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Steps to a Political Ecology of Amazonia

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INTRODUCTION

In 1892, when Franz Boas served as assistant to Frederick Ward Putnam, the head of the Department of Ethnology and Archaeology for the Chicago World's Fair and the Columbian Exposition, he brought fourteen Kwakiutl individuals from Fort Rupert, British Columbia, along with the disassembled village of Skidegate from Queen Charlotte Island, to put on display. The reassembled village was situated next to the Leather and Shoe Trades Building, providing visitors with an opportunity to reflect on what the more fashion-oriented might today call a "postmodern" juxtaposition between the traditional and the modern. Nevertheless, when Boas commissioned photographs of the Indians¹ performing various rituals, he placed a white sheet behind the performers to mask the surrounding exhibits (Hinsley 1991:350).

Arguably, what has changed in the last one hundred years is not the proliferation of such juxtapositions, but rather our willingness to see them. Indeed, sometime between the end of the Vietnam War and the end of the Cold War, this task of examining the meaning of such juxtapositions became a central preoccupation among anthropologists who responded with a variety of new approaches, such as political economy, poststructuralism, and postmodernism.² Some of the issues central to political economy, such as the relationship between regional trade and local inequality, were anticipated by cultural ecologists using a Boasian notion of "culture as fluid" in the 1940s (Mishkin 1940; Lewis 1942; Jablow 1951; and Secoy 1953). Their work still offers valuable models for the ethnographic studies of indigenous peoples whose histories are shaped by larger political and economic forces. In the mid- to late-1980s, several scholars (e.g., Schmink and Wood 1987) argued for and developed a "political ecology" approach that drew on both cultural ecology and political economy, but in many cases the word "political" signaled a concern for public policy. This article argues for a broader notion of politics, one that centers on the operations of power.

Moreover, I argue that such a political ecology can and should articulate with poststructuralism. It should do so in a way that would further expose so-called postmodern juxtapositions and further the analysis of the production and the operation of persistent binaries—especially nature/culture and its proxies (such as savage or primitive/civilized and traditional/modern)—that often color our understanding of both indigenous peoples and the environments in which they live. Although some oppose political ecology and poststructuralism in terms of this binary (through another proxy, materialist/idealist), I believe that both provide complementary strategies for transcending this opposition. On the one hand, political ecology provides a single language for describing an environment that includes abiotic, biotic, and social elements. On the other hand, poststructuralism provides techniques for deconstructing binary oppositions. Together, these approaches reveal that such oppositions have power not because ideas have epistemological primacy over matter, but because these particular ideas are the effects of political dynamics, and have the political effect of disguising the very dynamics through which they are produced.

There are reasons this approach to binary oppositions is not merely an academic exercise. First, such binaries are often used against indigenous people, such as those found in lowland Amazonia. This was the case with the Kayapó in the early 1990s. In response to “megadevelopment” projects (Fisher 1994), the Kayapó leadership organized a heroic, and largely successful, struggle against the Brazilian state (see also Turner 1991; 1992). When journalists and environmentalists discovered that Kayapó were also willing to profit from the commercialization of lumber, these leaders—and to some extent, the Kayapó in general—lost their heroic stature (see Conklin and Graham 1995).

Second, such binaries disguise or displace political hierarchies that are often spatially distributed, for example “periphery/core” (see endnote 13, *intra*, for more specific definitions of these terms). Some anthropologists have analyzed the dilemmas facing indigenous leaders who must represent their peoples to the state or capital (e.g., see Murphy 1974; Brown 1993). Others (e.g., Rubenstein 2002) have focused on the daily contradictions facing ordinary members of small-scale societies as they are incorporated into the capitalist economy, along with the kinds of internal political conflicts that often ensue. Such people are not only forced into the market economy, they are also seduced.

A poststructuralist political ecology would analyze not only the larger political and economic forces that shape their local interests, but the production of desire as well. This production is, I suggest, simultaneously material and discursive. The lynchpin of this production is not the

opposition between material and discursive causes (or a materialist versus idealist epistemology), but rather is the reciprocal relationship between structure and agency. Thus, an effective poststructuralist political ecology must also incorporate a theory of practice. In this essay I draw on several recent ethnographies that represent important first steps towards a political ecology of Amazonia. Attention to such work is particularly timely for Amazonia, where struggles occur in indigenous communities hand-in-hand with indigenous complicity in desiring and supporting western mechanisms that undermine the very livelihood of these communities.

THE RISE OF ANTHROPOLOGICAL POLITICAL ECOLOGY

One of the main objectives of both Boasian and Malinowskian ethnography was to render individual behavior intelligible. They proposed that individual action be understood in the context of “culture,” and one function of Boas’ “white sheet” was to isolate culture as an object of study. Nevertheless, Boas insisted that culture is dynamic and subject to historical changes, especially as traits pass through the “white sheet.” Moreover, Boasian anthropology established the importance of culture for an idiographic, rather than a nomothetic, science. Boas was not positing culture as a cause (in opposition to noncultural, or material, causes), but rather as a context in which human action is meaningful. Once anthropologists established the reality of “culture” in this sense, they could explore why cultures varied without resorting to speculative and ethnocentric explanations.

By the 1930s Alexander Lesser and William Duncan Strong were encouraging their students to remove the “white sheet” by presenting indigenous American societies and cultures in both regional and historical contexts (see Vincent 1990:231–241). This approach was pioneered by Bernard Mishkin (1940), who studied the effect of the introduction of horses on Kiowa political organization and warfare, and Oscar Lewis (1942), who explored the influence of the fur trade on Blackfoot culture (relying heavily on historical sources). Later, Joseph Jablow (1951) documented how Cheyenne social organization and subsistence strategy between 1795 and 1840 were determined by their position in trade networks linking whites and other Indians, and Frank Secoy (1953) argued that Great Plains Indians’ social organization and military tactics changed as horses, introduced by the Spanish in the south, diffused north, and guns, introduced by the British and French in the east, diffused west. Although their focus on the flow of technologies across cultural boundaries greatly

broadened our understanding of Native Americans as historical subjects, they paid less attention to the flow of discourses (e.g., about culture, history, or colonialism) and to the role of human agency in these flows. Their approach was never institutionalized in American anthropology, perhaps because its emphasis on Western colonialism was uncongenial to cold-war audiences.

Contemporary anthropological political ecology suggests a return to the project begun by Lesser and Strong.³ This may be accomplished through attempts to bring together cultural ecology and political economy (e.g., Little 1999:225; see Bryant 1998, Blaikie 1999, and Watts 2000 for slightly different genealogies and discussions of current trends by geographers).⁴ It is difficult to reconstruct an accurate genealogy of the conjunction of cultural ecology and political economy. Eric Wolf used the term “political ecology” (1972), but anthropologist Marianne Schmink and sociologist Charles H. Wood (1987:39), and anthropologist Thomas E. Sheridan (1988:xvi) separately claim to have developed this approach, while geographers Blaikie and Brookfield (1987) explicitly called for a “regional political ecology” that would synthesize political economy and human ecology.⁵ However, earlier works by geographer Michael Watts (1983) and Peter Little and Michael Horowitz (1987) have the necessary elements, as does sociologist Stephen Bunker’s “ecological model of unequal development” (1985).⁶

A POLITICAL ECOLOGY OF AMAZONIA

Space considerations leave no room for a review of the important contributions that cultural ecology has made to our understanding of rainforest ecologies and the ways different societies adapt to such an environment, or of ongoing debates among political economists concerning the organization of the global economy.⁷ My intention is only to open up discussion on an issue underrepresented in the literature. Whereas many political ecologists are concerned with proposing and analyzing the effects of policies pertinent to the relationship between a population and its biotic and abiotic environment, this essay is meant to call attention to the *politics*—the formation and deployment of different kinds of power, including the power to incite desire—behind new relationships between both states and indigenous people and their biotic environment. Moreover, such a project requires a political ecology defined not in terms of its consideration of the natural environment and human action as independent variables, but rather in its attention to human/environmental interaction at different

scales.⁸

Amazonian Cosmographies and Territorial Disputes

Paul Little has recently articulated a vision of such a political ecology, which, he argues, should focus on “the occupation of and struggle over geographic space as well as the definition of, rights to, and use of the resources contained by this space and the biophysical effects of that use” (2001:4). Citing Boas (1940:639–647), Little understands this struggle in terms of a clash of cosmographies, which he defines as distinct “collective, historically contingent identities, ideologies, and environmental knowledge system developed by a social group to establish and maintain a human territory” (2001:5). Little further argues that different cosmologies clash at different frontiers for different durations of time, largely tied to what Hennessy (1978:12, quoted in Little 2001:8) calls “cyclical booms in different commodities.” Consequently, human territories “are dispersed across scales in often irregular and unpredictable ways” (2001:8).

Little identifies various cosmographies of Amazonia that have been of importance in different places at different times: missionary cosmologies; mercantile cosmographies of rubber, brazil nuts, agave, and cattle exploitation; national development cosmologies that created wood pulp, mining, and petroleum enclaves; and most recently environmental cosmologies that have created wilderness preservation territories and sustainable use territories. Each of these cosmologies has clashed with, and on many occasions have transformed, indigenous cosmographies. Little presents his approach to political ecology as a useful way to analyze territorial disputes among indigenous groups, *caboclos*, representatives of capital and the state, and NGOs that continue to shape the economic, political, and social landscape of Amazonia (2001:4–10). There is no question of the importance of understanding territorial disputes, of sharing such research with the people with whom anthropologists work, and of assisting them in appropriate ways (cf. Medina 2003; Vidal 2003). Little’s insight that not only indigenous people but also merchants and heads of state have cosmographies, and that understanding their cosmographies is crucial for a sophisticated analysis of land-disputes, is laudable.

Amazonian Cosmographies and Economic Articulations

As Little makes clear, however, the superimposition of different cosmologies not only leads to territorial disputes, it also links indigenous people with extralocal systems, especially the state or capital. Little provides

a good example in his detailed analysis of one mercantile cosmography, the *aviamento* system that developed during the Brazilian rubber boom between the early nineteenth century and 1913. Initially, according to Little, isolated nonindigenous tappers sold their rubber to intermediaries. By the late nineteenth century, trade and markets were replaced by relationships defined by credit and debt. Intermediaries began supplying trade goods on credit, which tappers could repay when they brought their rubber to the trading post. However, intermediaries charged astronomically high prices for their goods, while paying low prices for rubber. Tappers thus accumulated a debt they could never escape. This debt, backed up by the threat of physical violence, meant that rubber tappers were effectively under the total control of rubber barons (Little 2001:27–30).

Reflecting on a similar system involving indigenous peoples in the Colombian and Ecuadorian Amazon, and the fact that this system coexisted with the enslavement of Indians, Michael Taussig asks, why maintain the appearance—in effect, the fiction—of trade with Indians when for all intents and purposes the Indian is a slave (1987:65)? Indeed, peons were often bought and sold *like* slaves, as white merchants and entrepreneurs bought and sold one another's "debts." Through this process, some whites themselves fell into debt, and thus debt peonage. Thus, debts and credit bound all sorts of people in the Upper Amazon (1987:66–69). The resulting "debt fetishism" (1987:70) had the magical effect of transforming a place where there was an abundance of labor but a dearth of commodities into a place where there seemingly was a dearth of labor and an abundance of commodities. Under these conditions, "payment" was always simultaneously an "advance" (1987:70). The constant inflation of debt created a cosmography in which the desire for commodities is insatiable. In turn, this led to an inescapable dependence on commodity exchange. It was through this system, rather than the creation of anything close to a free market, that Indians of the Putumayo were introduced to and incorporated into the world capitalist economy.

Taussig's point is that mercantile systems such as debt peonage are not just political and economic systems. They are, in fact, cultural systems and cannot be understood without analyzing the cultural logics of their operation. Recent works by Fisher (2000) and Picchi (2000) show how political ecology can contribute to our analyses of such articulations, and reveal the cultural logics through which they operate, and by which Indians come to depend on the capitalist economy, even in the absence of any territorial disputes or the brutality that accompanied the system of debt peonage. In some cases, this is accomplished *through* "territorialization" (protection against, or the resolution of, territorial disputes) itself. In other

cases it works through a mechanism similar to debt peonage, except that coercion has been replaced by seduction.

Sustainable Production

In a recent study of the Bakairí, Debra Picchi argues that political ecology models that hinge on class relations are of little use in the Amazon (2000:8). Instead, she calls attention to demographics and food production. Nevertheless, her findings raise questions that have been central to students of class relations, such as the ways by which subordination is transformed into self-subordination, local production is transformed by regional, national, and international systems of exchange, and agency is grounded in and constrained by structures of inequality.

As with other Amazonian peoples, the Bakairí (who live in the central Brazilian state of Mato Grosso) traditionally practiced swidden horticulture. One of FUNAI's (Brazil's National Indian Foundation) main activities, however, has been the introduction of industrial agriculture in the Amazon. These activities present Bakairí with a difficult choice. Industrial agriculture is not sustainable because it leads to environmental degradation, but population growth means that the Bakairí require more food than traditional methods provide. Picchi asks: "Should they abandon



Figure 1. Aerial view of Aldeia Pakuera, the largest Bakairi village

their new agricultural technology and return solely to their traditional ways? How will that affect food and cash availability on the reservation" (2000:76)?

These are important questions that merit further reflection. Although Picchi argues that the classic anthropological doctrine of cultural relativism is inappropriate to apply in these cases, I believe it to be absolutely critical. Picchi characterizes her own approach as "pragmatic," and argues that people first and foremost must ensure their own physical survival (Picchi 2000:74–75). Observing that many Bakairí employ both horticultural production for domestic consumption and elements of industrial agriculture for the market, she suggests that commercial production "may buy the Bakairí some time" to develop new strategies to ensure their survival (2000:76).

What constitutes a pragmatic productive or economic strategy, however, depends on the desired outcome. It is here that cultural relativism is indispensable, precisely because it calls attention to the contextual nature of values and choices. Little's notion of "cosmographies" provides one useful framework for exploring such contexts. Another good example of the importance of attention to cultural context is found in Leslie Sponsel's edited volume (1995). In it Sponsel and his colleagues call attention to indigenous people who have taken advantage of new resources and technologies made available by the West, as well as nonindigenous people who have learned productive techniques from Indians. Concerned not only with the individual and collective rights of indigenous peoples, these theorists focus on the Amazonian ecosystem as a whole, as well as on the dangers of deforestation for nonhuman species and the global climate. Viewed in this context, they suggest, indigenous forms of production are not only pragmatic, they are *superior* to industrial agriculture, which they fault for causing excessive deforestation. In turn, such deforestation threatens not only the livelihood of people, but the survival of nonhuman species and the stability of the global climate as well.

One way to conceive of pragmatics is in terms of "sustainability," a concept that turns out to be difficult to make operational (see Fautin 1995 for reviews of debates from a variety of points of view). Environmentalists generally define sustainable development as that which allows the present population to provide adequately for its needs without jeopardizing the ability of future populations to provide adequately for their needs (see World Commission on Environment and Development 1987). The problem with this definition is that both "adequately" and "needs" are culturally defined, often political, and highly variable (Wikan 1995:636). Virtually every study of Amazonian cosmologies suggests that people understand their relationship to the biotic environment not in terms of sustainable food

production, but rather in terms of the “sustainable” production of (fully socialized) “persons,” through relations with spirits that cycle between positive and negative reciprocity.

An alternative approach to sustainability comes from ecologists who study nonhuman populations. They generally use “sustainable” to characterize an ecosystem that is continually able to produce its own inputs (excluding solar or geothermal energy). Typically, research has concentrated on determining the optimum population of a given species in a given habitat (“optimum” being a function of intra- and interspecies competition for food, and predation), and, for humans, what cultural practices (especially concerning food production and demography) most effectively reproduce that population (see Carneiro 1995; Meggers 1995; and Moran 1995 for debates over this approach).

In 1979, however, Stephen Beckerman reviewed much of the literature on subsistence production and reached a conclusion that in effect argues that any cultural ecology in the Amazon must be political ecology:

... contemporary Amazonian populations can tell us rather little about the economic and demographic parameters of preconquest Amazonia because a spectacular demographic disaster has intervened. The disaster is, of course, the introduction of Old World diseases, often combined with predation by whites (1979:553).⁹

Beckerman’s point implies a radical shift in the scale of the ecosystem under consideration. Indeed, the fundamental issue in any study of ecological relations, especially involving “sustainability,” is the temporal and spatial boundaries of the system. This is a crucial issue because, as Emilio Moran has pointed out, “research questions and research methods are often scale specific,” but “many debates on Amazonian cultural ecology (have been products of) sliding between different levels and scales of analysis, without explicit recognition of the shift that has taken place” (2000:77).

As Little suggested, political ecology can resolve this problem through its attention to the articulation of different systems at different scales. One of the accomplishments of political economy has been to demonstrate how the growth of one open system (where inputs come from outside the system) can lead to degradation (i.e., underdevelopment) of another system. Practices that link an individual, a household, a community, and a world market, may be “sustainable” at one level and unsustainable at another.

Thus, in one of the founding works of political ecology, Schmink and Wood (1987) contrast subsistence activity dedicated to “simple reproduction,” typical of Amazonian Indians, with “expanded production”

dedicated to the private accumulation of wealth, promoted by the state and capital. Bunker (1985) further observes that although in the core of the world economy the regime of accumulation takes the form of productive activity that results in economic development, in peripheral areas like the Amazon it takes the form of extractive activity that results in underdevelopment. This framework requires ethnography that not only includes both indigenous and exogenous actors, but that distinguishes between the productive and reproductive ends of different elements of a hierarchical structure at different scales. In order to understand how indigenous people become invested in such systems, however, we must turn to the locally sited, grounded ethnography Picchi advocates.

Subordination and Self-subordination

Returning to Picchi's point that hybrid economic activities may help buy Bakairí, and presumably other Amazonian peoples, some time, as well as to her questions about the immediate costs of returning to traditional horticulture, I am reminded of events from my own fieldwork with the Ecuadorian Shuar. Once, when fishing with my Shuar *compadre*, we were walking down the middle of a shallow stream. He was casting a net to catch bottom feeders and handing the caught fish to me to carry. I noticed that he was killing immature and mature fish, including gravid females. I told him that if he continued doing this, there would be no fish next year. He agreed. We continued walking. Some time later, I repeated my point and, as he gave me another immature fish, he agreed again. When I made the point a third time, he stopped, turned towards me, and asked, "But what would we eat, then?"

My *compadre* understood the causal relationship between overfishing and food depletion (some Shuar communities have put a moratorium on fishing with dynamite for precisely this reason). This story reveals the possibility that what might appear to Indians to be pragmatic choices could actually leave them disadvantaged and with *less* time. My *compadre's* question, however, makes the important point that Indians may sometimes act under circumstances in which they believe they have no choice. Such circumstances not only call for a sophisticated theory of agency or practice, but for an inquiry into the structures that define the terms of human action. How, exactly, did the Bakairí come to desire new technologies? Who benefits from the purchase or use of them? Do different groups or particular individuals benefit in different ways? Does the use of these technologies harm different groups in different ways? Picchi's narrative suggests that the answers have everything to do with capital and state

penetration, but she does not offer a detailed account and analysis of these processes. Moreover, while her language suggests that these processes involve a clash between traditional and modern cultures, poststructuralists warn us that such an opposition masks the operation of a political field, and the struggles between differently positioned agents. Analyzed in terms of power, politics, and agency, pragmatics could be understood in terms of tactics and strategies, as well as compromises and collusion. When lacking a notion of power and a theory of agency, however, it is hard to tell the difference between pragmatism and functionalism.

Yet Picchi is clearly describing a system that, at the local level, can only be called dysfunctional. New technologies, including pesticides and fertilizers, as well as population concentration, have led to depletion of fishing, overexploitation of the gallery forest, and general ecological damage (2000:139). She reports that the Bakairí themselves fully understand the environmental damage caused by industrial agriculture. Thus, she observes that “it is ironic that while the long-term dangers associated with such Western technology as fishing nets and chemical pesticides are well known by the Bakairí people, the attraction of such goods remain strong” (2000:140).

These ironies must be the starting point for a sound political ecology analysis of Amazonia. How people come to participate in and even desire their own oppression is one of the most pressing questions of our time. It was a central preoccupation for such critics of modernity as Marx, Nietzsche, and Freud as well as for poststructuralists such as Foucault, and Deleuze and Guattari. Picchi’s study demonstrates that one of the greatest problems facing indigenous Amazonians (and the Amazonian ecosystem) is that they are increasingly drawn into practices that are necessary for their survival, but that are *not* sustainable. The analysis of such a problem requires a political ecology that combines an enlarged understanding of ecology with an understanding of politics equally attentive to structure and agency.

In the cases of both the Bakairí and the Shuar, I suspect that this process is itself a consequence of what might be called “territorialization.” For example, the Shuar Reserve was created in 1935, only shortly after Euro-Ecuadorians began settling in what is today the province of Morona Santiago. Today the Shuar have legal title to approximately 7,000 square kilometers. This reserve has provided the basis for Shuar ethnogenesis and to this day Shuar see it as a basis for their ethnic identity and culture (Rubenstein 2001). Since that time most territorial disputes have been resolved in the favor of the Shuar, who have even begun colonizing land claimed by other indigenous groups (Little 2001:152–153).

The very creation of a bounded, protected reserve has provided the basis for the kinds of dilemmas faced by my *compadre*. Similar to the Bakairí, Shuar have experienced a population boom. Whereas the Bakairí population more than doubled between 1959 and 1999 (Picchi 2000:68), Shuar population has increased more than six-fold. Although there are no reliable population records from that time, Michael Harner estimated that in 1956 there were 7,830 Shuar (1984:14). According to the 2001 Ecuadorian census, approximately 48,000 Shuar now live in Morona Santiago. As a result of increased population pressure within their territorial limits, there is now a shortage of game. Virtually no Shuar family can subsist entirely on hunting and gardening any more.

However much the territorialization (combined with population growth) of the Shuar has led them to depend on the market, I suspect that there is another mechanism at work, one that explains not their dependence on but rather their *desire for* the market. Throughout my fieldwork various Shuar would point in a direction and explain, "That used to be our land, before the settlers came." They seldom meant that the land was outright stolen. They often explained that their father or grandfather had traded the land away. Most of the time, people shared this kind of story with me in a matter-of-fact way.

One day, however, a close friend and informant repeated the story and added, "Now, if I went there, they would not even give me a coca-cola!" It was strange, I thought, that he seemed more angered by the fact that he could not just drop in on his neighbor and be offered a coke, than by the fact that the land was now owned by a settler. As with all Shuar (and many an anthropologist) he understood that when a Shuar exchanged something in return for land, he believed that he was entering into a social relationship based on the periodic exchange of gifts. Whereas the Shuar believed that the exchange signaled the beginning of a relationship, for the settler it signaled the end of a relationship, that is, an act that, no matter how equitable, was fundamentally antisocial (Shuar and settlers alike talk of antisocial possessiveness using the Spanish word "egoísmo," or selfishness).

I believe that what so shocked my friend was not the ultimate loss of that particular parcel of land, but rather the realization that an exchange *could* be final, and that something *could* be lost, forever. The only defense Shuar had against this shocking mentality was to claim title to their own land, and to arrange for a kind of title that would be inalienable. Clearly demarcated territorial boundaries, however, constitute clearly demarcated social boundaries that, I believe, provide a material basis for a selfish ontology. Thus, in the very move through which Shuar defend themselves

against the physical encroachment of settlers, they internalize the settler (or capitalist) cosmography, including its ontology of selfishness. Once Shuar had made this mental leap, I suspect they thought there was no turning back. But, this is a speculation based on a passing complaint. Fortunately, there is a recent ethnographic account that provides a strong basis for an enlarged understanding of how indigenous peoples can be drawn into this capitalist cosmography, even absent the threat of force or the loss of access to wild game.

Production and Trade

William Fisher's ethnography of the Xikrin (one of fifteen Kayapó communities, whose language belongs to the Macro-Gê family, and who live in the central Brazilian states of Pará and Mato Grosso) highlights the relationship between politics and desire. Following Brian Ferguson's (1995) example of including trade networks within the general ecology of a community (and thus echoing the Lesser-Strong approach), Fisher asks why Xikrin are obsessed with manufactured trade goods. Observing that they do not distinguish between necessities and luxuries, he argues that "the intrinsic attractiveness or the innate superiority of Western manufactured products can explain neither the relatively restricted list of desired goods nor the quantities of goods considered satisfactory by the Xikrin" (2000:2). He is especially insistent that anthropologists not be seduced by the objective quality of these goods, even when they are demonstrably superior to their locally produced equivalents, for to be so would imply an acceptance of the West's own claims about itself and human nature. Instead, Fisher suggests that anthropologists should focus on "how such goods are acquired and incorporated into the lives and societies of indigenous peoples operating within different regimes of value and social structure" (2000:2).¹⁰

This process began with the termination of the SPI (Indian Protection Service) in 1967, to be replaced the following year by FUNAI. In the 1970s, the Brazilian government outlawed the fur trade and promoted the construction of the Trans-Amazonian highway. Fisher begins with an analysis of what is conventionally called "subsistence strategy," that is, food production, especially bitter manioc. He points out, in an observation that is emblematic of political ecology, that the Xikrin rely on this as a staple not because it is "indigenous," but rather

... because it could be efficiently produced by western technology and because it serves the needs of a more sedentary population involved in the extractive industries better than do sweet potatoes, maize, and even sweet manioc ... It was not environmental imperatives that made bitter manioc attractive but

Figure 2. (right) Xikrin-Kayapó river pilot proudly poses with a motorized canoe used by members of a men's club and their families



Figure 3. (above) A Xikrin bachelor displays a canoe motor



Figure 4. A Xikrin elder, engaged in a traditional means of production, uses a mollusk shell to plane a bow to its desired thickness



Figure 5. A Xikrin man in a feathered headpiece



Figure 6.
A Xikrin man
makes a basket of
pliable strips of a
small vine

the political economy of frontier life in which Western technology became available” (2000:82).

Prior to sedentarization, Xikrin, like other Gê, relied on sweet manioc when available, and would eat other foods when seasonably available, or go on treks in pursuit of other food. Today, however, Xikrin live near the FUNAI post, and trek according to the dictates of the Brazil nut cycle. *Farinha* (grated, pressed, and dried bitter manioc) is well-suited to this situation because it “is easily portable and stores well” (2000:83).

This adaptation has local as well as regional political consequences, for it has led to an increased dependence on chiefs, who dispense fuel and lubricants for the *farinha* grinder, as well as other trade goods (such as shotgun shells and processed foods). Moreover, although the women of apparently autonomous households cultivate their own manioc (bitter and sweet) and sweet potatoes, most of the bitter manioc is produced in gardens owned by chiefs. Thus, villagers acquire most of their trade goods when men join a “men’s club” allied with a particular chief that cultivates his gardens. The chief does not pay these men in wages or in kind, but provides trade goods as tokens of friendship. Whereas sweet potato production and exchange constitute lateral ties among households (and are largely regulated by women), bitter manioc production and distribution constitutes vertical ties between men and their chief (2000:82–91). Thus, “chief sponsorship of collective gardens proves to be less about subsistence and more about legitimating political allegiances through a mimicking of household authority” (2000:118). This legitimation is crucial because “strong chiefs are needed to leverage goods from the outside world and preserve the integrity of reservation boundaries” (2000:119). Yet Xikrin also resist this emergent stratification, through “halfhearted compliance” or out and out lack of cooperation with their chiefs (2000:176–177).

Structure and Agency

Fisher’s analysis of production demonstrates the usefulness of a theory of practice to political ecology. Fisher describes structures from divergent points of view: of men and women, young and old, chiefs and commoners. Moreover, he shows how actors with similar resources and interests may pursue different strategies. For example, although Xikrin have taken advantage of trade with other Brazilians, they have also developed ways of disrupting extractive production that serve to protect their autonomy. In this context, Fisher presents Xikrin social structure (similar to that of other Gê) as a framework for social action that simultaneously reveals both a social order and its own limitations. People who are positioned within



Figure 7. The Xikrin use common regional techniques and equipment for processing bitter manioc into flour or “*farinha*”—a plastic tarp, manioc press, sieves, and basins. Although manioc flour has been familiar to the Xikrin at least since their encounter with the *aviamento* system of rubber exploitation in the early twentieth century, they only began making it themselves in the late 1960s

different parts of this structure struggle to fulfill their own obligations to one another while competing over various ends. The overall result is a portrait of a coherent Xikrin social organization that is neither essentialist nor homogeneous.

The combination of political ecology and some theory of practice goes far towards alleviating what I suspect is a source of discomfort



Figure 8. In a task from which women are barred, Xikrin men use canoe paddles to toast bitter manioc in an iron griddle to its final consistency to be bagged and stored

with cultural ecology for many anthropologists, that is, its reliance on “adaptation” as a central concept.¹¹ For some, this word suggests passivity or functionalism. In fact, cultural ecologists have explored cultural “adaptations” as active processes. Thus John Bennett (1969) focused on the adaptive strategies people devise for coping with various problems (especially those owing to the scarcity of various resources), and the way they become institutionalized in the form of cultural values (but see below for a critique of Bennett’s approach). I suggest that the contribution of political ecology is to call critical attention to the economic and political forces that shape the environment, and the role of a theory of practice to call critical attention to the political fields in which individuals actively adapt to their environment.

TOWARDS A POSTSTRUCTURALIST POLITICAL ECOLOGY OF AMAZONIA

Fisher's analysis suggests that political ecology is not just a tool for Western policy makers, but potentially a tool for developing a critique of Western privilege. After all, the white sheet that Boas employed served not only to present the Kwakiutl as somehow "pure." Viewed from the other side, it hid the Kwakiutl, and allowed people to view the Leather and Shoe Trades building as if it existed in a world without indigenous peoples. To remove the sheet is to see both sides simultaneously. Political economy adds to cultural ecology a powerful framework for achieving this double revelation. By moving beyond the conceptual distinction between the natural environment and socioeconomic behavior, it offers a single language for describing the natural and the social, the local and the global.

Postmodernism

To be more fully operational, however, political ecology must go one step further and engage in discussions concerning postmodernism. I understand postmodernism, like modernism, as a cultural movement that can be analyzed in terms of the social, political, and economic systems within which it operates.¹² Marshall Berman (1982) has explored the ways modernism expressed people's awareness of the conflicts and contradictions of monopoly capitalism. Similarly, Jameson (1991) usefully characterized postmodernism as the "cultural logic of late capitalism" (see Mandel 1978), which emerged after the collapse of the Bretton-Woods accords in 1973. Postmodernism is identified with globalization, that is, a global economy characterized by the decentralization of capital accumulation and cycles of accumulation that occur at such a rapid pace that shifts in the geographic centers of wealth and financial dynamism are short-lived (see Harvey 1989; Friedman 1999:5). In other words, these thinkers conceptually distinguish between "postmodernity" as an objective historical condition, and "postmodernism" as a particular cultural (or ideological) response to this situation.

A political ecology informed by an evenhanded critique of both political economy and postmodernism would be the most powerful ethnographic research program to tackle the issues they raise. At stake in the difference between political economy and postmodernism is the question of whether juxtapositions of the traditional and modern, and of the familiar and the exotic, reveal some underlying order—which political economists, such

as Immanuel Wallerstein (1974) provide using such terms as “core” and “periphery,”¹³—or, to the contrary, if such juxtapositions call into question any notion we may have of an ordered world—which postmodernists celebrate using such terms as “spectacle” (Dubord 1994) and “carnavalesque” (drawing on Bakhtin 1984, and Barthes 1977). Although much has been made of this difference, I am more concerned with a fundamental underlying similarity: both are ethnocentric, in that they express the view at or from the “core” of the world economy. Political economy, which emphasizes the accumulation of capital in the core, reflects the self-image of monopoly capitalism. Postmodernism, which emphasizes the mobility not only of people and objects but of their signifiers, reflects the self-image of late capitalism. The task for political ecology is to analyze spatially distributed fields of power, without privileging the perspective of one agent (or, more accurately, position) in this field (for example, by reifying any particular hierarchy).



Figure 9. Xikrin boys holding model airplane. Does this represent the peripheral location of the Xikrin in the world economy, or the carnivalesque character of globalization?

Poststructuralism

I believe that it is strategically and theoretically useful to pursue Paul Little's (1999) and Arturo Escobar's (1996, 1999) call for a poststructuralist political ecology.¹⁴ Poststructuralism provides theoretical leverage to move beyond the core's view of the world without falling into either modernism's fetishism of order or postmodernism's celebratory abandonment of order. Minimally, I understand "poststructuralism" to refer to a set of approaches that share the Enlightenment value of critique, but reject the mythic histories through which critiques were expressed. In other words, one need not have faith in progress in order to be critical of the past, and one need not rely on nostalgia to be critical of the present.

Poststructuralists like Jacques Derrida (1974) and Bruno Latour (1993) provide an insightful critique of modern European ethnocentrism.¹⁵ They understand that the study of culture and history involves some sort of order, but they also insist that scholarly notions of order are themselves culturally and historically situated, and have ideological functions. Specifically, they have argued that the conceptual opposition of "nature" and "culture" is an epistemological stance that Europeans have used to legitimize a variety of forms of power, including power over conquered and colonized indigenous people, often thought of as living in a state of nature. They also applied this critique to the conceptual opposition between savagery or primitiveness (valorized by the appeal to nostalgia) and civilization (valorized by the appeal to progress).

This division of the world into two types of cultures (two types of people) is reflected in the theoretical division of labor in which anthropologists used cultural ecology primarily to analyze aboriginal cultures, and used first acculturation studies, and then political economy, to analyze cultures subordinate to capital or the state. Latour urges anthropologists instead to develop a "symmetrical" science that treats equally both nature and culture, and indigenous and Western societies. One such symmetrical science would be an approach that applies ecological principles to states and the capitalist core, and that applies political economy principles to indigenous societies. Such is the promise of political ecology (see also Chapin 2004; Shellenberger and Nordhaus 2004).

A "poststructuralist" political ecology need not involve a literal-minded (and often superficial) appropriation of jargon associated with theorists such as Derrida, Latour, or Foucault. It would, however, minimally imply an awareness that binaries such as "nature/culture" and "traditional/modern" often structure our own implicit knowledge, are themselves produced, and that good research must struggle against them. It would require an

awareness that the very existence of such binaries are effects of power that we cannot easily dismiss such effects as “false,” and that the production and operation of these effects of power are themselves important areas of study. It is this kind of poststructuralism, offered by Bruno Latour (see also Haraway 1992), that Paul Little argues must be incorporated into ecological approaches (Little 1999; see also Adger, Benjaminsen, et al. 2001).

Such an approach would not begin with a conceptual distinction between culture and nature, or between natives and settlers, but might show how such distinctions become meaningful and even powerful, and how they come to be used, by whom, and to what effects. Such an approach would also seek “to treat natural and social adversaries in terms of the same analytical vocabulary” (Law 1987:114, quoted in Little 1999:257), and would bring us closer to the vision Lesser, Strong, and Steward all entertained.¹⁶ Poststructuralism adds to that vision an analysis of the discursive dimensions of this situation. When “resources,” the “environment,” and “society” are conceived of in a way that transcends the binaries implicit in Western thought and culture (Latour 1994 is especially useful here, but see also works by historical ecologists such as Balée 1994 and Cronon 1996), political ecology becomes a very potent tool for learning more about politics and power.

The Discursive Production of Nature and Culture

Arturo Escobar (1996; see also 1999) characterizes postmodernity as a period in which knowledge and its signifiers have not only become commodities, but highly valued commodities, the circulation of which plays a crucial role in the world economy.¹⁷ Consequently, Escobar argues, whereas “nature” was once primarily a resource, the raw material out of which commodities may be made, the very idea of “nature” is now a commodity, a product (see also Lefebvre 1991). In my view, the history of the Bakairí reserve exemplifies this process. In some ways the reserve has preserved nature as a source of raw materials for local production. As long as the Bakairí were isolated from the money economy, the reserve functioned to keep nature “natural” by making its land unavailable to Brazilian settlers. In fact, from the beginning the reserve functioned to give the state control over resource exploitation, as first the SPI (Serviço de Proteção aos Índios) and then FUNAI (Fundação Nacional do Índio) required Bakairí to tend state-owned (until 1989) cattle. But the struggle to “protect” nature from economic exploitation is part of a process in which nature itself becomes a commodity—specifically through the rise

of ecotourism. As Picchi observes, other signifiers become commodities: Bakairí “ethnic identity” is now a commodity traded on the international market (2000:xvi, 161–163).

Similarly, the Kayapó have sought to exploit such discourses for political capital, despite sometimes finding that whites can use such discourses against them. Thus, Fisher mentions that Western observers often see the Kayapó’s desire for manufactured goods as a sign of corruption or ethnocide. The Xikrin provide an especially important case, because the Kayapó are rightly famous for their role in the Brazilian (and global) environmentalist movement. Yet they were also victims of the Western binary of “primitive versus civilized,” and the double standard that masquerades as romanticism, when it was revealed that their leaders were profiting from goldmining and logging on their reservation (see Conklin and Graham 1995). How do Western colonial or development practices produce such discourses? What is the function of these discourses within the world capitalist economy?¹⁸ The fact that one element of the West offers Indians trade goods, while another element simultaneously condemns them for accepting, is an irony worth further analysis.

For the moment, I would suggest that one function of the nature/culture binary is to mask the political nature of the production of desire.



Figure 10. *Yakwigado* mask dancing in front of Bakairi men’s house—
spirit or commodity?



Figure 11. Bearing an assortment of firearms acquired between the mid-1960s and the mid-1980s, Xikrin men join in a dance meant to produce a collective sentiment of fierceness



Figure 12. Fresh from a village ceremony, Xikrin chief Jaguar stoops to speak into the two-way radio with a neighboring Kayapó village

As Fisher observes (2000:2), it can be used to suggest that the effects of desire (acquiring or consuming specific goods) are actually the cause of desire. Put another way, it suggests that specific desires are natural. The alternative to this view is not that desires are culturally constructed (true enough, though banal) but rather that what appears to be either human nature or Xikrin culture are actually the effects of a particular field of power that is neither universal nor specific to the Xikrin. This field of power is both social and spatial. Fisher's ethnography provides a good example of how practice theory and political ecology can illuminate this political field.

The Material Production of Desire

Fisher opens his ethnography asking why Xikrin are so obsessed with manufactured trade goods. This is not only a theoretically interesting question, it is inextricably linked to a more politically urgent question he also raises: "Why ... did it seem that Xikrin would sell their grandchildren's environmental birthright just at the moment when reservations were finally being demarcated and boundaries guaranteed for generations to come?" (2000:193). Given that Picchi's work raises a similar question, specialists should now consider this one of the central questions in Amazonian ethnology.

According to Fisher, Xikrin commoners have come to see their household autonomy as dependent on alliances with chiefs, and chiefs understand that their own local autonomy depends on maintaining trade relations with Westerners. Although this account is nuanced and insightful, it calls for more analysis of the function of this obsession with manufactured goods within the larger (i.e., capitalist) political economy. Such analysis would require theories of value and of desire, and an attempt to imagine the articulation Fisher so ably describes as a particular moment in the continuing incorporation of the Xikrin into the capitalist economy.

The Xikrin obsession with manufactured goods seems to confirm that pillar of capitalist cosmography, the economic dogma that human desires are infinite. The alliance of anthropologists, historians, and economists known as "substantivists" went to considerable lengths to debunk this dogma some time ago, demonstrating convincingly that wants and needs are socially constructed or encoded in noncapitalist economies, and that so-called economic activities may have other functions than maximizing utility (see LeClair and Schneider 1962). Indeed, Fisher's ethnography provides a sophisticated example of this phenomenon.

Yet this dogma is not just a factual error on the part of economists. It

is, rather, a social fact essential to the operation of capitalism. Many have argued that capitalism is the most productive economic system yet devised, even though it suffers from periodic “busts.” Although the cycle of boom and bust Fisher describes in the periphery of the world capitalist economy is the direct result of changing tastes and technologies at the core, Marxists have analyzed the cycle of boom and bust at the core in terms of crises of overproduction. It is crucial to the continued operation of this system that demand keep pace with rising supply, and the belief that desires are naturally infinite legitimizes mechanisms that generate demand.

Few, however, have grappled with the process by which this dogma is established and naturalized. Deleuze and Guattari’s (1983) reading of Marx provides one useful suggestion. They observe that the process by which people come to experience their desires as insatiable can also be described as the process through which people’s desires, formerly socially coded (so that specific situations or relationships call for specific exchanges), become “decoded” (not in the sense of “translated” but rather in the sense that any regulation of or limits to exchange are broken).¹⁹ For them, the heart of *Capital* is Marx’s account of how Europeans became decoded when all they could sell was their labor-power, and how money became decoded when it was capable of buying labor power. In Marx’s terms, fully decoded exchange is the “general form of value” in which anything can be exchanged for anything, and which analytically precedes the “money form” (Marx 1967:70–75). Since Marx saw labor power as the source of all values, “decoded” money appears to be productive, that is, it is now capital (Deleuze and Guattari 1983:224–227).

The question is, how does this process of decoding occur today, outside of Europe, especially in societies where objects of exchange and exchanges, as well as human labor, are heavily coded? The money Westerners bring with them to the Amazon is already decoded, but anecdotes about Indians who do not understand money are legion. How might Indians be prepared to enter the money economy? How do they learn the “generalized form of value” that conceptually precedes the money form? At first glance, the Xikrin may not seem an ideal case because they are not yet selling their labor power, and are not yet integrated into the money economy. But, in fact, trade goods become socially coded and regulated as Xikrin use them not only in production but in social reproduction. Thus, I believe Fisher has witnessed a society on the verge of experiencing this process of decoding (see Burke 1996 for an example from Africa). The awkward position of the chiefs is the linchpin.

It is, of course, the labor power of commoners that produces the Brazil nuts and other forest products that are traded for goods manufactured by

others in distant places. But, such exchange—and the local production that makes it possible—is controlled by chiefs. Consequently, commoners have come to see chiefs, “in their role as chiefs, as *producers of trade goods* ...” (2000:121). In Marxian terms, they are producers of “exchange-value.” Since FUNAI and independent Brazilians rely on chiefs to mobilize Brazil nut collection or to ensure local peace, and chiefs rely on generosity to ensure the loyalty of their followers, “Xikrin political economy suffers from a built-in inflationary need for foreign manufactured goods” (2000:121).

The point is not that chiefs ought to be generous, which is actually common enough in the Amazon. Fisher’s account of this inflationary mechanism is a significant contribution to Amazonian ethnography and a profound contribution to political ecology. It reveals that something like the inflation of debt that Taussig (1987:66–73) analyzed can occur unaccompanied by the brutality that defined the mercantile cosmography in the Cauca Valley during the rubber boom, but to similar effect.

A continued inflation of needs is a process that, arguably, can only end with the belief that needs are infinite. In the context of the boom and bust economy, more trade goods are also *new* goods (in Marxian terms, the expanded form of value). Each new commodity offered is a new example of the interchangeability of commodities, a revelation that all things are exchangeable, and the essence of what Deleuze and Guattari (1983) called decoding. Mere trade with other Brazilians provides access to new goods



Figure 13. The chief as producer of trade goods: drawing a crowd of villagers anxious for news and trade goods, a small aircraft discharges Xikrin chiefs returning from a nearby town

in addition to the forest products on which Xikrin used to rely. But this inflationary mechanism reveals the West to be a new source of productivity and fertility among the Xikrin. In short, it is “capitalism”—that mode of production that constantly revolutionizes its own means of production (in other words, that mode of production that *produces* production)—spreading its ideology and influence. Thus, exchange itself becomes productive. Marx called this “commodity fetishism” (Marx 1967:76–87). In the case of the Xikrin it occurs through the notion that chiefs themselves are productive. The commoditization of labor is not far behind. Xikrin chiefs resist this, describing their dealings with commoners in terms of the morality of kinship. But commoners are beginning to talk of their relationship in new terms: whether a chief “pays well,” or “pays poorly,” chiefs pay (2000:187).

My interpretation of Fisher’s account of Xikrin desire for trade goods may suggest a bleak future. But Fisher is neither so certain nor pessimistic. As he suggests, such apocalyptic visions are often used to mobilize and justify some form of intervention, either by the state, an NGO, or some other activist group. Although well-intentioned, Fisher warns, such efforts usually ignore or misconstrue local political practices and values, with unfortunate consequences. The point is that Indians like the Xikrin have a long history of creative engagement with their environment (whether natural or social, local or global). In short, history is still being written—but not just by Westerners.

CONCLUSION

Territorial struggles between indigenous peoples and cattle ranchers, gold miners, petroleum companies, and hydroelectric projects have rightly caught the attention of anthropologists and the general public. By comparison, the gift of a machete, some kerosene, or a shotgun may seem mundane. Moreover, as Picchi observed, the fact that many Amazonian Indians want these and other manufactured goods, and are often willing to go to great lengths to get them, makes Indians seem complicit in the degradation of both their own culture and the rainforest ecosystem.

But as Picchi’s and Fisher’s studies reveal, agents of the state or capital (in their studies, FUNAI, extractive enterprises, or local merchants; elsewhere, ecotourism and NGOs) seek to colonize not only indigenous land and labor, but indigenous desires as well. Although this may be a source of embarrassment or sorrow for some, it is also a significant theoretical problem. Moreover, it must be understood not as an individual

failing but as a political dilemma facing indigenous people, who are often torn between what Little (2001:74–186) termed development and environmental cosmographies. A political ecology informed both by poststructuralist concerns, a commitment to grounded ethnography, and a sophisticated theory of agency is well-equipped to make a serious contribution to our understanding of such problems as these, and especially timely for Amazonian ethnography.²⁰

Although “poststructuralism” still triggers alarm bells for some anthropologists (especially those who conflate it with postmodernism), I argue that there is less of a gulf than some might think between the poststructuralist intellectual movement and the intellectual movement inaugurated by Boasian anthropologists. The poststructuralist critique or deconstruction of the opposition between the “savage” (or “primitive”) and the “civilized” should sit easily with anthropologists who, like Boas, challenged this conceptual distinction (1940:284). The cold war did not provide an environment conducive for Boasian anthropology, but anthropologists may be able to appropriate much of poststructuralist thought as a post-cold war means for continuing the critical (though perhaps not the empirical) elements of the Boasian project. To Boas’s methodological innovations (and resistance to “grand narratives”), poststructuralists offer tools for analyzing the West’s discourses, as well as discourses produced by those it has colonized. In the 1980s anthropologists applied this critique to themselves (see Clifford and Marcus 1986; Marcus and Fisher 1986), but anthropologists are far from the only ones who represent peoples in the periphery of the world economy. This critique would be very useful in analyzing the development and environmental cosmologies to which Little has directed our attention.

Other anthropologists are wary of the poststructuralist emphasis on discourse (e.g., Kuipers 1989; Lett 1997; Lewis 1998; Reddy 1997). However, it is precisely because of anthropology’s critical stance towards discourse and representation—understanding them to be products of changing social relations—that poststructuralists themselves have turned to anthropology as a model for studying and theorizing our world. Foucault privileged anthropology as the vanguard of the human sciences (1970:378) and Bruno Latour argued that anthropology should be privileged as “a model for describing our world” (1993:91). Latour’s (1993:100–106) call for a “symmetrical” anthropology that explores the networks formed through material circulations—networks that cross conceptual boundaries between “nature” and “culture,” or “savage” and “civilized”—follows easily from Boas’ understanding of culture in terms of flows across porous boundaries (see Bashkow 2004). This approach, moreover, provides a

way to link George Marcus's notion of a "multi-sited ethnography" (1998) with Eric Wolf's (1982) attention to the connections traced by the flows of different commodities (Stanford Carpenter, personal communication). These complementary approaches to the study of cultural flows and configurations are critical if political ecology is to move beyond the study of specific conflicts over, or policies concerning the use of natural resources. The centrality of culture in each of these models provides a basis for a much-expanded understanding of both "ecology" and "the political."

The models developed by Latour, Wolf, and Marcus not only place particular societies (such as the Shuar, the Bakairí, the Xikrin Kayapó, etc.) within a much larger political field. They lead us back to an ethnography that must be grounded and detailed if it is to reveal the workings of these networks and flows. It is here that the concept of "cultural relativism"—both as a motivation for conducting ethnographic research and as a principle we learn to value through our ethnographic research—is central to the project of political ecology. It was *especially* central to Little's study of different cosmographies and the frontiers where they clash. I hope to show that cultural relativism is essential precisely because of the ways it addresses the very reasons political ecologists may have for rejecting it.

According to political scientist Alison Dundes Renteln (1988), most philosophers as well as anthropologists, following Ruth Benedict and Melville Herskovitz, understand cultural relativism more or less the way philosopher William Frankena has defined it:

... what is right or good for one individual or society is not right or good for another, even if the situations are similar, meaning not merely that what is thought right or good by one is not thought right or good by another ... but that what is really right or good in one case is not so in another (1973:109).

This formulation implies an absolute incommensurability of different cultures—possible, I believe, only if one assumes that cultures are clearly bounded and separate—and leads to the conclusion that different cultures must be understood and judged only in their own terms.

Thus, political ecologists can object to relativism on political grounds. Julian Steward (1948) equated relativism with tolerance and argued that anthropologists would either have to tolerate the most intolerable regimes (e.g., Nazism), or they would have to be utterly intolerant of any society that is not itself tolerant. Thus, any political use of this relativism would end in ridiculous positions. From this perspective, relativists have no basis for criticizing any particular cultural configuration or cosmography. Political ecologists could also object on ecological grounds. If cultures are to be understood only in their own terms, then we have to disregard

precisely those things to which ecologists call attention—the networks of information, technology, raw materials and manufactured goods—that both connect different societies and provide a basis for understanding them.

Renteln, however, has argued that formulations of cultural relativism, such as Frankena's, miss the point. She argues that the spirit of the Benedict-Herskovitz principle is much better expressed in philosopher Paul Schmidt's formulation that "there are or can be no value judgments that are true, that is, objectively justifiable, independent of specific cultures" (1955:782). The difference between this formulation and others is not semantic. Schmidt's formulation that "the idea that people unconsciously acquire the categories and standards of their culture" calls attention to enculturation as the key to relativism (Renteln 1988:62). Thus understood, relativism is not a justification for analyzing societies as bounded and separate entities, but rather a heuristic device that explains cross-cultural misunderstanding and facilitates cross-cultural communication. It is true that cultural relativism makes no substantive contribution to political and ethical debates (i.e., it does not help people come up with moral universals). But it does make a crucial *procedural* contribution to political and ethical debates, because it requires anyone engaged in a consideration of rights and morals to reflect on how their own enculturation has shaped their views. According to Renteln: "There is no reason why the relativist should be paralyzed, as critics have often asserted ... But a relativist will acknowledge that the criticism is based on his own ethnocentric standards and realizes also that the condemnation may be a form of cultural imperialism" (1988:63–64).

As Little and others have pointed out, when people fetishize cultural difference, the clash between indigenous cosmographies and development or environmental cosmographies either ends in frustration or becomes an excuse for the application of force (even though such force may appear to be minimal or even well-intentioned, such as the relocation of indigenous people to a protected reserve, or the creation of wild-life reserves).²¹ In these instances, discourses about culture are themselves political weapons. The deconstruction of such discourses is useful, but inadequate. Ethnographic research—in the Amazon, but in the United States, England, Germany and other industrialized countries as well—that is attentive to enculturation not as a mechanical process situated in local, interpersonal relationships but in a historically dynamic political ecology as well, is essential to an understanding of how such discourses are produced and work.

In order to avoid understanding enculturation as a passive process, such ethnography must be informed by a sophisticated understanding of agency. What is at stake here is *not* the recognition that people make

choices given certain circumstances and a set of alternatives, but rather a radical rethinking of both the “individual subject” and “society.” This rethinking occurs in part through the study of how subjects, choices, and circumstances all take form within a political field. Earlier forms of political ecology often lacked this recognition. For example, Walter Goldschmidt (1983) faulted John Bennett’s political ecology (Bennett et al. 1982) for failing to provide any critical analysis of the emerging system of industrial agriculture, the role of class and ethnic biases, and the operation of market forces that constituted the environment in which family farmers had to act. Moreover, Bennett’s research conceptualized individual acts in terms of rational choice theory and the maximization of utility. The value of rational choice theory continues to be an object of considerable debate among political scientists (see Green and Shapiro 1994). But even though such approaches do shed some light on the ways individuals perceive their options and how they make choices, anthropologists, as Eric Wolf (1982:10) has argued, should be wary of analytic models that take the autonomous individual for granted. In contrast, practice theories understand both social structure and individual agency as ongoing social accomplishments,²² and that people act *creatively* within the social field.

Theories of practice offer alternatives to approaches that fetishize individual decision making, or that reify social structures. A central element of Bourdieu’s (1977) argument is that once the element of time is taken into account, what might have appeared to be the enactment of rules instead reveals strategizing on the part of actors. Fisher invokes Bourdieu’s practice theory, but Henri Lefebvre’s (1991) analysis of the spatial strategies people deploy in the course of biological reproduction, as well as to the reproduction of both the means and products of production, may also be useful.

This rethinking also occurs through an appreciation of the ways the actions of people play a role in reproducing the very structures that constrain their acts (see Giddens 1979, Certeau 1984). This understanding of “practice” is not merely a model of social reproduction. By calling attention to the ways in which social reproduction depends on the acts of individuals, it provides a basis for understanding individual action that goes far beyond the power to choose from a set of preexisting alternatives. Giddens and de Certeau are, in effect, resurrecting and elaborating Franz Boas’ prestructuralist attention to agency: “The activities of the individual are determined to a great extent by his social environment, but in turn his own activities influences the society in which he lives, and may bring about modifications in its form” (1940:285; see also pp.591–592). This formula describes a reciprocal relationship between the individual and society *as a*

field of power. In this context, enculturation involves not only the process by which children adapt themselves to and adopt the values, outlook, and behavioral norms of adults. It also involves the process by which children come to master the resources their society makes available to them for acting creatively. As Boas' own career as a citizen-scientist suggests, he was not merely concerned that anthropology pay equal attention to individuals as to social forms. Boas understood that fully socialized people reflect critically on, and act creatively within, their society. I can think of no better starting point for a thoroughly anthropological political ecology.

PHOTO CREDITS

Debra Picchi: Figures 1, 10.

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NOTES

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1. The use of the word "Indians" to refer to people who most definitely are not from India is one of the most well-known mistakes in the Western hemisphere, and for some this may be reason enough to abandon the word. One reason I use it is precisely because it is a mistake—not just the result of a mistake, but a mistake every time it is used, because it is thereby an example of the arbitrariness of the sign beyond perfection. I do not consider this point clever or trivial; following Eric Wolf, I believe that the starting point of good social science is to take seriously, and resist, the threat "to turn names into things" (1982:3). I say that "Indian" is an example beyond perfection because it is and at the same time is not arbitrary, for it was only at a particular time in history that people born in what are today called the Americas could have been given the name "Indians." The word thus signifies the fractured and misguided logic of the conqueror, who has the power to make such mistakes and get away with them. Toward the end of his *magnum opus*, Wolf argues that the word "*Indian* stands for the conquered populations of the New World, in disregard of any cultural or physical differences among native Americans" (1982:380). Thus, the word "Indian" signifies not a group of people but a particular historical relationship involving many peoples. There is a risk

that words like “Indian,” which signal a subordinate position in society, become pejorative. Perhaps for this reason, Fisher—when not referring specifically to the Xikrin—uses the word “indigenous” (although other authors cited in this article, like Taussig and Picchi, use “Indian.”) Although I use this word as well, I do so with caution because I do not claim that my arguments necessarily apply to all indigenous peoples. Nevertheless, I use the word “Indian” rather than “indigenous Amazonian” because I believe it is the relationship between Indians and dominant elements of society (whether “whites” or “the state”) that is the problem, and not the word itself. Of course I agree with Michael Harner’s point that “academic taxonomic ideals must take second place when they interfere with the rightful aspirations of oppressed peoples” (1984: xiii-xiv). Admittedly, a third reason I use the word is out of habit, developed because the people with whom I work, the Shuar, use it (that is, its Spanish equivalent, “*Indio*”).

2. Although many people use “postmodernism” and “poststructuralism” interchangeably, I consider them distinct (and, as I argue below, the distinction is important for political ecologists). By “poststructuralism” I mean an academic movement associated primarily with Michel Foucault (1970), Gilles Deleuze (Deleuze and Guattari 1983), Jacques Derrida (1974), and Bruno Latour (1993), who, although antagonistic about many issues, are united in their rejection of structuralism and in their ambivalence towards the Enlightenment project (having rejected its faith in progress, while maintaining its critical spirit). By “postmodernism” I mean a movement based in art and architecture, and in academia primarily associated with Jean-François Lyotard (1984), which is characterized by a celebration of the end of the Enlightenment project. Both poststructuralists and postmodernists reject humanism, positivism, and the “grand-narratives” that have dominated Western thought, but for different reasons and in different ways. Interestingly, both find some inspiration from indigenous Amazonians—for Derrida, the Nambikwara, for Latour, the Achuar, and for Lyotard, the Cashinahua.

3. See Orlove 1980, Kottak 1999, and Biersack 1999 for various histories of ecological anthropology. These histories argue that ecological approaches have progressed through distinct stages, including “neofunctionalist” and “neoevolutionist.” As Chris Kyle has observed (personal communication), these accounts typically serve to justify their author’s current project rather than to shed light on the historical processes that have led anthropologists to raise different questions in different terms. I would add that these accounts may also reflect the distance between the context in which earlier works were originally written, and the context in which they were later read. I suspect that a good genealogy of ecological approaches in anthropology will reveal more about changes in the way anthropologists talk about anthropology than about changes in the way anthropologists talk about the environment or culture.

4. The notion of a “human ecology” seems to have been discussed first by sociologist Edward Hayes and geographer J. Paul Good in the early years of the twentieth century (Gross 2004: 583). Attempts to engage sociology and geography continued through the 1920s, led by sociologist Robert E. Park (whose appreciation of geography echoed that of Franz Boas (e.g., Boas 1940:639–647; see

Gross 2004:593–494), and Harlan Barrows (1923), who, in his 1922 Presidential Address to the American Association of Geographers, elaborated on the idea of “human ecology” as a way of understanding how humans respond, adapt to, and shape their environment. Nevertheless, as geography and sociology departments competed for resources, geographers resisted anything that might threaten the boundaries of their discipline (Gross 2004:595–596). Consequently, human ecology within geography did not emerge until the 1960s. It was not until Julian Steward’s pioneering work in the 1930s that anthropologists began to develop cultural ecology, their equivalent of what Park and Barrow each referred to as “human ecology.” Today, both human ecology and cultural ecology are important approaches to research, serving as frameworks for analysis in both geography and anthropology, despite the fact that geographers and anthropologists sometimes use these terms in strikingly different ways.

5. Both Schmink and Wood (1987) and Sheridan (1988) argue that a hybrid of cultural ecology and political economy is necessary for the study of natural resource control in such hybrid situations as those of people who straddle both subsistence and capitalist economies. For Schmink and Wood, political ecology is necessary for the study of the frontier between subsistence and capitalist societies. For Sheridan, it is necessary for the study of peasants, who rely largely on subsistence production but exist within and are part of capitalist societies.

6. Although less frequently cited, other uses of “political ecology” that predate Schmink and Wood (1987) and Sheridan (1988) include: Boehm 1978; Brumfiel 1983; McCay 1981, 1984; Morgan 1987; Salwasser 1987; Simberloff 1987; and Voget 1963.

Voget (1963:235) defines political ecology in terms of interrelations among polities (i.e., societies. See also Boehm 1978:266). Brumfiel (1983:266) defines “political ecology” as a concern for “how ecological variables present obstacles and opportunities to individuals pursuing their political goals in various structural contexts.” Salwasser (1987) and Simberloff (1987) understand it as research that can inform policy debates concerning natural resource management and the preservation of biotic diversity. These three distinct definitions continue to mark the parameters of much current research identified as “political ecology.”

When the *Journal of Political Ecology* was launched in 1994, the editors characterized their emergent field as dedicated “to an increased understanding of the interaction between political and environmental variables broadly conceived” (Greenberg and Park 1994:8). Similarly, Schmink and Wood define political ecology as the study of “the relationship between the natural environment and socioeconomic behavior” (1987:38). More specifically, they examine the clash between socioeconomic systems at different scales and their effect on the environment, with an eye towards addressing environmental policy issues, especially in terms of class conflict (rather than a Malthusian dynamic).

7. At the time of the Industrial Revolution, “political economy” meant the study of the conditions that determine the wealth or poverty of polities. Anthropological political economy has its origins in research by Eric Wolf (1956) and Sidney Mintz (1956) that called attention to structural inequalities in the relations of production (i.e., class) and the international market (i.e., dependency).

At first, anthropologists concerned with the relationship between local cultures and larger economic systems (e.g. Wolf 1955; Wike 1958) used “political economy” to refer to a specific branch or concern of economics. Later, they used the phrase to signal their engagement with Andre Gunder Frank (1967) and Immanuel Wallerstein (1974), who argued that capitalism is a global phenomenon, that it structures the world into unequal parts, and that the economic growth of one part is underwritten by the exploitation of another part. Jorgensen (1971) was one of the first anthropologists to use “political economy” (albeit in passing) to refer to metropole-satellite relations. In 1978, a special issue 5(3) of *American Ethnologist* was devoted to political economy, signaling its establishment as a clearly defined area of research. The term was first promoted by Wolf’s students Jane and Peter Schneider (1976).

8. See Chapin 2004, and Shellenberger and Nordhaus 2004 for arguments from within the environmentalist movement that the socioeconomic, or political, and the environment should not be treated as independent variables.

9. That conquest and colonialism has radically altered the Amazonian ecosystem does not necessarily mean that the preconquest ecosystem was unchanging. Unfortunately, there is no room in this review for a consideration of the tremendous importance of “historical ecology” to the project of political ecology (see Cronon 1984, 1996; Denevan 1992; and Balée 1994).

10. In this Fisher is perhaps as indebted to Sahlins (1989) as he is to Wolf (1982).

11. This sense of passivity may stem in part from a conflation of biological and cultural evolution. In its original formulation, the Darwinian model was unconcerned with the mechanisms that generate variation, and was unconcerned with the forces that shape the natural environment (to be studied by geologists and physical geographers). Darwin’s radical point was to call attention to the relationship between variation within a species and its natural environment. Following the modern synthesis of Darwinian natural selection with Mendelian genetics, some have pursued this lack of concern for individual intentionality and for the forces that shape the environment to an extreme (e.g., Dawkins 1990). Recently, however, other evolutionary scientists have been exploring models that recognize intentional and active adaptations on the part of individuals. For example, Christopher Boehm (1978:266) pays attention to “rational preselection,” meaning purposive behaviors, including both individual and collective decision-making processes that anticipate complex evolutionary problems in models of human evolution.

12. I use this term differently from Picchi, who identifies postmodernism with the claim that “all knowledge is a product of interpretation, colored by such factors as personal experience, culture, and political interpretation” (2000:18). Attention to subjectivity and interpretation are neither recent nor strictly “postmodern.” They are more properly the concerns of hermeneutics theorists, mainly those influenced by Wilhelm Dilthey, such as Gadamer (1986), those influenced by Sigmund Freud, such as Victor Turner (1967, 1973; see Oring 1993), and those influenced by Max Weber, such as Geertz (1973). Postmodernism and its academic cousin poststructuralism are, in contrast, characterized by a radical

critique of subjectivity.

13. According to Wallerstein, “core” and “periphery” exist in a reciprocal relationship between two places (or polities). The former consists of places or polities that produce high-wage, capital-intensive, and high profit goods to exchange for low-wage, noncapital-intensive, and low profit goods produced by the latter (1974:351). Many social scientists have used other words to express this binary, for example, “metropole/satellite” (Frank 1969); “articulated/disarticulated economies” (de Janvry 1981); “productive/extractive economies” (Bunker 1985); and “expanded production/simple reproduction economies” (Schmink and Wood 1987).

14. See Demeritt 1994a, 1994b, 1998; Jarosz 1993; Nesbitt and Weiner 2001; Robbins 2001a, 2001b; Stott and Sullivan 2000; and Willems-Braun 1997 for poststructuralist political ecology case studies by geographers. In general, poststructuralist geographers are especially concerned with deconstructing notions of “nature,” whereas poststructuralist anthropologists are more concerned with deconstructing specific ethnic identities or notions of culture and cultural difference.

15. This is not to conflate Derrida and Latour. The very vagueness of the term “poststructuralism” signals that the only thing its practitioners necessarily have in common is their rejection of structuralism. Whereas Derrida has generally restricted himself to the analysis of discursive practices, especially written texts, Latour has argued for the close study of networks that link people, objects, and ideas, and has written and encouraged grounded, empirical ethnographic research (e.g., Latour and Woolgar 1986).

16. One of the best examples of an ethnographic engagement with both political economy and poststructuralism is James Ferguson (1994). I believe that this book, together with Fisher’s, provide a model for future ethnographic studies.

17. According to Marx (1967:65–66) it was only when labor itself became a commodity that people could see that labor is the source of all values (i.e., the labor theory of value). In a similar, although perhaps inverted move, poststructuralists argue that only now can we see that knowledge itself, and in all its forms (including knowledge of the subject and the knowing subject), is an effect of power.

18. See Ferguson (1994) and Little (2001) for partial, but exemplary, attempts to address such questions.

19. For an example of coded desire in Amazonia, see Gow 1989. For an example of decoded desire in Amazonia, see Rubenstein 2004.

20. Murphy and Murphy (1985) anticipate such an approach, but, aside from Brian Ferguson’s (1995) reevaluation of Yanomami culture and history, their example has not been widely followed.

21. See Nadasdy (1999) for a similar analysis, as well as for a call to acknowledge and analyze the political field in which Native Americans, conservation ecologists, and others attempt to integrate “traditional” and “scientific” ecological knowledge. Hunn et al. dismiss Nadasdy as a “postmodernist” who advocates an “extreme” relativist position that indigenous knowledge is incommensurable with scientific knowledge (2003:s79–80). In fact, Nadasdy’s argument does not concern the

incommensurableness of different kinds of knowledge, but rather the way that debates over the incommensurableness—or integration—of different kinds of knowledge mask a political conflict between state control and local, aboriginal control, over the management of natural resources. As Cruikshank observes, Hunn et. al. exemplify the limitations of a cultural ecology entirely divorced from political ecology (2003:s96). See Cruikshank 2001 for another good example of a political ecology approach to the relationship between local and scientific forms of knowledge, and Agrawal (1995) for a sophisticated epistemological critique of the “traditional versus scientific” binary.

22. If practice theories seem also to privilege individual actors, that is only because anthropologists developed such theories in order to challenge and escape the structural determinism of Durkheimian sociology (brought into British anthropology by Radcliffe-Brown; into French anthropology by Lévi-Strauss; and into American anthropology by Talcott Parsons. As Ortner [1984:146] observes, when Parsons wrote of “action” he was referring to the “*en*-actment of rules and norms”). Practice theory does not reject the importance of social structure; instead it calls attention to structure as an ongoing accomplishment of various actors, and to the ways actors maneuver creatively within a given structure.

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