Political ecology as ethnography: a theoretical and methodological guide

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ABSTRACT

Some of the most important recent transformations in the ecological paradigm are the development of transdisciplinary syntheses between the social and natural sciences, the heuristic proposal of epistemological symmetry and the methodological dialogue with complexity studies. These transformations form the groundwork for a discussion of the contributions of anthropology to the new field of study of political ecology. After the delimitation of the sub-field of the "ethnography of socioenvironmental conflicts," the specific practices of multi-actor ethnography, which identifies and differentiates between social and "natural" actors, and of the use of multiple spatial and temporal levels of analysis are delineated. The article ends with a brief discussion of the academic, critical and policy implications of political ecology research.

Keywords: ethnography, political ecology, socioenvironmental conflicts, fractal analysis.

Introduction

During the last twenty years, "political ecology" has emerged as a new field of research bringing together human ecology's focus on the interrelations between human societies and their respective biophysical environments and political economy's analyses of the structural power relations occurring between these societies (Little, 1999a; Sheridan, 1988; Stonich, 1993). This field is the result of an intensive dialogue between the disciplines of biology, anthropology, geography, history and political science, creating a unique transdisciplinary space within the natural and social sciences. Against the grain of much of the literature on transdisciplinarity, I

posit that this space does not eliminate differences between the disciplines, and in fact may even highlight them. Each of these disciplinary matrixes deploys its concepts and techniques within the field of political ecology in order to shed light over different aspects of ecological relationships emerging from new realities.

This article seeks to map some of the conceptual and methodological contributions that anthropology, and more specifically ethnography, has to offer to political ecology. Notwithstanding this emphasis on ethnography, I will not present here any ethnographic material, since my analysis will be limited to expressly methodological and theoretical matters. For ethnographic analyses within a political ecology framework, I refer the reader to some of my previous works (Little, 1992, 1999b, 2001, 2006).

Politicizing and complexifying the ecological approach
The multiple sub-fields of the ecological paradigm
The word "ecology" was first used in 1858 by the U.S. naturalist Henry David Thoreau, and acquired a properly scientific sense from German biologist Ernst Haeckel in 1866. Since then, the concept of ecology experienced a dual development: one within civil society as the ecology social movement, and the other within academia as a scientific discipline (Bramwell, 1989). My interest in this article is limited to the latter development.

In the early twentieth century, ecology was established as a sub-discipline of biology known as "natural ecology". During the 1930s, "human ecology" was founded, applying the methods of natural ecology to human societies (Hawley, 1950). At around the same time, the anthropologist Julian Steward began to analyze the cultural dimensions of the ecological adaptation of indigenous groups (Steward, 1938), later on codifying this line of research as "cultural ecology" (Steward, 1955). Cultural ecology then branched out within anthropology, engendering such sub-fields as ethnoecology (Conklin, 1954), neo-functionalist ecology (Rappaport, 1968), human ecology (Moran, 1990), processual ecology (Bennett, 1993), spiritual ecology (Kinsley, 1995) and political ecology, which is our main interest here (Schmink; Wood, 1987).[1]

These multiple sub-fields of the ecological paradigm reveal a constant increase in the scope of its application, and represents ecological science's response to the new political and environmental realities faced by contemporary societies. Two of today's chief forces are the rapid acceleration of globalizing processes during the last half-century and the increasing seriousness of

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[1] Each of these sub-fields has produced an extensive literature. The few references presented here are either foundational or paradigmatic texts.

the environmental crisis on a planetary scale. The current phase of globalization unfolds within an expansion of the capitalist system, under the aegis of neoliberal ideology and instances of political neo-colonialism and cultural neo-imperialism. As for the environmental crisis, in addition to planetary problems such as global warming, the growth of the hole in the ozone layer and changes in oceanic currents, at a regional level recurrent environmental crises – such as desertification, flash floods in urban areas, natural resource depletion, air, water and soil contamination, climate change and loss of biodiversity – have emerged.

It is precisely within and against this background that the emergence of political ecology as a field of research should be understood. It is necessary to underscore that political ecology does not aim to "correct" or to "replace" the aforementioned sub-fields of ecology. Each of them produces its own body of knowledge and offers its own insights, which can be used to understand different dimensions of socioenvironmental realities. The introduction of political economy within the ecological paradigm has had, however, the unique effect of revealing the clashes amongst productive systems, thus highlighting the connections between economic changes and the environmental crisis.

In this broader picture, anthropology is particularly useful for the analysis of the culturally specific modes of ecological adaptation of diverse social groups – the productive systems and technologies they employ, the natural resources they exploit and the ideologies they use to justify their mode of adaptation and territorial claims - as well as the dynamic and contested interaction stemming from the clash between these modes of adaptation. The focus on social groups invariably raises the issue of conflicting environmental practices in such a way that the analysis of so-called "socioenvironmental conflicts" has become a central element of political ecology. The analysis of such conflicts is not limited to the flow and depletion of natural resources. It seeks to answer questions such as: who uses these resources? when? for what purposes? at what cost? with what impacts?

Crossing the divide between nature and culture

Ecological research works on both sides of the divide between the biophysical world ("nature") and the social world ("culture"). This task is especially difficult due to the large gap, both epistemological and institutional, between the natural and the social sciences. If the social sciences face the challenge of incorporating the dynamics of the biophysical world within its practice, the natural sciences face the reverse challenge: it needs to take the human world and its political and socioeconomic structure into account in its understanding of natural cycles. Thus, for a truly ecological science to exist, a sustained dialogue between the social and the natural

sciences, focusing on the dynamic and interdependent relationship between the biophysical and the social worlds, is necessary. This requires certain paradigmatic changes in scientific practice at the epistemological, methodological and institutional levels.

One of the solutions to this difficulty lays in the proposal to eliminate, once and for all, the nature/culture distinction. Haraway (1992, p. 42) coins the concept of "cyborgs", defined as "compounds of the organic, the technical, the mythical, the textual, and the political". Latour (2004, p. 373) uses the concept of "the collective", which he defines as "a procedure for assembling associations of humans and non-humans". Rabinow (1992) argues that we are entering the epoch of "biosociality" in which nature will become artificial just as culture will become natural. Notwithstanding the importance of this conceptual move and its implications for research, I suggest that its radicalism presents an exceedingly strong dose of anthropocentric *hubris*, insofar as it postulates that human beings are so powerful, so omnipresent, that we have already left our mark throughout the entire biophysical world – which is clearly an overstatement. The Sun, the Moon, gravitational and electromagnetic forces, black holes, the Milky Way, just to mention a few, can all exist quite well without human beings, and thus are neither cyborgs nor collectives, and do not dwell in the epoch of biosociality.

Another way out of this deadlock, which I consider to be more fruitful, is the elaboration of transdisciplinary syntheses. Goodman and Leatherman (1998), for instance, are shaping a new "biocultural synthesis" in which the contribution of disciplines situated on both sides of the nature/culture divide are utilized within a unified theoretical framework. Within ecological theory, Holling and Sanderson (1996) acknowledge the differential dynamics between social and natural systems in order to build models of ecologic dynamics that emerge from the interface between the two kinds of systems (see also Bateson, 1972).

The building of an ecological paradigm capable of incorporating these syntheses implies a series of heuristic challenges requiring further explicative procedures. The notion of "epistemological symmetry" holds that the causes of a certain phenomenon can originate from both the social and the natural worlds (Barnes; Bloor, 1982). In many cases, social scientists look only for social causes and ignore biophysical causes. Vayda and Walters (1999) are critical of much of the political ecology literature which privileges *a priori* the political dimension at the expense of other dimensions, particularly biophysical dynamics. When analytically implementing such symmetry, social sciences have used the concept of "natural agency", according to which the forces of nature are regarded as a sort of actor, in the sense that they "act" upon a specific reality, which is nonetheless qualitatively different from social actors, since they lack "will" or "intentionality". Since both kinds of actors are treated with the potential to influence the

construction of a particular landscape in this type of analysis, the principle of epistemological symmetry is applied. Law (1987, p. 114), in a historical study, asserts that in order to properly explain the technological developments of Portuguese navigation in the sixteenth century it is necessary to "treat the natural and social adversaries in terms of a common analytical lexicon".

On the other hand, natural scientists, which tend to deal exclusively with biophysical causes, also need new concepts in order to incorporate anthropic action as an integral element in their analyses. In order to do so, the political ecology researcher should map the main biophysical forces – such as the geological configuration of an area, the biological evolution of the flora and fauna and the flow of water resources – together with the chief human activities, such as agricultural systems, industrial effluents discharged in the environment and the transportation and communication infrastructure installed in the area. Besides being attentive to both sides of causality, the researcher also seeks to identify the socioenvironmental realities emerging from the interactions between the biophysical and the social worlds that only an ecological approach is capable of revealing.

Ecology's transdisciplinarity

Much of political ecology research directly targets specific problems, be they environmental, territorial or health related. These problems are manifested in multiple "spheres of interaction," each of which has its own rules and norms of functioning. When one thinks, for instance, of viral interactions, one is apparently operating within the sphere of epidemiology. But when a world pandemic such as HIV/AIDS is at stake, it is also necessary to understand sexual behavior (sphere of sexuality), migration flows (demographic sphere), human inter-relations (socio-psychological sphere), market forces (economic sphere) and immunological breakthroughs (medical sphere), just to mention a few. Ecological sciences always deal with many different spheres of interaction, thus requiring a transdisciplinary approach. This is why political ecology incorporates concepts, methods and foci from disciplines as diverse as anthropology, human ecology, geography, medicine, political economy, botany and history.

There are numerous ways of conflating scientific disciplines, each of which produces diverse transdisciplinary configurations. What is ecology's transdisciplinary configuration? A basic guideline is the notion of "holism", understood as an approach that "ascribes priority to an integral understanding of phenomena, as opposed to the analytical procedure in which their components are taken in isolation" (Houaiss Electronic Dictionary, 2004). Given the complexity of the phenomena under analysis, holism is extremely difficult (if not impossible) to accomplish. As such, it is difficult to completely overcome reductionism, given the fact that all ecological

research requires some kind of geographical and thematic delimitation. Simultaneously, holism should not be seen as an invitation for carrying out what Haraway (1988) has dubbed the "God trick", that is, present a seemingly an omnipresent vision of reality which only God could have.

I identify three principles which are part of the basic ecological paradigm, with each particular application of each varying according to the subject and site of research: 1) the central focus of ecological research is always relationships – social, natural or socioenvironmental – and not substantive objects. Concepts such as trophic chains, territorial conflicts, energy flows, clash of values and homeostasis, for instance, need to be understood in relational terms; 2) the use of contextualist analyses which place relationships within their respective historical and environmental references is a second principle. The concepts of niche and adaptation, central to ecological analysis, are only meaningful when the specific context in which flows and relationships take place is known; 3) ecology uses processual methodologies where the analysis of flows (of energy, of people, of seeds, of ideas, of pollen, etc.) and the identification of their internal dynamics are an essential part of research. The concepts of dialectics, stochasticity, dynamicity and evolution convey such a processual dimension. The use of these three principles during the last two decades has brought the ecological paradigm closer to the field of research known as "complexity studies" (Kauffman, 1991; Waldrop, 1992). I believe a dialogue between political ecology and the complexity paradigm would serve as a good guard against any tendency towards reductionism in ecological theory.

The ethnography of socioenvironmental conflicts
      Anthropological definition and delimitation of conflict

As stated above, the analysis of socioenvironmental conflicts is an intrinsic element of the political ecology approach. Socioenvironmental conflicts refer to a complex set of struggles amongst social groups stemming from their different modes of ecological inter-relationship.

A properly anthropological concept of conflict goes beyond a focus upon political and economic struggles to incorporate cosmological, ritual, identitary and moral elements that are not always clearly perceived from other disciplinary perspectives. The anthropological perspective can detect latent conflicts that are not yet politically manifest in the formal public sphere because the social groups involved are politically marginalized or "invisible" to the State. Since anthropologists work directly with many such groups – indigenous peoples, maroon societies, rubber-tappers, riverside fishing communities, shantytown dwellers – the ethnography of socioenvironmental conflicts reveals the latent foundations of conflicts and places such

marginalized groups in the foreground of analysis. In this sense, the ethnographic method is a significant tool which anthropology has to offer to political ecology.

By putting conflict itself, rather than a particular social group, at the center of ethnography the anthropologist is forced to identify the diverse social actors and environmental resources involved in the conflict, analyze these actors as they interact with each other and with their biophysical and social environment, as well as survey each group's claims and their respective shares of formal and informal power. The mapping of these political interactions helps the researcher to understand the particular dynamics of each conflict. A conflict can oscillate over several years between the latent and manifest modes: there can be moments when the conflict is very "hot", then it looses its momentum and visibility, only to "heat up" again afterwards.

An understanding of the conflict's internal dynamics includes identifying the polarization of stances and the mapping of alliances and coalitions, always bearing in mind that throughout the conflict's trajectory the position of the different groups may change, such that former allies become enemies and vice-versa. The ethnographer should also analyze the numerous tactics and strategies used by social groups and catalogue the diverse attempts at conflict resolution. Thus understood, the ethnography of social conflicts fits well into the ecological paradigm: it focuses on relationships; it makes use of a processual methodology; and it contextualizes the knowledge produced.

Multi-actor ethnography

The ethnography of socioenvironmental conflicts diverges from traditional ethnography in various essential aspects. First, the focus of ethnography is not the way of life of a social group, but socioenvironmental conflicts and the multiple social and natural interactions upon which they are grounded. Second, it deals simultaneously with several social groups, rather than just one. Third, the geographic scope is rarely limited to the biophysical environment of the local group, since it incorporates several levels of socio-political articulation. Finally, while traditional ethnographies dedicate one chapter to the natural habitat of the group, in the ethnography of socioenvironmental conflicts the biophysical environment becomes a crucial element in almost all subjects to be tackled.

One of the first tasks faced by the ethnographer is to identify and analyze the main social actors involved in the conflict, a task that becomes complicated when the number of such actors is high. Besides the incorporation of marginalized social groups, multi-actor ethnography needs to present "phantasmagorical" social actors, who are not physically present at the site of the conflict but nevertheless exert influence from a distance (Giddens, 1990). This type of ethnography is

never exhaustive, since the ethnographer should provide "equal treatment" to multiple groups, thus reducing the depth of each one of them (Bennett, 1969). Once gain, the goal is not descriptive ethnography, but the study of specific conflicts and inter-relations by means of the ethnographic method.

Another fundamental element of this kind of ethnography is the identification of interests and claims to land and natural resources, followed by a depiction of the interactions between each of the social actors within the political sphere. The ethnographer should also identify the different discourses in conflict and the respective bases of their political and cultural legitimacy, whether these are explicit or not. A further step is to analyze the differential quotas of power of each of the social actors. In many cases, the exercise of power does not take place in formal arenas, forcing the researcher to describe veiled power games – whether these occur in the State's official records (as in the case of false land titles), or in the darkness of night in the countryside (as in murders carried out by hit men).

These research tasks require the ethnographer to gain access and establish a dialogue with all main social actors in conflict (that is, both with the "bad guys" and the "good guys"). In order to do so, the ethnographer needs a minimal dose of empathy with these social actors, even those whom one does not like personally – be they *garimpeiros* (wildcat gold prospectors), drug dealers, ranchers, oil companies, clandestine logging firms, etc. - since it is almost impossible to write a good ethnography about a group one disdains. The effort to establish dialogue with members of distinct social groups and to understand their respective points of view requires that the ethnographer set aside his own values to some degree, as well as avoid explicit support for one side in the conflict.

The ethnography of "natural agency"

The biophysical forces involved in conflicts, particularly those related to natural resources, represent much more than the mere context in which social forces act. Biophysical forces operate according to their own internal dynamics, which constantly modify the ecological relations in dispute. In recent works, environmental historians propose that phenomena such as the depletion of natural resources, prolonged droughts, extensive forest fires, desertification and pandemics could be comprehended as kinds of "agency" of the biophysical world, radically different from "social agency" (Merchant, 1989; Worster, 1993; Dean, 1995).

In socioenvironmental conflicts, the interactions between human and natural agencies must be analyzed in order to clarify the dynamics of the conflict. This interaction does not operate according to a type of environmental determinism – see Roosevelt (1991) and Diamond (1997)

for opposing perspectives – but points to a reciprocal, two-way relationship between natural and social agencies (Levins; Lewontin, 1985). When biophysical forces are understood as a type of non-social agency, social concepts such as sovereignty and autonomy, for instance, need to be reformulated (Kuehls, 1996). If a social group lacks power (or knowledge) to "restrain" or "control" the action of biophysical forces within a territory, the sovereignty and the autonomy of this group are compromised.

Natural agency must be understood as inherently multiple, that is, as a variety of agencies related to many natural agents, and not as a homogeneous agency stemming from a generic "nature." A gorilla's agency, which might be best explained by a primatologist, is radically different from a volcano's agency, better understood by a volcanologist. Recent ethnographical analyses have incorporated such natural agents as the El Niño ocean current (Meltzoff; Lichtensztajn, 1999) and hurricanes (Emanuel; Greenberg, 1999) as integral parts of the socioenvironmental dynamics.

Fractal spatial scaling

During its first century of existence as an academic discipline, anthropology became specialized in the study of local phenomena, producing rich and dense ethnographical works amongst small-scale societies. With the progressive extension of anthropological scope to the study of rural societies, metropolitan neighborhoods and, later on, globalization processes, the ethnographic method had to face (and is still facing) the challenge of elaborating new analytical tools. The study of contemporary planetary struggles for environmental resources, which political ecology proposes to undertake, urgently demands the incorporation of other levels of articulation and analysis (Bennett, 1976) with the purpose of better understanding the so-called "biosphere people" (Dasmann, 1988) and their unprecedented socioenvironmental impacts.

A social actor might operate on local, regional, national or global levels of articulation. In general, each social actor has a specific level that works as its main level of operation, aiming to maximize its political efficacy. A transnational corporation, for instance, might be very effective at a global level, but be unable to meet its production goals at a local level. An indigenous community, to take another example, might have a significant political presence in a regional ethnic federation, but might have little impact at a national level.

The main level of articulation thus functions as a reference for the description of further relations that social actors maintain with groups or institutions functioning at higher or lower levels. When strategically approached, these "trans-level relations" can be a source of power to social actors. Local groups might find support from social aactors operating at regional, national

or international levels in order to promote their specific interests by actions such as applying political pressure, a mass-media campaign or blocking the construction of a large-scale development project.

The mobilization of social actors located at other levels rarely functions in a mechanical way, tending to be volatile and irregular, since it depends on the political and social context, on the proximity and intensity of relations and on the particular issues addressed (Ribeiro; Little, 1998). Local social actors may be able to "skip" levels by contacting social actors operating on an international level that have common interests as a way of circumventing hostile regional and national social actors. The analysis of this web of relationships goes far beyond a "contextualization", aiming to expose how these trans-level connections are established, cultivated and activated during the different moments of a conflict. Similar multi-level dynamics occur with natural agents, but instead of local, regional, national or global articulations, they are articulated through distinctive scales of organism, population, habitat, ecosystem, biomes, continent and planet, also portraying inter-scale relations such as intercontinental migration, climatic catastrophes and rapid landscape changes.

In an effort to deal with these complex trans-level relations produced by social actors, by natural agents and between each other, I make use of the concept of fractal scales, where these relations reveal self-similar, but irregular, connections, as in geometrical objects (Briggs, 1992). The use of the fractal analogy helps the ethnographer to refine systemic analyses, in which each level is hierarchically and functionally dependent upon each other, and neo-Marxist approaches, where higher levels control and determine the functioning of lower levels, in order to account for the *sui generis* manner in which contingent factors combine with structural ones. The ethnographer of socioenvironmental conflicts has the responsibility of indentifying and mapping these multiple fractal connections. Although this task carries some affinities with what Marcus (1995) calls "multi-sited ethnography", where the ethnographer follows a social group   through its cultural manifestations in different parts of the world, there is a basic difference: the delimitation of multi-sited ethnography is provided by the social group under study, whereas in multi-actor ethnography this delimitation is established by the dynamics of the conflict. In summary, the challenges for political ecology consist in identifying the distinct levels in which social actors and natural agents operate and to describe the way in which they interact transversally in the complex process of sociopolitical and environmental struggle.

The strategic level of the region

While acknowledging that multiple social and natural actors operate at distinct levels, the ethnographic analysis of a socioenvironmental conflict still demands some type of biogeographical delimitation. The ethnographer might choose any level for this delimitation – local, regional, national, global – and from this perspective map out the higher and lower trans-level fractal connections engendered by the actors. For our purposes, I would like to stress the intermediary level of "region" as a strategic delimitation to explore these relations, since it offers insights not necessarily revealed in studies that focus on other levels.

Environmental historians have successfully used regional delimitations based in biomes, as in the case of the Brazilian Atlantic Forest (Dean 1995) or the Great Plains of the US and Canada (Worster, 1979). Research on Amazonia has used the biogeographical delimitation of hydrographic basins, which also display fractal scale dynamics (Little, 2001). A hydrographic basin is simultaneously a geographical entity that contains multiple ecosystems; an area where diverse social groups, with their respective socioeconomic organizations, construct a particular way of life; and the locus for political and environmental mobilization around the socioenvironmental conflict. Still another form of biogeographical delimitation is found in Bennett's (1969) concept of "socionatural region", defined as: "a system in which diverse human groups have adapted in patterned ways to plant, animal and environmental resources, to one another, to hierarchical market and administrative forces, and to pressure groups and other forms of quasi-organized social and political interest" (Smith, Reeves, 1989, p. 14).

Multiple temporal scales

A political ecology perspective entails the enlargement of the temporal reference of the research in order to encompass geological (expressed in billions of years), biological (expressed in millions of years) and social (expressed in thousands of years) temporalities. As part of this endeavor, the concept of landscape is of great utility, since it includes both human and biophysical dimensions and registers climatic, vegetational, faunal and oceanic changes, which only become be visible after an extended period of time. The dialectical combination of natural and social processes produces a unique historical dynamic, systematically approached by the field of research of historical ecology (Crumley, 1994; Balée, 1998).

Aiming to understand landscape transformations, the political ecologist might employ the historiography of "long duration", developed by French historians of the 1920s and later expanded upon by Fernand Braudel (1976). The field of research of environmental history represents a recent attempt to incorporate temporalities of the biophysical world into the analysis

of human history. Under this new framework, historians formerly restricted to social history, and geologists and biologists, who reconstructed the natural history of a place, combine their perspectives within an ecological paradigm with the purpose of understanding the landscape's long term transformations, based on the analysis of distinct waves of human occupation and their respective socioenvironmental impacts.

The uses of political ecology

Having presented the theoretical and methodological challenges of the ethnographic variant of political ecology, a brief reflection on its practices and uses in relation to society in general is in order. Aiming to clarify the ethnographer's position vis-à-vis the understanding of the conflict, I assume that he or she is a social actor who "participates" in the conflict, though playing a differential role with regard to the other social actors. For the ethnographer, there is no place outside the conflict where one is able to "impartially" observe it. On the contrary, the ethnographer is intentionally situates him/herself along the interstices of the conflict, so as to investigate the nature of the connections between the groups in conflict and constructing his/her own place in order to produce knowledge about the conflict.

The ethnographic goal is, therefore, to carry out an ecological analysis of the conflict which: 1) identifies and differentiates the variety of socioenvironmental actors involved; 2) incorporates their multiple points of view and interests; 3) maps their trans-level relations; and 4) documents ethnographically the history of the conflict, with its *ad hoc* political alliances, its mutual accommodations, its negotiations and its political ruptures. When conducting research equipped with this refined set of analytical and communicative tools, the ethnographer generates strategic knowledge, one that incorporates multiple points of view. In some cases, the ethnographer possesses information that no other social actor has access to, which endows him with a specific quota of power within the conflict's political arena.

The very option of conducting ethnography of a particular conflict represents a political decision and, in the process, transforms a social problem into an object of scientific scrutiny. With regard to the conceptual consequences of the social analysis, political ecology research not only contributes to our understanding of the conflicts, but also gives visibility to marginalized socioenvironmental actors, revealing oft-ignored connections and relations of power. This knowledge, therefore, contains the potential for being appropriated by the very social actors involved, and may even promote the questioning of existing public policies and the proposal of new forms of action and public control.

When presenting diverse social groups, the ethnographer emphasizes their respective claims as well as the internal and external basis of their legitimacy. In many cases, this provides particular attention to marginalized or phantasmagoric groups. The identification of the rights in conflict has the capacity of enlarging the scope of the political debate in order to encompass cultural or social rights previously ignored by the State and by hegemonic actors. As such, both hegemonic and the counter-hegemonic discourses and their relations are brought to the fore.

The ethnography of socioenvironmental conflicts raises a series of ethical questions about scientific research in itself. The ethnographer needs to be careful that the information published by him/her is not directly used against the interests of the person or group from which he/she gained the information based upon relations of mutual respect and confidence. While recognizing that the researcher never fully controls the knowledge he/she produces once it enters in public sphere, awareness of the conflict's power setting and its historical dynamic serves to orient the management of the knowledge produced. Moreover, any ethnographical attempt to deal with multiple groups needs to ensure that it presents the attributes and claims as well as the failures and maneuvers of all the groups involved, eluding the tendency of hiding "unfavorable" data related to one's "preferred" group. That is the only way for a researcher to be an honest and open knowledge broker.

The description and analysis of cases of socioenvironmental change, along with their respective social and environmental impacts, is a form of expanding the debate beyond strictly political considerations. In many cases, the ethnographer needs to support his/her analyses with quantitative and qualitative data produced by natural scientists with the original aim of dealing with phenomena such as the depletion of petroleum deposits, changes in the pluvial regime, soil erosion and air, water and soil contamination. The integration of anthropologists into transdisciplinary groups helps to incorporate to the study the sociocultural impacts of biophysical changes and, thus, to enlarge our understanding of the conflict.

Knowledge generated by research in political ecology might also serves as inputs for the reformulation and implementation of public policies that deal with the claims of the social groups in conflict. By exposing hidden or latent aspects of the conflict at stake and giving visibility to marginalized groups, the anthropologist might even contribute to an eventual resolution of the conflict. And, in so far as he earns the trust of the main agents involved in the conflict, the researcher occupies a privileged position in the mediation between the actors involved.

The academic, critical and public treatment of the themes present in socioenvironmental conflicts opens the possibility for the political ecologists to elaborate their own agenda, which

privileges the production and dissemination of trustworthy, holistic and strategic knowledge about these conflicts. These are the "political" elements of political ecology's practice.

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