Chapter 23

Analysing Environmental Discourses and Representations

Tom Mels

Reservations about the Natural Environment

One of the most striking features of modern environmental experience is that it takes place in a world suffused with discursive forms. Images and texts attract tourists to a natural park, a map leads them from the parking lot to a walk on a wilderness path, commentaries are provided at strategic locations to guide the experience of nature, and an exhibition room at the entrance provides visitors with brochures, plans, stories, and films. What I find most interesting about this is not so much the pervasiveness of discursive forms, nor their technological sophistication. Instead, it is that they tend to leave many people with a somewhat amorphous sense of discomfort.

The very awareness of discursive forms awakens a feeling that the environment presented 'as-it-really-is' may not be all that natural, but the exact expression of an abstract system of manipulable, authoritative discourses. With every more cognizant look at imagery, maps, and texts, intriguing questions of the social production of knowledge and reality and the disciplining of experience come to one's mind. With every visit, national parks, exhibition rooms and wilderness trails stand out as spatialities at which environmental knowledges are produced rather than merely found. I say spatialities, because they are more than the physical sites at which knowledge is presented and encountered. They are places in a network of sites (universities, bureaucracies, studios and desks) from which the natural parks are conjured up through interpretive practices by particular people in particular social and occupational positions. Rather than submitting to an exhaustive and consistent story of 'the environment', these practices tend to unleash a stream of discourses and counter-discourses. It seems to me, then, that the power-laden tension between the reifying tendencies of discourses (their fixity and claim to meet reality-as-it-is), the elusiveness of the environment (its instability and shifting guises in different discourses), and the spatiality of those discourses (their spatio-historical emergence within a networked hierarchy of social sites) may help explain feelings of discomfort (see figure 23.1).

Figure 23.1 Welcome to Stenshuvud! This information board provides a vivid example of the spatiality of environmental discourse. With the help of texts and carefully selected imagery (scenic paintings, flora and fauna, a green map, the national park symbol), the authorities communicate a particular discourse about one of Sweden's national parks. This discourse is situated within a local, national and international context of environmental history readings and political discourse. Site-specific conservation practices specify some of the ways in which the official discourse is not only about valuing or discarding earlier environmental practice (e.g., fruit growing, coppicing, fishery), but also involves prioritizing certain future material relations and processes in the field (e.g., zoning, grazing, footpaths, conservation measures). In a sense the information board and the nearby information centre, offers a discursive spatial fix of what remains a landscape of contested social meaning. (Source: Author)

What I suggest is that the myriad things, processes, and relations we call environment, how they work, and how we should act towards them, are inherently discursive problems. They refer to various ways in which the reality of the biogeophysical world is at all times mediated before we speak or think about and act upon it. The stones, trees, marches, mountains, sounds, currents and waves are media in which cultural values and meaning are always already invested when encountered by humans. The mounting supply of journals, books, and conferences devoted to environmental discourses may be seen as a measure of the degree to which geographers as much as anthropologists, historians, philosophers, political scientists, sociologists, and others recognise this theme. It also shows that the discomfort to which I referred is not easily taken away, but rather something many academics have embraced or learned to live with.

And it is here that an additional discomfort arises. For in the same breath as I mention this broad scholarly acceptance of the importance of discursive ordering, I do not want to ignore difficulties arising from its attendant tendencies towards discursive dematerialisation and political relativism. Yet before I rush to hasty conclusions, it remains essential to bear in mind that there is a plethora of approaches to discourse analysis. For that reason my chapter reflects on how different approximations of discourse and its materiality feed into a variety of methodological and ecopolitical implications.

The chapter opens with a rather brief discussion of what is meant by 'environmental discourse' and 'representation' and how these are hinged together, with an emphasis on theoretical debate within geography. These are complex issues, which I can only discuss parsimoniously here, since I also want to spend some time on the question of how these theoretical insights are mobilised in actual research projects. The second part of the chapter is devoted to giving a range of illustrative examples of how geographers in their research go about unpacking environmental discourses. For reasons of consistency, I will focus on Marxist, post-structuralist, and political ecology work on sustainability and conservation. Their differences and commonalities illuminate the complex formation of environmental discourse as a geography of matter, meaning and power.

Environmental Discourses and the Spatiality of Power Systems

When geographers refer to discourses they tend to have more expansive things in mind than the colloquial reference to speech or language generally. If there is anything special about geographer's contribution to the understanding of environmental discourse it must be their attention to the *spatialities* of discourse. Since its theoretical breakthrough in the discipline during the 1980s, the term discourse has frequently been associated with a broad range of more or less strategic forms of representation (maps, imagery, narratives) mobilised within the ongoing struggle over spaces and places. Environmental discourses draw attention to how the production, circulation and justification of meaning within particular constellations of power permeate all social practices and thereby always enter into the constitution of the biogeophysical environment.

A useful starting point for thinking about the relations involved in environmental discourse is offered by the concept of 'regional discursive formations', first introduced by Richard Peet and Michael Watts. This describes 'certain modes of thought, logics, themes, styles of expression, and typical metaphors' that tend to 'run through the discursive history of a region, appearing in a variety of forms, disappearing occasionally, only to reappear with even greater intensity in new guises. A regional discursive formation also disallows certain themes, is marked by absences, repressions, marginalised statements, allowing some things to be mentioned only in highly prescribed, 'discrete', and disguised ways'. For Peet and Watts, these regional discursive formations 'originate in, and display the effects of, certain physical, political-economic, and institutional settings' (Peet and Watts, 1996b, p. 16). Regional discursive formations are also part of an extensive relational geography of scale, because they articulate and develop a society's wider 'environmental imaginary' in which discourses of nature are a principal element. Such an awareness of the politics and changing spatial situatedness involved in the production of knowledge and the shaping of practices is typical for discourse analysis within geography. And, *pace*

Peet and Watts, I would argue that this gestures beyond the regional level to a discursive spatiality, which refuses to privilege or essentialise any particular scale.

Peet and Watts' portrayal of discourses as part of an environmental imaginary is illuminating for at least three basic reasons, which resonate with more extensive claims about discourse and representation within geography. While discussing this below, I will argue that discourse bears important similarities and differences with its conceptual cousins ideology and hegemony, some of the erstwhile preferred notions among critical minds.

In the first place, Peet and Watts explicitly hook up discourse to shifting relations of social power. Power may here be understood in terms of situated, relational practices of dominance and resistance around both meaning and matter. Rather than seeing power as strictly centred ('power is possessed by a particular social class') or universal ('power is everywhere'), this emphasises the particularities of who exercises it in conjunction with why and how it operates in specific biogeophysical environments. As David Harvey explains, there are good reasons to couple discourse with power, most basically 'because words like 'nature' and 'environment' convey a commonality and universality of concern that can all too easily be captured by particularistic politics. 'Environment' is, after all, whatever surrounds or, to be more precise, whatever exists in the surroundings of some being that is *relevant to* the state of that being at a particular place and time (Harvey, 1996, p. 118). The social situatedness from which such relevance is defined varies considerably, and this will affect the shape of discourses as modalities of power.

Discourses often come as specific packages, as 'formations' of representations, narratives, storylines, concepts, metaphors, and conventions – constituting, if you like, a multimedia dialectic, in which a more or less coherent worldview is communicated in mutually confirming (or contradictory) guises of maps, images, and texts (Mels, 2002). Assemblages or chains of references of this kind tend to circumscribe particular interests and organisations of, for instance, bureaucratic, military, legal or corporate control. Discourses and their constitutive representations in that sense codify and substantiate particular social power relations and intervene in the material reconstitution of the environment, actively producing the 'very reality they appear to describe' (Said, 1978, p. 94).

Yet, like ideology, the power of discourse need not lie in deliberate maneuvers, but can also operate in a more subterranean fashion as 'broad taken-for granted frames of reference, including practical knowledge that results in embodied material practices of engaging with the world. Discourses contain common sense ways of knowing, valuing, and doing – for example, knowing what one likes without knowing how to explain why, or seeing any reason to do so' (Duncan and Duncan, 2004, p. 38). Importantly, the power of discourse is relative and relational. Like hegemony, discourses tend to be contested and struggled-over in ways that mediate geographically specific interests of class, gender, and ethnicity. Shifts in discursive power relations can appear when, for instance, local activists appropriate the discursive techniques of elites, present counter-discourses which map out 'lost' social relationships, or contest the homogenisation or naturalisation of space, property relations, plans and policies.

In the second place, and by extension, Peet and Watts' formulation leaves an opening to deeper philosophical issues about plural knowledge-claims and worlds, epistemologies and ontologies. It has often been argued that this recognition of plurality explains why many academics nowadays prefer to speak of discourse

rather than its neighboring concepts ideology and hegemony. That these are neighboring concepts is easily comprehended with a closer look at definitions. To put it 'very schematically . . . an ideology is a system (with its own logic and rigour) of representations (images, myths, ideas or concepts, depending on the case) endowed with a historical existence and role within a given society' (Althusser, 1996, p. 231). More specifically, it circumscribes the elaboration of representation 'into a systematic idealizing of existing conditions, those conditions that make possible the economic, social, and political primacy of a given group or class' (Lefebvre, 1968, p. 68). Ideologies 'refract (rather than reflect) reality via preexisting representations, selected by the dominant groups and acceptable to them' (p. 69). Ideologies can be envisaged as one of a dynamic range of cultural practices, immersed in the material and mental reality of human subjects, by which powerful classes preserve consent to its primacy within an existing social order or 'hegemony'.

It is not very important whether one agrees with these definitions or not, but what matters is that they do allow me to draw out two points. First, conventional notions of hegemony and ideology tend to allow for a residual believe in unmediated access to the material world: a pure point of overview replacing misleading refractions of reality (ideology) by demystified reflection of the authentic reality of social and natural processes (scientific knowledge). In one of its key conventional uses within Marxism, ideology is thought of pejoratively as a distorted set of ideas, as a 'false' consciousness, which fails to recognise the real circumstances of social life (Williams, 1977, p. 103). Second, hegemony and ideology have traditionally been identified with a more centred notion of power, shaped by the interests of the bourgeoisie or other elite groups.

Discourse analysis won terrain in academic writing in the latest round of debate around what many saw as positivistic inclinations buried in traditional notions of ideology critique. Many scholars who have adopted the notion of discourse analysis insist that there is no extra-discursive, immediate access to reality. They often invoke the French thinker Michel Foucault whose employment of the term discourse (and its intimate relationships to power) entailed a profound disagreement with the epistemological and ontological status of ideology within Marxism (Foucault, 1980, p. 118). While discourses have truth-effects, Foucault denied that they could be assessed as ideologies because that would suggest some veridical reference to a pre-discursive reality. From this reading, discourse analysis signals a rejection of what is seen as the epistemological realism lurking behind the ideology/science distinction. Scientists, business, green movements, the media and others produce environmental discourses which become received 'truths' because of social processes and positionings, never because they are 'asocial' reflections of the biogeophysical things, spaces or mechanisms they describe. By extension, some claim that discourses structure society at large and that there is no easily identifiable social interest or class with full control over their shape, contents and functioning. This also conveys the idea that discourse (and hence power) tends to be a situation-specific, struggled-over, dispersed, relational and often concealed effect rather than a universal, stable, centred and always overt resource. By such account, attempts like Peet and Watts' to wed Foucaultian notions of discourse and power with historical materialist notions of hegemony and ideology seem contentious.

Perhaps somewhat ironically, the move towards discourse and representation has reactivated ontological and epistemological quarrels that were also central to earlier theoretical disputes about ideology critique. A key objection to a focus on discourse

has been the ostensibly increasing remove from the materiality of the biogeophysical environment. Some might argue that relativistic distrust to any mode of representation is inappropriate in a time of increasingly sharpened political stakes of environmental issues. For how can we say anything substantive and meaningful about pending or existing environmental catastrophes when retreating into a detached world of endless signification and interwoven discursive reflection? Yet again, is any such comparison between our stories and knowledges about the material environment based on an erroneous belief that we can break through discourse to reclaim some unmediated reality?

These recurrent questions concerning the dichotomisation of 'cultural' discourse and the 'natural' realm of environment/nature are important enough and widely reviewed (Castree and Braun, 2001). From these debates one can identify various degrees to which discourse analysis within environmental geography is prepared to go beyond the domain of discourse to study biogeophysical environments. Discourse analysis is certainly not limited to the kind of dematerialised constructionism, which shelves any reference to an extra-discursive world. In Marxian and some post-structuralist quarters, it remains common to emphasise that discourses do not just relate to other discourses nor to a universal play of power. Instead, they relate to the range of material processes through which people shape the environment and to specific expressions of power within particular social formations.

Congruent with such an attempt at transcending ingrained oppositions between materialism and idealism (and this is exactly the dualism which Marx described as false consciousness!), 'discursive relations and representational practices are constitutive of the very ways that nature is made available to forms of economic and political calculation and the ways in which our interventions in nature are socially organized' (Castree and Braun, 1998, p. 16). What matters most to geographers engaged in this kind of discourse analysis, is not necessarily the degree of correspondence to reality (always a mediation) but by whom and how discourse is produced, how it works, and what is does. Mapping out the ascendance through which some environmental discourses have come to posses their present power in society may help to challenge taken-for-granted truths and reflexively shape alternative and emancipatory ways forward.

In the third place, and by extension, although Peet and Watts envision discourses as constituent parts of a society's environmental imagination, the academic reception of discourse analysis remains selective. While human geographers have been at pains to map discourses of various kinds in both theory and practice, physical geographers have as yet spent far less thought on this issue (cf. Castree, 2005, chap. 4). To some degree this may be unsurprising since discourse analysis takes human meaning as its prime objective, rather than inanimate objects studied by physical geographers. Occasionally, of course, physical geographers have utilised discursive material, such as qualitative data from interviews, for estimating quantitative environmental changes. Most physical geographers nevertheless hold on to a kind of correspondence theory of truth, in which science provides access to what they regard as an ontologically independent world and thus produces increasingly accurate referential knowledge. On a principal level, however, physical geographers too are discursively situated and they play an active role in shaping environmental discourse. I will revisit these issues in the section that follows, where I will try to address some of the myriad ways in which discourse analysis has been mobilised in research practice.

Geographies of Environmental Discourse

My aim here is to tease out a variety of ways in which geographers have apprehended their ambitions of unpacking environmental discourses. For reasons of conciseness, I centre my discussion on research related to conservation and sustainability from within three broad varieties of discursive strategies. Looking at Marxist, post-structural, and political ecology approaches to environmental discourse, I will show how their theoretical positioning of discourse reverberates in methodology and ecopolitics. Let me say from the outset that I am aware that terms, such as Marxism and post-structuralism, signal metaphilosophical perspectives, while political ecology refers to a disciplinary field, and that there are arguably as many commonalities between the three approaches as there are differences within them. Yet, rather than teasing out niceties of taxonomies, subdisciplines and philosophical angles, my intention is primarily to discuss a range of geography's engagements with environmental discourse.

Marxism: regulating corporate discourse

While there is a range of Marxist approaches to discourses, a frequently recurring thread is that they are seen as devises of abstraction vital to capitalism's production of nature. If environments are produced as commodities by labor power applied under specific conditions, they are also liable to be represented in ways that efface and reify the struggles, processes and relationships that go into their making (Henderson, 1999; Walker, 2001). In that sense environments can be theorised in politico-economic terms as 'dead labor': material and conceptual reifications of what are really social relationships and struggles (Mitchell, 2003).

Some of the key characteristics of Marxist engagement with environmental discourse can be extracted from a study by Gavin Bridge and Phil McManus. Their approach owes much to regulation theory, which tries to comprehend the societal framework of capitalism as a system full of contradiction and conflict that nevertheless manages to attain periodic stability. Rather than resorting to transhistorical imperatives of social reproduction, regulationists analyze capitalism in more contingent terms of geographically and historically embedded, institutionally sanctioned modes of socio-spatial control and organisation. Adopting and adapting components of this line of thought, Bridge and McManus (2000) argue 'that regulation of the forestry and mineral sectors in contemporary market economies is increasingly achieved through the deployment and co-optation of narratives of sustainability' (p. 11). According to their reading, environmental discourses are moments in the mode of social regulation: they are simultaneously a guiding framework for and outcome of the institutional structures and material practices that make possible the reproduction of the conditions for capital accumulation. Sustainability narratives are of particular importance to industries with an unsavory environmental reputation, because they can negotiate and deflect accumulation crises by disenfranchising opposition, co-opting green language, creating coalitions of support, smoothing over contradictions and facilitating access to new deposits.

This is not to say that discourses and their regulatory mechanisms stand in any seamless, functional relationship with accumulation systems. Rather, the authors accentuate that these relationships tend to be contextual, contingent, politicised, contradictory, and highly negotiated. Simultaneously, their concern lies with the

shifting ways in which the institutions of capital accumulation disseminate and normalise discourses that codify and legitimise prevailing social relationships of environmental practices within capitalist societies (Bridge and McManus, 2000, p. 20).

Exemplifying their approach with a case study of the forest industry in Canada's British Columbia, Bridge and McManus (2000, p. 27) lay bare how the 'discursive framework of forestry . . . increasingly focuses on manipulating considerations of time and space to ensure the perpetuation of the industry'. In the latest decades of crisis in the province's industry, this is accomplished by, e.g., rhetorically rescripting and resituating the forest in a space and time of long-term sustained yield, by making the industry seem compatible with the international discourse of sustainability, by appeals to public and national interests, and by sowing doubt about more radical notions of sustainability. While the rhetorical greening of industry signals a shift in the mode of social regulation (i.e., institutions and discursive practices), it does so without any fundamental adaptations of the regime of accumulation (i.e., technologies and the organisation of production), or the accumulation system (i.e., production-consumption connections). Notwithstanding important contextual differences within and between sectors, the US gold mining industry offers a similar example of how corporate discourses effectively regulate environmental practice and sidetrack opposition.

What I find noteworthy here is that Bridge and McManus seek to understand environmental transformations in terms of contested representations and discourses, but emphasise how those discourses play a vital *ideological* role in capital's search for regime stability. I say ideological because they prefer a notion of discourse in which power is largely (though not exclusively) situated in corporate hands, to discourse in a more outspread Foucaultian sense. The authors argue that material and discursive appropriation of the environment tends to serve the interests of powerful economic classes. Importantly, this remains a *contradictory* process whereby ongoing environmental degradation and commoditisation stand in sharp contrast with corporate espousal of sustainable development jargon.

Bridge and McManus claim that critical analysis of this contradiction needs to bring out the couplings and synergetic relationships between the regime of accumulation and the mode of social regulation (including its changing discursive moments). Such analysis can only be successful if we refrain from collapsing these conceptual components of capitalist economies together. Thus, their discourse analysis covers a vital but *limited* space in their critique of corporate capital. Discourse becomes an important yet restricted ideological 'moment' that does its work within the mode of social regulation but is almost absent in the analysis of the organisational and technological qualities of the regime of accumulation. In the mind of post-structuralists this would arguably be a far too 'clean' separation, as I will show next.

Post-structuralism: a forest genealogy

According to most post-structuralists, discourses and established categories of knowledge do not in the first place bear testimony to some ultimate factual reality, but are rather associated with a solidification of meaning and reality serving interests of social control. Discourses percolate through the social power struggles of disciplinary institutions; they work as modes of socialisation, and tend to facilitate self-disciplinary practices. This raises questions about how, by whom, and with what consequences discourse and categories are made solid and taken-for-granted.

Recent work by the Canadian geographer Bruce Braun may serve to illustrate the critical purchase of post-structuralist strategies to interrogate discursive practices. Central to his inquiry on the Clayoquot Sound, a heavily forested area in British Columbia, is the method of *genealogy*, inspired by Foucault's Nietzschean approach to history. This seeks to detonate the ostensibly obvious nature of things, the search for origins and timeless essences. It is to splinter notions of unity, to expose the heterogeneity and discontinuity of what seems to be consistent and continuous, in order to grapple with 'the historical, cultural, and political conditions through which objects attain legibility' (Braun, 2002, p. 3). Braun's genealogy pays careful attention to specific configurations of power/knowledge, bringing out the capacity of institutionally sanctioned epistemologies to present certain categories and narratives as trustworthy and real. Behind the preservation of such discursive coherence – which is instrumental to the ability to maintain social power – lies a hidden social history of exclusion, forgetting and silencing.

And so Braun turns to the language of industrial foresters, scientists, environmental groups, experts, and various forms of scientific categorisation, nature writing and photography with the intention of tracing the (subjugated) histories, (buried) epistemologies and morphologies of different environmental discourses. In Braun's treatment, each discourse not only adds layers of partial meaning to the environment, but these meanings are in their turn subjected to further deconstruction.

From a critical analysis of official documents, Braun argues that environmentalists and the logging lobby have at first sight constructed radically different discourses about the same old-growth forest. Where the forest company advances a scientistic account of the forest as a set of manageable resources, the environmentalists view the area through a more romantic veil as a pristine, sparsely peopled wilderness. However, for all their further differences, both of these environmental discourses make strong claims to transcend their discursive domain and capture reality as-it-really-is. Both trade on a widely reproduced nature/culture dualism. Their shared view of the Sound as pure nature entails a near denial of the historical presence of indigenous peoples, thereby (perhaps unintentionally) harking back on colonial discourses and practices of displacement. In these discourses, the Nuu-chah-nulth are doubly excluded from the environment, being either seen as a cultural aberration within nature or as a traditional anomaly within Canadian modernity.

Braun's approach to environmental discourse owes much of its depth to his systematic attention to the ways in which past environmental discourses and epistemologies reappear historically. As it turns out (and this echoes a general argument within post-colonial theory) much spadework for the currently dominant expert discourses on Canadian wilderness was done in the 19th century. These past discourses are kept alive not in the first place by immediate reference, but by their reproduction in social memory through imagery, storylines, and habits of thought, which in their turn are inscribed in the landscape itself. On a more theoretical level, Braun's work is attuned to a post-structuralism in which we cannot in any meaningful sense break through discourse to describe what a particular environment is like. Instead of allowing some discourse to speak authoritatively in the name of the environment, this calls for attention to closures in *all* discourses, be they hegemonic or disruptive, scientific or lay (Braun, 2002, p. 262).

I think it is important at this point to measure the distance between the post-structuralist method of critique presented here (revealing and challenge binaries, buried within discourses) and a more Marxian critique, which refuses to separate

discourses from ideology and the material social conditions they speak of. Instead of reaching back to the emancipatory idiom of traditional ideology critique, which characterises Bridge and McManus' efforts, Braun follows a more Foucaultian road to criticise discursive power. His discussion also tunes in to the theoretical language of Deleuze and Guattari and envisages the environment metaphorically in term of heterogeneous assemblages, as fluxes of material de- and re-territorialisations. About those assemblages, he argues, we need to enquire the processes of their becoming, simultaneously 'opening space for thinking, doing and being otherwise. It is a politics with a purpose, but without any certain or final outcome' (Braun, 2002, p. 267).

Leaving aside further questions about its practicality for progressive ecopolitical change, this politics non-authoritatively returns questions about the materiality of what our environmental discourses are about to the materiality of discourse itself. In other words, it confirms that environmental politics demarcates a material geography of socially situated knowledges. Still, this does little to alter the clearly privileged attention to various modes and languages of representation that pass through Braun's and other post-structuralists' research on human-environment relations. Critics may say that this has little of substance to offer when questions about the biogeophysical aspects of environmental change appear (cf. Gandy, 1996). One may indeed ask if this does not ultimately reduce and relativise the environment and ecopolitics to habits of epistemology. The question arises how the insight that colonial discursive privileges serve systems of social domination and rationalise unjust material appropriations of land can be coupled with claims that meaning remains ultimately undecidable. After all, the insight itself remains an expression of meaning.

Political ecology: multimethod triangulation

Asking questions about the privileging of representation in research leads to scholars who proffer a political ecology approach to environmental discourse and its materiality. While the term 'political ecology' circumscribes a heterogeneous and interdisciplinary field of research rather than a metaphilosophical vantage point, it has been important for thinking about discourse and environment within geography. It is no random decision to spend some time on political ecology after discussing a Marxist analysis, which emphasises how discourses play a vital *ideological* role in capital's search for regime stability (Bridge and McManus), and a *genealogical* non-identity thinking which seeks to denaturalise all claims to environmental truth (Braun). Simplified, with Marxism, political ecology shares an interest in environmental practice and justice, but also tends to probe further beyond the epistemology offered by a critique of capitalism. With post-structuralism it shares an interest in discourse, but in many cases sees them as materially constrained, experientially based, and 'grounded in the social relations of production and their attendant struggles' (Peet and Watts, 1996a, p. 263). The work discussed here proposes a realist (not genealogical) *denaturalizing* confrontation of (post)colonial geography with discourses and a multimethod debunking of misconceived discourses.

Roderick Neumann's recent work, based on periods of fieldwork in Tanzania and a triangulation of methods (archival research, observations, household surveys and interviews), follows what I read as a 'realist' line of thought concerning environmental discourse. His intention is to explore the ways in which a European and

increasingly commoditised aesthetics of unpeopled wilderness came to reinvent African environments and was mobilised to remove and displace indigenous people.

The political ecologist submits that these discourses not only fit comfortably with the authoritarianism of (post)colonial wildlife conservation, but are problematic for at least two additional reasons. First, a tragic irony was that the biogeophysical complexity of the region depended on the very traditional human land uses which were now terminated with reference to a 'purified' nature discourse. The result was that real natural processes sometimes contradicted lofty preservation efforts (Neumann, 1998, p. 28). Second, indigenous peoples, such as the Meru peasant society, did not share this dualistic environmental discourse. For them, Mount Meru was both a vital material resource in everyday life and a physical manifestation of their history and identity, not some aesthetic capital (p. 178). These discourses underlie Meru interpretations of justice and morality and, by extension, rationalise acts of peasant resistance against conservation laws.

It is evident that Neumann's approach to discourse analysis shares important traits with, for instance, Braun's post-structuralism. One of the more obvious congruities is that both view conservation as more than a question of control over material resources. It is also a matter of politics in which privileged (post)colonial ideals and naturalised discourses of nature are socially enforced and imposed upon the material world. Indeed, Neumann's conclusion from an analysis of popular texts and photographs, that 'discursive constructions have important material consequences' in biodiversity conservation would readily be accepted by post-structuralists or Marxists (Neumann, 2004, p. 833). Even so, Neumann presents an approach to representation and discourse (epistemology) as selectively connected to the material history of the environment – a history which Neumann's book lays bare and denaturalises in an ontological realist manner that defies any radical undecidability of meaning. Quite unlike Braun's more undecided stance, Neumann emphasises that he is 'not arguing that global biodiversity conservation constitutes a discourse (although it may) or that the threat of biodiversity loss is not "real" but some sort of linguistic fabrication', and he asserts in a footnote 'that biodiversity, in all its forms, has been historically diminished by human activities, is presently increasingly threatened, and that this is economically, culturally, and ecologically a negative outcome' (ibid.: 823).

Another example from political ecology research on environmental discourses in West Africa contrasts more sharply with Braun's approach, not only philosophically but also methodologically. Instead of 'purer' forms of discourse analysis, Thomas Bassett and Zuéli Koli Bi (2000) place it in a whole constellation of complementary methods (cf. Batterbury et al., 1997). Field research and analytical techniques were mobilised to collect information on land use and vegetation, while environmental perceptions were elicited from farmers and pastoralists through focus group discussions, interviews, and survey-research in a savanna landscape in northern Côte d'Ivoire. Out of this impressive collection of data, Bassett and Koli Bi tease out the disjunctions between two sets of environmental discourses.

The first discourse comprised the global and national desertification narratives underlying, for instance, the Ivorian government's National Environmental Action Plan (NEAP) and mandated by the World Bank as a condition for further loans. It presents an alarming process of environmental degradation as the result of overgrazing, bush fires, and mismanagement by peasants and pastoralists. One of the pre-

conditions for sustainable environmental management, so the plan says, is that land rights give way to a 'modern' freehold tenure system.

The second discourse runs counter to this 'official' discursive formation of West Africa by way of place-specific perceptions of land users. In contrast to the hegemonic desertification story, this discourse describes how the growing number of livestock led to a decline in grass cover followed by an extension of trees and shrubs. Bush fires were less aggressive due to a changing fire regime, combining early dry-season fires with stronger grazing pressure and an expansion of cropland.

The purpose of mapping these discourses was comparative, not in the conventional deconstructive sense of bringing out silences and gaps, but as a stage in the process of making accurate scientific judgements. Hence, the next step in the research project: 'To assess whether local perceptions of environmental change were congruent with scientific findings, we reviewed the specialist literature on human-induced modifications of savanna vegetation' (Bassett and Koli Bi, 2000, p. 71). This was then further mapped with an examination of aerial photographs, quantifications with the help of Geographic information systems, and on the ground species inventories. Somewhat simplified, the findings of virtually all of these analyses supported the farmer-herder discourse and ran counter to the dominant desertification narrative guiding current environmental policymaking. Although there was no clear sign of desertification, 'heavy grazing and early fires have significantly reduced the quality of the savanna for livestock raising' (p. 90). Given the government's prioritisation of livestock development, this would advise policymakers to encourage rangeland rehabilitation rather than the currently prevailing concern with reforestation.

On the basis of my capsule summary, I think it is interesting to point at ways in which this project differs methodologically, philosophically and ecopolitically from Marxist and post-structural approaches. In the hands of Bassett and Koli Bi, discourse analysis is located in a wider array of multi-scale research methods which complement each other in order to distinguish actual from imagined environmental problems. And so, the authors' own research suggests 'that the dominant environmental narrative for the Côte d'Ivoire is misconceived' and that 'environmental analysts and planners are occupied with an imaginary environmental problem' (Bassett and Koli Bi, 2000, pp. 69, 90). In line with this, farmers' and herders' discourses are marginalised in planning, while their 'understanding of environmental change is more nuanced and sophisticated than the dominant narrative' (p. 91). Post-structuralists would probably be unwilling to arbitrate between discourses in this way. They would also resolutely reject a grounded, multimethod, materialist approach, asserting that 'those who embrace constructivist approaches to "nature" but stop short of accepting the radical undecidability of meaning often end up making arguments that are too rigorous, or too "clean," in their separation of ontology and epistemology' (Braun and Wainwright, 2001, p. 61). From a Marxist point of view, the turn to natural science and grounded methods will be misguided as long as researchers fail to unravel the ideological role of discourse in, e.g., the mode of regulation and capital's search for regime stability in African societies.

I am not merely inclined to agree that these issues are underplayed by Bassett and Koli Bi's treatment of discourse, but also think that it can be explained with reference to the academic framework from which it emanates. Their research agenda seeks to contribute to an increasingly common goal in political ecology: traversing the sociocultural and biogeophysical processes within human geography by way of a multimethod triangulation technique (cf. Zimmerer, 1996; Forsyth, 2003). The

argument is that accentuating 'local knowledge, environmental history, multi-scale politics, and socially differentiated resource-management practices, requires intensive field study and multiple research methodologies' (Bassett and Koli Bi, 2000, p. 68). This illustrates a strong (critical) realist turn in political ecology in which evaluations of the biogeophysical processes shaping human-environmental dynamics depend on an understanding of both human discourses and physical geography (Zimmerer and Bassett, 2003, p. 3).

Importantly, this approach goes to some length beyond the deep-seated anthropocentrism of many geographical investigations of environmental discourse. On the level of ecopolitics, it is critical of the lack of attention to geographical contexts typical of mainstream sustainability discourses – not least those materialised in the guise of the World Bank's embracement of technocratic, neoliberal ideology and its way of 'assisting dozens of African governments to develop NEAPs which, in assembly-line fashion, are being produced according to a blueprint' (Bassett and Koli Bi, 2000, p. 68). In concord with the philosophical realism of their research design, concrete suggestions for policy reforms could be extracted from the results, which is an additional difference with what tends to be the case with post-structural and Marxist approaches.

'The' Environment Is No More

In my view, one of the presently most imperative challenges for environmental geographers is to decipher the work and logic of discourse by keying it to the destructive logic of capitalist nature but without resorting to some crude, unreflexive realism. Environmental discourses are power systems, which seek to systemise, capture and fix what is constantly mediated, in process, and getting away. As soon as it looks as if all the shapes are in place and audiences convinced, the environment has somehow always already made its escape, only to return in different guises. This is one of the reasons why the struggle over environmental discourse has become a profoundly political matter. Although the work discussed in this chapter offers illustrative rather than exhaustive insights into geographical approaches to discourse, I would suggest that it does motivate some tentative general conclusions.

First, geographers tend to link the history of discursive ordering and representational practices to the material appropriation of the world. Struggles over discourse and representation are crucial in the geographically uneven struggle over the environment and what counts as environmental issues in science and society. Bringing out a variety of power struggles and taken-for-granted assumptions and reifications is thus not necessarily a hyper-hermeneutic diversion from ostensibly more important material practices. On the contrary, this is just as important, precisely because discourses and representations help arrange, codify and challenge the practices that make up environmental politics.

Second, differences in approach to environmental discourse tend to emanate from philosophically distinct ways of imagining knowledge to be related to the biogeophysical world. Different research strategies of denaturalisation (genealogy or more realist) demand different ways of working with scientific data and other knowledges. The broad compasses of '-isms' and 'posts' translate into a variety of methodological maneuvers – ranging from deep-seated deconstruction in which discourse leaves no room for 'facts' or 'science', to multimethod triangulations, which can corroborate, verify or falsify discourses.

Third, this shallow or deep 'space' of discourse within the research process also reflects ecopolitical differences, including where the political is located in research and beyond, and how political struggles over the environment are or ought to be structured and contested. The way discourses are located within power systems, ranging from universally sprawled to specifically centred bends analysis in different directions, e.g., deconstructing colonial environmental discourses by way of discourse; or denaturalizing them with a multimethod realist strategy; falsifying the scientific base of policymaking by way of science; and bringing out the contradictions of discourse as corporate ideology. Different approaches nevertheless raise some shared concerns: which ensembles of ideas are regarded as legitimate?; whose knowledge becomes widely accepted?; which discourses serve to sustain particular power systems?; and how are these knowledges reproduced and transformed into sets of practices? Questions such as these belong to the current standard arsenal, which many human geographers haul to the forefront of environmental discourse analysis.

Most generally, the examples illuminate the complex formation of environmental discourse as a geography of physicality, meaning and power, with imbrications in colonialism, capitalism and various social struggles. To grasp the real power of 'the' environment we cannot ignore the ways in which competing environmental discourses are constituted and reproduced within a set of material relationships, activities and socio-spatial power systems. In other words, the value of discourse analysis is seriously limited if it does not provide ways of explaining the physical and social power relations that determine the privileged or subordinated position of particular discourses.

ACKNOWLEDGEMENTS

I am grateful for several rounds of discourse at Joensuu University, Finland, in particular with Bruce Braun and Ari Lehtinen. Many thanks to Noel Castree and David Demeritt for edifying comments. The usual caveats apply.

BIBLIOGRAPHY

Althusser, L. (1996) *For Marx*. London: Verso.

Bassett, T. J. and Koli Bi, Z. (2000) Environmental discourses and the Ivorian savanna. *Annals of the Association of American Geographers*, 90(1), 67–95.

Batterbury, S., Forsyth, T. and Thomson, K. (1997) Environmental transformation in developing countries: hybrid research and democratic policy. *The Geographical Journal*, 163, 126–32.

Braun, B. (2002) *The Intemperate Rainforest: Nature, Culture and Power on Canada's West Coast*. Minneapolis: University of Minnesota Press.

Braun, B. and Wainwright, J. (2001) Nature, postructuralism and politics. InN. Castree and B. Braun (eds), *Social Nature: Theory, Practice, Politics*. Oxford: Blackwell, pp. 41–63.

Bridge, G. and McManus, P. (2000) Sticks and stones: environmental narratives and discursive regulation in the forestry and mining sectors. *Antipode*, 32(1), 10–47.

Castree, N. (2005) *Nature*. London: Routledge.

Castree, N. and Braun, B. (1998) The construction of nature and the nature of construction. In B. Braun and N. Castree (eds), *Remaking Reality: Nature at the Millenium*. London: Routledge.
Castree, N. and Braun, B. (eds) (2001) *Social Nature: Theory, Practice and Politics*. Oxford: Blackwell.
Duncan, J. and Duncan, N. (2004) *Landscapes of Privilege*. London: Routledge.
Forsyth, T. (2003) *Critical Political Ecology: The Politics of Environmental Science*. London: Routledge.
Foucault, M. (1980) *Power/Knowledge: Selected Interviews and Other Writings 1972–1977*. New York: Pantheon Books.
Gandy, M. (1996) Crumbling land: the postmodernity debate and the analysis of environmental problems. *Progress in Human Geography*, 20, 23–40.
Harvey, D. (1996) *Nature, Justice and the Geography of Difference*. Oxford: Blackwell.
Henderson, G. (1999) *California and the Fiction of Capital*. New York: Oxford University Press.
Lefebvre, H. (1968) *The Sociology of Marx*. London: Penguin.
Mels, T. (2002) Nature, home and scenery: the official spatialities of Swedish national parks. *Environment and Planning D: Society and Space*, 20, 35–54.
Mitchell, D. (2003) Dead labor and the political economy of landscape – California living, California dying. In K. Anderson, M. Domosh, S. Pile and N. Thrift (eds), *Handbook of Cultural Geography*. London: Sage, pp. 233-48.
Neumann, R. P. (1998) *Imposing Wilderness: Struggles for Livelihood and Nature Preservation in Africa*. Berkeley: University of California Press.
Neumann, R. P. (2004) Moral and discursive geographies in the war for biodiversity in Africa. *Political Geography*, 23, 813–37.
Peet, R. and Watts, M. (1996a) Conclusion: towards a theory of liberation ecology. In R. Peet and M. Watts (eds), *Liberation Ecologies: Environment, Development, Social Movements*. London: Routledge, pp. 260–69.
Peet, R. and Watts, M. (1996b) Liberation ecology: development, sustainability, and environment in an age of market triumphalism. In R. Peet and M. Watts (eds), *Liberation Ecologies: Environment, Development, Social Movements*. London: Routledge, pp. 1–45.
Said, E. (1978) *Orientalism*. New York: Pantheon Books.
Walker, R. (2001) California's golden road to riches. *Annals of the Association of American Geographers*, 91, 167–99.
Willems-Braun, B. (1997) Buried epistemologies: the politics of nature in (post)colonial British Columbia *Annals of the Association of American Geographers*, 87, 3–31.
Williams, R. (1977) *Marxism and Literature*. Oxford: Oxford University Press.
Zimmerer, K. S. (1996) *Changing Fortunes: Biodiversity and Peasant Livelihood in the Peruvian Andes*. London and Berkeley: University of California Press.
Zimmerer, K. S. and Bassett, T. J. (2003) Approaching political ecology. In K. S. Zimmerer and T. J. Bassett (eds), *Political Ecology: An Integrative Approach to Geography and Environment-Development Studies*. New York and London: The Guilford Press, pp. 1–25.