Chapter 13

Environmental History

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There was a time when almost all Western geography could be termed environmental history. In the late nineteenth century, physical geographers explained landscapes by describing how they had evolved. Likewise, human geographers saw society as shaped by the directing hands of the environment. By the 1960s this had very much changed. Process studies shortened the temporal framework in geographical explanation and cut the cord between nature and society. Now, physical and human landscapes were seen as responding to short-term fluctuations around a long-term steady state. Between the homeostatic systems of the geomorphologist and the isotropic surfaces of the economic geographer, there seemed to be no congress. For a number of reasons, environmental history now enjoys a renewed significance within human geography. I want to explore four sets of reasons why this is so. First, I will look at the continuing importance of an ecological tradition in geography that was always more than mere environmental determinism. In the second place, I will explore how geographical reasoning has continued to be of interest in what we might term big-picture histories. Thirdly, I want to consider how environmental history was treated within Marxist geography. Finally, I intend to consider how the New Cultural Geography has treated the subject. I will conclude by examining some studies that draw upon the best from these four approaches.

Ecological Reasoning in Geography

Environmental determinism was always a contested project within geography. There were those, such as Herbert John Fleure (1877–1969), who were worried by the biological determinism, even racism, of much contemporary geography. In Fleure's (1962) geography, social organization was a vital variable as was the interaction between peoples as they moved through and shared or contested the use of different regions. Population mixing, resource appraisals, and attention to the ways people got access to environmental resources complicate any simple determinism. The history of how societies change is, then, in part the history of how they have changed their ecological context. Ecological reasoning focuses on how the flows of

natural matter and energy are garnered by different groups. Human life and economic development are impossible without this material basis. Without shelter, food, and tools, there is no society; and without nature there was no shelter, food, or tools. There are two aspects of Fleure's work that are still important: first, the emphasis upon racial impurity and, secondly, the emphasis upon the organization of work as a culturally variable and crucial factor in explaining how the environment is evaluated and used at various times and in particular places.

Impurity is significant because it makes it more difficult to use history for xenophobic purposes. Conservative thinkers such as Halford Mackinder (1861–1947) saw clear correlations between environment, race, and language and insisted that this explained and justified the division of the earth's surface into nations and empires. For Fleure any "simple linkage of race and language with the social group can, at most, have belonged only to very early times. Admixture came soon enough" (Peake & Fleure 1927: 121). It is striking to consider how far national histories see the past in terms of invasion, displacement and conquest. What if we see the past, instead, as characterized by miscegenation and by ongoing cultural and technological conversations between groups? Intermarriage has proved more fruitful for economies than has isolation: "[c]ulture contacts, except when involving complete destruction on one side or the other, have not only provided mutual enrichment by exchange, but have also stimulated fresh developments" (Peake & Fleure 1936: iii). Diffusion is about interaction not contamination. Fleure could never have agreed with Mackinder (1931: 326) that the English people were the inheritors of:

> The English blood, one fluid, the same down through the centuries, on loan for the moment in the forty million bodies of the present generation. John Bull in his insularity is the exemplar of the myriad separate bloods and saps, each the fluid essence of a local variety or species of animal or plant.

Fleure (1951: 1), instead, maintained that: "[a]n outstanding feature of the story of man in Britain is that, in the course of the historic centuries, a considerable measure of unity has been achieved without a great deal of forcible repression of diversity. Unity in diversity . . . is a feature of Britain." The same was true of Europe and this made the pretensions of the sovereign nation-state dangerous. Writing to caution against the linguistic nationalism taken as the natural basis for political organization by the peacemakers planning Europe after the First World War, Fleure insisted that economic relations under industrialism must establish connections that transcend the localism of the agricultural societies that sustained earlier coherent nations. People were implicated in solidarities at multiple scales but Europe did not seem ready to think about this: "[t]he disastrous muddles made by the British Governments in Ireland have shown how little the idea of unity-in-diversity has been thought out by politicians, and we have to realise that in Europe we can have only unity-in-diversity" (Fleure 1921: 13).

Work is significant because it turns our attention to the way social groups set goals in seeking to secure a decent living from their environment. A common criticism of environmental determinism was that it treated society like a mobile plant. Once set in a particular place, it was the character of the local resources that determined if it would flourish. Work, however, is not like that. Work involves

communication and is a cultural achievement. There are no Robinson Crusoes in human history. Furthermore, collective effort is almost always required for people to keep body and soul together. Land allocation is a social question, private property a cooperative achievement. The peasant agriculture of China, thought Fleure, required ways of sustaining families in their attempts to pass their enhancement of the soil down to their children. Things were very different for the commercial society of ancient Greece:

> Whereas the Chinese agricultural system contrived to maintain the organization of society with the family emphasized as the most important unit around which almost everything was gathered, in the Greek lands with their specialization of crafts and their trade there was a tendency to make neighbourhood take the place of kinship to some extent in social organization. Thence there grew systems of law regulating intercourse between unrelated people . . . (Fleure 1921: 179)

Out of ways of making a living, then, a society develops its legal, philosophical and cosmological systems. The nomad, the peasant, and the merchant not only represent different ways that people can use their environment, where they dominate particular societies, they produce different systems of social organization and only through such institutions can society appropriate natural resources.

Another prominent critic of environmental determinism was Carl Ortwin Sauer (1889–1975). He rejected the notion that nature was the active, society the passive partner in ecology. Rather he emphasized the extent to which landscapes expressed the personality of a culture. He also paid close attention to people as geomorphic and biotic agents. In one of his last seminars, he told students that: "there are the simple and sturdy souls who identify vegetation with climate. And there are the people like myself who wonder every time there is something peculiar about a vegetation whether somebody didn't set fire to it" (Parsons 1987: 157). Landscapes, then, were cultural artifacts of very long gestation. This meant that Sauer was critical also of the process studies that narrowed geography's historical sweep. He saw this as produced by the euphoria of economic triumphalism when the United States stood lord of all the nature it surveyed, a "brief moment of fulfilment and ease" (Sauer 1941: 2). At that moment it seemed that nature was bent immediately and irrevocably to the short-term dictates of the economy. In a letter of 1948, Sauer expressed the belief that this hubris would soon receive its environmental check: "[i]t is quite possible that our whole western civilization in its modern form, based on ever increasing production and consumption, is a violation of natural order which will bring about its collapse. It is possible that the unparalleled malignancy of nationalism in our time is a sickness based on a pathologic industrialization, on increasing unbalance between population and resource with increasing failure of resource" (Martin 1987: xv).

Sauer provides further support for Fleure's emphasis on diffusion and upon work. However, I want to stress two further aspects of Sauer's work that distance his ecological reasoning from environmental determinism. The first is the idea that almost all environments are already what Hegel termed "second nature." In other words, the environment is a historical product of cycles of past human occupancy and use. The second, and related, lesson of his work is that the carrying capacity of a region depends upon how it is exploited and it is quite possible that current landscapes are

degraded when viewed from the perspective of carrying capacity. For example, in his work on the transformation of the Caribbean under European colonialism, Sauer (1966) used archaeological as well as Spanish literary evidence to describe a form of farming that served local food needs rather than producing primary products for export. Sauer followed early Spanish observers in describing Hispaniola (now the Dominican Republic and Haiti) as a largely open landscape, cleared of its "natural" trees and mainly cultivated by mixed cropping on mounds of earth. Combined with fish and shellfish, this could support a very dense population. For the area under Spanish control, Bartholomew Columbus counted 1.1 million from the returns of the tax collectors he appointed in 1496. Sauer's estimate of about 3 million Indians on the whole island in 1491 was ten times higher than that accepted by Alfred Kroeber and Angel Rosenblat. This was the forerunner of a debate that soon produced similarly divergent population figures for many other parts of the Caribbean as well as both North and South America (Denevan 1992). Within a decade, the population of Hispaniola had been decimated and slaves were soon introduced from Africa. Without Indian labor, the arable areas retreated in some places before an expansion of pastoralism with its low intensity of labor and in others before scrub and then woodland. By 1518 the population decline had been exacerbated by the rounding up of Indians for slavery in the placer gold deposits and there their diet was under ignorant Spanish control. The fate of the Indians was sealed: "[a] well-structured and adjusted native society had become a formless proletariat in alien servitude, its customary habits and enjoyments lost. The will to live and to reproduce was thus weakened" (Sauer 1966: 204). Disease completed what malnutrition and despair had begun. By the 1530s there were hardly any Indians left. By the time anthropologists arrived to examine the few groups who survived beyond the activity space of the Europeans, their earlier way of life was not even a memory and it was all too easy to dismiss the earliest Spanish observers as romantics or even vainglorious conquerors exaggerating the military challenges they faced. By paying attention to the range of plants available and to the other food sources mentioned, Sauer was able to give ecological credibility to these earliest accounts of something akin to the "original affluent society" later described by Sahlins (1972).

Geographical Histories

Instead of building upon the ecological reasoning of such as Fleure and Sauer, human geographers, in the main, turned away from historical studies towards contemporary studies of economic space. Sauer himself saw American geography taken over by those he dismissed, in a letter of 1967, as "piddlers with forumulas of imaginary universals" (Martin 1987: xv). Nevertheless, the ecological perspective was repeatedly taken up by economic historians, many of whom offered explanations of Western development in which the environment played a key role. Environmental history was also taken up by scholars influenced by green politics and seeking to chart and explain the environmental degradation they saw advancing across the landscapes of both rich and poor countries. I want to show that the insights of Fleure and Sauer remain relevant to these modern studies.

Jared Diamond's (1997) explanation of why some peoples are rich and others poor paints a broadly Darwinian picture in which inter-continental contact

produces conflicts which are ultimately settled by might backed up by technology and disease immunity. The argument rests upon an account of how agriculture develops in different environments. Eurasia had a great concentration of land in the mid-latitudes most conducive to the growing of the most nutritionally efficient grains. It also had a majority of the animals that have proved domesticable. Beyond that, western Europe has a varied topography producing small states rather than large empires and is thus prone to competition and innovation rather than to the technological conservatism of the autocratic empires of Asia. The Eurasian part of the argument is original to Diamond while the western European part derives from the work of Eric Jones (1981). I think Jim Blaut (2000) was broadly right in his criticisms of the antitropical bias in both Diamond and Jones. However, I think too that Diamond has an important argument to make about the relationship between populations and diseases. Many more people lived on the Eurasian than on the American land mass. Given the simplicity of the linguistic map of Eurasia, its peoples were probably in more intimate and frequent contact with each other than was the case in America. It is certainly the case that a greater number of large animals had been domesticated in Eurasia. Together these factors meant that the peoples of Eurasia were subject to epidemics of contagious diseases, such as smallpox, which had crossed over from animal reservoirs such as pigs, and which spread widely. What Diamond offers, then, is a way of relating agricultural development to patterns of disease and it is quite clear that the lack of any immunity to smallpox in particular was an important part of the decimation of Amerindian peoples upon contact. However, this cannot be the whole story, for at various points in its history Europe was subject to truly devastating plagues from which it took scores of years to recover. The crucial demographic feature in America is that virgin epidemics happened under the impress of colonialism and aboriginal populations got no opportunity to bounce back before their resources were simply taken away for use by Europeans. It is the social disorganization and the appropriation of their land by others that explains why Amerindian populations took so very long to achieve even modest recovery after epidemic or war. I think Sauer understood this better than does Diamond.

Jones's arguments have been heavily criticized by Blaut (1993) for their ethnocentrism. The environmental element of Jones's account of the rise of Europe is certainly deterministic. Jones says that Europe is tectonically stable and is subject to none of the uncertainties of the monsoon climates of Asia. The topography of Europe is varied, creating at the regional scale, a congeries of ecological niches with products that complement one another, and at a larger scale a series of drainage basins, separated by mountains, that cohere easily into states but are difficult to combine into empires. Europe and not Asia has been capable of sustained, long-term economic growth. Growth spurts in Asia are absorbed by population increases. Jones's argument is that the hostile climate and exploitative political system meant that Asian peasants simply faced greater insecurity than did Europeans. As such, they provided security in the form of children rather than running the risk of having fixed capital assets destroyed in war or taxed away by rapacious emperors. Given the different risk environments, Europeans and Asians made different but equally rational choices, the first to put goods before children, and the latter to value offspring over material wealth. It should be clear that this is not, although Blaut wants

to suggest that it is, an argument about European rationality versus Asian superstition. It is, however, an argument about how environments affect society and many of Blaut's criticisms of antitropical prejudice hold good here, as does his demonstration of the tremendous diversity within Asia. I want to draw attention to a different problem. Jones's argument is not constructed on the basis of a properly comparative study of Asian and European societies before 1492. If you look at the evidence he relies upon, almost all the demographic material for places such as India come from a period after European interference with those economies and societies. To compare the famines in nineteenth-century India with the lack of extensive famines in Europe since the seventeenth century is not to bear witness to the failures of climate but to the failings of colonial administration. As Sauer shows us, we cannot read back postcontact social, demographic, and agricultural systems into precontact times. Lack of evidence may drive us in that direction but the road to historical error is paved with such good intentions.

Big-picture histories often operate with spatial units that are chaotic rather than coherent (Lewis & Wigen 1997). They often make such units the bearers of a personality in ways that emphasize the radical separation between societies and their deadly hostility towards each other. Culture replaces biology is the modern version of Mackinder's worldview and I feel that such as Samuel Huntington (1996) are susceptible to the very criticisms Fleure made of the environmental determinists; they pay too little attention to social organization and to the realities of economic and cultural interaction across borders. The lessons of Sauer and Fleure are also worth considering when looking at the second set of popular environmental histories that I want to consider. Some historians have taken up the concerns of the green movement and tried to put them into a historical context by showing the unparalleled damage done to the environment by capitalism or industrialism, as they variously identify their enemy. Some of the most striking of these studies make up what has been called the New Western History (Kearns 1997).

In many ways, Donald Worster (1993) makes very much the case against industrialism that Sauer made. With industrialism, the homeostatic systems of Indian agriculture are displaced and aquifers are squandered, soils reduced to dust and nature sacrificed to profits. In each case, I think their blanket dismissal of industrialism is unfeasible but in Worster's case I believe there is a further romantic denial of ecological realities. Worster, unlike Sauer, sees Indians as ecological primitives, barely marking the land. This, as Willems-Braun (1997) argued so well, is somewhat patronizing and leaves Indians no place in the modern world. There are only versions of second nature available to us and purity cannot be an ecological virtue. There are only ever valuations placed on their environments by people. We may choose to celebrate color, or diversity, or biomass, or rare species, or unique ecological niches. Environmental history can remind us how certain of these valuations have come to be taken more seriously than others at various times. This, I think, is the great strength of Bill Cronon's (1991) work on Chicago and its hinterland. He describes the nineteenth-century conversion of pigs, and cows, and trees, and grasses into commodified pork, beef, pulp and grain. Production-line abattoirs change the social conception of life. There is a brutality and lack of respect in the meat packing plants and yet in the tins of corned beef a new vision of domestic life was also being projected. Environmental history can return us to a sense of responsibility for the

ecological realities upon which our labor-saving cooking and cheap food rests. Commodities reside in ecological as well as economic chains and their forward and backward links equally bear consideration.

In engaging with the works of global economic historians and with "green" histories, human geographers have found ways to pick up again themes from scholars such as Fleure and Sauer, themes that had received but limited attention during the so-called quantitative revolution. These themes were also raised by developments within geography that explicitly confronted the ahistorical approaches swept into geography with that revolution.

Marxism

Marxists were vital in linking geography to a broad range of social and economic sciences. Marxism is inherently interdisciplinary. In some ways, it ignores academic disciplines altogether. For geography, the radical attacks on quantification for its political conservatism began a reengagement between geography and social theory that still continues. The philosophical and the political were inextricably linked. Marxism also aims at comprehensive explanation and thus a wide range of issues can be taken up and mapped back onto its core arguments. There are clearly dangers of reductionism in this but against that we have to recognize that before that point is reached the basic materialism of the Marxist approach sensitizes geographical inquiry to the exploration of a rich suite of interconnections, some of them environmental, many of them historical. Environmental history was never dominant in Marxist geography, which was focused in the main upon urban and economic geography. However, there were two ways that Marxism did engage with environmental history. The first is in its basic philosophical anthropology and the second is in its approach to natural hazards.

Neil Smith (1984), for example, engaged with the philosophical works of Alfred Schmidt (1962) and Sebastiano Timpanaro (1970), among others, to provide a reconsideration of the nature–society dialectic at the heart of geography. Smith explained that instead of seeing nature as an external force constraining social choices, we might consider how nature is transformed in the pursuit of social goals but also how the transformation of nature both socialized and empowered humans. Through work we make ourselves both human and social. Under capitalism, however, nature is privatized and people commit themselves to work, in the main, as to an external discipline necessary to get wages and thus to survive. Now, nature does appear before many as an alien power. It is a mistake, however, not to realize the historically contingent basis of this state of affairs. It is far from simply natural. Smith argues that the term "natural" serves to hide the way societies, economies and, yes, natures are the end points and not the starting points of production. There is very little historical detail in this philosophical work (there is, for example, greater historical detail in Harvey 1996) and there is even a dangerous tendency to treat capitalism alone as truly productive of nature due to its great technological capacity and to treat precapitalist societies as doing little more than scratching nature's surface. Smith (1984: 104) writes of "the natural economies of feudalism and other precapitalist modes of production" and tells us that "capitalism inherits a territorial division of labour rooted in natural differentiations." Second nature, the product

of fire and of forest-clearing, has been general in almost all areas of human occupance for centuries before capitalism. The patchwork that Jones finds in Europe is the product of such selective transformations. Indeed, the grain of ecological differentiation has probably been made finer by human activity that it ever would be without. In medieval England, for example, the complementarity of pastoral and mixed-farming ecotones was established at the village level throughout lowland regions and many upland regions too. As Sauer and Fleure might remind us, the onset of capitalism is not the only historical transformation worthy of serious consideration in the study of the relations between society and nature.

Natural hazards research had remained an area within geography where human and physical approaches were at least neighbors as best exemplified in the work of Gilbert White (1973, 1974; Burton et al. 1978). The historical dimension was somewhat weakly developed within this research tradition for it amounted to little more than the investigation of the return-time of physical events of varying magnitudes. Marxist thought inspired two significant revisions of this work. Both underline the social nature of hazards. In the first place, geographers explored the significance of the fact that people now relate to nature as a form of property. Property relations structure access. These relations are historical products. They were different in the past and will no doubt be different in the future.

The pioneering work in this area was Michael Watts' (1983) study of food shortages in northern Nigeria. The famine of 1972–3 throughout much of sub-Saharan Africa fixed images of starving Black babies as a synecdoche for Africa. This imagery presented Africa as a place where nature was just too strong for a rather weak culture and technology, the dilemma of underdevelopment (Jarosz 1992). Watts (1983: xxiii) argued instead that "[a]ll climatic phenomena have social referents which are historically specific forms of society." When, during the nineteenth century, the area was the Muslim Caliphate of Sokoto, the climate was just as variable as under British colonial rule in the first half of the twentieth century. In the nineteenth century food shortages did not create mass starvation because the state mitigated its tax demands in times of difficulty for farmers. There were also forms of communal solidarity built into forms of labor tribute and gift reciprocity. In broad terms, this precapitalist economy, well used to the threat of food shortage, aimed at "the social provision of minimum income in the face of high risk" (Watts 1983: 89). In the first decade of the twentieth century, Britain took the area under colonial rule. It decided that no individual property rights had previously existed and thus it should nationalize all land and charge direct producers a tax for the annual use of their plots. Now the goal of property management was to maintain a constant tax-stream to sustain the colonial administration. This meant that producers were under great stress in times of shortage. Petty commodity production broke up collective solidarities. During the Second World War, for example, the consequences of a drought were magnified for the farmers by the state's demand for taxes and its control of food prices so that inflation would not affect the production costs of the tin produced for export. The result was that farmers fled to the towns or stayed put and ate their seed corn. The property relations were overlain by a political system that did not put rural living standards very high up its agenda. Food shortages are always refracted through such political and institutional prisms. They are never truly natural, and they never were.

There have been many further studies on the political economy of environmental change including Piers Blaikie's (1985) influential study of soil erosion and Judith Carney's (2001) study of technology transfer from Africa to Carolina in rice production. I want, however, to draw attention to a second way Marxist writings influenced the revision of the natural hazards tradition in geography. Property relations certainly affect how "natural" resources are transformed by work. They are also part of the power relations shaping how disasters reverberate through society. The Sahel drought of 1972–3 created widespread suffering, the English drought of 1976 prevented people legally watering their lawns for a while. There is no correlation between the scale of an environmental perturbation and the human consequences that follow upon it. Some people are more at risk than others and some people have a better chance of recovering their livelihoods than do others. Location, poverty, communal resources and insurance all go to form a social distribution of vulnerability that directs disasters towards their victims. This framework has been developed in a fantastic book, *At Risk* (Blaikie et al. 1994), and it has been applied to AIDS in Uganda (Barnett & Blaikie 1992). Barnett and Blaikie show that the upstream causes of vulnerability to HIV infection and the downstream impact of AIDS sickness and mortality follows social faultlines that can best be understood in terms of the political and economic history of Uganda. The transformation of the economy under the vicious rule of Idi Amin imposed price controls that simultaneously weakened the rural sector and placed a high premium upon the smuggling of products such as coffee out of the country. This had gendered consequences with men leaving villages to follow the contraband flows and women left behind with little access to markets in their own right. Under these circumstances, sex work at the truck stops along the smuggling routes became an all too understandable and dangerous survival strategy for many women. The transformation of the rural society under the impress of AIDS mortality also placed under great stress the coping mechanisms by which villagers had characteristically dealt with the occasional tragedy of the death of parents. Barnett and Blaikie show how under a new regime of labour, patterns of farming are transformed undermining the prospects of capital investment or food security. The perspectives of *At Risk* could usefully be applied to a wide range of hazards to produce a new kind of environmental history in geography (Kearns 2000).

The Cultural Turn

Marxism, then, has directed geographers' attention to the historical contingencies of property relations, which form the terms on which society achieves its material grounding. The historical relativity of this dialectic between nature and society had been occluded in much of the process-based studies that dominated geography in the 1960s and 1970s. The historical naivety of the way terms like nature were used in geography did not render them innocent of unexamined political and philosophical content. The normative content of the term "natural" has rarely been as carefully examined as it was in Clarence Glacken's (1967) great survey of the notion that nature might have a design benevolent to human purposes. Perhaps because his survey ended in the eighteenth century, it did not have the impact on contemporary geographical studies that it deserved to have. It was treated as a work on

the history rather than the practice of geography yet its exploration of some of the central and contestable terms of the discipline anticipate much of what has since been taken up under the impress of the so-called "cultural turn." The cultural turn in the social sciences is a turn towards the explication of meaning as a sort of hermeneutics of suspicion. Social scientists have been directed towards a consideration of the untenable assumptions that hide behind the "big concepts" they use. Central to this interrogation has been a recognition that a model of the evolution of an "enlightened" West has been taken as normative in their theories. In asserting a single rationality, social scientists have more or less unwittingly elevated the world view of the heroic, bourgeois, white male to a position of unquestioned universality. Under the pressure of anticolonial, feminist, lesbian and gay criticisms, this universality has been revealed as partiality; its privileges reproduced where they are unexamined. Within geography these arguments have produced a new sort of environmental history, a history of the construction of environmental meanings. I want to examine two moments in this new history, the first contextualizes environmental knowings and the second questions their hidden violence.

The works of Raymond Williams (1973) and John Barrell (1980) have served as paradigms for geographical studies of the development of environmental ideas. Williams showed how a romantic view of a bucolic rural past served in nineteenth-century Britain as a way to point out the evils of unnatural industry. He also showed that the designing of some rural landscapes to replicate this imagined, Edenic vision was a way to hide the realities of production and exploitation upon which rural wealth was built. Landscapes screened work. Barrell showed that similar strategies lay behind contemporary landscape painting but that the pain of the derangement of village society under the modernizing and effacing drive of enclosure could yet be recovered from the works of such poets as John Clare. Art historians such as Timothy Clark (1985) and planning historians such as Donald Olsen (1986) took these arguments to town. We can see these approaches to landscape very clearly in the collection of geographical essays edited by Denis Cosgrove and Steve Daniels (1988). This is a thoroughly interdisciplinary field but I want to silence briefly that conversation and highlight a few of the contributions by geographers.

Daniels (1993), for example, has described the ways that representations of landscapes attempt to define the nation as a community with a certain set of values. Certain national realities were always evoked by English woodlands, which might, for example, be under royal ownership or earmarked for naval ships. Across the water in France, trees might recall quite different values, might recall indeed the trees of liberty planted throughout France after the Revolution. Cosgrove (1993) describes the way that the landscapes of Venice were redesigned in the sixteenth century so that they might serve as a setting for the inculcation of certain values in an attempt to consolidate and render natural a new political reality based on landed rather than purely maritime wealth. John Andrews (1975) has given an account of how the English effectively estranged the Irish from their own past by remapping and renaming the Irish landscape in the nineteenth century, replacing Irish names with English ones. In studies such as these, either landscapes are viewed as representations and their, often implicit, meanings decoded, or representations of landscapes are taken as expressive of certain sets of power relations.

Let me turn, now, to the second cultural strand that I want to draw out. I am concerned here with a more radical set of questionings. These scholars are not concerned to read landscapes or their representations as expressing social relations so much as questioning the positions from which landscapes were and are read. Instead of seeing the map as expressing a certain ideology, we might see it as suppressing other ideologies in the act of claiming any single authoritative viewpoint. By considering the direct othering of standpoints, we can explore the implicit constitution of an authoritative self who would feel comfortable looking in this way from this position. The topographical metaphor of surveying captures much of what is at stake here for it implies a single locus from which all meaning may be adequately gathered. But how might things appear to the sideways look? Brian Harley, for example, looked at maps as efforts to censor subaltern views of the world (Laxton 2001). Drawing upon Edward Said's (1978) use of the works of Michel Foucault, Harley went in search of the margins of maps. He tried to ask what interests were served by the silences imposed by the authoritative map.

Gillian Rose (1993) explicated the gendered dimensions of geographical knowledge in her wide-ranging *Feminism and Geography*. Environmental history is not only the story of the dispossession and separation of certain classes from the land through the assertion of property, it is also about the reproduction of patriarchy through gendered access to resources and the representation of gender through historically specific constructions of "nature." The two are related, of course. The allocation to women of tasks such as child rearing and the attendant devaluation of this work, sits alongside the exclusion of women from a full public life be that expressed in the market or the forum. Rose shows how these polarities run through geography with its devaluation of subjectivity in favor of a spurious objectivity, with the heroic explorer now seen in the hardy field scientist of physical geography, and the domestic entertainments of the butterfly collector now seen in the soft studies of the cultural geographer (Kearns 1997).

Rose also considers the pleasures of landscape and notes that the satisfaction of the imperial gaze depended firstly upon ownership but reminds us that this ownership was almost always male and, certainly in the nineteenth-century examples discussed by the cultural geographers above, extended from land to wife. If we examine, for example, the use of the pastoral aesthetic to embellish upper-middle-class suburbs in the cities of late nineteenth-century North America, we find a whole series of mappings of bodies onto places that inscribe contemporary patriarchy onto the land. Urban environments are expressive of gender and not only class. The curvaceous, lightly rolling aesthetic of places such as Riversdale (Chicago) was in marked contrast to the rectilinear landscape of the downtown Loop (Bluestone 1991). The soft lines of the suburb evoked "nature," in the comfort of whose bosom the male might recline at the end of a day in the public grip of Mammon. It was the place for families, for the safe reproduction of a social class. It was a domestic space. It was a place for women. Why, women might even walk about in public in the suburbs without inviting scandal. The aesthetic not only equated women with nature, but it also placed women. It placed them away from the public sphere. It left them where "their" men had put them while the men were free to disport themselves at will both home and away. These gendered activity spaces are clearly articulated in contemporary novels where women act through the disembodied emissary

of the letter, whereas the men stroll around as they wish. The contrast between mobile Leopold and static Molly Bloom in James Joyce's *Ulysses* illustrates this perfectly.

A critical and effective environmental history might take up these concerns of the cultural geographers and explore how the making of environments, be they urban or rural, is always also the making of certain sorts of people through both expressing ideologies and by inviting us to read certain bodies in certain ways depending upon where we come across them (as in discourses of the "public" woman). This will mean imposing upon representations all the things they forget, the exclusions they find natural.

Conclusion

I have suggested that in various ways environmental history was devalued in geography after the demise of environmental determinism. I have also suggested that geographers in large part also turned their back upon the important lessons that contemporary critics of environmental determinism had developed in their own work. I have argued that environmental history has come to be of renewed importance in modern geography for three reasons. First, this form of geographical and ecological reasoning has proved of great interest to both global economic historians and to historians influenced by green politics. I have suggested that in each case, the lessons of earlier geographers might still have much to contribute to the development of these studies in environmental history. In the second place, interest in environmental history has been renewed in geography through human geographers' critical engagement with Marxist thought. I have proposed that paying attention to the property relations structuring the mutual constitution of societies and natures, and to the social distribution of vulnerability in the face of environmental risk create an agenda for a fruitful integration of geography and environmental history. Finally, I described some of the ways that geographers have engaged with certain of the issues raised by the so-called cultural turn in the social sciences and humanities. I have looked at landscapes as attempts to express and reinforce certain sets of power relations. I have also looked at them as attempts to silence various other readings and other voices.

I want to conclude by suggesting that these two ways of reinvigorating environmental history within human geography are inadequate without each other. This is argued quite magnificently in Don Mitchell's (1996) *The Lie of the Land*. Mitchell argues that landscape meanings relate to landscape use. He recalls Williams's (1973) argument about landscape as an aesthetic effacing the work upon which it is raised. To the victors, go the imperial gaze. They not only write the history, they also frame the vista that presents one contingent result as natural. The dominant view of California as a land of plenty, inhabited by sturdy yeomen, is one such vista. Mitchell describes the bloody battles that were won before the victors could survey the scene with such equanimity. By excavating the strikers, the Mexicans, the women- and child-laborers, and the communists who are buried beneath that defeat, he calls to our minds how it might have been, should have been, different. These alternative histories should also be part of our geographies. The relationship between aesthetics and property is often this violent.

This has more in common with Sauer on the dynamics of the Columbian encounter than Mitchell allows in his discussion of Sauer's organicism. It also returns us to the global economic histories I discussed above. If geography is in part about the study of how spatial differentiation is produced and reproduced, then, the violence of property relations must be brought within the remit of economic geography. Watts makes this clear. So, too, in a remarkable book, does Mike Davis (2001). *Late Victorian Holocausts* is precisely the sort of integration of environmental and historical-geographical perspectives that I am asking for. Like Sauer, Davis explores how landscapes become degraded under colonial rule. Here, however, we are dealing with the types of food shortages under the impress of commodification that Watts describes. Davis's argument pays attention to the murderous violence of the malignant neglect visited upon colonial subjects by their British rulers. Famines were exploited as opportunities to teach native people the discipline of the Malthusian realities they appeared to ignore. These realities were in fact shaped by the sort of property and tax regime that Watts describes for early twentieth-century Northern Nigeria. Davis proposes that the environmental perturbation of the failure of the rains was directed to do the work of breaking the subsistence economies of India, Brazil, and China so that all their production might pass through the market. So little came back from the market to the producers that they starved in their millions and were left helpless and desperate fodder for future rounds of capitalist exploitation, a docile because impoverished proletariat. This, he suggests, is the origin of the Third World. This work places environmental history at the heart of global economic history but it does so with a full recognition of the importance of the changing, and tragic, social organization of production.

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