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Rendering the World Unsafe: 'Vulnerability' as Western Discourse

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Disasters seem destined to be major issues of academic enquiry in the new century if for no other reason than that they are inseparably linked to questions of environmental conservation, resource depletion and migration patterns in an increasingly globalised world. Unfortunately, inadequate attention has been directed at considering the historical roots of the discursive framework within which hazard is generally presented, and how that might reflect particular cultural values to do with the way in which certain regions or zones of the world are usually imagined. This paper argues that tropicality, development and vulnerability form part of one and the same essentialising and generalising cultural discourse that denigrates large regions of world as disease-ridden, poverty-stricken and disaster-prone.

Keywords: vulnerability, hazards, disasters, Philippines, theory.

Natural disasters seem increasingly to have caught the attention of the Western media in the late twentieth century, carrying reports and images of drought, flood, famine, earthquake, volcanic eruption, typhoon, tsunami and the like into suburban homes on an almost daily basis. Pinatubo, Kobe, Mitch, Izmit, Orissa and countless other hazards have become household names overnight as the glare of Western public attention momentarily illuminates some less well-known corner of the globe.[1] Whether natural disasters now happen more frequently is a matter of some considerable scientific controversy — not least about what actually constitutes a 'natural' disaster as opposed to a man-made one.[2] Statistically, it is claimed that the number of hazards causing 25 or more deaths rose annually from 10 in the 1940s to about 50 by the 1990s (Chapman, 1994: 5). United Nations experts calculate that the number of disasters rose on average 6 per cent each year between 1962 and 1992 (Associated Press, 1995: 1, 6) and that they affected an average of 200 million people each year during the 1990s, a fourfold increase from the late 1960s (Walker and Walter, 2000: 188; Smith, 1996: 39).[3] Various explanations have been put forward to account for this escalation, some even claiming that it is simply a product of better media coverage and others that it merely reflects a more densely settled global population. But few would now dispute that hazards are having a growing impact on human society: ironically both as a consequence of greater affluence and of greater poverty, of larger cities and more costly infrastructure (Kobe

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and Izmit) and of greater environmental degradation caused by overpopulation and unsustainable rural practices (Hurricane Mitch and Orissa).

How to mitigate the effects of hazards and relieve the consequences of disasters seem destined to be major issues of academic enquiry in the new century if for no other reason than that they are inseparably linked to questions of environmental conservation, resource depletion and migration patterns in an increasingly globalised world. Inadequate attention, however, has been directed to considering the historical roots of the discursive framework within which hazard is generally presented, and how these might reflect particular cultural values to do with the way in which certain regions or zones of the world are usually imagined. In one sense, this paper is an attempt to tell what is a very old story, one that the reader will undoubtedly have heard many times before, but which has the distinctive property of repeatedly reappearing in different guises. This is the story (or rather three separate but related stories) about two worlds called *them* and *us*, where the 'us' is the West (particularly Europe and North America) and the 'them' is everywhere else, most especially the equatorial zone. The story is as long as the existence of Western encounters and contacts with those regions. In another sense, though, the story is also part of a new one, about Western societies that are unable to escape from the cultural constraints that continue to depict large parts of the world as dangerous places for *us* and *ours*, and that provide further justification for Western interference and intervention in others' affairs for *our* and *their* sakes.

Rendering the world unsafe

The process by which large areas of the globe were rendered unsafe to Europeans pre-dates the nineteenth century but a systematically constructed paradigm, based on consistent argument and substantiated by empirical investigation that depicts certain areas of the world as particularly deleterious to human health, had to await the scientific advances of the new century. David Arnold describes how the growth of a branch of Western medicine that specialised in the pathology of 'warm climates' was a conspicuous element in the process of European contact and colonisation from the earliest years of overseas exploration. More than a mere chronology of scientific discovery that drew attention to the medicinal characteristics of new plants, therapeutic practices and esoteric knowledge, he refers to the manner in which Western medicine came to demarcate and define parts of world where these 'warm climate' diseases were prevalent (Arnold, 1996: 5–6). Here it is the role of the medical practitioner as colonial rather than simply medical expert, where his long-term attitudes to distinctive indigenous societies and distant geographical environments proved instrumental in how such lands came to be conceptualised.

The very earliest European accounts describe equatorial regions in almost ecstatic terms, evoking frequent analogies between an environment of abundance, lushness, fecundity and tranquillity and the location of an earthly paradise. In his account detailing the first voyage to the Caribbean of 1492–3, Christopher Columbus depicts a natural world full of 'safe and wide harbours', 'great and salubrious rivers', 'high mountains' and 'a great variety of trees stretching up to the stars' (1494). But more unfavourable attitudes that accorded value only in terms of human utility rapidly came to prevail as the seventeenth century unfolded (Thomas, 1983). The very exoticness of the landscape was increasingly associated with a more malevolent nature: the scene of unrelenting climate (drought and flood), tempestuous weather (storm and

typhoon), violent landscape (earthquake and volcanic eruption), dangerous wildlife (the abode of fierce predators: tigers on land, sharks at sea), and deadly disease (plague and pestilence). Heat and humidity were increasingly held responsible for the high death rate of Europeans — the white man's graveyard of Batavia and India, especially when compounded by the usual intemperance, imprudence, diet and demeanour of the newly arrived.

As the European encounter with these regions intensified during the eighteenth century through the slave trade, plantation agriculture and the colonial experience, so too did the perception that disease, putrefaction and decay ran rampant in the moist warm air of the tropics (Anderson, 1996; Curtin, 1989: 87–90). More scientific reasoning prevailed by the nineteenth century. In particular, there was a growing conviction that geo-medical boundaries restricted races to what were termed their 'ancestral environments' (Harrison, 1996). Equatorial regions were now defined as ones unsuited to Europeans, whose physical constitutions evolved under different climatic conditions, were unable to tolerate the harmful effects of the ultraviolet rays of the sun (Anderson, 1995: 89).

Arnold argues that the growing body of scientific knowledge about these regions, increasingly substantiated by statistical enumeration of morbidity and mortality and by a medical geography that attributed local diseases to specific climates, vegetation and physical topographies, produced not only a literature on warm climates but also invented a particular discourse that he refers to as *tropicality* (Arnold, 1996: 7–8, 10). One of the most distinctive characteristics of this discourse was the creation of a sense of *otherness* that Europeans attached to the tropical environment, the difference of plant and animal life, the climate and topography, the indigenous societies and their cultures and the distinctive nature of disease. More than denoting simply a physical space, the otherness conveyed by tropicality is as much a conceptual one: 'A Western way of defining something culturally and politically alien, as well as environmentally distinctive, from Europe and other parts of the temperate zone' (Arnold, 1996: 6).

In this first rendition of the story, then, Western medicine effectively defines equatorial regions as a zone of danger in terms of disease and threat to life and health, one that conceptually culminates with the establishment of the London School of Hygiene and Tropical Medicine in 1899. The medical discoveries of the late nineteenth century, the elaboration of germ theory and the realisation that bacteria and not climate were responsible for disease, credited Western medicine with the means of effecting a 'cure' to the regions' inherent dangers, an impression that persisted through most of last century. However, the reappearance in the last decades of the twentieth century of antibiotic-resistant strains of known diseases, the spread of the AIDS pandemic, and the emergence of new viruses like Ebola fever for which there are no known cures, have seriously shaken the notion of Western security (Brookesmith, 1997).[4] Once again, those regions of 'warm climates', from which these new threats are seen to emanate, are depicted as dangerous and life-threatening to Western people, giving a new lease of life to the notion of tropicality in the twenty-first century (Altman, 1998).

While large parts of the globe were gradually rendered unsafe and then progressively safer by the conceptual geography of Western medicine, the dominant position of disease as the primary delimiting condition was superseded, though never completely replaced, by a new discursive framework especially in the years following the second world war. Not that tropicality has ever been completely eclipsed as a paradigmatic concept: Western governments continue to issue health and vaccination warnings to their citizens travelling to regions regarded as lying within endemic malarial, choleric or other such zones, as well as imposing stringent quarantine

regulations on produce, material (and migrants) originating from those same areas. But cold war rivalry between the United States and the former Soviet Union for global dominance led Western theorists to formulate new kinds of policies designed to solve what were deemed the pressing social and economic conditions of Africa, Asia and Latin America.

The intent was nothing less than to replicate the characteristic features of 'advanced' Western nations: industrial, urban, technical societies with high growth rates and rising living standards whose citizens were educated and had largely imbued modern cultural values. But in attempting to 'win the hearts and minds' of the people who lived in these regions, to give them a 'fair deal' and so contain the spread of Communism, Western investment and aid policies effectively divided the world conceptually in two — between donor and recipient nations, between developed and underdeveloped countries.

Development conveys just as much an essential sense of otherness as the concept of tropicality. It strips peoples of their own histories and then inserts them into preconceived typologies 'which define a priori what they are, where they've been and where, with development as guide, they can go' (Crush, 1995: 9). Michael Watts argues that all models of development share common 'organicist notions of growth' and 'a close affinity with teleological views of history' (1995: 47). Regardless of their ideological persuasion, development has always been conceived of in terms of a linear theory of progress from traditional to modern, from backward to advanced.

Modernisation theory posits that undeveloped societies evolve into developed modern nations along paths chartered by the West: economically through a stages-of-growth model (Rostow, 1960), and politically from authoritarian to democratic (Huntington, 1968). Although the subject of intense criticism — most notably by members of the dependency school of theorists who claim that an industrialised centre has been able to appropriate the surplus of a primary-producing periphery leading to the latter's underdevelopment (Frank, 1967) — the basic assumptions about comparable stages of development to the West (no matter how much the route may have strayed from the path) are not questioned. Indeed, even the most radical critique of capitalism, the Marxist mode of production model, still depicts development in terms of successive stages in which feudalism is replaced by capitalism that, in turn, is ultimately succeeded by socialism.

According to Emery Roe, the debate over development is best understood as a folkloric narrative populated by diverse villains, heroes and donors at various times and in different guises (1991: 288). So the 1960s and 1970s saw a shift away from market to state-centred alternatives where civil society was accorded only a minor role. The 1980s were associated with the so-called neo-liberal revolution of the new right and a period of retrenchment, austerity and protectionism; while the hallmark of the 1990s was rising levels of global indebtedness and the harsh application of structural adjustment programmes. Whatever the differences in emphasis or rhetoric, the dominant discourse remains the same; as Jan Pieterse observes, the debates are all about alternative developments and never about alternatives to development (1998: 364–8).

In particular, Arturo Escobar charts the manner in which this *developmentalism* became the predominant discourse after 1945; how the twin goals of material prosperity and economic progress were universally embraced and unquestioningly pursued by those in power in Western nations. He refers to this conceptual ascendancy as a process of 'colonisation' as it indelibly shapes representations of reality, making

permissible certain modes of being and thinking while disqualifying others (Escobar, 1995a: 5). As a consequence, many societies began to be regarded in terms of development and to imagine themselves as underdeveloped, a state viewed as synonymous with poverty and backwardness, and one determined by assuming Western standards of attainment as the benchmark against which to measure this condition. As with tropicality previously, the discourse of development creates much the same 'imaginative geography' between Western Europe and North America and especially the equatorial regions and, in the process, 'constructs the contemporary Third World, silently, without our noticing it' (1995b: 213). Pairs of terms such as First World/Third World, North/South, centre/periphery all draw attention to the manifest disparities in material gratification between the two, while simultaneously reducing the latter to a homogenised, culturally undifferentiated mass of humanity variously associated with powerlessness, passivity, ignorance, hunger, illiteracy, neediness, oppression and inertia (Escobar, 1995a: 9).

Escobar has been criticised for losing sight of the larger issues, especially the manner in which the development discourse fits into the political context of power relations that it helps to produce, maintain and benefits from. That it is not just text but a reality that has political, social and economic actuality for people (Little and Painter, 1995: 605). The question of development's origins has also been raised; the point being that it has a much longer pedigree than 1945. Notions of development are clearly discernable in nineteenth-century concepts of colonial 'trusteeship' that became central to the historical project of European empire, as well as in the measures taken to alleviate the worst of the social disorders consequent upon rapid urbanisation, poverty and unemployment (Cowen and Shenton, 1995: 28–9). In particular, Friedrich List argues in his 1856 work that nations had unequal productive potentials and that it would be a fatal mistake for the 'savage states' of the 'torrid zones' if they attempted to become manufacturing countries. Instead, they should continue to exchange agricultural produce for the manufactured goods of the more temperate zones (List, 1856: 75, 112). Michael Watts also reiterates this link between colonialism and development but argues that it has even older roots and was the product (and the problem) of the eighteenth-century normative ideas inherent in modernity. More importantly, he maintains that development was not simply imposed by the West upon the rest but required the existence of a non-developed world for its own production (Watts, 1995: 48–9).

These important qualifications do not, however, significantly detract from the singular manner in which development as a discursive historical framework both creates and maintains a domain of thought and action that has conceptually invented the Third World. Moreover, it has achieved this feat not only in the Western imagination but also among those in the region itself, who find it difficult to think of themselves in any other way than through such signifiers as overpopulation, famine, poverty and illiteracy (Escobar, 1995a: 214). It also continues to colonise reality despite the increasing decentralisation of societies, the demise of the Soviet Union, the emergence of a network of world cities and the globalisation of culture (Castells, 1996: 1, 112–13).

In this second retelling of the story, the concepts inherent in development similarly cast most of the non-Western world as a dangerous zone. But it is one in which poverty in all its manifestations have replaced disease as the principal threat to Western well-being now defined in terms of values and lifestyle. How to achieve development and so overcome underdevelopment becomes the fundamental problem facing most societies, and one where the 'cure' is envisaged in terms of modernisation

through the agency of Western investment and aid. Despite the ability of certain, mainly Asian, economies to industrialise in the late twentieth century, development remains for most a chimera, a dream, moreover, that over 50 years has progressively turned into a nightmare of 'massive underdevelopment and impoverishment, untold exploitation and oppression' (Escobar, 1995: 4).

Natural disasters and vulnerability

While 'natural disaster' is not a conceptual term in the same way that tropicality and development are, the regions in which such phenomena most frequently occur have been incorporated into a discourse about hazard that sets them apart from other implicitly 'safer' areas. Between 1963 and 1992, over 93 per cent of all major global hazards occurred outside of North America and Europe, which, respectively, accounted for only 2.8 per cent and 3.9 per cent of these events (Smith, 1996: 33).[5] During the 1990s, 96 per cent and 99 per cent, respectively, of the annual average number of persons killed or affected by hazards resided outside the US, Canada and Europe (Walker and Walter, 2000: 173–5). But the disproportionate incidence of disasters in the non-Western world is not simply a question of geography. It is also a matter of demographic difference, exacerbated in more recent centuries by the unequal terms of international trade, that renders the inhabitants of less developed countries more likely to die from hazard than those in more developed ones. No single term has yet emerged that defines the areas where disasters are more commonplace: the media often sensationalises a certain region as a 'belt of pain' or a 'rim of fire' or a 'typhoon alley', while scientific literature makes reference to zones of 'seismic or volcanic activity', 'natural fault-lines' or to meteorological conditions such as the El Niño Southern Oscillation (ENSO). Whatever the term, however, there is an implicit understanding that the place in question is somewhere else, somewhere where 'they' as opposed to 'we' live, and denotes a land and climate that have been endowed with dangerous and life-threatening qualities.

More recently these qualities have come to be increasingly expressed in terms of a society's *vulnerability* to hazard. The concept of vulnerability, however, denotes much more than an area's, nation's or region's geographic or climatic predisposition to hazard and forms part of an ongoing debate about the nature of disasters and their causes. In the 1970s, some Western and Western-trained social scientists began to question the hitherto unchallenged assumption that the greater incidence of disasters was due to a rising number of purely natural physical phenomena. Attributing disasters to natural forces, representing them as a departure from a state of normalcy to which a society returns to on recovery, denies the wider historical and social dimensions of hazard and focuses attention largely on technocratic solutions.

It also establishes a conviction that societies are able to take steps to avoid or ameliorate disasters through the application of the appropriate technocratic measures properly carried out by bureaucratically organised and centrally controlled institutions. Disaster prevention, therefore, is seen as largely a matter of improving scientific prediction, engineering preparedness and the administrative management of hazard. Kenneth Hewitt argues that this technocratic approach has permitted hazard to be treated as a specialised problem for the advanced research of scientists, engineers and bureaucrats, and so be appropriated within a discourse of expertise that quarantines disaster in thought as well as in practice (1983: 9–12, 1995: 118–21). It also renders

culpable such populations (or at least their governments) which are blamed for their lack of adequate knowledge and preparedness, that had the opportunity to reduce risk but failed to do so (Varley, 1994: 3).

The idea that disasters are simply unavoidable extreme physical events that require purely technocratic solutions still remains the dominant paradigm within the UN and multilateral funding agencies such as the World Bank (ibid.). Far from being discredited, such views have proven surprisingly enduring and are very influential at the highest levels of national and international decision-making (Cannon, 1994: 16–17). A glance at the resolution adopted by the General Assembly of the UN in declaring the 1990s the International Decade for Natural Disaster Reduction clearly reveals such assumptions with four of its five goals concerned with mitigation through the dissemination of technical information and the transfer of scientific and engineering knowledge (Hewitt, 1995: 118; Lechat, 1990: 1). Conversely, proponents of vulnerability as a conceptual explanation take the position that while hazards may be natural, disasters are generally not. The emphasis, instead, is placed on what renders communities unsafe, a condition that depends primarily on a society's social order and the relative position of advantage or disadvantage that a particular group occupies within it (Hewitt, 1997: 141). Vulnerable populations are those most at risk, not simply because they are exposed to hazard, but as a result of a marginality that makes of their life a 'permanent emergency'. This marginality, in turn, is determined by the combination of a set of variables such as class, gender, age, ethnicity and disability (Wisner, 1993: 131–3) that affects people's *entitlement* and *empowerment*, or their command over basic necessities and rights as broadly defined (Hewitt, 1997: 143–51; Watts, 1993: 118–20).[6]

The observation that human and material losses from natural hazards increased over the twentieth century without conclusive evidence of a corresponding rise in the frequency of such events, and that the same phenomena caused vastly different outcomes both between and even within societies, has drawn attention to the need to view disasters from a wider social and historical perspective (Hewitt, 1997: 11). Vulnerable populations are created by particular social systems in which the state apportions risk unevenly among its citizens and in which society places differing demands on the physical environment (Cannon, 1994: 14; Wisner, 1993: 134; Hewitt, 1983, 1995: 119,). Central to this perspective is the notion that history prefigures disasters, that populations are rendered powerless by particular social orders that, in turn, are often modified by that experience to make some people even more vulnerable in the future (Blaikie et al., 1994: 5–6).

At the same time, however, the incorporation of a temporal dimension does not make the condition of vulnerability synonymous to a state of poverty. Poverty is determined by historical processes that deprive people of access to resources, while vulnerability is signified by historical processes that deprive people of the means of coping with hazard without incurring damaging losses that leave them physically weak, economically impoverished, socially dependent, humiliated and psychologi-cally harmed (Chambers, 1989: 1). Of course, there is often a strong corre-lation between access to resources and the ability of people to prepare or recover from hazard. But the simple identification of the poor as vulnerable fails to explain how people at the same income level do not suffer equally from disaster (Hewitt, 1997: 147; Wisner, 1993: 127).

The discourse of vulnerability, however, no less than the previous concepts of tropicality or development, also classifies certain regions or areas of the globe as more dangerous than others. It is still a paradigm for framing the world in such a way that it

effectively divides it into two, between a zone where disasters occur regularly and one where they occur infrequently (Hewitt, 1995: 121–2). Moreover, the former has much the same geography as that of the tropics or the Third World. 'Many people in most third world countries', writes Terry Cannon, 'are vulnerable in both their lack (or the inappropriateness) of preparedness measures (the level of protection), and in their livelihood level and resilience' (Cannon, 1994: 22). But the dangerous condition is now identified as one of hazard rather than disease or poverty.[7] Nor are the latter dangers superseded but neatly subsumed with the current paradigm as sub-variants. The new geography establishes *defenceless spaces* with its pattern of frailties and absent protection (Hewitt, 1997: 164) and *spaces of vulnerability* determined by lack of entitlement, enfranchisement and empowerment (Watts, 1993: 121). Moreover, these zones are often also denominated *regions of misrule* where a population's vulnerability made worse by the operation of despotic or illegitimate governments (Hewitt, 1997: 165).

Accordingly, the discourse of vulnerability delimits a large part of the globe whose inhabitants are three to four times more likely to die through hazard than those in Western nations (Smith, 1996: 8). Population is one factor: the world's population already exceeds six billion and these regions account for 90 per cent of that growth rate (op. cit.: 42). While the majority of such people are still rural, migration is rapidly transforming the demographic landscape as some 20–30 million of the world's poorest move to urban areas each year (Alexander, 1993: 496). Urban areas are particularly at risk from potential hazards with dense concentrations of people — up to 150,000 per square kilometre — living in overcrowded and inadequate slum and squatter settlements (ibid.).

Nor are rural populations any less at risk than their urban counterparts, although the hazards might be different in kind. With more than 80 per cent of the population in such regions still dependent on agriculture but denied access to adequate land holdings, they are especially vulnerable to those historical scourges of agricultural societies: flood, drought and famine. Historically, too, their increasing incorporation into the global market economy on unfavourable terms over the last few centuries has created serious imbalances of wealth both between and within nations. It is estimated that the billion richest people have incomes 150 times higher than the poorest billion, and that fully half the global population earns less than US$270 annually (Smith, 1996: 25; Alexander, 1993: 495). These poor are among the most vulnerable with 47 per cent and 31 per cent of the populations of Sub-Saharan Africa and South and East Asia, respectively, classified as living in poverty (Smith, 1996: 44).

Moreover, vulnerability is also increasingly expressed in economic language that stresses the rising high financial costs of disasters with damages amounting to over $140 billion between 1960 and 1990. Over the last decade, these events have taxed the global economy by an average of $74 billion each year in both direct losses and preventive measures (Walker and Walter, 2000: 168). As marginalised populations increasingly confront land shortages, economic hardship and political instability that often forces them to occupy even more hazardous locations, they form part of a cycle of poverty that leaves those least able to deal with hazard most vulnerable to its effects. The implied predisposition to the effects of hazard and the fact that such occurrences are not evenly distributed around the globe (Turner, 1979: 54), give rise to a sense of causality that equates the 'geography of risk' with the present or historical spatial pattern and frequency of disasters (Hewitt, 1983: 6).

In this contemporary rendition of the story, then, large parts of world are denominated as particularly vulnerable to the effects of hazard. While this discourse is primarily about the condition or state of people, the disproportional concentration of those vulnerable in certain regions endow their environments with qualities that make them dangerous places — threats to both Western health and assets. But the popularisation of this representation through the mass media also generates a moral obligation on behalf of Western nations to employ their good offices to 'save' these vulnerable populations from themselves and to render the regions they inhabit safer for investment and tourism. As in both previous cases, the 'cure' for this menacing condition is primarily conceived of in terms of the transfer and application of Western expertise, though this time in the form of meteorological and seismic prediction, preventive and preparedness systems, and building and safety codes.

Natural disasters as cultural discourse

The Western discourse on disasters, whether it be about abnormal natural events or about vulnerable populations, still remains what Hewitt calls 'a socio-cultural construct reflecting a distinct, institution-centred and ethnocentric view of man and nature' (1983: 8). Health and disease, well-being and danger are viewed as fundamentally dependent upon particular geographies. The concept of natural disasters forms part of a much wider historical and cultural geography of risk that both creates and maintains a particular depiction of large parts of the world (mainly non-Western countries) as dangerous places for *us* and *ours*. More importantly, it also serves as justification for Western interference and intervention in the affairs of those regions for *our* and *their* sakes.

Of course, the matter is never presented quite so crudely but is usually disguised within a greater discourse more appropriate to the time and age. Between the seventeenth and early twentieth centuries, this discourse was about 'tropicality' and Western intervention was known as 'colonialism'. Post-1945, it was mainly about 'development' and Western intervention was known as 'aid'. In the 1990s, it was about 'vulnerability' and Western intervention is known as 'relief'. Nor have the conditions that supposedly rendered these areas of the globe unsafe remained constant over time: the historical nature of danger has transformed once primarily disease-ridden regions into poverty-stricken ones, and now depicts them as disaster-prone. The succession with which danger was initially identified as purely climatic, then as more political, before once again emphasising the environmental reflects wider changes in the course of Western history.

The creation of the tropics as the abode of dangerous diseases justified the establishment of high colonialism during the late-nineteenth and early twentieth centuries in terms of Western medicine. It gave substance to the rhetoric of the French *mission civilatrice*, the British 'white man's burden' and the 'ethical policy' of the Dutch. Similarly, the creation of the Third World following the second world war as poor and underdeveloped was largely the product of the political rhetoric of the cold war's attempt to win the 'hearts and minds' of its peoples and formed part of the unremitting struggle against Communism.

The emergence of natural disasters as the primary discourse of the 1990s reflects not only the successful conclusion of superpower rivalry, at least from the

Western standpoint, but also the persistence of the environment as the decisive quality in determining the condition of danger posed by this 'other' world. Moreover, hazard also provides a useful rationale for blaming the poverty and inequitable distribution of material goods of the people living in these regions squarely on nature. Any opprobrium that might have otherwise attached to an economic system created by and largely benefiting the West is lost amid scientific and technical discussions about

Table 1 Dangerous regions as Western discourse

Concept	*Period (century)*	*Condition*	*Cure/technology*
Tropicality	17th–19th/early 20th	Disease	Western medicine
Development	Post-WW2	Poverty	Western investment/aid
Natural disasters	Late 20th	Hazard	Western science

purely physical phenomena. It has permitted Western governments to talk and act in international fora as if disaster, poverty, disease and the environment are entirely unrelated issues that need not be tackled concurrently but dealt with separately, according to a timetable largely determined by themselves. Nor does the formulation of vulnerability as a less environmentally deterministic measure of gauging the relative exposure of any particular population to hazard significantly alter this perspective.

All language in use is 'everywhere and always "political"' and is the product of cultural models shared by people belonging to specific social or ethnic groups (Gee, 1999: 1, 81). In the scientific viewpoint, the West discovered a language of knowledge that has helped maintain its influence and power over other societies and their resources. In fact, natural disasters form part of a wider historical discourse about imperialism, dominance and hegemony through which the West has been able to exert its ascendancy over most peoples and regions of the globe. But the debate is not confined simply to geographies, however loosely defined; it is also a struggle over minds and, as such, has withstood the post-war dismantling of extensive colonial structures.

According to Edward Said, Western imperialism continues to exert disproportionate cultural authority in the world through the persistence, in one guise or another, of the impressive ideological formulations that underpinned its political domination during the nineteenth and early twentieth centuries. Concepts such as 'inferior', 'subject race', 'subordinate people' and 'dependent' not only survived the formal divestment of colonies but still exercise a tremendous influence on culture, ideology and policy through entering into the reality and becoming the shared memory of hundreds of millions of people. Former cultural attitudes that maintained the division between coloniser and colonised are replicated in the distinction between First and Third Worlds or in what is understood by the North-South relationship. Africa, Asia and Latin America are just as dominated and dependent today as when ruled directly by European powers, and their inhabitants just as denigrated and demeaned by the use of terms such as 'terrorist', 'second-rate', 'unimportant' and 'needy' (Said, 1994: 1–15, 31–2). Nor is this all-enveloping Western cultural hege-mony restricted to the literary imagination or the social sciences: it can equally be discerned in the theoretical underpinnings of the natural sciences that renders unsafe those same regions of the globe as 'marginal environments' through a discourse of disease, poverty and hazard.

While the technological and scientific discourse of natural disasters creates marginal environments that more clearly reveal its paternalistic mentality and colonial origins, that of vulnerability appears to construct a less culturally specific geography of disaster based on the relative entitlement and empowerment of people exposed to hazard. Yet, in the final analysis, the two are variants of the same hegemonic discourse that identifies one and the same parts of the globe as the abode of mainly disadvantaged people who dwell in poorly governed and environmentally degraded spaces. As Hewitt notes, the concept of vulnerability still encourages a sense of societies and people as weak, passive and pathetic, and he compares it to other 'social pathologies like, or derived from, poverty, underdevelopment and overpopulation' (Hewitt, 1997: 167).

The problem, from the perspective of those outside the dominant culture, lies in the inability of Western theory to offer an uncompromisingly radical critique of itself 'so long as its ideological parameters are the same as those of that very culture' (Guha, 1997: 11). While Ranajit Guha refers specifically to the inability of liberal historiography to escape from the limits of its own capitalist 'conceptual universe', much the same observation holds true of all epistemology. Commitment to a particular knowledge system not only predetermines the kinds of generalisations made about the subject under investigation but also provides the means for changing the world in such a way that it maintains the interests of those who benefit most from its present condition (op. cit.: 6–7). The discourse of vulnerability, no less and no more than that of tropicality or development, belongs to a knowledge system formed from within a dominant Western liberal consciousness and so inevitably reflects the values and principles of that culture.

Beyond 'vulnerability'

All this is not to deny that disasters occur, that their effects are very real, that they create livelihood-destroying and, at times, life-threatening conditions that governments, agencies and people everywhere should be concerned about and desire to prevent. But the attributes that differentiate these phenomena from the wider issues of poverty, environmental degradation, demographic growth and inequitable socio-political structures may also be cultural, part of an historical discourse that is embedded within a distinctly Western construction of knowledge. This paper has argued that 'tropicality', 'development' and 'vulnerability' form part of one and the same essentialising and generalising cultural discourse: one that denigrates large regions of world as dangerous — disease-ridden, poverty-stricken and disaster-prone; one that depicts the inhabitants of these regions as inferior — untutored, incapable, victims; and that it reposes in Western medicine, investment and preventive systems the expertise required to remedy these ills.

Whether disasters are natural phenomena or caused by vulnerable populations, ultimately, may not be the really significant issue here. Unmasking vulnerability's pedigree is more than simply a matter of academic interest; it also has real practical value in terms of disaster preparedness and relief. If, as Said suggests, Western knowledge is fundamentally a means of perpetuating its cultural hegemony over the world, and if also — as Guha and others believe — no Western critique can ever fully escape the dominant consciousness within which it was formulated, then, perforce, much greater attention needs to be paid to non-Western knowledge and local environmental management practices (Forsyth, 1996; Agrawal, 1995).

It must be recognised that the ways we shape knowledge about the social and natural worlds largely reflects the ways in which we have shaped knowledge into disciplines; to transform the former, we need to move beyond the constraints of the latter (Ferguson, 1997: 170). As Hewitt notes, a better appreciation of what constitutes a disaster and a more effective means of responding to it will require the positive and intelligent participation of those most at risk or otherwise directly involved (1997: 358).

Vulnerability as a concept has proven useful as a means of assessing disasters within their socio-economic, political and environmental context that was previously sorely lacking. It has also certainly provided a helpful guide in the formulation of approaches and policies towards hazard preparedness and relief provision. Yet, despite the undoubted conceptual and methodological advances it represents on previous thinking, its utility and practical application is still hampered by a one-dimensional construction of the processes that transform a hazard into a disaster.

In particular, the relationship between a society's vulnerability and the adaptation of its culture in terms of local knowledge and coping practices has not been adequately analysed. Reducing vulnerability to a formulaic expression that explains the way in which human activities affect the physical environment and increase the impact of hazard, if not the frequency of disaster, is to ignore the important role that hazard has historically played in actually shaping human culture. Populations at risk are populations actively engaged in making themselves more vulnerable and which live in communities whose cultures are themselves increasingly shaped by hazard. As Susan Stonich so aptly phrases it, there is a need to 'balance the cultural/social construction of nature with a meaningful consideration (and analysis) of the natural construction of the cultural and social' (1999: 24).

A possible starting-point in such an endeavour is to accord greater recognition to the fact that disasters emerge as a result of interaction between humans and the environment. In particular, they arise when there is a lack of 'mutuality', a measure of both how well a society is adapted to the environment and how well that environment fares at the hands of human activity (Hoffman and Oliver-Smith, 1999: 6). As a society interacts with its environment, it engages 'in a series of processes over which it has incomplete control and incomplete knowledge, particularly over longer periods of time' (Oliver-Smith, 1999: 26). It is these conditions that turn a natural phenomenon or hazard into a social crisis, a disaster. At its most extreme, it can be argued that disasters are always present or embedded in the local-level society and that a hazard simply provides the catalytic agent to produce an intense social crisis (Watts, 1983). Above all, then, disasters are considered to be primarily about processes in which hazardous events represent moments of catharsis along a continuum whose origins lie buried in the past and whose outcomes extend into the future. It is the pre-disaster conditions that mainly affect a society's ability to cope with hazard; it is its reconstruction operations that largely determine the frequency and magnitude of subsequent events. The point is that disasters are totalising events in that 'all dimensions of a social structural formation and the totality of its relations with its environment may be involved' (Oliver-Smith, 1999: 20).

The suggestion that a society's past accommodation and constant exposure to the threat of disaster is important to the generation of its present culture deserves serious consideration especially in the case of societies which are geographically located in hazard-prone landmasses. Quite clearly, a fuller understanding of the operation of society and state in these regions needs consideration of the role hazard

plays in shaping their political structure, economic system and social order. But, perhaps, too, people's behaviours and activities that may appear maladaptive and obscure to Western social scientists need to be reassessed in the context of the decision-making frameworks within which individuals operate and have come to terms with extreme situations in such an environment. Perhaps, the whole notion of threat is so interwoven into the pattern of historical development and daily life that many aspects of culture perceived as distinctive have their origins, at least, partly in the need for collective action in the face of common dangers.

Jon Anderson argues that a person's reaction to hazard is not random, unordered and wholly immediate but follows from 'the principal cognitive, affective, and evaluative schemes salient and relevant to definitions of the situation in the victim culture'. In effect, he argues that people respond 'to what those events mean and represent to them within their interpretative schemes' (1968: 299–300). Moreover, these previously devised and transmitted assimilative schemata provide societies with the means of recognising threatening situations before individuals actually experience them. Where the risk of hazard is greatest, it should be considered an aspect of the environment with which local cultures will reach permanent accommodation so that 'a culture of disaster' develops.

The more a threat is perceived as chronic, the greater the integration of that conception will be within the interpretative framework as a 'normal' experience, what Anderson refers to as the 'normalisation of threat', and one which can then be transmitted to others as part of that culture's body of knowledge (1968: 303–4). Indeed, such in-built coping mechanisms have been shown to exist whereby cultures come to terms with and deal with such recurrent extreme ecological processes (Johnston and Selby, 1978: 468).[8] These adaptations, however, are not characterised by homogeneity but by their own singular 'interpretations of hazardous uncertainty' and by their 'own context of geographic, topographic and cultural variety' (Lewis, 1990: 247). Perhaps beyond the concept of a society's vulnerability lies that of a culture's adaptability: it is the measure of the two that ultimately determines its exposure to risk. Broadening the discursive framework beyond vulnerability may not only improve the provision and degree of disaster preparedness and relief, but may also help all of us break free from the conceptual constraints that have rendered the world 'unsafe' for so many millions for so long.

Notes

1. The volcanic eruption of Mount Pinatubo in the Philippines on 12 June 1991 was the second-largest such event of the twentieth century, causing 943 related deaths, displacing a further 1,180,132 people and creating property damage exceeding US$400 million; the devastating Kobe earthquake in Japan of 17 January 1995 killed 6,336 persons, destroyed 122,500 buildings and caused losses estimated between $110 and $150 billion, the highest ever quoted for such a disaster; Hurricane Mitch hit the Nicaraguan coast on 26 October 1998 with wind speeds up to 200 mph, and was the fourth-strongest Atlantic hurricane on record; the earthquake that rocked Turkey's heavily populated north-west on 17 August 1999 measured 7.4 on the Richter scale and caused over 17,000 deaths; the cyclone that hit the east Indian state of Orissa on 18 October 1999 left 9,885 dead, damaged 1.83 million homes and caused losses of US$1.56 billion.
2. What type of phenomenon constitutes a 'natural disaster' is a matter of considerable debate. First, the distinction between hazard and disaster requires clarification: a hazard is an extreme geophysical event or the potentially dangerous product of some human activity; a

disaster is the effect of the former upon human societies to cause immiseration, morbidity or death. However, the rather broad classification between those hazards that are entirely unrelated to human activity (as epitomised by the concept of 'an act of God') and those that are induced through human carelessness or thoughtlessness has increasingly given way to a more gradated typology of four categories: geophysical hazards or earthquakes, landslides, tsunamis and volcanic eruptions; climatic hazards or droughts, floods, hurricanes, torrential rain, wind and hail storms; biological hazards or crop disease, epidemics, epizootics and locusts; and social hazards or insurrection, repression, large fires, collapsing political structures, and warfare (Alexander, 1993: 593–94). Of course, many severe hazards arise from compound or synergistic effects, such that an earthquake may subsequently cause tsunamis, landslides, fires and the like. Most classifications also distinguish according to mode of operation. Thus hazards related to processes within the earth's crust (quakes and volcanoes) are compared to those related to more superficial surface processes (landslides and avalanches) and those caused by fluctuations in atmospheric and hydrological conditions (storms, floods and droughts) (Whittow, 1979: 23). Often a further distinction is made between 'sudden impact' hazards such as earthquakes, tornadoes or flash floods, and 'slow onset' or 'elusive' ones such as volcanoes, deforestation, and ozone depletion (Smith, 1996: 16; Alexander, 1993: 9).

3. Some 1.959 billion people were affected by disasters globally between 1990–1999 ranging from an annual low of 77,841,437 in 1992 to a yearly high of 360,035,610 in 1998 (Walker and Walter, 2000: 168). Such figures, however, should be regarded more as indicative of trends rather than precise data as there are no universally agreed definitions of what constitutes a disaster or standard methodologies for the collection of information on them.
4. See Michael Oldstone's *Viruses, Plagues and History* for a more historical perspective on the impact of disease (1998).
5. Smith defines a major natural disaster as an event causing over 100 deaths, or damage amounting to 1 per cent of GNP, or affecting at least one per cent of the population
6. See, in particular, A.K .Sen's classic treatise on famine (1981).
7. The concept of vulnerability has also been applied to disadvantaged and marginalised populations within more industrialised nations (Bolin and Stanford, 1999: 89–112).
8. The inter-relationship between culture and hazard in a society is explored in Greg Bankoff, *Cultures of Disaster. Risk and Natural Hazard in the Philippines* (forthcoming).

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