Geopolitical Identities: Arctic Ecology and Global Consumption

SIMON DALBY

Critical geopolitics has raised questions of political identity at the largest scales, requiring scholars to think about the entities that are taken for granted and reproduced in the quotidian practices of political discourse. Place clearly matters in this scholarship, but the modern specifications of environment in terms of security, risk society and international discussions of climate change and biodiversity loss are now also part of the problematique. Not only are regional, national and bloc identities in question, but issues of global ecology and the identities of peoples who can know environments as such, are also a matter of considerable importance in specifications of modernity. Nature is now simultaneously endangered and a matter of national pride. The ecological dimensions of resource administration are at one and the same time an attribution of modern capability, while also on the largest of scales especially, one of the challenges to the possibilities of extending modernity. Aboriginal lives and the cultural disruptions of modernisation in remote northern areas directly confront the links between knowledge and specifications of particular place. Thus critical scholarship in a number of disciplines now also puts the ecological assumptions of modern sovereign subjectivities in question, requiring a further reflexive engagement with the identities that themselves now write critical geopolitics.

> The various manifestations of socialism destroyed both their peoples and their ecosystems, whereas the powers of the North and the West have been able to save their peoples and some of their countrysides by destroying the rest of the world and reducing its peoples to abject poverty. Hence a double tragedy: the former socialist societies think they can solve both their problems by imitating the West; the West thinks it has escaped both problems and believes it has lessons for others even as it leaves the Earth and its people to die.
>
> Bruno Latour[1]

> Rather, what is needed is a geographical imagination that takes places seriously as the settings for human life and tries to understand world politics in terms of its impacts on the material welfare and identities of people in different places.
>
> John Agnew[2]

Simon Dalby, Professor of Geography, Environmental Studies and Political Economy, Carleton University, Ottawa, Canada. E-mail: <simon_dalby@carleton.ca>.

Geopolitics, Vol.8, No.1 (Spring 2003) pp.181–202
PUBLISHED BY FRANK CASS, LONDON

Introduction

While perhaps just a little overstated, Bruno Latour's pessimistic reflections on the juxtapositions of global debates about the natural environment with the end of the Cold War rivalry in 1989 nonetheless succinctly capture some of the crucial dimensions of the current geopolitical situation. This predicament is what faces humanity at the beginning of the new millennium. In a nutshell the demise of the Cold War has left a legacy that neither the conventional understandings of globalization or economic liberalism, nor the discussions of politics as a matters of states, governments and elections adequately encompasses. While there is widespread concern about the long-term stability of the global climate, international negotiations to tackle the anthropogenic causes of atmospheric change have been less than effective.

Peter Taylor calls the current situation a 'world impasse', because we live at the beginning of the twenty-first century in a particular conjunction of environmental and political contradictions which do not seem to offer any obvious way forward.[3] This is an impasse because the double tragedy that Latour specifies is one that directly engages the major cultural attributes of the modern human endeavour and the geopolitical ordering of affairs. It raises in especially sharp relief the political question at the heart of identity politics, in Richard Ashley's terms, of the conditions in which it is safe to ask the question 'who are we?'.[4] These interconnections of culture and politics are profound.

The contemporary globalizing capitalist culture often ambiguously defines itself as that which is artificial in contrast to what is natural. In one of the most powerful dichotomies of the 'culture' that former socialists look to as their salvation, nature is at once an ontological given, a source of necessary resources and a place for pollution. It is something to be revered as pristine and simultaneously something to be conquered and rendered productive. The ambiguities ought to be a clear indication to cultural analysts that something interesting is going on here, but as Bruno Latour notes, such anthropological self-reflection does not always come easily to the modern academy.[5] He also notes that the distinctions between artificial and natural have collapsed in science. In Latour's terms hybrids are the order of the day. In so far as this is the case, then the environmental dimensions of geopolitics need to be rethought and the relation of humanity to 'nature' reconsidered. Environmental disruptions are threatening to some parts of humanity, so security and the identities that are rendered insecure, also need attention.

To elaborate this argument this article first looks back to Clarence Glacken's classic work on the history of the place of humanity in nature.[6] It does so because identity politics of the modern sort is obviously about

national identity but also about consumption culture. What is often forgotten in this discussion is that the assumption of humanity as somehow superior to, or apart from, 'nature' is crucial to the formulation of both citizenship in modern states and the lifestyle that these states now supposedly secure. The article suggests that the assumptions about both nature and geopolitics are urban and colonial assumptions in which nature is an external entity to be conquered and controlled. But nature is also tied to the modern aesthetics of landscape, of parks and suburbs as unpolluted and benign forms of modern life and of national parks as pristine ecotourism playgrounds for urbanites.[7] But in these places many environmental disruptions are merely displaced rather than ameliorated. Local urban air pollution in many places has been reduced but the long-term extensive use of carbon fuels threatens climatic stability and further more distant disruptions.[8]

Thus, if the analytical tools to deal with contemporary difficulties are to have any chance of incorporating the necessary ontological self-reflection in facing the double tragedy of liberal aspiration and environmental amnesia, further consideration needs to be given to the nature-culture dichotomy at the geopolitical scale. Discussions of environment have historically been part of geopolitical thinking either in terms of access to natural resources, or in the terms of geographical determinist imputations of causality in the large-scale patterns of world politics. But now the relationships between humanity and environment have to be rethought fundamentally in terms of global politics.[9] The discussion of these matters in the classic work of Harold and Margaret Sprout in the 1960s on the *Ecological Perspective on Human Affairs* now needs an update to emphasise the recent recognition that environment is no longer simply the backdrop of human affairs but a complex of systems that is now being changed by human activity.[10] This also emphasises and extends the implications of understanding the whole earth as a subject of security, to use Daniel Deudney's terms.[11]

More specifically, when innovations in earth system science are connected to discussions of political identity, they suggest a requirement to link contemporary critical thinking about geopolitics directly to the ecological context of humanity on the largest of scales. In short, the citizen consumer is both a political subject of particular states and also the beneficiary of a global economic system that is disrupting important processes in the biosphere. The post-Cold War geopolitical order reinforces these patterns because international organisations facilitate the incorporation of some states into the unsustainable global economy while effectively maintaining others as unstable resource hinterlands where violence is often connected to the extraction of resources.[12]

But the other side of the resource extraction question is the destination of the waste products of automobile suburbia and its global infrastructure of

commodity production. The arctic lands of the tundra biome are an especially appropriate place to look, because it is there that some of the most dramatic environmental consequences of modernity are now apparently manifest in the form of arctic sea-ice reductions and permafrost disruptions. In particular the scale of the changes there suggest empirical support for a new view of humanity's effects within the biosphere and the need for the dramatic innovations in the conceptual framework for earth system sciences which are finally, it seems, underway.[13] As this article suggests below, empirical material on northern change is one of the clearest indications of the need to adapt geopolitical thinking to accommodate these new perspectives.

Retracing Rhodian Shores

In *Traces on the Rhodian Shore*, his comprehensive overview of the history of Western culture's understanding of nature, Clarence Glacken identifies three major themes. The first is the question of whether the earth is a designed creation made for humanity. The second is a discussion of the differential influence of nature on human societies in particular places. The third theme, which has been addressed with increasing concern in the last few decades, is the effect of humanity as an agent in changing nature. In addition to acting as a corrective to hasty invocations of novelty in addressing contemporary debates about environment and geopolitics, using Glacken's typology allows us to link environment and geopolitics and discuss their interrelationship in a way that puts earlier geographical determinist arguments into context.

Glacken's first theme of the earth created for humanity involves assumptions of the earth as a backdrop to human society, literally a given context for human activity. This was an important theme in much Christian thinking and in European colonial discourse, which justified the 'civilizing' of conquered peoples and their environments.[14] The more recent secular versions of this formulation, where humanity is understood as being in charge of nature, have become entrenched as the premises of modernity. These have had a very powerful effect in understanding humanity as separate from nature, apart from an external environment that is available for conversion into resources for the production of commodities. Such assumptions have also fed into the cavalier formulations of economic modernisation and narratives of technological omniscience used to justify many forms of 'development', from city building to industrial-scale agriculture.[15]

Glacken's second theme, that of the effects of nature on specific societies, has had short shrift in the last few decades. Deterministic arguments have, since ancient Greek writings, attributed cultural attributes of an area to the environmental and climatic conditions in which the inhabitants live.[16] Coupled to ethnocentric assumptions of the superiority of

Europeans, this frequently provided powerful arguments for colonisation of non-European peoples. Such spurious causality and assumptions of fundamental inequalities between peoples are no longer taken seriously in academic geography. What has often been left out of geographic accounts of these matters is the importance of environmental determinism for geopolitical thinking outside the discipline through the twentieth century. The Cold War formulations of the Soviet Union as an intrinsically expansionist political entity, which were updated to provide the geostrategic rationales for the American military build-up during the second Cold War period in the first half of the 1980s, can be traced in part to assumptions about Russian soils and climates that date from the work of Friederich Ratzel in the nineteenth century.[17] In more recent themes the focus on nature and its 'production' of threats reinvents Malthusian angst about population to suggests that the 'wild zones' of the South endanger the peaceful zones of Northern postmodern prosperity.[18] As the basis for an academic discipline such arguments are now usually unacceptable, although geographical and climatic explanations for global economic disparities continue to be part of many contemporary discussions in other disciplines.[19]

But the ecological disasters that frequently result from attempting to introduce 'temperate' climate models of agriculture and development into 'tropical' ecosystems make it clear that environmental constraints on human actions need to be taken very seriously. This is part of Glacken's third theme concerning the impact of humanity on the environment. Because of the widespread assumptions that the planet is available for human appropriation, the changes wrought on natural systems have not (yet?) been constrained by an adequate appreciation of the limits of natural systems. The scale of human activities means that now global risks have become part of geopolitics.[20] They are also part of many popular cultures around the world because environmental disruptions do not recognize international frontiers. Indeed, it is precisely this sense of the collapse of spaces and scales in the context of media discussions of global environmental dangers that Bruno Latour uses as his point of departure for his essay suggesting that 'we have never been modern'.

The political consequences of disruptions of environments have been aggravated by the use of determinist arguments linked to a geopolitical understanding of a world consisting of relatively autonomous spaces.[21] These obscure the interconnectedness of economic processes by specifying indigenous 'environmental' causes for all manner of phenomena. Popular understandings of places as separate and of environments as influencing human activity are part of the political processes that shape how nature and environment are understood and discussed. Cities are understood as separate from environment. Nature is something disconnected from people's lives. Environmental issues are somehow defined as outside most

people's concerns, but the question of nature simply doesn't go away, as headlines about environmental disasters repeatedly remind Bruno Latour.

Critics of American foreign policy in the Persian Gulf are quick to point directly at the link between these dimensions of geopolitics and the military imperatives of control over oil supplies in particular.[22] Reducing American dependence on imported oil is a practical alternative to military intervention in Iraq or elsewhere in the Persian Gulf. Dependence on these supplies makes industrial economies vulnerable to disruptions but also has dramatic effects on the politics of the areas where oil wells, pipelines and refineries pollute.[23] Political violence is frequently linked fairly directly to oil extraction and environmental damage even if energy corporations go to some lengths to claim the contrary.[24] But these relationships can be seen in other sectors of the global economy where mining or plantation agriculture operations are often run by international corporations with the aid of governments who profit at the expense of local populations and environments. Such are the geographical practicalities of contemporary geopolitics.

Garden Cities

At the end of nineteenth century while Rudolf Kjellen, Friederich Ratzel and Halford Mackinder were writing the books and articles that would shape what was subsequently known as geopolitics, their British contemporary Ebenezer Howard was developing his arguments for 'garden cities' as the answer to many of the social ills of industrial cities.[25] This links the questions of the spatial sensibilities of a culture to the practical scale issues of designing urban spaces, but it is worth noting that Mackinder himself shared many of his contemporaries' fear of industrial cities and their preference for 'organic' communities.[26] Howard's ideas were the culmination of much of the nineteenth century urban reform movement, and widespread cultural discussions of the juxtaposition of town and country.[27]

Garden cities were supposed to ensure that the benefits of both town and country were available to populations living in relatively compact urban communities. Howard's ideas were influential in the construction of a number of towns in England, and Canberra in Australia, and more generally influential in the twentieth-century town and city planning movement. Perhaps his most famous summation of the benefits of garden cities is in a diagram of the three magnets where the benefits of rural and urban life are combined in these new urban places. While the problems of urban and rural life are avoided, the key point about his analysis is that it is structured by the dichotomy between the two. This formulation also parallels some American ideas of city parks and in particular Frederick Law Olmstead's ideas of democratizing nature, in terms of making it accessible to more than elites, but extends the marriage of town and country further.[28]

Howard's ideas were influential as a blueprint for the suburbs that emerged in the twentieth century. Combined with the rapid growth of the private automobile the ruralisation of the urban became a dominant theme of twentieth-century planning and home ownership aspiration. Nature was civilised, tamed and reordered to produce a 'culture of nature' of domestic order and planned nature.[29] Hollywood's rural fantasies of white picket fences and domestic bliss projected urban immigrants' collective aspirations onto movie screens as the technology of mass consumption made such privatised housing possible. Disneyland is merely the further extrapolation of a tendency to manufactured landscapes while simultaneously distancing the consequences of such resource use from the secluded tree-lined avenues of suburbia, or from the even more geographically dispersed automobile-dependent edge cities of North America. But only large-scale resource consumption drawing on distant sources of fuel, material and food allows these landscapes to function as the home of the wealthy.[30]

The scale of the human impact on 'natural' systems has increased rapidly in the last century, even if the aesthetic dimensions of garden cities and the tree-lined streets of suburbia effectively disguise the appropriations from natural systems.[31] The assumption of nature as the given context for humanity, the first of Glacken's themes, is now collapsing as a consequence of the garden designs of suburbia. George Perkins Marsh's concern about humanity's impacts on the natural world at the global scale of a century and a half ago are being borne out ever more obviously.[32] The fascination on the part of many Europeans with inefficient, polluting sports utility vehicles (SUVs) notwithstanding, many European states have managed to finesse this expansion of the consumption mode of culture by reducing its ecological impact through careful planning; a trend that continued in the lead up to the 'Rio+10' World Summit on Sustainable Development in Johannesburg in September 2002.[33]

How these changes spread to other places is important. The question is in part whether the North will continue to export its second-hand dirty technologies. As anyone who has been caught in a traffic jam in Manila in the last few years can understand, the ubiquitous Jeepneys that provide so much of the transport system of the city depend on the supply of second-hand components from Japan. Similar problems plague other 'Southern' cities. Once again, the poor may get the dirty and inefficient technologies, as well as the ecological consequences of production for export, but the point about innovation happening outside the control of national governments also suggests once again the globalisation of connections between things which conventional cartographic representations of geopolitics obscure.

The appropriation of ecological carrying capacity and the extension of resource use has spread across the globe. The crucial point for geopolitical

analysis is that the modern mode of existence is now exported to most parts of the world as the desirable future for all citizens of modern states. Whether in the global South, or among those who discuss sustainable development for the arctic region, local development is usually discussed in terms of integration into the global economy.[34] Those who do not yet live in such circumstances will eventually do so, according to the advocates of economic development. That form of development requires ever greater integration into the circuits of capital and the systems of commodity production at a global scale.[35] To a very large extent this is the process driving contemporary changes in geopolitical order. How these things will play out in the former Soviet Union, and in particular in the Baltic states, will be one of the more interesting political questions of the next few decades.

Disciplining Geopolitical Knowledge

Bruno Latour is concerned with more than the details of the double tragedy of the current neo-liberal period. Specifically he is also concerned that the themes that interest him spill over the disciplinary categorisations that attempt to specify how things can be known, categorised and discussed. The important themes facing geographers who are concerned to say something useful about the current global situation also spill over the categories that most practitioners in the discipline have used. As Margaret FitzSimmons suggested in the context of considerations of nature, even supposedly radical geographers still frequently find themselves addressing themes in conventional literature that engage the problematiques of their opponents in ways that retain the ontological specifications of the past.[36] The updated discussions of urban injustice still often focus on the matters of internal relations within the city without engaging the larger patterns of resource extraction, although the questions of links between cities and the interconnections of migration are changing some of this emphasis.[37]

The same is surely the case in political science and especially in international relations, the discipline supposedly charged with considering matter of geopolitics. International relations has been concerned about great power rivalries, with matters of war, peace and the ordering of global politics. The focus on states is obvious; in many renditions of the discipline it is precisely states that are assumed to be the entities that are the subject for analysis. Recent innovations in the field, discussions of international political economy and social movements in world politics have attempted to broaden the focus away from states and to extend the analysis of politics beyond the purview of states.[38] More critical engagements tackle the ontological premises of international relations as a mode of knowledge suggesting that the premise of the state as the basic entity is both a

methodological stumbling block, but also, more seriously, a major obstacle to considering matters of world politics.[39]

Connected to contemporary concerns with globalisation and development, the focus on the state has often blinded inquiry into both the modern presuppositions structuring academic efforts, and the violence implicit in the expansion of state power.[40] Such reflections are especially germane to a consideration of identity, given that the most important identities in the practices of scholarship are directly connected to the identities of the scholars who write critical texts.[41] Modern states are an invention of European imperial history; taking their formulations of the possibilities of politics as the ultimate expression of human accomplishment may be immensely satisfying to Hegel fans like Francis Fukuyama, but there is no reason, given the environmental disruptions of the current system, to take much comfort in assurances of states as the universal political *telos* that progress will bestow on the future.[42]

But it is precisely on the fringes of this modernity that the environmental stresses and some of the worst political violence is taking place at the beginning of the new millennium. In the case of violence much of it is in the global 'South' where resource extractions are disrupting the lives and territories of peasant farmers and native peoples in numerous places, often with important environmental consequences.[43] This juxtaposition suggests that a new geopolitical order is in the making; one of integration into the global economy, and of violence and disruption on the periphery of that integration. The overarching irony of this situation is that the current carbon-fueled global economy is not sustainable in the long run in so far as relative climatic stability is needed for civilisations to flourish. The possibilities of major ecological disruptions loom over the next century. But contrary to the neo-Malthusian pessimism of many commentators, the global environmental trouble is driven, literally, by the urban consumption patterns of the wealthy.[44] While probably in terms of sheer numbers, the largest scale human impacts of future climate instabilities will affect the poor in the 'South', it is now becoming clear that some of the most dramatic climate impacts and environmental consequences of carbon-fueled industrialisation are affecting the polar regions.

Environmental Change in the North of the North

In the aftermath of the collapse of the Soviet Union, reindeer herders in the north of Russia are especially anxious to extend commercial contacts to sell reindeer products in Moscow as well as in Scandinavia. But they are also concerned about the potential disruption of the reindeer herds' migration routes and food supplies as a consequence of climate change.[45] As the

expanding reach of urban resource appropriation extends into more remote regions, disrupting and sometimes extirpating aboriginal modes of living, as well as changing ecological systems, the whole planet has become enmeshed in the production of modern identities. The Saami people of Scandinavia are no exception. Whether by the long-term enclosure of their lands in various state-building efforts, direct displacement as in the building of the Alta dam in northern Norway in the 1980s, or as an indirect consequence of the contamination of their reindeer-based food supply by fallout from Chernobyl, their relationship to their ecosystem faces direct pressures from expanding modernity. In this they not alone. Through the 1990s other researchers looked at the fate of peoples in the high arctic. These people were caught in changing environmental conditions, seeking some degree of political autonomy and ways to maintain their cultural heritage, while becoming increasingly integrated into the global economy.[46]

But more so than this the arctic lands that surround the Arctic Ocean are a region that is especially vulnerable to large-scale environmental disruption. As reports from the Intergovernmental Panel on Climate Change emphasise, such phenomena as diminishing sea ice cover and melting permafrost in the Arctic are increasingly evident.[47] The marginal areas where temperatures fluctuate around freezing are especially vulnerable to climate change, as small temperature changes can apparently lead to dramatic effects. Arctic sea ice thickness has reduced by approximately 40 per cent in total ice mass in the last few decades, suggesting a large-scale climatic change in the global system.[48] Atmospheric circulation patterns are changing and Atlantic water moving north is becoming more important in the Arctic Ocean causing, among other things, ice drift patterns to change.

There are complex ecological interconnections between change processes in the Arctic which suggest major disruptions ahead, and while long-term changes in climate systems are an important part of the history, recent anthropogenic change is becoming part of the story.[49] Thawing of terrestrial ice has direct impacts on arctic residents but also changes albedo of the land, as well as releasing methane which may accelerate processes of climate change. For traditional peoples, dependent on subsistence hunting and herding activities, these disruptions may be overwhelming, not least because these peoples' options to move and adapt their traditional ways may be impeded by other developments in the north, including conservation areas or the infrastructure for oil, gas and other forms of mining and resource extraction. The increasing dependence of native peoples in the far north on commercial markets in the global economy may ironically reduce their resilience and ability to adapt because their modes of life and resource extraction have become so dependent on fuel, food, clothing and other necessities provided by that market system. The important point here is that the polar regions are already providing signs of possible dramatic and rapid reorganisation of the world's climate with all the economic and political

consequences that are likely to follow.[50]

While the science cannot yet definitively 'prove' that these are all directly caused by climate disruptions due to anthropogenic atmospheric change, not least because of the complex interactions of temperature, permafrost and such things as snow cover, the growing sense in this literature is that human-induced disruptions are an important part of these changes which affect land, sea and air.[51] Increased freshwater runoff from snow and glacier melting or increase precipitation in the Arctic might soon change the surface salinity and density of the seas in the north. In turn this will likely change the thermohaline cycle, and in particular, the process whereby carbon-dioxide-rich surface waters sink into the depths of the North Atlantic. This drives part of the deep sea convection patterns which keep the oceans in motion. 'Changes in ocean circulation and the freshwater balance may already have had an effect on deep ocean convection, and thereby on the long-term heat exchange between the world ocean and atmosphere....'[52]

But there is no reason to expect that there will be simple linear responses in the climate system to increasing disruptions of the current pattern. If this circulation system is disrupted, the warm Gulf Stream may no longer flow across the Atlantic, with the result that many of the world's regional climates will change and the effectiveness of the world's oceans as a sink for carbon dioxide will be reduced. Agricultural and other economic disruptions are inevitable if the global climate suddenly changes. While the precise changes are hard to predict, and some of them will be beneficial to some people in some circumstances, the overall likelihood of disruptions is increasing and the vulnerability of many people becoming more evident in the frequency of what the Worldwatch Institute now pointedly calls 'unnatural disasters'.[53] The signs of all these processes are obvious in the Arctic; in the north of the North the consequences of the urban mode of consumption in the apparently environmentally benign garden cities of suburbia around the world are becoming most evident.

Securing Globalisation?

All this is important because it is precisely the disruptions caused by the expansion of modernity that are causing many people to have great concerns about the sustainability of contemporary economic systems. Not only in the Arctic, but elsewhere in the aftermath of Chernobyl, ozone holes over both poles and such phenomena as mad cow disease, it is very hard to take the assurances of infinite progress seriously as a long term possibility for even a substantial part of humanity. This discussion was at least part of the reason for the dramatic rethinking of Soviet security policy in the 1980s, a point that was quickly lost in the Western triumphalist reinterpretations of these matters into an argument that 'we won' the Cold War.[54] The fact that these changes of thinking neither dramatically affected the lived realities of

Soviet citizens, nor survived the political implosion at the beginning of the 1990s, does not invalidate the point that these innovations prefigured later public debates elsewhere. Their impact lives on in the adoption of concerns with environmental security in the West, a theme introduced into United Nations deliberations by the Gorbachev administration in the late 1980s.[55]

Subsequently the potential for violence to be triggered by environmental change in the South has been a theme in the debates linking security and environment. More specifically, as research on environment and conflict has recently clarified, much of the violence in the 'South' is about access to resources and control over the revenues from the resource streams being exported from states in the south.[56] This is not to overlook the violence related to agricultural resources either, but the crucial point there is that the disruptions of modernity are an integral part of this too. In Gunther Baechler's summary of the research on these themes:

> It is the same cultural factors and behavioral patterns that lead to environmental degradation on the one hand and armed conflict on the other: competing interests in using renewable resources, scarcity and pollution through excessive exploitation, unclear or competing legal structures and rights of tenure, and the political mobilization of collective actors who are bound up in struggles over distribution or their own defense. They are the expression of deep social changes affecting the rural population of developing countries.[57]

But what sets these in motion is the increasing modernisation of Southern economies and their integration into the international economy. The fact that local elites frequently benefit at the cost of the populations in these states is an important point to work into such an analysis.[58]

On a much smaller scale, the difficulties that reindeer herders have in adapting to the integration of global markets for their products, while simultaneously worrying about the climate-induced disruptions of traditional herding grounds, reprise these themes of change in the arctic context. They go to the heart of the politics of sustainable development by addressing the terms in which aboriginal claims to the use of resources conflict with modern claims to property and the assertion of state sovereignty where co-operation between states is so necessary.[59] More specifically, in terms of the overall argument of this article concerning the need to rethink the implicit modern themes of identity in both the changing patterns of geopolitics and the contemporary global environmental crisis, the reindeer herders are emblematic of contemporary changes.

The tundra landscapes where the reindeer forage and migrate constitute a biome especially vulnerable to climate change because of the dynamic nature of permafrost and the complex geomorphologies and hydrologies consequent on the annual patterns of freezing and thawing. The construction

of a common circumpolar identity in the form of an association of herders in the first place attests to their recognition of a common series of difficulties as they try to modernise, incorporate their products into the global economy and maintain at least some facets of their cultural heritages. States with an arctic coastline have also recognised a commonality of interest on these themes, with the Arctic Council emerging as an international political body and an Arctic University emerging to facilitate Northern studies. All this is in the face of current and incipient ecological disruptions caused by modes of consumption by other societies far to their south. Ironically it is precisely the imprecision of the predictions of climate change in the arctic region that is especially alarming to those try to plan how to cope with all these simultaneous changes.

But the crucial point for this article is that it is here on the margins of the north of the North that the most obvious disruptions of modernity appear and the limits of the discourse of 'sustainable development' are revealed simultaneously with the necessity to reinvent geopolitical identities now that the overarching Cold War divisions between East and West have collapsed. So too the question of how the north of the North will become incorporated into the global economy, will all the reindeer herders look to the Western model as their salvation, as Bruno Latour fears? Are there other identities on offer that present political alternatives? The necessity of thinking about the related geopolitical and ecological dimensions of political identity are rarely as pressing as in the case of the arctic peoples.

European Modernities?

One region that has direct geographical connections with the north of the North is the Baltic. This region may face similar changes of climate to those faced in the Arctic, which will have effects on the complex ecological relationships around a sea with a long history of environmental disruptions and attempts at their mitigation.[60] But what makes the Baltic especially interesting in the current global order, and for the argument in this article, given that it is the part of the north of the planet that is undergoing the most obvious and dramatic geopolitical change, is the recent admission of Finland and Sweden to the European Union and the current debates about the benefits and costs of such membership to the states that were formerly part of the Soviet Union.

In Latour's terms, from the epigraph at the start of this article, many of the advocates of greater integration seem to think that the 'West' has the only possible model of the future. But the West is far from monolithic, despite Latour's conflation of the modern into a single geopolitical entity. While North American politicians and business leaders seem oblivious to the ecological consequences of their populations' consumption patterns,

practically celebrating the destruction of landscapes and livelihoods in their adoption of SUVs and conspicuous consumption in the 1990s, to at least a certain degree Europeans are starting to come to terms with the need to rethink the carbon fuel system and re-imagine a more sustainable future.

The European Union is especially interesting in that it is attempting to extend modernisation while at least starting to take seriously the need to reduce the overall environmental impact of its industries. Whether wrangling over growth hormones or the implementation of the ill-fated Kyoto protocol, 'green' issues have become part of the geopolitical order as the relative priorities on these matters now complicate trans-Atlantic relationships. It may be premature to argue that over the long run European managerial priorities will create an alternative modernity to the North American one, although in such matters as fuel consumption, the Europeans manage to generate equivalent units of GNP using substantially less oil than do economies in North America. Nonetheless at least the outline of an alternative European accumulation strategy is now clear challenging the North American model based on extensive use of fossil fuels.[61]

But the possibilities of constructing such an order are especially important in the post-Soviet states, not least because some are directly connected to Europe, while others are increasingly part of the 'chessboard' of central Asian oil geopolitics with its putative pipeline links to the Gulf, the Indian Ocean and possibly China.[62] As the geoeconomic links across the frontiers of the former Soviet Union increasingly remake the social and political landscape once dominated by geopolitical and military concerns, it is entirely possible that different forms of integration will occur in north-western areas tied into European economies and those increasingly tied to petroleum extraction in the south and east.[63] In terms of the north of the North it is possible that Russia in the long run, if not in the short run, will become more integrated with Europe and the former Soviet states in central Asia become more linked to the global petroleum economy, the Gulf and oil exports to Japan and China.[64]

A European model for reconstruction might be quite different from the American ideas that have been less than efficacious at reorienting Russian economic activity in the last decade.[65] The future stability of the Baltic region is inextricably linked to the economic fate of Russia and to a lesser degree the other post-Soviet states. It matters too in terms of environmental concerns where trans-boundary disputes over such things as smelter emissions in the Kola peninsula are part of the international political landscape.[66] Cheap metals for European and North American industry come at the cost of environmental destruction of Russian as well as Scandinavian territory, but the population of rest of the Arctic also suffers the effects through contaminated food chains and reindeer and the 'arctic haze' carried

by circumpolar winds. Environmental security, understood as contamination-free ecological systems, are a pressing concern in the region so often rendered as austere, clean, beautiful and serene in Southern narratives.[67]

Internationalism and Identity

The connections between security and the global economy are addressed in a loosely parallel manner in Etel Solingen's detailed analysis of the importance of internationalist politics for maintaining state security specifically in rapidly industrializing states.[68] She argues more specifically that nationalist isolationist strategies are usually less effective at maintaining national security among moderately developed states. This argument takes issue with both neo-realism and democratic peace theory in making its case for 'coalitional analysis' as an approach to understanding regional co-operation. Eschewing both simple neo-realist assumptions of the limits to co-operation supposedly inherent in relative gains problems and related matters, as well as the general applicability of the democratic peace theory given its geographically limited evidential base, Solingen suggests that, in at least the case of rapidly industrializing states, co-operation between states is better understood by examining the grand strategies of political coalitions within those states.

The argument that international co-operation brings larger security benefits because of the mutual co-operation of regimes is not new, but the argument here suggests that it is not just a matter of trade, but also crucially of domestic political strategies and the re-articulation of identity. Nationalist coalitions, which often include prominent military components, may effectively challenge the internationalising strategies, especially if economic changes away from import substitution models of development towards export orientations involve severe structural adjustments. Noteworthy here is that the internationalist coalitions inevitably invoke the benefits of international connection for the promotion of domestic prosperity and security. States wishing to rapidly industrialise are aspiring to membership in the international economic system. They aspire to modernity, to be members of an international community, marked by the symbols of modernity and participation in the economy and culture of globality. In Appadurai's terms:

> this mobile and unforeseen relationship between mass mediated events and migratory audiences defines the core of the link between globalisation and the modern. ... The work of the imagination, viewed in this context, is neither purely emancipatory nor entirely disciplined, but is a space of contestation in which individuals and groups seek to annex the global into their own practices of the modern'.[69]

Membership in the European Union is desired by many and its recent, as well as promised further expansion in the region is fraught by the same political debates that Solingen outlines in other industrialising states. Disputes in Estonia over membership and various threats to sovereignty and national identity are apposite examples of the general processes.[70] Political contests within these states pit nationalist exceptionalism in some form against the benefits of being modern. Internationalisers argue for the benefits to the nation that international engagements bring. But inclusion in international institutions requires modernity, practices, procedures, languages, technologies of administration and law which are not always compatible with traditional ways. Intense identity arguments result as traditionalists of various forms argue that sovereignty and national identity will be compromised by compliance with international laws and norms on everything from industrial production standards to human rights. These are especially fraught in cases such as Estonia, where divided societies struggle with identity in complex discourses that stretch across frontiers. Loosely similar arguments at a different scale can also once again be invoked to discuss the cultural changes underway in reindeer-herding operations in the Arctic that now try to market their products in Moscow and Stockholm while simultaneous trying to reinvent cultural traditions of sustainability and attachment to remote fragile ecosystems.

But in most cases modernity is urbanity. The urban view of things frequently reduces rural concerns either to a backward society in need of modernisation or to a source of resources for the industrial modern sector controlled in the metropoles. More recently, and especially important in the case of ecotourism, rural resources are understood as consumption spaces for tourists in search of either adventure or tranquillity in the supposedly pristine natural spaces of parks. But urban consumers are transforming Northern landscapes in particular into trophy hunting and fishing spaces, snowmobiling playgrounds, ski resorts and hiking trails.[71] These are landscapes to be admired and used but frequently not to be lived in on a permanent basis. In many efforts at conservation around the world, and in colonial and post-colonial situations especially, populations have been removed from landscapes; the assumption of pristine land as what ought to be preserved supposedly requires the expulsion of indigenous populations.[72] Once again the dichotomies of nature and humanity lead to violent practices of exclusion while hiding the appropriations from sight.

Whose Globality? Whose Geopolitics?

But such models of either conservation or clear demarcation of endangered spaces as an appropriate mode of administering sustainability are no longer

tenable as solutions to global problems. Whether in analyses of risk society or more generally global environmental change, concerns about a vulnerable biosphere have linked to ozone depletion and climate change fears as well as to popular representations of the planet as a vulnerable entity. They clearly suggest humanity's place as inhabitants of a single biosphere.[73] The understanding of humanity as of earth rather than on earth structures these powerful images, but they are far from the only, or anything like the most important cultural representation of nature currently in circulation.[74]

The long-term future of increased petroleum and resource extraction in the face of environmental instabilities caused by the use of these resources suggests the need to rethink very carefully the identities that the current global system is reproducing. What kind of modernity is desirable has always been part of the nationalist-internationalist debate but there is a possibility that we are seeing the beginning of a split over this question between the American fuel-extensive mode and the greener European industrial version. In part this may be because Europeans have a longer history of resource management that operates on the assumption that careful husbandry is necessary. Are Ebenezer Howard's rationally planned landscapes perhaps a more European cultural production than an American one?

The North American experience of frontiers and rugged individualism is being actively reinvented in the advertising of SUVs, driving through jungles, urban and otherwise, and the assumption that any shortage of fuel supplies either requires further extension of production or the control of foreign supplies.[75] Sports utility vehicles are not the whole story in terms of fuel consumption, but their prominence as a cultural symbol of consumption suggests that a colonial identity, one that can conquer landscapes and disregard the consequences, remains prominent in the advertising industry and the aspirations of vehicle owners. Most obviously in 2000 and 2001 petroleum consumption has, despite nonsensical economic arguments, suggested once again the necessity of oil drilling and production in the Arctic National Wildlife Refuge of Alaska.[76]

While Europeans are also fascinated by SUV technology, and the identities invoked in their use, the larger history of intensive land use and careful co-ordination suggests other cultural themes that can, hopefully, be invoked to counter the rampant destructive individualism of car culture.[77] Nonetheless, the crucial question for urban sustainability in Europe remains that of reducing the total resource usage of the economy by relying more on such things as local food supplies and renewable energy supplies.[78] To make much of a difference for the future of the Arctic will require much further effort to re-tool production systems in Europe and elsewhere, but the important point is that there is some flexibility in how the future might be imagined.

This raises, at the largest scale, the crucial questions of future geopolitical orders. As we become an urban species, and due to the

processes loosely described as globalisation, the planet begins in some important respects to look like a single global city.[79] Humanity is effectively, albeit unintentionally, reconstructing the whole biosphere. Neither geography nor political science can any longer rely on distinctions between culture and nature. We need now to start from a recognition that humanity is part of a biosphere that we are changing. Glacken's third theme of human impacts on the environment is now of overwhelming importance. This planetary engineering or, to use the apt term from discussions of space travel and the future of human colonisation of other planets, 'terraforming', is a very risky business that requires new conceptual tools to critique. We can no longer afford to understand ourselves as a species living 'on earth'. Humans are an integral part of a biosphere, not residents of cities divorced from a distant natural ecology that is a source of resources, a sink for pollution or understood as a playground for our leisure pursuits.

In parallel with the changing understandings of Antarctica through the twentieth century, the question arises as to whether the Arctic can now become understood as a place of environmental warning, a locus of ecological alarm and the focus of global political attention.[80] Can it change from the place of romantic fantasy and extreme ecotourism, the forbidding cold lands of polar bears and icebergs, and be reinvented as the place where the consequences of urban consumption are revealed in a way that shifts our identities from innocent consumers to disrupters of a vulnerable interconnected biosphere? While this has clearly been part of the driving force of the Arctic Council and various circumpolar initiatives, their effectiveness at gaining international political attention has so far been limited.[81] But the Arctic's importance as a bellwether of ecological change is obvious. As this article has suggested, its role as an indicator of the consequences of contemporary geopolitical arrangements, as well as a microcosm of larger themes of political ecology, is compelling.

Glacken's second theme, of differential natural impacts on human societies, might perhaps now be usefully reversed; various societies are having differential impacts on the environment. But many of these impacts are far beyond the borders of the state in which the resources are actually consumed, so the geography of these impacts is much more complex than the earlier assumptions of *in situ* natural influences on culture. As numerous studies of the global atmosphere make clear, the global culture of carboniferous consumption is now plainly changing the biosphere itself. Remote aboriginal Arctic communities are just the first to feel the most direct impacts of this in terms of melting permafrost and changing sea ice patterns. In the geopolitical language of the times, there is a rich irony that it is in the north of the global 'North' that the most obvious symptoms of the consequences of consumption culture are appearing first.

Following Bruno Latour's thinking, can we now re-imagine the whole globe as a hybrid entity?[82] But one with, as McNeill suggests, climatic instabilities interconnected with economic ones at a global scale?[83] This unconventional analysis in this article suggests that critical geopolitical thinking now needs to make such a conceptual leap. The imposition of a geopolitical order that, through the operation of globalisation processes, as well as internationalist coalitions that accelerate integration in the search for security, against those parts of the global polity that are not so successful, suggests the replacement of Cold War military blocs by post-Cold War economic boundaries that enhance inequalities. But ecological and economic connections flow across these frontiers; insecurity is now also about these interconnections.

If this Gordian knot of growth and ecological disruption, wealth and inequity can be cut, then the possibilities of thinking ecologically about global order might move ahead. Then academics may also be able to re-imagine the identities that can now write geopolitics, critical or otherwise. But if the assumption of modernity as consequenceless consumption divorced from practical economic activity in particular places remains unchallenged, then the terms of geopolitical discourse can do little more than replicate the violence and inequity of what Richard Falk has so aptly described as predatory globalisation, 'while leaving the earth and its people to die'.[84]

ACKNOWLEDGEMENTS

Thanks to Pami Aalto, Chris Burn, Nancy Doubleday, Mike Smith, Vilho Harle, David Newman and two referees for their assistance and comments. Thanks to the Finnish Academy for funding a trip to Finland in 2001 to present an earlier version of this article to a workshop in Kuusamo on 'Identity Politics, Security and the Making of Geopolitics Order in the Baltic Region' and to Mika Floyt for taking me to the World Reindeer Herders' Congress. Research for this article was also supported by a research grant from the Social Sciences and Humanities Research Council of Canada for research into 'Community Identity and Environment'.

NOTES

1. Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press 1993) p.9.
2. John Agnew, *Geopolitics: Revisioning World Politics* (London and New York: Routledge 1998) p.127.
3. Peter Taylor, *The Way the Modern World Works: World Hegemony to World Impasse* (London: John Wiley 1996).
4. Richard Ashley, 'Sovereignty, Hauntology, and the Mirror of the World Political', paper presented at the annual meeting of the International Studies Association, Los Angeles, March 2000.
5. Latour (note 1).
6. Clarence Glacken, *Traces on the Rhodian Shore* (Berkeley: University of California Press 1967).

7. I have made a similar argument in Simon Dalby, 'Environmental Geopolitics: Nature, Culture, Urbanity' in Kay Anderson, Mona Domosh, Steve Pile and Nigel Thrift (eds), *Handbook of Cultural Geography* (London: Sage, 2002) pp.498–509.
8. J.R. McNeill, *Something New Under the Sun: An Environmental History of the Twentieth-Century World* (New York: Norton 2000).
9. For a parallel argument in terms of critical security studies see Simon Dalby, *Environmental Security* (Minneapolis: University of Minnesota Press 2002).
10. Harold Sprout and Margaret Sprout, *The Ecological Perspective on Human Affairs with Special Reference to International Affairs* (Princeton: Princeton University Press 1965).
11. Daniel Deudney, *Whole Earth Security: A Geopolitics of Peace*, Worldwatch Paper No.55 (Washington, DC: Worldwatch Institute 1983).
12. Nancy Peluso and Michael Watts (eds), *Violent Environments* (Ithaca: Cornell University Press 2001).
13. See the comprehensive summary and overview of the field in 'Global Change and the Earth System: A Planet Under Pressure' *IGBP Science* No.4 (2001).
14. Felix Driver, *Geography Militant: Cultures of Exploration and Empire* (Oxford: Blackwell 2001).
15. J.C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press 1998).
16. Daniel Deudney, 'Bringing Nature Back In: Geopolitical Theory from the Greeks to the Global Era' in D. Deudney and R. Matthew (eds), *Contested Grounds: Security and Conflict in the New Environmental Politics* (Albany: State University of New York Press 1999) pp.25–57.
17. Simon Dalby, *Creating the Second Cold War: The Discourse of Politics* (London: Pinter 1990).
18. R.D. Kaplan, *The Coming Anarchy: Shattering the Dreams of the Post Cold War* (New York: Random House 2000).
19. See for instance the arguments from leading Harvard economist Jeffrey Sachs in his 'The Geography of Economic Development' *Naval War College Review* 53/4 (2000) pp.93–105.
20. Ulrich Beck, *Risk Society: Towards a New Modernity* (London: Sage 1992); G. Ó Tuathail, 'De-territorialized Threats and Global Dangers: Geopolitics and Risk Society' in David Newman (ed.), *Boundaries, Territory and Postmodernity* (London: Frank Cass 1999) pp.17–31.
21. Agnew (note 2); M.W. Lewis and K.E. Wigen, *The Myth of Continents: A Critique of Metageography* (Berkeley: University of California Press 1997).
22. As argued forcefully in the aftermath of the Gulf Wars in B.R.Inman, J.S. Nye, W.J. Perry and R.K. Smith, 'Lessons from the Gulf War', *The Washington Quarterly* 15/1 (1992) pp.57–73, and much more recently in the context of American military action in Afghanistan from the president of the US National Bureau of Economic Research in Martin Feldstein, 'Achieving Oil Security: A Practical Proposal', *The National Interest* 65-S (2001) pp.60–65.
23. Michael T. Klare, *Resource Wars: The New Landscape of Global Conflict* (New York: Metropolitan Books 2001).
24. Miguel deLarrinaga, '(Re)politicizing the Discourse: Globalization is a S(h)ell Game', *Alternatives* 25/2 (2000) pp.145–82.
25. Halford Mackinder, 'The Geographical Pivot of History', *Geographic Journal* 23 (1904) pp.421–37; Friederich Ratzel, *Politische Geographie* (Munich: Oldenbourg 1897); Ebenezer Howard, *Garden Cities of Tomorrow* (London 1902). On Howard and his influence see David Harvey, *Spaces of Hope* (Oxford: Blackwell 2000).
26. G. Ó Tuathail, 'Putting Mackinder in his Place: Material Transfromations and Myth' *Political Geography* 11/1 (1992) pp.100–18.
27. Raymond Williams, *The Country and the City* (London: Chatto and Windus 1973).
28. J. McCormick, *The Global Environmental Movement* (New York: Wiley 1995).
29. A. Wilson, *The Culture of Nature: North American Landscape from Disney to the Exxon Valdez* (Toronto: Between the Lines 1991).
30. Tom Athansiou, *Divided Planet: The Ecology of Rich and Poor* (New York: Little Brown 1996).
31. McNeill (note 8).

32. G.P. Marsh, *Man and Nature* (Cambridge, MA: Belknap Press 1965, original publication, 1864).
33. Felix Dodds, *Earth Summit 2002: A New Deal* (London: Earthscan 2000).
34. On the Arctic debate concerning the terms and conditions of such integrations see Jyrki Kakonen, *Perspectives on Environment, State and Civil Society: The Arctic in Transition* (Uppsala: Uppsala and Linkoping University Research Program on Environmental Policy and Society 1995).
35. Taylor (note 3).
36. Margaret FitzSimmons, 'The Matter of Nature', *Antipode* 21/1 (1989) pp.106–20.
37. Merrifield, A. and E. Swyngedouw (eds), *The Urbanization of Injustice* (New York: New York University Press 1997).
38. Roland Bleiker, *Popular Dissent, Human Agency and Global Politics* (Cambridge: Cambridge University Press 2000).
39. R.B.J. Walker, *Inside/Outside: International Relations as Political Theory* (Cambridge: Cambridge University Press 1993).
40. Scott (note 10).
41. 'Review Symposium of G. Ó Tuathail, *Critical Geopolitics*', *Political Geography* 19/3 (2000) pp.345–96.
42. Francis Fukuyama, *The End of History and the Last Man* (New York: Free Press 1992).
43. Al Gedicks, *Resource Rebels: Native Challenges to Mining and Oil Corporations* (Boston: South End 2001).
44. Matthew Paterson, 'Car Culture and Global Environmental Politics', *Review of International Studies* 26/2 (2000) pp.253–70.
45. These were frequent themes in the oral presentations by both scientists and herders at the 2nd World Reindeer Herder's Congress, Inari, Finland, June 2001.
46. In the Canadian high Arctic see Richard Langlais *Reformulating Security: A Case Study from Arctic Canada* (Goteburg: Humanekologiska skrifter 13, 1995).
47. B. Maxwell, 'The Arctic and the Antarctic' in *The Regional Impacts of Climate Change: An Assessment of Vulnerability A Special Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press 1998) pp.83–103.
48. D.A. Rothrock, Y. Yu and G.A. Maykut 'Thinning of the Arctic Sea-Ice Cover' *Geophysical Research Letters* 26/23 (1999), pp.3469–72.
49. J.Overpeck et al., 'Arctic Environmental Change of the Last Four Centuries', *Science* 278 (1997) pp.1251–6.
50. The most recent IPCC evaluation emphasizes both the vulnerability and the importance of the polar systems in climate change: See James McCarthy et al. (eds), *Climate Change 2001: Impacts, Adaptation, and Vulnerability* (Cambridge: Cambridge University Press 2001).
51. See C.R. Burn, 'Field Investigations of Permafrost and Climatic Change in NorthWest North America', *Proceedings of the Seventh International Conference of Permafrost* (1998) pp.107–20.
52. James Morison, Knut Aagaard and Mike Steele, 'Recent Environmental Changes in the Arctic: A Review', *Arctic* 53/4 (2000) p.369.
53. Janet N. Abramovitz, *Unnatural Disasters*, Worldwatch Paper No.158 (Washington, DC: Worldwatch Institute 2001).
54. Michael MccGwire, *Perestroika and Soviet National Security* (Washington: Brookings 1991).
55. See Alexandre S. Timoshenko, 'Ecological Security: Response to Global Challenges' in Edith Brown Weiss (ed.), *Environmental Change and International Law: New Challenges and Dimensions* (Tokyo: United Nations University Press 1992) pp.413–56.
56. Mats Berdal and David Malone (eds), *Greed or Grievance: Economic Agendas in Civil Wars* (Boulder: Lynne Rienner 2000).
57. Gunther Baechler, 'Environmental Degradation in the South as a Cause of Armed Conflict' in A. Carius and K.M. Lietzmann (eds), *Environmental Change and Security: A European Perspective* (Berlin: Springer 1999), p.127.
58. Peter Dauvergne, *Shadows in the Forest: Japan and the Politics of Timber in South East Asia* (Cambridge, MA: MIT Press 1997).
59. Monica Tennberg, *Arctic Environmental Cooperation: A Study in Governmentality* (Aldershot: Ashgate 2000).

60. Ragnar Elmgren, 'Understanding Human Impact on the Baltic Ecosystem: Changing Views in Recent Decades', *Ambio* 30/4–5 (2001) pp.222–31.
61. Matthew Paterson, 'Climate Policy as Accumulation Strategy: The Failure of COP6 and Emerging Trends in Climate Politics', *Global Environmental Politics* 1/2 (2001) pp.10–17.
62. Klare (note 23). See also Zbigniew Brzezinski, *The Grand Chessboard: American Primacy and its Geostrategic Imperatives* (New York: Basic Books 1997).
63. On the implications of economic connections with the European Union see Sergei Medvedev, *Russia's Futures: Implications for the EU, the North and the Baltic Region* (Helsinki: Finnish Institute of Internatonal Affairs 2000).
64. Russia has emerged as an increasingly important oil exporter in the first few years of the new millennium: Edward Morse and James Richard, 'The Battle for Energy Dominance', *Foreign Affairs* 81/2 (2002) pp.16–31.
65. Janine R. Wedel, *Collision and Collusion; The Strange Case of Western Aid to Eastern Europe 1989–98* (New York: St Martin's Press 1998).
66. E. Nikitina and V. Kotov, 'Solving Transboundary Air Pollution Conflict: A New Framework for Countries in Transition' in S.C. Lonergan (ed.), *Environmental Change, Adaptation, and Security* (Dordrecht: Kluwer 1999) pp.231–44.
67. See Sergei Medvedev, '[the_blank_space] Glenn Gould, Finland, Russia and the North' *International Politics* 38/1 (2001) pp.91–102.
68. Etel Solingen, *Regional Orders at Century's Dawn: Global and Domestic Influences on Grand Strategy* (New Jersey: Princeton University Press 1998).
69. Arjun Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis: University of Minnesota Press 1996) p.4.
70. E. Berg and S. Oras 'Writing post-Soviet Estonia on to the World Map', *Political Geography* 19/5 (2000) pp.601–25.
71. Jamil Brownson, *In Cold Margins: Sustainable Development in Northern Bioregions* (Missoula, MT: Northern Rim Press 1995).
72. R.L. Doty, *Imperial Encounters: The Politics of Representation in North-South Relations* (Minneapolis: University of Minnesota Press 1996).
73. Wolfgang Sachs, *Planet Dialectics: Explorations in Environment and Development* (London: Zed 1999).
74. Tim Luke, *Capitalism, Democracy, Culture: Departing from Marx* (Urbana: University of Illinois Press 1999).
75. Mark Meister, '"Sustainable Development" in Visual Imagery: Rhetorical Function in the Jeep Cherokee', *Communication Quarterly* 45/3 (1997) pp.223–34.
76. Amory B. Lovins and L. Hunter Lovins, 'Fools Gold in Alaska', *Foreign Affairs* 80/4 (2001) pp.72–85.
77. Mathew Paterson, *Understanding Global Environmental Politics* (London: Macmillan 2000).
78. W. Sachs, R. Loske and M. Linz, *Greening the North: A Post-Industrial Blueprint for Ecology and Equity* (London: Zed 1998).
79. Warren Magnusson, *The Search for Political Space: Globalization, Social Movements and the Urban Political Experience* (Toronto: University of Toronto Press 1996).
80. See Klaus Dodds, *Geopolitics in Antarctica: Views from the Southern Oceanic Rim* (Chichester: Wiley 1997).
81. Tennberg (note 59).
82. Latour (note 1).
83. McNeill (note 8).
84. Richard Falk, *Predatory Globalization: A Critique* (Cambridge: Polity 1999).