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Neolithic Human-Animal Relations

The Neolithic, as the period when livestock were first domesticated, was a time of major transformations in human-animal relations. These changes affected relations with wild animals as much as with the new domesticate. These changes are discussed in the context of the Near Eastern Neolithic, the earliest and best-studied area of livestock domestication. Pathways to domestication varied for different taxa, and human relations with wild animals affected their willingness to adopt some domestic species. While the boundary between humans and wild animals was somewhat permeable, that with domestic animals was more rigid.

Gordon Childe termed the origin of agriculture ‘The Neolithic Revolution’ in part because it brought about a profound change in human interactions with the natural world. Animal domestication is thus a watershed moment in the history of human-animal relations. Hunters tend to relate to animals as equals, and to engage in personal relationships with their prey or its spirit master or mistress. Animals must offer themselves to the hunter, and the hunter must treat them with appropriate respect. Herders, on the other hand, protect and care for their flocks, which are rendered into a perpetual subordinate, child-like status, although herders may admire their animals greatly.

The Neolithic, then, is a crucial period of transformation in human-animal relations, a time when some animals become defined as wild in contrast to those that are now domestic. Dogs were domesticated earlier, probably in the Upper Paleolithic ca. 33,000 years ago and certainly by the Epipaleolithic/Mesolithic ca. 12,000 years ago. That is, dogs were domesticated, or perhaps domesticated themselves, in the context of pre-agricultural foraging societies. The major social and economic transformations, though, followed the adoption of herding, which occurred in the context of plant agriculture.
Herding livestock required changes in the organization of labor as well as human-animal relations. I will focus here on the Neolithic of the Near East, where plant and animal domestication occurred first (on present evidence) and have been most thoroughly studied.

Neolithicization, or the transition from foraging to farming, was a long process that stretched across several millennia in the Near East. During the Epipaleolithic in the late Pleistocene, some foragers settled in permanent villages. While they continued to use only wild resources, most scholars regard the social and ecological effects of Epipaleolithic sedentism as crucial to the later development of agriculture. Long-term residence would stress local resources, and create a stable anthropogenic niche for commensal species such as mice and house sparrows, which appear at this time at human sites. Sedentism creates stronger ties to the local territory and permits the accumulation of more material goods, both of which are likely to transform property relations.

Following the Epipaleolithic, the earlier part of the Near Eastern Neolithic is called the Pre-Pottery Neolithic (PPN), subdivided into two main phases, PPNA (roughly 10,000-8500 BC) and PPNB (roughly 8500-6500 BC).
There are many differences between the PPNA and PPNB in architecture, settlement size and structure, and artifact types, among other things. For our purposes, the PPNA can be regarded as the time of the first plant agriculture, and the PPNB as the time of animal domestication. Plant cultivation probably began early in the PPNA, with morphologically domestic cereals and legumes widespread by the end of the PPNA or early PPNB. Similarly, there are indications that sheep, goats, cattle, and pigs were herded in some areas from the beginning of the PPNB or perhaps somewhat earlier, showing signs of morphological domestication later in the PPNB.

The essence of herding is the conversion of animals into property, with varying degrees of human control of their movements, feeding, and mating. This major change in human-animal relations was perhaps facilitated by the model provided by the dog. As some wolves became tolerated scavengers around human settlements, valued by the people for cleaning up human feces and garbage and providing warning of potential dangers, they gradually became tamer and moved into closer relations with the humans, living their lives entirely with the human band. People probably did not set out to own these first tame wolves/proto-dogs, but given their hierarchical social structure, the proto-dogs would have attached themselves to individual humans, substituting a human master for a canine pack leader. They thus would have made the possession of members of other species more thinkable when other reasons made this appealing.

There are many competing models for how and why people began to herd animals, and the motivation may have varied for different species or even for the same species in different places. I would argue that different species followed distinct pathways to domestication in the Near East, shaped in large measure by the relations of humans with their wild ancestors. Neolithic herders seem to have had a largely utilitarian attitude toward sheep and goats, which rarely appear in art or ritual deposits. Their wild ancestors play a slightly larger symbolic role, but are not central figures in iconography. A ‘walking larder’ model is plausible for their domestication, where people begin to herd in order to maintain a supply of meat (and, sooner or later, milk and eventually wool) as sedentism leads to the hunting out of local stocks.

Wild cattle (aurochs, singular aurochs), on the other hand, played a major symbolic role in the Near Eastern Neolithic: in art, in ritual treatment of their remains, and as the centerpiece of feasts. In the core area of domestication in the Near East (the Levant and eastern and central Anatolia), they are always a relatively small component of the animals consumed –
although since they are much larger than sheep and goats, the proportion of meat would be greater. Their size also means that they would necessarily be consumed beyond a single household, that is, in a feast. It is likely that cattle were first herded to assure a supply of animals for sacrifices, feasts, and other rituals for which they were required. Later, dairy may have been an important reason for their spread and the increasing proportions of cattle as Neolithic farming spread into western Anatolia and Europe.\textsuperscript{15}

Pigs were likewise not a staple in the Near East, but seem to have been raised as a supplement or insurance.\textsuperscript{16} They are particularly amenable to either small-scale, household production (a pig or two in a sty) or loose forms of herding where they are left to run free in the forest for much of the time. In Neolithic Europe, the evidence suggests household pig raising, with little interbreeding with wild boar. Neolithic peoples in the Near East may have tended to looser herding. Wild boar appear regularly in depictions of animals and in some special deposits. Their role in feasting and ritual seems generally lesser than cattle, however.\textsuperscript{17}

While domestication is a defining trait of the Neolithic, wild animals dominated the symbolic sphere of myth and ritual. Domestic animals were perhaps too familiar, too rooted in the human world, to act as conduits to the divine. To some extent, wild animals simply continued in their previous roles. However, plant and animal domestication created a separate category of the wild that took on new meaning, and wild animal symbolism shifts after domestication. Jacques Cauvin famously identified a “revolution of symbols” in the Near East from the Epipaleolithic to the Neolithic: the Epipaleolithic has few anthropomorphic representations, and animal figures are mostly small ruminants, probably gazelles. In the Neolithic, the dominant figures are (mostly female) humans and bulls.

Cauvin thought that this change preceded the origins of agriculture, and reflected a new religion distancing humans from the divine, on the one hand, and nature, on the other – and that this ideological shift made farming and herding conceptually possible. It is more likely that the new ideology accompanied early cultivation, but in any case the Neolithic mentality conceived the human place in the natural world differently. Epipaleolithic hunters may have negotiated with animal spirits; Neolithic farmers relegated kinship with animals to the other worlds of the past and the dead.

At the PPNA sites of the northern Levant and eastern Anatolia such as Göbekli Tepe and Jerf el-Ahmar, in the region where most plant and animal domestication probably occurred (although recent work hints that central
Anatolia may have played a larger role than previously thought), animal depictions include bulls, boar, and the occasional ram or wild goat as well as birds, but notably feature dangerous animals (as indeed aurochs and wild boar are, too) and those otherwise associated with death such as scavengers (vultures, foxes). Scorpions and especially snakes proliferate, and leopards are also common. Vultures, sometimes paired with headless humans in what is probably a mythic reference as well as an example of a general concern with heads and headlessness across humans and other species in the Near Eastern Neolithic, are also a repeated motif.\textsuperscript{18}

The treatment and placement of wild cattle remains also links them to the dead, although this association appears later, in the PPNB. Aurochs skulls and horns were placed in the ‘skull building’ at Çayönü in southeastern Anatolia, so called because it contained dozens of human skulls.\textsuperscript{19} At Çatalhöyük in central Anatolia, wild cattle remains are associated with the dead and the house in ways that suggest the cattle were considered ancestors, and guardians of the dead. As is generally the case in the earlier Neolithic in the Near East, the dead were buried in houses; at Çatalhöyük burials were mostly placed in the north and east of buildings. What I have called ‘commemorative deposits’ that consist of idiosyncratic collections of a few items, usually including cattle remains, probably derived from ceremonies, were buried beneath house floors on the south and west.\textsuperscript{20} This creates a symbolic equivalence between the human ancestors and wild cattle, and ties both to the house, the central social unit of the Near Eastern Neolithic.\textsuperscript{21} Moreover, some of these and other special deposits contain matched pairs of male and female cattle body parts, invoking a gender balance perhaps referring to an ancestral cattle mother and father; cattle themselves are not pair-bonded. Wild bull horns were built into the houses in various ways, visible and concealed, including setting them into clay heads on the walls and into benches and clay pillars. The horned pillars were placed on the edges of platforms on the east side of the house, beneath which people were typically buried. In the best preserved instance, the horns, whose length would have been extended by the horn sheaths that were present when the house was occupied, completely fenced off the northeast platform as though guarding the burials below (Figure 2).

The symbolic importance of wild cattle, as ancestors, protectors, and foci of great hunts and feasts, was especially pronounced in central Anatolia. Probably as a result, central Anatolians resisted adopting domestic cattle. Although domestic cattle as well as sheep and goats were already present
to the east when Çatalhöyük was settled, they chose to herd only the sheep and goats. Domestic cattle eventually appear at Çatalhöyük and other central Anatolian sites around 6500 BC, at least 600 years after the site was founded. Meanwhile, domestic cattle bypassed central Anatolia and were kept by Neolithic groups in western Anatolia several centuries earlier. Taking control of docile cattle owned by humans was apparently too threatening to the central Anatolians’ relations with wild cattle.

Pigs follow a similar pattern, skipping over central Anatolia as they spread west, and for even longer. In this case, the resistance is more likely due to a taboo that developed in the area around the time that central Anatolians started to keep domestic livestock. At most 9\textsuperscript{th}–early 8\textsuperscript{th} millennium BC sites inhabited by the last foragers and first farmers in the region, including Boncuklu, just 10 km from Çatalhöyük, wild boar remains are quite common. These people did not keep domestic animals other than dogs, obtaining their meat from hunting. At Çatalhöyük, though, despite what should be excellent habitat, wild boar remains are not very common; the same is true at Aşıklı Höyük, a little farther away and contemporary with Boncuklu, where sheep and goats were herded. Moreover, while higher proportions of boar and all body parts have been found in an area on the edge of Çatalhöyük, in the settlement itself wild boar is represented mainly by heads and feet, which can travel with skins. Ethnographic work has shown that this kind of pattern may result from a partial taboo, where only some people may consume pork, while others (by gender, age, or other
categories) may not and may in fact be endangered by coming into contact with boar remains.26

An even stronger taboo applied to the leopard. Frequently depicted in various media in the Neolithic of the Levant and Anatolia, leopard bones are extremely rare at Neolithic sites.27 At Çatalhöyük, there is only a single specimen of leopard among more than 100,000 identified bones. This is a very particular bone, a claw drilled to form a pendant, found in a burial together with the site’s only plastered human skull (a feature of the Neolithic and especially the PPNB in the Levant, but rare in Anatolia) cradled in the arms of a woman. This selection of specific body parts for use in ritual contexts is typical of spiritually powerful animals that are completely taboo: forbidden for anyone to kill or eat, but people may scavenge body parts from carcasses they find.28 The leopard was no doubt a persistent figure in Near Eastern Neolithic myth in much the way that jaguars are in Central and South America.29

Birds were an important part of the diet in the Near Eastern Epipaleolithic and PPNA, before livestock herding. Once herding was adopted, though, they (along with fish and shellfish) become quite rare in Neolithic assemblages, and judging from the body parts at Çatalhöyük, in contrast to earlier sites in the area, may have been valued as much for their feathers as their flesh. Some birds, notably vultures and cranes, carry persistent symbolic value in the Near Eastern Neolithic, and likely figured in the corpus of myth. Vultures are represented in paintings, engravings on large pillars and small plaques, carved heads, and as part of multispecies ‘totem poles’ at several Near Eastern Neolithic sites.30 Griffon vulture heads were mounted on a wall at Çatalhöyük,31 and vulture remains have occurred in other ritual deposits. As scavengers, vultures are associated with death, and moreover with separating the corrupt flesh from the clean, lasting bone and thus facilitating the transition of the dead into the next world, and from individual to ancestor.32

Cranes, on the other hand, may have strong salience for people around the world because of their human-like characteristics: they are large enough to be human in scale, they are pair-bonded and care for their young, and they dance not only in courtship but in groups. In fact, humans can stimulate cranes to dance by imitating them – a powerful cross-species experience. Historically and ethnographically, humans have imitated crane dances around the world. I have interpreted a crane wing from Çatalhöyük with cut marks from creating a hole for attaching the wing as most likely part of a crane dance costume.33 Some representations of cranes at Çatalhöyük and
elsewhere show them in postures of their dance.

Many of the phenomena I have briefly described above hint at a relatively permeable boundary between humans and wild animals in the Near Eastern Neolithic. Treatment of cattle in central Anatolia, at least, suggests that aurochs and could be human ancestors, hearkening to a mythic time when humans and animals were not separate. Becoming cranes in dance or ceremony also blurs the human-animal boundary, and might have been part of a shamanistic ritual drawing the crane spirit into a human body. While not numerous, some therianthropic representations similarly suggest bodies able to transcend species boundaries, whether in remote mythic time or during the out-of-body experiences of trance. At Çatalhöyük, some of the painted vultures seem to have human legs, and reliefs and stamp seal depictions of bears have prominent navels that may mark them as simultaneously human (Figure 3; all placental mammals have navels, but they are inconspicuous in most animals). The ‘totem poles’ of Göbekli Tepe and Nevalı Çori in southeast Anatolia, with stacks of humans and birds, show at least an intense spiritual interaction across species, and perhaps a similar blending. The same may be true of figurines depicting humans interacting with leopards and bulls at Çatalhöyük and Hacilar.

Ironically, as domestic animals came into more intimate physical contact with humans, spiritual boundaries became more rigid. Domestic livestock are largely excluded from the ritual sphere. The boundary between humans and domestic animals is made material in an unusual burial from Çatalhöyük. The inclusion of intact animals in human graves is rare in the Near Eastern Neolithic and definitely at Çatalhöyük. The single exception is a lamb buried with a man, but in a manner that expresses considerable ambivalence. The lamb is separated from the man with a sheet of cloth or leather, and its feet were held straight up while the pit was filled,
apparently to prevent them from falling across the human body.36

In this brief overview, I have traced some of the striking changes in human-animal relations during the course of the Near Eastern Neolithic. Our understanding of human-animal relations, and particularly of the meaning of animal and other symbols or the specifics of religion, will always be frustratingly partial in deep prehistory. Nevertheless, clearly spiritual as well as social relations between humans and other species altered during the Neolithic. Nor was this a singular change wrought by animal domestication, but rather an ongoing process of transformation and renegotiation of relationships across several millennia, in which human relations with wild animals were changed as much as those with the new domesticates.

Notes
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Sites in Belgium, the Ukraine and Russia: Osteometry, Ancient DNA and Stable Isotopes," ibid.36, no. 2 (2009); Abby G. Drake, Michael Coquerelle, and Guillaume Colombeau, "3d Morphometric Analysis of Fossil Canid Skulls Contradicts the Suggested Domestication of Dogs During the Late Paleolithic," Scientific Reports 5 (2015).


tion and Exploitation of Plants and Animals*, ed. Peter J. Ucko and Geoffrey


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to Sheep Management at Aşikli Höyük, Turkey," Proceedings of the National Academy of Sciences 111, no. 23 (2014).


