Cambridge Archaeological Journal (2025), 1–18
doi:10.1017/S095977432500011 3

CAMBRIDGE UNIVERSITY PRESS

Research Article

Relationality, Immanence, Hierarchy: The Nature and Culture of Being(s) at Göbekli Tepe

Marc Verhoeven
RAAP Archaeological Consultancy, De Savornin Lohmanstraat 11, 6004 AM, Weert, The Netherlands

Abstract

This paper deals with symbolic and ontological human–animal relationships at the Early Neolithic (PPNA) site of Göbekli Tepe in southeastern Turkey. Here a series of megalithic round stone buildings, built by hunter-gatherers, were embellished by large stone pillars with depictions of animals, particularly predators. On the basis of an analysis of the pillar iconography and of recent anthropological and archaeological insights about alterity and perceptions of nature and culture, it will be argued that human–animal relationships at Göbekli Tepe were part of an ontology marked by both immanence and hierarchy. Imagistic ritualization in evocative architectural contexts, probably directed by shamans, served to express such relations. The internal logic of this is exemplified in a model of the world of Göbekli Tepe, based on a novel approach with so-called referential relations and compositional hierarchy as ways to explore and interpret relations between beings and things.

(Received 22 May 2024; revised 12 January 2025; accepted 18 February 2025)

Introduction

Extensive archaeological excavations at the extraordinary Early Neolithic site of Göbekli Tepe in southeastern Turkey have produced rich and fascinating material culture which redefines our understanding of Early Holocene hunter-gatherers in particular and cultural evolution in general. Especially the megalithic architecture and the associated art and symbolism are evidence of a society that was complex in many respects.[1] One of the most noteworthy aspects is the depictions of animals on the T-shaped pillars that were part of the large circular buildings of the earliest building phase. Most of these images show powerful animals, such as panthers, aurochs, boars and foxes, often in aggressive poses.

In this paper I explore the meanings of this symbolism by focusing on the relations between humans and animals. The discussion is primarily based on recent anthropological and archaeological thinking about the nature of such relations in non-western societies (see also Verhoeven 2005). In recent years Göbekli Tepe has been interpreted on the basis of such work (e.g. Barclay 2021; Borić 2013; Busacca 2017; Fagan 2017; Verhoeven 2004; 2024; Weismantel 2014). Here I wish to pay attention to two aspects which have not received proper attention thus far in discussions of the site: (1) the internal logic of the symbolic and ontological human–animal relationships, and (2) the presence of hierarchies within this 'system'.

The paper starts with a general theoretical introduction about current ideas regarding ontology, immanence and relationality. We then move on to Göbekli Tepe, starting with basic data about chronology and material culture, focusing on the PPNA architecture and associated symbolism, followed by a discussion of previous 'relational' interpretations. Next is a more in-depth analysis of the human–animal symbolism at the site, including a basic statistical analysis of the types of animals depicted, and particularly of the way they were represented. Together with the concepts of 'referential relations' and 'compositional hierarchy', this is the foundation for a model of being(s) in nature and culture at Göbekli Tepe. I close with a brief discussion of the wider significance of the site in Near Eastern neolithization processes.

Being(s) in the world

Religion and immanence

In many publications and websites, academic as well as popular, Göbekli Tepe is presented and framed as a religious site, with temples, priests and gods in the sense of those of later periods (e.g. Bachenheimer 2018; Schmidt 2006). It indeed seems to be clear that at the site there is evidence for practices related to transcendental and supernatural matters. However, as forcefully argued by Sahlins in his, regrettably final, book about the 'enchanted universe',

Corresponding author: Marc Verhoeven; Email: m.verhoeven@raap.nl
Cite this article: Verhoeven, M. (2025). Relationality, Immanence, Hierarchy: The Nature and Culture of Being(s) at Göbekli Tepe. *Cambridge Archaeological Journal* 1–18. https://doi.org/10.1017/S0959774325000113

religion is but one form of dealing with supernatural agency, one that is not representative of many cultures, past and present, at all (see also e.g. Århem 1993; De Coppet & Iteanu 1995; Ingold 2008; Latour 2004; Strathern 1980; Verhoeven 2015; Wagner 1981; Watts 2013). Sahlins argues that from the eighth century BCE on there was a 'translation of divinity from an *immanent* presence in human activity to a *transcendental* "other world" of its own reality, leaving the earth alone to humans, now free to create their own institutions by their own means and lights' (Sahlins 2022, 2). In other words, spiritual beings and things were separated from humans and relegated to the heavens. This, indeed, is the way many modern westerners practise and think about belief. More in general, Sahlins discerns an economic layer cake with, from bottom to top, economy, social relations that conform to it, politics that uphold it, and finally religion (or ideology) that reinforces and legitimates the total system. Such thinking is based on binary oppositions between the sacred and the profane and nature and culture, typical of western modern society, but not at all for many other societies. In fact, and this is the central theme of his book, in 'immanentist' cultures peoples are surrounded by and related to spiritual beings such as gods, ancestors and the indwelling souls of plants, animals and materials. Most often, these beings have essential attributes of persons, in terms of temperament, mentality and volition: hence he speaks of 'metahumans'.

Immanence refers to animism, but not just in the sense of the belief that objects, places and creatures all possess a distinct spiritual essence. Rather, as in the so-called new animism, immanence refers to relational ontologies: ways of being that are structured upon but also structure relationships between humans, animals, plants and things (e.g. Bird-David & Maveh 2014; Laack 2020). In many cultures, as Harvey (2006, xi) puts it, 'the world is full of persons, only some of whom are human, and life is always lived in relationship with others'. In order to give you a feel of how different such societies are from western society, let me give an intriguing example from the Achuar of Amazonia, where the house is regarded as a living entity, and made up of male and female spaces (*tankamash* and *ekent*):

> The *tankamash*, associated with male saliva, evokes the upper extremity, that is the mouth, connoted essentially by its faculty of speech. It is also through the doorway of the *tankamash* that the men go outside to vomit shortly before dawn, and it is in this part of the house that the men produce the instrumental music that is assimilated in singing. The *ekent*, associated with women's saliva, is the locus proper of an artificially initiated cultural digestive phenomenon—the fermentation of manioc and the cooking of food—which precedes organic, natural digestion and enables it to take place. Moreover, the schematic orientation of the *ekent*, facing downstream, *tsumu*, is significant, for *tsumu* also designates the buttocks. Now all household waste is evacuated by the women to the section of the river downstream from the house, where it is thrown either directly in the water or onto the river bank. It is also in the river that the men defecate at dawn, slightly downstream from where the women normally go to bathe or draw water. The master-image of the house as a segment of river is now taking shape, since it is as though the water, as it follows its ideal course through the house, were changed by metaphor into the contents of the intestines. (Descola 1994, 135)

The Achuar, then, see elements of the external world as sharing a common interiority, while differing in external features. This is in stark contrast with modern Western society, in which humans and animals are similar in their physicality, but different in their interiority (Descola 2013, 134-36).

Worlds

The work of Sahlins and Descola is part of a wider phenomenon that has been called the 'ontological turn' (Heywood 2017; Holbraad & Pedersen 2017; Pickering 2017). This denotes a new way of thinking about cultural variety, which should not be approached in terms of a difference in worldviews, but as differences in 'worlds', which are all of equal validity. In other words, proponents of this—post-modernist—view on culture and nature criticize the common idea that the things upon which people have different perspectives are always and everywhere the same and that everywhere people see the world in different ways, but that the world is still the world. Instead, it is argued that there are not only different worldviews, but also different worlds (Heywood 2017). Thus, we should allow difference or alterity to challenge our understanding of the very categories of nature and culture themselves (e.g. Graeber 2015; Holbraad 2009). The basic claim is not that cultures are living in distinct worlds, and that by crossing into a different setting one is suddenly in a different reality; instead one's own world always defines thought and practice. Heywood (2017) provides an enlightening anthropological example:

> If your interlocutor tells you that the tree she is pointing to is in fact a spirit, do you, for example, describe this as a belief? You might, but to your interlocutor it is not of course any such thing: to her, it is a fact. Calling it a belief, as a number of anthropologists writing before the ontological turn have pointed out, is both to mislabel it and to call it mistaken without actually saying so. The recursive anthropologist, instead, would ask what sort of adjustments to our conceptual schema have to be made in order for it to make sense to think of the tree as a spirit.

A most interesting concept regarding different ways of being is that of 'perspectivism'. This has been introduced by Viveiros de Castro (1998; 2015), and is based on what Århem (1993) has termed the 'perspectival quality' of Amerindian thought. Many cultures there argue that nature and culture, and particularly animals and humans, are largely undifferentiated, as animals are disguised humans. Thus, there is a spiritual unity, with humanity as the principal condition of both humans and animals, but, at the same time, a corporal diversity (Viveiros de Castro 1998, 470). Perspectivism, then, denotes the observation that different beings, human as well as non-human apprehend reality from distinct points of view:

> Typically, in normal conditions, humans see humans as humans, animals as animals and spirits (if they see them) as spirits, however animals (predators) and spirits see humans as animals (as prey) to the same extent that animals (as prey) see humans as spirits or as animals (predators). For instance, animals see their food as human food (jaguars regard blood as manioc beer, vultures see the maggots in rotting meat as grilled fish, etc.), and have social systems with chiefs, shamans, moieties, etc. (Viveiros de Castro 2015, 197)

https://doi.org/10.1017/S0959774325000113 Published online by Cambridge University Press

It should be noted that perspectivism does not involve all animals. The emphasis is on key economic and symbolic animals, such as great predators, and the principal prey species. Moreover, there are certain animal spirit 'masters'. It is particularly shamans that negotiate the relations between humans and animals, as only they are able to change perspectives. Perspectivism is typical for Amazonia, but can also be found in North America, and to a lesser extent in Siberia and Asia (see e.g. Ohnuki-Tierney 1999; Willerslev 2007, 94–5).

Relations, differences & hierarchies

While in many cultures the binary oppositions of modern western societies (as modelled in classical structuralism) such as life–death, matter–spirit, human–animal, etc., are meaningless, since things and beings are related instead of separated; this does not mean that there are no distinctions. For example, just like us, the Achuar make a difference between humans and animals, nature and culture, material and immaterial, above and below, etc. Moreover, they place themselves above all else, as they are able to see and communicate with each other in the same language. On a somewhat different note, they do not include all beings or things in their cosmology. So, there certainly can exist hierarchies between beings and things in immanentist societies. Within an overarching system of all kinds of relations, there can be levels of interaction and all kinds of rules about how to negotiate between different beings.

In this regard, Sahlins (2022, 81) notes that 'The greatest gods excepted, in many immanentist societies, everything that is a person has a master, a metaperson that governs all the beings of a given kind or a given habitat'. For instance, in the Mountain Ok region of Papua New Guinea, *Magalim* is the serpentine 'boss' and father of the creatures and things in the forest, which at the same time are variant forms of him. Some of these beings have species masters of their own, resulting in a tripartite scheme of personhood: individual beings, species masters and *Magalim* (Jorgensen 1980). There are various types of these 'metahuman masters', including: beings who are magnified forms of the plants or animals they control; masters who are parents of animals or plants; anthropomorphic masters; masters who are of different non-human species than their wards; original cultivators of the land; collective masters of game or cultigens; and masters of environmental domains (Sahlins 2022, 83).

Another type of hierarchical distinction in immanentist cultures or practices is that between so-called power animals and other animals. The concept of power animals was introduced by Harner in his book about shamanism (Harner 1980, 57–72), having noted the occurrence of these in animistic practices all over the world. They are comparable to the spirit masters of the Achuar. In essence, power animals are animals that have special (powerful) characteristics which make them regarded as guardian or helper spirits. The preferred guardian spirits seem to be wild and physically powerful animals that are related to heroic images of strength, smartness and wisdom. For the Saami of northern Scandinavia, for example, the ice bear, the reindeer, the polar fox and the eagle are regarded as power animals. Such animals can show themselves in thoughts or dreams, but are also part of material symbolism. In visual art, for instance, power animals are used to create a bond between persons and animals, and to tap into their particular powers (Äikäs & Fonneland 2021). Often these persons are shamans (or ritual specialists), but power animals are also ritually used by other people. They can be contacted and activated by using drugs and/or (intensive and extended) dancing, singing and drumming.

Relational archaeologies

Archaeology often presents us with things that cannot immediately be understood, as they differ from what we perceive as normal. This is just what makes it such an interesting practice. As indicated by Alberti (2016, 173) and Olsen and Pétursdóttir (2014), the uncanny, strangeness and wonder when confronted with the unknown are crucial parts of the reconstruction process, and the dialogue between interpreter and interpreted. Dealing with otherness creates excitement and a 'productive spark' (Alberti 2016, 174); it is an invitation to explore the unknown and it helps to avoid normalization of the past.

Issues related to divergent ontologies have been increasingly discussed in archaeology over the past 20 years or so, most often on the basis of the above discussed anthropological concepts (see e.g. Alberti & Bray 2009; Alberti *et al.* 2011; Crellin *et al.* 2021; Fowler 2017; Hodder 2012; Watts 2013). Such studies vary in their objectives, but all have in common that they reject Cartesian rationalism, dualist narratives and anthropocentrism, instead arguing for an openness to past indigenous categorizations and alterity, and argue that all things are constituted by their relations, which are (like meanings) not fixed but are constantly becoming in interactions between beings and things. The main theoretical approaches which have this in common are *new materialism*, *new animism* and *ontological archaeology*. Together, these (and other perspectives such as ontological realism, posthumanism) may be grouped under the umbrella of *relational archaeologies*. In an edited volume, Watts defines these as a group of approaches that that are aimed at 'conflating the abstract and immutable dualities of modernist ontologies' (Watts 2013, 1).

Following van Oyen (2016, 357), Harris (2021, 16) distinguishes three broad approaches to relationality in archaeology. The first ('relations as epistemology') regards relations as part and parcel of ancient worldviews, where personhood and agency are not restricted to human beings and where there is a conscious awareness of the relational entanglement between material and non-material entities. The second approach ('relations as methodology') is about how archaeologists use relations as interpretative tools, as in network analysis. Finally, in the 'relations as metaphysics' approach relations are seen as the fundamental building-blocks of the world. In practice, these three approaches are often intermingled, but the distinctions are heuristically relevant for thinking clearly about what relations are and how to apply and deal with them.

https://doi.org/10.1017/S0959774325000113 Published online by Cambridge University Press

Discussing its use in archaeology, Alberti (2016) makes a distinction between social ontology and critical ontology. The first refers to the process of using ontological theory and ethnographic data in order to reconstruct ontologies of the past. The second also attempts this, but takes into account the present ontological context, in order critically to assess the effect of that on the analysis. Inspired by quantum physics, Barad (2007) in her theory of 'agential realism' has in this respect argued that a relational world is always in the process of becoming and that our approaches and methodologies directly influence the outcome of analysis. Things, then, 'emerge in determinate forms from their relating' (Alberti 2016, 167, and see Marshall & Alberti 2014 for an example). While not primarily concerned with the present, Fowler's appreciation of ontological difference and diversity in the Neolithic of Britain and Ireland is a fine example of a critical and reflexive way of using ontological theory for interpreting the past (Fowler 2021).

New animism acknowledges personhood to non-human beings and things, but with a primary focus on relatedness, avoiding the classical animistic distinction between subjects and objects. In *new materialism* the emphasis is on relationality and process in interactions between humans, material culture and the contexts wherein these operate. By being and acting in and upon in the world, people and things relate in meaningful ways and are constantly changing and 'becoming'. The work of Latour (2005) on Actor Network Theory (ANT), Ingold (2000) on dwelling and skill and Hodder (2012) on entanglement are prime examples of such an approach. New materialism also emphasizes the relations between properties of materials and elements of nature with humans and animals, such as the way rivers provide clay for pots (Cipolla & Allard 2019).

Ritualization, temporality and space

In immanentist societies and contexts rituals are not to be regarded as special sacred contexts, separated from the profane world, but rather as special moments of attention to the relations between beings and things. Indeed, just like differences between humans and animals, distinctions are made between the sacred and profane, but these are just the two extremes of a continuum. Bell (1992, 74) speaks in this regard of ritualization, which is 'the way in which certain social actions strategically distinguish themselves in relation to other actions ... ritualization is a way of acting that is designed and orchestrated to distinguish and privilege what is being done in comparison to other, usually more quotidian, activities'. There is a temporal and spatial dimension to ritualization. Instead of linear or cyclical, rituals are marked by episodic time (see e.g. Benz 2020; Weidenhaus 2015). This refers to a subjective experience of time, based on episodic memory, which is the recalling of specific events at particular times and places. Episodic time, then, is part of the ritualization process, as the creation of a special time is a prerequisite of creating a context for performative acts related to the spiritual world, i.e. of ritual. Often part of such a context is a special place, which can be natural (think of a spring, mountain top, a sacred tree), but made by humans as well, such as a shrine, temple, etc. The convergence of special time and place is the most important outcome of ritualization, and especially ritual buildings are marked by such specific spatio-temporality. Returning to the sacred–profane continuum, it follows that there are low and high degrees of ritualization. In this regard, in his modes of religiousity Whitehouse (2004) differentiates between the *imagistic mode of ritual*, characterized by a low frequency and high arousal (e.g. rites of passage, state rituals), contrasted with *doctrinal rituals*, which are marked by a high frequency and low arousal (prayers, propitiatory rites, etc.).

Göbekli Tepe

The site and its setting

Göbekli Tepe is a 9-hectare tell located near the modern city of Şanlıurfa in southeastern Turkey and is dated to the Pre-Pottery Neolithic A (PPNA) and Early and Middle Pre-Pottery Neolithic B (PPNB), *c.* 9500–8000 BCE. The site is especially remarkable because it was hunter-gatherers who created the monumental stone art and structures, whereas such practices were previously held to be typical for farming communities. At least 20 large and monumental semi-subterranean round to oval stone buildings were present at the site. Of these, nine buildings have been excavated. The large central buildings were surrounded by smaller domestic architecture (Clare 2020; Clare *et al.* 2018; Dietrich *et al.* 2019; Schmidt 2006; 2012). The largest excavated building (C) measures about 30 by 25 m, and is preserved to a height of up to 3.5 m. Here, I focus on the PPNA–EPPNB buildings A, B, C and D, located in the central part of the site: see Figure 1.

Within the walls of the large buildings T-shaped stone pillars are situated within or against the walls and benches. In the inner circle of buildings B, C and D they surround two large (up to 5 m tall) free-standing central pillars. Most of the pillars are very skilfully decorated with animals in bas-relief (Figs 2 & 3) and sometimes also with abstract symbols. On some pillars, such as pillar 27 in enclosure C, predators have been sculpted three-dimensionally, seemingly crawling out of the stone (Fig. 4). The animals depicted are in many cases wild, dangerous and male, for example foxes and lions showing erect penises and bared teeth, but also snakes, spiders and scorpions. Most of the animals are in motion, often leaping (see e.g. Busacca 2017). The fox is the most commonly depicted animal. Cranes and waterfowl are commonly depicted as well (Garfinkel & Krulwich 2023; Peters & Schmidt 2004; Peters *et al.* 2005). It seems that there is a relation between buildings and particular animals: snakes in building A, foxes in building B, wild boar in building C, snakes and foxes in building D. In building F the highest number of anthropomorphic elements were found. Depictions of arms and hands are present on nine pillars. Given that the largest central pillars in building D were marked by flexed human arms at the sides, hands and indications of dress at the front, it is very likely that all pillars represent humans, or humanlike beings; hence I will call them humanoids, the human body being represented by the vertical part and the head by the horizontal part of the T. The animal imagery on the pillars is not representative of hunted

https://doi.org/10.1017/S0959774325000113 Published online by Cambridge University Press

https://doi.org/10.1017/S0959774325000113 Published online by Cambridge University Press

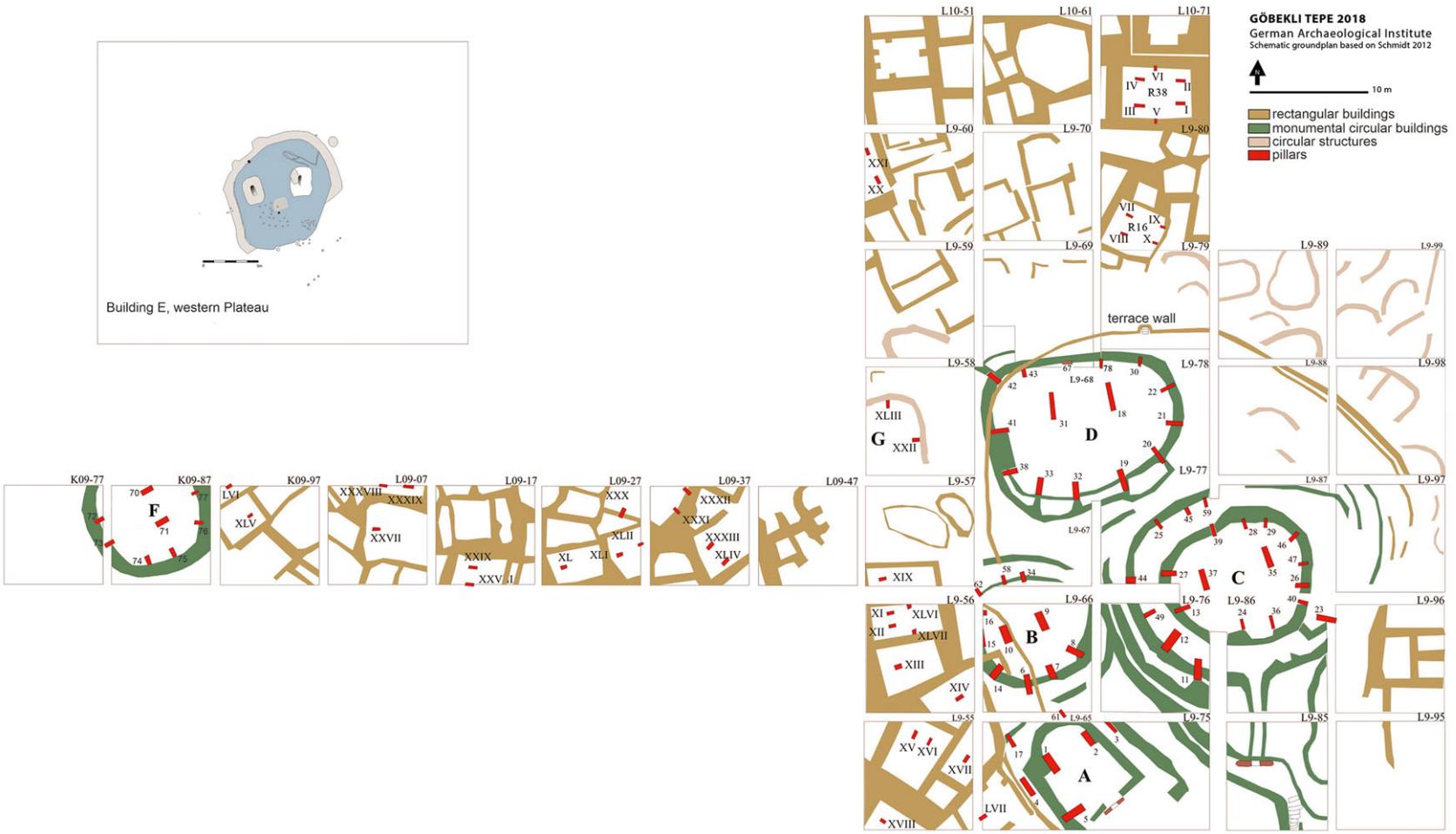

Figure 1. Plan of Göbekli Tepe, with the numbers of the pillars indicated. (Courtesy of the German Archaeological Institute, Göbekli Tepe Project, M. Kinzel.)

Figure 2. Pillar 2 in building A, with an aurochs, fox and crane. (Source: https://www.worldhistory.org/image/13199/gobekli-tepe—layer-iii-enclosure-a-pillar-2/).

Figure 3. Pillar 10 in building B, with a fox. (Source: https://www.worldhistory.org/image/12475/gobekli-tepe-pillar-with-sculpture-of-a-fox/).

animals. Besides Persian gazelle (58 per cent), wild cattle (18 per cent) were the major suppliers of meat, but Asiatic wild ass, wild boar, wild sheep, deer, hare, fox and a variety of bird species contributed to the diet as well (Peters *et al.* 2014).

Apart from depictions of animals on pillars, many medium-sized limestone sculptures of animals have been found in and around the fill of the buildings, mostly representing powerful animals such as leopards, lions, boars and vultures. One of these, a life-size and complete statue of a wild boar was found *in situ* on a bench in the north of building D, decorated with an abstract H-symbol, a half-moon shape, snakes and three human faces. The boar has an aggressive appearance, with its mouth wide open, showing its teeth, tusks and a tongue with traces of red paint (Fig. 5).

On the basis of the dominant and striking symbolism, as well as the monumentality of the pillars and buildings, there is general agreement that the 'special' buildings at Göbekli Tepe represent ritual buildings (e.g. Clare 2020; Dietrich 2023; Schmidt 2006; Verhoeven 2002; 2011b).

As yet, there are no human burials, but about 700 human bone fragments have been recovered, mostly skull fragments, some with evidence of de-fleshing activities and decapitation. A belief in ancestors, however, may be indicated by three partially preserved human skulls show evidence of carving, a previously unknown variation of so-called skull cult, i.e. ancestor veneration, in the Early Neolithic of Anatolia and the Levant (Gresky *et al.* 2017; Verhoeven 2012b). Notroff *et al.* (2016) and Fagan (2017) suggest that PPNA Göbekli Tepe served as a necropolis, given the considerable number of human bones with evidence of burning and cutmarks, the depictions of raptors holding human heads and 'decapitation' of anthropomorphic sculpture. If the site was used for excarnation of human corpses by necrophagous birds this may indeed have been the case, but given the absence of human burials, as far as we know it was not a necropolis in the normal sense.

While Göbekli Tepe is a truly astonishing site, in the past decade it has become clear that it is part of a regional tradition, with at least 10 comparable PPNA sites in the so-called Taş Tepeler region. The best known of these is Karahan Tepe with some magnificent large-scale stone sculpture (Karul 2021). In fact, elsewhere in Turkey and all over the Near East, the PPNA is marked by special buildings and/or overt symbolism, at sites such as Körtik Tepe and Boncuklu Tarla in southeastern Turkey, Qermez Dere and Nemrik in northern Iraq, Jerf el Ahmar and 'Abr in western Syria, Wadi Faynan 16 in Jordan and Jericho in Israel (Benz *et al.* 2018; Kodaş 2023; Kozlowski 2002; Mithen 2020; Stordeur 2015; Watkins 1990; Yartah 2004; see Belfer-Cohen & Goring-Morris 2010 for an overview).

https://doi.org/10.1017/S0959774325000113 Published online by Cambridge University Press

Figure 4. Pillar 27 in building C, with a leopard, above a wild boar. (Source: https://www.worldhistory.org/image/12474/gobekli-tepe-pillar-27-enclosure-c-layer-iii/).

Relational approaches

There are a number of archaeological studies departing from ontological/relational perspectives that deal with Göbekli Tepe.

Inspired by the work of Ingold (2000) and Descola (2013), Borić (2013) has attempted to identify the 'internal logic' of the animal iconography by using ethnography about 'animic or perspectival thought', referring to the cooperation between human hunters and animal prey in animic ontologies. Here, animals have to offer themselves voluntarily to hunters in order to ensure the flow of vital force, and hence of life. Personhood, then, is a continuous process of becoming in relation with other beings. Borić argues that the depiction of powerful and dangerous animals does not indicate a preoccupation with hunting, in the sense of providing 'statements of the human overpowering of the wild, as implied through the metanarratives of domestication so often evoked in archeological interpretations of the Early Holocene symbolic ecology' (Borić 2013, 61; see Verhoeven 2004 for an alternative view of domestication). Rather, the depictions on the pillars would have served to release the power of predators and dangerous animals, to be used as a vital force.

Figure 5. The head of a complete and life-sized limestone statue of a boar found on a bench in building D, as exhibited in the Şanlıurfa Archaeology Museum, Turkey. (Photograph: author.)

Inspired by new animism, in a rather imaginative analysis, Fagan (2017) has argued that the PPNA buildings should be regarded as places of—symbolic—consumption and predation. By carving, powerful beings were released from the limestone and by depicting these beings people were able to engage with dangerous creatures on their own terms, which would enable them to interact safely with the spirit world. The limestone, then, might have been regarded as being alive, constituting a 'hungry materiality'. The infill of the buildings, primarily consisting of limestone rubble and animal remains, may in this regard be interpreted as food for the rock. Other indications for consumption and predation would be the images of predatory and aggressive animals, as well as depictions of raptors holding human heads (predatory consumption). Such a focus on predation and death is seen as having been co-productive in the cycle of death, consumption and reproduction, i.e. in the recycling of vital energy.

Busacca (2017), also working from a new animist perspective, is critical of the scholarly emphasis on the aggressive and dangerous nature of the Göbekli Tepe symbolism. While not denying the meaningfulness of this, he argues for a more complete approach, including the spatial and performative contexts of the depictions. Thus, he is particularly interested in what images do, regarding them as active participants in the interactions between humans,

https://doi.org/10.1017/S0959774325000113 Published online by Cambridge University Press

depictions and the depicted subjects. The images are regarded as the material embodiments of otherwise invisible animal spirits. On the basis of an analysis of indications of movement and orientation in particular, Busacca proposes that that the dynamic portrayal and consistent orientation towards the centre of the circular enclosures may be related to a liminal journey of the animal spirits towards the ritual space that these buildings represent. Thus, the architecture and iconography enabled interaction between human and non-human agents.

In a recently published paper, like Busacca, I have dealt with the symbolism of and in the circular PPNA buildings' iconography through an analysis of the relations between the architecture and the art (Verhoeven 2024). The point of departure is that the concepts of boundaries, art and ritual are central to interpreting and explaining the nature and purpose of the monumental architecture. I argue that within the buildings so-called boundary conditions (the active and structuring role of boundaries on human behaviour and thought, generating specific activities, attitudes and emotions) prevailed, but at the same time the transgression of boundaries was part and parcel of the symbolism, given the ambiguous relations between humans, animals, death, life, etc. In the buildings boundary conditions were created by physical and conceptual boundaries, and evocative art structured around both the relations and differences between humans and animals, life and death, fear and awe, vitality and submission.

My current approach to the Göbekli Tepe architectural symbolism builds upon these contributions, but differs in two important respects. First, while Busacca (2017, table 3) has made a catalogue of the location and orientation of the animal depictions on the pillars, a recent study by Dietrich (2023) includes the hitherto most informed and complete list of the types of animals depicted on the pillars, and moreover provides evidence for shamanism. So I have been fortunate to be able to use these data. Second, while adhering to a holistic ontology, I argue for relational differences, using the concepts of referential relations, compositional hierarchy, and perspectivism.

Human–animal symbolism

Usually, the animal symbolism of the pillars is interpreted as part of predator–prey relations and narratives (e.g. Borić 2013; Dietrich 2023; Fagan 2017; Hodder & Meskell 2011). This is based, of course, upon the depictions of predators, but also on the active and aggressive posture of some of the animals, with snarling heads, sharp teeth, claws and horns. Erect penises of some of these animals enhance the threatening nature of these images. Indeed, many of the depicted animals are predators, such as the foxes, snakes and scorpions. However, there are also other non-predatory animals, such as aurochs, wild pig, vultures, cranes and ducks. Moreover, some of these non-predatory mammals are also depicted as aggressive and dangerous.

In order to examine the kinds, numbers and iconography of the of the depicted animals in detail, I have compiled a list of the animals depicted on the pillars of the large circular PPNA buildings A, B, C, D and F, based on the most up-to-date information (Dietrich 2023: see Fig. 1, and see Schmidt in press). There are other buildings with decorated T-shaped pillars, dating to the Early PPNB, as well as other sculpture with animals (and/or humans), but I leave these aside, as I want to focus on just one period, one type of building, and on the pillars with a variety of animals (as opposed to the PPNB pillars). All in all, there are 66 pillars in the buildings. Of these 39 (59 per cent) are decorated with animals, as well as other depictions. These other figures mainly consist of abstract symbols, which I leave aside, as I focus on human–animal relations, and because it is unclear what they refer to (but see Dietrich 2023 for a complete list).

As can be seen in Table 1, I have made distinctions between (1) classes of animals: mammals, birds, reptiles and arachnids; (2) reference to danger: predator or non-predator, or death: prey, scavenging. In the analysis, then, the animals have been classified by taxa and 'danger scale'. One might argue that these are modern ways of ordering, and that the emic categorizations were based on other culturally significant characteristics of these animals, such as their social life, ecological niches, pregnancy period, seasonal behaviour, etc. While these attributes may indeed have been relevant, as far as we know, they have not been depicted in ways that indicate their importance, and/or are recognizable to us. What it was clearly important to convey was the aggressive and dangerous aspect of many animals. Currently this is the best way to access the animal symbolism of the T-shaped pillars; hence the focus on these particular aspects. In fact, as already indicated, there is general agreement among researchers that aggression, danger and predation were crucial aspects of the animal iconography at Göbekli Tepe.

On the pillars a total of 198 animals are depicted. This number is strongly influenced by the so-called net of snakes on pillar 1 of building A; if we regard this net as one depiction, the number of animals would be 136. In that case, with 36 per cent, mammals are the most depicted class, followed by birds (31 per cent), reptiles (20 per cent) and arachnids (scorpions and spiders, 4 per cent). Of the mammals, 88 per cent of the species related to danger and/or death represent predators (foxes, boars, leopards, aurochs and bears); the mammals are gazelle, sheep and wild ass. Of the birds it is the other way round: most (95 per cent) are not related to danger/death, as they are cranes, geese and duck. Interestingly, some of the cranes have very long, human-like legs, perhaps indicating that these are depictions of masked humans (Dietrich *et al.* 2019). There are just two vultures (one probably carrying a human head). The reptiles, on the other hand, are all related to danger/death, as they are represented by snakes, most likely Levantine vipers. These are highly aggressive and venomous snakes which are especially active at night, and known for a distinctive loud hiss used to frighten potential predators. They can grow up to 1.5 m long. Clearly, these creatures are dangerous, but, as Henley and Lyman-Henley (2019) point out, it perhaps is another typical aspect of their behaviour that may have made them symbols of death: aestivation. This is characterized by inactivity and a lowered metabolic rate, a state entered by snakes and other animals in

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Table 1. Numbers of animals depicted on the T-pillars from buildings A, B, C, D and F. CP = central pillar; d/d = danger/death; *=when snake net on pillar 1 and group of snakes on pillar 39 are counted by the real numbers of snakes therein.

	Mammal		Bird		Reptile		Arachnid	
Pillar (building)	*d/d*	*other*	*d/d*	*other*	*d/d*	*other*	*d/d*	*other*
1 (A)		sheep			snake (5) snake net (25)			
2 (A)	aurochs			crane (2)				
	fox							
5 (A)					snake			
C3 (A)					snake (2)			
C45 (A)				indet.				
6 (B)	leopard				snake			
CP9 (B)	fox							
CP10 (B)	boar							
	fox							
14 (B)	fox				snake?			
62 (B)					snake?			
CP35 (C)	aurochs							
CP37 (C)	fox							
11 (C2)	bear?							
12 (C2)	fox			duck (5)				
	boar							
23 (C2)	boar			duck (3)				
25 (C2)	boar							
45 (C2)	aurochs							
26 (C3)	boar							
27 (C3)	leopard							
	boar							
28 (C3)	boar (3)							
29 (C3)				indet.?				
36 (C3)	boar			indet. (3)				
CP18 (D)	fox			duck (7)				
19 (D)					snake			
20 (D)	fox (3)				snake			
	aurochs							
21 (D)		gazelle (2)					spider? (2)	
22 (D)	fox				snake			
	boar							
30 (D)		wild ass?			snake (5)			
CP31 (D)	aurochs				snake		spider? (2)	
33 (D)	fox	sheep? (2)		geese (5)	snake (39)			
	boar?			crane (3)				
	leopard?							

(*Continued*)

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Table 1. (*Continued*)

Pillar (building)	Mammal		Bird		Reptile		Arachnid	
	d/d	*other*	*d/d*	*other*	*d/d*	*other*	*d/d*	*other*
38 (D)	aurochs			crane (3)	snake (2)			
	boar			duck				
	fox							
42 (D)				duck	snake			
43 (D)	fox				snake (4)		scorpion	
	leopard (2)		vulture (2)	crane (3)			spider?	
67 (D)					snake (8)			
C41 (D)	bear (2)			indet.				
C55 (D)				indet.				
CP70 (F)	fox							
74 (F)	leopard							
76 (F)	leopard?			indet.				
N	*44*	*6*	*2*	*41*	*37 *99*	*0*	*6*	*0*
%	*32*	*4*	*1*	*30*	*27*	*0*	*4*	*0*
*%	*22*	*2*	*1*	*20*	*50*	*0*	*2*	*0*

response to high temperatures and arid conditions. The Göbekli Tepe inhabitants, then, may have regarded the annual disappearing of snakes into and their re-entering from the earth as a journey from life to death and back again. Lastly, to finish our survey, there is one scorpion and three other arachnids, possibly spiders.

I conclude that, while predator–prey relations were probably part and parcel of the pillar symbolism, on a higher level, relations especially between powerful animals (both predator and non-predator) and humans were at work. All in all, 64 per cent of the depicted animals seem to be related to death and/or danger. Taking the concept literally, I regard these animals—foxes, panthers, bulls, boars, bears, vultures, snakes and scorpions—as power animals. As proposed here, this concept is multidimensional. First, they are powerful in the sense of being strong, and/or fast, and/or dangerous. Second, visually they represent the most powerful icons. Third, given these characteristics and the discussed ethnographic examples, they possibly represent spirit masters, i.e. beings with supernatural powers that were called upon for help.

But what about the other animals: the few sheep, the gazelle and wild ass, and particularly the non-predatory birds? These birds—cranes, geese and ducks—make up 30 per cent of the total number of animals depicted, so they must have been of some symbolic importance (see e.g. Garfinkel & Krulwich 2023). They are not as spectacular or imposing as the predators, but this does not mean that they were unimportant. To what, then, may they have referred? Borić (2013, 58) has proposed that perhaps the ambulatory behaviour of some birds (e.g. crane or duck) may have been a reason to regard them as human-like, perhaps even as shamans, as we know from ethnography that these often use feathers in their costumes and use flight to travel between different worlds. This is a possibility, but more generally, I think the answer lies in how birds were different from the predators. First, of course, these creatures can fly. Moreover they are all related to water: ducks and geese swim, and cranes prefer marshy habitats. So, unlike our predators, they can fly, walk and swim. Cranes are even famous for their intricate 'dances', serving courtship and pair bonding (see e.g. Russell & McGowan 2003). Second, while cranes and duck are omnivorous, they do not hunt in the sense of stalking and ferociously killing prey. In symbolic terms, this more peaceful nature, and relation to water and sky (and earth as well), may indicate that these birds were metaphors of life. I propose to call these creatures 'multi-vital animals', denoting their differential habitats and reference to life. Perhaps they were regarded as spirit helpers, i.e. as beings with supernatural powers which were less potent than those of the spirit masters.

The buildings at work: space and ritual

In terms of Whitehouse's modes of religiousity, I think we can safely assume that the buildings were contexts of imagistic rituals. People inside were confronted with dominating central humanoid pillars, centrally situated in an 'animal gathering', that itself was part of (smaller) humanoid pillars situated within benches where people were seated (see also Busacca 2017). Peters *et al.* (2014) have argued that, given the anthropomorphic nature of the pillars, it might well be the case that humans considered themselves superior to other living creatures. However, apart from perhaps the leading shaman, real people within the buildings were subordinate to the

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central pillars, and perhaps also to the sculptured power animals, between which they sat. But, at the same, time they were part of the same gathering, like the animals looking towards the central pillars.

> The buildings with their pillars are orchestrated spaces with anthropomorphic (pillars, sculptures) and zoomorphic (animal reliefs, sculptures) elements. The circle pillars are arranged around and looking to a central pillar-pair that is larger. The animals on the surrounding pillars are in movement, predominantly in direction towards the central pillars. Sculptures are 'jumping' from the walls towards the pillars . . . . the buildings aptly orchestrate a gathering of faceless anthropomorphic figures with attributive animals in a semi-subterranean, presumably dark setting . . . . Inside, sculptures of dangerous animals brandishing their teeth and tusks received the entering visitors in leaping attitudes, who ended up face to face with two imposing humanoid pillars rising to 5.5 m in the centre. In flickering light, the visitor would have been able to partly make out the images on the circle pillars that alluded to lurking, aggression, death, intended to incite a tense atmosphere, probably fear, and distress. (Dietrich 2023, 42)

Clearly, the large PPNA buildings were built according to a shared architectural 'masterplan', which was used over a long period of time. Recently, on the basis of ethnographically informed criteria for the identification of shamanism in archeological contexts, Dietrich (2023) has put forward convincing arguments for the presence of shamans at Göbekli Tepe (see also Benz & Bauer 2016). Given their probable role as ritual leaders, it can well be imagined that shamans were involved in the construction of the buildings, as well as in the carving of the stone pillars. As there apparently were relations between particular animals and buildings (see the introductory section about the site), each may have been named and represented by those animals, i.e. the snake building (building A), the fox building (B), the boar building (C) and the snakes/fox building (D). It would make sense if these different buildings were the domains of different shamans, with each building focusing on a particular 'story' of the wider symbolic repertoire.

Space precludes elaborating the kind of ceremonies that may have been carried out, but in another paper (Verhoeven 2024) I have dealt with these. It seems that there is evidence for (1) small communal rituals, such as initiations (the buildings could accommodate *c.* 20–30 people); (2) abandonment rituals; (3) feasting; (4) death rituals; (5) rituals related to myth and story-telling. It should be noted that these rituals are not mutually exclusive, as feasting could be related to death rituals and story-telling could be part of all rituals. Moreover, it should not be assumed that the buildings were only used for one type of ritual: it is quite possible that they were multi-purpose structures. In that sense, it can well be imagined that they also served as places for e.g. village meetings.

Being(s) in the Göbekli Tepe world

Approach

On the basis of the introduced anthropological and archaeological theoretical issues, and discussions of the Göbekli Tepe architecture, associated human–animal symbolism, and how this was part of ritual practices, in this section I present a model of the nature and culture of being(s) at Göbekli Tepe. The model itself is mainly based on two methodological concepts: referential relations and compositional hierarchy.

Referential relations

In order to reconstruct and denote the relations between (human, animal and supernatural) beings, I propose to use what I call 'referential relations'. This pertains to two or more things or beings that refer to a common denominator, that have a shared trait. An example would be human hunters and animal predators, referring to prey and resulting in the linked categories of humans–animals–hunters–predators–prey. Although referential relations can be based on twofold classifications, to begin with (e.g. hunters and predators), it does not rely on structuralist sets of binary oppositions. The focus is on relations, not differences, and more than two components can be used for proposing a reference. More generally, the problem with structuralism was that its rigidity did not do justice to the complexity of relations between beings and things (see e.g. Boglioli 2015; Turner 2009; van Fraassen 2022). We particularly know from ethnography that such interactions can be very complex and multi-layered indeed (think of our example of the Achuar house), and a full understanding of them is outside the scope of prehistoric archaeology. However, as I hope to show, analysis of referential relations (as they especially come to the fore in ritual contexts) might be a good way to arrive at emic categorizations, as it allows for evidence-based associative thinking. For example, if the burial record at a site shows associations between female burials and figurines of bulls, we may propose relations and referential links between these species and genders, e.g. human female–male animal. This may denote the existence of indigenous classifications which mix our western conceptions regarding humanity, animality, gender and sex.

Compositional hierarchy

Does relationality, as a reaction against Cartesian dualism and differentiation, mean that (non-western, indigenous) relations are equal? In their book about relationality and ontology (Crellin *et al.*, 2021) Harris (2021) has made it clear that this is most often not the case, as for instance in assemblages there can be many relations between many different entities. Relations, then, make a difference and emerge through distinctiveness. Humans and animals, for example, are simply not the same. While this does not necessarily mean that one dominates the other, it could well be the case. For instance, inclusion of animal figurines in a human burial, or human figurines in an animal burial, hints at different hierarchical levels regarding humanity and animality. Moreover, I would like to add, that—as we have seen—the presence of e.g. metahuman masters and power animals in animic societies should also make us aware of the presence of hierarchies within relational ontologies. In fact, referential relations are based on difference, as relations

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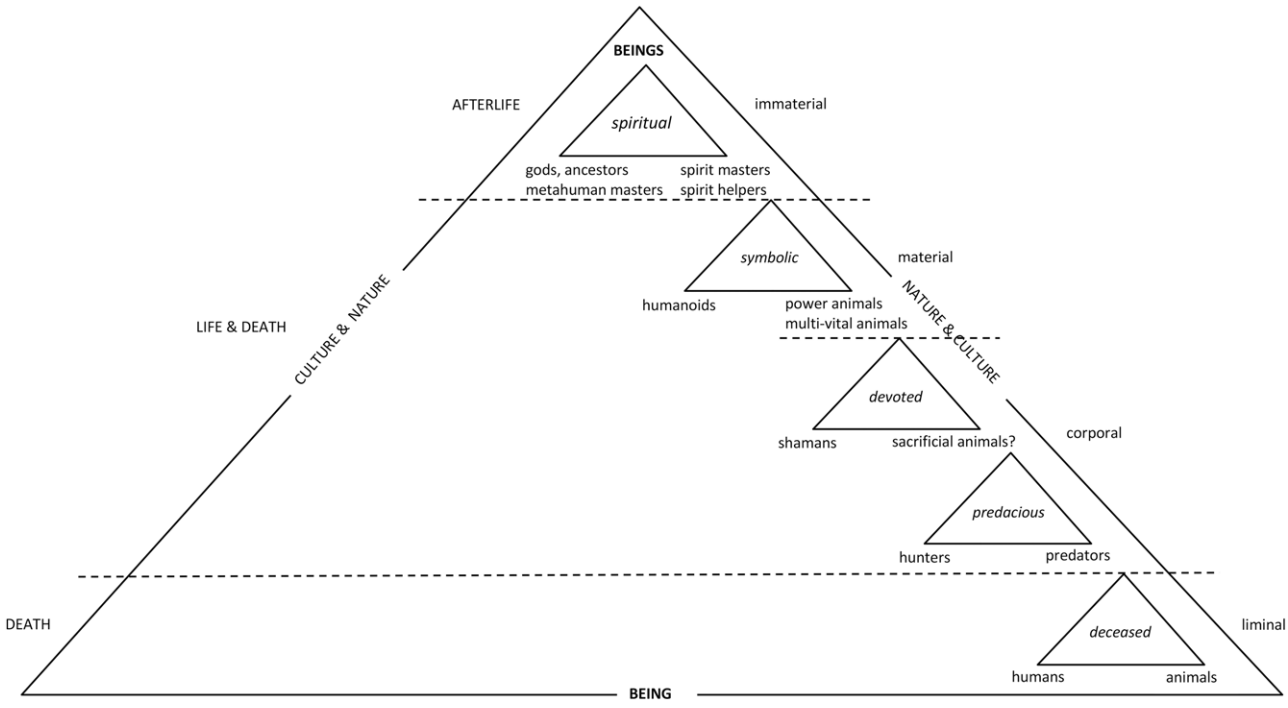

Figure 6. Model of the nature and culture of being(s) at Göbekli Tepe.

between similar entities (e.g. male human–male human) are obviously not very helpful in a relational analysis.

'Hierarchy' most often refers to strict differences in rank and status, and in archaeology it commonly features in evolutionary-inspired accounts of the progression from 'simple' to 'complex' societies (but see e.g. Verhoeven 2010). Here, I wish to use it in a rather different manner, in a way that accounts for both distinctions and relations. Borrowing a term from computer science and construction technology, I propose to use the term 'compositional hierarchy', where different levels of an organization are instances of a single concept. A compositional hierarchy is composed of superiors ('parents') and subordinates ('children'), but it does not subsume its children. Our body, for example, is composed of organs, cells, etc., with some parts (e.g. the heart) being indispensable, while without some other parts life can go on (see e.g. Pumain 2006). Compositional hierarchy is about the relationships between a complete whole and its parts or aspects. While objects or people may have specific rankings within a system, the focus is on their interactions. Compositional hierarchy, then, is a useful concept for dealing with socio-cosmic differentiation in presumably holistic prehistoric—hunting-gathering—societies, as notwithstanding their relational ontologies there most likely were hierarchical distinctions between gods, spirits, humans, animals, etc.

A model

In Figure 6, I present a model of the nature and culture of being(s) at PPNA Göbekli Tepe, based on the theoretical and methodological perspectives that have been discussed. More particularly, the model is based on two sets of empirical data: (a) the ritual symbolism on the pillars in the monumental buildings, especially signifying the importance of the concepts of danger, aggression and power in the animal iconography, i.e. of power animals, and the close relation of these to humanoids, and (b) the evidence for shamanism.

The large triangle represents the Göbekli Tepe world at large, while the smaller ones refer to different categories of bein(g)s:

- spiritual
- symbolic
- devoted
- predacious
- deceased

The beings themselves are depicted on the left and right sides of the triangles. They are regarded to have had referential relations. However, this does not mean that there were no differences: the model also shows compositional hierarchies of the beings, from top to bottom and from left to right (see Table 2).

Spirituality

Given what we know about traditional hunter-gatherer societies, it is safe to assume that supernatural and spiritual beings were part of the Göbekli Tepe way of life. I postulate that the main *spiritual beings* are represented by the humanoid T-shaped pillars. Based on their size and iconography, these may have defined the following 'pantheon':

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- (large) central pillars: greatest gods and ancestors
- peripheral pillars: metahuman masters
- power animals on pillars: spirit masters
- multi-vital animals on pillars: spirit helpers

The large central pillars (in buildings B, C and D) always occur in pairs; apparently there were two primary supernatural beings. Perhaps the couples represent males and females, but there are no clear indications of sex, and female symbolism is very rare at the site. A perhaps more likely interpretation is that the pairs refer to terranean and subterranean beings; to upper- and underworlds. First, the large circular structures with the central pillar pairs were sunk into the earth, indicating that a surface–subsurface distinction was significant. Second, cosmological distinctions between upperworlds and underworlds are common in many cultures, and certainly those practising shamanism, as probably at Göbekli Tepe. Third, the enigmatic abstract H-symbol on the front of central pillar 18 in building D (and also on five peripheral pillars) might be a depiction of a ladder, enabling travel between upper- and underworlds. Finally, the depicted animals (on the T-shaped stelae in general, but also as separate sculpture) might be representations of the sky (birds), the earth (e.g. aurochs, pig, leopard, boar) and the underground (e.g. snakes, scorpions and perhaps foxes living in holes).

Symbolism

The supernatural beings suggested above were materially presented in the circular buildings by large stone sculpture: by using symbols, people could connect to them in real ways. While I use the term symbol in a general, generic, sense, following the semiotics of Peirce, in fact I regard the abstract T-shaped pillars as true symbols (indirect representations), but the realistic animal images as icons (direct representations). It is suggested that the cognitive and emotional effect of these symbols was marked by a complex interplay of different reactions and feelings. The largest central pillars especially must have induced feelings of respect and awe, because of their size, but also due to their central position, making them focal points. Due to their more human-like size and their place near the benches people must have sat on, the peripheral pillars may have been regarded as fellow beings. The animal imagery on the pillars, specifically the power animals (spirit masters) and the multi-vital animals (spirit helpers), may have been capable of causing different emotions, such as fear, awe, submission and vitality.

Devotion

On account of the presence of the spiritual and symbolic beings in special buildings, they most probably were the focus of rituals which, given the evidence of shamanism, were likely organized by shamans. Apart from being spiritual intermediaries, diviners and healers, shamans are often supervisors of sacrifices. As yet, there is no direct evidence for animal sacrifice at the site, but there is proof of feasting, given unusually large proportions of large cattle bones (Peters & Schmidt 2004), as well as indications for the consumption of alcohol at the site (Dietrich *et al.* 2012). It can well be imagined that animal sacrifices were part of such contexts. Therefore, sacrificial animals may have been the animal counterparts of the shamans. Both were especially dedicated and *devoted beings*.

Table 2. Hierarchies.

Hierarchy	Anthropomorpic beings	Zoomorphic beings
▲	gods, ancestors metahuman masters	 spirit masters spirit helpers
	humanoids	 power animals multi-vital animals
	shamans	 sacrificial animals
	hunters	 predators
	(other) humans	 (other) animals

Predation

At yet a lower level of the model are hunters and predators (*predacious beings*). As other researchers have also stressed, hunter–prey relations, then, were of vital importance in hunter-gatherer societies, as animals were major sources of food. As Borić (2013, 52) puts it: 'In the animic system hunting is the very activity that enables the flow of vital force between human and non-human beings'. In many immanentist cultures, therefore, humans and animals metaphysically cooperate (Ingold 2000). For instance, the Ainu of northern Japan believe that, when on earth, the gods disguise themselves. They can appear as many things, including animals like bears, foxes, owls, etc. These gods make their bodies—their material forms—available to humans: especially fish and meat. People are free to use these godly gifts, but must show respect, and after having used them they must return the spirits to the world of the gods by means of a spirit-sending ritual. These rituals are necessary for the sustainment of life; without them the gods would not be willing to visit the earth to offer their material bodies, and life would not regenerate (Akino 1999; Ohnuki-Tierny 1999). Most often, such rituals and more generally such relations are supervised by shamans, which have the ability to communicate with spirit masters.

Death and life cycles

The lowest level is represented by the ultimate fate of both humans and animals: death (*deceased beings*). This was not necessarily an ending, but probably the beginning of an afterlife, given the topmost spiritual beings, which influence life and death, but belong to another realm.

As indicated on the left side of the large triangle, on a more general level, the model suggests a ritual concern with

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Table 3. Two beings, seven relational perspectives.

Being(s)	Perspective	Interiority & exteriority			
		Human interiority	Animal interiority	Human exteriority	Animal exteriority
default					
humanity	anthropomorphic beings	X		X	
animality	zoomorphic beings		X		X
hybrid					
'humality'	people–animal beings	X			X
'animanity'	animal–people beings		X	X	
intertwined					
animal/people beings		X	X	X	X
		X	X	X	
		X	X		X
		X		X	X
			X	X	X

death, *life* and *afterlife*, in other words with all that is, was and might be. As denoted on both the left and right sides of the triangle, *nature and culture*, particularly humans and animals, were closely related on all levels, as both types of beings seem to have had spiritual, symbolic, practical and eschatological counterparts. Finally, as signified on the right side, *material*, *immaterial*, *corporal* and *liminal* states of being corresponded to life, death and afterlife, as well as to specific states of being.

Hierarchy and perspectivism

In at least ritual contexts spiritual, symbolic/material and real beings were entangled, but at the same time were hierarchically differentiated, both vertically and horizontally in the model (Table 2).

Gods, ancestors, metahuman masters, shamans and hunters, then, may have exerted power over animals, but at the same time specific (power and multi-vital) animals were in charge, as they may have been regarded as spirit masters and spirit helpers. In this respect, there was a difference in *power over* and *power of*. While indeed a human mind-set based on a *power over* mode would have been conducive for achieving cultural control over animals, setting the stage for the so-called Neolithic revolution (Cauvin 2000), such anthropocentrism clearly is only one part of the story (see e.g. Verhoeven 2011a). Especially in rituals, humans may have felt themselves becoming a part of the world of animals, and perhaps predatory (power) animals may have seen humans as prey, or even as spirits or animals. Indeed, rituals in the highly symbolic, powerful and dark megalithic buildings may have been directed at effectuating such spiritual and cognitive transformations (see also Verhoeven 2013).

This is not to say that human–animal relationality was only significant in ritual contexts, as rituals were part and parcel of a relational ontology. Perspectivism may well have been at play here, as such an ontology could have been based on spiritual unity (a common interiority), with humanity as the principal condition of both humans and animals (symbolically at least, the latter were literally part of humanoids), but also on corporal diversity (a different exteriority), given the naturalistic animal depictions *versus* the abstract humanoids. In fact, as depicted in Table 3, when we combine the interiority (soul) and exteriority (appearance) of humans and animals, apart from humanity and animality, there may have been at least seven different relational perspectives. These can be divided in two basic 'hybrid' categories of 'humality' and 'animanity', and five more complex classes of 'intertwined' beings. While in the case of humality and animanity there is just one interior and exterior, the intertwined beings can have two interiors or exteriors. Note that also within these perspectivist contexts there may have been hierarchical ordering, with relatively simple (hybrid) and complex (intertwined) beings.

While it could be argued that that, given the animal icons within/upon human symbols (the T-shaped pillars), the 'humality' perspective prevailed, in principle people and animals could have changed perspectives in a constant process of becoming, thus blurring the human–animal and interior–exterior boundaries.

Worlds in motion

In this paper I focus on the internal logic of the symbolism and ritual related to the large PPNA buildings at Göbekli Tepe, i.e. the 'how'. But what about the 'why'? To most of us, the site is intriguing because it was hunter-gatherers who produced megalithic architecture and dominant art, whereas the common view is that such 'simple' societies lacked the need and capability for doing so, and that such practices are typical of farming cultures. Due to new research in the Taş Tepeler region and beyond, we are now getting used to the phenomenon of such extensive material expressions in the

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earliest Neolithic, but it still remains mysterious why this came about. While it is outside of the scope of this paper to deal with this issue in detail, some remarks are in order.

While applications of general unilinear evolutionary theories that regard the origins of sedentism, agriculture and the Neolithic way of life as direct adaptive responses to environmental pressures and/or population pressure have been heavily criticized (e.g. Verhoeven 2004; Zeder & Smith 2009), the search for external causes remains popular for explaining neolithiszation (e.g. Kuijt 2000). For instance, using niche construction theory (Odling-Smee 2024), Sterelny and Watkins (2015) argue that from the beginning of the Upper Palaeolithic, and especially in the Neolithic, there was an increasingly dense population, increasing size and permanence of villages and increasing investment in cultivation of crops and management of animals. In their view, cooperative rituals and the construction of elaborately symbolic architecture and artefacts were necessary for the maintenance of this new kind of social niche. There are two problems with these types of reconstructions.

First, there is not enough, or reliable, data for determining population numbers, and certainly not for arguing for population pressure. Large PPNB 'megasites' in the Near East are often seen as evidence for large numbers of people living together in crowded settlements, causing social stress (e.g. Kuijt 2000). However, as I have argued elsewhere (Verhoeven 2006), it is questionable if there were ever PPNB 'megasites', in the sense of large densely-populated settlements at given moments in time. To be sure, there are very large PPNB sites, but as yet it is not at all clear if these were ever densely populated over their entire surfaces. It could very well be, for instance, that their large size was due to shifting building activities. For the PPNA there are even less reliable data for population estimates, as many sites cannot simply be regarded as ordinary settlements. Göbekli Tepe, for instance, is quite large, *c.* 8 ha, but while people certainly lived there, it most likely served as a ritual centre for surrounding communities.

Second, the need for cooperative rituals to ensure proper social conduct relies on functionalist theories going back to Durkheim ([1895] 1982), who introduced the theme of solidarity on the basis of 'social facts' (as things that can be objectively studied), by which are meant the values, norms, and institutions that shape human behaviour and make up society. He regarded them to be external to individuals and to have a constraining influence on their actions, overriding personal values, beliefs and morals (Durkheim [1895] 1982). This supremacy of the collective conscience has been criticized, as it implies that individuals have little control over their actions and are simply products of their social environment. Moreover, it oversimplifies the nature of engagements between material and immaterial contexts (Giddens 1986). Furthermore, treating social facts as things may impose a Western, scientific worldview on non-Western cultures (see e.g. Thilakarathna 2019). So, while rituals may indeed promote social cohesion (Whitehouse 2021; Xygalatas 2022), this should not be taken for granted. More importantly, as the idea of cohesion through ritual is ultimately—and still—based on the premise of social facts, it is logically wrong to propose that in the Neolithic people started performing public rituals because it would alleviate stress. This is because social facts are independent and outside of individuals, so (within this kind of thinking) they cannot be regarded as having been invented. The—possible—strengthening of group solidarity through ritual is something that happens, or not, in the course of time. Of the six basic categories of rituals—rites of passage, calendrical and commemorative rites, rites of exchange and communion, rites of affliction, rites of feasting, fasting and festivals, and political rituals—perhaps only the latter directly serve the social cohesion/stress alleviation objective (Bell 1992; Verhoeven 2012a).

Even if there were indeed growing or dense populations, the ceremonial buildings at Göbekli Tepe were not constructed for solving social problems, such as population stress; they were made for conducting rituals dealing with relations between supernatural beings, humans and animals. That said, I do regard the startling PPNA symbolism of Göbekli Tepe and other Taş Tepeler sites to have been instrumental in neolithiszation in the region.

With regard to neolithization, the apparent hierarchies at Göbekli Tepe, specifically with regard to the role of humans, can perhaps be explained in terms of a cognitive and symbolic form of domestication, which I define as a long-term process of changing relationships between people, plants, animals and objects, resulting in increasing human control over these beings and things (Verhoeven 2004). In the PPNA this sense of control was for the first time materialized in stone, perhaps as metaphor for enduring relationships, as well as an expression of human transformative power. In an evolutionary perspective, it may have been the case that there was a growing awareness of human capabilities, that 'culture was ready' (Braidwood 1960) to take steps towards novel worlds. In this respect, Cauvin (2000) has argued that the Neolithic 'revolution' would initially have been symbolic and (psycho-) cultural, and only later an economic one. I agree, but do not regard materialization, neolithization, or domestication as revolutions, but rather as the outcomes of a long and slow process of intensifying relationships between beings and things (Verhoeven 2011a). This does not mean that external—environmental—or internal pressures were non-existent or non-relevant, as of course these can induce changes. However, change and innovation can come about for many other reasons, including innovation and inventions in technology, economic processes, social movements, politics and education (see e.g. Marx & Roe Smith 1994; Weinstein 2010). It should be noted that these developments are related, and that a shift in one area often results in modifications in other areas as well, setting all kinds of feedback loops in motion. For instance, with regard to the PPNA, the fact that in the Taş Tepeler region T-shaped pillars were all the rage suggests that many regional communities regarded this innovation as important, resulting in it becoming ever more important. As people were drawn into these novel evocative surroundings, new things and ideas will have emerged, effectuating further changes in sociality, technology, economy and ontology.

https://doi.org/10.1017/S0959774325000113 Published online by Cambridge University Press

Conclusion

With regard to theory and methodology, the main conclusion is that archaeologists should strive to find a balance between 'oppositional' and 'relativistic' thinking and modelling. Reasoning on the basis of either dichotomies like nature–culture, or sacred–profane, or the absolutely holistic and non-hierarchical nature of immanentist societies, does not do justice to the dynamics and complexities of social and spiritual interaction. Things and beings are not opposed or wholly intermingled; they are part of the flow of life, as well as of death and afterlife, with all the different contexts that these domains offer. In fact, without such distinctions it would be impossible to think or act, as we need to separate the edible from the not edible, the non-edible, the feasible from the unfeasible, etc. At the same time, we need all kinds of relations between humans, animals, plants, the environment, mind, body, ancestors, etc., as we cannot live in social, economic, cognitive or spiritual isolation.

Hunter-gatherers are, on the basis of subsistence and/or social structure, often portrayed as representatives of so-called egalitarian or non-complex societies, but Göbekli Tepe shows that they can and could make their world very rich and complex in many ways. Their society was neither immanent, animistic, shamanistic or totemic (Descola 2013); it had elements of all of these concepts, and it represents a specific prehistoric culture in which human–animal relations were the primary elements in economic, social and spiritual ways of being. In other words, the Göbekli Tepe world is a prime example of the existence of a world with an internal logic which is completely different from the world of most archaeological interpreters, hence our difficulties with understanding the site. If we allow the past to unsettle us and our taken-for-granted theories, and seriously accept alterity, it not only puts our own world in perspective, but also, crucially, those other worlds we wish to comprehend.

Acknowledgements. I would like to thank Lee Clare and Moritz Kinzel for allowing me to use and publish the Göbekli Tepe site plan, and Oliver Dietrich for information about the pillar iconography. I am grateful to two anonymous reviewers for their helpful comments, and to John Robb for his editorial assistance.

Notes

1 In this paper a symbol is regarded as something that represents or stands for something else. Following the semiotics of Peirce (see e.g. Preucel 2006), it is used as an umbrella term for *icons* (two things that have an often visual likeness, e.g. a statue of a lion), *index* (with one thing being caused by another, e.g. smoke indicates fire), and for *symbols* (with a conventional link between a sign and what it indicates, e.g. language).

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Marc Verhoeven is project manager at an archaeological consultancy in the Netherlands, mainly dealing with landscape archaeology, predictive modelling and surveying. His main research interest, however, is prehistoric art, symbolism and ritual in prehistory, particularly in the Neolithic of the Near East, but in Europe as well. (See Verhoeven 2023 for an interpretation of Upper Palaeolithic cave art in France and Spain.)

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