

The Living Stock of Antiquity: Examining Conceptualizations of Non-human Animals as Tradable Commodities in the Ancient World

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Abstract

The human species is often painted as a perennially productive one. Human animals, through millennia of evolving skills, aptitudes, and awareness, have rendered ourselves, according to our hierarchically pattern seeking minds, at the top of an ostensibly 'natural' tree of life. So the tale, in the unique vernaculars of countless disciplines, is often told. We now live in an age where that tale is starting to be seriously and massively questioned and unravelled. Lenses of care, collaboration, and cooperation are blossoming. This article serves as a small part of that movement: to question and reappraise the once 'perennial' dominance of 'man' and seek a better comprehension of that narrative. It does this by honing in on one of the most dominant assumptions that have pervaded 'man's' relationship with 'animal': that non-human animals have been 'used productively for human gain' (in other words, 'exploited') for so long that there must be something 'natural' about this use. This article serves, then, as less of a challenge to the expansive timeline of human animals' use of non-human animal, and more of a 'awareness expanding tool' of *where* and *how* this use arose in some of the earliest examinable periods of our species' history. By digging deeper into both the zooarchaeological and related written source materials that reveal elements of this 'use relationship' during distinct 'snapshots' of ancient world, we may bolster the seriousness of critiquing the 'naturalness' of this relationship. Only from such 'points of un-revelation' can the consequential harms of this dominant narrative be truly appreciated, and subsequently unwound for the sake of the non-human animals that are continually and massively exploited in our modern world.

Keywords

Non-human animal commodification; Zooarchaeology; Ancient use and conceptualizations of non-human animals; Neolithic Cyprus; Classical Antiquity

1) Introduction

'Humans are exploitative; this is an undeniable truth regarding our attitude to the environment and the animals within it. We envelop our exploitation in a mantle of culture that permits our utilization to continue'.

– Krish Seetah¹

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¹ Krish Seetah, 'Butchery as a Tool for Understanding the Changing Views of Animals: Cattle in Roman Britain' (2005) 1410 BAR International Series 1, 7.

From where does the phenomenal, expansive exploitation of non-human animals in our modern world spring? Why do human animals use other lives with such frequency and fervor? What circumstances have human animals journeyed from that has allowed this massive institutional landscape of tucked away suffering inflicted on non-human lives for human profit and consumption? There is a myriad of potentially insightful tools through which to answer these questions, most often derived from written accounts of non-human animal conceptualizations and uses. I will spend the space of this article exploring these questions from the starting point of examining less purposefully ‘framed’ materials: zooarchaeological data.² Through an exploration of such materials from a select few snapshots in past time, this article intends to unravel new perspectives on our own species’ ostensibly ‘timeless’ use of other animal species.

The ‘historical’ aspect of the data may be dually interpreted as suggestive shorthand for the *type* of data explored and a frame of *how* it will be explored: that is, within the constraints of its place on the timeline of ‘human history’ and without jumping between these pre-existing places and our place today unduly. There are unavoidable limitations to this approach: the discovery and examination of decaying materials can only suggest so much about what those materials were, what they meant to each other, and what the human animals thought about those materials and meanings. What can be extracted from this kind of inquiry is but a tentative and general impression of meaning. This article is presented with the impression that such tentative and general impressions are still valuable; both for the modicum of awareness this can provide to modern audiences about the realities which existed before us and as a potentially new ‘path of thought’ from which to contemplate modern conceptualizations of non-human entities held by human animals in our present world.

A choice of ‘historical snapshots’ must be made to begin such an examination but requires leaving out other pieces of the puzzle that my introductory questions address. The choices here were made primarily due to the quantity of data which exists for discrete time periods, but additionally due to the extensiveness of contemporary and subsequent written contemplation of the conceptualizations and uses that data points towards. I have attempted to balance the conclusions drawn from the more confined ‘snapshot’ case studies with more geographically widespread evidence of ancient uses of non-human animals to somewhat counterbalance these temporal-geographic foci. The ‘snapshots’ explored in this article, and the reason for their inclusion, are as follows: (1a) the use of the non-human animals as ‘beasts of burden’ and ‘commodities’ in the Early Bronze Age between Southern Levant settlements and Old Kingdom Egypt; (1b) the use of non-human animals as ‘multi-purpose tools’ and ‘goods’ in Early Bronze Age ‘Europe’; and (1c) the ‘domestication of’ to ‘trade in’ non-human animals from pre- to Early Bronze Age in the Fertile Crescent to the Aegean Sea. After exploring this overview of ancient trade in non-human animals, I will then explore two case studies: (2) Cypriot case study, as one of the earliest known ‘snapshots’ of live ‘domestic species’ transport via sea; and (3) a Classical Antiquity case study, with a focus on Roman Period trade, as one of the earliest known ‘snapshots’ of an established trade network of live ‘domestic species’ via sea, and Graeco-Roman conceptualizations.

² This does not preclude the existence of ‘framed use’ of these lives before they were ‘artifacts’, shaped by the human conceptualizations then expressed in written materials. Nonetheless, such materials arguably offer increased potential for less ‘directed viewing’ of their meaning.

The presentation of these snapshots together here, and the associated comparative element to their analysis, is but one framing of the realities that existed at these times in these places. Their combined presentation offers the opportunity to examine previously unseen patterns about how the human species once behaved in relation to non-human animals and how this behavior may have stemmed from early conceptualizations of non-human animals as tradable commodities.

The suggestion (thesis) for interpretation of the data explored here is as follows:

Conceptualizations and uses of non-human animals in the ancient world provide instructive context as to why human animals conceive of non-human animals as tradable commodities in the modern world.

This thesis will be examined through the aforementioned ‘snapshots’ as historical *frameworks* for analysis.³ The scope of this examination is to *review* and *synthesize* relevant data relating to early uses and conceptualizations of non-human animals in order to *highlight* patterns of use and conceptualization. The interpretative approach applied here is grounded in an appreciation of the sentience of the non-human animal species discussed, but is one that makes no moral valuation on the use of these species during these ‘snapshots’: it *seeks an understanding* of repeated representations of non-human animals in human animal thought and action, and *does not proffer* whether such representations were justified at the time or not.⁴ The patterns which thus surface may lend explanatory power to modern day uses and conceptualizations, and those modern day uses and conceptualizations may then (from this author’s perspective) be more readily subject to moral valuation and critique. This valuation and critique is (again, from this author’s perspective) valuable, but beyond the scope of the present piece.⁵

Before we venture into an examination of these snapshots, it should be noted that this piece is in part motivated to expand upon the scores of writings on non-human animal law topics which have frequently been prefaced with a brief and standard historical context. Such prefaces typically centre on quotes from dominant thinkers of prominent historical ‘snapshots’ to draw a broad anthropocentric conceptualization of non-human animals ‘throughout human history’.⁶ This piece aims to dig deeper into these recurrently emphasized historical

³ This characterization is partially inspired by Angela Trentacoste’s understanding of ‘livestock husbandry regimes’. See Angela Trentacoste, ‘Fodder for Change: Animals, Urbanisation, and Socio-Economic Transformation in Protohistoric Italy’ (2020) 3 Theoretical Roman Archaeology Journal 1, 11: ‘As in the transformation of other forms of material culture during this period, livestock husbandry regimes were not simply the deterministic result of wider socio-economic change, but a medium shaped for its expression’.

⁴ The question of moral justification does not preclude an acknowledgement of the reduction in moral status that non-human animals underwent during these times. On this point, see Linda Kalof and Brigitte Pohl-Resl, *A Cultural History of Animals in Antiquity* (Berg 2007) 38: ‘Animals would have to have less spiritual value and more secular value; they would have to stop being gods if they were to serve as money. But the waning of animal sacrifice did not put animals in higher regard. On the contrary, agrarian society’s growing need for them called for another wave of reduction’ (emphasis added).

⁵ For those readers interested in such critique, I recommend the following: Sophie Riley, *The Commodification of Farm Animals* (Springer 2022); Gary Lawrence Francione, *Animals as Persons: Essays on the Abolition of Animal Exploitation* (Columbia University Press 2008); Jason Wyckoff, ‘Analysing Animality: A Critical Approach’ (2015) 65 Philosophical Quarterly 529.

⁶ See, for instance, the following quotes: V Victoria Shroff, *Canadian Animal Law* (LexisNexis 2021) 20: ‘Influential thinkers like Aristotle (384–322 BCE) patronizingly posited that animals actually existed for the sake of humans’; Steven M Wise, *Rattling the Cage* (Da Capo Press 2001) 10: ‘[T]he Greek Stoic Chrysippus claimed

conceptualizations and further question their origins through an extensive variety and form of source material.

Though this article seeks to explore ancient conceptualizations of non-human animals as tradable commodities, readers should be cautioned against interpreting the evidence presented too heavily through a modern ‘normative notions of economic rationality’ lens. That is, utilitarian frameworks have been so ubiquitously applied to discussions surrounding non-human animals in the modern world that there is some level of danger in trying to make sense of ancient treatments of non-human animals using ‘utility-maximizing’ frameworks.⁷ As Keswani so aptly summarizes the essence of this caution: ‘[T]he linkages between these phenomena may have been more complex than “more people mean fewer deer to eat so raise more pigs and goats (or cattle) instead”’.⁸ In other words, the decisions that lay behind changes in the ways in which non-human animals were used, and the kinds of non-human animals used, in the ancient worlds will not always conform to ideas of human animals as maximally rational beings, and this conception of human beings should not be read without caution in the evidence examined.

1) Overview of Ancient Trade in Non-human Animals

The data explored from the following three ‘snapshots’ span both an expansive chronological period (from as early as the 4th millennium BCE to around 2001 BCE) and a widespread geographic area (from the Fertile Crescent to Egypt). The expansive quality of this presentation has been chosen purposefully to provide an impression of the trade in, use, and conceptualizations of non-human animals in the ancient world.

a. The Use of Non-human Animals as ‘Beasts of Burden’ and ‘Commodities’ in the Early Bronze Age Between Southern Levant Settlements and Old Kingdom Egypt

The now stereotypical characterization and use of certain non-human animal species as ‘beasts of burden’ finds roots in zooarchaeological findings dated to the Early Bronze Age

that horses and oxen existed so they could labor for us and that “as for the pig, that most appetizing of delicacies, it was created for no other purpose than slaughter, and god, in furnishing our cuisine, mixed soul with its flesh like salt”; Richard D Ryder, *Animal Revolution: Changing Attitudes towards Speciesism* (Blackwell 1989) 22: ‘Aristotle did not deny that men and women are animals, but placed them (as the most rational animals) at the head of a natural hierarchy, and proposed that the less rational exist to serve the purposes of the more rational’; Deborah Cao, *Animal Law in Australia* (2nd edn, Lawbook Co 2015) 40: ‘Prior to the nineteenth century enactment of English laws to protect animals, there were laws related to animals as human property, not animal protection laws. Animals were a part of the ancient Roman law, classified and treated as things and as property’.

⁷ Most obviously in Peter Singer’s *Animal Liberation* (HarperCollins 1975).

⁸ Priscilla Schuster Keswani, ‘The Social Context of Animal Husbandry in Early Agricultural Societies: Ethnographic Insights and an Archaeological Example’ (1994) 13(3) *Journal of Anthropological Archaeology* 272. For further caution against overreliance on this framework, see Adam Allentuck, *Human-Livestock Relations in the Early Bronze Age of the Southern Levant* (Doctoral Dissertation, Department of Anthropology, University of Toronto 2013) 13 <<https://tspace.library.utoronto.ca/handle/1807/68925>> accessed 15 March 2024: ‘Some have argued that formalist economic theory, which was devised to model capitalist market economies in terms of price theory, taxation and international trade, has little relevance for non-market societies [...]. Others have criticized applications of human behavioural ecology models in archaeology and anthropology on the grounds that the self-interested “economic man” endowed with complete knowledge and who achieves rational goals by incurring minimal costs has never found an ethnographic reality’ (references omitted).

Southern Levant and Egyptian sites.⁹ Ajlouny presents the use of non-human animals as a means of transportation during this period, the use of which also constituted a special topic in artwork. Most of the fragmentary pieces examined in this study were of the donkey, suggesting some level of significance of this species to the settlement in the Southern Levant.¹⁰ The lack of faunal remains of the 'domesticated donkey' at these Early Bronze Age sites illustrates a predominant use of the species for transportation and other agricultural work, rather than as a source of food.¹¹ Separately examined excavations at Arad in Southern Palestine show that the extent of early trade via donkeys is considerable, ranging all the way to Egypt and facilitating a role for human settlements in the Southern Levant as 'commercial mediator' between Syria, Egypt, Mesopotamia, and Anatolia.¹² Grave inscriptions during this period (the 5th Dynasty of the Old Egyptian Kingdom 2480–2320 BCE) likewise record the donkey persistently as a 'beast of burden'.¹³ The use of this species for transporting goods over significant distances is described as 'revolutionary in the world of commerce', where their value was increasingly measured not only in terms of local agricultural use, but as connecting tools of exchange. This newly generated value had the opportunity for mutual reinforcement as trade between human animal settlements prospered.¹⁴

Evidence of long-distance trade of non-human animals via non-human animals has similarly been found from Old Kingdom Egypt (ie, 2649–2130 BCE) and Early Bronze Age II Canaan (ie, 2900–2500 BCE). Arnold has examined isotope data from a 'sacrificial ass' and several ovicaprines from household deposits at Tell es-Safi/Gath (modern day Israel), which provide direct evidence for the movement of domestic 'draft and husbandry animals' between these regions.¹⁵ Arnold's study provides the first concrete signs of early trade in non-human animals from Egypt to Canaan,¹⁶ corroborating other textual and archaeological information that pointed towards the existence of long-distance trade in non-human animals, seemingly via donkey caravans, during this early period.

Not only do these findings point to the simultaneous use of different species for different trading purposes (for instance, trading ovicaprines, such as sheep and goats, as 'commodities' through the use of donkey caravans as 'means of transportation'); they also point to the use of the same species in the same period for significantly different purposes. Donkeys, for instance, served both a trading purpose as a 'means of transportation' and a ritualistic purpose as the 'sacrificial ass'. The implications of this dual-purpose for human conceptualizations cannot be derived from this data alone, but the very existence of the dual-purpose

⁹ The 'Bronze Age', while dates vary between regions, is here used to connote the third phase in the development of material culture among the ancient peoples of Europe, Asia and the Middle East (following the Old Stone Age and New Stone Age respectively). That is, approximately covering between 3000 BCE–1000 BCE. See *Encyclopædia Britannica*, 'Bronze Age' <<https://www.britannica.com/event/Bronze-Age>> accessed 15 March 2024.

¹⁰ See Fardous Al Ajlouny and others, 'Laden Animal and Riding Figurines from irbet ez-Zeraqōn and their Implications of Trade in the Early Bronze Age' (2012) 128(2) *Zeitschrift des Deutschen Palästina-Vereins* 99. ¹¹ *ibid* 7.

¹² Helga Weippert, *Palästina in vorhellenistischer Zeit* (CH Beck 1988) 174–76.

¹³ *ibid* 7.

¹⁴ See *ibid* 6.

¹⁵ Elizabeth R Arnold and others, 'Isotopic Evidence for Early Trade in Animals between Old Kingdom Egypt and Canaan' (2016) 11(6) *PloS One* <<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0157650>> accessed 15 March 2024. For convenience's sake, all further references are to Arnold.

¹⁶ Though trade in non-human animals from *Canaan to Egypt* during later eras has been previously acknowledged. See, for instance, Kathryn A Bard, *An Introduction to the Archaeology of Ancient Egypt* (2nd edn, Wiley-Blackwell 2015).

is suggestive of such conceptualizations being less fixed by 'optimal utility' calculations, and more flexible according to the unique priorities of the humans in each cultural context.

This finding is revealing of the power of human framing in shaping new meanings for our non-human animal neighbors. Read in conjunction with the apparent frequency of using particular species for transportation and agricultural purposes, human framing seems a strong causal candidate for the rising association of these lives with 'commodity statuses', which is not necessarily impeded by simultaneously appreciated 'ritualistic statuses'. Either value, though especially the commodity form in its focus on material gain, brings with it a connected consequence of edging out (though not necessarily eradicating) consideration of intrinsic value. The competitive internal struggle of where the human mind should direct its consideration often steers the process of mental categorizations to be as non-taxing as possible. As new categories or 'statuses' arise, they must compete, where dominant use of the 'status-ed being' reinforces the connection between the use and status. It would be difficult to comprehend of a non-human animal 'statuses' within human minds of this period, in other words, that were detached from their increasing use as 'beasts of burden' and 'commodities'.

Were these billowing statuses, then, an inevitable consequence of something intrinsic to their nature, or more a driven consequence of expanding human animal priorities? The studies explored here that demonstrates some of the uses in the Early Bronze Age between Southern Levant settlements and Old Kingdom Egypt presents a directive force for answering this question: non-human animal statuses have, from some of their earliest uses, both shaped and been shaped by the particular (and therefore not necessarily fixed nor qualitatively singular) desires of their human animal users.

b. The Use of Non-human Animals as 'Multi-purpose Tools' and 'Goods' in the Early Bronze Age 'Europe'

Zooarchaeological data from 'European' sites during the Early Bronze Age again focus on the donkey as a leading 'means of transportation'.¹⁷ Dolfini has pointed to the introduction of 'new domesticates', such as the donkey in the eastern Mediterranean, and the horse in most of Europe, being put to such uses. The species of non-human animals are described as integral to the 'secondary products revolution', which included a suite of other technological innovations relating to non-human animals, such as 'the harnessing of animal power for plowing and wheeled transport' in the Bronze Age of Central Italy (5000–2001 BCE).¹⁸ The significance of these species as 'usable and reliable tools' arose in parallel with the escalating frequency of cross-cultural exchange. As cultures increased the use of species, such as donkeys and horses, to connect with other regions, the range of uses seemed to increase likewise. These lives become more pervasively relied upon in a way which suggest an intent to maximize their material utility, such carrying loads over longer ranges and being used to facilitate wheeled transport.

¹⁷ The term 'Europe', ambiguous even now in its geographical expression, is not an apposite term to describe this largely dispersed land mass during this historical 'snapshot'. It is merely employed as a helpful shorthand for readers to signify the land mass encompassing 'modern continental Europe' as commonly conceptualized in the modern world. See *Encyclopædia Britannica*, 'History of Europe' <<https://www.britannica.com/topic/history-of-Europe>> accessed 15 March 2024.

¹⁸ Andrea Dolfini, 'From the Neolithic to the Bronze Age in Central Italy: Settlement, Burial, and Social Change at the Dawn of Metal Production' (2020) 28 *Journal of Archaeological Research* 504.

Fages also points to the use of horses as a means of accelerated travel and trade through an examination of genome-scale data found at an Early Bronze Age trade centre in Hungary during the late 3rd millennium BCE (3rd millennium BCE = 3000–2001 BCE).¹⁹ This author hypothesizes that the long-distance exchange of horses during this period provided human animals with a new opportunity to ‘spread genes, diseases, and culture well above their own speed’.²⁰ Taking the hypothesis a step further, Fages writes that this status as ‘tool’ has persisted: ‘[H]orses today remain essential to the economy of developing countries and to the leisure and racing industries of developed countries’.²¹ That this author highlights the observed connection of the kind of use to broad economic status of these far vaster human collectives of the modern world is notable, if only as further indication of an apparently persistent relationship between human economic status and non-human animal uses.²²

For the human animal collectives in this period which were engaging in systematic exchanges of non-human animals, a mutual understanding of such entities as ‘tradable goods’ must have existed to some degree for the trade to be sustained. This ‘meeting of the minds’ must exist even if the purposes for which these non-human animals were traded and used differed amongst the trading collectives. While such differences seem to persist today, the common understanding of the ‘use value’ that these non-human lives represent likewise persists.²³

c. The ‘Domestication of’ to ‘Trade in’ Non-human Animals from the Fertile Crescent to the Aegean Sea

Early trade in species from the Fertile Crescent to the Aegean Sea, as ‘tradable commodities’ with value as a ‘consumable good’, suggests a degree of earlier domestication (as similarly noted in the commodification of ovicaprines in Southern Levant settlements and Old Kingdom Egypt). Hatziminaoglou contemplates archaeological findings and written evidence which indicate domestication in this region ranging as far back as 10,000 years ago, positing that goats were likely the first ruminant ‘livestock’ to be domesticated around this time in the Fertile Crescent region.²⁴ They discuss the first clear indication of the breeding of goats from tablets found in the city of Umma and Ur in the Third Dynasty of the Sumerians (around 2500 BCE).²⁵ While this study examines the use of goats in a more localized sense than a trading sense, it does lend insight into early commodification of such species as ‘an important part of pastoral wealth’.²⁶

‘Dual-purpose’ representations additionally arise here. Goats were heavily involved in major life events of ancient cultures in these regions, including being pictured with Sumerian god Marduk and being held as sacred to the Babylonian god Nigirsu.²⁷ The prevalence of sacred

¹⁹ Antoine Fages and others, ‘Tracking Five Millennia of Horse Management with Extensive Ancient Genome Time Series’ (2019) 177(6) Cell 1419. For convenience’s sake, all further references are to Fages.

²⁰ *ibid* 1421.

²¹ *ibid*.

²² Demonstrating the ‘feed-back’ element of the ‘use-status’ relationship (ie, the inverse direction of influence to that discussed in the previous section).

²³ See generally Sophie Riley, *The Commodification of Farm Animals* (Springer 2022).

²⁴ Y Hatziminaoglou and J Boyazoglu, ‘The Goat in Ancient Civilisations: From the Fertile Crescent to the Aegean Sea’ (2004) 51(2) Small Ruminant Research 123.

²⁵ *ibid* 126.

²⁶ *ibid*.

²⁷ See *ibid* 125.

conceptualizations and uses in sacrificial ceremonies presents the intriguing question once again of how this species' role as tradable commodity may have interacted with this sacred status, especially when the commodity status began to remarkably thrive. For the commodity status did gain a level of prominence as technical innovations that harnessed 'animal power' proliferated in the region. As Allentuck articulates the prominence in his research: '[S]econdary products exploitation established a level of co-dependency between people and livestock that was unprecedented until the Early Bronze Age'.²⁸

With increasing human animal dependency on domesticated non-human animals, the staple 'wealth' of early human animal collectives in this region began to concomitantly shift towards the form of 'bulk agricultural and pastoral produce'; the 'bulk' part of that form rendering '[l]ive herd animals, such as sheep, goats and cattle' as 'ideal trade goods because they could provide the recipients with a wide range of products and they could be transported on the hoof, thereby minimizing risk of spoilage'.²⁹

d. Overview Conclusion

The above explored 'snapshots' help to facilitate a deeper appreciation of (1) the longevity of non-human animals domestication for co-existing purposes (such as consumption, transport, and ritual purposes); (2) the transition from domestication for 'local settlement priorities' to commodification as technological innovation led to 'bulk' that could be traded between economies and new uses of non-human animals which could facilitate this trade; and (3) the accompanying morphing of early non-human animal conceptualizations. That is, not only as a wild other to be hunted, tamed, and consumed, or worshipped as a sacred symbol, but as commodities that certain Early Bronze Age human animals put to increasingly 'productive use'³⁰ and as tools to facilitate trade between both proximal and distant human animals collectives.

The explored uses and conceptualizations of non-human animals indicate a widespread, enduring tendency of human animals to relate to these lives in *instrumental* terms. The examined 'snapshots' arose and fell long before the societies so often pointed to as the key 'historical foundations' of anthropocentric perspectives of non-human animals.³¹ The draw to comment on these dominant past eras is not surprising nor without value given the immense influence of thinkers from these times on later human societies. The earlier 'snapshots' explored here serve as indicative context of the origins of these historical uses and conceptualizations. But just how far back do these uses and conceptualizations reach? Without attempting to infinitely regress,³² let us now examine one of the earliest 'snapshots' of non-human animal use (that is, with adequate examinable data): live non-human animal transport via sea for Neolithic human animal use.

²⁸ Allentuck (n 8) iii.

²⁹ *ibid* 55 (emphasis added).

³⁰ I mean 'economically' productive use.

³¹ See n 6.

³² We are, in any case, restrained from doing so by virtue of the data which (1) exists and (2) we can currently access.

2) Cypriot Case Study

'Neolithic farmers with their Neolithic tools, plants and animals began to spread beyond Southwest Asia into Europe and North Africa, making an agriculture dispersal westward'.

–Yusra Ben Sassi-Zaidy and others³³

Transporting live non-human animals via sea during the so-characterized 'Neolithic' period of human animal history required a significant level of dedicated effort. The studied rise in the migration of Neolithic farmers and 'livestock' species to Cyprus during this era is accordingly a remarkable feature of the 'Neolithic Revolution'.³⁴ Sassi-Zaidy has presented the Mediterranean basin as 'a main thoroughfare for the maritime diffusion of small ruminant species into South Europe and North Africa' during this 'snapshot'.³⁵ These movements to Cyprus represented a 'transported landscape'³⁶ wherein human animals brought with them 'resources – like cattle and donkeys' that were previously unavailable on Cyprus.³⁷ The willingness to dedicate the effort and resources necessary for this novel venture may be related to the benefits these 'resources' offered in new (at least to the human animals coming from the mainland) cross-sea settlements.

The extent of these efforts has been partially brought to light by Vigne, who provides insight into the intensity and capabilities of the early seafarers that travelled between Cyprus and Levantine/Anatolian coasts between 12,500 and 9,000 BP (ie, 10,550–7050 BCE).³⁸ His review of zooarchaeological data from early sites on Cyprus indicates a marked increase in the immigration rate of mammals beginning in the 13th millennium cal. BP, during the time of the Middle Pre-Pottery Neolithic³⁹ B era (Middle PPNB) ie, 8800–6500 BCE. Vigne suggests that specialized human groups were likely controlling voyages between the mainland and Cyprus so capably that they were able to cross the sea several times each year while dealing with the very difficult problem of transporting quite large ruminants.

Part of the problem of transporting these non-human animal species lay in the fact that keeping ruminants without movement for more than four hours (or so) 'would have entailed serious physiological disorders, lowering considerably the chance of the animals reaching the island in good health'.⁴⁰ This led Vigne to posit that '[the ruminants] had to make the

³³ Yusra Ben Sassi-Zaidy and others, 'Historical Westward Migration Phases of Ovis Aries Inferred from the Population Structure and the Phylogeography of Occidental Mediterranean Native Sheep Breeds' (2022) 13(8) *Genes* 1421, 1422, citing Mary MA McDonald, 'The Pattern of Neolithization in Dakhleh Oasis in the Eastern Sahara' (2016) 410 *Quaternary International* 181. For convenience's sake, all further references are to Ben Sassi-Zaidy.

³⁴ Ben Sassi-Zaidy (n 33) 1.

³⁵ *ibid* 2.

³⁶ Jennifer M Webb and David Frankel, 'Hearth and Home as Identifiers of Community in Mid-third Millennium Cyprus' in Vassos Karageorghis and Ourania Kouka (eds), *On Cooking Pots, Drinking Cups, Loomweights and Ethnicity in Bronze Age Cyprus and Neighbouring Regions* (Leventis Foundation 2011) 30.

³⁷ Bernard A Knapp, 'Maritime Narratives of Prehistoric Cyprus: Seafaring as Everyday Practice' (2020) 15 *Journal of Maritime Archaeology* 435 (emphasis added).

³⁸ Jean-Denis Vigne and others, 'The Transportation of Mammals to Cyprus Shed Light on Early Voyaging and Boats in the Mediterranean Sea' (2014) 10 *Eurasian Prehistory* 157. For convenience's sake, all further references are to Vigne.

³⁹ Around ca 11,700–ca 8400 BP (Before Present). See Ian Kuijt and Nigel Goring-Morris, 'Foraging, Farming, and Social Complexity in the Pre-Pottery Neolithic of the Southern Levant: A Review and Synthesis' (2002) 16 *Journal of World Prehistory* 361.

⁴⁰ Vigne (n 38) 169.

voyage standing up'.⁴¹ As these voyages would typically not have been possible in less than 10–12 hours (as calculated from the two nearest points on the south coast of Anatolia and the north coast of Cyprus – approximately 80–90km), one begins to grasp the realities faced by these non-human animal lives: unfamiliar and uncomfortable (at least) transport conditions imposed for the sake of continued use in new territory. What's more, the implicit requirement of extended durations of continual, confined standing in unstable waters signifies that such journeys entailed (1) a comprehension by the voyage designers that there would be some level of health/welfare⁴² costs for the 'living resources' that would be unavoidable; and (2) that the voyages were nonetheless worth pursuing. The parallels (though in rough sketch at this stage in the human history timeline) to modern live export conditions are an eerie portent that such practices may never have been conducted without the awareness of the detrimental impacts they caused to the transported non-human lives.

While Vigne focuses on the implications for larger ruminant species, Martínez proposes that four major 'livestock' species (cattle, sheep, goats and pigs) were brought via boat.⁴³ Applying Vigne's finding that each boat may have supported as much as two-three weaned calves or one adult cow (at least 500kg), as well as five rowers and their food supply (maximum 750kg), the size of the 'moving, living landscape' becomes clearer.⁴⁴ Though gradual, these authors propose a global rate of approximately 1.5–2 species introduced onto Cyprus per 1,000 years during this era.⁴⁵ The activities of the 'moving, living landscape' appear to have not only increased the variety of non-human animal species which were transported as 'resources', but likely affected an increasing total number of these lives as ship technology advanced and Neolithic migration flourished.

While there may have been ensuant benefits to transporting these lives and 'other goods',⁴⁶ such as 'communicating and sharing knowledge across the sea and between different lands, cultures and polities',⁴⁷ the motivation to engage in such activities could derive from these benefits alone. However, the desire to tackle the obviously demanding problem of transporting non-human animals via sea hints at a level of significance beyond resource use. But how should this significance be characterized: as derived from dietary, ritualistic, economic, and/or other relational motivations?⁴⁸ The answer to this question may not lie in clear economic terms. As emphasized by Keswani, 'a variety of socioideological and ritual requirements, rather than utilitarian optimizing principles, structures patterns of animal husbandry in pre-state, pre-market (or extra-state, extra-market) societies'.⁴⁹ The altered faunal assemblages on prehistoric Cyprus, consequent of new settlers who exploited 'a complex of fauna comprising fallow deer, sheep, goat, and pig, all apparently imported from the mainland' do

⁴¹ *ibid.*

⁴² Though perhaps not thought with the same connotations these terms provoke in the modern world.

⁴³ Amparo Martínez and others, 'Detecting the Existence of Gene Flow Between Spanish and North African Goats Through a Coalescent Approach' (2016) 6 *Scientific Reports* 1. For convenience's sake, all further references are to Martínez.

⁴⁴ Vigne (n 38) 169.

⁴⁵ *ibid.* 164.

⁴⁶ A Bernard Knapp, 'Maritime Narratives of Prehistoric Cyprus: Seafaring as Everyday Practice' (2020) 15 *Journal of Maritime Archaeology* 415, 417.

⁴⁷ *ibid.*

⁴⁸ It could well be the case that all characterizations are present to varying degrees. The question for the purposes of this article is whether *instrumental* characterizations (as food, tradable goods, etc) were still *significant* motivational factors for such pursuits.

⁴⁹ Priscilla Schuster Keswani, 'The Social Context of Animal Husbandry in Early Agricultural Societies: Ethnographic Insights and an Archaeological Example' (1994) 13(3) *Journal of Anthropological Archaeology* 255.

correlate with transformations in the ritual practices and social organization of early human settlers in this region.⁵⁰

As further indication of a (at least partially) ritualistic status held by these imported species, Croft's examination of caprine remains in third millennium BC sites found a high degree of 'sexual dimorphism in size'.⁵¹ This finding is 'inconsistent with an efficient strategy of either meat or milk exploitation'.⁵² Croft additionally cautions against reading the faunal assemblages from Cyprus as too suggestive of introducing non-human animals via sea for herding alone, as faunal assemblages included the bones not only of *hunted* deer and *herded* pigs and caprines, but also of morphologically indistinguishable *feral* pigs and caprines.⁵³

The limitations of this data pose problems for detailed economic interpretation of early uses of imported non-human animals on Cyprus. Nonetheless, the working assumption of Croft is still that most, if not all, caprines and pigs were domesticates that must have been imported from the mainland.⁵⁴ The (1) morphological limitations of the data and (2) dual-ritual usage should therefore still be read with the understanding that these animals 'of primary economic significance in EP Cyprus were also important in mainland western Asia'.⁵⁵ In particular, caprine herding had become a staple feature of subsistence economies in the Levant from around the mid-eighth millennium BC, suggesting a retention of 'resource' status when imported. The statuses non-human animal lives transported to Cyprus may have been similarly dependent on the context and desires of their human animal transporters, therefore serving both as a sacred symbol and 'resource' in a not necessarily contradictory manner.

What the Cypriot case reveals beyond the 'Overview' above is the use of these lives by Neolithic human animal communities which had a unique attitude to coastal environments which included 'making a living from the sea';⁵⁶ even in the face of natural obstacles against the transport of larger species, and with the ostensible possibility of making a living in alternative ways in these environments (for instance, by fishing or foraging), non-human animal lives conceptualized as 'resources' were still considered worth tackling the difficult problem of sea transport. The range of evidence examined here thus provides one of the earliest examinable insights into not only the *preference* but *pursued prioritization* of using 'commonly commodified'⁵⁷ non-human animal species despite the considerable costs of bringing these 'resources' along as human animals migrated to new lands.

⁵⁰ *ibid* 262.

⁵¹ Paul Croft, 'Man and Beast in Chalcolithic Cyprus' (1991) *Bulletin of the American Schools of Oriental Research*, no 282, 63, 74.

⁵² *ibid*.

⁵³ See *ibid* 67.

⁵⁴ See *ibid* 64.

⁵⁵ *ibid* 66.

⁵⁶ Knapp (n 46) 440.

⁵⁷ I.e., cattle, sheep, goats, and pigs (stereotypically characterised 'farmed' or 'agricultural' non-human animals).

3) Classical Antiquity Case Study – Roman Period Trade and Graeco-Roman Conceptualizations

‘Classical scholarship on the role, function and perception of animals in different areas of ancient Greek and Roman life can provide important insights into one aspect of the heritage – Western conceptions of humanity and the place of the animal within it – which has not yet received the attention it deserves’.

– Julia Kindt⁵⁸

The Cypriot case displays the depths of non-human animal commodity conceptualizations and uses within our own species’ timeline. Questions surrounding the retention of these conceptualizations now arise: were these conceptualizations maintained linearly from Neolithic times to now? What effect did these earlier uses have on subsequent human animal collectives’ uses? Here, we will explore a steppingstone between the time of the Cypriot case study and modern world uses and conceptualizations: the steppingstone of ‘classical antiquity’, with a focus on Roman Period trade and Graeco-Roman conceptualizations, as illustrative examples of the retained commodity status of non-human animals.⁵⁹

a. Roman Period Trade

While written sources confirm the existence of a ‘livestock’ trade during the Roman Period, the characteristics of this trade were previously unclear given the scarcity of details provided in these records.⁶⁰ A recent study conducted by Colominas and Edwards provide some insight into these characteristics, which involved both osteometric and genetic analyses on cattle remains found at the Early Roman trading post of Empúries (Catalonia) (1st century BCE to 3rd century CE) to determine how ‘livestock’ contributed to Roman trade and the economy of the Roman Empire.⁶¹ These authors suggest that the change in cattle morphology during the Roman Period is due to the introduction of non-indigenous cattle into the new territories of the Roman Empire from trade. The non-indigenous cattle would have been acquired at ports along the Mediterranean basin, with written sources confirming the existence of different routes trading these ‘living commodities’.⁶²

Despite the difficulties of housing and feeding the ‘stock’, Colominas and Edwards venture that ‘cattle trade was vital during the early Roman period’.⁶³ The capacity and preference for transporting large ruminants via the Mediterranean Sea seems to have been retained (or, possibly, resurfaced) since the earlier examined Cypriot period. However, in this iteration, there is stronger indication of non-human animals being traded more as commodities of

⁵⁸ Julia Kindt, ‘Capturing the Ancient Animal: Human/Animal Studies and the Classics’ (2017) 137 *Journal of Hellenistic Studies* 213.

⁵⁹ The inequity in timelapse between prehistoric Cyprus and Classical Antiquity (give or take 6,000–10,000 years) compared to between Classical Antiquity to the present day (give or take 2,000 years) should be noted for the possible implications of greater generational/cultural changes in the former than the latter and the more exponential rate of technical growth in the latter than the former. In other words, while there are always limitations in drawing any conceptual connections between vastly different historical ‘snapshots’, the limitations are unique between each steppingstone. The *kind* of limitation should be a salient feature of contemplating the conceptualizations arising within this particular ‘snapshot’.

⁶⁰ Lúdia Colominas and Ceiridwen J Edwards, ‘Livestock Trade During the Early Roman Period: First Clues from the Trading Post of Empúries (Catalonia)’ (2017) 27 *International Journal of Osteoarchaeology* 167.

⁶¹ *ibid.*

⁶² See generally Pascal Arnaud, *Les Routes de la navigation antique* (2nd edn, Errance 2020).

⁶³ Colominas and Edwards (n 60) 177.

economic value *between* human animal collectives, rather than as a resource for *internal* use within a collective.

The benefits of genetic diversity that non-indigenous 'breeding stocks' offered was a likely motivation for this more extensive trading practice. Nieto-Espinet has discussed the attempts of human animals during this period to reduce the inbreeding rate of non-human animal populations, which was apparently known to have a negative impact on 'fertility and productivity'.⁶⁴ The motivation to diversify the 'stocks', reliant on the introduction of new breeds from distant lands and ostensibly via an expanding shipping route system, thus appears to be at least partially economic: to avoid the loss of exchangeable stock. The run-on economic benefits for the Roman Empire included not only *control of the means* of transporting these more diverse 'goods', but also in *increasing the value* of the 'good' through organized breeding practices. As Seetah articulates the multiple benefits deriving from this use, cattle were 'perhaps one of the most economically significant species; key to this broad economic value in the multifunctional manner in which this species is exploited'.⁶⁵

The presence of new cattle breeds subsequently spread to a variety of newly conquered territories of the Roman Empire, including Gallia, Britannia, Germania, Pannonia, Dacia, and Hispania.⁶⁶ The widespread diffusion indicates an even greater prevalence during this 'snapshot' of transporting living non-human animals across seas as tradable goods. This *kind* of sea-transport differs from the Cypriot case, in that it appears to have served as a regulated and expansive trade operation, allowing for the more extensive rendering of cattle in particular as 'economic commodities'. This is not to discount the fact that 'livestock' were 'almost certainly exchanged between different productive units within, and perhaps between, villages' in the earlier Neolithic era as well being used and consumed within earlier collectives; indeed, this preceding trade may have informed the conceptualizations that arise in written sources from classical antiquity.⁶⁷ It rather suggests a growth in the size and scope of these activities during the Roman Period.

b. Graeco-Roman Conceptualizations

The growth of live non-human animal transport activities during this period should not be misconstrued as a reflection of a radically more instrumental conceptualization. Perceptions of non-human animals, both those with less 'economic value' and the main domesticates of the period, are still skewed by 'functionality impacting on symbolism'.⁶⁸ Both wild and domestic non-human animals also served 'wide-ranging roles' in the life of the ancient Greeks and Romans, including being used as 'mediums' for human self-definition.⁶⁹ Human animal

⁶⁴ Ariadna Nieto-Espinet and others, 'Livestock Production, Politics and Trade: A glimpse From Iron Age and Roman Languedoc' (2020) 30 *Journal of Archaeological Science: Reports* 1. For convenience's sake, all further references are to Nieto-Espinet.

⁶⁵ Seetah (n 1) 6.

⁶⁶ See generally Peter Murphy and others, 'Production, Imports and Status: Biological Remains from a Late Roman Farm at Great Holts Farm, Boreham, Essex, UK' (2000) 5 *Environmental Archaeology* 35; Lidia Colominas and others, 'The Impact of the Roman Empire on Animal Husbandry Practices: Study of the Changes in Cattle Morphology in the North-east of the Iberian Peninsula Through Osteometric and Ancient DNA Analyses' (2014) 6 *Archaeological and Anthropological Sciences* 1.

⁶⁷ Paul Halstead, 'Farming and Feasting in the Neolithic of Greece: The Ecological Context of Fighting with Food' (2004) 31 *Documenta Praehistorica* 156.

⁶⁸ Seetah (n 1) 6.

⁶⁹ Liliane Bodson, 'Attitudes Toward Animals in Greco-Roman Antiquity' (1983) 4(4) *International Journal for the Study of Animal Problems* 312.

appropriation of non-human animals for self-definition, is not, then, predominately a 'symptom of modernity', but occurred frequently throughout classical antiquity.⁷⁰

This 'snapshot' serves as a case in point of non-human animals being at the core of what Howe calls 'value economics', where *human status* became increasingly represented in the *kinds* of non-human animals one could afford. Adjectives like 'noble' and 'common' were frequently tied to these *kinds* of non-human animals one owned.⁷¹ The 'lowly trader' was distinguished from the 'rich, horse-owning aristocrat'.⁷² Horses in particular served increasingly as a 'symbol of status and wealth, just as cattle conferred wealth on the people of the earliest civilizations'.⁷³ While consumed species such as cattle seem to be conceptualized as 'conduits of wealth creation' ('economic tools'), non-consumed species⁷⁴ such as horses seem to shift towards being thought of as 'symbols of wealth' ('status symbols') during the Roman Period.

These conceptualizations are neither siloed nor fixed: 'livestock' like cattle, for instance, retained a symbolic status of the wealth of their 'owners'.⁷⁵ What these conceptualizations seem to share is the element of cementing the difference between men and animals.⁷⁶ For instance, Hesiod writes in *Works and Days*⁷⁷ that 'the son of Kronos, Zeus, has ordained this law to men: that fishes and wild beasts and winged birds should devour one another since there is no justice in them; but to mankind he gave justice which proves for the best'.⁷⁸ Means of distinguishing *beyond the ethical* can also be found in other classical Greek texts, such as Xenophon's attempt to raise man's status above other animals through speech and reason.⁷⁹ Leblond characterizes this as a 'topos of Western philosophy' where 'animals' irreducible alienation from the human condition' is tied to their lack of speech.⁸⁰

This has made 'the exclusion of animals from the sphere of logos [...] one of the crucial questions addressed by philosophy and linguistics' in today's world, according to Leblond, as human animals still grapple with understanding our own species' significance (or lack thereof) in this world.⁸¹ These early attempts at differentiation echo the anthropomorphic notes to our modern understanding of the human role in the 'animal kingdom', which were once fuelled by living in a world no longer 'dominated by animals' but 'by the need to hunt and trap them and keep them a bay'.⁸² The select species that threatened the survival of early human collectives may have leaked into a more pervasive fear of 'other animal lives' which not only allowed but encouraged the sophistication of action to control the 'other'. The branch of control that grew in the form of 'use' over 'destruction' during the Roman Period

⁷⁰ Kindt (n 58) 216.

⁷¹ Timothy Howe, 'Value Economics: Animals, Wealth, and the Market' in Gordon Lindsay Campbell (ed), *The Oxford Handbook of Animals in Classical Thought and Life* (OUP 2014) 150.

⁷² Kindt (n 58) 216.

⁷³ Linda Kalof, 'Introduction: Ancient Animals' in Linda Kalof (ed), *A Cultural History of Animals in Antiquity* (Berg 2007) 135, 4.

⁷⁴ At least as popularly.

⁷⁵ Halstead (n 67) 156.

⁷⁶ Steven H Lonsdale, 'Attitudes Towards Animals in Ancient Greece' (1979) 26(2) *Greece & Rome* 146.

⁷⁷ Written around 700 BCE.

⁷⁸ Lines 274–80.

⁷⁹ *Memorabilia* 1.1.3–5, 3.3, 11 f.

⁸⁰ Diane Leblond, 'Ways of Seeing Animals, Documenting and Imag(in)ing the Other in the Digital Turn' (2020) 8 *InMedia* 1.

⁸¹ *ibid.*

⁸² GS Kirk, *The Nature of Greek Myths* (Harmondsworth 1974) 5.

manifested acutely as ‘commodification’.⁸³ That is, to facilitate the extent of ‘live export’ activities during this ‘snapshot’, the autonomies of these ‘other lives’ must have been conceptually stripped to some degree and progressively replaced with controllable concepts, such as ‘tool’, ‘stock’, and ‘wealth status symbol’.

There are prominent authors of this period who adopted milder stances than this. For instance, Lucretius affectionately depicts the anguish of a mother cow deprived of her calf that has been led to slaughter,⁸⁴ and presents an almost unparalleled idea at the time that animals are capable of emotions and take pleasure in their own lives.⁸⁵ Lucretius, though, was far more sympathetic to non-human animals than almost all of his contemporary writers.⁸⁶

Seetah summarizes the more common conceptualization of non-human animals during this period aptly: ‘Humans [...] envelop our exploitation in a mantle of culture that permits our utilization to continue’.⁸⁷ The use of non-human animals, especially domesticated animals in classical antiquity during the Roman Period, reflected the popular attitudes of the exploiting collectives, which increasingly positioned non-human animals according to a ‘commodity status’. These conceptualizations again appear to have (1) been shaped by the benefits that non-human animals could confer and (2) to have shaped that ways in which human animals used these lives. The modes of exploitation of animals in classical antiquity were demonstrably geared towards the value that humans could gain from such exploitation, both in terms of raw value and wealth status, in turn imbuing the statuses of the traded non-human animals with an extensively entrenched ‘commodity’ hue.

4) Conclusion

The explored conceptualizations and uses of non-human animals in the ancient world through these select ‘snapshots’ provides some context as to why human animals conceive of non-human animals as tradable commodities in the modern world. Early transport and trade of non-human animals in, and likely between the periods of, Neolithic Cyprus and classical antiquity appear to have strengthened the spreading manifestation of controlling ‘other lives’ as ‘*usable and tradable commodities* that could be used to both *grow* and *represent* human value’, far more so than acknowledging that non-human animals lives may have ‘different but relatable *intrinsic* value’ that would be worthy less instrumental use.

Human animals’ have clearly had a complex and long-enduring relationship with non-human animals; our species’ internal representations of these ‘others’ are neither isolated from history nor settled at present. What this brief exploration has sought to provide is an understanding of the patterns that arise in human animal conceptualizations and uses of non-human animals throughout history. It may serve as a tool for further contemplation of how modern human societies may shift away from the weight of these ancient conceptualizations

⁸³ Though these two forms may co-exist.

⁸⁴ See *On the Nature of Things* 2.349–366.

⁸⁵ See *ibid* 2.268 and 3.299.

⁸⁶ There are other examples of less anthropomorphic conceptualizations during this period, such as Seneca, who reported his temporary adoption of vegetarianism. However, even Seneca abandoned the practice on the urging of his father to ‘eat better once again’. See *Moral Letters* 108.

⁸⁷ Seetah (n 1) 6.

for the benefit of the non-human animals most affected by the 'commodity classification' in today's world.