Archaeological Dialogues (2023), **30**, 163–167
doi:10.1017/S1380203824000047

CAMBRIDGE UNIVERSITY PRESS

PROVOCATION

How far does culture go?

Assaf Nativ[1], Nimrod Marom[2], Hagar Reshef[2] and Ron Shimelmitz[2]

[1]Independent researcher, Israel and [2]University of Haifa, Israel
Corresponding author: Assaf Nativ; Email: assaf.nativ@gmail.com

Abstract
Focusing on the late prehistoric southern Levant, we recently suggested that the diffused low-frequency distribution of large predator bones (lion, leopard and bear) coalesces into a coherent temporal pattern when observed at a sufficiently long timescale. While in the previous research we sought to determine what sort of sociocultural mechanism might explain this pattern, effectively drawing it into the orbit of the familiar, in this brief provocation, we push in the other direction, towards the unfamiliar: how can a process or phenomenon be culturally significant yet meaningless at the human and societal levels? How is a phenomenon substantial in the long term and insubstantial in the short term?

Keywords: Large predators; temporality; scales; emergence; detail and scope tradeoff

Focusing on the late prehistoric southern Levant, we recently suggested that the diffused low-frequency distribution of large predator bones (lion, leopard and bear) coalesces into a coherent temporal pattern when observed at a sufficiently long timescale (Shimelmitz et al. 2023). In that paper, we sought to determine what sort of sociocultural mechanism might explain this pattern, effectively drawing it into the orbit of the familiar. In this brief provocation, we push in the other direction, towards the unfamiliar, exploring how these patterns undermine and challenge two premises: (1) that culture must be meaningful at a human scale and (2) that shifts in scale entail a tradeoff of detail and scope. We propose that, if the pattern is real, it indicates (1) sectors of culture that have little to no association with meaningful human action or experience and (2) scales of cultural operation that are so drawn out and diffused that they embody a more qualitatively distinct scalar logic than the one we are accustomed to.

We begin by recasting the data. Instead of a series of discrete stages of sociocultural evolution – simple hunter-gatherers, complex hunter-gatherers, farmer-hunters, farmers, and urban and state societies (Shimelmitz et al. 2023; Table 1, Fig. 1) – we present here the pattern as a frequency curve that traces the number of instances (i.e. stratum- and site-specific sightings) per millennium for each archaeological period. The resulting sequence is compelling. Save for a slight bump in the Pottery Neolithic period, the frequency of instances continuously and considerably increases over a period of more than 20 millennia. It begins with 0.4 instances per millennium in the early-middle Epipalaeolithic period and reaches as many as 15 in the Iron Age (Fig. 1). Furthermore, upon examining the pattern by species, it becomes apparent that the bump in the Pottery Neolithic is not coincidental but rather marks a turning point between two major phases (Fig. 2): an early leopard-dominated, low-frequency phase and a later lion- and bear-dominated (relatively) high-frequency phase. In the grand scheme of things, these patterns coincide nicely with the region's broad evolutionary developments: the Neolithic Revolution (Goring-Morris and Belfer-Cohen 2011), the institutionalization of the agricultural village (Gopher 2012), the Urban

© The Author(s), 2024. Published by Cambridge University Press. This is an Open Access article, distributed under the terms of the Creative Commons Attribution-NonCommercial licence (http://creativecommons.org/licenses/by-nc/4.0/), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original article is properly cited. The written permission of Cambridge University Press must be obtained prior to any commercial use.

https://doi.org/10.1017/S1380203824000047 Published online by Cambridge University Press

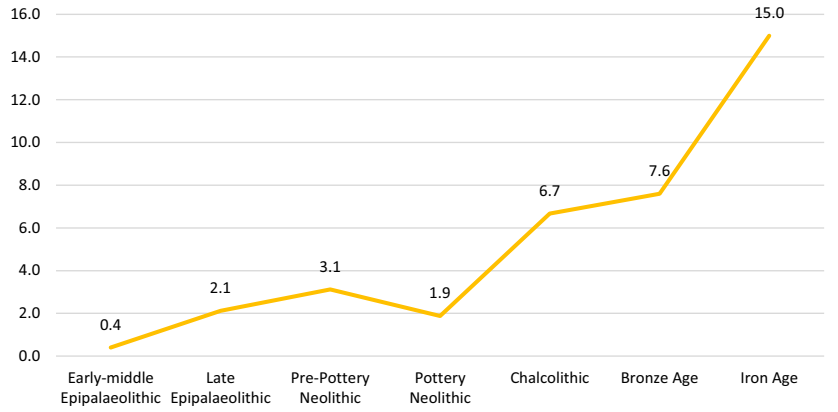


Figure 1. Number of large-predator-bone instances per millennium.

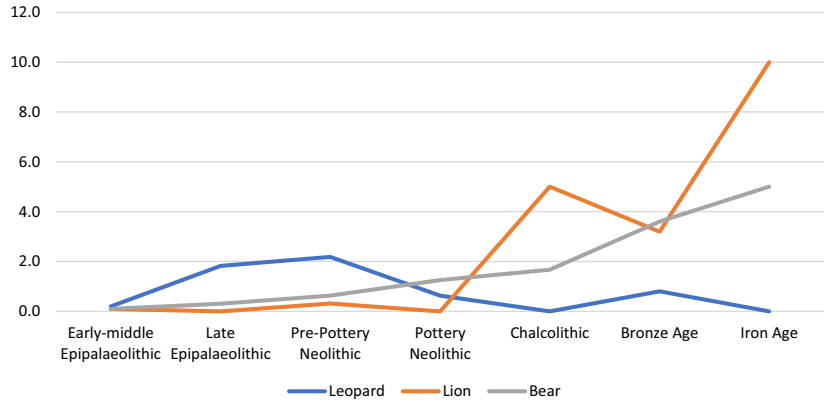


Figure 2. Number of leopard, lion and bear bones per millennium.

Revolution and state formation (Greenberg 2019). Furthermore, one may hypothesize how the social mechanisms at play shifted from cosmological preoccupations about humans' relationship to the world around them to societal, power-oriented preoccupations (Shimelmitz et al. 2023).

However, the entire pattern is extremely low frequency, a feature that likely renders it questionable for many readers. It comprises 56 instances of large predator bones and spans approximately 22,000 years from the Epipalaeolithic period to the Iron Age. On average, this means one event every four centuries, and even assuming that the original number must have been significantly higher, it makes no sense at a human and even societal timescale. Dozens of generations and an indeterminate number of events, some of which had shaken social and cultural formations to their core, went by between one instance and another. The vast majority of people had no experience whatsoever of the occasions that concern us here, and even those that did are unlikely to have been able to draw a connection with comparable previous events. Under these circumstances, it seems one could hardly experience the engagement with large predator remains as anything but a freak occurrence. Indeed, if it were not for the regularity of the pattern, there would be no justification to presume any connection at all.

We are thus faced with a dilemma: do we reject the pattern due to insufficient empirical robustness and risk missing the opportunity to explore a rarely observed cultural dynamic, or do we endorse it on the grounds of its overall coherence and risk embarking on a wild-goose chase? And if we vote for the latter, how much freedom do we grant ourselves to consult other lines of

https://doi.org/10.1017/S1380203824000047 Published online by Cambridge University Press

data (e.g. Allsen 2006; Hodder 2006) and postulate archaeologically invisible mechanisms? These questions are unlikely to be resolved any time soon, and our responses to them are inevitably context-specific value judgements. Thus, the choice between rejecting and endorsing the pattern is a choice between buttressing and challenging existing dispositions, and deciding how much freedom we grant ourselves when taking on the posed challenge is actually deciding how free we are to use other empirical and theoretical resources as fillers for closing the gaps. For the sake of curiosity and provocation, we choose to (a) endorse the outlined pattern and (b) regard the gaps as integral to it, hence refraining from throwing additional materials into the mix. We propose to engage the outlined process as a thought experiment and ask what ramifications long-term, low-frequency patterns such as the one described here have for our understanding of culture and temporality.

Two challenges seem pertinent, both deriving from the long temporal gaps between the brief episodes that constitute the pattern: how can a process or phenomenon be culturally significant yet meaningless for humans and societies? How is a phenomenon substantial in the long term and insubstantial in the short term? The first question touches on our notion of culture as something that is dependent and contingent on human behaviour. Conventionally, designating something as *cultural* means placing people in the middle of it, whether by design (e.g., urban space, art, and agriculture) or by accident (e.g., the Anthropocene and soil degradation), and to demonstrate its cultural significance, one either traces it back to meaningful human action, demonstrates its implications for future human practice, or both. This move is quite difficult to accomplish in the present case. As suggested above, the observed pattern is traced back to human action but of a kind that appears random. The events seem too brief and too far apart to cohere into anything intelligible at these scales. Ultimately, this seems to imply that events which are incidental and arbitrary at a human scale can generate meaningful cultural patterns at a much larger, supra-human scale.

Put slightly differently, this indicates that culture has emergent properties that transcend the human (DeLanda 2006; Polanyi 1966). They draw on and derive from human action but operate according to principles of their own. Considering that we are living in the 21st century, this should not be difficult to appreciate. Between the Anthropocene and global warming threatening to render Earth unrecognizable (uninhabitable?) and artificial intelligence (AI) promising to surpass human thought and creativity, we are engulfed by agencies and trajectories that are of our making but which escape and present us with demands of their own authorship. Indeed, much as nuclear scientists in the 20th century did (and do still today), the people making up the contemporary high-tech community cannot help but continue driving AI forward while simultaneously being terrified of its potential consequences. We are, it seems, under the thumb of culture, not the other way around; it drives us, sometimes, to do things despite ourselves. Indeed, recent archaeological literature has already provided some convincing accounts to this effect; John Robb's (2013) analysis of European Neolithization, Ian Hodder's (2012) concepts of entanglement and entrapment, and Christopher Witmore's (2019) investigations of the hypanthropos are cases in point.

The second question – how is a phenomenon substantial in the long term and insubstantial in the short term? – challenges an implicit premise of multiscalar observation. Between Swift's *Gulliver's Travels* and Borges's *On the Exactitude of Science*, or the hazy juxtaposition of colours and Seurat's lively scene of a Sunday afternoon, we are taught two related lessons. One is that, to capture a being, a phenomenon, or an entity, we must engage and observe it at the appropriate scale; the other is that, when looking at something from up close, what we gain in specificity we lose in scope, and vice versa. Look from too far away, and you will only see an isolated incident; look from too close, and your senses and reasoning will be overwhelmed by minutiae in a dense, chaotic mess. It is this fundamental principle that is conveyed in widely circulating maxims about blind men and elephants, and trees and forests, and Geoff Bailey's time perspectivism is probably archaeology's most carefully thought-out response to this concern (Bailey 1983; 2007).

https://doi.org/10.1017/S1380203824000047 Published online by Cambridge University Press

However, the temporal distribution of large predator bones outlined above points in the opposite direction. The failure to recognize that the occurrence of bear, leopard and lion bones constitutes a significant cultural pattern is not because, under standard scales of observation, there is too much information to sift through but because there is hardly any at all. Thus, contrary to accepted wisdom, our adoption of a broad analytical scope did not reveal the temporal pattern because it allowed random events to be ingested by or fused into a broader comprehensive pattern but rather because it reduced the confounding effect of the yawning gaps between the individual instances. Stated somewhat differently, rather than making way for a pattern by reducing detail, the long-term perspective, in this case, discovered a pattern by solidifying an otherwise diaphanous phenomenon.

The conditions underlying this effect are reminiscent of what physicists and astronomers tell us about the world. So long as we occupy and engage a specific range of reality, roughly spanning atoms on the one end and planet Earth on the other, accepted wisdom will hold, and we will continue trading detail for breadth and breadth for detail. However, should we venture beyond these thresholds, the said wisdom will flounder. Whether we cross the upper or lower threshold, we will encounter a world predominantly consisting of empty space. Hence, a widely circulating description states that, should the nucleus of a hydrogen atom be inflated to the size of a basketball, its electron would be orbiting it at a distance of more than 3 km. Similarly, viewed as a whole, our solar system consists of specks that travel in large circles around the sun, the radii of which range between 40 (Mercury) and more than 3,200 times (Neptune) the sun's diameter. Thus, whether we encounter the subatomic level below or the planetary system above, most of what we find is empty space, huge gaps between far-flung, minuscule entities.

Thus, the logic of the solid world that associates finer scales of observation with more detail and coarser scales of observation with more breadth holds only within a specifiable range – spanning the atomic and global. Beyond this range, empty space abounds, and the familiar tradeoff no longer applies: what you gain in breadth, you also gain in detail. If the physical world includes such scalar thresholds, might this also be true for the realm of culture? This is what the temporal distribution of large predator bones in south Levantine archaeological assemblages suggests. The closer one looks, the less information they have, and the standard scales of archaeological observation primarily capture the 'empty spaces' between the events. It is the archaeological equivalent of extra-planetary formations.

Of course, all of this is still conjectural. The proposition that culture has supra-human and 'extra-planetary' sectors, in which the familiar tradeoff of scope and detail becomes undone, is yet unsubstantiated and probably sounds quite wild to most readers. Perhaps, however, it is not as wild as it first seems. After all, theories of practice have underlined that repetition and rehearsal are the principal mechanisms of social reproduction, maintaining and perpetuating – i.e. making long term – most social institutions (Bourdieu 1990; Giddens 1984). These mechanisms of social reproduction consist of more-or-less brief events separated by more-or-less extensive intervals; religious holidays, rites of passage, and national events are some obvious examples. In this respect, our distribution of large predator bones shares some features with other social operations. As such, perhaps, it is best considered an extreme instance of an otherwise familiar structure, in which case the question should be: how far can it go?

Either way, we need to consider additional instances such as the one presented here, and they are probably more numerous than we would expect. After all, our training teaches us to reject such patterns at the onset as insubstantial. Thus, additional examples may be right under our noses, and we ought to keep our eyes peeled. Such an effort is probably worth a shot if only because of its potential to demonstrate that the cultural landscape of the archaeological record is considerably broader than we thought and that its operations might demand that we rethink some of our deepest premises.

https://doi.org/10.1017/S1380203824000047 Published online by Cambridge University Press

References

Allsen, T., 2006: *The royal hunt in Eurasian history*, Philadelphia, PA.

Bailey, G.N., 1983: Concepts of time in quaternary prehistory, *Annual Review of Anthropology*, **12**, 165–92. https://doi.org/10.1146/annurev.an.12.100183.001121

Bailey, G., 2007: Time perspectives, palimpsests and the archaeology of time, *Journal of Anthropological Archaeology* **26**, 198–223. https://doi.org/10.1016/j.jaa.2006.08.002

Bourdieu, P., 1990: *The logic of practice*, Stanford, CA.

DeLanda, M., 2006. *A new philosophy of society. Assemblage theory and social complexity*, London.

Giddens, A., 1984: *The constitution of society. Outline of the theory of structuration*, Berkeley, CA.

Gopher, A., 2012: The pottery Neolithic in the southern Levant. A second Neolithic revolution, in A. Gopher (ed), *Village communities of the Pottery Neolithic period in the Menashe Hills, Israel. Archaeological investigations at the sites of Nahal Zehora*, Tel Aviv, 1525–611.

Goring-Morris, A.N., and Belfer-Cohen, A., 2011: Neolithization process in the Levant. The outer envelope, *Current Anthropology* **52**, S195–208. https://doi.org/10.1086/658860

Greenberg, R., 2019: *The archaeology of the Bronze Age Levant*, Cambridge.

Hodder, I., 2006: *The Leopard's tale. Revealing the mysteries of Çatalhöyük*, London.

Hodder, I., 2012: *Entangled. An archaeology of the relationships between humans and things*, Maiden, MA.

Polanyi, M., 1966: *The tacit dimension*, New York.

Robb, J., 2013: Material culture, landscapes of action, and emergent causation. A new model for the origins of the European Neolithic, *Current Anthropology* **54**, 657–83. https://doi.org/10.1086/673859

Shimelmitz, R., Reshef, H., Nativ, A., and Marom, N., 2023: Large predator hunting and its interpretation. Leopards, bears and lions in the archaeological record of the southern Levant, *Cambridge Archaeological Journal* **33**, 137–56. https://doi.org/10.1017/S0959774322000221

Witmore, C., 2019: Hypanthropos. On apprehending and approaching that which is in excess of monstrosity, with special consideration given to the photography of Edward Burtynsky. *Journal of Contemporary Archaeology* **6**, 136–53.

Cite this article: Nativ A, Marom N, Reshef H, and Shimelmitz R (2023). How far does culture go? *Archaeological Dialogues* **30**, 163–167. https://doi.org/10.1017/S1380203824000047

https://doi.org/10.1017/S1380203824000047 Published online by Cambridge University Press