Kanawati-McFarlane, *Deshasha*, pls. 24 (*Jntj*), 42 (*Šdw*); Blackman, *Meir* IV, pl. XXVI(1) (*Ppjj-‘nh-ḥrj-jb*); Kanawati, *Hagarsa I*, pls. 16, 17a (*K3.j-m-nfrt*), pl. 34 (*‘n-‘nhj*), pl. 44 (*Mrjj*); de Morgan, *Cat. des mon.*, p. 171 (*Hr-ḥw.f*), p. 144 (*S3bn.j Mḥw*).

¹⁰² Davies, *Deir el-Gebrâwi I*, pls. XVII, XVIII (*Jbj*). II, pls. XI-XIII (*Ḍ3w*).

¹⁰³ Reisner, *Giza I*, fig. 131 (*Mrs-‘nh III*); Badawy, *Iteti*, fig. 18 (*Šhm-‘nh-ptḥ*); Badawy, *Nyhetep-Ptah*, fig. 17 (*Nj-ḥtp-ptḥ*); van der Walle, *Neferirtenef*, fig. 2 (*Nfr-jrt-n.f*); Mohr, *Hetep-her-akhti*, fig. cc, and Harpur, *Decoration*, Plan 97 (*Htp-ḥr-3ḥtj*); El-Fikey, *Re‘-Wer*, fig. 2 (*R‘-wr*).

Where the tomb owner's position and means permitted, false doors are carved into the rock and finished by plastering and then with painted inscriptions and figures. In F12, L21 and G79 the central niche is patterned to indicate woodgrain.¹⁰⁴ That false doors are considered important elements within tombs is supported by the amount of space allocated to them. The Fifth Dynasty false doors occupy approximately 1/3 of the entire wall space and extend to the full height of the wall. This size and proportion continues until halfway through the reign of Pepy II when doors begin to be reduced in height and also become less wide with the smallest false door (1/2-2/3 of the height of the wall) found in the Dynasty 8 tomb of *Rḥw-r-3w.sn* (BA17). The same reduction in size is found in the similarly dated tomb of *Mrjj-ʿ3* (D18) at El-Hagarsa.¹⁰⁵ While carved false doors were more desirable, with tombs F12 and F1 in the reign of Teti, false doors produced only in paint appear and from these two tombs to those dated to Dynasty 8, carved and painted false doors occur in almost equal numbers.

Two different styles of false doors can be found at El-Hawawish: the first is found in the Fifth Dynasty tombs and is characterised by fairly square proportions, a broad, flat frame, one or two jambs and a panel divided into three almost equal parts. In M23, the jambs of the south false door contain smaller false doors.¹⁰⁶ This is not found again at El-Hawawish. The second style is seen first in M43 dated to the beginning of the reign of Unis, then in F12 dated to early Teti.¹⁰⁷ These false doors now add a cavetto cornice and torus moulding as well as additional jambs, a form which had been first used in the early Fifth Dynasty at Saqqara and taken up in Giza tombs from the mid Fifth Dynasty.¹⁰⁸ The

¹⁰⁴ *H* IX, fig. 26 (F12), *H* VI, fig. 11 (L21), *H* III, fig. 26 (G79).

¹⁰⁵ *H* VII, fig. 13 (*Rḥw-r-3w.sn*); Kanawati, *El-Hagarsa* III, pls. 17a, 46b (*Mrjj-ʿ3*).

¹⁰⁶ See *H* V, fig. 12 (M23).

¹⁰⁷ *H* V, fig. 2 (M43), *H* IX, fig. 2b (F12).

¹⁰⁸ At Saqqara: *Pr-sn*, dated to Sahure-Neuserre (Strudwick, *Administration*, p. 15; Petrie-Murray, *Memphite Tomb Chapels*, pl. IX); *Ph-n-wj-k3j*, late Neuserre (*LDII*, 48).

cornice and torus moulding are subsequently found on all Sixth Dynasty false doors but not, at El-Hawawish, with the addition of another pair of jambs. Undamaged false doors all show a continuation of the use of the two jambs seen in most Fifth Dynasty doors rather than the three jambs which appear in M43 and F12.

The Fifth Dynasty features of almost-square proportions, a flat frame and broad jambs with large figures of the tomb owner seen in the false doors of M23, M21 and M22 at El-Hawawish can be noted in similarly-dated tombs in the provinces, e.g. *K3(.j)-m-nfrt* (A3) at El-Hagarsa, and *K3(.j)-hnt* (A2) and *K3(.j)-hnt* (A3) at El-Hammamiya.¹⁰⁹ These all follow the same style of the Fifth Dynasty false doors at Giza and Saqqara, e.g. of *Whm-k3.j*, *K3.j-m-nh*, *K3.j-nj-nswt* (Giza), and *Nfr-jrt-n.f* and *K3.j-m-snw* (Saqqara).¹¹⁰ The second type with a cornice, torus moulding and three jambs, is found in the mid Fifth and the Sixth Dynasty Memphite tombs of *Ssm-nfr Jff*, *Q3r* and *Njmstj* at Giza, and at Saqqara in the tombs of *Tjj*, *Pth-htp II*, *Jdwt*, *Nfr-ssm-r'*,¹¹¹ and with two jambs in *Sndm-jb Jntj*, *Jrj-n-3ht*, *Ttw* (G2001) at Giza and *Pth-htp II*, *K3-pr*, *Snh-w(j)-Pth* and *Wrnw* at Saqqara.¹¹² Both two- and three- jamb false doors can be seen in the same tomb; for example, at Saqqara, the false door of *Hntj-k3.j* in Room 7 has three jambs while the two

At Giza: *Sndm-jb Jntj*, end Djedkare (Mariette, *Mastabas*, 505-7); *Sndm-jb Mhj*, Djedkare-Unis (LDII, 75).

¹⁰⁹ Kanawati, *El-Hagarsa*, pls. 4, 5, 20, 21; El-Khouli-Kanawati, *El-Hammamiya*, pls. 13, 43, 46, 62.

¹¹⁰ Kayser, *Uhemka*, pp. 24-5; Junker, *Giza IV*, fig. 6; Junker, *Giza II*, fig. 18, pl. 6; van der Walle, *Neferirtenef*, fig. 2, pls. 2, 3, 16; Firth-Gunn, *Teti Pyr. Cem.* II, pl. 62, respectively.

¹¹¹ Giza: Hassan, *Giza VII*, pl. 31b, fig. 49 (*Ssm-nfr-Jff*), Simpson, *Qar and Idu*, pl. XIV, fig. 32, (*Q3r*), Davies, *W. Cem.* I, pl. LVI, fig. 43 (*Njmstj*); Saqqara: Steindorff, *Ti*, pls. 135-6 (*Tjj*), Murray, *Saqqara Mastabas I*, pl. VIII (*Pth-htp II*), Macramallah, *Idout*, pls. II, XIV (*Jdwt*), Kanawati-Abder-Raziq, *Teti Cem.* III, pls. 18-53 (*Nfr-ssm-r'*).

¹¹² Hassan, *Giza VII*, fig. 104 (*Sndm-jb Jntj*), Hassan, *Giza VI(3)*, pl. 3c, fig. 9 (*Jrj-n-3ht*), Simpson, *Mastabas of the W. Cem.* I, pls. XIV, XVIII-XX, figs. 16-18 (*Ttw*); Paget-Pirie, *Ptah-hetep*, pl. XXXIX (*Pth-htp*); Kanawati-Hassan, *Teti Cem.* I, pls. 20, 51 (*K3-pr*), Kanawati-Abder-Raziq, *Teti Cem.* III, pls. 28-9, 73 (*Snh-w(j)-Pth*), Davies et al., *Saqqara Tombs I*, pl. 26 (*Wrnw*).

false doors in Room 3 have two jambs each, and in the tomb of *Hzzj* the main false door in the chapel has three jambs while the false door in the portico has two.¹¹³

False doors with a cornice and three jambs, only seen at El-Hawawish in M43 (dated to Unis) and F12 (early Teti), are found in later tombs in the provincial cemeteries of Deir el-Gebrawi in the tomb of *Jbj*, and at Sheikh Said in the tombs of *Mrw/Bbj*, *Wjw* and *Mrw/Hnnt*.¹¹⁴ The use of two jambs with the cornice and torus moulding common in the Sixth Dynasty tombs at El-Hawawish is also found at Sheikh Said in the chapel of *Ttj-nh/Jj-m-htp*, at Deir el Gebrawi, in the tombs of *Hm-R' Jzj* and *Hnqw/Httj*, at Quseir in the chapel of *Hw.n-wh*, and at Meir in the tombs of *Nj-nh-Ppjj* (A1) and *Ppjj-nh/Hnjj-km* (A2).¹¹⁵

At El-Hawawish **offering platforms** (see Table 10) are cut into the mother rock before false doors in either the chapel or the shrine if this exists as a separate chamber. There is one example in a secondary room (N15) which appears to be constructed as a combined shrine and serdab and two abutting shaft mouths in the uninscribed tombs F14 and G120.

¹¹⁶ Two tombs have offering platforms without also having false doors: CA1 and N20.¹¹⁷

Two distinct forms of offering platforms appear. The earliest is in the shape of a simple rectangular slab, approximately the width of the false door and between 0.10 - 0.50cm

¹¹³ James, *Khentika*, pls. XIII (Room 3), XVIII-XIX (Room 7) (*Hntj-k3.j*); Kanawati-Abder-Raziq, *Teti Cem.* V, pls. 40, 32, 57 (*Hzzj*).

¹¹⁴ Davies, *Deir el-Gebrâwi I*, pl. 18 (*Jbj*); Davies, *Sheikh Saïd*, pls. 19, 23, 25 (*Mrw/Bbj*, *Wjw*, *Hnn.t/Mrw* respectively).

¹¹⁵ Davies, *Sheikh Saïd*, pl. 28 (*Ttj-nh/Jj-m-htp*); Davies, *Deir el-Gebrâwi II*, pls. 16, 28 (*Hm-R' Jzj*, *Hnqw/Httj*); El-Khouli-Kanawati, *Quseir*, pl. 39 (*Hw.n-wh*); Blackman-Apted, *Meir V*, pl. LIII (*Nj-nh-Ppjj*, A1), pl. LXI (*Ppjj-nh/Hnjj-km*, A2).

¹¹⁶ *H.* VIII, figs. 25, 26 (N15); *H.* IX, fig. 4 (F14); *ibid*, 47, fig. 12 (G120).

¹¹⁷ In CA1, the platform abuts the plastered and painted south wall, the lower half of which is now lost. The remaining upper section shows the head and shoulder of the standing tomb owner and part of an offering list (*H.* VIII, figs. 6, 7). A small false door may have been painted below this although carved false doors in this period are invariably the full height of the wall. A platform and false door in the same position, i. e. the east end of the south wall, is found in the slightly earlier tomb, F1 (*H.* VI, fig. 1). In tomb N20, neither north nor south walls (where the offering platforms are placed) have been finished, and one or two painted false doors may have been intended here (*H.* VI, fig. 23a).

high. This is the usual form in all the major Fifth Dynasty tombs in this cemetery: G84 and L8 (dated to the reign of Neuserre), M23, M22, M21 (dated to Djedkare) to M43, M44 and N15 (dated to Unis). This shape of offering platform is not found again until early in the reign of Pepy II in the tomb of the Nomarch M8 and then in the tombs of two slightly later Nomarchs, H26 and H24, dated mid-late Pepy II.

A second form appears in six smaller tombs dated from the end of the reign of Teti until early in the reign of Pepy II. These offering platforms now incorporate the distinct shape of the *hṯp* sign and are found in tombs F1 (dated to late Teti), G95 (late Teti or the beginning of Pepy I), CA1 (early-mid Pepy I), K4 and N20 (both late Pepy I) and BA48 (early Pepy II). Two further *hṯp* platforms are found in the uninscribed tombs, F14 and G120. Tomb F14 forms part of a complex of tombs including F12 and F15 which are dated to the reign of Teti and tomb G120 is adjacent to tomb G119 dated to the reign of Pepy I or the beginning of Pepy II.

Tombs N20 and BA48 also have two basins cut into their platforms and K4 has a single basin in the floor of the shrine/recess which is cut into the east wall above the false door. Of these officials, G95 is a Nomarch, CA1, a vizier, F1, K4 and BA48 are Overseers of Fields and Serfs, while N20 is a Superintendent of Priests.

As well as the *hṯp* platform before the false door in the north wall in tomb G95, a ledge is cut into the mother rock commencing before a niche at the southern end of the east wall and continuing along the length of the south wall.¹¹⁸ Similar, but larger, ledges are found along north walls in many chapels at Saqqara and at Giza, as a continuation of the offering platforms before the false door in the west wall or as a separate bench along the

¹¹⁸ H VIII, p. 10, figs. 1, 2.

north wall.¹¹⁹ It has been suggested that the owner of tomb G95, *Nhwt-dšr*, served at Memphis before going to Akhmin.¹²⁰ If this were so then *Nhwt-dšr* may have noted this feature in the tombs of the high officials there and chose to include a similar ledge in his own tomb.

While offering platforms of the simple rectangular form are present before the false doors in the major Fifth Dynasty tombs at El-Hawawish, they have not been recorded in other provincial tombs of the same date except for one example in the southern offering chapel of *K3.j-m-nfrt* at El-Hagarsa.¹²¹ They are not present in the Fifth Dynasty tombs at Deshasha or El-Hammamiya, and there is no record of them in the diagrams or description of the Dynasty 5 tombs at Tehna. They begin to appear in tombs dated from the reign of Teti at Sheikh Said, those of *Ttj-ḥnh/Jj-m-ḥtp* (15), *Wjw* (19) and *Mrw* (18), which are dated from Teti-Pepy I to early Pepy II, at Deir el-Gebrawi in *Hm-R'/Jzj* (72), *Hnqw/Httj* (39) and *D3w* (12) also dated from Teti to early Pepy I, and at Meir in *Ppjj-ḥnh-ḥrj-jb* (D2) and *Ppjj-ḥnh/Hnjj-km* (A2) dated mid to late Pepy II.¹²² While no tombs at El-Hawawish in the period of Teti to Pepy II show this feature it reappears in the tomb of *K3.j-ḥp/Ttj* (M8) dated to early Pepy II. This is paralleled in time to its inclusion in the chapels of *Ppjj-ḥnh-ḥrj-jb* at Meir and *Wjw* and *Mrw* at Sheikh Said. The slightly later (mid-late Pepy II) El-Hawawish tomb owners, *Ttj-jqr* (H26) and *Hnj* (H24) share this feature with the similarly-dated *D3w* of Deir el-Gebrawi and *Ppjj-ḥnh/Hnjj-km* at Meir.

¹¹⁹ E.g. in the tombs of *K3-špr* (Kanawati-Hassan, *Teti Cem.* I, pl. 47), *Snh-w(j)-Pth* (Kanawati-Abder-Razik, *Teti Cem.* III, pl. 61), *Nfr-šsm-Pth* (Capart, *rue de Tombeau*, pl. 94), *Hntj-k3.j* (James, *Khentika*, pl. XVIII), *Pth-ḥtp I* (Hassan, *Ny-ankh-Pepy*, pls. 34-5), *Nb-k3w-ḥr* (Hassan, *Neb-kaw-Her*, pls. 40-1); *Jnw-Mnw* (Hassan, *Giza VII*, p. 18, fig. 8).

¹²⁰ Kanawati-McFarlane, *Akhmin in the O. K.*, p. 51.

¹²¹ Kanawati, *Hagarsa I*, pls. 4a, 16, 17a.

¹²² Davies, *Sheikh Saïd*, pls. 27-8 (*Ttj-ḥnh/Jj-m-ḥtp*), pl. 22 (*Wjw*), pl. 25 (*Mrw*); Davies, *Deir el-Gebrâwi I*, pl. 16 (*Jzj*), pl. 27 (*Hnqw*), pl. 2 (*D3w*); Blackman, *Meir IV*, pl. 1 (*Ppjj-ḥnh-ḥrj-jb*); Blackman-Apted, *Meir V*, 42, pl. 1 (*Ppjj-ḥnh/Hnjj-km*).

The second style of offering platform which incorporates the *hṭp* sign is rarely found in the reports of provincial tombs, but is clearly seen in the chapels of *Hw.n-wh* (late Pepy I) and *Ppjj-^cnh-wr* (early Pepy II) at Quseir el-Amarna, while a raised *hṭp* is cut into a platform before the false door of *Nj-^cnh-Ppjj-km* (A1) (late Pepy II) at Meir.¹²³ Three of the examples of *hṭp* platforms at El-Hawawish, are in tombs with an earlier date: F1 (late Teti), G95 (end Teti) and CA1 (early Pepy I). The remaining El-Hawawish examples, K4, N20 and BA48, are possibly contemporary with the two Quseir el-Amarna tombs, i. e. late Pepy I to mid Pepy II.

Although it has been noted above that the rectangular offering platforms were usual at El-Hawawish in the major Fifth Dynasty tombs but not in other provincial tombs dated to the same period, the reverse is true of offering basins. At El-Hawawish basins only appear in three tombs - N20, K4 and BA48.¹²⁴ Yet in the provinces they are present in all the Fifth Dynasty chapels; at El-Hammamiya, in *K3-j-hnt* (A2) and *K3-j-hnt* (A3), *Df3-j-dd* (A1), *R^c-hṭp* (C5), *K3-j-hnt* (C6) as well as the uninscribed Tomb C2, and in the similarly dated tomb of *Jntj* at Deshasha. Three later examples where offering basins appear are at Quseir el-Amarna (*Hw.n-wh* dated to late Pepy I), Meir (*Nj-^cnh-Ppjj-km* (A1) dated to late Pepy II) and Sheikh Said (*Mrw* dated to mid-late Pepy II).¹²⁵ In these tombs the offering basins are placed before false doors, or before doorways leading to small chambers, possibly serdabs as in the tomb of *Jntj* at Deshasha, and before statues. This last position is

¹²³ El-Khouli-Kanawati, *Quseir*, pls. 29, 31 (*Hw.n-wh*), pls. 24-5 (*Ppjj-^cnh-wr*); Blackman-Apted, *Meir* V, pls. 1, 52(3) (*Nj-^cnh-Ppjj-km*).

¹²⁴ Two basins are placed in each of the offering platforms in N20 although no false door is present (*H* VI, fig. 23); one is found in raised platform above a false door in K4 (*H* VIII, fig. 16); two are cut into the *hṭp*-platform before the false door in BA48 (*H* VII, fig. 22).

¹²⁵ El-Khouli-Kanawati, *El-Hammamiya*, pls. 7, 31, 33 (*K3(.j)-hnt*, A2), pls. 52, 54 (*K3(.j)-hnt*, A3), pls. 25-6 (*Df3-j-dd*, A1), pls. 71-2 (*R^c-hṭp*, C5), pl. 74 (*K3(.j)-hnt*, C6), pl. 78 (Tomb C2); Kanawati-McFarlane, *Deshasha*, pls. 23-4 (*Jntj*); two further undecorated tombs at Deshasha also have *hṭp* platforms, *ibid.*, pl. 59 (Tomb 7E), and pl. 60 (Tomb 7F); El-Khouli-Kanawati, *Quseir*, pls. 29, 30 (*Hw.n-wh*); Blackman-Apted, *Meir* V, pls. 1, 52(3) (*Nj-^cnh-Ppjj-km*); Davies, *Sheikh Said*, pl. 25 (*Mrw*).

common in the Fifth Dynasty tombs at El-Hammamiya, but does not appear at all at El-Hawawish, even in large tombs with many statues such as the tomb of *Mmj* (M23).¹²⁶

Offering tables are associated with false doors in most tombs at Giza and Saqqara usually in the form of a plain rectangular block of stone into which may be carved in relief one or more *hṭp* signs, rectangular or circular basins, bread loaves and offering jars. Less common are offering tables carved into the mat-and-loaf shape where the rectangular block has a *hṭp* extension at the front.¹²⁷

Niches (see Tables 11, 12) are present in tombs at El-Hawawish in all periods from the Fifth to the Eighth dynasties. They are cut into façades, in the side walls of forecourts, in one instance into a side wall of a portico, and in chapels and shrines.

Every high official of the Fifth Dynasty at El-Hawawish includes niches in his tomb, as do the later Nomarchs G95, M8, H15, H26 and H24, the Overseers of Fields and Serfs F1, K4, G42 and GA11. and the Superintendents of Priests, G42 and L21 of the Sixth Dynasty. They are missing from the tombs of the Nomarchs, H41 and C3, dated to the end of Dynasty 6-Dynasty 8, but appear in the chapel of the vizier, B7, also dated to Dynasty 8.

Eleven tombs have niches on their façades or the walls of their forecourts and all except two are positioned above pits or shafts. Niches appear on the façades of three major Fifth

¹²⁶ *H* IV, pp. 40-1, figs. 11, 12.

¹²⁷ Rectangular platforms with the *hṭp* -sign (and basins) carved in relief: *Snḥ* (Junker, *Giza* V, pl. IV), *Tj* (Steindorff, *Ti*, figs. 1, 2), *Pth-hṭp* (Davies, *Ptah-hetep and Akhetetep*, pl. 1), *Jdw* (Macramallah, *Idout*, pl. II), *Hḥj* (Kanawati-Abder-Raziq, *Teti Cem.* V, pls. 46, 47) *R'-wr* (El-Fikey, *Re'-wer*, fig. 2), *Pth-hṭp II* and *Pth-hṭp Jj-n'-nh* (Hassan, *Ny-ankh-Pepy*, pls. 76, 64). Platforms carved in the shape of the *hṭp* -sign : *Mdw-nfr* (Junker, *Giza* VI, fig. 86), *Jdw* (Simpson, *Qar and Idu*, pl. XXIXc), *Tj* (Hassan, *Giza* VI(3), pl. 89). Plain rectangular platforms: *Jnw-Mnw* (Hassan, *Giza* VII, p. 18, fig. 8), *K3-nj-nswt* (Junker, *Giza* II, figs. 12, 13), *Nj-hṭp-Pth* (Badawy, *Nyhetep-Ptah*, p. 1, fig. 17, pl. 3).

Dynasty tombs - M23, M22 and M43 - and once more on the façade of the smaller tomb, Q4, dated to late Pepy I. The façade niches of M23, M22 and M43 are plain without any distinguishing features, but the niche on the façade of Q4 has a small drum.

Niches in forecourt walls appear in two tombs, K21 and L21, dated to end Pepy I-early/mid Pepy II, then in a small number of tombs dated mid-late Pepy II (G42, H15, H14, H4, H6, H26 and H24). Of these, K21, H15 and H14 have lintels above the niche, and five have drums, H4, H15, H14, H24 and H26. Two, H15 and H26, show small areas of white-painted brown plaster inside the niche. The façade niches, high above the floor of the forecourt and level with the top of the entrance doorway or the lintel over it, may have held statues such as are found at Giza in the façades of *Mr-ḥn.f* and *Snb*,¹²⁸ while those at ground level or slightly above the shafts and pits around the sides of the forecourts may have held stelae, small statues and food offerings.

Within the tomb, niches are found in the chapels or shrines of all the major Fifth Dynasty officials, then in two tombs dated to late Teti-beginning Pepy I (F1 and G95), in a group of tombs dating between late Pepy I to early/mid Pepy II (K5, K4, M8, M51, M52 and L21) and in tombs GA11, I49, B6, B7 and BA14 which are all dated to the end of the reign of Pepy II - Dynasty 8.

While niches are placed in a small number of shrines - M21, N15, M43, M44, and L21 - the majority are found in chapels, predominantly in north walls opposite the entrance to the tomb. The Fifth Dynasty chapels of M23 and M22 have niches in more than one wall and all still retain remnants of engaged statues. Tomb M23 has thirteen niches of varying sizes containing a total of twenty-four statues standing with feet together and hands by the side. M22 has two niches, one containing the remains of three figures and one with a

single figure all in the same pose found in M23.¹²⁹ The shrine in the Fifth Dynasty tomb of M21 contains a niche with a single figure also but now the figure is shown in a striding pose with one leg forward. This pose is found once more in the later tomb, K4, dated to Merenre-beginning Pepy II.¹³⁰ The statue niches in M22 are plastered and painted cream with red markings in imitation of wood graining and knot-holes while those in K5 are plastered and painted red with black spots, imitating granite. Of the three niches in the north wall of the chapel of M43, one has a frame around it similar to the framed niche of the northernmost seated scribe in the main room of the Giza tomb of *Mrs-^cnh III*.¹³¹

Niches with engaged statues have a sill height of between 0.60m and 1.00m above the floor except in tomb K4 where the statue base is at floor level. The remainder are niches which are placed in a mid to high position in walls except in three chapels where the niches begin at the floor. At present all these remaining niches are empty although their depths may indicate whether they were intended to hold statues or stelae. Shallow niches such as those in tomb M51, with a depth of 0.15-0.20m suggest that they were intended to hold stelae, while those with depths greater than 0.40m are known to contain statues, as in tombs M23 and M22 (see Table 12).

¹²⁸ Hassan, *Giza 3*, pls. 7(1), 9, fig. 14 (*Mr-^cnh-f*), Junker, *Giza V*, fig. 2 (*Snb*).

¹²⁹ In the Memphite cemeteries engaged statues within niches in tombs may be a single figure, a pair of figures, either a double statue of the tomb owner, or the tomb owner and a member of his family, or multiple representations along a wall, e.g:

Single figures: Giza: *Nfr-b3w-Pth* (Weeks, *Mastabas of Cemetery G6000*, pls. 40-1), *J3sn* (Simpson, *W. Cem.* I, pls. 41-2, fig. 28); *Jdw* (Simpson, *Qar and Idu*, pls. 21-23); Saqqara: *Tjj* (Steindorff, *Ti*, pls. 142-3).

Double/pair group: Giza: *Mrs-^cnh III* (Dunham-Simpson, *Mersyankh III*, Plan C, pls. 11, 17a. b.), *Tstj* (Hassan, *Giza 3*, pl. 59, fig. 127), *R-^chr-k3.j* (Ziegler, *Les Statues Égyptiennes*, No. 34, p. 123).

Multiple figures: Giza: *Dbhn-j* (Hassan, *Giza 4*, p. 167ff), *Mrs-^cnh III* (Dunham-Simpson, *Mersyankh III*, Plan C, pls. 6, 8, 9, 11), *Q3r* (Simpson, *Qar and Idu*, pls. 6, 11); *K3-^chr-Pth*, (Kendall, *An Unusual Rock-cut Tomb at Giza*, pp. 104-118).

Saqqara: *Jrw-k3-Pth* (McFarlane, *Irukaptah*, pls. 24-36); *Qd-ns* (Mariette, *Mastabas*, E10, p. 403).

¹³⁰ At Giza and Saqqara free-standing statues designed to be placed in niches are invariably shown in this striding pose but it is less frequently found in engaged statues, see for example, *Jwn-r* (Hassan, *Giza VI*, pl. 17), *Nfr-b3w-pth* (Weeks *Mastabas of Cemetery G6000*, pls. 40-1), *Pn-mrw* (Simpson, *W. Cem.* I, pls. 48-51), *K3-m-nfrt* (Badawy, *Iteti*, pl. 28), *Mrrw-k3.j* (Duell, *Mereruka II*, pls. 123, 147-8).

¹³¹ Dunham-Simpson, *Mersyankh III*, pl. 8.

Engaged statues, either as single or double figures, or multiple statue groups, are found *in situ* in a number of provincial tombs. A single rock-cut statue is positioned at the end of the entrance corridors opposite the entrance doorway in the tombs of *Df3(.j)-dd* (A1), *K3(.j)-hnt* (A2) and *K3(.j)-hnt* (A3) at Hammamiya. Single seated figures of the tomb owner, *Ppjj-^cnh/Hnjj-km* (A2) at Meir are cut into the north walls of Rooms A and B facing the entrance to the tomb and seated figures are again placed in the north walls (although these are now to the left of the entrance) of the tombs of *Srf-k3.j* and *Mrw/Bbj* at Sheikh Said. Both these tombs also have multiple standing statues placed in niches in the wall opposite the entrance (the east wall) and single and double statues are cut into the same wall and positioned opposite the doorway in the tombs of *Wjw/Jjjw* and *Ttj-^cnh/Jj-m-htp* . Seated statues of *Srf-k3.j* and his wife are centrally placed in the inner room of his tomb again opposite the entrance; this placement is repeated in the innermost room of the tomb of *Mrw/Bbj* while *Ttj-^cnh/Jj-m-htp* has statue niches in all walls of his inner chamber. Family groups and pair statues are cut into north, south and west walls of the tomb of *Hnw-k3* (14) and *Nj-k3-^cnh* (13) at Tehna and into the east walls of *K3(.j)-hnt* (A2) and *K3(.j)-hnt* (A3) at El-Hammamiya. ¹³²

The **burial apartments** (see Tables 13-17) in the tombs of this cemetery are comprised of shafts or passages leading to burial chambers in the bed-rock. Their entrances or mouths are either square or rectangular in shape and are cut into the floor of the chapel, the shrine or a secondary room, or into a wall of one of these chambers. ¹³³ Main shaft entrances are found within the tomb with three exceptions - M43, M44 and Q15 - whose shaft mouths

¹³² *Df3.j-dd* (El-Khouli-Kanawati, *El-Hammamiya*, pl. 5), *K3(.j)-hnt* (A2) (ibid, pls. 7, 16(c), *K3(.j)-hnt* (A3) (ibid, pl. 18(a, b)); *Ppjj-^cnh Hnjj-km* (Blackman-Apted, *Meir* V, pls. 52(3)); *Srf-k3.j* (Davies, *Sheikh Said*, pl. 3), *Mrw/Bbj* (ibid. pls. 18, 21), *Wjw/Jjjw* (ibid. pl. 22), *Ttj-^cnh/Jj-m-htp* (ibid. pl. 27) Tomb 6 (ibid. pl. 32); *Hnw-k3* (Frazer, *Tehneh*, p. 74), *Nj-k3-^cnh* (ibid. p. 123-28, pl. 1).

¹³³ Entrances to main burial apartments are found in the shrines of tombs M21 (*H* V, fig. 23) and L21 (*H* VI, fig. 10), and in the walls of tombs CA1(*H* VIII, fig. 6a), C9 (*H* VII, fig. 7a) and L42 (*H* IX, fig. 3a).

are positioned outside the tomb.¹³⁴ Minor burial apartments are also found in the forecourts of major tombs, in porticos, or even in the thickness of the façade. Rare examples of external entrances to burial passages are found at Giza in mastabas of the Fourth Dynasty¹³⁵ but are more frequent from late Dynasty 5 at both Giza and Saqqara. At Giza this type of entrance is seen in the tombs of *R^c-wr III*, *‘nh-ḥ3.f*, *Shm.k3* and *Ssm-nfr IV*, and at Saqqara before the joint tomb of *Shntjw* and *Nfr-sšm-ptḥ* south of the Unis Causeway and the sloping passage leading to the burial chamber of *3ht-ḥtp*. In the complex mastaba of *Tjj* also at Saqqara, the entrance to the main burial shaft is in the pillared court to the east of the chapels, like *Ssm-nfr IV* at Giza.¹³⁶

A study of the shafts and passages at El-Hawawish resulted in a typology of seven categories and these follow a chronological sequence. The earliest type with vertical shafts with square mouths or entrances, designated in this study as Category 1, is the dominant type for both main and secondary shafts in the majority of tombs dated to the reigns of Neuserre, Djedkare, Unis and early Teti. With tombs M44 and N15 dated to the reign of Unis, the entrances to main shafts change from square to rectangular in shape. Vertical shafts with a square entrance are not found again for main shafts except in two small tombs with shallow, horizontal shafts dated mid-late Pepy I, Q2 and Q15,¹³⁷ and then in two further small tombs dated to early Pepy II, M51 and M52. From the middle of the reign of Teti rectangular mouths to burial passages become the usual entrance (although the forms of the passage were to change) until the latest dated tombs in Dynasty 8. Vertical shafts to main burial chambers disappear in major tombs after G98, G97 and

¹³⁴ M43 (*H V*, figs. 1, 2), M44 (*H V*, figs. 1, 4), Q15 (*H VI*, fig. 20a).

¹³⁵ E.g. the royal mastaba of a daughter of Khafre (Hassan, *Giza VIII*, figs. 1-3).

¹³⁶ *R^c-wr III* (Hassan, *Giza V*, fig. 154); *‘nh-ḥ3.f* (Hassan, *Giza III*, figs. 113, 116); *Shm.k3* (Junker, *Giza XI*, fig. 1); *Ssm-nfr IV* (Junker, *Giza XI*, fig. 49); *Shntjw/Nfr-sšm-Pth* (Moussa-Junge, *Two Tombs*, fig. 1); *3ht-ḥtp* (Hassan, *Saqqara 2*, p. 68, pl. LXIII); *Tjj* (Steindorff, *Ti*, pl. 1).

¹³⁷ These two tombs although having burial shafts with square mouths and a vertical access are grouped with Category 4(1)a. shafts which are very shallow with a short, vertical section leading to a horizontal passage and the burial chamber (see above, p. 116).

G95, possibly a family group of tombs dated to the period late Teti-early Pepy I, and for Shaft IV in tomb M8, dated to the beginning of Pepy II which may have been conceived as the earlier main burial apartment before additions to the chapel were made to the north. These additions now include the final main passage (Shaft VI, a sloping passage) and the main burial chamber. In the narrow court before M8, two smaller tombs, M51 and M52, whose owners are possibly relatives of M8, also have vertical shafts with square mouths. This is the last use of vertical shafts and of square mouths in main burial apartments although this type can be found in a small number of secondary shafts in later tombs but with rectangular mouths (see Category 1, p. 117).

Vertical shafts descending from square mouths are the usual access to burial chambers in the tombs of the Memphite cemeteries from the Third to the Sixth Dynasties.¹³⁸

Similarly, this type of shaft appears in provincial cemeteries in tombs dated to the Fifth Dynasty, for example, at El-Hammamiya for all burials except for one small, uninscribed tomb, and at Deshasha in the tomb of *Jntj*. Vertical shafts continue to be found in later provincial tombs dated from the the reigns of Teti to Pepy II at Sheikh Said (in all tombs except that of *Srf. k3.j* (24)), at Deshasha (in the tomb of *Šdw*), Meir, Quseir el-Amarna and Deir el-Gebrawi (in the tombs of *Hm-R^c/Jzj*(72) and *D^cw* (12)).

The second category of burial passages at El-Hawawish is chosen by five major tomb owners dated to almost the same period as the Category 1 officials, that is from early Djedkare to Unis, M23, M22, N15, M43 and M44. Here the main access to the burial chamber is still a vertical shaft, but in these tombs it is preceded by a sloping passage.

¹³⁸ Examples of vertical shafts, Medum: *R^c-htp* (Reisner, *Tomb Development*, fig. 107), Unknown tomb owner, *ibid.* fig. 108, *Nfrt* (*ibid.* fig. 110) ; Giza: *R^c-wr* (Hassan, *Giza I*, fig. 23), *Nj-k3w-r^c* (Reisner, *Giza I*, fig. 125 (Sh. 13), *Mrs-^cnh III* (*ibid.* fig. 131), *Ssm-nfr III* (Junker, *Giza III*, figs. 36, 38a) ; Saqqara: *Idwt* (Macramallah, *Idout*, fig. 13), *Mrrw-k3.j* (Firth-Gunn, *Teti Pyr. Cem. I*, fig. 19), *K3-gm-nj* (*ibid.* fig. 15), *nh-m-^c-Hr* (Kanawati-Hassan, *Teti Cem. II*, pl. 32).

Between the sloping passage and the vertical shaft is a chamber (a false burial chamber?) in whose floor the entrance to the vertical shaft is cut. This type of burial complex is not found again in any later tombs at El-Hawawish. Similar complex burial apartments are found in a small number of mastabas at Giza and Saqqara dating from the beginning of the Third Dynasty (Reisner's Type IVB). These are entered firstly by a stair descending from the top of the mastaba to a set of chambers cut into the rock beneath. From this level a vertical shaft descends to a lower level where the burial chamber is situated. There may be a single intermediate level or a number of these; the tomb of *Hsjj-R^c* for example has three levels of subterranean chambers.¹³⁹ A similar, but later, burial consisting of two vertical shafts with an intermediate chamber is that of the wife's burial in the tomb of *Q3r* at Giza.¹⁴⁰

At the end of the reign of Teti and through that of Pepy I, other types of burial apartments appear: horizontal passages cut into the walls of chapels, designated here as Category 3, and horizontal passages situated immediately beneath the floor of the tomb, Category 4. The first of these types, Category 3, is the form of the main shaft in three tombs dated to the reign of Pepy I with the earliest found in the tomb of the vizier *B3wj*, CA1, then in tombs C9 and L42. Secondary shafts of this type are present however in the slightly earlier tombs of N15, dated to Unis, and the adjacent, uninscribed tomb N16, and in the later tombs, L21 and BA63, dated to early-mid Pepy II.

This type of burial apartment cut into the walls of chapels, is chosen for the secondary burials at Deir el-Gebrawi in the tombs of *Hm-R^c/Jzj* (72) and *Hnqw/Jj...f* (67), both dated to Teti, *Hnqw/Httj* (39), dated to Pepy I and *Jbj* (8) dated to Merenre-Pepy II, and at El-

¹³⁹ See Giza Mastaba T in Petrie, *Gizeh and Rifeh*, p. 7, pl. VII, and Reisner, *Tomb Development*, fig. 73; *Hsjj-R^c* in Quibell, *Hesyr-ra*, pl. 1, and Reisner, *Tomb Development*, fig. 75.

Hagarsa in the small chapel of *Hwj* (B19), dated to early Pepy II. In the same cemetery entrances to burials are also found cut into the rear walls of chapels in the Fifth Dynasty tombs of *K3(.j)-m-nfrt* (A3) and *Nfrt-hr* (A6) although the passage behind the entrance in *K3(.j)-m-nfrt* is not horizontal in form. Similarly, the entrances to the major shafts of *Hnw-k3* at Tehna, *Jbj* (8) at Deir el-Gebrawi, *Ppjj-^cnh/Hnjj-km* (A2) at Meir, *Jdw/Snnj* at Qasr es-Saiyad and Tomb 37 at Sheikh Said are cut into walls but the passages behind these are sloping.¹⁴¹ Examples are found in smaller rock cut tombs at Giza, such as Tomb F and the tomb of *Nfr-hr-n-Pth*.¹⁴²

Category 4 passages which are cut immediately beneath the floor of chapels, form the dominant type of access to burial chambers for most tombs dated to the second half of the reign of Pepy I, Q2, Q4, Q15, Q13, N20 and G124. They then appear as the major shaft type in tombs L21, L23 and B83, dated early-mid Pepy II, although are used for secondary burials up to the end of Dynasty 6. Access to these shallow passages beneath the chapel floor is by a short vertical section which in some instances has a sloping floor possibly to provide an easier passage for the coffin (see Figs.133-4). The shaft mouths of Category 4 are square in all the secondary shafts of the Fifth Dynasty tomb N15, and for the main shafts in the two tombs, Q2 and Q15, dated to late Pepy I, but rectangular in all later examples where this type occurs.

The same shallow shafts cut immediately below the chapel floor are usual in most tombs at El-Hagarsa which are dated from early Pepy II to Dynasty 8: *Sbk-nfr* (B18), *'n-^cnhj* (B13), *Mrjj* (C2), *Mrjj-^c3* (D18), Shafts I and II, *Hffj* (D11), *W3hj* (D4) and *Hffj* (D14)

¹⁴⁰ Simpson, *Qar and Idu*, p. 12, fig. 5.

¹⁴¹ *Hm-R^c/Jzj* (Davies, *Gebrawi*, II, pl. 16), *Hnqw/Jj...f* (ibid pl. 22), *Hnqw/Httj* (ibid pl. 27), *Jbj* (Deir el-Gebrâwi I, pls. 2, 2a); *Hwj* (Kanawati, *El-Hagarsa* I, pl. 23b), *K3(.j)-m-nfrt* (ibid pl. 16), *Nfrt-hr* (ibid pl. 22a); *Hnw-k3* (Fraser, *Tehneh*, pl. II), *Ppjj-^cnh/Hnjj-km* (Blackman-Apted, *Meir* V, pls. 1, 2; *Jdw Snnj* (Säve-Söderbergh, *Hamra Dom*, pl. 5; Tomb 37 (Davies, *Sheikh Said*, pl. 34).

with its neighbour, the uninscribed tomb D15. All are main shafts. This form of shaft is also found at Deir el-Gebrawi in the tomb of *Jbj* in a secondary burial possibly for the tomb owner's wife who is represented together with an offering list adjacent to the entrance to the shaft, and in the uninscribed Tomb 95.¹⁴³ At Giza this form is observed in secondary burials in major tombs such as those of *Jwn-Mnw* and *Mr-^cnh.f*.¹⁴⁴

The slightly sloping passages of Category 5 are similar to those of Category 4 although their position below the floor of the chapel is a little deeper with both floor and ceiling having slight angles rather than being parallel to each other. All entrances to shafts of this category are rectangular with one exception in a secondary shaft. The small number of tombs featuring this shaft type are found in the period late Teti - beginning Pepy I, in tombs F1, G126 both main burials, G98 and G95 secondary burials, then in late Pepy I in tomb B12 a main burial, with the two remaining examples dated to Pepy II - the small tombs, M52 and G49, both main burials. Similar shafts at Giza are those in the tombs of *Bw-nfr* and *Nj-^cnh-r^c*.¹⁴⁵

While the number of tombs which feature burial passages of Categories 4 and 5 are relatively few, the passages of the following group, Category 6, are the most numerous of all the categories. This group consists of regular sloping passages with the floor and ceiling parallel. The type first appears in the incomplete tomb, K16, whose owner's name and titles are unknown but who is dated on stylistic grounds to the reign of Teti, then in the major but uninscribed tomb, G22, and the small adjacent tomb, G23, both tentatively dated to the end of the reign of Teti or the beginning of Pepy I. Following its appearance

¹⁴² Abu-Bakr, *Giza*, figs. 86, 96.

¹⁴³ *Sbk-nfr* (Kanawati, *El-Hagarsa* I, pl. 23a), *n-nhj* (ibid, pl. 30a), *Mrjj* (ibid, pl. 41a), *Hfff*, D11 (ibid II, pl. 5a), *W3hj* (ibid III, pl. 18), *Mrjj-^c3* (ibid III, pl. 33), *Hfff* D14 and D15 (ibid III, pl. 32b); *Jbj* (Davies, *Deir el-Gebrawi* I, pls. 2, 2a), Tomb 95 (ibid II, pl. 17).

¹⁴⁴ Hassan, *Giza* VII, figs. 11, 14, 15, 16; ibid III, figs. 18, 19.

¹⁴⁵ Hassan, *Giza* III, fig. 157, and Hassan, *Giza* IV, fig. 112, respectively.

in tomb Q4 of the *jmj-r hm-ntr Wbnw*, later in the reign of Pepy I, this type becomes usual. It is the form of the main shafts in seven tombs dated towards the end of the reign of Pepy I, in fourteen of that of Pepy II and in two dated to late Dynasty 6 - Dynasty 8, the Nomarchs *Tjt-ꜥ3* (tomb H41) and *Bhn* (C3), who is the last tomb owner to use this type as his main burial passage. In the Memphite cemeteries sloping passages are occasionally found in royal mastabas of the Fourth Dynasty ¹⁴⁶ and from the mid Fifth Dynasty and throughout the Sixth they are frequently seen. ¹⁴⁷ However the use of vertical shafts continues throughout the Teti cemetery, for example in the large and complex tombs of the high officials and relatives of Teti such as *Mrrw-k3.j*, *K3-gm-nj*, *ꜥnh-m-ꜥ-Hr*, and *Nfr-sšm-Rꜥ* which lie to the north of his pyramid at Saqqara.

Sloping passages in the provinces appear in tombs from the middle of the Fifth Dynasty. The earliest of these may be the short burial shaft at the south end of the chapel in the tomb of the late Fourth Dynasty official, *Hnw-k3*, at Tehna, and the main shaft of the early Fifth Dynasty tomb owner, *K3(.j)-m-nfrrt* at El-Hagarsa. ¹⁴⁸ This latter burial complex is unusual for although the main burial passage slopes down from a central opening in the rear wall of the chapel for nearly three metres it then slopes upward to the burial chamber. A similar descending and ascending burial passage is seen in the mid-late Fourth Dynasty rock-cut tomb of *Dbhn-j* at Giza although the slope here is less pronounced. ¹⁴⁹ From the middle of the Fifth Dynasty regular sloping passages appear in the provinces in the tombs of *Srf-k3* at Sheikh Said (dated to late Djedkare), *Wnjs-ꜥnh* at

¹⁴⁶ Reisner's shaft type 9 (Reisner, *Giza*, p. 150ff, fig. 27), e.g. *Nj-k3w-rꜥ* (ibid, fig. 125); mastaba of a member of the family of Khafre (Hassan, *Giza* VII, fig. 3); *Rhjt-rꜥ* (Hassan, *Giza* VI, fig. 1)

¹⁴⁷ E.g. sloping shafts at Giza: *Sšm-nfr* IV (Junker, *Giza* XI, figs. 49, 52); *Šhm-k3* (Junker, *Giza* XI, fig. 1); *Idw* I and II (Junker, *Giza* VIII, figs. 25, 30); *K3-hr-Pth* (ibid, VIII, fig. 148); *ꜥnh-h3:f* (Hassan, *Giza* III, fig. 116).

At Saqqara: *Tjj* (Steindorff, *Ti*, pl. 1); *Nj-ꜥnh-b3* (Hassan, *Saqqara* III, pp. 45, 48); *Nb-k3w-hr* (Hassan, *Saqqara* I, fig. 23); *Mhw* (Altenmüller, *Mehu*, Plans A, C, E).

¹⁴⁸ Fraser, *Tehneh*, pl. II, Kanawati, *El-Hagarsa*, pl. 16 respectively.

¹⁴⁹ Hassan, *Giza* IV, fig. 129.

Thebes (late Teti), *Jbj* at Deir el-Gebrawi (Merenre-early Pepy II), *Hntj* (Merenre-early Pepy II) and *Jhjj* (mid Pepy II) at Thebes, *T3wtj* (Merenre-early Pepy II) and *Jdw/Snnj* (early Pepy II) at Qasr es-Sayaid, *Jdw I* and *Jdw II* at Dendera (Merenre-Pepy II) *Ppjj-nh/Hnjj-Km* (Pepy II) at Meir, *Hr-hw.f* (late Pepy II) at Aswan, and *Sbk-htp* and *'nh-tj-ff* (late Pepy II- Dynasty VIII) at Moalla.¹⁵⁰ Another descending shaft though of an irregular form is found in the late Fifth dynasty tomb of *Jntj* at Deshasha. Here a series of steps, originally thought by Petrie to be a sloping passage, leads to the burial chamber from an opening in a central niche in the west wall of the chapel.¹⁵¹ Uninscribed tombs such as Tomb 37 at Sheikh Said and Tomb C3 at El-Hammamiya also have sloping passages.¹⁵² Unfortunately many burial shafts in provincial cemeteries remain uncleared and their type is therefore unknown.

The final group of burial passages, Category 7, consists of sloping passages with an irregular gradient or an interruption to the ceiling and/or floor of the passage. All eight tombs where this is the main burial passage, as well as the two tombs where this is found in secondary passages date from mid - late Pepy II to Dynasty 8. Except for the Nomarch, *Bhn*, C3, mentioned above, whose main passage is of Category 6 type, all main burial passages in tombs dated to Dynasty 8 belong to Category 7.

In Fifth Dynasty tombs such as G84, M21, L6 and L8, the vertical shafts were placed close to the false door so that the burial chamber was positioned below it. But five major Fifth Dynasty tombs, M23, M22, M43 and M44 and N15, adopted a combination of vertical shafts and sloping passages and in these tombs the mouths of their shafts are

¹⁵⁰ *Srf-k3* (Davies, Sheikh Said, pl. 3), *Wnjs-nh* (Saleh, Tombs at Thebes, pl. 2), *Jbj* (Davies, Deir el-Gebrawi, I, pl. 2), *Hntj* and *Jhjj* (Saleh, Tombs at Thebes, pl. 7, figs. 38, 55), *T3wtj* and *Jdw/Snnj* (Säve-Söderberg, Hamra Dom, pls. 5, 12), *Jdw I* and *Jdw II* (Petrie, Denderah, pl. 29), *Ppjj-nh/Hnjj-Km* (Blackman-Apted, Meir V, pls. 1, 2), *Hr-hw.f* (de Morgan, Catalogue des mon., p. 163), *Sbk-htp* and *'nh-tj-ff* (Vandier, Mo'alla, pls. I, II).

¹⁵¹ Petrie, *Deshasha*, p. 5, pl. III, Kanawati-McFarlane, *Deshasha*, pls. 23, 24.

some distance away to the south of the false door which was sited in the west wall. From the entrance to these burials, a passage sloped down until it was beneath the false door then descended vertically to the main burial chamber so that once again the burial chamber was beneath the false door (see Category 2, p.118, Fig.117). If the desire for greater security was the reason for this new plan it was to no avail for all burial chambers were found robbed. With the adoption of horizontal and sloping passages (Categories 3-7), burial passages now passed beyond the chapel walls although the entrances in some were still positioned close to false doors. The burial chambers themselves are no longer beneath false doors and although some lie parallel with them, as in tomb Q4, most appear to have no close relationship with their false doors, for example, the main burials of an Overseer of Fields and Serfs, *Hzzj-Mnw* of tomb F1, a Superintendent of Priests, *Q3r*, owner of L31, and the major burial (Shaft 6) in the large tomb of the Nomarch, *K3.j-hp/Ttj*, M8.

All sloping passages and rectangular mouths where they occur in Fifth Dynasty tombs have their long axes perpendicular to the entrance wall (a N-S alignment), except for a secondary and incomplete shaft (Shaft III) in tomb M44. Early in the reign of Teti, the owner of tomb K16, while still orienting the rectangular mouth and passage of his main burial N-S, re-positions these so that they are parallel to the entrance wall and not perpendicular to it. After tomb K16, this orientation of rectangular mouths and sloping passages is then found in a small number of main shafts in the following tombs: Q4, (end of the reign of Pepy I) and M8, B83, BA63 and C8 (Pepy II) and in some secondary shafts (see pp. 124-5). In these, the main axis of the shaft mouths (and passages) are parallel to the entrance wall regardless of the chapel axis. Apart from these tombs the dominant axis of rectangular mouths and their sloping passages continues to be

¹⁵² Tomb 37: Davies, *Sheikh Said*, pl. 34. Tomb C3: El-Khouli-Kanawati, *El-Hammamiya*, pl. 80.

perpendicular to the entrance wall, up to, and including, tombs dated to Dynasty 8. This orientation is also consistent in other provincial tombs for main burials and for most secondary burials.

From the beginning of Dynasty 6 a variety of positions within the tomb for entrances to burial shafts and passages is seen with a site in the rear of the chapel either to the left or in the centre being preferred until the period late Pepy II - Dynasty 8 when the centre of the chapel or the left front is the chosen position. In all periods, but particularly at the end of the Sixth Dynasty, variations to the usual position are found. The predominant place for the mouths of burial apartments in relation to the entrance to the tomb, is opposite the door regardless of the position of this doorway in the entrance wall. These may be directly in the entrance itself, for example in tomb G119, immediately beyond it, as in tombs K4 and G97, in the centre of the chapel, in tombs H26 and GA11, or at the rear, in tombs L23, H24 and C8.

In other provincial tombs the predominant position for shaft mouths is against the rear walls of their chapels. The mouth of the main burial is most frequently placed opposite the tomb entrance in all periods, see for example, *K3(j)-m-nfrt* (El-Hagarsa), *Jntj* and *Šdw* (Deshasha), *Jbj* (Deir el-Gebrawi), *Jdw/Snnj* (Qasr es-Saiyad), *Hw-ns* (Aswan) and *nh-tj-fj* (Mo'alla),¹⁵³ but where vertical shafts were still used these were found usually to the right of the entrance before false doors as in the chapels of *Ppjj-nh-hrj-jb* at Meir, *Mrw/Bbj*, *Mrw*, *Ttj-nh/Jj-m-htp* at Sheikh Said, and to the left of the entrance

¹⁵³ *K3(j)-m-nfrt* (Kanawati, *El-Hagarsa I*, pl.16), *Jntj* and *Šdw* (Kanawati-McFarlane, *Deshasha*, pls. 23, 40), *Jbj* (Davies, *Deir el-Gebrawi I*, pl. II), *Jdw/Snnj* (Säve-Söderberg, *Hamra Dom*, pl.5), *Hw-ns* (de Morgan, *Catalogue des mon*, p. 158), *nh-tj-fj* (Vandier, *Mo'alla*, pl.1).

before false doors in the tombs of *Wjw/Jjw* at Sheikh Said and *Hm-R^c/Jzj* at Deir el-Gebrawi.¹⁵⁴

The cutting of the shaft mouth is made directly into the floor of the chapel or the shrine or into the chapel walls except in a number of tombs dating from the end of the reign of Pepy II to Dynasty 8 where shaft entrances are raised above the chapel floor by ledges of between 0.10m to 0.60m high. This ledge surrounds three sides of the main shaft in tomb C3 and four sides in tombs H4, I49 and H12 (an uninscribed tomb). In the tomb of the Nomarch, *Tj-^c3*, H41, the shaft mouth is set in a platform 0.60m high cut into the mother rock in the NE corner of the chapel. In tomb H24 the floor of the chapel is raised on two sides of the main shaft, and on three sides in tombs H26 and B7. This feature is not noted in any other provincial tomb although the entrance to the main shaft in the tomb of *Jhjj* at Thebes is similar to that of *Hnj/Špsj-pw-Mnw*, H24, at El-Hawawish but both may be due to incomplete cutting and finishing in these chapels (see the more complete burial entrances in the nearby tomb of *Hntj* at Thebes).¹⁵⁵ In a small uninscribed rock cut tomb at Giza, Abu-Bakr reports a raised platform (a “bank”) over a small shaft and burial, similar in shape and height to the platform in tomb H41 at El-Hawawish.¹⁵⁶

A number of features are found at the entrance and within shafts and passages. Jambs are cut at the entrance to twelve main sloping passages, four in tombs dated to Dynasty 5-Teti, six in tombs dated to the reign of Pepy II and two in tombs dated to Dynasty 8. A vertical step down at the entrance to the passages of Categories 4 has already been noted. These would have assisted in the access of the coffin particularly for the very shallow

¹⁵⁴ *Ppjj-nh-hrj-jb* (Blackman, *Meir* IV, pl. I), *Mrw-Bhj* (Davies, *Sheikh Said*, pl. 18), *Mrw* (ibid, pl. 22), *Tj-^cnh/Jj-m-htp* (ibid, pl. 27), *Wjw/Jjw* (ibid, pl. 22), *Hm-R^c/Jzj* (Davies, *Deir el-Gebrawi* II, pl. 16).

¹⁵⁵ Tombs C3 (Kanawati, *H* I, fig. 23), H4 (ibid, IX, fig. 26), I49 (ibid, VIII, fig. 9a), H41 (ibid, VIII, fig. 11), H12 (ibid, IX, fig. 23c), H24 (ibid, II, figs. 1, 2), H26 (ibid, I, fig. 5), B7 (ibid, IX, fig. 16), *Jhjj* (Saleh, *Thebes*, fig. 55), *Hntj* (ibid, fig. 38).

¹⁵⁶ Abu-Bakr, *Giza*, Rock Tomb E, fig. 85, pl. LV1 A.

horizontal passages. A similar short vertical access has been seen already in the combination shafts of Category 2, the earliest example being that of tomb M22 dated to late Djedkare. Steps also appear at the end of shafts and passages before the entrance to the burial chamber sometimes in conjunction with a raised ceiling. In a small number of sloping passages the ceiling itself is 'stepped'. When this is combined with jambs cut into the side walls of the passage it gives the appearance of a frame within the passage, as seen in BA14, Sh. 2 (Fig. 146) and G72, Sh. 3.

In a small number of main and secondary passages a short, horizontal or near-horizontal, corridor is placed between the vertical shaft or sloping passage and the burial chamber. In the Memphite cemeteries, connecting passages were frequently constructed or cut between vertical shafts and burial chambers, for example in the main burials of *R^c-h_{tp}* at Medum, *R^c-wr* at Giza and *K3-gm-nj* at Saqqara.¹⁵⁷ At El-Hawawish, five tombs dated to the period mid- Dynasty 5 to Teti include these connecting passages: M23, M21, L8, M43 and G98. Most are very short with the two passages in M21 having the greatest length at 0.75m (Shaft II) and 0.98m av. (Shaft III). Similar connecting passages are found at El-Hammamiya linking the base of the main vertical shafts of *K3(j)-h_{nt}* (A2), 0.55m in length, *K3(j)-h_{nt}* (A3) and *Df3(j)-dd* (A1), both of 0.30m in length, with their burial chambers.¹⁵⁸

In sloping passages, this feature occurs chiefly in tombs dated to early-mid Pepy II, M8, G79, G42, BA48, H15, H27 and H24, with exceptions found in the uninscribed large tomb, G22 whose suggested date is late Teti or the beginning of the reign of Pepy I, and in a small tomb dated to late Pepy I-beginning Pepy II, K21. At the base of these sloping

¹⁵⁷ See Reisner, *Giza I*, pp. 86-95. *R^c-h_{tp}* (Petrie, *Medum*, pl. VII); *R^c-wr* (Hassan, *Giza I*, fig. 23); *K3-gm-nj* (Firth-Gunn, *Teti Pyr. Cem.* II, fig. 15).

passages the length of the corridor is much greater than the connecting horizontal passage between the vertical shaft and the burial chamber in the earlier Fifth Dynasty-Teti tombs. In six of the eleven tombs with sloping passages where this corridor is found, its length is approximately half the length of the sloping passage, in two it is the same and in the remaining three it is approximately one quarter or less than the length of the sloping passage. At Deir el-Gebrawi a similar short, horizontal passage is present between the sloping passage and the burial chamber in the tomb of *Jbj* (dated to Merenre- early Pepy II). Lack of section diagrams in many provincial tomb reports prevents the assessment of other examples.

Horizontal passages between sloping shafts and burial chambers are rarely found in private tombs at Giza and Saqqara, ¹⁵⁹ although they form part of the construction of royal burial apartments for example in the pyramids of Khufu and Menkaure and of the Mastabet Fara'un, in order to bring the burial chambers under, or close to, the centre of the pyramid mass. ¹⁶⁰ Their use in royal burials does not appear to have been widely adopted in Memphite private tombs nor can it be the reason for their appearance in burials at El-Hawawish. Here their inclusion is possibly for ease of access to the burial chamber from the sloping passage in most examples where the corridor is shorter. But for those tombs with longer horizontal passages – M8, H27 and H24 - the reason may be related to the desire for greater security for their burials without descending deeper into the mountain, and which would be more economical as well. Their use may also be attributed to the advantages of cutting passages in better strata in the native rock.

¹⁵⁸ *K3(.j)-hnt* (A2), Shaft II (El-Khouli-Kanawati, *El-Hammamiya*, pl. 55), *K3(.j)-hnt* (A3), Shaft II (ibid, pl. 34), *Df3.j-dd* (A1), Shaft V (ibid, pl. 27).

¹⁵⁹ E.g. Hassan, *Saqqara* I, fig. 23 (*Nb-k3w-Hr*)

¹⁶⁰ Fakhry, *Pyramids*, figs. 77, 84; Jéquier, *Mastabet Faraoun*, pl. II.

In some tombs the end of the burial passage is enlarged immediately before the burial chamber by the raising of the ceiling of the passage. This occurs mostly in sloping passages but also in three horizontal passages. In main passages this enlargement is found in three tombs dated to late Pepy I (K21, N20 and B12), then in five dated to Dynasty 8 (BA14, BA17, J2, B6 and B7). It is found in secondary passages in two earlier tombs, G95 and G22 (end Teti-beginning Pepy I) and in the later tomb, G66. This enlargement, usually by a raised ceiling but also by a step down at the end of the Dynasty 8 sloping passages, gives the appearance of an irregular antechamber before the burial chamber (see fig. 150). The vertical shafts in tombs G97 (Shaft I) and G98 (Shaft II), also widen at the base of the shaft before the burial chamber. Two separate antechambers are present in tomb M8 dated to the beginning of the reign of Pepy II (fig. 149). The first is between the vertical shaft (IV) (possibly the original main shaft) and the burial chamber, the second is between the main sloping passage (VI) and its burial chamber. These large, well cut rooms recall those in the queens' pyramids at Giza which Reisner calls "turning" rooms, constructed to allow the sarcophagus/coffin to turn at right-angles from the sloping passage into the burial chamber.¹⁶¹ Cut into the walls of both vertical shafts and sloping passages are footholds, niches and storage rooms and in one instance, in the main shaft of M22, a central square channel in the floor of the upper sloping passage. Niches are found in three vertical shafts, all main shafts, in tombs dated to Dynasty 5 - Teti, L8, F12 and M43, and in one secondary shaft in the later tomb, BA48, dated to early-mid Pepy II. In sloping passages they only occur in tombs dated to the end of Dynasty 6 - Dynasty 8, H6, H41, C3 and BA17. While the usual position for niches is above the burial chamber (see Figs. 151, 152), those in tombs C3, H41 and BA17 are placed opposite it (see Figs. 153, 154). All have the same orientation as the burial chamber except for the vertical shaft II in tomb BA48 where the niche is 90 degrees to the axis of the burial chamber. Earlier niches

¹⁶¹ Tomb M8: *H III*, figs. 3, 4; Reisner, *Giza I*, figs. 63, 65, 69.

are shallow in depth but the later examples in tombs BA48, C3 and H41, are almost the same dimensions as the burial chamber itself and are very close to it in position. All were found empty but because of their size and position, their purpose as storage rooms or as additional burial chambers may be proposed. Similar niches are cut into the walls, and at the base, of vertical shafts at Giza.¹⁶² Large recesses opposite burial chambers in some vertical and sloping shafts in this position would have assisted the movement of the sarcophagus into the burial chamber.¹⁶³ At El-Hawawish in tombs C3, H41 and BA 17 recesses in a similar position may possibly have been cut for the same reason. In the provinces, niches are cut into the walls of main vertical shafts in the early Fifth Dynasty tomb of *K3(j)-hnt* (A3) and the uninscribed Tomb B1 at El-Hammamiya and in a secondary vertical shaft in the tomb of *Šdw* at Deshasha, dated to the reign of Teti. Those at El-Hammamiya are shallow but the recess in Shaft C in the tomb of *Šdw* at Deshasha is large enough to have contained a burial.¹⁶⁴ Large recesses are also found at the base of vertical shafts opposite burial chambers in two tombs at El-Hammamiya, *K3(j)-m-nfrt* (C4) and *K3(j)-hnt* (C6), the latter being two steps lower than the level of the burial chamber similar to tomb H41 at El-Hawawish, and at Deshasha in the main shaft of *Šdw*.¹⁶⁵

Burial chambers in their simplest form are a continuation of the burial passage itself (see Fig. 162, G22, Shaft III), but most chambers are wider than the passage, usually extending to one side of the passage (Fig. 160, N20, Shaft II). When the chamber widens on both sides of the passage an almost square proportion is obtained, though this is rare (Fig. 168,

¹⁶² E.g. in walls of shaft: Pillared Mastaba No. 15 (Hassan, *Giza* VII, fig. 75; mastaba of *Sd-htp* (ibid, III, fig. 97); Shaft G7102A in the tomb of *Idw* (Simpson, *Qar and Idu*, fig. 14); at base of shaft: mastaba of *Mdw-nfr* (Hassan, *Giza* III, fig. 105).

¹⁶³ Reisner, *Giza* I, pp. 164-8, fig. 74.

¹⁶⁴ *K3(j)-hnt* (A3) (El-Khouli-Kanawati, *El-Hammamiya*, pl. 55, Shaft 2), Tomb B1 (ibid, pl. 77); *Šdw* (Kanawati-McFarlane, *Deshasha*, pl. 42, Shaft C).

¹⁶⁵ *K3(j)-m-nfrt* (C4) (El-Khouli-Kanawati, *El-Hammamiya*, Shaft I, pl. 72), *K3(j)-hnt* (C6) (ibid, Shaft II, pl. 75); *Šdw* (Kanawati-McFarlane, *Deshasha*, Shaft I, pl. 41).

BA14 Sh.II). While most chambers are predominantly rectangular and regular in their shape with walls positioned at 90 degrees to each other, in some tombs one wall is cut at an angle. Main burial chambers in Fifth Dynasty tombs are well cut and regular in shape but in the intermediate “false” burial chambers of tombs M23, M22, M44 and M43, all Category 2 tombs, one wall is cut at an angle to its adjoining walls. The same is found in nine main burial chambers in tombs dated to late Teti and the reign of Pepy I, and in six tombs dated from mid-late Pepy II to Dynasty 8 (Fig. 163, K18).

Amongst the inscribed tombs the main orientation of forty three burial chambers is N-S while twenty four have an E-W orientation. The Fifth Dynasty tombs with main shafts belonging to Categories 1 and 2 have chambers all oriented in a N-S direction but tombs with vertical main shafts dated Teti to early Pepy I, F12, N15, N16, G97 and G95, change to an E-W orientation with the exception of tomb G98 whose main burial chamber has a N-S orientation. The later tomb of M8 (beginning of the reign of Pepy II) contains a vertical shaft (Sh. IV), possibly the original main shaft, with a burial chamber positioned E-W, as does the small adjacent tomb of a probable relative, M52, although the adjoining tomb of M51 gives a N-S orientation to the burial chamber of Shaft I (possibly the main shaft). All the burial chambers open from the west wall of vertical shafts except for tombs G95 and G97 where the chamber opens from the east wall and F12 from the north wall. The horizontal passages of Categories 3 and 4 are still predominately oriented in a N-S direction as are the shallow slightly sloping passages of Category 5.

This dominance changes with the sloping passages of Category 6 where 15 burial chambers are oriented in a N-S direction and 10 in an E-W direction. Likewise in Category 7, 5 chambers have a N-S axis and 4, an E-W one. The burial chamber of tomb K16 (dated to late Teti) which contains possibly the earliest example of a sloping passage

(Category 6), is still oriented N-S, although the burial chambers of similarly dated tombs with vertical shafts are oriented E-W, as are those opening from the sloping passages in the uninscribed but major tomb G22 from the same period. The slightly later Category 6 burial passages dated late Pepy I to the beginning of Pepy II - Q4, K5, G119, K21, K18 and K4 - are all oriented N-S, but during the reign of Pepy II until Dynasty 8, both orientations are adopted. The position of the tomb on the mountain does not seem to be an influence on the choice of the orientation of its burial chamber. Where provincial tomb reports include clear information on burial chambers, the N-S orientation predominates.

At the entrance to some burial chambers access from the floor of the shaft to the chamber is by a step down or, less frequently, by a step up. A step up is present in three Fifth Dynasty shafts, G84, M43 and the nearby small tomb of M45a as well as in the later tombs, M8 and M52 both dated to the beginning of the reign of Pepy II. A step down into the chamber is cut at the entrance to main and secondary burials in each of the Fifth Dynasty tombs, excluding N15 and N16, then in five tombs dated to Teti-beginning Pepy I, F12, G98, G95, G22 and G23, four to late Pepy I, Q2, Q13, B12, K5, and two to early Pepy II, M8 and L21. Only two later burials feature a step down, in tombs B7 and B6 where a small step is cut in the entry area before the burial chamber. Both are dated to Dynasty 8.

Jambs appear at the entrance to the Fifth Dynasty chambers of M23, M21, M22 (Shaft IV, possibly that of the wife of the tomb owner), L8, M43, M45a (only on one side), then in two tombs dated to Teti-beginning Pepy I, G98 and F1. Thereafter, they are found at the entrances to the two major shafts in M8 (Shafts IV and VI), then in tombs B6 and BA14, dated to Dynasty 8.

Burial pits are cut into the floor of nine burial chambers in tombs dated to the period Dynasty 5 to Teti - M23, M22, M21, L6, L8, M43, F12, G98, G95 - then in five chambers in tombs dated to Pepy II: M8, H27, H24, H26 and C8. In tombs M23, M22 (Shaft IV, possibly the wife's shaft), L8 (Shaft II), M43 and M8, the pit is surrounded by raised sides cut into the mother rock, giving the appearance of a sarcophagus base. Many of the pits occupy much of the burial chamber floor, but where a larger floor area permitted, a placement against the west wall is chosen.

At El-Hammamiya, the burial shafts and chambers of the Fifth Dynasty tomb owners, *Df3(.j)-dd*, *K3(.j)-hnt* (A2) and *K3(.j)-hnt* (A3) exhibit the same features as the similarly dated burials at El-Hawawish. All have a short connecting passage between the vertical shaft and the burial chamber and all have two jambs and steps at the entry. The burial chamber of *Df3(.j)-dd* is reached by a step up followed by a step down as in M43 and M8 at El-Hawawish, while *K3(.j)-hnt* (A2) has a step down in both its shafts. These three, as well as a further two tombs, *K3(.j)-hnt* (C6) and Tomb C2, have burial pits cut into the floor and all, except C2, are positioned against the west wall. Burial pits are found at El-Hagarsa in the Fifth Dynasty tombs of *K3(.j)-m-nfrrt* and *Nfrrt-hr*, at Deshasha in the main shaft of *Jntj*, at Quseir el-Amarna in the shaft of *Ppjj-nh-wr*, at Meir in the tombs of *Ppjj-nh-hrj-jb* (D2), and *Ppjj-nh/Hnjj-km* (A2), at Deir el-Gebrawi in the tomb of *Jbj* and at Dendera in the mastaba of *Jdw I*. In the last three tombs the burial chambers are at the base of sloping passages, but in both vertical shafts and sloping passages, and in the earliest to the latest examples (Fifth Dynasty to the reign of Pepy II), the burial pits are sited along west walls. The two burial pits of the tomb owner, *K3-m-nfrrt* and his wife at

El-Hagarsa have raised sides as in the tombs of M23, M22, L8 and M43 at El-Hawawish.¹⁶⁶

Burial chambers with the greatest floor area are found in three tombs dated Fifth Dynasty - Teti, M23, M22, M43 and G98, and in a small group of tombs dated to the reign of Pepy II, L31, H27, H24, H26 and J2. These areas range between 10.00sq. m and 12.95sq. m. for the earlier group and 10.20sq. m to 14.35sq. m for the later tombs. All are burials of the highest ranking officials, except for the owners in this last group dated to Pepy II, of tombs L31, H27, a woman who is possibly related to the Nomarchic family, and J2 whose name and titles are lost. Floor areas in the remaining burial chambers are then greatly reduced although these are in major tombs whose owners include the Nomarchs *Nhwt-dšr* (G95), *K3-j-ḥp/Ttj* (M8), *Hnj-ḥnhw* (H15) and *Ttj-3* (H41) and the viziers of tombs CA1 and B7. The burial apartment of the tomb of M8 may be more correctly assessed if the area of the large antechamber (21.46sq. m) is added to the surprisingly small area of the burial chamber (6.50sq. m). A similar grouping of tombs occurs when the height of burial chambers is considered. Those with the greatest height - between 1.40m and 1.95m - are found in the periods Dynasty 5 to Teti and early-mid Pepy II with a late exception in G66, dated to Dynasty 8. The remaining chambers have heights between 0.70m and 1.25m.

¹⁶⁶ *Df3-j-dd* (El-Khouli-Kanawati, *El-Hammamiya*, pl. 27, Shaft V); *K3-j-hnt*(A2) (ibid. pl. 34, Shafts I, II); *K3-j-hnt* (A3) (ibid. pl. 55, Shaft II); *K3-j-hnt* (C6) (ibid. pl. 75, Shaft II); Tomb C2 (ibid. pl. 79, Shaft II); *K3-m-nfrt* (Kanawati, *El-Hagarsa*, pls. 16, 17); *Nfrt-ḥr* (ibid. pl. 22a); *Jntj* (Kanawati-McFarlane, *Deshasha*, pls. 23-25); *Ppjj-ḥnh-wr* (El-Khouli-Kanawati, *Quseir*, pl. 25); *Ppjj-ḥnh-ḥrj-jb* (Blackman, *Meir* IV, pls. 1, 2); *Ppjj-ḥnh Hnj-km* (Blackman-Apted, *Meir* V, pls. 1, 2); *Jbj* (Davies, *Deir el-Gebrâwi* I, pls. 2, 2a); *Jdw* I (Petrie, *Denderah*, pl. 29)

REVIEW OF THE DATING INDICATORS IN THE TOMBS OF THE OFFICIALS AT AKHMIM

The chronological order of officials proposed in the study of the administration of Akhmim in the Old Kingdom¹⁶⁷ is supported by the architectural evidence found in the tombs. These reflect the rank of their owners, but all officials buried in the cemetery, even those of high rank were limited by their financial means. This is indicated by the size and complexity of their burials and can be seen, for example, in the differences between the tombs of a Nomarch of Pepy I, *Nhwt-dšr*, G95, another of Pepy II, *Hnj/Špsj-pw-Mnw*, H24, and the last in Dynasty 8, *Bhn*, C3.

The tombs of the highest ranking officials are concentrated in two periods, the Fifth Dynasty (from Neuserre to Unis) and the reign of Pepy II. These large tombs with often complex burial apartments are built in prime positions on the escarpment of El-Hawawish where the best rock formation permitted large forecourts, broad façades and high chambers cut deep into the mountain. Smaller tombs of minor officials or family members accompany these major tombs. In the reign of Pepy I and in the period from the end of Dynasty 6 to Dynasty 8 all chapel and burial chamber measurements are much reduced and shrines disappear. In these two periods a few prominent officials, such as the Overseer of Priests *Wbnw*, owner of tomb Q4 (dated to early Pepy I) and the Nomarch *Tjt-3* of tomb H41 (late Dynasty 6), cut tombs with measurements well above the average for their period, but even these do not equal the major tombs of Dynasty 5 or Pepy II.

¹⁶⁷ Kanawati-McFarlane, *Akhmim in the O. K.*, passim.

The earliest tombs such as G84, M23, M21, M22 and M43, are dated from the reigns of Neuserre to Unis in Dynasty 5. Titles suggest that these tomb owners, or at least some of them, came to administer Akhmim from Memphis, and the plans of their chapels, the design of their false doors and the type of burial shafts support this. The tomb of *Mnw-ḥnh*, G84, with a strongly inclined batter to its façade, a deep entrance and cruciform plan, closely resembles the stone-built mastabas of the Fourth and Fifth Dynasties at Giza. *Mnw-ḥnh*, possibly the earliest of the senior officials at El-Hawawish and most probably familiar with the current trends in the capital, would undoubtedly have wished to adopt these in his tomb. However, an earlier high provincial official has a chapel of similar shape, *Hnw-k3* at Tehna,¹⁶⁸ and this tomb may have been equally influential in *Mnw-ḥnh*'s choice of plan. The remaining major Fifth Dynasty tombs at El-Hawawish, *Mmj* (M23), *ḥnhw* (M21) and *Hzzj-Mnw* (M22), dated to Djedkare, are predominantly L- or reversed T- shape in plan with offering rooms oriented N-S and with one or two large, almost-square false doors of a simple style in the west wall, all of which were usual at Giza in the first half of Dynasty 5. A similar chapel plan and type of false door had already been adopted in the neighbouring cemetery of El-Hagarsa in the tomb of *K3(j)-m-nfrt*, dated to the reign of Neuserre or possibly earlier. Both the chapel plans and style of false door are also found at El-Hammamiya in the tombs of *Df3(j)-dd* (A1), *K3(j)-hnt* (A2) and *Rḥ-ḥtp* (C5) all dated to early-mid Dynasty 5.¹⁶⁹ A new design of false door with a cavetto cornice and torus moulding appeared at Saqqara and Giza in the early-mid Fifth Dynasty¹⁷⁰ and is first seen at El-Hawawish in the tomb of the high official, *Hm-Mnw* (M43) who governed the province early in the beginning of the reign of Unis. The earlier, plainer style of false door is not found in any tomb in this cemetery after the reign

¹⁶⁸ Frazer, *Tehneh*, pl. II (dated to Menkaure).

¹⁶⁹ Kanawati, *El-Hagarsa* I, pl. 16 (*K3(j)-m-nfrt*); El-Khouli-Kanawati, *El-Hammamiya*, pls. 25, 52, 71 (*Df3(j)-dd*, *K3(j)-hnt*, A2, *Rḥ-ḥtp*, C5).

¹⁷⁰ *Pr-sn* (Petrie-Murray, *Memphite Tomb Chapels*, pl. IX), *Ph-n-wj-k3j* (I.II II, 48), Saqqara; *Sndm-jh Jntj* (Mariette, *Mastabas*, 505-7), Giza.

of Unis: all later false doors have a cavetto cornice and torus moulding. *Hm-Mnw* would seem to be the first to introduce this style of false door into a provincial tomb. Where Fifth Dynasty tombs are complete in other provincial cemeteries such as El-Hammamiya, the plainer style without the cornice is used throughout. The earliest instances of false doors with a cavetto cornice and torus moulding in other provinces are in tombs dated to the reign of Teti or to the beginning of Pepy I: the tomb of the vizier and Nomarch *Hm-R^c/Jzj* at Deir el-Gebrawi and the Nomarchs *Ttj-^cnh/Jj-m-htp* and *Mrw/Bbj* at Sheikh Said.¹⁷¹ From the reign of Pepy I this style becomes the usual type of false door throughout the provinces.

In Fifth Dynasty tombs vertical shafts with square mouths are cut close to the false doors so that burial chambers could be positioned under them as far as possible. Vertical shafts for main burials disappear after the end of the reign of Teti at El-Hawawish although they are occasionally chosen by later tomb owners even when sloping passages are usual, as in the tombs of the Nomarch, *K3.j-hp/Ttj* (M8), and the Overseer of Fields and Serfs, *B3wj* (BA48) both dated to early Pepy II, whose chapels have a deep vertical shaft descending from a rectangular mouth, together with a sloping passage which is the main burial. Sloping main passages appear in the Memphite cemeteries from the mid Fifth Dynasty but the use of vertical shafts continues to be the main burial type in tombs at Saqqara dated to Teti, e.g. *Mrrw-k3.j* and *K3-gm-nj*, and to Pepy I and later, e.g. *Jhjj-m-s3.f*, *Mmj*, *Ttw*, *Ttj* and *Jr-n-3htj*.¹⁷² At El-Hawawish, the titles of *K3.j-hp/Ttj* (M8) indicate that he held high positions at Memphis before coming to Akhmim and it is reasonable to think that in using the two styles of burial shafts that he brought both the traditional and the newer ideas for his tomb from the capital. With the exception of the shafts in two small

¹⁷¹ Davies, Deir el-Gebrawi II, pl. 16 (*Hm-R^c/Jzj*); Davies, Sheikh Said, pls. 28, 19 (*Ttj-^cnh/Jj-m-htp*, *Mrw/Bbj*).

tombs close to M8, square entrances to vertical shafts are not found in tombs dated after the reign of Unis when rectangular mouths became the usual shape for the entrance of burial passages. In other provincial cemeteries, square mouths (and vertical shafts) persist even in the tombs of Nomarchs and viziers dated from Teti to Pepy II, where it might be presumed the more innovative features would appear, e.g. *Ttj-^cnh/Jj-m-^htp*, *Wjw/Jjjw*, *Mrw/Bbj* and *Mrw* at Sheikh Said, *Hm-R^c/Jzj* at Deir el-Gebrawi and *Ppjj-^cnh-hrj-jb* at Meir.¹⁷³ However, like *K3.j-^hp/Ttj* at El-Hawawish, and dated like him to the period Merenre-early Pepy II, the Nomarch *Jbj* at Deir el-Gebrawi also prefers a sloping passage for his burial.¹⁷⁴ These are not the earliest sloping shafts in the provinces for they are found in the tombs of *Srf-k3(.j)* at Sheikh Said dated to late Djedkare, and *Wnjs-^cnh* at Thebes, dated to late Teti.¹⁷⁵

Entrances, entrance thicknesses, drums, chapel and shrine heights and areas are indicators of the rank and wealth of the tomb owner. Certain features, like internal entrance lintels, which are only found in specific periods, can be useful for dating, but the most important information for dating can be obtained from the measurements of the various parts of tombs. Like the trends in tomb areas of the higher officials in the Memphite cemeteries, the tombs at El-Hawawish show similar peaks in the Fifth Dynasty and mid to late Pepy II with greatly reduced areas in the reign of Pepy I.

At El-Hawawish, chapels and shrines with large areas and with the greatest chapel heights are found in tombs dated from Neuserre/early Djedkare to Teti in Dynasty 5, and to the reign of Pepy II. The largest areas in Dynasty 5 are in tombs M23 (79.00sq. m) and M43

¹⁷² Kanawati et al, *Saqqara* I, pls. 8, 11, 13, 20, 25 (*Jhjj-m-s3.f*, *Mmj*, *Ttw*, *Ttj*, *Jr-n-3htj* respectively).

¹⁷³ Davies, *Sheikh Saïd*, pls. 27, 22, 18, 22; Davies, *Deir el-Gebrâwi* II, pl. 16; Blackman, *Meir* IV, pl. 1.

¹⁷⁴ Davies, *Deir el-Gebrâwi* I, pl. 2.

(86.48sq. m) with other major officials having chapel areas between 20.20sq. m (in tomb M44) to 38.00 (in tomb G84). Tomb M43 also has the most extensive shrine area (99.36sq. m) if the inner part of the chapel where the false door is located is to be considered as the shrine; if the whole area of M43 is to be considered as the chapel then this would be the greatest of all at 185.85sq. m. The importance of the shrine area over the chapel area is seen in tombs M22 and M44 where the shrine exceeds the area of the chapel, and at 36.95sq. m (M22) and 38.70sq. m (M44) is very similar to that of M23 (38.75sq. m) which is the second largest shrine area in the cemetery after M43. In tombs dated to the reign of Teti, the chapel area ranges between 40.30sq. m in tomb G98, whose owner is an *jmj-r ḥm-ntr* to 15.75sq. m in tomb F1, of an Overseer of Fields and Serfs, dated to the end of the reign. The decrease in chapel areas in the reign of Pepy I can be seen in their range which is now between 2.40sq. m and 8.65sq. m, although a small number of high officials have much larger areas, e.g. the Nomarch, *Nhwt-dšr* (G95) dated to early Pepy I whose chapel has an area of 21.00sq. m, the *jmj-r ḥm-ntr Wbnw* (Q4), 19.20sq. m, and the Superintendent of Priests, *Q3r* (L31), at the end of Pepy I or the beginning of Pepy II, 20.45sq. m. Surprisingly, the vizier, *B3wj*, of tomb CA1, dated to early-mid Pepy I, has an area of only 8.65sq. m. Corresponding to the larger chapel areas in tombs dated to Dynasty 5, are the chapel heights. The Fifth Dynasty tomb, M23, has the greatest chapel height in the cemetery, 4.40m, with the other major tombs, M21, M22, M43 and M44, having slightly lower ceilings of between 3.30-3.90m, all well above chapel heights in other periods. Ceiling heights are slightly lower in tombs dated to the reign of Teti, but throughout the reign of Pepy I, as with chapel areas in tombs dated to this period, chapel heights decrease greatly, with a range of 1.20m-2.10m.

¹⁷⁵ Davies, *Sheikh Saïd*, pl. 3; Saleh, *Thebes*, pl. 2.

Larger chapel areas are evident again in the reign of Pepy II. The earliest Nomarch of this period, *K3-j-ḥp/Ttj* of M8, and one of the latest, *Hnj/Špsj-pw-Mnw* of H24, have areas of 87.00sq. m and 86.00sq. m respectively which are close to the largest chapel area in Dynasty 5, of *Hm-Mnw* (M43), at 86.48sq. m (front part of tomb). Other large tombs in the reign of Pepy II have chapel areas similar to those in Fifth Dynasty tombs: L23 (66.60sq. m), H24 (44.40sq. m), H27 (unfinished, 38.40sq. m). A decrease in chapel areas occurs through the period from the end of Dynasty 6 to Dynasty 8 although this is not as marked as in the reign of Pepy I. The largest chapels in this period are found in the tomb of the Nomarch *Ttj-ʿ3* of tomb H41 (31.05sq. m) and the uninscribed B6 (40.15sq. m), the tomb adjoining that of the Eighth Dynasty vizier *B3wj* of tomb B7. The remainder range between 10.05sq. m (BA17) and 24.60sq. m (B7). The maximum areas of the other two groups of officials are much less, with the Overseer of Fields and Serfs, *B3wj* of tomb K4 having the largest at 32.00sq. m, followed by the Overseers *B3wj* of BA48, *Gḥs3* of GA11 and *Mddj* of G66 with areas of 21.90sq. m, 26.00sq. m and 22.70sq. m respectively. Two Superintendents of Priests have similar areas to these last three, *Q3r* of L31 with 20.45sq. m and *Sḥw* of L21 with 22.35sq. m while the remaining tombs of these officials have much reduced tomb areas. Chapel heights also increase early in the reign of Pepy II with that of tomb M8 reaching the maximum of 3.30m. Close to this height are those of the slightly later Nomarchs, *Hnj/Špsj-pw-Mnw*, H24, and *K3(j)-ḥp Ttj-jqr*, H26, both at 3.00m. A further decrease in ceiling heights occurs in tombs dated from the end of Dynasty 6 to Dynasty 8 with the highest ceilings at 2.30m found in the tombs of the Nomarch *Ttj-ʿ3*, H41, and the vizier *B3wj* of B7.

Tomb entrances with the greatest heights are found, like the chapel areas, in the major Fifth Dynasty tombs, such as M23 (3.70m), M22 and M43 (both 2.90m), with entrance thicknesses of 1.50m average. In the reigns of Teti and Pepy I heights are reduced to an

average of 1.60m but rise dramatically in the reign of Pepy II to equal the entrances of the Fifth Dynasty tombs. These later entrances are those of the Nomarchs *K3(.j)-h₃p/Ttj-jqr* (H26) with a height of 3.55m, and his son (?) *Hnj/Špsj-pw-Mnw* (H24) with 2.70m ; both have thicknesses of 1.05m. The tombs of other probable members of this Nomarchic family have entrances with similar heights, 2.90m (H15) and 2.55m (H27), with thicknesses of 1.35m and 1.05m respectively. A decrease in heights and depths begins at the end of Dynasty 6, where the Nomarch and possible son of *Hnj* (H24), *Ttj-ε3* of tomb H41 has an entrance height of 2.20m and thickness of 0.85m. This decrease is more marked in the later tomb of the Eighth Dynasty Nomarch, *Bhn* (C3) with an entrance of 1.60m in height and 0.55m in depth. Drums in the doorways of the Fifth Dynasty tombs and in Nomarchs' tombs dated to the reign of Pepy II, H26 and H15, are 0.50-0.55m in diameter. In the reign of Pepy I where drums are present their size is reduced to 0.25m average in diameter. Lintels within the entrance doorways also appear at this time. These lintels, of a much reduced size like the drums, are restricted to this period, the reign of Pepy I, with only one later example, a very small lintel in the entrance of tomb BA17, dated to Dynasty 8. Drums, and once in tomb B12, a lintel, appear in most entrances of tombs of Overseers of Fields and Serfs and Superintendents of Priests although these are all half drums (except in K4, a full drum) and of much smaller diameters, 0.20m-0.30m.

A rise in the height of the chapel ceiling behind the entrance can be seen in certain tombs although the number is too small to be useful as a dating indicator. It is particularly noticeable in Fifth Dynasty tombs where the difference ranges between 0.50-1.30m. This difference decreases to an average of 0.25m in the tombs of the Nomarchs, G98 and G95 and the vizier of tomb CA1 dated to the time of Teti-beginning Pepy I. No ceilings in chapels are raised higher than entrance doorways in tombs dated to the reign of Pepy I. In the following reign only the chapels of the two Nomarchs of Pepy II, *Ttj-jqr*, H26, and

Hnj, H24, together with tombs L23 and H27, whose owners are possibly related to the Nomarchic family, have raised chapel ceilings. The Eighth Dynasty vizier, *B3wj* of tomb B7, is the only chapel with a raised ceiling in this period. Among the tombs of the Overseers of Fields and Serfs only one is found with a raised ceiling and that official, *Hzzj-Mnw* of G42, is also a Superintendent of Priests. Two further tombs in this last group of officials also have raised ceilings, L31 and L21.

Shrines are a dominating presence in the major Fifth Dynasty tombs, M23, M21, M22, M43 and M44. Their importance in this period can be seen in the area allocated to them, which is between 33%-66% of the total chapel + shrine area. Early in the reign of Teti shrines disappear, with only two examples found late in the reign of Pepy I. The first is in the tomb of the *jmj-r hm-ntr Wbnw* (Q4) who appears to follow M43 in designating the inner part of his chapel with its large false door as a shrine, the second is in tomb K4, of *B3wj*, an Overseer of Fields and Serfs. Here the shrine is now in a raised section and less wide than the chapel unlike the shrines in M43 and Q4. Similar raised shrine areas are found in the slightly later tombs, BA48 and G42, dated to early-mid Pepy II and GA11, late Pepy II, all of whom are Overseers of Fields and Serfs like *B3wj* of K4.

Shrines again become an essential part of tomb plans throughout the reign of Pepy II. *K3.j-ḥp Ttj* (M8), possibly the earliest Nomarch of Pepy II, has the largest shrine in this period and one which is almost as wide as the chapel, similar to the earlier M43. Shrines then appear in the tombs of most of the major officials: the Nomarchs *Ttj-jqr* of H26 and *Hnj* of H24, the Overseers of Fields and Serfs *B3wj* of BA48, *Hzzj-Mnw* of G42, and *Ghs3* of GA11, and the Superintendent of Priests, *Sḥw* of tomb L21. The shrine areas decrease markedly from the beginning of the reign with that of M8 being 24% of the total chapel + shrine area to 15% in the Nomarchs' tombs, H26 and H24, and 16% in the tombs

of the Overseers of Fields and Serfs, BA48 and GA11. No further shrines appear in tombs after the end of Dynasty 6 although two Dynasty 8 chapels, B7 and BA14, have large niches in the rear of their chapels. Apart from the step up into the shrine area in tombs K4, G42, BA48 and GA11, additional features at the entrance to shrines such as engaged pillars, lintels, architraves and drums, are found only in the shrine entrance of the Nomarch *Ttj-jqr*, H26, who has all of these, with the Overseer of Fields and Serfs *B3wj*, BA48, and the Superintendent of Priests *Sfhw*, L21, each having three of these features. The remaining two tombs with shrines with entrance features are G98 and H24, which have one each.

Within chapels and shrines at El-Hawawish, false doors, offering platforms and pillars are distinctive features. The two different forms of false doors mentioned above are indicators of a date before or after the reign of Unis. Carved false doors are found in each of the Fifth Dynasty tombs, but early in the reign of Teti painted doors appear. Both carved and painted false doors are found in the tombs of most of the major officials from Teti to the end of Dynasty 6. They are surprisingly omitted in some Nomarch's and vizier's tombs and, while false doors may have been intended in those tombs which are presently incomplete, such as the Nomarchs' tombs, G98 and H15, or where wall surfaces have broken away as in the tomb of the vizier, CA1, it is puzzling to find them absent where walls are finished, e.g. the vizier's tomb, B7, and the two Nomarch's tombs, H41 and C3. These last three tomb owners are dated to the end of Dynasty 6 and Dynasty 8 and lack of resources may have either prevented the completion of the decoration, or alternatively, the painted plaster may have broken away and been lost. A late date does not always mean the absence of this feature however, for a painted false door is present in tomb BA17 as well as a carved door in tomb J2, both dated to Dynasty 8. If the provision of access to the

burial chamber for the ka and ba after death was an essential part of the tomb owner's belief, it is most probable that stelae were used as substitutes for false doors.

Offering platforms before false doors may be useful for dating although their numbers are small. Two different forms are found: the first, a rectangular, undecorated platform, the second, a rectangular block carved with a *htp* sign either in relief or as an extension at the front of the block. All Fifth Dynasty tombs have the first type, plain offering platforms. They appear again in the reign of Pepy II but only in the major tomb, M8, early in that period, and in mid-late Pepy II in the tombs of the Nomarchs, H26 and H24. The second style of a platform carved with *htp* signs occurs in one tomb dated to late Teti (F1), then in four tombs dated to Pepy I: G95, of *Nhwt-dsr*, a Nomarch, CA1, *B3wj*, a vizier, K4, *B3wj*, an Overseer of Fields and Serfs, and N20, *Tjj*, a Superintendent of Priests. One other slightly later tomb also has this type of platform, BA48, whose owner, *B3wj*, was an Overseer of Fields and Serfs and is dated to early Pepy II.

The inclusion of pillars in chapels at El-Hawawish seems to be the prerogative of the highest officials. They are found in two major Fifth Dynasty tombs, M23 and M43, then in the tomb of the *jmj-r hm-ntr* and probable Nomarch, G98, dated to the end of Teti. Likewise at Deshasha, pillars are cut in the chapels of the Nomarchs, *Jntj*, of the late Fifth Dynasty, and *Šdw*, dated to the reign of Teti.¹⁷⁶ However, at El-Hawawish, the tomb of another Nomarch, *Nhwt-dsr*, G95, which is sited close to G98 and who is possibly related to him, does not have pillars. This tomb owner is dated to the beginning of the reign of Pepy I and the lack of pillars as well as the smaller area of this Nomarch's tomb appears to reflect a reduction in available wealth for even high officials here and throughout the provinces during the reign of Pepy I. Pillars appear again in provincial tombs only in the period, Merenre–early Pepy II, in the tombs of high officials such as *Hntj* at Thebes, *Hr-*

hw.f at Aswan, *Jbj* at Deir el-Gebrawi and *Ppjj-^cnh-wr* at Quseir.¹⁷⁷ At El-Hawawish pillars reappear in the tomb of *K3-j-hp/Ttj* (M8), dated to the beginning of the reign of Pepy II. From this tomb owner until the Nomarch *Bhn* (C3) in Dynasty 8, ten chapels feature pillars. Each of the Nomarchs except *Ttj-^c3* (H41) dated to the late Sixth Dynasty have pillars, either two (H15, H26, C3) or four (M8, H24). They are also found in the chapels of L23 and H27 (both possibly related to the Nomarchic family) and BA63, as well as the uninscribed tombs, G22, presently dated to the end of the reign of Teti or the beginning of Pepy I, and H4 and C8, dated to Pepy II.

Certain features of shafts and burial chambers are indicative of specific periods at El-Hawawish: entrance shape and shaft type, measurements of jambs, inclusion of ‘corridors’ at the end of sloping passages and the cutting of pits and sarcophagi in burial chambers. Entrances to shafts are usually found in the floors or walls of chapels, and occasionally in shrines or secondary chambers, but in the very large tombs of M43 and M44, dated to early Unis, the entrances to their main shafts have been cut outside the tombs. This position for shaft entrances is also found in tombs at Giza and occasionally at Saqqara, in the late Fifth and early Sixth Dynasties.

A progression of shaft types can be seen in the El-Hawawish burials with vertical shafts descending from square mouths being the earliest type. These were superseded by shallow, horizontal shafts in the reign of Pepy I, before a widespread use of sloping passages in the time of Pepy II although isolated earlier examples are found in tombs dated to late Teti (K16, G22) and to late Pepy I (Q4, K5). Parallels with vertical shafts in the Memphite cemeteries are numerous, dating from Dynasty 4 and continuing into

¹⁷⁶ Kanawati-McFarlane, *Deshasha*, pls. 23 and 40.

¹⁷⁷ Saleh, *Thebes*, pl. 7 (*Hntj*); de Morgan, *Catalogue des mon.*, p. 163 (*Hr-hw.f*); Davies, *Deir el-Gebrâwi II*, pl. 11 (*Jbj*); El-Khouli-Kanawati, *Quseir*, pls. 6, 24 (*Ppjj-^cnh-wr*).

Dynasty 6 in tombs dated at least to Pepy I, e.g. *Hntj-k3.j* and *Nj-^cnh-Ppjj* at Saqqara. ¹⁷⁸

Sloping passages at Giza and Saqqara are occasionally found in the Fourth Dynasty in tombs of relatives of the king and in private tombs from the mid Fifth Dynasty, e.g. *Tjj* at Saqqara. ¹⁷⁹

Square mouths to burial shafts are usual in Dynasty 5 at the entrance to vertical shafts but are found as well in two tombs dated to Pepy I (Q2 and Q15) with shallow, horizontal shafts. Square mouths are not seen again except in two small tombs dated to the beginning of Pepy II, M51 and M52, whose owners are unknown but who are believed to be associated with the major tomb, M8. Rectangular mouths are first seen at the entrance to two main shafts of Category 2 (sloping + vertical) type, N15 and M44, dated to Unis. With the adoption of these rectangular entrances to the vertical main shafts in a family group of tombs, G95, G97 and G98, dated to Teti-early Pepy I, they then become the usual entrance to all types of burial passages throughout Pepy I, Pepy II to Dynasty 8.

Neither the axis of the mouth or of the sloping passage, nor the position of shafts within the tomb are satisfactory dating indicators. Rectangular mouths are predominantly perpendicular to the entrance wall with few exceptions, e.g. the main shafts in tombs Q4 and M8, and although shaft entrances are placed close to false doors whenever possible, especially in Dynasty 5, many variations are noted. One distinctive feature observed in a small number of tombs dated to the end of Dynasty 6 (in H26 and H24) and to Dynasty 8 (in H41, I49, B7, C3 and the uninscribed tombs, H4 and H12) is the surrounding of the shaft mouth by a raised ledge or section of the chapel floor.

Where jambs appear at the entrance to burial passages, a change is noted in their widths from the earliest to the latest examples. In tombs dated to the Fifth Dynasty, jambs are

¹⁷⁸ James, *Khentika*, p. 30, fig. 12 (*Hntj-k3.j*); Hassan, *Saqqara II*, pp. 16, 17, fig. 8 (*Nj-^cnh-Ppjj*).

wider, being 0.20m (M22 and M44) and 0.25m (M43), decreasing to 0.10m-0.12m in tombs dated to the end of Pepy I-beginning of Pepy II (K4, L31, M52), and finally to widths of 0.05m in late Pepy II-Dynasty 8 (H15, C8, BA14, B6). An exception is tomb K16, presently dated to Teti, and where the jambs are 0.12m wide.

Very short, connecting passages, usual at Giza and Saqqara between vertical shafts and their burial chambers are also found in Fifth Dynasty tombs at El-Hawawish. Connecting 'corridors' are also present between the end of sloping passages and burial chambers chiefly in tombs dated to the end of Pepy I-beginning Pepy II (first in tomb K1) through to late Pepy II (in H24). Two exceptions to this time period are tombs G22, dated to Teti-early Pepy I, and possibly the Dynasty 8 tomb, BA17, although here, in shaft 2, it is difficult to determine if a corridor was intended before the rectangular burial chamber. This 'corridor' is horizontal in most of the passages but is slightly sloping in G22, M8 and BA48.

The greatest lengths in burial shafts are seen in the combined sloping/vertical shafts of the Fifth Dynasty tombs, M23 (13.80m), M22 (13.65m), M43 (20.50m) and M44 (10.90m). The major officials of the reigns of Teti and Pepy I, the Nomarchs of tombs G98 and G95, have vertical shafts of only 5.95m and 5.10m with the longest shaft in this period being that of the Overseer of Fields and Serfs, *Hzzj-Mnw* of tomb F1, with 10.40m. Similar measurements to this last burial passage are found in the tombs of two other Overseers of Fields and Serfs, K4 (Pepy I), 10.50m, and BA48 (Pepy II) with a length of 9.15m. None of the Superintendents of Priests reached these lengths, the closest being the main shafts in tombs N20 at 7.85m, L31, at 7.50m (both dated to late Pepy I) and B62, at 7.00m (Pepy II). The Nomarchs of Pepy II as may be expected have burial passages with the

greatest lengths in this period: *K3-j-ḥp/Ttj* (M8) with 13.20m, *Ttj-jqr* (H26) with 10.20m and *Hnj* (H24) with 9.80m.

Burial chambers show the same peaks or restrictions in their areas and heights as has been evident in the dimensions of chapels. The two dating periods where areas of burial chambers are greatest are Dynasty 5-Teti and the second half of Pepy II. Following the Fifth Dynasty examples with maximum areas of 15.80sq. m (M23), 12.95sq. m (M22) and 10.60sq. m (M43), the areas of these chambers in the tombs of the highest officials in the period Teti-Pepy I are approximately half: the Nomarchs having areas of 10.00sq. m (G98), 6.45sq. m (G95), and the vizier of tomb CA1, 5.05sq. m. Early in Pepy II the important and large tomb of M8 has a burial chamber with an area of only 6.50sq. m. although the large antechamber before it with an area of 21.46sq. m should perhaps be added to that of the burial apartment. In mid-late Pepy II the Nomarchs' tombs, H26 and H24, together with H27, a possible relative, again have increased burial chamber areas of 14.35sq. m (H26), 10.20sq. m (H24) and 10.85sq. m (H27). Burial chambers of both Overseers of Fields and Serfs and Superintendents of Priests range between 4.00- 7.00sq. m except for tomb L31 of *Q3r*, a Superintendent of Priests dated to late Pepy I-early Pepy II, with an area of 11.25sq. m. From the end of Dynasty 6 to Dynasty 8, the chamber areas are again lower, with the Nomarch *Bḥn* of tomb C3 having measurements of 5.20sq. m and the vizier, *B3wj* of tomb B7, 3.25sq. m. One chamber with an area larger than these at 6.20sq. m, is found in the Dynasty 8 tomb of the Overseer of Fields and Serfs, G66.

Burial chambers having maximum heights of between 1.40m and 1.95m. are seen in Fifth Dynasty tombs and in tombs dated to early-mid Pepy II. The remainder have heights between 0.70m and 1.20m. Chambers with the largest areas, as may be expected, have ceilings of great heights, e.g. tomb M23 has an area of 15. 80sq. m and a height of 1.95m. But in some tombs with small burial chamber areas, ceilings are still relatively high, e.g.

tomb G84 with an area of 3.60sq. m has a height of 1.45m. and M8 with an area (in the burial chamber only) of 6.50sq. m has a height of 1.75m. Another with a surprisingly high chamber of 1.95m, is the Eighth Dynasty tomb of the Overseer of Fields and Serfs, *Mddj* (G66), whose floor area, at 6.20sq. m, is also above the average for his period.

When the height of burial chambers was compared with chapel heights the largest number of tombs revealed that the height of the burial chamber was half that of the chapel. This relationship, 1:2, was observed in the smaller Fifth Dynasty tombs, L6 and L8, then in all subsequent periods to Dynasty 8. For the large tombs with high ceilings of Dynasty 5 – Teti, and the tombs of the Nomarchs of Pepy II, M8, H26, H24, H15 and also H27, the relationship of the heights of burial chambers to those of the chapels was 1:2.25 to 1:3.50. In the smaller tombs of the officials of Pepy I, e.g. Q2, Q15, B12, C9, the relationship was 1:1.25 to 1:1.50. When the depth of the burial chamber below the chapel was compared with the height of the chapel, the majority of the large Fifth Dynasty tombs together with later tombs of officials with vertical shafts (e.g. G98, G95) and those with steeply sloping passages (e.g. BA63, G79), had a relationship of 1:2.50 to 1:4. While most tombs across all periods again showed a relationship of 1:2, this calculation must be considered with other criteria, in particular the type of shaft and the length of passages, e.g. tomb M8 has a (possibly earlier) vertical shaft (Sh. IV) where the relationship is calculated at 1:3. The final, and main shaft in the tomb, however, is a sloping passage (Sh. VI) which has a relationship of 1:1.50, yet the length of this passage is 17.00m, compared to the vertical shaft with a depth of 9.30m.

Burial pits and sometimes a rock-cut sarcophagus, are features of the burial chambers of both high and middle ranked officials in the Fifth Dynasty. The major tombs of M23, M21, M22 and M43, as well as the smaller tombs L6 and L8, have burial pits and M23,

L8, M22 and M43, feature a cut sarcophagus. In the period Teti-beginning Pepy I, tombs F12, G98 and G95 have burial pits. None appear in tombs dated mid-late Pepy I, but from the beginning of Pepy II, five burial chambers of high officials include them, M8, H27, H26 H24 and C8 (even with a very small floor area of 3.35sq. m). Exceptions are the later Nomarchs of tombs H41 and C3 dated to the end of Dynasty 6-Dynasty 8 where burial pits are absent. M8 is the only tomb after the Fifth Dynasty examples with a rock-cut sarcophagus in his burial chamber.

The high officials of the Fifth Dynasty and the Nomarchs of the Sixth Dynasty were clearly able to provide for themselves major tombs with forecourts, façades and chapels of large areas, entrances of great heights and drums of large diameters. Included in most of their tombs are two or more pillars. Burial shafts are longer, burial chamber areas larger and burial pits are included. Officials of this group who do not include some of these features, are the earlier Nomarch, G95, and the late Dynasty 6 and Dynasty 8 Nomarchs of tombs H41 and C3, who all lack pillars and shrines, and for these last two tomb owners, false doors, drums and burial pits are absent as well.

Between the two groups of middle ranked officials, the Overseers of Fields and Serfs appear to have a slightly higher status and wealth. Their chapel areas are much larger and shrines are included in four of the eight tombs. Only two Superintendents have shrines, one of whom, G42, is also an Overseer of Fields and Serfs. Four of this last group of officials have carved false doors and four have *htp*-platforms while among the Superintendents of Priests, two have carved false doors and one a *htp*-platform. Burial passages in the tombs of the Overseers of Fields and Serfs are slightly longer on average, but there is little difference in the areas of burial chambers.

While certain aspects of the architecture of tombs may be indicators of a particular group of officials such as pillars in tombs, a feature which appears to be the prerogative of Nomarchs, the chief determining factor for the inclusion of features and the amount of ground/space allocated to the areas of chapels and burial apartments, is the resources available to these tomb owners in the various time periods in which they held office.

Uninscribed Tombs

The identification of particular architectural features at certain periods or with a group of officials may be useful in the dating of the owners of tombs which are uninscribed or unfinished. These undecorated tombs in close proximity to those which can be dated with reasonable certainty on stylistic grounds as well as architectural style include the smaller burials surrounding the tombs of the major Fifth Dynasty officials such as *Mmj* (M23), *Hzzj-Mnw* (M22), and *Hm-Mnw* (M43).¹⁸⁰ All these smaller tombs contain vertical shafts descending from square mouths and false doors of the earlier type, but additional features may narrow the dating further, e.g. tomb L2, near the inscribed tomb of *'3-Mnw* (L8), has a step up from the base of the shaft into a higher burial chamber with a raised ceiling. These last two features are only found in the earlier Fifth Dynasty tombs of G84 (in Shaft 2) and M23 (Shaft 1) dated to the reigns of Neuserre or Djedkare.¹⁸¹ In the Sixth Dynasty, inscribed and uninscribed tombs which are adjacent and whose owners are most probably related, and where similar features are found, may be assumed to be close in time, e.g. the inscribed tomb of *Mrrw* (F12) and the neighbouring undecorated tombs, F13-F15, tomb G119 (unknown owner) with G120, *B3wj* (B83), with B84, *Tlj* (I49), with I50 and in the Eighth Dynasty, the tomb of the vizier, *B3wj* (B7), with the undecorated,

¹⁸⁰ M23 (*H V*, fig. 11); M22 (*H IV*, fig. 1); M43 (*H V*, fig. 1)

¹⁸¹ L2 (*H V*, fig. 24); G84 (*H I*, fig. 3); M23 (*H V*, fig. 14).

adjoining B6.¹⁸² Some tombs which have no apparent link with others nearby, will often have architectural elements which indicate a particular period. A study of the features and measurements of some uninscribed tombs follows.

The undecorated tomb H12, for example, has a number of distinctive features which indicate clearly a date late in Dynasty 6 for its tomb owner. The treatment of the main shaft mouth with its raised ledge is a feature found at the end of Dynasty 6-Dynasty 8 in the tombs of the Nomarchs, *Tjtj*-*3* (H41), and *Bhn* (C3) and in tomb I49 of the Overseer of the Gate *Tjtj*.¹⁸³ The single pillar in H12 which is placed toward the back of the chapel, is linked, like the similarly positioned pillars in C3, to an architrave. Sloping jambs before the entrance to the burial chamber in H12, are an unusual feature otherwise noted in the tombs of *B3wj* (BA14), and B6, both dated to Dynasty 8.¹⁸⁴ A further characteristic which H12 shares with B6 and the tomb of the Eighth Dynasty vizier, *B3wj*, B7, is a step down at the end of the shaft before the burial chamber, with B7 having step of a similar measurement at 0.25m. to that of H12, 0.30m. This feature is not noted in any other tomb dated from the mid Sixth Dynasty to Dynasty 8. The height of the entrance of H12 at 1.60m is the same as that of C3 and close to I49 with 1.50m, and to BA17 with 1.65m. Its chapel area of 16.40sq. m is almost the same as I49, at 16.30sq. m, but greater than C3 which has an area of 13.65sq. m. Although the chapel area of H12 is much less than that of B7 which is 24.60sq. m, it shares a drum of similar shape, diameter and placement, both having half drums, 0.20m (H12) and 0.25m (B7) in diameter and in a front position within the entrance. Neither of the Nomarchs of tombs H41 and C3 have drums. H12 shares the same plan as tombs H41, I49, C3, B7, BA14 and BA17, a rectangular chapel with the main axis vertical to the entrance wall.

¹⁸² F12-F15 (*H IX*, figs. 4-6); G119-G120 (*H IX*, fig. 12); B83-B84 (*H IX*, fig. 20); I49-I50 (*H VIII*, fig. 9a); B6-B7 (*H IX*, fig. 16).

¹⁸³ H12 (*H IX*, fig. 23c); H41 (*H VIII*, fig. 11); C3 (*H I*, fig. 23); I49 (*H VIII*, fig. 9a).

¹⁸⁴ BA14 (*H VII*, fig. 17a); B6 (*H IX*, fig. 16).

These features must indicate a date at the very end of Dynasty 6 and possibly later with the unknown tomb owner a middle rank official. Two Overseers of Fields and Serfs are proposed for this period, *Ghs3* (GA11) and *Mddj* (G66).¹⁸⁵ Both have entrance heights and chapel areas greater than H12 and both have longer shafts, but each has an extension from the back wall of the chapel resembling a very large engaged pillar. Neither has a raised ledge around the mouth of the main shaft, although the position of this shaft in GA11 is the same as H12, in the centre and slightly towards the front. All have half drums with those of GA11 and G66 being slightly larger. No Superintendents of Priests are known from this period, late Dynasty 6-Dynasty 8, but since the measurements in the tombs of these officials are usually less than the Overseers of Fields and Serfs, perhaps the owner of H12 filled this priestly office. Whether H12 held this position or was a later Overseer of Fields and Serfs, the absence of pillars in the tomb of the Nomarch, *Tj-3* (H41) and their inclusion together with a raised edge to the main burial shaft in the chapel of *Bhn* (C3) as in H12, may indicate that the owner of H12 served under this latter Nomarch. The cutting of the tomb of H12 at a height of 228.9m on the mountain very close to that of *Bhn*'s at 228.5m would appear to confirm this proposed date.

Another uninscribed tomb with a raised edge to the main burial shaft is H4¹⁸⁶ but, while this is a shared similarity with H12, many other features suggest that this tomb owner was of greater importance and possibly much earlier. The main axis of the chapel in H4 is parallel to the entrance wall with a shrine (incomplete) opening at the right end of the rear wall resulting in an L-shaped plan unlike H12 and the other officials dated to late Dynasty 6-Dynasty 8 mentioned above. This L-shaped plan is found in the tombs of the Nomarch *Tj-jqr* (H26) and was possibly the original plan of the tomb of the Nomarch, *Hnj* (H24)

¹⁸⁵ GA11 (*H VII*, fig. 26); G66 (*H IX*, fig. 10a).

¹⁸⁶ H4 (*H IX*, fig. 26).

before additions to his chapel which now result in its present T-shaped plan.¹⁸⁷ Like H24, H4 has four pillars set along the main axis of the chapel. Tomb H26 has only two pillars but in all three chapels the pillars are linked to the ceiling by a beam, the underside of which slopes up from the front to the rear. Conversely, the pillars in C3 and H12 are linked to an architrave and the chapel ceiling is lower behind the pillars. In H4, H26 and H27 the pillars taper slightly toward the ceiling; those in H12 and C3 have vertical faces.

The chapel area in H4 is 50.60sq. m while that of H26 is 44.40sq. m. The present area of H24 is 86.0sq. m, but without the apparently later extension, the original area would have been approximately 54.0sq. m. The area of the shrine in relation to the total area of chapel+shrine is 23% in H4, the same as the Superintendent of Priests, *Sfhw* (L21) and very close to that of *K3-j-ḥp Tj* (M8) with 24%.¹⁸⁸ Tombs H26 and H24 have shrine areas which are 15% of the total area. If the earlier(?) smaller chapel area of H24 is considered with the existing shrine area, its relationship is 27% of the total area and therefore closer to that of H4. M8 has no features at the entrance to its shrine, H4 and H24 each have one, an architrave, and H26 has three. No shrines appear in the Nomarchs' tombs H41 and C3, dated to the end of Dynasty 6 to Dynasty 8, although niches are cut in the rear walls of the chapels of the vizier, *B3wj* (B7) and the high official, *B3wj* (BA14).

¹⁸⁹ The chapel floor is higher than the entrance in both H4 and H26.

The façade area of H4 at 21.45sq. m, is very close to that of H26, with 22.0sq. m, with the areas of the façades of H24 and H15 much less at 15.70sq. m and 14.65sq. m respectively. The entrance height of H4 at 3.15m is similar to those of the Nomarchs, H26, with a height of 3.55m, H15, with 2.90m and H24, with 2.70m. Like H26, H4 has a full drum measuring 0.55m in diameter, with H15 having a half drum of 0.50m diameter. The

¹⁸⁷ H26 (H I, fig. 5, H IX, fig. 10c), H24 (H II, figs. 1-3).

nearby tomb of *Nbt* (H27), who is possibly related to the nomarchic family, also has a full drum, 0.50m in diameter.¹⁹⁰ No drum is present in the entrance of H24 or of the later Nomarchs, H41 and C3.

Similarities in burial shafts can be seen between H4 and the following tombs. The mouth of the main shaft in H4 is cut between pillars as in tombs H26, H24 and the later C3. A low ledge of 0.10m surrounds the mouth in H4, C3 and I49, while the floor of the chapel is raised on three sides of the main shaft in the tomb of *Ttj-jqr* (H26) and the vizier, *B3wj* (B7). The main sloping passage in H4 descends for 4.60m then becomes horizontal for 2.45m. Similar burial passages are found in the tombs of members of the Nomarchic family, M8, H27, H24 and the Overseer of Fields and Serfs and Superintendent of Priests *Hzzj-Mnw* (G42);¹⁹¹ in each of these, as in H4, the horizontal section is approximately half the length of the sloping passage. In length, the main shaft of H4 at 7.05m is closest to that of G42 with 6.80m. The shafts of the Nomarchs of tombs M8, H26 and H24 are longer, measuring between 10.20m and 13.20m. Similar areas of burial chambers to that of H4 at 4.70sq. m. are those of the Superintendents of Priests *Tjj* (N20) at 5.00sq. m and the Overseer of Fields and Serfs, *Mmj*, B12, with 4.35sq. m. both dated to late Pepy I.¹⁹²

The large size of its forecourt, façade and chapel with a high entrance doorway and a full drum, the inclusion of four pillars and a shrine where the area is almost equal in importance to that of the major official, *K3-j-ḥp Ttj* of tomb M8 dated to the beginning of the reign of Pepy II, must place the unknown owner of H4 among the highest officials of Pepy II at Akhmim. This unfinished tomb is one of a group of tombs which adopted a chapel plan where the main axis is parallel to the entrance wall; all include pillars. This

¹⁸⁸ L21 (*H* VI, fig. 10), M8 (*H* III, figs. 1-3).

¹⁸⁹ B7 (*H* IX, fig. 16); BA14 (*H* VII, fig. 17a).

¹⁹⁰ H27 (*H* III, figs. 24-25)

¹⁹¹ G42 (*H* VII, fig. 2)

group consists of tombs H26, H24, H27, H15 (these last two incomplete) and all are Nomarchs or are linked with the nomarchic family. At a height on the mountain of 229.0m, H4 is on the same level as H15 and slightly above H26 and H24. Most points of similarity between H4 and other tombs are found in the tomb of *Ttj-jqr*, H26. However, with the chapel area of H4 close to that of H24 in its early form, and with four pillars included in the chapel plan, it is tempting to imagine that H4 was used by the owner of H24, *Hnj*, as a model when he enlarged his own tomb. The shallower burial passage and horizontal 'corridor' may place H4 earlier in the time of Pepy II rather than later. None of the known Overseers of Fields and Serfs or the Superintendents of Priests achieve the chapel areas or heights seen in the tomb of H4, although *Sfhw* (L21) of this latter group of officials has a shrine of equal importance when the shrine area v shrine+chapel area is calculated.

Another unfinished tomb with a very large chapel area, a shrine and pillars is C8.¹⁹³ Close in height on the mountain at 227.0m to H4 but cut in poor quality rock with many incomplete areas, this tomb has certain features which, like H4, point to a date in the reign of Pepy II for its unknown owner.

The chapel area of C8 at 98.75sq. m is one of the largest in the cemetery. Chapel areas nearest to this measurement are those of M8, 87.00sq. m (not including the recesses) and H24, 86.00sq. m. The chapel height, at 3.30m, is similar to that of the Nomarch's tombs, M8, H26 and H24; no officials later than H24 have ceilings higher than 2.30m. The ceiling in C8 is raised behind the entrance, a feature only seen in tombs dated to the period Dynasty 5-Teti, and in the tombs of a few officials of Pepy II, H26, H24, BA63 and G42 (both with very slightly raised ceilings) and the tombs of two women, L23 and H27.

¹⁹² N20 (*H* VI, fig. 23a); B12 (*H* VII, fig. 9a)

A raised ceiling appears once more in a later tomb, that of the vizier, *B3wj* of B7.¹⁹⁴ Like C8, the chapels of M8 and H24 have four pillars each. However, while these are arranged in a single row in M8 and H24 (with one at the entrance to a recess in M8), the centrally positioned four pillars are in pairs in C8, an arrangement only found in the uninscribed tomb G22. Like the pillars in H26, H24 and H4, those in C8 are linked to the ceiling by a beam.

The shrine in C8 is positioned in the centre of the rear wall of the chapel as in M8, K4, BA48, G42 and H24.¹⁹⁵ All are much narrower in width than the chapel except for M8 where the shrine is almost the same width. The shrine area in C8 is 15% of the total chapel+shrine area, the same as H26, H24 and BA48. Although incomplete, the entrance to the shrine is notable for its features: a drum, engaged pillars, a lintel and an architrave. Tombs H26, L21 and BA48 have three of these four features and only two other officials in this period have entrance features, H24 and H4, with one each. The rectangular mouth to the main burial shaft of C8 is cut immediately in front of the shrine as in M8, with the axis of the mouth and the sloping passage descending from it, parallel to the entrance wall. This orientation for main burial shafts is found in only a small number of tombs, K16¹⁹⁶ and Q4, dated to Teti and Pepy I respectively, and M8 and BA63 dated to Pepy II.¹⁹⁷ The long sloping passage in C8, 11.20m in length, is one of the longest with those of G22, K4 and H26 being the closest with 10.40m, 10.50m and 10.20m respectively. The main shafts of M8 and H24 are longer since their sloping passages have an additional

¹⁹³ C8 (*H X*, figs. 7, 8)

¹⁹⁴ H26 (*H I*, fig. 5); H24 (*H II*, fig. 2); BA63 (*H VII*, fig. 9); G42 (*H VIII*, fig. 2); L23 (*H IX*, fig. 1); H27 (*H III*, fig. 24); B7 (*H IX*, fig. 16)

¹⁹⁵ M8 (*H III*, fig. 1); K4 (*H VIII*, fig. 16); BA48 (*H VIII*, 22a); G42 (*H VII*, fig. 2); H24 (*H II*, fig. 1)

¹⁹⁶ Several features in tomb K16 indicate a later date for this tomb: the orientation of the shaft mouth parallel to the entrance wall is first seen in tomb Q4 of the *jmj-r hm-ntr Wbnw*; sloping passages (apart from the Fifth Dynasty tombs with combination shafts) are not found before their use in Q4, K5 and a small number of tombs dated to late Pepy I; the two jambs at the entrance to the burial passage are only otherwise seen in sloping passages and in similar widths in tombs L31, K4 and M8, all dated to the end of Pepy I-beginning Pepy II.

¹⁹⁷ K16 (*H VIII*, fig. 20); Q4 (*H VI*, fig. 18a); M8 (*H III*, fig. 1); BA63 (*H VII*, fig. 19)

horizontal corridor after the sloping section. This corridor is not present in the main shaft of C8. The relatively small burial chamber opening from the sloping passage is the same width and orientation as the passage. Similar burial chambers are seen in the uninscribed tomb G22 (presently dated to the beginning of the reign of Pepy I), and tombs K16 (late Teti) and BA63 (Pepy II).¹⁹⁸ Burial chambers associated with sloping passages are invariably wider than the passage and perpendicular to it, as in K4, H27, G42, BA48.¹⁹⁹ The area of the burial chamber in C8 is only 3.35sq. m a surprising measurement given the large chapel and long burial passage. The areas of the chambers in the nomarchic tombs dated to mid-late Pepy II, H26(14.35sq. m), H24(10.20sq. m) and H27(10.85sq. m), are much larger, while the Overseers of Fields and Serfs dated to this period, G42, BA48 and GA11 have chambers of 7.00sq. m, 6.80sq. m, and 6.00sq. m, respectively. Only the Superintendents of Priests, L21 and B62 are less at 3.15sq. m (unfinished) and 1.45sq. m. Smaller burial chamber measurements are found in the previous period in tombs dated to late Pepy I, e.g. G119 and K18 (both 3.35sq. m), K1 (3.75sq. m), K21 (3.05sq. m). *Hzzj-Mnw*, owner of K18, holds the positions of Overseer of Fields and Serfs and Superintendent of Priests, and *Mddj* of K1 also belongs to this last group of officials. Despite its small area the burial chamber of C8 has a burial pit like M8, H26, H24 and H27. Burial pits are previously found in tombs dated to Dynasty 5-Teti and apart from C8 and the tombs mentioned above, no further burial pits are cut in tombs dated to the period Pepy II to Dynasty 8.

The large chapel area, a shrine of equal importance to those of the Nomarchs of tombs H26 and H24, the presence of four pillars, a very long burial passage and a pit in the burial chamber are aspects of C8's architecture indicating that the tomb owner was an official of considerable resources, possibly equal to those of the Nomarchs. Yet in the

¹⁹⁸ G22 (*H* VII, fig. 1); K16 (*H* VIII, fig. 20); BA63 (*H* VII, fig. 19)

arrangement of his pillars and the almost square chapel, C8 is unlike the tombs of the later Nomarchs of Pepy II who were the owners of tombs H15, H26 and H24. The initial form of the chapel of M8, however, was also square (with a central pillar like L23 and BA63) and has an entrance height of 2.40m, almost the same as C8 (2.45m). The position and orientation of the main shaft mouth and sloping passage is the same in both M8 and C8, unlike any other tomb of this period. Tomb M8 has no drum within the damaged entrance doorway but all other Nomarchs of Pepy II and those tombs whose owners are thought to be related to the nomarchic family have large drums, 0.50-0.55m in diameter while C8 has a half drum, 0.35m thick. Smaller half drums are found in the entrances of the Overseer of Fields and Serfs and Superintendent of Priests, *Hzzj-Mnw*, G42, 0.30m in diameter, and in the doorways of other holders of this last position, *Sfhw*, L21, whose drum is 0.30m in diameter and *Jn-jt.f*, BA63, 0.35m in diameter. Officials of the period late Pepy I, also have smaller half drums similar to these and to C8, e.g. N20, 0.35m and C9, 0.30m in diameter. Both are Superintendents of Priests.

Tomb C8 shares the greatest number of features with M8, H26 and H24, giving the impression that the owner of C8 was as important as these tomb owners. However, the chapel plan and arrangement of pillars is quite different to those of the later Nomarchs of Pepy II, H15, H26 and H24 and this may possibly indicate that C8 might have been one of the earlier administrators of Pepy II in the province, perhaps contemporary with, or immediately after M8 and possibly holding the position of Overseer of Fields and Serfs or this post combined with that of the Superintendent of Priests.

¹⁹⁹ K4 (*H* VIII, fig. 16); H27 (*H* III, fig. 25); G42 (*H* VII, fig. 2); BA48 (*H* VII, fig. 22a)

Close to C8 but at a lower level on the mountain is another impressive, uninscribed tomb, G22.²⁰⁰ This tomb has some features which it shares with tombs dated to late Dynasty 5-Teti and others which link it to tombs of officials of Pepy II. These will be examined to find which characteristics dominate in order to date it more precisely.

The approach to the tomb is through a large forecourt with smaller burials cut into the side walls. With an area of 46.00sq. m, it is similar in shape and area to the forecourts before the Fifth Dynasty tombs, M23 with an area of 47.50sq. m, and M22, 41.50sq. m, but also the uninscribed tomb H4, 41.40sq. m, possibly dated to the reign of Pepy II. The well cut façade of G22 has an area of 13.00sq. m, less than most Fifth Dynasty façades except for M21, where the façade is 14.00sq. m. No other tombs have façades of similar areas to G22, the closest being those of CA1, a vizier dated to Pepy I, 11.35sq. m, H27, 11.00sq. m and H15, 14.65sq. m, both dated to early-mid Pepy II. The entrance to the chapel which is deeply recessed like M23, has a height of 2.45m. with a full drum, 0.50m in diameter. The same entrance height is found in G98 (Teti) and C8 (early Pepy II), but similar heights are those of M8, 2.40m, L23, 2.30m and H27, 2.55m, all dated to early-mid Pepy II. The entrances of G98, L23 and H27 have full drums of the same size as the drum of G22.

The well-finished but undecorated chapel is rectangular with the main axis perpendicular to the entrance wall. This plan follows that of M43 (dated to Unis), the earliest example of a chapel of this shape and orientation. From the end of the reign of Teti-beginning Pepy I (in tombs F1 and G95), until Dynasty 8 (in tombs B7, BA14 and BA17) this plan is frequently chosen by tomb owners. The chapel height of 2.80m av. in G22 is lower than the major Fifth Dynasty chapels except for N16 (2.60m av.), but the same as the chapel of

²⁰⁰ H VII, fig. 1

G98 (late Teti). Similar heights are found in a group of tombs dated to early-mid Pepy II, H27 (2.80m), M8 (in the front section of the chapel) and H4 (both 2.75m), H15 and H24 (both with 3.00m av.). The large chapel area of G22, 67.60sq. m, is not similar to any other chapel areas in tombs before early Pepy II, when the owner of tomb L23, *Ppjj-nh-n-s*, cut a large chapel of 66.60sq. m. All remaining major chapel areas in tombs dated to Pepy II and later are either much greater, e.g. M8 (87.00sq m), H24 (86.00sq. m), C8(98.75sq. m), or less, e.g. H26 (44.40sq. m), H27 (38.40sq. m), B6 (40.15sq. m). No shrine area is indicated although a pillared recess may have been planned for the unfinished rear section of the chapel similar to the east recess in tomb G98.

Within the chapel four pillars are placed in pairs, not a single row, in a central position as in tomb C8; these are the only tombs in the cemetery which have four pillars positioned in this way. The pillars are linked to the ceiling by beams which have the lower surface sloping up from front to rear, like the pillars at the entrance to the north recess in G98, and in H26, H15 and H4. The main shaft of G22 is cut between two pillars as in M23, H15, H26, H24 and C3 and is opposite the tomb entrance and perpendicular to it, in the centre of the chapel.²⁰¹ This is the predominant position for shafts mouths in tombs dated to the period, end Teti-Pepy I, e.g. F1, G97, G126 and K4, and for main burials in tombs dated mid-late Pepy II, e.g. H26, H24, GA11.²⁰²

The sloping main passage in G22 has a length of 10.40m, then a short horizontal corridor before the burial chamber. While sloping passages form the first part of the complex burials of some major Fifth Dynasty tombs, they are followed by a vertical shaft which leads to the burial chamber. In one of these tombs, M43, the sloping passage is the same length as the main passage in G22. Main burials comprising a single sloping passage like

²⁰¹ M23 (*H* V, fig. 11); H15 (*H* IV, fig. 22); H26 (*H* I, fig. 5); H24 (*H* II, fig. 1); C3 (*H* I, fig. 23).

²⁰² F1 (*H* VI, fig. 1); G97 (*H* VIII, fig. 1); G126 (*H* IX, fig. 14); K4 (*H* VIII, fig. 16); H26 (*H* I, fig. 5); H24 (*H* II, fig. 1); GA11 (*H* VII, fig. 26).

G22 date from Pepy I and become the usual form throughout the period Pepy II-Dynasty 8. Tombs with sloping passages of similar lengths to G22 are K4, 10.40m (Pepy I), M8, 9.40m, H26, 10.20m and C8, 11.20m (all dated to Pepy II). The horizontal section before the burial chamber in G22 is noted in a small number of tombs dating from the end of Pepy I-beginning Pepy II. The burial chamber opening from this corridor extends in the same direction and is only as wide as the passage itself. This type of chamber is found with sloping passages in tombs K16, K1, BA63, C8, and in some shallow, horizontal shafts, e.g. L23. The small area of the burial chamber of G22, 3.15sq. m, is usual in many tombs dated to Pepy I, e.g. G97, G119 and K18, all 3.35sq. m, K21, 3.05sq. m and to some tombs of the first half of Pepy II, e.g. L21, 3.15sq. m (unfinished?), L23, 2.35sq. m, G79, 2.75sq. m and C8, 3.35sq. m. Another shaft (II) cut in the floor of the chapel of G22 next to the main shaft (III) is remarkable for the enlarged area before the burial chamber. At the end of the sloping passage a step down, together with a raised ceiling, gives the appearance of an antechamber very like the area before the burial chamber in tomb B6 (Dynasty 8).

As can be seen from the above summary, the various measurements and features of G22 can be applied to tombs dated to two periods, late Teti-Pepy I and mid Pepy II. The shape and orientation of the chapel with its pillars is particularly distinctive and must certainly have been influenced by the late Fifth Dynasty tomb of *Hm-Mnw*, M43. This chapel plan (though without pillars) is also chosen by high officials of Pepy I, the Nomarch, *Nhwt-dsr*, of tomb G95, the *jmj-r hm-ntr*, *Whnw*, Q4, and the Overseer of Fields and Serfs, *Hzzj-Mnw*, F1, and adopted later by the Nomarch, *K3-j-hp Ttj*, M8, possibly appointed by Pepy II. Equally distinctive in G22 is the sloping passage descending from a rectangular mouth. Rectangular mouths to shafts come into use in the tombs of the Nomarchs of Teti-early Pepy I, G98 and G95, but as the entrance to vertical, not sloping,

shafts. With deeper sloping passages they are probably first seen in the tombs of the *jmj-r hm-ntr*, *Wbnw*, Q4, and the Overseers of Fields and Serfs, *B3wj*, K4, and *Hzzj-Mnw*, G42.²⁰³ The type of burial chamber in G22 which has the same width and direction as the passage, together with its small area, are also noted first in tombs dated to Pepy I and then in early Pepy II.

It would appear that the owner of tomb G22, which is cut in good quality limestone and at a height on the mountain of 195.5m, the same as the Nomarchs of tombs G95 and M8, and with a forecourt, entrance, chapel and burial passage of considerable size, must have been of high rank and appropriate resources. While many of the features indicate that the owner may have served under Pepy I, the area of the chapel is greater than any other official of this period, even more than the earlier Nomarch, G98, whose chapel area is 40.30sq. m, or 63.50sq. m if the two recesses are included. The chapel area of G22 is almost the same as that of tomb L23, whose owner, a woman, is thought to be related to the owner of the major tomb of early Pepy II, M8.

The sloping passages of G22 become the main type in tombs dated to Pepy I, but are earlier seen in the combination shafts of the Fifth Dynasty tombs. The length of the sloping passage in G22 is the same as the sloping section of the combination shaft in M43, 10.40m, but is also almost the same length as the passages in K4 (Pepy I) and H26 (Pepy II). While there is some conflict between the dating evidence for G22, a later date is proposed with the tomb owner possibly having been appointed to the position of a Nomarch at Akhmim under Merenre or at the very beginning of the reign of Pepy II.

²⁰³ Q4 (*H* VI, fig. 18a); K4 (*H* VIII, fig. 16); G42 (*H* VII, fig. 2).

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TABLES

TABLE 1 – Forecourts and Porticos

FORECOURTS					PORTICOS		
Tomb	Width: m.	Depth: m.	Area sq.m	Orientation	Width: m.	Depth: m.	Height: m.
G84	21.00	2.60	54.60	N-S			
L6							
M23	11.30	4.20	47.50	E-W	4.50	4.30	4.10 ?
M21	3.15	1.75	5.50	E-W			
L8	3.40	1.60	5.45	E-W			
M22	4.25	9.75	41.50	N-S			
M43	6.00 av.	12.00 av.	72.00	N-S			
M44							
M45a							
N15							
N16							
F12							
F15							
G98							
K16							
F1							
G95	2.30	2.60 av.	6.00	square			
G126							
G22	5.00 av.	9.20	46.00	E-W			
G23							
CA1	5.15	2.40 av.	12.35	N-S			
G97	1.90	1.70	3.25	square			
Q2							
Q4	2.70	2.00	5.40	square			
Q15							
B12	1.40	1.40 av.	1.95	square			
Q13							
K5							
N20	2.15 av.	1.35 av.	2.90	N-S			
C9							
G119							
G124							
K21							
L42							
L31	3.10	2.55	7.90	E-W			
K18							
K1							
K4							
M8	3.20	6.00 av.	19.20	N-S			
M52							
M51							
L21							
L23	3.20	2.40	7.70	E-W			
BA63	2.40	2.85	6.85	square			
G79							
BA48	3.50	2.65 av.	9.25	N-S			
H27							
B62							
G42	1.75	2.50 av.	4.35	E-W			
H15	4.00	6.00	24.00	N-S			
H4	5.75	7.20	41.40	E-W			
H6	5.60	4.15	23.24	E-W			
C8							
H26	5.05	5.00	25.25	square	5.40	3.70	4.30
B83							
G49	1.65 av.	2.20av.	3.65	E-W			
H24	5.40	4.00	21.60	E-W	5.70	2.10	2.75
GA11							
H41	3.40	3.75	12.75	Square			
I49	1.25	2.20	2.75	N-S			

TABLE 1

FORECOURTS					PORTICOS		
Tomb	Width: m.	Depth: m.	Area sq.m	Orientation	Width: m.	Depth: m.	Height: m.
C3	1.75 av.	3.20	5.60	N-S			
J2	0.80	3.25	2.60	N-S			
B6					{8.60	1.50	2.30 av.}
B7							
G66							
BA17	1.75	1.60	2.80	square			
BA14	3.75	3.00	11.25	square			

TABLE 2 – Façades

Tomb	Height: m.	Width: m.	Area sq.m.	Façade profile	Recess profile	Recess Depth: m.	Lintel Height: m.	Façade/Recess
G84	3.85	21.50	82.75	/ 15°		.70	.40	recess
L6	3.15	2.50	7.85			.50		
M23	5.40	11.40	61.00	/ 5°		1.50	.45	recess
M21	2.25	6.30?	14.00 est.	/ 5°		.50		
L8	2.75	2.10	5.75	/ 8°		.35	.40	façade
M22	3.60 av.	6.85	25.00	/ 5°	/	.50		
M43	4.85	7.25	35.00	/ 3°	/	.10	.60	recess
M44	2.80	3.50	9.80	/ 3°	/	.18	.15	recess
M45a	2.50	1.70	4.25				.30	façade
N15	2.10 est.	2.20	4.60 est.	/ 5°	-	-	-	-
N16	3.30	2.25	7.40	/ 5°	/	1.05		
F12	not	available	damaged					
F15	1.65	2.00	3.30			.50	.30	recess
G98	3.05	2.40	7.30				broken	façade
K16	2.10	2.80	5.90			.25		recess
F1	2.10	3.85	8.00	/ 5°				
G95	2.45	2.30av.	5.65	/ 10°	/	.18		
G126	2.10	2.10	4.40				.25	façade
G22	2.55	5.15	13.00	/ 5°	/	.50	.80	façade
G23	1.85	1.50 av.	2.75					
CA1	2.20	5.15	11.35			.18	.35	recess
G97	2.45	2.10	5.15	/ 5°	N. side only	.10	.20	recess
Q2	damaged	1.75		damaged				
Q4	damaged	1.75		damaged				
Q15	1.35	1.15	1.50					
B12	2.20	1.40	3.08	/ 5°			.30	façade
Q13	2.00	1.42	2.85	/ 3°	/	.50	.15	façade
K5	2.35	2.90	6.80				.25	façade
N20	2.70	2.15	5.80			.18	.40	recess
C9	1.95 unfinished	.85 est.	1.65					
G119	1.60	1.60	2.55				.20	façade
G124	1.55	1.60	2.50				.25	façade
K21	1.75	1.60	2.80				.20	façade
L42	1.75	1.30	2.25	/ 5°			.25	façade
L31	2.65	3.10	8.20				.45	façade
K18	1.55 est.	1.80	2.80	/ 5°				
K1	1.75	2.10	3.15				.25	façade
K4	2.10	2.20	4.60				.30	façade
M8	2.40	2.80	6.70					
M52	1.75	1.75	3.00				.20	façade
M51	2.25	3.15	7.00	/ 8°	/		.50	façade
L21	3.30	2.10	7.00	/ 3°	/	.10		
L23	2.80	3.20	9.00	/ 5°	/	.10	.40	façade

TABLE 2

Tomb	Height: m.	Width: m.	Area sq.m.	Façade profile	Recess profile	Recess Depth: m.	Lintel Height: m.	Façade/Recess
BA63	2.70	2.40	6.50					
G79	2.10	2.30	4.85				.40	façade
BA48	3.00	2.65	8.00			.05		
H27	3.15	3.50	11.00				.55	façade
B62	1.75	1.75	3.05	/ 3°			.25	façade
G42	2.50	2.50	6.25	/ 5°			.40	façade
H15	3.15	4.65	14.65	/ 10°			.30	façade
H4	3.15	6.40	21.45	/ 5°	/	.18	.35	façade
H6	2.15	5.30	11.40	/ 3°				
C8	3.15	2.30	7.25	unfinished			.20 est.	façade
H26	4.20	5.25	22.00			.10	.85	façade(painted)
B83	2.30	1.65	3.80					
G49	2.00	1.70	3.40				.50	façade
H24	2.75	5.70	15.70			.10	.40	recess (painted)
GA11	2.65	2.20	5.85	/ 5°			.50	façade
H41	2.45	3.50	8.35					
I49	1.75	1.75	3.00					
B6	(same	linked	façade)	/ 8°			.10	façade
B7	2.30	8.60	19.75	/ 8°			.10	façade
C3	2.10	1.75	3.65				.25	façade
G66	1.95	1.84	3.60					
J2	2.50	2.20	5.50					
BA17	2.10	1.75	3.65					
BA14	2.45	2.60	6.35	/ 5°				

TABLE 3 – Entrances and Drums

ENTRANCES						DRUMS		
Tomb	Height: m.	Width: m.	Depth m.	Steps up/down (external)	Steps up/down (internal)	Shape	Position	Diameter: m.
G84	1.85	0.95	1.60			1/2	C	.30
L6	2.25	.90	1.00			3/4	C	.45
M23	3.70	1.00	1.40		/*down	full	C	.55
M21	2.25 +	.95	.70		/*down	damaged	-	-
L8	1.80	.60	.95			1/2	B	.35
M22	2.90	.90	1.50		/*down	full	C	.50
M43	2.90	1.00	1.30	up*/		full	B	.50
M44	2.50	.95	.95			1/2	C	.50
M45a	1.45	.55	.35			1/2	F	.20
N15	1.95	.70	1.60			1/2	F	.30
N16	3.50	.70	1.60			-	-	-
F12	1.45 av.	.75	.35?	/*down		damaged	-	-
F15	2.00	.80	.70			lintel	F	.30
G98	2.45	.90	.90	up*/	/*down	full?	C	.55
K16	1.90	.95	.30		/*down	lintel	F	.20
F1	1.60	1.00	.60		/*down	broken: possibly 1/2 or lintel	-	-
G95	1.65	.85	.70	/*down		-	-	-
G126	1.75	.90	.65			1/2	C	.30
G22	2.45	.95	1.20			full	C	.50
G23	1.75	.75	.75			3/4	F	.30
CA1	1.40	1.10	.85	*/down		-	-	-
G97	1.75	.90	.55			lintel	C	.20
Q2	1.50+	.65	.50	/*down	/*down	damaged	-	-
Q4	?	.80	.65			damaged	-	-
Q15	1.20	.70	.35			-	-	-
B12	1.80	.80	.65			lintel	F	.20
Q13	1.50	.85	.70	/*down		lintel	C	.15
K5	2.10	.85	.45			lintel	B	.30
N20	2.20	.85	1.00			1/2	F	.35
C9	1.80	.75	.50			1/2	C	.30
G119	1.40	.85	.70			1/2	B	.20
G124	1.05	.70	.60			-	-	-
K21	1.40	.80	.50			1/2	F	.20 av
L42	1.50	.70	.65			3/4	F	.25
L31	1.95	.90	.55	up*/		1/2	F	.25
K18	1.40	.75	.55			damaged	-	-
K1	1.50	.85	.80			1/2	F	.20
K4	1.80	.90	.45?			full	B	.20
M8	2.40	1.30	1.00			damaged	-	-
M52	1.55	.90	.60			1/2	C	.35
M51	1.75	.90	.85			1/2	B	.20
L21	2.10	1.00	.70			1/2	F	.30
L23	2.30	.90	.90	up*/		3/4	B	.55
BA63	1.95	.80	.80			1/2	F	.35
G79	1.75	.90?	.90			1/2	F	.20
BA48	2.15	1.00	.45			-	-	-
H27	2.55	1.10	1.05			full	B	.50
B62	1.50	.90	.85			1/2	F	.20
G42	2.10	1.05	1.05			1/2	F	.30
H15	2.90	1.00	1.35	/*down	/*down	1/2	C	.50
H4	3.15	.95	1.15			full	C	.55
H6	2.55	.90	1.00			3/4	F	.50
C8	2.45	.90	2.00			1/2	F	.35
H26	3.55	.95	1.05			full	C	.55
B83	1.65	.85	.80	up*/		-	-	-
G49	1.50	.80	.80			-	-	-
H24	2.70	1.10	1.05			-	-	-

TABLE 3

ENTRANCES						DRUMS		
Tomb	Height: m.	Width: m.	Depth m.	Steps up/down (external)	Steps up/down (internal)	Shape	Position	Diameter: m.
GA11	2.10	1.00	.75		/*down	1/2	C	.25
H41	2.20	.85	.85			-	-	-
I49	1.50	1.00	.70			-	-	-
C3	1.60	.80	.55		/*down	-	-	-
J2	2.10	.80	.65			1/2	F	.35
B6	2.30	.75	1.05			1/2	F	.50
B7	2.10	.95	1.00			1/2	F	.25
G66	1.90	.80	.70	up*/		1/2	C	.30
BA17	1.65	.85	.35			lintel	C	.10
BA14	2.00	.75	.70			-	-	-

TABLE 4 – Drums and Lintels

DRUMS - SHAPE, POSITION and SIZE									
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">entrance →</div> </div>									
Diameter	Full drum: front	Full drum: centre	Full drum: back	¾ drum: front	¾ drum: centre	¾ drum: back	½ drum: front	½ drum: centre	½ drum: back
.50-.55m		M23	M43	H6	L23		B6	M44	
		M22	H27					H15	
		G22							
		G98							
		H26							
		H4							
.45m					L6				
.35m							N20	M52	L8
							C8		
							J2		
							BA63		
.20-.30m		K4		G23			M45a		
				L42			N15	G84	G119
							K21	G126	M51
							L31	C9	
							K1	GA11	
							L21	G66	
							G79	M52	
							B62		
							G42		
							B7		

LINTELS – SIZE and POSITION			
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">→</div> </div>			
Front	Centre	Back	Diameter
F15			.30m
K16			.20m
	G97		.20m
	Q13		.15m
B12			.20m
	K5		.30m
BA17			.10m

TABLE 5 – Uninscribed Tombs – Façades and Entrances

Tomb	FAÇADES							ENTRANCES		
	Height	Width	Area: sq.m	Façade profile	Recess profile	Lintel height: m.	Door height: m.	Width m.	Depth m.	Drum/ Lintel: diameter/ height
B9	2.15	2.00av.	4.30	/	/		1.85	.90	.70	lintel .35m
B13	1.75	1.25	2.20	/			1.55	.75	.70av.	½ .25m
B14	1.80	2.05	3.70	/		* .35	1.30	.80	.70av.	½ .30m
B15	1.70	2.75	4.65			* .15	1.25	.90	.55	½ .25m
B57	2.45	1.80	4.40	/	/		2.00	.75	1.00	¾ .40m
B84	1.70av.	1.40av.	2.35				1.50	.70	.55av.	-
C6	-----	1.65	----				1.80	.70	.60	¾ .30m
C7	2.15	2.00	4.30	/			2.05	.90	.70	½ .25m
F13	-----	-----	-----			* .30	1.80	.75	.65	-----
F14	2.60	1.95	3.90			* .30	1.75	.95	.45	-
G1	-----	-----	-----	/			1.85	.80	1.00	½ .40m
G2	2.80	3.80?	10.65av.	/	/		2.05	.80	.80	¾ .50m
G3	2.10	1.25	2.60			* N/A	1.95	.75	1.00	¾ .40m
G4	-----	-----	-----				1.50	.75	.90	½ .30m
G70	1.95	2.10	4.10			* .35	1.65	.90	.70	½ .25m
G72	3.10	1.95	6.05	/		* .50	2.05	.90	1.00	½ .35m
G73	2.05	2.20	4.50			* .40	1.55	.80	.80	½ .25m
G76	2.05	2.55	5.20			*broken	1.85	.95	.90	full .40m
G77	2.40	2.40	5.30			*broken	2.20	.85	.90	½ .40m
G78	2.20	2.80	6.15			*broken	1.95	.75	.80	½ .35m
G80	1.90	4.10	7.80				1.85	.95	1.10	½ .25m
G120	2.35	1.45	3.40			* .40	1.55	.85	.75	½ .20m
G125	1.55	1.80	2.80	/		* .25	1.60	.80	.60	½ .20m
H12	1.80	2.80?	5.05				1.60	.80	.85	½ .20m
H14	2.20	5.10	11.20				2.25	.80	.75	½ .50m
H25	2.60	2.50	6.50			* .30	2.30	.85	.95	½ .50m
H26F	-	-	-				1.40	.85	.75	-
H28	----	----	----	-			----	----	----	----
H28a	1.25	1.25	1.55				1.05	.75	.70	½ .25m
H29	1.20	1.50	1.80				1.10	.80?	.60?	-
H30	2.30	2.75	6.30			* .25	2.05	1.00	.75	½ .30m
H31	3.00	4.60	13.80			* .25	2.60	.90	.85	½ .40m
I4	1.75	3.15	5.50				1.75	.75	.70	
I50	1.40av.	1.10av.	1.55				1.35	.75	1.00	-
L1	3.00	2.05	6.15				1.85	.70	.90	lintel .10m
L2	2.05	2.15	4.40				1.90	.70	.90	2 lintels .15/.20m
L7	2.60	2.10	5.45			* .35	1.85	.70	.85	lintel .25m
L8a	2.75	1.35	3.70				1.50	.70	.45	½ .20m
L8b	damaged	-	-				-	-	-	-
L24	1.75	2.25	3.95			* .25	1.95	.80	.80	½ .30m
M24	West wall of	forecourt of M23					1.90	.70	.60	½ .30m
M25	4.00	1.85	7.40				2.00	.80	.40	full .30m
M26	3.70	1.90	7.00			* .35	1.70	.60	1.00	1/2 .30m
M27	damaged	-	-	-			-	-	-	-
M28	East wall of	forecourt of M22					1.30	.60	.95	½ .15m
M29	as M28	-	-				1.60	.60	.85	½ .30m
M39	South wall of	forecourt of M43	-				1.55	.65	.60	
M39a	as M39	-	-				1.40	.55	.35	
M40	as M39	-	-				1.75	.65	.70	










TABLE 5

FAÇADES								ENTRANCES		
Tomb	Height	Width	Area: sq.m	Façade profile	Recess profile	Lintel height: m.	Door height : m.	Width m.	Depth m.	Drum/ Lintel: diameter/ height
M41	East wall of	forecourt of M43	-			* .35	1.80	.65	.90	
M42	as M41	-	-			* .35	2.40	.90	1.00	¾ .50m
M42a	as M41	-	-				1.10	.60	.60	
M42b	as M41	-	-				1.65	.75	.60	
M42c	North wall of	forecourt of M43	-				.90	.70	-	
M45	3.00av.	3.00av.	9.00		/	* .30	1.75	.60	.65	½ .25m
M45b	West wall of	forecourt of M43	-				1.60	.75	.70	
M46	as M45b	-	-				1.70	.60	.80	
M47	as M45b	-	-				1.75	.55	.90	
M47a	as M45b	-	-				.90	.55	.25	
N13	-	-	-				1.50	.80	1.10	½ .30m
N14	-	-	-				2.20	.85	.40	
N15a	1.40	1.35	1.90				1.40	.80	.35	
N16	3.30	2.25	7.40av.	/	/		3.50	.70	1.60	
BA16	1.35	?	-				.90	.85	.35	

TABLE 6 – Chapels

Tomb	Plan	Area sq.m.	Axis	Height: m.	Ceiling level	Entrance/ Chapel	Door position	Entrance orientation	Pillars
G84		38.00	E-W	1.90	—	—	1	W	
L6		18.20	N-S	2.55	/	—	1	S	
M23	*	79.00	E-W	4.40	/	—	2	S	4
M21	*	32.50	E-W	3.55	—	broken	1	S	
L8		7.35	N-S	1.75	—	—	5	S	
M22	*	27.75	E-W	3.75	—	—	1	S	
M43	*	86.48	N-S	3.90	—	—	1	S	6
M44	*	20.20	E-W	3.80	/	—	4	S	
M45a		4.00	square	1.45	—	—	1	E	
N15	*	33.05	E-W	2.60 av.	/	—	1	S	
N16	*	11.90	N-S	3.30av.	—	—	1	W	
F12	*	22.95	E-W	2.05	—	broken	3	S	
F15	*	20.75	N-S	1.85	—	—	3	W	
G98	*	40.30	square	2.80	—	slight	4	W	5
K16		36.65	N-S	2.05	—	—	1	W	
F1		15.75	E-W	1.75	—	—	1	W	
G95		21.00	E-W	1.80	—	slight	2-4	W	
G126		7.50	N-S	1.70	/	—	1	S	
G22		67.60	E-W	2.80 av.	/	—	1	W	4
G23		4.00	square	1.75 av.	/	—	4	N	
CA1		8.65	N-S	1.75	/	—	1	W	
G97		11.70	square	1.70	/	—	3	W	
Q2		6.85	square	1.60	—	damaged	1-2	E	
Q4	*	19.20	N-S	1.75	—	damaged	1-2	S	
Q15		4.50	N-S	1.20	—	—	1	S	
B12		6.10	square	1.80	—	—	1-2	W	
Q13		2.75	square	1.20	—	—	1	S	
K5		16.35	E-W	2.10	/	—	1	W	
N20		6.80	N-S	2.10 av.	/	—	1-2	W	
C9		6.75	square	1.55	—	—	2	W	
G119		5.05	square	1.20	—	—	1	W	
G124		2.40	square	0.90	—	—	4	S	
K21		4.20	square	1.20	—	—	1	N	
L42		4.60	square	1.35 av.	/	—	3	W	
L31		20.45	square	2.00	—	—	1	S	
K18		3.50	E-W	1.40	—	—	1	N	
K1		5.65	square	1.35	—	—	1	W	
K4	*	32.00	square	2.00	/	—	1	S	
M8	*	87.00	N-S	2.75+3.55	—	damaged	4	S	4
M52		10.65	E-W	1.60	—	—	3	E	
M51		9.50	E-W	1.70	/	—	5	E	
L21	*	25.35	E-W	2.05	—	—	(1) 3 final	S	
L23		66.60	N-S	2.35	/	—	3	S	1
BA63		18.25	E-W	1.80	/	—	1	W	1
G79		7.25	E-W	1.75	—	—	1	W	
BA48	*	21.90	N-S	2.15	—	—	1	W	
H27	* ?	38.40	E-W	2.80	—	—	1	S	2
B62		5.45	square	1.45	/	—	1	W	
G42	*	14.40	N-S	2.00	—	—	1	W	
H15	* ?	27.30av. unfinished	E-W	3.00 av.	/	—	1	S	2
H4	*	50.60	N-S	2.75 av.	/	—	1	W	4
H6		18.00	square	2.85	—	—	1	W	
C8	*	98.75	square	3.30 av.	—	—	1	W	4
H26	*	44.40	E-W	3.00	—	—	1	S	2
B83		7.15	square	1.75	/	—	2	W	
G49		5.30	square	1.50	/	slight	1	W	
H24	*	86.00	E-W	3.00	—	—	(1) 3 final	S	4
GA11	* ?	26.00	E-W	2.20 av.	/	—	1	W	

TABLE 6

Tomb	Plan	Area sq.m.	Axis	Height: m.	Ceiling level	Entrance/ Chapel	Door position	Entrance orientation	Pillars
H41		31.05	N-S	2.30	—	—	3	S	
I49		16.30	square	1.70	—	—	5	S	
B6		40.15	E-W	2.15	↗	—	5	W	
B7		24.60	E-W	2.30	↗	┌	3	W	
C3		13.65	square	1.70	—	—	3	W	2
G66		22.70	E-W	1.70	—	—	4	W	
J2		11.90	square	1.70	—	—	1	S	
BA17		10.05	N-S	1.70	—	┌	3	S	
BA14		19.50	N-S	2.00	—	—	1	S	

Notes

1. * in PLAN column: asterisk indicates that a shrine is also present

2. Door position: position of entrance in relation to the chapel width:

1. **centre**, or very close to centre
2. in the **right half** of the entrance wall
3. in the **left half** of the entrance wall
4. at the **extreme right** of the wall
5. at the **extreme left** of the wall

3. Ceiling in chapel: slopes up from entrance ↗ horizontal — slopes down from entrance ↘

4. Entrance/chapel ceiling: ┌ indicates that the ceiling of the chapel is raised behind the entrance




5. Chapel shape:  square;  rectangular, axis parallel to the entrance wall;  rectangular, axis perpendicular to the entrance wall

TABLE 7 – Uninscribed Tombs - Chapel

Tomb	Plan	Area: sq.m.	Axis	Ceiling height :m.	Ceiling level:	Entrance/chapel ceiling	Door position	Entrance orientation	Pillars
B9		26.65	E-W	2.30	/	4	1	W	2
B13		4.55	E-W	1.20	/	11	1	W	
B14		4.55		1.05	/	111	1	S	
B15		2.30		1.05	/	111	1	S	
B57		6.65	E-W	1.95	/	4	3	S	2 unfinished
B84		4.75	N-S	1.45av.	—	11	4	S	
C6		9.05	E-W	1.50	/	11	1	W	1+1 engaged pillar
C7		20.90	N-S	1.50	/	11	2	W	2
F13		14.95	E-W	1.85	—	111	5	S	
F14		30.15	E-W	2.10	/	111	5	S	
G1		2.05		1.50	/	111	2	W	
G2		19.20		2.00	—	4	1	W	
G3		16.20		2.00	—	4	1	N	2
G4		4.55		1.20	—	11	3	N	
G70		6.75	E-W	1.75	—	111	4	W	
G72		23.00	E-W	1.90	—	4	2	W	
G73		9.30	E-W	1.40	/	11	1/2	W	
G76		9.45		1.90	—	4	1	W	
G77		4.60	E-W	1.80	/	111	2	W	
G78		5.75		1.70	—	111	1	W	
G80		22.00	E-W	2.00	—	4	1	W	1
G120		8.40	E-W	1.35	—	11	1	W	
G125		6.20		1.50av.	/	11	4	S	
H12		16.40	N-S	1.65av.	/	4	2	S	1
H14		unfinished			—	111	1	S	
H25		17.20		1.80	—	111	1	S	
H26F		21.40	N-S	1.50	—	111	1	N	1
H28	-	unfinished	-	-	-	-	-	S	
H28a	-	unfinished	-	-	-	-	-	S	
H29		5.25		1.10	—	11	2	S	
H30		14.90	N-S	2.20	—	4	3	W	
H31		23.40	E-W	2.20	—	4	3	S	
I4		9.70		1.75	—	11	1	S	
I50		9.25	N-S	1.40	—	4	3	S	
L1		8.50	E-W	2.00	/	111	3	E	
L2		13.35	N-S	2.30	/	4	3	E	
L7		5.95	N-S	2.30	—	111	5	S	
L8a		4.90		1.30	—	111	5	S	
L8b		5.45		1.35	—	111	5	E	
L24		7.25	N-S	1.60	/	111	3	S	
M24		4.00	N-S	1.70	—	111	3	E	
M25		8.40	N-S	2.00	/	111	1	W	
M26		7.40		1.65	/	111	1	W	
M27		6.70		1.60?	—	111	4	W	
M28		4.65	N-S	1.30?	—	111	2	W	
M29		7.40	E-W	1.35	—	111	3	W	
M39		2.75	E-W	1.40	—	4	2	N	
M39a		2.20	N-S	1.55	—	4	3	N	
M40	-	1.90 unfinished		1.75	—	111	1	N	
M41	-	12.15 unfinished	N-S	1.50	—	4	5	W	
M42		42.00	N-S	2.90av.	—	111	2	W	
M42a		3.00	N-S	1.10	—	111	?	S	
M42b		7.80	N-S	2.25	/	111	4	W	
M42c		1.85	N-S	.90	—	111	1	S	
M45		6.60	E-W	1.80	—	4	3	E	
M45b		3.75	N-S	2.05	—	4	1	N	
M46		3.70		1.70	—	111	1	E	




TABLE 7


Tomb	Plan	Area: sq.m.	Axis	Ceiling height :m.	Ceiling level:	Entrance/chapel ceiling	Door position	Entrance orientation	Pillars
M47	☒	2.95av.		1.75	—	—	4	E	
M47a	☐	.95av.	E-W	1.20	—	—	2	E	
N13	☒	3.75	E-W	1.10	—	—	2	E	
N14	☐	.75	E-W	1.10	—	—	1	E	
N15a	☐	5.00	E-W	1.40	—	—	3	S	
N16	☐	11.90	N-S	3.30av.	—	—	1	W	
BA16	☒	1.20		.90	—	—	1	S	

Notes

1. Door position: position of entrance in relation to chapel width:

1. **centre**, or very close to centre
2. in the **right half** of the entrance wall
3. in the **left half** of the entrance wall
4. at the **extreme right** of the wall
5. at the **extreme left** of the wall

2. Ceiling in chapel: slopes up from entrance  horizontal  slopes down from entrance 

3. Entrance/chapel ceiling:  indicates that the ceiling of the chapel is raised behind the entrance

4. Chapel shape: ☒ square; ☐ rectangular, axis parallel to the entrance wall; ☐ rectangular, axis perpendicular to the entrance wall

5. * asterisk in PLAN column indicates that a shrine is present

TABLE 8 – Shrines and Secondary Chambers

[illegible]

TABLE 8

Tomb	Shrine area: sq.m.	Features						Secondary chambers	
		Entrance-recess	Engaged pillars	Lintel / Architrave	Drum	False door	Burial shafts	Area: sq.m	Features
G42	1.55								
H15									
H4	15.20 unfinished			A*					
H6									
C8	18.35 unfinished	*	*	L*/A*	*				
H26	7.85	*		L*/A*	*	*			
B83									
G49									
H24	15.12			A*		*			
GA11	5.30?					*			
H41									
I49									
B6									
B7	1.40 (niche)				*				
C3									
G66									
J2									
BA17									
BA14	1.25 (niche)								

Notes

* asterisk indicates presence of a feature

TABLE 9 – False Doors

[illegible]

TABLE 9

Position and Number						Type			
Tomb	Chapel	Shrine	Wall	Height m.	Width m.	A	B	Carved/ painted	Jambs
H6									
C8									
H26		*1	W	not	known		*	C	2
B83									
G49									
H24	*1 b.	*2 a.	a.W b.N	a. 2.70 b. 1.65	a. 1.50 b. 0.97		* *	C P	2 -
GA11		*1	N	1.95	1.00		*	C	2
H41									
I49									
C3									
J2	*1		N	not	known		*	C	not known
B6									
B7									
G66									
BA17	*1		N	not	known		*	P	not known
BA14									

Notes

A : false door type of almost-square proportions, a broad, flat frame, upper panel divided into three almost-equal parts and broad jambs.

B : false doors more elongated in shape with a cavetto cornice and torus moulding, a broader central panel and narrow side panels and narrower jambs.

* denotes presence of feature. The number of features follows

TABLE 10 – Offering Platforms and Basins

Tomb	Shape: plain	Shape: <i>h</i> tp-form	Number	Width: m.	Depth: m.	Height: m.	Basins	Position
G84	* ?		1	not	known			chapel
L6	*		1	2.50	0.20	0.20		
M23	* a. * b.		2	a. 3.75 b. 1.65	A .0.20 b. 0.20	a. 0.15 b. 0.30		
L8								
M22	* a. * b.		2	a. 1.30 b. 2.75	a. 0.20 b. 0.20			
M43	*		1	3.10?	0.35	0.16		
M44	*a. * b.		2	a. not b.3.25	known b. 0.60	b. 0.50		
M45a								
N15	*		1	1.60	0.70	0.15		
N16								
F12								
F15								
G98								
K16								
F1		*	1	1.35	0.55	0.15		
G95		*	1	1.55	0.45	0.10		
G126								
G22								
G23								
CA1		*	1	1.10	0.60	0.30		
G97								
Q2								
Q4								
Q15								
B12								
Q13								
K5								
N20		* a. * b.	2	a. 1.00 b. 1.10	a. 0.75 b. 0.60	a. 0.10 b. 0.15	**	chapel (2)
C9								
G119								
G124								
K21								
L42								
L31								
K18								
K1								
K4		* a. * b.	2	a. 1.20 b. 2.20	a. 0.60 b. 1.15	a. 0.10 b. 0.10	*	shrine
M8	*		1	2.90	1.10	0.20		
M52								
M51								
L21								
L23								
BA63								
G79								
BA48		* a. * b.	2	a. 1.60 b. 0.90	a. 0.70 b. 0.50	a. 0.20 b. 0.05	*	shrine
H27								
B62								
G42								
H15								
H4								
H6								
C8								
H26	*		1	unfinished				
B83								
G49								

TABLE 10

Tomb	Shape: plain	Shape: <i>htp</i> -form	Number	Width: m.	Depth: m.	Height: m.	Basins	Position
H24	*		1	1.50	1.20	0.25		
GA11	* oval		1	1.00	0.80	0.15		
H41								
I49								
B6								
B7								
C3								
G66								
J2								
BA17								
BA14								

Notes

An asterisk denotes the presence of a feature. Where two are found in a chapel or shrine, the feature before the main false door or shaft is designated *a.* while the feature before a secondary false door or shaft is designated *b.*

TABLE 11 – Niches in Façades or Walls of Forecourts

Tomb	Façade / Forecourt	Wall + number	Sill height: m.	Height of niche: m.	Width of niche: m.	Depth of niche: m.	Position re Shafts	Finish
G84								
L6								
M23	façade	E (1)	4.00	0.95	1.30	0.90		
M21								
L8								
M22	façade	W (1)	1.50	1.10	1.00	0.70		
M43	façade	W (1)	2.70	0.90	1.50	1.25	above main Sh. 1	
M44								
M45a								
N15								
N16								
F12								
F15								
G98								
K16								
F1								
G95								
G126								
G22								
G23								
CA1								
G97								
Q2								
Q4	façade	W (1)	-	0.75	0.50	0.30	above pit a.	drum 0.10m
Q15								
B12								
Q13								
K5								
N20								
C9								
G119								
G124								
K21	forecourt	W (1)	0.50	0.65	0.55	0.45	-	Lintel 0.10m
L42								
L31								
K18								
K1								
K4								
M8								
M52								
M51								
L21	forecourt	E (1)	0.50	1.00	0.70av.	0.80	-	
L23								
BA63								
G79								
BA48								
H27								
B62								
G42	forecourt	N (2) S (1)	(N)ground level (S) 0.75	0.85/0.80 1.00	0.80/0.75 0.75	0.90/0.50 0.25	above pits a., b., c.	
H15	forecourt	N (1) E (1)	both ground level	0.80 0.85	1.15 0.60	0.50 0.15	above pits b., c.	plastered + painted lintel (E)
H4	forecourt	N (1)	0.60	1.50	0.70	0.50	above pit a.	½ drum
H6	forecourt	S (1)	ground level	1.05	0.35	0.15	above pit a.	

TABLE 11

Tomb	Façade / Forecourt	Wall + number	Sill height: m.	Height of niche: m.	Width of niche: m.	Depth of niche: m.	Position re Shafts	Finish
C8								
H26	forecourt	W (2) E (2)	ground level	?	?	?	(W)above pits d., c. (E) above pits a., c.	plastered + drums
B83								
G49								
H24	forecourt	W (1) E (1)	ground level	?	0.80/0.80	1.00 (W) 1.50 (E)	above pit a.(W), pit e. (E)	½ drum(W)
GA11								
H41								
I49								
B6								
B7								
C3								
G66								
J2								
BA17								
BA14								

TABLE 12 – Niches in Chapels or Shrines

Tomb	Chapel/ Shrine	Wall/ Number	Sill height: m.	Height of niche: m.	Width of niche: m.	Depth of niche: m.	Position re shafts	Finish
G84	chapel	N	floor level	1.80 av.	1.40 av.	2.20 av.		unfinished
L6								
M23	chapel	N (6) E (3) S (4)	0.85 av. 0.90 0.85 av.	1.95 av. 1.85 av. 1.90 av.	1.10 av.; 1.85 (1); 0.70 (2); 4.40 (1); 1.85 (3)	0.40 av.		all statue niches; traces of painted plaster
M21	shrine	E (1)	0.30	?	0.80	0.25		statue
M22	chapel	N (1) E (1)	0.60 0.65	? 1.80	2.30 1.00	0.65 0.45		statue niches: plastered and painted to represent woodgrain
M43	shrine	N (3)	1. 1.35 2. 1.35 3. 0.80	1.50 1.00 1.80	0.80 0.85 0.85	0.50 1.30 0.65		all framed
M44	shrine	N (1)	2.00	1.50	0.60	0.55		
M45a								
N15	shrine chapel	N (1) E (1)	0.95 (N) floor level (E)	1.20 av. 0.85	0.70 0.90	0.40 0.45	- above shaft	
F12								
F15								
G98								
K16								
F1	chapel	E (2)	floor level	1.60 (2)	1.10 av. (2)	0.10 (2)		
G95	chapel	E (1)	0.30	0.90	0.55	0.45		above ledge
G126								
G22								
G23								
CA1								
G97								
Q2								
Q4								
Q15								
B12								
Q13								
K5	chapel	S (2)	0.50	1.40 1.25	0.85 0.90	0.30 0.45	above shaft	plastered. painted as granite
N20								
C9								
G119								
G124								
K21								
L42								
L31								
K18								
K1								
K4	chapel	E (1)	floor level	1.80	1.05	0.40		statue

TABLE 12

Tomb	Chapel/ Shrine	Wall/ Number	Sill height: m.	Height of niche: m.	Width of niche: m.	Depth of niche: m.	Position re shafts	Finish
M8	chapel	E (3) W(2)	1.90, 1.60, 1.00(E). 0.45, floor level(W)	0.40, 0.35, 0.50(E) 1.50, 1.95(W)	3.80, 2.50, 2.50(E) 0.75, 0.65(W)	not known (E) 0.75, 0.30(W)		plastered around edges (E) plastered, painted as granite (W)
M52	chapel	W (1)	0.70	0.70	2.45	0.25		
M51	chapel	N (1) W (2) S (1)	1.10 (N) 1.30, 0.90 (W) 0.75 (S)	0.60 (N) 0.45, 0.70 (W) 0.70 (S)	0.70 (N) 1.05, 1.05 (W) 0.80av. (S)	0.15 (N) 0.15, 0.20 (W) 0.15 (S)	all above shafts	plastered around edges
L21	shrine chapel	W(1) N (1)	1.00 1.00	0.70 0.65	0.75 0.35	0.80 0.25	above main Sh. 3 (shrine) and Sh.2 (chapel)	plastered
L23								
BA63								
G79								
BA48								
H27								
B62								
G42								
H15								
H4								
H6	chapel	E (1)	floor level	1.05	1.25	1.55	above Sh.2	unfinished
C8	chapel	S (1)	1.70	1.20	0.80	0.60		½ drum, 0.35m diam.
H26								
B83								
G49								
H24								
GA11	chapel	N (1)	0.80	1.10	0.70	0.10		
H41								
I49	chapel	W (1)	0.40	1.20	2.00	0.20		
B6	chapel	N (1)	1.10	0.45	0.60	0.10		
B7	chapel	N (1)	0.90	0.40	0.80	0.35		
C3								
G66								
J2								
BA17								
BA14	chapel	N (1)	0.15	1.40	1.30 av.	0.95		plastered; step in front

TABLE 13 – Burial Shafts and Passages I

Tomb	Number in chapel	Number in shrine	Category of main shaft : (1 – 7)	Shape of mouth: a. square b. rect.	Axis of rectangular mouth/ passage	Raised entrance	Jambs at entrance	Width of jambs : m.
G84	2		1	a.				
L6	3		1	a.				
M23	1	3	2	a.				
M21	4	2	1	a.				
L8	4		1	a.				
M22	3	1	2	a.			2	0.20
M43	10		2	a.			2	0.25
M44	2	1	2	b.	N-S		1	0.20
M45a	1		1	a.			1	0.15
N15	7		2	b.	N-S			
N16	3		1	a.				
F12	3		1	a.				
F15	2		1	a.				
G98	2	3	1	b.	E-W			
K16	2		6	b.	N-S		2	0.12
F1	2		5	b.	E-W			
G95	3		1	b.	E-W			
G126	1		5	b.	N-S			
G22	3		6	b.	E-W			
G23	2		6	b.	N-S			
CA1	1		3	-	N-S			
G97	2		1	b.	E-W			
Q2	2		4 (i)	a.				
Q4	3		6	b.	E-W			
Q15	1		4 (i)	a.	E-W			
B12	2		5	b.	E-W			
Q13	1		4 (i)	b.	N-S			
K5	2		6	b.	E-W			
N20	2		4 (ii)	b.	E-W			
C9	2		3	-	N-S?			
G119	1		6	b.	E-W			
G124	1		4 (i)	b.	N-S			
K21	1		6	b.	N-S			
L42	3		3	-	E-W			
L31	4		7	b.	N-S		2	0.10
K18	1		6	b.	N-S			
K1	2		6	b.	E-W			
K4	1		6	b.	E-W		2	0.12
M8	6		6	b.	E-W			
M52	3		5	b.	E-W		1	0.10
M51	3		1	a.				
L21	7	1	4	b.	N-S			
L23	2	2	4	b.	N-S			
BA63	3		6	b.	N-S			
G79	1		6	b.	E-W			
BA48	2		6	b.	E-W			
H27	3		6	b.	N-S			
B62	2		7	b.	E-W			
G42	2		6	b.	E-W			
H15	3		6	b.	N-S		2	0.05
H4	2		6	b.	E-W	*	2	?
H6	5		6	b.	E-W			
C8	2		6	b.	N-S		2	0.05 + lintel .10
H26	1		6	b.	N-S	*		
B83	2		4 (ii)	b.	N-S			
G49	2		5	b.	E-W			
H24	4		6	b.	N-S	*		

TABLE 13

Tomb	Number in chapel	Number in shrine	Category of main shaft : (1 – 7)	Shape of mouth: a. square b. rect.	Axis of rectangular mouth/ passage	Raised entrance	Jambs at entrance	Width of jambs : m.
GA11	1		6	b.	E-W			
H41	1		6	b.	N-S	*		
I49	2		7	b.	N-S	*		
B6	1		6	b.	E-W		2	0.05
B7	1		7	b.	E-W	*		
C3	2		6	b.	E-W	*		
G66	2		7	b.	E-W			
J2	1		7	b.	N-S			
BA17	3		7	b.	N-S			
BA14	3		7	b.	N-S		2	0.05

Notes

Categories of shafts:

1. Vertical shafts
2. Combination (sloping passage and vertical shaft)
3. Horizontal passages cut into walls
4. Shallow, horizontal passages immediately below the floor: (i) with vertical access (ii) with vertical access then a sloping floor before the horizontal passage (iii) with a sloping floor before the horizontal passage
5. Shallow sloping passages with an irregular slope to ceiling/floor
6. Deeper sloping passages
7. Sloping irregular passages

TABLE 14 – Burial Shafts and Passages II

Tomb	Main shaft	Total length: m.	Connecting passages	Length of connecting passages: m.	Niches	Steps up: m.	Steps down: m.	Jambs at entrance to burial chamber	Width: m.
G84	Sh. 1	4.05	*	.50		.60			
L6	Sh. 1	4.05							
M23	Sh. 1	6.80+7.00	*	.40			.05	2	.15
M21	Sh. 3	3.80	*	.95				2	.10
L8	Sh. 2	3.50	*	.20			.10	2	.05/.10
M22	Sh. 2	6.55+7.10							
M43	Sh. 1	10.45+10.05	*	.20		.15	.25	1	.10
M44	Sh. 1	7.50+3.40							
M45a	Sh. 1	2.80				.40		1	.15
N15	Sh. 2	4.05+4.70							
N16	Sh. 1	4.60							
F12	Sh. 2	7.30			*		.30		
F15	Sh. 1	5.05							
G98	Sh.2	5.95	*	.55			.20	2	.10/.15
K16	Sh. 2	5.60							
F1	Sh. 1	10.40			*			2	.15
G95	Sh. 1	5.10					.10	1	.05
G126	Sh. 1	5.85							
G22	Sh. 3	10.40	*	2.00					
G23	Sh. 2	4.90	*	1.10			.15		
CA1	Sh. 1	4.10?							
G97	Sh. 1	4.60							
Q2	Sh. 1	1.65					.10		
Q4	Sh. 2	7.20							
Q15	Sh. 1	1.30+1.80							
B12	Sh. 1	4.75					.20		
Q13	Sh. 1	1.15					.10		
K5	Sh. 1	7.25					.25		
N20	Sh. 2	.65+7.20							
C9	Sh. 1	1.25					.70		
G119	Sh. 1	5.00							
G124	Sh. 1	2.30/3.00							
K21	Sh. 1	6.00	*	1.20					
L42	Sh. 2	2.90							
L31	Sh. 1	7.50							
K18	Sh. 1	4.75							
K1	Sh. 2	6.25							
K4	Sh. 1	10.50							
M8	Sh.6	13.20	*	3.80		.15 to antechamber .40 to burial chamber		2	.10/.20
M52	Sh. 1? 1?	3.50				.15			
M51	Sh. 1	4.55							
L21	Sh. 3	.80+5.70					.65		
L23	Sh. 1	2.45+2.80							
BA63	Sh. 2	5.70							
G79	Sh. 1	8.30	*	1.10					
BA48	Sh. 1	9.15	*	1.70				2	.05
H27	Sh. 1	7.50	*	4.50					
B62	Sh. 1	7.00							
G42	Sh. 1	6.80	*	2.55					
H15	Sh. 3	8.90							
H4	Sh. 2	7.05							
H6	Sh. 1	8.50			*				
C8	Sh. 1	11.20							

TABLE 14

Tomb	Main shaft	Total length: m.	Connecting passages	Length of connecting passages: m.	Niches	Steps up: m.	Steps down: m.	Jambs at entrance to burial chamber	Width: m.
H26	Sh. 1	10.20							
B83	Sh. 2	2.80							
G49	Sh. 1	3.00							
H24	Sh. 2	9.80	*	4.25					
GA11	Sh. 1	8.20							
H41	Sh. 1	5.65			*				
I49	Sh. 2	3.65							
B6	Sh. 1	4.80					.15	2	.05
B7	Sh. 1	6.70					.25		
C3	Sh. 1	5.00			*				
G66	Sh.2	5.70							
J2	Sh. 1	5.95							
BA17	Sh. 1	3.80	*	1.30	*				
BA14	Sh. 2	6.75						2	.05

Notes

1. Two measurements are given for the length of shafts and passages in tombs M23, M22, M43, M44 and N15. The first is the length of the initial sloping passage, the second is the length of the vertical shaft which follows.

2. The two measurements given for the shafts in tombs Q15, N20, G124, L21 and L23 refer firstly to the entrance section, vertical (Q15, N20, L21) or sloping (G124, L23), then to the length of the horizontal passage.

3. * asterisk denotes presence of a feature

TABLE 15 – Burial Chambers

Tomb	Main shaft	Axis	Height: m.	Length: m.	Width: m.	Area: sq.m.	Burial pit	With raised sides
G84	Sh. 1	N-S	1.45	2.40	1.50	3.60		
L6	Sh. 1	N-S	1.60	2.75	1.65	4.55	*	
M23	Sh. 1	N-S	1.95	antechamber: 2.50 burial chamber: 4.15	- 1.60 2.85	4.00 +11.80= 15.80	*	*
M21	Sh. 3	N0S	1.20	2.45	2.05	5.00	* pit in Sh. 2	
L8	Sh.2	N-S	1.00	2.15	1.40	3.00	* pits in Shs.2, 3	* Sh.2
M22	Sh.2	N-S	1.55	4.30 burial recess:3.30	1.40 2.10	6.00+ 6.95= 12.95	* pits in Shs.2, 4	* Shs.2,4
M43	Sh. 1	N-S	1.40	3.60	2.95	10.60	*	*
M44	Sh. 1	N-S	1.05	1.50	1.15	1.70 unfinished		
M45a	Sh. 1	N-S	.95 av.	1.50	1.20	1.80		
N15	Sh.3	E-W almost square	1.10	2.45	2.10	5.15		
N16	Sh.1	N-S	1.05	1.75	.75	1.30 unfinished		
F12	Sh. 2	E-W almost square	1.15	2.90	2.50	7.25	*	
F15	Sh. 1	N-S	1.10	2.35	1.45	3.45		
G98	Sh. 2	N-S	1.20	3.60	2.75 av.	10.00	*	
K16	Sh. 2	N-S	1.00	2.00	1.00	2.00		
F1	Sh.1	N-S	.95	3.00	2.20	6.60		
G95	Sh. 1	E-W	1.20	3.30 av.	1.95 av.	6.45	*	
G126	Sh. 1	E-W	1.05	2.35	2.70	6.34		
G22	Sh. 3	E-W	1.20	3.15	1.00	3.15		
G23	Sh. 2	N-S	.95	2.95	2.50	7.35		
CA1	Sh. 1	N-S	1.10 av.	3.60	1.40	5.05		
G97	Sh. 1	E-W	1.05	3.05	1.10	3.35		
Q2	Sh. 1	E-W	.90	2.10	1.45	3.05		
Q4	Sh. 2	N-S	1.05	3.70	1.85	6.85		
Q15	Sh. 1	N-S	.90	2.85	.90	2.55		
B12	Sh. 1	E-W	1.20	2.55	1.70	4.35		
Q13	Sh. 1	N-S	1.00	1.20	.70	.85		
K5	Sh. 1	N-S	.90	3.50	1.50	5.25		
N20	Sh. 2	E-W	1.00	2.75	1.70	5.00		
C9	Sh. 1	N-S	1.10	3.00	1.25	3.75 unfinished		
G119	Sh. 1	N-S	.90	2.25	1.50	3.35		
G124	Sh. 1	E-W	.90	2.40	.90	2.15		
K21	Sh. 1	N-S	.85	2.45	1.25	3.05		
L42	Sh. 2	E-W	.85	1.80 av.	.85	1.55		
L31	Sh. 1	E-W	1.10	3.75	3.00	11.25		
K18	Sh. 1	N-S	.95	2.25	1.50 av.	3.35		
K1	Sh. 2	E-W	1.00	2.50	1.15	3.75		
K4	Sh. 1	N-S	1.00	2.95	2.00	6.00		
M8	Sh. 6	N-S	1.75	3.10 antechamber: 7.40	2.10 2.90	6.50 + 21.46= 27.96	*	*
M52	Sh. 2	N-S	1.10 av.	3.85	2.10	8.10		
M51	Sh. 1	N-S	1.20	3.50	1.10 av.	3.85		
L21	Sh. 3	N-S	1.75	2.25	1.40	3.15 unfinished		
L23	Sh. 1	N-S	1.15	1.95	1.20	2.35	unfinished	

TABLE 15

Tomb	Main shaft	Axis	Height: m.	Length: m.	Width: m.	Area: sq.m.	Burial pit	With raised sides
BA63	Sh. 2	N-S	.80 av.	2.00	.95	1.90		
G79	Sh. 1	N-S	1.00	2.75	1.00	2.75		
BA48	Sh. 1	E-W	1.10	3.40 av.	2.00 av.	6.80		
H27	Sh. 1	E-W	1.20	3.50	3.10	10.85	*	
B62	Sh. 1	E-W	.95 av.	2.10	.70	1.45		
G42	Sh. 1	N-S	1.20	2.80	2.50	7.00		
H15	Sh. 3	E-W	1.05	3.20	1.95	6.25		
H4	Sh. 2	E-W	1.10	2.35	2.00	4.70		
H6	Sh. 1	E-W	1.05	2.60	2.25	5.85 unfinished		
C8	Sh. 1	N-S	1.20	2.80	1.20	3.35	*	
H26	Sh. 1	N-S	1.65	4.10	3.50	14.35	*	
B83	Sh. 2	N-S	.80	1.70	.75	1.25		
G49	Sh. 1	E-W	.80	2.60	2.05	5.35		
H24	Sh. 2	N-S	1.10	5.10	2.00	10.20	*	
GA11	Sh. 1	E-W	1.05	3.00	2.00	6.00		
H41	Sh. 1	N-S	1.25	2.95	2.55	7.50		
I49	Sh. 2	N-S	.80	2.25	1.35	3.05		
B6	Sh. 1	E-W	.95	2.60	1.50	4.00		
B7	Sh. 1	E-W	1.10	2.50	1.30	3.25		
C3	Sh. 1	E-W	1.10	2.60	2.00	5.20		
G66	Sh. 2	N-S	1.95	2.30	2.70	6.20		
J2	Sh. 1	N-S	1.10 av.	4.65	2.85	13.25		
BA17	Sh. 1	N-S	.80 av.	1.90	1.40	2.65		
BA14	Sh. 2	N-S	.70	2.30	2.20	5.05		

Notes

* asterisk denotes presence of a feature

TABLE 16 – Uninscribed Tombs - Burial Shafts

Tomb	Category+ entrance type a./b. (mainshaft)	Raised entrance+ height	Length of shaft: m.	Connecting corridor: m.	Jambs at entrance to shaft: size in m	Steps within shaft	Niches	Enlargement before burial chamber
B9	6 b		7.20		* .05			*
B13	1 b		1.30				*	
B14	6 b		3.50					
B15	4(iii) b		1.80					*
B57	7 b		4.65		* .05	*		
B84	1 b		2.80					
C6	7 b		6.20		* .05 (2)	*	*	
C7	6 b		5.25					
F13	1a (Sh. 3)		5.00					
F14	1 a (Sh.5)		5.70					
G1	6 b		5.30	* .80	* .05 (2)			*
G2	6 b		7.00		* .10 (2)			
G3	6 b		7.20		* .05 (2)			
G4	6 b		7.00		* .05 (2)			
G70	6 b		2.95					
G72	5b (Sh.1) 1 b (Sh.2)		7.70 3.00	* .70				
G73	1 b? (Sh.2)		3.55					
G76	7 b		7.00		* .05 ??	*	*	
G77	6 b		3.80					
G78	6 b		4.85					
G80	7 b (Sh.1) 1b (Sh.2)		7.70 2.70			*		*
G120	6 b		6.20	* 1.60		*		
G125	1 a		3.45				*	
H12	6 b	* .25m	4.80					
H14	6 b		3.70		* .05			*
H25	7 b		8.35	* 1.60				
H26F	7 b		4.45	* 2.60		*	*	
H28	No shaft							
H28a	Unfinished	-no shaft						
H29	6 b		4.50					
H30	6 b		6.00					
H31	1b (Sh.2)		2.10				*	
I4	1b		5.65					
I50	5b		3.00					
L1	1a (Sh.2)		2.30					
L2	1a (Sh.1)		3.05					
L7	3		.80					
L8a	1b (Sh.2)		1.75					
L8b	1a		2.15					
L24	3		4.25					
M24	1a		2.20					
M25	1a (Sh.1)		1.75					
M26	1a (Sh.1)		2.45					
M27	1a		2.55					
M28	1a		1.50					
M29	1a		6.00				*	
M39	No shaft							
M39a	1a		1.50					
M40	No shaft							
M41	No shaft							
M42	5a (Sh.2)		5.30					
M42a	1a		2.05					
M42b	3		-0					
M42c	No shaft							
M45	1a		3.10					
M45b	1a		1.00					

TABLE 16

Tomb	Category+ entrance type a./b. (mainshaft)	Raised entrance+ height	Length of shaft: m.	Connecting corridor: m.	Jambs at entrance to shaft: size in m	Steps within shaft	Niches	Enlargement before burial chamber
M46	1a		1.65					
M47	1a		2.55					
M47a	3		-					
N13	6b		4.10					
N14	4(i)a		.95					
N15a	4(iii)b		2.70					
BA16	5b		5.25					

Notes

1. In tombs with several shafts and where the main shaft is not clear, the selected shaft is shown in brackets as (Sh.-).
2. a.: denotes shafts with square mouths or entrances; b: denotes shafts with rectangular mouths.
3. * asterisk denotes presence of a feature

TABLE 17 – Uninscribed Tombs - Burial Chambers

Tomb	Jambs at entrance: m.	Steps up/down m.	Area: sq.m	Height: m.	Burial pit	Niche
B9	* .05 (2)		3.35	1.00		
B13			1.85av.	.85		*
B14			.88 unfinished	.75av		
B15		/ .15	4.85	.85		
B57		/ .05	6.00	1.00av.		*
B84			1.88	1.00av.		
C6			3.20	1.20av.		
C7			3.75	1.10av.		
F13			3.45	1.00		
F14			3.35	1.10		
G1	* .05 (2)		1.70	.85		
G2			6.40	1.00		
G3			4.20	.95		
G4			1.80	.95		
G70			4.12av.	.90	*	
G72(Sh.1)			4.40	1.05		
(Sh.2)			2.50	1.00		
G73(Sh.2)			2.20	1.05		
G76(Sh.2)	* .05		4.70	.75		
G77			1.95	1.00		
G78			2.10	.75		
G80			3.08	.90		
G120		/ .10	3.35	1.00		
G125			2.10	.90		
H12	* .05 (2)	/ .30	4.40	.95		*
H14			1.50	1.10		
H25			2.90	1.30		
H26F			4.20	.85		
H28			2.20	.80		
H28a			.95 unfinished	.80		
H29			2.60	.90		
H30			4.35	1.00		
H31(Sh.2)			1.90	.90		
I4			7.45	1.05		
I50			16.70	.90		
L1(Sh.2)			1.60	.85		
L2(Sh.1)		.20/	4.25	1.10		
L7			1.40	.85		
L8a(Sh.2)			1.60	.80		
L8b		/ .10	1.30	.85		
L24			4.25	.90	*	
M24		/ .10	1.85av.	1.15		
M25(Sh.1)			2.00	.95		
M26(Sh.1)			1.80	.80		
M27		/ .10	1.80	1.00		
M28			1.10	.75		
M29		/ .10	1.75	1.00		
M39	No burial	chamber				
M39a			1.45	.50av.		
M40	No burial	chamber				
M41	No burial	chamber				
M42a			1.50	.90		
M42b			1.90	1.00		
M42c			1.85	.90		
M45	* .10		2.15	.95		
M45b			1.70	.90		
M46		/ .10	2.85av.	1.10		
M47	No burial	chamber				

TABLE 17

Tomb	Jambs at entrance: m.	Steps up/down m.	Area: sq.m	Height: m.	Burial pit	Niche
M47a			1.70	.90		
N13			6.90av.	1.10		
N14			1.75	.80av.		
N15a			2.30	1.00		
BA16			5.00	.95av.		

TABLE 18 – Uninscribed Tombs - Features

Tomb	Forecourt	Portico/ number of pillars	Shrines sq.m/ % of chapel/ shrine areas	Features in shrines	False doors: all plain type	htp-platforms	Niches: position
B9	*						
B13							
B14							
B15							
B57							
B84							
C6							
C7	*						*forecourt
F13							
F14						*	
G1							
G2			* 5.00 / 26%	entrance recess /engaged pillars/lintel/drum			
G3							
G4							
G70							
G72	*						chapel
G73							
G76		* no pillars					chapel
G77							
G78	*						
G80	*	* 1+1engaged pillar					
G120						*	
G125							chapel
H12							
H14		* 2+ 2 engaged pillars					a.,b. forecourt c. portico
H25							
H26F							
H26F							
H28							
H28a							

H29							
H30			* .90 / 5%	no features			chapel
H31							chapel
I4							
I50							
L1					*unfinished		
L2					* (1)		
L7							
L8a							
L8b	*						
L24							
M24							chapel
M25					* (2)		
M26					* (2)+1 incomplete		
M27					* (2)		
M28							
M29					* (3)		
M39							
M39a							
M40							
M41							
M42					*		
M42a							
M42b							
M42c							
M45					*painted outline		
M45b							
M46							
M47							
M47a							
N13							
N14							
N15a							
BA16							

Notes

* asterisk denotes presence of feature

APPENDIX

Criteria for Dating

The information gained from the detailed recording of the El-Hawawish tombs over a period of ten years and a study of the tomb owners' titles, administrative positions and family relationships by the excavator, forms the basis for the dating adopted in this study.

Other dating criteria were applied to these conclusions to test their validity. These included the analyses by Harpur¹ and Cherpion² on the elements of, and stylistic changes in tomb decoration, Strudwick's³ observations on the development of false doors, the studies of provincial administrators and priests by Kanawati⁴ and Kanawati-McFarlane⁵, the ranking of old Kingdom officials by Baer⁶ and the evolving trends in tomb architecture in the Memphite cemeteries by Reisner⁷, Junker⁸, Roth⁹ and Weeks¹⁰. Inscriptional evidence has also been a contributing factor.

The suggested dating period for the tombs is from the 5th to the 8th Dynasties and the following criteria were used to examine the dates proposed by Kanawati.

Textual evidence

1. Biographical inscriptions:

Two tombs have inscriptions which provide a firm date: the architrave of *K3j-hp Tj* (tomb M8) gives an account of his career under Pepy I and Merenre (*H. VIII*, p.62, fig.35; Chicago (FM 31700), Louvre (AF 9460), Ziegler, *Cat. des Stèles*, pp.270-3); and the inscription of *Qrrj* in his tomb (Q15) states that he was *shd hm-ntr hrj-tp nswt pr 3* in the time of Meryre /Pepy I (*H VI*, fig. 20b,c).

¹ Harpur, Y., *Decoration in Egyptian Tombs of the Old Kingdom* (London, 1987)

² Cherpion, N., *Mastabas et hypogées D'Ancien Empire* (Bruxelles, 1989)

³ Strudwick, N., *The Administration of Egypt in the Old Kingdom* (London, 1985)

⁴ Kanawati, N., *Governmental Reforms in Old Kingdom Egypt* (Warminster, 1980)

⁵ Kanawati, N. – McFarlane, A., *Akhmim in the Old Kingdom I: Chronolgy and Administration* (Sydney, 1992)

⁶ Baer, K., *Rank and Title in the Old Kingdom* (Chicago, 1960)

⁷ Reisner, G., *A History of the Giza Necropolis I* (Cambridge, Mass., 1942)

⁸ Junker, H., *Gîza*, 12 vols (Vienna, 1929-1955)

⁹ Roth, A.M., *Giza Mastabas 6: A Cemetery of Palace Attendants* (Boston, 1995)

¹⁰ Weeks, Kent R., *Giza Mastabas 5: Mastabas of Cemetery 6000* (Boston, 1994)

2. The presence of a king's name in that of a tomb owner or a member of his family:
Ppjj-nh.ns, owner of tomb L23 (*H. IX*, fig.2a); *Ppjj-snb*, eldest son of *Mmj*, owner of tomb B12 (*H. VII*, fig. 11); *Q3r/Ppjj-nfr*, owner of tomb L31 (*H. VI*, pp.34-8, figs. 14-15) and possibly the stela CG1669 (Borchardt, *Denkmäler II*, 126-7).

3. Administrative positions which refer to institutions belonging to a king:

Three tomb owners allude to priesthoods of a *k3*-chapel of Pepy: *Mddj*, owner of tomb K1, held the position of *shd hm-ntr hwt-k3 Ppjj* (*H. VIII*, p.34, fig.15); *B3wj*, K5, possible priest of the *k3*-chapel of Pepy, *hm-ntr... Ppjj* (*H. VIII*, p.40, fig.19); *Jjj/Mrjj/Jdjj*, C9, in his biography refers to being responsible for grain used for payment in the *k3*-chapel of Pepy in Akhmim (*H. VII*, p.16, fig. 7a)

The biographical texts which affirm that an official served under a king or a succession of kings securely date those tomb owners. The use of king's names and the service of tomb owners as priests of *k3*-chapels will give a less precise date and must be considered with other evidence.

4. The title of *jmj-r ms'* and accompanying texts:

Three tombs at El-Hawawish give evidence for a date at the end of the Old Kingdom/Dynasty 8. *B3wj*, owner of tomb B7, and *Bhn* of C3, both held the title of *jmj-r ms'* as well as the titles of vizier (*B3wj*) and nomarch (*Bhn*)¹¹. The position of overseer of the army and the inference in the broken inscriptions of *B3wj* (*H IX*, p.36, fig.18c) of a time of trouble, accord with texts in another tomb, BA17. The owner of this tomb, *Rhw-r-3w.sn*, tells of supplying grain to the whole province and keeping men alive after the 'great ones' had died (*H VII*, pp.25-6).

5. Neighbouring tombs linked by textual material:

Tombs close to those which can be reasonably dated by textual evidence, and which are similar in architectural features and size, e.g. the tomb of *Qrrj*, Q15 (*H VI*, figs. 20-22), who is dated by inscription to the reign of Pepy I, with tombs Q2, Q13 (*H VI*, figs. 17, 19) may be estimated to be of a similar date. The neighbouring tombs of

¹¹ *B3wj* (*H IX*, p.33ff.); *Bhn* (*H I*, p.38ff., *H V*, p.66, fig.28, coffin CG28012)

Hnj/Špsj-pw-Mnw, H24 (*H II*, figs. 1- 26) and *K3.j-hp/Ttj-jkr*, H26 (*H I*, figs. 5-22) were decorated by the same artist. This is stated in a short biographical text accompanying the figure of the artist, *Snj* (*H II*, fig.8) who refers to the owners of the two tombs as father and son.

6. Provincial tombs which are well-dated by inscription, were considered in dating the El-Hawawish tombs. At Deir el-Gebrawi, the biography of the nomarch, *Jbj*, states that he was appointed by Merenre to Nome 12 and later to Nome 8, possibly by Pepy II¹². His son *D'w Šm3j* and grandson, *D'w*, followed him in this position¹³. The tomb plans of *Jbj* and *D'w*¹⁴ with their E-W chapel axes parallel to the entrance wall and with shrines sited opposite the entrance, are similar to the plans of *Hnj* (H24) and *Ttj-jkr* (H26) at El-Hawawish (*H II*, fig.1; *H I*, fig.5). The sloping main shaft oriented N-S and pillars in line with the main axis of the chapel in the tomb of *Jbj* are further similarities.

7. Evidence drawn from the titles and administrative positions of the tomb owners: A study of the titles, administrative positions and family names of officials in the provinces from Dynasty 5 to Dynasty 8, has allowed a reasonable sequence to be established by Kanawati. With the positions apparently passing from father to son, and the use of repeated names, the succession of nomarchs and of overseers of fields and serfs, for example, can be traced through the Sixth Dynasty¹⁵.

Architectural features

1. Chapel plans and shafts:

The cruciform plan of the El-Hawawish tomb of *Mn- 'nh* (G84), is found in Memphite tombs from Dynasty 4 to late Dynasty 5 (Reisner, *Giza*, pp.203,292,304, Harpur, *Decoration*, Table 5.1).

L-and T-shaped chapels in well-dated Giza and Saqqara tombs occur from Dynasty 4 to early Dynasty 6 (Reisner, *Giza*, pp.203,296 ; Harpur, *Decoration*, Tables 5.2, 5.3) and are the chapel shape of the El-Hawawish tombs of *Mmj* (M23), *Hzzj-Mnw* (M22), and *'nhw* (M21) presently dated to early – late Djedkare.

¹² Davies, *Deir el-Geb.* I, pl.23

¹³ *ibid*, pls. 3,5

¹⁴ *ibid*, pl.2 (*Jbj*); *Geb.*II, pl.2 (*D'w*)

¹⁵ Kanawati, *Akhmim in the Old Kingdom* (Sydney, 1992)

The form of burial shafts is also a dating indicator. Two main types are found: vertical and sloping. Vertical shafts are the earliest form of access to burial chambers and are the usual type at Giza during Dynasties 4 and 5 and continue to be used in some tombs at Saqqara into Dynasty 6. Sloping shafts in the tombs of officials begin to be adopted in the middle of Dynasty 5 at Giza and are the most frequent form of burial passage during Dynasty 6 in the provinces. At El-Hawawish vertical burial passages are present in all tombs dated by a variety of criteria to Dynasty 5-Teti. Passages formed of a single slope from mouth to burial chamber are consistently used in tombs dated from the reign of Pepy II to Dynasty 8 beginning with the major tomb M8, whose inscriptions mention a career in the capital under Pepy I and Merenre, and the appointment as a nomarch at Akhmim early in the reign of Pepy II¹⁶.

Kanawati charts changes in tomb sizes in the higher officials of Dynasty 6, noting a decrease in area in the reigns of Pepy I and Merenre and a sudden increase early in the reign of Pepy II¹⁷. This can be clearly seen in the plan of M8. The first part of the chapel closest to the entrance is almost square in proportion with a ceiling of 2.75m. and a main shaft (Shaft IV) which is vertical. Further, and apparently later, additions to the tomb included a secondary recess, a shrine area and the final main shaft (Shaft VI) which is now a sloping passage with an antechamber before the burial room. The ceiling of the extended chapel area at the same time was raised to 3.55m (H III, figs.1-4). The enlargement of *K3j-ḥp/Tj*'s tomb supports his biographical information and his proposed date.

2. False doors:

Strudwick (*Administration*, p.15ff.) describes the earlier form of false doors in well-dated Memphite tombs of the late Fourth and early Fifth Dynasty as almost square in shape, with one or two broad side jambs decorated with a large figure of the tomb owner sometimes accompanied by members of his family, and with wide apertures on either side of the panel. Up to the middle of Dynasty 5 offering rooms were oriented N-S with usually two false doors in the west wall. El-Hawawish chapels with false doors having the features listed above and two false doors are G84, M23, M22, L6,

¹⁶ Kanawati, *Akhmim in the Old Kingdom*, pp.97-100; H III, pp.10-14

¹⁷ Kanawati, *Egyptian Administration*, pp.41-2, 63

L8 and M44, with suggested dates of Neuserre to Unis (*H I*, fig.2; *H V*, figs.12-15; *H IV*, figs.2,15; *H VI*, figs.4,5; *ibid*, figs. 7,9; *H V*, fig.4).

The depiction of the wife accompanying the tomb owner on the panel of false doors occurs on two well-dated doors, those of *Šrjj* (late Dynasty 4) and *Njj-`nh-shmt* (Dynasty 5, Sahure) and on a number of less securely-dated doors (see Strudwick, *ibid*. p.20) but with suggested dates of Dynasty 5-Teti. At El-Hawawish, the wife appears on the panel of the false doors of *Dw3-Mnw*, L6 (*H VI*, fig.5), *‘3-Mnw*, L8 (*H VI*, fig.9) and *Hzzj-Mnw*, M22 (*H IV*, fig.15) dated to the reigns of Neuserre and Djedkare which accords with the examples found by Strudwick at Giza and Saqqara. Wives do not appear with tomb owners on any later false door panels at El-Hawawish.

From the middle of Dynasty 5 false doors exhibit a new form with the addition of a torus moulding and a cornice¹⁸. These distinctive features are first seen at El-Hawawish in the tomb of *Hm-Mnw*, M43 (*H V*, fig.2) and *Mrrw*, F12 (*H IX*, fig.2b), dated to Unis-early Teti. Together with these two new features, the jambs become narrower and increase in number. As in the cemeteries of the capital, this type of false door becomes the usual one at El-Hawawish throughout Dynasty 6 and to Dynasty 8.

Statuary

Engaged statues are cut into niches in the walls of the chapels in tombs M23 (*H V*, pp.40-1, pl. 7a, 8a, fig.11) and M22 (*H IV*, pp. 21-2, pl.6), three in M22, and twenty-four in M23. Kendall¹⁹ found that the use of rock-cut statues appeared at Giza in the middle of Dynasty 4 and continued through Dynasty 5 to the first half of Dynasty 6 in the provinces. Tombs with large numbers of statues, as in M23 at El-Hawawish, appear to be more numerous in Dynasty 5.

The finely-carved fragments of one wooden and two limestone statues found at the base of the main shaft in tomb M23 of *Mmj* may assist in narrowing this dating further. One small limestone head of a male is shown wearing a short, layered and

¹⁸ Rusch, *ZÄS* 58 (1923), p.113; Weibach, *Scheintür*, pp.133-5; Vandier, *Manuel II*, pp.401-3; Strudwick, *Administration*, pp.13-17, 35-6

¹⁹ Kendall, *Studies Dunham*, pp.104-5.

curled wig which covers the ears, and which has a small smooth section at the crown of the head (*H V*, pls.4(e),8(c)). Cherpion finds this type of wig in Dynasties 4 and 5, up to the reign of Neuserre²⁰. The features are damaged but the round shape of the face, the pronounced depressions of the corners of the mouth together with the wig style are very close stylistically to statues dated to Dynasty 4 - first half of Dynasty 5, e.g., the male figure in the pair statues of Ankhoudjes and his wife (E25368) and Raherka and his wife (E15592) in the Louvre, dated to Dynasty 4-5 possibly to Neuserre, by Ziegler²¹; the head and torso of a male figure, Boston MFA 30.830, dated by Smith to the second half of Dynasty 5, and the pair statue of Katep and wife, British Museum EA1181, late Dynasty 4-Dynasty 5²².

The second limestone statuette of the upper torso of a male figure, although damaged, clearly shows another wig type (*H V*, pl.9a). Here the wig is long, shows the ears and falls from a central part in vertical strands to spread wide on the shoulders. Almost identical wigs are worn by Ranefer (JE10063: CG19), the seated scribe (JE30272: CG36) and the priest Kaemked (CG119) all dated to the beginning of Dynasty 5²³.

Artistic criteria

1. Entrance decoration:

Entrance architraves with inscriptions reading from the center outward to both the right and left occur at El-Hawawish in tombs H26, of *Ttj-jkr*, H24, of *Hnj* and C3 of *Bhn* (*H I*, figs.7,21b; *H II*, fig.6; *H I*, fig.24a). Harpur²⁴ notes that this feature is found from the second half of Dynasty 5 and in Dynasty 6 at Giza and Saqqara, though infrequently, and only in the provinces at El-Hawawish and Deir el-Gebrawi in the tomb of *D^cw*²⁵. *Ttj-jkr*, *Hnj* and *D^cw* are considered to be dated to mid-late Pepy II.

Seated figures (sometimes before offering tables) in entrance thicknesses are found at Giza in tombs dated to Dynasty 4 until mid-Dynasty 5 when, according to Harpur, they were almost entirely superseded by standing figures (*Decoration*, p.230, Table

²⁰ *Mastabas*, p.56, fig.42, Crit.29

²¹ *Statues*, pp. 82-6, 123-7, Cat.23

²² *HESPOK*, p.56, pl.22b; Quirke-Spencer, *British Museum Book*, fig.119

²³ Borchardt, *Statuen*, CG19, pp.19-20, pl.5; CG36, *ibid*, pp.34-5, pl.19; CG119, *ibid*, p.91, pl.9. The position of the statue fragment in tomb M23 at El-Hawawish may indicate that the full statue was of a seated or kneeling figure, as e.g. Khnum-baf, *HESPOK*, pl.19a

²⁴ Harpur, *Decoration*, pp.45-6

²⁵ Davies, *Deir el-Geb. II*, pl. XII

4.8). The tomb owner seated at an offering table in the entrance thickness is found at El-Hawawish in the tomb of *Mmj*, M23 (H. V, figs. 16,17) and standing figures of the deceased and his wife in the entrance thicknesses in *Hzzj-Mnw*, M22 (H.IV, figs.6,7), both dated to Djedkare, M23, early, and M22, late in the reign.

2. The chair on which the tomb owner and/or his wife sit:

Chairs with legs in the form of bull's legs and hooves are seen, according to Cherpion (*Mastabas*, pp.34, 155-9, Critere 10), in the earliest depictions of seated tomb owners, but in the cemeteries of the capital, disappear after the reign of Djedkare in Dynasty 5, although are found into early Dynasty 6 in the provinces. Wall scenes at El-Hawawish containing chairs with bulls' legs are present in the tombs of *Mnw-`nh*, G84 (H.I, fig.4), *Dw3-Mnw*, L6 (H.VI, fig.5), *Mmj*, M23 (H.V, fig.15), *Hzzj-Mnw*, M22 (H. IV, figs. 8,9,15), *`nhw*, M21 (H.V, fig.24), *Hm-Mnw*, M43 (H V, figs. 6,9). The suggested dating period for these tombs is Dynasty 5, Neuserre to Unis.

Chairs with lions' legs are noted by Cherpion in tombs at Giza and Saqqara from the reign of Neuserre on (*Mastabas*, p.35, Crit.11) and appear in all tombs at El-Hawawish apart from the Dynasty 5 examples listed above.

Chairs without cushions, and those where the cushion behind the seated tomb owner is small and rounded, are found up to the reign of Neuserre in Dynasty 5 according to Cherpion (*ibid.* pp.29-31) and to early Isesi by Swinton (MA thesis, p.278). At El-Hawawish, these styles are usual in all the tombs dated to Dynasty 5 except for tomb M22 where the tomb owner and his wife sit on a chair with a high back covered by a cushion (H IV, fig.8). Depictions of chairs with backs and cushions date from Dynasty 4 but are most numerous from the reign of Isesi in Memphite tombs (Cherpion, *Mastabas*, p.30), and are the only type shown from the reign of Unis and through Dynasty 6. All Dynasty 6 – Dynasty 8 scenes at El-Hawawish confirm this. Recent research from Macquarie University has found that the representation of the wife seated next to the tomb owner before an offering table provides a dating criterion (Swinton, MA (Hons.) thesis, p. 241). At Giza this appears first in the tomb of *Whm-k3.j*²⁶ dated to early Dynasty 5. The last securely-dated examples are found in the provincial tombs of *Qrrj* at El-Hawawish (late Pepy I) and *Ppjj-`nh-hrj-jb* at Meir

²⁶ Kayser, *Uhemka*, fig.25

(Merenre-Pepy II)²⁷. At El-Hawawish seven tombs have scenes where the wife sits together with the tomb owner: M22 (H IV, fig. 9), M23 (H V, fig.9), L6 (H VI, fig.5), L8 (H VI, fig. 9), F1 (H VI, fig.2), Q2 (H VI, fig.17), Q15 (H VI, fig.22a) dated from Neuserre to Pepy I.

3. Offering table scenes:

The loaves of bread on offering tables have distinctive forms which vary in different periods. Broad-based, half-loaves of medium height seen throughout Dynasty 5 (Cherpion, *Mastabas*, p.47, Crit.17, fig.28a) and last appearing on offering tables in tombs dated to Neuserre, are represented at El-Hawawish in tomb M22 (H IV, fig. 8), dated to Djedkare, and in tomb M43 (H V, figs. 6,9) dated to the reign of Unis, and may have been the form of offering loaves in other Dynasty 5 table scenes, now lost. The reed-like form of loaves was first seen in tombs with cartouches of Neuserre in Memphite cemeteries, but very rarely (Cherpion, *Mastabas*, p.48) and were the only type appearing in tombs dated to Dynasty 6. At El-Hawawish, they appear once in a tomb dated to the reign of Djedkare in Dynasty 5 that of '3-Mnw, L8 (H VI, fig.9), although other features in this chapel, e.g., the 'choker' necklace of the wife, the tomb owner's wig covering his ears, the form of the pedestal of the offering table and the simple shape of the false door with its broad jambs and plain, wide frame, all confirm a Fifth Dynasty date. Reed-like loaves on offering tables are thereafter seen at El-Hawawish in a tomb dated to late Teti (tomb F1, H VI, fig.2) and then consistently in tombs with suggested dates in Dynasty 6.

The form of the pedestal of an offering table is also a dating criterion. Earlier tables consist of two parts, an upper, footed section with a plate-like surface resting on a second pedestal base. This type is found from the Third Dynasty up to the reign of Neuserre in Dynasty 5 (Cherpion, *Mastabas*, p. 51, 172-74, Crit.24). At El-Hawawish this type appears in the Fifth Dynasty tombs of L8 (H VI, fig.9), M21 (HV, fig. 24) and is loosely imitated in the later tomb of Sfhw, L21 (H VI, fig.11) dated to Pepy II.

The second type of offering table base is a single pedestal which appears from Dynasty 4 to the end of Dynasty 6 becoming more prevalent in the second half of

²⁷ Blackman, *Meir* IV, pl.2

Dynasty 5, and the sole form in Dynasty 6 according to Swinton (MA (Hons. thesis, p.268).

4. The dress and wig of both the tomb owner and his wife offer details useful for dating:

The 'choker' collar worn by women when combined with the wsh collar is popular during Dynasties 4 and 5, with Cherpion giving the last occurrence found in the reign of Isesi (*Mastabas*, pp. 70, 192-3). These two collars are worn by the wives of *Dw3-Mnw*, L6 (*H VI*, fig.5), *'3-Mnw* (*H VI*, fig. 9), *H-zjj-Mnw*, M22 (*H IV*, fig.15) at El-Hawawish, all dated to Neuserre-Djedkare. The wife of the nomarch, *Nhwt-dšr*, G95, who is dated to the end of Teti's reign or early in Pepy I (*H VIII*, fig.3) is a further and later example of a wife wearing the two collars. The late use here may be in imitation of the wife in a major, earlier tomb like M22, both women wearing similar elaborate bead-net dresses with decorated straps and the two collars.

Cherpion found that the tomb owner's wig was a dating criterion both in the arrangement of the curls forming the wig (*Mastabas*, pp.55-6) and whether the wig covered the ears or left them exposed (*ibid*, pp.57-8). Cherpion's study found that wigs which cover the ears are usual in all Dynasty 5 representations of the tomb owner and that wigs with the ear exposed appear in tomb scenes from the reign of Teti , although rarely, and then frequently in tombs dated to Pepy I and Pepy II (*ibid*, pp. 180-2). Wigs covering the ear of the tomb owner are seen at El-Hawawish in the Dynasty 5 tombs of *'3-Mnw*, L8 (*H VI*, fig.9) and *H-zjj-Mnw*, M22 (*H IV*, figs. 8,9,15) both dated to Djedkare. This feature cannot be noted in any other Dynasty 5 tombs because of fragmentary or damaged wall scenes but all the wigs of Dynasty 6 tomb owners show the ear exposed: earliest examples, dated to late in the reign of Teti, are tomb F1 (*H VI*, fig. 2) and G95 (*H VIII*, fig. 3).

5. Details of the pose of the tomb owner :

The presentation of a lotus to the tomb owner is a rare motif with the lotus usually associated with wives or daughters. Harpur lists only three scenes in the Fifth Dynasty in which a tomb owner holds a lotus to his nose, and notes that a small number of Giza tombs have scenes where the tomb owner, seated in a kiosk or pavilion, receives a lotus from a son (*Decoration*, pp.134-5, Table 6.11). The

presentation scenes are in tombs dated to mid-late Dynasty 5 – e.g. *Sšm-nfr* II, *Sšm-nfr* III and *Nfr* I²⁸. At El-Hawawish, two scenes show this motif, in tombs M22, of *Hzzj-Mnw* (*H* IV, figs.8,16) and K16, unknown tomb owner (*H* VIII, fig.21). *Hzzj-Mnw* is dated to late Djedkare which accords with the Giza examples and K16 to Teti.

The manner of holding a lotus stem by the wife or daughters is a distinctive dating criterion. The stem is grasped with the whole hand near the base of the flower in the depictions in tombs dated to Dynasty 5 and 6, e.g. *Jdwt* at Saqqara²⁹. At El-Hawawish, the wife of *Hzzj-Mnw* of tomb M22, dated to Djedkare, holds a lotus in this way (*H* IV, fig.15) as does *ʿ3-Mnw*, owner of the similarly-dated tomb, L8 (*H* VI, fig.9). The same manner of holding a lotus is found in tomb M8 of *Ttj* by a possible daughter (*H* III, fig.13) and by the wives of *Ttj/jkr* of tomb H26 (*H* I, fig. 8) and *Hnj* of tomb H24 (*H* II, figs. 13,18,23). All are dated from Merenre to the end of the reign of Pepy II.

In wall scenes in tombs dated to the end of Dynasty 6-Dynasty 8, the position of the hand changes with the stem now held low down. This is the manner in which the daughter of *Rhw-r-3w.sn* of tomb BA17 holds her lotus (*H* VII, fig.14). This tomb is dated by textual information to Dynasty 8.

The motif of the tomb owner holding a perfume jar to his nose is most frequently found in tombs with cartouches of Teti and Pepy I according to the research of Cherpion (*Mastabas*, pp.54, 178, Crit. 27). At El-Hawawish, this detail appears in the tombs of *Hzzj-Mnw*, F1 (*H* VI, fig.2), late Teti, G97 (unknown owner) (*H* VIII, fig.5), and *B3wj*, K5 (*H* VIII, fig.18), both presently dated to Pepy I.

Minor figures and details

A small ‘floating’ figure of a servant offering a bowl or jar, usually at the level of the face of the tomb owner, is a distinctive late Dynasty 6-Dynasty 8 feature. A similar motif is that of the offering bearer presenting a foreleg of an ox to *B3wj*, owner of tomb B7 (*H* IX, fig.17a), a vizier and overseer of the army, dated to Dynasty 8.


²⁸ respectively Kanawati, *Giza Tombs* II, pls. 26a, 26b; Brunner-Traut, *Seschemnofers* III, pl. 28-9; Junker, *Giza* VI, fig.13

²⁹ Macramallah, *Idout*, pl.XVIa,b.

The depiction of quails in the harvesting scene is a rare motif with Harpur listing only three examples from the Memphite cemeteries³⁰, *Shm-k3.j* (Giza), *Mrrw-k3.j* and *Mhw* (Saqqara), dated Teti-Pepy I, to which can be added *H-zjj* (Saqqara), who served in the period late Teti – Pepy I³¹. In the provinces the motif appears at Meir in the tomb of *Ppjj-nh-hrj-jb* well dated to Merenre-early Pepy II. At El-Hawawish it is found in tomb B12 of *Mmj* (*H* VII, fig.11) with a suggested date of late Pepy I.

In agricultural scenes the grovelling posture of the men in the ‘rendering of accounts motif’, dates from the reign of Iseti according to Harpur³². The pose is seen at its most extreme in the prostrate figures in the tombs of *Jbj* at Deir el-Gebrâwi³³ and *Ttj-jkr* (tomb H26) at El-Hawawish (*H* I, fig.9). Strudwick, Harpur and Baer suggest a date of Pepy II or Merenre- Pepy II for *Jbj* and Kanawati, a date early-mid Pepy II for *Ttj-jkr*.

Paleographic details

Changes in hieroglyphic forms at El-Hawawish particularly at the end of Dynasty 6 may assist in dating. In the *htp dj nswt* formula, the writing of the name of Osiris with the seated god determinative is usual in tombs up to early - middle part of the reign of Pepy II at El-Hawawish but does not appear in tombs dated to the middle - end of Pepy II, H26 and H24 (*H* I, fig.16a; *H* II, figs.4,6,11,23) and to Dynasty 8, BA14 and BA17 (*H* VII,figs.13-14,18) The full writing of the *htp* sign with the phonetic complements  is also found in the later tombs, C3, I49 and BA17 (*H* I, fig. 24a; *H* VII, fig. 14; *H* VIII, fig.10). The phonetic writing of the name of Anubis seen in the mid-late Pepy II tombs, H26 and H24 (*H* I, figs. 7,16a; *H* II, figs. 4,6-7,23) is supported by well-dated provincial examples such as *D-w* at Deir el-Gebrâwi and *Hr-hw.f* at Aswan³⁴. The distinctive epithet of Anubis, *jmj-wt*, with the usual city/town-determinative (Gardiner: O49), changes at El-Hawawish in tombs dated after the end of Dynasty 6. Last written in this form in tombs H26 and H24, the determinative is replaced with the pustule (?) sign (Gardiner: Aa2) in tombs H41, I49, C3 (*H* VIII, figs. 13c, 10; Newberry, *LAAA* 4, 108) dated to Dynasty 8.

³⁰ *Decoration*, pp. 215-6, Table 8:48

³¹ Kanawati-Abder-Razik, *Teti Cem.* V, pl.52

³² Harpur, *Decoration*, p.169

³³ Davies, *Deir el-Geb.* I, pl.8

³⁴ Davies, *Deir el-Geb.* II, pl.7; Sethe, *Urk.* I, 123:7

The limited availability of biographical details in the tombs at El-Hawawish, as is generally the case in Egyptian tombs, presents a difficulty for any serious research using evidence from those tombs. Advances have been made in recent years, however, with regard to dating methods using the epigraphic and paleographic details of wall scenes. The evidence from these scenes must be carefully considered for several reasons. The unfinished and damaged nature of the scenes at El-Hawawish restricts the range of criteria to be applied and a variety of evidence must therefore be considered and compared.

As well as a reduced pool of features and motifs, the risk of comparisons with scenes and motifs in tombs in the capital for dating purposes purely on stylistic grounds should be borne in mind since there is a possible time lag before the features and motifs in these tombs were adopted in the provinces. Economic constraints must also be taken into account as these could have played a part when making a comparison between the quality and style of the carved and/or painted scenes.

With these limitations in mind, the dates followed in this thesis and originally proposed by Kanawati for the El-Hawawish tombs, appear to be the most likely. The results of this study of the development of architectural features supports the proposed dates and accordingly offers further grounds for adopting them.

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