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THE TOMB OF KING NINETJER AT SAQQARA

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Since 2003, re-examination of the tomb of Ninetjer, the third king of Dynasty 2, has been carried out by the German Archaeological Institute in Cairo. The subterranean tomb is located beneath the pyramid causeway of King Unas at Saqqara. This article focuses on the architecture of Ninetjer's tomb and the historical development of tombs in Dynasty 2. The different architectural elements are discussed and compared with contemporary private and royal tombs at Saqqara. It is suggested that some parts of the tomb follow the traditional design of the tomb of Ninetjer's predecessor, Hetepsekhemwy/Raneb, while others differ. The entire tomb of Ninetjer may symbolise a residence, incorporating streets, dummy houses and magazines. Thus, Ninetjer added a new component to tomb architecture: the model residence.

Introduction

Located beneath the Unas causeway, south of the mastaba of Neb-Kau-Hor, the tomb of Ninetjer was first discovered in 1938 by S. Hassan (1938) (Fig. 1). About 40 years later, P. Munro (1983: 278–282) began his work in the subterranean system; however, the tomb was neither excavated completely nor mapped systematically. From 2003 to 2009, the German Archaeological Institute in Cairo (DAI), under the direction of G. Dreyer, carried out six campaigns to re-examine the tomb of Ninetjer (Dreyer 2007, 130–138; Lacher forthcoming). Since 2010, the excavation has continued under the leadership of S.J. Seidlmayer and the author.[1]

While the pyramid-building projects of later dynasties have been the focus of interest for a long time, facts about Dynasty 2 are just starting to emerge. Unlike the tombs of Dynasty 1 kings, which are located at Abydos, the early kings of Dynasty 2 chose Saqqara for their eternal

[1] The following colleagues are involved in this project: S. Boos is working on the lithics of Dynasty 2 and the coffins and small finds from the late New Kingdom up to the Third Intermediate Period and I. Regulski is studying the seal impressions. Three conservators under the supervision of E. Peintner are responsible for the cleaning and consolidation of the wooden objects. Last but not least, there are the *reis* from Qift and the workmen of Saqqara, without whom excavation would not be possible.

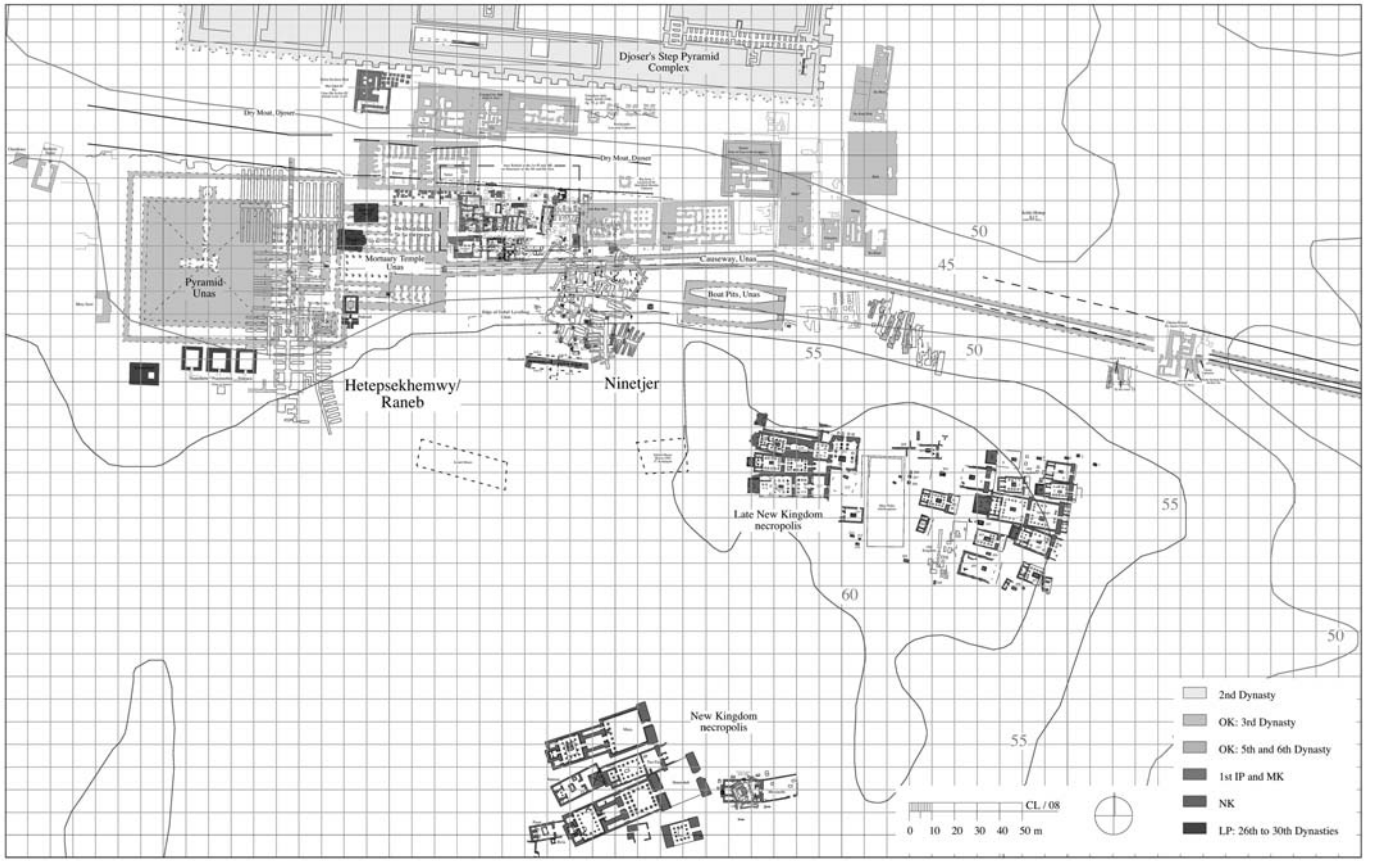

Fig. 1. Preliminary map of the area around the causeway of Unas at Saqqara showing the location of the Dynasty 2 royal tombs of Ninetjer and Hetepsekhemwy/Raneb.

residence in the afterlife. One or even more royal tombs are probably situated south of the known galleries, but the exact location of the tombs of the mid-Dynasty 2 kings is still obscure. The last two kings of the dynasty, Peribsen and Khasekhemwy, returned to the traditional necropolis at Abydos for their burials.

According to Herodotus (Book 2.99), Menes founded the residence of Memphis at the very beginning of Dynasty 1. In connection with the new capital, the first elite tombs were built on top of the opposite plateau. In contrast, the Dynasty 2 kings, Hetepsekhemwy/Raneb (Barsanti 1901: 250–252, 1902: 183–184; Lauer 1936: 4, pl. 2) and Ninetjer, built their monumental gallery tombs out of sight of Memphis and next to a wadi that may have functioned as a natural causeway from the valley up to the plateau (Fig. 1). Located on the northern edge of this plateau is the Djoser complex of Dynasty 3 and the adjacent pyramid complex of Unas, dated to the end of Dynasty 5 (Labrousse et al. 1977: fig 37, pl. 41). About 400 years after Ninetjer's reign, Unas built his pyramid temple above the substructure of the tomb of Hetepsekhemwy/Raneb and must have dismantled its superstructure. In order to construct the causeway leading down to his valley temple, Unas probably also pulled down the northern part of the superstructure of Ninetjer. Subsequently, it seems that a necropolis of family members and officials grew up around Unas' pyramid complex (Munro 1993).

Located further to the south is the necropolis of the high officials of Dynasty 18, which includes the tombs of Horemheb and Maya (see Fig. 1). Some years ago, M.J. Raven found a new Dynasty 2 tomb beneath the tomb of Meryneith, which has not yet been completely excavated (Raven et al. 2001–2002: 71–109; Lacher 2010b: 34–37, fig 3–4). Another tomb of Dynasty 2 was located in 2008, accessed via a Late Period shaft under the tomb of Maya (Regulski this volume; Regulski et al. 2008–2009: 17–20, fig 10; Lacher 2010a: 26–30, fig 1–2). A cemetery of Dynasties 19–21 is located further to the north-east and extends up to the tomb of Ninetjer (Tawfik 1991: 403–409). There are also many deep Late Period shafts in the area as well as early Christian building activity connected with the nearby monastery of Jeremias.

Description of the tomb

The tomb of Ninetjer can best be described as a subterranean 'path' or corridor tomb, which is cut out of the natural rock (Fig. 2). No remains

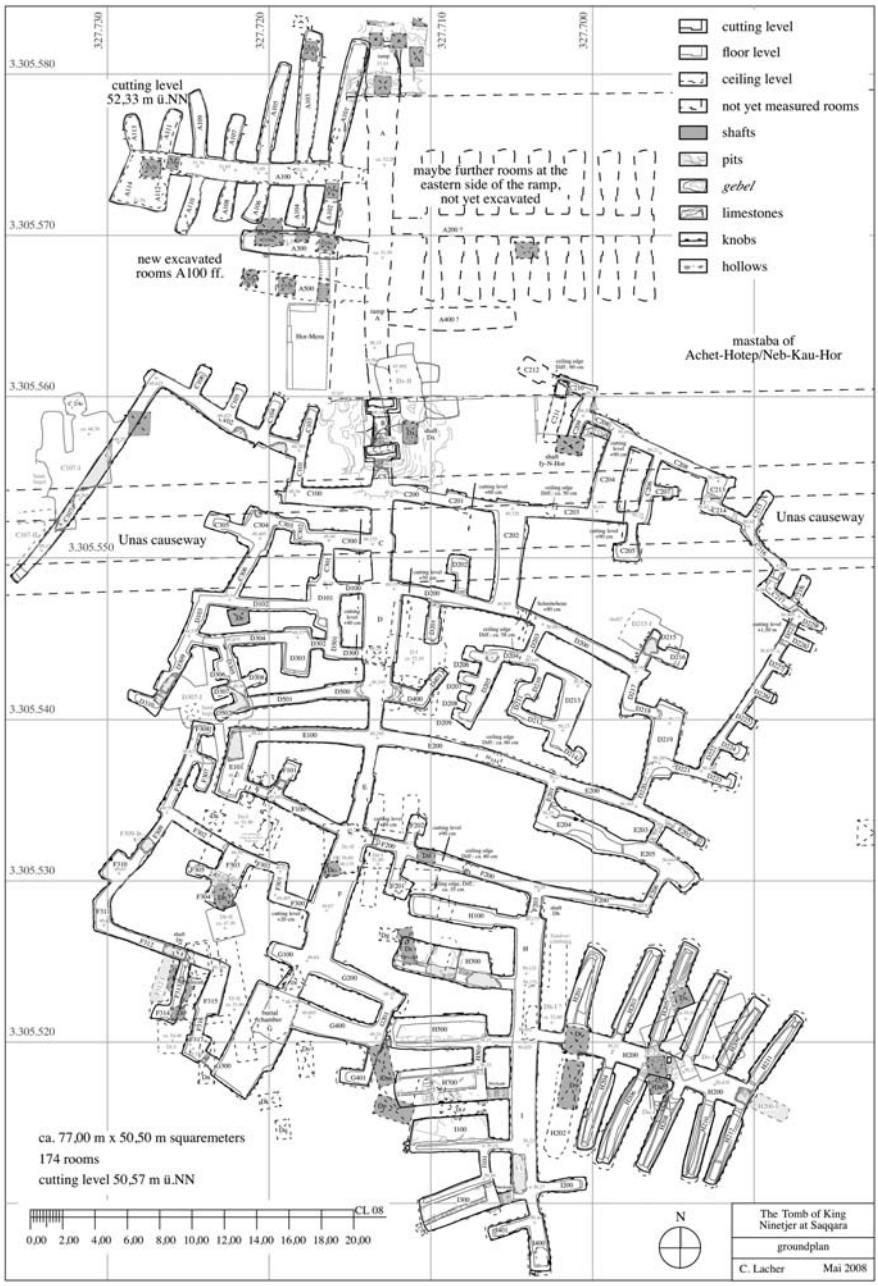

Fig. 2. Preliminary ground plan of the subterranean galleries of the tomb of Ninetjer.

were found of the tumulus or mastaba which once may have marked the tomb above ground. Originally, the tomb was entered from the north via a rock-cut ramp, which was subsequently blocked by two large portcullis stones. Today, most of the ramp is covered by the mastaba of Neb-Kau-Hor, which was built upon the entrance at the end of Dynasty 5. Behind the portcullis stones, a 35 m-long main corridor leads to the burial chamber at the southern end. The floor of the main corridor remains nearly at the same level, while the surface of the natural bedrock rises to the south. As a result, the bedrock layer in the vicinity of the portcullis stones is 3 m thick, while further to the south, above the burial chamber, it is about 5 m thick. During later periods, this bedrock layer was perforated by several shafts and burial crypts.

The subterranean system extends over an area measuring about 77 m × 50 m and is currently divided into 191 rooms, each with a height of about 2 m (Fig. 2). The first half of the main corridor follows a strict north–south orientation, but then suddenly changes its direction, shifting more to the west. Numerous narrow passages branch off to the east and west of the main corridor and stretch out widely in a system of small rooms, giving the whole complex a labyrinthine character. A rather different ground plan design is found in the south-eastern part of the complex (groups H and I). The rooms there are organised in a more regular way, with two wide corridors leading to large rooms with benches along the walls. Notably, the rooms to the west and east of the ramp (group A) are quite close in design to the preceding tomb of Hetepsekhemwy/Raneb with its many storerooms; however, the main design of Ninetjer's tomb overall is rather difficult to understand because the other narrow paths and small rooms do not seem appropriate for storing supplies.

Reuse of the area in later periods

Over the course of time, numerous later shafts have encroached upon the Dynasty 2 galleries. The first intrusion occurred in the Old Kingdom when Unas built his causeway and Neb-Kau-Hor built his mastaba upon the northern part of Ninetjer's tomb. During the late New Kingdom, several shafts broke into the subterranean galleries and the rooms of Ninetjer's tomb were transformed into burial chambers. These shafts may be part of the late New Kingdom necropolis to the east of the site. The Late Period shafts, on the other hand, run down more deeply into the bedrock; sometimes they are 17 m deep and lead to family crypts.

The last major intrusion into the tomb occurred when it was used as a sort of catacomb, with most of the corridors and rooms reused for burials during the Third Intermediate Period and possibly up to Late Antique times.

Recent discoveries

The later shafts are responsible for the quantity of sand filling Ninetjer's tomb. Most of the finds (e.g., small objects, pottery and coffin-fragments) also belong to the later periods. Of the original Dynasty 2 material only a few pottery sherds, some stone vessel fragments and seal impressions of King Ninetjer were recovered in the main tomb south of the portcullis stones; however, one room to the west of the ramp was found nearly untouched. The original Ninetjer equipment, including more than 100 wine jars, a few beer jars and some ovoid pots with streaky red polish, lay on the floor of room A500. Nets of vegetal matter must have originally covered the wine jars, the tops of which were closed with stoppers made of *tafl* clay. Most of the stoppers had very fine seal impressions from the time of Ninetjer. Between the jars, some wooden sticks used for carrying them had been left on the floor. In addition, a large number of Early Dynastic flint knives and razor blades were discovered in the sand filling of room A300. In general, the whole ensemble illuminates the funerary customs of Dynasty 2 in a very informative way.

Building phases

Because of its unusual layout, the question arises whether the ground plan of Ninetjer's tomb is really the result of a single overall design or if it includes later enlargements. Comparison of the chisel marks and the remains of *tafl* plaster shows that they are the same throughout the entire tomb. The same is true for special Dynasty 2 architectonic features, like the many hemispherical hollows that can be found throughout the tomb. Overall, it seems as if the whole plan — including all of the corridors and small rooms — belongs to the original concept of the king's tomb, while the deeper and lower levels were introduced later.

Another question concerns whether the tomb was designed in a single phase, or if what we see today is the result of various building phases. In general, it is very difficult to identify different building phases in rock-cut tombs because all of the important building joints have been cut

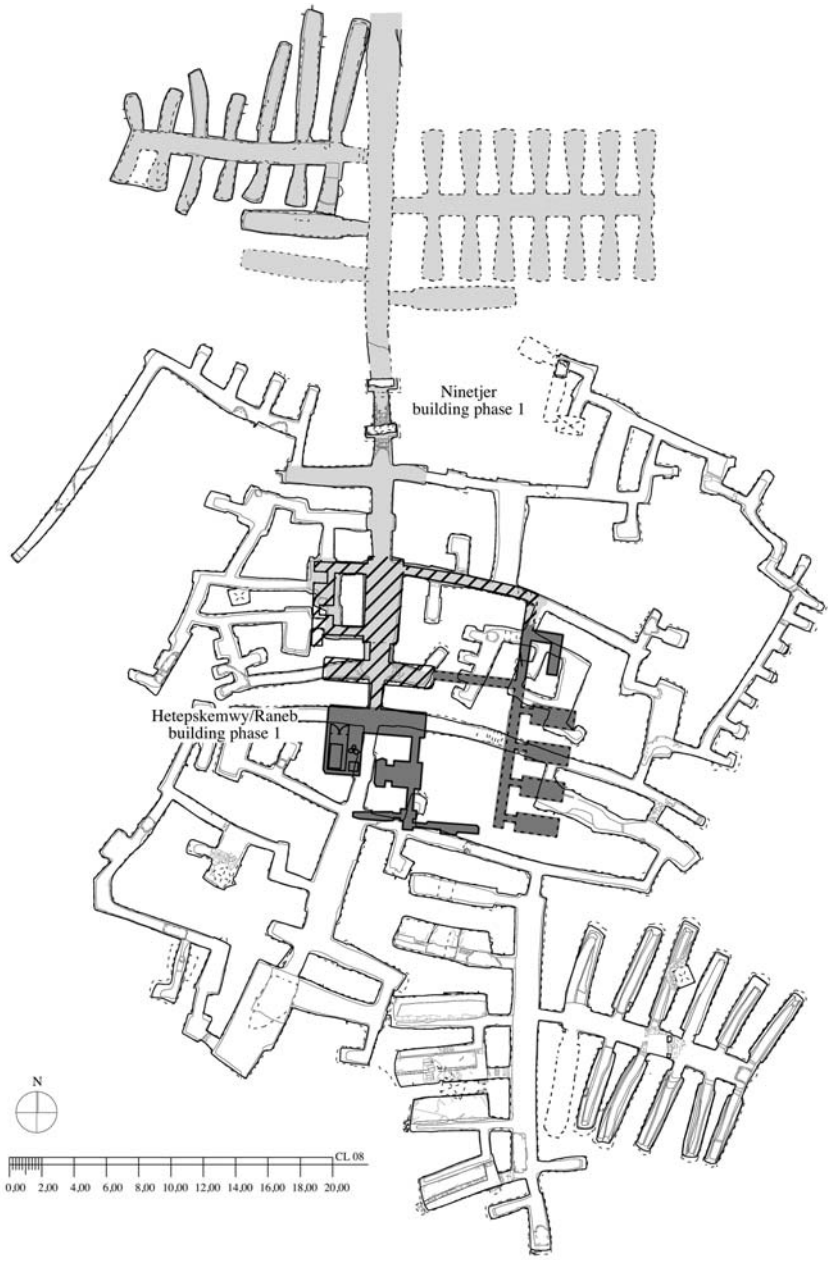

Fig. 3. Tomb of Ninetjer building phase 1 shaded in light gray, with overlay of the southern part of Hetepsekhemwy/Raneb's tomb plan in dark gray and hatching.

away. Therefore, assessment of building phases depends in part on comparison with other tombs of the same period.

If one compares the plan of Ninetjer with that of his predecessor, Hetepsekhemwy/Raneb, it is difficult at first glance to find many similarities.[2] In that tomb, the ground plan is very well structured, with a large number of magazines, each accessible via a corridor. Only the group around the burial chamber appears slightly unusual. The difference between the royal tomb of Hetepsekhemwy/Raneb and the private tombs of North Saqqara lies in the former's monumentality, achieved by the addition of the large number of magazines. However, the tomb of Hetepsekhemwy/Raneb is not the result of one main design and it was probably enlarged step-by-step (Lacher 2008: 427–451). When examined more closely, the magazine tract next to the ramp in Ninetjer's tomb seems to follow the traditional design as seen in Hetepsekhemwy/Raneb's tomb, and thus probably belongs to a first building phase (Fig. 3, shaded area).

The change in orientation of the main corridor may also be an indication of another building phase. To aid in analysis, I copied the idealised features of the southern part of Hetepsekhemwy/Raneb's tomb (Fig. 3, dark grey and hatched) and overlaid it on the ground plan of Ninetjer's tomb, looking for a location with the best fit. The result is clearly visible: the southern part of Hetepsekhemwy/Raneb's tomb is very similar in design to the central part of Ninetjer's. Perhaps in the initial plan of Ninetjer, the burial chamber was meant to be in a southern location, but before the workmen could realise their plan, work was stopped and the tomb was enlarged to the south on the basis of a new design.

Other similarities between the two tombs can be seen in the ensemble in the south-east (Fig. 4). It seems that this design follows the traditional plan for rooms that were used as magazines. A long, wide corridor leads to six large rooms coming off to the west. Originally, each of these rooms had a separate entrance. With the exception of the northern-most room, H100, the others were constructed with large benches, 1.5 m wide and 65 cm high, cut out of the natural bedrock along the northern wall. At a later stage, but still during the reign of Ninetjer, these benches were widened by means of a small wall made of roughly broken limestone fragments and *tafl* mortar. In a third building phase more changes were

[2] Unfortunately, the plan of Hetepsekhemwy/Raneb's tomb is not a surveyed map, but rather a very rough systematic sketch made by J.-P. Lauer (1936: fig. 2). The actual shape of the tomb looks more like the irregular rooms of Ninetjer's. Nevertheless, the design and arrangement of the rooms are adequately enough recorded to allow systematic analysis and comparison of the ground plans of these two royal tombs.

introduced. The four southern-most rooms were restructured into two double rooms in a mirror-image arrangement. The entrances of the southern rooms in each group were blocked, the entrance corridor was filled with *tafl* chips, and a new corridor was cut out in the north to connect the two rooms.

Considering the effort involved, it seems rather pointless to make these costly changes simply in order to store objects. For storage purposes, it should not matter whether the bench is on the north side or south side. If the intention were to store a large amount of supplies, it would actually be much more practical to do away with the benches completely. In light of these alternations, perhaps this complex in the south-east functioned not as magazines, but in some other way.

Further to the east, a smaller corridor (H200) provides access to 12 narrow rooms, six coming off on the north and six on the south (Fig. 4). These rooms have small benches along both walls (20 cm wide and

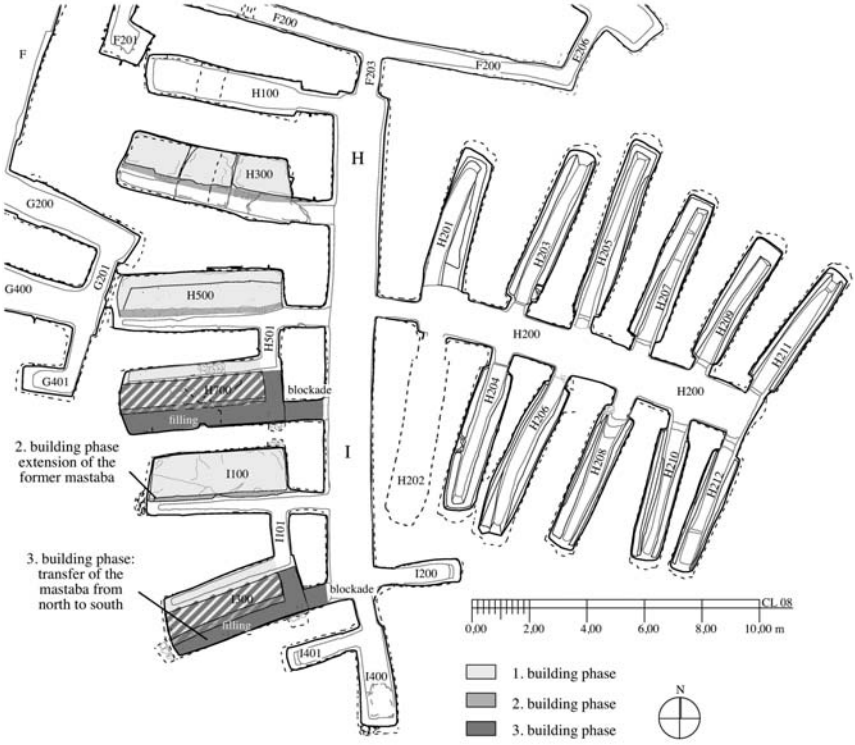

Fig. 4. The building phases and alterations in the south-east complex of the tomb of Ninetjer.

30–40 cm high), which are unsuitable for storing supplies, but may be better explained as seats. In this case, the chambers rather give the impression of banquet rooms.

The three small rooms (1200, 1400, 1401) located at the southern end of the main corridor are also striking. Their function is still unclear (but see below).

Model palace

With the aim of finding some possible explanations for the layout of the tomb, Ninetjer's plan was compared with that of the private tombs at North Saqqara excavated by J.E. Quibell (1923). One of these tombs — that of Ruaben — is shown in Figure 5. When Quibell found latrines and rooms with large water jars, he suggested that the tombs might have served as small model houses for use in their owners' afterlife. Although he may have carried this interpretation a bit too far, the main idea is not at all implausible. In the tomb of Hetepsekhemwy/Raneb, a comparable design could also be identified around the burial chamber (Fig. 5).

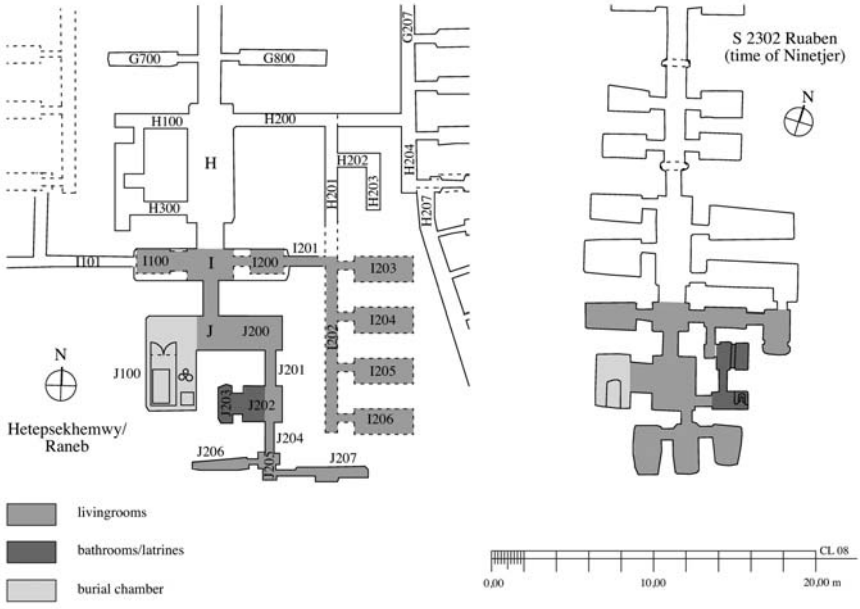

Fig. 5. Model palaces in the tombs of Hetepsekhemwy/Raneb and Ruaben.

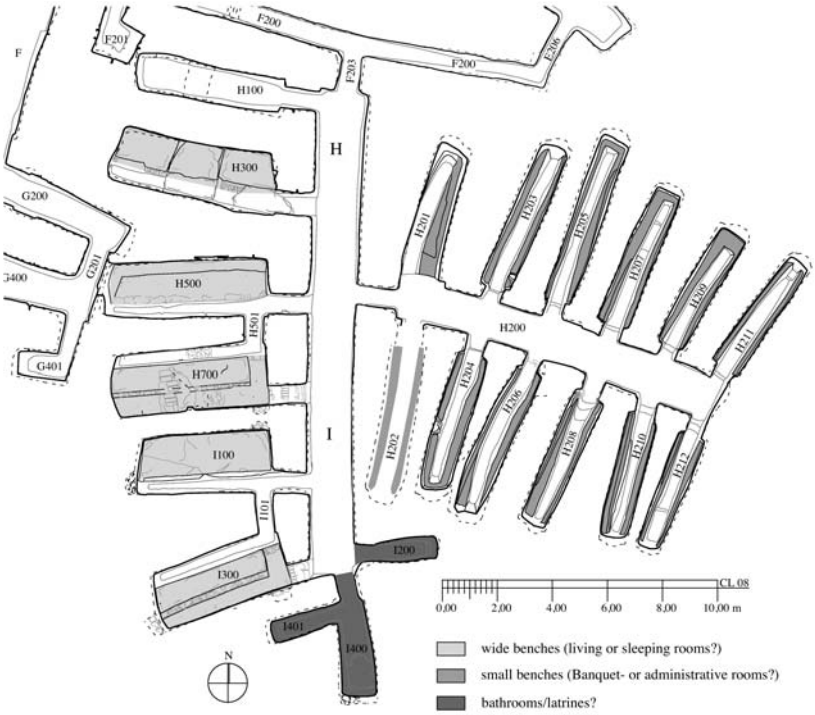

Fig. 6. Model palace in the south-east complex of the tomb of Ninetjer.

By analogy, it seems possible that the south-east complex in Ninetjer's tomb could also be a kind of model palace (Fig. 6). The western rooms, with the large benches, may have served as living or sleeping rooms. The narrow rooms with the small benches could be banquet halls, or perhaps offices (i.e., an administrative sector), while the three small rooms at the south end could have functioned as latrines and *hammams* (Dreyer 2007: 134). Accordingly, an explanation for the alterations to the large rooms may traced back to changes made to the real palace that had to be accurately reflected in the model palace for the afterlife.

The idea of taking not only supplies into the afterlife, but also preparing a house for eternal living was not a concept new to Dynasty 2. A much earlier example is found in the model palace architecture of Tomb U-j at Abydos (Dreyer 1998), where the tomb imitates a house with door slits that connect the rooms to one another. Even after the reign of Ninetjer, the idea of the model palace survived. Peribsen, who returned

to the traditional necropolis of Abydos, also built his tomb like a house. The ground plan of his tomb shows a type of model house with an entrance hall and a large room in the centre surrounded by smaller rooms, all standing in a courtyard surrounded by an enclosure wall (Lacher 2006: 98–102, fig. 13, pls. 22–24).

Model cult place

Close examination of the plan of Ninetjer's tomb reveals that the burial chamber is not isolated (Fig. 7). It is instead embedded in an ensemble of rooms, which includes a massive bedrock block surrounded by a corridor and two smaller rooms, one with niches. Two further ensembles, more or less designed in the same way, are located in the northern part of the tomb (Fig. 7). No similar feature can be identified in the private tombs at North Saqqara; whereas, in the royal tomb of Hetepsekhemwy/Raneb, the layout to the north of the burial chamber is similar (Fig. 8). Here, one can also see a massive bedrock block with a surrounding corridor, which seems to be a special architectonic feature of royal tombs that may have some connection with the royal cult.[3] In an attempt to understand this recurrent feature, I have examined another royal tomb at Saqqara: the Djoser complex.

The *Heb-Sed* festival obviously played an important role in the royal cult. The chapels in the courtyard of the Djoser complex were probably used in some part of this ritual. The *Heb-Sed* was a celebration of the renewal of the king's coronation and ideally took place after a period of 30 years (Martin 1984: 782–790). Most likely, a ceremonial run in order to prove the king's physical fitness was part of the *Heb-Sed* activities. During this run, the king possibly had to circumnavigate a building, perhaps even his own palace. It is generally believed that this ceremonial

[3] In Tomb 505H4 at Helwan (see Fig. 8; Saad 1951: pl. 11), one can also find a similar architectonic ensemble *en miniature*. If we interpret such a feature as a royal element, we should not expect to find it in a private tomb at Helwan. Nevertheless, typical royal architectonic features are also found in other private tombs of the Early Dynastic period and Old Kingdom: for example, the boat pits in Tombs S3357, S3503, S3036 and S3506 at Saqqara and in the mastaba of Ptahshepses at Abusir, or the false vaults in the mastaba of Nefermaat/Atet at Meidum and Netjeraperef at Dahshur. The use of royal elements in the private sphere may reflect the close connection of the tomb owner to the king or his court. It is also quite likely that the royal architects may have adopted some of the royal architectonic elements into their own tombs, but only on a smaller scale.

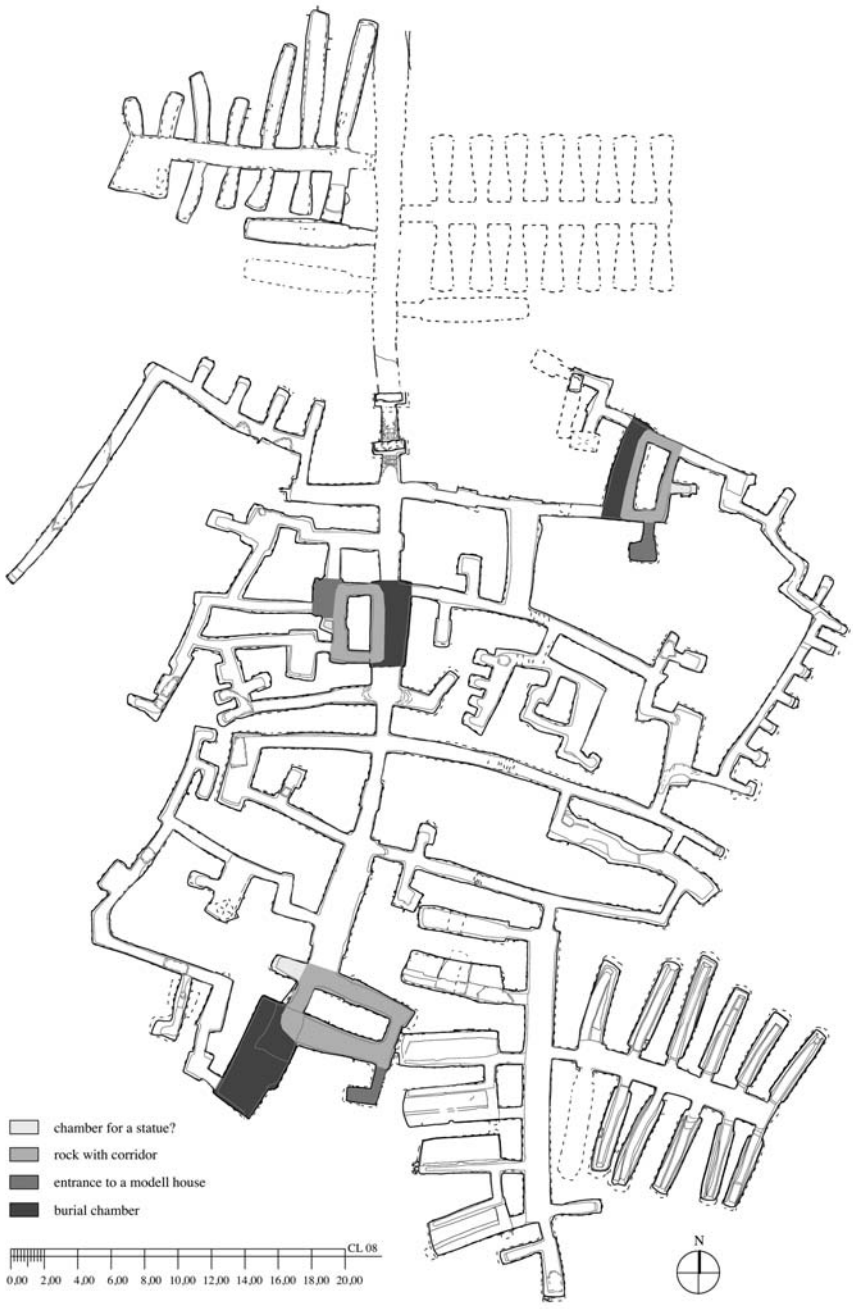

Fig. 7. Model cult places in the tomb of Ninetjer.

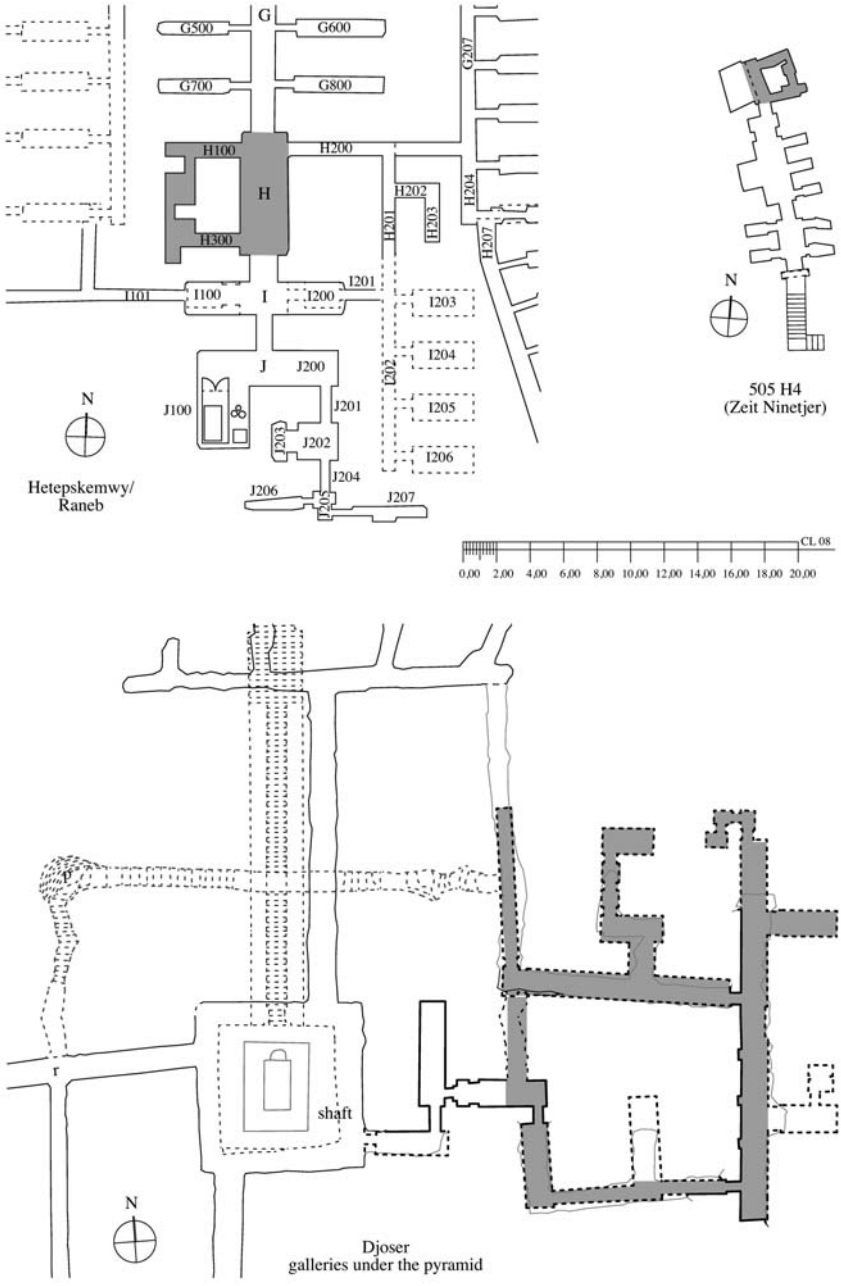

Fig. 8. Model cult places in the tombs of Hetepsekhemwy/Raneb, Helwan Tomb 505H4 and the galleries under Djoser's pyramid.

run is depicted in the substructure of Djoser's pyramid (Friedman 1995: 42; Baud 2002: 176). There, we also find a massive bedrock block decorated with a faience-tiled façade, dummy windows and fake doors, within which are reliefs portraying the running king. The block is surrounded by a less well-adorned corridor, and together these elements are suggestive of a kind of model palace.

Thus, in addition to the magazines for supplies and a model house, a model cult place in the shape of the *Heb-Sed* court can be assumed in these early royal tombs. The purpose of this unit was to enable the king to legitimise his rule in the afterlife. To prove his physical fitness, a model house for the ceremonial run was necessary. Therefore, it is most probable that the massive bedrock blocks in the tombs of Hetepsekhemwy/Raneb and Ninetjer are small model houses to be circumnavigated in a ceremonial run by the deceased king.

Model residence

Before attempting a final interpretation, it is necessary to summarise the situation in the tomb of Ninetjer (Fig. 9). The galleries next to the ramp follow the traditional design as seen in the tomb of Hetepsekhemwy/Raneb. They were probably used as magazines for storing supplies, such as wine jars and other objects. The south-east complex is perhaps a small model palace for the afterlife, while the ensembles with the bedrock blocks have been interpreted as *Heb-Sed* cult places. But what should we make of all of the other labyrinthine corridors? They seem rather inappropriate for storing supplies: the chambers are too small and the interconnecting corridors are impractical for use as magazines.

The overall size of the tomb may be of significance for providing an explanation. While the tomb of Hetepsekhemwy/Raneb measures 122 m × 48 m, that of Ninetjer is just 77 m long, making it more than 1.5 times smaller. This is odd, since kings usually tried to exceed the tombs of their predecessors.[4] Therefore, it might be in the quality of his tomb design that Ninetjer sought to outdo the vaster quantity of Hetepsekhemwy/Raneb's tomb.

[4] The smaller size of the tomb is especially unexpected as Ninetjer reigned for 43 years, while Hetepsechemwy reigned for 28 years and Raneb only 19 years (von Beckerath 1999: 283).

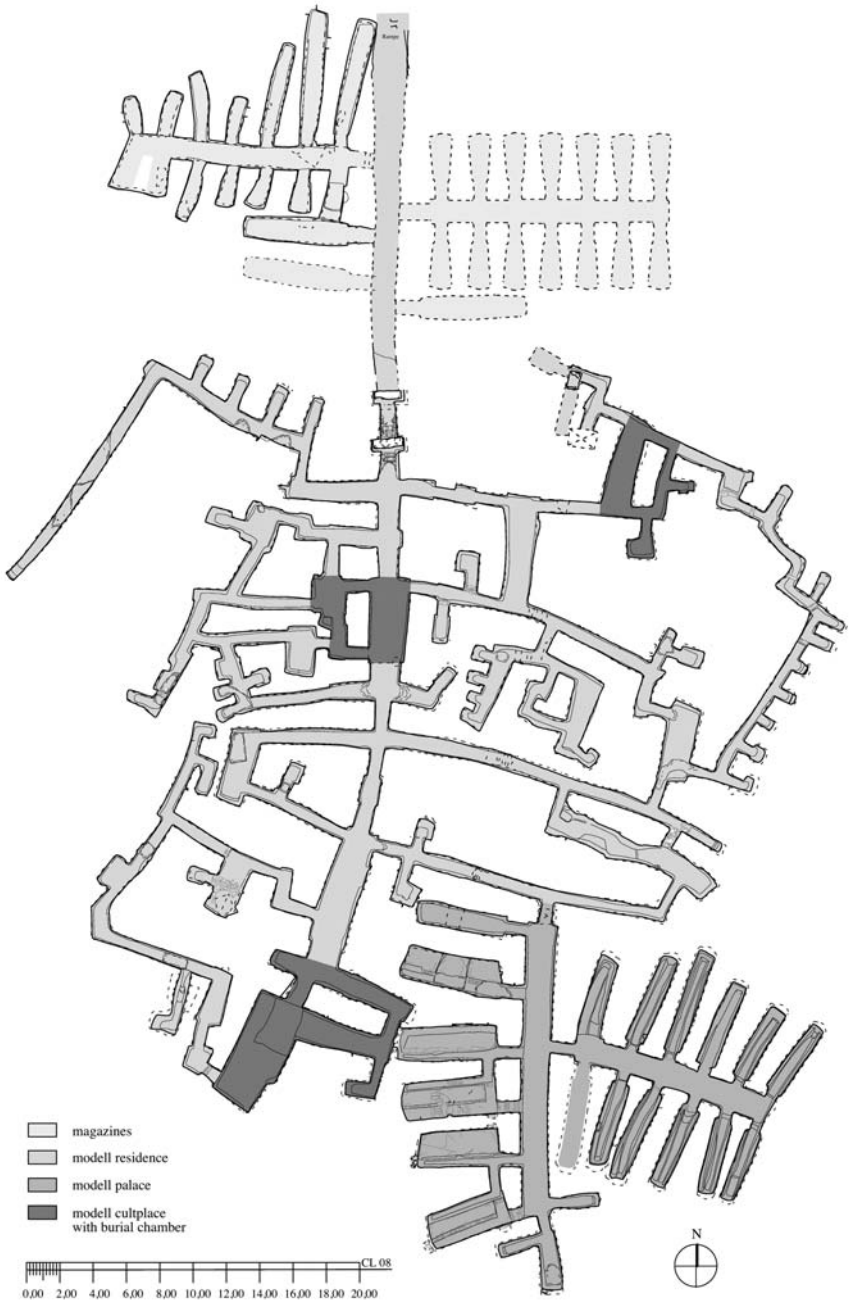

Fig. 9. Tomb of Ninetjer: an interpretation.

In order to understand this approach, it is necessary to look at the tomb from a different perspective. For the people who designed and built the subterranean tomb, it was difficult to demonstrate if someone was meant to be inside a room or outside a building; in other words, in underground architecture, it is not easy to indicate the difference between enclosed space, like living rooms, magazines or chambers, and open space, like courtyards. In both cases, there is always a massive layer of bedrock above and the division between inside and outside is not readily apparent. This could also be one reason why some pyramids have stars decorating their ceilings: in this way, it was clearly understood that it was meant to be the open sky above the sarcophagus. Following this idea, it may be imagined that the labyrinth in Ninetjer's tomb was not meant as simply a system of corridors and small chambers, but instead represents a system of streets and open courtyards. The small chambers represent the entrance to houses, while the body of the house is represented by the massive bedrock, which was impossible to enter. This is a kind of *pars pro toto* thinking, where the entrance to a house stands for the whole house. Therefore, the entire labyrinth could have functioned as a sort of model city or a model residence with small streets, courtyards, houses and magazines.

In contrast to the tomb of Hetepsekhemwy/Raneb, who built a model palace, a model cult place and a large number of real magazines, Ninetjer added a new component in tomb architecture: a model of the residential city. Such a monumental building project only becomes possible by reducing the size of the city and — in an abstract way — by symbolically substituting parts for the whole (i.e., showing the entrance of a house as representative for the entire house). This interpretation would not only explain the function of the labyrinthine corridors in Ninetjer's tomb, but also the reduced size of the tomb itself.[5]

The use of dummy buildings continued after the reign of Ninetjer. Djoser, for example, also built a small model residence in his above-ground tomb complex. Most of the buildings are dummy structures; they have well-decorated façades, but only an indication of an entrance. The actual structure is a mass of stone, with no means of entry. It now seems that this *pars pro toto* thinking had already started with the tomb of Ninetjer.

[5] The idea of dummy and model vessels as symbolic substitutions for actual pottery and stone vessels existed long before Dynasty 2; however, transfer of this idea to architecture appears to have occurred for the first time in the tomb of Ninetjer, as long as the location and the design of the tomb of Ninetjer's predecessor, Raneb, is unknown.

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