# ANTHROPOLOGY BEYOND HUMANITY

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#### ABSTRACT

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This article begins with a dispute between myself and anthropologist Robert Paine about Saami reindeer herding. Do reindeer transact with humans, as humans are alleged to do with one another? Or is a transactional approach no more appropriate for humans than it is for reindeer? Just at the point when transactionalism was on the wane in anthropology, it was on the rise in psychology and the study of animal behaviour. Studies of non-human primates, in particular, likened them to Machiavellian strategists. Picking up on this idea, philosophers Michel Serres and Bruno Latour have argued that human relations are stabilised, by comparison with the animals', through the enrolment of ever more 'non-humans'. By 'non-humans', however, they mean material-semiotic mediators rather than Machiavellian transactors. In the latter capacity, as smart performers, non-humans are supposed to interact only with other individuals of their species, not with humans. The idea that social relations should be confined to intraspecific relations, however, is shown to be a reflex of the assumption that humans are fundamentally different, in their mode of being, from all other living kinds. Rejecting this assumption, I argue for an anthropology beyond the human that would turn its back both on the species concept and on the project of ethnography, and join with non-humans understood neither as material mediators nor as smart performers, but as sentient beings engaged in the tasks of carrying on their own lives.

Keywords: anthropology, baboons, Latour, Machiavellian intelligence, non-humans, reindeer, species-being

#### On reindeer and men

Over fifty years ago, the British social anthropologist Robert Paine embarked on fieldwork among the Saami people of Kautokeino, in northernmost Norway. This place is one of the strongholds of reindeer pastoralism in the region, and Paine's fieldwork found him following herders and herds on their traditional annual migration between winter and summer pastures. It took a long time, however, for the results of this work to appear in print. Apart from a few exploratory articles published in the early 1970s (Paine 1970,

1971, 1972), nothing further was heard of it until some thirty years later, when Paine at last revisited his field journals from back then, and cast a retrospective and critical eye on the profound changes that had since taken place in the policies and practices of reindeer herding. His book Herds of the Tundra (Paine 1994), presents an astonishingly detailed account of the seasonal cycle of herding activities as it was in those days, liberally interspersed with excerpts from his journals. In these excerpts, Paine and his Saami companions seem forever to be finding and losing animals, speculating on where other herders might be with their animals, and wondering where to go next. Perhaps the most striking feature of the journals, and indeed of the book, is this preoccupation—amounting at times to an obsession—with reindeer, at the expense of the people who manage them. These people, some of whom Paine evidently came to know very well, remain shadowy in his account, which remains firmly centred on the animals. The pastoral Saami, along with their ethnographer, appear to have reindeer on the brain, an affliction that will be familiar to anyone who has worked in a reindeer-herding society. But it also gives cause for reflection. Why should anthropologists, of all people, end up paying more attention to animals than to human beings?

This is a question that I, too, have had occasion to ask myself, and that others have often put to me. 'You anthropologists are supposed to be studying the people', they would say; 'why do you go on and on about reindeer?' For as a fieldworker among the Skolt Saami of north-eastern Finland, in the early 1970s, I had caught the same affliction. Compared with their neighbours over the border in Norway, the Skolts possessed far fewer reindeer, and long-distance migrations had never been part of their tradition. To make ends meet they had to hunt, trap and fish, to collect berries, and to work for wages when it was available. Nevertheless, their lives and fortunes seemed to be entirely wrapped up in the comings and goings of their herds. Often, they would talk of little else. Thus my field journals, like Paine's, have as much if not more to say about reindeer than about people.

Worse still, I began to talk about reindeer *as if* they were people—as if they existed in communities of their own, with their own social organisation, and made their own decisions on matters affecting their lives including, most crucially, how to respond to the presence and demands of humans. In one of the first papers I ever wrote, shortly after my return from the field, I argued along these lines that humans and reindeer comprise two interacting populations: 'both form social groups, and are guided in political-economic decision-making, which takes the other into account, by very different sets of goals and values' (Ingold 1974: 523) . Herdsmen want large and prosperous herds; animals want protection and security. So long as the animals find security in associating with humans, then they will continue to do so, but if—for whatever reason—humans are no longer able to keep their side of the bargain, then the animals will defect, propelling the herdsmen to adopt increasingly forcible means in the attempt to regain control. The relation between humans and animals then flips from the symbiotic to the predatory, as herders seek to run down their reindeer while the reindeer endeavour to make good their escape. Such was the situation I encountered in my fieldwork.

My paper, 'On reindeer and men', was published in 1974, in the Journal of the Royal Anthropological Institute, at that time still known as *Man*. It drew an incredulous response, from none other than Robert Paine (1975: 618–619). In a letter to the journal's

editor, Paine accused me of presenting an 'anthropomorphic fantasy' that was as unhelpful as it was misleading. It is one thing to claim that human beings form relations with one another based on shared understanding and common interests, and it is perfectly acceptable to speak of social contracts and reciprocal obligation. But to extend this kind of sociological reasoning to reindeer, as I had done, is at best an undisciplined parody, at worst a travesty of common sense. Are we seriously to believe that reindeer, among themselves, cook up strategies in terms of what they see as their best interests? Of course, herdsmen deploy their accumulated knowledge about the habits of animals in the conduct of their operations; and of course, frightened or harried animals will escape their pursuers if they can. But it is surely absurd to claim that reindeer deploy *their* knowledge of the ways of humans in conducting their lives, or that they might use such knowledge in order either to seek protection or to evade capture. 'Where is the evidence', Paine (1975: 619) demanded to be told, 'for supposing that the animals have anything at all approaching a reciprocal body of "knowledge", deduced from experience, about the herdsmen?'

Strangely enough, the evidence was there in Paine's own field journals, although another two decades were to pass before it came to light, in the publication of his Herds of the Tundra. In the book, he describes at length the process of 'reciprocal learning', as he calls it, between reindeer and their herders, in which each learns the others' ways (Paine 1994: 29). 'Animals learn about their herders' order of things,' he writes (1994: 31), 'as well as herders about their animals'. Reindeer, for example, familiarise themselves with the sounds and smells of the human camp, and learn to associate these with security. Not all animals are equally involved in this learning process, however. Those most closely involved, and that might on this account be considered tame, go on to 'teach' other animals in the herd, serving as intermediaries in the passage of knowledge across the species boundary. Moreover, what is learned in one reindeer generation will likely be passed on to the next. For human herdsmen, knowing what the reindeer know is critical to the success of any campaign; yet the weight of accumulated knowledge in the collective memory of a herd can also be a hindrance if circumstances require an abrupt change of plan. It is hard to get animals, especially older individuals, to 'unlearn' what they already know (Paine 1994: 29–32). The same might be said, of course, of human beings. Nevertheless, despite this apparent symmetry, Paine remains convinced that the human-animal relationship in herding is fundamentally asymmetrical. The difference comes down to what he calls 'cultural codification'. Like humans everywhere, Paine (1994: 4) insists, 'Saami codify their knowledge'. Thanks to this, they can communicate among themselves with an exactitude of which no reindeer—or any other animal for that matter—is capable, as well as set parameters for conduct and criteria for decisions.

My real offence, then, in treating reindeer as intelligent creatures with the ability to make and communicate decisions on matters affecting their lives, was to extend to them a capacity for codification—and by extension for culture—that, according to Paine, is unique to human beings. In the anthropology of the time, the belief in a universal human capacity for culture was widely shared. As even Paine (1994: 4) was forced to acknowledge, however, the cultural code 'is by no means always explicit', and has often to be inferred by the ethnographer on the basis of what people say and do. Is it really the case, then, that Saami codify their knowledge, or should we rather admit that it is the anthropologist, in this case, who sets out to codify Saami knowledge? And if the Saami can know without

having to codify what they know—without, that is, articulating it by means of words and symbols in explicit, propositional forms—then is this knowledge so very different from that of the animals they herd? Reindeer, like humans, are surely sentient beings; they have long memories, they know their way around in the terrain, and they recognise and respond through voice and gesture—particularly of the head and antlers—to others of their kind and indeed to humans. Yet to regard them as strategic game-players, whose every move is predicated upon a rational assessment of costs and benefits, is perhaps a step too far. Not only could it be too far for reindeer; it could be too far for humans too. And when I wrote my essay 'On reindeer and men', I was well aware of this.

Writing to the editor of *Man*, in response to Paine's denunciation of the essay, I was compelled to own up to the fact that it was indeed a parody, and partially intended as such (Ingold 1975: 619). My purpose was to poke fun at a variety of anthropological theory known at the time as 'transactionalism'. It was an approach founded on the idea that social forms are not framed in advance of the life that flows through them but are themselves continually generated in the very course of social life, through the accumulation of countless exchanges or 'transactions' among individual actors, each pursuing what seems to be his or her best interests in the light of goals, values and commitments in place at the time. Pioneered in the influential writings of Fredrik Barth (1966), it was an approach which Paine himself had followed, and to which he had made critical contributions (Paine 1974). At the commencement of my graduate work, I too had fallen under its spell: indeed I was convinced that transactionalism held the key to the future of social anthropology, and before embarking on my fieldwork I spent a few months in Barth's Department at the University of Bergen in order to soak up the heady atmosphere he had created there. Sixteen months later, however, I returned from the field only to discover that the paradigm in which I had placed so much faith was on the verge of collapse. The parody of my essay, then, fed on my own disillusion. Placing human and reindeer populations side by side, as it were on the same playing field, my purpose had not been to pretend that reindeer really are strategic game players which either do or do not transact with humans depending on a calculus of profit and loss. It had rather been to expose the absurdity of supposing that this could be true even of human beings, except in the most artificially confined situations. At stake, in short, were the very assumptions, concerning individual agency and rational choice, on which transactional theory was based.

## Machiavelli among the baboons

Yet around the same time, in another corner of the academic world, even as these assumptions were being discredited within the discipline of social anthropology, they were making a triumphant return in the fields of psychology and animal behaviour studies. The return was heralded by an influential article entitled 'The social function of intellect', by the psychologist Nicholas Humphrey (1976). The question to which Humphrey sought an answer was this: why are human beings and other primates so intelligent? It is an old question, to which—following the precedent set by Charles Darwin (1874: 195–224)—answers had generally been found in the demands of procuring a subsistence from the environment. More intelligent animals, the argument went, could design and

implement more effective subsistence strategies, which could include the manufacture and use of tools, and this in turn would enhance their reproductive success. Consequently, intelligence-enhancing variations would tend to be notched up in the course natural selection, reaching their apogee in humans. The trouble with this argument is that if you are a monkey or an ape, or even a human hunter-gatherer living in the sort of environment in which our earliest ancestors are said to have thrived, food is remarkably abundant and easy to harvest if you know where to find it, and its procurement poses no greater demands than those faced by other creatures who seem to get by with nothing like the high-level intelligence of the primates. Such intelligence calls for large and complex brains, and brains are metabolically expensive organs to maintain. What is the point of having a large brain if, for most practical purposes, it has little to do? Humphrey's answer was that primate intelligence is at work, not in the practical-technical field of subsistence procurement, but in the social field of managing transactions with others of one's kind.

In Humphrey's scenario, the little band of primates—be they monkeys, baboons, chimpanzees or human hunter-gatherers—is a hotbed of intrigue, manipulation, deception and chicanery. Indeed it seems to bear more than an accidental resemblance to the convocations of scholars, in the settings of academic conferences and senior common rooms, with their all too familiar back-biting and conspiracy. It is no wonder that Humphrey, a Cambridge don, chose to model the primate social group on what he called a 'collegiate community' (Humphrey 1976: 310)! Just like a Cambridge college, it is a community in which no individual can ever feel secure in position or rank, and in which social life entails a perpetual jostling for attention, influence, mating partners and even food. To play the game, you need to have your wits about you. And it is precisely because social life is a game of wits, Humphrey hypothesised, that big brains evolved, along with the intelligence they support.

This idea inspired a good deal of work on the complex dynamics of relationships in social groups of monkeys and apes. A decade later, introducing a volume of papers on the subject, psychologists Andrew Whiten and Richard Byrne announced, with unabashed aplomb, that 'the idea of social intelligence is one whose time has come'. They rebranded it the 'Machiavellian intelligence hypothesis' (Whiten and Byrne 1988: 1). Reading the evidence adduced to support the hypothesis, it is hard to avoid the impression that in the minds of the western scientists who study them, monkeys and apes appear a good deal smarter than the majority of human beings who are neither westerners nor scientists. For whereas the intelligence of non-human primates shines out against the received view of the animal other as a creature governed by instinct, the non-western, non-scientific other is debased in the scientific worldview as one whose life is governed by tradition rather than reason, and for whom the free play of intelligence is inhibited by force of habit and custom. Thus if a social anthropologist like Paine might baulk at the idea of extending a transactional approach from humans to animals, for psychologists of the Machiavellian persuasion it is just the other way around. If anything, they would doubt the applicability of the approach to human beings, at least until Machiavelli emerged upon the stage to tell them how to better raise their game.

In 1978, two years after the publication of Humphrey's article, the primatologist Shirley Strum convened a conference to review the state of the art in studies of the social behaviour of baboons. At the conference, she presented what she claimed to be nothing less than a 'revolutionary new picture of baboon society' (Strum 1987: 158). Where previous studies had focused on hierarchies of dominance and subordination, maintained and enforced through displays of aggression, Strum argued that that there is no stable hierarchy but rather a constant process of negotiation, of give and take, in which individuals—both males and females—enact sophisticated strategies of competition and cooperation. Here, the skills of social manipulation, of reciprocity and the calculated exchange of favours, of finesse and decorum, take precedence over agonistic posturing or the aggressive use of force. Strum's baboons were smart, smarter than anyone had previously imagined, and seemed 'no less—and perhaps much more—aware of their actions than most humans' (1987: 143, 156). Rather than operating from within a social structure, it is as if the animals were continually in the business of forging it, of ascertaining what the structure might be and testing its resilience. Indeed the baboons appeared positively Machiavellian. Though hardly as revolutionary as she had claimed, Strum's findings were largely consistent with Humphrey's speculations, and like the latter, they were couched in the idiom of social transactions.

One of those invited to Strum's 'baboon conference' was a little known philosopher by the name of Bruno Latour. If reactions to Strum's revelations among the 'silverbacks' of primatology at the conference had been cool, Latour's reception was perfectly icy. Strum (1987: 162) recalls how there was even a move to evict him from the proceedings! For his part, however, Latour was very much impressed by what he heard, and he went on to collaborate with Strum in a paper presented in 1984 to a symposium on 'Political Behaviour as a Primate Social Strategy'. If there is such a thing as 'baboon society', they argued, it exists only in the ever-ongoing efforts of the animals themselves to define, by way of their own performance, what it is. Their society, so to speak, is perpetually under construction. But the only tools they have available to use in this task of construction are their own bodies. These are 'soft' tools, say Latour and Strum, with which they can build only 'soft' societies. With such tools, relations decay as fast as they are established. If they are to last, they have continually to be reasserted, day in day out (Strum and Latour 1987: 788–789, 795).

How then does the sociality of baboons differ from that of humans? The key difference, according to Strum and Latour (1987: 791), is that human relations can be pegged or anchored to resources beyond the body, in the form of 'language, symbols and material objects'—things that are at least one step removed from the ebb and flow of bodily activity and furnish a partially independent point of reference. In the social world of baboons, we might say, there are only first and second persons, only Is and yous. But in the world of humans, there are its to which both I and you may refer and which subtend both of us: in so doing, they lend a solid footing to our relationships. An 'it' may be conceptual or material—it may be an idea or an object—but crucially, it has a certain fixity. Where nothing is fixed and everything to play for, life can be exceedingly complex, as indeed it is among the baboons. The more, however, that relations are grounded in externalities, the more they can be factored out and their aspects disaggregated. You can focus on one thing at a time without going adrift. While this considerably simplifies the tasks of social life, it also makes it possible to assemble simple, clear-cut operations into immensely complicated structures. The overall trend in social evolution, then, involves a trade-off between complexity and complication, in which the latter rises as the former falls.

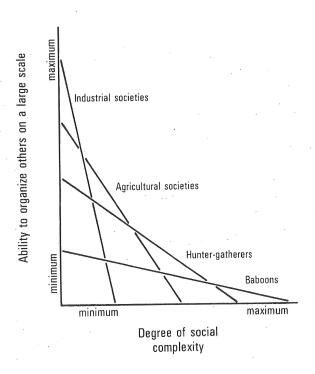


Figure 1: The trade-off between complexity and complication. Reproduced from Strum and Latour (1987: 792)

Strum and Latour (1987: 792) illustrate the trend by means of a diagram with four stages (see Figure 1). The first, with maximal complexity but minimal complication, is exemplified by the baboons. The second stage is exemplified by human hunter-gatherers. For them, too, what little there is of social order exists and persists mainly in the performance; nevertheless their possession of language and rudimentary technology allows for a slight reduction of complexity and invests relationships with greater determination and durability. In the third stage, represented by agricultural societies, social bonds are still more durable, more grounded, and less dependent on bodily performance; and society is correspondingly more complicated. And finally, with modern industrial society, a vastly expanded repertoire of extra-somatic resources supports a massively complicated social structure while shrinking the complexity of relations to the residues of intimacy that remain within its interstices, and that have not been siphoned off into the institutional domains of politics, economics, law, religion, and so forth.

## Us and them

In the decades following the publication of his paper with Strum, in 1987, Latour has often returned to the baboons. He has done so as part of a campaign to rescue what he calls the 'missing masses' (Latour 1992) of objects and artefacts from the oblivion into

which they had allegedly fallen in mainstream social science. Without objects, he thinks, we would live like baboons, and the degree to which we do not is a measure of their importance. In a dialogue with the philosopher Michel Serres, conducted in1991 (Serres and Latour 1995), the baboon study was cited as an exemplary account of what social life would be like in an objectless world The animals, Serres remarked, 'enter into contracts among themselves that are (...) based exclusively on the concept of *us*'. These pacts have continually to be formed and reformed, in real time. Thus there can be no history, only endless renewal of the same. Humankind, Serres insisted, indeed human history itself, 'begins with the weight of the object'. We humans would not survive 'without all of *them*, without this universe that is best designated by a third-person pronoun' (Serres, in Serres and Latour 1995: 199–200).

Thus a social science that confined itself, in the classic mould, to a restricted domain mapped out in the interaction of intentional beings with others of their kind—and of their kind alone—would at best be applicable only to animals, not to humans (Serres, in Serres and Latour 1995: 200). Or as Latour put it, once again revisiting the baboons in his book *Reassembling the Social* (2005: 70), a 'sociology of the social' might work for baboons, but would be useless for human beings. 'Baboon troops', he suggests (2005: 198), 'could really offer the ideal natural experiment to check what happens when social connections are strictly limited to social skills'. We would gain a window into the complex interference patterns that are set up when the lives and bodies of consociates are folded in on one another. But 'complicated humans', Latour (2005: 199) claims, 'have folded themselves into vastly more entities, some of them having the great advantage of remaining in place'. And their study requires an altogether different approach.

Now there is something extremely odd about this convocation of us and them—of restless, mutable, animate beings and emplaced, fixed, durable entities—that for both Serres and Latour comprises a matrix for the conduct of human affairs, Every restless, mutable, animate being that does not happen to be human seems to have gone missing. Elsewhere, Latour (1999: 174-215) presents the convocation as 'a collective of humans and non-humans'. But with the singular exception of domestic animals, there are no living (non-human) mammals, birds, reptiles, fish or insects in the emerging collective. To be enrolled, according to Latour (1999: 208), animals would have first to be endowed with 'the social characteristics necessary for their integration'. They would, in other words, have to be refashioned, through a process of domestication, to the mould of an artificial order. Non-humans that have not been thus subjected to refashioning, and which lack the requisite characteristics, have no role to play in the collective and do not belong there. They should keep out! Humans have been engaging in collectives with non-humans for 'millions of years', says Latour (1999: 198)—ever since our ancestors started to make tools, striking stone on stone. But it was the stones that were enrolled in the collective, not the animals hunted with them (1999: 210-211). The prehistory of the collective begins in the mediations of technology, not in engagements with other life-forms.

It has long been customary, in the world of us and them, to refer to the former as 'subjects' and to the latter as 'objects'. In conversation with Latour, Serres does the same. But for his own part, Latour (1999: 193–194) repudiates this subject/object distinction. For all it does is to impose, a priori, a wholly spurious asymmetry between, on the one hand, the world of human intentional action and on the other, a material world of causal

relations (Latour 2005: 76). Conventionally, the first world has gone under the name of 'society', and the second under the name of 'nature'. In place of the opposition between society and nature, Latour calls for a symmetrical approach which would bring both humans and non-humans to the table as transacting parties. By this, he doesn't mean that humans and non-humans are *literally* symmetrical, as though equal and opposite. Quite to the contrary, he wants to find a way of talking about persons and things that allows for heterogeneity and is *non*-oppositional. For Latour it is precisely because they are different, but nevertheless bound up in an encompassing field of relations, that humans and non-humans can swap properties and exchange roles. 'Objects and subjects,' he insists, 'can never associate with one another; humans and non-humans can' (2004: 76, original emphasis).

But wait a moment! If humans can associate with non-humans, why cannot baboons with non-baboons? So far as the baboons are concerned, Latour is content to follow in the footsteps of the Machiavellian intelligence theorists, and to limit the field of social interaction to conspecifics. 'Machiavellian primates,' writes Latour (1999: 211), 'manipulate one another to survive in groups, with each group of conspecifics in a state of constant mutual interference.' Once again, he looks for support to Strum's (1987) baboon study. Baboon society, it transpires, is for baboons only. But humans, for Latour, are different: fundamentally different. And it is precisely what distinguishes humans from non-humans, in one sense, that lays the foundation for their association in another. Indeed what is most remarkable about Latour's principle of symmetry is that it rests upon a claim to human uniqueness, along with a theory of progress from the animal to the human and from the hunting and gathering of our earliest ancestors, through agriculture, to modern industrial society, which could have come straight out of the nineteenth century (Ingold 2012: 430). As philosopher Jeff Kochan astutely notes, the very stage upon which Latour (1999: 212) takes up arms to 'fight modernism' turns out to be none other than one of modernism's most potent myths of origin (Kochan 2010). It is the myth of how, millions of years ago, the distant ancestors of modern-day humans broke the bonds of nature that hold all other animals captive, and launched themselves on the path of history. Paradoxically, an approach which purports to de-ontologise the distinction between the human and the non-human, and to establish in its place a level playing field, is justified on the grounds that in their manner of engagement with material things, and in the progressive history of that engagement, human beings are radically distinct from all other living kinds. Hardly could a symmetrical approach rest on a more asymmetrical foundation!

Let us return to the reindeer. They are certainly non-human, and they certainly associate with human beings. Where then would they fit, in Latour's scheme of things? We might, on the one hand, regard the reindeer as an extra-somatic resource that provides a stable point of reference for human social relations. For example it carries an earmark. The mark is of no concern whatever for the deer—beyond the mildly painful experience of having it cut with a knife. However it is the focus of intense concern for the herdsmen, since it encodes information about its owner and, since marks are passed on and elaborated along family lines, about his or her genealogical connections. On the other hand, we might treat reindeer in the way that Latour treats baboons. Though they belong to quite different animal orders, and inhabit environments that could hardly be more dissimilar, reindeer and baboons do have some things in common. They live in social groups, males

compete for females, and relations of dominance and submission, of vital significance for access to food and sex, have continually to be negotiated and performed. Where for baboons, the performance revolves around male canines and female buttocks, for reindeer of both sexes, it revolves around the antlers. In a Latourian world, then, non-humans can make their presence felt in two distinct ways: as mediators and as Machiavellians. They can provide material-semiotic resources for humans; and they can carry on their own lives, among themselves, without transacting with humans at all. There are, let us say, embodied code-carriers and smart performers. As vectors of symbolic codification—in the third person—animals can enter into association with humans. But in the first and second persons, as *Is* and *yous*, they can only associate with one another, and not with humans at all. There can be humans and non-humans, but there cannot be reindeer and non-reindeer. So much for symmetry.

## The wrong kinds of non-humans

It was Michel Serres, you will recall, who insisted that we humans could not survive 'without all of *them*', without a universe of things in the third person. Here he is again, in a passage from an essay entitled *Genesis*, composed in 1982.

The only assignable difference between animal societies and our own resides (...) in the emergence of objects. Our relationships, social bonds, would be as airy as the clouds were there only contracts between subjects. In fact the object, specific to the Hominidae, stabilizes our relationships. (Serres 1995: 87)

Well, whatever the case may be for baboons, it is simply not true, as Serres asserts, that for non-humans generally, social relations are free-floating rather than anchored in the material world. Migratory seabirds return to nest and breed, year in year out, to the same cliffs and in the same pairs—as do herds of reindeer to the same calving grounds. Here, cliffs and grounds play a well-established part in stabilizing relationships between breeding pairs in the first case, and between mothers and offspring in the second. Perhaps you will say that humans are still different, in so far as the ability to recall a good place for nesting, or for calving, does not require of the animal that it should treat the place as an entity in its own right, apart from the peregrinations that brought it there. Perhaps it is we humans, in our studies of animal behaviour, who objectify the place, not the animals themselves. Be that as it may, innumerable anthropological studies have shown how human groups likewise maintain strong and enduring attachments to particular places, along with the features of the landscape that lend them their distinctive character. As in the totemic landscape of Aboriginal Australia (Myers 1986) or the homeland of the Koyukon of Alaska (Nelson 1983)—to cite just two very well documented examples—every such place is woven as a gathering of stories, of the comings and goings of diverse human and other-than-human beings. And in his classic study of the storied landscape of the Western Apache of Arizona, Keith Basso (1992: 126) shows how mountains and arroyos take over from grandmothers and uncles in the moral education of younger generations. They are active players in the Apache world, addressed as one would address fellow humans, in the second person. If animals do not objectify the places that matter so much to them and that anchor their relationships, then neither necessarily do humans.

Turning from places and landscapes to tools and equipment, it might be argued that whereas animals are largely confined to the use of what the primatologist Hans Kummer (1995) has called 'social tools', in the form of their own bodies, humans routinely surround themselves with extra-somatic implements of their own making. Introducing a study of what he calls 'the material life of human beings', archaeologist Michael Schiffer asks us to imagine that a research team of chimpanzees has embarked upon the sociological study of a human group (Schiffer and Miller 1999: 2-3). One of the first things they would notice is that activities they are used to performing directly upon one another, such as grooming, are displaced onto the manipulation of a variety of artefacts such as combs and brushes. They would observe, too, that there seems to be no point in the lives of human beings, from cradle to grave, when they are not being 'intimate with artefacts'. It is of course true that animals of many species interact on a sustained basis with items of various kinds, some of which they have made themselves. But no other species comes close to the human in the extent to which it does so. 'Incessant interaction with endlessly varied artefacts,' Schiffer maintains, 'is the empirical reality of human life and what makes it so singular' (Schiffer and Miller 1999: 2). Might these artefacts, then, provide the anchors that, as Serres alleges, pin human relations down in a way that is impossible for the animals? Again, the answer is: not necessarily. As anthropological studies of hunting and gathering societies have revealed, many if not most of the artefacts used in everyday life are readily made or improvised on the spot, from locally available raw materials, and equally readily discarded. They carry no social weight whatever (Woodburn 1982). And at the other end of the scale, the affluent of the western world are so overwhelmed with ephemeral consumables that they find themselves in much the same predicament as Strum's baboons, having ceaselessly to repair their relationships by means of new objects.

To sum up: we have found that while on the one hand, places and landscapes can stabilise relationships as much in animals as in humans, on the other hand tools and other artefacts, while far more prevalent among humans than animals, may do little or nothing to stabilise relationships. In light of these observations, what are we to make of the following, from a recent book entitled *In Defense of Things*, by archaeologist Bjørnar Olsen?

If there is one historical trajectory running all the way down from Olduvai Gorge to Postmodernia, it must be one of increased mixing: that more and more tasks are delegated to nonhuman actors, and more and more actions mediated by things. Only by increasingly mobilizing things could humans come to experience 'episodes' of history such as the advent of farming, urbanization, state formations, industrialization, and postindustrialization. (Olsen 2010: 9–10)

Assuredly, the citizens of Postmodernia are surrounded by a wealth of artefacts infinitely in excess of what was available to the little band of creatures, known to science as *Homo habilis*, who camped at Olduvai Gorge some two million years ago, and whose only tools were crudely fractured stone choppers. There seems no good reason to doubt that in the broad course of history, the number and kinds of artefacts that humans have used have increased almost exponentially. This does not necessarily imply, however, a proportionate

rise in the involvement of non-human agencies. For what comes out unequivocally, both from the evidence of prehistory and from the ethnography of peoples who have not taken the high road to Postmodernia, is that there never has been a time when all sorts of non-humans have not been enrolled in the tasks of keeping life going. It is not that there were fewer non-humans hanging around in the environments of hunter-gatherers, or of farmers or herdsmen, compared with those of the industrial and post-industrial world. What has changed is the nature of the non-humans. Overall, the proportion of embodied code-carriers in the human environment has increased, while the proportion of smart performers has correspondingly decreased. The former exemplify what theorists commonly take for 'material culture': they are the kinds of things that can be co-opted as extra-somatic mediators in human endeavours. The latter, by contrast, are forms of animate life—they are beings that follow their own calling while yet responding to the lives, and the calls, of humans, just as humans reciprocally respond to theirs. Might it not be in this correspondence of both human and animal lives that we find the essence of sociality?

For those of us like myself, with a background in the ecological study of human hunting and gathering, pastoralism or farming, the oft-repeated claim of material culture theorists—namely, that the 'non-human' has been marginalised or suppressed in the social sciences—seems preposterous. For it turns a blind eye to the wealth of studies, by both anthropologists and archaeologists, of the manifold ways in which people in different parts of the world, and in different periods of history, have shared their lives with diverse animals and plants. How can we account for this blind spot? There is only one possible answer: so far as our theorists are concerned, these animals and plants are the wrong kinds of non-humans. They lack the characteristics of fixity, durability and emplacement that entitle them to admission to the collective. As forms of animate life they are intruders on the stage of world history, and should not be there. Consider, for example, the question with which Olsen launches his defence of things: 'How,' he asks (2010: 2), 'do things and objects "mix" with human beings to form the configurations we call society and history?' Here, society and history are rendered as exclusively human achievements, brought about thanks to the enrolment of objects and things. To pose the question in these terms is, in itself, to admit non-humans into the processes of social and historical life only in the third person, as hybrid material-semiotic resources for human projects. They are not supposed to engage with humans as animate beings in their own right, nor humans with them. And behind this supposition lies the assumption—which we have already encountered in our exposure of the asymmetrical basis for the alleged symmetry of humans and non-humans—that in the conduct of their own lives, that is as intelligent performers rather than embodied signifiers, non-humans should associate only with others of their kind: reindeer with other reindeer, baboons with other baboons. In human eyes, on this account, the non-human can be one of ours: this reindeer could be mine and carry my mark; that baboon could be a member of the troop I am studying. But it cannot be one of us—not, at least, without being regarded anthropomorphically, as an honorary human, as we sometimes treat domestic animals or pets.

We can but wonder where this assumption came from. Why should anyone think that social relations should be confined to individuals of the same species? Why should the reindeer or the baboon not be one of us, or we one of them? Are not the lives of herdsmen

entwined with those of the animals they herd, or the lives of behavioural scientists with the animals they study? And are not these cross-species entwinings, these correspondences, just as social as are human and animal entwinings with others of their respective kinds? As Strum and Latour (1987: 795) recognise, accounts of the origins of society in the behavioural sciences tend to start from the idea that the word 'social' refers, in the first place, to 'aggregations of conspecifics', and from there they go on to consider how animals adapt their behaviour to an environment largely made up of others of their kind, by becoming 'smarter at manipulating and manoeuvring around each other'. Yet like most animals, baboons inhabit a landscape in which, among other things, they have to deal with potentially dangerous predators. These predators, too, have to be out-manoeuvred. Thus even baboons, as Latour (2005: 199) has belatedly and grudgingly admitted, find that their lives are mixed or folded in with landscapes and predators as well as with conspecifics. If you are a baboon, it is not only other baboons you have to care about. And if you are a reindeer, it is not only other reindeer. There are predators like wolves and wolverines, not to mention beings of less fathomable intent, such as humans. If it is social to care about beings of your own kind, why should it not be social to care about beings of other kinds? As I shall now show, the restriction of sociality to relations among conspecifics has its source in the very claim to uniqueness that would otherwise reserve society and history for humans alone. It is, in other words, a direct reflex of the belief in the wholly exceptional nature of human being.

## Species being

As with so many things, the argument goes back to Karl Marx. In the Economic and Philosophic Manuscripts of 1844, Marx had declared that 'Man is a species-being' (Marx 1972: 75). Here he was following the lead of the philosopher Ludwig Feuerbach. In his classic work The Essence of Christianity, Feuerbach maintained that it was not consciousness as such that distinguishes humans from other creatures, but a particular sort of consciousness—one that makes it possible for men and women to recognise themselves not just as individuals but as fellow members of a species, thereby apprehending in themselves a 'human essence' that they share with others of their kind (Feuerbach 1843: 1-2). Thus to say 'I am a man' or 'I am a woman' is an assertion of individuality, but one that is possible only because it is made against the ground of an acknowledged humanity common to all. In this regard, species-being is entirely distinct from species-life. As Marx (1972: 75-6) went on to explain, the life of a species, whether human or animal, is carried on by way of a bodily engagement with the stuff of the material world. Its proper domain is the world of nature. But while the animal, in its activity, exemplifies the form of life typical of the species to which it belongs, it has no knowledge of the fact, no awareness of its exemplary character. The animal and its species life are one and the same. Humans, by contrast, are capable of making their species life the object of their own will and consciousness. They are aware of what they are doing, and they are aware that it is they who are doing it. As agents, they can separate themselves out from their activity and, by the same token, they can imagine themselves doing all kinds of different things, including even the things that other animals do. 'An animal,' wrote Marx (1972: 76), 'forms things in accordance with the standard and the need of the species to which it belongs, whilst man knows how to produce in accordance with the standard of every species'. And it is precisely in this productive potential, and in the freedom it confers, that species-being comes into its own.

Yet for Marx, species-being not only lay at the root of human individuality. It was also tantamount to social being. Individual life and social life, Marx insisted, are one and the same. By social life, he did not mean the life of some hypostasised macro-entity, namely 'society', as against the manifold lives of its individual constituents. Indeed, Marx (1972: 86) explicitly warned against postulating 'society' as an abstraction vis-à-vis the individual. In social life, men and women do not make societies, nor do societies make men and women. Rather, social life is the process wherein men and women reciprocally make one another, establishing through their own activities the relational matrix within which they and their successors come into the world, grow up, and do what they do (see Ingold 1986: 247). 'The individual,' as Marx emphasised, 'is the social being' (1972: 86, original emphasis). It follows that species-being is not fixed for all time, as an immutable part of our given nature. It is rather a historical and relational achievement, realised in the progressive transcendence of nature. As such, species-being is something that humans, as self-developing and self-transforming animals, have continually to work at: it is a task. Paradoxically however, it is a task open only to the one species whose members are such that their life activity is *not* fully determined by their species identity (on this, see Mulhall 1998: 14). Thus, species-being is also species limited. This human—this extraordinary being that, as Marx says, can produce to the standard of any species it desires to emulate is inextricably bound to its own species constitution, its transcendence of nature tied to the very human nature it transcends. Viewing its own species universality in the mirror of nature, what this human sees is its own species specificity. By the same token, lifeover-species is reflected in the mirror as life-within-species. In this inversion, what was a contingent aspect of social relations—their species specificity—becomes their defining feature.

In slightly less convoluted language, the argument can be rephrased as follows. If the mark of the social lies in those properties of freedom, agency and self-awareness that are brought to bear in the conduct of relational endeavours, and if these properties are limited to the kinds of beings we call 'human', then social relations are human relations. From here, however, it is but a short step to the conclusion that social relations are human relations because they are with individuals who happen to belong to the same species as we do ourselves. And having once taken this step, the path is clear to extend the concept of the social to cover the interactions that any kind of creature—human or nonhuman—may have with its conspecifics (Ingold 1997: 240-1). For me, social relations are human relations because I happen to be human. Were I a baboon, or a reindeer, then my social relations would be with other baboons, or other reindeer, and not with humans. If I were an ant, they would be with other ants. And it is in just this sense, connoting relations among conspecifics, and without any implication of consciousness or self-awareness, that the notion of society was taken up in the literature on animal behaviour. Consider the following definition, from the text by E. O. Wilson that launched the field of sociobiology: 'Society: A group of individuals belonging to the same species and organised in a cooperative manner' (Wilson 1980: 322). Following Wilson's lead,

sociobiologists have made it their business to describe and explain the varieties of social behaviour across every branch of the animal kingdom, from insects to primates. The irony of the enterprise, of course, is that the very identification of society with the domain of intraspecific interactions came about only thanks to an original assumption, which sociobiologists categorically reject, that social being is a condition uniquely reserved for humankind.

## To human is a verb

If we are to bring non-humans back in, not just as material-semiotic mediators for human action but as beings in their own right, and if we are to allow them to play a social and historical role, alongside humans, in forging the conditions for future life, then this assumption will have to go. It will not go, however, through a fashionable appeal to what is currently parading under the brand-name of 'multi-species ethnography'. Launched by anthropologists S. Eben Kirksey and Stefan Helmreich in 2010, to much fanfare, multispecies ethnography was introduced as 'a new genre of writing and mode of research [that] has arrived on the anthropological stage' (Kirksey and Helmreich 2010: 545). Creatures that had previously appeared as nothing more than material or symbolic anchors for human projects, these authors tell us, are now starting to appear alongside humans as animate beings with biographies and political lives of their own. There is really nothing new about this. For in truth the wrong kinds of non-humans, though long ignored in the writings of material culture theorists, have never really gone away, and have continued to stalk the pages of the literature on hunters and gatherers, farmers and pastoralists for generations. After all, it was their intrusion into my paper of 1974, almost forty years ago, to which Paine took such exception.

The problem with multi-species ethnography is not just its anachronism, however. It lies rather in its very appeal to species multiplicity. For only in the purview of a universal humanity—that is, from the perspective of species-being—does the world of living things appear as a catalogue of biodiversity, as a plurality of species. If we abandon this sovereign perspective, then the very notion that creatures can be grouped on the basis of similarity and divided on the basis of difference, and with it the concept of species itself, will need to be rethought. To be fair, Kirksey and Helmreich are dimly aware of the problem, for they note in conclusion that a survey that runs the gamut of life forms, all the way from animals and plants to fungi and microbes, 'risks reinstalling the "human" as a central reference point' (Kirksey and Helmreich 2010: 562). Thus, part of the project of multispecies ethnography, they suggest (2010: 563), must be to 'take aim at "species" as a grounding concept for articulating biological difference and similarity'. And to do that, as they point out, is also to place the Marxian notion of 'species-being' under interrogation.

I agree with them, and this indeed is part of what I have tried to do here. However the rethinking that Kirksey and Helmreich call for has, to an extent, already been done, in work to which they do not even refer, by the philosopher Dominique Lestel and his colleagues, based at the wonderfully named *Laboratory of Eco-Anthropology and Ethnobiology* in Paris (Lestel 2002; Lestel, Brunois and Gaunet 2006). Lestel starts from the premise that every human society is also a society made up of animals, or rather that

no society can be prefixed by the name of a species—as in 'baboon society' or 'human society'—since there can be no community of animate beings that is not hybrid in terms of species composition. Though comprising both humans and non-humans, the Lestelian hybrid community could not be more different from the Latourian collective. For the former includes precisely what the latter leaves out: all those restless, mutable, roving beings with whose lives our own are necessarily entangled, as much as they are entangled with one another. This entanglement entails a sharing of meaning, of interests and of affects (Lestel, Brunois and Gaunet 2006: 161). Thus, rather than looking at animals as though they were humans, or at humans as though they were animals, we need to find ways of modelling social life that allows for their differences. The question, for Lestel (2002: 56, original emphasis), is: 'how do humans and animals allow each other to be differently intelligent?'

This emphasis on difference is critical. For Machiavellian intelligence theorists, as we have seen, the autonomy of the individual is paramount, and every smart performer, playing his or her part in society, campaigns to protect it. In the community of conspecifics, you have to watch your back! In the hybrid community, however, the animal subject is not a bounded entity, set over and against others of its kind, but just one trail of growth and development in a heterogeneous field of interests and affects. Or in Lestel's (2002: 53) words, it 'is not so much the subject of a defensive autonomy as of an open-ended heteronomy'. And its intelligence is not an interior cognitive capacity, of which its actions are the effects, but lies in its whole way of perceiving and acting in the world. Each animal is different, but these differences are constituted in and through its entanglement in the generative process of social life, they do not exist in spite of it. Contrary to the logic of the multispecies, which associates individuals on the basis of received likeness and divides them along lines of diversification, in the hybrid community—as I have stated elsewhere—'it is difference that connects, whereas similarity divides' (Ingold 1996: 6).<sup>2</sup>

In the ethno-ethology and etho-ethnology that Lestel and his colleagues advocate, all animate beings are conceived as fundamentally relational. This is to say that every being is what it is, and does what it does, because of its positioning within a community. In this regard, their approach is not so far from that recently advocated by anthropologist Eduardo Kohn under the rubric of the 'anthropology of life', an anthropology—he writes—'that is not just confined to the human but is concerned with the effects of our "entanglements" (...) with other kinds of living selves' (Kohn 2007: 4). Echoing the cultural theorist Donna Haraway (2003: 5), Kohn contends that these others are not just to think about but to live with. His non-humans are not like Latour's, since they do not need spokespersons to speak on their behalf (see Latour 2004: 64). They speak, and indeed communicate, simply by virtue of their presence and activity, through modes of reference that may be indexical or iconic, if not symbolic. We do not, then, have to limit ourselves, in anthropology, to beings that can communicate by means of symbols, or that can codify their knowledge. The reindeer can be along too, not perhaps as the Machiavellian strategists of my early parody, but certainly as full participants in the hybrid reindeer-human community.

What, then, would this 'anthropology beyond the human' look like? I conclude with just two proposals. First, every animate being is fundamentally a *going on* in the world. Or more to point, to be animate—to *be alive*—is to become. And as Haraway (2008:

244) stresses, 'becoming is always becoming with—in a contact zone where the outcome, where who is in the world, is at stake'. Thus whether we are speaking of human or other animals, they are at any moment what they have become, and what they have become depends on whom they are with. If the Saami have reindeer on the brain, it is because they have grown up with them, just as the reindeer, for their part, have grown up with the sounds and smells of the camp. Strum (1987: 159), likewise, confesses that the baboons had become the emotional centre of her life, and that she felt herself only in their proximity. In the unfolding relation of herdsmen with deer, or researchers with primates, we could say, 'both humans and animals undergo a kind of perpetual rebirth, each enfolding into its inner constitution the principle of its relationship to the other' (Ingold 2000: 143). How then should we refer to the animals? Lestel prefers to speak of them as subjects; Kohn as selves. For both, the first or second person pronoun would be appropriate. The pronominal form, however, separates the agent from the action, the doer from the deed. My preference, to the contrary, would be to think of animate beings in the grammatical form of the verb. Thus 'to human' is a verb, as is 'to baboon' and 'to reindeer'. Wherever and whenever we encounter them, humans are humaning, baboons are babooning, reindeer reindeering. Humans, baboons and reindeer do not exist, but humaning, babooning and reindeering *occur*—they are ways of carrying on (Ingold 2011: 174-175).

Secondly, my 'anthropology beyond the human' would be just that: it would be anthropology, not ethnography, and it would be beyond the human, not multispecies. We have already seen that a relational approach to human and animal becoming refutes the logic of the multispecies. But it also tells us that in our inquiries we join with, and learn from, the human and animal becomings (Ingold 2013a: 6-9) alongside which we carry on our own lives. There is nothing to be ashamed of, then, in the discovery that, like the Saami herdsmen I accompanied so long ago, my thoughts and actions were more with the reindeer than with the people. For anthropology is distinguished not by its object, as if it shone a spotlight on human beings while leaving all else in the shadows, but by its way of working, which is to learn through participation in other lives. Thus in anthropology we do not make studies of people, or indeed of animals. We study with them (Ingold 2013b: 2-4). The aim of such study is not to seek a retrospective account, looking back on what has come to pass. It is rather to move forward, in real time, along with the multiple and heterogeneous becomings with which we share our world, in an active and ongoing exploration of the possibilities that our common life can open up. And just as in life, becoming continually overtakes being, so in scholarship the scope of anthropology must forever exceed the threshold of humanity.

## **NOTES**

<sup>&</sup>lt;sup>1</sup> With new digital technologies, of course, there has been a massive growth in the number of so-called 'smart devices' in the post-industrial environment. This should not be seen, however, as a reversal of the overall historical trend. Quite to the contrary, the label 'smart', when applied to digital devices, is an advertising ploy which announces to any potential purchaser that by buying the device, his or her own 'smartness' will be enhanced.

<sup>2</sup> Eduardo Viveirios to Castro (2012: 92–93) makes exactly the same point. Arguing against the assumption that the 'fundamental or prototypical mode of relation is identity or sameness', and against the tendency to read difference as opposition and opposition as the absence of relation, he insists that 'identity or sameness [is] the very negation of relatedness'. I agree. Curiously, however, Viveiros de Castro takes me to task for holding the opposite view, even though it is one to which I have never subscribed. Indeed I—too—have argued vigorously against it (Ingold 1993: 225–227)!

#### REFERENCES

**Barth, F.** 1966. *Models of Social Organisation*. Occasional Papers of the Royal Anthropological Institute 23. London: Royal Anthropological Institute.

**Basso, K.** 1992. Western Apache Language and Culture. Tucson, AZ: University of Arizona Press. **Darwin, C.** 1874. The Descent of Man and Selection in Relation to Sex (2<sup>nd</sup> edition). London: John Murray.

Feuerbach, L. 1843. The Essence of Christianity. London: Trübner.

**Haraway, D.** 2003. *The Companion Species Manifesto: Dogs, People, and Significant Otherness.* Chicago, IL: Prickly Paradigm Press.

Haraway, D. 2008. When Species Meet. Minneapolis, MN: University of Minnesota Press.

**Humphrey, N.** 1976. The Social Functions of Intellect. In P. P. G. Bateson and R. A. Hinde (eds), *Growing Points in Ethology*. Cambridge: Cambridge University Press.

Ingold, T. 1974. On Reindeer and Men. Man (N.S.) 9 (4): 523-538.

Ingold, T. 1975, Reindeer and Men (Letter to the Editor). Man (N.S.) 10 (4): 619-620.

Ingold, T. 1986. Evolution and Social Life. Cambridge: Cambridge University Press.

Ingold, T. 1993. The Art of Translation in a Continuous World. In G. Pálsson (ed.), Beyond

Boundaries: Understanding, Translation and Anthropological Discourse. Oxford: Berg.

**Ingold, T.** 1996. General Introduction. In T. Ingold (ed.), *Key Debates in Anthropology*. London: Routledge.

**Ingold, T.** 1997. Life beyond the Edge of Nature? Or, the Mirage of Society. In J. B. Greenwood (ed.), *The Mark of the Social*. Lanham, MD: Rowman and Littlefield.

**Ingold, T.** 2000. The Perception of the Environment: Essays on Livelihood, Dwelling and Skill. London: Routledge.

Ingold, T. 2011. Being Alive: Essays on Movement, Knowledge and Description. Abingdon: Routledge.

**Ingold, T.** 2012. Toward an Ecology of Materials. *Annual Review of Anthropology* 41: 427–442.

**Ingold, T.** 2013a. Prospect. In T. Ingold and G. Pálsson (eds), *Biosocial Becomings: Integrating Social and Biological Anthropology*. Cambridge: Cambridge University Press.

Ingold, T. 2013b. Making: Anthropology, Archaeology, Art and Architecture. Abingdon: Routledge.

**Kirksey, S. E. and S. Helmreich** 2010. The Emergence of Multispecies Ethnography. *Cultural Anthropology* 25 (4): 545–576.

Kochan, J. 2010. Latour's Heidegger. Social Studies of Science 40 (4): 579-598.

**Kohn, E.** 2007. How Dogs Dream: Amazonian Natures and the Politics of Transspecies Engagement. *American Ethnologist* 34 (1): 3–24.

Kummer, H. 1995. In Quest of the Sacred Baboon. Princeton, NJ: Princeton University Press.

**Latour, B.** 1992. Where Are the Missing Masses? The Sociology of a Few Mundane Artefacts. In W. E Bijker and J. Law (eds), *Shaping Technology/Building Society: Studies in Sociotechnical Change*. Cambridge, MA: MIT Press.

**Latour, B.** 1999. *Pandora's Hope: Essays on the Reality of Science Studies*. Cambridge, MA: Harvard University Press.

**Latour, B.** 2004. *Politics of Nature: How to Bring the Sciences into Democracy.* Cambridge, MA: Harvard University Press.

#### TIM INGOLD

**Latour, B.** 2005. Reassembling the Social: An Introduction to Actor-Network Theory. Oxford: Oxford University Press.

**Lestel, D.** 2002. The Biosemiotics and Phylogenesis of Culture. *Social Science Information* 41 (1): 35–68.

**Lestel, D., F. Brunois and F. Gaunet** 2006. Etho-Ethnology and Ethno-Ethology. *Social Science Information* 45 (2): 155–177.

**Marx, K.** 1972. Economic and Philosophic Manuscripts of 1844. In R. C. Tucker (ed.), *The Marx-Engels Reader* (2<sup>nd</sup> edition). New York: W. W. Norton.

**Mulhall, S.** 1998. Species-Being, Teleology and Individuality Part I: Marx on Species-Being. *Angelaki: Journal of Theoretical Humanities* 3 (1): 9–27.

Myers, F. R. 1986. Pintupi Country, Pintupi Self: Sentiment, Place and Politics Among Western Desert Aborigines. Washington, DC: Smithsonian Institution Press.

**Nelson, R. K.** 1983. *Make Prayers to the Raven: A Koyukon View of the Northern Forest*. Chicago, IL: University of Chicago Press.

Olsen, B. 2010. In Defense of Things. Plymouth, UK: Altamira Press.

**Paine, R.** 1970. Lappish Decisions, Partnerships, Information Management, and Sanctions: A Nomadic Pastoral Adaptation. *Ethnology* 9 (1): 52–67.

Paine, R. 1971. Animals as Capital: Comparisons among Northern Nomadic Herders and Hunters. *Anthropological Quarterly* 44 (3): 157–172.

Paine, R. 1972. The Herd Management of Lapp Reindeer Pastoralists. *Journal of Asian and African Studies* 7 (1–2): 76–87.

Paine, R. 1974. Second Thoughts About Barth's Models. Occasional Papers of the Royal Anthropological Institute 32. London: Royal Anthropological Institute.

Paine, R. 1975. Reindeer and Men (Letter to the Editor). Man (N.S.) 10 (4): 618–619.

Paine, R. 1994. Herds of the Tundra: A Portrait of Saami Reindeer Pastoralism. Washington, DC and London: Smithsonian Institution.

**Schiffer, B. and A. R. Miller** 1999. *The Material Life of Human Beings: Artifacts, Behaviour and Communication*. London: Routledge.

Serres, M. 1995. Genesis. Ann Arbor, MI: University of Michigan Press.

**Serres, M. and B. Latour** 1995. *Conversation on Science, Culture and Time*. Ann Arbor, MI: University of Michigan Press.

Strum, S. 1987. Almost Human: A Journey into the World of Baboons. London: Elm Tree.

**Strum, S. and B. Latour** 1987. Redefining the Social Link: From Baboons to Humans. *Social Science Information* 26 (4): 783–802.

**Viveiros de Castro, E.** 2012. *Cosmological Perspectivism in Amazonia and Elsewhere* (four lectures given in the Department of Social Anthropology, Cambridge University, February-March 1998, introduced by Roy Wagner). Hau Masterclass Series, Volume 1. Available at: <a href="http://www.haujournal.org/index.php/masterclass/article/view/72">http://www.haujournal.org/index.php/masterclass/article/view/72</a>.

Whiten, A. and R. W. Byrne 1988. The Machiavellian Intelligence Hypothesis: Editorial. In R. Byrne and A. Whiten (eds), *Machiavellian Intelligence: Social Expertise and the Evolution of Intellect in Monkeys, Apes, and Humans*. Oxford: Clarendon.

Wilson, E. O. 1980. *Sociobiology* (abridged edition). Cambridge, MA: Harvard University Press (Belknap).

Woodburn, J. 1982. Egalitarian societies. Man (N.S.) 17 (3): 431–451.

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