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ARTICLE

Convivial Heritage: A Disruptive Archaeology Of Species Coexistence

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Abstract
This paper explores the utility of conviviality thinking for archaeological theory and practice. It first situates calls for convivial analysis as a response to the excesses of late capitalism and the existential challenges of the global Anthropocene polycrisis. The paper then highlights the critical, ethical and interpretive potentials of the concept to re-think human–animal coexistence, to frame new approaches to ecological conservation and to creatively reimagine shared multispecies futures. A suite of examples from hunter-gatherer archaeology and archaeological museums is offered to illustrate how conviviality thinking helps to challenge traditional representations of the past and contributes to an engaged, post-critical approach to museum and heritage practices fostering a fruitful dialogue on the diversity of species co-living. Conviviality constitutes a powerful lens through which to integrate theory and practice and to draw on the empirical strengths of archaeology, while recognizing the need to speak to a critical moment in planetary history.

Keywords: deep history; multispecies archaeology; Anthropocene heritage; post-critical museum; conviviality; species co-living; conservation; archaeological imagination

Introduction

The coronavirus disease 2019 (COVID-19) pandemic has resurged both academic and public attention as to how we come to live together with nonhuman animals (Searle and Turnbull 2020). There is a growing recognition that elevated risk for potentially devastating zoonoses may become the new status quo in the polycrisis that is the 'Anthropocene' (Gibson et al. 2015; Horn and Bergthaller 2022; Morin and Kern 1999). A key diagnosis is also that the fulmination of zoonotic disease illustrates some of the many pathologies of present-day modes of human–animal cohabitation. Many of these are inextricably tied to the pervasive, extractive logic of capitalist systems and the alienation and commodification of nature they promote (Cassegård 2021). For example, domestic cattle and the entangled forms of human economic, technological and sociocultural practice related to them now account for more than 30% (>70% when *Homo sapiens* is included) of the total mammalian biomass on the planet (Greenspoon et al. 2023). Although engagement with the Anthropocene has provoked diverse, sometimes conflicting responses, there is an emerging consensus that the planetary futures alarmingly put at stake by current human Earth-system involvement cannot be safeguarded by working *against* or *above* nonhuman nature, but instead call for new ways of *working with* the many nonhumans we share the planet with (e.g. Horn and Bergthaller 2022; Schroer 2022). Haraway (2016) has famously urged for the critical need to 'make [new] kin' (see also Van Horn et al. 2021) and to acknowledge the

interdependencies of species that are the foundation of shared planetary livelihoods. Cultivating the latter is now increasingly argued to require new forms of interspecies attentiveness, care and responsibility (Kirksey 2014; Tsing et al. 2020; van Dooren et al. 2016). The Anthropocene moment can so be understood as a critical inflection point challenging long-held assumptions on the limits and preconditions of earthly *habitability* (Fleetwood 2023) – how we, as humans, can sustainably and ethically inhabit the planet. Importantly, however, this question cannot be addressed from an exclusively human-centred perspective and calls for multispecies sensibilities: Futurity debates cannot evade questions of nonhuman life. Understanding the matrix of human–animal co-dependency and affirming the inescapability of attending to, enabling and cultivating multispecies neighbourhoods consequently emerge as central priorities of future-oriented research.

Devising new ways of living together with other animals rooted in awareness and constructive recognition of their projects, needs and perspectives has been framed as a question of 'conviviality' (e.g. Donati 2019; Hinchliffe and Whatmore 2006; Rigby 2018), and to foster truly convivial forms of multispecies life is regarded to be a key to successfully navigating the deep futures that lie ahead. Conviviality studies thereby join forces, and continue to be informed by, broader concerns in multispecies studies and the environmental humanities, habitability studies, coexistence studies (Pooley et al. 2021; Schroer 2021), conservation science (Büscher and Fletcher 2020; Massarella et al. 2023), security studies (El Kateb et al. 2015) and the emergent systems view of life (Capra and Luisi 2014). Given this upsurge of interest in convivial species co-living, it is surprising how little attention the issue has so far garnered in archaeology and heritage studies (but see Given 2018 for a notable example), and this even though these disciplines can arguably contribute unique and critical insights and perspectives to broader discussions on the situated dynamics of human–animal cohabitation (see e.g., Armstrong Oma 2018; Hamilakis and Overton 2013; Kost and Hussain 2019; Stobiecka 2022a).

We here argue that conviviality indeed provides a hitherto overlooked lens that can open up an entirely novel domain of archaeological inquiry and knowledge production, helping to propel the field from a narrow engagement with 'matters of fact' to wider-ranging 'matters of concern' (cf. Horn and Bergthaller 2022, 15; Latour 2004). At the same time, a concern with convivial forms of multispecies life reformulates questions on how to portray and interrogate the past in museum spaces. By engaging with these and related issues, the paper probes into some of the prospects of post-critical (Anker and Felski 2017; Di Leo 2014; Röder 2014) and post-qualitative inquiry (Lather and St. Pierre 2013; St. Pierre 2021) for archaeology and interdisciplinary museum studies writ large. We first distil a general concept of multispecies conviviality based on a focused review of the literature. We then reexamine deep-time instances of human–animal cohabitation through a conviviality lens and consider the responsibility of archaeology to bring such perspectives to public attention. We draw on examples from deep-time archaeology because the deep past is a 'foreign country' (Lowenthal 2015) and thus likely frames an archive of non-analogue, alternative modes of species co-living. Following this refurbishment of archaeological inquiry, we offer an archaeology of conviviality as a promising and urgently needed intervention within future-oriented discussions of planetary livelihoods.

From human conviviality to multispecies conviviality

The notion of conviviality was introduced to the Western scholarly corpus by the Austrian philosopher and social critic Ivan Illich. Illich was an adamant commentator of institutionalized modernity in the industrial postwar West and in his widely celebrated *Tools for conviviality* (2009 [1973]) coined conviviality as an ideal to combat the degrading effects of capitalism. Following Illich (2009, 18), conviviality has to be understood in opposition to (capitalist) industrial productivity. Whereas, in capitalist regimes, workers are alienated from their products, conviviality was offered as a means to describe and foster '*autonomous* and *creative* intercourse

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among persons, and the intercourse of persons with their environment [. . .] in contrast with the conditioned response of persons to the demands made upon them by others, and by a man-made [sic!] environment' (Illich 2009, 19, emphasis added). For Illich (2009, 19), conviviality therefore conveyed the aspiration for 'individual freedom realized in personal interdependence', thus having 'intrinsic ethical value.' As Krauss (2021) points out, Illich's account is premised on justice and freedom in responsible interdependence, with the hope of engendering a 'convival society' founded upon 'knowledge and tools not serving individualized profit and industrialized production, but the common good, while limiting resource consumption for the rich.' Conviviality, in this context, already implies the idea of a 'commons' (Ostrom 1990) – it helps to both cultivate and perpetuate it – yet 'commoning' is primarily (still) understood as an intra-human process that highlights participatory, distributed and bottom-up society-making.

Illich's (2009 [1973]) timeless reaction to the negative and future-threatening trends that run through contemporary societies and his thorough critique of capitalism and consumerism became a referential point for the conviviality movement – a group of French intellectuals who, in two manifestos, called for convivialism as a regulative idea for alternative forms of collaborative, joyful post-growth social cohabitation (The Convivialist Manifesto 2014; The Second Convivialist Manifesto 2020). These authors offer an understanding of convivialism as 'a mode of living together (*con-vivere*) that values human relationships and cooperation and enables us to challenge one another without resorting to mutual slaughter and in a way that ensures consideration for others and for nature' (The Convivialist Manifesto 2014, 25), practicable for example through grassroot movements, participatory collaboratives and 'slow' initiatives. Convivialism advocates new forms of life based on ideas of a common humanity, common sociality, individuation and managed conflict. The point is not to seek social harmony or the absence of contention but to foster a sense of cohesion and sharedness that rests on a delicate balance between sameness and difference. Conviviality in this sense resides in the capacity of individuals to generatively interact with one another on their own accord and on their own terms, while nonetheless satisfying their possibly divergent needs and agendas.

In the foreword to the first conviviality manifesto, Adloff (2014, 10) acutely notes that the basis for this way of re-thinking social life is an updated reading of Marcel Mauss' landmark study of *The Gift* (2011 [1925]). The core idea, resonating with much contemporary scholarship on sociality and co-sociality, is that any meaningful social relationship is underwritten by some form of reciprocity, even if it is 'unbalanced' or 'asymmetrical'. The French convivialists have thereby extended the Maussian notion of gift exchange as a society-making obligate practice to also include the natural world, maintaining that 'the gift/counter-gift relationship, and the relationship of interdependence, must [also] be applied to [nonhuman] animals – which must no longer be thought of as fodder for industry – and to the earth in general' (The Convivialist Manifesto 2014, 33). Significantly, writing in the current atmosphere of catastrophe, environmental emergency and the long shadow of the Anthropocene, they accordingly identify conviviality with animals as a key condition for a good, just and sustainable life on Earth.

The resulting vision of equity, the basis for conviviality, must then encompass 'the animal world in the name of anti-speciesism and common naturalness' (The Second Convivialist Manifesto 2020). This understanding not only reverberates with the understanding of conviviality in the English academic discourse as a form of living together across difference and diversity (Heil 2020; Samanani 2023) – sometimes celebrated as the 'convivial turn' in cultural and postcolonial studies (e.g. Gidley 2013; Lapiņa 2016; Neal et al. 2019) – it coevally takes up recent generalizations of gift-exchange as a constitutive and regulatory dynamic of generative interspecies relationships in archaeology and cultural anthropology (Hussain et al. 2022; Hussain and Floss 2015; Nadasdy 2007). Stuart Hall's (1993, 361) incisive declaration that the capacity to 'live with difference' likely delineates 'the coming question of the twenty-first century' – in the light of pressing Anthropocene challenges – then calls for capacities, concepts and imaginaries to 'live with other species' in the near and long-term future. Historical and future-

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oriented analyses of conviviality here promise to help formulate and identify affirmative, constructive models for thinking and living otherwise in more-than-human worlds. As Gilroy (2004) insists, the development of convivial cultures based on the perpetual negotiation of other-directed hospitality in the face of growing, omnipresent and often overwhelming prejudice-driven hostility must rank among the big, overriding ambitions, and perhaps even the destiny-making projects, of our time.

When contextualized and understood in this way, it is not surprising that considerations of conviviality have recently surfaced in the ecological literature on ecosystem conservation and restoration (Büscher and Fletcher 2020; Massarella et al. 2022, 2023). Conviviality is framed there as the 'building of long-lasting, engaging and open-ended relationships with nonhumans and ecologies' (Büscher and Fletcher 2019, 286), which has given voice to the 'convivial conservation' proposal as a radical antithesis to dominant Western and explicitly human-centred alternatives. Conviviality, from this perspective, shifts the attention from the protection of individual species and the emphasis on human benefits to the importance of promoting and curating ecological interactions in which diverse species can thrive, and thus to larger constellations of multispecies life. Convivial conservation implies questioning and dismantling the modernist gaze (Krauss 2021), for example, with regard to easily naturalized human–animal hierarchies and power relations, and encouraging viable forms of species co-living, not necessarily devoid of conflict but providing enough room for mutual development (see, e.g., Given 2018). Conviviality, in this framework, effectively enacts a critique of essentialism in ecological thought and conservationist practice; it draws attention to the affording qualities of multispecies cohabitation and the many possibilities, even though often asymmetric, that emerge where species meet. This notion of conviviality comes close to presently developed understandings of the term in multispecies studies, where based on the agenda-setting work of Haraway (2008), conviviality is often defined in relation to the possibilities of 'becoming-with'. Convivial life, in this view, is above all characterized by its salient, and perhaps unique, capacity to *enable* co-becoming, and thus ideally results in the profusion of multispecies opportunities and potentialities that depend on the ecological whole in which humans and nonhumans participate. This again suggests, in sync with other scholarship on this issue, that conviviality operates on the level of emergent biocultural totalities – be it systems, structures, assemblages or networks – not individuals.

Convivialists across disciplines commonly accept the relational underpinnings of their projects (e.g. Foggin et al. 2021), but, depending on their background, often face difficulties with properly describing and integrating either human or nonhuman contributions. The environmental humanities and some branches of environmental and animal history have so far spawned the most elaborate and considerate attempts to consolidate the two (e.g. Donati 2019; Moraru 2015; Rigby 2020; Van Dooren 2019), framing conviviality from the perspective of how species interfere with each other's projects to commission other-affirmative change and novelty. In particular cityscapes have garnered much attention within these discussions as they 'have always been, to a greater or lesser extent, multispecies locales' (Rigby 2018, 73). 'Green cities' have to accommodate both humans and nonhumans and cater to their needs; they have to seek out synergistic solutions, both material and immaterial, facilitating multispecies cohabitation and the forging of opportunities *for all* city dwellers irrespective of their taxonomic status. Rigby (2018) articulates this project explicitly with Val Plumwood's (2003; 2006) call for cultural practices of 'deep sustainability', which are on the constant look-out beyond the human. For Rose and Van Dooren (2012, 17), urban multispecies conviviality consists of a 'being together that is not reducible to shared identities [. . .] but [consists of] a temporary identification with others in a shared place', where '"[i]dentification," in contrast to "identity," does not require that we share an essence or even a project, but simply that we are attentive to another's presence, to their way of being in a place.' For environmental humanists, the plasticity and adaptability of animal behaviour thus needs to be met with (radical) human cultural openness towards the nonhuman other, new forms of multispecies sensibility and attentiveness, and, crucially, a new ethics of more-than-human care. Conviviality, in this view, cannot be reduced to mere 'matters of fact' but conjures the urgency to examine and

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reflect on the responsibilities of earthly co-inhabitation as more-than-human 'matters of care' (Puig de la Bellacasa 2017), precisely because multispecies life is complicated and needs to be continously retuned and renegotiated.

As noted above, early formulations of conviviality have resonated with a more-or-less explicit notion of the 'commons', and this legacy has recently been belaboured by more-than-human approaches in a range of disciplines to draw acute awareness to the importance of a 'multispecies commons' (e.g. Baynes-Rock 2013; Bresnihan 2015; Haldrup et al. 2022) in fostering conviviality-affording practices and broader convivial constellations of life. As Hussain and Brusgaard (2024) have argued, comparative explorations of multispecies commoning can be conducive to answering important questions of multispecies conviviality past and present, for example in the context of human–beaver relations, where convivial life depends on the sharing of key resources within co-inhabited and co-curated landscapes. By extending the notion of the commons to a multispecies world, we can perhaps arrive at an understanding of conviviality as an affirmative coming together of independent agentic life built on a recognized and cultivated commons that is enacted across difference (including, importantly, species boundaries).

Conviviality in this sense can be an analytical lens to bring up the past in new ways or to reinterpret the archaeological evidence at hand, but it can also be understood as an open and inviting method to be applied in the service of post-qualitative inquiry (St. Pierre 2021). Drawing on this promise and by emphasizing the concept's ethical dimension and critical potential, we in the following investigate the possibilities of deploying it as an experimental archaeological lens. What kind of issues can be addressed by mobilizing conviviality in the context of the multispecies deep past? How may convivial thinking affect our understandings and interpretations of the past? Does conviviality have the potential to bring (radically) different pasts and their varied representations to attention? And how may conviviality thinking change narratives about past multispecies relationships and interdependences?

Probing conviviality in the deep past

The Anthropocene moment – as a counterpoint to the human deep past – has proffered a host of novel 'intracorporeal encounters' between diverse human and nonhuman agents and has come to frame a range of significant 'wild spaces of conviviality [. . .] emerging in multispecies cities where improvisation, risk, and accountability are all in play' (Kirksey et al. 2018, 617). Arregui (2023) has, for example, shown how the meeting of humans and wild pigs in the suburban periphery of Barcelona decisively reorients the behaviour and attitudes of all of the involved agents, thereby promoting unique forms of reciprocal but always precarious human–porcine co-living. The author proposes to address this emergent form of species co-living as an 'infraspecies' relationship, as convivial coexistence unfolds not with reference to supposedly stable species categories but is negotiated between *individual* humans and pigs who interfere with each other's lives in situated, often idiosyncratic and deeply ambivalent ways. Arregui's (2023) infraspecies ethnography powerfully documents that humans and pigs are drawn together as peri-urban co-dwellers – facilitated by acorn-rich forest, household garbage, lawns, plentiful water resources and anthropogenic feeding – and they have to cultivate generative forms of mutually attentive 'indifference' and 'interpatience' (Candea 2010), allowing them to coordinate their projects without serious cutbacks or existential trouble. In this specific ecological setting, humans and pigs exhibit habituated forms of 'relational attunement' (Arregui 2023, 121) and the ways they encounter, perceive and co-constitute each other regularly resists 'fixation' – they '"reciprocally capture" one another in relations that are far from set' (Stengers 2011; quote from Arregui 2023, 120). This fragile coming together of humans and pigs can be described as a form of multispecies conviviality, yet configured in such a way that porcine others may simultaneously appear as 'wild' and 'tame', 'rural' and 'urban' or as 'pest' and 'neighbour'. These descriptors are first of all about the ascribed agencies (sensu Howell 2018) of pigs. Yet, they also speak about the potentials, not the

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essentials, of pigs to inscribe themselves in certain ways into human lives and livelihoods, always depending on the particularities and contingencies of concrete, spatiotemporally specific human–pig encounters and gatherings.

Human–pig relationships in the deep past can be examined in similar ways and may reveal previously unrecognized patterns of convivial life. The importance of pigs in the lifeworlds and ecosystems inhabited by early-to-mid-Holocene people in Northern Europe, especially in Southern Scandinavia, has long been recognized for example, but the question has traditionally been cast as 'hunting' (wild boar) versus 'farming' (domestic pig). Only recently have archaeologists started to search for evidence of more subtle forms of pig management and its material and biochemical signatures. Stable isotope analysis has for example revealed that *some* wild boar specimens may have consistently exploited aquatic resources made available by human activity in the landscape (Maring and Riede 2019). The evidence for gradual changes in wild boar morphology documented over the course of the Mesolithic is taken to signal changed livelihoods in increasingly human-shaped habitats (e.g. Cucchi et al. 2023; Magnell 2006) and thereby coincides with the availability of open spaces, and presumably pasture, close to human habitations as well as a general shift in woodland ecologies, with notably increased oak abundance in the later Mesolithic (Berglund and Larsson 1991). At the same time, the remains of pigs – especially their teeth, but also their mandibles – are increasingly associated with Mesolithic human burials (Grünberg 2013), and some of these items may have been curated and exchanged over considerable distances (Mannermaa et al. 2019). An early Mesolithic deposit at the site of Blätterhöhle recognized as intentional, for example, contains the skull remains of both a human and several wild boars (Orschiedt et al. 2012), pointing to socially significant relationships between *some* representatives of the two species. These associations can be interpreted as zoomaterializations of increasingly intimate, co-woven human and suid lives. The underlying dynamic at least strongly supports a convivial interpretation: Wild pigs benefit from environmental changes and human-catered landscape affordances, are in turn drawn into human taskscapes (sensu Ingold 2022) and thus elicit human attention. Importantly, this human–suid configuration also unlocks new hunting opportunities for people and can thus be described as reciprocal, as both humans and pigs can benefit and thrive (Hussain 2024a).

Human–pig conviviality may have been further amplified when human foragers also developed an interest in oaks, tending and expanding oak stands, for example by means of pyrotechnology, and, through 'ecologies of fear' maintained by anthropogenic activity, rendered these habitats comparatively devoid of suid predators. Such a scenario is for example supported by contextual evidence from the Jomon (Bleed and Matsui 2010) – complex hunter-gatherer societies inhabiting parts of Japan from the Late Pleistocene to the Late Holocene. Consonant with Late Mesolithic Scandinavia, stable isotope data from Jomon suggest that *some* wild boar were encouraged by human-procured aquatic resources (Matsui et al., 2002), and *some* Jomon foragers promoted clustered oak-rich habitats close to settlement sites (Bleed and Matsui 2010; Crawford 2008, 2018) and in turn captured wild boar and other animals attracted in this way. Similar dynamics may have fuelled millennial-scale trajectories of wild pig management in Southwest Asia (Vigne et al. 2009), supplying the synanthropic basis (Baumann 2023; Hussain 2024a) for subsequent pig domestication. Brumm and colleagues (2021), making a comparable argument, have discussed the prominent place of suids in the earliest Paleolithic rock art of Southeast Asia in relation to the possible accruement of deep-historical forms of human–pig commensalism. Such pig-centring visual culture may similarly reflect the generative dimension of situated systems of human–nonhuman conviviality: It produces multispecies intimacies and fosters habitual attunement, while delegating both humans and pigs an important place in each other's daily pursuits, without curtailing their development, agency and livelihood.

Hussain and Brusgaard (2024) have recently suggested that the Mesolithic settlement of Northern Europe was profoundly facilitated by the landscape-scale activity of beavers – what they term beaver 'geopraxis' (following Schroer 2022). The situated systems of human–beaver

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co-existence the authors reconstruct are primarily based on human foraging dependencies on beaver-generated resource affordances but also point to an important convivial element. The combination of salient hunting, fowling, fishing and plant-gathering opportunities for human foragers opened up and curated by beaver others (see also Coles 2006) renders beaver neighbourhoods intrinsically valuable (Hjørungdal 2019), orienting human sensibility, attentiveness and care towards the presence and world-making proficiency of these landscape-engineering animals. Human forager projects, in other words, align with some key beaver projects in the landscape, and beaver livelihood therefore demands appraisal and affirmation. Curational hunting practices – i.e., the lack of evident overharvesting of beavers – throughout the Mesolithic may be cited in support of this convivial logic of human–beaver cohabitation. In addition, Hussain and Brusgaard (2024) draw attention to the possibility that such evolved human–beaver commons are undermined and ultimately dissolved as pastoralist and agriculturalist practices shift the attention to other animals and habitats and put growing ecological pressure on beavers (for similar arguments, see Liarsou 2013; 2015; 2020), so that *some* human projects began to gradually repel beaver projects.

Other examples for possible forms of deep-time multispecies conviviality can be distilled from the evolution of early synanthropism (Baumann 2023; Hussain 2024b; Klegarth 2017; O'Connor 2013). Baumann and colleagues (2023) have for example shown that hunter-gatherer settlement activity and surplus hunting during the earlier Gravettian of Moravia consistently created valuable high-caloric point resources – in some cases even 'food bonanzas' – and in this way attracted common ravens. These findings confirm earlier hypotheses formulated on the basis of the unique archaeological settlement signature and avifaunal spectrum of the relevant Gravettian sites in what is today the Czech Republic (Bochenski et al. 2009; Hussain 2019; Kost and Hussain 2019; O'Connor 2013). They enable new interpretations of the role of ravens in the respective Gravettian societies: Humans emerged as highly predictable herbivore carrion accumulators – notably of mammoth – and simultaneously deterred other larger carnivores, as signalled by the rarity of bite or gnaw marks within zooarchaeological assemblages (generally <1%; Svoboda et al. 2019; Wilczyński et al. 2015; 2017; Wojtal et al. 2012; 2020). Carnivores were possibly even removed purposefully from settlement and carrion sites (Wilczyński et al. 2020), and there is evidence that humans likely maintained meat and bone caches as well as waste disposal areas in the vicinity (Svoboda et al. 2019). Gravettian corvids adapted to these early anthropogenic micro-ecologies, were in turn demographically promoted and became consistently entangled with human lifeworlds and key foraging activities in the wider landscape (Hussain and Baumann 2024). Gravettian humans, in response, integrated the birds into their cultural and cosmological repertoire, arguably not so much because of their intrinsic significance but because of the emergent relational attunement of humans and ravens, and the latter's situated prominence afforded by the specific exposition of the two in the landscape (cf. Hussain 2024a). The acquisition of raven feathers as an important cultural practice in this Gravettian setting (Wertz et al. 2015) may then be seen not so much as an expression of human ability and cognition, but as a result of the phenomenological imbrication and salience of ravens within the everyday pursuits and projects of human foragers. The importance of raven bones in these zooarchaeological assemblages, in other words, gives witness to a 'mutual ecology' (Fuentes 2010) and a more-than-human neighbourhood, in which both humans and ravens can thrive and 'co-become', orienting their behaviours, attentions and concerns towards each other. As such, this deep-time configuration may qualify as a convivial form of Upper Paleolithic multispecies life.

A similar argument can be made for some early human–fox encounters. Red foxes rank among candidate 'early adopter' species (O'Connor 2013), with the capacity to quickly redress their behaviours to make a living close to or in emerging human-shaped ecologies. Stable isotope evidence obtained from Pleistocene red foxes spanning the Middle-to-Upper Paleolithic sequence in the Swabian Jura in south-western Germany indicates that foxes systematically took advantage of human foraging spoils, especially from horse and reindeer, from the Early Upper Paleolithic onwards, thereby framing a distinct human-adapted feeding niche, yet such behaviour is

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undocumented in the preceding Middle Paleolithic (Baumann 2023; Baumann et al. 2020). While most attention has been paid to the implications of this pattern in terms of ecosystem impacts and the potential role of *Homo sapiens* as a hyper-niche constructor, precipitating more recent Earth-system transformations, the lessons for conviviality studies have so far hardly been considered. In the Eastern Mediterranean Levant, where foxes are notably abundant throughout the Epipaleolithic–Neolithic sequence (Yeshurun et al. 2009), and were likely promoted by increasing human site fidelity and waste accumulation, foxes or some of their body parts also make an appearance in human burials (Maher et al. 2011; 2012). This is not only suggestive of evolved forms of human–fox co-sociality, mediated by increasingly interwoven human and fox lifeworlds but, similar to the infraspecies human–pig relations discussed above, points to mutual habituation and contingent forms of other-oriented engagement with long-term consequences for both human and fox behaviours and livelihoods. Attending to foxes, in other words, may have become more than just a question of sustenance and/or resource acquisition and incurred questions of meaning and care to past people, questions which are central to negotiations of convivial constellations of species cohabitation caught in-between tensions of care and control.

To conclude, mobilizing the concept of conviviality opens up some promising avenues to fundamentally reimagine the deep past and the nature of human life therein. Though our perspective is inescapably grounded in Central and Eastern European academic pursuits and research traditions, querying deep-time convivialities in this manner may have merit for other localized perspectives as well, hence illustrating the concept's productive flexibility beyond settler colonial frameworks and research traditions. Deploying conviviality as a critical lens generally helps to flag up and deconstruct one-sided default framings and shifts the attention to the contexts and reasons for successful, millennial-scale species cohabitation. What comes into view, in this way, is a dynamic of behavioural cross-adjustment and co-orientation that intervenes with the course of evolutionary and historical developments. The strength of this perspective lies in the potential to work out what forms of conviviality become possible under which circumstances, and how and when they fail and succeed, and why they do. Not every interspecies relationship is a testimony of convivial life, of course, and paleo-conviviality studies may therefore isolate important pitfalls for how to live together with other animals without collapsing their potential to thrive and act on their own terms. These insights can be crucial, even if often basic, for envisioning truly multispecies futures and novel convivial approaches to nature conservation. In the following section, we explore the implications of this potential of a convivial perspective for museum narratives and other heritage practices.

Presenting conviviality. Archaeological museum narratives

Dodd and colleagues (2013, 1) have pointed out that museums – as institutions that frame and address important societal problems and engage visitors to critically discuss them – should also responsibly approach the increasingly paramount subject of nonhuman animals and their place in human history, not least because the way the subject is exhibited can greatly affect and shape current and future interactions with animal others. Dodd et al. (2013) identify two main motivations for presenting and centring nonhuman animals and their broader environmental context in museums: (1) to evoke appreciation of the rich and diverse worlds of nonhuman animals, and (2) to provoke reflection on how cruel and destructive humans have often acted towards them today. These two motivations are rooted in a critical reading of late capitalist attitudes towards animals (see, e.g., McMullen 2015; Sayers 2014; Stache 2020; Taylor and Twine 2014), especially the ways in which they have been marginalized and frequently been reduced to mere objects or commodities in industrial production chains (but see Mc Loughlin 2022 for the involved complexities). Conviviality, originally formulated as a critique of degrading effects of capitalism, supports the critical engagement with this topic with regard to nonhuman animals on display, and draws attention to the many forms of capitalist 'alienation' from animals as nature

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(Cassegård 2021; Stache 2020) as well as the resulting rifts separating human and animal lives, lifeworlds and sensibilities. Archaeological museums can recontextualize this diagnosis with knowledge and open questions on human–animal relations in deep history and how humans and animals may live together differently.

Archaeological museums, then, might be important instigators for renewed discussions on conviviality and multispecies co-living, and they can join and supplement cross-cultural (e.g. Schroer 2021; Whitehouse 2015) and Indigenous perspectives (e.g. Kimmerer 2021) on how to imagine and forge a different, other-inclusive, postanthropocentric future. Although archaeological museums traditionally showcase diverse zoomaterialities and varied exhibits reference past human–animal relationships, they have tended to solidify human-centred narratives and clichés that boil down to framing animals as resources (or, alternatively, as abstracted symbols and/or mythological capital), and therefore as canvassing the human domestication and conquest of nature; only very rarely are they staged as companions, co-actors or valued significant others in past worlds (but see Mulville 2019). Stobiecka (2023) has argued that archaeological museums have the immense potential here to probe new theories and approaches and help overcome such one-sided and increasingly problematic narratives, hosting critical and more engaged displays. This call to substantially re-configure more traditional approaches in the museum space, focusing less on practical concerns (such as conservation, documentation, the maintenance of collections and digitization; see, e.g., Skeates 2017) and more on engaging visitors with acute and wicked problems, debates, crises and challenges currently high on the socio-political agenda (Harrison and Sterling 2020; Hussain and Riede 2020; Sterling 2020; Stevenson 2022; Stobiecka 2022b) is also supported by the re-definition of the museum championed by the International Council of Museums (ICOM) in 2022. Today's museums need to be inclusive hubs that foster diversity and sustainability and spark critical and constructive discourse as how to achieve these gleaming aims, including how to bes formulate the associated problems to begin with. Museums themselves are thus increasingly seen as 'contact zones' (Clifford 1997), providing a social space and 'testbed' for dialogue and negotiation. As such, museums need not just respond to 'matters of fact' but emphatically speak to 'matters of concern' (Latour 2004) – indeed aspire to become 'disruptive' voices in discourse (Fenske and Elpers 2020). Calling on Bewes's (2010) post-critical stance, museums should accordingly attend to their time 'not against the grain' but '*with it*' (emphasis added). Given this role, museums, and particularly archaeological museums, should also be sites of creative, provocative and engaged convivial thinking.

Against this broader backdrop of emerging museum and heritage theory, an exploration of how multispecies conviviality of the deep past is belaboured and staged in archaeological museums is useful and can help to identify current constrictions and potentials in broader heritage debates. While arguing that museums have the potential to participate in critical theory-work in archaeology and beyond (see also Stobiecka 2023, 6), we probe into two archaeological exhibitions with conviviality purchase to exemplify and reframe museum spaces as agents of debating, practicing and learning about alternative forms of interspecies cohabitation: The permanent exhibition of Lascaux IV – Centre International de l'Art Pariétal in Montignac-Lascaux and the *Age of Animals*, a part of the permanent display in the Stone Age gallery of the Neues Museum in Berlin.

Lascaux IV – Centre International de l'Art Pariétal, Montignac-Lascaux, France

The fourth retelling of the Lascaux story is an inspiring example of a critical approach towards human and nonhuman animal narratives in the archaeological museum landscape, illustrating how understandings of conviviality may play into, and materialize in, exhibitions of public appeal. The new centre for the interpretation of the famous cave paintings of Lascaux opened in 2019 and encourages visitors to participate in guided tours, while individual attendance is restricted to those who pre-book a 'contemplative visit' (*visite contemplation*). The exhibition comprises interactive multimedia (videos, digital tablets), the complete 1:1 reconstruction of the cave of Lascaux,

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including its world-renowned Upper Paleolithic parietal imagery, as well as smaller reconstructions and 3D models of the cave and selected cave paintings.

The permanent exhibition of Lascaux IV starts with a short movie outlining in detail the environmental conditions and surroundings of the cave during the Upper Paleolithic. Already in this movie, the museum deploys a range of interpretative lenses that differs from most traditional archaeological museums (or museums of natural history more generally). The animation illustrating past climate conditions, landscape physiographies and wild animal species populating the latter (e.g., bison, bear, deer and horse) purposefully decentralizes the human and the image of the 'hunter', which typically prevails in more conservative takes. Past humans appear as *one of many* species; they are not the *clou* of the story, but neither are they separated out from nature. This framing is reinforced by the guides' commentary, stressing the on-par status of other nonhuman animals (also in quantitative terms) and the embeddedness of humans into their ecologies. Following the movie, visitors are invited to explore the cave reconstruction. Again, the presented narrative does not focus so much on the exceptionality of people – the 'human genius' – mastering the painting techniques and creating the naturalistic drawings, but rather places Lascaux's cave art into a holistic ecology. Similar to the study of early rock art in Oceania by Brumm and colleagues (2021), Lascaux IV positions animal-themed visual culture as a reflection of a natural world dominated by nonhuman animals and so as a cultural expression of human–nonhuman cohabitation and multispecies attunement. During a guided tour one of us participated in 2020, the guide specifically emphasized that the realism and behavioural details of the depicted animals are inconsistent with an extractive–exploitative ideology, instead testifying to human–animal intimacy and co-sociality. The storylining therefore defies the modernist gaze (Krauss 2021) and challenges typical Western and human-centred narratives, despite archaeologists and museums continuing to rally around the notion that Upper Paleolithic cave art primarily reflects the dawn of human 'symbolic cognition' (e.g., Cook 2013), the mythologization of nature and religious thought (Clottes 2011, 2016).

Lascaux IV perpetuates an environmental story of the deep past in which human and animal lives were interlaced and both actors meaningfully and generatively cohabited the landscape, and where they owned the potential to negotiate relationships to enter into hybrid alliances (e.g., human–bovine and human–horse) or devise antagonisms (e.g., horse–bear and human–bear). The intention seems not to present the distant past as an 'Eden-like' place, but rather to explore the various possibilities of populating this past by different species. Yet, while this accentuation of the potentiality of species co-living, especially in terms of human affect, cognition and cultural practices clearly resonates with convivial concerns, there is also the tendency to fall back into questionable, and chiefly Western, polarities. During the guided tour, it was for example highlighted that 'unlike today, the deep past was not the time when humans were dangerous to other animals' and 'these humans were not dominating nature'. Although upsetting human-centred narratives of the domination, exploitation and subjugation and speaking to pressing challenges of present-day climate change and the effects of late capitalism, Upper Paleolithic people also tend to be 'naturalized', reintroducing problematic tropes of primitivism and nature romanticism.

Visitors are confronted with a mirror of the Anthropocene – an imagination of its antithesis – rather than constructive pointers, as we cannot simply unroll our lives back to the Paleolithic. The deep past is portrayed as a period of minimal human ecological interference, and nature, as a result, tends to be cast as 'wilderness' – an idea deeply entwined with Western colonialism (e.g., Cronon 1996; Nash 1973). The conviviality lens offers a so far overlooked way out of this dilemma, as it can help escape the bindings of colonialism, progressivism and the Anthropocene by shifting the attention to the conditions, consequences and drawbacks of situated multispecies life without reproducing misleading narratives of the past as conflict, harmony or domination, and, by resolving the tension between natural and cultural history without the necessity to pitch yet another origin story, a pseudo-mythology of Western modernity (see Geroulanos 2024). In this way, the deep past can become more than merely something that has happened and is now gone. It can become a fruitful arena for post-critical museums to initiate a dialogue about what forms of

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multispecies life are humanly possible, thus sidelining melancholy of what is lost. By foregrounding possibility and more-than-human potential, this can also supply a timely antidote to the kinds of climate and environmental determinism long plaguing Paleolithic studies (Livingstone 2012) and instead foster ecological possibilism and hope.

Neues Museum, Berlin, Germany

The *Age of Animals* display in the Stone Age gallery of the Neues Museum in Berlin – one of today's 'über-museums' (Swain 2007) – confidently starts with the self-declared need to rethink human–nature relations in the past and deep past. The exhibition consequently attempts to reframe the much-discussed transition from so-called 'hunter-gatherer' to 'agricultural' and livestock-based lifeways from an innovative, more-than-human perspective. The story is told through three evocative dioramas, presenting the skeletal remains of key nonhuman animals against a black background filled with drawings of the daily life of the involved Stone Age human communities. The socket of each diorama holds diagnostic artefacts (e.g., knapped, polished and ground stone, pottery, etc.), corresponding timelines and short introductory texts touching upon the role of nonhuman animals, the development of human technologies and changing ways of living in past societies and landscapes. The mode of presentation, including the materiality of the display and the aesthetic framing, place the attention firmly on the animals themselves and so decentre prehistoric people. The elk for example emerges as a co-protagonist of the Final Paleolithic/Mesolithic, while the goat takes over an important role in the subsequent Neolithic – thus gauging the contours of a 'deep animal prehistory' (Hussain 2024b). Waiving troublesome life-sized mannequins of humans in stereotyped gender roles, textual and visual elements emphasize the animals' role in shaping past realities, without reducing them to human tokens to be merely 'used' or 'thought with'. They instead come into view as 'good to live with' (sensu Kirksey and Helmreich 2010; van Dooren et al. 2016). A convivialist lens would help bring this diversity of past human–animal relationships into even clearer focus and not only critique the long-standing anthropocentrism of picturing human deep history, but to bring these contexts up as powerful educational frames to reimagine how we relate to nonhuman worlds (and vice versa), pivoting matters of care and attentiveness, and to think with concepts of *entanglement* and *assemblage* as a humanist method to work towards a better future that is not just for and about humans alone (cf. St. Pierre 2021 for a general outline of this post-qualitative perspective).

As heuristic 'spaces of reflection' (Gesing et al. 2019), archaeological museums thus have the opportunity to eclipse past–present oppositions; by reenacting, disassembling and recomposing 'naturecultures', they can play a role in exploring novel approaches to analyse and imagine the copresence of humans and nonhumans, to examine the proposition that 'we have never been modern' (Latour 1993), to showcase the inseparability and inherent mutuality of human and nonhuman lives and to pivot the responsibilities and accountabilities of human societies in the present. They can thus assist in forging a new archaeological imagination that recognizes the contested nature of the past (Lowenthal 2015; see also Shanks 2012) and engages with what could perhaps be called our shared 'convivial heritage'. We argue it is an important mission of the Anthropocene museum to compel conversations as to the prerequisites, complexities, successes and failures of planetary life and cohabitation and to call upon the human capacity to reinvent ourselves in the face of critical challenges and concerns (Feige 2022). Conviviality can serve as a kaleidoscope and inflection point of such matters of concern, while simultaneously reverberating with current approaches of productively addressing the deep past in the museum and heritage space. Attending to convivial heritage allows diverse stakeholders to take advantage of the empiricism of Paleolithic and Mesolithic research and their insights on human–animal intersections, and to bring them to bear on broader challenges and discussions on a new ethics of care, a just multispecies future and a more hospitable planet, and so to critically, constructively and imaginatively engage with the unfolding Anthropocene polycrisis. As such, conviviality offers

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a potent optic to belabour the past and present to attend to a 'damaged' planet (Tsing 2021) and to reimagine the place and role of the human on it – key responsibilities incurred by the vision of an inclusive, future-making post-critical and post-qualitative archaeological museum.

Importantly, a truly convivial museum should thereby also render conviviality tangible – to support, and probe into, authentic *convivial experience* – and as such may itself become a multispecies meeting place. The convivial museum so comes into view as a space where gatherings of diverse species are encouraged, lived, enacted and/or simulated and where convivial forms of life are enabled, probed, tested and experimented with – a generative more-than-human space. A convivial museum could, for example, trial a 'democracy of species' (Kimmerer 2021), a hopeful utopia where humans and animals come together to jointly configure their attentions, practices, lives and concerns. This, among other things, draws attention to the importance of convivial infrastructure and symbiotic architecture (Gunawan 2015; Lucas 2018) and to the spatial and architectural layout of the museum as a space, but also to the role of human infrastructural projects of the past and present as conceptual bridges to centre and engage with issues of species coexistence (Tsing et al. 2020), as also increasingly illustrated by hunter-gatherer archaeologies (Anderson et al. 2017). Archaeological sites themselves can in this way become important touchstones of interspecies attentiveness, integrated into museum spaces or not.

Archaeological sites are indeed often-overlooked multispecies habitats in the present, as their varied multispecies affordances orient human and animal behaviours towards each other, and they can thus catalyse fresh perspectives and conversations on multispecies conviviality. As Stobiecka (2022a) has explored in some detail, archaeological sites constitute potent 'lively heritage', notwithstanding an elongated history of sterilizing archaeological sites (Olsen et al. 2012, 50–53) as remnants of a long gone, essentially dead past (for example, as a part of 'ruination' narratives; see, e.g., Geroulanos 2024). Again, this history only testifies to misleading past–present oppositions (see in particular Lowenthal 2015; Smith 2006) and thereby overlooks the active and transformative potential of past materialities in the present. While 'ancient, heritage ruins are often presented to us neatly, for our occasional enjoyment' (Olsen and Pétursdóttir 2016, 38; see also Shanks 1998), and as representations of elapsed projects of exclusive human province, the brute fact that life strives to co-opt such sites as 'spandrels' of new behaviours (sensu Gould and Lewontin 1997) – as affordances for diverse future life – and so constantly reinscribes itself into the material legacies of the past is easily overlooked. Yet, archaeological sites can powerfully enact 'contact zones where lines separating nature from culture have broken down, where encounters between *Homo sapiens* and other beings generate mutual ecologies and coproduced niches' (Kirksey and Helmreich 2010, 545–546; cf. Rigby 2018, 77). Archaeological sites, traditionally conceived as credentials of past human ingenuity and exceptionality, may thus, ironically, help 'thinking with' and 'living with' other species and so be conducive to convivial practice. The integration of the ancient Greek landscape of Agrigento in Sicily (Badami 2021; Stobiecka 2022a) into larger ecological conservation programs is an example illustrating this transformative potential, exposing 'levels of power, compulsion, and programming' (Illich 2009 [1973], 25) and challenging the modern tourist gaze (Urry 2011). Defusing understandings of archaeological sites as denuded of life and livelihoods and instead presenting them as nurturing multispecies hospitality can in this way help to productively reposition heritage sites in times of crisis.

Conclusions. Archaeology of conviviality in theory and practice

This paper has offered conviviality (1) as a method to reexamine past human–animal relationships and challenge their traditional representations, and (2) as a critically engaged lens to spark creative dialogue on multispecies co-living, responsible attentiveness to the nonhuman other in securing local and planetary livelihoods and radical reimaginations of the possibilities for species coexistence in the near and long-term future. By harnessing, deploying and encouraging

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conviviality thinking, archaeology can make a substantial contribution to today's existential challenges and concerns in society and environment. Playing to its empirical strengths and the need to continuously rearticulate past, present and future horizons of significance and to probe what the field has to say in times of total crisis, archaeology can so join other voices in the academy and beyond to provide fresh perspectives on the diversity of species cohabitation; its conditions, consequences and limitations; and its many material, cultural and cognitive imports. Archaeological perspectives, alternative readings and rereadings of an always contested past in this way also promise to complement nature conservation efforts in the present, as conviviality-oriented analyses expose the fundamental inseparability of human and nonhuman lives and livelihoods, highlighting the importance of equally considering human behaviour and material infrastructures in nature conservation and ecological restoration programs. Mapping out and comparing convivial forms of life as they unfold in different deep-historical contexts and at the intersection of different species can thereby add to the emerging body of Indigenous and anthropological literature on ecosystem stewardship (Hoffman et al. 2021; Solange Bandiaky-Badji et al. 2023) and complement calls for 'applied zooarchaeology' (Lyman 2012; Wolverton et al. 2016) and 'archaeoecology' (Crabtree and Dunne 2022), as well as archaeological extinction and biodiversity studies (Andermann et al. 2020; Rick and Sandweiss 2020). Thinking through the past and deep past in terms of conviviality may also provide further context for broader histories of zoonotic disease and so resituate phenomena considered typical for the 21st century (such as the COVID-19 pandemic) within deep history. We have argued that conviviality thinking can thus help realign archaeological discourse with broader societal and political preoccupations of our time and move *beyond critique* – to not simply read the past 'against the grain' but 'with it', and in a transformative spirit of 'slow hope' (Mauch 2019; see also Black Trowel Collective et al. 2024 for an anarchist view).

A concern with conviviality and convivial forms of life yields a transformative impetus for how we think about archaeological museums and more-than-human heritage, reconfiguring the sensibilities and responsibilities of an engaged archaeology in the Anthropocene moment. We have argued that conviviality can thereby help motivate and catalyse new forms of creative engagement with archaeological pasts in the context of a post-critical, mission-conscious museum and beyond the epistemological and conceptual stereotyping and rigidification that has scourged many archaeologies for too long. Conviviality offers the opportunity to reposition archaeological knowledge as crucial for understanding the fundamental interwovenness of nature and culture and the interpenetration of human and nonhuman behaviours and lives from local to planetary scales. As a method for museum studies, conviviality aids in overcoming the tyranny of the text and enables foregrounding and articulating varied yet instructive relations between narration and materiality (Stobiecka 2023); it thereby (if only methodologically) embraces a symmetrical approach (Olsen 2012; 2013; Olsen et al. 2012), recognizes the museum as a creative assemblage (Pfefferkorn 2024) and is committed to multimodal storytelling. Attending to conviviality as a concept hence affords the ability to forge new visions of how we as humans want to inhabit this planet in the future, raise awareness of the co-dependency of humans and other forms of life and foster dialogue and learning as to the accountability and ethical obligations of human agency in the Anthropocene. Doing so entails the decentring of humans and their projects in representations of the past and ultimately the overcoming of representationalist approaches altogether, as interactive deep pasts emphasizing diversity in autonomy that can inspire hopeful futures and repairing a damaged planet are forcefully brought to the fore. Commonly understood as human-exclusive spaces, archaeological museums themselves then need to be re-imagined and as multispecies gatherings may hold much hitherto overlooked potential as a transformative 'mangle of practice' (sensu Pickering 2009). As Flexner (2020) argues, ethical consideration of conviviality may even transform archaeological practices themselves, to contribute to de-growth within archaeology (see also Zorzin 2021) and beyond (e.g. D'Alisa et al. 2015; Fraser 2021) and/or to alternative forms of ecocultural governance and biopolitics.

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