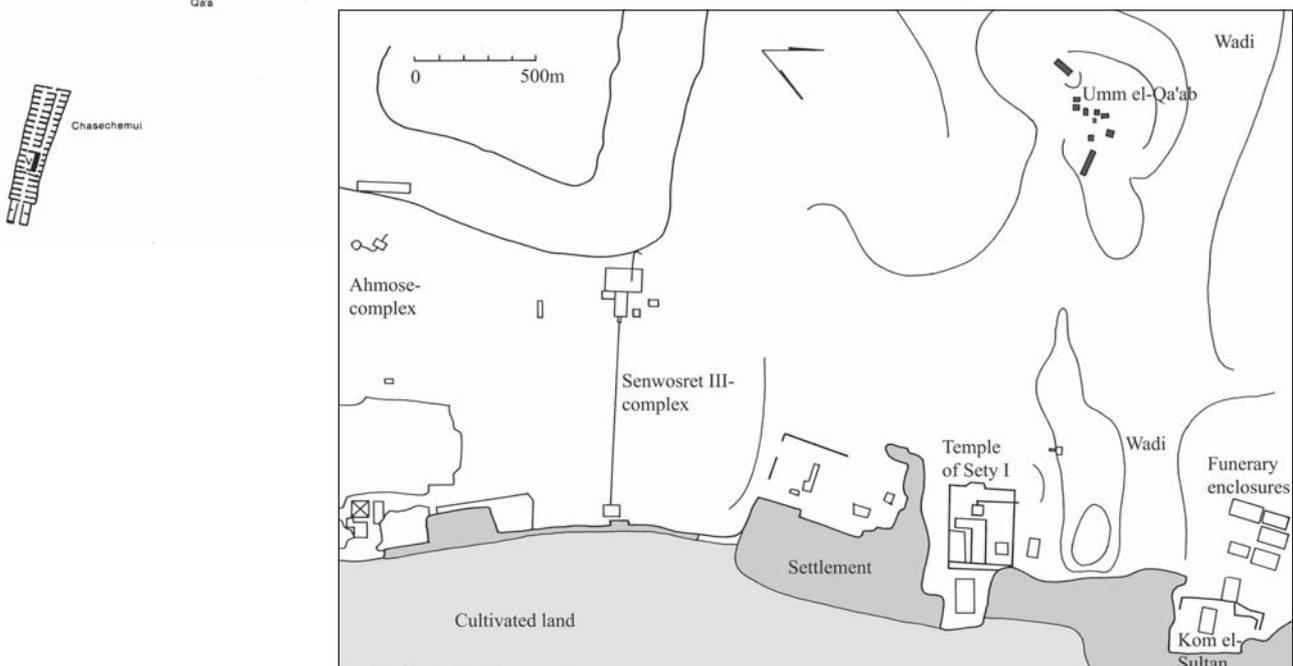


Fig. 2
Plan of
Umm el-Qa'ab
(after Hartung
2001: Abb. 1).

Fig. 1
Plan of Abydos
(after Wegner
2001: 8).



The royal tombs at Umm el-Qa'ab

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The toponym Abydos summarizes a variety of archaeological sites of which the Early Dynastic royal necropolis, best-known under its Arabic name *Umm el-Qa'ab*, is only a small part (**fig. 1**). Although it is not the most prominent feature of the area, and not even its oldest, the royal tombs were the focus of many building and ritual activities of later periods¹. The site was identified as royal burial ground of the earliest dynasties by W.M. Flinders Petrie. Although later excavations by Emery at Saqqara cast some doubt on this interpretation, Egyptological *opinio communis* at present mostly accepts Petrie's original assumption. The main reasons are now seen as the following: local tradition, labour input (for the tombs and the contemporary funerary enclosures), the seal (impression)s of the necropolis found for two different rulers, and the later history of the site.

Umm el-Qa'ab is situated about 1.5 kms west of the temples of Seti I and Ramesses II on a ridge in the lower desert. A wadi emerging from the cliffs southwest of Umm el-Qa'ab surrounds the site to the west and north, before it enters the cultivated land close to the early settlement at Kom el-Sultan (**fig. 1**). The cemetery on the ridge is divided into two sections: the prehistoric necropolis in the north (cemetery U) and the dynastic royal necropolis in the south. A spatial order of the tombs is clearly visible: the first tombs of Dynasty 1 (cemetery B) are rather close to the last ones of prehistoric date, while in the later 1st Dynasty the graves gradually "move" southward (**fig. 2**). Royal burials are attested at least since Sekhen/Ka of Dynasty 0 whose Horus-name already shows all elements of those of later kings. The tomb of his predecessor Irj-Hor has also been identified².

1. For the most recent summary, see Wegner 2001.

2. The status of these and the earlier rulers is debatable since the extent of their territory is unknown. Terms such as "king," "royal" etc. are used here in an Egyptological tradition without any reference to the condition of the rulers' authority or domains, the structure of their administration and so on.

Construction

The tombs of the late Prehistory and of the Early Dynastic Period at Umm el-Qa'ab are constructed in a similar manner: pits of different sizes were dug into the solid sand which forms the subsoil of the area. In these pits, mud brick walls were built, the surfaces usually plastered with Nile silt. The floors of the chambers usually consisted of sand³. The overall size of the structures increased enormously at the beginning of Dynasty 1 between the reigns of Narmer and Aha, as well as the size of single burial chambers, the number of chambers, and the depth of the tombs: while the tombs of late prehistoric date mostly comprise one to three, hardly more, chambers, the tombs of Dynasties 1 and 2 were rather complex buildings: apart from a burial chamber usually in the center of the structure, magazines for tomb equipment and subsidiary graves were added.

The layout of several tombs was altered during the building period (e.g., Tombs B, T, Q, and V). Generally, the tombs were enlarged to add more subsidiary chambers, either magazines or graves. Until now, the largest number of discrete building phases was observed for the tomb of Qa'a: seven or eight building phases could be deduced from the archaeological finding; a last one was added during the Middle Kingdom when the tomb was the focus of some cult practices.

The ceilings of all chambers consisted of wooden beams of irregular shape and smaller diameter for the smaller chambers⁴ and huge beams for the royal burial chambers which were up to 40 cms thick. The later ones were probably imported cedar wood from Lebanon although this could not be verified by analysis until now. While in the earlier graves the beams rested on the outer walls of the structure, in the later ones they often had to be combined with other elements (fig. 3 & 4). In any case, the beams were covered by reed mats, sometimes perhaps also by wooden planks (as reconstructed in fig. 3) which, in turn, were underneath a layer of mud bricks of varying thickness. The ceiling usually ended about 0.5 ms underneath the surface of the surrounding desert. The edges of the pits often preserve patches of Nile silt which are remains of the ceiling's upper cover. Finally, the pit thus created was then filled with sand (fig. 4).

Fig. 3
Tomb Q,
axonometric
projection of the
ceiling of royal
burial chamber
and magazines
(after Engel 1998:
85, Abb. 57).

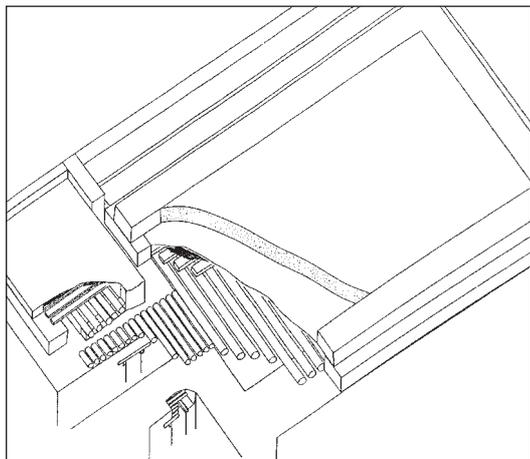
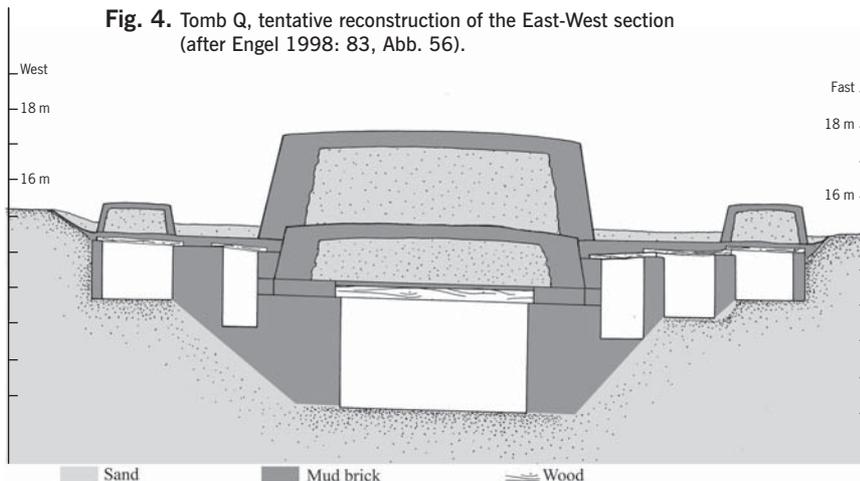


Fig. 4. Tomb Q, tentative reconstruction of the East-West section
(after Engel 1998: 83, Abb. 56).



3. For an exception in Tomb O, see Petrie 1901: 8.

4. With exception of Tomb U (Semerkhet) where reed often seems to have been utilized.

Between the royal burial chamber's ceiling and the level of the desert surface, a subterranean tumulus lined with mud bricks was inserted, the interior being filled with sand (fig. 4). It is attested so far in tombs B15 [Aha], O [Snake'], T [Den], and Q [Qa'a]. These subterranean tumuli were not visible after the end of the construction work so that a religious reason for their construction seems plausible. Shape and location above the royal burial indicate that they were precursors of later pyramids – the first building phases of the step pyramid in the burial complex of Netjerikhet still show the steep angle which was observed for the subterranean tumuli. Therefore it seems possible to attribute similar symbolic meaning to them as to the pyramids, *i.e.* as an image of the primeval hill and/or as an aid for the dead king to ascend to heaven⁵.

A staircase appears for the first time in the tomb of Den being one of the architectural innovations of his reign. Another innovation is the use of stone in funerary architecture: the floor of the burial chamber was paved with granite slabs. Later kings again abandoned the use of stone again; only Khasekhemwy had his entire burial chamber lined with limestone blocks.

The period needed for construction was calculated for Tomb Q⁶, using empirical data from the excavation and reconstruction during the reexcavations at Umm el-Qa'ab as well as from 20th century constructions⁷. According to these dates, a team of ten workmen and thirty porters would have needed about 100 days to excavate the building pit (a larger group would have been impossible inside the pit). During this period, the mud bricks were prepared – for the first building phase an amount of 1100 m³ was needed. If the daily workload of a brick layer was 1000 bricks (1,8 m³), a single brick layer would need to finish the first building phase in 614 days. The different interstices and the work's progress suggested that a maximum of three working crews was employed, each crew consisting of one brick layer and up to five people who prepared the bricks as well as additional people to carry the bricks into the pit. It was, therefore, assumed that it took two working crews about 300 days to complete the first (and major) building phase, so that 400 days elapsed for excavation and building until the tomb was able to function as such. During the later building phases, only 220 m³ mud bricks were used, so that a single brick layer would have needed about 120 days to finish the brickwork. Taking holidays, delays of different kinds etc. into account, a minimum period of two years would have been sufficient to finish the tomb of Qa'a⁸.

Royal burial chamber

The royal burial chambers are usually located in the center of the structure. They are the largest and also deepest part of the tomb. The thickness of the walls corresponds to the heavy weight that lasted on the walls, which also had – in addition to the “normal” load for the ceiling – to carry the weight of the two tumuli.

Access to the burial chambers was given from above during the first part of Dynasty 1, while in the later half of Dynasty 1 a staircase led inside. This staircase enabled the workmen to finish the royal burial chamber before the burial took place, while until then the ceiling had to remain open.

5. Dreyer 1991: 101.

6. Engel 1998: 96-98.

7. Fathy 1969.

8. Nothing can be said about the time that elapsed between the single building phases.

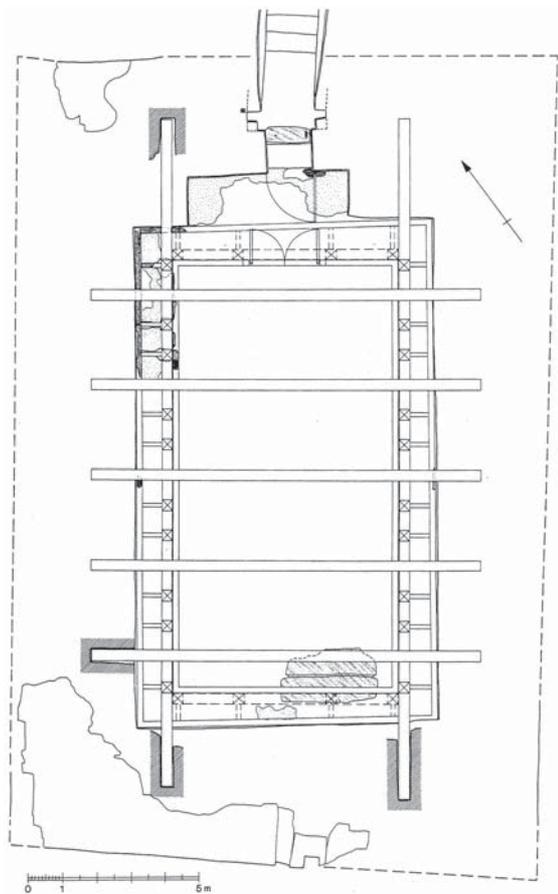


Fig. 5
Tomb T, shrine
(Dreyer *et al.*
1998: 144,
Abb. 32).

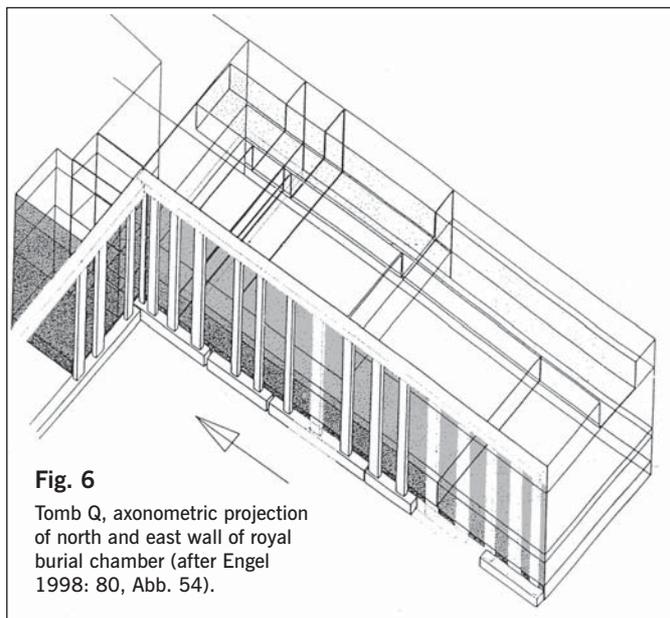


Fig. 6
Tomb Q, axonometric projection
of north and east wall of royal
burial chamber (after Engel
1998: 80, Abb. 54).

An „old“ element of the tombs is a wooden shrine⁹ which was already present at Tomb U-j: all royal tombs included such a shrine (fig. 5), some also a wooden casing of the burial chamber (fig. 6). That the lining was an integral part of a tomb's construction is shown by that of Qa'a where the architectural finding proved that it had to be erected together with the first mud brick layers of the royal burial chamber.

Unfortunately, only little is preserved of both wooden constructions so that their appearance can hardly be reconstructed. The massive woodwork and missing hints to their construction point to either a block-house-like appearance (for the shrines¹⁰) or to a combination with other materials such as drapery, mats, or leather (for the lining).

Subsidiary burials

Subsidiary tombs are first attested for the tomb of Aha, last for the tomb of Qa'a. Other subsidiary graves belong to the funerary enclosures of Dynasty 1 next to the settlement at Kom el-Sultan. During Amélineau's and Petrie's excavations many subsidiary chambers still contained skeletons of the deceased¹¹. Some of the bodies were placed inside wooden coffins, others were probably wrapped in hides¹² usually in contracted position with the exception of the handicapped¹³ and persons of short stature. Therefore, most of the coffins measure only about 1.0 x 0.5 ms.

9. Kaiser & Dreyer 1982: 248-250.

10. Neither in the tomb of Semerkhet, nor in that of Qa'a where larger parts of the shrine's floor were preserved recesses for supporting stands were found.

11. The royal burial chambers did not, at the time of the first excavations, preserve any skeletal remains – probably resulting from restoration work and re-use; by now, even the possible royal arm found in the tomb of Djer by Petrie (Petrie 1901: 16-19, pl. I) has disappeared.

12. Some discolorations of them remained in some of the subsidiary graves in the tomb of Qa'a.

13. A skeleton of a child with a heavily deformed skull was discovered in 2005 in one of the subsidiary chambers (Dreyer *et al.* 2006: 94, Abb. 8).

Superstructure

On the surface, tumuli probably marked the spots of the single burial chambers¹⁴, of the royal as well as the subsidiary, although no traces of such tumuli remained. The tumuli – of probably varying shape and dimensions¹⁵ – were made of sand, but might have had a mud brick casing, the tomb of Khasekhemwy even a layer of limestone blocks around the tumulus (**fig. 7**).

The royal tomb owners were identified by two stelae each mentioning the king's serekh. So far stelae were found from all kings buried in Umm el-Qa'ab and Queen Meretneit with the exception of Hor Aha and Adjib¹⁶. They were usually made from different dark hard stones with the exception the limestone stela of 'Snake'. The stelae were with all probability part of the superstructure. A possible reconstruction places them in front of the tumuli (**fig. 8**) as was the case with the also antithetic stelae close to Old Kingdom pyramids. While the stelae for Tomb Q are reconstructed in **fig. 8** as being placed on top of the door jambs to the royal burial chamber, *i.e.* to the north of the tomb¹⁷, the stelae of tomb P and V might have been placed south of the respective structures, while others might have stood east of the tombs (O, Z) next to the staircases (T, X, U)¹⁸. This change might hint to different accesses to single tombs: the older ones might have been approached via the wadi, entering the ridge perhaps at the so-called heqareshu-hill, while later on the path continued until after the turn of the wadi.

The problem of the location of the stelae holds true for the location of the private stelae which were somehow attached to the subsidiary tombs around the royal burials of Dynasty 1. These small and mostly rather crude limestone stelae show a flat base and a rounded top; their back is roughly modelled. The inscriptions on the front are carved in raised or sunk relief, but are often hardly legible which can only partly be attributed to the bad state of preservation. They often mention the name and sometimes also the title or profession of the deceased who, as far as the titles reveal, were part of the royal household and included even queens and important officials. Nevertheless, the majority of stelae does not give any specification so that the status of the deceased remains unclear. Unfortunately only few stelae can be attributed to certain chambers or areas of different tombs so that it is difficult to correlate a certain status to a certain size of burial chamber¹⁹.

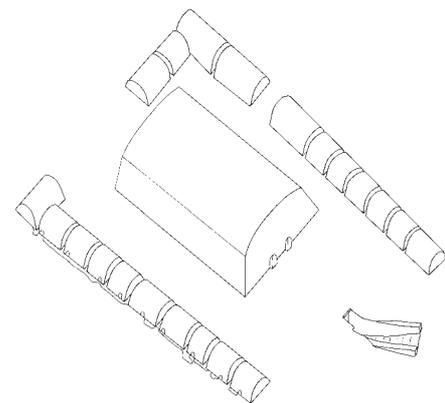
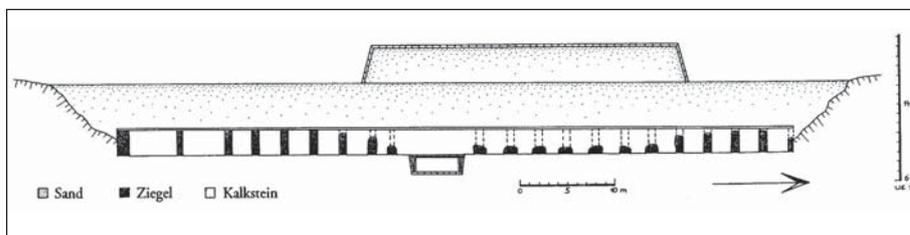


Fig. 7
Tomb V,
North-South section
(Dreyer *et al.*
2003: 111,
Abb. 17).

Fig. 8
Tomb Q,
reconstruction of
superstructure
(after Engel
1998: 113,
Abb. 71).

14. Dreyer 1991. That the tumulus only covered the burial chambers can be inferred from the distribution of tomb robbers' demolitions.

15. For those above the subsidiary burials see the different shapes in S3504 (reign of Den): Emery 1954: 12, fig. 5, S3506 (reign of Den): Emery 1958: pl. 45, 71 and S3500 (reign of Qa'a): Emery 1958: pl. 116, 120c-d.

16. Cf. Fischer 1963; Farag 1980; Dreyer *et al.* 2006: 113.

17. See Petrie 1900: 15, pl. LX.

18. Petrie 1901: 33; Dreyer *et al.* 2006: 113.

19. As was done, for instance, by Reisner 1936.

As for the location of the stelae, only very few hints exist. One is the arrangement in Tomb Q where all subsidiary burial chambers have a grouping of bricks outside the tomb, *i.e.* on the east, south, and west. Since these mud bricks are not present at magazines in the outer row of chambers, they might be connected to a support of the stelae (**fig. 8**). The situation was different at other tombs, where several rows of subsidiary graves were close to each other.

Later activities

The tombs were plundered at a time when the ceilings were still intact. At a later date, some of the royal burial chambers were – to a varying degree – affected by fire. Since the next signs of further activities date to the First Intermediate Period²⁰, the earlier destruction can – at present - only be vaguely dated into the huge time span between the burial and the First Intermediate Period. At this period, the identification of Umm el-Qa’ab as (one of) the burial place(s) of Osiris began to lead to varying cultic activities²¹: The tombs were reexcavated, partially restored and reused, while Umm el-Qa’ab became the focus of a procession and outside the tombs offerings were deposited²².

Comparison

Comparison of the royal tombs at Umm el-Qa’ab with contemporary tombs at other sites, especially at Saqqara, show many similarities between the buildings at the different places²³ (and tomb equipment as well). Although long considered to represent two contrasting architectural types, Dynasty 1 monumental tombs in Egypt share more criteria than there are differences. Taking the varying geological situation at the different sites into consideration, the graves follow the same development for their subterranean construction: first, there are large chambers arranged in a row, followed by a central burial chamber with attached magazines. With the introduction of a staircase, it becomes an element at the different sites: the staircase first ends at the shorter side of the main burial chamber, in the next stage at the broad side²⁴, and finally, at the end of Dynasty 1, again at the smaller side. The development can be continued into Dynasty 2 since the tomb of Hetepsekhemwy expands the final groundplan employed for the tomb of Qa’a on a much larger scale (without the subsidiary chambers). While for Ninetjer and the unknown owner of Tomb C at Saqqara indeed a differing plan was used, Peribsen’s tomb at Abydos copies those of the early Dynasty 1²⁵. Khasekhemwy also takes this layout as a starting point, but had his tomb changed into something that resembled that of Hetepsekhemwy at Saqqara²⁶.

The only remaining discrepancy between the supposed “northern” type at Saqqara and the “southern” one at Abydos is the shape of the superstructure:

20. Müller 2004.

21. Pumpenmeier 1998; Müller 2006.

22. For finds from later periods up to the Mameluk epoch, see Effland 2006.

23. Engel 2003.

24. Also Tomb U (Semerkhet) was probably intended to receive a stair, but since it was finished rather hastily, there might not have been time enough to modify the existing ramp into a stair.

25. Dreyer *et al.* 2006: 101.

26. Dreyer *et al.* 2003: 108.

The niched mastaba at Saqqara (and other sites) covering the whole subterranean tomb contrasts the rectangular tumulus above (only) the royal burial chambers at Abydos. But even this is not a real opposition: the niched mastaba missing at Umm el-Qa'ab seems to equate the funerary enclosures next to the settlement at Kom el-Sultan in shape and orientation – and probably in function if both were markers for cultic procedures.

Catalogue of the royal tombs of Dynasties 0, 1 and 2 at Abydos

(Literature given is by no means complete and restricted to excavation reports.)

Tomb B0/1/2 (fig. 9)

King Irj-Hor

Date: penultimate king of Dynasty 0?

Total area: c. 15.00 x 5.00 m, depth 1.80 m

Measurements of royal burial chamber (B2):

4.35 x 2.5 m, depth 1.8 m

Subsidiary chambers: 2 magazines (B1, B0)

Excavated by: Petrie 1899-1900; DAI 1980-81, 1991-1992

Literature: Petrie 1901: 7, pl. LIX; Kaiser & Dreyer 1982: 222-225; Dreyer *et al.* 1996: 49

Tomb B17/18 (fig. 9)

King Narmer

Date: first king of Dynasty 1²⁷

Total area: c. 10.00 x 3.10 m, depth 2.50-2.80 m

Measurements of royal burial chamber (B18):

3.35 x 5.6 m, depth 2.8 m

Subsidiary chambers: a magazine (B17)

Excavated by: Petrie 1900-1901; DAI 1980-1981, 1998-2001

Literature: Petrie 1901: 8, pl. LIX; Kaiser & Grossmann 1979: 157-158; Kaiser & Dreyer 1982: 220-221; Dreyer *et al.* 2003: 85-86

Tomb B7/9 (fig. 9)

King Sekhen/Ka

Date: last king of Dynasty 0?

Total area: c. 16.00 x 5 m, depth 2.20 m

Measurements of royal burial chamber (B7):

6.00 x 3.25 m, depth 2.0 m

Subsidiary chambers: 1 magazine (B9)

Excavated by: Petrie 1900-1901; DAI 1980-81, 1998-2001

Literature: Petrie 1901: 7, pl. LIX; Kaiser & Dreyer 1982: 221-222; Dreyer *et al.* 2003: 86

Tomb B10/15/19, 13/14, B16 (fig. 9)

King Hor-Aha

Date: second king of Dynasty 1

Total area: 104 x 16 m

Measurements of royal burial chamber (B15):

4.55 x 7.6 m, depth 3.6 m

Subsidiary chambers: total 38 = 34? tombs and 4? magazines

Excavated by: Amélineau 1895-96, 1897-1898; Petrie 1900-1901, DAI 1980-2002

Literature: Amélineau 1899a: 88-102; 1904: after p. VI; Petrie 1901: 7-8, pl. LIX; Kaiser & Grossmann 1979: 159-161; Kaiser & Dreyer 1982: 213-220; Dreyer 1990: 62-64; Dreyer, Hartung & Pumpenmeier 1993: 56; Dreyer *et al.* 1996: 48-57; 1998: 138-141; 2000: 90-97

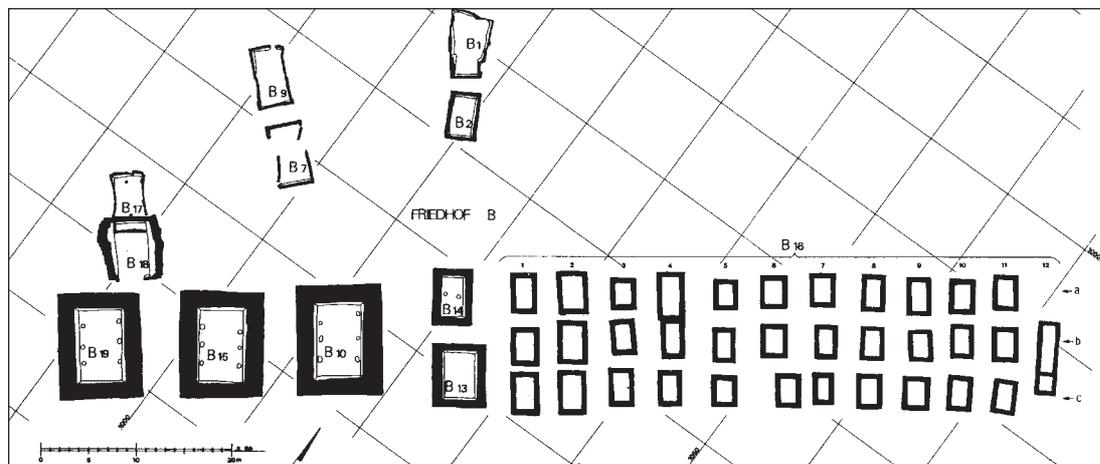


Fig. 9

Cemetery B with tombs B 0/1/2 of Irj-Hor, B 7/9 of Sekhen/Ka, B17/18 of Narmer, and B10/15/19+B13/14+B16 of Aha (after Dreyer 1990: Abb. 1).

27. Kitchen 1993: 120-121.

Tomb O (fig. 10)

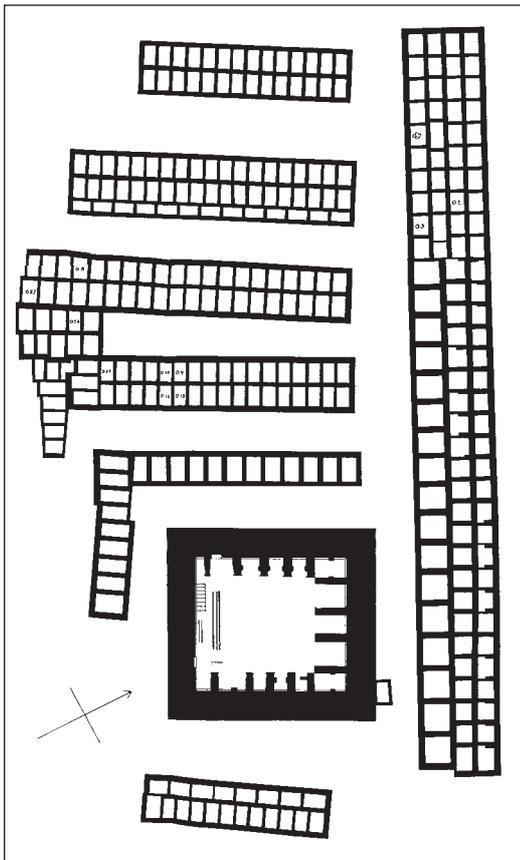
King Djer
 Date: third king of Dynasty 1
 Total area: 70 x 40 m
 Measurements of royal burial chamber:
 10.4 x 9.2 m, depth 2.54 m
 Subsidiary chambers: total 334 = 318 tombs and
 16 magazines
 Excavated by: Amélineau 1897-1898, Petrie 1900-
 1901
 Literature: Amélineau 1898: 38-47; 1899b; 1904:
 149-238; Petrie 1901: 8-9, pl. LX-LXI

Tomb Z (fig. 11)

King 'Snake'
 Date: fourth king of Dynasty 1
 Total area: c. 71 x 35 m
 Measurements of royal burial chamber: 6 x 9.2 m,
 depth c. 2.30 m
 Subsidiary chambers: total 223 = 204 tombs and
 19 magazines
 Excavated by: Amélineau 1895-1896, Petrie 1899-
 1900, DAI 1985
 Literature: Amélineau 1899a: 111-115 & 129-144;
 Petrie 1900: 8-10, pl. LXI; Dreyer, 1991; Dreyer,
 Hartung & Pumpenmeier 1993: 57.

Fig. 10

Tomb O of Djer
 (Petrie 1901:
 pl. LX & LXI).



Tomb Y (fig. 12)

Queen Meretneit
 Date: probably mother of king Den, Dynasty 1
 Total area: 34 x 26 m
 Measurements of royal burial chamber: 9 x 6.4 m,
 depth c. 2.7 m
 Subsidiary chambers: total 49 = 41 tombs and
 eight magazines
 Excavated by: Petrie 1899-1900
 Literature: Petrie 1900: 10-11, pl. LXI

Fig. 11

Tomb Z of 'Snake'
 (Petrie 1900:
 pl. LXI; 1901:
 pl. LXI).

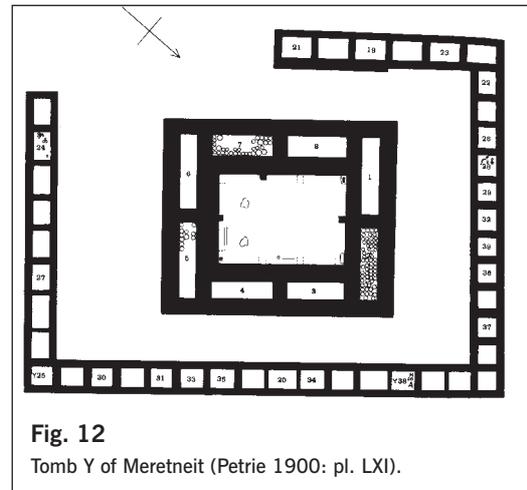
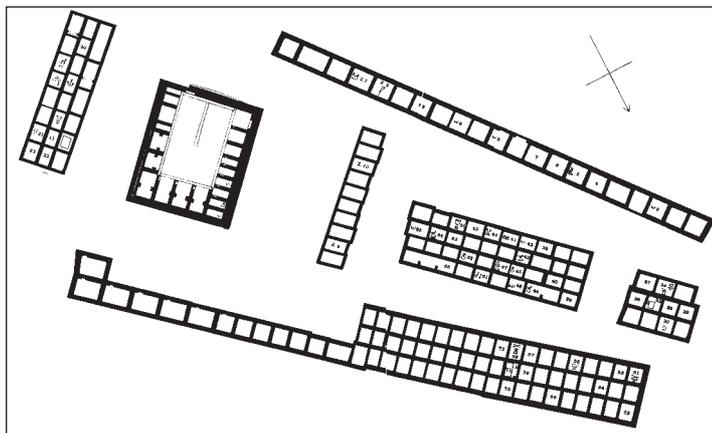


Fig. 12

Tomb Y of Meretneit (Petrie 1900: pl. LXI).

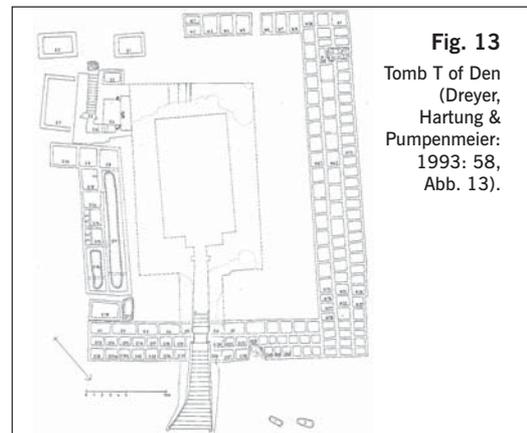


Fig. 13

Tomb T of Den
 (Dreyer,
 Hartung &
 Pumpenmeier:
 1993: 58,
 Abb. 13).

Tomb T (fig. 13)

King Den
 Date: fifth king of Dynasty 1
 Total area: 54 x 40 m
 Measurements of royal burial chamber: 8.8 x 16 m, depth c. 7 m
 Subsidiary chambers: total 153 = 142 tombs and 11 magazines
 Excavated by: Amélineau 1895-1896, Petrie 1899-1901, DAI 1985-2003
 Literature: Amélineau 1899a: 111 & 119-126; Petrie 1900: 11; 1901: 9-11, pl. LXII; Dreyer 1990: 72-79; Dreyer, Hartung & Pumpenmeier 1993: 57-60; Dreyer *et al.* 1998: 141-147

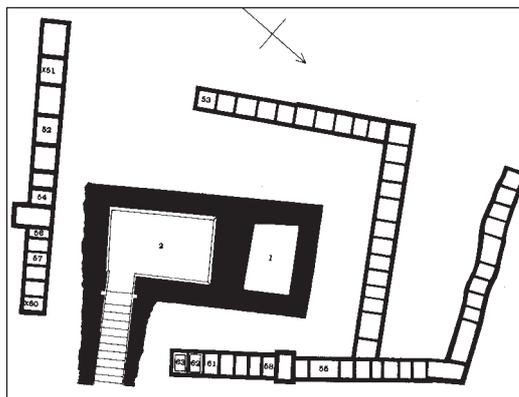


Fig. 14

Tomb X of Adjib
 (Petrie 1900: pl. LXI).

Tomb X (fig. 14)

King Adjib
 Date: sixth king of Dynasty 1
 Total area: c. 32 x 23 m
 Measurements of royal burial chamber: 7 x 4.5 m, depth c. 2.5 m
 Subsidiary chambers: total 65 = 64 tombs and a magazine
 Excavated by: Petrie 1899-1900
 Literature: Petrie 1900: 12-13, pl. LXI

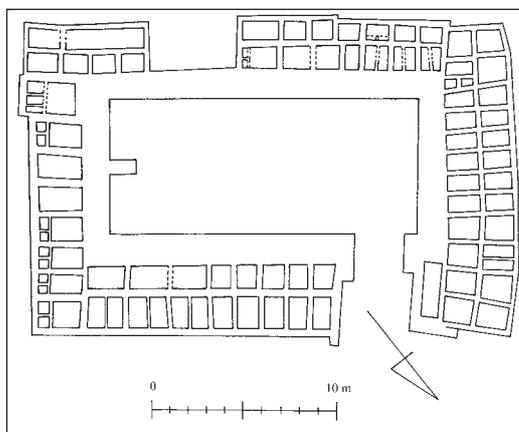


Fig. 15

Tomb U of Semerkhet
 (after Dreyer *et al.* 2006: 93, Abb. 7).

Tomb U (fig. 15)

King Semerkhet
 Date: seventh king of Dynasty 1
 Total area: 26 x 18 m
 Measurements of royal burial chamber: 16.5 x 7.5 m, depth c. 3.5 m
 Subsidiary chambers: total 69 = probably 67 tombs and two magazines
 Excavated by: Amélineau 1895-1896, Petrie 1899-1900, DAI 1998-2005
 Literature: Amélineau 1899a: 111 & 127-129; Petrie 1900: 13-14, pl. LX; Dreyer *et al.* 2000: 119-121

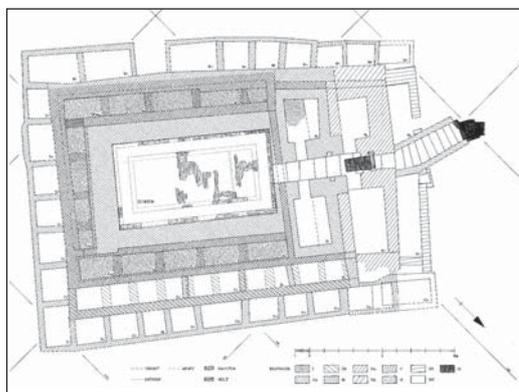


Fig. 16

Tomb Q of Qa'a
 (Dreyer *et al.* 1996: Abb. 19).

Tomb Q (fig. 16)

King Qa'a
 Date: eighth and last king of Dynasty 1
 Total area: c. 30 x 20 m
 Measurements of royal burial chamber: 10.5 x 5.5 m, depth c. 4 m
 Subsidiary chambers: total 39 = 21 tombs and 18 magazines
 Excavated by: Amélineau 1895-1896; Petrie 1899-1900, DAI 1991-1992
 Literature: Amélineau 1899a: 111 & 126-127; Petrie 1900: 14-16, pl. LX; Dreyer *et al.* 1996: 57-66; Engel 1998

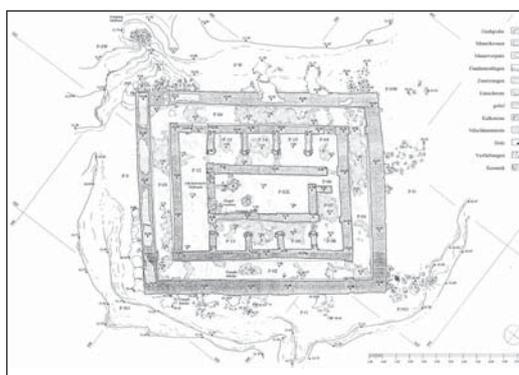


Fig. 17

Tomb P of Peribsen
 (Dreyer *et al.* 2006: Abb. 13).

Tomb P (fig. 17)

King Peribsen
 Date: probably penultimate king of Dynasty 2
 Total area: 18 x 15 m

Measurements of royal burial chamber:
 7.80 x 4.15 m, depth 2.60 m
 Subsidiary chambers: 7 (perhaps more) magazines
 Excavated by: Amélineau 1897-1898, Petrie 1900-1901, DAI 2002- 2003
 Literature: Amélineau 1898: 51-58;
 1904: 245-271; Petrie 1901: 11-12, pl. LXI;
 Kaiser & Grossmann 1979: 161-162;
 Dreyer et al. 2006: 98-102

Tomb V (fig. 18)

King Chaschemui
 Date: last king of Dynasty 2
 Total area: 70 x 18 m
 Measurements of royal burial chamber:
 5.3 x 3.2 m, depth 3.6 m (floor is about 13 m
 below desert surface)
 Subsidiary chambers: 57 magazines
 Excavated by: Amélineau 1896-1897,
 Petrie 1900-1901, DAI 1995-2002
 Literature: Amélineau 1897; 1902; Petrie 1901:
 12-14; Dreyer et al. 1998: 164-165; 2000: 122-
 125; 2003: 108-114

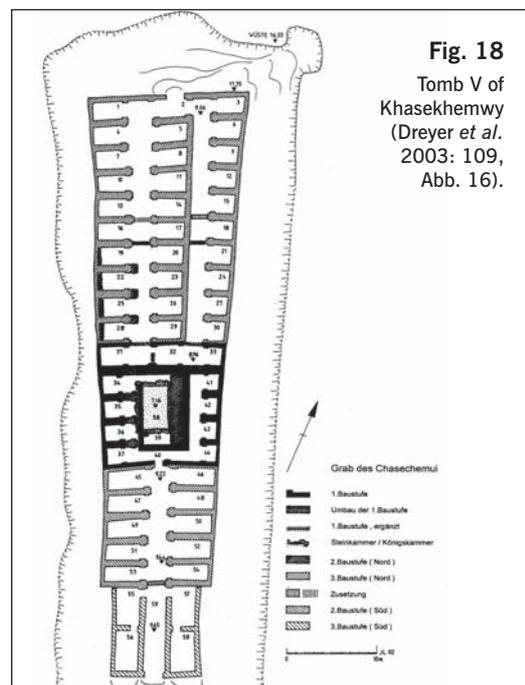


Fig. 18
 Tomb V of
 Khasekhemwy
 (Dreyer et al.
 2003: 109,
 Abb. 16).

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