

Article



Ingold, hermeneutics, and hylomorphic animism

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Abstract

Tim Ingold draws a sharp line between animism and hylomorphism, that is, between his relational ontology and a rival genealogical ontology. He argues that genealogical hylomorphism collapses under a fallacy of circularity, while his relationism does not. Yet Ingold fails to distinguish between vicious or fallacious circles, on the one hand, and virtuous or hermeneutic circles, on the other. I demonstrate that hylomorphism and Ingold's relational animism are both virtuously circular. Hence, there is no difference between them on this count. A path thus opens for what I call hylomorphic animism. While Ingold's relational animism leads into obscurity, hylomorphic animism is able to explain the differences in power between material things.

Keywords

Tim Ingold, animism, hylomorphism, hermeneutics, relationism, ontology

Introduction

Tim Ingold (2013a: 75) tells us that: "If you heap stuff up over a period of time, always adding to the top of the pile and allowing it to settle of its own accord, it will generally form a mound, roughly circular in plan and conical or bell-shaped in elevation."

But this is really quite imprecise. Ingold writes "stuff." What kind of stuff? And how much of it? "A period of time." How long a period? "Generally form a mound." Generally? What specific conditions need to be in place for this to work? "Roughly circular in plan." How rough, and what plan?

Things get a bit clearer a few lines later, when Ingold (2013a: 75) tells us: "Each and every particle, as it falls, eventually finds its own more or less enduring place of rest." So

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"stuff" means "particles," like grains of sand. But we still don't know how much. How many grains will make a heap? Ten? No, that's surely not enough. Eleven? No, still not enough. Twelve, thirteen, fourteen? No, no, and no. This may have seemed straightforward at first, but, in fact, Ingold has left us well up in the air.

Yet Ingold has always held a studied diffidence when it comes to precision. He would likely tell us that we do not need a precise definition of "heap" in order to make a heap. And, in this, Ingold would be right. The word "heap" is what logicians call a "vague predicate," because it resists precise definition. Still, this vagueness seems not to hold us back. We all know, or can easily learn, how to build a heap. Conceptual ambiguity of this kind may even facilitate cross-cultural exchange (Kochan, 2015a: 9–10).

An ethnographer might well agree with all of this, and yet the above vignette could also prompt the questions: "Where is Ingold? On whose land? And why a heap?" Ingold, by leaving us well up in the air, has also taken the ground out from under our feet. As a senior ethnographer once confided in me after one of Ingold's characteristically brilliant talks: "I always find what he says really interesting, but I just don't know what to do with it."

Nevertheless, for those who can afford it, there is something thrilling about being well up in the air, about being airborne, flying free, and leaving behind the grit and grind of life on the ground. Indeed, according to his Google Scholar profile, Ingold now has more than 85,000 citations. So people are listening, and they apparently like what they hear! He is "a giant of the contemporary academic scene," and "the great gadfly of contemporary anthropology" (Howes, 2022a: 444). But what difference does Ingold's work really make?

In this article, I will argue that Ingold's work makes no difference—and this is precisely the difference that it makes. In the late 1980s, Ingold joined a mass revolt against Cartesianism, storming the modern barricades that had forced a split between mind and body. Since then he has, with singular artistry and imagination, elaborated a practice-oriented anthropology of production that embodies and embeds human cognition in a practical ecology, or "taskscape" (Ingold, 2000: 195). With his new method, Ingold aims to illuminate the goings-on of the taskscape without recourse to a disembodied mind. His countless works are filled with first-person descriptions of walking, weaving, knotting, handwriting, sawing, cello-playing, and heap-building. Indeed, Ingold's *anthropos* is never not producing. "Life," he tells us, "is a task" (Ingold, 2000: 97). Ingold (1992: 696) once mischievously defined anthropology as "philosophy with the people in." And, in Ingold's taskscape, there is always a person who invites analysis. Yet, this "scape" is also weirdly free of social content. Ingold has kept the people in, but left society out. Within the frame of his post-Cartesian method, there is no room for social analysis (Howes, 2022a, 2022b; Kochan, 2022).

There is also no room for political analysis. As we will see, this fact has frustrated ethnographers seeking to apply Ingold's method to the gritty ground where their work takes place. When he hustled cognition over the barricades and into the frame of his new method, Ingold made no room for social life and the culture it carries. Clifford Geertz (1973: 46) has argued that an action "[u]ndirected by culture [...] would be virtually ungovernable, a mere chaos of pointless acts and exploding emotions [...] virtually

shapeless." Sociality gives direction to action. Because Ingold's method leaves out the social, it cannot explain differences in direction between acts of production. This is not a mere oversight, as if Ingold had simply forgotten a piece that might now be added. Rather, by excluding the social from its frame of reference, Ingold's method obstructs social analysis, and so renders mysterious the social conditions that nevertheless give shape and meaning to the actions described (Kochan, 2022).

In what follows, I propose to break open this frame, and so to upset Ingold's project in a way that makes a difference. To do this, I will focus on one of Ingold's key concepts, namely, animism. Elsewhere, I have argued that this concept—introduced by E. B. Tylor in 1871—has a European prehistory with two distinct streams: a mystical Neoplatonic one; and a naturalistic Aristotelian one (Kochan, 2021a, 2021b). I have also argued that Ingold's animism moves with the Neoplatonic stream, especially the scientific-spiritualist—and deliberately antisociological—views of the late 19th and early 20th centuries (Kochan, 2022). My argument here is that the Aristotelian stream provides an alternative to Ingold, one that explicates, rather than obscures, the role of social life in an ecology of production.

Our initial example of heap-building has already raised questions about the nature of production. In fact, as I will show, there is an ancient puzzle about heaps that carries us into a hermeneutics of perception. At the heart of this hermeneutics is a "circle." In touting his own "relational" model of production, Ingold has consistently impugned rival "genealogical" models for their circularity. He identifies the rot in this circularity with the Aristotelian concept of "hylomorphism," which he then sets in stark opposition to his own relational animism. Yet Ingold ignores the difference between vicious and virtuous (or hermeneutic) circles. The circularity of hylomorphism, I argue, is virtuous rather than vicious. Furthermore, I show that a hermeneutic circle also exists in Ingold's relational model. On this count, then, there is no difference between relational and hylomorphic theories of animism. So which should one choose? I conclude that, while Ingold's relational animism leads us into an aimless obscurantism, hylomorphic animism better explains differences in the ways the things we live with give shape and meaning to our actions. Hylomorphic animism thus brings ethnographers back to earth, reconnects them with the social, and gives them the traction they need to travel the gritty and often conflicted taskscapes that they encounter in the field.

Ingold against circles

Ingold's dislike of circles is clearly expressed in his criticism of Claude Lévi-Strauss's structuralism. For Lévi-Strauss, claims Ingold (2016a: 308), "structure, it turns out, stands *before* empirical reality, not *after* it; [...] structures, built up a posteriori from the data of observation, are converted, in the blink of an eye, into a priori mental templates awaiting expression in our overt social behaviour." While Lévi-Strauss purports to detect social structure through empirical observation, in fact, according to Ingold, these allegedly *a posterior effects*, arising from the empirical study of social behavior, are subsequently employed by Lévi-Strauss as *a prior causes* in explanations for that

behavior. As Ingold (2016b: 308) succinctly puts it: "Thus do formal descriptions of behaviour become explanations for it."

It is not just Lévi-Strauss who is meant to crumple under this crisp exercise of logic. The followers of Karl Marx and Marshall Sahlins, too, are rebuked for their allegedly "circular attempt" to use *a priori* mental models to explain productive social labor: "Marx is wrong, as indeed is Sahlins too, in supposing that the pre-existent image or model is a condition for production" (Ingold, 1986a: 33). Here, once more, empirical descriptions *of* productive behavior have been allegedly converted, by sleight of hand, into rationalist *a priori* explanations *for* that behavior.

Next come the followers of Charles Darwin and Franz Boas. The "atomism" of each group purportedly plucks individuals from the "continuous process of which they are but particular points or moments of emergence" (Ingold, 1986b: 43). Individuals' life processes are thus condensed into discrete *a priori* units: in the case of Darwin, "plans [...] contained in the hereditary materials of individual organisms"; and in the case of Boas, "cultural form[s] [...] which subsequently orchestrate and direct [the individual's] thought and action" (Ingold, 1986b: 15, 66). In the latter instance, individuals, rather than being actors in a life process, become "mere vehicles for the conduct of culture" (Ingold, 1986b: 66). Again, an *a posteriori* description-of has become an *a priori* explanation-for.

According to Ingold (1986b: 131), both Darwin and Boas, by reducing individual lives to the fulfillment of an inherited *a priori* form or plan, disaggregate evolutionary and historical phenomena into "a succession of templates or, as we would now say, of genotypes." Ingold (2000: 395) later concludes that "the Darwinian theory rests on a simple circularity." He thus tracks the logical fallacy he purports to have found in Lévi-Strauss, Marx, Sahlins, Darwin, and Boas back to what he calls the "genealogical model." At the core of this model is the assumption that "persons are brought into being—that is, generated—independently and in advance of their entry into the lifeworld, through the bestowal of a set of ready-made attributes from their antecedents" (Ingold, 2000: 136). Many years later, Ingold (2018a: 8) will continue to argue that "circularity arises whenever the genealogical model is applied." It makes no difference whether the model is applied to nature or culture, "to genes or memes, [...] we end up in the same circle" (Ingold, 2018b: 31). Once again, according to Ingold (2013a: 67), "what was a model *of* behaviour has become an explanation *for* it. The circularity of this procedure requires no further elaboration."

But is circular reasoning always such a bad thing? Ingold obviously thinks so. For him, to think in a circle is to commit a fallacy in thought. By tarring his opponents with the brush of circularity, Ingold seeks to undermine their intellectual credibility. With the field cleared of the allegedly fallacious genealogical model, Ingold then offers up his "relational model." One touted attraction of this relational model is its comparative intellectual purity: it is said to arrive untainted by circularity. Yet, as we will see in the next but one section, Ingold's relational model is also circular. This makes it more difficult to judge what advantage his relational model might still have over its rivals. But before we can address that puzzle, we need first to distinguish between two kinds of circularity: vicious and virtuous. Despite Ingold's claims to the contrary, the circularity of a procedure does, in fact, sometimes require further elaboration.

Heaps and hermeneutics

As we saw in the Introduction section, if a few grains of sand do not make a heap, then adding another grain will not turn them into a heap. The ancient Greeks called this *sorites*, or the "paradox of the heap" (see Kochan, 2017: 225ff). The paradox springs from an iteration of the action. If you continually add one grain to a nonheap, then you will continue to end up with a nonheap. Following this logic, even if you kept adding one grain after another for eternity, you still would not have a heap. Hence, it looks like heaps never come to exist! But this is absurd, because heaps *do* exist ... don't they?—This is the paradox.

In the third century CE, the Greek physician Galen of Pergamon presented *sorites* as a "dogmatist"—or rationalist—argument against empiricism. According to Galen (1944: 97), the rationalist argues that, because we already possess a determinate *a prior* concept of the thing we set out to observe, the force of a single observation is all we need to gain knowledge of that thing. The observation simply "lights up" our *a priori* knowledge of the thing.

But, as Galen goes on to argue, if the rationalist then hopes to justify this *a priori* knowledge empirically, they face a problem. They will fall into the circle of using their empirical description *of* the thing in their explanation *for* that thing, that is, their conclusion will already be present in the premises of their investigation. They thus enter the same circle that Ingold claims to have detected in the methods of his rivals. And insofar as the authority of those methods rests on their empirical credibility, then it would seem that these methods, too, face the same apparently irremediable problem of circularity.

Or maybe not. An underlying assumption of Ingold's critique of the genealogical model is that an *a priori* element fully determines the things that the model seeks to explain. Hence, according to Ingold, Lévi-Straussian structures fully determine the social practices they seek to explain, Darwinian genotypes fully determine the phenotypic expressions they seek to explain, and Boasian cultural forms fully determine the thoughts and actions of those whose social behavior they seek to explain. In all cases, the individual is reduced to the passive vehicle for an *a priori*—and already fully specified—template. Observation can, at best, "light up" the minutiae of the template, but the template itself was already fully specified even before it was brought to light.

Galen, a committed medical empiricist, ridicules the rationalist's assumption of full *a priori* determination. Turnabout being fair play, he uses *sorites* to attack the idea that, in principle, a single observation will reveal the pre-existing template in all of its determinate details. The rationalist, he argues, is forced to make the absurd claim that a single grain of sand can determine the difference between a heap and a nonheap: "And to prevent this absurdity from adhering to you, you will not cease from denying, and will never admit at any time that the sum of this is a heap, even if the number of grains of wheat reaches infinity" (Galen, 1944: 116).

Let us compare this to structure. The structuralist risks absurdity if they claim that a single observation will bring fully to light the determinate structure that they believe underlies a social practice. Out of fear for their credibility, they may thus end up never affirming the presence of that structure. Terry Turner has noted this predicament in the

case of Lévi-Strauss, who took the mathematical idea of transformations constrained by one or more invariant structures, and applied it to social life. Lévi-Strauss collected empirical evidence for such structures. Yet, as Turner (2009: 5) observes, in Lévi-Strauss's four volume *Mythologiques*, "the massive outpouring of unstructured analyses of mythical patterns and transformations [...] represent by Lévi-Strauss's own theoretical standards the failure of his structuralist quest for fundamental structures." It is as if Lévi-Strauss kept piling up yet more grains of empirical data without ever demonstrating the existence of a heap-structure. Turner (2009: 8) wryly notes that this "ma[de] him, in effect, a pioneer of post-structuralism *avant l'heure*." The quest for structure is futile, so out with structuralism! Or so the adversarial reasoning goes.

Turner himself is not so rash. For him, Lévi-Strauss applied "the right model to the wrong level of the data" (Turner, 2009: 4). Specifically, by focusing on variations between ensembles of myth, Lévi-Strauss failed to acknowledge the transformations internal to each ensemble. For example, in his discussion of the Central Brazilian Gê and Bororo myths of the origin of cooking fire, Lévi-Strauss did not acknowledge variability in the meaning of "fire" across the ensemble. By thus presupposing an invariable meaning, he undermined his own empirical project. As Turner points out, rather than being fully specified from the start, and then merely applied in the act of telling, the Gê and Bororo "fire" concept turns out to be polysemic, with its initial vagueness serving to accommodate a variety of specifications articulated through diverse acts of telling.

On this reading, then, the answer to structuralism's failure is not to abandon structure, as such, but to replace its rationalistic presupposition of a fully specified a priori with a conception of the a priori as polysemic or ambiguous, amenable to a range of contextually sensitive specifications. Nevertheless, the initially vague meaning of "fire" will still serve to constrain the range of transformations manifest in particular acts of fire-telling. For example, the imprecision of the initial concept will still be sufficiently determinate to allow, for the most part, a distinction to be drawn between fire and water.

Galen already saw this in the third century CE. For him, the rationalist presupposes a restrictive notion of knowledge as "technical," that is, fully specified. The empiricist, on the other hand, is less fastidious (Galen, 1944: 119). They start out with an ambiguous or vague *a priori* understanding of the phenomenon. Through stepwise acts of disciplined observation, their knowledge becomes increasingly specific or "technical." This technical knowledge does not precede, so as to then fully determine, the empirical process. It is also, in large measure, a result of that process.

With this, we have moved from rationalism to hermeneutics. This marks, too, a step from vicious circles to virtuous ones. The *a priori* knowledge at the start of the empirical process is no longer identical with the fully specified knowledge we hope to achieve at the end of that process. Hence, it is no longer the case, strictly speaking, that the conclusion of the empirical investigation is already present in the premises that motivated that investigation. Instead, the specific conclusions are only equivocally present in the premises. The empirical process is the disciplined, stepwise specification, or determination, of that initially equivocal *a priori* knowledge. Consequently, the circle is not vicious, but virtuous. It is a hermeneutic circle.

A virtuous circle avoids the potential absurdity of a rationalist who presupposes the presence of a fully specified knowledge that is simply revealed, or lit up, in a pellucid act of immediate perception. Rather than seeking, as Ingold does, to escape from circularity, *as such*, the hermeneutist instead touts the virtue of a circle in step with the historicity of knowing.

Hermeneutics began as a theory of text interpretation. In the nineteenth century, Friedrich Schleiermacher expanded it to include social behavior, and Wilhelm Dilthey argued that the *a priori* knowledge of interpretation was itself historical (Samson, 2021). In the early 20th century, Martin Heidegger fused hermeneutics with phenomenology, viewing phenomenology's analysis of first-person experience as being guided by an *a priori* background of both a historical and social nature (Kochan, 2015b, 2017). Because a sociohistorical *a priori* necessarily enables self-understanding, the phenomenologist's reflections are also inevitably caught up in a circle. Interpretation constitutes, it does not mediate, our experience of meaning. Hence, for Heidegger, "what is decisive is not to get out of the circle but to come into it in the right way" (Heidegger, 1962: 195).

Galen seems to have recognized this long ago. And, as Howes (2022a) has observed, Ingold seems, more recently, to have forgotten it. Rejecting interpretation as the *a posteriori* imposition of a fixed plan on the "raw" material of experience, Ingold (2016a: 304) instead urges the "immediate apprehension" of meaning in the world. But Heidegger's point is that even with *immediate* perception a person is always already ensconced in a history of social relations. That is just what it means to be a perceiving person.

Ingold's relational model

Having attempted to clear the field of his genealogical rivals, Ingold then offers his relational model as a replacement. This relational model is, at its base, "a *holistic* [...] approach, absolutely opposed to the atomism of Darwinian evolution or Boasian culture-history" (Ingold, 1986b: 102). The Darwinian and Boasian theories, argues Ingold (1986b: 131), disregard the holistic continuity that individual lives share with "the movement of life itself." A relational holism of this sort is, furthermore, "shared by all those who claim some vital force or creative principle at work in evolution" (Ingold, 1986b: 133). For the atomists, in contrast, "the time occupied by a genealogical sequence [...] is rendered lifeless" (Ingold, 1986b: 128). By championing holism over atomism, Ingold thus purports to defend life against lifelessness.

According to Ingold (2007: 117), a resurgent Darwinianism in the mid-20th century prompted a dismissal of the idea of an evolutionary life force as a "metaphysical delusion." This was then replaced with "an equally metaphysical idea of the gene [...]. With that, science legitimized the triumph of the genealogical model" (Ingold, 2007: 117). Ingold (2007: 117) seeks, instead, to "rekindle" the idea of a vital force, and thus bring science back to life. He calls this life-affirming holistic view the "relational model." For Ingold (2000: 142), life itself unfolds continuously as a "field of relationships within which different beings emerge with their particular forms, capacities and dispositions." Because particular forms emerge—or are specified—within this relational field,

Ingold (2000: 344) has also called it a "morphogenetic field" (the Greek *morphe* meaning "form").

Ingold apparently sees himself as an intellectual underdog, struggling to re-assert a repudiated relational model in the wake of a triumphant genealogical model. As we have now seen, one tactic in this struggle has been his ongoing effort to undermine the credibility of the genealogical model by tarring it with the brush of circularity. Yet, because Ingold fails to acknowledge a distinction between vicious and virtuous circles, he effectively treats all circularity as vicious, and thus leaves unaddressed the legitimacy of virtuous, or hermeneutic, circles. Hence, the rival theories that Ingold seeks to house under the genealogical tent may have more merit than his critique would suggest.

A second tactic in Ingold's fight for the relational model is his attempt to strengthen the authority of that model by allying it with the animism of circumpolar Indigenous peoples. Viewed through a relational lens, circumpolar animism becomes what Ingold (2000: 25), following David G. Anderson (2000), calls a "sentient ecology." This recourse to animism seems to have grown, in part, from Ingold's earlier ontological commitment to a conception of vital force. Ingold has argued that ethnographies of circumpolar animism offer a robust and powerful resource for repairing the allegedly fraught foundations of modern science, a science that he views as having been weighed down by a purportedly indefensible genealogical model. "Animism," he writes, "betters even science in its comprehension of the fullness of experience" (Ingold, 2018b: 23).

A circle in Ingold's relational animism

Since 2000, Ingold (2000: 108) has drawn from ethnographies of circumpolar animistic peoples—especially Irving Hallowell's mid-20th-century work with the Berens River Ojibwe (Hallowell, 1960)—to "envisage the world from the point of view of a being within it, as a total field of relations whose unfolding is tantamount to the process of life itself." In other words, Ingold looks to the Berens River Ojibwe for an empirical confirmation of his relational model. His approach to this ethnography thus comes front-loaded with an a priori conception of "life itself" as relational. Yet, according to Ingold, the Ojibwe share this a priori conception. Indeed, he argues that "animism takes the relational character of the world as an ontological a priori" (Ingold, 2000: 107). This a priori principle has not been "separately installed" in those beings said to be alive, as the genealogists might claim (Ingold, 2000: 200). Instead, it is a feature of the total field of relations from which living individuals emerge as what they are. Because Ingold labels this relational model—ostensibly shared by the Berens River Ojibwe—an "ontological a priori," we can now see that—despite his claims to the contrary—Ingold does not so much reject aprioricity as he does shift the focus of aprioricity from a genealogical emphasis on particular beings to a relational emphasis on the whole process in which the individual being is said to be only an emergent point. Ingold's a *priori*, then, is holistic rather than particularistic.

When Ingold (2000: 145) stipulates that a "relational understanding inverts the genealogical model," he means an inversion of the ontological priority between individual and world, between part and whole. For him, the whole—a total field of relations featuring an

immanent vital force or animacy—ontologically precedes the existence of individual living beings. Yet one may ask whether Ingold has not simply reproduced in his relational model the very problem of circularity he attributes to the genealogical model. Has he not taken a relational model *of* individual behavior and turned it into an explanation *for* that behavior?

We might defend Ingold's model by arguing that its circularity is virtuous rather than vicious. Although a fully specified relational account of phenomena may presuppose a relational model, this *a priori* model is not itself fully specified. It is instead a rather vague or abstract template according to which a richly articulated description of particular phenomena can be developed. In short, there may indeed be a circle in Ingold's relational model, but we could read it as a virtuous circle, rather than a vicious one. Yet, as noted, Ingold's typically rich specifications of relational phenomena are often strangely free of social content.

Ingold's relational model also faces another problem, one that is not so easily addressed. According to Ingold, particular beings emerge from, and take form within, the total field of relations that is life itself. One may well ask: how does this happen? How does it come to pass that *this* being rather than *that* being emerges? What explains the difference between them? Ingold's morphogenetic relationism lacks the resources to properly address this question.

The problem becomes more acute with Ingold's attempt to further articulate his relational model using the concept of "lines" (Ingold, 2007, 2015). With this addition, relational beings now become lines of movement that weave their way about one another, creating what Ingold calls a "meshwork." He has sought to ground this image in the animism of circumpolar Indigenous peoples: "Among the Inuit of the Canadian Arctic, [...] as soon as a person moves he or she becomes a line" (Ingold, 2006: 14). Ingold (2006: 14) suggests that, in this "animic ontology, beings do not simply occupy the world, they *inhabit* it, and in so doing—in threading their own paths through the meshwork—they contribute to its ever-evolving weave."

A meshwork is, by definition, a complex of distinct lines or threads. The image of the meshwork thus presupposes a difference between lines. But, again, how does "life itself" differentiate between these lines as they are being woven? The closest Ingold (2016b: 13) comes to answering this question is by invoking a process of "interstitial differentiation," by which he means "the way in which difference continually arises from within the midst of joining with, in the ongoing sympathy of going along together." Difference is here being explained in terms of differentiation. And this explanation is clearly circular. But is this circle vicious or virtuous? It is hard to say, since Ingold provides no details about interstitial differentiation as a process of specification. He does not tell us why one line moves in this way, and another in that way. Differentiation involves specific differences in movement, but why these movements take the specific direction—the particular form—that they do remains, in Ingold's morphogenetic account, a mystery.

Caroline Gatt has already spotted, and also proposed a solution to, this problem in Ingold's relational model. She suggests that the model be amended with the concept of a "vector," or directedness. Vectors would allow us to explain differentiation within an otherwise uniform field of relations, a homogeneous meshwork of lines: "if one considers

the effects of the vectors at play in these movements, we can identify when there are collisions, avoidances or collaborations among other possibilities" (Gatt, 2013: 353). On this basis, Gatt (2013: 353) argues, "it becomes possible to trace when and why those differently loaded and differently directed relationships worked together, against each other, without forming a relationship to each other, and so on." Gatt (2013: 364) seeks, in this way, to render the relational model a more useful explanatory tool in her own fieldwork with environmental activists: "by understanding the effect of power (intended or unintended) as the result of different vectors of direction of attention, both existential power and 'because' reasons [i.e. "prior conditions" (p. 348)]—both of which we empirically perceive in the world—can be accounted for."

In Ingold's relational model, Gatt seems to have pinpointed what Edward Said (2000 [1985]: 213) has called the "theoretical trap" of an "overblown" macrosocial analysis that glosses over the power differences empirically evident at the microsocial level. Anderson (2013: 278) has similarly remarked, with typical Canadian politeness, that Ingold's account of the vibrancy of materials in social life "functions a little less sensitively as a guide to social and political relations in general." Penny McCall Howard (2018: 64) also praises Ingold's account of the materiality of social life, but likewise notes that Ingold has "avoided integrating his analysis with the political economy that structures ecological relations for most people in the world today." My hermeneutic point is that the perception of particular differences rests on an *a prior*—vague and unspecified—knowledge of difference *as such*. Ingold has not simply overlooked difference, as Gatt's amendment would suggest, his method actively obscures the sociohistorical background conditions—the "because" reasons—for why there are differences at all.

Why should Ingold have fenced out difference from his relational model? A comparison with Turner's commentary on Lévi-Strauss may prove illuminating. Recall that, on Turner's reading, Lévi-Strauss failed to distinguish between various specific meanings for "fire" in Gê and Bororo myths for the origin of cooking fire. Faced with the empirical fact of this polysemy, Lévi-Strauss was unable to produce convincing empirical support for his theory. As we saw, Turner suggests that a less determinate theoretical concept of "fire" would have accommodated the semantic variation present at the empirical level. Perhaps the problem was that Lévi-Strauss could see a choice only between a fully determinate theoretical concept, on the one hand, and no concept at all, on the other.

And this seems to be the only choice that Ingold's method allows as well. He attributes a fully determinate *a priori* concept to the genealogical model of his rivals—so as to then charge them with circularity—while struggling to avoid any *a priori* determination in his own relational model—so as to avoid that same charge of circularity. A similar methodological problem thus accompanies both *too much* and *too little* determination with respect to *a priori* theorizing. By failing to acknowledge grounds for even a vague difference in the directedness of the lines or relations that comprise his model, Ingold has delivered a theory that, as Gatt was to discover in her fieldwork, could not be usefully applied at the empirical level.

Yet, as we have now seen, Ingold's relational model is also circular, insofar as it presupposes relational holism as an ontological *a priori*. But this need not pose a problem, as the circularity may be viewed as virtuous. One might, then, wonder if the circle Ingold

claims to have found in the genealogical model of his rivals could, after all, also be virtuous. And, if this were so, then why should one still prefer Ingold's model?

Hylomorphic animism

Ingold traces the genealogical model back more than two millennia, to Aristotle's idea that all observed things may be analyzed as a mixture of *hyle*—usually translated as "matter," but better understood as pure potentiality—and *morphe*—or "form." This ancient doctrine is now called *hylomorphism*. As we saw earlier, Ingold seeks to strengthen his opposing relational model through an alliance with the Indigenous animism of circumpolar peoples. He thus mirrors a sharp contrast between the genealogical and relational models with a similarly sharp contrast between hylomorphism and animism, stating: "I propose animism as a radical alternative to hylomorphism" (Ingold, 2013b: 225). Ingold (2013b: 225) is especially keen to shield animism from being misconstrued—through allegedly Cartesian "hylomorphic spectacles"—as a belief that living things are a compound of an ontologically distinct material body and animating soul. He writes:

Ever since Aristotle, this distinction between body and soul has been taken as a specific instance of a more general division between matter and form. [...] In the subsequent history of western thought hylomorphic thinking became ever more entrenched. But it also became increasingly unbalanced. Form came to be seen as imposed by an agent with a particular design in mind, answering to his or her purpose, while matter—rendered passive and inert—became that which was imposed upon. (Ingold, 2013a: 37)

Notice that Ingold is not here accusing Aristotle of inventing the genealogical model. Instead, he suggests that Aristotle's original model went through a long historical process of specification through which it became "increasingly unbalanced" in a way that now allows for its close association with the genealogical model.

Yet, if this were in fact the case, then Ingold's attempt to pin the sharp contrast he draws between the genealogical and relational models onto a contrast between hylomorphism and animism would seem under-motivated. After all, it may be that Aristotle's original model is sufficiently open-ended to be compatible with animism. In fact, I think that this is the case, that Aristotle's philosophy supports what I call "hylomorphic animism." For Aristotle, a being's essence was its *morphe*, or form.

Consider Aristotle's definition of the soul. He wrote that soul—psyche in Greek, anima in Latin—is "the first actuality of a natural body which potentially has life" (Aristotle, 1986: 157). The word "actuality" translates Aristotle's term entelecheia, literally the "intrinsic possession $[ech\bar{o}]$ of an end [telos]" (see Aristotle, 1986: 15, 119). Aristotle says that when a being with the potential for life actualizes that potential, then the first observable sign of its being alive will be its demonstration that it possesses an end. In other words, to attribute a soul to something is to recognize its ability to act according to its own intrinsic end, or telos. Being alive, in short, means self-government.

What does this have to do with hylomorphism, according to which the soul is a *morphe*, a form, not a *telos*, an end? For Aristotle (1941: 665), when it comes to natural generative processes, a being's form or essence, and its *telos* or end, are effectively the same. A being, as it comes bodily into form, as it actualizes its potential for being alive, will display an intrinsic power to direct its own development, its own life trajectory, under the guidance of an *a priori* end. This display of immanent directive power was taken by Aristotle as evidence for a soul. The soul does not supply an *absolute* power of self-government (including self-formation), but *enough* power for the being to weave a singular path through the differentiated ecology of directive force that constitutes its environment. This is the core idea of hylomorphic animism.

Aristotelian hylomorphism thus complements Geertz's claim, cited in the Introduction, that an action undirected by culture would be shapeless, without form. Capturing the idea of self-government and self-formation, Geertz (1973: 5) has written that "man is an animal suspended in webs of significance he himself has spun." The kind of animism being elaborated here suggests that an immanent governing form or principle—a telic *morphe*, or soul—may be found also in nonhumans. Yet Ingold (2000: 159) dismisses Geertz for allegedly claiming that an immaterial soul—construed as symbolic culture—is imposed on matter from the outside. In fact, Bob Scholte (1986: 10) has suggested that Geertz "works with a hermeneutic circle that isn't concrete enough." Hylomorphic animism, in contrast, views the soul as a directive force immanent in the matter to which it gives shape and direction, and so it is not vulnerable to this criticism.

On the ethnographic front, Turner (2009: 34) offers an interpretation of Amazonian animism that also favors hylomorphic animism: "Many if not all Amazonian cosmological systems are founded on the principle that the forms of things immanently contain the agency or power to produce themselves." Here, forms are seen as "embodied processes of formation." In kind, Maureen Matthews (2016: 110), building on Hallowell's fieldwork, describes the Ojibwe concept of ajichaag, or "soul," as denoting an "inner essence," "the only constant" in a cosmology where "form and appearance are optional and the world is unfolding in an unstable and original way." Ojibwe "soul" plays an immanent, generative role similar to Amazonian "form." What Matthews calls "form" is really the outward shape resulting from this immanent process, and what she calls "soul" names the interior form directing that generative process. This distinction mends the split that Ingold (2013a: 28) had forced between hylomorphism and morphogenesis, with the first being "form-receiving passivity" and the second "form-taking activity." But hylomorphic animism is both passive and active; in a middle voice, it expresses what Ingold (2022: 345) has called "autopoiesis." Yet, while Ingold's morphogenetic relationism fails to explain differences in events of emergence, hylomorphic animism readily does so through an appeal to differences in immanent telic form, or soul.

Powerful things

We have seen that, by insisting on a sharp contrast between an allegedly deterministic genealogical model, on the one hand, and a purportedly emancipatory relational model, on the other, Ingold has sought to entrench a methodological dichotomy from

which less dichotomized alternatives have been effectively excluded. For him, there is either a vicious circle, or no circle at all.

Ingold has attempted to drive a similarly stiff methodological wedge between hylomorphism and animism. According to him, to espouse hylomorphism is to condemn things to being the passive recipients of a fully pre-determined genetic plan. And to reject hylomorphism is, he argues, to emancipate those same things from the tyranny of this allegedly intrinsic and determinative plan. Yet a slave is not freed by erasing the word "chains." As Gatt (2013: 349) learned from the activists with whom she conducted her fieldwork, "not acknowledging domination is one way in which domination can be reinforced." McCall Howard (2018: 74), on the basis of her own fieldwork with North Sea fishers, raises a similar concern, arguing that, in Ingold's anthropology, the purposes and intentions of actors are "caricatured [...] as a 'fixed plan'." For McCall Howard (2018: 74), Ingold's methodology "jettisons the possibility of analyzing the alienation of human intentions, and the questions of what people, systems, and priorities control these alienated human-environment relations instead."

There is, then, a disquieting silence at the center of Ingold's relational theory of animism. This silence manifests itself as a peculiar absence in his account of "the thing." The thing, Ingold tells us, is a gathering of earth and sky. Taking a page from Heidegger's philosophy, he writes that "one cannot speak of the earth without already thinking of the sky, and vice versa. Each partakes of the essence of the other." Hence, "[t]he growing plant is neither *on* the earth nor *in* the sky, but is simultaneously both earthly and celestial. [...] It is because the plant is *of* (and not *on*) the earth that it is also *of* the sky. There could be no life, in short, in a world where the earth and sky do not mix and mingle" (Ingold, 2013b: 218).

However, on this same page of Heidegger's work one also finds the following statements:

But "on the earth" already means "under the sky." Both of these *also* mean "remaining before the divinities" and include a "belonging to men's being with one another." By a *primal* oneness the four—earth and sky, divinities and mortals—belong together in one. [...] When we say earth, we are already thinking of the other three along with it, but we give no thought to the simple oneness of the four. [...] When we say sky, we are already thinking of the other three along with it, but we give no thought to the simple oneness of the four. (Heidegger, 1971: 149)

Ingold has quietly transformed Heidegger's four-fold conception of the thing into a "two-fold" conception in which the presence of mortals and divinities has been erased. According to Ingold, when we say earth, we think only of sky, and vice versa.

Yet mortals are everywhere in Ingold's account of things. Citing Hallowell's story of a stone that followed an Ojibwe ceremonial leader around a lodge, Ingold (2000: 97) concludes that animacy "is a property not of stones *as such*, but of their positioning within a relational field which includes persons as foci of power." The animate stone is a gathering of power not just from earth and sky, but also from mortals. On Ingold's reading, only within the "sphere of influence" of a powerful person do stones becomes animate.³

But what about the divinities? Where are they to be found in Ingold's animistic account of the thing?

Let us shift our attention from the stone in Ingold's anecdote to the tent in which that stone moves. As a ceremonial site, this lodge has much in common with the conical lodges that are traditional across the circumpolar North. Ingold (2013c: 20) has described such conical lodges as "a particular synthesis of earth and sky." He explicitly contrasts this earth-sky account of the lodge with a hylomorphic account, wherein "the raw materials of the lodge are supplied by nature, [and] the form is added by culture" (Ingold, 2013c: 15). Here, too, Heidegger makes an appearance: "the earth, Heidegger insisted, is unthinkable without also thinking of the sky, and vice versa" (Ingold, 2013c: 22). And here, too, the other two aspects of Heidegger's four-fold—mortals and divinities—are passed over in silence.

But, as before, the mortal is present everywhere in Ingold's account. The lodge, he writes, is "a place where earth and sky are brought together in the growth and experience of its inhabitants" (Ingold, 2013c: 22). Just as the stone in the Berens River tent is, according to Ingold, enlivened by the powerful presence of a human being, so, too, is the conical lodge a "bringing together," a gathering, of earth and sky in the experience of mortals. Yet this understanding of the lodge is at odds with a significant portion of the relevant circumpolar ethnography.

As Anderson (2013: 272) notes, "almost all ethnographic descriptions of northern societies describe the centrality of the hearth." Indeed, Ingold, too, recognizes this centrality:

At the generative heart of the lodge is the fireplace, the hearth. And where life binds, in the growth of living things, fire unbinds, in their combustion. In the smoke of the fire, materials nourished by the earth, and bound together in life, are released once more to the sky, whence they will fuel further growth. (Ingold, 2013c: 28)

Along with its poetic presentation, this passage also offers an oddly positivistic description of the role played by hearth-fire. By referring only to its material-ecological role, Ingold neglects the spiritual significance that the fire has for the lodge's inhabitants.

As Thomas J. Andrews (2013: 44) has observed, in the traditional lifeways of the Tłįcho, in the Northwest Territories, "fires were not only critical for survival, but were used to communicate with a world where ancestral spirits dwelled." Likewise, Virginie Vaté (2013: 192–193), writing of the Chukchi in north-eastern Siberia, remarks that the hearth of the Chukchi lodge "serves to mediate relations among humans, reindeer, the land and the tent itself. This is why the hearth is subject to numerous regulations, prohibitions and prescriptions." John P. Ziker (2013: 260), in turn, has emphasized the significance placed by Taimyr Dolgans and Nganasans on the lodge's hearth-fire as their ancestor, their grandfather: "when one accepts the metaphor that 'fire is our grandfather', one is providing an index of an important social norm, a sign of respect to the home/hearth and co-descendants." And Anderson (2013: 272) writes, more generally, that "dwellers in most Siberian societies feed the fire gifts of food, or of vodka, as a gesture of reciprocity with the 'masters' which are thought to be alive within the

flames." One might also consider that fire masters, at least within the stillness of a lodge, leave behind a heap of ash, a remarkably delicate reminder of tidings carried over from the spirit world, a heap so fine in substance that it resists the granular articulations preyed on by the logical paradox we met with earlier. There are heaps, but there are no grains, of ash.

What Ingold's relational ontology excludes in the hearth-fire of the Northern lodge are the "masters" or "grandfathers," whose fluctuating presence within the flames places a powerful moral claim on those who live by it. These grandfathers are, I would like to suggest, the divinities in Heidegger's four-fold conception of the thing. *Pace* Ingold, the thing is not only a gathering of earth and sky, in the experience of mortals, but also a gathering of those divinities who lend direction and meaning to mortal existence. As Andrew J. Mitchell (2015: 210), in his commentary on Heidegger's four-fold, writes: "the divinities give us the meaning of the thing, though nowhere is this grounded in a stable presence. The divinities hint, they do not speak univocally." In other words, the grandfathers do not impose an unequivocal, fully determinate plan or template on the lives of their mortal kin. They rather offer sketches or stories, general directions and guidelines, which humans are then meant to adapt and articulate in their ongoing practical negotiation of the myriad relations that texture their world.

What Ingold's relational animism fails to accommodate is not just the normative texture of life itself, but also the particular ways in which normativity gets folded into the very things that give meaning and direction to that life. Hylomorphic animism, in contrast, has the resources needed to address this normative texturing of things. The *entelecheia*, the final cause (*telos*) or soul (*anima*) that may belong to a hylomorphic thing, not only gives direction and meaning to the thing's own development and movement, but also to the development and movement of the other things that fall within its sphere of influence. The broader in scope this sphere of influence becomes, the more powerful the thing will be. And, in northern Indigenous societies, fire is a powerful thing, or, perhaps, a powerful *person*.

Indeed, returning to Hallowell's discussion of stones among the Berens River Ojibwe, under very specific localized conditions, "we can say that the stone was treated *as if* it were a 'person,' not a 'thing'" (Hallowell, 1960: 26). Persons, for the Ojibwe, are "inextricably associated with notions of causality": "we are confronted over and over again with the roles of 'persons' as *loci* of causality" (Hallowell, 1960: 43–44). As with hearth-fire among the Dolgans and Nganasans of Taimyr, some of these other-than-human persons count for the Berens River Ojibwe as grandfathers, that is, as powerful spirit persons—divinities—who place a moral demand on their human kin: "In his relations with 'the grandfathers' the individual does not expect to receive a 'blessing' for nothing. It is not a free gift; on his part there are obligations to be met. There is a principle of reciprocity" (Hallowell, 1960: 46).⁴

Anderson (forthcoming) calls such reciprocity a "shared trajectory," which recalls the directedness of Gatt's "vectors" and Aristotelian *teloi*. Yet, if reciprocity implies shared power, then Ingold's explanation of the animacy of stones as emerging only within the sphere of powerful persons must be revised. Indeed, Matthews (2016: 58, 56), while likewise referring to the stone that had followed the ceremonial leader "like a spaniel on a

leash," notes, too, that, for the Ojibwe, stones may also "move about at will." Ingold's relational animism is blind to such willfulness. Hylomorphic animism, in contrast, assigns it to the stone's immanent form, or soul. Ojibwe also more democratically describe the reciprocity between humans and nonhumans as a "ritual brotherhood" whose shared trajectory is shaped by "spirit guardians" (Matthews, 2016: 224).

Ingold's methodological mysticism

Earlier, we considered Lévi-Strauss's apparent failure to recognize semantic variation in the Central Brazilian Gê and Bororo concept of "fire." Now, in the previous section, we have met a similar shortcoming in Ingold's treatment of "fire" in Northern traditional societies. Although Ingold may have hoped to avoid specifying the relations that make sense of hearth-fire in the circumpolar lodge, by sketching those relations abstractly in terms of the impersonal material circulations of life itself, it seems that, at least in this particular instance, his concept of "life itself" carries with it a background positivism that excludes from consideration those spiritual relations through which mortals achieve communion with divinities. Put more concretely, and in the context Andrews's discussion of the Tłįcho caribou skin lodge, Ingold's relational model fails to explain the fact that "because the fire could be used to reach another world, the stick used to tend it, called a *geh*, was never used for other purposes and always treated with reverence" (Andrews, 2013: 44). The causal power of the *geh* to compel a feeling of reverence in mortals apparently lies beyond the explanatory scope of Ingold's relational holism.

In fact, Ingold does appear to recognize this issue, though he does not acknowledge it as a problem. We may see this by returning to where we began, to the heap or mound. Here, too, Ingold (2013a: 81) insists that the production of a mound cannot be explained by the "axiom of the hylomorphic model of making." And he once again caricatures hylomorphism as stating, axiomatically, that "it is the imposition of pure form that raises naturally given raw materials to an artificial state" (Ingold, 2013a: 81). For Ingold (2013a: 81), by contrast, the mound's "form is ever-emergent through the play of forces and materials."

So much has now become familiar. But Ingold also uses the mound to further articulate his semi-Heideggerian account of the thing as a "gathering." He tells us that, in Jutland and southern Scandinavia, many mounds bore the name $Tingh\phi j$, or "Thing Hill." The word ting meant "gathering" or "assembly," and the $Tingh\phi j$ was the mound on which people gathered to legislate important public matters (Ingold, 2013a: 82; see also Ingold, 2013b: 215). Hence, Ingold (2013a: 83) describes the ting—and so the thing—as "a source of law." Here, finally, Ingold seems to acknowledge the origin of the laws and norms communicated and safeguarded by the divinities in Heidegger's four-fold conception of the thing, and so, too, the significance of entelecheia, or directedness, in the hylomorphic model of animism.

But if Ingold does acknowledge the presence of this normative source in our lives, he nevertheless immediately deflects any attempt to understand it. We are told that "the round mound epitomizes the mystery of life itself, comparable to that associated in Indo-European cosmology with the number zero, signifying the unknowable nothing

from which everything comes" (Ingold, 2013a: 82). There are, indeed, laws, norms, and directives texturing the things that give shape and purpose to our lives, but we must not expect to ever understand from where they come. Instead, we should content ourselves to ride the waves and vortices of a ceaselessly creative life force, a force so powerful with invention that, like the sun, it dazzles our comprehension, throwing us back onto a blind faith that "to bear witness to this becoming is [...] to enter into the presence of God" (Ingold, 2022: 25). Put, once again, in more concrete terms, the comparatively humble power of the *geh*, to bring the Tłįchǫ into communion with the grandmothers and grandfathers from whom they receive guidance, is all at once burned away, dispersed as unintelligible dust in the inscrutable blaze of an atmospheric flux, the illegible undulations of a roiling cosmic meshwork.

In this cosmic blaze there is no room for qualitative difference. Burned up along with the *geh*'s localized power, it seems, are the situated qualities that would distinguish the *geh* from a stick used, for example, to dispose of camp waste. Within the frame of Ingold's relational animism, the normative difference between these two sticks is erased by an undifferentiated and obscured governing principle. For hylomorphic animism, on the other hand, the difference between the sticks remains legible. One stick possesses an *entelecheia*, an intrinsic and localized governmental power, and the other stick does not.

Conclusion

Let me conclude with some speculations on the politics of Ingold's relational animism. Howes (2022a: 457) has suggested that Ingold promotes a "depoliticization of the perceptual." Yet Ingold (2017: 136) claims to write "against the grain of positions that are supported by powerful political interests [...]. If I'm writing against hylomorphism, [...] then I think I'm writing against deep-seated ways of thinking that are supported by institutions of state power" (my emphasis).

James Scott (2017: 56), in his book *Against the Grain*, recounts the way "the state has endeavored to turn ungovernable wetlands into taxable grain fields by reengineering the landscape." This is imperial rent-seeking, taking regions once "illegible and trackless" and turning them into an "ecological 'sweet spot'" easily controlled by state managers (Scott, 2017: 220, 228). This restructuring of imperial lands provoked a tax exodus, a wave of "secondary primitivism"—state refugees "going over to the barbarians"—a process that was "subversive in the most profound sense" (Scott, 2017: 232–233).

I want to suggest that Ingold's anthropology—in going against the grain—might be viewed as an extraordinary act of intellectual tax evasion. His work seeks to repel state rent-seekers, creating an intellectual ecology—an academic taskscape—that remains stubbornly illegible for central office knowledge managers. Little wonder, then, that Ingold has found so many readers among his increasingly dispossessed academic colleagues—86,000 citations, and counting.

Yet Howes (2022a: 448) is surely right that Ingold's *anthropos* is "strangely generic." Hence my claim that the difference made by Ingold's work is that it makes no difference. As that senior ethnographer once said to me: "I just don't know what to do with it." In

contrast, nonstate peoples, ensconced in the unsimplified landscapes of their local homelands, have no trouble seeing difference. Ojibwe animism, for example, is "infinitely semantically nuanced and [...] does not fit museum categories" (Matthews, 2016: 78). Ingold's relationism fails to make sense of this. The antidote to state simplification is not mystifying obscurity, but unrepentant social complexity. Hylomorphism, I suggest, can read this complexity without simplification. It is, I would like to think, a tool that ethnographers might use to confer with local peoples in a way that does not package their autonomy for delivery to the state.

Perhaps the most unfortunate consequence of Ingold's remarkable inner emigration has been his abandonment of social analysis (Kochan, 2022). Like the myopic state against which he rebels, Ingold sees only a totality of relations, on the one hand, and myriad discrete individuals, on the other. Seeing like a state, Ingold (2000: 145) asserts the "ontological priority" of a universalized whole over its minutely situated parts. Within this methodological frame, the finer, qualitative differences between distinct kinds of social organization—local, self-governing associations—remain sadly illegible. Every local expression of power is delivered ineluctably back to an inscrutable and *a priori* governing principle—a totality of relations, God, life itself. Hylomorphic animism sees things differently. Where it lacks the lofty, all-encompassing view of a hegemonic state, it instead offers greater perceptual sensitivity to the finer social verities of life lived on the ground.

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Notes

I thus endorse Howes's (2022a: 453) claim that Ingold "abstracts," "obfuscates," and "eclipses"
the social, but not his conclusion that Ingold therefore espouses a "post-social anthropology."
The social is everywhere in Ingold's work, and explicitly so: "[A]ll life, and all knowing, is

- intrinsically social" (Ingold, 2017: 97). As I have elsewhere argued: "Throughout his career, Ingold has consistently maintained that social existence is the bedrock for personhood. But in the later Ingold, this bedrock becomes increasingly hardened against the inquisitive spadework of systematic social analysis" (Kochan, 2022: 784).
- 2. Ingold also deploys the charge of circularity in Ingold (2000: 22, 383, 393; 2010: 362; 2013a: 96), and, specifically targeting the alleged "circular logic" of the "new materialist," in Ingold (2022: 272).
- 3. Elsewhere, Ingold (2015: 141) elides mortality and divinity, calling human beings "secondhand gods." For a discussion, see Kochan (2022).
- I should note that my Cree acquaintances also often refer to "grandmothers," though stones are always grandfathers.

References

Anderson DG (2000) Identity and Ecology in Arctic Siberia. Oxford: Oxford University Press.

Anderson DG (2013) Home, hearth and household in the Circumpolar North. In: Anderson DG, Wishart RP and Vaté V (eds) *About the Hearth: Perspectives on the Home, Hearth and Household in the Circumpolar North.* Oxford: Berghahn, 262–281.

Anderson DG (forthcoming) Conclusion—concepts that travel. In: Bolton M and Loovers JPL (eds) Sentient Entanglements and Ruptures in the Amazon, Andes, and Arctic Regions of the Americas. Brill: Leiden.

Andrews TJ (2013) Mobile architecture, improvization and museum practice: Revitalizing the Tłicho Caribou skin lodge. In: Anderson DG, Wishart RP and Vaté V (eds) *About the Hearth: Perspectives on the Home, Hearth and Household in the Circumpolar North*. Oxford: Berghahn, 11–28.

Aristotle (1941) On the generation of animals (trans. Platt A). In: McKeon R (eds) The Basic Works of Aristotle. New York: Random House, 665–680.

Aristotle (1986) *De Anima (On the Soul)* (trans. and intro. Lawson-Transcred H). London: Penguin Books.

Galen of Pergamon (1944) *On Medical Experience* (1st edn of Arabic version, English trans Walzer R). Oxford: Oxford University Press.

Gatt C (2013) Vectors, direction of attention and unprotected backs: Re-specifying relations in anthropology. *Anthropological Theory* 13(4): 347–369.

Geertz C (1973) The Interpretation of Cultures. New York: Basic Books.

Hallowell AI (1960) Ojibwa ontology, behavior, and world view. In: Diamond S (eds) *Primitive Views of the World*. New York: Columbia University Press, 19–52.

Heidegger M (1962) Being and Time (trans Macquarrie J and Robinson E). Oxford: Blackwell.

Heidegger M (1971) Building dwelling thinking. In: Heidegger M (eds) *Poetry, Language, Thought* (trans Hofstadter A). New York: Harper & Row, 145–161.

Howes D (2022a) The misperception of the environment: A critical evaluation of the world of Tim Ingold and an alternative guide to the use of the senses in anthropological theory. Anthropological Theory 22(4): 443–466.

Howes D (2022b) In defense of materiality: Attending to the sensori-social life of things. *Journal of Material Culture* 27(3): 313–335.

Ingold T (1986a) *The Appropriation of Nature: Essays on Human Ecology and Social Relations.*Manchester: Manchester University Press.

Ingold T (1986b) Evolution and Social Life. Cambridge: Cambridge University Press.

Ingold T (1992) Editorial. Man (N.S.) 27(4): 693–696.

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

Ingold T (2006) Rethinking the animate, Re-animating thought. Ethnos 71(1): 9–20.

Ingold T (2007) Lines: A Brief History. London: Routledge.

Ingold T (2010) The man in the machine and the self-builder. *Interdisciplinary Science Reviews* 35(3-4): 353–364.

Ingold T (2013a) Making: Anthropology, Archaeology, Art and Architecture. London: Routledge.
Ingold T (2013b) Being alive in a world without objects. In: Harvey G (eds) The Handbook of Contemporary Animism. Durham: Acumen, 213–225.

Ingold T (2013c) The conical lodge at the centre of the earth-sky world. In: Anderson DG, Wishart RP and Vaté V (eds) *About the Hearth: Perspectives on the Home, Hearth and Household in the Circumpolar North*. Oxford: Berghahn, 11–28.

Ingold T (2015) The Life of Lines. London: Routledge.

Ingold T (2016a) A naturalist abroad in the museum of ontology: Philippe Descola's *Beyond Nature* and Culture. Anthropological Forum 26(2): 301–320.

Ingold T (2016b) On human correspondence. *Journal of the Royal Anthropological Institute* 23: 9–27.

Ingold T (2017) Correspondences. Aberdeen: University of Aberdeen Press.

Ingold T (2018a) Anthropology and/as Education. London: Routledge.

Ingold T (2018b) Anthropology: Why It Matters. Cambridge: Polity Press.

Ingold T (2022) Imagining for Real: Essays on Creation, Attention and Correspondence. Abingdon: Routledge.

Kochan J (2015a) Objective styles in northern field science. Studies in History and Philosophy of Science 52: 1–12.

Kochan J (2015b) Circles of scientific practice: Regressus, Mathēsis, Denkstil. In: Ginev D (ed.) Critical Science Studies after Ludwik Fleck. Sofia: St. Kliment Ohridski University Press, 83–99. Available at: https://philpapers.org/rec/KOCCOS

Kochan J (2017) Science as Social Existence: Heidegger and the Sociology of Scientific Knowledge. Cambridge: Open Book Publishers. http://dx.doi.org/10.11647/OBP.0129

Kochan J (2021a) Animism and natural teleology from Avicenna to Boyle. *Science in Context* 34(1): 1–23.

Kochan J (2021b) Animism, aristotelianism, and the Legacy of William Gilbert's *De Magnete*. *Perspectives on Science* 29(2): 157–188.

Kochan J (2022) Ingold's animism and European science. Perspectives on Science 30(4): 783–817.
 Matthews M (2016) Naamiwan's Drum: The Story of a Contested Repatriation of Anishanaabe Artefacts. Toronto: University of Toronto Press.

McCall Howard P (2018) The anthropology of human-environment relations: Materialism with and without Marxism. *Focaal – Journal of Global and Historical Anthropology* 82: 64–79.

Mitchell AJ (2015) *The Fourfold: Reading the Late Heidegger*. Evanston: Northwestern University Press.

Said E (2000 [1982]) Travelling theory. In: Bayoumi M and Rubin A (eds) *The Edward Said Reader*. New York: Vintage Books, 195–217.

Samson M (2021) Hermeneutics. In: Morin J-F, Olsson C and Atikcan EÖ (eds) Research Methods in the Social Sciences: An A-Z of Key Concepts. Oxford: Oxford University Press, 137–144.

Scholte B (1986) The charmed circle of Geertz's hermeneutics: A neo-Marxist critique. *Critique of Anthropology* 6(1): 5–15.

Scott JC (2017) Against the Grain: A Deep History of the Earliest States. New Haven: Yale University Press.

- Turner T (2009) The crisis of late structuralism. Perspectivism and animism: Rethinking culture, nature, spirit, and bodiliness. *Tipiti: Journal for the Society for the Anthropology of Lowland South America* 7(1): 3–42.
- Vaté V (2013) Building a home for the hearth: An analysis of a Chukchi reindeer herding ritual. In: Anderson DG, Wishart RP and Vaté V (eds) *About the Hearth: Perspectives on the Home, Hearth and Household in the Circumpolar North*. Oxford: Berghahn, 183–199.
- Ziker JP (2013) The fire is our grandfather: Virtuous practice and narrative in northern Siberia. In: Anderson DG, Wishart RP and Vaté V (eds) *About the Hearth: Perspectives on the Home, Hearth and Household in the Circumpolar North*. Oxford: Berghahn, 249–261.

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