

**Form's Effortless Efficacy:
A Multispecies Amazonian Account**

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Framing

The essay I am circulating is Chapter Five of a six-chapter book whose working title is *Anthropology beyond the Human: A Multispecies Amazonian Account*. This book, based on extensive ethnographic and ethnobiological fieldwork, focuses on how the Quichua-speaking Runa of the village Ávila in Ecuador's Upper Amazon struggle to relate to the forest and its beings. The Ávila Runa have an intimate engagement with the beings of the forest, due in large part to the fact that they continue to hunt, fish, gather, and grow virtually all of their food. They also have a long history of intimate engagement with an exogenous "all-too-human" world: that of conquistadors, missionaries, and estate owners, as well a growing population of highland and coastal settlers and an expanding Ecuadorian state. Through the ethnography of how these two kinds of intimacies play out in the forest this book attempts to develop something I'm currently calling an "Anthropology beyond the human." This approach seeks to reach beyond those distinctively human attributes – language, culture, society, and history– which have come to serve as our sole analytic and object of study. But it seeks to do so without losing sight of those "all-too-human" predicaments that ethnography is so well suited to reveal.

The "para-human" Anthropology that I am trying to develop starts with the claim that in order to understand what it means to be human we must appropriately theorize our relation to many kinds of nonhumans –especially those that are alive. It is in constructive critical dialogue with Science and Technology Studies, especially Bruno Latour's work (e.g., 1993), with the "post-humanities," especially Donna Haraway's recent work on multispecies relating (2003, 2008), from which it draws great inspiration, and with Deleuzian influenced scholarship (e.g., Bennett 2005). Along with these approaches it shares the fundamental belief that Social Science's greatest contribution –the recognition and delimitation of a separate domain of socially, culturally, and linguistically constructed reality– is also its greatest curse. And yet it maintains that much of this scholarship relies on problematic understandings of representation and certain kinds of reductionisms that flatten the distinctions between humans and other kinds of beings, as well as those between selves and objects.

My approach is influenced by the philosophy and semiotics of Charles Peirce, as well as by my ongoing relation with the biological anthropologist and neuroscientist Terrence Deacon, and a seminar that he runs from his home base at Berkeley. It is also influenced by what Chris Kelty has termed an "empirical philosophy" (<http://savageminds.org/2008/07/07/x->

phi/).¹ That is, it takes Amazonian ways of relating to a complex living world, as revealed through my ethnography, as attempts to engage certain general problems associated with living and dying in a world peopled by many kinds of selves. Following Peirce and Deacon my approach can be considered “realist,” “continuist,” and “emergentist” in the sense that I am trying to create a theoretical framework that allows us to understand how unprecedented kinds of “reals” come to be in ways that always stand in continuity with other more fundamental processes: minds are not cut off from matter, humans are not cut off from nonhumans, and signs, are not cut off from the worlds they represent.

Taking Anthropology beyond the human requires us to feel comfortable once again with making ontological claims. That we aren't, and that we feel our job is only to delineate epistemologies, is the result of a problematic understanding of representation. Accordingly, the first step is to fundamentally rethink representation –rethink what it is (as something more than conventional, linguistic, symbolic, and systemic), as well as who partakes of it (humans are not the only ones who represent the world). This is the focus of the first two chapters. The second pair of chapters is concerned with the challenges posed by relating to those other kinds of beings who also represent the world (some of this is presented in Kohn 2007).

The fifth chapter, which I am including here, is about the importance of form. It argues that an Anthropology beyond the human cannot just turn to our relations with other kinds of selves for insights, just as it cannot turn solely to our relationships to things. For it must also recognize the vague, counterintuitive and nearly invisible properties of self-organizing, propagating patterns and how these are captured, harnessed, and amplified by human and nonhuman semiotic beings. The focus in this chapter, then, is on the reality of form, as something more than what our minds might impose on the world. Form has its own unique logic and properties, which make a difference to lives, human and otherwise.

The final chapter builds on this fifth one. It explores the realm of spirits and the afterlife, which is located deep in the forest, and it considers this domain as a special real emergent outcome, not reducible to the human, of a distinctively human way of engaging with the greater-than-human semiosis of the forest. The afterlife captures, in a particular manner, something more general about how life creates future in ways that house certain absences of the past (i.e., the dead, the extinct, and the weight of history).

Introduction

“It is the people who are outside of the monastery who feel its atmosphere. Those who are practicing actually do not feel anything.”

Shunryu Suzuki, *Zen Mind, Beginner's Mind* (2001:78)

“Habit is mere inertia, a resting on one's oars, not a propulsion”

Charles Peirce (CP 6.300)²

One night, while staying at Ventura's house in the Quichua-speaking Runa village of Ávila, in Ecuador's Upper Amazon, I dreamt I was in front of a pen on a large cattle ranch very much

like one that belongs to Don Cabrera, a wealthy colonist who lives nearby. A collared peccary (a kind of wild pig) was running around inside the pen. Suddenly, it stopped right in front of me and just stood there, staring at me. For a moment we looked at each other and I became overwhelmed by something I'd never felt before, whose quality I wasn't fully able to recapture when I awoke. All I could remember was that I was overtaken by a feeling I'd not previously had, which emerged in response to finding a profound and unexpected sense of resonance with this strange creature. It involved, I think, the discovery of a kind of love.

But, I also wanted to kill it. With difficulty, for I'm no hunter, I managed to shoot it, point-blank,³ with a gun I had borrowed from one of the villagers. I cradled its limp body in my arms, and went back to Ventura's house, proud that I'd now have plenty of meat to share with his family.

What I dreamt that night is intimately entwined with something that had happened the day before as Ventura and I were returning from a walk in the forest. On our way home Ventura sensed something and motioned for me to wait quietly while he ran up ahead to investigate, cocked gun at-the-ready. As I waited a collared peccary approached me. We both froze, just staring at each other, before it ran off.

This experience and its oneiric reverberation captured something about a moment of personal intimacy with a forest being and some of the contradictions that hunting such beings implies. People in Ávila, like many others who live in close contact with nonhuman beings, recognize animals as persons with whom, on occasion, they have 'personal' interactions.⁴ My forest encounter with the pig that afternoon, however fleeting, was an intimation of the possibility for this kind of trans-species intimacy. It served as a reminder that animals, like us, are selves; they represent the world in certain ways and act on the basis of those representations.⁵ Yet hunting requires coming to treat these singular selves as generic and

iterable objects –its goal, after all, is to transform them into pieces of meat for consumption and exchange.

Ventura's take on my dream, however, didn't emphasize the tension I felt between recognizing animals as selves and the subsequent desubjectivization that killing them requires. As an experienced hunter he was already adept at negotiating this. Instead, Ventura was interested in what this dream had to say about my relationship with the animal's master –the spirit who owns the pig. Such masters of the beings of the forest are often thought of as European priests or powerful white estate owners, like Don Cabrera with his defiant swagger, pickup truck and pig pen.

These masters are a part of everyday life in Ávila. Ventura himself entered their realm when he got lost in the forest as a child. He, along with his dog, was out hunting with his father. As the day wore on Ventura lagged farther and farther behind, until boy and dog lost their way. Eventually, he met a girl that he thought was his sister. He followed her down a road that seemed to be taking them home but which instead led them through a waterfall to the abode of the masters. After a few days, Ávila shamans, who were able to enter the spirit realm with the help of the hallucinogen *ayahuasca*, managed to negotiate Ventura's release. By this time, however, he and his dog had become “feral” or “wild” (*quita* in Quichua). They lost the ability to recognize Ávila villagers as people. The dog failed to bark back when called to and Ventura failed to recognize, and was even frightened of, his own mother.

Decades later, during the time of my stay in Ávila, Ventura's mother Rosa, now quite elderly and easily confused, also wound up in the realm of the masters. One day, while caring for some of her grandchildren, she simply wandered off into the forest. A full five weeks after her disappearance, a young woman out fishing with her little brother stumbled across her, after first noting that the fish had been scared off by some presence. Rosa survived, emaciated, her scalp and toes worm-infested, long enough to report how a boy, who she took to be one of her

teenage grandsons, led her to the underground city of the masters that she called "Quito." This subterranean city, she said, was beautiful and opulent "just like the living Quito," Ecuador's capital.

I never thought I'd experience this master realm personally. But, according to Ventura, this is exactly what had happened. The fact that I had dreamt of the peccary inside a pen, he explained, indicated that it was the master of the animals that had allowed me to share in that intimate moment of mutual trans-species recognition the day before. The pig belonged to the master and the pen in which I saw it was part of his ranch.

In juxtaposing a certain kind of human sociality with a wild one my dream was a lot like one Juanicu's son Adelmo had. Early one morning Adelmo bolted out of bed and announced loudly, "I've dreamt!" before grabbing his shotgun and rushing out of the house. He returned a few hours later carrying a peccary over his shoulders. When I asked him what had prompted him to run out like that he replied that he had dreamt of buying a pair of shoes. The shoe stores in Loreto, the nearby colonist town, filled with shelves of shoes and piles of boots, provide an apt image for the profusion of tracks left by a herd of peccaries at a mud wallow. The smelly, omnivorous pigs are social beings but not exactly in ways that the Runa would deem appropriate. In this regard, they are like the lycra-clad coastal women living in Loreto, stretching to reveal their underarms in a way no Ávila woman would. Or like the naked Huaorani, the long-time "wild" enemies of the "civilized" –and clothed– Runa.⁶

My dream was also like one Fabian, a young father of two, had while we were out at his hunting camp. His was of a well-stocked general store filled with things like rice and cans of sardines and tended by a young priest. He later explained that this dream augured killing woolly monkeys. Such monkeys travel in troops deep in the mountains, far away from Runa settlements. When found these provide a veritable cornucopia. They are relatively easy, once spotted, to hunt—usually several can be taken—and they are coveted for their thick layers of

fat. Like the deep forests that these monkeys frequent, the well-stocked general stores are at some distance from Runa settlements. And, like the troops of monkeys, these stores offer a bonanza of food. Both the store and the monkey troops are controlled by powerful whites and, given the proper means, the Runa can have access to some of the wealth of both.

Dreams, such as Fabian's and Adelmo's, point to the fact that many Amazonians see human and nonhuman sociality as continuous with each other, and furthermore, they posit a rigorous parallel between human domestic realms and nonhuman sylvan ones.⁷ The game birds that the Runa encounter in the forest are really the chickens of the spirit forest masters just as jaguars are the master's hunting and guard dogs.

What we humans see as wild, then, is, from the dominant perspective of the masters, really domestic. In contrast to our Euro-American multiculturalism, which assumes a uniform nature and multiple and variable culturally situated representations of it, this Amazonian understanding of the forest and its beings is something more akin to what Eduardo Viveiros de Castro (1998) calls a multinatural one. There exist many different natures, the products of the bodily dispositions of the different kinds of beings that inhabit the universe. But there is only one culture –an “*T*” perspective that all selves, human and nonhuman alike, possess. From their “*T*” perspectives all beings see the different natures they inhabit as cultural: jaguars see peccary blood as fermented beer and spirits see the forest as an orchard.

Why this echoing between cultural and natural, domestic and wild? And why should I be privy to it? One might think that the ways in which this special kind of doubling logic infected my dreams is the byproduct of sustained ethnographic fieldwork –a sort of enculturation to which eager, hard-working anthropologists sometimes feel particularly susceptible. Except, as I've already hinted, culture may not be the best marker of difference in these parts of the world. In fact, as I hope the following discussion will help illuminate,

difference may not be the right starting point for understanding the broader problem of relating, to which my dream gestures.

Moreover, I wasn't the only outsider to have experienced these resonances. I've since discovered that several other outsiders, such as missionaries and explorers passing through the region, have also, apparently spontaneously, arrived at these same sorts of parallels between human and forest realms. For instance, the 19th century British explorer Alfred Simson, who stayed briefly in a Runa village, described Britain to a man named Marcelino in a way that unwittingly recreated the realm of the spirit masters of the forest. He did so by matching up, through a series of isomorphic relations, the urban, opulent, domestic, and white realm of Britain, on the one hand, with the sylvan, impoverished, wild, and Indian one of the Amazon, on the other. Instead of villages scattered through the forest, there are large cities, he explained, and in place of scarcity, "knives, axes, beads ... and all such things were to be had there in the greatest profusion." In his country, he continued, instead of wild beasts, there are only useful and edible ones (1880: 392-393).⁸

The conversation between Simson and Marcelino also hinted at shamanistic attempts to commensurate these realms. When the Runa die they go to live forever in the realm of the masters, and so it is fitting that Simson refers to Britain as a "paradise." Access to this realm required an arduous journey that, according to Simson, might last some "ten moons" – a journey that, as we later learn, Marcelino understood as being of the shamanistic sort. As they spoke Simson offered one of his pipes of "strong tobacco" and Marcelino proceeded to swallow, "all the smoke he could draw in huge volumes" (1880:393).

Tobacco, along with the hallucinogen ayahuasca, is one of the vehicles that helps people enter the point of view of the masters. In fact, people in Ávila refer to shamans as those "with tobacco" (*tabacuyu*). And, thanks to the privileged access to other points of view that dreaming provides, I too, like Marcelino and those ayahuasca-drinking Ávila shamans, was

able to see the forest as it really is. I came to see it as a domestic space –a ranch– because this is how it appears from the dominant “*I*” perspective of the master of the forest who owned the pig.

Why should such a parallel between sylvan and domestic –ecology and economy– appear in so many places, including my dreams? And why would a place like Quito come to be located deep in the forest? I will argue here that addressing these seemingly disparate questions requires understanding the peculiar characteristics of regularities, habits, or patterns. In more abstract terms it requires an understanding of how specific configurations of constraints on possibility emerge and the peculiar ways in which these configurations propagate in the world. In short, addressing these questions requires understanding something about “form.” Form’s strange properties, and the ways in which form emerges from and relates to other phenomena, are crucial to lives, human and otherwise. Nevertheless the workings of this vague entity remain largely undertheorized in anthropological analysis. This, in large part, is due to the fact that form lacks the tangibility of a standard ethnographic object. Nevertheless, form, like the basic intentionality of the pig, and the palpable materiality of its meat, is something real. Indeed, its particular mode of efficacy requires us to rethink what we mean by “the real” and by extension, it requires us to rethink some of the conceptual tools we commonly use in our social analysis.

Rubber

To get at form, I’d like to turn to another forest/city juxtaposition –not unlike Rosa’s Quito-in-the-forest or Marcelino’s Britain. Manuela Carneiro da Cunha (1998) has described how a Jaminaua shamanic novice of the Juruá River system of Amazonian Brazil traveled vast distances downriver to apprentice in the port cities on the Amazon itself, in order to be

recognized as a powerful shaman upon returning to his village. To understand why these port cities have come to be the conduits for indigenous shamanic empowerment we need to understand a momentous period in Amazonian history: the Rubber Boom, which lasted from the late 19th century and reached into the second decade of the 20th, and the particular kinds of isomorphic correspondences that made this boom possible in the first place.

In many respects, the Rubber Boom that swept through the Amazon was the product of a variety of technoscientific, 'naturalcultural,' and imperial conjunctures. The discovery of vulcanization coupled with the invention and mass-production of automobiles and other machines catapulted rubber onto an international market. For the Upper Amazon, this boom was a sort of second conquest, given that outsiders were dependent, for the most part, on exploiting local populations to extract this increasingly valuable commodity that was dispersed throughout the forest. The boom, however, ended abruptly, after rubber seedlings, which had been removed from the Amazon basin by British naturalists, began to take hold in Southeast Asian plantations.⁹

This story, told in terms of the interactions among humans, and even among human and nonhuman beings, is well known. Here, I want to discuss something less noted: namely, the ways in which the peculiar properties of form mediated all of these interactions, and made this particular extractive economic system possible.

Rubber falls into a form. That is, there is a specific configuration of constraints on the possible distribution of rubber trees. The distribution of rubber trees throughout the Amazon forests –whether those from the preferred *Hevea brasiliensis*, or those from a few other latex-producing taxa– conforms to a specific pattern: individual rubber trees are widely dispersed throughout the forest across vast stretches of the landscape. Plant species that are widely dispersed stand a better chance of surviving attacks from species-specific pathogens,¹⁰ such as, in the case of *H. brasiliensis*, the fungal parasite *Microcyclus ulei*, which causes the disease

known as the South American Leaf Blight. Because this parasite is endemic throughout rubber's natural range, rubber could never be successfully cultivated in high-density plantations there.¹¹ An interaction with this parasite results in a particular pattern of rubber distribution. Individuals are, for the most part, widely and evenly distributed and not clumped in single species stands. The result is that rubber 'explores,' or comes to occupy, landscape in a way that conforms to a specific pattern. Any attempt to exploit rubber *in situ* must recognize this.

The distribution of water throughout the Amazonian landscape also conforms to a specific pattern. This has a variety of causes. Due to a number of global climactic, geographical, and biological factors, there is a lot of water in the Amazon basin. Furthermore, water only flows in one direction –downhill. The result is the distribution of water according to a particular pattern along the surface of the Amazonian landscape: small creeks flow into larger streams, which in turn flow into small rivers that flow into ever larger ones, and this pattern repeats itself until the enormous Amazon discharges itself into the Atlantic Ocean.

For largely unrelated reasons there exist two patterns: on the one hand the distribution of rubber throughout the landscape and on the other the distribution of waterways. These regularities happen to explore landscape in the same way. Therefore, wherever there is a rubber tree, it is likely that nearby there will be a stream that leads to a river.

Because these patterns happen to explore landscape in the same way, following one can lead to the other. The Amazon rubber economy exploited –and in fact, was utterly dependent on– the similarities these patterns share. By navigating up the river network to find rubber and then floating it downstream, it linked these patterns together such that these physical and biological domains became united in an economic system that exploited them thanks to the formal similarities they share.

Humans are not the only ones that link floristic and riverine distribution patterns. The fish known in Ávila as *quiruyu*,¹² for example, eats fruits of the aptly named tree *quiruyu huapa*¹³ when these fall into rivers. In effect, this fish uses the rivers to get at this resource. In doing so, it also potentially propagates the patterned similarities –the form– that floristic and riverine distributions share. If, in eating these fruits, the fish were to disperse its seeds along the course of the river, then the pattern of this plant's distribution would come to match that of the rivers even more closely.

The Amazon riverine network exhibits an additional regularity, crucial to the way rubber was harnessed via form. It exhibits self-similarity across scale. As such, it resembles the compound ferns that people in Ávila call *chichinda*.¹⁴ *Chinda* refers to a haphazard pile, especially to a tangle of driftwood such as those that might snag around the base of a riverbank tree after a flood. By reduplicating a part of this word –*chi-chinda*– this plant name captures how in a compound fern, the pattern of divisions of the frond at one level is the same as that of the next higher order level of divisions. *Chichinda*, which alludes to a tangle nested within another tangle, captures this fern's self-similarity across scale; a pattern at one level is nested within the same pattern at a higher, more inclusive one.

The river network's self-similarity is, in addition, directional. Smaller rivers flow into larger ones and water becomes increasingly concentrated across an ever-smaller expanse of landscape as one moves down the hydrographic web. Manuela Carneiro da Cunha (1998:10-11) has highlighted a curious phenomenon in the Juruá River basin during this period. A vast network of creditor-debt relations emerged, which assumed a nested self-similar repeating pattern across scale that was isomorphic with the river network. A rubber merchant located at one confluence of rivers extended credit upriver and was in turn in debt to the more powerful merchant located downriver at the next confluence. This nested pattern linked Indians in the deepest forests to rubber barons at the mouth of the Amazon and even in Europe.

Humans, however, are not the only ones who harness the directionally nested riverine pattern. Amazon river dolphins, like traders, also congregate at the confluences of rivers.¹⁵ They feed on the fish that accumulate there due to this directional, nested characteristic of the river network.

Being inside form is effortless; rubber floated downstream will eventually get to the port. And yet, a great amount of work was required to get rubber into this form. It took great skill and effort to find the trees, extract and then prepare the latex into bundles, and then carry these to the nearest stream.¹⁶ More to the point, it took great coercive force to get others to do these things; during the Rubber Boom, Ávila, like many Upper Amazonian villages, was raided by rubber bosses looking for slave labor.¹⁷

It is not surprising that such villages should attract the attention of rubber bosses, for their inhabitants were already adept at harnessing forest forms to get at resources. Just as rubber tapping involves harnessing the riverine pattern to get at trees, hunting also involves harnessing form. Because of the high species diversity and local rarity of species and the lack of any one fruiting season, the fruits that animals eat are highly dispersed both in space and time.¹⁸ This means that at any given time there will exist a different geometrical constellation of fruiting resources that attracts animals. Fruit-eating animals amplify this constellation's pattern. For they are not only attracted to fruiting trees, but often also to the increased safety provided by foraging in a multi-species association. Each member contributes its species-specific abilities to detect predators—resulting in a greater overall group awareness of potential danger.¹⁹ That predators, in turn, are attracted to this concentration of animals, further amplifies the pattern of distribution of life across the forest landscape. This results in a particular pattern of potential game meat: a clustered, shifting, highly ephemeral and localized concentration of animals interspersed by vast areas of relative emptiness. Ávila hunters, then, don't hunt animals directly. Rather, they seek to discover and harness the ephemeral form

created by the particular distribution of tree species that are fruiting at any given point in time, because this is what attracts animals.²⁰

Hunters, those already adept at harnessing forest forms, make ideal rubber tappers. But, to get them to do this often meant hunting them like animals. Rubber bosses often got members of hostile indigenous groups to do this. In an image reproduced by Taussig (1987:48) of such hunters-of-hunters in the Putumayo region of the Colombian Amazon, it is no coincidence that the man in the foreground is wearing jaguar canines and white clothing (see Figure 1).



Figure 1. Hunters-of-hunters.

By adopting the bodily habitus of a predatory jaguar and a dominant white (a classic multinatural perspectival shamanistic strategy) he can come to see the Indians he hunts as both prey and as underlings. Taussig's hunters-of-hunters were referred to as *muchachos* –boys– a reminder of the fact that they too were subservient to someone else: the white bosses. The rubber economy amplified an existing hierarchical trophic pattern of predation, and, in the process, combined it with a paternalistic colonial one.

Ávila, as I mentioned, was by no means safe from slave raiding. In fact, one of the first stories Amériga told me, on my initial trip to Ávila in 1992, was of how, as a child, her own grandmother was spared from slavery by being unceremoniously pushed out through the back bamboo wall of her house just as the raiders arrived at the front door. Ávila, in the foothills of the Andes, is far away from the navigable rivers and high quality sources of rubber. *Hevea brasiliensis*, which produces the best rubber, doesn't grow near Ávila. Nevertheless, through great effort and violence, many Ávila inhabitants were forced into the rubber economy's form. They were forcibly relocated far downriver on the Napo in what is now Peru, and further east as well, where navigable rivers and rubber trees were abundant. Almost none came back.²¹

The Rubber Boom economy united a series of partially overlapping patternings, such as predatory chains, plant and animal spatial configurations, and hydrographic networks, by linking the similarities these share. The result was that all of these more basic regularities came to be part of an overarching form –an exploitative political-economic structure whose grasp was very difficult to escape. In fact, this form created the conditions of possibility for any kind of politics. Shamans, those experts at stepping into dominant points of view within a multinatural perspectival system of cosmic predation, harnessed it to gain power. By apprenticing downriver, that Jaminaua shaman described by da Cunha, was able to adopt a perspective that encompassed and exceeded the viewpoints of the social actors upstream (da Cunha 1998:12). Being downriver means inhabiting a more inclusive level of the river pattern's nested self-similarity –a form that had now become socially important thanks to a colonial economy that linked it to the forest and to its indigenous inhabitants.²² In fact, Amazonian shamanism cannot be understood outside of the colonial hierarchy, that in part created it, and to which it responds.²³ However, it is not just a colonial hierarchy, to which shamanism responds. Rather, both shamanism and colonial extraction are caught up, constrained by, and forced to harness a shared form that partially exceeds them.

I want to reflect on what we have learned so far about the peculiar properties of form. Forms, such as the pattern that brings rubber trees, rivers, and economies, into relation with one another, are emergent. By emergent, I don't just mean new or indeterminate or complex. Rather, following Terrence Deacon (2003, 2004) I am referring to the appearance of unprecedented relational properties, which are not reducible to any of the more basic component parts that give rise to them. Whirlpools, such as those that sometimes arise in Amazonian rivers, are emergent in this sense. They possess novel properties with respect to the rivers in which they appear. These properties are not reducible to the linear dyadic cause-and-effect dynamics responsible for their component parts; the individual histories of the streams of water flowing through a river do not explain or predict the form that the whirlpool will take. Similarly, the disparate causes responsible for rubber and river distributions become irrelevant once an economic system unites them by virtue of the regularities that rubber and rivers share.

Emergent phenomena are nested. They enjoy a level of detachment from the lower order processes out of which they arise. And yet their existence is dependent on lower order conditions. This is directional: whirlpools disappear when riverbed conditions change, but riverbeds do not depend on whirlpools for their persistence. Similarly, the Amazon rubber economy –as form and as political-economic system– was wholly dependent for its existence on the ways in which the South American Leaf Blight constrained rubber's distribution. Once rubber plantations in Southeast Asia, far removed from this parasite, began to produce latex, this crucial constraint responsible for the patterned distribution of rubber trees disappeared. An entirely different economic arrangement became possible, and –like a fleeting whirlpool– the emergent form, which united rubber, rivers, Indians and bosses, dissolved.

The biosocial efficacy of form lies in part in the way it both exceeds and is continuous with its component parts. It is continuous in the sense that emergent patterns are always

connected to lower-level energetics and materialities. And these materialities –say fish, meat, fruits, or rubber– are what living selves, be they dolphins, shamans, fruit-eating fish, or rubber bosses, are trying to access when they harness form. It also exceeds these in the sense that as these patterns become linked their similarities propagate across ontological boundaries; the regularities through which rubber is harnessed, cross from the physical, to the biological, to the human.

In this process, however, the higher order emergent pattern also acquires properties specific to antecedent ones. The Rubber Boom economy was nested like the rivers, and predatory like portions of the tropical food chain. It captured these other-than human forms. But it also integrated them into an emergent all-too-human one. I want to stress here that by recognizing some of the formal nonhuman properties of hierarchy I do not wish to naturalize social inequality. These patterns got caught up in a highly exploitative, ruthless, colonial economy, whose moral valence is not reducible to the more basic formal alignments upon which it depended.

The Masters of the Forest

But why –returning to Ávila and my dream– is it that the realm of the spirit masters unites hunting in the forest with the larger political economy and colonial history in which the Runa are also immersed?

What, in short, does it mean to say that these masters are white?

Whiteness is just one element of a broad net of partially overlapping correspondences that simultaneously superimposes a variety of topographical and political hierarchies in the realm of the master. For instance, each mountain around Ávila is controlled by a different master. The most powerful of these lives in an underground “Quito,” located inside Sumaco Volcano, the highest peak of the region. This volcano also lends its name to the early 16th

century jurisdiction, the *provincia de Sumaco*, in recognition of the paramount chief under which all regional subchiefs owed allegiance, before this area succumbed to colonial rule and came to be known by the Spanish name Ávila.²⁴ Lesser forest masters live in cities and villages that are likened to the smaller towns and cities that make up the parish and provincial seats of Ecuador's Amazonian provinces. These correspond to the region's smaller mountains. The masters living in these stand in the same relation to the master living in the underground Quito as the prehispanic and early colonial sub-chiefs stood to the paramount associated with Sumaco Volcano.

The realm of the masters is also a bustling productive estate, like the great Rubber Boom haciendas along the Napo River.²⁵ And the masters travel to and from their pastures and fallows, shuttling game animals in their pickup trucks and airplanes. Hilario, who, many years ago, climbed to the top of Sumaco Volcano with a crew of Army engineers intent on erecting a relay antenna there, reported that the gullies that he saw emanating radially from its summit are the highways of the masters. In the same way that roads originate in Quito and from there extend throughout Ecuador, so too all the major rivers of the greater Ávila region originate from this mountaintop.

The master realm superimposes ethnic, prehispanic, colonial, and postcolonial hierarchies on the landscape because all of these various socio-political arrangements are subject to similar constraints regarding how certain biotic resources can be mobilized across space. That is, if Amazonian household economies, and broader national and even global ones attempt to capture bits of the living wealth that the forest houses –be this game, rubber or other floristic products– they can only do so by accessing the conjunction of physical and biotic patternings in which this wealth is caught up.²⁶ As I've mentioned, hunters, for the most part, don't directly hunt animals, rather, they harness the forms that attract animals. And estate owners, through debt-peonage, and during certain periods, even outright enslavement, would

get the Runa to collect forest products for them. This extractive pattern creates a clustered distribution. Like the pattern of fruiting trees that attracts animals, haciendas came to be nodes where forest resources, and the city ones with which they were commensurated, became concentrated. It is the hacienda that harbored the “greatest profusion” of “knives, axes, and beads,” (Simson 1880: 392-393) and it is the hacienda that accumulated the forest products that the Runa, in turn, exchanged for these. Cities, like Quito, also exhibit this clumped pattern of wealth accumulation, in so far as these are both the sources of trade goods and the end points for forest products.

The lowland Runa had an intimate and yet fraught relationship to Quito and its wealth. They were sometimes charged with the task of carrying whites to the city.²⁷ And, in the days when Ávila was considerably more isolated from markets, its inhabitants would go directly to Quito – making the eight day trek along with their forest products, in the hopes of exchanging their goods for some of the wealth that the city harbored.

In the higher-order emergent realm of the spirit masters of the forest, hunting, estates, and cities align with each other by virtue of the similarities they share regarding their relations to the patterns of resource distribution that exist around them. Hierarchy is crucial to form propagation across these different domains. Spirit realms unite these various overlapping forms at a “higher” emergent level, in the same way that the rubber economy is at a “higher” level than the rubber and river patterns it unites. The ways in which forms are amplified in human domains clearly is the contingent product of all-too-human histories. And yet hierarchy itself is also a kind of form, which has unique properties that exceed the contingencies of earthly bodies and histories, even if it is only instantiated in these.²⁸

This interplay between the logical formal properties of hierarchy, and the contingent ways in which it comes to acquire a moral valence, is visible in those ‘trans-species pidgins’ through which the Runa attempt to understand and communicate with other beings. The

hierarchy involved in trans-species communication clearly has a colonial inflection –that's why I call them pidgins. As I've discussed elsewhere (Kohn 2007), dogs, for example, often occupy the same structural position vis-à-vis the Runa, as the Runa do vis-à-vis whites. For instance, although some Runa transform into powerful jaguars when they die, as jaguars they also become the dogs of the white spirit masters. These sorts of colonial hierarchies, however, are the morally loaded emergent amplifications of more fundamental nonhuman ones that are devoid of any moral valence.

Many of these more fundamental hierarchies involve the nested and directional properties inherent to semiosis.²⁹ Signs are not just in language, nor is their use restricted to humans. Symbolic reference, that uniquely human semiotic modality (on this planet at least), which is based on conventional signs, has emergent semiotic properties with respect to the more basic iconic and indexical referential strategies (that is, those that involve signs of likeness and contiguity, respectively) that we humans share with all other life forms. There is a hierarchical logic to this. Iconicity is a representational modality, which involves not noticing differences. This often ignored basic building block of semiosis, which involves *not* noticing – not noticing, for example, that that boy that Rosa took to be her grandson is really something else– is crucial to the effortless invisible everyday work of form propagation. Indexicality involves noticing differences. It involves pointing to facts, and events. Symbolic reference involves conventional signs, such as words that refer indirectly by virtue of the indexical relations that symbols come to have to each other in the system in which they are immersed. These three representational modalities are hierarchically nested and connected. Although I can't get into the details here, indices, which form the basis for communication in the animal world, are the product of higher order relations among icons and as such they have novel, emergent referential properties with respect to icons. Similarly, symbols are the product of higher order relations among indices, also with novel emergent properties with respect to

indices.³⁰ This is directional. Symbolic reference requires indices but indexical reference does not need symbols.

These emergent hierarchical properties that make human language, based as it is on symbolic reference, a distinctive semiotic modality also structure the differences that people in Ávila recognize between humans and animals. I'm going to talk here primarily about the relationship between indices and symbols. For example, if you hear the squirrel cuckoo, known as *shicúhua*, call out *shicwá'*, as people in Ávila imitate one of its vocalizations, whatever you are currently desiring will not come to be. Other animals call in related ways. The pygmy anteater, known by the related name *shicúhua indillama*, makes an ominous hiss that portends death. However, it is not this hiss, nor the squirrel cuckoo's call *shikwá'*, that is meaningful, rather, these only acquire significance when they are interpreted to be manifestations of the Quichua word *shicúhua*. The word *shicúhua*, pronounced with attention to the tendency in Quichua towards penultimate stress, not the cuckoo's squawk *shikwá'*, means something. Species-specific vocalizations, then, are individual tokens, of more general terms in the (human) language Quichua, which serve as their type. They are like the utterance of the word "the," which is understood to be meaningful once it is recognized to be a token instantiation of the English word "the," that stands to it as a general type.³¹

The distinction that the Runa make between animal tokens and human types is of a logical order. It plays on the hierarchical logic of the semiotic properties of member/class relations that are important to the distinctions between indices and symbols and which also confer on symbolic reference some of its unique representational properties. Indices only point to individual instances, symbols have a more general application, since their indexical power is distributed throughout the symbolic system in which they are immersed. *Shikwá'*, a token animal utterance, is only meaningful when understood as an instance of the more general human word *shicúhua* that stands to it as a type.

I've been talking here about hierarchy-as-form but I want to pause for a moment to reflect on the possibilities inherent to another kind of form propagation, also visible in these trans-species pidgins. Consider another bird whose call is considered meaningful. If you hear the spot-winged antbird, known as *chiriquihua*, call out *chiriquí'*, as people in Ávila imitate its vocalization, this indicates that a jaguar is nearby. As with the squirrel cuckoo, recognizing that this call is meaningful requires interpreting it as a token instantiation of a more general type: *chiriquihua*. Consider the case of Amérga and her sister-in-law Luisa who, as they were out in the forest collecting fish poison, heard a spot-winged antbird moments before a jaguar attacked the family's dogs that had run off in pursuit of a coati. In their simultaneous recollections of this event, Amérga pronounced the bird's name and sought its meaning. Luisa, however, simply imitated its call and allowed this to resonate with other sound images:

paririhua paririhua
shuma' shuma'
chiriquí' chiriquí'

One can imagine the antbird startled by a jaguar, flitting nervously throughout the underbrush from one heliconia leaf to another, translated liberally as:

leaf to leaf
 jumping jumping
chiriquí' chiriquí'

Freed from the interpretive drive to stabilize its meaning, Luisa, as opposed to Amérga, traced this bird's ecological embeddedness through a kind of play that is open to the possibilities inherent to the iconic propagation of sonic form. Ignoring, for a moment, the ways in which *chiriquí'* might refer "up" to *chiriquihua*—a word that means something—allowing it simply to resonate with other images, and tracing out these relations, has, then, its own "significant" possibilities.

We tend to think of semiotics in terms of how a representational system conveys information –Amériga's was an attempt to extract information from the antbird's call, and surely semiosis serves to convey what Gregory Bateson called, "the difference which makes a difference," (Bateson 2000c: 459). Accordingly, Saussure's semiological system, which implicitly or explicitly informs so much of our understandings of representation, is built exclusively on juxtapositions of differences. And, more broadly, this emphasis on difference first, goes to the heart of Anthropology, a discipline that makes otherness its primary conceptual building block. But, as Luisa's reaction to the antbird indicates, focusing only on how representational systems convey difference misses something fundamental about the ways in which semiosis involves the peculiar properties of effortless form propagation.

A Peircian approach to semiotics, by contrast, does not begin with how indices convey information. It begins, rather, with iconicity. Iconicity is highly counter-intuitive because it involves indistinction. That is, semiosis is not just about the recognition of intrinsic similarity or difference. Rather, it starts and ends with indistinction. Iconicity, then, occupies a space at the very margins of semiosis, for there is nothing semiotic about not noticing anything at all.

Take the cryptically camouflaged Amazonian insects known in English as phasmids, or, in allusion to their resemblance to twigs, walking sticks.³² Their iconicity is not based on someone out there noticing that they look like twigs. This would be our usual understanding of likeness, positing a conscious human mind noticing that two different things share something in common. Rather, the walking stick's likeness is the product of the fact that the ancestors of its potential predators did not notice its ancestors.³³ That is, they failed to notice the differences between these ancestors and actual twigs. Over evolutionary time those phasmid lineages that were least noticed survived. In this way a certain form –the "fit" between twig and insect– came to propagate effortlessly into the future. Form is not imposed; it falls out. This, of course, is the product of the kind of semiotic "work" we are more accustomed to

understanding, namely, the ways in which predators notice the differences between those other insects –who, not being “twiggy” enough, are eaten– and their environment. But iconicity is something more than a byproduct of indexicality. However, it is so by virtue of being something *less*. This seeming paradox gets at some of the strange logic of form and its effortless propagation.

Iconicity has a certain freedom from our limiting intentions. Given the appropriate conditions, it can have its own fragile but effortless self-organizing way of exploring the world, and this can create possibility. This is what Lévi-Strauss was getting at when he wrote of savage thought (not to be confused with the thought of “savages”) as, “mind in its untamed state as distinct from mind cultivated or domesticated for the purpose of yielding a return” (1966:219). The unconscious, as Freud recognized, also obeys this logic. This is well exemplified in his writing on dreams (Freud 1999) and on those slips of the tongue, malapropisms, and forgotten names that emerge in the course of everyday conversation when, for some reason, the intended word, is repressed (see especially Freud [1985: 37-44]). Appropriately, this process, in English translation, is termed *parapraxis*, from *parapraxia*, the defective performance of certain purposive acts. That is, when thought’s “purpose of yielding a return” is removed what is left is that which is ancillary to or beyond what is practical: the fragile but effortless iconic propagation of self-organizing thought, which resonates with and thereby explores its environment. In the case of *parapraxis*, this can take the form of the spontaneous production of alliterative chains that links a forgotten word to a repressed thought (*ibid*). Freud’s insight was to develop ways to cultivate these chains of thought, and then, by watching them, to learn something about the inner “ecologies” they explore as they resonate.

If Amériga was forcing thought to yield its return, Luisa allowed thought to resonate through her and her surroundings. By not interpreting the call –by holding its meaning in abeyance– Luisa allowed the sonic form of the token vocalization *chiriquí* to propagate. Via

a chain of partial sonic isomorphisms, *chiriquí*' engulfed in its wake a series of ecological relations with the effect that the traces of the feline were carried across space and species-lines through the dense thickets to that place, not so far from the jaguar and her dogs, where Luisa was harvesting fish poison.³⁴

The possibilities inherent to this kind of play notwithstanding, access up to a type-level perspective –being able to recognize the cuckoo's call *shicwá*' or the anteater's hiss as instances of the omen *shicúhua*– is, however, empowering. And this sort of logic is what informed that Jaminaua shaman's quest for apprenticeship downriver. By going downriver, he was able to see the particular river from which he hailed as just one instance of a much broader, more general pattern. Through this process of "upframing," he was now privy to a higher-order emergent level –a type– that encompassed the individual rivers and their villages, which can here be understood as the lower-order component parts, or tokens, of this system. These properties of a logical hierarchy, instantiated in an ecosystem, are what allowed this shaman to re-position himself within a socio-political hierarchy.

Not surprisingly, then, relations between humans and spirits are similarly structured by the hierarchical properties of semiosis. Here too there is a nested, increased ability to interpret as one moves up the hierarchy. Humans, according to people in Ávila, for instance, readily understand the meanings of dog vocalizations. But dogs can only understand human speech if they are given hallucinogens. Similarly, although we humans need hallucinogens to understand the forest masters, these spirits can readily understand human speech; the Runa need only talk to them –as, in fact, they sometimes do in the forest.³⁵ Just as animal utterances are tokens that require a further interpretive step to be seen as conforming to a type, the limited perceptions that humans have of the spirit realm also need to be appropriately translated into a more general idiom to be understood in their true light. The Runa, in their everyday life see the game animals that they hunt in the forest as wild animals. But they know that this is not

their true manifestation. Seen from the higher, and hence dominant, perspective of the spirit masters, who own and protect these creatures, these animals are really domesticates. What the Runa see as a gray-winged trumpeter, chachalaca, guan, or tinamou is really the spirit master's chicken. Here too, there is a hierarchy that assumes certain logical semiotic properties. All of these wild birds, as the Runa experience them in the forest, are token instantiations of a more general type –the chicken– as interpreted at a higher level. One could also say that the spirit master's perception of the bird requires less interpretive effort. Following Peirce's insistence that the chain of semiotic interpretance always ends in iconism (CP 2.278), because it is only with iconism, as Deacon (1997: 76,77) underscores, that the differences that would require further interpretation are no longer noticed (it is with iconism, that is, where thinking stops), we could say that there is less interpretive effort required by the masters who see the forest birds just as they really are –as domestic chickens. We humans, by contrast, would have to smoke lots of “strong” tobacco, take hallucinogens, or dream particularly ‘well,’ as people in Ávila would say, to see the different kinds of wild game birds encountered in the forest as the chickens they really are.

Spirit masters need not exert the interpretive effort we humans require because, like rubber floating down the river, or the congeries of animals attracted to a fruiting tree, or a port-city teeming with the upriver riches that collect there, they are already inside this emergent form. In fact, people in Ávila often refer to their realm as *ucuta* (inside) as opposed to the everyday human realm, which is *jahuaman*, on the surface. Because the spirit master realm is, by definition, always inside form, the animals are always abundant there, even though we humans aren't always able to see them. The woolly monkey troop we encountered out hunting one day, that I, with my binoculars diligently estimated as consisting, at most, of thirty individuals, Asencio, a veteran hunter and careful of observer of the beings of the forest, described as numbering in the hundreds. And those animals that are not ever seen in the

forests around Ávila, like squirrel monkeys, which are abundant at lower, warmer elevations, or white-lipped peccaries, which have been locally out-hunted, are nevertheless said to be present “inside” the domain of the masters of the forest. It's not that the animals aren't there, it's just that the masters don't allow us to see them.

Animal abundance is not the only thing that is unchanging in the spirit world. The realm of the masters is also a kind of afterlife –Marcelino's paradise. And the Runa who go there never age and never die. Not long after that young woman out fishing found her in the forest, Rosa did return to the realm of the masters: this time, forever. Ventura later told me that when his mother died they, “just buried her skin.” That is, they buried her weatherworn, time-ravished, maggot-eaten *habitus* –a sort of clothing that, in the manner of jaguar canines and white clothing, conferred on her, her particular earthly elderly affects. In the realm of the masters, Ventura explained, Rosa will always be a nubile girl, like her granddaughters –her body now immune to the effects of history.

That Rosa will never age in the realm of the masters is also the result of the peculiar properties of form. History, as we commonly imagine it –as the effect of past events on the present– ceases to be the most relevant causal modality inside form.³⁶ Just as the individual causal histories that brought the various streams of water into a whirlpool are irrelevant to the vortex that appears, and just as the causes responsible for rubber and riverine spatial patterns are irrelevant to the ways in which these can be linked in an emergent socio-economic pattern, so too, in the realm of the masters, the linearity of history is disrupted by form. Prehispanic chiefdom hierarchies, cities, bustling market towns, and early 20th century estates each, of course, have their own individual temporal situatedness. But they now are all caught up in the same form and, as such, the particular histories of how and when they came to be, become largely irrelevant. Form freezes time.³⁷ These all now participate in a pattern that people in Ávila attempt to harness to get game meat. As a regularity that can potentially exceed

ontological domains and temporal instances, form creates an emergent “always already” zone, by which I mean a zone where the things that have already happened, have never not happened, a zone partially decoupled from the dyadic history of the events that gave rise to it.

Form is ubiquitous in the tropical forest. It is amplified in myriad directions by many kinds of selves, both human and nonhuman. One can think of coevolution as the reciprocal proliferation of habits.³⁸ Over evolutionary time organisms come to represent with increasing specificity, environments made increasingly complex through the ways in which other organisms come to represent their surroundings with ever-greater specificity. In neotropical forests this proliferation of habits has occurred to a degree unmatched by any other nonhuman system on this planet. Any attempt at harnessing the living beings of the forest is wholly dependent on the ways in which such beings are embedded in these regularities. This ubiquity of form does something to time. It freezes it. There is something, then, to Lévi-Strauss' much maligned characterization of Amazonian societies as “cold” –that is, as resistant to historical change– in juxtaposition to those ‘hot’ western societies that supposedly embrace change (Lévi-Strauss 1966:234).³⁹ Except, what is “cold” here is not exactly a bounded society. For the forms that confer on Amazonian society this “cold” characteristic cross those ontological boundaries that exist both internal to and beyond human realms. The international rubber economy was just as constrained by the forms of the forest as is Ávila hunting.

As opposed to a nominalist understanding of form, which sees categories and regularities as structures we humans impose on the world either innately or via sociocultural convention, I'm gesturing toward a view that locates such patternings *in* the world –emergent with respect to, but never severed from, the lower order dyadic processes that give rise to them, and, which also make them useful.

These processes leave their residues in the forest. Bits of history, the detritus of prior formal alignments, get frozen inside the forest form.⁴⁰ For example, *Tetrathylacium*

macrophyllum (Flacourtiaceae) is a tree with a cascading panicle of translucent dark red fruits whose Quichua name, *hualca muyu*, means, appropriately, necklace beads. However, rather than resembling the opaque glass necklace beads of Bohemian origin that have been a mainstay of Amazonian trade for the past century, these fruits bear an uncanny resemblance to an earlier dark red, translucent Venetian trade bead, that was in wide circulation throughout the colonial and neocolonial world, and that passed through Ecuador around the time of the presidency of Ignacio de Veintemilla (1878-1882) and which, accordingly, is still referred to by some Ecuadorians as *veintemilla*. That the Ávila plant *hualca muyu* is linked to this 19th century bead is the product of the peculiar time-freezing properties of form. The historical trace of a good that was traded and, like Simson's beads, commensurated, with forest products, remains caught in the always already form of the forest master's zone, even after people have long forgotten it. Another example: some kinds of demonic spirits (*supai*) that wander the forest are described as wearing priestly habits, even though today's local priests have long-since abandoned wearing the black robe.

It is not, then, that history simply permeates the Amazonian landscape, as critical cultural geographers and historical ecologists contend as a counter to the romantic myth of a pristine wild Amazonian "nature,"⁴¹ because the history that gets caught in the forest is mediated and mutated by a form that is not exactly reducible to human events or landscape.

The challenge for the Runa is how to access the forms of the forest that concentrate wealth. For, in this always already realm animals exist in unchanging abundance. As with the Juruá-area shaman, this involves a process of 'upframing' to see animals from the privileged (and objectifying) perspective of the masters –namely, not as individual selves, each with their own points of view, but as resources, and not as ephemeral subjects but as stabilized objects, owned and controlled by the master, a more powerful, emergent self. The Runa attempt to access the riches of the forest masters by mobilizing the disparate historical traces of strategies

for negotiating with people more powerful than themselves that have gotten caught up –frozen, like Venetian trade beads and priestly habits– inside the master's form.⁴²

For example, it's been over a century-and-a-half since the Runa had to pay regular tribute to government officials and clergy,⁴³ yet tribute still exists in the realm of the masters. When people kill a tapir they are required to offer trade beads as tribute to the spirit masters that own this animal, so that these will continue to provide meat. Out on a hunting trip, Juanicu attempted to capitalize on the reciprocal obligations that this colonial arrangement entails. He offered the master tribute, in the form of a few grains of corn tucked in the crevasses of a tree base. When the master failed to provide game meat, as was his obligation, given that Juanicu had dutifully kept up his side of the bargain, Juanicu unashamedly reprimanded him –calling him stingy– in the exact same way that I once heard him rebuke a politician visiting Ávila during election season who failed to give out cigarettes and drink.

On other occasions the Runa attempt to communicate with the masters through rhetorical formulas identical to those their sixteenth century forebears used in negotiating peace contracts with the Spaniards. These include erecting a numerically parallel structure that attempts to make more balanced what, in another context, Lisa Rofel (1999) has called “uneven dialogues:” in the colonial case this involved making five demands in exchange for five concessions to the Spanish authorities; as is visible in one such late-sixteenth century contract between the local indigenous chiefs and Spaniards.⁴⁴ In the contemporary one, it is evident in the use of certain hunting and fishing charms that require a special ten-day fast – “five days for the master and five for the Runa” as people in Ávila put it.⁴⁵

And that Quito-in-the-forest to which Rosa traveled is a reflection of more than four centuries of earnest attempts by Ávila-area people to negotiate with the powerful beings that live there for access to some of their wealth. Indeed, part of those 16th century negotiations involved an attempt, unsuccessful alas, to convince the Spaniards to build a Quito in the

Amazon—a request to which colonial documents⁴⁶ and contemporary myths⁴⁷ attest, and whose deferral continues to motivate desires to harness the riches that are harbored inside the forest.⁴⁸

Each strategy for accessing the accumulated riches of the powerful has an independent causal history. But this no longer matters. They are all now part of something general—the forest master's form. And they can each serve as points of access to some of its riches.

It is not, however, just abundant game meat that such strategies promise. For they also hold out the possibility for some sort of access to the long and layered history of deferred desires that the quest for this meat has come to represent.

Conclusion

I hope here to have illustrated some of the peculiar properties of form, and I hope to have given some sense of why Anthropology should pay form more attention. That it hasn't is, indeed, also an effect of form's peculiar properties. As anthropologists we are well equipped to analyze that which stands out as different. However, as Annelise Riles (2000), in her study of the circulation of bureaucratic forms associated with Fijian participants in a UN conference, has noted, we are less ready to study that which is invisible because we are “inside” it. Form largely lacks the palpable otherness—what Peirce would call the secondness (CP 1.325)—of a traditional ethnographic object because it only is manifest *qua* form in the propagation of its self-similarity. “It is the people who are outside of the monastery who feel its atmosphere,” writes the Zen master. “Those who are practicing actually do not feel anything” (Suzuki 2001:78).

For these reasons, it is much easier to understand the semiotic importance of indexicality—the noticing of difference—than it is to understand iconicity, which involves the propagation of regularities, through a specially constrained sort of indifference. Perhaps this is why the propagation of similarity through indistinction is sometimes erroneously considered

to be something other than representation. However, contagious laughter and highly patterned abstract art, to give just two examples where iconicity dominates, are semiotic phenomena even though they largely lack an indexical component that can be interpreted as pointing to anything other than another instance of the patterns they instantiate. One could say, following Peirce, that our habits, semiotic and otherwise, only become noticeable to us when they are disrupted –when we fall outside of them. And yet understanding the workings of that which is not noticed is crucial. Form is precisely this sort of invisible phenomenon.

Form requires us to rethink what we mean by “the real.” “Generals,” –that is, habits, regularities, potential recurrences, and patterns– as Peirce insisted, are “real” (CP 5.431). But it would be wrong to attribute to generals the kinds of attributes that we associate with the reality of existent objects. When I say that game birds are, from the perspective of the masters, really chickens I am referring precisely to this way in which generals are real. The reality of the master’s chicken is that of a general. And yet its reality is dependent, in great measure, on its efficacy –the chicken’s ability, as a sort of type, to index the different birds, be they guans, chachalacas, or curassows, that the Runa encounter in the forest as concretized in specific instances of encounter, not unlike the one I had with the peccary that day in the forest. Without the day-to-day interactions that the Runa have with game birds, there would be no chickens in the realm of the masters. And yet the master realm enjoys a level of stability, which is partially decoupled from these day-to-day moments of forest interaction. This is why in the realm of the masters, white-lipped peccaries can abound, even though these have been out-hunted from the forests surrounding Ávila for many years now.

Form is fragile and ephemeral and only emerges under very specific circumstances. I was reminded of this the other day when I took a break from editing this essay in order to prepare a pot of cream of wheat for my son. Before my very eyes, the telltale self-organizing hexagonal structures known as Bénard cells, which form as liquid is heated from the bottom

and cooled from the top under just the right conditions, emerged across the surface of the simmering cereal. That these hexagonal prismatic structures promptly collapsed back into the sticky gruel before I could snap a picture is testament to form's fragility. Life is particularly adept at creating and sustaining those conditions that will encourage such fragile self-organizing processes to predictably take place.⁴⁹ This, in part, is why I have focused here on the ways in which complex multi-species associations cultivate form in ways that also propagate through us when we become immersed in their "fleshliness."⁵⁰

Form cannot be understood without paying attention to the kinds of continuities and connections that generals have with regard to existents. Accordingly, my concern here has been not just with form and those properties that make it unique—its invisibility, its effortless propagation, a kind of causality associated with it that appears to freeze history— but also with the ways in which form emerges from and relates to other phenomena in a manner that makes its unique properties come to matter in the worlds of living beings. I am not just interested in that which is "inside" but in how such an inside came to be, and also how it dissolves when the material conditions—be they river beds, parasites, or UN salaries— necessary for its propagation cease to exist. And I am not just interested in form per se but in how we "do things with" it.⁵¹ And yet, doing things with form requires entering its logic—a logic that is quite different from the pushes and pulls of efficient causality. It requires grasping something of its effortless efficacy. For, "habit," as Peirce wrote, "is a resting on one's oars, not a propulsion" (CP 6.300). To focus only on that which makes form unique and separate from the world of things and actions is analogous (and in fact also homologous, in the biological sense) to the focus in Saussurean semiology on the linguistic sign in terms only of those unique properties that separate it from the world it represents. That is, although symbols (i.e., roughly, Saussure's signs) exist in the context of a linguistic form, which possesses its own systemic and emergent

features, like other forms, they are also connected to the materialities and regularities of the worlds out of which they arise.

None of this is to lose sight of the unique properties of form, and the possibility, as Riles notes, that Anthropology might emerge from its crisis of representation by experimenting with ways of making the invisible “inside” more apparent. Building on Strathern (1991; 1995), Riles’ solution is to turn form “inside out.” That is, she attempts to render form visible through an ethnographic methodology that amplifies it. Rather than trying to make form apparent from an external perspective by indicating our discontinuities with it, she allows the patternings inherent to the proliferation of bureaucratic documents, and the ones we academics might produce about them, to multiply until their similarities become manifest.⁵²

I offer here no such aesthetic solution to the problem of elucidating form. I only wish to give a sense of some of the ways in which form moved through me. When I dreamt that night at Ventura’s house of a pig in a pen perhaps I too, for a moment, got caught up “inside” the forest master’s form. What I would like to suggest is that the semiotics of dreaming, understood in terms of the peculiar properties of form I have explored here, involves the spontaneous, self-organizing apperception and propagation of iconic associations in ways that, for a moment, dissolve some of the boundaries we usually recognize between insides and outsides.⁵³ That is, when the conscious, purposive day-time work of discerning difference is relaxed, when we no longer ask thought for a “return,” what is left are self-similar iterations – the effortless manner in which likeness propagates through us. This is not unlike Luisa’s sonic web, that linked the antbird to heliconias and to the jaguar that killed the dogs and all these to the humans in the forest whose dog that was – a web that emerged in the space of possibility that opened because she, unlike Amériga, did not attempt to specify the meaning of the bird’s call that she imitated.

Considering it alongside this and the other various form propagations I've discussed here, I've come to wonder how much my dream was ever really my own. Perhaps, like Lévi-Strauss' myths, there is indeed something about such dreams that "think in men, unbeknownst to them."⁵⁴ Dreaming may well be, then, a sort of thought run wild. A *Pensée sauvage*: thought unfettered from its own intentions and therefore susceptible to the play of forms in which it has become immersed –which, in my case, and that of the Ávila Runa, are those that get caught up and amplified in the multi-species, memory-laden wilderness of an Amazon forest.

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¹ I thank Amy Barnes for drawing my attention to this.

² CP references Peirce's *Collected Papers* (1931-1935), using the standard citational system for this source.

³ I think of this image in Spanish. Point-blank is "*a quemar ropa*", a shot fired from so close that the powder burns off the victim's clothing. If, as many Amazonians hold (see Viveiros de Castro 1998), bodies are clothing, then the gunshot tore away at the pig's animal clothing revealing, for a moment, the essential personhood of this creature in that instant before it was reduced to an object for another incorporation. This is what our mutual gaze revealed. But, like a gunshot, this gaze may have been much more unidirectional, and violent. This is part of the pain of this dream image, the recognition that a an emergent and fresh kind of love, replete with its own possibility, is violently destroyed in the attempt to build another kind of love through a sort of commensality that involves the cannibalization of the former. By cannibalization, the allusion is, on the one hand, to the specter of anthropophagy –if all being are selves, then eating meat always involves the dangers of cannibalism (Fausto 2007), and, on the other, to the ways in which the desubjectification of the pig involves the reduction to dis-memberable machine-like parts of what was once a living whole.

⁴ See Smuts (2001).

⁵ See Kohn (2007).

⁶ On Huaorani treatments of peccaries as social others see Rival (1993).

⁷ See Descola (1994)

⁸ Other examples of apparently spontaneous recognition of wild/domestic parallels by outsiders include the following:

1) Simson's musings, elsewhere, about how his Záparo guides in Iquitos might compare the European horse with the tapir (1878:509). In Ávila, the tapir, distant relative of the horse and the New World's only extant native odd-toed ungulate, is understood to be the horse of certain spirit masters of the forest.

2) The correspondence between white domestication and Indian forest predation as noted by the 17th century Jesuit priest Figueroa who marveled at the nuts and fruits that "nature, like an orchard, provides" Amazonians and referred to the "herds of wild pigs" and other animals of the forest as Amazonian "livestock" ("*crias*") "that need no care" (Figueroa 1986 [1661]: 263).

3) The 19th century Jesuit Father Pozzi who in a sermon in Loreto compared Runa hunting with civilized animal husbandry (in Jouanen 1977:90).

⁹ See Brockway (1979); Hemming (1987); Dean (1987)

¹⁰ Janzen (1970); Wills et al. (1997)

¹¹ Dean (1987:53-86)

¹² *Salminus hilarii*

¹³ *Virola duckei*, Myristicaceae

¹⁴ These include, among others *chichinda* (*Asplenium rutaceum* (Willd.) Mett., Pteridophyta-Aspleniaceae), *munani chichinda* (*Trichomanes elegans* Rich., Pteridophyta-Hymenophyllaceae), and *cutu chichinda* (*Polypodium decumanum* Willd., Pteridophyta-Polypodiaceae).

¹⁵ See Emmons (1990:xx); McGuire and Winemiller (1998).

¹⁶ For a description of rubber tapping and initial processing and the skill and effort required to get latex to rivers see Cordova (1995)

¹⁷ See Oberem (1980: 117) and Reeve (1988).

¹⁸ See Schaik et al. (1993).

¹⁹ See Terborgh (1990) and Heymann and Buchanan-Smith (2000), especially (2000:181).

²⁰ See Irvine (1987) on the San José Runa preference for erected hunting blinds by fruiting trees as opposed to searching for game in the forest. This is also a popular technique in Ávila. By waiting by a fruiting tree, hunters, in effect, harness floristic form.

²¹ Oberem (1980: 117); Muratorio (1987: 107). For information on communities that descend from Ávila Runa forcibly resettled on the Peruvian Napo during the Rubber Boom see Mercier (1979).

²² For another example of shamanistic harnessing of the Amazon river network see Descola (1996: 323). See Kohn (2002a: 571-573) for an example of the ways in which Jesuit missionaries imagined the Amazon riverine network as a conduit for consecration and conversion.

²³ See Gow (1996); Tausig (1987)

²⁴ Martin (1989 [1563]: 119); Ordóñez de Cevallos (1989 [1614]: 429); Oberem (1980: 225)

²⁵ See Oberem (1980: 117); Muratorio (1987); Gianotti (1997)

²⁶ This is somewhat different from the exigencies of other extractive endeavors, involving, say minerals or petroleum, which are less directly dependent on biotic form.

²⁷ Muratorio (1987)

²⁸ On the logical properties of hierarchy see Bateson (2000b).

²⁹ See Deacon (1997)

³⁰ See Peirce (CP 2.302, 1998: 10); Deacon (1997: 73).

³¹ This type/token distinction is also visible regarding the other vocalization that the squirrel cuckoo makes, whose species-specific instantiation is imitated *ti' ti' ti'*. As a type it is imitated simply *ti ti ti* without the stops. It is considered a "good" (*ali*) utterance. Hearing it points to something favorable. As with *shicúhua*, other species have their species-specific manifestations of this call. For example, a kind of rove beetle (Staphylinidae), known as the "ant-caller" (*añangu caya mama*) is said to scout out new colony sites for leafcutter ants. When it finds a suitable one it calls them over: "*tin, tin, tin, tin*," (see Hogue [1993: 256-257] on rove beetle associations with ant colonies). In a similar fashion, the frog *Lithodytes lineatus*, also known as "ant-caller," (*añangu caya*) has its own somewhat different species-specific token instantiation of the *ti ti ti* type: its call *-tyen tyen tyen-* is also said to attract leafcutter ants to their new nest sites.

³² These are known as *shanga* in Ávila.

³³ This example is adapted from Deacon's discussion of the iconicity of cryptic moths (Deacon 1997).

³⁴ Roman Jakobson (1960) calls this process parallelism in reference to the ways in which sonic equivalences link semantic ones by virtue of the sonic likenesses each successive word is perceived to share. Parallelism is a kind of form propagation, central, as Jakobson notes, to the poetic function of language.

³⁵ See Kohn (2007) for a more detailed analysis.

³⁶ By history, here, I mean our experience of the effect of past events on the present. Peirce refers to this as our experience of secondness, which includes our experience of change, difference, resistance, otherness, and time (CP 1.336; 1.419). This is not to deny that there are specific and highly variable socio-historically-situated modalities of representing the past (see Turner 1988) or ideas about causality (Keane 2003). I am making a broader and more general set of claims: 1) the experience of secondness is not necessarily delimited culturally; and, 2) there are moments when the dyadic effects of the past on the present we associate with history becomes less relevant as a causal modality

³⁷ By time I mean the directional process spanning from past to present to probable future. I am making no absolute claim about the ontological status of time. Neither, however, do I want to say that time is wholly a cultural or even human construct (cf. CP 8.318). My argument is at the level of what Bateson called "creatura" (2000:462). That is, in the realm of life, the past, present, and probable each come to have specific properties and these characteristics are intimately involved in the ways in which semiotic selves represent the world around them, for it is in the realm of life, via semiosis, that the future comes to affect the present through the vehicle of representation (see Peirce CP 1.325).

³⁸ See Peirce (CP 6.101).

³⁹ Jonathan Hill (1988) and several other contributors to his edited volume provide a critique of Lévi-Strauss' hot/cold distinction. Hill argues that this distinction erases the many ways in which Amazonians are products of, producers of, and conscious of history. Peter Gow has argued that such a critique misses Lévi-Strauss' point: myths are responses to history in that they are, as Gow puts it, "instruments for the obliteration of time" (Gow 2001:27). That myths have this characteristic is evident. What is less clear from Gow's analysis is why they should have this effect. My argument is that timelessness is an effect of the peculiar properties of form.

⁴⁰ Cf. Lévi-Strauss: "odds and ends left over from psychological or historical processes, [...which] appear as such only in relation to the history which produced them and not from the point of view of the logic for which they are used" (1966:35).

⁴¹ For the position that Amazonian landscape and natural history are always in some ways social see Raffles (2002). On the "pristine myth" and for a review of the literature on anthropogenic forests see Denevan (1992) as well as Cleary (2001). Without denying the importance of historicizing "natural history," the position I take is somewhat different. The idea that all nature is always already historical is related to the representational problem we face in our field—namely, that we don't know how to talk about that which stands outside of the human-specific conventional logic of symbolic reference without reducing the human to matter. On this view the question of Nature becomes not an ontological one, but a human-specific epistemic one, and if it is accorded any substance, it is so only insofar as human forms of being in the world have affected it. I do not wish to deny that humans represent the world and, informed by these representations, make the world around them in specific ways, that often remain invisible to us, I only wish to show some of the ways in which other kinds of "reals"—here, that which is not us, not human—constrains this in particular ways. In the material I am treating here the constraint is not one that comes from biology, nor from the human, but from form.

⁴² On the hopes for symmetrical relations between Upper Amazonians and Europeans see Anne-Christine Taylor (1999:218).

⁴³ Oberem (1980: 112)

⁴⁴ Ordóñez de Cevallos (1989 [1614]: 426)

⁴⁵ See Kohn (2002b: 363-364) for a more detailed account.

⁴⁶ Ramírez Dávalos (1989 [1559]: 50, see also 39)

⁴⁷ According to one such myth I collected a king passed through the Ávila region coming, possibly, from down river. He crossed the Suno River and continued up river to a place called Balsiti near the Sumaco Volcano. There he began to establish a city by first throwing stones in every direction using a sling. The Sumaco lord became angered and stopped him from making the city, so the king left for the highlands. On his way, however, he made Huamani Mountain (the high Andean peak by which Amazonian travelers to Quito must pass before arriving to the temperate inter-Andean valleys) and also made it very rainy there. Then he went to Quito and built his city there because the *curaga* of the Pichincha Volcano wanted it so. Again, he threw the stones with the sling in all directions and there was enough space for a large city (see also Wavrin [1927: 330] for a related version).

⁴⁸ To this day, the descendents of those lords who met with Spaniards lament about this "Quito" that was never built in the Amazon. In Oyacachi, for example, a cloud forest village, that, like Ávila, once formed part of one of the Quijos chiefdoms, Oberem (1980: 226), people recount that if their ancestors had not prompted a miraculous image of the Virgin Mary to abandon them (it was moved to El Quinche in the highlands by the bishopric of Quito in 1604), Oyacachi would have become an important city like Quito and there would have been no mountains separating Oyacachi from the prosperous populations of the highlands (Kohn 2002a). As one man in Oyacachi explained it to me, "if a Quito would have been built here, Oyacachi would have become a real city" ("*Oyacachipi Quituta ruashpa [...] propio llacta canman carca*").

People in Ávila today also recount a myth that explains why a certain king, sometimes referred to as an Inca, abandoned his attempts to build Quito near Ávila and finally built it high up in the Andes (see Kohn 2000b: 249). Some people can even discern the remnants of this failed jungle Quito in the landscape. On a plain to the north of the Suno River headwaters, probably a the location of the early colonial chiefdom known as Mote that persisted as a village by the name of San José de Mote at least until the late 19th century there are said to be remnants of "cement" steps and a stone road. Ventura, who saw these as a teenager, feels that these are all that remain of the city that the king failed to build. Ventura concluded that if Quito had been built there, Ávila, because of its proximity, would have also become a big city.

⁴⁹ See Camazine (2001).

⁵⁰ There are also more squarely human circumstances in which form propagates. Late Soviet socialism provides one such example (see Yurchak [2006, 2008] and my comment on the latter [Kohn 2008]). Here, the severing of official discursive form from any indexical specification, a form that was nevertheless sustained by the entire might of the Soviet regime, allowed a certain kind of invisible self-organizing politics to emerge spontaneously and simultaneously throughout various parts of the Soviet Union. Yurchak calls this a "politics of indistinction," for, unlike vocal and visible dissident opposition, the practitioners of this politics merely ambivalently repeated Soviet

ritual or injected elements of the uncanny in ways that propagated like a virus through the fabric of everyday public life. As opposed to the oppositional politics of the dissidents, visible, as Peirce might say, in its secondness, this politics of indistinction remained largely invisible, even to its practitioners who refused to reflect on, theorize, or explain it. However, once the Soviet Union collapsed, the constraints that sustained the fragile forms that made this contagious politics possible fell away and this particular mode of agency largely disappeared.

⁵¹ I am referring loosely here to Austin's emphasis in his *How To Do Things With Words* (1962) on studying not only the truth value of a statement but also its performative effects.

⁵² This, in fact, has a certain precedent in British Social Anthropology. Evans-Pritchard's classic *The Nuer*, which lacks introductory or concluding chapters or any sort of meta-commentary or theoretical discussion, is an aesthetic instantiation of its subject: governance among the Nuer is not imposed from above but emerges from within social structure.

⁵³ See Peirce (1998 [1894]:4); cf. Bateson (2000a:135).

⁵⁴ Quoted in Colapietro (1989:38). I thank Frank Salomon for first drawing my attention to this passage.