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Archaeology and Human–Animal Relations: Thinking Through Anthropocentrism*

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Abstract

Archaeology is a field of research that relies largely on the remains of past humans and nonhuman animals and the traces of their interactions within a range of material conditions. In archaeology, as in sociocultural anthropology, the dominant analytical perspective on human–animal relations is ontologically anthropocentric: the study of the human use of nonhuman animals for the benefit of human beings, and scholarly inquiry that is largely for the sake of elucidating what nonhuman animals can tell us about the human condition. This review outlines the historical trajectory of Anglo-American archaeology's encounters with animal remains, and human–animal interactions, within this framework and considers recent attempts to move beyond anthropocentrism.

INTRODUCTION AND SCOPE OF THE REVIEW

Multiple theoretical perspectives on human–nonhuman animal relationships are well-established in contemporary critical animal studies. Archaeologists have begun to engage this body of literature to address the discipline’s uneasy reliance on the anthropocentric assumptions that continue to underpin its approach to human–nonhuman animal interactions. Intended as a contribution to the broader field of critical animal studies, I focus here on general themes that represent current concerns in the development of a human–animal archaeology. My primary concern is with human–animal relations in terms of identifying and interpreting material evidence for human–animal interactions in archaeological contexts and in the routine disciplinary procedures used to create archaeological knowledge about the human–animal condition. This review does not address directly archaeological approaches to animal rights, welfare and legal status, conservation, or the place of animals in the global “animal-industrial complex” (Twine 2012). Omission of these topics is not to downplay their importance in contemporary political or academic discourse, where archaeologists have taken positions on such issues for some time (e.g., Holtorf 2000, O’Regan 2002, Schork & Young 2014, Trinder 1993). Additionally, this review touches only briefly on the extensive archaeological literature on animals in art and representation. Finally, I do not discuss the “big questions” of “what makes us human”: the faculties, capacities, and attributes that may or may not set humans apart from nonhuman animals in terms of the relative possession of culture, language, cognition, self-awareness, symbol making, religion, etc. Many of these issues are the concern of bioanthropology and cognitive archaeology and are outside the remit of the present review. Similarly, analysis of human encounters and interactions with and between Neanderthals, and with pre-Holocene nonhuman entities, comprises another set of narratives not discussed here.

For the purposes of this article, “nonhuman” refers specifically to nonhuman animals. Other nonhuman organisms are the subjects of a number of contemporary studies of the posthuman, such as Marder (2013) on plants, Tsing (2015) on fungi, and Helmreich (2009) on marine microbes. Some critics argue that the field of human–animal relations is itself anthropocentric because it leaves, for example, “micro-organisms and plants out of the discussion” (Smart 2014). However, the field also leaves microwave ovens and moon rocks out of the discussion because they are likewise not nonhuman animals. A study always has parameters. The specific focus here is on archaeological approaches to the cohabitation of past worlds by human beings and nonhuman animal beings. Central to this discussion is critical reflection on how the human–animal distinction is embedded in the Western philosophical nature–culture divide (Descola & Palsson 1996). In sociocultural anthropology, numerous ethnographic studies have fostered an awareness of different alterities and non-Western ways of perceiving and categorizing nonhuman animals. Likewise, archaeological investigation continually confronts us with material contexts that show in no uncertain terms that people in the past classified animals in a myriad of ways different from those of the modern world.

WHAT IS ANTHROPOCENTRISM, AND WHY IS IT OFTEN SEEN AS UNDESIRABLE?

“We polish an animal mirror to look for ourselves.”

Haraway (1991, p. 21)

In part, anthropocentrism is the ethical belief that only humans possess intrinsic value. From this view, nonhuman animals have only (humanly perceived) economic and/or symbolic utility.

Twenty years ago, environmental political theorist Tim Hayward defined anthropocentrism as “a set of attitudes which privilege human faculties, capacities and interests over those of nonhuman entities” (Hayward 1997, p. 50). More recently, Boria Sax has characterized anthropocentrism as “this tendency to vastly exaggerate human dominance, understanding, power, autonomy, unity, guilt, virtue, wickedness, and morality” (Sax 2011, pp. 35–36), a characterization that resonates with recent biopolitical and bioethical debates on life in the Anthropocene.

In his argument, Hayward identified two facets related to anthropocentrism, one ontological and the other ethical. Briefly, the ontological critique argues that it is a problem to regard human beings as the center of the knowing world, whereas the ethical critique argues that it is a problem to privilege human interests over those of nonhumans (Hayward 1997, pp. 50–51). On the ontological issue, however, Hayward (1997) points out, “[T]here are some ways in which humans cannot help being human-centred. Anyone’s view of the world is shaped and limited by their position and way of being in it: From the perspective of any particular being or species, there are real respects in which they *are* the center of it” (p. 51, original emphasis). Furthermore, embodied well-being, regard, and respect for one’s own species can be positively equated with having humanity or humaneness, and it may follow that “only if humans know how to treat their fellow humans decently will they begin to treat other species decently” (p. 52).

Foregrounding other species in the human–nonhuman relationship leads Hayward to argue that the ethical concern with anthropocentrism marks as morally wrong the promotion of human interests “at the expense . . . of other species” (p. 52). The author thus suggests that “anthropocentrism” is a misnomer from the ethical and moral standpoint and can be replaced with “speciesism” or “human chauvinism.” It then becomes possible to be human-centered without being speciesist: “[O]ne can take a legitimate interest in other members of one’s own species without this necessarily being to the detriment of members of other species” (p. 52). Taking this further, Hayward concludes that rejection of anthropocentrism is analytically unhelpful, whereas abandonment of speciesism is both desirable and achievable in the same way that both racism and sexism should be ethically and morally intolerable. That is to say, speciesism is consciously avoidable, whereas, perhaps, anthropocentrism is not. Peter Singer (1975) discussed this notion some years earlier in his influential book *Animal Liberation*: “[T]he pattern of prejudice in humans’ treatment of animals is identical to that of racism and sexism” (p. 6). Hayward’s point could be read to mean that anthropocentrism is unavoidable because it is an innate attribute of being human, but some recent anarchist scholars prefer to regard it as a historically constructed belief system, “an ideology of human supremacy that advocates privileging humans (and those who approximate humanity)” (Weitzenfeld & Joy 2014, p. 4). We can also note here that some scholars regard speciesism as a form of anthropocentrism, and some have called for the rejection of both attitudes equally (e.g., Milligan 2011).

But as Hayward (and others) have observed, there remains a dominant anthropocentrism in much writing on animals. This view manifests itself in the search for explanations for the human condition. Consider the above quote from Haraway (with its nod to Baudrillard) and the number of academic and mass-market books with titles on the variation of *What Animals Tell Us About Humans*, *Finding Human Nature In Animals*, *How Animals Teach Us To Be Human*, *How Animals Made Us Human*, and so on. Invariably, it seems, we look to the animal other to discover something about the human self. Thus, the nature of the human–nonhuman animal relationship is not the focus of inquiry per se. Can archaeology’s traditional big questions regarding animals—domestication, subsistence and raw material sources/products, symbolism, representation, etc.—be successfully articulated with this theoretical desire to produce human–nonhuman animal histories that do not continue to privilege the human at the expense of an instrumental animal?

HUMAN-ANIMAL STUDIES AND SOCIOCULTURAL ANTHROPOLOGY

Before directly addressing this question, however, and given the long-standing constitutive role of, and reliance on, ethnographic sources in many archaeological approaches to human–animal relations, it is important to outline the current status of sociocultural anthropological research into the topic. The most recent comprehensive review in the *Annual Review of Anthropology* was almost 20 years ago (Mullin 1999). Around that time, across several of the humanities and social sciences there emerged what Anderson (1997) termed a post-Cartesian “animal turn,” part of a wider inquiry into the relationships between and within nature, culture, and society. Those relationships had become the subject of extensive critical interrogation, and consequently the study of human–animal relations formed an essential and necessary part of these rethinking.

Influenced by European continental philosophy—particularly Derrida’s (e.g., 1989, 1993) writings, parts of Heidegger’s (1983) *Fundamental Concepts of Metaphysics*, and Deleuze & Guattari’s (1987) notion of “becoming animal” in *A Thousand Plateaus*, among others—and also by the animal rights and welfare debates of the 1970s and 1980s (canonically, Francione 1995, 1996; Midgley 1983; Regan 1983; Regan & Singer 1976; Ryder 1989; Singer 1975)—the theoretical lead was initially taken by scholars in the philosophies (e.g., Garner 1993, Gruen 1991, Palmer 1995, Shapiro 1990, Steeves 1999, Wise 1996), human geography (e.g., Anderson 1997, 1998; Philo 1995; Philo & Wilbert 2000; Wolch et al. 1995, Wolch & Emel 1998), and feminism and gender studies (e.g., Adams 1990; Adams & Donovan 1995; Arluke & Sanders 2009; Birke 1991a,b; Cuomo & Gruen 1998; Plumwood 1993). Also formative were key interdisciplinary works by Haraway (1989, 1991) and Ritvo (1995, 1997). These brought together perspectives from cognitive science and primatology to develop vital work that was among the first to explicitly foreground the relational and the mutual in species encounters in the sense of “living with,” thus going beyond “good to think.” Founded at the same time were the now well-established journals *Society & Animals* (in 1993) and *Anthrozoös* (in 1997).

Despite a long history of ethnographic studies of animals in human social systems (from foundational work such as Douglas 1957, 1966; Evans-Pritchard 1940; Geertz 1973; Harris 1966; Kuper 1982; Lévi-Strauss 1963; Rappaport 1968; to countless region-specific studies), sociocultural anthropology was slow to engage with this first wave of critical animal studies literature. In her 1999 review, Mullin suggested that despite the appeal of “alternatives to more anthropocentric approaches” (p. 219), the anthropological study of human–animal relations “will continue to be as much, if not more, about humans” (p. 201). So there was a feeling, perhaps, that anthropocentrism was not really an epistemic problem for anthropology because its fundamental object of study is/was the human. Nonhuman animals were of interest to cultural anthropologists insofar as they were instrumental to spheres of human practice such as rituals, as perceived components of human cosmologies, as symbols, etc. Notable exceptions at this time include the works of Bird-David, Descola, Ingold, and Viveiros de Castro, whose contributions to human–animal anthropology consistently highlighted nonanthropocentric approaches in non-Western epistemologies and, more recently, ontologies (e.g., Bird-David 1999; Descola 1992, 1994; Ingold 1974, 1986, 1994a,b, 1995, 2011; Viveiros de Castro 1998). Much recent perspectivist- and animist-related research is indebted to these accounts.

By the early 2000s, the general disciplinary position on animals began to shift, “with many re-examining basic assumptions about animals and nonhuman relationships” (Mullin 2002, p. 388). This reexamination was partly constitutive of the wider turn to issues of ontology in anthropological thinking (Henare et al. 2007), itself emerging from the work of Deleuze et al. (1997), and 1970s and 1980s science and technology studies by Haraway, Latour, Law, Woolgar, and others. The nature of this turn has led to widespread debate (see, for example, Bertelsen & Bendixsen 2017,

Bessire & Bond 2014, Kelly 2014, Todd 2014, Vigh & Sausdal 2014, Viveiros de Castro 2015). Of interest to scholars of human–animal relations has been the marked concern with indigenous alterity and perspectivism, as initially articulated in different ways by Descola (e.g., 1994, 2013) and Viveiros de Castro (e.g., 1998, 2012, 2014) in their respective Amazonian ethnographic research. This work has been further enhanced (Kohn 2007, 2013) through engagement with Peircian semiotics and the prescient multispecies perspectives of Bateson (1972) to situate nonhuman animals in a culturally specific ecological web that attempts to thoroughly eschew human exceptionalism and anthropocentrism. In recent Brazilian human–animal research, however, a political critique of the generalizing tendencies of perspectivism has been offered by Ramos (2012), raising concerns about the “alien verbalization” of indigenous voices. In a Native American context, similar criticisms have been leveled by Risling Baldy (2015) regarding the reduction of indigenous animal categories to metaphor by ethnographic researchers.

Today, human–nonhuman animal relationships have been brought into a range of vital areas of contemporary anthropological inquiry, such as climate change (e.g., Cassidy 2012), the biopolitics of species extinctions (e.g., Sodikoff 2012), biocapitalist xenotransplantation and bioengineering practices (e.g., Sharp 2014), and the geopolitics of the Anthropocene (e.g., Kohn 2015).

If some anthropologists were slow to engage with the animal turn, others have seemingly bypassed human–animal studies altogether to argue for an interdisciplinary multispecies ethnography (e.g., Kirksey 2014, Kirksey & Helmreich 2010, Ogden et al. 2013, van Dooren et al. 2016), in the sense of a “collection of entities and things and . . . a complex and dynamic process whereupon the collective’s properties exceed their constitutive elements” (Ogden et al. 2013, p. 7). This move, perhaps, risks effacing the distinctiveness and agency of nonhuman animals in a leveling out, a democratization, within an all-subsuming multispecies assemblage and has been criticized by Ingold (2013) for being an overly hasty and idealized claim to novelty. A multispecies approach certainly actively gestures toward abandoning anthropocentrism; for example, van Dooren et al. (2016) ask, “[H]ow must we rethink the human after the anthropocentric bubble has burst” (p. 3)? The multispecies move to decenter the human, while laudable, can tend to erase our own situatedness both as human scholars and as the dominant force of change on the planet. This approach leaves little space to address the difficult issue of human responsibility in a future political imaginary where decisions will have to be made about the results and consequences of actions by “nonbeneficial” nonhuman species (Povinelli 2016, pp. 12–13).

HUMAN–ANIMAL RELATIONS AND ZOOARCHAEOLOGY

By the time of the developments outlined above, archaeology had been long immersed in human–animal-related research. Since the early days of the discipline, archaeologists have demonstrated quite clearly that the lives of human (and hominin) and nonhuman animals have been always intertwined.

The specialized study of nonhuman animal remains—the distinctive subdiscipline of zooarchaeology—was formally established as an indispensable component of the wider field in the middle of the twentieth century. In Europe, zooarchaeology received formal impetus with Graham Clark’s excavations at the Mesolithic hunter-gatherer site of Star Carr in northeast England (e.g., Clark 1954). Clark had just published his major synthesis *Prehistoric Europe: The Economic Basis* (1952), but Star Carr paved the way for the full development of an “economic archaeology” (e.g., Higgs 1972, 1975; Sheridan & Bailey 1981), which understood faunal remains as reflecting the environmental conditions and resources within the local landscape. Animal and plant remains were taken to constitute the “economy” of any given site, allowing investigators to identify

human and animal seasonality patterns and the relative intensity of human occupation and resource exploitation. Most European zooarchaeological studies from the 1950s through the 1970s took their cue from this research tradition, in which animals were classified as a resource exploited or used by human communities.

In North America, the cultural ecology of Steward (e.g., 1955) and Taylor (e.g., 1948) facilitated an important shift from zooarchaeological data as a site report appendix to incorporation into analyses of past human behavior. Influential researchers include Theodore White, Paul Parmalee, John Guilday, Stanley Olsen and Elizabeth Wing (for reviews, see Grayson 1973, Jolley 1983, King et al. 2003, Lyman 2016, Robison 1987).

In the late 1970s and early 1980s, Binford's ethnoarchaeological experiments to distinguish taphonomically between human and nonhuman animal hunting and scavenging activities (Binford 1978, 1981, 1983) marked an important methodological development. Criticized by some researchers at the time for being entrenched in problematic uniformitarian assumptions (Gould 1985, Gould & Watson 1982), Binford's primary focus on the utilitarian, mechanistic aspects of human-animal interactions also meant that research questions rarely went beyond traditional anthropocentric "hunter and hunted" subsistence scenarios. These studies were significant for introducing a greater concern with ethnographic contexts, which remains central to zooarchaeological interpretation.

GENDER, TECHNOLOGIES, PHENOMENOLOGY, AND SOCIAL ZOOARCHAEOLOGY

The purview of early 1980s postprocessualism rarely included nonhuman animals, its main focus being "the role of material culture in the reflexive relationship between the structure of ideas and social strategies" (Hodder 1982, p. 1; but see Conkey 1982). Archaeology's belated engagement with gender issues (e.g., Conkey & Spector 1984, Spector 1983) was similarly devoid of animals initially, in part as a reaction to the dominant "man the hunter" scenarios of earlier approaches. In one exception, in *Engendering Archaeology* (Gero & Conkey 1991), Claassen (1991) brought together animals and gender in her study of women and shellfish gathering in the Shellmound Archaic period. Around the same time, Gifford-Gonzalez (e.g., 1993, 1994) highlighted the issue of gender bias not only in ethnoarchaeological studies of animal procurement and processing practices, but also in the gendered disciplinary structure of zooarchaeology itself.

From the early 1990s, the influence of phenomenology (e.g., Heidegger 1962, Merleau-Ponty 1962) on landscape archaeology (e.g., Tilley 1994; see Brück 2005 for review) informed discussions of perceived ritual landscapes in which the identification of animal-related episodic events/gatherings such as feasting (e.g., Dietler 1996, Dietler & Hayden 2001) and the subsequent structured deposition of animals and animal body parts (Hill 1995) marked a developing concern with the social role of animals in prehistoric food practices. This interest in ritual and symbolism also began to find its way into zooarchaeological interpretations of animal remains (e.g., Grant 1984, 1991; Marciniak 1999, 2005; McNiven & Feldman 2003; Miracle & Milner 2002; Ryan & Crabtree 1995; Serjeantson 2000). As a result, much zooarchaeology now comprises a wide-ranging inquiry into the role of animals in human lifeways: "Animals are not only passive actors but, as creatures living intimately with their human counterparts, are actively used by people to express beliefs about human interaction and beliefs" (Lev-Tov & deFrance 2010, p. xi). Similarly, discussions in zooarchaeology and ethnoarchaeology (e.g., Albarella & Trentacoste 2011, Sykes 2014) have addressed fuller integration of the economic and the social as they pertain to human-animal interaction.

In a major treatment of these recent developments, in particular the influence of ethnographic studies and the postprocessual challenges, Russell (2012) has promoted a “social zooarchaeology.” This concept aims to integrate concerns with the social, symbolism, and ritual into robust zooarchaeological analyses: “[S]ocial zooarchaeology explores aspects of human-animal relations beyond the dietary and human-human relations negotiated through animals, including the value of animals as wealth and symbols, sacrifice and other use of animals, taboo, and the overvaluation of meat and its use in transactions of status and relationships through meat sharing and feasting” (Russell 2014, p. 6761). Russell (2012) readily acknowledges that her epistemological position vis-à-vis animals is firmly anthropocentric: “[M]y interest lies in using them to understand people” (p. 5), focusing on the value and meaning attributed to animals by people in different historical and cultural contexts.

This type of integrative approach has proven useful to both archaeologists and zooarchaeologists who wish to move beyond purely taphonomic and economic scenarios. For example, Pluskowski (2010) has discussed the metaphysical status of animals within the changing “conceptual ecologies” of Medieval European Christendom, suggesting that zooarchaeological identification of changing foodways as a result of religious conversion can be profitably investigated through stable isotopic signatures across geographical regions and perceived religious boundaries.

In her ethnoarchaeological research in highland Guatemala, Brown shifts the focus to consider interactions between animals and gods. She has identified the long history of Maya hunting practices involving the ceremonial deposition of animal bone caches in shrines. These deposits are the material signatures of interactions where hunters seek permission to acquire animals from the forest by making animal offerings to the supernatural guardian of those same animals (Brown 2005). This view highlights the importance of accounting for metaphysical worlds in zooarchaeological research (but see Insoll 2010) and productively decenters the human-animal relation.

DOMESTICATION, NATURE/CULTURE, AND ANTHROPOCENTRISM

The transformations in how archaeologists have conceptualized human-animal relations since the mid-twentieth century can be illustrated with reference to one of the most dominant archaeological narratives about the relationships between people and animals: the origins of domestication. This discussion also demonstrates the need for, and potential of, an archaeological approach to interspecies relations that is fully informed by the ongoing debates on anthropocentrism within contemporary critical animal studies.

Much of the history of archaeology could be written around the quest for origins, with animal domestication and its consequences for modernity being a major objective. The concept of domestication looms large in archaeological narratives about the origins of agriculture and settled life, in which locating a temporal point of departure is essential to “understanding the roots of complex societies” (Larsen et al. 2014, p. 6139). Animal domestication processes seem to have begun around 11,000–12,000 years ago in different parts of the world and “encompassed a wide range of relationships, from commensalism/mutualism to low-level management, and direct control over reproduction” (p. 6140). This perspective emphasizes domestication as a process of biological evolution—rather than an event—that we need to detail archaeologically to understand “the role of humans as constant modifiers of their ecological niches” (Marom & Bar-Oz 2013, p. 1). Changes in the human-nonhuman relationship are signaled primarily by “demographic, biogeographic and morphological changes that occurred in the transformation of a wild species to a domesticated one” (p. 1). Initially, however, the changes wrought by humans on animals, deliberately or inadvertently, are mainly behavioral, such as “selection for increased tolerance for penning, sexual precocity and, above all, reduction of wariness and aggression” (Zeder et al. 2006,

p. 140). Subsequent gradual morphological changes may or may not occur depending on the animal species, and the length of time over which such changes take place will affect archaeological visibility.

At the heart of these evolutionary narratives sits the inherently anthropocentric nature/culture dualism. For more than three decades, “beyond nature/culture” has been a recurring motif in archaeological/anthropological discourse (initially, e.g., Descola & Palsson 1996, MacCormack & Strathern 1980). Despite this critique, the nature/culture dichotomy has proven tenacious in contemporary archaeological approaches to animal domestication. For example, discussing Pre-Pottery Neolithic Gobekli Tepe, southeast Turkey, Hodder & Meskell (2011) argue that the animal imagery depicted on the monumental carved stone pillars at the site was an expression of a desired domination by male humans over dangerous male wild animals. Masculine human control of wild nature is key here. Hodder & Meskell (2011) suggest, “The ability to kill a dangerous wild animal or a large wild bull, to use and overcome its masculinity, and to control the distribution of its meat and mementoes was as important to creating the agricultural revolution as domesticating plants and animals” (p. 251). This reiteration of the term wild, referring to a world where animals were only wild (in our terms), draws a distinction between wild animal nature and human culture, placing animals ontologically in a place where they are always constitutively outside the human. As Fowles has argued, in discussing the human/nonhuman relation as one of “our existing great divides” (quoted in Alberti et al. 2011, p. 906), archaeologists’ “major contribution [to the modernist project] has been the evolutionary ontostory of how the modern liberal humanist subject has come to be and of how the world of nonhumans has been drawn increasingly into his (the gendering is necessary) sphere of control” (p. 899).

This kind of “cryptic structuralism” (Kohn 2015, p. 322) characterizes many Neolithic transition archaeological narratives. Lewis-Williams (2004), for example, has argued for the figure of the shaman as an authoritative mediator between people and the nonhuman world at Neolithic Çatalhöyük, Turkey. This role was linked directly to the control of wild animals. Initially, it is argued, shamans gained their status and supernatural (note: super *nature*) power partly from their control of, and domination over, wild sheep, goats, and pigs. As these animals gradually became ordinary (domesticated), the shamans turned their attentions to the control of wild cattle, aurochs, which over time also became domesticated, thus signaling the end of the dominant social role of the shaman in both human and animal communities. So, the human–animal relationship here is of interest only insofar as it underwrites a changing resource base, whether economic or symbolic. This perspective tells us little about the agency or role of animals apart from being wild or domesticated, categories that are inescapably embedded in western notions of nature and culture.

Many scholars now acknowledge that domestication is not simply a case of human mastery over, or ownership of, nonhuman animals. Rather, it involves types of mutualism and symbiosis, changing relationships, and an engagement between different forms of life (e.g., Cassidy 2007, Dransart 2002, Orton 2010; cf. Rindos 1984 on plants). But the mutualism of the human–animal relationship, while often acknowledged, remains subsumed in the overarching evolutionary trope of the shift from wild to domestic, from nature to culture. Ultimately, as Hartigan (2015) points out, “[T]he core certainty and conceit behind a long tradition of narrating the history of domestication is that, simply, it’s *something we did to them*” (p. 72, original emphasis). That is, such histories tend to revolve around the consequences for humans, revealing little about the relational nature of the human–animal (and plant) ecologies that constitute what archaeologists construct with hindsight as one of the most significant transformations in human history. But as Ingold (1994b) reminds us, “Just as humans have a history of their relations with animals, so also animals have a history of their relations with humans” (p. 1).

The domesticated Neolithic world for which archaeologists reach is articulated largely through these concepts, but this is not how the species who cohabited that world would have understood or imagined it. Western concepts do not travel that well even in the modern world, so why should they be appropriate for use in explaining modes of relations in the deep past? One route out is to take seriously the evidence for human–animal mutualism, and antipathy, and write histories of codomestication and avoidance rather than of human mastery over nature. Such a perspective resonates with current thinking in critical animal studies and would help unshackle the domestication concept from its western metaphysical underpinnings. The studies discussed below show a variety of approaches toward this reframing of the dominant narrative.

TOWARD “ZOONTOLOGIES”: ANIMAL AGENCY, PERSONHOOD, AND EMBODIMENT

In current work, some of which can be placed under the broad heading of “posthumanism,” the influence of certain ethnographies is keenly felt; Deleuze, Descola, Kohn, Viveiros de Castro, Willerslev, and others figure prominently in numerous studies. Direct engagement with critical animal studies remains limited, but see Conneller (2004) and Gittins (2013) below. More programmatically, Overton & Hamilakis (2013) advocate a reconfigured social zooarchaeology that is not underpinned by the fundamentally anthropocentric nature/culture divide. Rather than placing animals as an economized or symbolic resource for humans, they align with Wolfe’s (2003) “zoontological” position, focusing on interspecies “mutual becomings” (after Birke et al. 2004) in which nonhuman animals act as “agentic entities that engage in human-nonhuman social relationships” (Overton & Hamilakis 2013, p. 114). “Social” here means both human and animal engagement with(in) the world of other species and material things.

The approach advocated by Overton & Hamilakis may be situated within a broader shift in archaeological approaches to nonhuman animals. Conneller’s (2004, 2011) analysis of human–deer relationships at Mesolithic Star Carr brought Viveiros de Castro’s theory of perspectivism into the consideration of hunting practices and worked animal bone objects. Combining this work with Deleuze & Guattari’s (1987) notion of assemblage, Conneller discusses how human and animal agencies, body parts, and essences (humanness, animality) were reconfigured to create new forms of mutually constituted being that were neither purely human nor purely animal (Conneller 2004, p. 50). She also highlights the need for zooarchaeologists and material culture specialists to work more closely together in their often separated analyses of bone assemblages. In some cases, apparent anomalies in zooarchaeological data can be effectively addressed with reference to the worked bone assemblage. Both sets of remains relate to questions of the disassembling of the animal body and therefore to the histories that the body produces through its interspecies entanglements (Boyd 2017).

In an avowedly political project also drawing on Viveiros de Castro’s perspectivism, Weismantel (2015) challenges archaeologists to transform this often ahistorical concept itself by injecting an archaeological sensibility attuned to the historicity of indigenous views of their relationships with nonhuman entities. Weismantel’s proposal presents considerable conceptual challenges that go beyond the analysis of human–animal relations alone, addressing as it does the entire ecological web within which human and nonhuman animals (co)operate.

Timely thematic issues of the journals *World Archaeology* (Armstrong Oma & Hedeager 2010) and *Society & Animals* (Armstrong Oma & Birke 2013) have provided an eclectic range of studies that grapple with numerous traditional (zoo)archaeological concerns from a more inclusive interspecies perspective. These studies present specific case studies in an endeavor to move beyond

viewing animals as resources, toward recognizing animal agency and forms of historically situated human–animal mutualism.

Establishing a common thread, Armstrong Oma (e.g., 2007, 2010) has positioned mutual human–animal becomings as the fundamental analytical baseline for a nonanthropocentric archaeology. She suggests that human–animal relations be considered a form of social contract, with both agencies having active roles, duties, and obligations within the social partnership (Armstrong Oma 2010). The notion of a social contract necessarily entails consideration of the extent of equality or symmetry within the terms of that contract, when clearly the human is able to negotiate such terms whereas the nonhuman animal is perhaps only a tacit collaborator. This latter point should be of central concern in any claim to nonanthropocentrism and may, in fact, represent the limits of letting go/dissolving the human–animal distinction.

Within this general framework, several scholars have focused on hunting practices as mutually constituted relationships as one way of thinking through the possibilities of a nonanthropocentric perspective. In these studies, both hunting and consumption appear not simply as resource acquisition strategies, but as key sites of interspecies entanglement, involving consideration of embodied human–animal encounters within the hunter/prey relationship. This approach is best exemplified by McNiven’s (2010) Torres Strait (north-east Australia) research exploring through a combination of ethnographic information and possible archaeological correlates how marine animal body parts (charms) mediate between human hunters and their kin prey. Integrating the subsistence necessities of hunting with the sensorially based interpersonal relationships between the actors involved, McNiven emphasizes the economic and ontological points “when species meet” in the ritual negotiation of the hunter–prey relationship. This negotiation involves the ritual use of objects and animal body parts, including those relating to the sensory organs. Ethnographic accounts mention the role of cranial parts and body tissues in the preparatory stages of dugong hunting by Torres Strait Islanders. Archaeologically, dugong ear bones attest to possible ritual use as attractors in the human–dugong hunting relationship (McNiven 2010, p. 222). This rich account of the enmeshed relationships among humans, mammals, and material objects paints a compelling picture of embodied hunting practices in this particular ecological context.

Gittins (2013) draws on the notion of “becoming,” as articulated by Deleuze & Guattari, in her critique of evolutionary and economic perspectives in interpretations of French Upper Paleolithic hunting strategies. Gittins brings Derrida’s seminal texts *The Animal That Therefore I Am* and *Say the Animal Responded?* to an examination of the multiplicity of meanings inherent in “becoming-animal” within particular historically situated interactions. Gittins considers how Magdalenian hunters responded to (after Derrida) herds of reindeer rather than to individual animals. She raises important questions about the nature of power relations between hunter and prey. Hunting relations can be seen as a form of power that facilitates possible becoming at particular moments of copresence: “[A]t the time this was a process of becoming-animal where the multiplicity of being a reindeer/human was socially/politically/ideationally manipulable” (Gittins 2013, p. 131, original emphasis). This nuanced perspective not only transcends traditional hunter/hunted narratives, but also works to emphasize the challenges that asymmetrical human–animal relationships pose for efforts to write nonanthropocentric histories. Mutual becoming does not necessarily mean mutually beneficial, and this point requires further constructive conversations.

One such conversation has been initiated by Brittain & Overton (2013), who attempt to “dissolve the hyphen” in the human-animal-object relationship by considering the deliberate synchronicity of Mesolithic hunter-bird (whooper swans) habitual rhythms and tempos within the landscapes of North Jutland, Denmark. Their description of the anticipatory labor involved in the hunt demonstrates that the history of human attunement to swan habitus was, initially, grounded in human awareness of the swans’ seasonal migrations. As in Gittins’s human–reindeer becoming,

the hunter–prey relationship is not one of equals. Moreover, in such narratives the swans invariably arrive to the gathering, to the moment of their killing and consumption by humans. Those swans, and other animals, that avoid the hunt also elude our human-centered narratives.

Animal agency and personhood are also important linked themes in the current literature. Hill (2013) argues that treating animals as agents and subjects in the constitution of social worlds also entails consideration of them, in some cases at least, as persons. Kostyrko et al. (2016) demonstrate how a relational perspective on landscape—as assemblages of human and nonhuman animal tracks and traces—demonstrates how nonhuman animals can be regarded as active participants in history making: “Animals possess the agency to create and recreate landscapes and by that also history of humankind” (Kostyrko et al. 2016, p. 76; see also Betts et al. 2015).

In her study of the Iron Age horse–human burials at Pazyryk, Inner Asia, Argent (2010) brings ethnographic and ethological experiences of horses as social beings to bear upon the accompanying material present in the graves. She argues that to take personhood seriously, one should read the differential elaboration of horses’ costumes and accoutrements as reflecting levels of achieved status, identity, and roles among horses themselves, upending the normative archaeological mortuary convention. The ascription of personhood to nonhuman animals opens up a range of productive and interesting questions, but it also remains in tension with a nonanthropocentric desire to avoid subsuming the animal into the human.

These approaches build on the recent archaeological concern with object agency and ontologies (e.g., Watts 2013), especially as developed by Descola and Viveiros de Castro. Poole (2015) asserts that because nonhuman animals “are usually aware of their environs and are capable of physically responding to them” (p. 857) then “human–animal engagements could be of greater importance in creating the social and identity than human–object actions” (p. 859). This position is commonly adopted in posthumanist archaeological human–animals studies; many animal-focused observers point to the ease with which agency is granted to inanimate objects in comparison with that acknowledged for sentient animal beings. Although this observation is important, it can only be a starting point for discussion. It is one thing to agree that we should work toward a nonanthropocentric position by acknowledging nonhuman animal agency; it is quite another to interrogate the reasons why animals are placed in this ontological situation vis-à-vis objects. Fowles (2016) makes a powerful case for why objects/things often seem to be regarded as safer, or at least less politically contentious, to study than certain types of humans. Can such an argument help constitute another fundamental baseline in the struggle for nonanthropocentrism? To fully acknowledge animals (and other nonhuman species) as agentive subjects, rather than nonhuman objects—even those in the deep past—requires that we confront some difficult political, ethical, and legal realities regarding the asymmetry of mutual relationships: Human agency is always embedded in an ethical and moral framework, and ultimate decisions are frequently made by humans regarding the actions and consequences of actions by nonhuman beings in the creation of coinhabited worlds (Nyssönen & Salmi 2013, Povinelli 2016).

END WORDS: NONANTHROPOCENTRIC ATTITUDE

Although nonanthropocentrism may be ultimately unattainable, the current studies outlined here show its potential as a guiding principle. If we hope to be sensitive to other forms of life in the past, we need to cultivate a nonanthropocentric attitude while recognizing that we cannot transcend human being and human embodiment (Hayles 1999). This perspective can be contrasted with the multispecies approach, which in its more radical decentering also sidesteps the question of human responsibilities and human–nonhuman power relations. To take a nonanthropocentric (or a nonspeciesist) attitude to human–animal relations is to be concerned primarily with the lives

of people and animals as mutually constituted relationships. It also entails bearing in mind the asymmetries in these relationships and that the apparently common sense categories of people and animals are neither intuitive nor cross-culturally robust.

Ultimately, archaeology is about studying the human in relationship with nonhumans and the material world. Simply put, people and animals live as beings in the world in relation to each other and to other materials and substances. Tracing how those relationships were inhabited and navigated is the subject of historical inquiry. Every form of life creates itself in relation to others, and this practice rests on the acknowledgment, or erasure, of other existences. To this end, the example of the domestication narrative shows the theoretical and empirical inadequacy of traditional zooarchaeology or symbolic/cognitive approaches as long as they remain embedded in a framework that separates animal nature from human culture. The case studies discussed in this review offer several productive avenues for future research. These include more careful attention to relations of mutualism and exclusion, the question of nonhuman agencies (whether sentient or nonsentient), and issues around nonhuman personhood. Potential future work might include further discussion of animal gender, embodiment, semiosis, and ways of becoming that are not necessarily tied to the human. Performing this work means exploring past lived experiences within a wider ecological scheme in which categories of people, animals, plants, materials, places, etc., live with and through each other.

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