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Author(s): Ann Macy Roth

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Social Change in the Fourth Dynasty: The Spatial Organization of Pyramids, Tombs, and Cemeteries

ANN MACY ROTH

The advent of the Fourth Dynasty of pharaonic Egypt marked a radical break with the first three dynasties. This break is most visible in the new shape of the era's most substantial archaeological remains, the royal pyramids and their surrounding mortuary complexes (see fig. 1). In the Third Dynasty, royal tombs took the form of stepped pyramids, surrounded by dummy buildings and enclosed in a rectangle of high, niched walls, with its long axis north-south. During the reign of Snefru, royal tombs became true pyramids of vastly increased size, built at the western end of a complex of new components and proportions, which extended in an east-west line from the border of the cultivation.

Egyptologists have long ascribed these changes to social and religious developments. J. H. Breasted suggested that the increasing importance of the sun-cult of Re at Heliopolis led to the adoption of a tomb nearer in shape to the *bnbn* stone associated with that cult.¹ I. E. S. Edwards advocated a more direct relationship to mortuary beliefs, viewing the pyramid as the solidified rays of the sun and citing Pyr. 523: "Heaven has strengthened for you the rays of the sun, in order that you may lift yourself to heaven as the eye of Re."² He also attributed the new east-west axis to an increasing solar orientation. B. Kemp, describing the pyramid of Meydum, suggested a change in the theological and social role of the king: "In place of a tomb which celebrated the king as supreme territorial claimant and perpetuated his earthly pag-

eantry, the new-style pyramids proclaimed his absorption into the mystic symbol of the sun. The tiny offering-temple was the principal gesture to his human aspect."³ R. Stadelmann viewed the pyramids in more political terms, as monuments that both expressed and enforced the universal claims of royal power. The new mortuary architecture, he suggested, was a simplification and abstraction of older forms, responding to growth in that power and to changes in cultic requirements.⁴

The cemeteries of officials that surrounded these pyramids add yet another dimension to the analysis. D. O'Connor has observed that, if the sizes of tombs represent the comparative power of the tomb owners, the gigantic pyramids of Giza surrounded by small private tombs can be seen as a visual metaphor for the centralized organization of the Old Kingdom state,⁵ in which the immense power of the king dwarfed and dominated the people surrounding him.

Since textual sources for the Fourth Dynasty and the preceding period are few and enigmatic, the primary support for these analyses is the architecture and spatial organization of the Fourth Dynasty pyramid complex itself. These analyses of mortuary space are, however, largely impressionistic and based on intuitive assumptions about the meaning of space and architectural forms. Moreover, they are based on the

¹ J. H. Breasted, *The Development of Religion and Thought in Ancient Egypt* (New York, 1912), 72.

² I. E. S. Edwards, *The Pyramids of Egypt*, rev. ed. (Harmondsworth, 1985), 277–78 (translation slightly modified).

³ Barry J. Kemp, *Ancient Egypt: Anatomy of a Civilization* (New York, 1989), 63, caption to fig. 21.

⁴ R. Stadelmann, *Die ägyptischen Pyramiden: vom Ziegelbau zum Weltwunder* (Mainz am Rhein, 1985), 80.

⁵ David O'Connor, "Political systems and archaeological data in Egypt: 2600–1780 B.C.," *World Archaeology* 6 (1984), 19–21.

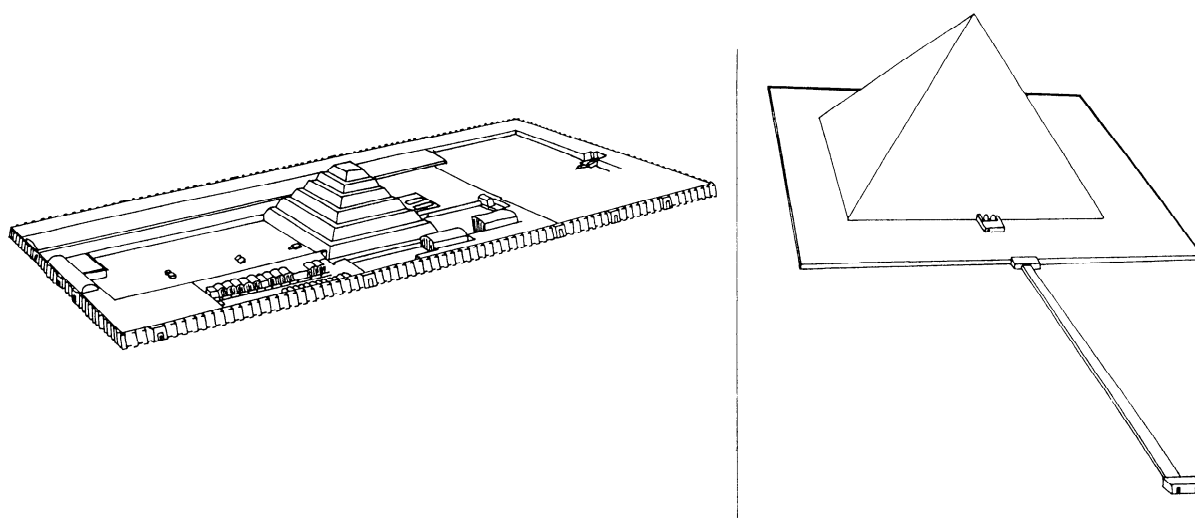


Fig. 1. The Step Pyramid complex, at left (after Edwards, *Pyramids of Egypt*, p. 35), is the best preserved of the pre-Fourth dynasty mortuary complexes. The Fourth dynasty complex in its simplest form is represented at right by the reconstructed Mejdum pyramid complex. (The drawing here is partially based on the reconstruction of Kemp, *Ancient Egypt: Anatomy of a Civilization*, p. 63.) (Not drawn to the same scale.)

examination of only a limited subset of mortuary architecture. Private tomb architecture and cemetery organization also changed considerably, if less abruptly, during the same period, and this larger context has not been considered in seeking explanations for the new architectural forms adopted by kings.

Spatial Analysis

In recent years, archaeologists have increasingly applied formal techniques of spatial analysis to the interpretation of cultural remains. One useful concept of this type is access analysis, which focuses on the ease or difficulty with which people move through buildings and into important rooms. Techniques have been developed that allow buildings to be more easily compared, including the reduction of plans to "justified access maps"⁶ and formulas for com-

paring quantitative measurements.⁷ Despite the objective appearance of the results these techniques yield, their application often requires subjective judgments. (It is not always clear, for example, what constitutes a "room.") Moreover, these techniques have principally been applied to houses, and their usefulness in analyzing symbolic spaces, such as mortuary or religious buildings, is less well established.

For an initial application of spatial analysis to early Old Kingdom mortuary architecture, these difficulties can be avoided by using a comparative approach, relating changes in the accessibility of mortuary architecture to the relatively static patterns in contemporary non-mortuary spaces. Based loosely on the same criteria as the more quantitative approach, such comparisons allow distinctively Egyptian spatial patterns and architectural forms to be considered. Although this approach is explicitly

⁶ For details of this method, see Bob Hillier and Julienne Hanson, *The Social Logic of Space* (Cambridge, 1984). Sally Foster, "Analysis of spatial patterns in buildings (access analysis) as an insight into social structure: examples from the Scottish Iron Age," *Antiquity* 63 (1989), 40–50; and Henry Glassie, *Folk Housing in Middle Virginia: a structural analysis of historic artifacts* (Knoxville, Tennessee, 1975) were among the first to apply this method to archaeological spaces.

⁷ For a survey of a variety of quantitative methods, see John Chapman, "Social Inequality on Bulgarian Tells and the Varna Problem," *The Social Archaeology of Houses*, Ross Samson, ed. (Edinburgh, 1990), 49–92; the following essay, Frank E. Brown, "Comment on Chapman: Some Cautionary notes on the application of spatial measures to prehistoric settlements," *ibid.*, 93–109, points out some problems with this approach.

subjective, it is justified by the sharpness of the contrasts it produces. These contrasts can then be compared with the surviving inscriptional evidence to suggest the nature of the changes in the system of religious and social beliefs that underlay the new mortuary architecture.

The principle of access analysis that I have adopted here is the distinction between "open" and "closed" plans in buildings. Open buildings tend to be readily navigable by strangers; they can be entered easily and their internal organization is immediately apparent. The function and position of their important rooms are often obvious from the exterior, and the paths to reach them are both short and direct. Axial and symmetrical plans tend to result in open buildings, as do plans with many entrances. Public or communally-used spaces often have open plans, and they are especially common in communities where strangers are either rare or assumed to be friendly, in egalitarian societies, and in cultures that place a low value on privacy. Closed plans, on the other hand, separate the most important rooms from the entrance by distance, by tortuous pathways, and by constricted or guarded doorways, so that strangers have difficulty entering the building and negotiating its interior spaces. Greater "closedness" occurs in societies and in buildings where privacy, social control, separation of classes or sexes, and protection from strangers are considered important.

Not only can the principles of access analysis be applied to individual buildings, but entire sites can be viewed in terms of their spatial organization. On this level, such questions as the distance between buildings, the regularity of their orientation, and the ease of access to different parts of the site and the site as a whole are considered. This analysis involves comparing linear arrangements of buildings with clustered arrangements, and judging the degree to which a site is homogeneous or has a central focus. (Such broader factors should always be considered, since the degree of access to a site as a whole may explain anomalous access patterns in the individual buildings within it.) Arrangements of buildings within a site can also be compared temporally, to find patterns of site growth and to determine whether newer

buildings are mixed with or segregated from older structures. Like spatial patterns in individual buildings, spatial patterns in sites can suggest social characteristics, such as the degree of centralized control, relationships to the past, and the segregation of certain groups.⁸ Such analysis has generally been applied to settlements, but it also is a useful way of looking at cemeteries.

Non-mortuary Architecture: Houses and Temples

This comparative analysis of spatial organization in mortuary and non-mortuary structures is implicitly based on the assumption that there was no fundamental change in the plans of houses and temples between the Archaic Period and the later Old Kingdom. This assumption does not conflict with any architectural remains so far excavated from the early period, but those remains are too few to prove or disprove it. There are, however, a number of corroborating circumstances, foremost among them the stability of these two architectural forms in later periods.

In all periods for which there is evidence, the Egyptians seem to have favored the greatest possible closedness in their houses.⁹ Figure 2 illustrates a selection of Old and Middle Kingdom house plans. The owners of even the smallest houses were often willing to sacrifice a corner to create a small entrance vestibule that allowed them to screen their visitors. In larger

⁸ For the observations of such spatial relationships over time in a settlement context, see Douglas W. Bailey, "The Living House: Signifying Continuity," in: *The Social Archaeology of Houses*, 19–48.

⁹ A possible exception to this tendency is the compound of thirty, largely contiguous, room-groups at Qasr es-Saga (Joachim Sliwa, "Die Siedlung des Mittlern Reiches bei Qasr el-Sagha," *MDAIK* 48 [1992], 177–91). Despite the quantities of ash, fishbones, and animal bones they contained, however, these room groups seem unlikely to have been primarily domestic spaces. The five identical, narrow rooms opening off each courtyard resemble storerooms in their proportions (their dimensions are 2.1 × 7.9 m). These rooms were carefully fitted with doors, but there are no doorpost emplacements for the "courtyard" which was entered directly from the street, and its built-in features (benches and raised round platforms) suggest industrial activity of some kind.

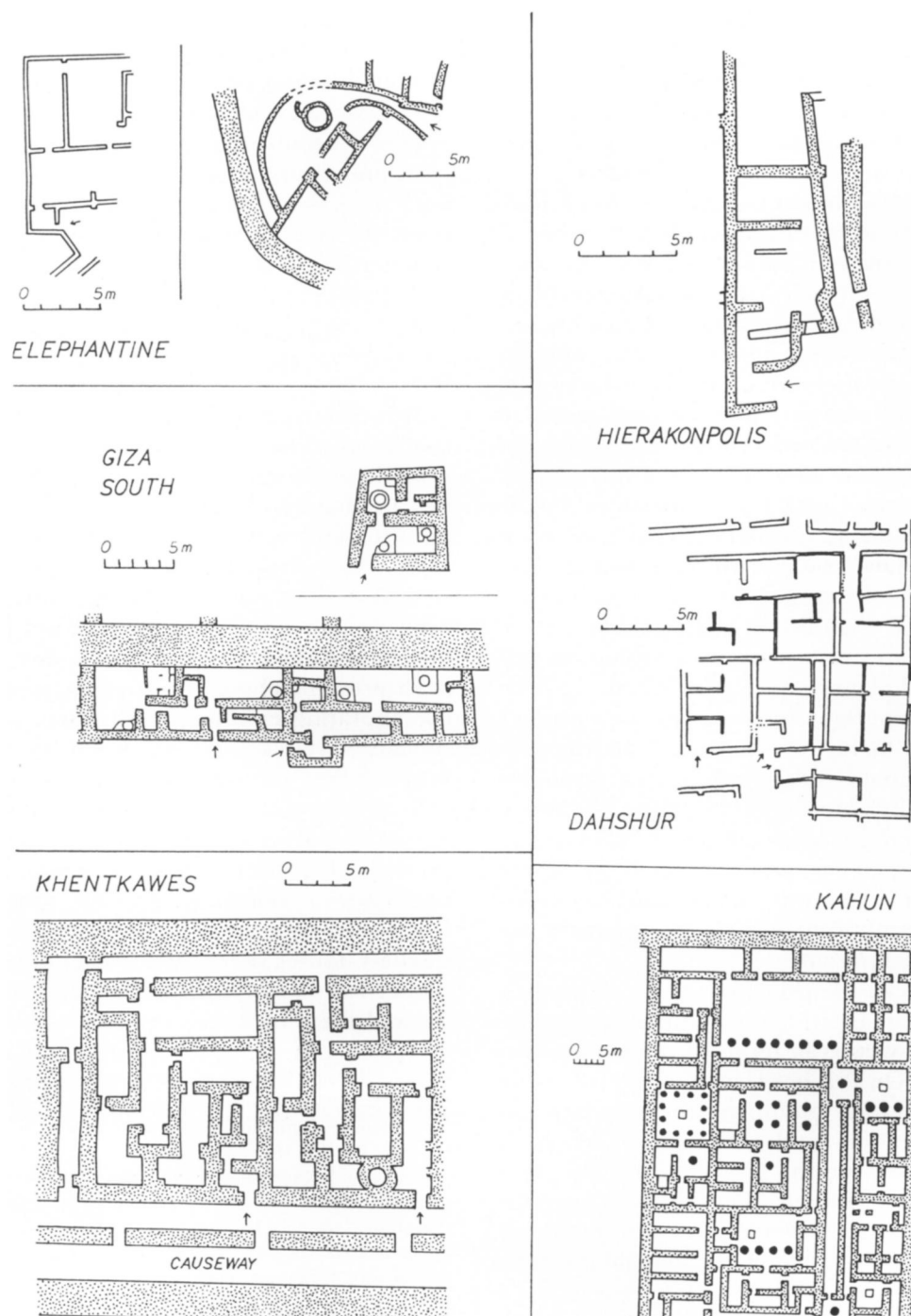


Fig. 2. These house plans were taken from the following sources: Elephantine (Archaic Period): MDAIK 40 (1984), 174, (left); MDAIK 43 (1987) p. 91 (right); Hierakonpolis (Archaic Period): Quibell and Green, Hierakonpolis, pl. 68; South Giza (Fourth Dynasty): Kemp, Ancient Egypt: Anatomy of a Civilization, p. 134; Dahshur (Old Kingdom): *ibid.*, p. 148; Khentkawes town (late Fourth Dynasty): Hassan, Giza IV, fig. 1; Kahun (Middle Kingdom): Kemp, Ancient Egypt: Anatomy of a Civilization, p. 54 (somewhat modified in accordance with Petrie, Illahun, Kahun, and Gurob, pl. 14). Orientations differ and scales are approximate in some cases.

houses, the desire for closedness resulted in "baffle" walls at the entrance that obscured the interior and forced the visitor to walk in an S-shaped curve. The visitor was then normally led well into the house, and had to double back to reach the functional rooms, sometimes reversing direction several times to reach the most private spaces. Access to the individual rooms within houses was limited, but in some cases parallel or encircling hallways provided second entrances. The purpose of this extravagant waste of space was probably to allow different classes of people within the house (residents and visitors, or masters and servants, or men and women) to pass between the rooms without encountering one another.¹⁰ Another indication of closedness is the frequency with which a small room adjoined the inner vestibule, from which a servant could control access to the house.¹¹

¹⁰ This is especially clear in the simple palaces attached to the New Kingdom temples of the Ramesseum and Medinet Habu (see, for example, W. J. Murnane, *United with Eternity* (Chicago, 1980), fig. 58), where parallel hallways for servants run behind the private quarters, allowing servants to remove the chamber pots without disturbing the rooms' occupants. The most extreme examples of this are the Kahun mansions, with their parallel hallways (W. M. F. Petrie, *Illahun, Kahun and Gurob* [London, 1891], pl. 14); but such parallelism is attested on a community-wide scale as early as the Khentkawes town at Giza (S. Hassan, *Excavations at Giza IV—1932–1933* [Cairo, 1943], fig. 1). Such "service passages" have been similarly analyzed in buildings of the Roman period and the seventeenth century. See Eleanor Scott, "Romano-British Villas and the Social Construction of Space," *The Social Archaeology of Houses*, 149–72; and Ross Samson, "The Rise and Fall of Tower Houses in Post-Reformation Scotland," *ibid.*, 197–243.

¹¹ The argument that these rooms represent "birthing arbors," suggested by F. Arnold, "A Study of Egyptian Domestic Buildings," *VA* 5 (1989), 81–82, is, to me, unconvincing, at least in the Old and Middle Kingdoms. A vestibule at the entrance to the house seems a strange place to seclude a new mother, especially in the Kahun mansions, where both vestibules are quite distant from the rooms Arnold identified as "women's quarters," and one is attached to an entrance that he viewed as a private entrance for the steward and male servants. One would expect buildings that contain the community's grain reserves to be guarded, and the rooms are well placed for this. It is not unlikely that even small households in such settlements of cult workers had at least one servant, and a vestibule by the door might have doubled as the servant's bedroom/living room, like the vestibule occupied by the *bawwab* in a Cairo apartment building.

The closed pattern in large houses was already well established by the end of the Fourth Dynasty, as exemplified by the "priests' houses" along the causeway leading to the cultivation from the tomb of Queen Khentkawes.¹² From the south, the houses could not be entered directly from the causeway, but only from a parallel private path accessible through doors offset from the house doors. There, a baffle wall immediately confronted the visitor, who had to turn left, then right, then proceed along a corridor past a small room and into an open court toward the back (north) of the house. To the south of the court was an area with a hearth and ovens, and to the southwest lay a long room that may have been the principal public room. Opening off the latter to the west were two consecutive rooms probably restricted to the family and used partly for sleeping. To the north of the public room was the largest room in the house. It was often subdivided or filled with store jars; it may have been used to store and distribute commodities as part of the occupant's professional activity. It had a separate entrance (taken to be the principal one by the excavator) that led past a small room to a private back street, to which access also seems to have been controlled.

There is no evidence for the architecture of large houses before the late Fourth Dynasty. (The assumption of a closed plan is corroborated by the closed plans of early mortuary structures that are generally believed to duplicate palaces, but in the context of this comparative study, such arguments are potentially circular.) Small houses dating to the earlier period that have been excavated at Hierakonpolis¹³ and Elephantine,¹⁴ however, show the same closed patterns favored in later periods;

¹² Hassan, *Excavations at Giza IV*, fig. 1.

¹³ W. Fairervis, K. R. Weeks, and M. Hoffman, "Preliminary report on the first two seasons at Hierakonpolis," *JARCE* 9 (1971–72), figs. 12 and 13, show no complete houses but many small, tortuously connected rooms. The plan labeled 89 by J. E. Quibell and F. W. Green, *Hierakonpolis II* (London, 1902), pl. LXVIII, rooms 2–5, seems to constitute an early house.

¹⁴ W. Kaiser et al., "Stadt und Tempel von Elephantine, 11./12. Grabungsbericht," *MDAIK* 40 (1984), fig. 1, 174; W. Kaiser, et al., "Stadt und Tempel von Elephantine, 13./14. Grabungsbericht," *MDAIK* 43 (1987), 91, fig. 6; for an overall

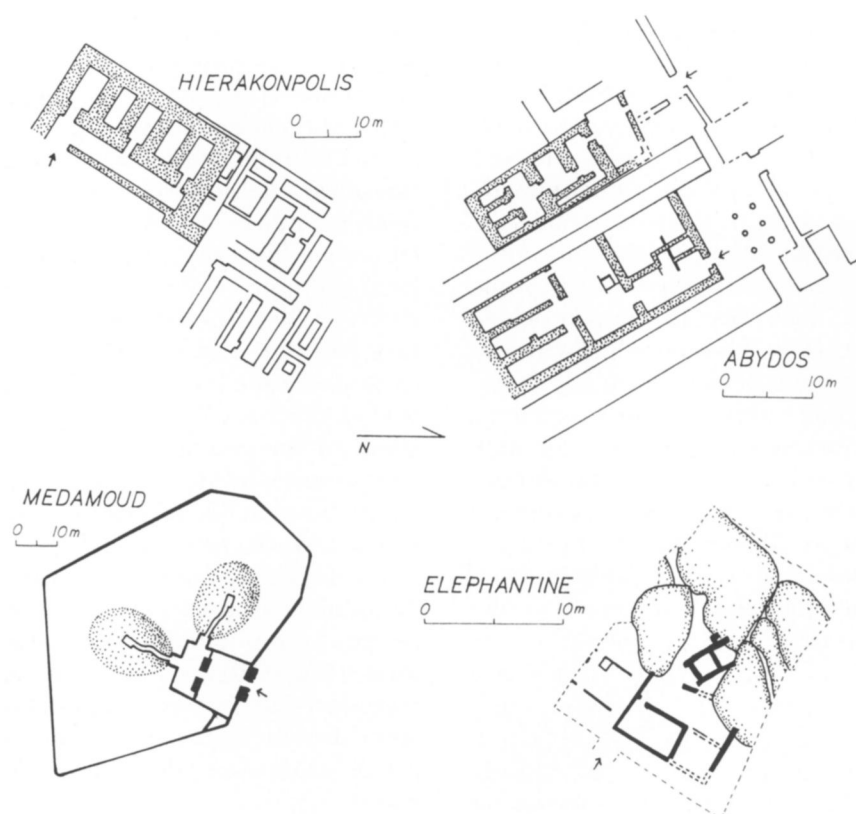


Fig. 3. Temples of the early period. These plans are based on Kemp, *Ancient Egypt: Anatomy of a Civilization*, pp. 76 (Hierakonpolis), 78 (Abydos), 68 (Medamoud), and 70 (Elephantine).

and since the elite of this period came out of the same tradition, their houses were probably as closed in plan as the large houses from the Khentkawes settlement. For purposes of this analysis, then, it will be assumed that closed plans were favored for all houses from the First Dynasty through the end of the Old Kingdom (and later), and thus that no significant change took place in patterns of domestic architecture between the Third and Fourth Dynasty.¹⁵

view, see W. Kaiser et al., "Stadt und Tempel von Elephantine, 15./16. Grabungsbericht," *MDAIK* 45 (1988), 145, fig. 4.

¹⁵ It is not impossible that the architecture of royal palaces in the Fourth Dynasty reflected some of the changes in the social and religious role of the king that are seen in mortuary architecture. Changes in residential patterns in the capital may also have occurred, to reflect a changed relationship between the king and his subjects. Unfortunately, no royal palaces of the Old Kingdom are known from before or after the beginning of the Fourth Dynasty, so these propositions cannot be tested.

Temples were called the houses of the gods, but they bore little resemblance to the houses of people. Temples of the New Kingdom were generally strictly axial, and far more open in plan than houses, and there are indications that this was also true in the Old Kingdom and earlier. (See fig. 3 for some Archaic Period and Old Kingdom provincial examples.) Symmetry was important even in the most "un-Egyptian" early temples, as, for example, in the strange shrine at Medamoud.¹⁶ Some early temples, for example those at Abydos and Hierakonpolis,¹⁷ had baffle walls at the entrance to block the view of the sanctuary, but beyond that a visitor had a straight path, and was never required to double back as in contemporary houses.

¹⁶ C. Robichon and A. Varille, "Médamoud. Fouilles du Musée du Louvre, 1938," *CdE* 14 (1939), 82–87.

¹⁷ W. M. F. Petrie, *Abydos II* (London, 1903), pl. 50; and Quibell and Green, *Hierakonpolis II*, pl. 72.

O'Connor has recently suggested¹⁸ that the early temples at Elephantine and Medamud were peripheral to more important temples at those sites, and that the temples at Hierakonpolis and Abydos were Sixth Dynasty ka-chapels, again attached to more important, but undiscovered, shrines nearby.¹⁹ He has also noted a significant similarity between the temple enclosure of Hierakonpolis (with entrances at the east end of the north wall and the south end of the east wall and enclosing a stone-faced, off-center mound) and the royal funerary enclosures on the plain west of Abydos as he has previously²⁰ reconstructed them. On this basis, he has suggested that such enclosures represent the standard form of early temples, and he believes that a temple of this shape is to be restored inside the town wall at Abydos as the site's principal temple.

Other interpretations of this similarity are possible. East of the Horus temple enclosure is a "palace" gateway, located at the east end of a northern wall, with deposits of sand (like that in the Horus temple mound) to the south. O'Connor has identified these elements as parts of a second enclosure of the same type. Since it is unlikely that two large temple enclosures would be built so close together, and since Horus is not later paired with another deity at this site, it seems more plausible to interpret both of these Hierakonpolis enclosures as the funerary enclosures of early kings. The relative position of the two enclosures and their relationship to the Nile would not be unlike that of the Abydos enclosures. Since not all of the kings buried on the Umm el-Qab at Abydos were represented on the plain, perhaps some of them had funerary enclosures that served as their cult places at

Hierakonpolis. Alternatively, these enclosures could have belonged to rulers centered at Hierakonpolis, as precursors, or rivals, or subordinates of the Thinite kings. The later character of the western enclosure as a cult place of Horus might derive from the assimilation of its royal owner and that god, just as the tomb of Djer was in the Eighteenth Dynasty thought to be the tomb of Osiris.²¹ If so, it is hardly likely to have represented the standard temple plan.

Whatever the importance of the early shrine of Satet at Elephantine, it was unarguably a divine cult place of the Archaic Period, since the principal temples of later periods were built directly above it; and the Medamoud structure must also have been a temple for the same reason. These shrines resemble the small shrines of the Djoser complex in their openness. Iconographic evidence suggests that barriers at the temple entrance were largely symbolic: only a small picket gate was shown in front of archaic temples in hieroglyphic signs, presumably the same that is replicated in stone in the shrines surrounding the jubilee court in the Djoser complex.²²

Religious rituals are notoriously conservative, and one would want far more evidence than exists to postulate a major change in them; consequently the buildings in which they were performed probably had the same access patterns in earlier periods as they did later. For example, in later periods, gods were frequently carried forth to take part in public ceremonies, and their passage through their temples was likened to the passage of the sun across the sky. If such ceremonies took place in the earlier periods, there would have been both practical and symbolic reasons for temples of the early period to have open plans.²³

¹⁸ D. O'Connor, "The Status of Early Egyptian Temples: an Alternate Theory," in: *The Followers of Horus: Studies Dedicated to Michael Allen Hoffman, 1944–1990*, Renée Friedman and Barbara Adams, eds. (Oxford, 1992), 83–98.

¹⁹ O'Connor's interpretation does not, however, explain the small shrine at the north east corner of the great court in the Djoser pyramid complex. It is nearly identical to the two Abydos chapels in both plan and orientation, but is unlikely to be a ka-chapel, since it is already located in a mortuary monument.

²⁰ David O'Connor, "New Funerary Enclosures (*Tal-bezirke*) of the Early Dynastic Period at Abydos," *JARCE* 26 (1989), 51–86.

²¹ W. M. F. Petrie, *The Royal Tombs of the Earliest Dynasties II* (London, 1902), p. 8.

²² C. Firth and J. E. Quibell, *The Step Pyramid* (Cairo, 1935), pl. 62 bottom. Detailed examples of the hieroglyphic signs occur on two of the reliefs decorating the subterranean chambers in the same complex (*ibid.*, pls. 17 and 40).

²³ Carrying-chair shrines seem to have occurred from the very earliest period. See, for example B. Kemp, *Ancient Egypt: Anatomy of a Civilization*, 93, fig. 33. Other gods may have traveled by sledge. Processions of divine standards are ubiquitous in the iconography of the late predynastic and Archaic periods.

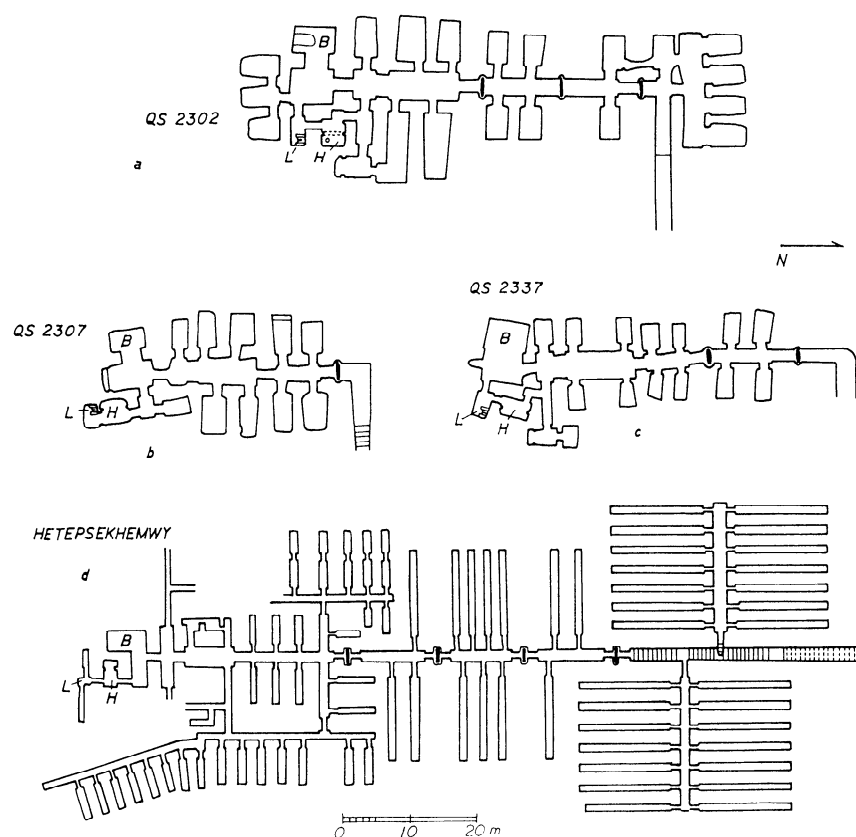


Fig. 4. Second and Third Dynasty tomb substructures with domestic features: B is the burial chamber/bedroom; H is a room for use and storage of water jars; and L represents a room with a latrine. These labels are hypothetical in the Hetepsekhemwy substructure, based on the similarity of the shapes and configurations of rooms to those of the private tombs. (a-c) Private tombs at Saqqara (after Quibell, *Archaic Tombs*, pl. 30, no scale given); (d) royal substructure of Hetepsekhemwy at Saqqara (after Lauer, *Pyramide à degrés* 1, p. 5).

Private Tombs

Both before and after the beginning of the Fourth Dynasty, the best attested type of mortuary architecture is the private tomb. The large private tombs of the Second and Third Dynasties at Saqqara and elsewhere were viewed literally as houses of the dead, and their substructures sometimes contained quintessentially domestic features (see fig. 4a-c). These substructures were normally entered by a stairway from the north or east, leading to a corridor that ran south under the long axis of the overlying mastaba, periodically blocked by portcullis stones. The corridor usually ended in a large room, to the west of which was the burial chamber, where in some tombs a raised burial plat-

form mimicked the bed platform found in bedrooms of private houses. (The rooms with bed platforms at Kahun and the rooms assumed to be private sleeping quarters in the Khentkawes houses were also to the west.) To the east of the end room was a more complex group of rooms, among them usually one containing a model latrine and another, north of it, containing an emplacement for water jars. This latter room often had a separate second entrance from a vestibule north of the end room, perhaps a "service passage," like those seen in later private houses. These rooms probably also duplicated the living quarters of the tomb owner.

Both along the axial approach to the inner suite of rooms and in the body of the overlying superstructure, these tombs contained storage

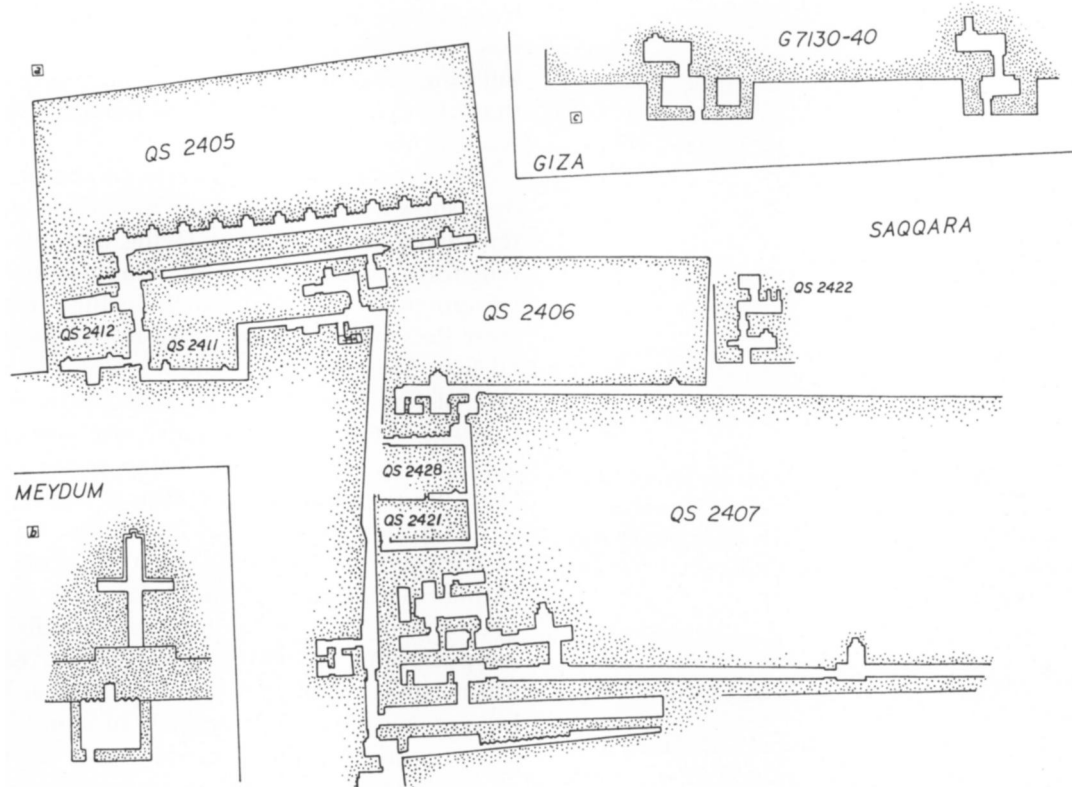


Fig. 5. Private tomb chapels: (a) Second and Third Dynasty mastabas at Saqqara, after Quibell, *Archaic Tombs*, pl. 2; (b) Fourth Dynasty chapel of Nefermaat at Meidum, after Petrie, *Medum*, pl. 7; and (c) the Fourth Dynasty chapel of Khufukhaf I (after Simpson, *The Mastabas of Kawab, Khafkhufu I and II*, fig. 19).

areas. First Dynasty tombs at Saqqara also stored grave goods both above and below ground, and the tradition seems to have continued into the Third Dynasty.²⁴

The rectangular mastaba massif of the Saqqara superstructures also continued the older tradition. It was oriented with its long axis running north to south, and it was usually provided with a niched façade or isolated niches on its eastern face. The cult focus, either one of these

niches or a recessed cruciform chapel, was cut into the body of the mastaba, and seems initially to have been open to a direct approach. In fact, however, these chapels were typically approached by extremely complex paths created by walls and rooms outside the body of the mastaba (see fig. 5a). The approach often ran along the façade and then twisted around earlier structures and the mastaba's own rooms and serdabs.²⁵ The path could branch several times before reaching the cult place, so that a stranger approaching it might easily be lost. The large tombs that now lack these complex exterior approaches tend to be in areas where the secondary shafts are thickest,²⁶ so it is likely

²⁴ W. B. Emery, *Archaic Egypt* (Harmondsworth, 1961), 158, notes that these internal features in the body of the mastaba "had not quite died out" in some "big tombs of the Second Dynasty"; however, a tomb of the Third Dynasty, QS 2305, contained both large storage tanks in its superstructure and sealings of Djoser. (J. E. Quibell, *Archaic Tombs, 1913–1914*, Excavations at Saqqara 6 [Cairo, 1923], pl. 2.) The datings of many of these tombs are based on Second Dynasty royal names occurring in them; but many of these kings' names also occur in the substructure of the Third Dynasty Step Pyramid.

²⁵ The excavator described these chapels in general as "accessible only along narrow, zigzag passages" (Quibell, *Archaic Tombs*, p. vi).

²⁶ See Quibell's plan, *ibid.*, pls. 1 and 2.

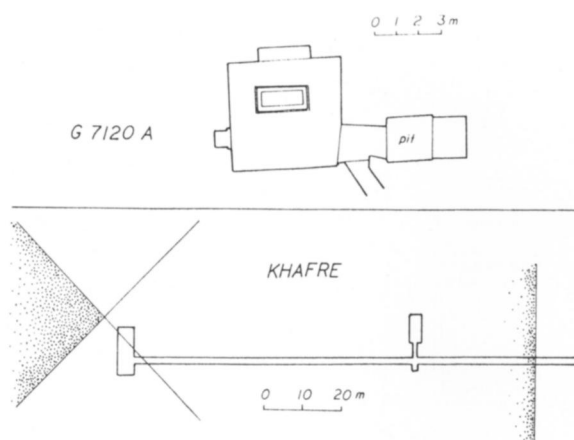


Fig. 6. Fourth Dynasty substructures: (a) the private shaft of Kawab at Giza (after Simpson, *The Mastabas of Kawab, Khafkhufu I and II*, fig. 7; (b) the substructure of the pyramid of Khafre at Giza (after Edwards, *Pyramids of Egypt*, p. 132).

that such complex approaches were more common than their survival indicates.

The decoration of the chapels of Third Dynasty tombs was normally limited to the stela with the table scene and other representations of the deceased. Women and men apparently had their own cult places. If the tomb of Hesy-Re was typical,²⁷ chapels that were more extensively decorated added representations of food and equipment, doubtless very like the supplies that filled the numerous storerooms, and geometrical motifs on the niched façade. Servants and scenes of daily life were represented only in the outer rooms.²⁸

Already in the late Third Dynasty, several changes began to take place in private tombs. In the substructure, the storerooms and portcullis stones disappeared, and the suite of rooms at the end of the corridor was replaced by a single room with no domestic features (see fig. 6a). By the Fourth Dynasty, the superstructures of private tombs had also become considerably simpler. Although they retained the rectangular shape, north-south orientation, and often the cruciform chapel, niched façades became ex-

tremely rare and the approach to the cult place was either direct or through a simple exterior building. The plans were uniformly more open than those in the larger Third Dynasty tombs²⁹ (see fig. 5b-c).

The Fourth Dynasty private tombs at Meydum show a marked increase in decoration, often carved on a limestone facing that lined the cruciform chapels. Here, the commodities and equipment recorded in such loving detail by Hesy-Re's artists were reduced to compartmental lists. Most notable, however, was the inclusion of family members in tomb decoration.³⁰ Couples often shared tombs, and sometimes appeared together in the table scene of the false doors, while their children were shown flanking the central niche. Husbands and wives of the period could also be represented together in statuary on the same scale.³¹ The quantity of wall decoration was sharply (and temporarily) curtailed in the reign of Khufu, where it was replaced by finely painted slab stelae and mastabas built entirely of stone,³² but the occasional occurrence of family members along with the male tomb owner continued, especially as the decoration began to increase in quantity again.

There is very little evidence of burial equipment from either the Fourth Dynasty or the period preceding, but it is very likely that burials during the Fourth Dynasty were considerably poorer than they had been previously. The substructures without storerooms provided space for only a limited amount of grave goods, and the disappearance of portcullis stones suggests that there was little to steal. Support for

²⁹ At Meydum, the original cruciform chapels seem to have been replaced by an even simpler form, a simple offering court with a single central niche. (Petrie, *Medum* [London, 1892], pl. 7).

³⁰ Petrie, *Medum*, pls. 9ff. Interestingly, the women, who are shown in positions where both wives and mothers frequently appear later, are not specifically called *hmt.f*, "his wife." However, it is most likely that they were wives, since none have queenly titles and the men are all king's sons.

³¹ Mohamed Saleh and Hourig Sourouzian, *Official Catalogue of the Egyptian Museum, Cairo* (Mainz, 1987), entry 27 and bibliography therein.

³² W. S. Smith, *The Art and Architecture of Ancient Egypt*, 2nd ed., revised by W. K. Simpson (Harmondsworth, 1981), 104.

²⁷ J. E. Quibell, *The Tomb of Hesy, 1911-1912*, Excavations at Saqqara 5, (Cairo, 1913).

²⁸ Hesy-Re, for example, had scenes in his outer corridor of men leading cattle, and a crocodile in a pool. (*Ibid.*, 10.)

this suggestion can be found in the burial of Hetepheres I. Although she was probably the most important person in the country after her son Khufu himself, her tomb contained only a bed and its canopy, its curtains in an inlaid box, two chairs, a carrying chair, ceramic vessels, and several boxes holding a collection of jewelry and other equipment.³³ Aside from her body, it is unlikely that this burial chamber, now thought to have been her original place of interment,³⁴ could have held much more. Such equipment is meager indeed, compared with the food, clothing, furniture, and other supplies that must have filled the extensive storerooms of far less important people during the first three dynasties.

In general, then, although the private tomb of the Fourth Dynasty continued the traditional external shape and orientation of the preceding period, it can be said to have been poorer in contents, though richer in its building materials and its decoration. Family members began to be shown in decoration, the wife depicted on the same scale as her husband; and the depictions of domestic furniture were greatly reduced in importance. Both the mastaba superstructure and its cult place became simpler in plan and more directly approached, and the burial chamber no longer replicated the tomb owner's house on earth.

Royal Mortuary Complexes

Unlike the royal tombs of the First Dynasty at Abydos,³⁵ the royal mortuary complexes of the

Second and Third Dynasties are not very well attested. Of Second Dynasty royal tombs, we have only the Upper Egyptian "forts" at Hierakonpolis³⁶ and Abydos,³⁷ the tombs of Peribsen and Khasekhemwy at the Umm el-Qab at the latter site,³⁸ and two impressive underground substructures at Saqqara,³⁹ the superstructures of which have been lost.⁴⁰ From the Third Dynasty, we have the complexes of Djoser and

Royal Tombs of the First Dynasty," *JEA* 52 [1966], 13–22; and idem, "The Egyptian 1st Dynasty royal cemetery," *Antiquity* 41 [1967], 22–32), the Abydos complexes may have been far larger and more elaborate than their Saqqara counterparts. The tombs at Saqqara thus probably belonged to the officials whose sealings and stelae were found in them. The private nature of the Saqqara tombs is further confirmed in the analysis of cemetery organization below.

³⁶ W. Kaiser, "Einige Bemerkungen zur ägyptischen Frühzeit III: Die Reichseinigung," *ZÄS* 91 (1964), 104 n. 4.

³⁷ W. M. F. Petrie, *The Tombs of the Courtiers and Oxyrhynchus* (London, 1925), and, most recently, O'Connor, *JARCE* 26 (1989), 51–86.

³⁸ Petrie, *Royal Tombs* II, 11–14, pls. 61 and 63.

³⁹ The westernmost substructure is generally attributed to Hetepsekhemwy, although it also contained sealings of his successor Ra-neb. A plan is given in Lauer, *Pyramide à degrés* I, 4, although this plan differs somewhat from the detailed verbal account given by the excavator, A. Barsanti, in "Rapports sur les déblaiements opérés autour de la pyramide d'Ounas," *ASAE* 2 (1901), 250–53, and in "Fouilles autour de la pyramide d'Ounas 1901–2," *ASAE* 3 (1902), 182–84. The second substructure opens just south of the southwest corner of the mastaba of Nebkaurhor and contained Archaic Period vessels and sealings of Ninetjer in addition to many late period burials. It was mentioned briefly in S. Hassan, "Excavations at Saqqara, 1937–1938," *ASAE* 38 (1938), 521 and H. Chevrier, "Les Fouilles," *CdE* 13 (1938), 283 (iv). Though it is frequently described as similar to Hetepsekhemwy's, the plan of the northern part of this substructure that has been published (P. Munro, "Der Unas-Friedhof Nord-West 4./5. Vorbericht über die Arbeiten Hannover/Berlin in Saqqara," *GM* 63 [1983], 109) differs substantially.

⁴⁰ R. Stadelmann, "Die Oberbauten der Königsgräber der 2. Dynastie in Sakkara," *Mélanges Gamal eddin Mokhtar*, BdE 97/2 (Cairo, 1985), 295–307, has suggested that the long storeroom structures along the western edge of the Djoser complex represent a third Second Dynasty tomb, and restores the other superstructures accordingly. However, the rooms at the southern end do not resemble the "bedroom-lavatory-bathroom" complex at the southern end of Hetepsekhemwy's substructure. W. B. Emery, *Archaic Egypt*, 144–45, suggested that the internal stepped structure found in a Saqqara mastaba from the reign of Anedjib mimicked contemporary royal superstructures at Abydos, which ultimately were the source of the Step Pyramid. Iconographic and textual evidence from Abydos seem to support

³³ Ibid., 87–95.

³⁴ Mark Lehner, *The pyramid tomb of Queen Hetepheres I and the satellite pyramid of Khufu* (Mainz, 1985), 35–44.

³⁵ The older view that the tombs at the Umm el-Qab were cenotaphs and that the larger First Dynasty tombs at Saqqara were the kings' actual burial places is unlikely. The only real argument for identifying the tombs at Saqqara as royal was that they were larger than the burials at the Umm el-Qab. This argument ignores the value of location: a small tomb on sacred ground can be more desirable than a larger tomb elsewhere. (A possible example of this phenomenon from a later period is the comparative sizes of the tombs of the Votaresses of Amon in the Medinet Habu enclosure, and the tombs of their stewards in the Asasif.) Moreover, according to B. Kemp's convincing analysis of the enclosures on the plain at Abydos (B. Kemp, "Abydos and the

Sekhemkhet at Saqqara, as well as several unexcavated complexes usually believed to date to their successors.⁴¹ The unfinished "Layer Pyramid" at Zawiyet al-Aryan probably also dates to the end of this dynasty, as does, perhaps, the stepped pyramid underlying the pyramid of Meydum.⁴²

The earliest of these structures is remarkably similar in spatial organization, though not in size, to private tombs. The western of the two Saqqara substructures, which is generally attributed to king Hetepsekhemwy (fig. 4d), was entered from the north through a long corridor that was flanked on either side by groups of capacious comb-like storerooms. The rooms at the south end of the corridor were complex and irregular in plan. These innermost rooms included a large room on the west, like the burial chambers in private tombs. East of the main axis was a more complex group of rooms, similar to those in private tombs that contain a latrine and areas for water storage. No bed platform or latrine slab appears in the published plan of the tomb; however, the plan may have been made without completely clearing the floor. Whether or not these features were included, the layout of the innermost chambers

this hypothesis (see Ann Macy Roth, *Egyptian Phyles in the Old Kingdom: the Evolution of a System of Social Organization*, SAOC 48 [Chicago, 1991], 167–68), in which case the superstructures of these Second Dynasty tombs, and all royal superstructures until that of Snefru, can reasonably be assumed to have been stepped.

⁴¹ See, for example, the photographs in Geoffrey T. Martin, *The Hidden Tombs of Memphis: New Discoveries from the Time of Tutankhamun and Ramesses the Great* (London, 1991), 22 (fig. 6), and in Jean Capart, *Memphis, à l'ombre des pyramides* (Bruxelles, 1930), p. iv. These structures are assumed to be of Third Dynasty date, but since we know nothing about the Second Dynasty superstructures at Saqqara, some may date to that period, as Stadelmann has suggested ("Die Oberbauten der Königsgräber," 304–7). The anonymous enclosures west of Djoser's, however, are probably later. Compare, for example the tombs on the Umm el-Qab at Abydos, and the funerary enclosures on the plain north of the same city, as well as the tombs of the first three dynasties in the northern part of the Saqqara cemetery.

⁴² The Third Dynasty sites are well covered in a number of general books: Edwards, *The Pyramids of Egypt*, 34–69; R. Stadelmann, *Die ägyptischen Pyramiden*, 31–79; idem, *Die Grossen Pyramiden von Giza* (Graz, Austria, 1991), 54–71. (Stadelmann attributes the unexcavated complexes to the Second Dynasty, however.)

clearly suggests that they, like the private tombs of the same dynasty, represented in microcosm the private apartments of the tomb's owner.

The substructures of the late Second Dynasty tombs at Abydos attributed to Peribsen and Khasekhemwy also consisted predominantly of storerooms. Here, however, the burial chamber (with no domestic characteristics) was at the center, surrounded by storerooms, presumably following the pattern of the nearby First Dynasty tombs. This pattern of surrounding storerooms continued in the substructures of the Third Dynasty. Djoser's pyramid had four groups of storerooms, each radiating out from one side of his central burial chamber, while the pyramid of Sekhemkhet and the Layer Pyramid at Zawiyet al-Aryan both had corridors of storerooms that branched off the main axis before the burial chamber and encircled the burial chamber on three sides.⁴³

Like the Second Dynasty substructures, the superstructure of the Djoser complex was probably reminiscent of the palace complex in which the king lived during his life on earth. The enclosure, like most other early tombs, was oriented with its long axis running north-south. The complex was extremely difficult to enter. There was no valley structure or causeway, so a visitor must have found his own way to the enclosure from the edge of the cultivation. Only one of the many model doorways in the niched enclosure wall actually gave access to the interior, and although the entrance colonnade led into the large courtyard south of the pyramid, only someone familiar with the plan would have known how to reach the structure on the north side of the pyramid that is generally believed to be Djoser's mortuary temple.

This difficulty of access to the complex itself was also the result of a long tradition. The First and Second Dynasty monuments at Abydos, both the tombs on the Umm el-Qab and the enclosures nearer the city (see fig. 7a), were often

⁴³ Corridors that branch and surround the innermost group of rooms may be attested as early as the Saqqara substructure of Ninetjer. Chevrier's account of its discovery in *CdE* 13 (1938), 283, describes it as extending east, west, and south of its entrance; and the partial plan published by Munro, *GM* 63 (1983), 109, also suggests that the corridor branched to the east and west just south of the entrance.

sited directly behind one another, making the western monuments less visible and less inviting. This is also true of the Second and Third Dynasty complexes and enclosures at Saqqara (see fig. 7b). Clearly none of these complexes were meant to attract casual tourists, and access was probably restricted to people who knew the layout well.

This pattern of indirect access was even more noticeable in the plans of individual buildings in the Djoser complex (fig. 8a-c). The mortuary temple had long hallways that circled the building and doubled back on themselves before leading to the principal rooms; and, on the west, it had service passages located to bypass the two butchering areas. Its complexity and tortuous pathways equal those of the Kahun mansions. Also similar to domestic plans in closedness were Temple T and the peculiar complex of twisting passages southeast of the jubilee court. (The shrines in the jubilee court, probably modeled on traditional shrines, depart from these patterns, as does the triple shrine that may imitate the shape of the early temple at Abydos.) Interestingly, even when the plans of their rooms were extremely closed, the stone doors of these buildings were all rendered eternally open, perhaps reflecting a tension between the closed plan of the palace that served as a model for the complex, and a religious requirement that the mortuary monument be accessible to the king's spirit.

That the closedness of the Djoser complex was not an isolated example is clear from the "token palaces" in the southeast corners of the Peribsen and Khasekhemwy enclosures at Abydos⁴⁴ (see fig. 8d-e). Although the Khasekhemwy building was considerably more complex than Peribsen's, both led the visitor from the south to the north end of the building and then to the south again, a typical domestic arrangement. A tradition of royal mortuary buildings with domestic characteristics thus lay behind the Djoser complex.

The change in the royal mortuary complex at the beginning of the Fourth Dynasty was far more radical than the change in private tombs. The element that changed the least was the

substructure, which remained similar to those of the Third Dynasty, except that, beginning with the Meydum pyramid, the corridors of storerooms vanished (see fig. 6b). Usually, a single passage descended from the north face of the pyramid, and then ascended to the burial chamber. The burial chambers of the pyramid at Meydum and the Bent Pyramid at Dahshur were oriented with their long axis north-south, but beginning with the Northern Pyramid at Dahshur, the burial chamber was usually oriented with its long axis east to west. By the reign of Khufu, the position of the coffin had been established at the west end of the chamber, just as it had been in the "bed chambers" of the Second Dynasty tombs. This might have been a compromise between the traditional north-south axis of the substructure (and of all earlier superstructures) and the new east-west axis of the Fourth Dynasty superstructure. The second entrance to the Bent Pyramid of Dahshur from the west may have been an earlier attempt to solve this problem.

As in private tombs, the disappearance of storerooms must necessarily have meant a decrease in the quantity of goods buried with the king. The earlier storerooms were clearly not empty, and their contents would not have fit into the small chambers provided for the later, much larger, monuments. Interestingly, internal storerooms began to appear again just as the pyramids began to decrease in size. Menkaure's pyramid had a side chamber giving access to six storerooms, Shepseskaf's tomb had a corridor with five storerooms, and the Fifth Dynasty pyramids routinely had three.⁴⁵

The superstructure of the Fourth Dynasty royal tomb changed far more radically than its substructure. The rectangular enclosure was abandoned in favor of a linear series of diverse structures (valley temple, causeway, mortuary temple, pyramid) that ran from east to west, beginning at the edge of the cultivation. The difficulty of access that characterized the Djoser

⁴⁴ E. R. Ayrton, C. T. Currelly, and A. E. P. Weigall, *Abydos III* (London, 1904), pl. 6 and 7.

⁴⁵ Both of the Dahshur pyramids and that of Khufu have secondary rooms where grave goods might have been stored, but all of these are on the main axis, and do not seem to fit the Egyptian conception of "magazines." Khafre's pyramid has a large room at the end of a passage at right angles to the principal passage, but no storerooms open off of it.

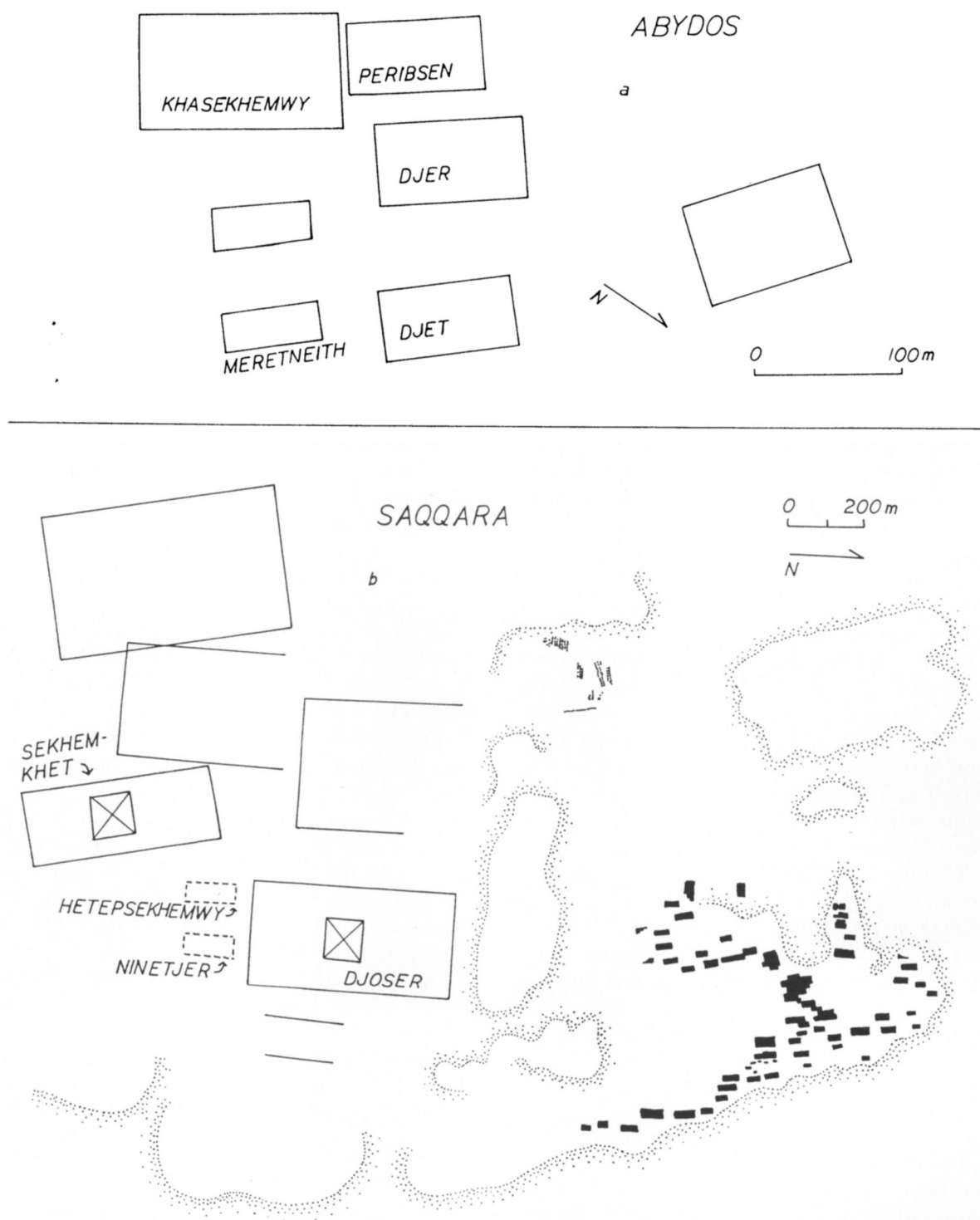


Fig. 7. Layouts of royal enclosures at (a) Abydos (after Kemp, *JEA* 52 (1966), p. 14) and (b) royal enclosures and private tombs (black) at Saqqara. (After B. G. Trigger in: Trigger et al., *Ancient Egypt: A Social History* (Cambridge, 1983), p. 14. Additional royal enclosures have been added, based on Stadelmann, *Die ägyptischen Pyramiden*, p. 30; and the placement of individual tombs in the subsidiary cemeteries to the west are based on Kaiser, *MDAIK* 41 [1985], p. 49.)

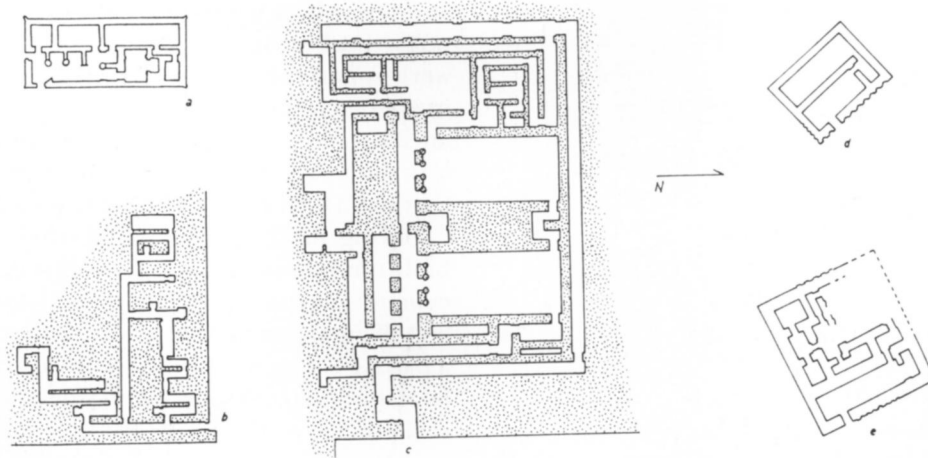


Fig. 8. Three buildings in the Djoser complex: (a) Temple T, (b) a building at the southeast corner of the jubilee court, and (c) the mortuary temple (after Firth and Quibell, *The Step Pyramid*, pls. 67, 59 and 27, respectively. Earlier buildings from the Abydos enclosures of (d) Peribsen and (e) Khasekhemwy (after Kaiser, *MDAIK* 25 (1969), p. 9). (Not drawn to the same scale.)

complex was entirely eliminated, both in the complex as a whole and its individual elements. The new complexes were exceedingly axial and symmetrical in plan (see fig. 9). An S-twist or baffle wall sometimes obscured access to the sanctuary itself, but the approach was far simpler, and without confusing side passages or reversals in direction. In their degree of openness, the royal mortuary temples resembled closely the temples of the gods.

Even the size of the Fourth Dynasty pyramids enhanced their accessibility. The earliest royal monuments on the Umm el-Qab were probably topped with low (2.5 m maximum) mounds⁴⁶ that would have been almost completely invisible from a distance. There was a steady growth in visibility from that time through the reign of Djoser, when the burial mound-Step Pyramid extended above the high enclosure wall. By any measure, the early Fourth Dynasty pyramids were larger; towering above lower enclosure walls, they could be seen and understood by all levels of Egyptian society. The isolation and plan of the entire Fourth Dynasty royal complex made its spatial organization obvious from the valley, and in theory, strangers could easily have

found their way to the sanctuary. In practice, however, their way might have been blocked, since the Fourth Dynasty complexes apparently had working doors, unlike the perpetually open stone doors at the Djoser complex. The increased accessibility was thus probably more ideological and symbolic than practical.

Another clear change in royal superstructures was the increase in their decoration. Where decoration in the Step Pyramid Complex had been limited to the reproduction of plant motifs and six panels depicting the king placed in the inaccessible substructure, extensive figurative relief decoration began to appear on the walls of the superstructure associated with the Bent Pyramid, and there are indications that structures of Khufu and Khafre also bore wall decoration.⁴⁷ While such decoration did not itself increase the complex's accessibility, it demonstrates again the shifting of focus from the substructure to the superstructure of the tomb.

However different in effect, the changes that occurred in royal tombs in the early Fourth Dynasty move in the same general direction as the changes that took place in contemporary private tombs. Both private and royal tombs lost their storerooms, their closedness, and their

⁴⁶ G. Dreyer, "Zur Rekonstruktion der Oberbauten der Königsgräber der 1. Dynastie in Abydos," *MDAIK* 47 (1991), 102.

⁴⁷ H. Goedicke, *Re-Used Blocks from the Pyramid of Amenemhet I at Lisht* (New York, 1971), nos. 1–7.

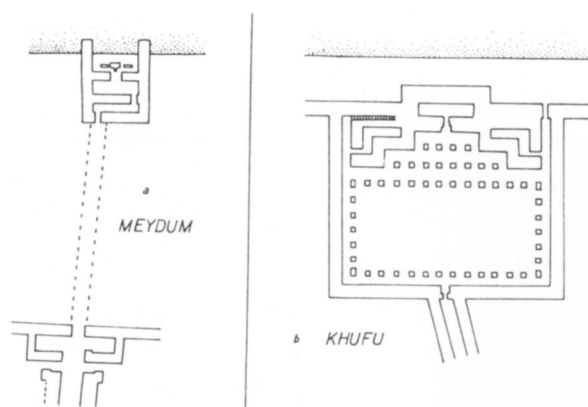


Fig. 9. Royal mortuary temples of the Fourth Dynasty: (a) at the Mejdum pyramid and (b) at the pyramid of Khufu (after Edwards, *Pyramids of Egypt*, pp. 75 and 112 respectively). (Not drawn to the same scale.)

domestic features, and their cult places began to resemble the more open plans of temples and receive decoration. But while earlier royal tombs were simply elaborate versions of their private counterparts, the tombs of Fourth Dynasty kings changed in ways that sharply distinguished them from those of their subjects. The pyramids made powerful symbolic statements, as did the valley temples and causeways that put these monuments in active and direct contact with the populations of the living. In this period there is no doubt which tombs belong to kings and which to commoners.

Cemetery Organization

In addition to changes in the size, shape, contents, and orientation of royal tombs, the latter part of the Third Dynasty also marked a change in their location. The Umm el-Qab, in the desert west of Abydos, was a traditional royal cemetery even before the First Dynasty kings were buried there. Except for the surrounding subsidiary burials, it was exclusively royal; and whether or not these subsidiary burials were sacrificial, the people buried in them seem to have been relegated to the status of burial equipment, providing labor and companionship for the king just as servant models did in later periods. The last few kings of the Second Dynasty also built tombs at the Umm el-Qab,

and possibly at the even older site of Hierakonpolis. Earlier Second Dynasty kings, however, were apparently buried at Saqqara, perhaps because of the presence of some favored deity or an illustrious ancestor in the non-royal cemetery there.⁴⁸ It was to this newer royal cemetery that the Third Dynasty kings returned.

During most of this period, then, the kings built tombs away from their subjects, in special cemeteries where their ancestors had been buried. Even at Saqqara, which had originally been a private cemetery, a sharp dividing line marked by natural barriers was maintained between the royal sector to the south and the private sector to the north (see fig. 7b). Despite the lack of space caused by the giant enclosures, later kings preferred to build in less desirable western areas, or to raze the superstructures of their predecessors,⁴⁹ rather than build in the non-royal cemetery to the north. Private individuals were equally restricted in siting their tombs. Increasingly, they expanded towards the west and towards Abu Sir to the north, but no tombs were built in the southern, exclusively royal, sector until the Fifth Dynasty.⁵⁰ (A similar avoidance

⁴⁸ W. Kaiser has suggested that the concentrations of lines of subsidiary graves north of the later entrance to the Serapeum are connected with some sort of First Dynasty royal cult there ("Ein Kultbezirk des Königs Den in Sakkara, *MDAIK* 41 [1985], 47–60). This is possible, or the subsidiary graves might be related to early burials of the Apis bulls, who were buried in this area in later periods.

⁴⁹ Whatever their form, the superstructures of Hetepsekhemwy and Ninetjer seem likely to have been casualties of Djoser's construction work to the north, since any but the most minimal superstructure covering these substructures would have interfered with the construction of his massive enclosure wall. Djoser apparently had special access to the possessions of these earlier kings, since seventeen vessels found in his storerooms bear the name of Hetepsekhemwy and thirteen that of Ninetjer (P. Lacau and J.-P. Lauer, *La Pyramide à degrés IV: Inscriptions gravées sur les vases* [Cairo, 1959–1961], 29–38). This would be explained by the assumption that Djoser leveled their tomb superstructures and appropriated the contents. The name of Djer also occurs on thirteen vessels, usually associated with the institution *Smr-ntrw*, which perhaps also fell victim to Djoser's workmen. No other king is mentioned on more than eight vessels, and Djoser himself is mentioned on only one.

⁵⁰ This division of the Saqqara necropolis would hardly have been so strictly maintained had the First Dynasty tombs in the northern sector been the burial places of the First Dynasty kings.

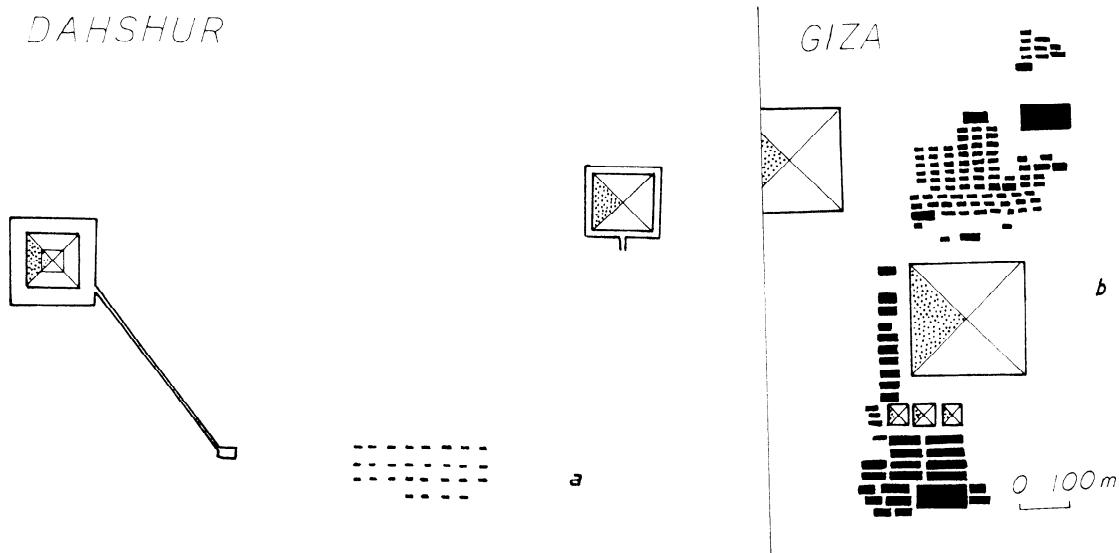


Fig. 10. The royal pyramid cemeteries of Dahshur (after Stadelmann, *Die ägyptischen Pyramiden*, p. 88; no scale given) and Giza (after O'Connor, *World Archaeology* 6 (1974), p. 21. (Not drawn to the same scale.)

of the area of the royal enclosures at Abydos seems to have lasted until the First Intermediate Period.)⁵¹

The end of the Third Dynasty, however, brought a new pattern. In the latter part of this and most of the following dynasty, each new king built his tomb at a new site, often at a great distance from the tomb of his predecessor. (The many small step pyramids found throughout Egypt, dating technologically to the late Third Dynasty or Snefru's reign, may be related to this policy.) This pattern was broken in only a few reigns, and it was continued intermittently into the Fifth Dynasty by the kings who initiated new cemeteries at South Saqqara and Abu Sir.

These repeated breaks with ancestral tradition can also be seen in the private cemeteries of the Fourth Dynasty. The high officials and royal family members at Memphis had been, if anything, more conservative than their royal overlords in locating their tombs. First Dynasty officials built their tombs in irregular rows along the escarpment at Saqqara north of the central wadi. Their successors of the Second and Third Dynasties built tombs be-

hind them to the west, moving ever westward as the prime areas on the escarpment itself became crowded. There was also an apparent tendency to move northward, away from the royal tombs that had begun to be built to the south, but this may be the result of uneven preservation and excavation.

In the Fourth Dynasty, high officials and members of the royal family seem to have abandoned this traditional cemetery to build their tombs in cemeteries near the royal tomb.⁵² At Meydum and Dahshur, these private "pyramid cemeteries" were located some distance from the royal tomb, at least as far as the distance between the royal and non-royal sectors at Saqqara (see fig. 10a). The distance between the royal and private tombs decreased markedly at Giza (compare fig. 10b); but the novelty lay not in the proximity to the royal tomb, but in the dependence upon it. When royal tombs

⁵¹ J. Richards, "Understanding the Mortuary Remains at Abydos," *NARCE* 142 (1988), 7–8.

⁵² This movement may have begun simultaneously with the moving of royal tombs away from Saqqara, since there were brick mastabas excavated north of the Layer Pyramid of Zawiyet el-Aryan. (Dows Dunham, *Zawiyet el-Aryan: The Cemeteries adjacent to the Layer Pyramid* [Boston, 1978], 34.) At Meydum and the Bent Pyramid, subsidiary cemeteries also were laid out to the north, perhaps mimicking the geography of Saqqara.

moved from Abydos to Saqqara and back again in the first two dynasties, the tombs of officials had remained at Saqqara without reference to the site of the royal tomb. (That both private and royal tombs at Saqqara tended to move westward was due to similar spatial constraints rather than any relationship.)

Under the new system, tomb builders were granted planned spaces in the new royal cemeteries surrounding the pyramid by the central authority, probably in proportion to some measure of their social rank and political importance. At Saqqara the private cemetery had been a homogeneous mix of tombs of officials, varying in size and jostling against one another in an effort to claim the most advantageous position. Now the private tombs were laid out in even rows, and fell into a uniform range of sizes. These tombs were not only associated with the royal tomb, but were to some extent dependent upon it, since the cemetery was clearly part of a large, planned mortuary landscape centered upon the pyramid. With their new privileged proximity to the royal tomb, paradoxically, the officials' tombs resembled nothing so much as the subsidiary graves around the First Dynasty royal tombs, tombs that had belonged to a far lower stratum of society. Unlike these earlier tombs, however, they occurred in clusters rather than rows.⁵³

The location of royal and private tombs and the relationship between them clearly reflected a major social change towards the end of the Third Dynasty. The authority of ancestors, of historical family ties, and perhaps of tribal loyalties was weakened in both the royal and private spheres, and in the private sphere it seems to have been replaced by a greater dependence upon the power of the king. The new, independent position of royal tombs suggests that these kings no longer derived their power from their relationship to earlier kings; this source of authority may have been replaced by the new relationship of the individual kings to the sun god that has been postulated on the basis of the

shape of their pyramids, and is made explicit in texts of the early Fourth Dynasty.

Conclusions

The changes described above, all of which occurred around the time of the beginning of the Fourth Dynasty, are summarized in Table 1. This collection of contrasts suggests strongly that the beginning of the Fourth Dynasty coincided with two fundamental changes, one affecting the conception of the afterlife and the other affecting the relationship between the king and his subordinates.

The new and striking contrast in the architectural form of the tombs of kings and commoners alike suggests a change in beliefs about the nature of the afterlife and the needs of the dead. Fourth Dynasty Egyptians no longer viewed the afterlife as identical to life on earth, and hence they no longer required earthly goods to take part in it. The house plans of commoners ceased to affect the plan of their tomb chambers, and the buildings necessary for the king's earthly activities were not duplicated in his mortuary complex. At the same time, the amount of grave goods buried with the deceased, which had been increasing in quantity and variety since the beginning of the predynastic period, was suddenly drastically reduced, as indicated by the reduced storage space available for such goods in both royal and private tombs.

For the earthly food, furnishings, and domestic spaces that were supplied in older tombs, Fourth Dynasty officials seem to have substituted two new requirements, the perpetual cult ceremonies performed by the living and the blessings of the king. Cult service of some kind probably existed in earlier periods, at least for kings,⁵⁴ but it may have been very different from what it was later. The architecture of both royal

⁵³ The contrast between the pattern in linear cemeteries of private tombs and the clusters of royal monuments has already been noted by O'Connor, *JARCE* 26 (1989), 59 and n. 23.

⁵⁴ Stone bowls inscribed with the name of the *Z3-h3-nb/Hr/jjtj*, presumably royal tombs, and phyles of some type of cult functionaries are known from the end of the first dynasty (Roth, *Egyptian Phyles in the Old Kingdom*, 154–69); and an early table of distribution was found at the Djoser complex that is similar to those found at the Fifth Dynasty complex of Neferefre (*ibid.*, 181–88).

Table 1: Mortuary Customs in the Third and Fourth Dynasty

Third Dynasty	Fourth Dynasty
Private Tombs	
Complex "domestic" substructures	Single chamber
Substructure entered by stairway	Most often shaft from top
Many storerooms, portcullis	No storerooms, no portcullis
Plentiful grave goods	Few grave goods
Chapel has closed plan	Open access to chapel
Mudbrick construction	Largely or entirely stone
Man and wife have separate chapels	Man and wife represented together
Wall decoration rare	Increasing wall decoration
Royal Tombs	
Stepped pyramid	True pyramid
Not prominent or accessible	Prominent, accessible appearance
Axis of enclosure north-south	Axis of complex east-west
Elaboration of private plan	Exclusively royal form
Asymmetrical "domestic" plans	Symmetrical "temple" plans
House-like substructure	Single burial chamber, antechambers
Many, many storerooms	Few, if any, storerooms
Permanently open doors (Djoser)	Real doors, could close
Decoration underground (Djoser)	Decorated cult places
Cemetery Organization	
Ancestral cemeteries of officials	Private cemeteries centered on pyramid
Kings buried together	New site for almost every reign
Private tombs independent of royal	Private tombs move with king's
Siting of tombs uncontrolled	Private tombs laid out on grid

and private tombs makes it unlikely that their builders wanted to encourage casual visits to the tomb, such as those requested by the later "calls upon the living," and it is possible that private tombs were essentially abandoned after the funeral. The absence of family members of the tomb owner from tomb decoration in the early period, and their ubiquity afterwards, is also suggestive. The tomb owner's descendants were largely responsible for the carrying out of the cult, and their representation and hence immortalization in tombs may have been an incentive for more faithful service. The transfer of resources from the cutting and equipping of numerous underground storerooms (an expensive but invisible investment) to stone-built superstructures with stone-carved decoration, which ostentatiously displayed the wealth and status of

the tomb owner, was also a change in the direction of ensuring the service of the cult. It shows a desire to attract casual visitors who might be inspired to make an offering by the implied power of the tomb owner in the spirit realm.

Another factor in Fourth Dynasty private cults was the increased importance of the king. The need for his "blessings" is suggested by the inauguration of pyramid cemeteries. This was in part a practical dependence. A tomb site near the royal pyramid offered the possibility of access to the more expensive materials and royal crafts specialists of the pyramid project, as well as the status boost of proximity to such an important monument. But the dependence suggested by the metaphor of cemetery organization was not entirely economically based. The introduction of the *hṯp-dj-nswt* formula dates to

the early Fourth Dynasty,⁵⁵ and, however it is to be interpreted, it explicitly states the theoretical dependence of officials on the king's bounty for the necessities of the afterlife. The use of the generic *nswt* in the formula, rather than the name of a specific royal benefactor, suggests that the formula called for support from future, living kings, not just the tomb owner's contemporaries, just as the cult required a perpetual service of mortuary priests.

Until the end of the Third Dynasty, then, the elite depended upon the past to ensure a continued life after death, a dependence suggested architecturally by the duplication of their earthly houses, by the burial of goods acquired during life, and by the location of their tombs in ancestral cemeteries. Beginning in the Fourth Dynasty, tomb owners looked to the living and to posterity for their security, depending on the continued favor of kings and the loyalty of their surviving family and dependents. The tombs' increased accessibility and independence from older cemeteries indicates visibly a shifting of focus from ancestors to future generations.

If the king's authority ensured the afterlife of his loyal subjects, who ensured the afterlife of the king? The east-west axis of the new mortuary complex, the pyramidal shape of the burial mound, and the importance of the sun god Re in royal names and titles later in the dynasty are evidence for an increased connection with the solar cult. The identification of the dead king with Re, who was reborn daily at sunrise, was a powerful metaphorical insurance of the survival of his soul.⁵⁶ An afterlife lived with Re in his solar bark differed markedly, however, from the repetition of earthly glories that Djoser anticipated. Supplies for an earthly existence were unnecessary; instead, perpetual offerings and cultic service like those received by gods were required. The architecture of the new mortuary

complexes, as has been noted above, has many elements in common with temples of divinities, perhaps because both were designed to ease the transportation of large quantities of food offerings. The impressive size of this architecture also inspired the fear and loyalty that helped ensure continual service. In this need for cult service, the king, like his subjects, depended upon the kindness of posterity.

The king's dependence upon the elite did not begin with his death. The task of building the immense pyramid that was a necessary part of the new system undoubtedly required far more resources than the earlier type of royal tomb. Although the magnitude of the pyramid itself would have increased the total sum of resources available to him by increasing royal power, these gains would hardly have been sufficient alone to pay the costs of the project. The quantity of surplus production available for use in mortuary architecture (and other spheres) by the king's immediate subordinates must have been severely curtailed, and considerable political skills would have been required to convince the elite that resources from their savings in grave goods should be invested in the pyramid project. Their support was probably obtained by a tacit quid-pro-quo arrangement. Tomb builders apparently received higher quality building materials from the stone supplied for the royal project.⁵⁷ Labor for construction and access to royal crafts specialists for decorating the tombs may also have been centrally supplied. Furthermore, the proximity to the royal pyramid presumably conferred status, both during the lifetime of the officials and afterwards, enhancing their prospects of eternal life. In exchange for these benefits, the officials must have provided laborers, food, and other resources necessary to support the pyramid-building project. In this sense the spatial organization of the new pyramid cemeteries demonstrates not the dependence

⁵⁵ Winfried Barta, *Aufbau und Bedeutung der altägyptischen Opferformel* (Glückstadt, 1968), 3.

⁵⁶ One novel feature of Fourth Dynasty pyramid substructures between Snefru and Khafre that has not to my knowledge been noted previously is that a pyramid's entrance corridors first descend, then rise to reach the burial chamber. This pattern might be related to the setting and rising of the sun, although the axis is north-south rather than west-east.

⁵⁷ N. Cherpion, *Mastabas et Hypogées d'ancien empire: Le problème de la datation*, *Connaissance de l'Égypte Ancienne* (Bruxelles, 1989), 79, has argued that no Tura limestone was used in private tombs at Giza after the Fourth Dynasty, in other words, after the completion of the royal pyramids for which Tura limestone was brought.

of the officials on the king, but the dependence of the king on his officials.

Still other concessions to these essential supporters can be seen in textual sources. It is at this period that the king's personal name began to be used extensively on monuments, suggesting a greater degree of access to him as an individual. This name also began to be incorporated in the names of his officials and cult personnel,⁵⁸ a concession probably intended to forge a closer relationship with the king and make sacrifices on his behalf more acceptable. Also built on the name of the king were the names of royal mortuary estates, lands set aside by the king as perpetual endowments to support his cult. Here again, the use of the powerful royal name may have helped ensure the loyalty of agricultural workers. Some revenues from these funerary endowments were clearly diverted to supply the cults of loyal supporters, who took the opportunity to depict this prestigious source of supply on their chapel walls.⁵⁹ (The king thus essentially garnished future agricultural production to pay for his pyramid, an early example of deficit spending.)

Such concessions suggest that Snefru's reign marked a departure from the conception of kingship in which royal power derived solely from fear of the king. The high walls of the early royal tombs represent metaphorically the defensive nature of power that rested on the ability to extract resources forcibly and punish opponents. The amount of control that can be exercised with this type of power is limited. The (visually) more accessible monuments of Snefru and his successors suggest that their power rested on a more political base, appealing to the approval of at least the elite members of the population, who willingly supported the king's

authority in exchange for good government. Such a transition is supported textually by Snefru's adoption of the title *ntr nfr*, "the good god," and, even more significantly, the Horus name *Nb-M3t*, "possessor of Maat," referring to his ability to maintain an ideal world order based on justice, truth, and traditionally prescribed behavior. That the transition was at least partly conscious, and that it entailed some hyperbolic propaganda stressing the king's good-natured humanity, can be surmised from the benign, almost buffoonish role Snefru plays in later literature: his simple-minded lecherousness in the papyrus Westcar story and his hearty good fellowship and willingness to act as a humble scribe in the "Prophecies of Neferti."⁶⁰

The pyramids were thus built at the expense of the king's god-like distance from his subjects. At the same time, other strategies were adopted to reinforce his divinity. The new use of the king's personal name in the personal names of his subjects gave them a special connection with him, but also gave him the same role as gods, who were traditionally mentioned in theophoric names. The *htp-dj-nswt* formula, in which the king was normally paired with Anubis in granting boons in the afterlife, again associated the living king with a divinity and granted him divine powers.⁶¹ The use of the title "son of Re," beginning with Djedefre, established a physical connection with the most powerful deity of the period. Finally, the distinctive shape of the royal pyramid itself and its restriction to royal use distinguished the king's tomb from those of his courtiers,⁶² while its size further emphasized his divinity. The king built his personal political power by granting access

⁵⁸ H. Ranke, *Die ägyptischen Personennamen* 2 (Glückstadt, 1952), 229–32. Although Ranke notes the absence of several divine names from the Archaic period corpus, basilephoric names are simply absent from his summary of name types of the first three dynasties, and present in his Old Kingdom survey.

⁵⁹ The first attested estates occur in the reign of Snefru. Helen Jacquet-Gordon, *Les noms de domaines funéraires sous l'ancien empire égyptien*, BdÉ 34 (Cairo, 1962), 8. Some estates of earlier kings may occur, but they are of later date, and may have been organized posthumously.

⁶⁰ Posthumous references to Snefru have been collected by D. Wildung, *Die Rolle ägyptischer Könige im Bewusstsein ihrer Nachwelt: Posthume Quellen über die Könige der ersten vier Dynastien*, MÄS 17 (Berlin, 1969), 114–19.

⁶¹ This may also represent the king's adoption of a divine prerogative. The first attested offering formula, in the tomb of Rahotep at Meydum, is built on the name of Anubis; the word *nswt* is substituted for the god's name by the time of Khufu at the latest, however. (Barta, *Aufbau und Bedeutung der ägyptischen Opferformel*, 3–4.)

⁶² David Larkin has suggested to me that the new differentiation in the shape and size of the royal tomb may have made the spatial differentiation less important.

to his tomb and his name, while simultaneously increasing the value of that access by the very enhancement of power that it paid for. The building of larger pyramids thus provided Snefru and his successors with symbolic currency to pay for broader power and central control.

The underlying motivation for these changes probably again relates to the shift of focus from Horus to Re, as the divinity represented by the king. The sun that embodied Re was certainly more distant than the falcon Horus from the Egyptians, and arguably from the king (since the king was equated with Horus, but was only Re's son); yet the sun clearly had a greater involvement with their everyday lives than the falcon. The sun's light and warmth contrasted implicitly with the darkness and cold of its absence; it was surely seen as a universally beneficent force, rather than simply a powerful one. The sun's power influenced views of the afterlife, but it may also have inspired a new kind of relationship between the king and his people, in which he cared for them as well as ruling them.

The appearance of husbands, wives and children together in the relief decoration and statuary of Fourth Dynasty tombs may also be connected with the cult of Re, though more subtly. In royal iconography, the king's family first appeared together (albeit at radically different scales) in Djoser's temple to Re at Heliopolis⁶³ (see fig. 11). The cult of Re at Heliopolis was a family cult, involving a genealogically-related ennead;⁶⁴ and the king's connection with Re also had a genealogical basis—he was Re's son. The growth of the importance of Re and his cult seems to have brought about a new stress on family, children, and posterity. (The



Fig. 11. A fragment from the temple of Djoser at Heliopolis, now in the Egyptian Museum, Turin. This drawing is based on a slide taken by the author.

⁶³ W. S. Smith, *A History of Egyptian Sculpture and Painting in the Old Kingdom* (Boston, 1946) 113, fig. 48 right. The names, but not the figures, of Djoser's wife and daughter also appear on 79 re-used steles and markers at his mortuary complex (Firth and Quibell, *The Step Pyramid*, 119, pls. 86–87). A collection of four statues of different sizes (*ibid.*, 114, pl. 63 bottom), of which only the feet are preserved, might suggest that they were depicted as statues in the complex; but it is equally possible that these statues represent deities.

⁶⁴ Already on one of the Djoser fragments from Heliopolis Geb, Shu and Seth seem to be represented. W. S. Smith, *The Art and Architecture of Ancient Egypt*, 2nd ed., revised by W. K. Simpson (Harmondsworth, 1981), 64.

older dynastic deities, Horus and Seth, in contrast, had no spouses or children to speak of.) A similar increase in emphasis on the wife and children of the king took place at the end of the Eighteenth Dynasty along with the rise of another solar cult.⁶⁵

⁶⁵ W[ilfried] S[eipel], "Königin," *IÄ III*, col. 465, notes that the queen began to outrank the king's mother and took on more important roles in royal iconography beginning in the reign of Amenhotep III.

The ultimate origin of the new forms adopted for royal tomb complexes in the early Fourth Dynasty, by this analysis, resembles that of earlier analyses. The changes derive from the new association between the king and the sun god, an association which, it should perhaps be noted, neither my analysis nor the traditional interpretations explain. The value of the application of spatial analysis here lies in its elucidation of the intermediate effects of this association, and their wider consequences.

This broader view of the architectural changes of the early Fourth Dynasty reveals that the new form of the royal tombs was not an isolated phenomenon, resulting from an esoteric philosophical and religious emphasis on the sun god that was limited to the king himself. Instead, the changes occurred in all levels of elite mortuary architecture, and represented the culmination of a larger, slower, and more far-reaching shift in the focus of the Egyptians, from the past to the future. This shift radically altered two funda-

mental characteristics of the Egyptians' belief system: their expectations about life after death and their relationship to their king. In both of these areas, the change represented a departure from the backward-looking views of the first three dynasties towards a forward-looking dependence on posterity, a posterity that was produced by the family relationships that the sun cult stressed. Ironically, the endowments and perpetual mortuary service that this new view required resulted in a proliferation of ancestor cults, which came to dominate Egypt's society and economy, and ultimately shackled to the past the very posterity upon which they depended. In its initial effects, however, the burst of pyramid building that the new solar ideology produced at the beginning of the Fourth Dynasty seems to have been one of many "ratchets" that propelled a basically backwards-looking culture into the future.

Philadelphia, PA