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# HOW FORESTS THINK

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TOWARD AN ANTHROPOLOGY  
BEYOND THE HUMAN

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## Introduction: *Runa Puma*

*Abi quanto a dir qual era è cosa dura  
esta selva selvaggia e aspra e forte . . .*

[Ah, it is hard to speak of what it was  
that savage forest, dense and difficult . . .]

—Dante Alighieri, *The Divine Comedy, Inferno, Canto I* [trans. Mandelbaum]

Settling down to sleep under our hunting camp's thatch lean-to in the foothills of Sumaco Volcano, Juanicu warned me, "Sleep faceup! If a jaguar comes he'll see you can look back at him and he won't bother you. If you sleep facedown he'll think you're *aicha* [prey; lit., "meat" in Quichua] and he'll attack." If, Juanicu was saying, a jaguar sees you as a being capable of looking back—a self like himself, a *you*—he'll leave you alone. But if he should come to see you as prey—an *it*—you may well become dead meat.<sup>1</sup>

How other kinds of beings see us matters. That other kinds of beings see us changes things. If jaguars also represent us—in ways that can matter vitally to us—then anthropology cannot limit itself just to exploring how people from different societies might happen to represent them as doing so. Such encounters with other kinds of beings force us to recognize the fact that seeing, representing, and perhaps knowing, even thinking, are not exclusively human affairs.

How would coming to terms with this realization change our understandings of society, culture, and indeed the sort of world that we inhabit? How does it change the methods, scope, practice, and stakes of anthropology? And, more important, how does it change our understanding of anthropology's object—the "human"—given that in that world beyond the human we sometimes find things we feel more comfortable attributing only to ourselves?

That jaguars represent the world does not mean that they necessarily do so as we do. And this too changes our understanding of the human. In that realm beyond the human, processes, such as representation, that we once thought we understood so well, that once seemed so familiar, suddenly begin to appear strange.

So as not to become meat we must return the jaguar's gaze. But in this encounter we do not remain unchanged. We become something new, a new kind of "we" perhaps, aligned somehow with that predator who regards us as a predator and not, fortunately, as dead meat. The forests around Juanicu's Quichua-speaking Runa village, Ávila, in Ecuador's Upper Amazon (a village that is a long day's hike from that makeshift shelter under which we, that night, were diligently sleeping faceup) are haunted by such encounters.<sup>2</sup> They are full of *runa puma*, shape-shifting human-jaguars, or were-jaguars as I will call them.

*Runa* in Quichua means "person"; *puma* means "predator" or "jaguar." These *runa puma*—beings who can see themselves being seen by jaguars as fellow predators, and who also sometimes see other humans the way jaguars do, namely, as prey—have been known to wander all the way down to the distant Napo River. The shamans in Río Blanco, a Runa settlement on the banks of the Upper Napo where I worked in the late 1980s, would see these were-jaguars in their *aya huasca*-induced visions.<sup>3</sup> "The *runa puma* that walk the forests around here," one shaman told me, "they're from Ávila." They described these massive *runa puma* as having white hides. The Ávila Runa, they insisted, become jaguars, white were-jaguars, *yura runa puma*.

Ávila enjoys a certain reputation in the Runa communities of the Upper Napo. "Be careful going up to Ávila," I was cautioned. "Be especially wary of their drinking parties. When you go out to pee you might come back to find that your hosts have become jaguars." In the early 1990s, in Tena, the capital of Napo Province, a friend and I went out drinking one night at a *cantina*, a makeshift tavern, with some of the leaders of FOIN, the provincial indigenous federation. Amid boasts of their own prowess—Who could command the most support from the base communities? Who could best bring in the big NGO checks?—talk turned more specifically to shamanic power and where the seat of such power, the font of FOIN's strength, really lay. Was it, as some that night held, Arajuno, south of the Napo? This is an area of Runa settlement that borders on the east and south with the Huaorani, a group that many Runa view with a mixture of fear, awe, and disdain as "savage" (*auca* in Quichua, hence their pejorative ethnonym Auca). Or was it Ávila, home to so many *runa puma*?

That night around the cantina table Ávila edged out Arajuno as a center of power. This village at first might seem an unlikely choice to signify shamanic power in the figure of a jaguar. Its inhabitants, as they would be the first to insist, are anything but “wild.” They are, and, as they invariably make clear, have always been Runa—literally, “human persons”—which for them means that they have always been Christian and “civilized.” One might even say that they are, in important but complicated ways (ways explored in the final chapter), “white.” But they are, some of them, also equally—and really—puma.<sup>4</sup>

Ávila’s position as a seat of shamanic power derives not just from its relation to some sort of sylvan savagery but also from its particular position in a long colonial history (see figure 1). Ávila was one of the earliest sites of Catholic indoctrination and Spanish colonization in the Upper Amazon. It was also the epicenter of a late-sixteenth-century regionally coordinated uprising against the Spaniards.

That rebellion against the Spaniards, a response in part to the increasingly onerous burden of tribute payment, was, according to colonial sources, sparked by the visions of two shamans. Beto, from the Archidona region, saw a cow who “spoke with him . . . and told him that the God of the Christians was very angry with the Spaniards who were in that land.” Guami, from the Ávila region, was “transported out of this life for five days during which he saw magnificent things, and the God of the Christians sent him to kill everyone and burn their houses and crops” (de Ortiguera 1989 [1581–85]: 361).<sup>5</sup> In the uprising that ensued the Indians around Ávila did, according to these sources, kill all the Spaniards (save one, about whom more in chapter 3), destroy their houses, and eradicate the orange and fig trees and all the other foreign crops from the land.

These contradictions—that Runa shamans receive messages from Christian gods and that the were-jaguars that wander the forests around Ávila are white—are part of what drew me to Ávila. The Ávila Runa are far removed from any image of a pristine or wild Amazon. Their world—their very being—is thoroughly informed by a long and layered colonial history. And today their village is just a few kilometers from the growing, bustling colonist town of Loreto and the expanding network of roads that connects this town with increasing efficiency to the rest of Ecuador. And yet they also live intimately with all kinds of real jaguars that walk the forests around Ávila; these include those that are white, those that are Runa, and those that are decidedly spotted.

This intimacy in large part involves eating and also the real risk of being eaten. A jaguar killed a child when I was in Ávila. (He was the son of the

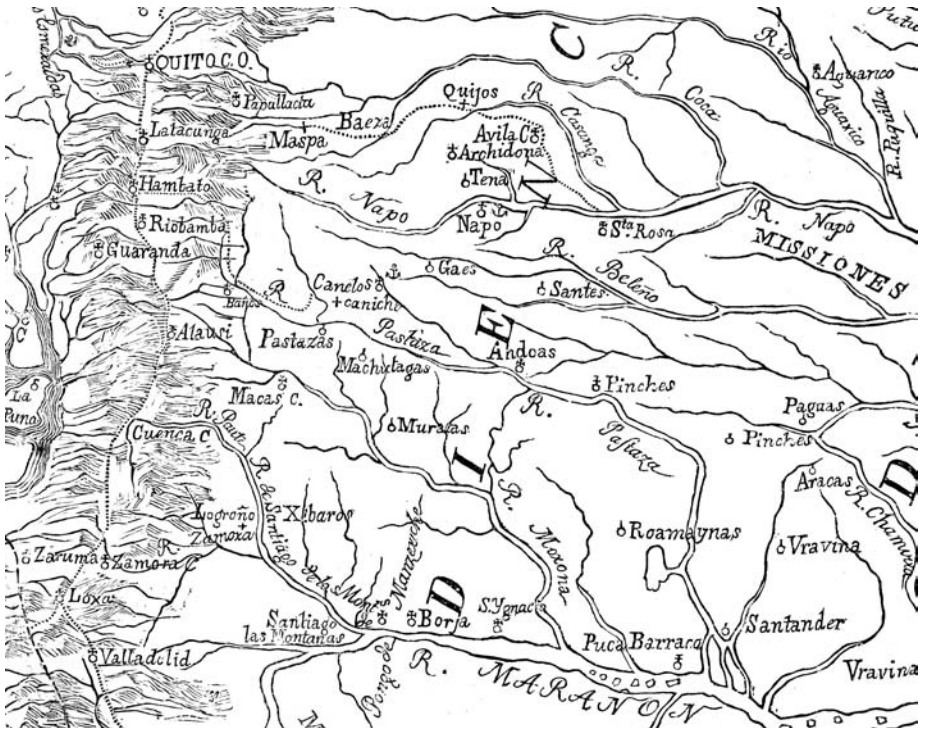


FIGURE 1. As visible from the detail of the eighteenth-century map reproduced here (which corresponds very roughly to modern Ecuador's Andean and Amazonian regions), Ávila (upper center) was considered a missionary center (represented by a cross). It was connected by foot trails (dotted line) to other such centers, such as Archidona, as well as to the navigable Napo River (a tributary of the Amazon), and to Quito (upper left). The linear distance between Quito and Ávila is approximately 130 kilometers. The map indicates some of the historical legacies of colonial networks in which Ávila is immersed; the landscape of course has not remained unchanged. Loreto, the major colonist town, approximately 25 kilometers east of Ávila, is wholly absent from the map, though it figures prominently in the lives of the Ávila Runa and in this book. From Requena 1779 [1903]. Collection of the author.

woman posing with her daughter in the photograph that serves as the frontispiece for this chapter, a photograph the mother asked me to take so that she might have some memory of her daughter if she too were taken away.) And jaguars, as I discuss later in this book, also killed several dogs during my time in Ávila. They also shared their food with us. On several occasions we found half-eaten carcasses of agoutis and pacas that were jaguars had left for us in the forest as gifts and that subsequently became our meals. Felines of all kinds, including these generous meat-bearing runa puma, are sometimes hunted.

Eating also brings people in intimate relation to the many other kinds of nonhuman beings that make the forest their home. During the four years that I worked in Ávila villagers bought many things in Loreto. They bought things such as shotguns, ammunition, clothing, salt, many of the household items that would have been made by hand a couple of generations ago, and lots of the contraband cane liquor that they call *cachihua*. What they didn't buy was food. Almost all the food they shared with each other and with me came from their gardens, the nearby rivers and streams, and the forest. Getting food through hunting, fishing, gathering, gardening, and the management of a variety of ecological assemblages involves people intimately with one of the most complex ecosystems in the world—one that is chock-full of an astounding array of different kinds of interacting and mutually constituting beings. And it brings them into very close contact with the myriad creatures—and not just jaguars—that make their lives there. This involvement draws people into the lives of the forest. It also entangles the lives of that forest with worlds we might otherwise consider “all too human,” by which I mean the moral worlds we humans create, which permeate our lives and so deeply affect those of others.

Gods talking through the bodies of cows, Indians in the bodies of jaguars, jaguars in the clothing of whites, the runa puma enfolds these. What are we anthropologists—versed as we are in the ethnographic charting of the distinctive meaning-filled morally loaded worlds we humans create (distinctive worlds that make us feel that we are exceptions in this universe)—to make of this strange other-than-human and yet all-too-human creature? How should we approach this Amazonian Sphinx?

Making sense of this creature poses a challenge not unlike the one posed by that other Sphinx, the one Oedipus encountered on his way to Thebes. That Sphinx asked Oedipus, “What goes on four legs in the morning, on two legs at noon, and on three legs in the evening?” To survive this encounter Oedipus, like the members of our hunting party, had to figure out how to correctly respond. His answer to the riddle the Sphinx posed from her position somewhere (slightly) beyond the human was, “Man.” It is a response that, in light of the Sphinx's question, begs us to ask, What are we?

That other-than-human Sphinx whom, despite her inhumanity, we nevertheless regard and to whom we must respond, asks us to question what we think we know about the human. And her question reveals something about our answer. Asking what first goes on four, then on two, then on three legs simultaneously invokes the shared legacies of our four-pawed animality and

our distinctively bipedal peripatetic humanity, as well the various kinds of canes we fashion and incorporate to feel our ways through our finite lives—lives whose ends, as Kaja Silverman (2009) observes, ultimately connect us to all the other beings with whom we share the fact of finitude.

Footing for the unsteady, a guide for the blind, a cane mediates between a fragile mortal self and the world that spans beyond. In doing so it represents something of that world, in some way or another, to that self. Insofar as they serve to represent something of the world to someone, many entities exist that can function as canes for many kinds of selves. Not all these entities are artifacts. Nor are all these kinds of selves human. In fact, along with finitude, what we share with jaguars and other living selves—whether bacterial, floral, fungal, or animal—is the fact that how we represent the world around us is in some way or another constitutive of our being.

A cane also prompts us to ask with Gregory Bateson, “where” exactly, along its sturdy length, “do I start?” (Bateson 2000a: 465). And in thus highlighting representation’s contradictory nature—Self or world? Thing or thought? Human or not?—it indicates how pondering the Sphinx’s question might help us arrive at a more capacious understanding of Oedipus’s answer.

This book is an attempt to ponder the Sphinx’s riddle by attending ethnographically to a series of Amazonian other-than-human encounters. Attending to our relations with those beings that exist in some way beyond the human forces us to question our tidy answers about the human. The goal here is neither to do away with the human nor to reinscribe it but to open it. In rethinking the human we must also rethink the kind of anthropology that would be adequate to this task. Sociocultural anthropology in its various forms as it is practiced today takes those attributes that are distinctive to humans—language, culture, society, and history—and uses them to fashion the tools to understand humans. In this process the analytical object becomes isomorphic with the analytics. As a result we are not able to see the myriad ways in which people are connected to a broader world of life, or how this fundamental connection changes what it might mean to be human. And this is why expanding ethnography to reach beyond the human is so important. An ethnographic focus not just on humans or only on animals but also on how humans and animals relate breaks open the circular closure that otherwise confines us when we seek to understand the distinctively human by means of that which is distinctive to humans.

Creating an analytical framework that can include humans as well as non-humans has been a central concern of science and technology studies (see esp.



Latour 1993, 2005), the “multispecies” or animal turn (see esp. Haraway 2008; Mullin and Cassidy 2007; Choy et al. 2009; see also Kirksey and Helmreich 2010 for a review), and Deleuze-influenced (Deleuze and Guattari 1987) scholarship (e.g., Bennett 2010). Along with these approaches I share the fundamental belief that social science’s greatest contribution—the recognition and delimitation of a separate domain of socially constructed reality—is also its greatest curse. Along with these I also feel that finding ways to move beyond this problem is one of the most important challenges facing critical thought today. And I have especially been swayed by Donna Haraway’s conviction that there is something about our everyday engagements with other kinds of creatures that can open new kinds of possibilities for relating and understanding.

These “posthumanities” have been remarkably successful at focusing on the zone beyond the human as a space for critique and possibility. However, their productive conceptual engagement with this zone is hampered by certain assumptions, shared with anthropology and social theory more broadly, concerning the nature of representation. Furthermore, in attempting to address some of the difficulties these assumptions about representation create, they tend to arrive at reductionistic solutions that flatten important distinctions between humans and other kinds of beings, as well as those between selves and objects.

In *How Forests Think* I seek to contribute to these posthuman critiques of the ways in which we have treated humans as exceptional—and thus as fundamentally separate from the rest of the world—by developing a more robust analytic for understanding human relations to nonhuman beings. I do so by reflecting on what it might mean to say that forests think. I do so, that is, by working out the connection between representational processes (which form the basis for all thought) and living ones as this is revealed through ethnographic attention to that which lies beyond the human. I use the insights thus gained to rethink our assumptions about the nature of representation, and I then explore how this rethinking changes our anthropological concepts. I call this approach an “anthropology beyond the human.”<sup>6</sup>

In this endeavor I draw on the work of the nineteenth-century philosopher Charles Peirce (1931, 1992a, 1998a), especially his work in semiotics (the study of how signs represent things in the world). In particular I invoke what the Chicago-trained linguistic anthropologist Alejandro Paz calls the “weird” Peirce, by which he means those aspects of Peirce’s writing that we anthropologists find hard to digest—those parts that reach beyond the human to situate representation in the workings and logics of a broader nonhuman

universe out of which we humans come. I also draw greatly on Terrence Deacon's remarkably creative application of Peircean semiotics to biology and to questions of what he calls "emergence" (see Deacon 2006, 2012).

The first step toward understanding how forests think is to discard our received ideas about what it means to represent something. Contrary to our assumptions, representation is actually something more than conventional, linguistic, and symbolic. Inspired and emboldened by Frank Salomon's (2004) pioneering work on the representational logics of Andean knotted cords and Janis Nuckolls's (1996) work on Amazonian sound images, this is an ethnography that explores representational forms that go beyond language. But it does so by going beyond the human. Nonhuman life-forms also represent the world. This more expansive understanding of representation is hard to appreciate because our social theory—whether humanist or posthumanist, structuralist or poststructuralist—conflates representation with language.

We conflate representation with language in the sense that we tend to think of how representation works in terms of our assumptions about how human language works. Because linguistic representation is based on signs that are conventional, systemically related to one another, and "arbitrarily" related to their objects of reference, we tend to assume that all representational processes have these properties. But symbols, those kinds of signs that are based on convention (like the English word *dog*), which are distinctively human representational forms, and whose properties make human language possible, actually emerge from and relate to other modalities of representation. In Peirce's terminology these other modalities (in broad terms) are either "iconic" (involving signs that share likenesses with the things they represent) or "indexical" (involving signs that are in some way affected by or otherwise correlated with those things they represent). In addition to being symbolic creatures we humans share these other semiotic modalities with the rest of nonhuman biological life (Deacon 1997). These nonsymbolic representational modalities pervade the living world—human and nonhuman—and have underexplored properties that are quite distinct from those that make human language special.

Although there are anthropological approaches that do move beyond the symbolic to study the full range of Peircean signs, they locate such signs exclusively inside a human framework. Accordingly, those who use signs are understood to be human, and though signs may be extralinguistic (with the consequence that language can be treated as something more than symbolic) the contexts that make them meaningful are human sociocultural ones (see esp.

Silverstein 1995; Mannheim 1991; Keane 2003; Parmentier 1994; Daniel 1996; on “context,” see Duranti and Goodwin 1992).

These approaches fail to recognize that signs also exist well beyond the human (a fact that changes how we should think about human semiosis as well). Life is constitutively semiotic. That is, life is, through and through, the product of sign processes (Bateson 2000c, 2002; Deacon 1997; Hoffmeyer 2008; Kull et al. 2009). What differentiates life from the inanimate physical world is that life-forms represent the world in some way or another, and these representations are intrinsic to their being. What we share with nonhuman living creatures, then, is not our embodiment, as certain strains of phenomenological approaches would hold, but the fact that we all live with and through signs. We all use signs as “canes” that represent parts of the world to us in some way or another. In doing so, signs make us what we are.

Understanding the relationship between distinctively human forms of representation and these other forms is key to finding a way to practice an anthropology that does not radically separate humans from nonhumans. Semiosis (the creation and interpretation of signs) permeates and constitutes the living world, and it is through our partially shared semiotic propensities that multi-species relations are possible, and also analytically comprehensible.

This way of understanding semiosis can help us move beyond a dualistic approach to anthropology, in which humans are portrayed as separate from the worlds they represent, toward a monistic one, in which how humans represent jaguars and how jaguars represent humans can be understood as integral, though not interchangeable, parts of a single, open-ended story. Given the challenges posed by learning to live with the proliferating array of other kinds of life-forms that increasingly surround us—be they pets, weeds, pests, commensals, new pathogens, “wild” animals, or technoscientific “mutants”—developing a precise way to analyze how the human is both distinct from and continuous with that which lies beyond it is both crucial and timely.

This search for a better way to attend to our relations to that which lies beyond the human, especially that part of the world beyond the human that is alive, forces us to make ontological claims—claims, that is, about the nature of reality. That, for example, jaguars in some way or other represent the world demands a general explanation that takes into account certain insights about the way the world is—insights that are garnered from attention to engagements with nonhumans and that are thus not fully circumscribed by any particular human system of understanding them.

As a recent debate makes clear (Venkatesan et al. 2010), ontology, as it circulates in our discipline, is a thorny term. On the one hand, it is often negatively associated with a search for ultimate truths—the kinds that the ethnographic documentation of so many different ways of doing and seeing is so good at debunking (Carrithers 2010: 157). On the other hand, it sometimes seems to function as nothing more than a trendy word for culture, especially when a possessive pronoun precedes it: *our* ontology, say, versus *theirs* (Holbraad 2010: 180).

In mobilizing Amazonian ethnography to think ontologically, I place myself in the company of two eminent anthropologists, Philippe Descola and Eduardo Viveiros de Castro, who have had a great and lasting influence on my research. Their work has gained traction in anthropology because of the ways it renders ontology plural without turning it into culture: different worlds instead of different worldviews (Candea 2010: 175). But the recognition of multiple realities only side steps the question: Can anthropology make general claims about the way the world is?<sup>7</sup> Despite the many problems that making general claims raises—problems that our various forms of relativism struggle to keep at bay—I think anthropology can. And I think anthropology, to be true to the world, must find ways of making such claims, in part because, as I will argue, generality itself is a property of the world and not just something we humans impose on it. And yet, given our assumptions about representation, it seems difficult to make such claims. This book seeks to get beyond this impasse.

I do not, then, wish to enter the ontological from the direction of the human. My goal is not to isolate configurations of ontological propositions that crop up at a particular place or time (Descola 2005). I choose, rather, to enter at a more basic level. And I try to see what we can learn by lingering at that level. I ask, What kinds of insights about the nature of the world become apparent when we attend to certain engagements with parts of that world that reveal some of its different entities, dynamics, and properties?

In sum, an anthropology beyond the human is perforce an ontological one. That is, taking nonhumans seriously makes it impossible to confine our anthropological inquiries to an epistemological concern for how it is that humans, at some particular time or in some particular place, go about making sense of them. As an ontological endeavor this kind of anthropology places us in a special position to rethink the sorts of concepts we use and to develop new ones. In Marilyn Strathern's words, it aims "to create the conditions for new thoughts" (1988: 20).



FIGURE 2. Ávila circa 1992. Photo by author.

Such an endeavor might seem detached from the more mundane worlds of ethnographic experience that serve as the foundations for anthropological argumentation and insight. And yet this project, and the book that attempts to do it justice, is rigorously empirical in the sense that the questions it addresses grow out of many different kinds of experiential encounters that emerged over the course of a long immersion in the field. As I've attempted to cultivate these questions I've come to see them as articulations of general problems that become amplified, and thus made visible, through my struggles to pay ethnographic attention to how people in Ávila relate to different kinds of beings.

This anthropology beyond the human, then, grows out of an intense sustained engagement with a place and those who make their lives there. I have known Ávila, its environs, and the people who live there for a human generation; the infants I was introduced to on my first visit in 1992 were when I last visited in 2010 young parents; their parents are now grandparents, and some of the parents of those new grandparents are now dead (see figure 2). I spent four years (1996–2000) living in Ecuador and conducting fieldwork in Ávila and continue to visit regularly.

The experiential bases for this book are many. Some of the most important encounters with other kinds of beings came on my walks through the forest



FIGURE 3. Drinking beer. Photo by author.

with Runa hunters, others when I was left alone in the forest, sometimes for hours, as these hunters ran off in pursuit of their quarry—quarry that sometimes ended up circling back on me. Still others occurred during my slow strolls at dusk in the forest just beyond the manioc gardens that surround people’s houses where I would be privy to the last burst of activity before so many of the forest’s creatures settled down for the night.

I spent much of my time trying to listen, often with a tape recorder in hand, to how people in everyday contexts relate their experiences with different kinds of beings. These conversations often took place while drinking manioc beer with relatives and neighbors or while sipping *huayusa* tea around the hearth in the middle of the night (figure 3).<sup>8</sup> The interlocutors here were usually human and usually Runa. But “conversation” also occasionally involved

other kinds of beings: the squirrel cuckoo who flew over the house whose call so radically changed the course of discussion down below; the household dogs with whom people sometimes need to make themselves understood; the woolly monkeys and the powerful spirits that inhabit the forest; and even the politicians who trudge up to the village during election season. With all of these, people in Ávila struggle to find channels of communication.

In my pursuit of certain tangibles of the ecological webs in which the Runa are immersed I also compiled many hundreds of ethnobiological specimens. These were identified by specialists, and they are now housed in Ecuador's main herbarium and museums of natural history.<sup>9</sup> Making these collections very quickly gave me some sort of purchase on the forest and its many creatures. It also allowed an entry to people's understandings of ecological relations and gave me a way to articulate this with other bodies of knowledge about the forest world not necessarily bounded by that particular human context. Collecting imposes its own structures on forest relationships, and I was not unaware of the limitations—and motivations—of this search for stable knowledge, as well as the fact that, in some important respects, my efforts as a collector were quite different from Runa ways of engaging with the beings of the forest (see Kohn 2005).

I also sought to pay attention to forest experiences as they resonate through other arenas that are less grounded. Everyday life in Ávila is entangled with that second life of sleep and its dreams. Sleeping in Ávila is not the consolidated, solitary, sensorially deprived endeavor it has so often become for us. Sleep—surrounded by lots of people in open thatch houses with no electricity and largely exposed to the outdoors—is continuously interspersed with wakefulness. One awakens in the middle of the night to sit by the fire and ward off the chill, or to receive a gourd bowl full of steaming huayusa tea, or on hearing the common potoo call during a full moon, or sometimes even the distant hum of a jaguar. And one awakens also to the extemporaneous comments people make throughout the night about those voices they hear. Thanks to these continuous disruptions, dreams spill into wakefulness and wakefulness into dreams in a way that entangles both. Dreams—my own, those of my housemates, the strange ones we shared, and even those of their dogs—came to occupy a great deal of my ethnographic attention, especially because they so often involved the creatures and spirits that people the forest. Dreams too are part of the empirical, and they are a kind of real. They grow out of and work on the world, and learning to be attuned to their special logics and their fragile forms of efficacy helps reveal something about the world beyond the human.

The thinking in this book works itself through images. Some of these come in the form of dreams, but they also appear as examples, anecdotes, riddles, questions, conundrums, uncanny juxtapositions, and even photographs. Such images can work on us if we would let them. My goal here is to create the conditions necessary to make this sort of thinking possible.

This book is an attempt to encounter an encounter, to look back at these looking-backs, to face that which the runa puma asks of us, and to formulate a response. That response is—to adopt a title from one of the books that Peirce never completed (Peirce 1992b)—my “guess at the riddle” that the Sphinx posed. It is my sense of what we can learn when we attend ethnographically to how the Sphinx’s question might reconfigure the human. Making claims about and beyond the human in anthropology is dangerous business; we are experts at undermining arguments through appeals to hidden contexts. This is the analytical trump card that every well-trained anthropologist has up her sleeve. In this sense, then, this is an unusual project, and it requires of you, the reader, a modicum of goodwill, patience, and the willingness to struggle to allow the work done here to work itself through you.

This book will not immediately plunge you into the messy entangled, “natural-cultural” worlds (Latour 1993) whose witnessing has come to be the hallmark of anthropological approaches to nonhumans. Rather, it seeks a gentler immersion in a kind of thinking that grows. It begins with very simple matters so that complexity, context, and entanglement can themselves become the objects of ethnographic analysis rather than the unquestioned conditions for it.

As such, the first chapters may seem far removed from an exposition of the complicated, historically situated, power-laden contexts that so deeply inform Runa ways of being—an exposition we justifiably expect from ethnography. But what I am trying to do here matters for politics; the tools that grow from attention to the ways the Runa relate to other kinds of beings can help think possibility and its realization differently. This, I hope, can speak to what Ghasan Hage (2012) calls an “alter-politics”—a politics that grows not from opposition to or critique of our current systems but one that grows from attention to another way of being, one here that involves other kinds of living beings.

This book, then, attempts to develop an analytic, which seeks to take anthropology “beyond the human” but without losing sight of the pressing ways in which we are also “all too human,” and how this too bears on living. The first step toward this endeavor, and the subject of the first chapter, “The



Open Whole,” is to rethink human language and its relationship to those other forms of representation we share with nonhuman beings. Whether or not it is explicitly stated, language, and its unique properties, is what, according to so much of our social theory, defines us. Social or cultural systems, or even “actor-networks,” are ultimately understood in terms of their languagelike properties. Like words, their “relata”—whether roles, ideas, or “actants”—do not precede the mutually constitutive relationships these have with one another in a system that necessarily comes to exhibit a certain circular closure by virtue of this fact.<sup>10</sup>

Given so much of social theory’s emphasis on recognizing those unique sorts of languagelike phenomena responsible for such closure, I explore how, thanks to the ways in which language is nested within broader forms of representation that have their own distinctive properties, we are, in fact, open to the emerging worlds around us. In short, if culture is a “complex whole,” to quote E. B. Tylor’s (1871) foundational definition (a definition that invokes the ways in which cultural ideas and social facts are mutually constituted by virtue of the sociocultural systemic contexts that sustain them), then culture is also an “open whole.” The first chapter, then, constitutes a sort of ethnography of signs beyond the human. It undertakes an ethnographic exploration of how humans and nonhumans use signs that are not necessarily symbolic—that is, signs that are not conventional—and demonstrates why these signs cannot be fully circumscribed by the symbolic.

Exploring how such aperture exists despite the very real fact of symbolic closure forces us to rethink our assumptions about a foundational anthropological concept: context. The goal is to defamiliarize the conventional sign by revealing how it is just one of several semiotic modalities and then to explore the very different nonsymbolic properties of those other semiotic forms that are usually occluded by and collapsed into the symbolic in anthropological analysis. An anthropology beyond the human is in large part about learning to appreciate how the human is also the product of that which lies beyond human contexts.

Those concerned with nonhumans have often tried to overcome the familiar Cartesian divide between the symbolic realm of human meanings and the meaningless realm of objects either by mixing the two—terms such as *natures-cultures* or *material-semiotic* are indicative of this—or by reducing one of these poles to the other. By contrast, “The Open Whole” aims to show that the recognition of representational processes as something unique to, and in a sense

even synonymous with, life allows us to situate distinctively human ways of being in the world as both emergent from and in continuity with a broader living semiotic realm.

If, as I argue, the symbolic is “open,” to what exactly does it open? Opening the symbolic, through this exploration of signs beyond the symbolic, forces us to ponder what we might mean by the “real,” given that the hitherto secure foundations for the real in anthropology—the “objective” and the contextually constructed—are destabilized by the strange and hidden logics of those signs that emerge, grow, and circulate in a world beyond the human.

Chapter 2, “The Living Thought,” considers the implications of the claim, laid out in chapter 1, that all beings, including those that are nonhuman, are constitutively semiotic. All life is semiotic and all semiosis is alive. In important ways, then, life and thought are one and the same: life thinks; thoughts are alive.

This has implications for understanding who “we” are. Wherever there are “living thoughts” there is also a “self.” “Self,” at its most basic level, is a product of semiosis. It is the locus—however rudimentary and ephemeral—of a living dynamic by which signs come to represent the world around them to a “someone” who emerges as such as a result of this process. The world is thus “animate.” “We” are not the only kind of *we*.

The world is also “enchanted.” Thanks to this living semiotic dynamic, *mean-ing* (i.e., means-ends relations, significance, “aboutness,” *telos*) is a constitutive feature of the world and not just something we humans impose on it. Appreciating life and thought in this manner changes our understanding of what selves are and how they emerge, dissolve, and also merge into new kinds of *we* as they interact with the other beings that make the tropical forest their home in that complex web of relations that I call an “ecology of selves.”

The way Runa struggle to comprehend and enter this ecology of selves amplifies and makes apparent the peculiar logic of association by which living thoughts relate. If, as Strathern (1995) has argued, anthropology is at base about “the Relation,” understanding some of the strange logics of association that emerge in this ecology of selves has important implications for our discipline. As we will see, it reveals how indistinction figures as a central aspect of relating. This changes our understandings of relationality; difference no longer sits so easily at the foundation of our conceptual framework, and this changes how we think about the central role that alterity plays in our discipline. A focus on this living semiotic dynamic in which indistinction (not to be confused with intrinsic similarity) operates also helps us see how “kinds” emerge

in the world beyond the human. Kinds are not just human mental categories, be these innate or conventional; they result from how beings relate to each other in an ecology of selves in ways that involve a sort of confusion.

Just how to go about relating to those different beings that inhabit this vast ecology of selves poses pragmatic as well as existential challenges. Chapters 3 and 4 examine ethnographically how the Runa deal with such challenges, and these chapters reflect, more generally, on what we can learn from this.

Chapter 3, “Soul Blindness,” is about the general problem of how death is intrinsic to life. Hunting, fishing, and trapping place the Runa in a particular relationship with the many beings that make up the ecology of selves in which they live. These activities force the Runa to assume their points of view, and indeed to recognize that all these creatures that they hunt, as well as the many other creatures with which those hunted animals relate, have points of view. It forces them to recognize that these creatures inhabit a network of relations that is predicated in part on the fact that its constitutive members are living, thinking selves. The Runa enter this ecology of selves as selves. They hold that their ability to enter this web of relations—to be aware of and to relate to other selves—depends on the fact that they share this quality with the other beings that make up this ecology.

Being aware of the selfhood of the many beings that people the cosmos poses particular challenges. The Runa enter the forest’s ecology of selves in order to hunt, which means that they recognize others as selves like themselves in order to turn them into nonselves. Objectification, then, is the flipside of animism, and it is not a straightforward process. Furthermore, one’s ability to destroy other selves rests on and also highlights the fact that one is an ephemeral self—a self that can all too quickly cease being a self. Under the rubric “soul blindness,” this chapter charts moments where this ability to recognize other selves is lost and how this results in a sort of monadic alienation as one is, as a consequence, avulsed from the relational ecology of selves that constitutes the cosmos.

That death is intrinsic to life exemplifies something Cora Diamond (2008) calls a “difficulty of reality.” It is a fundamental contradiction that can overwhelm us with its incomprehensibility. And this difficulty, as she emphasizes, is compounded by another one: such contradictions are at times, and for some, completely unremarkable. The feeling of disjunction that this creates is also part of the difficulty of reality. Hunting in this vast ecology of selves in which one must stand as a self in relation to so many other kinds of selves who one

then tries to kill brings such difficulties to the fore; the entire cosmos reverberates with the contradictions intrinsic to life.

This chapter, then, is about the death in life, but it is especially about something Stanley Cavell calls the “little deaths” of “everyday life” (Cavell 2005: 128). There are many kinds and scales of death. There are many ways in which we cease being selves to ourselves and to each other. There are many ways of being pulled out of relation and many occasions where we turn a blind eye to and even kill relation. There are, in short, many modalities of disenchantment. At times the horror of this everyday fact of our existence bursts into our lives, and thus becomes a difficulty of reality. At others it is simply ignored.

Chapter 4, “Trans-Species Pidgins,” is the second of these two chapters concerned with the challenges posed by living in relation to so many kinds of selves in this vast ecology of selves. It focuses on the problem of how to safely and successfully communicate with the many kinds of beings that people the cosmos. How to understand and be understood by beings whose grasp of human language is constantly in question is difficult in its own right. And when successful, communication with these beings can be destabilizing. Communication, to an extent, always involves communion. That is, communicating with others entails some measure of what Haraway (2008) calls “becoming with” these others. Although this promises to widen ways of being, it can also be very threatening to a more distinctly human sense of self that the Runa, despite this eagerness for expansion, also struggle to maintain. Accordingly, people in Ávila find creative strategies to open channels of communication with other beings in ways that also put brakes on these transgressive processes that can otherwise be so generative.

Much of this chapter focuses on the semiotic analysis of human attempts to understand and be understood by their dogs. For example, people in Ávila struggle to interpret their dogs’ dreams, and they even give their dogs hallucinogens in order to be able to give them advice—in the process shifting to a sort of trans-species pidgin with unexpected properties.

The human-dog relation is special in part because of the way it links up to other relations. With and through their dogs people connect both to the broader forest ecology of selves and to an all-too-human social world that stretches beyond Ávila and its surrounding forests and that also catches up layers of colonial legacies. This chapter and the two that follow consider relationality in this expanded sense. They are concerned not just with how the Runa relate to the forest’s living creatures but also with how the Runa relate to

its spirits as well as to the many powerful human beings who have left their traces on the landscape.

How the Runa relate to their dogs, to the living creatures of the forest, to its ethereal but real spirits, and to the various other figures—the estate bosses, the priests, the colonists—that over the course of time have come to people their world cannot be disentangled. They are all part of this ecology that makes the Runa who they are. Nonetheless, I resist the temptation to treat this relational knot as an irreducible complexity. There is something we can learn about all these relations—and relationality more broadly—by paying careful attention to the specific modalities through which communication is attempted with different kinds of beings. These struggles to communicate reveal certain formal properties of relation—a certain logic of association, a set of constraints—that are neither the contingent products of earthly biologies nor those of human histories but which are instantiated in, and thus give shape to, both.

The property that most interests me here is hierarchy. The life of signs is characterized by a host of unidirectional and nested logical properties—properties that are consummately hierarchical. And yet, in the hopeful politics we seek to cultivate, we privilege heterarchy over hierarchy, the rhizomatic over the arborescent, and we celebrate the fact that such horizontal processes—lateral gene transfer, symbiosis, commensalism, and the like—can be found in the nonhuman living world. I believe this is the wrong way to ground politics. Morality, like the symbolic, emerges within—not beyond—the human. Projecting our morality, which rightfully privileges equality, on a relational landscape composed in part of nested and unidirectional associations of a logical and ontological, but not a moral, nature is a form of anthropocentric narcissism that renders us blind to some of the properties of that world beyond the human. As a consequence it makes us incapable of harnessing them politically. Part of the interest of this chapter, then, lies in charting how such nested relations get caught up and deployed in moral worlds without themselves being the products of those moral worlds.

The fifth chapter, “Form’s Effortless Efficacy,” is the place where I flesh out this account—to which I have heretofore been alluding—of the anthropological significance of form. That is, it is about how specific configurations of limits on possibility emerge in this world, the peculiar manner in which these redundancies propagate, and the ways in which they come to matter to lives, human and otherwise, in the forests around Ávila.

Form is difficult to treat anthropologically. Neither mind nor mechanism, it doesn't easily fit the dualistic metaphysics we inherit from the Enlightenment—a metaphysics that even today, in ways we may not necessarily always notice, steers us toward seeing cause in terms either of mechanistic pushes and pulls or of the meanings, purposes, and desires that we have generally come to relegate to the realm of the human. Much of the book so far has been concerned with dismantling some of the more persistent legacies of this dualism by tracing the implications of recognizing that meaning, broadly defined, is part and parcel of the living world beyond the human. This chapter, by contrast, seeks to further this endeavor by going beyond not only the human but also life. It is about the strange properties of pattern propagation that exceed life despite the fact that such patterns are harnessed, nurtured, and amplified by life. In a tropical forest teeming with so many forms of life these patterns proliferate to an unprecedented degree. To engage with the forest on its terms, to enter its relational logic, to think with its thoughts, one must become attuned to these.

By “form” here, I'm not, then, referring to the conceptual structures—innate or learned—through which we humans apprehend the world, nor am I referring to an ideal Platonic realm. Rather, I am referring to a strange but nonetheless worldly process of pattern production and propagation, a process Deacon (2006, 2012) characterizes as “morphodynamic”—one whose peculiar generative logic necessarily comes to permeate living beings (human and nonhuman) as they harness it.

Even though form is not mind it is not thinglike either. Another difficulty for anthropology is that form lacks the tangible otherness of a standard ethnographic object. When one is inside it there is nothing against which to push; it cannot be defined by the way it resists. It is not amenable to this kind of palpation, to this way of knowing. It is also fragile and ephemeral. Like the vortices of the whirlpools that sometimes form in the swift-flowing Amazonian headwaters, it simply vanishes when the special geometry of constraints that sustains it disappears. It thus remains largely hidden from our standard modes of analysis.

Through the examination of a variety of ethnographic, historical, and biological examples summoned together in an attempt to make sense of a puzzling dream I had about my relation to some of the animals of the forest and the spirit masters that control them, this chapter tries to understand some of the peculiar properties of form. It tries to understand the ways form does

something to cause-and-effect temporality and the ways it comes to exhibit its own kind of “effortless efficacy” as it propagates itself through us. I am particularly interested here in how the logic of form affects the logic of living thoughts. What happens to thought when it is freed from its own intentions, when, in Lévi-Strauss’s words, we ask of it no return (Lévi-Strauss 1966: 219)? What kinds of ecologies does it sound, and, in the process, what new kinds of relations does it make possible?

This chapter is also, nonetheless, concerned with the very practical problem of getting inside form and doing something with it. The wealth of the forest—be it game or extractive commodities—accumulates in a patterned way. Accessing it requires finding ways to enter the logic of these patterns. Accordingly, this chapter also charts the various techniques, shamanic and otherwise, used to do this, and it also attends to the painful sense of alienation the Runa feel when they are unable to enter the many new forms that have come over time to serve as the reservoirs for so much power and wealth.

Rethinking cause through form forces us to rethink agency as well. What is this strange way of getting something done without doing anything at all? What kinds of politics can come into being through this particular way of creating associations? Grasping how form emerges and propagates in the forest and in the lives of those who relate to it—be they river dolphins, hunters, or rubber bosses—and understanding something about form’s effortless efficacy is central to developing an anthropology that can attend to those many processes central to life, human and nonhuman, which are not built from quanta of difference.

*How Forests Think* is a book, ultimately, about thought. It is, to quote Viveiros de Castro, a call to make anthropology a practice for “la décolonisation permanente de la pensée” (Viveiros de Castro 2009: 4). My argument is that we are colonized by certain ways of thinking about relationality. We can only imagine the ways in which selves and thoughts might form associations through our assumptions about the forms of associations that structure human language. And then, in ways that often go unnoticed, we project these assumptions onto nonhumans. Without realizing it we attribute to nonhumans properties that are our own, and then, to compound this, we narcissistically ask them to provide us with corrective reflections of ourselves.

So, how should we think with forests? How should we allow the thoughts in and of the nonhuman world to liberate our thinking? Forests are good to think because they themselves think. Forests think. I want to take this seriously, and

I want to ask, What are the implications of this claim for our understandings of what it means to be human in a world that extends beyond us?

Wait. How can I even make this claim that forests think? Shouldn't we only ask how people think forests think? I'm not doing this. Here, instead, is my provocation. I want to show that the fact that we can make the claim that forests think is in a strange way a product of the fact that forests think. These two things—the claim itself and the claim that we can make the claim—are related: It is because thought extends beyond the human that we can think beyond the human.

This book, then, aims to free our thinking of that excess conceptual baggage that has accumulated as a result of our exclusive attention—to the neglect of everything else—to that which makes us humans exceptional. *How Forests Think* develops a method for crafting new conceptual tools out of the unexpected properties of the world beyond the human that we discover ethnographically. And in so doing it seeks to liberate us from our own mental enclosures. As we learn to attend ethnographically to that which lies beyond the human, certain strange phenomena suddenly come to the fore, and these strange phenomena amplify, and in the process come to exemplify, some of the general properties of the world in which we live. If through this form of analysis we can find ways to further amplify these phenomena, we can then cultivate them as concepts and mobilize them as tools. By methodologically privileging amplification over, say, comparison or reduction we can create a somewhat different anthropology, one that can help us understand how we might better live in a world we share with other kinds of lives.

The logics of living dynamics, and the sorts of ancillary phenomena these both create and catch up, might at first appear strange and counterintuitive. But, as I hope to show, they also permeate our everyday lives, and they might help us understand our lives differently if we could just learn to listen for them. This emphasis on defamiliarization—coming to see the strange as familiar so that the familiar appears strange—calls to mind a long anthropological tradition that focuses on how an appreciation for context (historical, social, cultural) destabilizes what we take to be natural and immutable modes of being. And yet, when compared to the distance-making practices associated with more traditional liberatory ethnographic or genealogical exercises, seeing the human from somewhat beyond the human does not merely destabilize the taken for granted; it changes the very terms of analysis and comparison.

This reach beyond the human changes our understanding of foundational analytical concepts such as context but also others, such as representation,



relation, self, ends, difference, similarity, life, the real, mind, person, thought, form, finitude, future, history, cause, agency, relation, hierarchy, and generality. It changes what we mean by these terms and where we locate the phenomena to which they refer, as well as our understanding of the effects such phenomena have in the living world in which we live.

The final chapter, “The Living Future (and the Imponderable Weight of the Dead),” builds on this way of thinking with forests that I develop in this book as it takes as its focus another enigmatic dream, in this case one of a hunter who is not sure if he is the rapacious predator (who appears here as a white policeman) or the helpless prey of his oneiric prophecy. The interpretive dilemma that this dream poses, and the existential and psychic conflict that it thus lays bare, concerns how to continue as a self and what such continuity might mean in the ecology of selves in which the Runa live—an ecology that is firmly rooted in a forest realm that reaches well beyond the human but which also catches up in its tendrils the detritus of so many all-too-human pasts. This chapter, more broadly, is about survival. That is, it is about the relation of continuity and growth to absence. Ethnographic attention to the problem of survival in the particular colonially inflected ecology of selves in which the Runa live tells us something more general about how we might become new kinds of *we*, in relation to such absences, and how, in this process, “*we*” might, to use Haraway’s (2008) term, “flourish.”

Understanding this dream and what it can tell us about survival calls for a shift, not only regarding anthropology’s object—the human—but also regarding its temporal focus. It asks us to recognize more generally how life—human and nonhuman—is not just the product of the weight of the past on the present but how it is also the product of the curious and convoluted ways in which the future comes to bear upon a present.

That is, all semiotic processes are organized around the fact that signs represent a future possible state of affairs. The future matters to living thoughts. It is a constitutive feature of any kind of self. The life of signs is not, then, just in the present but also in a vague and possible future. Signs are oriented toward the ways in which future signs will likely represent their relationship to a likely state of affairs. Selves, then, are characterized by what Peirce calls a “being *in futuro*” (CP 2.86), or a “living future” (CP 8.194).<sup>11</sup> This particular kind of causality, whereby a future comes to affect the present via the mediation of signs, is unique to life.

In the life of signs future is also closely related to absence. All kinds of signs in some way or other re-present what is not present. And every successful

representation has another absence at its foundation; it is the product of the history of all the other sign processes that less accurately represented what would be. What one is as a semiotic self, then, is constitutively related to what one is not. One's future emerges from and in relation to a specific geometry of absent histories. Living futures are always "indebted" to the dead that surround them.

At some level this way in which life creates future in negative but constitutive relation to all its pasts is characteristic of all semiotic processes. But it is a dynamic that is amplified in the tropical forest, with its unprecedented layers of mutually constitutive representational relationships. Runa engagements with this complex ecology of selves create even more future.

Chapter 6, then, is primarily concerned with one particular manifestation of this future: the realm of the afterlife located deep in the forest and inhabited by the dead and the spirit masters that control the forest's animals. This realm is the product of the relationship that invisible futures have to the painful histories of the dead that make life possible. Around Ávila these dead take the form of were-jaguars, masters, demons, and the specters of so many pre-Hispanic, colonial, and republican pasts; all these continue, in their own ways, to haunt the living forest.

This chapter traces how this ethereal future realm relates to the concrete one of everyday Runa existence. The Runa, living in relation to the forest's vast ecology of selves, also live their lives with one foot *in futuro*. That is, they live their lives with one foot in the spirit realm that is the emergent product of the ways in which they engage with the futures and the pasts that the forest comes to harbor in its relational webs. This other kind of "beyond," this *after-life*, this *super-nature*, is not exactly natural (or cultural), but it is nonetheless real. It is its own kind of irreducible real, with its own distinctive properties and its own tangible effects in a future present.

The fractured and yet necessary relationship between the mundane present and the vague future plays out in specific and painful ways in what Lisa Stevenson (2012; see also Butler 1997) might call the psychic life of the Runa self, immersed and informed as it is by the ecology of selves in which it lives. The Runa are both of and alienated from the spirit world, and survival requires cultivating ways to allow something of one's future self—living tenuously in the spirit realm of the forest masters—to look back on and call out to that more mundane part of oneself that might then hopefully respond. This ethereal realm of continuity and possibility is the emergent product of a whole

host of trans-species and transhistorical relations. It is the product of the imponderable weight of the many dead that make a living future possible.

That hunter's challenge of surviving as an *I*, as it was revealed in his dream and as it plays out in this ecology of selves, depends on how he is hailed by others—others that may be human or nonhuman, fleshly or virtual. It also depends on how he responds. Is he the white policeman who might turn on his Runa neighbors with a blood thirst that terrifies him? Is he helpless prey? Or might he not be a runa puma, a were-jaguar, capable, even, of returning a jaguar's gaze?

Let this runa puma, this one who both is and is not us, be, like Dante's Virgil, our guide as we wander this "dense and difficult" forest—this "selva selvaggia" where words so often fail us. Let this runa puma guide us with the hope that we too may learn another way to attend and respond to the many lives of those selves that people this sylvatic realm.