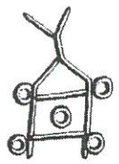

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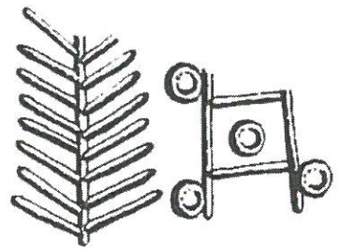

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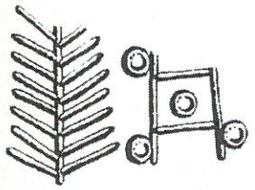
CHAPTER FIVE

Building Monuments, Creating Communities

Early Monumental Architecture at Pre-Pottery Neolithic Göbekli Tepe



Jens Notroff, Oliver Dietrich, Klaus Schmidt†

Abstract *The meaning of monumental buildings as an indicator of social complexity and the visible expression of power and authority has been a lasting topos in the field of archaeology. Now new evidence is coming from southeastern Turkey, showing that the origins of monumental architecture have to be sought as early as with the hunter-gatherer groups at the end of the last Ice Age in the Near East twelve thousand years ago. At Göbekli Tepe, monumental, monolithic T-shaped pillars were erected by mobile groups of the Early Neolithic constituting large circular enclosures and indicating a degree of coordination and cooperation among these people hitherto not suspected.*

INTRODUCTION: THE CASE OF EARLY MONUMENTALITY

The appearance and construction of monumental architecture has often been discussed as a major element in the process of evolution toward complex societies. Increasing social complexity and the emergence of elites centralizing power was thought to find its architectural expression in the form of monuments displaying prestige as well as visualizing the boundaries of territorial control. Next to their historico-cultural denotation in means as focal point of commemoration and communication, monumental structures also became of central significance in the discussion of prehistoric perception, relation, and use of landscape (e.g. Bradley 1993; Richards 1996), as well as in the development of mathematical models toward understanding patterns of human movement and the development of corporate territories (e.g., Renfrew and Level 1979). Still, an essential factor at the basis of considerations like these is the ability of prehistoric societies to generate

and motivate the labor force necessary for monumental constructions culminating in a scale and complexity sufficient to reach into the symbolic sphere. Monumental architecture has a strong symbolic connotation, serving in a communication process of collective interaction as well as in the creation of a group's identity and cohesion. A cultural landscape defined by monumental architectonic expressions therefore offers valuable clues to the social structure and degree of complexity of the societies building them. Following in the footprints of Childe's "Urban Revolution" (Childe 1950), monumental buildings have been interpreted as the result of rising elites and the concentration of social and political power, and thus were seen as expression of a complex social hierarchy within a framework of advancing social-territorial structures (see also Osborne, this volume).

With the excavation of the Pre-Pottery Neolithic site of Göbekli Tepe in southeastern Turkey, evidence for monumental architecture in a hunter-gatherer milieu was brought to light for the first time in this number and scale, suggesting a social complexity and a degree of organization hitherto unsuspected for such an early period. Rather small groups of hunter-gatherers with a high degree of mobility apparently were investing a surprising amount of time, material, and effort in the construction of large enclosures of standing monoliths, walls, and benches. The buildings they created were of a specific kind lacking any attributes of domestic architecture, but aiming instead at special activities of a communal, most likely ritual, character (Dietrich and Notroff in press; Schmidt† 2001, 2010, 2012). The finds of such monumental architecture at Göbekli Tepe, requiring a large amount of organization and coordination not expected in emerging Early Neolithic cultures so far raise a number of questions and challenge the traditional picture of monumentality as representation of political authority.

Göbekli Tepe: An Early Neolithic Sanctuary in Southeastern Turkey

Located 15 km northeast of the modern town of Şanlıurfa in southeastern Turkey, the site of Göbekli Tepe (Figure 5.1) is situated at the foothills of the Taurus Mountains, between the upper reaches of the Euphrates and Tigris Rivers. The site measures about 9 ha in area and 300 m in diameter, and stands 15 m in height. It is completely man-made, formed through a series of deliberate backfilling events that covered the monumental enclosures erected there.

At least three stratigraphic layers can be distinguished at Göbekli Tepe at the current state of research. The oldest layer, Layer III (Figure 5.2) belongs to the material culture of the Pre-Pottery Neolithic A (PPN A), that is, the tenth millennium B.C. by archaeological dating (e.g., typical projectile points), which is also confirmed by a number of radiocarbon dates (Dietrich 2011; Dietrich and Schmidt† 2010; Dietrich et al. 2013). The characteristic architecture associated with this layer can be described as monumental 10–30 m wide circular or semicircular structures formed by huge monolithic limestone pillars of a distinct T-shape. These pillars, reaching up to 4 m in height, are always orientated toward a central pair of even larger pillars of the same shape. These central pairs of pillars stand in surprisingly shallow pedestals cut out of the bedrock, which are known from at least

FIGURE 5.1 The tell of Göbekli Tepe, view from south (photo: K. Schmidt†, DAI).

three of the enclosures discovered so far. In some areas a later layer, Layer II[1] (see Figure 5.2), dating to the early and middle PPN B, that is to say, the ninth millennium B.C., is superimposed on top of the monumental architecture from Layer III. The buildings of Layer II can be summarized as rectangular rooms measuring about 3 x 4 m, whose floors usually consist of a terrazzo-like pavement. These smaller structures may be understood as a reduction of the larger older enclosures. The quantity and height of the T-shaped pillars are reduced: often only two small central pillars are present, the largest among them not exceeding a height of 2 m. Sometimes these rooms possess only one or even no pillars at all. Finally, Layer I describes the surface soil resulting from erosion processes as well as a plough zone that bears witness to the use of the fertile soil for agricultural activities in more recent centuries. The soil matrix of this layer comprises an amalgam of material from the older layers and therefore also generates relevant finds.

After the end of their use, the circular buildings of Layer III were not left open, but rather were backfilled intentionally, thereby creating the mound visible today. The fill material consists of limestone rubble, bones, fragments of flint artefacts (tools are more rare), and fragmented ground stone objects; its rather homogenous character makes the whole process of backfilling similar to a burial, which seems to have been a part of the use-concept of these enclosures from the very beginning.

FIGURE 5.2 Schematic plan of the excavation at Göbekli Tepe (main excavation area plus southwestern hilltop) and its stratigraphical units. Also depicted is the stratum producing small, near-surface structures of yet uncertain relative-chronological position (plan: K. Schmidt† and J. Notroff, DAI).

Due to the results of geophysical surveys, including ground penetrating radar, it can be safely stated that these monumental enclosures are not restricted to the particular part of the mound where they have been found in excavation, but instead exist all over the site. More than ten such enclosures were located through geophysical mapping, confirming predictions based on the archaeological surface investigation and adding to those enclosures already unearthed and numbered A to H in the order of their discovery. Five of these structures—Enclosures A, B, C, D, and G—were discovered in the main excavation area at Göbekli Tepe's southern depression (Figure 5.3). Enclosure F was excavated at the southwestern hilltop (Figure 5.4), Enclosure E situated at the western plateau, and Enclosure H, recently discovered at the northwestern hilltop (Dietrich et al. 2014). While Enclosures A, B, F, and G are still under excavation, E was recognized as a completely cleared enclosure of which only the floor and two pedestals cut out of the bedrock are still visible (Figure 5.5). Enclosures C and D were excavated to their ground levels in recent campaigns. Enclosure D, which is the largest and best preserved structure so far, may serve as an example of the general layout and character of the older circular PPN A enclosures in the following.

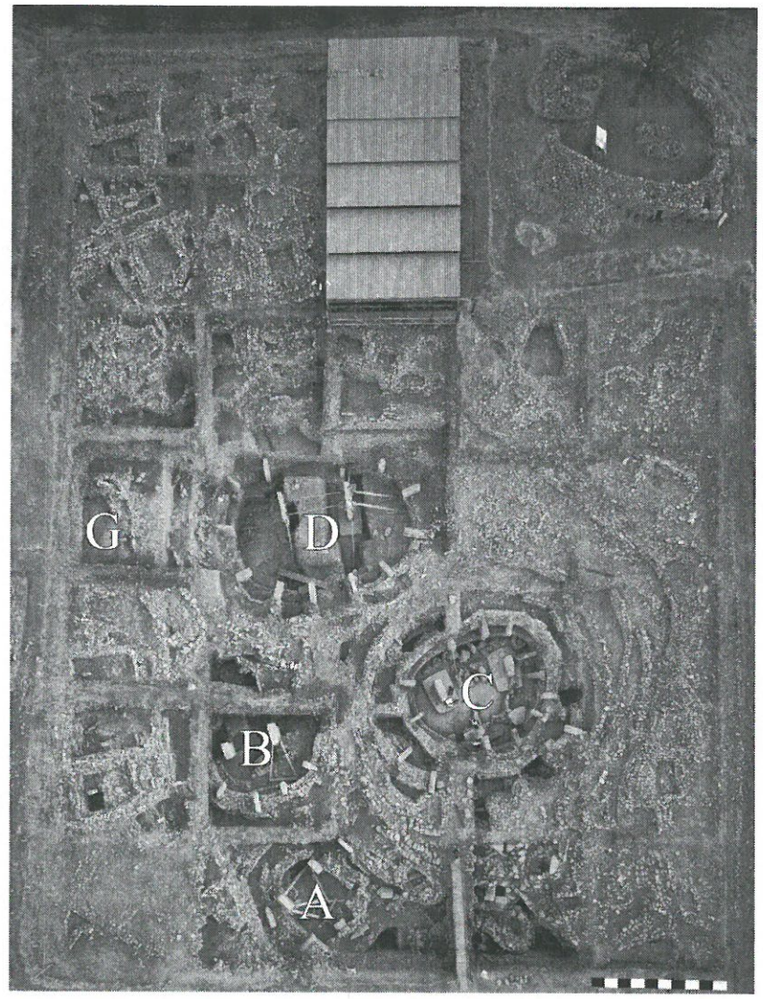


FIGURE 5.3 Main excavation area at Göbekli Tepe with Enclosures A, B, C, D, and G (photo: E. Küçük).

At the current state of excavation, 11 T-shaped pillars with a height of up to 4 m were gathered around a pair of even larger central pillars of the same shape (Figure 5.6).[2] The surrounding pillars are decorated with depictions of a variety of animals, with foxes, birds, and snakes being the most common species in Enclosure D, but the iconography of the whole site offers a wide range of other motifs, including boars, aurochs, gazelles, wild donkeys, and more (Figure 5.7). In the case of Enclosure D, the two pillars in the center, measuring about 5.5 m in height and weighing some 10 metric tons, stand in pedestals with a height of not more than 20 cm, which are—like the rest of the floor level—carved out of the carefully smoothed bedrock. Outstanding also in their decora-

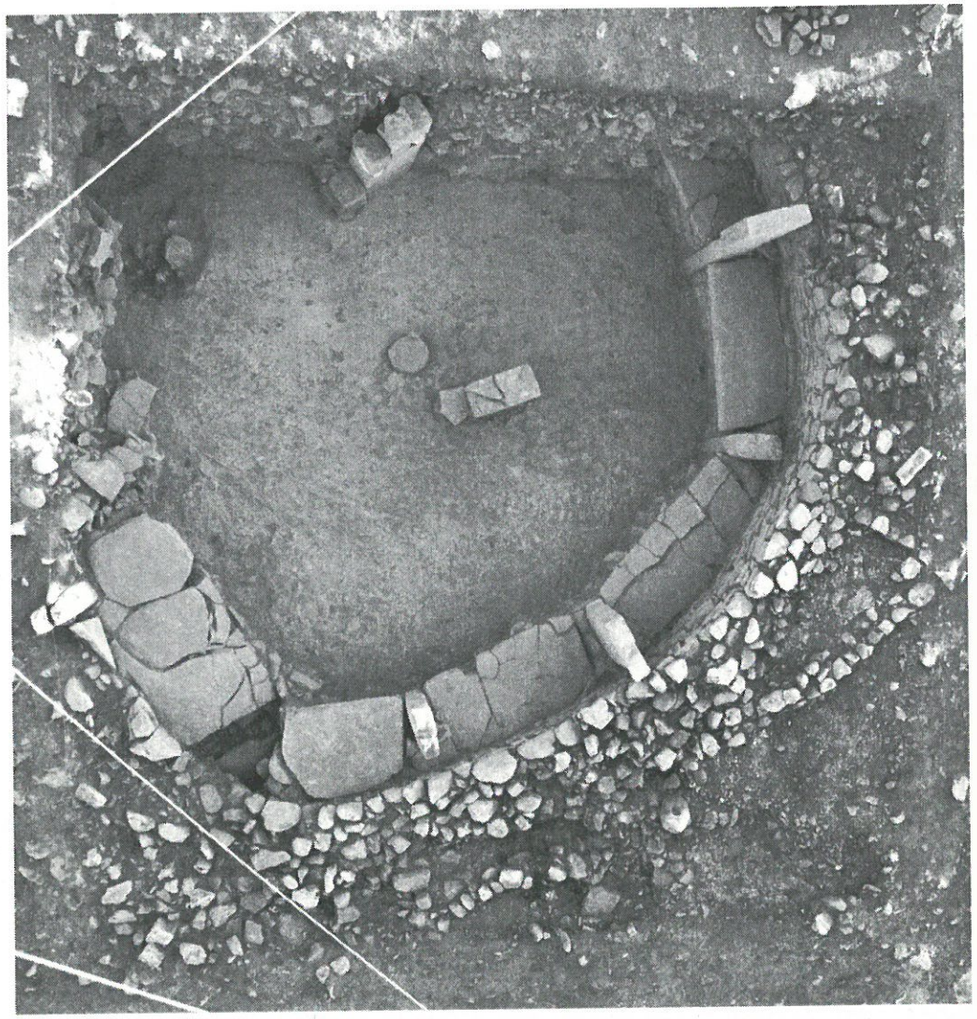


FIGURE 5.4 Enclosure F at the southwestern hilltop (photo: K. Schmidt†, DAI).

tion, these central pillars clearly demonstrate that the T-shaped pillars possess an anthropomorphic identity and therefore should more accurately be referred to as pillar-statues. The oblong T-heads represent the human head in an abstract manner, with the smaller side representing the face. On the pillars' shafts, arms are clearly recognizable, ending in hands brought together above the abdomen. Furthermore, belts and loincloths in the shape of animal skins are depicted in relief, underlining the human-like appearance of the T-shaped pillars (Figure 5.8). By covering the genital area of the pillar-statues, these loincloth-reliefs are hiding the sex of the two individuals depicted here. However, some insight may be drawn from the clay figurines—a find group totally absent from Göbekli

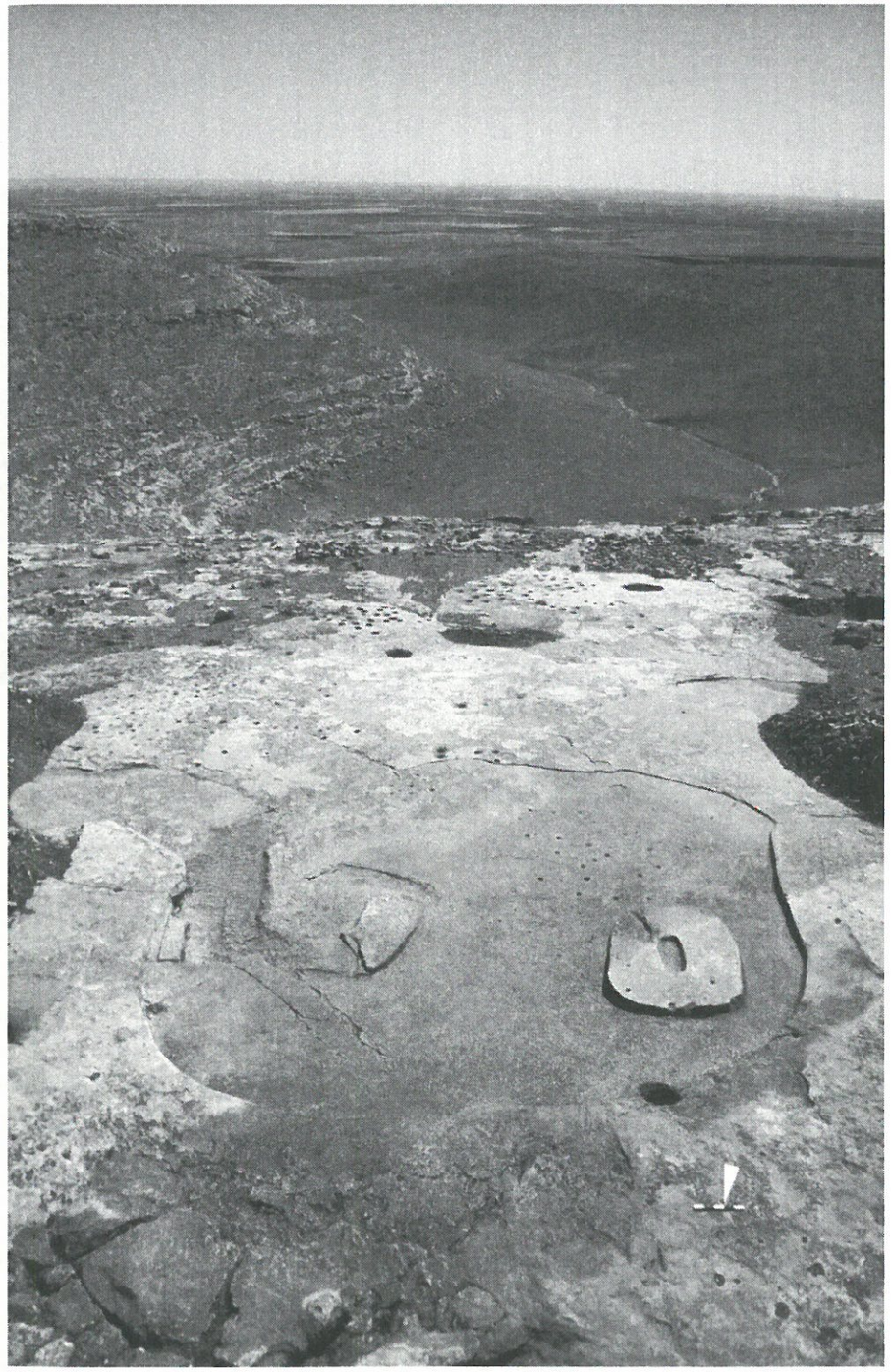


FIGURE 5.5 Enclosure E at the western rock plateau (photo: M. Morsch, DAI).

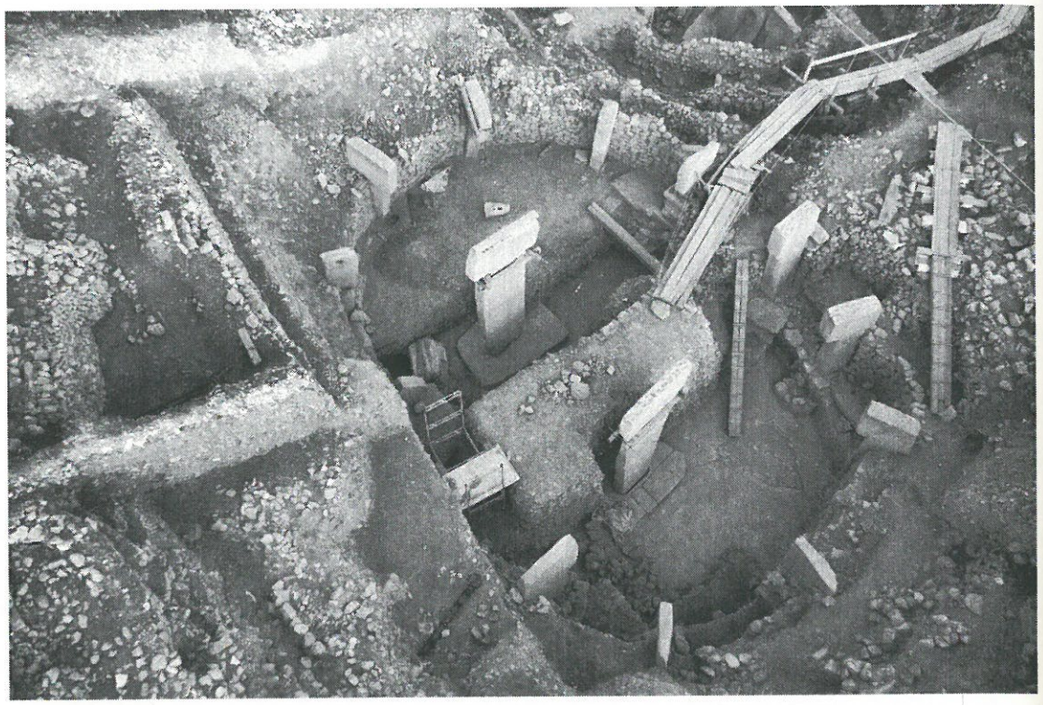


FIGURE 5.6 Enclosure D serves as example of the general layout of the monumental circular enclosures: a number of T-shaped pillars are gathered around a central pair of larger pillars of the same shape (photo: N. Becker, DAI).

Tepe so far—that were discovered at the PPN B site of Nevalı Çori (Morsch 2002:148, 151). Situated about 60 km north of Göbekli Tepe, Nevalı Çori—known for having produced T-shaped pillars of the smaller type paralleling those of Layer II—also produced a variety of figurines depicting male and female individuals of which only the male ones are wearing belts. Thus, it seems probable to regard the two central pillars in Enclosure D as male individuals as well. This also confirms the observation that the iconography and symbolism visible at Göbekli Tepe seem to be dominated by masculinity in general. Whenever the sex of one of the animals depicted is indicated, it is a male specimen. Among the depictions of human beings, ithyphallic individuals are prevalent. The only clear depiction of a female is a graffito that was apparently added later on a stone slab in one of the buildings of Layer II (Schmidt† 2012:221–226). Taken together with the fact that the remains of animals and plants identified at Göbekli Tepe so far are clearly wild forms while domesticated species are completely absent, the animal iconography corroborates the interpretation of the site as a place of male hunters.

This highly symbolic iconography and the remarkable amount of monumentality marks the outstanding character of the site of Göbekli Tepe. Although the site's cultic

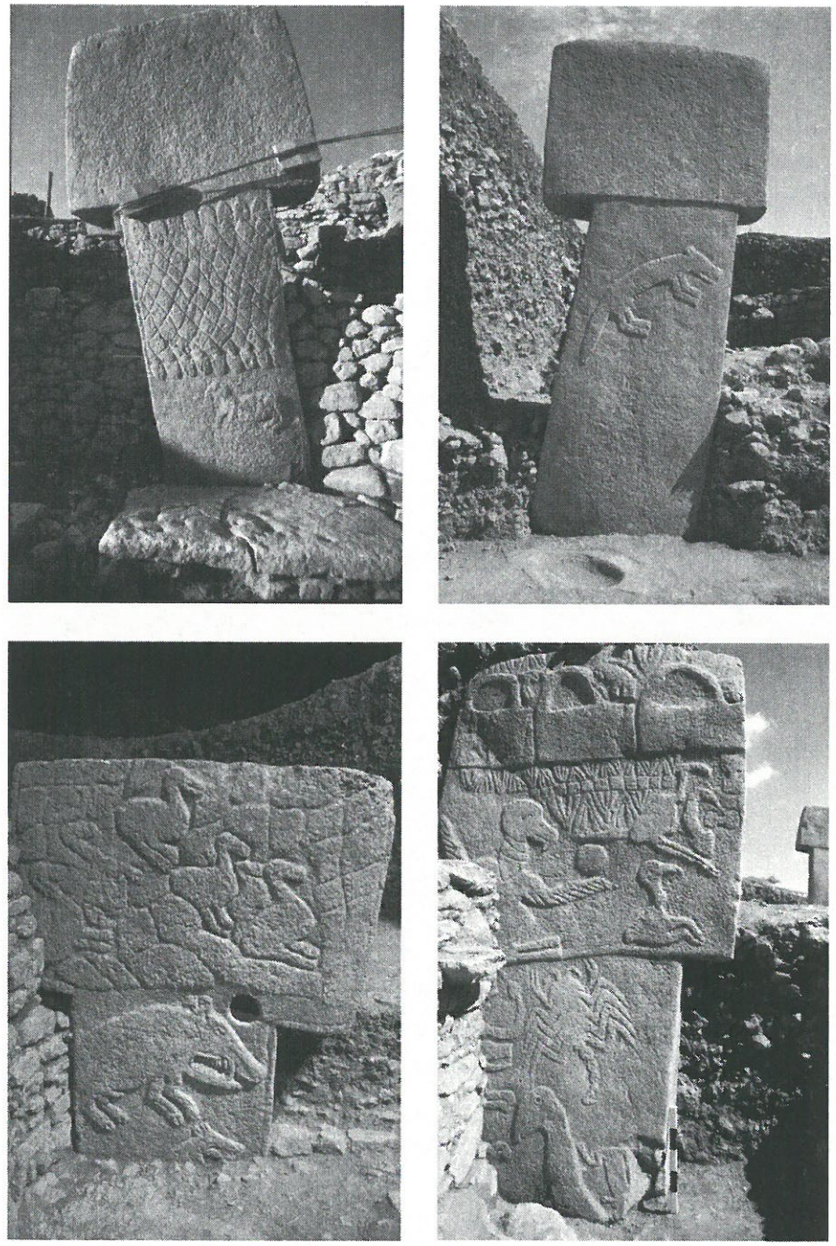


FIGURE 5.7 A number of pillars illustrating the rich iconographic repertoire of the reliefs depicted on the T-shaped pillars at Göbekli Tepe: Pillar 1 in Enclosure A (upper left) shows a "net" of snakes above what might be a ram; Pillar 9 in Enclosure B (upper right) depicts a fox; Pillar 12 in Enclosure C (lower left) shows five water birds above a boar and a fox, and Pillar 43 in Enclosure D (lower right) is richly decorated with a number of birds (among them a large vulture), a scorpion and an acephalic ithyphallic man (photo: Ch. Gerber, D. Johannes, and K. Schmidt†, DAI).

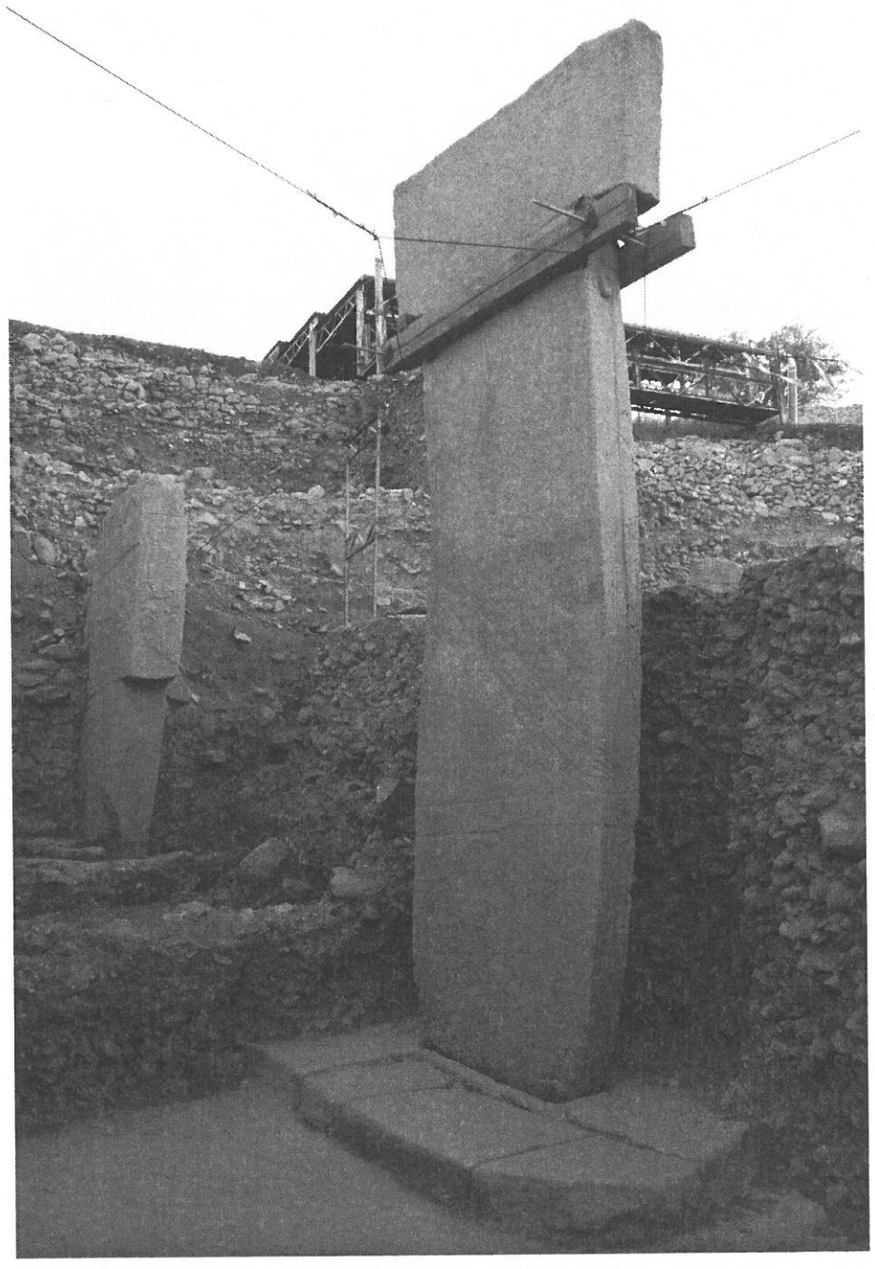


FIGURE 5.8 Pillar 31, one of the two central pillars of Enclosure D, illustrates their anthropomorphic appearance due to the depiction of arms, hands, and elements of clothing (photo: N. Becker, DAI).

nature has recently been called into question (Banning 2011), the symbolism and scale of the buildings, together with the lack of other domestic features such as fire pits and hearths as well as the absence of find categories typical from settlement contexts (cf. Schmidt† 2005), for instance, clay figurines, awls, and points of bone, clearly contradict a domestic character of the enclosures in our opinion.[3] According to Banning, Göbekli Tepe has to be seen as a settlement with buildings yielding a rich symbolism but still of domestic nature. However, contemporaneous domestic architecture is well known in this region due to the stratigraphy at Çayönü Tepesi (Özdoğan 1999; Schirmer 1983, 1988, 1990) as well as the excavations at Nevalı Çori (Hauptmann 1988), for example. Both sites, which can be addressed as settlements due to a variety of domestic structures and a respective material culture, are situated in favorable environmental positions for subsistence strategies with easy access to water supply and fertile land (which has to be emphasized in contrast to the erratic topographical situation of Göbekli Tepe). The buildings of Çayönü's "grill-plan phase" (PPN A), as well as those with "channeled" ground plans and the "cobble paved buildings" (early respectively middle PPN B; cf. Özdoğan 1999:41; Schirmer 1988, 1990:365–377), can be considered contemporaneous with Göbekli Tepe; "channeled-plan" buildings are also known from Nevalı Çori, too. But none of these building types have been detected at Göbekli Tepe as of yet (and the results of geophysical surveys are not indicating that such structures may be expected in future excavations). Furthermore, in the context of these settlement sites a number of single constructions stand out, noticeably differing in layout and other characteristics from the rest of architecture. They are termed "special purpose" or "cult" buildings, interpreted as communal structures within a settlement (cf. Kornienko 2009; Kurapkat 2010) and share distinct commonalities with the enclosures at Göbekli Tepe. The examples from Çayönü and Nevalı Çori show benches hinting at gatherings, an elaborate interior as well as special installations and finds including depositions of human skulls in Çayönü (Schirmer 1990:378–382) and a variety of T-shaped pillars, as well as a rich inventory of stone sculptures in Nevalı Çori (Hauptmann 1993:50, 52–53 Figures 19–26). The list could be expanded with further examples of comparable "special" or communal buildings in settlements, as nearly every PPN site excavated on an appropriate scale seems to feature such architecture (cf. Dietrich et al. 2012:691–692; with further literature), but we may content ourselves with these examples, outlining that at Göbekli Tepe apparently no hints of the well-documented PPN domestic architecture exist, while instead strong similarities to exceptional, outstanding structures within these settlements are evident.[4]

Cooperative Groups Creating Monuments

A prominent and peculiar attribute of the architecture at Göbekli Tepe, as discussed above, underlining its special communal character, is their denotative layout and setup. Benches along the walls suggest places of gathering and congregation; the anthropomorphic pillars themselves seem to represent an assembly of some kind, with about a dozen stone figures grouped around a pair at the center. This gathering aspect also gains

relevance with regard to the mode of the enclosures' construction. The labor force necessary to carve such large pillars from the rock, for transporting and finally erecting them, probably outnumbers the members of a single band of hunter-gatherers. Any attempt to exactly calculate the size of these groups and the corresponding number of individuals is confronted with a lack of data, naturally caused by the mode of living of these mobile groups, which left few traces (e.g., representative burials) evaluable in terms of demography. This means that we have to rely on estimations based on historic, respectively ethnographic, analogies mostly. Several examples and calculations collected in a number of studies (Helbling 1987; Hultkrantz and Vorren 1982; Kelly 1995; Lee and DeVore 1968) suggest rather small groups of 25 to maximum 50 individuals; larger numbers (as in the case of the sedentary foraging indigenous peoples of the Pacific Northwest Coast) being the exception (cf. Kelly 1995:209–213; Petrasch 2010). Ethnologic observations furthermore imply a common identity (based on material culture, language, etc.) among 10 to 20 of such independent groups or bands, adding up to a number of 250 to 1,000 individuals interacting in a collective sphere of communication (Petrasch 2010). No less vague, but showing a much larger variety, are estimations of labor costs and man-hours necessary for the construction of monumental structures. Figures for the erection of the giant *moai* statues of Rapa Nui (Easter Island) with (despite a few larger exceptions) a typical height of 4 m and a weight of 12 t (Kolb 2011:140; Lipo et al. 2013:2865)—somewhat smaller than the larger of the pillars of Göbekli Tepe—have been reckoned to include anything from a period of only days or a few weeks (Routledge 1920) to a year (Pavel 1990) and more (Heyerdahl 1958:138). While according to Pavel (1990) a total of 20 individuals was sufficient to carve such a statue in their spare time within one year, at least 50 to 75 people were assumed to be required to move it a distance of 15 km over the course of a week (Van Tilburg and Ralston 2005). In contrast to this and other calculations (e.g., Heyerdahl et al. 1989), recent experiments have demonstrated that efficient transport could be engineered by a comparably smaller number of about 18 individuals using a special technique by forward leaning and side rocking the statues with the help of ropes (Lipo et al. 2013).

Yet ethnographic records from the early twentieth century report that on the Indonesian Island of Nias even up to 525 men were involved in hauling a megalith of 4 m^3 over a distance of 3 km to its final location in three days using a wooden sledge (Schröder 1917). Another example from Indonesia points out that such a large number of participants was not necessarily required exclusively for the labor involved, but that other factors have to be considered as well. In Kodi, West Sumba, the transport of the stones themselves used for the construction of megalithic tombs was ritualized and required a large number of people to be involved as witnesses (Hoskins 1986). Thus, other social aspects such as the acquisition and maintenance of prestige among the individuals participating need to be incorporated into the models of the erection of monumental structures.

However, at Göbekli Tepe the enclosures of Layer III consist of several megalithic elements cut into the surrounding limestone plateaus, as for example an unfinished T-pillar with a size of nearly 7 m and volume of 20 m^3 illustrates.[5] Recent practical experiments of preparing and cutting limestone comparable to but considerably harder

than the material used at Göbekli Tepe, conducted by Claudia Beuger from the Martin Luther University of Halle-Wittenberg, have shown that about 22 to 44 individuals[6] could have quarried a single pillar of the dimensions mentioned above within four to five months (Beuger forthcoming).[7] Furthermore, up to 60 persons were calculated in the preparation of an additional experiment (not conducted yet) as needed to lift and move such a work piece. Thus, the numbers given here may be in need of some extrapolation when projecting them onto about a dozen of these pillars forming one enclosure (cf. Schmidt† 2012:102–104). This gains importance with consideration of the amount of time that these mobile groups may have been able to invest, time they then could not invest in nourishment, for example which meant that yet other group members had to compensate for this gap. This suggests a certain degree of cooperation and organization among several of such groups, since—apparently—a significant number of people from the wider area had to be drawn together. A common mode for executing large communal tasks like this has been described under the term *collective work events,* usually achieved through the prospect of a lavish feast (Dietler and Herbich 1995) emphasizing the voluntaristic character of this labor force. Already acknowledged as an integral part of Epipaleolithic (Munro and Grosman 2010) and early Neolithic societies (Benz 2006), such extensive feasting also fuels the discussion of cooperative action. This could shed some light on the character of gatherings held at Göbekli Tepe as noted above and finds confirmation in closer inspection of the fill material of the enclosures. In addition to the limestone rubble, flakes of flint, and fragments of ground stone tools already mentioned, numerous animal bones are present in the filling. These bones represent hunting game exclusively—primarily gazelle, but in terms of weight of meat, wild cattle seems to be the most important species. The sheer amount of bones speaks in favor of large feasts including the consumption of enormous amounts of meat and possibly alcoholic beverages (Dietrich et al. 2012).

Gathering at particular places on certain occasions must have had a long tradition for hunter-gatherer groups, serving social purposes such as the exchange of goods and marriage partners. Marking these meeting places by creating monumental architecture meant going a step further, especially if these monuments served strictly ritual purposes, as seems to be the case at Göbekli Tepe. While the question regarding the use and purpose of the enclosures still cannot be answered conclusively, it seems rather clear that Göbekli Tepe occupied a unique role among the PPN sites of the Near East as a place of cult and ritual, lacking domestic features compared to other known contemporary settlement sites. Instead, the structures unearthed at Göbekli Tepe rather seem to reflect a type of specialized building within these settlements that served communal purposes. In addition to their function as gathering places (Dietrich et al. 2012), as well as a symbolic storage system and a nodal point in a communication network that preserved and passed on cultural knowledge among these groups (Morenz & Schmidt† 2009; Watkins 2004, 2010), the enclosures at Göbekli Tepe may also have played an important role in death cult and burial rituals (Notroff et al. in press), bringing together a number of mobile groups.

From a social and economic point of view, investing in collective work made sense for single groups and individuals due to the benefits they gained from this collective

action, which thus may be regarded as the motivating force in the genesis of larger communities. The megalithic enclosures of Göbekli Tepe challenge such models, which suggests that monumental architecture marked the culmination of a development toward complex social entities with institutionalized power, that is to say, potent rulers, who were able to gather and control the necessary resources, material and human.

Monuments Generating Communities

T-shaped pillars resembling the smaller examples from Göbekli Tepe's Layer II were first recorded at the settlement site of Nevalı Çori (Hauptmann 1993). Three more sites in the near vicinity—Sefer Tepe, Karahan, and Hamzan Tepe (cf. Çelik 2011a; Moetz and Çelik 2012)—are known to have similar pillars, but no excavation work has been carried out so far. With the Neolithic site of Urfa-Yeni Yol, which seems to have revealed a small T-shaped pillar in the course of construction work in that area (cf. Çelik 2011b: 142. Figure 19), with Gusir Höyük (Karul 2011, 2013), and with Taşlı Tepe (Çelik et al. 2011), three more related sites were added to this list recently. While these places form an inner circle of sites that clearly belong to a community sharing a common background of material and spiritual culture, its sphere of influence exceeded this region. This is proven by a common set of symbols used over a wide area within Upper Mesopotamia, defining a larger cultic community (Costello 2011; Schmidt† 2012:193–200). Shaft-straighteners and plaquettes from Jerf el Ahmar (Stordeur and Abbès 2002: Figure 16/1–3) and Tell Qaramel (Mazurowski 2003:Figure 12, 2004:Figure 10; Mazurowski and Jamous 2000:341 Figures 7–8; Mazurowski and Yartah 2001:304 Figures 10–11), as well as Tell ʼAbr 3 (Yartah 2004:155 Figure 18/3) and Körtik Tepe (Özkaya and San 2007: Figure 19) feature decorations in the form of snakes and scorpions, quadruped animals, and birds strongly reminiscent of the iconography of Göbekli Tepe, and are known from this site as well. The same motifs occur on thin-walled stone cups and bowls of the Hallan Çemi type (Rosenberg and Redding 2000:50 Figure 5). Fragments of this vessel type are known from Göbekli Tepe, Çayönü (Özdoğan 1999:59), Nevalı Çori, Jerf el Ahmar (Stordeur and Abbès 2002:583 Figure 12/1–4), Tell ʼAbr 3 (Yartah 2004:155 Figure 18/2, 4–5), and Tell Qaramel (Mazurowski 2003:369 Figure 11/1–2), while complete vessels have been discovered at Körtik Tepe recently in large numbers (Özkaya and San 2007:Figure 6 15–18) as part of rich grave inventories. Another connection is suggested by the zoomorphic scepters of the Nemrik type, which are present at Hallan Çemi, Nevalı Çori, Çayönü, Göbekli Tepe, Abu Hureyra, Mureybet, Jerf el Ahmar, and Djaʼde (Kozłowski 2002:77–80).

Without many forerunners in Paleolithic art, the sudden variety of imagery represents a new symbolic world shared among the residents of PPN sites in Upper Mesopotamia. These commonalities in symbolism and iconography suggest a high degree of communication and a shared ideology even beyond the circle of sites producing T-shaped pillars and monuments and thus illustrate a spiritual concept that must have linked these sites to each other, testifying to the existence of extensive networks of supra-regional

contacts sustained on a regular basis (Watkins 2008, 2010). It seems that a cultic community developed in the PPN around Göbekli Tepe.

In this light, the emphasis on communal cooperative processes in creating the monumental architecture at Göbekli Tepe seems to gain some weight. Based on the effort necessary to cut, transport, and erect even a single one of the T-shaped pillars, the labor force estimated above, which exceeded the options of any individual hunter-gatherer groups, clearly required a notable degree of cooperation. While also certain (inter- or even intragroup) competitive aspects in the erection of the individual pillars may have to be taken into account, the final common layout of the enclosures—circular, with benches at the inner walls—accentuates the communal character of these buildings (cf. Figure 5.4). The encircling walls may also express a certain degree of exclusion. Since the chronological relation of the individual enclosures to each other is still not fully clarified, and represents a topic of ongoing research, the possibility of competitive behavior among different groups creating several enclosures remains (cf. van Wees 2011:14–23). According to this line of thought, the monuments at Göbekli Tepe are the culminating expression of a community's (or its leaders') success in competition with other groups for superiority. The enclosures' construction in the frame of ritual feasts is thus seen as displaying economic success to neighboring groups or—in the case of a whole community—to outsiders (van Wees 2001:18–19, 21).

The enclosures of Göbekli Tepe show a variation in the animal species depicted prominently in the iconography of each circle. While in Enclosure A the snake prevails, in Enclosure B (which has produced only a few reliefs so far), foxes are dominant, for example. In Enclosure C, boars seem to take over this role, and in Enclosure D, foxes, birds, and snakes play an important role (Figure 5.9). Interpreting these differences as figurative expression of community patterns might hint at the different groups building the particular enclosures. Distinct enclosures may have served different social entities (cf. Becker et al. 2012:33–37). Regarding these buildings as visible material expressions of group affiliations highlights the cooperative effort of their creation as a basis of community formation. With their expression of a common ideology, iconography, and a congregational layout, the monumental circular enclosures of Göbekli Tepe's Layer III emphasize a collective unity accentuating cooperative action and ritual. Renfrew and Level highlighted the meaning of a monumental site's size and location for its sphere of influence in a process of emerging elites controlling ritual practice and finally centralizing territorial control and power (Renfrew 1981; Renfrew and Level 1979). At the moment, we do not know enough about the social structure of those PPN groups constructing and using the monumental architecture at Göbekli Tepe to elaborate such thoughts in an appropriate context of secured data. Approaches to determine territorial influence operating with a center-periphery model hardly work in the case of Göbekli Tepe due to the assumed segmentary character of the hunter-gatherer groups in question and the uniqueness of the site for the nonce.[8] However, the exposed and widely visible position at the highest point of the surrounding landscape and its communal character as discussed above give reason to suggest that Göbekli Tepe must have taken on a prominent role of

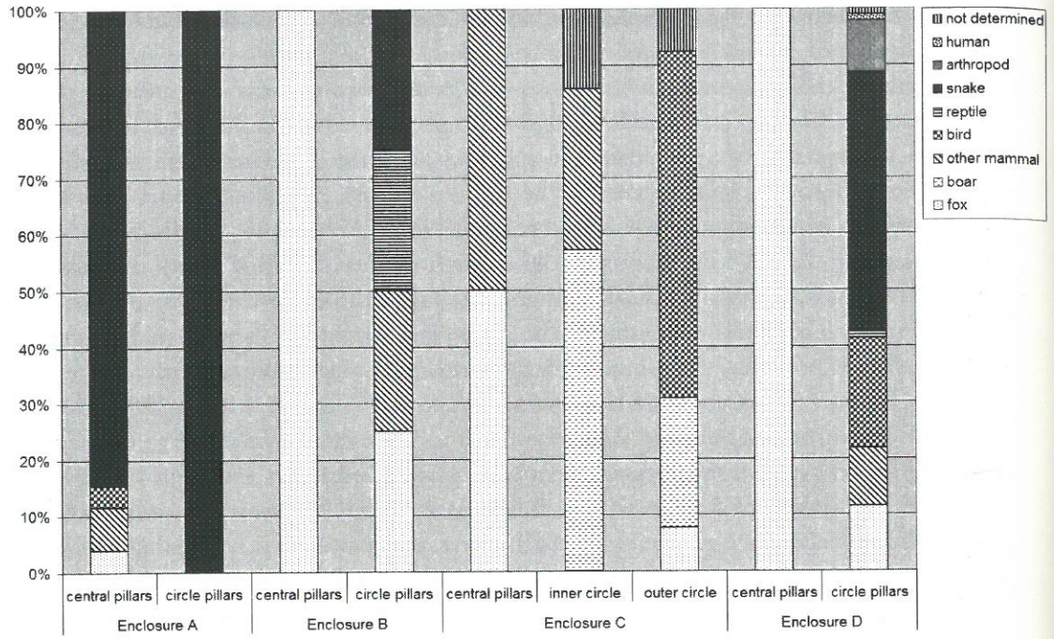


FIGURE 5.9 Distribution of the appearance of figurative representations in the enclosures of Göbekli Tepe. Note: The differing state of excavation as well as a possible chronological depth in the construction period of the particular enclosures have to be considered. Furthermore, later added graffiti as well as symbolically reduced icons were not included (graphic: J. Notroff and N. Becker, DAI).

actually central importance to a number of these hunter-gatherer groups. This large-scale influence is supported by evidence of a cultic community developing in its surroundings and furthermore indicated by the large variety of obsidian from the site. Although somewhat underrepresented compared to the numbers known from settlement sites and the large amount of flint, seven different kinds of obsidian raw material coming from four different volcanic regions within a distance of up to 500 km have been detected at Göbekli Tepe (pers. comm. T. Carter, Toronto).

Considering the structure and size of these groups of people and with a view to agency-based reconstructions of the origins of monuments (as pointed out by Osborne, this volume; cf. also Joyce 2004; Pauketat 2000), the amount of monumentality visible at Göbekli Tepe may demonstrate that responsibility for the construction of monumental structures does not necessarily have to be attributed to single powerful political actors, but could as well lie within a community as a whole. Instead of being the result and expression of institutionalized political power and control, the creation of monumental megalithic architecture may as well have acted as its impetus by setting up an arena for gatherings of large groups in an intragroup communication network (cf. Schmidt† 2000).

CONCLUSION

The monumentality of the architecture unearthed with the PPN A enclosures at Göbekli Tepe necessitates a shift in our paradigms regarding hunter-gatherer groups following the end of the Ice Age in the Near East as well as the meaning of monumentality as the outcome of complex, hierarchic societies. Regarded as the result of corporate, cooperative strategies, the monumental structures give witness to a social complexity among these groups hitherto unknown.

To attract the large number of individuals needed for the erection of the huge T-shaped pillars and their composition into circular enclosures, supposedly huge feasts were held—again strongly emphasizing the cooperative aspect of these building projects. These projects themselves have been shown to be of integral importance for the genesis of networked communities forming among the residents of PPN sites in Upper Mesopotamia. Furthermore, it seems likely that the whole process of monument construction at Göbekli Tepe, their repeated alteration and modification, was an intended reason for the particular participants within the communication network to continually come together.

While the role of feasting as the basis for this construction work was highlighted, it also has to be considered an important activity to strengthen a group's coherence (Rosenberg & Redding 2000:44). However, acquiring the supply of food needed for such a large number of people as gathered at Göbekli Tepe to build the monumental constructions described above must have been a difficult task when it depended on hunted game only. To use the example of the erection of the *moai* at Rapa Nui again, it was noted that food requirement increased by about 25 percent over the course of 300 years of construction activity (Van Tilburg and Ralston 2005). It seems reasonable to suggest that in response to a similar growing demand at Göbekli Tepe, new food sources and processing techniques were sought. According to this scenario, religious ritual and the construction of monumental architecture may be seen as one factor in the adoption of intensive cultivation and the transition to food production (Dietrich et al. 2012).

Against this background, the reduction of the monumental circular enclosures with numerous T-pillars in Layer III to smaller rectangular buildings containing only smaller or even no pillars at all in Layer II (Figure 5.10) could somehow be interpreted as a diminution of effort and labor force to some degree.[9] This may express a transformation of the community's structure in the course of the adaption to this new mode of living. Perhaps with the accessibility of new resources, a rising number of individuals within these groups was advancing, finally leading to a dissolution of larger social units into smaller clusters, which was reflected in the architectural features. Whether this new social structure also involved the emergence and rise of elites and the centralization of power cannot be answered satisfactorily at the current state of research. But the scenario described above, in preliminary thoughts based on the state of excavation and research at Göbekli Tepe, clearly accentuates the importance of an emerging monumentality for the genesis of complex social structures as early as the PPN of the Near East.

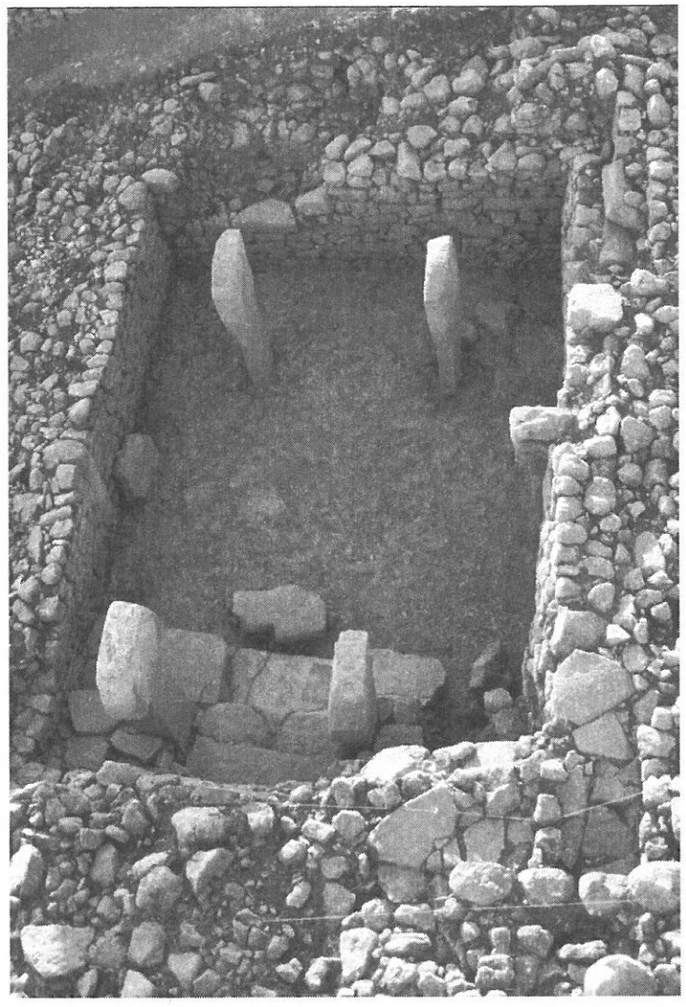


FIGURE 5.10 The so-called Lions' Pillar Building (named after the depiction of lions at its pillars) shows the change in layout toward smaller, rectangular buildings with a reduced number of T-pillars in Layer II (PPN B) (photo: D. Johannes, DAI).

NOTES

1. In the framework of first stratigraphic considerations in the field, Layer II had been subdivided preliminarily in IIa and IIb as in some surface-near areas also circular, but considerably smaller structures have been unearthed, whose layout clearly differs from the usual rectangular buildings. The character of these constructions is not yet understood completely, so the former denotations as IIa and IIb have been waived, since they implied a close relation between these different structures. Layer II refers exclusively to the rectangular building phase.

2. Since the northern wall of this enclosure is not yet completely excavated, the number of pillars may have to be calculated higher; at least one more pillar must be expected to be still hidden in the northern baulk.
3. While it has been, certainly correctly, argued that a strict differentiation between "sacred" and "profane" in everyday life of primordial societies should hardly be expected (cf. Eliade 1959; also Banning 2011:624–627), spatial focal points of the holy and cult may be well attested also detached from domestic architecture (Dietrich and Notroff in press).
4. For a more detailed comment on and discussion of Banning's suggestions, cf. Dietrich and Notroff in press.
5. This could also hint at multiple stages in the process of cutting and working the stones at different localities, i.e., larger rough pieces were brought from the quarries to the construction site, where the final sculpting then took place; the pillars eventually erected have a height of up to 5.50 m and a weight of approximately 10 t.
6. This rather large range is explained by the level of training and experience of the individuals in question. The experiment was conducted with male and female students lacking the physique and know-how we might have to assume for the hunter-gatherer groups of the PPN. According to experience, a modern mason, trained and skilled, works twice as quickly as the students in this experiment, so maybe a Neolithic craftsman may be assumed to fit somewhere in the middle between these two extremes.
7. Beuger (forthcoming) also emphasizes that these preliminary results are calculated on the basis of a model including the use of fire in the quarrying processes, which helped to reduce labor time.
8. Although this probably might be considered a research void; it seems not unlikely that indeed other important ritual places of a similar or—even more likely—completely different character, such as Göbekli Tepe, have existed, albeit they are unknown to us at present. Regarding the scarcity of respective settlement sites, it might be assumed that up to 90 percent of relevant sites have not yet been discovered.
9. In developing his model of rivalry in history, van Wees suggests interpreting this change as reflecting a resumed rivalry at a more modest level after the old form of competition went too far and turned out not to be viable anymore (van Wees 2011:22).

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